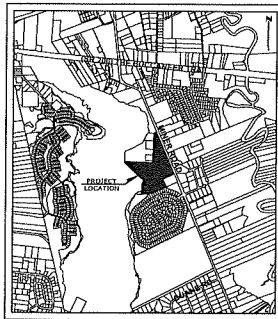


# SANDY RIDGE

YULEE, FLORIDA

PREPARED FOR  
**SEMANIK INVESTMENT CORPORATION**  
 2120 CORPORATE SQUARE BLVD SUITE #3  
 JACKSONVILLE, FL 32216  
 PHONE: (904) 493-6909



VICINITY MAP  
 N.T.S.

SHEET NUMBER	SHEET TITLE
1	COVER
2	SURVEY
3	SIGNATURE SHEET
3A	GENERAL NOTES AND LEGENDS
3B	FLORIDA COUNTY GENERAL NOTES
4	EXISTING PLAN
5A & 5B	MAINTENANCE OF TRAFFIC PLAN
6	MASTER SITE PLAN
7A - 7D	SITE PLAN
8A - 8D	PAVING AND DRAINAGE PLAN
9A - 9D	NEIGHBORHOOD SITE PLAN (GRADING PLAN)
10	MASTER UTILITY PLAN
11A - 11D	WATER AND SEWER PLAN
12A - 12E	PLAN AND PROFILES
13A - 13D	PAVING AND DRAINAGE DETAILS
14A - 14H	WATER AND SEWER DETAILS
15A	PUMP STATION SITE PLAN
15B	JEA STANDARD CLASS ONE PUMP STATION PLAN AND SECTION
15C	PUMP STATION LANDSCAPE PLAN
15D - 15M	JEA STANDARD PUMP STATION DETAILS
16	SEDIMENT AND EROSION CONTROL PLAN
17	SEDIMENT AND EROSION CONTROL DETAILS
18	STORMWATER POLLUTION PREVENTION PLAN
11-14	LANDSCAPE PLAN
15	LANDSCAPE SPECIFICATIONS

JEA AVAILABILITY # 2020-2849  
 PLANS HAVE BEEN DESIGNED  
 UNDER 2021 JEA STANDARDS

FLORIDA COUNTY PROJECT SP-21-007

## JEA FLOW TEST

FLOW TEST (12/22/2020 AT 8:59 AM)

FLOW HYDRANT LOCATION:  
 MINER RD 880' N OF SHADY OAK DR (64974)

STATIC RESIDUAL HYDRANT LOCATION:  
 MINER RD 1,190' N OF SHADY OAK DR (170693)

PITOT PRESSURE 15 PS  
 STATIC PRESSURE 67 PS  
 RESIDUAL PRESSURE 40 PS  
 TEST FLOW RATE 1,307 GPM  
 ESTIMATED FLOW @ 20 PSI 1,763 GPM

THE ABOVE ESTIMATE FLOW AT 20 PSI IS  
 BASED ON NFPA SECTION 281, AWWA M-17.

ALL WATER AND SEWER UTILITY CONSTRUCTION  
 SHALL BE ACCOMPLISHED IN ACCORDANCE WITH  
 JEA PLANS BEARING THE JEA APPROVAL STAMP  
 AND BE IN POSSESSION OF THE CONTRACTOR AT  
 ALL TIMES.

**CW** Connelly & Wicker Inc.  
 Planning · Engineering · Landscape Architecture

10060 SKINNER LAKE DR., SUITE 500  
 JACKSONVILLE, FLORIDA 32246  
 (904) 265-3030 FAX: (904) 265-3031

FLORIDA REGISTRY 3650 L.A. NUMBER: LC26000311  
 www.cwieng.com

**CW** Connelly & Wicker Inc.  
 Planning · Engineering · Landscape Architecture  
 10060 Skinner Lake Dr., Suite 500 Jacksonville, Florida 32246  
 (904) 265-3030 FAX: (904) 265-3031  
 Florida Registry 3650 L.A. Number: LC26000311

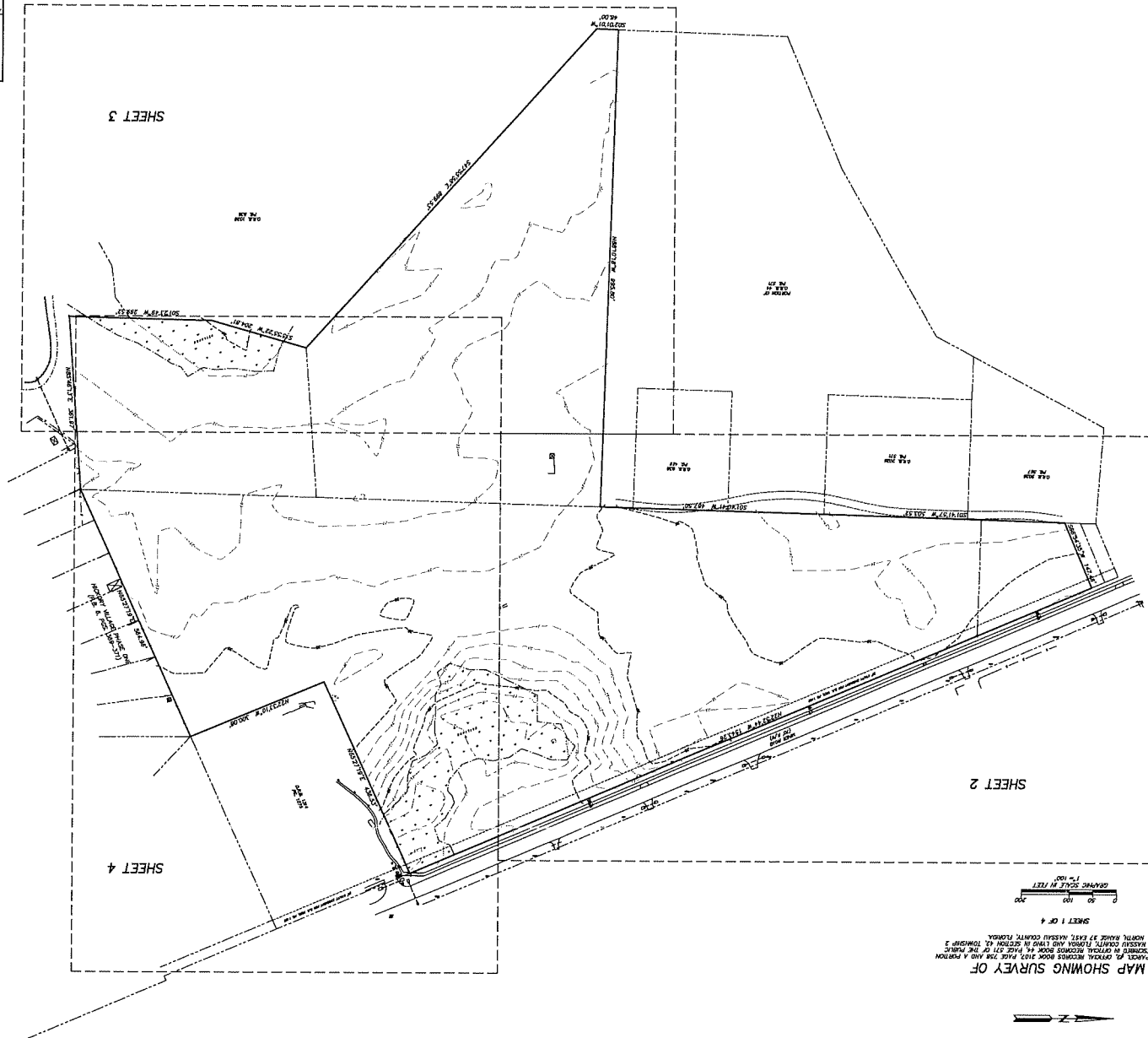
By: [Signature]  
 Title: [Title]  
 Date: [Date]

COVER

SANDY RIDGE  
 YULEE, FLORIDA  
 PREPARED FOR  
 SEMANIK INVESTMENT CORPORATION

Project No: 21-01-0009  
 Designed: [Signature] Drawn: [Signature]  
 Checked: [Signature] O.C.: [Signature]  
 Date: JULY 21, 2021  
 Scale: [Scale]  
 Sheet 1

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MAP SHOWING SURVEY OF  
RECORDS OF PLATTS 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100  
NORTH ARROW 21 EAST, NADAL COUNTY, MINNESOTA  
SCALE IN FEET  
0 20 40 60 80 100  
SHEET 2 OF 4

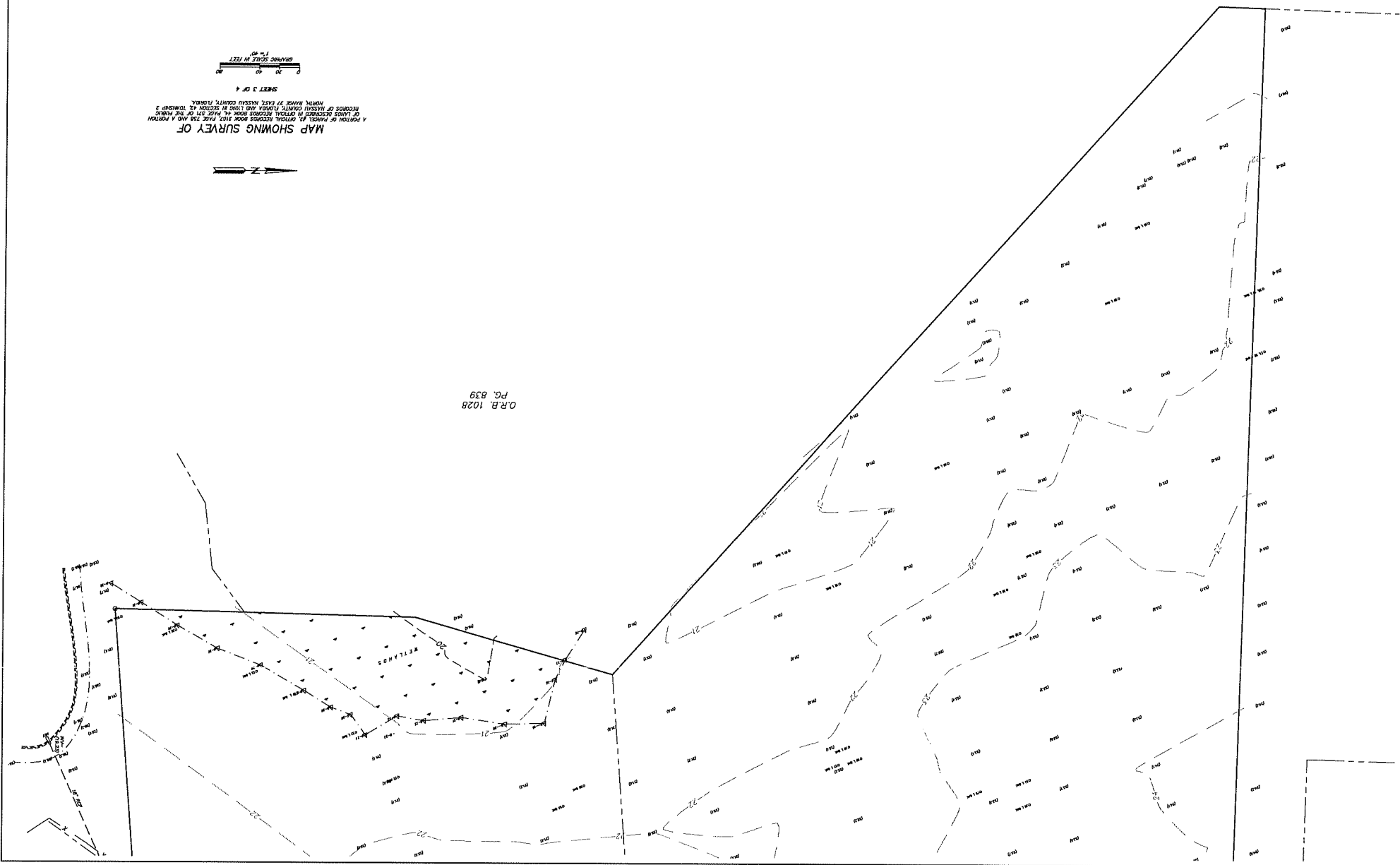
MAP SHOWING SURVEY OF  
A PORTION OF PARCEL #2, OFFICIAL RECORDS BOOK 2107, PAGE 758 AND A PORTION  
OF LANDS DESCRIBED IN OFFICIAL RECORDS BOOK 44, PAGE 521 OF THE PUBLIC  
RECORDS OF MASSACHUSETTS COUNTY FLYING IN SECTION 42, TOWNSHIP 2  
NORTH, RANGE 37 EAST, MASSACHUSETTS COUNTY, FLORIDA.

SHEET 3 OF 4

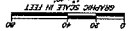
GRAPHIC SCALE IN FEET  
1" = 40'



O.R.B. 1028  
PG. 839





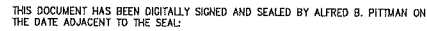


† JO † L3345

MAP SHOWING SURVEY OF  
A PORTION OF PARCEL #2, OFFICIAL RECORDS BOOK 2107, PAGE 75A AND A PORTION  
OF LANDS DESCRIBED IN OFFICIAL RECORDS BOOK #4, PAGE 571 OF THE PUBLIC  
RECORDS OF NASSAU COUNTY, FLORIDA AND IN SECTION 42, TOWNSHIP 2  
NORTH, RANGE 27 EAST, NASSAU COUNTY, FLORIDA.

O.R.B. 1314  
pg. 1075





Digitally signed by Alfred B Pittman  
DN: c=US, o=Pittman Landscape Architecture,  
ou=A01410D00000172CD2009A30000FEAB,  
cn=Alfred B Pittman  
Date: 2021.08.09 16:40:07 -04'00'

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

CONNELLY & WICKER INC.  
10060 SKINNER LAKE DR., SUITE 500  
JACKSONVILLE, FL 32246  
PHONE 904.265.3030 FAX 904.265.3031  
CA NO. 3650 LA NO. LC26000311  
ALFRED B. PITTMAN, RLA NO. 0001601

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

A circular professional engineer seal for the State of Florida. The outer ring contains the text "MARY E. LEAPTROT" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by two stars. Inside the ring, the word "LICENSE" is at the top, "No. 61449" is in the center, and "STATE OF FLORIDA" is at the bottom, also separated by two stars.

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY MARY E. LEAPTROTT ON  
THE DATE ADJACENT TO THE SEAL:

Mary E  
Leaptrott

Digitally signed by Mary E Leaptrott  
DN: cn=Mary E Leaptrott, c=US, o=Connolly  
and Wicker Inc.,  
ou=A01410D000001713C16735C0000C5C,  
email=bleaptrott@cwiceng.com  
Date: 2021.08.10 09:34:22 -0400

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

CONNELLY & WICKER INC.  
10060 SKINNER LAKE DR., SUITE 500  
JACKSONVILLE, FL 32246  
PHONE 904.265.3030 FAX 904.265.3031  
CA NO. 3650 LA NO. LC26000311  
MARY E. LEAPTROTT, P.E. NO. 61449

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61015-23.004, F.A.C.

[illegible]



**Development Review General Notes:**

1. Engineering Plans approval does not constitute permission to violate any adopted Federal, State, or Local law, code, or ordinance.
2. All work within the public streets and right-of-ways shall conform to Nassau County Land Development Codes (LDC), FDOT Standard Indices, Florida Greenbook, Nassau County Roadway and Drainage Standards, and Nassau County Standard Details as necessary. For any discrepancy between standards, the most stringent shall prevail.
3. Per Nassau County Roadway and Drainage Standards, Ordinance 99-17 Section 6.2.4, site shall be constructed per approved construction drawings. Any substantial deviation shall be concurrently reviewed by Engineer of Record and Nassau County Development Review Committee prior to field changes.
4. A pre-construction meeting with Nassau County Engineering Services Construction Inspector is required. Attendees shall be Nassau County, Engineer of Record, Contractor, Testing firm, Paving firm, and utility companies per Nassau County Ordinance 99-17 Section 7.2.3. Nassau County may cancel pre-construction meeting if attendee list is inadequate. Nassau County Engineering Services can be reached at 904-530-6125.
5. The contractor shall schedule and coordinate all work with the appropriate Nassau County Construction Inspector assigned to the project per Nassau County Ordinance 99-17 Section 7.2.
6. All work shall be performed in a safe manner. All safety rules and guidelines of O.S.H.A. shall be followed. The contractor shall be wholly responsible for any injuries to his employees and any damage to private property or persons during the course of this project.
7. Per Nassau County Roadway and Drainage Standards, Ordinance 99-17 Section 11.8.1, any disturbed areas within Nassau County Right-of-Way shall be sodded.
8. Per Nassau County Roadway and Drainage Standards, Ordinance 99-17 Section 7.4.1, at the time of final inspection, grading shall be a minimum of seventy percent coverage and fully established and/or sodding to be one hundred percent coverage and stabilized.
9. Engineer of Record approved shop drawings shall be provided to Nassau County Construction Inspector a minimum of one week before beginning structure installation.
10. Parking at mail kiosks is required per Nassau County Roadway and Drainage Standards, Ordinance 99-17 Section 8.4. Mail kiosk locations are subject to USPS Postmaster approval.
11. The developer's contractor is the single responsible party for the proper implementation of an Erosion Protection Sediment Control (EPSC) within each lot or construction site. This includes the responsibility for the actions/nactions of employees, subcontractors, and/or suppliers.
12. Sidewalks to be provided and built in accordance Florida Building Code. All proposed sidewalks shall meet ADA requirements.
13. The Contractor shall comply with current Florida accessibility standards for all work on this project.
14. Per Ordinance 99-17 Section 8.5.1, minimum cover for water lines and force mains under pavement shall 42" and 36" in green areas.
15. All water, sewer, and storm water construction within Nassau County ROW shall be accomplished by an underground utility contractor licensed under the provisions of Chapter 409 of the Florida Statutes.
16. No work shall be permitted between the hours of 7:00 PM - 7:00AM without prior approval from Nassau County Engineering Services.
17. All trees required to be protected shall be flagged for protection prior to clearing.
18. All grading and placement of compacted fill shall be in accordance with the latest Nassau County Specifications.
19. Any damages (sidewalk, curb, asphalt, ditch grading, etc) within Public Right-of-Way shall be repaired or replaced in accordance with Nassau County Specifications. Proposed repair method shall be approved by Nassau County Engineering Services.
20. Any asphalt millings from Nassau County ROW shall be delivered to the Road Department Laydown yard located on Gene Lassiere Boulevard or Pea Farm Road. Please contact the Road Department at (904) 530-6175.
21. Per Nassau County Ordinance 99-17 Section 7.4.2 and 7.4.4, as-built drawings shall be submitted to Nassau County before a final inspection can be scheduled. As-builts submittals will be in accordance with Nassau County as-built requirement checklist. As-built drawings shall be certified by required licensed surveyor and approved by Engineer of Record.

ROADWAY AND DRAINAGE STANDARDS NASSAU COUNTY ENGINEERING SERVICES DEPARTMENT	REVISION DATES		DEVELOPMENT REVIEW GENERAL NOTES	NOTE SHEET: 1 DWG: ISSUED: 12/09/2020


**Stormwater Drainage Notes:**

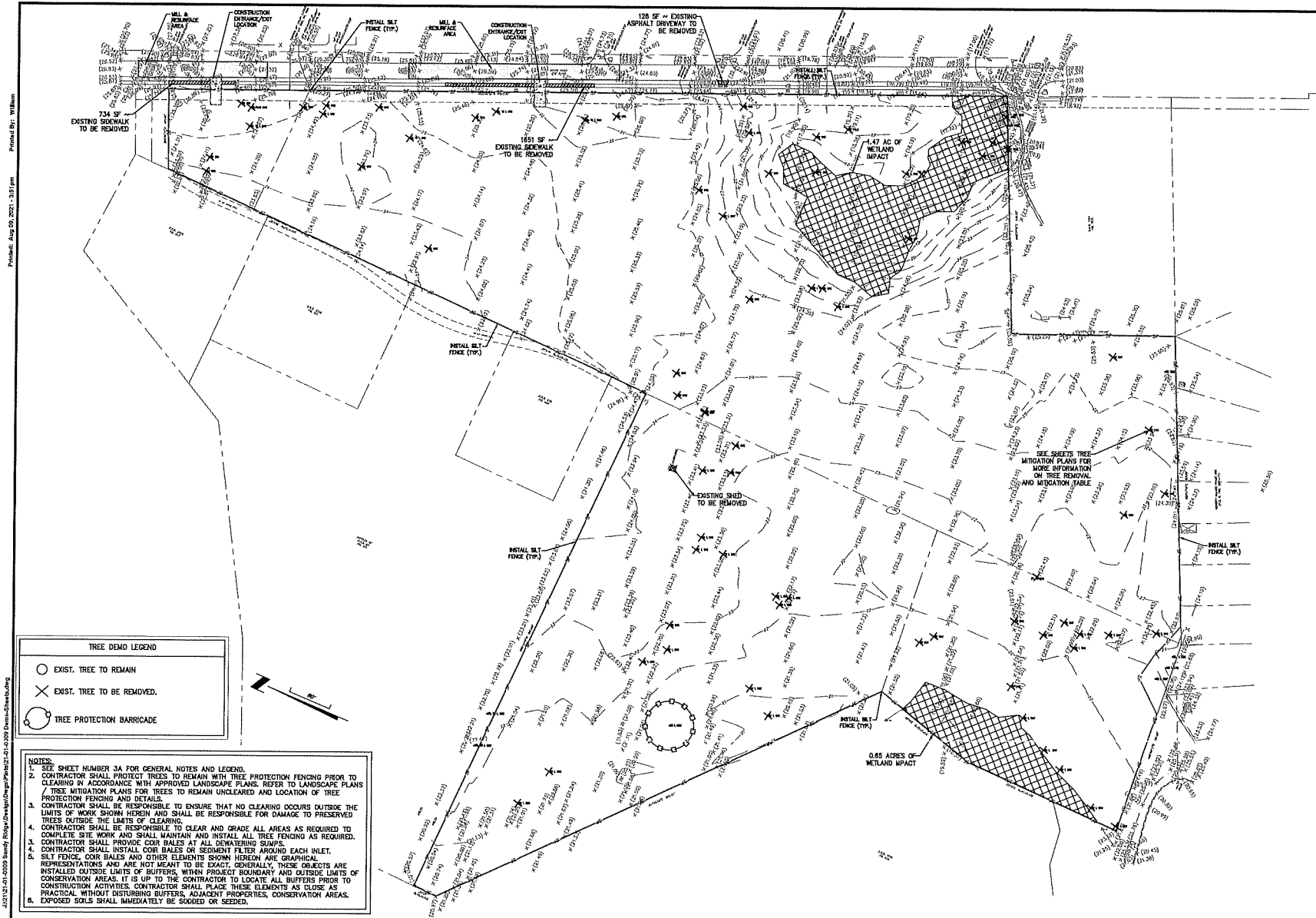
1. All stormwater drainage facilities within Public Right-of-Way and paved areas, including Nassau County Right-of-Way, turn lanes, residential roadways, drive aisles for multi-family developments, and major drive aisles for commercial developments shall be laser profiled per FDOT Section 430.
2. A builder cannot modify the County's storm water management system including the pipes, inlets, area drains, ditches and related elements typically within the street or within a drainage easement without the prior written approval of the County Engineer or designer.
3. Drainage easements and ditches should remain free of stockpiled soil, sediment, mud, construction materials/waste, etc. at all times. Positive stormwater flow must be maintained throughout construction.
4. The contractor shall temporarily or permanently stabilize bare soil areas and soil stockpiles when the area is inactive for fourteen days or more or has reached finished grade.
5. Per Ordinance 99-17 Section 11.11.5.4, all gravity flow pipe installations shall have a soil tight joint performance unless specific site factors warrant watertight joint performance.
6. Per Ordinance 99-17 Section 10.6.5.1, immediately install additional Erosion Protection Sediment Control measures if sediment is leaving your site. Failure to contain sediment to your site may result in delayed inspections, notices of violation, citations, fines, penalties, and/or stop work orders.
7. Per 99-17 Section 10.1.2.a-e, stormwater management for a project shall not have adverse effects on adjacent properties, downstream structures, or rights of other landowners.
8. Contractor is required to have a Certified QC Asphalt Level II Technician during any asphalt operations within Nassau County ROW, residential subdivision, or multi-family developments.
9. All bases shall be primed in accordance with Ordinance 99-17 Section 11.5.2.3, Nassau County Standard Details, and FDOT Standard Specifications.
6. Signage and pavement markings shall be in compliance with Nassau County Standards, Manual on Uniform Traffic Control Devices (MUTCD), and FDOT Standard Plans.
7. Maintenance of Traffic (MOT) shall be in compliance with FDOT Standard Index 600 Series.
8. All work, materials, and testing performed within Nassau County right-of-way and single family/multi-family developments shall be in accordance with the current revision of Nassau County's Ordinance 99-17 and all current Nassau County Standard Details.
9. Per Ordinance 99-17 Section 11.9.2, all pavement markings within Nassau County ROW shall be lead free thermoplastic meeting Nassau County and FDOT Standard Specification Latest Edition.
10. Removing pavement markings within Nassau County ROW shall be:
  - a. Grinding or hydro-blasting on weathered asphalt surfaces.
  - b. Hydro-blasting only on new asphalt surfaces.
  - c. Paint Blackout is prohibited.
11. Per Ordinance 99-17 Section 8.5.5, any damage to pavement resulting from construction or pavement marking removal within Public ROW not planned as part of the project shall be milled and overlaid for entire width of roadway and length of damage plus 50' in each direction.
12. All underground utilities, or appropriate conduit sleeves, that are to be installed under pavement must be installed prior to preparation of the subgrade for pavement.
13. Single Vertical Joints in roadway construction shall be avoided in Nassau County Right-of-Way using Nassau County Standard Detail #26.
14. All drainage structures shall have traffic bearing grates that meet or exceed the rating for the facilities expected traffic.
15. All concrete shall be a minimum of 3000 psi within Public Right-of-Way.

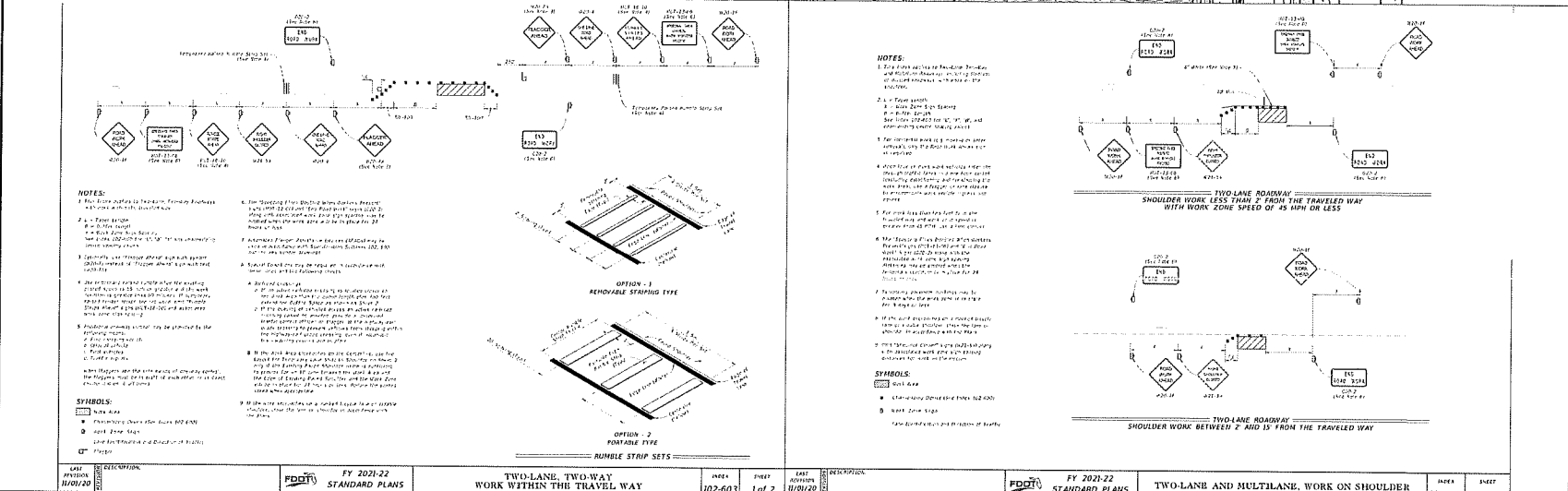
**Paving Notes:**

1. Per Nassau County Roadway and Drainage Standards, Ordinance 99-17 Section 12.2 and 12.4, a construction bond and 36-month maintenance bond will be required for all work within Nassau County Right-of-Way.
2. A pre-pave meeting is required prior to any paving operations within Nassau County ROW, residential subdivisions, or multi-family developments.
3. Approved mix designs shall be provided to Nassau County Construction Inspector 48 hours prior to pre-pave meeting or placement of concrete.

ROADWAY AND DRAINAGE STANDARDS NASSAU COUNTY ENGINEERING SERVICES DEPARTMENT	REVISION DATES		STORMWATER DRAINAGE & PAVING NOTES	NOTE SHEET: 2 DWG: ISSUED: 12/09/2020

 <b>Connelly &amp; Wicker Inc.</b> Planning • Engineering • Landscape Architecture 10060 Steele Lake Drive, Suite 400 Jacksonville, Florida 32246 (904) 265-5030 FAX: (904) 265-5031 Florida Registry 2650 L.A. Number: LC7600031		Project No.: 121-41-00009 Designed: MSL Checked: O.R. Date: JULY 21, 2021 Scale:	
		Drawn: ANB RCW Sheet: 3B	
SANDY RIDGE YULIEE, FLORIDA PREPARED FOR SEWANIK INVESTMENT CORPORATION HARRY E. LEONARD, P.E. P.E. NUMBER: 6149 Reg. Engineer		NASSAU COUNTY GENERAL NOTES	

[illegible]



Project No.: 21-01-2009 Designed: MBL Checked: RW Date: August 9, 2021 Scale: 1" = 60'	SANDY RIDGE YULEE, FLORIDA PREPARED FOR SEAHAK INVESTMENT CORPORATION		MAINTENANCE OF TRAFFIC PLAN		Planning • Engineering • Landscape Architecture 10060 Steiner Lake Drive, Suite 500 Jacksonville, Florida 32246 (904) 455-1000 • Fax (904) 455-1005 • www.connelly.com Florida Registry #6801 • AIA Number: LC74990031
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**OW** Connelly & Wicker Inc.  
 Planning • Engineering • Landscape Architecture  
 10060 Steiner Lake Drive, Suite 500 Jacksonville, Florida 32246  
 (904) 455-1000 • Fax (904) 455-1005 • www.connelly.com  
 Florida Registry #6801 • AIA Number: LC74990031

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Sheet **5A**  
 Date: August 9, 2021  
 Scale: 1" = 60'

MARY E. LEHRMANN, P.E.  
 P.E.  
 Reg. Engineer



Nassau County Engineering Services Department  
96161 Nassau Place  
Yulee, Florida 32097

#### Road Closure Policy

1. Submit a written request to the County Engineer for the road closure. In the request you must explain the following:

- a) Why the road needs to be closed and the duration of the closure?
- b) What are the benefits to public for closing the road?
- c) Include a draft detour plan.

After the road closure request and draft detour plan have been approved, the following information shall be submitted to the Nassau County Engineering Services Department for review and approval.

2. Submit to Nassau County Engineering Services Department: A Maintenance of Traffic (MOT) Plan that was prepared by or approved by Florida Advanced Maintenance of Traffic (FAMOT) certified personnel referencing the latest editions of the Florida Department of Transportation (FDOT) Design Standards Section 600 and the Manual on Uniform Traffic Control Devices (MUTCD). These plans shall include the Worksite Traffic Supervisor as per the latest edition of the FDOT Standard Specifications for Road & Bridge Construction Section 105-8.3. Variable Message Boards (VMB) will be required and shall be installed 7 days prior to the detour taking place and remain throughout. Any signed detour that will be within FDOT Right-of-Way (or on portions thereof) shall have prior FDOT approval.

A Maintenance of Traffic Plan proposing a change to any approved documents, including contract documents and approved construction plans must be signed and sealed.

3. Provide a public notification advertisement to an approved local newspaper to appear no less than fourteen (14) days prior to the scheduled closure. Submit the draft notification to Nassau County Engineering Services for review and approval prior to advertising. This notification will clearly describe the name of the project and contractor, scope of the detour, scope of construction, the name of all roads that will be affected, official detour routes, duration of closure and the Worksite Traffic Supervisor's telephone number. Attach a diagram showing the surrounding area and detour routes. Diagram must be clear and depict road names and route direction. The size of advertisement in newspaper shall be a minimum of 2 columns wide by 12 inches long (tall) or one fifth (1/5) of a page with a minimum of 24 point font for the heading and 10 point font for the body and detour plan. Flyer with the same information may be required. With the Engineering Services Department's written approval, local roads may not require publishing of the advertisement in the paper; however, all other criteria must be adhered to.

Phone (904) 530-6225

Fax (904) 491-3611



Road Closure Policy  
Page 2 of 3

4. Submit notification to the following departments and agencies prior to the road closure. A confirmation of notification to the Engineering Services Department must be provided prior to road closure. Depending on the location of the project/detour, notification to other agencies may be required.
  - Nassau County Sheriff's Office
    - o Ricky A. Rowell, TAC  
Phone - (904) 548-4060  
Fax - (904) 225-5737  
Email - rickay@nassaucountyfl.com
    - o L. Rene Graham, Lt.  
Phone - (904) 548-4028  
Fax - (904) 548-4128  
Email - lrengraham@nassaucountyfl.com
  - Nassau County Emergency Management
    - o Marsha Oberdorfer  
Phone - (904) 548-0931  
Fax - (904) 548-4194  
Email - moberdorfer@nassaucountyfl.com
  - Nassau County Fire Department
    - o Chief Brady Rignall  
Email - bradyr@nassaucountyfl.com
    - o Chief Greg Roland  
Email - groland@nassaucountyfl.com
    - o Chief Bob Ratliff  
Email - ratliff@nassaucountyfl.com  
Phone - (904) 530-6600  
Fax - (904) 321-5748
  - Nassau County School Bus Transportation
    - o Brad Underhill  
Phone - (904) 225-0127  
Fax - (904) 255-9404  
Email - underhillbrad@nassaucountyfl.com
  - Nassau County Road & Bridge Department
    - o Jennifer Kirkland  
Phone - (904) 530-6175  
Fax - (904) 530-6901  
Email - jkirkland@nassaucountyfl.com
  - Nassau County Manager's Office
    - o Sabrina Robertson  
Phone - (904) 530-6010  
Fax - (904) 321-5784  
Email - srobertson@nassaucountyfl.com
  - United Postal Service (Yulee)
    - o Cassandra Mitchell  
Phone - (904) 873-6083  
Fax - (904) 225-9733  
Email - cassandra.mitchell@usps.gov
  - United Postal Service (Femadina)
    - o Paul Batista  
Phone - (904) 557-0342  
Fax - (904) 277-7947  
Email - paul.batista@usps.gov
  - United Postal Service (Callahan/Hwyville)
    - o Elizabeth Williams  
Phone - (904) 879-2131  
Fax - (904) 879-0737  
Email - elizabeth.williams@usps.gov
  - United Postal Service (Hilliard)
    - o Bridgett Wagers  
Phone - (904) 845-2131  
Fax - (904) 845-7738  
Email - bridgett.wagers@usps.gov

Phone (904) 530-6225

Fax (904) 491-3611



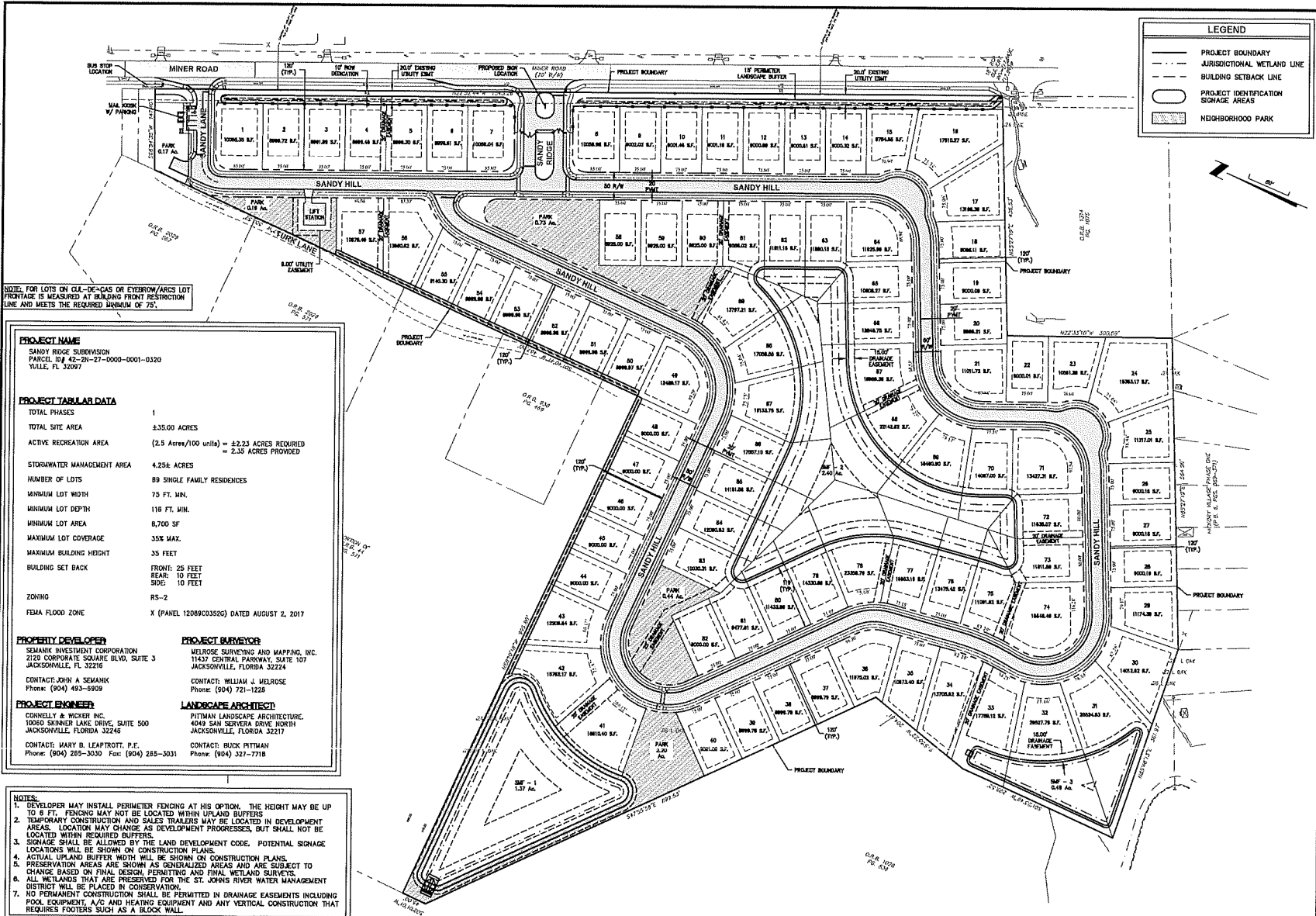
Road Closure Policy  
Page 3 of 3

5. Signage will be in place prior to road closure. They will be bagged/covered until needed. VMBs will be installed and operating a minimum of seven (7) calendar days prior to any closure/detour.
6. Visual inspection of the VMB by the Engineering Services Department is required at installation or relocation. Visual inspection of all road/detour signage shall be accomplished prior to road closure. Contact Engineering Services 48 hours prior to installation for inspection.

Phone (904) 530-6225

Fax (904) 491-3611

 Planning • Engineering • Landscape Architecture 10860 Shallowford Rd., Suite 500 Jacksonville, Florida 32246 (904) 245-5030 FAX: (904) 262-3031 www.OWconnelly.com Florida Registry #650 L.A. Number: LC2600031		By	
		Revision	
SANDY RIDGE YULEE, FLORIDA PREPARED FOR SEMANIK INVESTMENT CORPORATION		MAINTENANCE OF TRAFFIC PLAN	
MARY E. LEATHERBURY, P.E. P.E. NUMBER 61443 Reg. Engineer		THIS DRAWING IS THE PROPERTY OF CONNELLY & WICKER, INC. AND IS NOT TO BE REPRODUCED OR COPIED IN WHOLE OR IN PART. IT IS NOT TO BE USED ON ANY OTHER PROJECT AND IS TO BE RETURNED ON REQUEST.	
Project No.: 21-01-0009 Designed: ME Checked: JRW Date: August 9, 2021 Scale: as shown		Drawn: JWB O.C.: RCW	
Sheet		5B	



NOTE: FOR LOTS ON OLD-DE-CAS OR EYEWORM/ARCS LOT FRONTAGE IS MEASURED AT BUILDING FRONT RESTRICTION LINE AND MEETS THE REQUIRED MINIMUM OF 75'.

<b>PROJECT NAME</b> SANDY RIDGE SUBDIVISION PARCEL ID# 42-2H-27-0000-0001-0320 YULEE, FL 32297	
<b>PROJECT TABULAR DATA</b>	
TOTAL PHASES	1
TOTAL SITE AREA	±335.00 ACRES
ACTIVE RECREATION AREA	(2.5 Acres/100 units) = ±2.25 ACRES REQUIRED = 2.35 ACRES PROVIDED
STORMWATER MANAGEMENT AREA	4.25± ACRES
NUMBER OF LOTS	89 SINGLE FAMILY RESIDENCES
MINIMUM LOT WIDTH	75 FT. MIN.
MINIMUM LOT DEPTH	116 FT. MIN.
MINIMUM LOT AREA	8,700 SF
MAXIMUM LOT COVERAGE	35% MAX.
MAXIMUM BUILDING HEIGHT	35 FEET
BUILDING SET BACK	FRONT: 25 FEET REAR: 10 FEET SIDE: 10 FEET
ZONING	RS-2
FEMA FLOOD ZONE	X (PANEL 12089C0352C) DATED AUGUST 2, 2017
<b>PROPERTY DEVELOPER</b> SEMANK INVESTMENT CORPORATION 2120 CORPORATE SQUARE BLVD, SUITE 3 JACKSONVILLE, FL 32216 CONTACT: JOHN A SEMANK Phone: (904) 493-8909	<b>PROJECT SURVEYOR</b> MELROSE SURVEYING AND MAPPING, INC. 11537 CENTRAL PARKWAY, SUITE 107 JACKSONVILLE, FLORIDA 32224 CONTACT: WILLIAM J. MELROSE Phone: (904) 721-1228
<b>PROJECT ENGINEER</b> CONNELLY & WICKER INC. 10050 SKANDEL LAKE DRIVE, SUITE 500 JACKSONVILLE, FLORIDA 32246 CONTACT: HARRY B. LEAPROTT, P.E. Phone: (904) 285-3030 Fax: (904) 285-3031	<b>LANDSCAPE ARCHITECT</b> PITMAN LANDSCAPE ARCHITECTURE 4040 SAN SOVERA DRIVE NORTH JACKSONVILLE, FLORIDA 32217 CONTACT: BUCK PITMAN Phone: (904) 327-7718

- NOTES:
1. DEVELOPER MAY INSTALL PERIMETER FENCING AT HIS OPTION. THE HEIGHT MAY BE UP TO 6 FT. FENCING MAY NOT BE LOCATED WITHIN UPLAND BUFFERS
  2. TEMPORARY CONSTRUCTION AND SALES TRAILERS MAY BE LOCATED IN DEVELOPMENT AREAS. LOCATION MAY CHANGE AS DEVELOPMENT PROGRESSES, BUT SHALL NOT BE LOCATED WITHIN REQUIRED BUFFERS.
  3. SIGNAGE SHALL BE ALLOWED BY THE LAND DEVELOPMENT CODE. POTENTIAL SIGNAGE LOCATIONS WILL BE SHOWN ON CONSTRUCTION PLANS.
  4. ACTUAL UPLAND BUFFER WIDTH WILL BE SHOWN ON CONSTRUCTION PLANS.
  5. PRESERVATION AREAS ARE SHOWN AS GENERALIZED AREAS AND ARE SUBJECT TO CHANGE BASED ON FINAL DESIGN, PERMITTING AND FINAL WETLAND SURVEYS.
  6. ALL WETLANDS THAT ARE PRESERVED FOR THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT WILL BE PLACED IN CONSERVATION.
  7. NO PERMANENT CONSTRUCTION SHALL BE PERMITTED IN DRAINAGE EASEMENTS INCLUDING POOL EQUIPMENT, A/C AND HEATING EQUIPMENT AND ANY VERTICAL CONSTRUCTION THAT REQUIRES FOOTERS SUCH AS A BLOCK WALL.

LEGEND	
	PROJECT BOUNDARY
	JURISDICTIONAL WETLAND LINE
	BUILDING SETBACK LINE
	PROJECT IDENTIFICATION SIGNAGE AREAS
	NEIGHBORHOOD PARK

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10960 Science Lake Drive, Suite 500 Jacksonville, Florida 32246  
(904) 265-3030 FAX: (904) 265-3031 www.cwfirm.com  
Florida Registry 3650 L.A. Number: LC26000311

Project No:	21-01-0009	Drawn:	NJB
Designed:	MSB	Checked:	MSB
Scale:	1" = 80'	Sheet:	6

**SANDY RIDGE**  
**YULEE, FLORIDA**  
PREPARED FOR  
**SEMANK INVESTMENT CORPORATION**  
DATE: JULY 21, 2021  
BY: HARRY B. LEAPROTT, P.E.  
P.E. NUMBER 81448  
Reg. Engineer

**MASTER SITE PLAN**

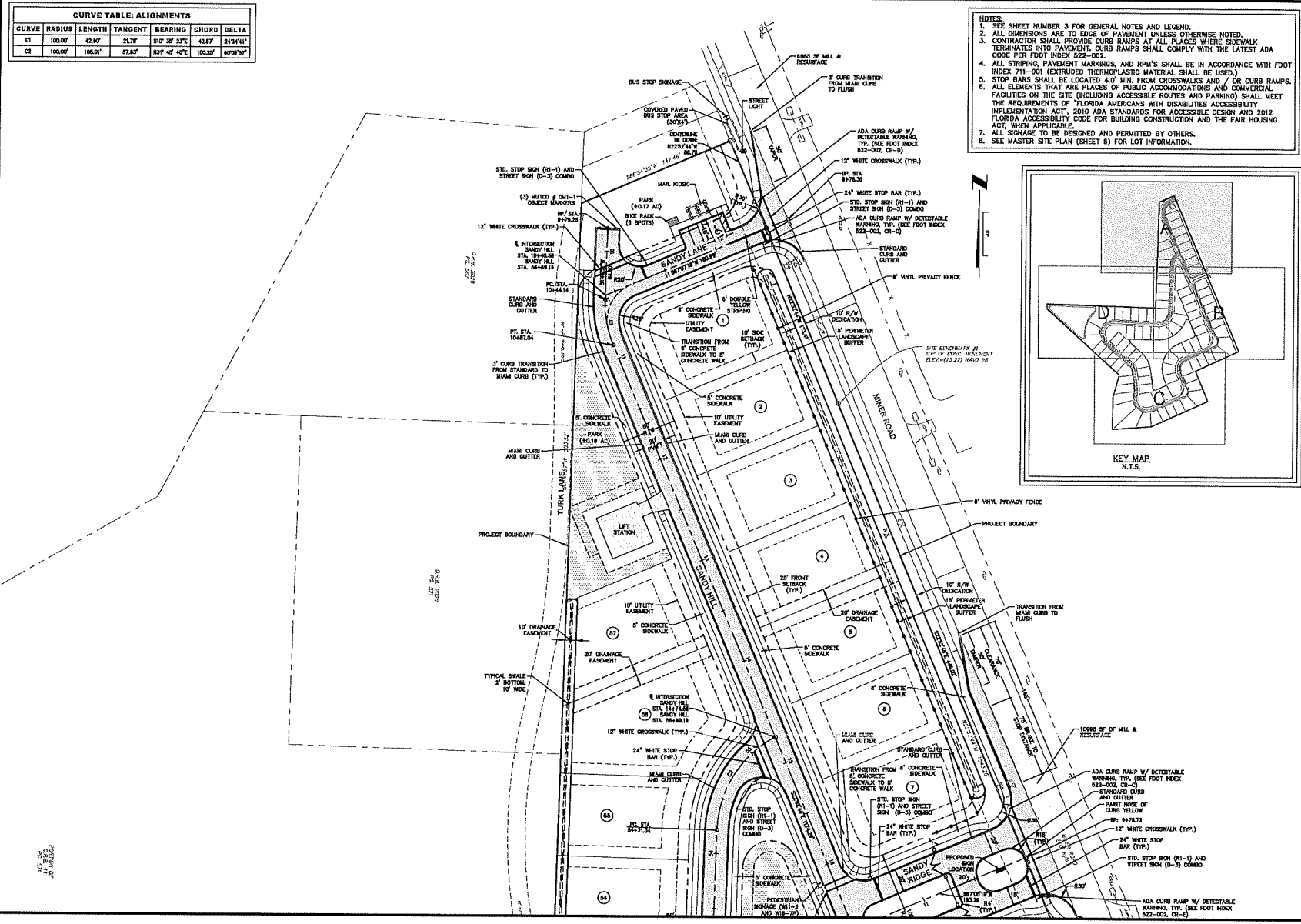


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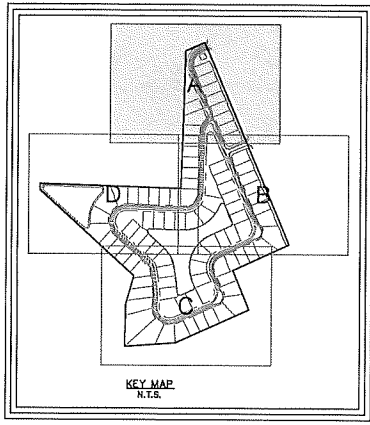
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CURVE TABLE: ALIGNMENTS					
CURVE	RADIUS	LENGTH	TANGENT	BEARING	CHORD DELTA
C1	100.00'	43.80'	21.76'	S10° 30' 23"E	42.87' 24° 54' 41"
C2	100.00'	106.00'	87.85'	N31° 46' 40"E	100.26' 80° 08' 59"



- NOTES:
- SEE SHEET NUMBER 3 FOR GENERAL NOTES AND LEGEND.
  - ALL DIMENSIONS ARE TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
  - CONTRACTOR SHALL PROVIDE CURB RAMP AT ALL PLACES WHERE SIDEWALK TERMINATES INTO PAVEMENT. CURB RAMP SHALL COMPLY WITH THE LATEST ADA CODE FOR FOOT INDEX 522-002.
  - ALL STRIPING, PAVEMENT MARKINGS, AND R/W'S SHALL BE IN ACCORDANCE WITH FOOT INDEX 711-001 (EXTRUDED THERMOPLASTIC MATERIAL SHALL BE USED.)
  - STOP BARS SHALL BE LOCATED 4'-0" MIN. FROM CROSSWALKS AND / OR CURB RAMP.
  - ALL ELEMENTS THAT ARE PLACES OF PUBLIC ACCOMMODATIONS AND COMMERCIAL FACILITIES ON THE SITE (INCLUDING ACCESSIBLE ROUTES AND PARKING) SHALL MEET THE REQUIREMENTS OF "FLORIDA AMERICANS WITH DISABILITIES ACCESSIBILITY IMPLEMENTATION ACT", 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN AND 2012 FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION AND THE FAIR HOUSING ACT, WHEN APPLICABLE.
  - ALL SIGNAGE TO BE DESIGNED AND PERMITTED BY OTHERS.
  - SEE MASTER SITE PLAN (SHEET 6) FOR LOT INFORMATION.



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(954) 265-2020 FAX: (954) 265-2031 www.cowconnelly.com  
Florida Registry 3650 L.A. Number: LC20000317

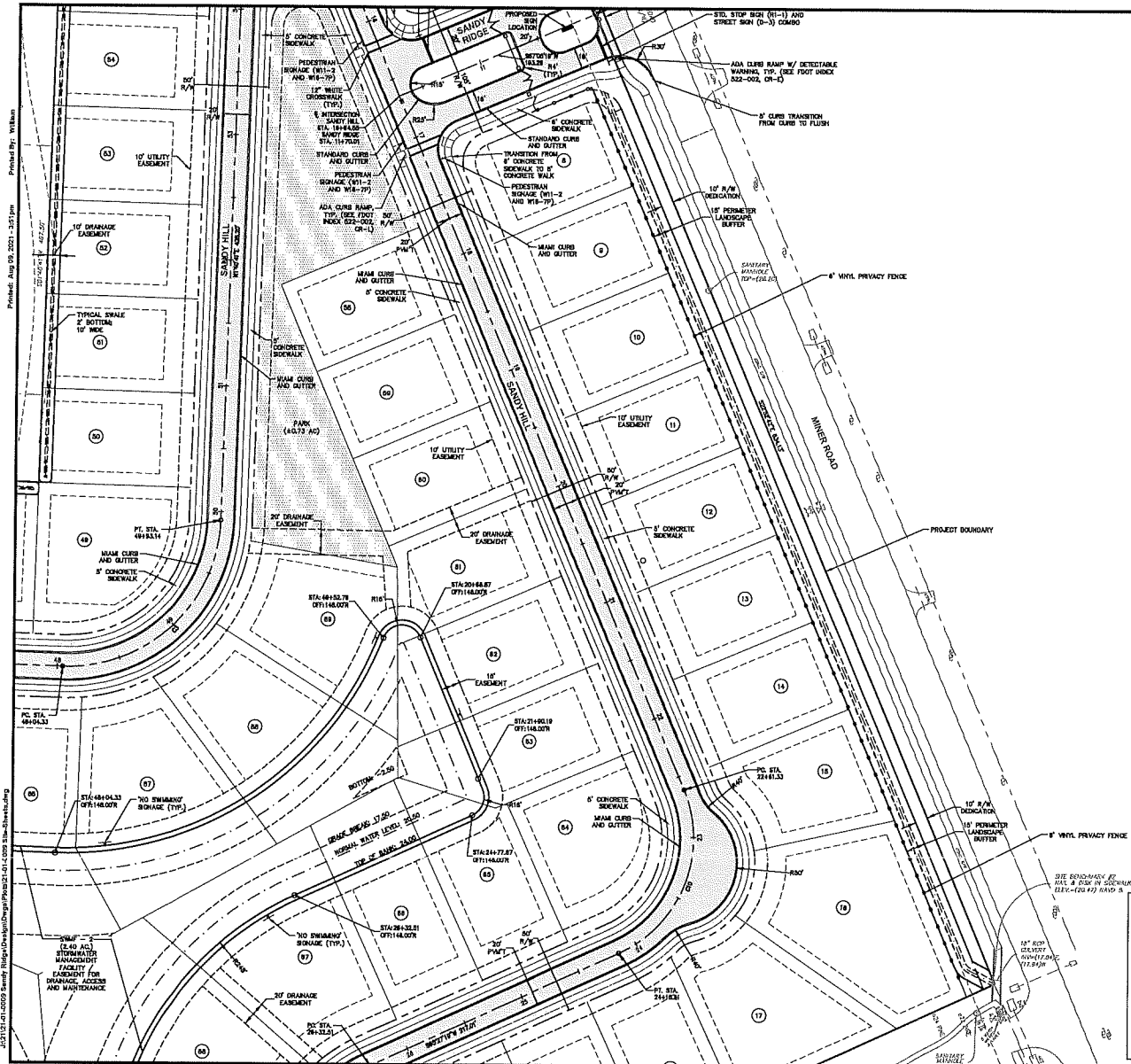
Project No.	21-01-0000
Designed	AWB
Drawn	AWB
Checked	SEW
Date	August 9, 2021
Scale	1" = 40'
Sheet	7A

**SANDY RIDGE**  
**YULEE, FLORIDA**  
PREPARED FOR  
**SENAK INVESTMENT CORPORATION**

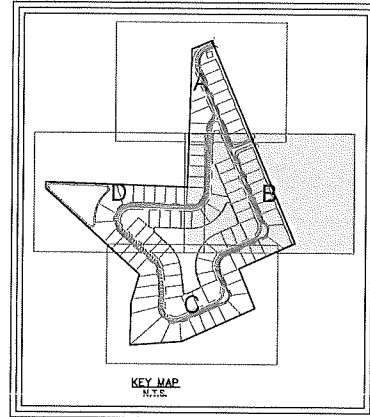
**SITE PLAN**  
N.T.S.

**MARY E. GARDNER, P.E.**  
P.E. NUMBER 61449  
Reg. Engineer

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CURVE TABLE: ALIGNMENTS						
CURVE	RADIUS	LENGTH	TANGENT	BEARING	CHORD	DELTA
13	150.00'	186.87'	185.32'	N44°40'11"E	186.87'	N07°00'00"W
14	150.00'	186.87'	185.32'	S44°40'11"E	186.87'	N07°00'00"W



- NOTES:**
- SEE SHEET NUMBER 3 FOR GENERAL NOTES AND LEGEND.
  - ALL DIMENSIONS ARE TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
  - CONTRACTOR SHALL PROVIDE CURB RAMP AT ALL PLACES WHERE SIDEWALK TERMINATES INTO PAVEMENT. CURB RAMP SHALL COMPLY WITH THE LATEST ADA CODE PER FOOT INDEX 522-002.
  - ALL STRIPING, PAVEMENT MARKINGS, AND R/W'S SHALL BE IN ACCORDANCE WITH FOOT INDEX 711-001 (EXTRUDED THERMOPLASTIC MATERIAL SHALL BE USED).
  - STOP BARS SHALL BE LOCATED 4.0' MIN. FROM CROSSWALKS AND / OR CURB RAMP.
  - ALL ELEMENTS THAT ARE PLACES OF PUBLIC ACCOMMODATIONS AND COMMERCIAL FACILITIES ON THE SITE (INCLUDING ACCESSIBLE ROUTES AND PARKING) SHALL MEET THE REQUIREMENTS OF "FLORIDA AMERICANS WITH DISABILITIES ACCESSIBILITY IMPLEMENTATION ACT", 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN AND 2012 FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION AND THE FAIR HOUSING ACT, WHEN APPLICABLE.
  - ALL SIGNAGE TO BE DESIGNED AND PERMITTED BY OTHERS.
  - SEE MASTER SITE PLAN (SHEET 6) FOR LOT INFORMATION.

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 (904) 265-1010 FAX: (904) 265-1031  
 Florida Registry #650 L.A. Number: LC2600031

**SITE PLAN**

**SANDY RIDGE**

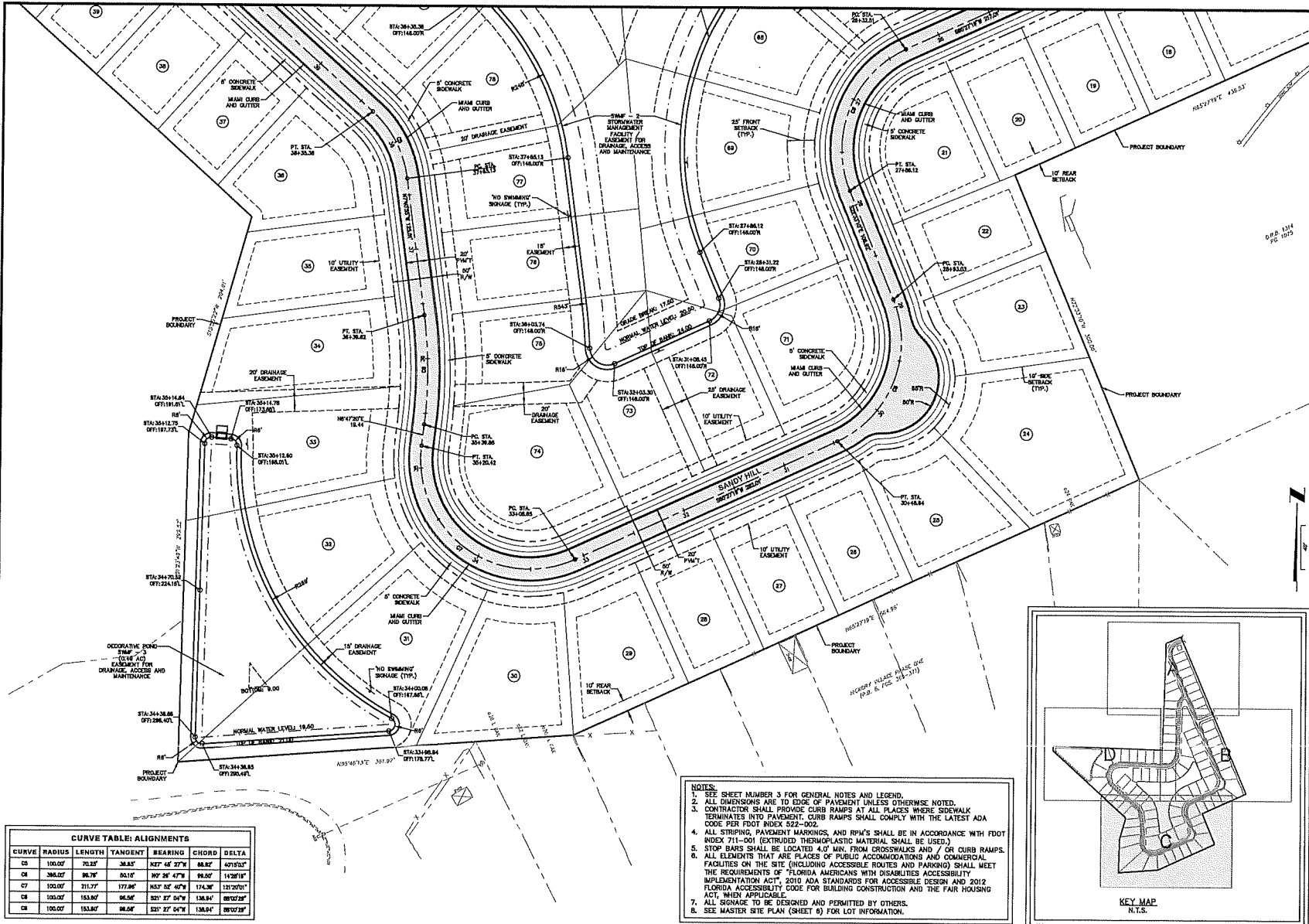
**YULEE, FLORIDA**

PREPARED FOR  
**SEANIK INVESTMENT CORPORATION**

PROJECT NO.: 21-03-0008  
 DESIGNED: MJD  
 CHECKED: JMW  
 DATE: August 9, 2021  
 SCALE: 1" = 40'

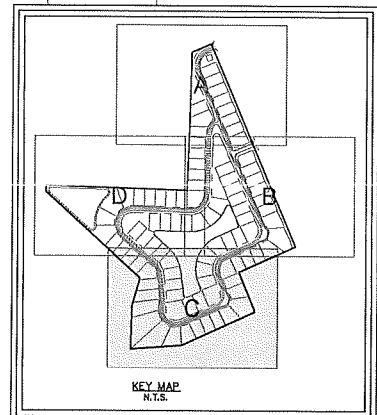
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 Drawn: ALB  
 Scale: 0.5" = 10' 0" / 1" = 40'

Sheet **7B**



CURVE TABLE: ALIGNMENTS						
CURVE	RADIUS	LENGTH	TANGENT	BEARING	CHORD	DELTA
C1	100.00'	70.35'	36.85'	N27° 16' 27"	88.92'	40°53'27"
C2	380.00'	96.78'	00.10'	S0° 26' 47"	96.80'	1°28'18"
C3	100.00'	211.77'	177.86'	N53° 52' 40"	174.36'	121°20'01"
C4	100.00'	153.90'	96.50'	S21° 27' 04"	138.94'	88°02'28"
C5	100.00'	153.90'	96.50'	S21° 27' 04"	138.94'	88°02'28"

- NOTES:
- SEE SHEET NUMBER 3 FOR GENERAL NOTES AND LEGEND.
  - ALL DIMENSIONS ARE TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
  - CONTRACTOR SHALL PROVIDE CURB RAMPS AT ALL PLACES WHERE SIDEWALK TERMINATES INTO PAVEMENT. CURB RAMPS SHALL COMPLY WITH THE LATEST ADA CODE PER FOOT INDEX 522-002.
  - ALL STRIPING, PAVEMENT MARKINGS, AND RPA'S SHALL BE IN ACCORDANCE WITH FOOT INDEX 711-001 (EXTRUDED THERMOPLASTIC MATERIAL SHALL BE USED.)
  - STOP BARS SHALL BE LOCATED 4.0' MIN. FROM CROSSWALKS AND / OR CURB RAMPS.
  - ALL ELEMENTS THAT ARE PLACES OF PUBLIC ACCOMMODATIONS AND COMMERCIAL FACILITIES ON THE SITE (INCLUDING ACCESSIBLE ROUTES AND PARKING) SHALL MEET THE REQUIREMENTS OF "FLORIDA AMERICANS WITH DISABILITIES ACCESSIBILITY IMPLEMENTATION ACT", 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN AND 2012 FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION AND THE FAIR HOUSING ACT, WHEN APPLICABLE.
  - ALL SIGNAGE TO BE DESIGNED AND PERMITTED BY OTHERS.
  - SEE MASTER SITE PLAN (SHEET 6) FOR LOT INFORMATION.



**COWI** Connelly & Wicker Inc.

Engineering - Landscape Architecture

10860 Spenceville Drive, Suite 500 Jacksonville, Florida 32246  
 (904) 444-1541  
 Florida Registry #650 L.A. Number: LC2400031

**SENAWIK INVESTMENT CORPORATION**

YULEE, FLORIDA

**SITE PLAN**

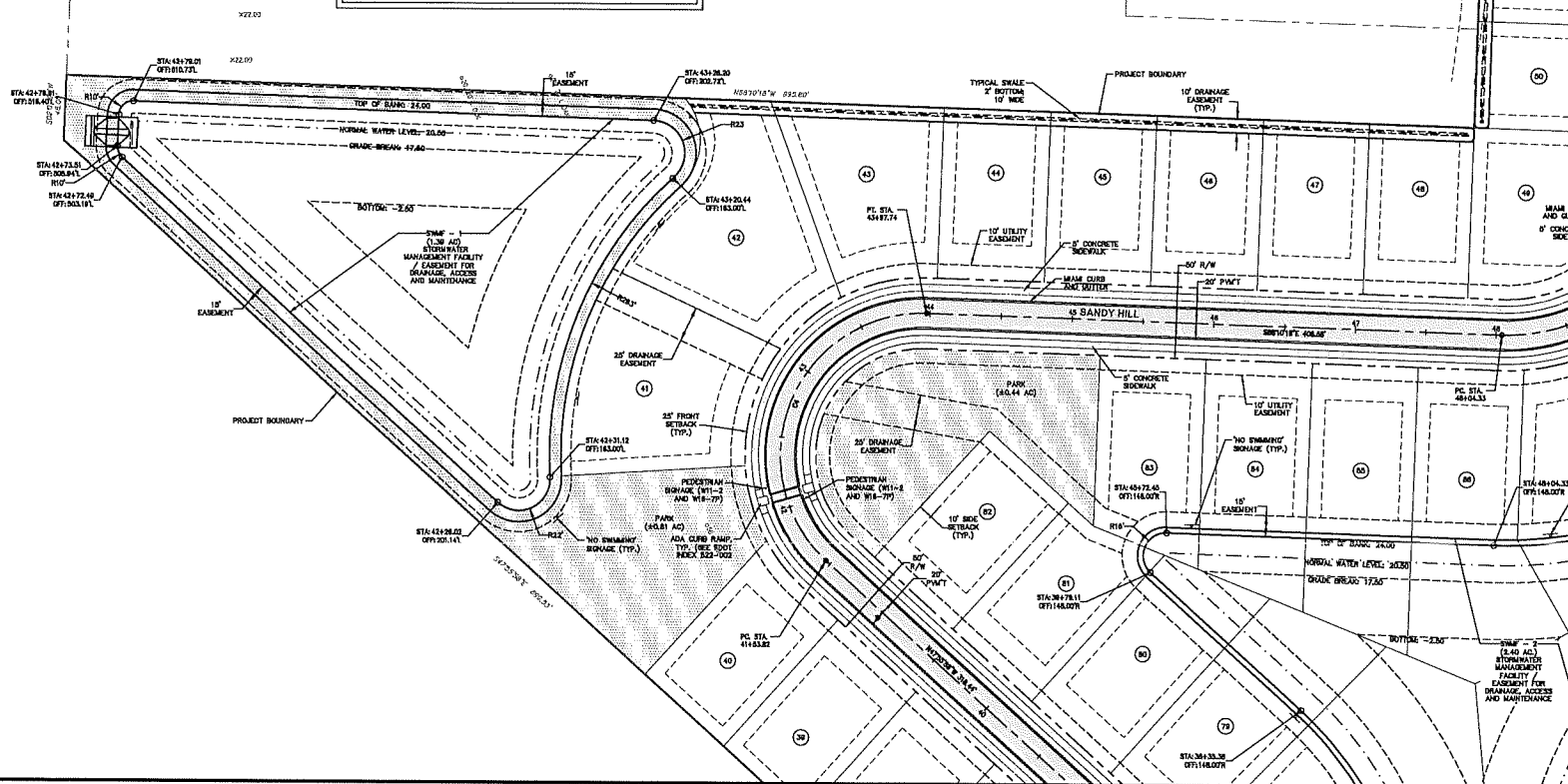
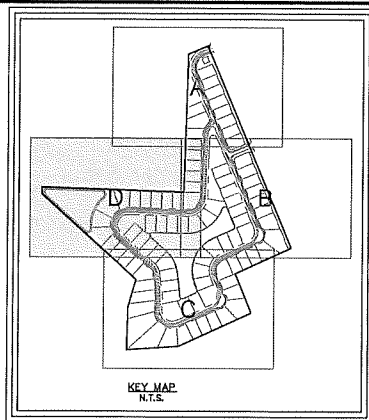
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 Designed: MBL  
 Checked: JEW  
 Date: August 9, 2021  
 Scale: 1" = 40'

Sheet 7C

CURVE TABLE: ALIGNMENTS						
CURVE	RADIUS	LENGTH	TANGENT	BEARING	CHORD	DELTA
C4	100.00'	243.85'	272.95'	N21° 06' 52"E	187.80'	130°45'40"

**NOTES:**

1. SEE SHEET NUMBER 3 FOR GENERAL NOTES AND LEGEND.
2. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL PROVIDE CURB RAMP(S) WHERE REQUIRED. SLOPE SHALL TERMINATE INTO PAVEMENT. CURB RAMP(S) SHALL COMPLY WITH THE LATEST ADA REQUIREMENTS FOR CURB RAMP(S).
4. ALL STEPPING, PAVING MARKINGS, AND R/W'S SHALL BE IN ACCORDANCE WITH FOOT INDEX 711-001 (EXTRUDED THERMOPLASTIC MATERIAL SHALL BE USED).
5. ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED. CURB RAMP(S), ALL ELEMENTS THAT ARE PLACES OF PUBLIC ACCOMMODATIONS AND COMMERCIAL PLACES OF PUBLIC ACCOMMODATIONS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF "2010 ADA STANDARDS FOR ACCESSIBLE DESIGN AND CONSTRUCTION" AND "2010 ADA STANDARDS FOR ACCESSIBLE DESIGN AND CONSTRUCTION" AND "2010 ADA STANDARDS FOR ACCESSIBLE DESIGN AND CONSTRUCTION".
6. ALL WORK SHALL BE DESIGNED AND PERMITTED BY OTHERS.
7. ALL WORK SHALL BE DESIGNED AND PERMITTED BY OTHERS.



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00650 Shinnar Lake Drive, Suite 500 Jacksonville, Florida 32246  
(904) 265-5030 FAX (904) 265-5031 [www.cwva.com](http://www.cwva.com)  
E-mail: [info@cwva.com](mailto:info@cwva.com) (904) 265-5030

## SITE PLAN

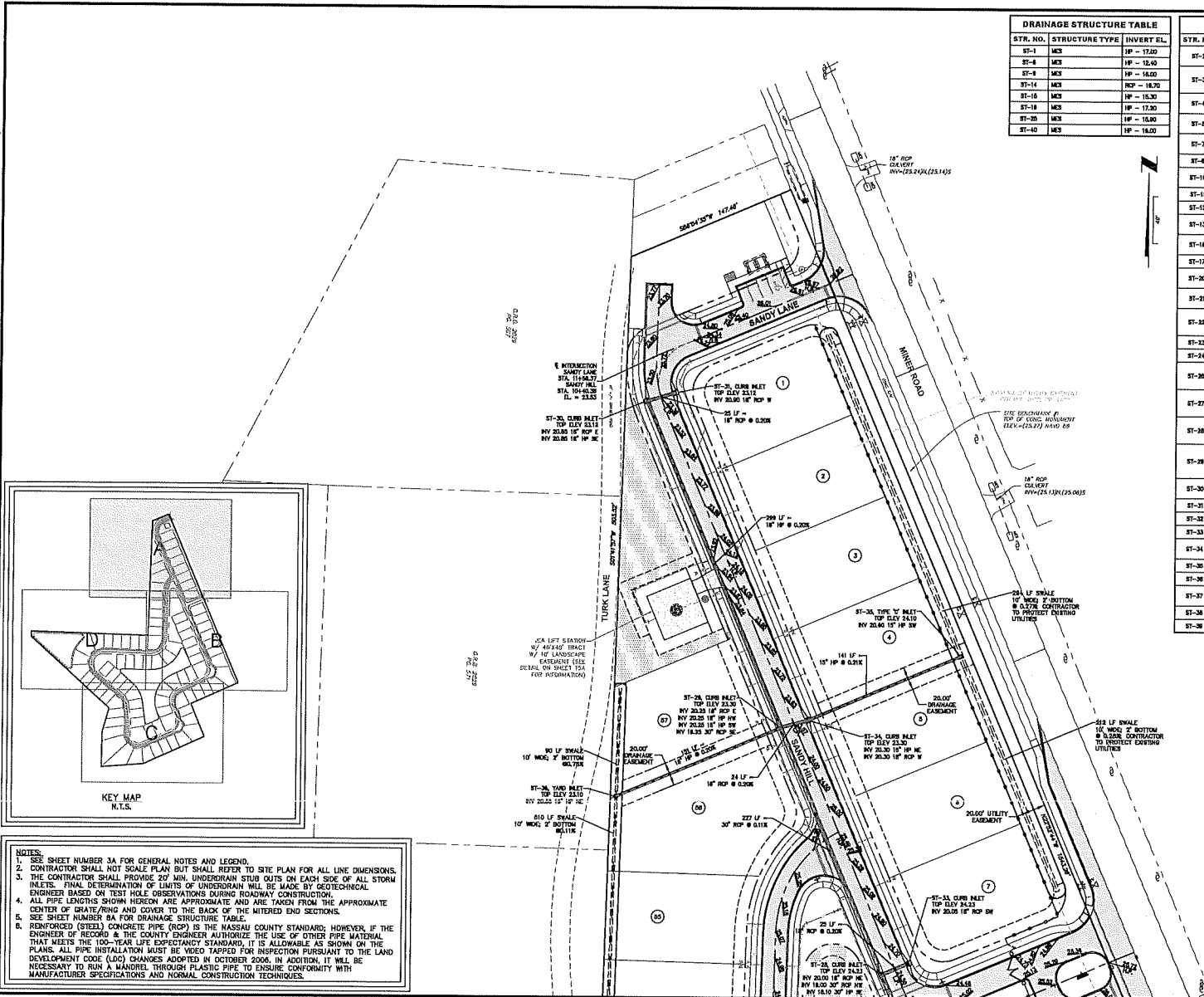
SANDY RIDGE  
YULEE, FLORIDA

PREPARED FOR  
SEMANIK INVESTMENT CORPORATION

MARY E. LEAPTROT, P.J.  
P.E. NUMBER: 61449

Project No.: 21-01-0009	
Designed: MFL	Drawn: ANB
Checked: JEW	O.C.: RCW
Date: August 9, 2021	
Scale: 1" = 40'	
Sheet 7D	

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STR. NO.	STRUCTURE TYPE	INVERT EL.
ST-1	MIS	18' - 17.00
ST-2	MIS	18' - 12.40
ST-3	MIS	18' - 16.00
ST-4	MIS	18' - 16.70
ST-5	MIS	18' - 15.30
ST-6	MIS	18' - 17.30
ST-7	MIS	18' - 15.80
ST-8	MIS	18' - 18.00

STR. NO.	STRUCTURE TYPE	TOP/GRATE EL.	INVERT EL.
ST-9	TYPE V INLET	24.10	18' - 17.00 (HW) 18' - 17.00 (SW)
ST-10	TYPE V INLET	24.20	18' - 17.00 (HW) 18' - 17.00 (SW) 18' - 18.00 (HW)
ST-11	CURB INLET	23.03	18' - 17.00 (HW) 18' - 12.40 (SW)
ST-12	CURB INLET	23.03	18' - 18.15 (HW) 18' - 18.15 (SW)
ST-13	CURB INLET	23.03	18' - 18.20 (HW) 18' - 18.20 (SW)
ST-14	CURB INLET	23.08	18' - 18.30 (HW) 18' - 18.30 (SW)
ST-15	CURB INLET	23.08	18' - 18.40 (HW) 18' - 18.40 (SW)
ST-16	CUT/FALL CONTROL BOX	23.83	18' - 20.10 (HW)
ST-17	MANHOLE	24.77	18' - 20.08 (HW) 18' - 18.80 (SW)
ST-18	DOUBLE CURB INLET	23.08	18' - 18.00 (HW) 18' - 18.10 (SW)
ST-19	DOUBLE CURB INLET	23.08	18' - 18.00 (HW) 18' - 18.10 (SW)
ST-20	CURB INLET	23.03	18' - 18.00 (HW) 18' - 18.00 (SW)
ST-21	CURB INLET	23.03	18' - 18.45 (HW) 18' - 18.45 (SW)
ST-22	CURB INLET	23.03	18' - 20.30 (HW) 18' - 20.30 (SW) 18' - 20.30 (HW) 18' - 20.30 (SW)
ST-23	CURB INLET	23.18	18' - 20.45 (HW)
ST-24	CURB INLET	23.03	18' - 20.36 (HW) 18' - 20.36 (SW)
ST-25	TYPE V INLET	24.00	18' - 18.10 (HW) 18' - 18.10 (SW)
ST-26	CURB INLET	23.12	18' - 18.70 (HW) 18' - 18.00 (SW) 18' - 18.30 (HW)
ST-27	CURB INLET	24.33	18' - 20.03 (HW) 18' - 18.00 (SW) 18' - 18.10 (HW)
ST-28	CURB INLET	23.30	18' - 20.28 (HW) 18' - 20.28 (SW) 18' - 20.28 (HW) 18' - 20.28 (SW)
ST-29	CURB INLET	23.12	18' - 20.80 (HW) 18' - 20.80 (SW)
ST-30	CURB INLET	23.12	18' - 20.80 (HW) 18' - 20.80 (SW)
ST-31	CURB INLET	23.12	18' - 20.80 (HW) 18' - 20.80 (SW)
ST-32	CURB INLET	23.32	18' - 20.80 (HW) 18' - 20.80 (SW)
ST-33	CURB INLET	24.33	18' - 20.08 (HW)
ST-34	CURB INLET	23.30	18' - 20.30 (HW) 18' - 20.30 (SW)
ST-35	TYPE V INLET	24.10	18' - 20.80 (HW) 18' - 20.80 (SW)
ST-36	CURB INLET	23.03	18' - 18.70 (HW) 18' - 18.00 (SW)
ST-37	YARD INLET	23.10	18' - 18.20 (HW)

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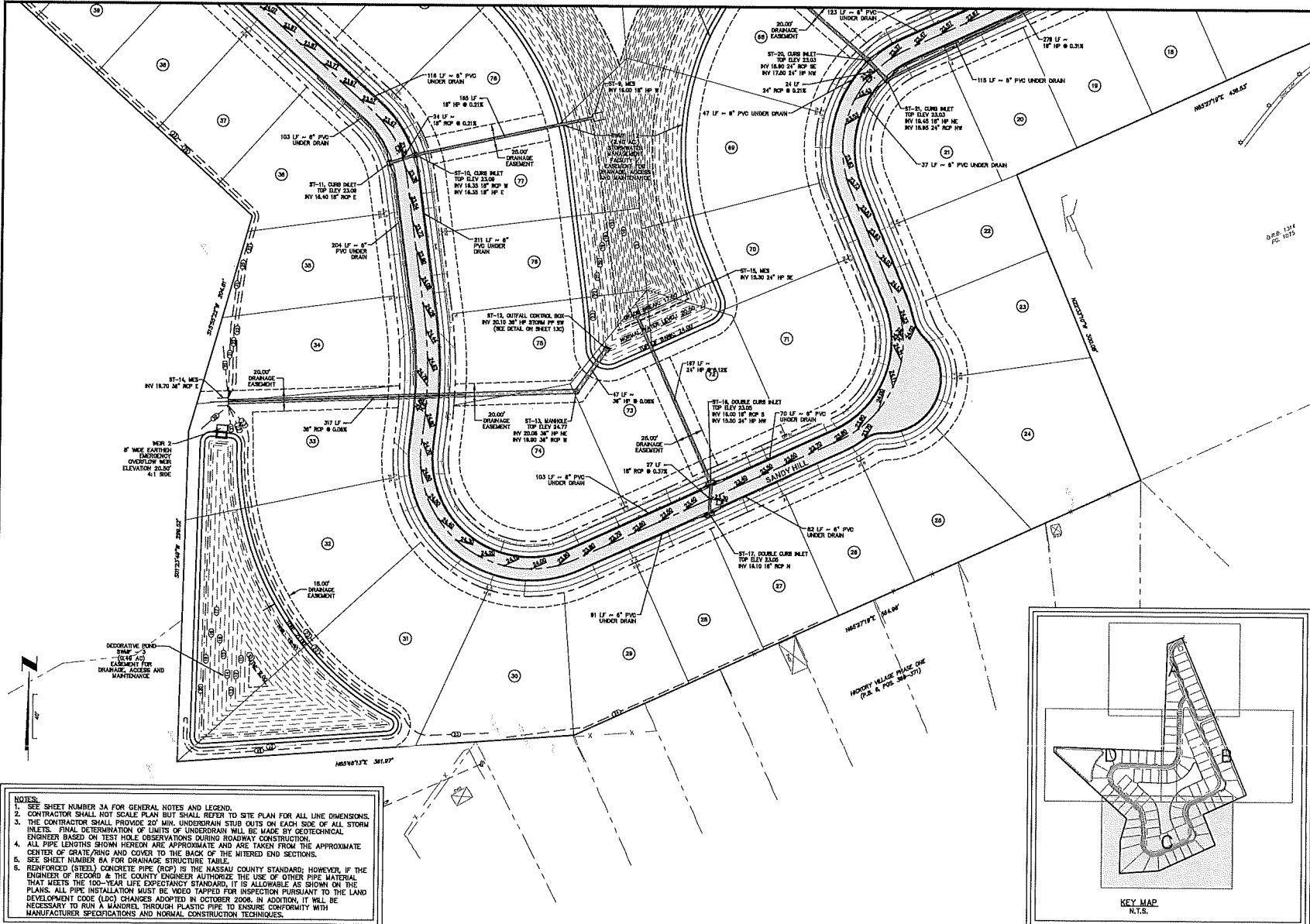
10860 Steiner Lake Drive, Suite 500 Jacksonville, Florida 32246  
 (904) 444-1111  
 Florida Registry 26560 L.A. Number LC2600031

**PAVING AND DRAINAGE PLAN**

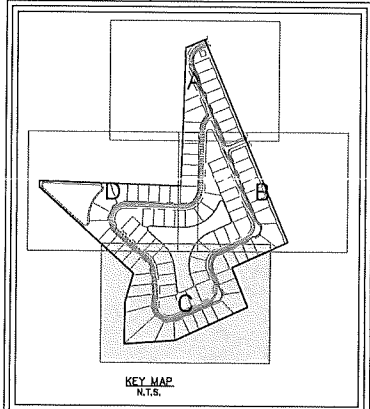
SANDY RIDGE  
 YULEE, FLORIDA  
 PREPARED FOR  
**SENAWIK INVESTMENT CORPORATION**

Project No.: 21-01-0000  
 Designed: MSL  
 Checked: O.C.  
 Date: August 9, 2021  
 Scale: 1" = 40'  
 Sheet: 8A

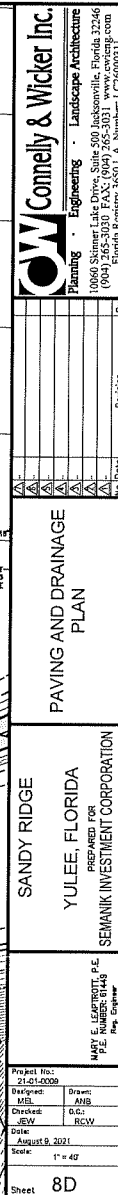
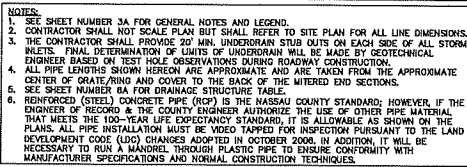




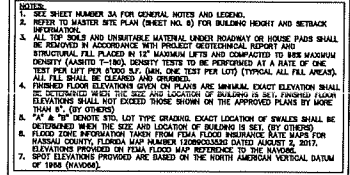
- NOTES:**
1. SEE SHEET NUMBER 3A FOR GENERAL NOTES AND LEGEND.
  2. THE CONTRACTOR SHALL NOT SCALE PLAN BUT SHALL REFER TO SITE PLAN FOR ALL LINE DIMENSIONS.
  3. THE CONTRACTOR SHALL PROVIDE 20 MIN. UNDERDRAIN STUD OUTS ON EACH SIDE OF ALL STORM INLETS. FINAL DETERMINATION OF LIMITS OF UNDERDRAIN WILL BE MADE BY GEOTECHNICAL ENGINEER BASED ON TEST HOLE OBSERVATIONS DURING ROADWAY CONSTRUCTION.
  4. ALL PIPE LENGTHS SHOWN HEREON ARE APPROXIMATE AND ARE TAKEN FROM THE APPROXIMATE CENTER OF GRATE/RING AND COVER TO THE BACK OF THE MITERED END SECTIONS.
  5. SEE SHEET NUMBER 8A FOR DRAINAGE STRUCTURE TABLE.
  6. REINFORCED (STEELED) CONCRETE PIPE (RCP) IS THE NASSAU COUNTY STANDARD; HOWEVER, IF THE ENGINEER OF RECORD & THE COUNTY ENGINEER AUTHORIZE THE USE OF OTHER PIPE MATERIAL THAT MEETS THE 100-YEAR LIFE EXPECTANCY STANDARD, IT IS ALLOWABLE AS SHOWN ON THE PLANS. ALL PIPE INSTALLATION MUST BE VIDEO TAPPED FOR INSPECTION PURSUANT TO THE LAND DEVELOPMENT CODE (LDC) CHANGES ADOPTED IN OCTOBER 2006. IN ADDITION, IT WILL BE NECESSARY TO RUN A HANDLED THROUGH PLASTIC PIPE TO ENSURE CONFORMITY WITH MANUFACTURER SPECIFICATIONS AND NORMAL CONSTRUCTION TECHNIQUES.



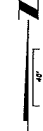
<b>OW Connelly &amp; Wicker Inc.</b> Engineering - Landscape Architecture 10060 Steiner Lake Drive, Suite 500 Jacksonville, Florida 32246 (904) 965-0001 FAX (904) 965-0002 www.connellywicker.com Florida Registered Professional Engineer License No. EC25000311		Project No.: 21-01-0009 Designer: MEL Checker: JEW Date: August 9, 2021 Scale: 1" = 40'	
		Sheet 8C	
PAVING AND DRAINAGE PLAN		SANDY RIDGE YULEE, FLORIDA PREPARED FOR: SEMANIK INVESTMENT CORPORATION	
MARY E. LEIGHTON, P.E. Professional Engineer		THIS DRAWING IS THE PROPERTY OF CONNELLY & WICKER INC. AND IS NOT TO BE REPRODUCED OR COPIED IN WHOLE OR IN PART. IT IS NOT TO BE USED ON ANY OTHER PROJECT AND IS TO BE RETURNED ON REQUEST.	











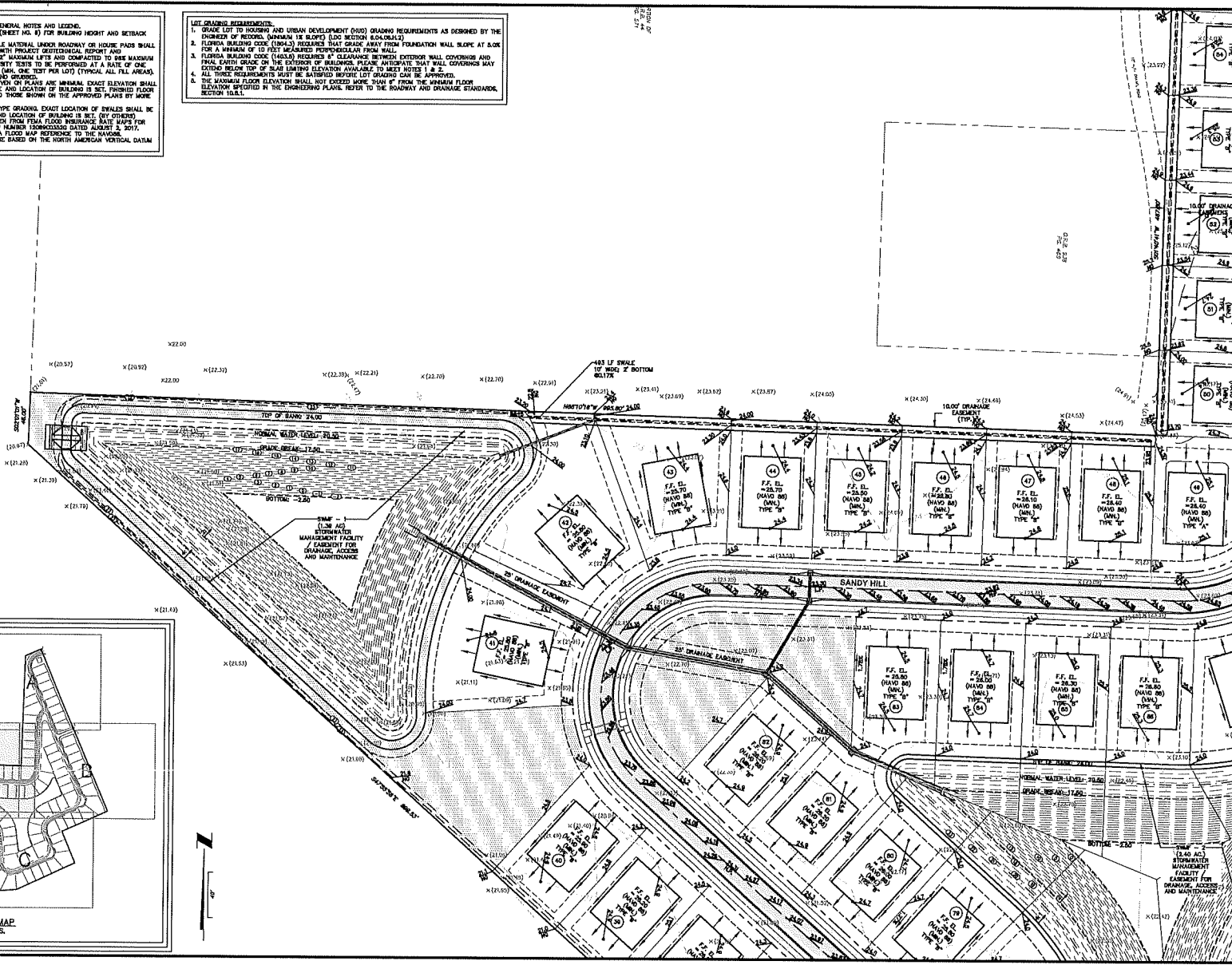
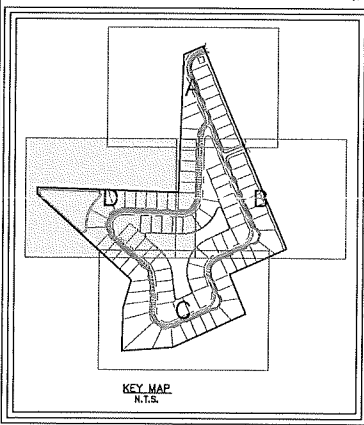
MARY E. LEAPROTT, P.E. P.E. NUMBER: 51449 Reg. Engineer	
Project No.: 21-01-0009	
Designed: MEL	Drawn: AHS
Checked: JEVW	C.C.: RCW
Date: August 9, 2021	
Scale: 1" = 40'	

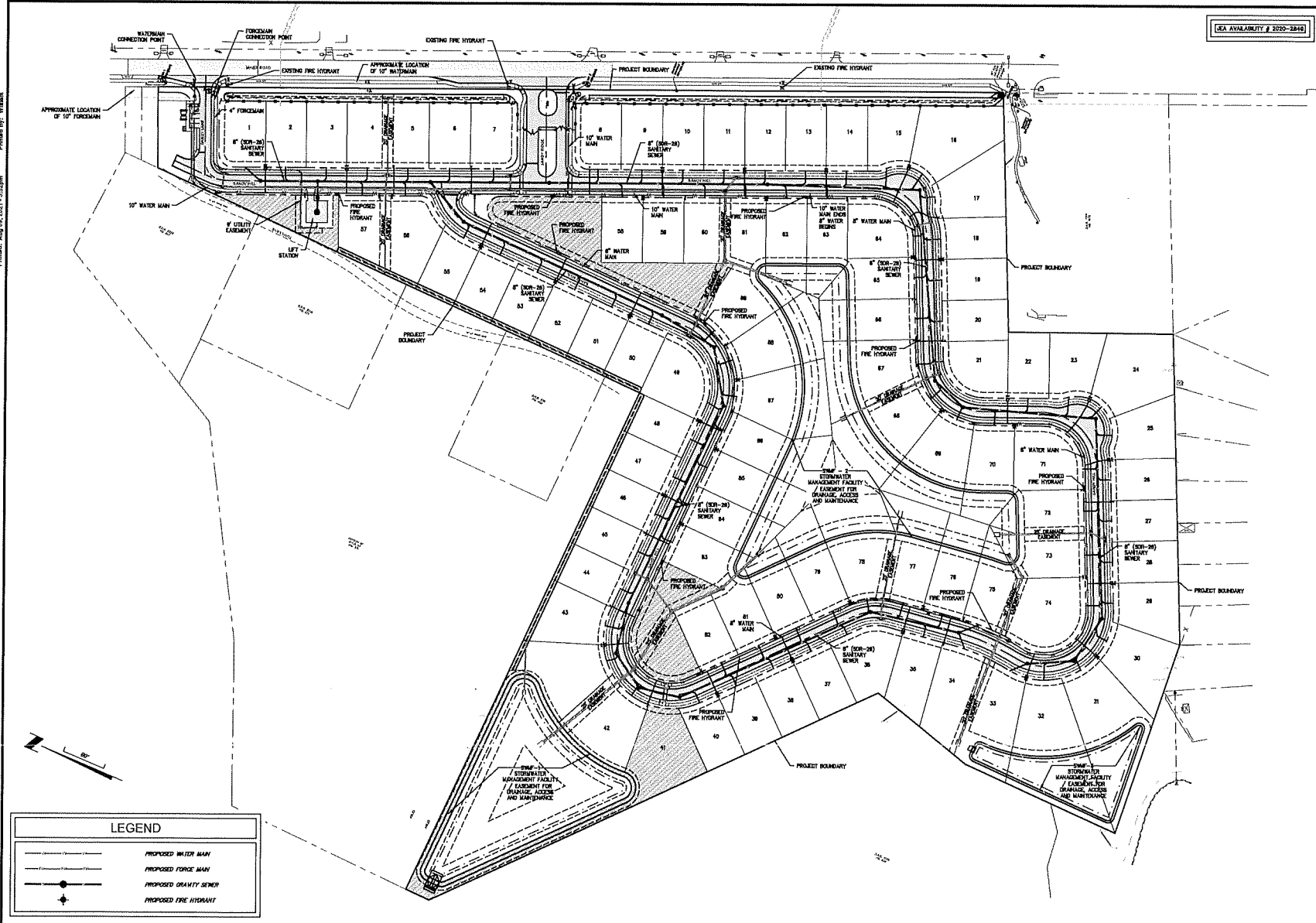
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J:\21\21-01-0009 Sandy Ridge\Design\Drawings\21-01-009 Grade-Sheets.dwg

- [illegible]

- LOT DRAINAGE REQUIREMENTS:**
1. THE LOT TO HOUSING AND URBAN DEVELOPMENT (RUD) DRAINAGE REQUIREMENTS AS DESIGNED BY THE INDEPENDENT ENGINEER (MINIMUM 18' SLOPE) (LOC SECTION 06A-09A.01)
  2. FLORIDA BUILDING CODE (FBC) 7-10.1 REQUIRES THAT GRASSY WALL FROM FOUNDATION LAND SCAPED BY A MINIMUM OF 10 FEET MEASURED PERPENDICULAR FROM WALL.
  3. FLORIDA BUILDING CODE (FBC) 7-10.5 REQUIRES 4' CLEARANCE BETWEEN EXISTING WALL COVERINGS AND NEW EXTERIOR GRADE OR EXTERIOR OF BALCONY. PLEASE ADVISE THAT WALL COVERINGS MAY EXTEND BELOW TOP OF SLAB LIMITING ELEVATION AVAILABLE TO MEET NOTES 1 & 2.
- ALL SUCH REQUIREMENTS MUST BE SATISFIED BEFORE LOT DRAINAGE CAN BE APPROVED.
- THE MAXIMUM FLOOR ELEVATION SHALL NOT EXCEED MORE THAN 8" FROM THE MINIMUM FLOOR ELEVATION SPECIFIED IN THE ENGINEERING PLANS. REFER TO THE ROADWAY AND DRAINAGE STANDARDS, SECTION 10A.1.

[illegible]



**COW Connelly & Wicker Inc.**

Planning • Engineering • Landscape Architecture

8000 S.W. 1st Avenue, Suite 500 Jacksonville, Florida 32206  
(904) 265-3030 FAX: (904) 265-3031  
Florida Registry 3630 L.A. Number: LC26000311

Project No: 21-01-0009

Designed: MSL

Checked: JEW

Date: JULY 21, 2021

Scale: 1" = 60'

Project No: 21-01-0009

Designed: MSL

Checked: JEW

Date: JULY 21, 2021

Scale: 1" = 60'

Project No: 21-01-0009

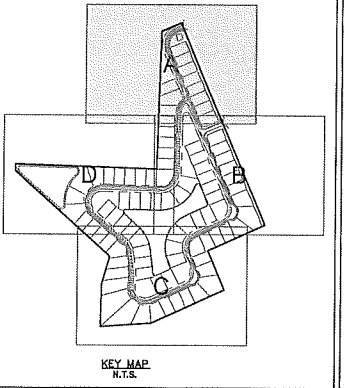
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Date: JULY 21, 2021

Scale: 1" = 60'

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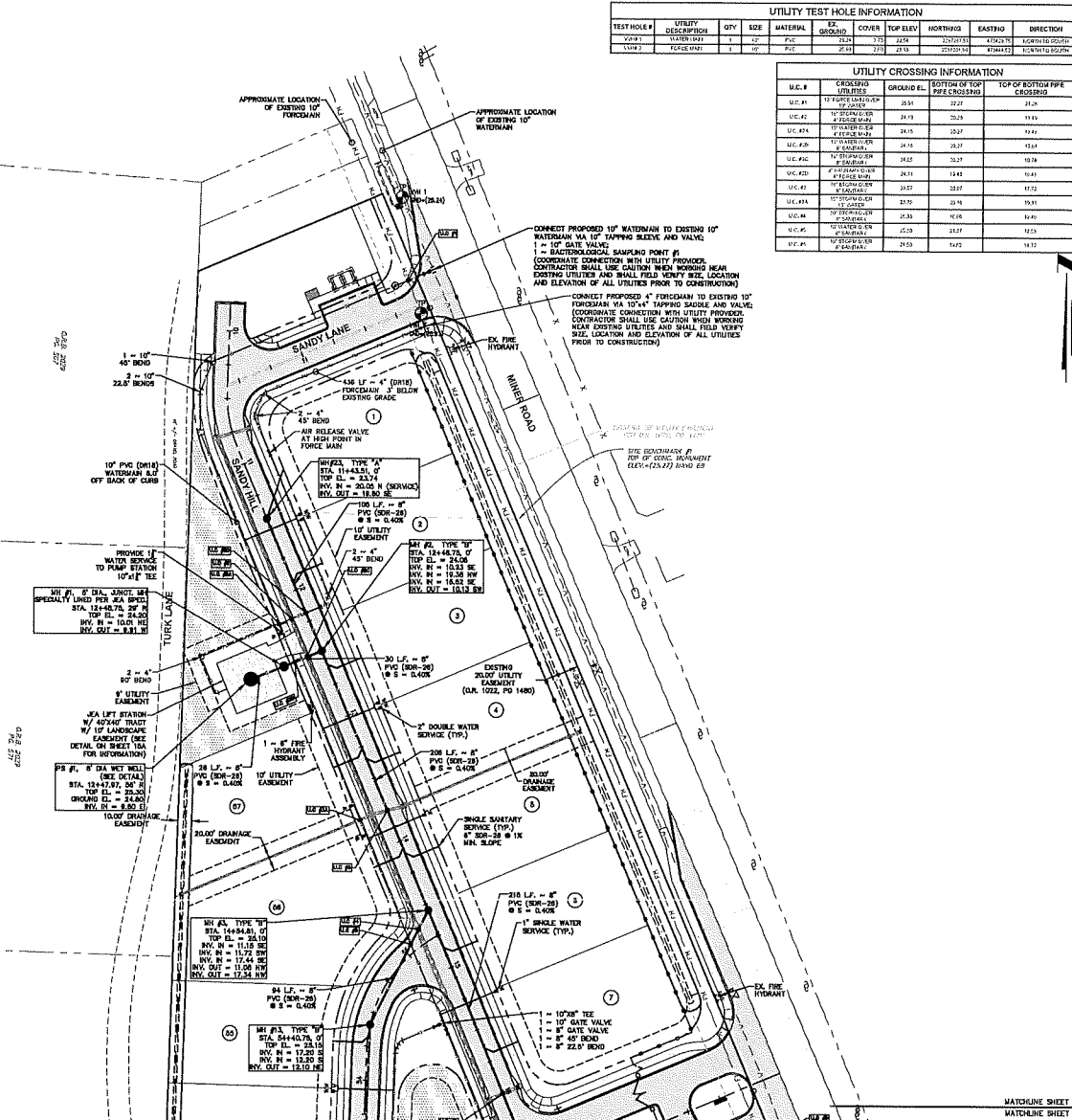


KEY MAP  
N.T.S.

# LEGEND



- NOTES:
1. REFER TO SHEET NUMBER 3 FOR GENERAL NOTES AND LEGEND.
  2. CONTRACTOR SHALL VERIFY ALL UTILITY CROSSINGS ON RECORD DRAWINGS. (INVERTS, LOCATIONS, SEPARATION, TOP OF PIPE, AND GROUND ELEVATION)
  3. CONTRACTOR SHALL MAINTAIN 12" MIN. VERTICAL SEPARATION BETWEEN ALL WATER MAIN CROSSINGS WITH REUSE MAINS. CONTRACTOR SHALL MAINTAIN 12" MIN. VERTICAL SEPARATION WHEN WATER MAIN IS ABOVE STORM SEWER OR GRAVITY SANITARY SEWER AND MAINTAIN 12" MIN. VERTICAL SEPARATION WHEN WATER MAIN IS BELOW STORM SEWER OR GRAVITY SANITARY SEWER. (SEE NOTE 2)
  4. CONTRACTOR SHALL MAINTAIN 3.0' MIN. HORIZONTAL SEPARATION BETWEEN WATER MAIN AND REUSE MAIN, OR STORM SEWER PIPE AND STRUCTURES. CONTRACTOR SHALL MAINTAIN 6' MIN. HORIZONTAL SEPARATION BETWEEN WATER MAIN AND FORCE MAIN OR GRAVITY SANITARY SEWER MAINS AND MANHOLES.
  5. ALL GATE VALVES SHALL HAVE A CAST IRON BOX AND SHALL BE LOCATED OUTSIDE OF PAVED AREAS, CURBS AND SIDEWALKS EXCEPT AS NOTED.
  6. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES (LOCATION AND INVERTS) AND SHALL EXERCISE CAUTION WHEN WORKING NEAR ALL EXISTING UTILITIES AND SHALL NOTIFY PROJECT ENGINEER IMMEDIATELY IF THERE ARE DISCREPANCIES OR CONFLICTS.
  7. ALL FIRE HYDRANT ASSEMBLIES SHALL INCLUDE A 6" TEE OR A 6" REDUCING TEE (AS REQUIRED) AND 1-6" GATE VALVE W/ CAST IRON BOX AND FIRE HYDRANT. (SEE DETAILS)
  8. FIRE HYDRANTS SHALL BE LOCATED 3.0' TO 10.0' OFF OF BACK OF CURB.
  9. CONSTRUCTION MATERIALS SHALL BE IN CONFORMANCE WITH UTILITY PROVIDER STANDARDS AND SPECIFICATIONS LATEST EDITION, UNLESS OTHERWISE SPECIFIED. ALL WATER MAINS SHALL BE 4" AND LARGER SHALL BE PVC (DR-18) AND ALL 2" WATER MAINS SHALL BE HDPE (SDR-41).
  10. ALL MANHOLE INVERT ELEVATIONS ARE AT CENTERLINE OF MANHOLE.
  11. WATER MAIN AND FORCE MAIN JOINTS SHALL BE MECHANICALLY RESTRAINED PER JEA DETAIL PLATE W-31A.



TEST HOLE #	UTILITY DESCRIPTION	QTY	SIZE	MATERIAL	EX. GROUND	COVER	TOP ELEV.	NORTHING	EASTING	DIRECTION
2201	10" WATER	1	10"	PVC	22.5	22.5	22.5	22.5	22.5	22.5
2202	4" FORCE MAIN	1	4"	PVC	22.5	22.5	22.5	22.5	22.5	22.5

U.C. #	CROSSING UTILITIES	CROSSING ELEV.	BOTTOM OF TOP PIPE CROSSING	TOP OF BOTTOM PIPE CROSSING
U.C. #1	10" WATER OVER 4" FORCE MAIN	22.5	22.5	22.5
U.C. #2	10" WATER OVER 4" FORCE MAIN	22.5	22.5	22.5
U.C. #3	10" WATER OVER 4" FORCE MAIN	22.5	22.5	22.5
U.C. #4	10" WATER OVER 4" FORCE MAIN	22.5	22.5	22.5
U.C. #5	10" WATER OVER 4" FORCE MAIN	22.5	22.5	22.5
U.C. #6	10" WATER OVER 4" FORCE MAIN	22.5	22.5	22.5
U.C. #7	10" WATER OVER 4" FORCE MAIN	22.5	22.5	22.5
U.C. #8	10" WATER OVER 4" FORCE MAIN	22.5	22.5	22.5
U.C. #9	10" WATER OVER 4" FORCE MAIN	22.5	22.5	22.5
U.C. #10	10" WATER OVER 4" FORCE MAIN	22.5	22.5	22.5
U.C. #11	10" WATER OVER 4" FORCE MAIN	22.5	22.5	22.5
U.C. #12	10" WATER OVER 4" FORCE MAIN	22.5	22.5	22.5
U.C. #13	10" WATER OVER 4" FORCE MAIN	22.5	22.5	22.5
U.C. #14	10" WATER OVER 4" FORCE MAIN	22.5	22.5	22.5
U.C. #15	10" WATER OVER 4" FORCE MAIN	22.5	22.5	22.5
U.C. #16	10" WATER OVER 4" FORCE MAIN	22.5	22.5	22.5
U.C. #17	10" WATER OVER 4" FORCE MAIN	22.5	22.5	22.5
U.C. #18	10" WATER OVER 4" FORCE MAIN	22.5	22.5	22.5
U.C. #19	10" WATER OVER 4" FORCE MAIN	22.5	22.5	22.5
U.C. #20	10" WATER OVER 4" FORCE MAIN	22.5	22.5	22.5

OW Connelly & Wicker Inc.  
 Planning - Engineering - Landscape Architecture  
 10800 N. US Highway 90, Suite 200  
 Jacksonville, Florida 32246  
 (904) 745-1030 • Fax: (904) 745-1033  
 Florida Registry #650 / A. Number: LC2400031

Project No.: 21-01-0006  
 Designed: MJB  
 Drawn: JAW  
 Checked: JAW  
 Date: August 9, 2021  
 Scale: 1" = 40'

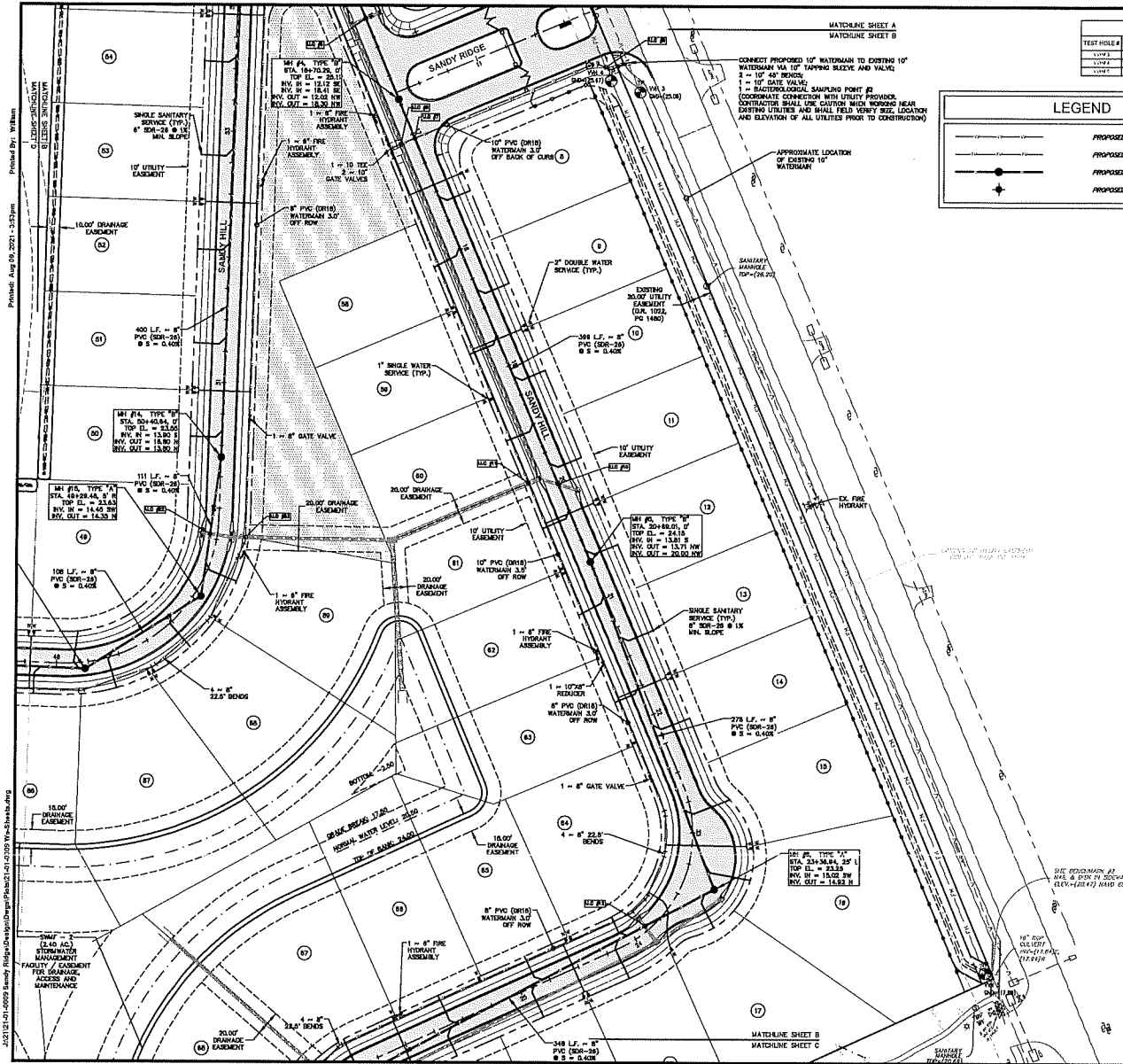
Project No.: 21-01-0006  
 Designed: MJB  
 Drawn: JAW  
 Checked: JAW  
 Date: August 9, 2021  
 Scale: 1" = 40'

WATER AND SEWER PLAN

SANDY RIDGE  
 YULEE, FLORIDA  
 PREPARED FOR  
 SEMANIK INVESTMENT CORPORATION

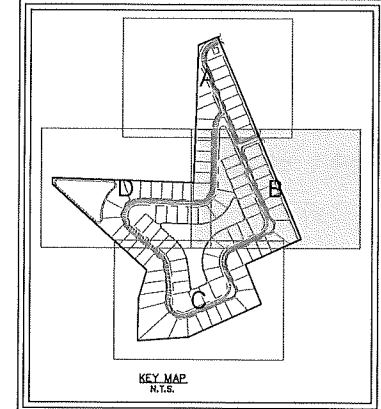
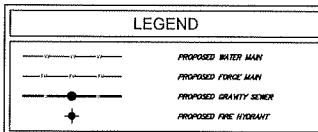
MADE E. KASPER, P.E.  
 REG. ENGINEER  
 FLORIDA REG. NO. 12450

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UTILITY TEST HOLE INFORMATION									
TEST HOLE #	UTILITY	DEPTH	SIZE	MATERIAL	COVER	TOP ELEV.	NORTHING	EASTING	DIRECTION
U-1	WATER MAIN	4'	12"	PVC	BRASS	21.25	21024.4	47512.7	12" WATER MAIN
U-2	FORCE MAIN	1'	12"	PVC	BRASS	21.25	21024.4	47512.7	12" FORCE MAIN
U-3	FORCE MAIN	1'	12"	PVC	BRASS	21.25	21024.4	47512.7	12" FORCE MAIN

LEGEND	UTILITY CROSSING INFORMATION			
	U.C. #	CROSSING UTILITIES	GROUND EL.	TOP OF BOTTOM PIPE CROSSING
PROPOSED WATER MAIN	U.C. #1	12" WATER MAIN 10' DEPTH	21.25	21.25
	U.C. #2	12" WATER MAIN 10' DEPTH	21.25	21.25
PROPOSED FORCE MAIN	U.C. #3	12" FORCE MAIN 10' DEPTH	21.25	21.25
	U.C. #4	12" FORCE MAIN 10' DEPTH	21.25	21.25
PROPOSED GRAVITY SEWER	U.C. #10	8" GRAVITY SEWER 10' DEPTH	21.24	21.11
	U.C. #11	12" WATER MAIN 10' DEPTH	21.25	21.25
PROPOSED FIRE HYDRANT	U.C. #12	12" WATER MAIN 10' DEPTH	21.25	21.25
	U.C. #13	12" WATER MAIN 10' DEPTH	21.25	21.25
	U.C. #14	12" WATER MAIN 10' DEPTH	21.25	21.25
	U.C. #15	8" WATER MAIN 10' DEPTH	21.25	21.11



- NOTES:**
- REFER TO SHEET NUMBER 3 FOR GENERAL NOTES AND LEGEND.
  - CONTRACTOR SHALL VERIFY ALL UTILITY CROSSINGS ON RECORD DRAWINGS. (INVERTS, LOCATIONS, SEPARATION, TOP OF PIPE, AND GROUND ELEVATION).
  - CONTRACTOR SHALL MAINTAIN 12" MIN. VERTICAL SEPARATION BETWEEN ALL WATER MAIN CROSSINGS WITH REUSE MAINS. CONTRACTOR SHALL MAINTAIN 12" MIN. VERTICAL SEPARATION WHEN WATER MAIN IS ABOVE STORM SEWER OR GRAVITY SANITARY SEWER AND MAINTAIN 12" MIN. VERTICAL SEPARATION WHEN WATER MAIN IS BELOW STORM SEWER OR GRAVITY SANITARY SEWER. CONTRACTOR SHALL VERIFY CROSSINGS ON RECORD DRAWINGS (SEE NOTE 2).
  - CONTRACTOR SHALL MAINTAIN 3.0' MIN. HORIZONTAL SEPARATION BETWEEN WATER MAIN AND REUSE MAIN, OR STORM SEWER PIPE AND STRUCTURES. CONTRACTOR SHALL MAINTAIN 8' MIN. HORIZONTAL SEPARATION BETWEEN WATER MAIN AND FORCE MAIN OR GRAVITY SANITARY SEWER MAINS AND MANHOLES.
  - ALL GATE VALVES SHALL HAVE A CAST IRON BOX AND SHALL BE LOCATED OUTSIDE OF PAVED AREAS, CURBS AND SIDEWALKS EXCEPT AS NOTED.
  - PRIOR TO CONSTRUCTION, CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES (LOCATION AND INVERTS) AND SHALL EXERCISE CAUTION WHEN WORKING NEAR ALL EXISTING UTILITIES AND SHALL NOTIFY PROJECT ENGINEER IMMEDIATELY IF THERE ARE DISCREPANCIES OR CONFLICTS.
  - ALL FIRE HYDRANT ASSEMBLIES SHALL INCLUDE A 6" TEE OR A 6" REDUCING TEE (AS REQUIRED) AND 1-8" GATE VALVE W/ CAST IRON BOX AND FIRE HYDRANT. (SEE DETAILS).
  - FIRE HYDRANTS SHALL BE LOCATED 3.0' TO 10.0' OFF OF BACK OF CURB.
  - CONSTRUCTION MATERIALS SHALL BE IN CONFORMANCE WITH UTILITY PROVIDER STANDARDS AND SPECIFICATIONS LATEST EDITION, UNLESS OTHERWISE SPECIFIED. ALL WATER MAINS SIZE 4" AND LARGER SHALL BE PVC (DR-18) AND ALL 2" WATER MAINS SHALL BE HDPE (COR-9).
  - ALL MANHOLE INVERT ELEVATIONS ARE AT CENTERLINE OF MANHOLE.
  - WATER MAIN AND FORCE MAIN JOINTS SHALL BE MECHANICALLY RESTRAINED PER JEA DETAIL PLATE W-31A.

Planning Engineering Landscape Architecture

10800 Sandy Ridge Road, Suite 200, Jacksonville, Florida 32256

(904) 265-1030 FAX: (904) 265-1031

Florida Registry 3650 L.A. Number: LC2600311

**OW Connelly & Wicker Inc.**

Project Title: SANDY RIDGE WATER AND SEWER PLAN

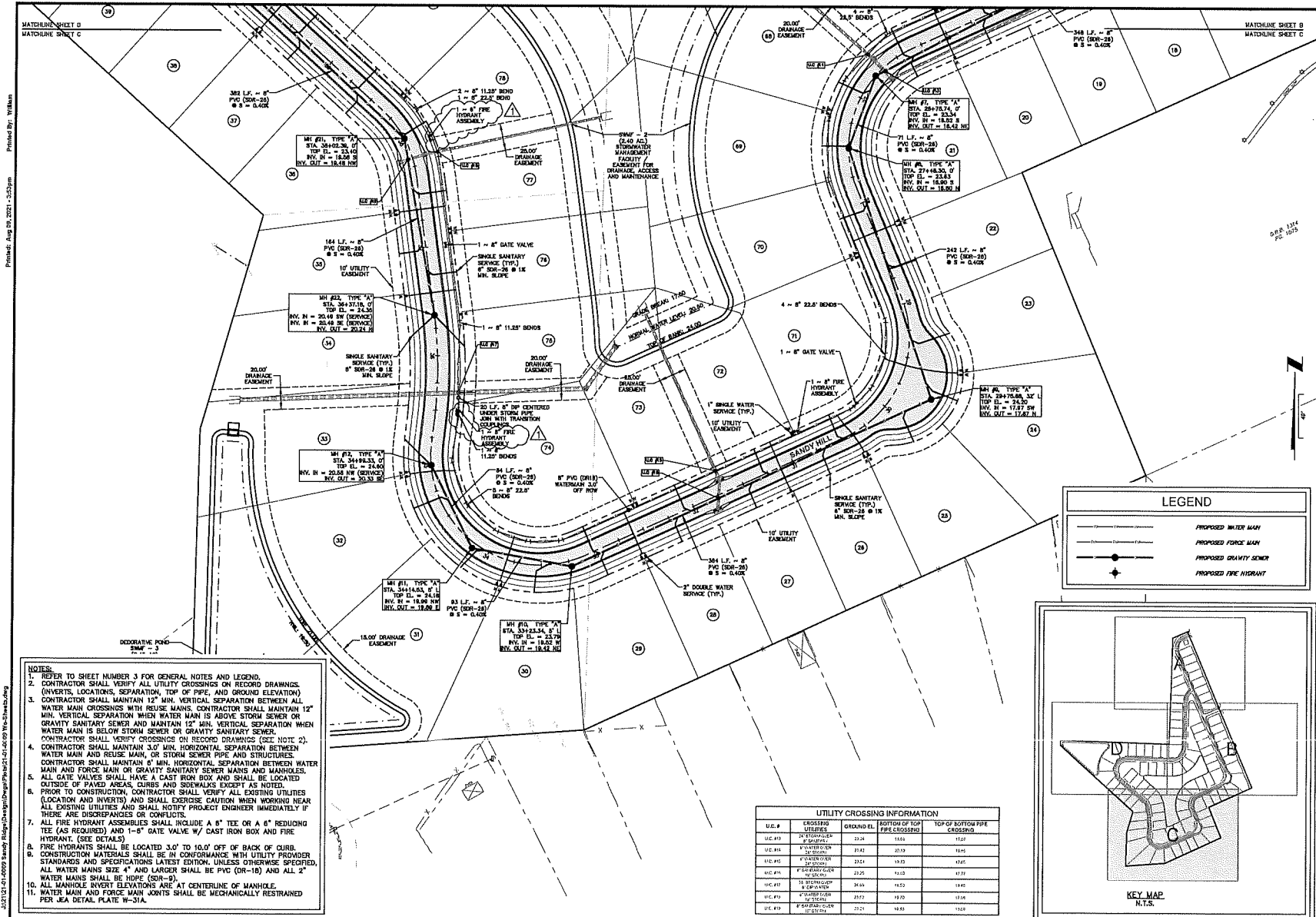
Prepared For: SEPAWINK INVESTMENT CORPORATION

Map & Landmark: P.E. YULEE, FLORIDA

Scale: 1" = 40'

Sheet 11B



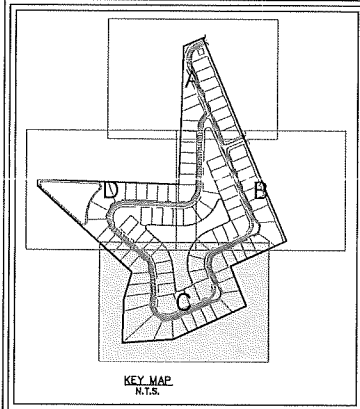


- NOTES:**
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  3. CONTRACTOR SHALL MAINTAIN 12" MIN. VERTICAL SEPARATION BETWEEN ALL WATER MAIN CROSSINGS WITH REUSE MAINS. CONTRACTOR SHALL MAINTAIN 12" MIN. VERTICAL SEPARATION WHEN WATER MAIN IS ABOVE STORM SEWER OR GRAVITY SANITARY SEWER.
  4. CONTRACTOR SHALL MAINTAIN 12" MIN. VERTICAL SEPARATION WHEN WATER MAIN IS BELOW STORM SEWER OR GRAVITY SANITARY SEWER.
  5. CONTRACTOR SHALL VERIFY CROSSINGS ON RECORD DRAWINGS (SEE NOTE 2).
  6. CONTRACTOR SHALL MAINTAIN 3.0' MIN. HORIZONTAL SEPARATION BETWEEN WATER MAIN AND REUSE MAIN, OR STORM SEWER PIPE AND STRUCTURES.
  7. CONTRACTOR SHALL MAINTAIN 6" MIN. HORIZONTAL SEPARATION BETWEEN WATER MAIN AND FORCE MAIN OR GRAVITY SANITARY SEWER MAINS AND MANHOLES.
  8. ALL GATE VALVES SHALL HAVE A CAST IRON BOX AND SHALL BE LOCATED OUTSIDE OF PAVED AREAS, CURBS AND SIDEWALKS EXCEPT AS NOTED.
  9. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES (LOCATION AND INVERTS) AND SHALL EXERCISE CAUTION WHEN WORKING NEAR ALL EXISTING UTILITIES AND SHALL NOTIFY PROJECT ENGINEER IMMEDIATELY IF THERE ARE DISCREPANCIES OR CONFLICTS.
  10. ALL FIRE HYDRANT ASSEMBLIES SHALL INCLUDE A 6" TEE OR A 6" REDUCING TEE (AS REQUIRED) AND 1-6" GATE VALVE W/ CAST IRON BOX AND FIRE HYDRANT. (SEE DETAILS).
  11. FIRE HYDRANTS SHALL BE LOCATED 3.0' TO 10.0' OFF OF BACK OF CURB.
  12. CONSTRUCTION MATERIALS SHALL BE IN CONFORMANCE WITH UTILITY PROVIDER STANDARDS AND SPECIFICATIONS LATEST EDITION, UNLESS OTHERWISE SPECIFIED.
  13. ALL WATER MAINS SIZE 4" AND LARGER SHALL BE PVC (DR-18) AND ALL 2" WATER MAINS SHALL BE HDPE (SDR-35).
  14. ALL MANHOLE INVERT ELEVATIONS ARE AT CENTERLINE OF MANHOLE.
  15. WATER MAIN AND FORCE MAIN JOINTS SHALL BE MECHANICALLY RESTRAINED PER JEA DETAIL PLATE W-31A.

UTILITY CROSSING INFORMATION				
LOC. #	CROSSING UTILITIES	GROUND EL.	BOTTOM OF TOP PIPE CROSSING	TOP OF BOTTOM PIPE CROSSING
LOC. #1	12" WATER MAIN OVER 6" SANITARY	31.42	18.81	15.00
LOC. #2	4" WATER MAIN OVER 6" SANITARY	31.42	18.75	14.95
LOC. #3	4" WATER MAIN OVER 6" SANITARY	32.51	19.73	15.65
LOC. #4	6" SANITARY OVER 6" WATER MAIN	33.25	19.13	17.71
LOC. #5	12" WATER MAIN OVER 6" SANITARY	34.45	19.53	15.85
LOC. #6	4" WATER MAIN OVER 6" SANITARY	33.57	19.70	15.56
LOC. #7	6" SANITARY OVER 12" WATER MAIN	32.21	18.81	15.00

**LEGEND**

	PROPOSED WATER MAIN
	PROPOSED FORCE MAIN
	PROPOSED GRAVITY SEWER
	PROPOSED FIRE HYDRANT



**CW Connelly & Wicker Inc.**  
Planning - Engineering - Landscape Architecture  
10865 S.W. 11th St., Suite 400, Jacksonville, Florida 32246  
(904) 265-1031 FAX: (904) 265-1031  
Florida Registry 3650 L.A. Number: LC2600031

**WATER AND SEWER PLAN**

**SANDY RIDGE**

**YULEE, FLORIDA**

PREPARED FOR:  
**SENAK INVESTMENT CORPORATION**

Project File:  
21-011-0000

Designed: **ANL**

Checked: **GCL**

Drawn: **RCW**

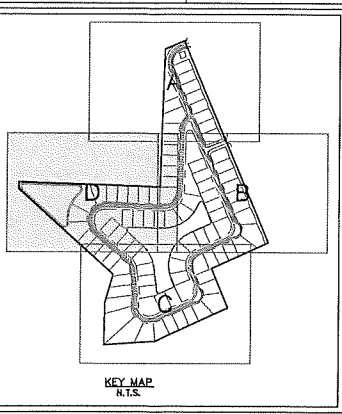
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August 9, 2021

Scale:  
1" = 40'





Sheet **11C**

Printed: Aug 29, 2021 - 2:52pm  
Printed By: William

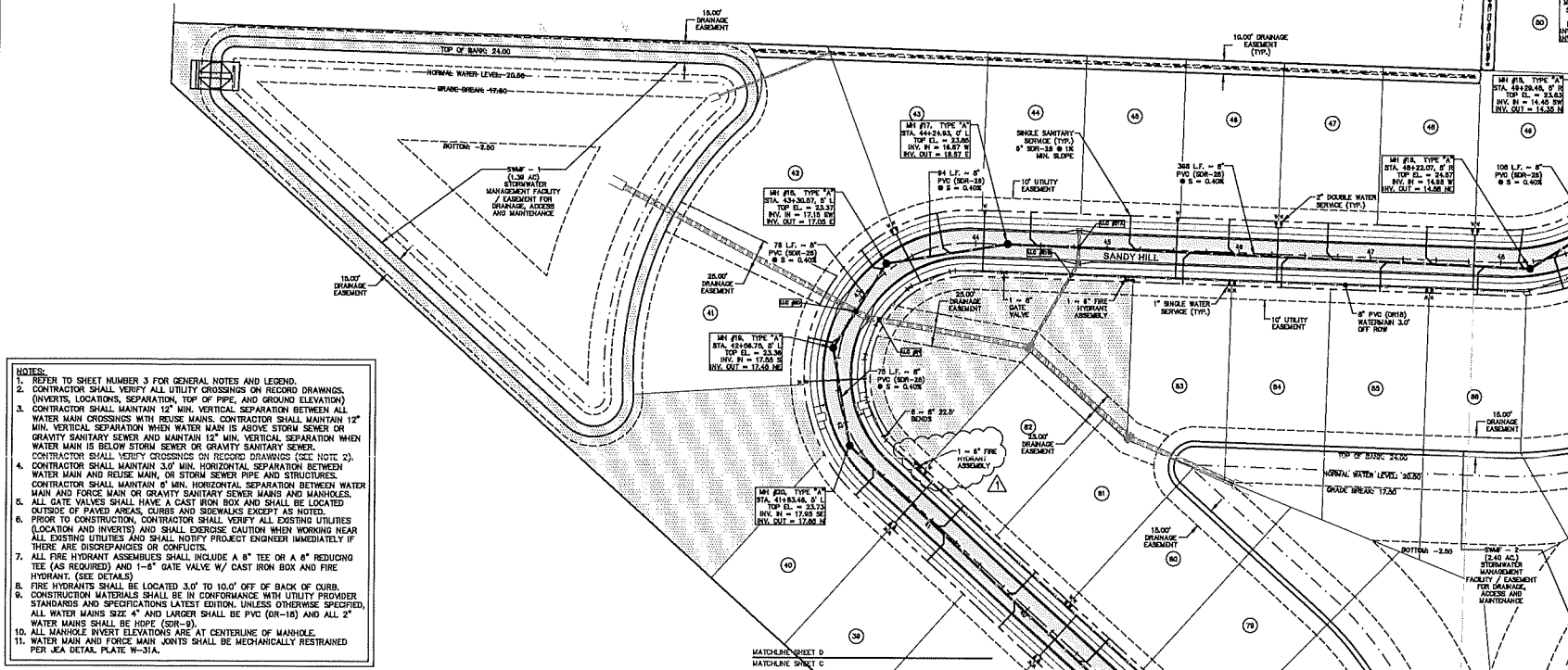





### LEGEND

 1) Minimum 2) Maximum 3) Observation  1) Minimum 2) Maximum 3) Observation  1) Minimum 2) Maximum 3) Observation  1) Minimum 2) Maximum 3) Observation	<p><i>PROPOSED WATER MAIN</i></p> <p><i>PROPOSED FORCE MAIN</i></p> <p><i>PROPOSED GRAVITY SEWER</i></p> <p><i>PROPOSED FIRE HYDRANT</i></p>
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MATCHLINE SHEET A				
MATCHLINE SHEET D				
UTILITY CROSSING INFORMATION				
U.C. #	CROSSING UTILITIES	GROUND EL.	BOTTOM OF TOP PIPE CROSSING	TOP OF BOTTOM PIPE CROSSING
U.C. #01	8" POLYETHYLENE PIPE (PE-80)	21.21	17.29	18.10
U.C. #02	8" POLYETHYLENE PIPE (PE-80)	21.47	18.72	18.50
U.C. #10A	12" STEEL PIPE (A) 2'-0" DIA.	22.59	15.36	17.05
U.C. #21B	16" STEEL PIPE (B) 4'-0" DIA.	20.02	19.03	12.00

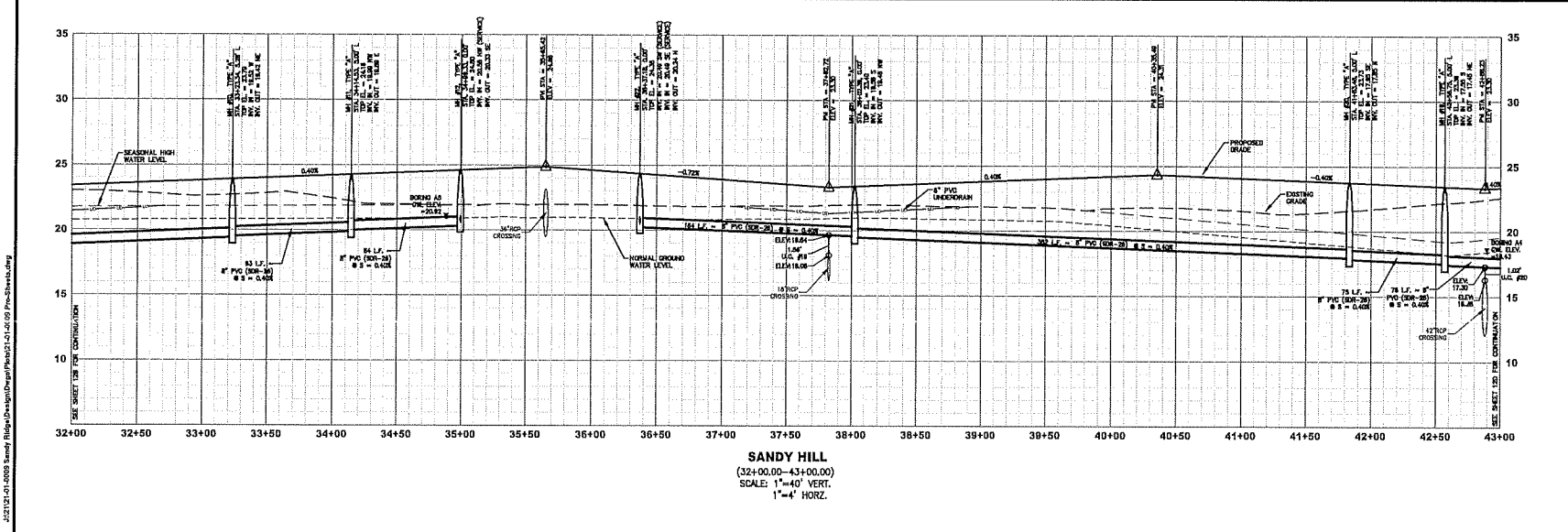
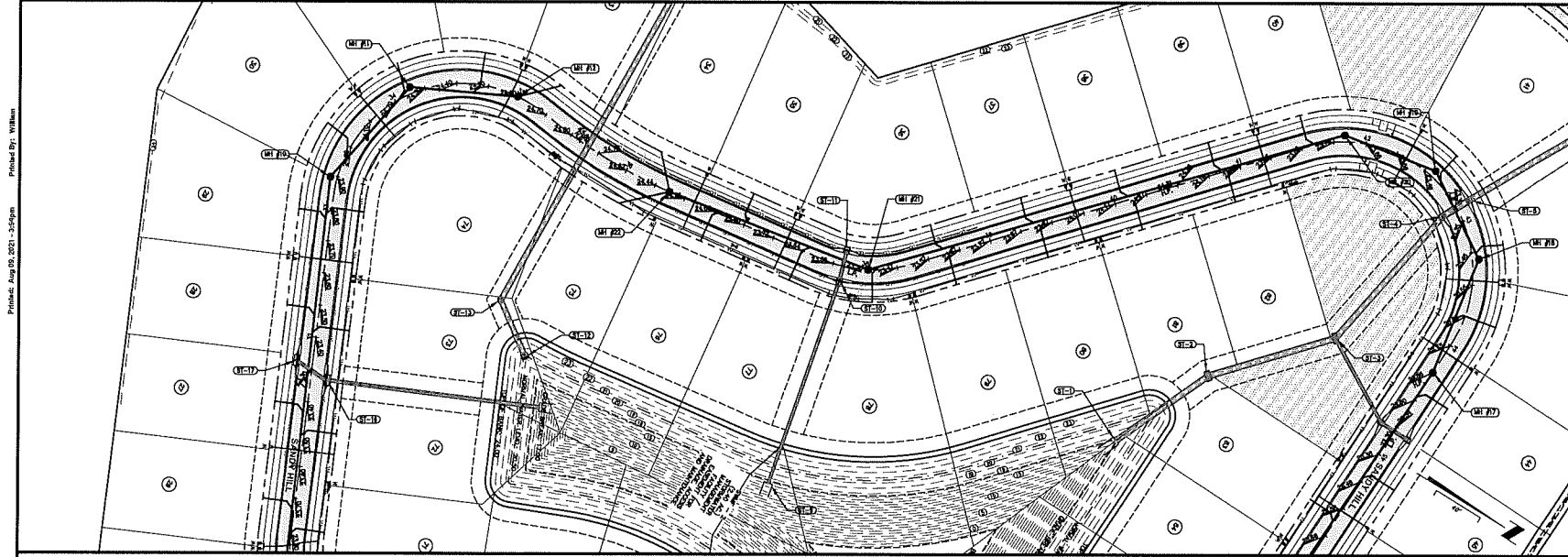


- NOTES:
1. REFER TO SHEET NUMBER 3 FOR GENERAL NOTES AND LEGEND.
  2. CONTRACTOR SHALL VERIFY ALL UTILITIES CROSSINGS ON RECORD DRAWINGS. (INVERTS, LOCATIONS, SEPARATION TOP OF PIPE AND GROUND ELEVATION)
  3. CONTRACTOR SHALL MAINTAIN 12" MIN. VERTICAL SEPARATION BETWEEN ALL EXISTING UTILITIES AND NEW STRUCTURE. CONTRACTOR SHALL MAINTAIN 12" MIN. VERTICAL SEPARATION WHEN WATER MAIN IS ABOVE STORM SEWER. GRAVITY SANITARY SEWER AND MAINTAIN 12" MIN. VERTICAL SEPARATION WHEN WATER MAIN IS BELOW STORM SEWER. CONTRACTOR SHALL VERIFY CROSSINGS ON RECORD DRAWINGS (SEE NOTE 2).
  4. CONTRACTOR SHALL MAINTAIN 30" MIN. HORIZONTAL SEPARATION BETWEEN MAIN AND MAIN. CONTRACTOR SHALL MAINTAIN 30" MIN. HORIZONTAL SEPARATION BETWEEN CONTRACTOR SHALL MAINTAIN 6" MIN. HORIZONTAL SEPARATION BETWEEN MAIN AND FORCE MAIN OR GRAVITY SANITARY SEWER MAINS AND MANHOLES. CONTRACTOR SHALL MAINTAIN 6" MIN. HORIZONTAL SEPARATION BETWEEN MAINS OUTSIDE OF PAVED AREAS, CURBS AND SIDEWALKS EXCEPT AS NOTED.
  5. POWER CABLES SHALL BE INSTALLED IN CONCRETE OR METAL ENCLOSURES (ENCLOSURE AND INVERTS) AND SHALL EXERCISE CAUTION WHEN WORKING NEAR ALL EXISTING UTILITIES AND SHALL NOTIFY PROJECT ENGINEER IMMEDIATELY IF DISCOVERY OF ANY UNRECORDED UTILITIES ARE DISCOVERED.
  6. ALL FIRE HYDRANT ASSEMBLIES SHALL INCLUDE A "B" TEE OR A "B" REDUCING TEE. REQUIRED) AND 1-8" GATE VALVE W/ CAST IRON BOX AND FIRE HYDRANT. (SEE DETAIL)
  7. ALL FIRE HYDRANTS SHALL BE LOCATED 30' TO 100' OFF OF BACK OF CURB.
  8. PROTECTION OF EXISTING UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL VERIFY ALL UTILITIES CROSSINGS ON RECORD DRAWINGS. STANDARDS AND SPECIFICATIONS LATEST EDITION UNLESS OTHERWISE NOTED. MAIN WATER MAINS SIZE 4" AND LARGER SHALL BE PVC (R10-18) AND MAIN 2" AND SMALLER SHALL BE DUCTILE IRON (R10-18).
  9. ALL MANHOLE INVERT ELEVATIONS ARE AT CENTERLINE OF MANHOLE.
  10. WATER MAIN AND FORCE MAIN JOINTS SHALL BE MECHANICALLY RESTRAINED.

<p>Project No.: 21-01-0000</p> <p>Background: MEL Checked: JEW</p> <p>Date: August 9, 2021</p> <p>Score: 1" = 40'</p>	<p>Prepared for: SEAWALK INVESTMENT CORPORATION</p> <p>MARY E. LACROTT, P.E. P.E. No. 0445</p>	<p>SANDY RIDGE YULEE, FLORIDA</p> <p>WATER AND SEWER PLAN</p>	<p>  <b>Connelly &amp; Wicker Inc.</b>          Planning • Engineering • Landscape Architecture          10000 Steiner Lake Drive, Suite 500 Indogomille, Florida 32746          (407) 499-7800 FAX: (407) 205-3031 www.connellywicker.com          Florida License No. 13501       </p>
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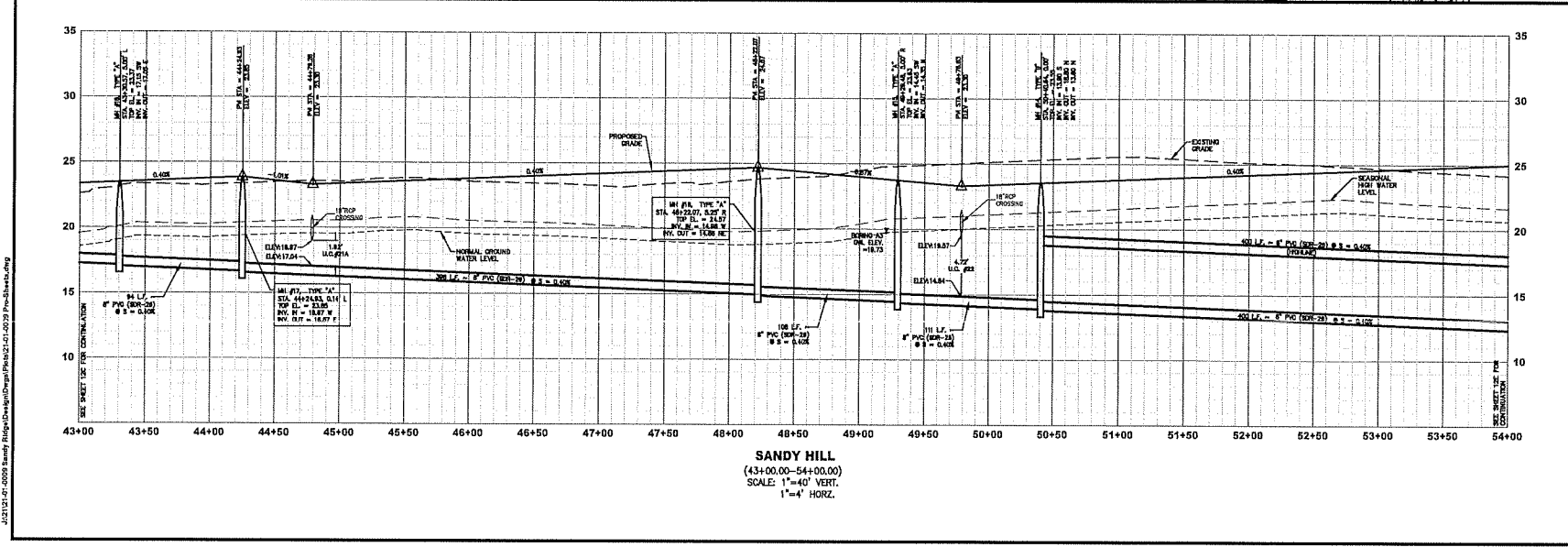
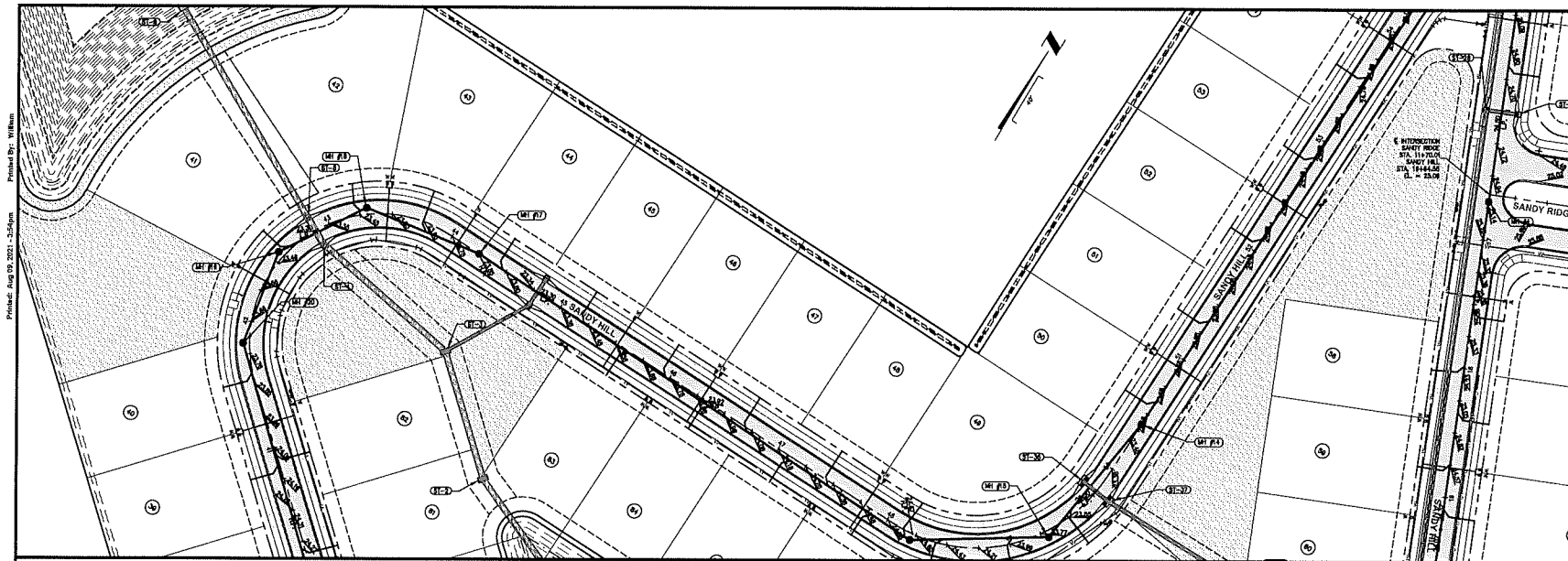






**SANDY HILL**  
(32+00.00-43+00.00)  
SCALE: 1"=40' VERT.  
1"=4' HORIZ.

<b>COW</b> Connelly & Wicker Inc. Planning · Engineering · Landscape Architecture 10900 Sunset Lakes Drive, Suite 500 Jacksonville, Florida 32246 (904) 444-3030 Fax (904) 444-3031 Email: info@cowinc.com Florida Registry 3650 L.A. Number: LC2600031	
Project No. 21-01-0009	Prepared For SEAMARK INVESTMENT CORPORATION
Designed: DWM MFL Checked: G.C. JMW Date: JULY 21, 2021 Scale: 1"=40'	Project Title SANDY RIDGE YULEE, FLORIDA
PLAN AND PROFILES	
SHEET 12C	



Project File: 21-01-0008

Designed: MMS

Checked: JEW

Date: JULY 21, 2021

Scale: 1" = 40'

Sheet: 12D

Drawn: ANR

C.C.: RCW

By: MMS

For: SENAIK INVESTMENT CORPORATION

SANDY RIDGE

YULEE, FLORIDA

PLAN AND PROFILES

OW Connelly & Wicker Inc.

Planning Engineering Landscape Architecture

10885 Sandhill Lane, Suite 100, Jacksonville, Florida 32246

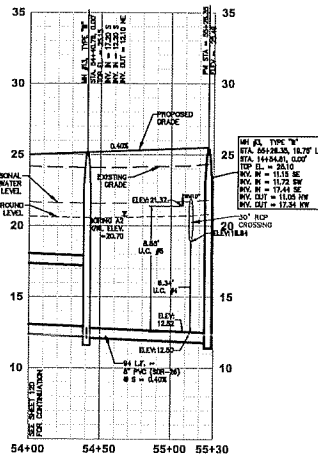
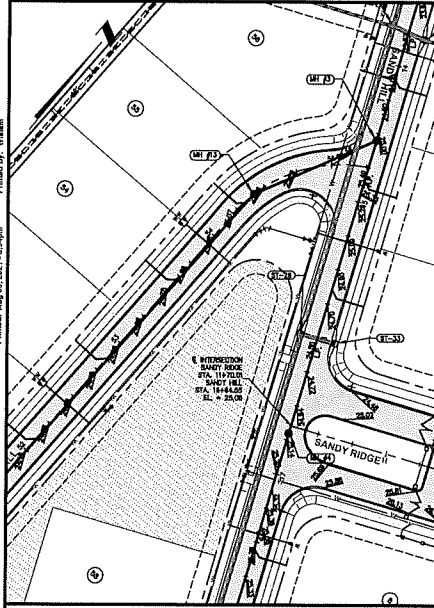
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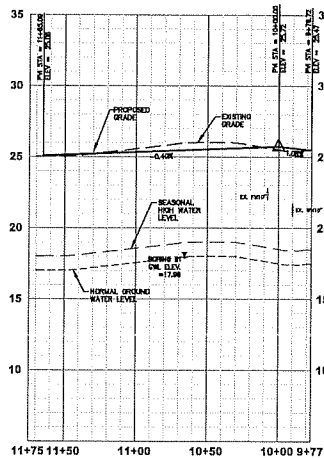
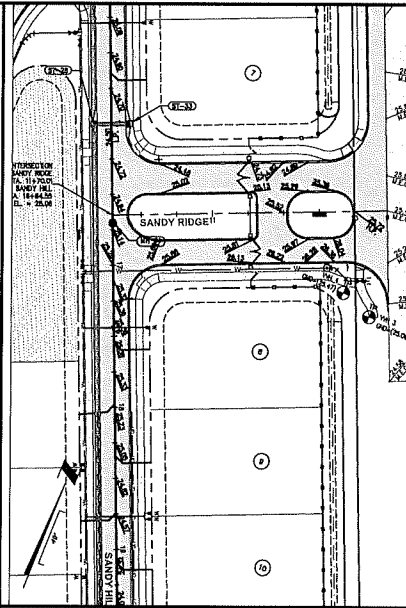
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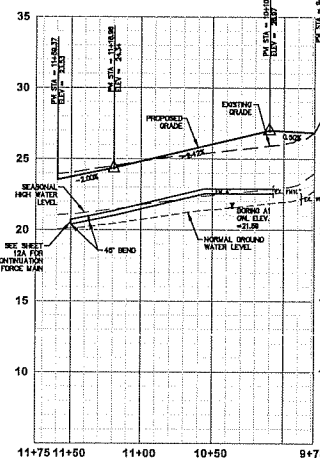
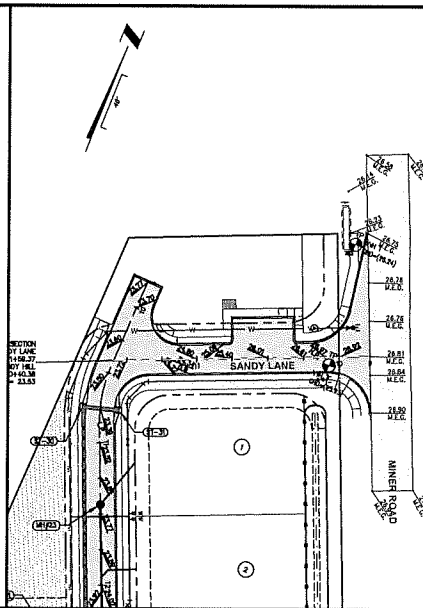
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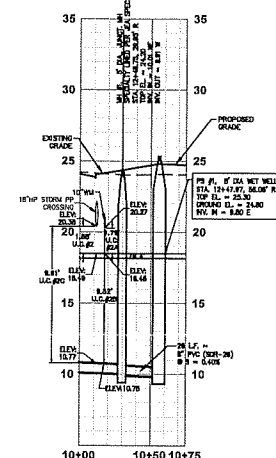
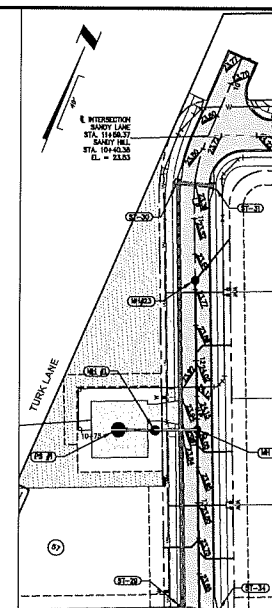
**SANDY HILL**  
(54+00.00-55+30.00)  
SCALE: 1"=40' VERT.  
1"=4' HORIZ.



**SANDY RIDGE**  
(9+78.68-11+75.00)  
SCALE: 1"=40' VERT.  
1"=4' HORIZ.

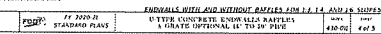
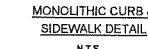
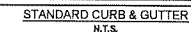
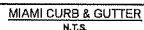
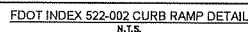
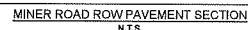
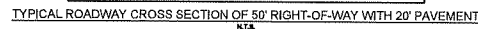


**SANDY LANE**  
(9+78.38-11+75.00)  
SCALE: 1"=40' VERT.  
1"=4' HORIZ.

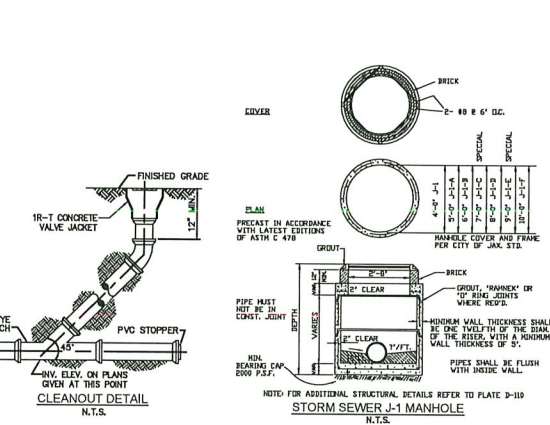
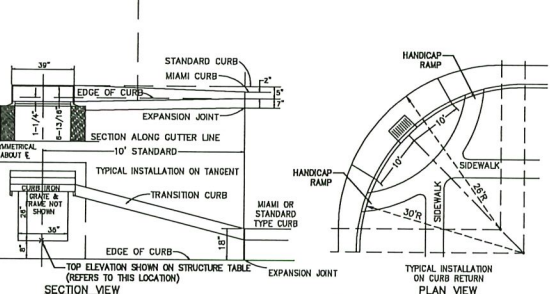
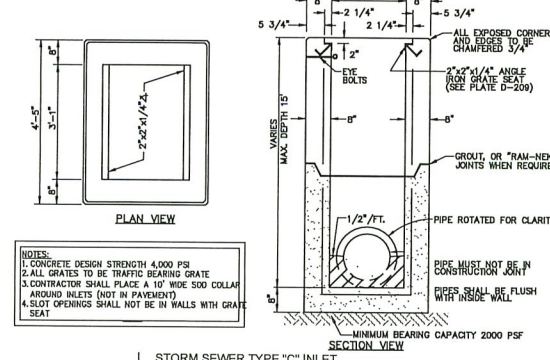
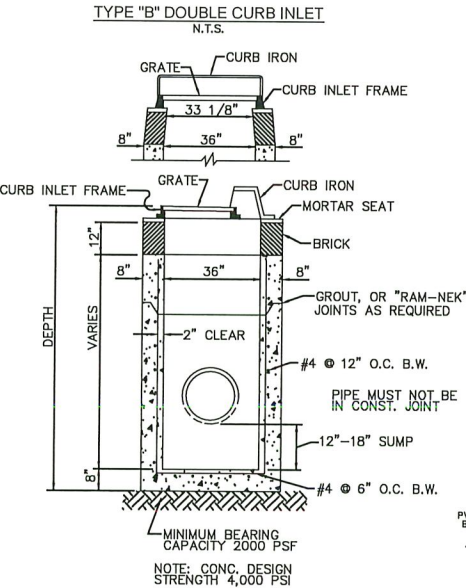
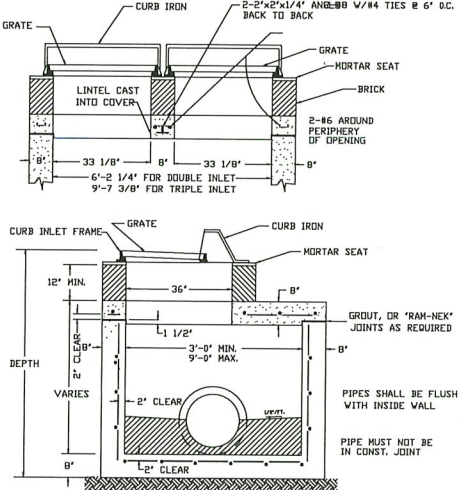
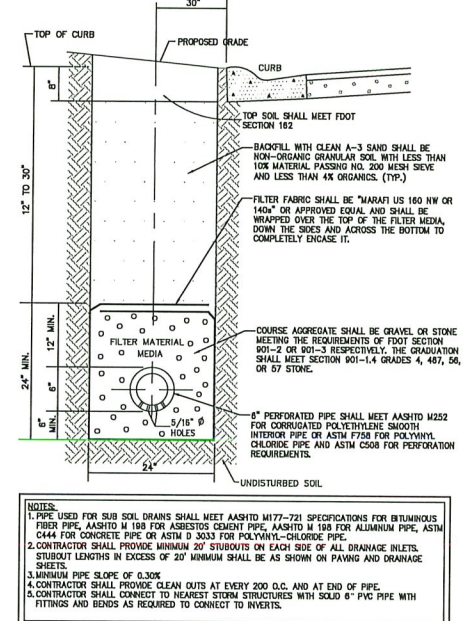
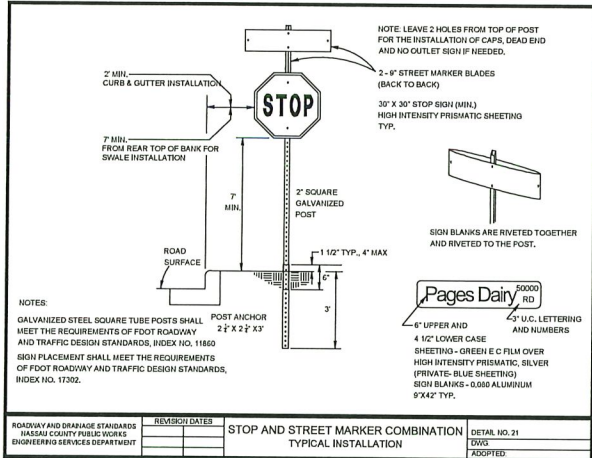


**PUMP STATION CONNECTION**  
(10+00.00-10+75.13)  
SCALE: 1"=40' VERT.  
1"=4' HORIZ.

<b>COW</b> Connelly & Wicker Inc. Planning - Engineering - Landscape Architecture 10600 Schmetz Lake Drive, Suite 500 Jacksonville, Florida 32246 904-444-1000 Florida Registry 26501 A.A. Number: 1C260031	
Project No: 21-01-0000	Date: JULY 21, 2021
Scale: 1"=40'	Sheet: 12E
SANDY RIDGE YULEE, FLORIDA PREPARED FOR SEMANK INVESTMENT CORPORATION MARY E. LEAPRETT, P.E. Professional Engineer	
PLAN AND PROFILES	







**COW Connelly & Wicker Inc.**  
 Planning - Engineering - Landscape Architecture  
 10000 State Road 500, Suite 500 Jacksonville, Florida 32246  
 (904) 444-0000 Fax (904) 444-0001  
 Florida Registry 3650 L.A. Number LC24000311

**PAVING AND DRAINAGE DETAILS**

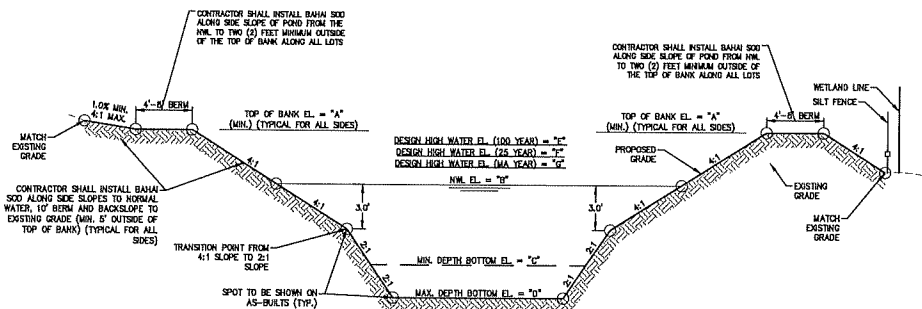
**SANDY RIDGE**  
**YULEE, FLORIDA**  
 PREPARED FOR  
**SENAVIK INVESTMENT CORPORATION**

**DATE: August 9, 2021**  
 Scale: N/A

Project No.: 21-01-0008  
 Designed: [Signature]  
 Drawn: [Signature]  
 Checked: [Signature]  
 Date: August 9, 2021  
 Scale: N/A

Sheet 13B

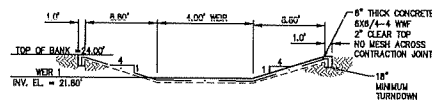
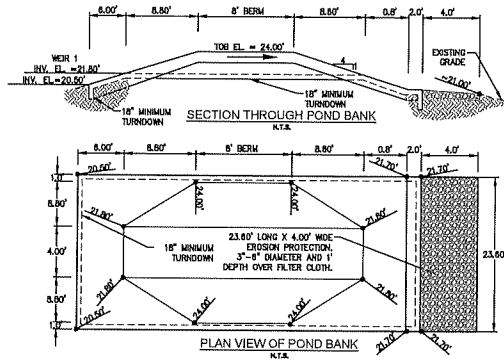




TYPICAL SECTION THRU STORM WATER MANAGEMENT FACILITY

- [illegible]

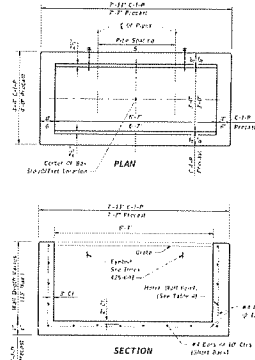
VARIABLE	DESCRIPTION	SWMF-01	SWMF-02
"A"	TOP OF BANK EL. (M/H.)	24.00'	24.00'
"B"	NORMAL WATER LEVEL EL.	20.56'	20.50'
"C"	MIN. DEPTH BOTTOM EL.	12.50'	12.50'
"D"	MAX. DEPTH BOTTOM EL.	-2.50'	-2.50'
"E"	DHW EL. (100 YR.)	23.20'	23.89'
"F"	DHW EL. (25 YR.)	22.65'	22.78'
"G"	DHW EL. (WA YR.)	21.60'	21.80'



SECTION PARALLEL TO POND BANK SWMF-1  
N.T.S.

- NOTES:**
1. 3/4" CHAMFER IN ALL CORNERS.
  2. SDO ALL DISTURBED AREAS.
  3. CONCRETE DESIGN STRENGTH 4000 PSI.
  4. PROVIDE CRACK CONTROL JOINTS @ 10' O.C.E.W.

OVERFLOW CONTROL STRUCTURE WEIR 1  
N.T.B.

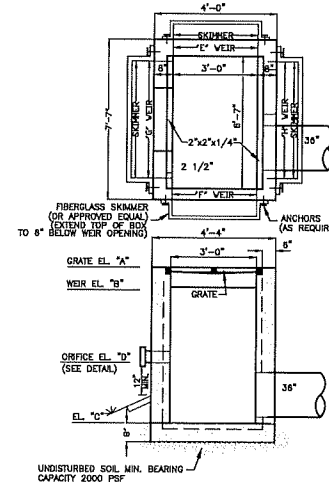
HORIZONTAL WALL REINFORCING  
GENERALIZED TABLE 11

WALL DEPTH	SCHEDULE	AREA (sq. ft.)	PRV. SPACINGS	
			MASS	INSTR.
0.5	BS5	0.24	5 1/2"	8"
2-7	CS9	0.39	6 1/2"	0"
1-15	DS8	0.53	7 1/2"	4"

TYPE H (2 & 3-GRATE INLET)

Recommended Maximum Flow Sizes:  
 2-4" diam - 2" Pipe  
 4-7" diam - 2 1/2" Pipe  
 Or 2-2" Pipe (5-1-37)

STORM SEWER TYPE 'H' INLET  
NTS

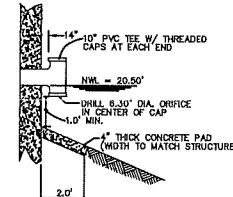


**NOTE:**  
INLETS WITH SLOTS GREATER THAN 8" SHALL BE CONSTRUCTED WITH HORIZONTAL BARS AT THE MAXIMUM VERTICAL SPACING OF 8-INCHES, 1" DIA. GALVANIZED PIPE IMBEDDED 2" IN PRECAST STRUCTURE OR OTHER APPROVED METHOD.

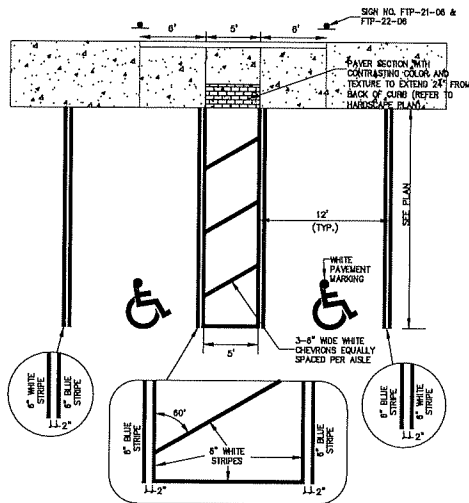
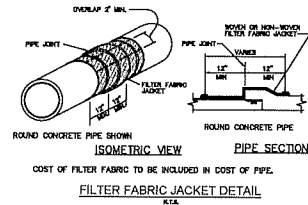
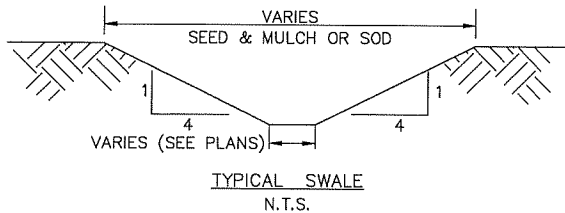
POND #	STRC. #	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	OR. SIZE
2	ST-12	23.50'	21.50'	19.50'	20.50'	24'	24'	88'	88'	6.30"

- NOTES:**
1. CONCRETE DESIGN STRENGTH 4,000 PSI, TO BE CONSTRUCTED PER FDOT STANDARD SPECIFICATIONS FOR CONCRETE INLET WITH A PRECAST TOP SLAB, WITH ALL APPLICABLE REINFORCING.
  2. ALL BOLTS TO BE STAINLESS STEEL.
  3. PIPES MUST NOT BE IN CONSTRUCTION JOINTS.
  4. PIPE SHALL BE FLUSH WITH INSIDE WALL.
  5. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS ON "AS-BUILTS".

CONTROL STRUCTURE (OC-2; ST-12) MODIFIED TYPE "H" INLET 2 GRATE

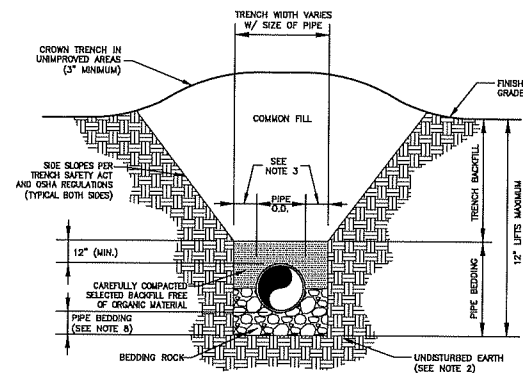
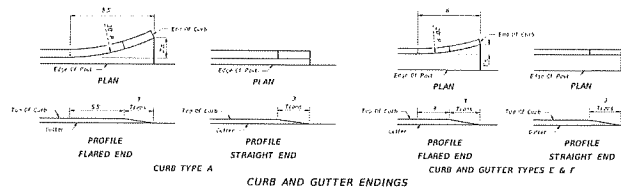
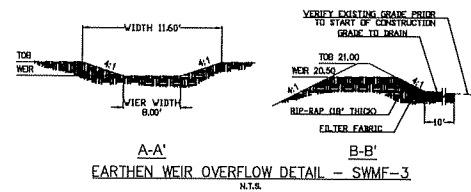
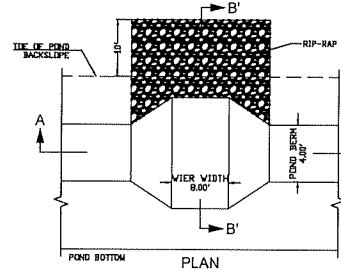


ORIFICE DETAIL - OC-2 ST-12  
N.T.S.



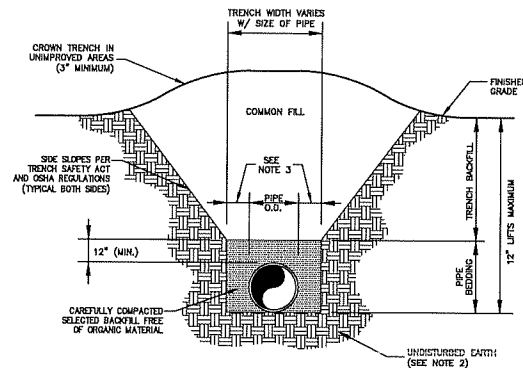
1. CURB CUTS SHALL HAVE A MAXIMUM RISE OF 8".
2. THE MAXIMUM SLOPE FOR A CURB RAMP IS 1:12
3. SEE GRADING PLAN FOR ELEVATIONS.
4. ACCESS AND HANDICAP SYMBOL SHALL BE PAINTED WHITE.
5. H.C. SYMBOL SHALL BE 35 HIGHS
6. DIMENSION ARE TO THE CENTERLINE OF MARKINGS.
7. BLUE PAVEMENT MARKINGS SHALL BE TINTED TO MATCH SHADE 15180 OF PANTONE STANDARDS 595A.
8. THE FTP-22-06 PANEL SHALL BE MOUNTED BELOW THE FTP-21-06 SIGN.

TYPICAL HANDICAP PARKING SPACES  
N.T.S.



- NOTES:
1. TRENCH AND PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 95% MAX DENSITY (ASHSTO T-100).
  2. PIPE SIZE TO BEDDING TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE COUNTY.
  3. 18" WAS FOR PIPE DIAMETER SMALLER THAN 24" AND 24" WAS FOR PIPE DIAMETER 24" AND LARGER.
  4. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
  5. ALL PIPE TO BE INSTALLED WITH BELLS FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
  6. SUPPORT TO HANDRAIL FOR SHEETING AND BRACING IN EXCAVATIONS.
  7. TRENCHES SHALL BE IMPROVED AREAS SHALL BE IN ACCORD WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES SURFACE RESTORATION WITH ROAD COUNTY RIGHT-OF-WAY SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.
  8. REMOVAL OF UNDESIRABLE MATERIAL SHALL BE DONE TO AVOID BEDDING ROCK BELOW THE PIPE, THE COUNTY SHALL DETERMINE IN THE FIELD REQUIRED REMOVAL OF UNSUITABLE MATERIAL TO REACH SUITABLE FOUNDATION.

TYPE 'A' BEDDING & TRENCH DETAIL  
N.T.S.



- NOTES:
1. TRENCH AND PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 95% MAX DENSITY (AASHTO T-100).
  2. USE TYPE 1 BEDDING TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE COUNTY.
  3. 15" PIPE DIA. PIPE DIAMETER LESS THAN 24" AND 24" MAX FOR PIPE DIAMETER 24" AND LARGER.
  4. WATER SHALL BE MAINTAINED IN THE TRENCH.
  5. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
  6. REFER TO MANUAL FOR SHIELDING AND BRACING IN EXCAVATIONS.
  7. FINAL RESTORATION IN IMPACTED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES SURFACE RESTORATION WITHIN COUNTY RIGHT-OF-WAY SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.

TYPE 'B' BEDDING & TRENCH DETAIL  
N.T.S.

## PROPOSED UTILITY

CONFLICTING UTILITY	POTABLE WATER			WASTEWATER GRAVITY AND FORCE MAIN			RECLAIMED WATER			VACUUM SEWERS		
	HORIZ.	VERT.	JOINT SPACING	HORIZ.	VERT.	JOINT SPACING	HORIZ.	VERT.	JOINT SPACING	HORIZ.	VERT.	JOINT SPACING
POTABLE WATER	3' NOTE 1	12"	3' NOTE 2	6" 10"	12"	6' NOTE 2	3'	12"	3' NOTE 2	3' to 10'	12"	3' NOTE 2
RECLAIMED WATER	3'	12"	3' NOTE 2	3' NOTE 1	12"	6' NOTE 2	3'	12"	3' NOTE 2	3' to 10'	12"	3' NOTE 2
WASTEWATER (GRAVITY AND FORCE MAIN)	6" 10"	12"	6' NOTE 2	3' NOTE 1	12"	6"	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2
VACUUM SEWERS	3' to 10'	12"	3' NOTE 2	3' NOTE 1	12"	6"	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2
RIGHT OF WAY	3' NOTE 1	N/A	N/A	3' NOTE 1	N/A	N/A	3' NOTE 1	N/A	N/A	3' NOTE 1	N/A	N/A
PERMANENT STRUCTURES (SIGNS, POLES, ETC.)	3' NOTE 1	N/A	N/A	3' NOTE 1	N/A	N/A	3' NOTE 1	N/A	N/A	3' NOTE 1	N/A	N/A
STORM SEWERS	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2
GAS	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2
TREES	3'-6"	N/A	N/A	3'-6"	N/A	N/A	3'-6"	N/A	N/A	3'-6"	N/A	N/A
ALL OTHER UTILITIES	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2

1. THIS SEPARATION REQUIREMENT IS TO PROVIDE ACCESSIBILITY FOR CONSTRUCTION AND MAINTENANCE. THREE FEET OF HORIZONTAL SEPARATION IS THE MINIMUM FOR PIPES WITH THREE FEET OF COVER. FOR PIPES INSTALLED AT GREATER DEPTH, PROVIDE AN ADDITIONAL FOOT OF SEPARATION FOR EACH ADDITIONAL FOOT OF DEPTH.
2. THE MINIMUM JOINT SPACING SHALL BE DETERMINED FROM CROSSING FROM OTHER UTILITIES WHILE STILL MAINTAINING MINIMUM VERTICAL SEPARATION.
3. DISTANCES GIVEN ARE FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE.
4. NO WATER PIPE SHALL PASS THROUGH OR COME INTO CONTACT WITH ANY PART OF SANITARY OR STORM WATER MAINS OR STRUCTURES.
5. WATER MAIN SHALL CROSS ABOVE OTHER UTILITIES WHEREVER POSSIBLE. WHEN WATER MAIN MUST BE BELOW OTHER UTILITY PIPING, THE MINIMUM SEPARATION SHALL BE 12 INCHES.
6. REFER TO POTABLE WATER PIPING- SECTION 500, B.4.11.

## JANUARY 2021

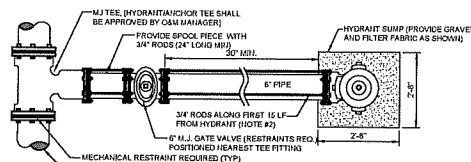
PLATE W-10

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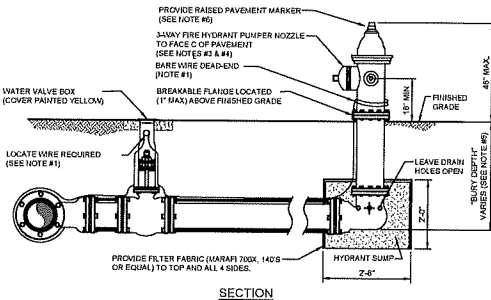
- NEVER RELOCATED, UNDERNO WATER MAIN CROSSING ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN PIPE IS AT LEAST SIX (6) INCHES, AND PREFERRED TWENTY (20) INCHES, ABOVE THE OUTSIDE OF THE EXISTING OR PROPOSED PRESURE-TYPE SANITARY SEWER OR STORM SEWER. THE OUTSIDE OF THE WATER MAIN PIPE SHALL BE AT LEAST TWENTY (20) INCHES ABOVE THE OUTSIDE OF THE OTHER PIPELINE.
6. AT THE UTILITY CROSSINGS DESCRIBED HEREIN AND ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE IDENTIFIED BY THE CONTRACTOR WITH A RED PAINT OR RED MARKING. THE CONTRACTOR SHALL, AS FAR AS POSSIBLE FROM THE OTHER PIPELINE, IDENTIFY THE WATER MAIN PIPE WITH A RED PAINT OR RED MARKING. THE CONTRACTOR SHALL, AS FAR AS POSSIBLE, CONVEYING RECLAIMED WATER, AND AT LEAST SIX (6) FEET FROM ALL EXISTING, PROPOSED, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER, AND AT LEAST SIX (6) FEET FROM ALL EXISTING OR PROPOSED GRAVITY OR PRESSURE-TYPE SANITARY SEWERS OR STORM SEWERS, THE WATER MAIN PIPE SHALL BE LOCATED SO THE OUTSIDE OF THE WATER MAIN PIPE IS AT LEAST SIX (6) INCHES, AND PREFERRED TWENTY (20) INCHES, ABOVE THE OUTSIDE OF THE EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER, AT LEAST SIX (6) INCHES, AND PREFERRED TWENTY (20) INCHES, ABOVE THE OUTSIDE OF THE EXISTING OR PROPOSED GRAVITY OR PRESSURE-TYPE SANITARY SEWER OR STORM SEWER.
7. WHERE AN UNDERNO WATER MAIN HADN BEEN Laid THAT THE REQUIRED MINIMUM HORIZONTAL DISTANCE FROM ANOTHER PIPELINE AND WHERE THE UNDERNO WATER MAIN IS CROSSED BY ANOTHER PIPELINE AND JOINTS IN THE WATER MAIN ARE LOCATED WITHIN THE REQUIRED MINIMUM HORIZONTAL DISTANCE FROM ANOTHER PIPELINE, THE CONTRACTOR SHALL CONSULT THE DESIGN ENGINEER TO OBTAIN APPROVAL OF ANY ALTERNATIVE CONSTRUCTION METHODS.

## JANUARY 2021

PLATE W611



## PLAN

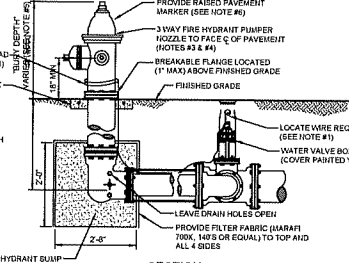
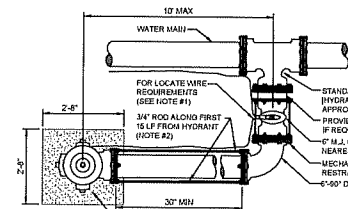


## SECTION

- [illegible]

## JANUARY 2021

PLATE W-13



## SECTION

- [illegible]

## JANUARY 2021

PLATE W-14



**JCW Comnelly & Wicker Inc.**  
 Planning Engineering Landscape Architecture  
 10969 Steiner Lake Drive, Suite 500 Jacksonville, Florida 32246  
 (904) 252-3030 FAX: (904) 265-3031 www.jcweng.com  
 Florida Registry 36501 A.L. Number: LC0000111

MECH. MJ TEE  
 HATCHER TEE SHALL BE  
 BY GCM MANAGER  
 COOL PIECE  
 (24" LONG AND)  
 VALVE (POSITION  
 BE FITTING)  
 JOINT  
 (TYP)  
 (NO PU)

THESE DETAILS AS SHOWN ON THIS DRAWING ARE BY THE S.A. THE YR TO SIGN UPON TO THE DESIGN.

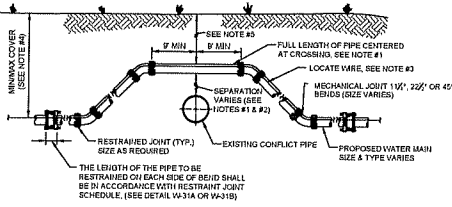
NO.	BY	DATE	REVISIONS
1			
2			
3			
4			

DATE: 01/24/2009  
 DRAWING NO. 14A  
 SCALE: AS NOTED

**JEA**  
 BUILDING & CONSTRUCTION

## WATER AND SEWER DETAILS





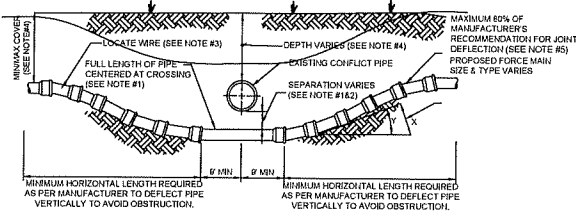
CASE "A" CROSSING

NOTES:

1. THE SOILS BETWEEN THE MINIMUM AND THE CONFLICT PIPE SHALL BE COMPACTED TO 80% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D 1557.
2. FOR MINIMUM VERTICAL SEPARATION REQUIREMENTS SEE DETAIL (W-10 AND W-11).
3. LOCATING WIRE REQUIRED. SEE DETAIL W-44.
4. THE COVER FOR PIPING LESS THAN 24" SIZE SHALL BE 30" (MIN) IN UNPAVED AREAS, 30" (MIN) IN PAVED AREAS AND A MAXIMUM COVER OF 60" UNLESS APPROVED BY JEA. THE COVER FOR PIPING 24" SIZE AND LARGER SHALL BE 30" (MIN) IN PAVED AREAS AND UNPAVED AREAS AND A MAXIMUM COVER OF 84" UNLESS APPROVED BY JEA.
5. IF UTILITY CONFLICT IS LOCATED IN A HIGH-TRAFFIC AREA AND TRAFFIC LOADS AND THE NEW PIPE IS DFLP, THEN THE MINIMUM COVER MAY BE REDUCED TO 24 INCHES (ONLY IN THE AREA OF THE CONFLICT).

ADJUSTMENT OVER EXISTING UTILITIES  
MECHANICAL RESTRAINTS

JANUARY 2021 PLATE W-32



CASE "B" CROSSING

NOTES:

1. IF EXISTING CONFLICT PIPE IS A WATER MAIN, 12-INCHES OF SEPARATION IS REQUIRED. A FULL LENGTH OF PIPE SHALL BE CENTERED OVER EXISTING UTILITY MAIN TO PROVIDE MAXIMUM JOINT SPACING FOR ALL CROSSING.
2. FOR OTHER LOCATION LIMITATIONS SEE DETAIL (W-10 & W-11).
3. LOCATING WIRE REQUIRED. SEE DETAIL W-44.
4. THE COVER OVER ALL PIPING LESS THAN 24" SIZE SHALL BE A MINIMUM OF 30" IN UNPAVED AREAS AND 30" IN PAVED AREAS WITH A MAXIMUM COVER OF 60" UNLESS APPROVED OTHERWISE BY JEA. COVER FOR PIPING 24" SIZE AND LARGER SHALL BE MINIMUM OF 30" (PAVED) AND UNPAVED AND MAXIMUM OF 84" UNLESS APPROVED OTHERWISE BY JEA. THE SOILS BETWEEN THE NEW MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 80% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST ASTM D 1557.
5. JEA ONLY ALLOW 80% OF THE PIPE MANUFACTURER'S RECOMMENDATION FOR JOINT DEFLECTION. BENDING THE PIPE BARELY IS NOT ALLOWED, UNLESS OTHERWISE APPROVED BY JEA. THE MAXIMUM ARE LISTED IN TABLE BELOW. ONLY MANUAL FORCE CAN BE UTILIZED TO OBTAIN THESE JOINT DEFLECTION. ALL OFFSETS ARE BASED ON MINIMUM 20L.P. PIPE LENGTH.

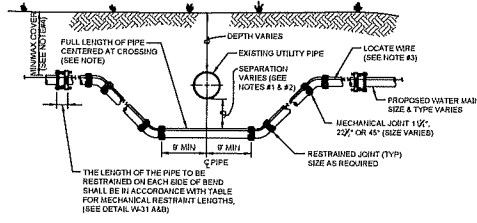
MAXIMUM ALLOWED OFFSET FOR PIPE BY JOINT DEFLECTION

PIPE SIZE (IN.)	(X) MAX. OFFSET (IN.)	(Y) RESULTING RADIUS OF CURVE WITH 20FT. LENGTHS
2	30	7" 158 FT
4	10	2.4" 420 FT
6	10	2.4" 420 FT
8	10	2.4" 420 FT
10	10	2.4" 420 FT
12	8.5	2" 564 FT
14-24	5	1.2" 960 FT
30-48	3.25	0.8" 1477 FT

PIPE SIZE (IN.)	(X) MAX. OFFSET (IN.)	(Y) RESULTING RADIUS OF CURVE WITH 20FT. LENGTHS
2	30	7" 158 FT
4	27	6.5" 177 FT
6	24	5.7" 200 FT
8-12	17.5	4.2" 273 FT
14-16	12	2.9" 420 FT
18-20	10	2.4" 477 FT
24-30	8	1.9" 600 FT
36	7	1.7" 697 FT
42-48	6.7	1.6" 716 FT

ADJUSTMENT UNDER EXISTING UTILITIES  
PIPE JOINT DEFLECTION

JANUARY 2021 PLATE W-40



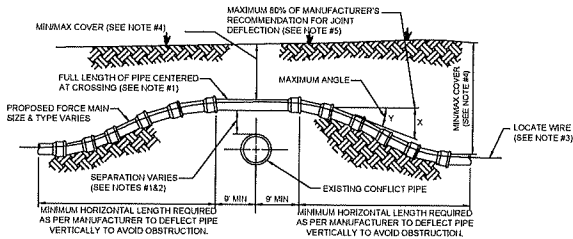
CASE "B" CROSSING

NOTES:

1. THE SOILS BETWEEN THE MINIMUM AND THE CONFLICT PIPE SHALL BE COMPACTED TO 80% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D 1557.
2. FOR MINIMUM VERTICAL SEPARATION REQUIREMENTS SEE DETAILS (W-10 AND W-11).
3. LOCATING WIRE REQUIRED. SEE DETAIL W-44.
4. THE COVER FOR PIPING LESS THAN 24" SIZE SHALL BE 30" (MIN) IN UNPAVED AREAS, 30" (MIN) IN PAVED AREAS AND A MAXIMUM COVER OF 60" UNLESS APPROVED BY JEA. THE COVER FOR PIPING 24" SIZE AND LARGER SHALL BE 30" (MIN) IN PAVED AREAS AND UNPAVED AREAS AND A MAXIMUM COVER OF 84" UNLESS APPROVED BY JEA.

ADJUSTMENT UNDER EXISTING UTILITIES  
MECHANICAL RESTRAINTS

JANUARY 2021 PLATE W-34



CASE "A" CROSSING

NOTES:

1. IF EXISTING CONFLICT PIPE IS A WATER MAIN, 12-INCHES OF SEPARATION IS REQUIRED. A FULL LENGTH OF PIPE SHALL BE CENTERED OVER EXISTING UTILITY MAIN TO PROVIDE MAXIMUM JOINT SPACING FOR ALL CROSSING.
2. FOR OTHER LOCATION LIMITATIONS SEE DETAIL (S-10 & W-11).
3. LOCATING WIRE REQUIRED. SEE DETAIL W-44.
4. THE COVER OVER ALL PIPING LESS THAN 24" SIZE SHALL BE A MINIMUM OF 30" IN UNPAVED AREAS AND 30" IN PAVED AREAS WITH A MAXIMUM COVER OF 60" UNLESS APPROVED OTHERWISE BY JEA. COVER FOR PIPING 24" SIZE AND LARGER SHALL BE MINIMUM OF 30" (PAVED) AND UNPAVED AND MAXIMUM OF 84" UNLESS APPROVED OTHERWISE BY JEA. THE SOILS BETWEEN THE NEW MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 80% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST ASTM D 1557.
5. JEA ONLY ALLOW 80% OF THE PIPE MANUFACTURER'S RECOMMENDATION FOR JOINT DEFLECTION. BENDING THE PIPE BARELY IS NOT ALLOWED, UNLESS OTHERWISE APPROVED BY JEA. THE MAXIMUM ARE LISTED IN TABLE BELOW. ONLY MANUAL FORCE CAN BE UTILIZED TO OBTAIN THESE JOINT DEFLECTION. ALL OFFSETS ARE BASED ON MINIMUM 20L.P. PIPE LENGTH.

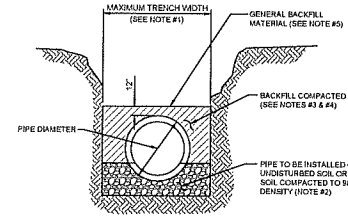
MAXIMUM ALLOWED OFFSET FOR PIPE BY JOINT DEFLECTION

PIPE SIZE (IN.)	(X) MAX. OFFSET (IN.)	(Y) RESULTING RADIUS OF CURVE WITH 20FT. LENGTHS
2	30	7" 158 FT
4	10	2.4" 420 FT
6	10	2.4" 420 FT
8	10	2.4" 420 FT
10	10	2.4" 420 FT
12	8.5	2" 564 FT
14-24	5	1.2" 960 FT
30-48	3.25	0.8" 1477 FT

PIPE SIZE (IN.)	(X) MAX. OFFSET (IN.)	(Y) RESULTING RADIUS OF CURVE WITH 20FT. LENGTHS
2	30	7" 158 FT
4	27	6.5" 177 FT
6	24	5.7" 200 FT
8-12	17.5	4.2" 273 FT
14-16	12	2.9" 420 FT
18-20	10	2.4" 477 FT
24-30	8	1.9" 600 FT
36	7	1.7" 697 FT
42-48	6.7	1.6" 716 FT

ADJUSTMENT UNDER EXISTING UTILITIES  
PIPE JOINT DEFLECTION

JANUARY 2021 PLATE W-41



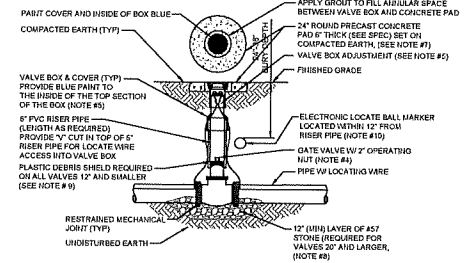
TYPICAL TRENCH

NOTES:

1. TRENCH SIDES SHALL BE APPROXIMATELY VERTICAL BETWEEN AN ELEVATION OF 1' FOOT ABOVE THE TOP OF THE PIPE AND THE CENTER LINE OF THE PIPE. OTHERWISE, TRENCH SIDES SHALL BE AS VERTICAL AS POSSIBLE OR AS REQUIRED BY GOMA STANDARDS, REF. TO THE MEASUREMENT AND PAYMENT SECTION SECTION 408. (MEASUREMENT) TO DETERMINE MAXIMUM PAYABLE VOLUMES.
2. BELL GROUND SHALL BE SLOPED TO PERMIT THE ENTIRE STRAIGHT BARREL OF THE PIPE TO REST ON THE UNDISTURBED TRENCH BOTTOM. BOLLERS OR LOOSE ROCKS LARGER THAN 24 INCH P.D. SHALL NOT BE PERMITTED IN BACKFILL UP TO 1' FOOT ABOVE THE TOP OF THE PIPE.
3. BACK FILL MATERIAL UP TO A LEVEL OF 1' FOOT OVER THE PIPE SHALL CONSIST OF AASHTO CLASS A-3 SOIL (SUITABLE SOIL) AND SHALL EXCLUDE CLAY MATERIALS AND LOOSE ROCKS LARGER THAN 24 INCH P.D.
4. BACKFILL MATERIAL UP TO A LEVEL 1' FOOT OVER THE TOP OF PIPE OR BOTTOM OF STRUCTURES SHALL BE PLACED IN 8 INCH COMPACTED THICKNESS LAYERS AND SHALL BE COMPACTED TO 95% OF IT'S MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D1557.
5. SEE "EXCAVATION AND EARTHWORK" SECTION 408 FOR ADDITIONAL REQUIREMENTS INCLUDING REMOVAL AND REPLACEMENT OF UNSUITABLE SOILS, DEWATERING, COMPACTING REQUIREMENTS AND DENSITY TESTING OF COMPACTED SOILS.

OPEN CUT TRENCH FOR PRESSURE PIPE

JANUARY 2021 IN CITY RIGHT OF WAY PLATE W-42



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 KIDNEY, 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 TO THE VALVE IF NO CURB; TO ALL BELOW GRADE VALVES, THE "V" CUT IS TO BE PAINTED BLUE WATERPUMP RECLAIMED.
4. IN PAVED AREAS, INSTALL VALVE AT A DEPTH TO ALLOW A 12 IN. DISTANCE BETWEEN THE VALVE COVER PLATE AND THE TOP OF THE VALVE OPERATING NUT. OUTSIDE OF PAVED AREAS (UNPAVED), INSTALL VALVE AT A DEPTH TO ALLOW A 6" ANNUAL DISTANCE BETWEEN THE VALVE COVER AND THE TOP OF THE VALVE OPERATING NUT. OPERATING NUTS AND EXTENSIONS SHALL BE PROVIDED OVERHEAD APPLICABLE SO THAT THE OPERATING NUT WILL BE NO MORE THAN 20 INCHES BELOW FRESH GRADE.
5. FOR NEW CONSTRUCTION, THE VALVE BOX SHALL BE AN ACCESS TO UNPAVED AREAS TO ALL EXISTING VALVE BOXES AND EXISTING, LOCATE WIRE THROUGH A "V" CUT IN THE TOP OF THE 6" P.V.C. RIBBON PIPE FOR LOCATE WIRE ACCESS INTO VALVE BOX. THE LOCATE WIRE WITH A 24" LONG PRO-TAG AT THE TOP SHALL BE CONNECTED TOGETHER WITH A WIRE NUT.
6. MARK IDENTIFICATION TAG INDICATING "WATER", VALVE SIZE, DIRECTION AND TURNS TO OPEN & VALVE TYPE. PROVIDE A HOLE IN BRASS TAG AND ATTACH TAG (TWO SETS AROUND TAG) TO THE END OF THE LOCATE WIRE. TAGS ARE NOT REQUIRED ON VALVES INSTALLED ON FIRE HYDRANT BRANCH LINES.
7. IN USE OF PRECAST CONCRETE PAD, A 6" THICK X 24" (ROUND OR SQUARE) POURED CONCRETE PAD W/ 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 THE OVERALL HEIGHT OF THE VALVE.
9. FOR VALVES 12 INCH AND SMALLER, PROVIDE A WHITE OR BLACK PLASTIC DEBRIS SHIELD (HOLD DISTANCE) BELOW THE OPERATING NUT. THIS SHIELD SHALL CENTER THE RIBBON PIPE BOX OVER THE OPERATING NUT AND AVOID THE IDENTIFICATION TAGS SHALL BE BY ATC, KIDNEY OR APPROVED EQUAL.
10. ALL VALVES SHALL BE INSTALLED WITH AN ELECTRIC LOCATE MARKER. MARKER SHALL BE 7" DIA. COLOR CODED BALL MARKER (CM-1000R) FOR WATER AND 1450R FOR RECLAIMED WATER).

WATER VALVE INSTALLATION DETAIL

JANUARY 2021 PLATE W-18

**Connelly & Wicker Inc.**  
 Planning Engineering Landscape Architecture  
 10060 Shiner Lake Drive, Suite 300 Jacksonville, Florida 32246  
 (904) 265-3030 FAX: (904) 265-3031 www.connelly.com  
 P.O. Box 10000 Jacksonville, FL 32210-0001  
 License No. 1C24800111

NO.	DATE	REVISIONS
1	01/21/21	ISSUED FOR PERMIT
2	01/21/21	ISSUED FOR PERMIT
3	01/21/21	ISSUED FOR PERMIT
4	01/21/21	ISSUED FOR PERMIT
5	01/21/21	ISSUED FOR PERMIT
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NO.	DATE	REVISIONS
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**JEA**  
 building community

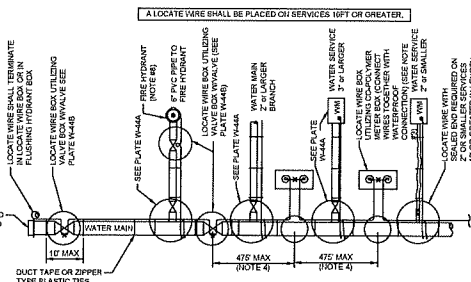
**WATER AND SEWER DETAILS**

4/21/21-01-0008 Study Water/Wastewater/Drainage/Plate W-32-01-0008 Water-Details

Drawn: Michael



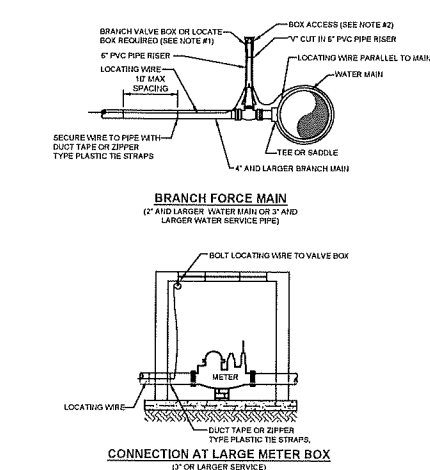
# TEMPORARY SAMPLE TAP ALTERNATIVE METHOD A JANUARY 2021 PLATE W-24



- NOTES:**
1. LOCATING WIRE TO BE INSTALLED IN EITHER THE ONE OR ELEVEN O'CLOCK POSITION ON ALL DUCTILE IRON OR PVC (PRESSURE) MAINS. LOCATE WIRE SHALL ALSO BE INSTALLED ON ALL HDPE POLY MAIN PIPING (1" OR 1.5" DIA) IF POSSIBLE.
  2. SECURE LOCATING WIRE TO PVC & D.I.P. WATER MAIN BY USE OF DUCT TAPE OR ZIPPER TYPE PLASTIC TIE STRAPS SPACED AT A MAXIMUM DISTANCE OF TEN (10') AND AT EACH SIDE OF BELL JOINT OR FITTING.
  3. THE ENTIRE LOCATING SYSTEM SHALL BE SUBJECTED TO TESTING TO DETERMINE ITS RELIABILITY, WHERE INSTALLED UNDER PRESSURE. TESTING SHALL BE DONE PRIOR TO THE PLACEMENT OF THE LOCATING WIRE INTO THE DUCTILE IRON OR PVC MAIN.
  4. LOCATING WIRE SHALL TERMINATE WITHIN AN ACTIVE VALVE BOX (WITH A VALVE) OR A METER BOX (IF NO VALVE) AT 45° INTERVALS. SEE DETAIL, PLATE W-44B. WIRE CONNECTIONS BELOW GROUND (OUTSIDE OF A BOX) SHALL BE AVOIDED.
  5. REFER TO SECTION 250 FOR LOCATE WIRE SPECIFICATIONS.
  6. "X" INDICATES THAT THE WIRES ARE CONNECTED TOGETHER WITH A WATERPROOF CONNECTION. (SEE DETAIL W-44B)
  7. "O" INDICATES A WIRE PIG-TAIL (4' LONG)
  8. FOR FIRE HYDRANT LOCATE WIRE REQUIREMENTS AND EXCLUSIONS, SEE PLATES W-13 AND 14.
  9. AN "LV" CUT SHALL BE CARVED IN THE CONCRETE CURB AND PAINTED ON ALL LOCATE WIRE BOXES.
  10. FOUR LANES OF TRAFFIC HAVING TWO LANES OF TRAFFIC IN EACH DIRECTION OR GREATER THE LOCATE WIRE AND VALVE BOX SHALL BE OFF-SET TO THE RIGHT-OF-WAY.

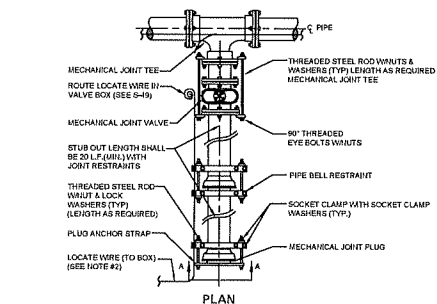
## LOCATE WIRE CONSTRUCTION FOR WATER MAINS JANUARY 2021 PLATE W-44

# TEMPORARY SAMPLE TAP ALTERNATIVE METHOD B JANUARY 2021 PLATE W-24A



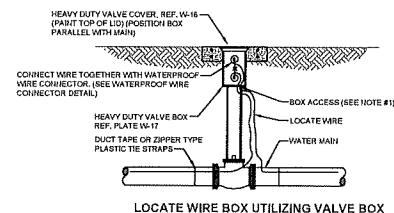
- NOTES:**
1. NOTE THAT THE BRANCH WIRE IS NOT CONNECTED TO THE MAIN WIRE.
  2. LOCATE WIRE SHALL ENTER THE VALVE BOX THROUGH A "Y" CUT IN THE 6" PVC RIGID PIPE SECTION (SEE W-18).
  3. LOCATE WIRE SHALL HAVE ENOUGH SLACK TO REACH 4' ABOVE FINAL GRADE AND LOCATE POINTS.

## LOCATE WIRE FOR BRANCH MAIN JANUARY 2021 PLATE W-44A



- NOTES:**
1. IN LIEU OF BELLGIRD RESTRAINTS, MECHANICAL JOINT RESTRAINTS MAY BE USED.
  2. LOCATING WIRE REQUIRED, UTILIZING A LOCATE WIRE BOX INSTALLED AT PLUG LOCATION.
  3. NUMBER OF THE RODS REQUIRED IS AS FOLLOWS:  
 2" - 4" DIAMETER MAIN - 2 THE RODS REQUIRED PER JOINT (2" ROD)  
 4" - 6" DIAMETER MAIN - 4 THE RODS REQUIRED PER JOINT (2" ROD)  
 6" - 8" DIAMETER MAIN - 6 THE RODS REQUIRED PER JOINT (2" ROD)  
 8" - 10" DIAMETER MAIN - 8 THE RODS REQUIRED PER JOINT (2" ROD)  
 10" - 12" DIAMETER MAIN - 10 THE RODS REQUIRED PER JOINT (2" ROD)  
 12" - 14" DIAMETER MAIN - 12 THE RODS REQUIRED PER JOINT (2" ROD)  
 14" - 16" DIAMETER MAIN - 14 THE RODS REQUIRED PER JOINT (2" ROD)  
 16" - 18" DIAMETER MAIN - 16 THE RODS REQUIRED PER JOINT (2" ROD)  
 18" - 20" DIAMETER MAIN - 18 THE RODS REQUIRED PER JOINT (2" ROD)  
 20" - 24" DIAMETER MAIN - 20 THE RODS REQUIRED PER JOINT (2" ROD)  
 24" - 30" DIAMETER MAIN - 24 THE RODS REQUIRED PER JOINT (2" ROD)  
 30" - 36" DIAMETER MAIN - 30 THE RODS REQUIRED PER JOINT (2" ROD)  
 36" - 42" DIAMETER MAIN - 36 THE RODS REQUIRED PER JOINT (2" ROD)  
 42" - 48" DIAMETER MAIN - 48 THE RODS REQUIRED PER JOINT (2" ROD)  
 48" - 54" DIAMETER MAIN - 54 THE RODS REQUIRED PER JOINT (2" ROD)  
 54" DIAMETER MAIN - 54 THE RODS REQUIRED PER JOINT (2" ROD)
  4. THE LOCATION OF THE DEAD END PLUG SHALL NOT BE UNDER PAVEMENT. IF POSSIBLE, THE STUB OUT SHALL EXTEND BEYOND THE INTERSECTION AREAS OR ROAD CROSSING BY 10 FEET (10') WHERE POSSIBLE.

## PLUGGED DEAD END USING MECHANICAL RESTRAINTS JANUARY 2021 PLATE W-37



- LOCATE WIRE BOX UTILIZING VALVE BOX**
- LOCATE WIRE BOX UTILIZING METER BOX**
- LOCATE WIRE BOX**

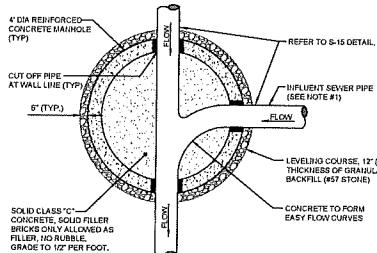
## LOCATE WIRE BOX JANUARY 2021 PLATE W-44B

**Connelly & Wicker Inc.**  
 Engineering  
 Planning  
 Landscape Architecture  
 10000 Shimmer Lake Drive, Suite 500 Jacksonville, Florida 32246  
 (904) 255-3300 FAX (904) 255-3031 www.connelly.com

THESE DETAILS ARE CONSIDERED TO BE PART OF THE DESIGN. THE USER SHALL BE RESPONSIBLE FOR THE DESIGN. THE USER SHALL BE RESPONSIBLE FOR THE DESIGN.

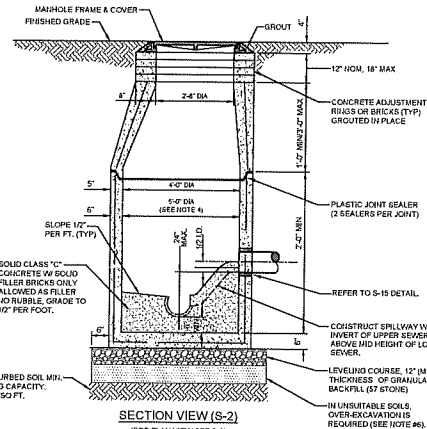
NO. SHEETS 21-27-2020  
 SHEET NO. 21-27-2020  
 DATE August 2, 2021  
 SCALE AS NOTED

WATER AND SEWER DETAILS



NOTES:  
1. THE ANGLE BETWEEN ALL INFLUENT FLOW CHANNELS AND EFFLUENT PIPE SHALL BE BETWEEN 90° - 180° UNLESS OTHERWISE APPROVED BY JEA.

PLAN VIEW (S-3)  
(FOR SECTION VIEW SEE S-2)

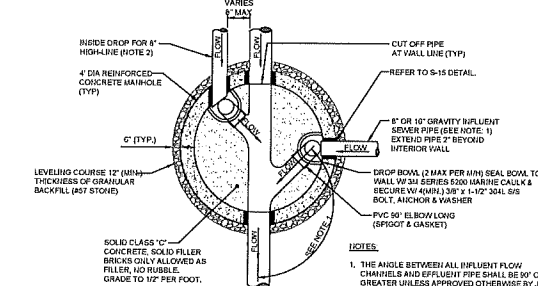


- NOTES:
- PRECAST MANHOLE SECTIONS TO BE MANUFACTURED IN ACCORDANCE WITH THE LATEST EDITIONS OF A.S.T.M. C-478 WITH 4000 LB. COHC. TYPE B CEMENT. ALL LIFTING HOLES AND OUTSIDE INSERTS SHALL BE FILLED WITH NON-SHRINK GROUT AND COATED WITH BITUMINOUS WATERPROOFING MATERIAL.
  - THE INTERIOR AND EXTERIOR OF MANHOLE AND ADJUSTMENT RINGS SHALL BE GIVEN TWO COATS OF BITUMINOUS WATERPROOFING MATERIAL.
  - IF SPECIALTY LINER IS TO BE INSTALLED ON INSIDE OF MANHOLE, THE BITUMINOUS WATERPROOFING MATERIAL SHALL BE OMITTED ON THE INSIDE.
  - JUNCTION (MANHOLE) (CLOSEST TO VENTWELL) SHALL BE 6" DIA WITH SPECIALTY LINER.
  - ALL MANHOLE JOINTS BELOW THE TOP COVER SECTION SHALL INCLUDE A 6" WIDE (MIN) EXTENSION JOINT TAPE (WITH PRIMER). TAPE ON THE CONE SECTION IS OPTIONAL. SEE PLATE S-4-7.
  - IN SILTS, CLAY OR HIGHLY ORGANIC SOILS (FINE-GRAINED SOILS INCLUDING SOIL GROUPS 14, CL, OL, MH, CH, OH AND PT) THE SOIL SHALL BE OVER-EXCAVATED AN ADDITIONAL 2" (AT A MIN) AND BACKFILLED WITH ASPHALT CLASS A-3 SOIL (COMPACTED TO 98% ASTM D1557) OR OVER-EXCAVATE AN ADDITIONAL 12" (AT A MIN) AND BACKFILL WITH GRANULAR BACKFILL (57 STONE).

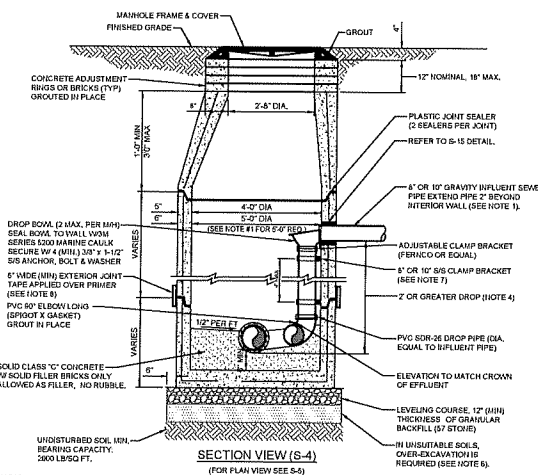
SANITARY SEWER TYPE "A" MANHOLE  
8"-21" SEWERS

JANUARY 2021

PLATES S-2, S-3



PLAN VIEW (S-5)  
(FOR SECTION VIEW SEE S-4)

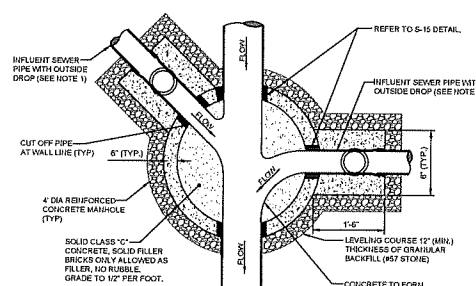


- NOTES:
- THIS ASSEMBLY IS FOR 8" OR 10" GRAVITY INFLUENT PIPES ONLY. NO DROPS ALLOWED FOR FORCE MAINS. MAXIMUM OF 2 SIDES DROP BOYA PER MANHOLE. A 6" DIA. MANHOLE (6" THICK WALLS) IS REQUIRED IF TWO SIDES DROPS ARE CONSTRUCTED WITH ONE OR BOTH BEING 10" SIDE DROP BOYA. IF NEITHER OR APPROVED EQUAL REQUIRED, THE INSIDE DROP FOR AN 8" HIGH-RISE SHALL BE CONSTRUCTED SIMILAR TO ABOVE (SEE PLATE S-4).
  - PRECAST MANHOLE SECTIONS TO BE MANUFACTURED IN ACCORDANCE WITH THE LATEST EDITIONS OF A.S.T.M. C-478 WITH 4000 LB. COHC. TYPE B CEMENT. ALL LIFTING HOLES AND OUTSIDE INSERTS SHALL BE FILLED WITH NON-SHRINK GROUT AND COATED WITH BITUMINOUS WATERPROOFING MATERIAL.
  - THE INTERIOR AND EXTERIOR OF MANHOLE AND THE INTERIOR OF ADJUSTMENT RINGS SHALL BE GIVEN TWO COATS OF BITUMINOUS WATERPROOFING MATERIAL.
  - TYPE "D" MANHOLE MUST BE USED FOR 2" OR GREATER INFLUENT PIPE DROPS.
  - THE DROPPED ASSEMBLY SHALL BE INSTALLED PRIOR TO APPLICATION OF SPECIALTY LINING MATERIAL.
  - A TYPE "D" MANHOLE SHALL BE UTILIZED WHEN THREE OR MORE (2" OR GREATER) DROPS ARE INVOLVED OR WHEN INFLUENT PIPES ARE LARGER THAN 12" IN SIZE.
  - ADJUSTABLE CLAMPING BRACKET (2" PER DROP BOYA ASSY), 1-1/2" WIDE, 11 GA. W/ 3/8" DIA. 1/4" PITCH BOLTS AND NUTS, SECURE TO 1/2" WALL WITH (2) 3/8" x 1" BOLT, ANCHOR & WASHER PER BRACKET ASSY. ALL 304 OR 316 STAINLESS STEEL MATERIALS.
  - ALL JUNCTION JOINTS BELOW THE TOP COVER SECTION SHALL INCLUDE A 6" WIDE (MIN) EXTENSION JOINT TAPE (UPPER) TAPE ON THE CONE SECTION IS OPTIONAL.
  - IF SETS, CLAY OR HIGHLY ORGANIC SOILS (FINE-GRAINED SOILS INCLUDING SOIL GROUPS 14, CL, OL, MH, CH, OH AND PT) THE SOIL SHALL BE OVER-EXCAVATED AN ADDITIONAL 2" (AT A MIN) AND BACKFILLED WITH ASPHALT CLASS A-3 SOIL (COMPACTED TO 98% ASTM D1557) OR OVER-EXCAVATE AN ADDITIONAL 12" (AT A MIN) AND BACKFILL WITH GRANULAR BACKFILL (57 STONE).

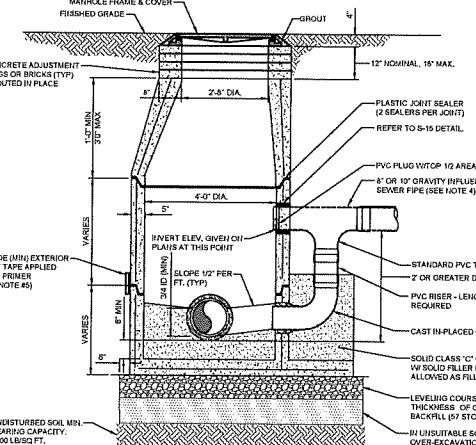
SANITARY SEWER TYPE "B" MANHOLE  
8"-10" SEWERS

JANUARY 2021

PLATES S-4, S-5



PLAN VIEW (S-8)  
(FOR SECTION VIEW SEE S-7)



- NOTES:
- PRECAST MANHOLE SECTIONS TO BE MANUFACTURED IN ACCORDANCE WITH THE LATEST EDITIONS OF A.S.T.M. C-478 WITH 4000 LB. COHC. TYPE B CEMENT. ALL LIFTING HOLES AND OUTSIDE INSERTS SHALL BE FILLED WITH NON-SHRINK GROUT AND COATED WITH BITUMINOUS WATERPROOFING MATERIAL.
  - THE INTERIOR AND EXTERIOR OF MANHOLE AND THE INTERIOR OF THE ADJUSTMENT RINGS SHALL BE GIVEN TWO COATS OF BITUMINOUS WATERPROOFING MATERIAL.
  - IF SPECIALTY LINER IS TO BE INSTALLED ON INSIDE OF MANHOLE, THE BITUMINOUS WATERPROOFING MATERIAL SHALL BE OMITTED ON THE INSIDE.
  - TYPE "D" MANHOLE SHALL BE USED FOR 12" OR LARGER INFLUENT PIPES W/ 2" OR GREATER INFLUENT DROP.
  - ALL JUNCTION JOINTS BELOW THE TOP COVER SECTION SHALL INCLUDE A 6" WIDE (MIN) EXTENSION JOINT TAPE (UPPER) TAPE ON THE CONE SECTION IS OPTIONAL.
  - IF SETS, CLAY OR HIGHLY ORGANIC SOILS (FINE-GRAINED SOILS INCLUDING SOIL GROUPS 14, CL, OL, MH, CH, OH AND PT) THE SOILS SHALL BE OVER-EXCAVATED AN ADDITIONAL 2" (AT A MIN) AND BACKFILLED WITH ASPHALT CLASS A-3 SOIL (COMPACTED TO 98% ASTM D1557) OR OVER-EXCAVATE AN ADDITIONAL 12" (AT A MIN) AND BACKFILL WITH GRANULAR BACKFILL (57 STONE).

SANITARY SEWER TYPE "D" MANHOLE  
12"-21" SEWERS

JANUARY 2021

PLATES S-7, S-8

**OW Connelly & Wicker Inc.**  
 Planning • Engineering • Landscape Architecture  
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 (904) 256-3020 FAX: (904) 262-5021 www.owcon.com  
 Florida Registry No. 12-0000011-1  
 Licensee No. 12-0000011-1

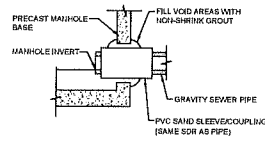
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DESIGNED BY: MARY E. LEAFROT  
 CHECKED BY: JEA  
 DATE: 8/14/2021  
 SCALE: NOTED

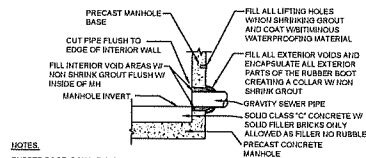
NO. SHEETS: 24 OF 24  
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 DATE: August 8, 2021  
 SCALE: NOTED

WATER AND SEWER DETAILS





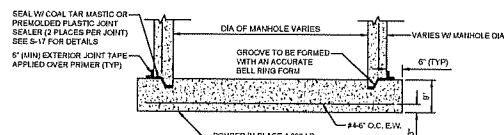
PVC SAND SLEEVE  
(FOR EXISTING AND NEW MAN CONSTRUCTION)



**NOTES:**  
RUBBER BOOT, DOUBLE BANDED, 316 S/S CLAMPS,  
MEETING THE ASTM C923 STANDARD. War-N-Seal® I EX SERIES  
CONNECTOR WITH DOUBLE STAINLESS STEEL BANDS OR EQUAL

RUBBER BOOT

(FOR NEW M/H CONSTRUCTION ONLY, MAXIMUM DEPTH 15FT)



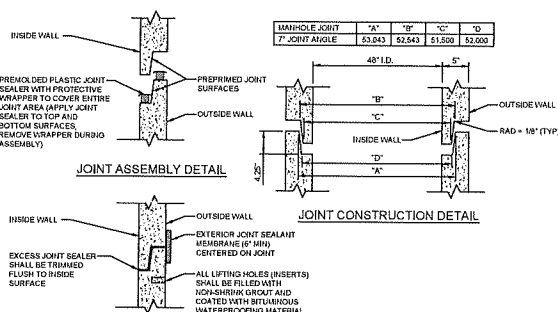
**NOTE:** THE USE OF THE POURED IN PLACE MANHOLE BOTTOM SHALL BE MINIMIZED AND SHALL BE SPECIFICALLY APPROVED BY JEA PRIOR TO CONSTRUCTION.

MANHOLE BOTTOM

### MANHOLE PIPE CONNECTION DETAIL

JANUARY 2021

PLATE S-15

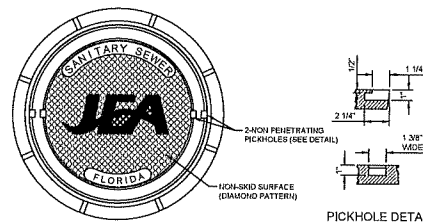


COMPLETED JOINT DETAIL

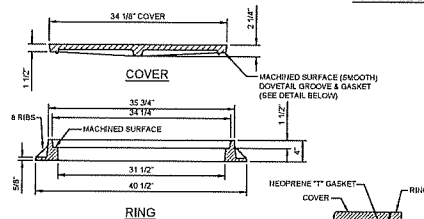
### PRECAST SEWER MANHOLE JOINT DETAIL

JANUARY 2021

PLATE S-17



### PICKHOLE DETAIL



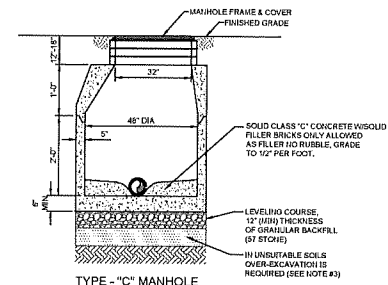
## NOTES

1. MATERIAL: ASTM A448 CLASS 330 GRAY IRON. PROTECTIVE COAT *Paint*
2. RND VENT 230 LBS APPROX.
3. COVER WEIGHT 230 LBS APPROX. GROOVE & GASKET DETAIL
4. ALL DRABUSSES ARE SHOWN IN INCHES.
5. FOR MANHOLES WHICH WILL BE MAINTAINED BY JEK (INCLUDING UTILITY DEDICATION PROJECTS), THE COVER SHALL INCLUDE THE "JEK" LOGO AND AN AERODRIFT GASKET.
6. FOR MANHOLES WHICH WILL BE MAINTAINED BY PARTIES OTHER THAN JEK (SUCH AS PRIVATE RECREATION COLLECTION SYSTEM, PRIVATE FORCE MAIN PUMP OUT BOX AND SYSTEMS NOT MAINTAINED BY JEK), THE COVER SHALL INCLUDE "SAFETY SEWER" GENERIC LETTERING AND "JEK" LOGO OR RECREABLE GASKET.

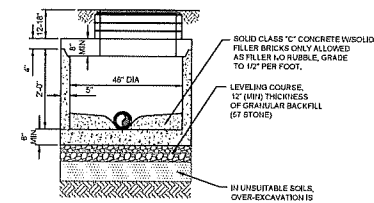
SANITARY SEWER MANHOLE FRAME AND COVER

JANUARY 2021

PLATE S-1



TYPE - "C" MANHOLE



TYPE - "C" MANHOLE WITH FLAT TOP

## SECTION VIEWS

## NOTES

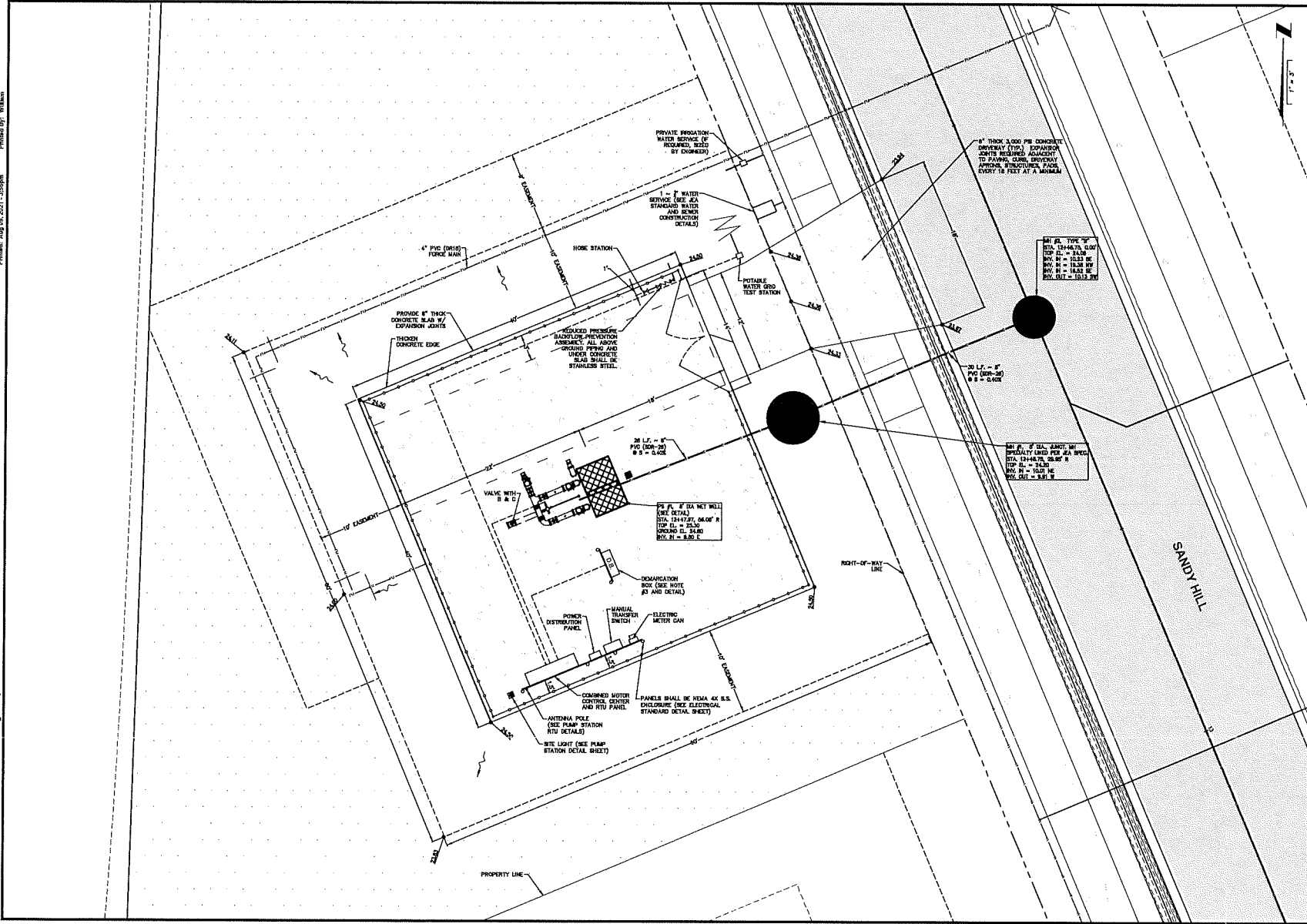
1. PRECAST MANHOLE SECTIONS TO BE MANUFACTURED IN ACCORDANCE WITH THE LATEST EDITIONS OF A.S.T.M. C-1247/M 4000-18, C.O.C. TYPE CEMENT, ALL LIFTING HOLES AND OUTSIDE INSERTS SHALL BE FILLED WITH NON-SHRINK GROUT AND COATED WITH BITUMINOUS WATERPROOFING MATERIAL.
2. THE INTERIOR AND EXTERIOR OF MANHOLE AND INTERIOR OF WATERPROOFING RISKS SHALL BE GIVEN TWO COAT OF BITUMINOUS WATERPROOFING MATERIAL.
3. IN SILETS, CLAY OR HIGHLY ORGANIC SOILS (FINE-GRANULAR SOILS INCLUDING SOIL GROUPS MH, CL, OL, MH, OH, CH AND PI) THE SOILS SHALL BE OVER-EXCAVATED AN ADDITIONAL 2" (AT A MIN) AND BACKFILLED WITH LIGHT TO CLASS 400, COMPACTED TO 95% A.C.T. OR 98% A.C.T. OR OVER-EXCAVATE AN ADDITIONAL 12" (AT A MIN) AND BACKFILL WITH GRANULAR BACKFILL (ST 57) CEMENT.

SANITARY SEWER TYPE "C" MANHOLE  
8"-21" SEWERS

JANUARY 2021

PLATE S-6





**OW Connelly & Wicker Inc.**  
 Planning - Engineering - Landscape Architecture  
 10000 Lakewood Blvd., Suite 200, Jacksonville, Florida 32246  
 (904) 255-3030 FAX: (904) 255-3031  
 Florida Registry: 3650 L.A. Number LC20000311

Rev.	By	Date	Description
1	WILSON	08/09/2021	Initial Design
2	WILSON	08/09/2021	Revised Design
3	WILSON	08/09/2021	Final Design

**PUMP STATION SITE PLAN**

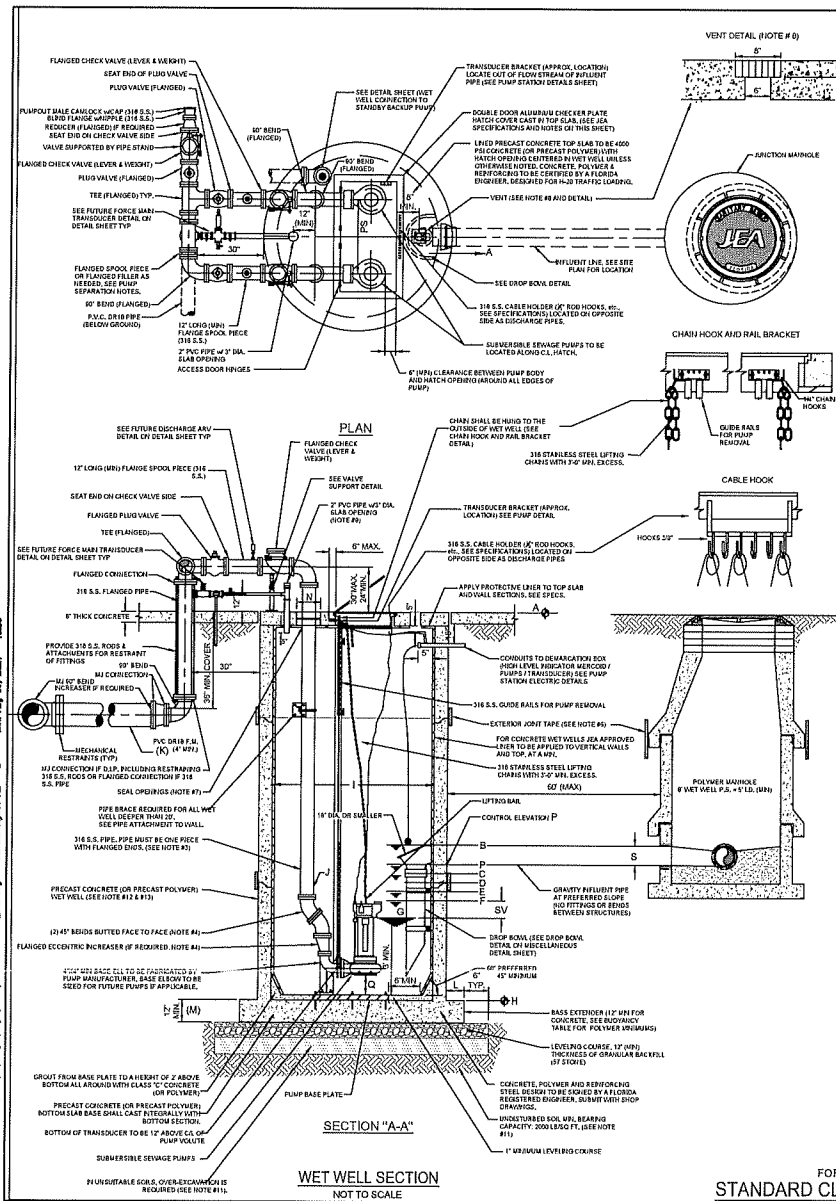
**SANDY RIDGE**  
**YULEE, FLORIDA**  
 PREPARED FOR  
**SEANIK INVESTMENT CORPORATION**

**MARY E. LEFFERTS, P.E.**  
 P.E. No. 12444  
 Reg. Engineer

Project No.: 21-01-0009  
 Design: M.E.  
 Check: S.W.  
 Date: JULY 21, 2021  
 Scale: 1" = 5'

Sheet **15A**

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WET WELL SECTION  
NOT TO SCALE

FOR PEAK FLOWS BETWEEN 0 TO 440 GPM  
STANDARD CLASS ONE PUMP STATION SITE PLAN

### GENERAL NOTES

- ALL WORK SHALL COMPLY WITH SPECIFICATIONS, SECTION 433, "UNIVERSAL SEWAGE PUMPING STATIONS" IN JEA WATER AND SEWER STANDARDS MANUAL.
2. PENETRATION SOLI BORING INFORMATION, TAKEN AT WEI WELL LOCATION, SHALL BE SUBMITTED PRIOR TO DESIGN SUBMITTAL. SOLI BORING SHALL BE A MINIMUM OF 10 FEET DEEPER THAN WEI WELL BOTTOM TO DETERMINE SOLI. RESULTS SHALL BE A MINIMUM OF 10 FEET BELOW WEI WELL BOTTOM.
3. ALL PIPING WITHIN AND EXTERNAL OF THE WEI WELL SHALL BE FLANGED SCHEDULE 40, 316 STAINLESS STEEL, BUT VALVENS OF ANY PIPING (EXCEPT FOR THE EMERGENCY STOPPING PIPE) IN THE WEI WELL IS NOT ALLOWED.
4. ALL DUCTILE IRON FITTINGS (JOBS, 45S, TEST COUPLERS) WITHIN AND EXTERNAL OF THE WEI WELL SHALL BE FLANGED EPOXY LINED.
5. ALL NUTS, BOLTS AND ACCESSORIES WITHIN AND EXTERNAL OF THE WEI WELL SHALL BE 316 STAINLESS STEEL, AND SHALL BE COATED WITH A "HEAVY DUTY" TYPE COATING.
6. ALL EXTERIOR KNOTS OF PRECAST CONCRETE AND PRECAST POLYMER VET WALLS AND MANHOLES SHALL BE SEALED WITH A 1/4" WIDE RUBBERIZED ASPHALT MEMBRANE TAPE. (SEE JEA SPEC).
7. THE VOID AREAS BETWEEN TOP SLAB AND FORCE MAIN PIPE SHALL BE SEALED W/ELASTICALLY BY EUCOLITEN CO. OR APPROVED EQUAL SEAL. ALL OTHER OPENINGS IN CONCRETE TOP WITH NON-SHRINK GROUT, AS DESCRIBED IN NOTE #6, PROVIDE INSECT SCREENS SECURED TO 10".
8. PROVIDE 6" x 6" OPENING THROUGH THE CONCRETE TOP OF THE WEI WELL AND INSERT 8" x 8" x 1/2" THICK ALUMINUM GRATE VENT CONSTRUCTED OF 1/4" WIDE x 1/2" MATERIAL.
9. PROVIDE 2" DIA. PVC, SCH. 40, THRU DUCTHROUGH CONCRETE WITH CAPPED TOP AND OPEN END BOTTOM. PROVIDE 2" DIA. THRU DUCTHROUGH CONCRETE WITH NON-SHRINK GROUT. IN THE FUTURE, THIS PIPE SHALL BE UTILIZED FOR THE CONSTRUCTION OF THE AIR-RELEASE VALVE PIPING, EXTEND 18" ABOVE THE TOP OF WEI WELL.
10. SITE GRADES 6" (MIN) BELOW TOP ELEVATION OF PUMP STATION SLAB.
11. IN SILTS, CLAY OR HIGHLY ORGANIC SOILS (FINE-GRAINED SOILS INCLUDING SOIL GROUPS ML, CL, MH, CH, OH AND PT) THE SOIL SHALL BE OVER-EXCAVATED AN ADDITIONAL 12" (AT A MIN) AND BACKFILL WITH GRANULAR BACKFILL (SEE SPEC).
12. PRECAST CONCRETE WEI WALLS SHALL MEET A S.T.M. C-49 STANDARD, ENTIRE INSIDE SURFACE OF WEI WALL SHALL BE SEALED WITH A POLYMER VET SHEET. THE WEI WALL SHALL BE PROTECTED FROM DAMAGE BY USER MANUFACTURED, SUBMIT CRYSTALLIZATION WITH SHOP DRAWING SUBMITTAL. SEE SPECIFICATIONS, THE EXCAVATED HOLE SHALL BE DRY (DE-WATERED) DURING THE WEI WELL INSTALLATION. (SEE WEI WALL DRAWINGS TAILD).
13. PRECAST POLYMER VET CONCRETE WEI WALL SHALL MEET JEA POLYMER PRECAST STANDARD, THE EXCAVATED HOLE SHALL BE DRY (DE-WATERED) DURING WEI WELL INSTALLATION. (SEE WEI WALL DIMENSIONS TABLE)
14. PROVIDE FACILITIES STANDARDS FOR GENERATOR, ATS, BACKFLOW, BOLLARDS AND PAVEMENT (SEE SPECIFICATIONS, ATTACHED JEA AVAILABLE ENGINEERING AND/OR CONSTRUCTION FACILITIES)
15. SEE JEA STANDARD SHEETS (AVAILABLE AT JEA.COM) FOR CONSTRUCTION DETAILS OF SPECIFIC COMPONENTS INCLUDING ELEVATIONS.

DISCUSSION

- [illegible]

### CONSTRUCTION NOTES

1. SLOPE SITE CONCRETE 1' PER 1' TO DRAIN TOWARDS STREET OR OTHER ADJACENT CITY OR JEAN OWNED FACILITY.
2. CONTRACTOR MUST MAINTAIN LANDSCAPE UNTIL FINAL ACCEPTANCE AND SUPPLY ONE (1) YEAR WARRANTY FROM NURSERY SUPPLYING PLANTS FROM DATE OF ACCEPTANCE.
3. DEMARICATION BOY SHALL BE PLACED AS CLOSE AS POSSIBLE TO WELL. IT SHALL BE PLACED AT LEAST 3' FROM WELL. WATER AND AT LEAST 1' FROM WELL. IT SHALL BE PLACED AS CLOSE AS POSSIBLE TO INTERFERE WITH ACCESS TO THE WELL WELL OR DISCHARGE APPLIANCE, AND DOOR SHALL FACE AWAY FROM WELL.
4. SEE GROUNDING PLAN FOR ELECTRICAL SERVICE GROUNDING REQUIREMENTS AND SEE GROUNDING DETAIL SHEET.
5. CONTRACTOR MUST KEEP COMPANY SIGN AND PHONE NUMBER ON FENCE UNTIL STATION ACCEPTED.
6. TRANSFORMERS SHALL BE LOCATED ON THE SAME SIDE OF PROPERTY AS METER CAN AND ELECTRICAL PANELS.
7. WELL WILL LID SHALL UTILIZE PLATE ASSEMBLY FOR LOCKING THE WELL.

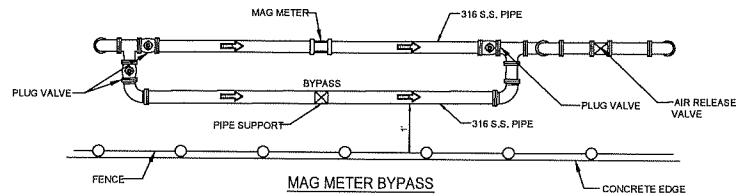
**CW** Connelly & Wicker Inc.  
 Planning • Engineering • Landscape Architecture  
 Florida Registry 3650 L.A. Number: LC26000311

UEA STANDARD CLASS ONE PUMP  
STATION PLAN AND SECTION

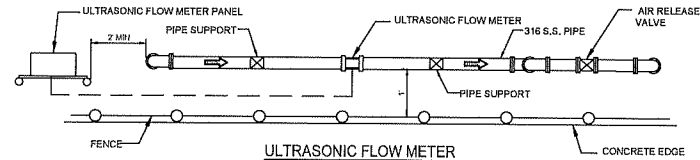
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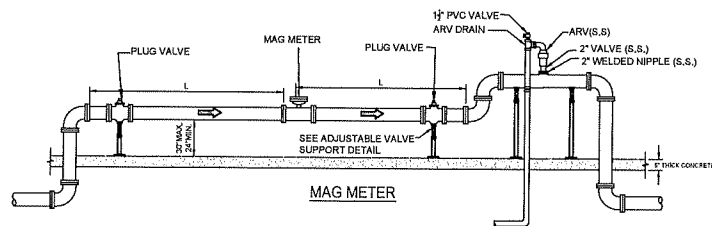




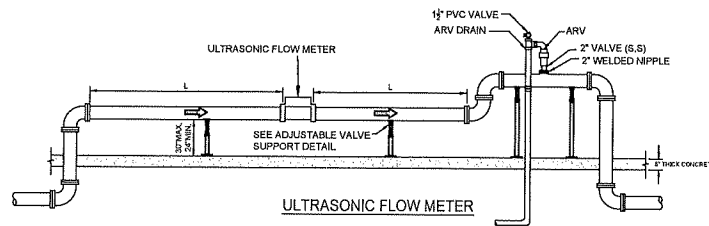
MAG METER BYPASS



ULTRASONIC FLOW METER



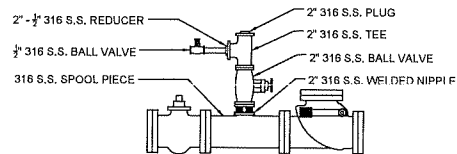
MAG METER DETAIL  
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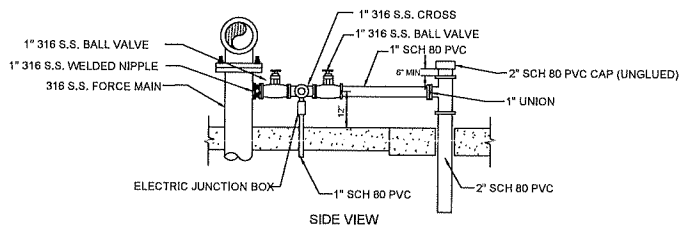
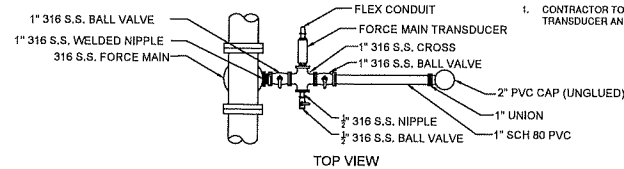
ULTRASONIC FLOW METER DETAIL  
NOT TO SCALE

METER NOTES:  
1. DIMENSION "L" TO BE DESIGNED BY ENGINEER.

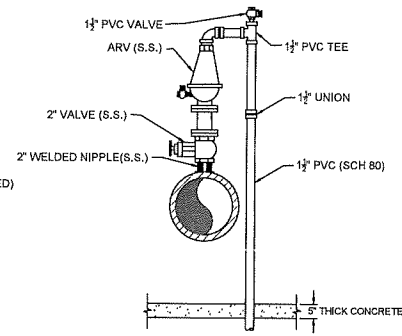
NOTES:  
1. CONTRACTOR TO PROVIDE AND INSTALL TRANSDUCER AND GAUGE PER JEA SPECIFICATIONS.



FUTURE DISCHARGE ARV DETAIL  
NOT TO SCALE



FORCE MAIN TRANSDUCER DETAIL  
NOT TO SCALE



ARV DRAIN DETAIL  
NOT TO SCALE

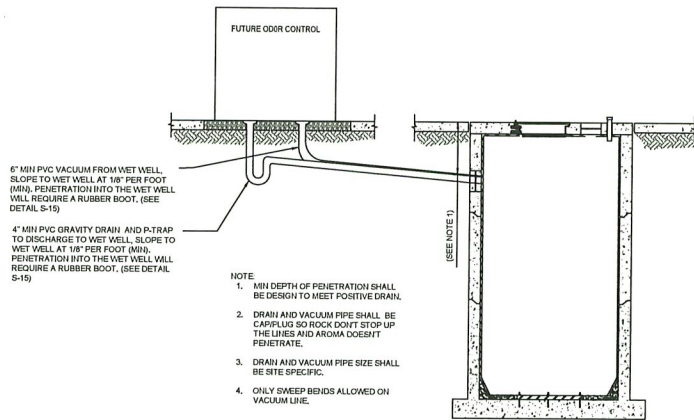
<b>Connelly &amp; Wicker Inc.</b> Planning • Engineering • Landscape Architecture 10940 Stainer Lake Drive, Suite 500 Jacksonville, Florida 32216 (904) 265-3303 FAX: (904) 265-3031 www.cweng.com Florida Registry 3603 L.A. Number: C21600911		NO. SHEETS	PROJ. NO.	21-01-0000
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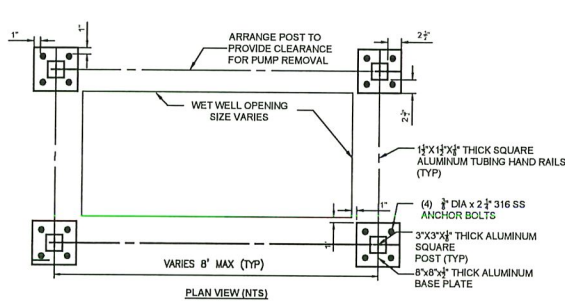
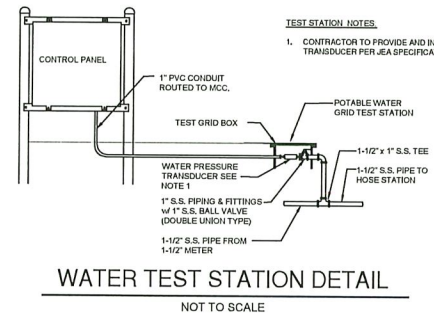
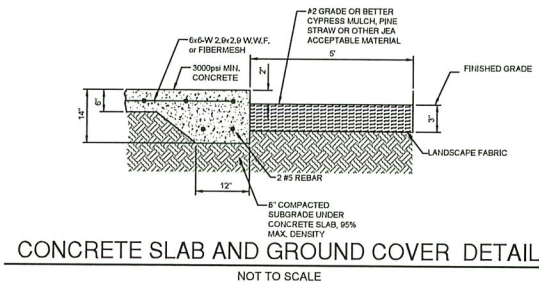
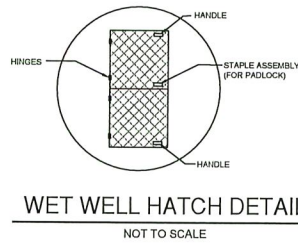
JEA STANDARD  
PUMP STATION ELECTRIC DETAILS  
ELECTRIC SINGLE LINE DIAGRAM

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SHEET NO.	DATE	JULY 21, 2021
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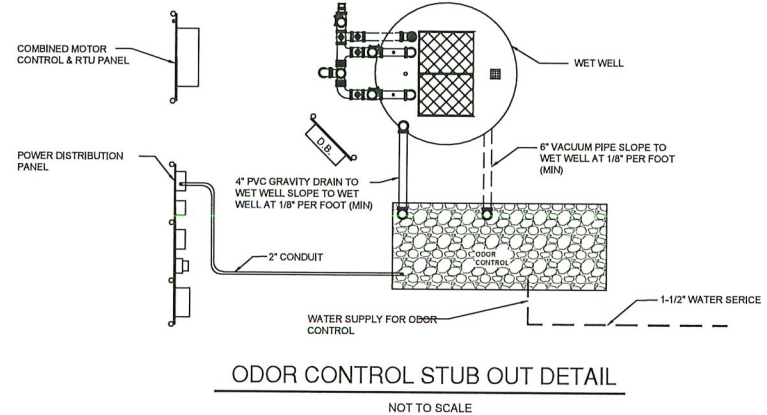
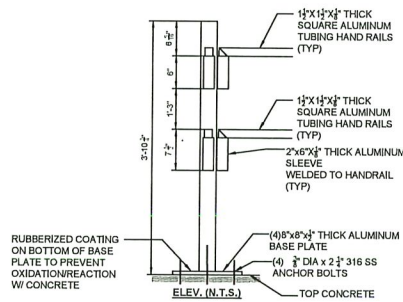




ODOR CONTROL DRAIN AND VACUUM CONNECTION TO WET WELL DETAIL  
NOT TO SCALE



PUMP STATION HANDRAIL DETAIL  
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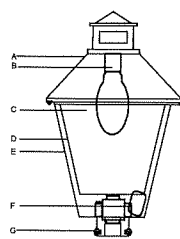
**OW Connelly & Wicker Inc.**  
Planning • Engineering • Landscape Architecture  
10940 Stainer Lake Drive Suite 500 Jacksonville, Florida 32246  
(904) 265-5630 FAX: (904) 265-5031 www.owweng.com  
Florida Registry #601 L.A. Number LC2000011

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NO. SHEETS 24 OF 2009  
SHEET NO. 157  
DRAWING NO.

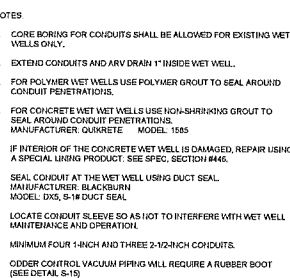
JEA STANDARD  
PUMP STATION ELECTRIC DETAILS  
ELECTRIC SINGLE LINE DIAGRAM





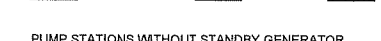
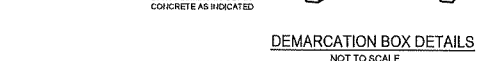
**SPECIFICATION**

COOPER LIGHTING  
LUXINGTON LXF  
CATALOG No.: LW70SH233U/0115  
70W HPS REC-HPF 120V PCR, TOOL-LESS

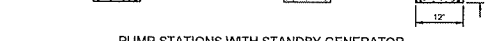


## NOTES

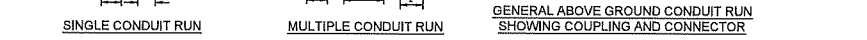
1. CORE BORING FOR CONDUITS SHALL BE ALLOWED FOR EXISTING WET WELLS ONLY.
2. EXTEND CONDUITS AND AIR DRAIN "1" INSIDE WET WELL.
3. FOR POLYMER WET WELLS USE POLYMER GROUT TO SEAL AROUND PERIMETER OF CONDUIT.
4. FOR CONCRETE WET WELLS USE NON-SHRINKING GROUT TO SEAL AROUND CONDUIT PERIMETER (US MANUFACTURER QUIKRETE MODEL 1585)
5. IF INTERIOR OF THE CONCRETE WET WELL IS DAMAGED, REPAIR USING A SPECIAL LINING PRODUCT. SEE SPEC. SECTION #466.
6. SEAL CONDUIT AT THE WET WELL USING DUCT SEAL MANUFACTURER BLACKBURN MODEL DYS-519 DUCT SEAL.
7. LOCATE CONDUIT SEALS SO AS NOT TO INTERFERE WITH WET WELL MAINTENANCE AND OPERATION.
8. MINIMUM FLOOR 1-INCH AND THREE-2-10-INCH CONDUITS.
9. ODDER CONTROL VACUUM PIPING WILL REQUIRE A RUBBER BOOT (SEE DETAIL S-15)



### PUMP STATIONS WITHOUT STANDBY GENERATOR



PUMP STATIONS WITH STANDBY GENERATOR



ABOVE AND UNDERGROUND ELECTRICAL RACEWAY DETAILS



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SEAL-OFF

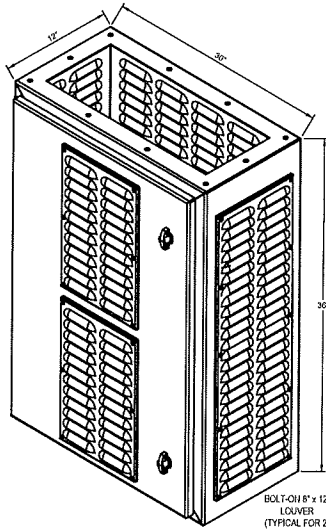
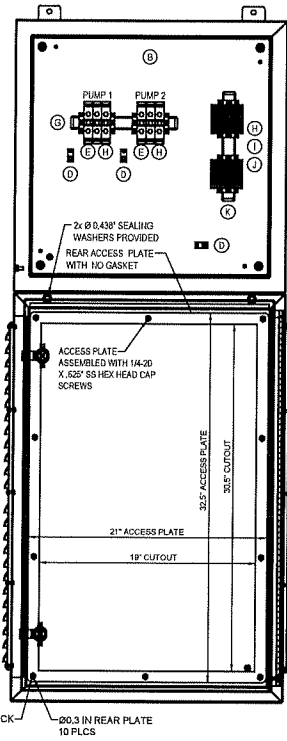
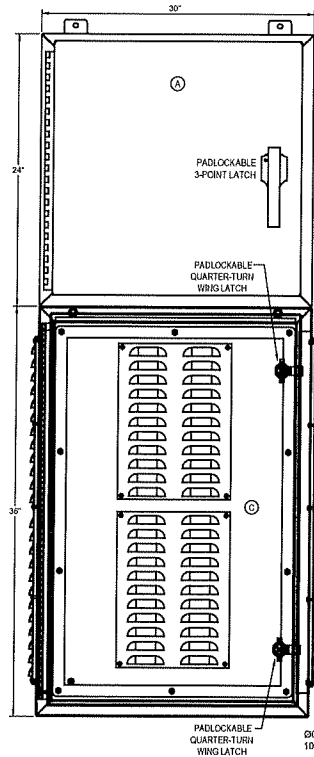
### SEAL-OFF DETAIL

1M1	2M1
1M2	2M2

	NO	4.	3.	2.	1.
		E <sub>1</sub>			


100

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# DEMARCATION BOX and PEDESTAL

**ENCLOSURE**  
SPWAL-240012 (24\"/>

**BACK PANEL**  
SPP-3000 (27\"/>

**PEDESTAL**  
SPWAL-30012-215 (30\"/>

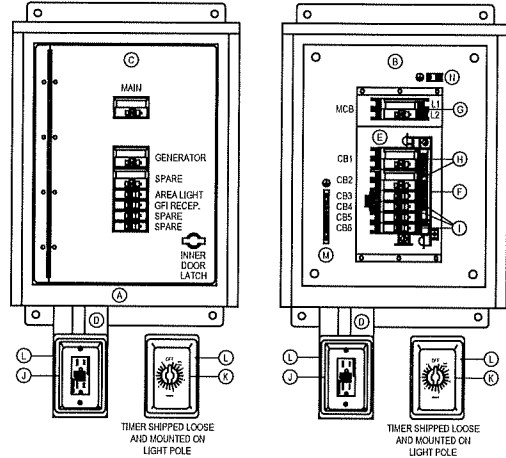
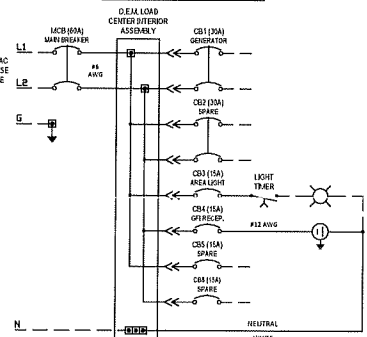
## BILLS OF MATERIAL

DEMARCATION BOX and PEDESTAL		
QTY	MANUFACTURER	DESCRIPTION
1	SCHAEFER	ENCLOSURE, 125 MARINE GRADE ALUMINUM 4\"/>

POWER DISTRIBUTION PANEL (AS SHOWN)		
QTY	MANUFACTURER	DESCRIPTION
1	SCHAEFER	ENCLOSURE, 125 MARINE GRADE ALUMINUM 4\"/>

- NOTE 1: SELECT APPROPRIATELY SIZED TERMINAL BLOCK BASED ON MOTOR LOAD  
NOTE 2: INSERTING MULTIPLE CABLES INTO A SINGLE TERMINAL IS PROHIBITED. USE A SECOND BLOCK AND THE ASSOCIATED ADJACENT JUMPER.  
NOTE 3: USE PRINTED GUIDE ON TERMINAL BLOCKS TO MEASURE CORRECT CABLE STRIP LENGTH  
NOTE 4: ENGINEER APPROVED EQUAL COMPONENT MAY BE SUBSTITUTED

## POWER DISTRIBUTION PANEL SCHEMATIC



## POWER DISTRIBUTION PANEL (TYPICAL 240VAC - 1 PHASE SHOWN)

**ENCLOSURE**  
SPWAL-240012 (24\"/>

**BACK PANEL**  
SPP-2015 (17\"/>

**HINGED INNER DOOR**  
FABRICATED FROM 125 ALUMINUM WITH CONTINUOUS HINGE AND TWIST LATCH.

## 240 VAC DISTRIBUTION PANEL NOTES

- POWER DISTRIBUTION PANEL 120/240V 1 PHASE WITH 60A 3-POLE MAIN BREAKER.
- PANEL OUTER DOOR SHALL BE HINGED AND PADLOCKABLE.
- ALL LIVE PARTS SHALL BE ENCLOSED FOR PERSONNEL SAFETY AND EQUIPMENT PROTECTION.
- GROUNDING TERMINAL SHALL BE PROVIDED IN THE ENCLOSURE.
- THE ENCLOSURE SHALL BE NEMA 3R RATED.
- IF ENCLOSURE IS FABRICATED WITHIN AN AUTHORIZED PANEL SHOP, 125 MARINE GRADE ALUMINUM SHALL BE USED.
- IF ENCLOSURE IS PURCHASED FROM AN AUTHORIZED DISTRIBUTOR, TYPE 316 STAINLESS STEEL MAY ALSO BE USED.
- THE LOAD CENTER MOUNTING BASE PLATE SHALL BE UL LISTED, RATED AT 240 VOLTS / 200 AMPS MINIMUM.
- THE LOAD CENTER BUS MATERIAL SHALL BE ALUMINUM OR TH PLATED ALUMINUM.
- THE LOAD CENTER SHALL HAVE EIGHT SPACES.
- BREAKERS MAY BE 80A-40A, JEA DETERMINED LOCATIONS WITH HIGH-VIBRATION REQUIRE BOLT-4 TYPE BREAKERS.
- PANEL SHALL CONTAIN TWO 2-POLE 30-AMP BREAKERS: (1) GENERATOR USE, (1) SPARE.
- PANEL SHALL CONTAIN FOUR 1-POLE 15-AMP BREAKERS: (1) LIGHT, (1) GFI, (2) SPARES.
- PANEL SHALL HAVE A 20-AMP OUTDOOR RATED GFCI RECEPTACLE AND SPRING-WOUND COMMERCIAL RATED LIGHT TIMER.
- GFCI AND TIMER SHALL BE MOUNTED ACCORDING TO N.E.C. STANDARDS.
- GFCI AND TIMER SHALL BE RIGIDLY MOUNTED ON THE EXTERIOR OF THE PANEL USING TYPE 316 SS OR ALUMINUM BRACKETS.

## 480 VAC DISTRIBUTION PANEL NOTES

- STANDARD PANEL: 3 KVA TRANSFORMER 480V-120/208V WITH 2-POLE 20-AMP 1MAIN BREAKER.
- PANEL WITH DOOR CONTROL: 5 KVA TRANSFORMER 480V-120/208V WITH 2-POLE 30-AMP 1MAIN BREAKER.
- PANEL WITH GENERATOR: 10 KVA TRANSFORMER 480V-120/208V WITH 1 2-POLE 30-AMP 1MAIN BREAKER.
- PANEL OUTER DOOR SHALL BE HINGED AND PADLOCKABLE.
- ALL LIVE PARTS SHALL BE ENCLOSED FOR PERSONNEL SAFETY AND EQUIPMENT PROTECTION.
- GROUNDING TERMINAL SHALL BE PROVIDED IN THE ENCLOSURE.
- THE ENCLOSURE SHALL BE NEMA 3R RATED.
- IF ENCLOSURE IS FABRICATED WITHIN AN AUTHORIZED PANEL SHOP, 125 MARINE GRADE ALUMINUM SHALL BE USED.
- IF ENCLOSURE IS PURCHASED FROM AN AUTHORIZED DISTRIBUTOR, TYPE 316 STAINLESS STEEL MAY ALSO BE USED.
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- THE LOAD CENTER BUS MATERIAL SHALL BE ALUMINUM OR TH PLATED ALUMINUM.
- THE LOAD CENTER SHALL HAVE EIGHT SPACES.
- BREAKERS MAY BE 80A-40A, JEA DETERMINED LOCATIONS WITH HIGH-VIBRATION REQUIRE BOLT-4 TYPE BREAKERS.
- PANEL SHALL CONTAIN TWO 2-POLE 30-AMP BREAKERS: (1) GENERATOR USE, (1) SPARE.
- PANEL SHALL HAVE A 20-AMP OUTDOOR RATED GFCI RECEPTACLE AND SPRING-WOUND COMMERCIAL RATED LIGHT TIMER.
- GFCI AND TIMER SHALL BE MOUNTED ACCORDING TO N.E.C. STANDARDS.
- GFCI AND TIMER SHALL BE RIGIDLY MOUNTED ON THE EXTERIOR OF THE PANEL USING TYPE 316 SS OR ALUMINUM BRACKETS.

**OW Connelly & Wicker Inc.**  
Planning • Engineering • Landscape Architecture  
10060 Stillmead Lake Drive, Suite 500 Jacksonville, Florida 32216  
(904) 265-5300 FAX: (904) 265-5301 www.owc.com  
Florida Registration No. 2005-1-1, License No. LC20060311

NO.	DATE	BY	CHKD.	APP'D.
1	07/21/2021	AW	AW	AW

NO.	DATE	BY	CHKD.	APP'D.
1	07/21/2021	AW	AW	AW

**JEA Building Community**

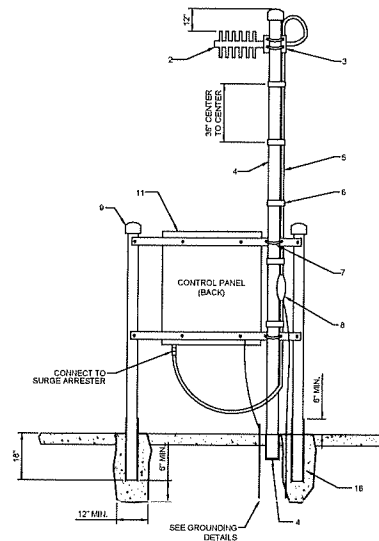
## JEA STANDARD PUMP STATION ELECTRIC DETAILS ELECTRIC SINGLE LINE DIAGRAM

NO. SHEETS	2-21-0000
SHEET NO.	15
DATE	JULY 21, 2021
OWNER	OW CONNELLY & WICKER INC.



- |     |   |
|-----|---|
| 1.  | ACCEPTABLE MANUFACTURERS OF TOWERS ARE ROHN OR UNIVERSAL TOWERS. SEE PUMP STATION SITE DRAWINGS FOR POLE OR TOWER SPECIFICATIONS. |
| 2.  | YAGI ANTENNA MANUFACTURER SCSLA MODEL # 7V-200  |
| 3.  | MOUNTING POLE MANUFACTURER SCSLA MODEL # WPA-2  |
| 4.  | COAXIAL CABLE SHALL BE ONE CONTINUOUS CABLE MANUFACTURER ANDREW MODEL # 1404-ASA  |
| 5.  | COAXIAL CABLE CONNECTORS MANUFACTURER ANDREW MODEL # 1410M-PSA  |
| 6.  | COAXIAL PROBE HOLDERS MANUFACTURER ANDREW MODEL # 4321  |
| 7.  | COAXIAL CABLE GROUND MANUFACTURER TESSCO MODEL # 41660  |
| 8.  | WEATHER PROOFING KIT MANUFACTURER TESSCO MODEL # 10264  |
| 9.  | REFERENCE GROUNDING DETAIL SHEET.   |
| 10. | TOWER BASE IS TO BE DESIGNED PER MANUFACTURER RECOMMENDATIONS.  |


**ALTERNATE POLE SCADA INSTALLATION DETAIL**  
FOR POLE HEIGHTS 20 FEET AND ABOVE  
NOT TO SCALE

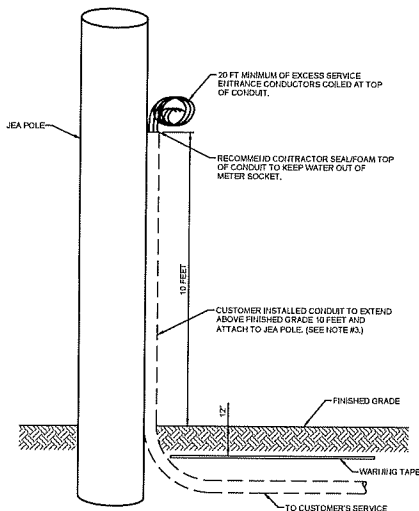


**SCADA INSTALLATION DETAIL**  
FOR POLE HEIGHTS LESS THAN 20 FEET  
NOT TO SCALE

- ## NOTES

5. SLEEP STATION SITE DRAWINGS FOR POLE OR TOWER SPECIFICATIONS.
2. YAGI ANTENNA. COMES W/ MOUNTING HARDWARE/MOUNT SHALL BE SLEEVED THRU CONCRETE TO ALLOW ROTATION (DO NOT USE WOOD POLE MOUNT)  
MANUFACTURE: RCA  
MODEL NUMBER: TV-400
3. COAX CONNECTOR  
MANUFACTURE: WARELESS SOLUTIONS  
MODEL NUMBER: HWS50-1/2  
2" O.D. SCD. 40 ALUMINUM 20 POLE.  
POLE SHALL BE SLEEVED THRU CONCRETE TO ALLOW FOR ROTATION
5. COAXIAL CABLE SHALL BE OF THE CONTINUOUS CABLE  
MANUFACTURER: ANDREW  
MODEL # LD4-50A
7. STAINLESS STEEL STRAPS 3' O'C  
MANUFACTURE: WARELESS SOLUTIONS  
MODEL NUMBER: RM-4300
7. 316 STAINLESS STEEL BOLTS  
MANUFACTURE: ANY DOMESTIC BRAND  
MODEL NUMBER: NA
8. COAXIAL CABLE GROUND  
MANUFACTURER: TESSCO  
MODEL # A1609
9. 4" PVC CAPS
10. 4" DIA. ALUMINUM POST
11. 1/2"x3" SOLID ALUMINUM POST BARS @ 2' INTERVALS BOLT TO POST W/ 5/8" S.S. ANCHOR BOLTS, BOLT 2 HOLES (AS DIMENSIONED ON DETAIL) IN TOP & BOTTOM SUPPORTS ON DRAWING.
12. BURY ALUMINUM POST IN CONCRETE AS SHOWN ON DRAWING.
13. INSTALL RTU MOUNT SO THAT WHEN CABINET IS ATTACHED DOOR IS FACING NORTH UNLESS DOOR HAS SUN SHIELD, IN ALL INSTANCES -SEA PREFERS THE DOOR TO FACE NORTH IF POSSIBLE.
14. CABINET SHALL HAVE CLEARANCE TO OPEN DOOR COMPLETELY.
15. SCADA SYSTEM WOOD POLE ALTERNATE DETAIL. TO BE USED ONLY WHEN ADDITIONAL ANTENNA HEIGHT IS REQUIRED. AND APPROVED.
16. MASTIC SEAL ALL POSTS WHICH ARE EXPOSED IN CONCRETE.
17. ALL MATERIALS MUST MEET OR EXCEED JEK SPECIFICATIONS

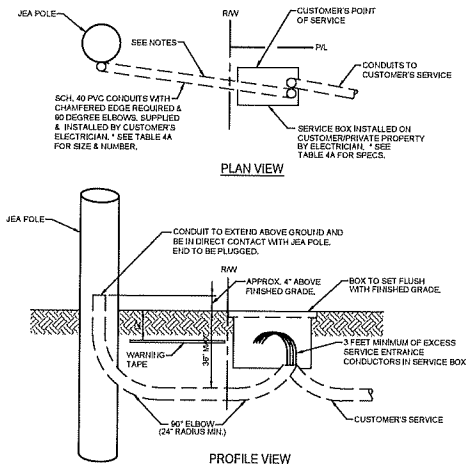
		<b>JEA STANDARD</b> <b>PUMP STATION ELECTRIC DETAILS</b> <b>ELECTRIC SINGLE LINE DIAGRAM</b>		NO. SHEETS SHEET NO. DATE, JAN 21, 2021 DRAWING NO.		PROJ. NO. 2104-0209 DATE, JAN 21, 2021 SCALE	
<b>Planning Engineering Landscape Architecture</b> 10000 West 134th Avenue, Suite 100, Greenwood, CO 80031 (303) 265-5030 FAX: (303) 265-3531 www.cvwg.com Florida Registry #699 L.A. Number LC2600031		<b>Comnelly &amp; Wicker Inc.</b>		NO. 07 DATE REVISIONS		PROJECT NUMBER 10000 PROJECT NAME 10000 PROJECT LOCATION 10000 PROJECT DATE 10000 PROJECT SCALE 10000	



#### NOTES

1. 100 AMP MAXIMUM SERVICE SIZE.
2. THE CUSTOMER WILL MAINTAIN THE WARNING TAPE, CONDUIT AND CONDUCTORS SHOWN.
3. THE CUSTOMER MUST PICK A CLEAR SIDE OF THE JEA POLE TO EXTEND UP AND RUN, CLEAR FROM PHONE OR COMMUNICATION CABLES, OR ANY OTHER EQUIPMENT, FROM FINISHED GRADE TO JEA POINT OF SERVICE. CALL JEA DISTRIBUTION ENGINEER IF LOCATION IS REQUIRED.
4. THE JEA WILL MAKE ALL CONNECTIONS TO CUSTOMER'S SERVICE WIRE ON THE JEA POLE.
5. THE JEA WILL INSTALL CABLE GUARD ON JEA POLE AND COVER CUSTOMER'S SERVICE WIRE AND CONDUIT TO FINISHED GRADE.

**COMMERCIAL SERVICE**  
**100AMP MAXIMUM UNDERGROUND**  
**SERVICE FROM AN OVERHEAD POLE**  
 NOT TO SCALE



#### NOTES

1. THE MINIMUM DISTANCE BETWEEN THE SERVICE BOX AND SERVICE POLE IS 4 FEET.
2. THE CUSTOMER MUST PICK A CLEAR SIDE OF THE JEA POLE FOR THE JEA TO EXTEND UP THE POLE RISER, CLEAR FROM PHONE OR COMMUNICATION CABLES, OR ANY OTHER EQUIPMENT, FROM FINISHED GRADE TO JEA POINT OF SERVICE. CALL JEA DISTRIBUTION ENGINEER IF LOCATION IS REQUIRED.
3. THE JEA WILL MAINTAIN THE POLE RISER AND CONDUCTOR FROM THE OVERHEAD FACILITIES TO A CUSTOMER-PROVIDED SERVICE BOX.
4. THE JEA WILL MAKE ALL CONNECTIONS TO THE CUSTOMER'S SERVICE WIRE IN THE SERVICE BOX. SAID CONNECTIONS WILL BE THE CUSTOMER'S POINT OF SERVICE.

**COMMERCIAL SERVICE**  
**ABOVE 100 AMPS AND MULTI-METERED UNDERGROUND**  
**SERVICE FROM AN OVERHEAD POLE**  
 NOT TO SCALE

**TABLE 4A**  
**CONDUIT AND SERVICE BOX REQUIREMENTS**  
**FOR UNDERGROUND COMMERCIAL SERVICES FROM AN OVERHEAD POLE**

SERVICE SIZE	CONDUIT SIZE (From Service Box to JEA Overhead Pole)	SERVICE BOX SIZE
20A - 150A	1-2 in	12" x 24" x 18" d
151A - 200A	1-3 in	17" x 30" x 18" d
201A - 300A	1-3 in	24" x 36" x 18" d
400A-600A	400A=1-4 in 401-600A=2-4 in	30" x 48" x 24" d manhole
601A-1400A	601-1000A=2-4 in 1001-1400A=3-4 in	36" x 60" x 36" d manhole

#### NOTE

1. ALL CONDUITS TO BE SCHEDULE 40 PVC WITH CHAMFERED EDGES REQUIRED. CONDUIT SIZE AND NUMBER DOES NOT HAVE TO MATCH CUSTOMER'S SERVICE CONDUIT SIZE, TYPE, AND NUMBER.
2. ALL CONDUIT RADIIUS TO BE 24 INCH MINIMUM.
3. JEA WILL ALLOW THE OPTION OF PURCHASING THESE BOXES FROM AN ELECTRICAL SUPPLY HOUSE. THESE BOXES MUST MEET THE FOLLOWING SPECIFICATIONS.
4. SERVICE BOX SIZE MAY VARY FOR 3 PHASE APPLICATIONS.
5. CONTACT JEA SERVICE ENGINEER FOR CONDUIT AND BOX LOCATION.

#### TECHNICAL SPECIFICATIONS

##### MATERIAL SPECIFICATIONS

##### SERVICE BOX

1. TOP: COMPRESSION MOLDED POLYMER CONCRETE WITH MINIMUM THICKNESS OF TWO INCHES.
2. BODY: REINFORCED PLASTIC MORTAR (RPM) CONSISTING OF FIBERGLASS AND ISOPHOLIC RESIN. THE BASE WILL HAVE A FLANGE OF TWO INCHES FROM THE INSIDE WALL.
3. RING: THE RING WILL BE OF POLYMER CONCRETE AND WILL BE PERMANENTLY FUSED TO THE BODY DURING THE CURING PROCESS.

##### MANHOLE

1. MANHOLE BODY SHALL BE OF ONE PIECE CONSTRUCTION WITH A SOLID COVER.
2. MANHOLE DIMENSIONS SHALL BE 60" L X 36" W X 36" D.

##### LOAD RATING

1. LOAD RATING: H-10 (INCIDENTAL TRAFFIC).
2. LOAD RATINGS SHALL BE IN ACCORDANCE WITH ASTM C467-87 (STD. PRACTICE FOR MINIMUM STRUCTURAL DESIGN LOADING FOR US PRECAST CONCRETE UTILITY STRUCTURES) ASHTO AND WESTERN UNDERGROUND COMMITTEE RECOMMENDED GUIDELINES RULE 3.8 DATED 8-15-87.

##### MISCELLANEOUS REQUIREMENTS

1. HARDWARE: TWO CAPTIVE STAINLESS PENTA HEAD BOLTS FOR SECURING TOP. BOLT HEADS WILL BE FLUSH WITH TOP OF COVER.
2. IDENTIFICATION: EACH TOP WILL HAVE THE WORD "ELECTRIC" PERMANENTLY MARKED INTO THE TOP.

#### ELECTRICAL NOTES

1. GROUND WIRE SHALL RUN FROM THE CHASSIS CONTINUOUS THROUGH THE METER CANT TO 2 GROUND RODS SPACED 6 FEET APART AND TERMINATE IN A FENCE POST IN CONCRETE.
2. ELECTRICAL ENCLOSURES SHALL BE ORIENTED SUCH THAT THE FRONT OF THE ENCLOSURE FACES THE INTERIOR OF THE PUMP STATION SITE.
3. QUANTITY AND SIZE OF NEMA 4x 316-STAINLESS STEEL ENCLOSURES AS REQUIRED FOR STATION OPERATION.
4. SERVICE DISCONNECT SHALL BE MANUAL, FUSE 3 PHASE 4 WIRE.

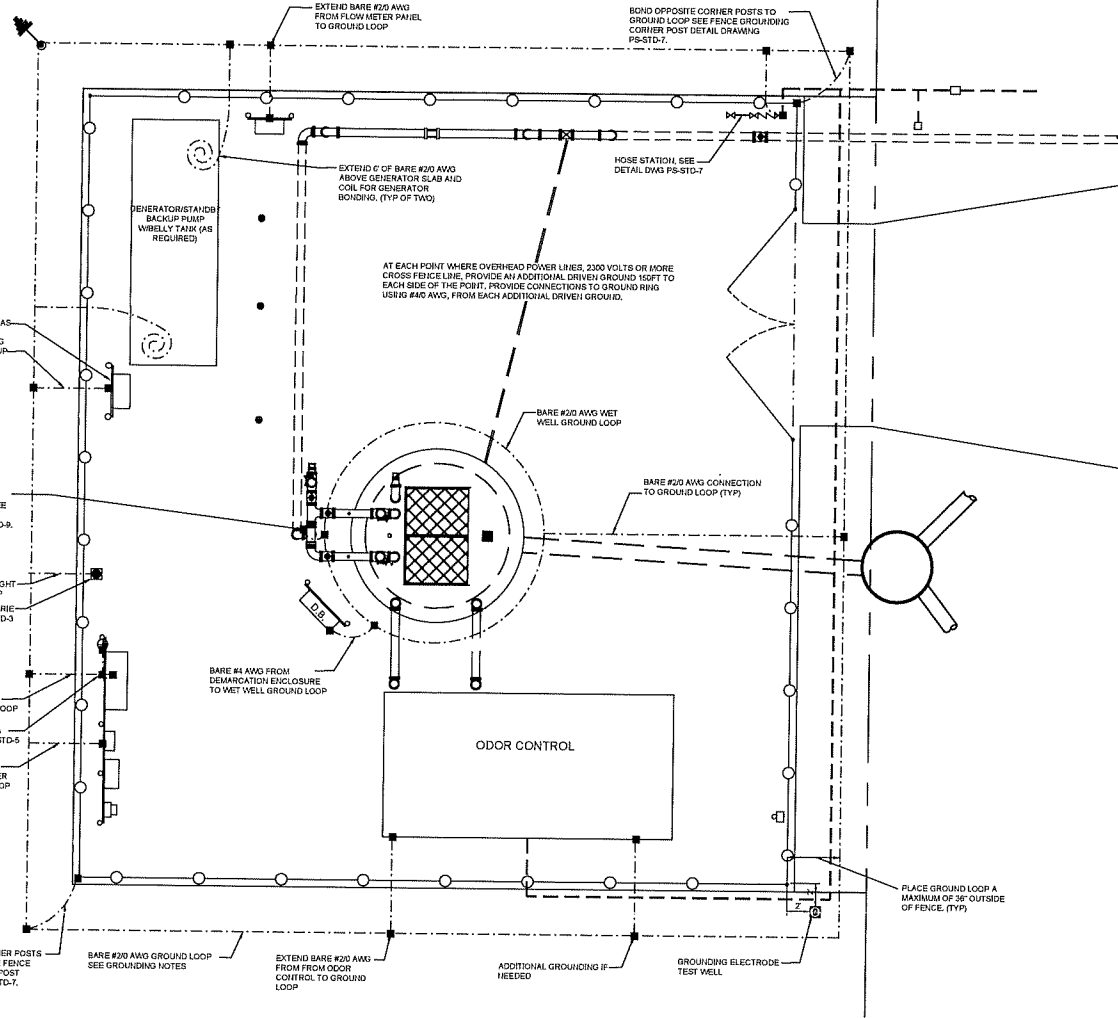
**Connelly & Wicker Inc.**  
 Planning • Engineering • Landscape Architecture  
 10960 Summer Lake Drive, Suite 500 Jacksonville, Florida 32246  
 (904) 265-5100 FAX: (904) 265-3031 www.cweng.com  
 Florida Registry 3683 L.A. Number: LC20000811

NO.	BY	DATE	REVISIONS
1	AW	07/21/2021	1. LAYOUT
2	AW	07/21/2021	2. LAYOUT
3	AW	07/21/2021	3. LAYOUT

PROJECT NO. 21-01-0000  
 SHEET NO. 15  
 DRAWING NO.

DATE: JULY 21, 2021  
 SCALE:

**JEA STANDARD**  
**PUMP STATION ELECTRIC DETAILS**  
**ELECTRIC SINGLE LINE DIAGRAM**



PUMP STATION GROUNDING SITE PLAN

NOT TO SCALE

GROUNDING SYMBOL LEGEND	
	GROUND CONDUCTOR (SIZE AS REQUIRED BY NOTES)
	EXOTHERMIC OR COMPRESSION CONNECTION
	GROUND ROD AND CONNECTION
	GROUND TEST WELL WITH GROUND ROD
	GROUND CONDUCTOR COILED ABOVE GRADE OR SLAB FOR FUTURE CONNECTION

# GROUNDING NOTES

PROVIDE A COMPLETE ELECTRICAL GROUNDING SYSTEM WITH A MEASURED GROUND RESISTANCE OF 5 OHMS OR LESS. GROUNDING COMPONENTS AND MATERIALS SHALL BE NEW AND UNDAMAGED.

INSULATED GROUND CONDUCTOR SHALL BE SOFT DRAIN, TIN PLATED, STRANDED COPPER CONFORMING TO THE REQUIREMENTS OF UL 83. INSULATED GROUND CONDUCTOR SHALL BE TYPE TW OR THW, AND GREEN COLORED INSULATION. MINIMUM SIZE FOR INSULATED GROUND CONDUCTORS, REGARDLESS OF APPLICATION SHALL BE #12 AWG.

## BURIED GROUND LOOP CONDUCTORS

A. GROUND LOOP CONDUCTOR SHALL BE BARE #20 AWG, SOFT DRAWN, TIN PLATED STRANDED COPPER CONDUCTOR UNLESS OTHERWISE NOTED.

B. BARE GROUND CONDUCTORS BELOW GRADE, SHALL HAVE A MINIMUM OF 18 INCHES AND A MAXIMUM OF 30 INCHES COVER FROM FINISHED GRADE. BARE GROUND CONDUCTORS UNDER FOUNDATIONS OR SLABS, SHALL HAVE A MINIMUM OF 6 INCHES OF EARTH COVER BETWEEN THE TOP OF CONDUCTOR CONDUIT AND THE FOUNDATION OR SLAB.

C. BARE GROUND CONDUCTORS THAT PENETRATE THROUGH EXPOSED SLABS OR WET WELL WALL, SHALL DO SO THROUGH A 3/4" x 1/2" MIN. SCHED 40 PVC SLEEVE, WITH GROUND WIRE CENTERED IN SLEEVE, FILL TOP OF SLEEVE WITH APPROVED SEALANT TO A DEPTH AT LEAST 3 TIMES THE OUTSIDE DIAMETER OF THE SLEEVE. ALL WIRES PENETRATING TO THE SURFACE SHALL BE TIN PLATED.

D. BARE GROUND CONDUCTOR SHALL BE DIRECTLY BURIED IN EARTH, TO WITHIN 24 TO 36 INCHES FROM BASE OF STRUCTURES OR EQUIPMENT IDENTIFIED FOR GROUNDING.

## GROUND RODS

A. SHALL BE COPPER CLAD MIN 13MIL, COLD DRAWN CARBON STEEL MANUFACTURED IN ACCORDANCE WITH UL 467, WITH THE COPPER CLADDING BONDED TO THE STEEL ROD BY ELECTROLYTIC OR MOLDED WELDING PROCESS. GROUND RODS SHALL HAVE A CONICAL TAPER ON PENETRATING END. EACH GROUND ROD SHALL BE 10-FOOT BY 3/4 INCH DIAMETER SECTIONS.

B. THERE SHALL BE A MINIMUM OF 2 GROUND RODS THAT SHALL BE DRIVEN TO A MINIMUM OF 50FT EACH. IF GROUND RODS ARE UNABLE TO BE DRIVEN 40FT OR 50FTS IS NOT ACHIEVED THEN ADDITIONAL GROUND RODS MUST BE DRIVEN TILL THE 5 OHMS IS REACHED. IF AN ADDITIONAL GROUND ROD IS REQUIRED IT MUST BE DRIVEN IN A CORNER THAT DOESN'T HAVE A ROD.

C. GROUND RODS SHALL BE CONNECTED BY COMPRESSION COUPLINGS, SCREW COUPLINGS WILL NOT BE ACCEPTED.

## GROUNDING SYSTEM HARDWARE

A. GROUNDING SYSTEM HARDWARE, INCLUDING CLAMPS, CONNECTORS, BOLTS, WASHERS, AND NUTS, SHALL BE TIN PLATED COPPER.

B. SPLICES, JOINTS, AND CONNECTIONS BELOW GRADE SHALL BE EXOTHERMIC OR IRREVERSIBLE COMPRESSION TYPE. THREADED OR BOLTED COUPLINGS ARE NOT ACCEPTABLE EXCEPT WHERE NOTED IN GROUNDING DETAILS.

C. PREPARE CONDUCTORS AND CONNECTORS PER MANUFACTURERS REQUIREMENTS. REMAKE CONNECTIONS THAT FAIL MANUFACTURER'S RECOMMENDED TESTS.

D. GROUNDING CONNECTIONS SHALL ENCOMPASS 100 PERCENT OF THE GROUND CONDUCTOR AND CONDUCTOR ENDS.

E. GROUND LUGS SHALL BE SINGLE OR TWO-HOLE, HEAVY-DUTY, TIN PLATED COPPER BARS CONFORMING TO THE REQUIREMENTS OF IEEE 637 AND UL 467. TWO-HOLE GROUND LUGS SHALL HAVE NEMA CENTERLINE HOLE SPACING. GROUND LUGS USING AN EXOTHERMIC PROCESS SHALL BE SIMILAR TO TYPE LA AS MANUFACTURED BY ERICO.

F. MAKE CABLE CONNECTIONS TO BUS BARS USING HIGH-COMPRESSION LUGS. GROUND LUGS USED WITH THE COMPRESSION PROCESS SHALL BE TYPE YGHA AS MANUFACTURED BY BURNDY ELECTRICAL.

G. BOND PIPING TO GROUNDING SYSTEM VIA CONNECTION AT THE LAST FLANGE BEFORE PIPES RETURN UNDERGROUND. SEE WET WELL GROUNDING DETAIL.

H. GROUNDING BY USE OF ANCHOR BOLTS, AGAINST GASKETS, OIL PAINTED OR VARNISHED SURFACES, OR ON BOLTS HOLDING REMOVABLE ACCESS COVERS WILL NOT BE ACCEPTABLE.

I. GROUND RESISTANCE SHALL BE CERTIFIED BY AN INDEPENDENT GROUNDING SYSTEM TESTING ORGANIZATION. TESTING SHALL BE DONE AT EACH TEST WELL USING THE 3-POINT FALL OF POTENTIAL METHOD. THIS DOCUMENT MUST BE SUBMITTED AT THE TIME OF STARTUP FOR FINAL ACCEPTANCE.

J. NO CHEMICALS SHALL BE USED TO REDUCE THE RESISTANCE UNLESS APPROVED BY JEA.

K. A MINIMUM OF 5 OHMS OF SHALL BE GUARANTEED BY THE CONTRACTOR FOR 3 YEARS FROM THE SITES ACCEPTANCE. IF THE RESISTANCE FAILS IN THIS TIME THE CONTRACTOR WILL BE RESPONSIBLE FOR ADDING ADDITIONAL GROUND RODS AT THE CONTRACTORS EXPENSE.

**Connelly & Wicker Inc.**  
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 10850 S. W. 31st Ave., Suite 100, Fort Lauderdale, Florida 33326  
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 Florida Registry #690 L.A. Number LC20000311

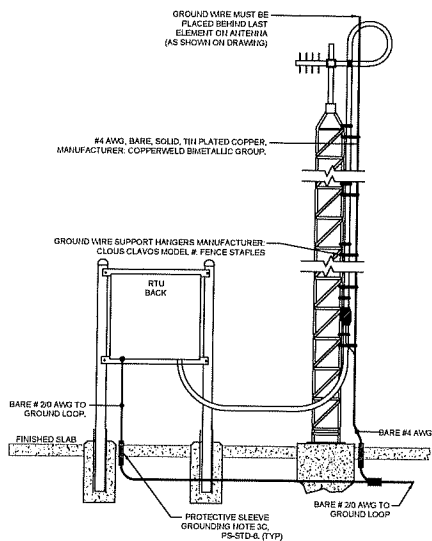
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6	BY	DATE	REVISIONS
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10	BY	DATE	REVISIONS

DESIGNER: MARY E. LEAFROTT, P.E.  
 CHECKED: JEFFREY L. WICKER, P.E.  
 DATE: 08/09/21  
 SCALE: AS SHOWN

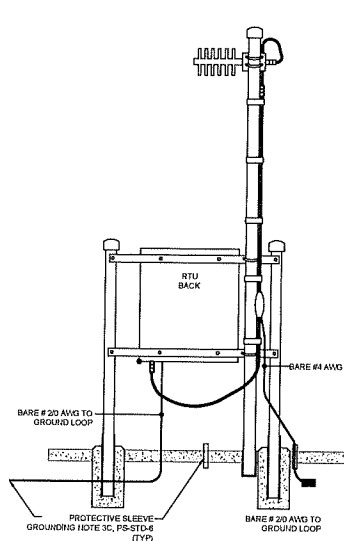
**JEA**  
 BUILDING COMMUNITIES

JEA STANDARD  
 PUMP STATION ELECTRIC DETAILS  
 ELECTRIC SINGLE LINE DIAGRAM

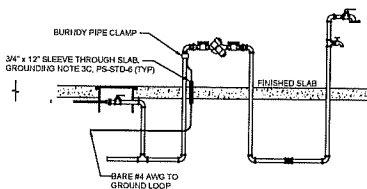
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SHEET NO.	DATE	JULY 21, 2021
DRAWING NO.	SCALE	



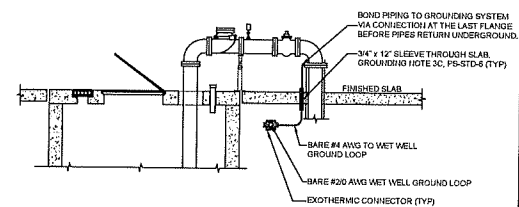
**ALTERNATE ANTENNA - GROUNDING DETAIL**  
 FOR POLE HEIGHTS 20 FEET AND ABOVE  
 NOT TO SCALE



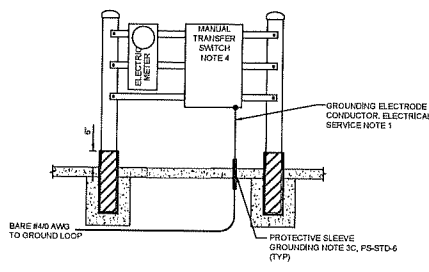
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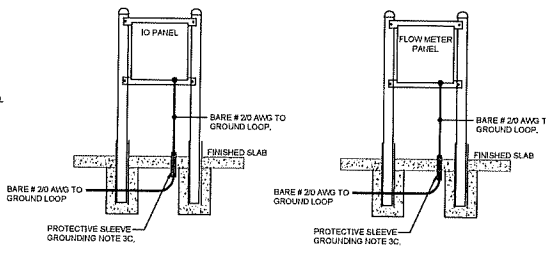
**HOSE STATION GROUNDING DETAIL**  
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**WETWELL GROUNDING DETAIL**  
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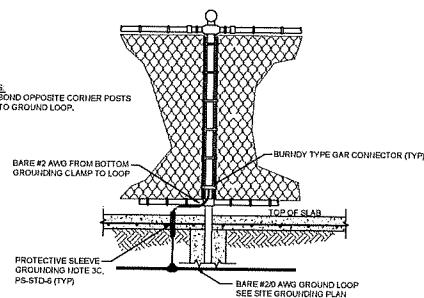


**MANUAL TRANSFER SWITCH GROUNDING DETAIL**  
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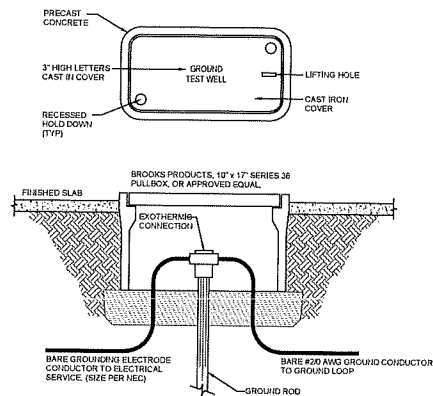


**STANDBY BACKUP PUMP I/O GROUNDING DETAIL**  
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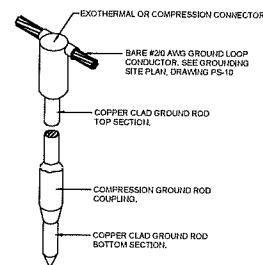
NOTES:  
 1. BOND OPPOSITE CORNER POSTS TO GROUND LOOP.



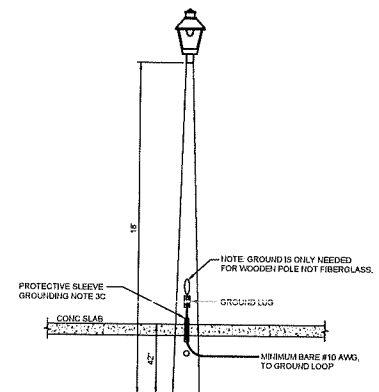
**FENCE GROUNDING CORNER POST DETAIL**  
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**GROUND SYSTEM TEST WELL DETAIL**  
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**TYPICAL GROUND ROD & CONNECTION DETAIL**  
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**SITE LIGHT GROUNDING DETAIL**  
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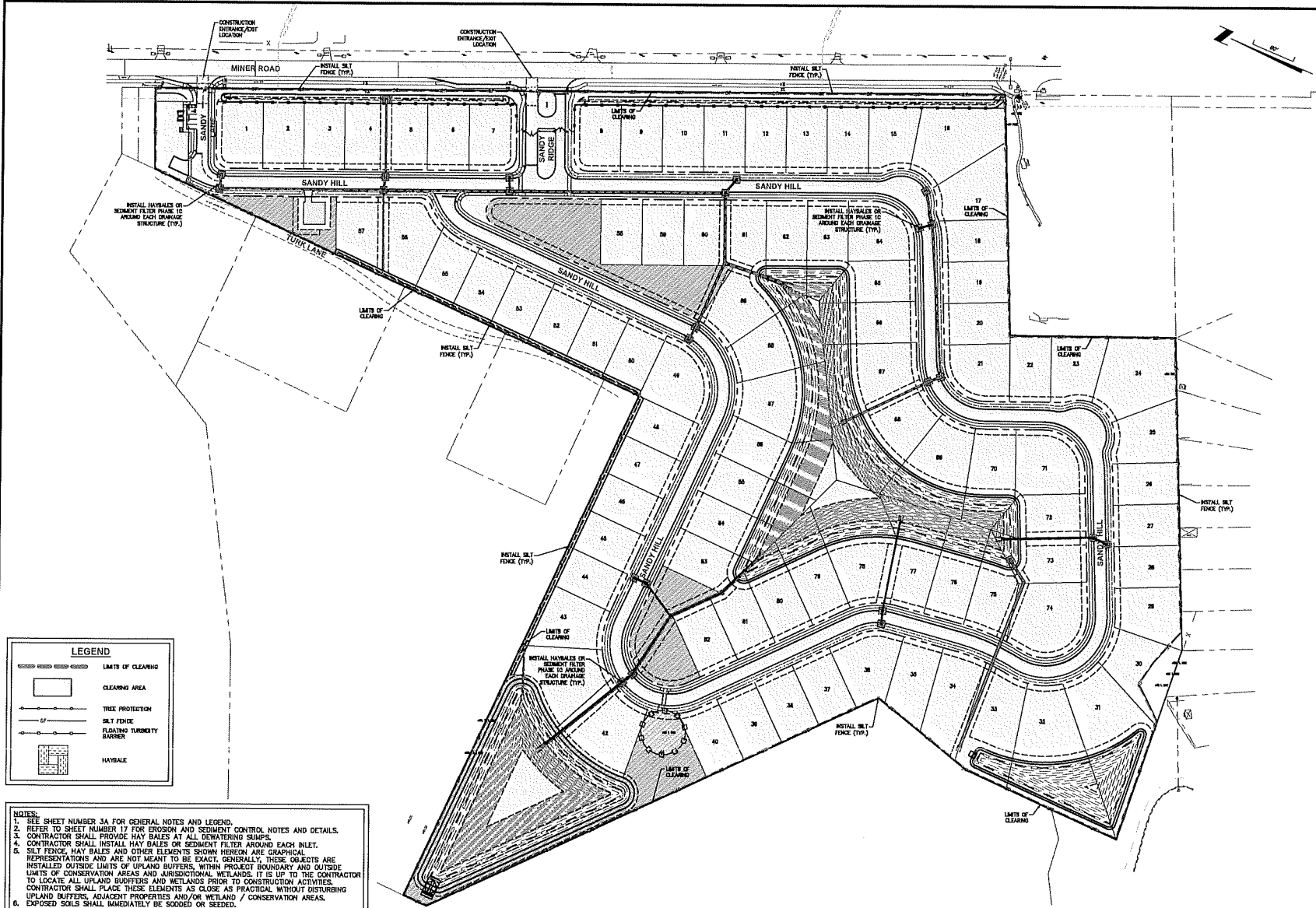
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NO.	BY	DATE	REVISIONS
1	AW	7/21/21	ISSUED FOR PERMIT

DESIGNED BY: MARY E. LEAPROTT, P.E.  
 CHECKED BY: JEFFREY L. WICKER, P.E.  
 DATE: JULY 21, 2021  
 SCALE: AS SHOWN

PROJECT: JEA STANDARD PUMP STATION ELECTRIC DETAILS  
 DRAWING NO.: 10 - GROUNDING DETAILS





**LEGEND**

	LIMITS OF CLEARING
	CLEARING AREA
	TREE PROTECTION
	SILT FENCE
	FLUATING TURBIDITY DIVIDER
	HAYBALE

**NOTES:**

1. SEE SHEET NUMBER 3A FOR GENERAL NOTES AND LEGEND.
2. REFER TO SHEET NUMBER 17 FOR EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.
3. CONTRACTOR SHALL PROVIDE HAY BALES AT ALL DEWATERING SHUMPS.
4. CONTRACTOR SHALL INSTALL HAY BALES OR SEDIMENT FILTER AROUND EACH INLET.
5. SILT FENCE, HAY BALES AND OTHER ELEMENTS SHOWN HEREIN ARE GRAPHICAL REPRESENTATIONS AND ARE NOT MEANT TO BE EXACT. GENERALLY, THESE OBJECTS ARE INSTALLED OUTSIDE LIMITS OF UPLAND BUFFERS, WITHIN PROJECT BOUNDARY AND OUTSIDE LIMITS OF CONSERVATION AREAS AND JURISDICTIONAL WETLANDS. IT IS UP TO THE CONTRACTOR TO LOCATE ALL UPLAND BUFFERS AND WETLANDS PRIOR TO CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL PLACE THESE ELEMENTS AS CLOSE AS PRACTICAL WITHOUT DISTURBING UPLAND BUFFERS, ADJACENT PROPERTIES AND/OR WETLAND / CONSERVATION AREAS.
6. EXPOSED SOILS SHALL IMMEDIATELY BE SOODED OR SEEDED.

<b>Connelly &amp; Wicker Inc.</b> Planning • Engineering • Landscape Architecture 10660 Skimmer Lake Drive, Suite 500 Jacksonville, Florida 32246 (904) 265-5100 FAX (904) 265-5101 www.connelly.com Florida Reg. No. 13501, Georgia Reg. No. 13501, Louisiana Reg. No. 13501	
<b>SEDIMENT AND EROSION CONTROL PLAN</b>	
<b>SANDY RIDGE</b> YULEE, FLORIDA PREPARED FOR SEMANIK INVESTMENT CORPORATION	Project No: 21-01-0000 Design: MSL Drawn: GCL Date: August 9, 2021 Scale: 1" = 60'
Sheet <b>16</b>	

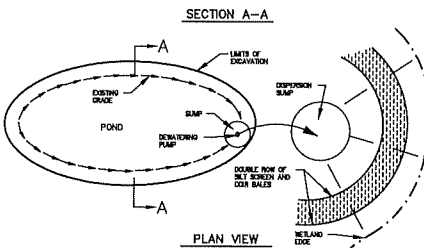
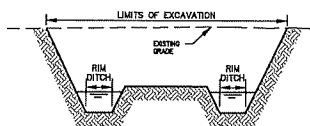


# SEDIMENT AND EROSION CONTROL NOTES

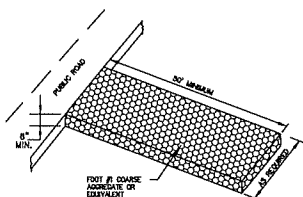
1. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FROM SITE IF NOT REMOVED ON-SITE AND AVOIDING PLANT PLACEMENT AND GRADE IN ALL DITCHES AND SHALLS AT COMPLETION OF CONSTRUCTION.
2. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED.
3. ADDITIONAL PROTECTION - ON-SITE PROTECTION IN ADDITION TO THE ABOVE MUST BE PROVIDED THAT WILL NOT PREVENT SILT TO LEAVE THE PROJECT CONTROLS DUE TO UNUSUAL 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 LAYED OVER THE DRAIN PILES SO THAT THE WIRE EXTENDS A MINIMUM OF 1 FOOT BEYOND EACH SIDE OF THE DRAIN STRUCTURE. HORIZONTAL GUTTER OF COMPARABLE WIRE MESH WITH 1/2-INCH OPENINGS SHALL BE USED IF MORE THAN ONE STRIP OF WIRE IS REQUIRED, THE STRIPS SHALL BE OVERLAPPED.
6. FOOT NO. 1 COARSE AGGREGATE SHALL BE PLACED OVER THE WIRE MESH AS INDICATED ON SEDIMENT FILTER DETAIL. (SEE DETAIL THIS SHEET). THE DEPTH OF STONE SHALL BE AT LEAST 12 INCHES OVER THE ENTIRE SLOPE OPENING. THE STONE SHALL EXTEND BEYOND THE INLET OPENING AT LEAST 12 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-BUNDLED OR STAPLED WITH THE BUNDLES ORIENTED ALONG THE INLET RATHER THAN OVER AND UNDER THE BALES.
9. BALES SHALL BE PLACED LIGHTWEIGHTLY IN A SINGLE ROW SURROUNDING THE INLET, WITH THE ENDS OF ADJACENT BALES PRESSURE TOGETHER.
10. THE FILTER BARRIER SHALL BE EXTENDED AND BUNDLES A TRENCH SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 4 INCHES AFTER THE BALES ARE PLACED. 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 STAPLES OR RINGS DRIVEN THROUGH THE BALE.
12. LOOSE COIR SHOULD BE NEEDED BETWEEN BALES TO PREVENT WATER FROM ENTERING BETWEEN BALES.
13. COIR BALE BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
14. CLOSE ATTENTION SHALL BE GIVEN TO THE REPAIR OF DAMAGED BALES, END RINGS AND UNDERGUTTING BENEATH BALES.
15. NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BALES SHALL BE ACCOMPLISHED PROMPTLY.
16. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. IT MUST BE REMOVED WHEN THE SEDIMENT REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
17. ANY SEDIMENT DEPOSITS REMAINING IN PLACE, AFTER THE COIR BALE OR FILTER BARRIER, AND OR SILT FENCES AND NO LONGER REQUIRED, SHALL BE ORDERED TO CONFORM TO THE EXISTING GRADE, PREPARED AND BEEDED.
18. SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER PROLONGED RAINFALL. REPAIRS SHALL BE MADE IMMEDIATELY. THE FENCE SHALL BE REPLACED IMMEDIATELY.
19. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER BECOME OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER SHALL BE REPLACED. THE FABRIC SHALL BE REPLACED IMMEDIATELY.
20. STRUCTURES SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS REQUIRED.
21. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 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.
22. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING THE BEST EROSION AND SEDIMENT CONTROL PRACTICES AS OUTLINED IN THE PLAN, SPECIFICATIONS AND ST. JOHNS RIVER WATER MANAGEMENT DISTRICT RULES AND REGULATIONS.
23. 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.P.) CHAPTER 8.
24. EROSION AND SEDIMENT CONTROL BARRIERS SHALL BE PLACED ADJACENT TO ALL WETLAND AREAS WHERE THERE IS POTENTIAL FOR DOWNSTREAM WATER QUALITY DEGRADATION. SEE DETAIL (THIS SHEET) FOR TYPICAL CONSTRUCTION.
25. SOIL SHALL BE PLACED IN AREAS WHICH MAY REQUIRE IMMEDIATE EROSION PROTECTION TO DISPERSE WATER QUALITY STANDARDS ARE MAINTAINED.
26. ANY DISBURSE FROM DRAINAGE ACTIVITY SHALL BE FILLED AND CONVERTED TO THE OUTFALL IN A MANNER WHICH PREVENTS EROSION AND TRANSPORTATION OF SUSPENDED SOLIDS TO THE RECEIVING OUTFALL.
27. DRAINAGE PUMPS SHALL NOT EXCEED THE CAPACITY OF THAT WHICH REQUIRES A CONFORMANCE USE PERMIT FROM THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT.
28. ALL DISTURBED AREAS SHALL BE GRAZED, FERTILIZED AND MULCHED UNTIL A PERMANENT VEGETATIVE COVER IS ESTABLISHED. CONTRACTOR SHALL USE ADDITIONAL MEASURES TO STABILIZE DISTURBED AREAS THROUGH COMPACTION, SILT BARRIERS, COIR BALES, AND GRASSING. ALL FILL SHOULD BE 3:1 OR STEEPER TO RECEIVE STABLED SOLID SOIL.
29. ALL DRAINAGE, EROSION AND SEDIMENT CONTROL SHALL REMAIN IN PLACE UNTIL AFTER COMPLETION OF CONSTRUCTION AND REMOVED DAILY WHEN AREAS ARE BEING STABILIZED.
30. 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 CRITERIA AND MAY NEED TO INSTALL ADDITIONAL CONTROLS.
31. THE CONTRACTOR SHALL BE REQUIRED TO REPORT TO ALL WATER MANAGEMENT DISTRICTS INVOLVED, RELATIVE TO COMPLIANCE OF SAVING FOR EROSION AND SEDIMENT CONTROL. THE COST OF THIS COMPLIANCE SHALL BE PART OF THE CONTRACT.
32. EROSION AND SEDIMENT CONTROL BARRIERS SHALL BE PLACED ADJACENT TO ALL WETLAND AREAS AND PRESERVATION ELEMENTS WHERE THERE IS POTENTIAL FOR DOWNSTREAM WATER QUALITY DEGRADATION.
33. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING A PERMANENT STANDING OF SOIL AND/OR GRAVEL FOR THE CONTRACT DOCUMENTS AND MEETING THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT, BROWARD AND PALM BEACH STABILIZATION REQUIREMENTS.
34. THESE PLANS INCLUDING THE POLLUTION PREVENTION PLAN INDICATE THE MINIMUM EROSION AND SEDIMENT CONTROL MEASURES REQUIRED FOR THIS PROJECT. FOR ADDITIONAL INFORMATION ON SEDIMENT AND EROSION CONTROL, REFER TO THE FLORIDA DEVELOPMENT MANUAL - A GUIDE TO

ROUND LAND AND WATER MANAGEMENT" FROM THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (F.D.E.P.) CHAPTER 8. CONTRACTOR SHALL PROVIDE EROSION PROTECTION AND TURBIDITY CONTROL, AS REQUIRED TO INSURE COMPLIANCE TO STATE AND FEDERAL WATER QUALITY STANDARDS AND MAY NEED TO INSTALL ADDITIONAL CONTROLS TO CONFORM TO APPLICABLE REQUIREMENTS. IF A WATER QUALITY VIOLATION OCCURS, CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ALL DAMAGE AND ALL COSTS WHICH MAY RESULT INCLUDING LEGAL FEES, CONSULTANT FEES, CONSTRUCTION COSTS, AND FINES.

35. 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR WILL SUBMIT A "NOTICE OF INTENT" TO THE EPA IN ACCORDANCE WITH NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM RULES AND REGULATIONS. (FOR ANY CONSTRUCTION NOT COVERED BY THE OWNER'S "NOTICE OF INTENT" PERMIT)



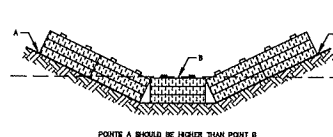
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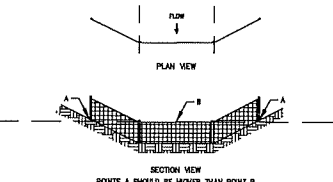
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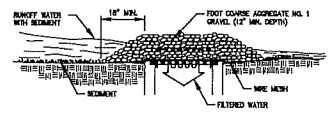
COIR BALE DROP INLET SEDIMENT FILTER  
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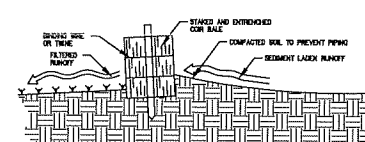
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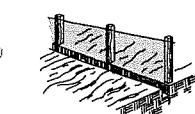
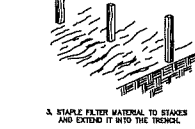
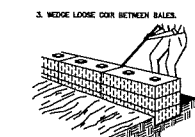
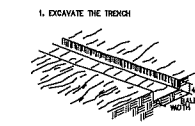
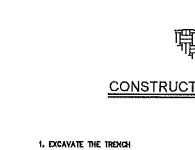
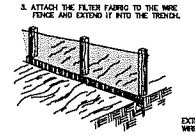
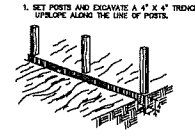
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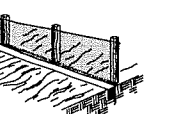
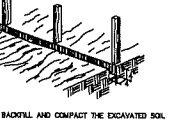
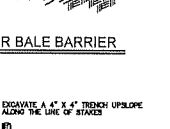
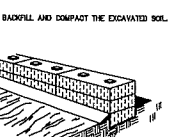
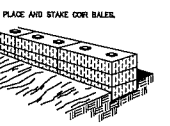
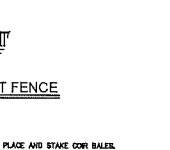
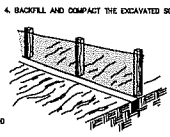
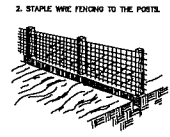
GRAVEL AND WIRE MESH DROP INLET  
SEDIMENT FILTER  
N.T.S.



CROSS-SECTION OF A PROPERLY  
INSTALLED COIR BALE  
N.T.S.



CONSTRUCTION OF A COIR BALE BARRIER  
N.T.S.



CONSTRUCTION OF A FILTER BARRIER  
N.T.S.

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Project No.	21-01-0008
Design:	AWB
Check:	D.C.
Drawn:	RCW
Date:	August 9, 2021
Scale:	

SEDIMENT AND  
EROSION CONTROL  
DETAILS

SANDY RIDGE  
YULEE, FLORIDA  
PREPARED FOR  
SEAWALK INVESTMENT CORPORATION

MARY S. LEAPROTT, P.E.  
Professional Engineer  
No. 12444  
State of Florida  
Exp. 08/31/2023

OWNER'S REQUIREMENTS CONTRACTOR'S REQUIREMENTS

PROJECT NAME AND LOCATION: SANDY RIDGE, FLORIDA

OWNER/DEVELOPER NAME AND ADDRESS: SEMANK INVESTMENT CORPORATION, 2120 CORPORATE SQUARE BLVD, SUITE 400, JACKSONVILLE, FL 32218

DESCRIPTION: CONSTRUCTION OF A 68 SINGLE FAMILY UNIT DEVELOPMENT, INCLUDING CONSTRUCTION OF INFRASTRUCTURE, UTILITIES, CLEARING, GRADING, STORMWATER MANAGEMENT FACILITIES, PAVING, AND ASSOCIATED CONSTRUCTION.

CONTRACTOR'S REQUIREMENTS: 7. INLET PROTECTION: INLETS AND CATCH BASINS WHICH DISCHARGE DIRECTLY OFF-SITE SHALL BE PROTECTED FROM SEDIMENT - LANDSLIDE STORM RAINFALL UNTIL THE COMPLETION OF ALL CONSTRUCTION OPERATIONS THAT MAY CONTRIBUTE SEDIMENT TO THE INLET.

INVENTORY FOR POLLUTION PREVENTION PLAN: Concrete, Asphalt, Tar, Degreaser, Fertilizers, Petroleum Based Products, Cleaning Solvents, Pesticides, Wood, Masonry Blocks, Roofing Materials, Metal Sheds.

MAINTENANCE/INSPECTION PROCEDURES: EROSION AND SEDIMENT CONTROL MEASURES AND MAINTENANCE PROCEDURES SHALL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROLS.

STORMWATER POLLUTION PREVENTION PLAN: PREPARED FOR SANDY RIDGE, FLORIDA, YULEE, FLORIDA. PREPARED FOR SEMANK INVESTMENT CORPORATION.

Printed: Aug 10, 2021 - 2:57 pm  
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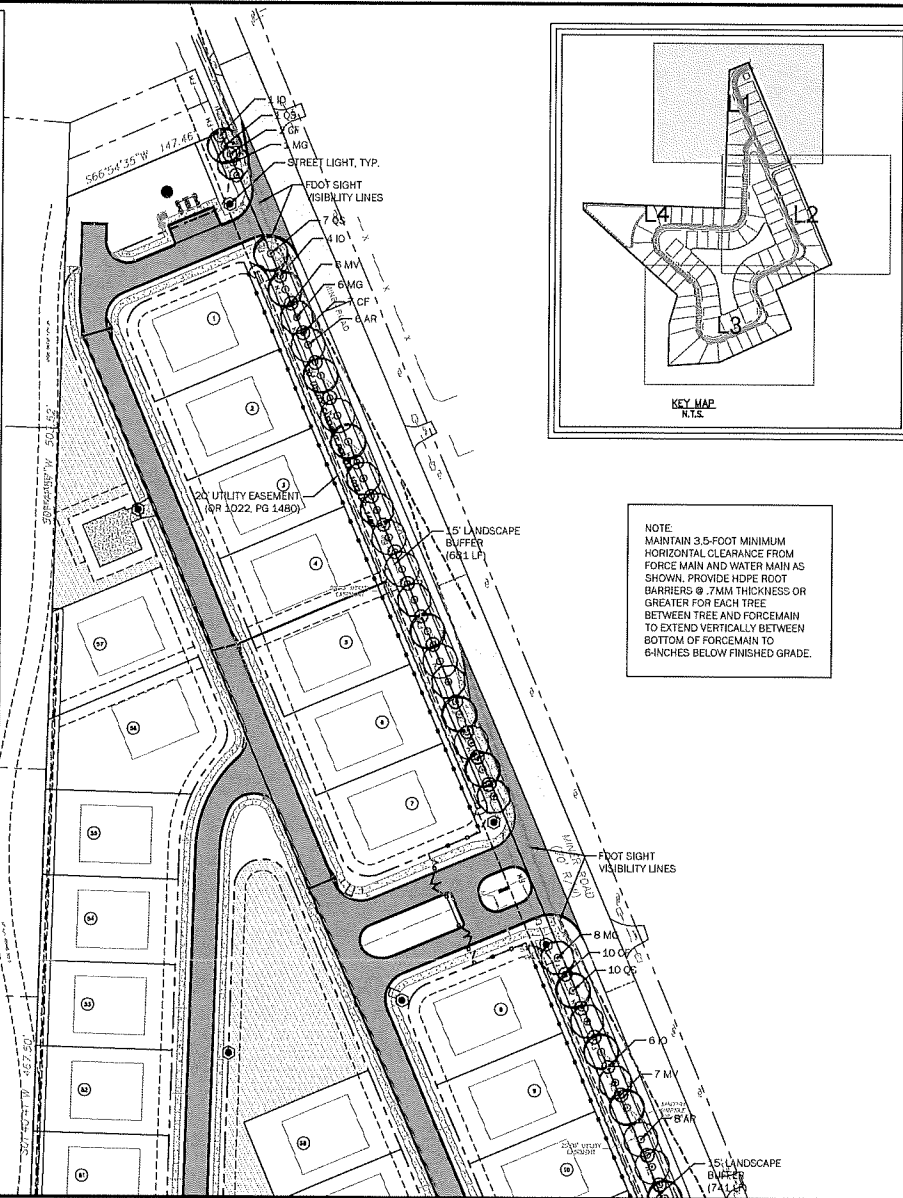
**OW Connelly & Wicker Inc.**  
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Project No.: 21-01-0009  
Revised: 08/10/21  
Drawn: JCS  
Checked: JCS  
Date: August 9, 2021  
Scale:  
Sheet: 18

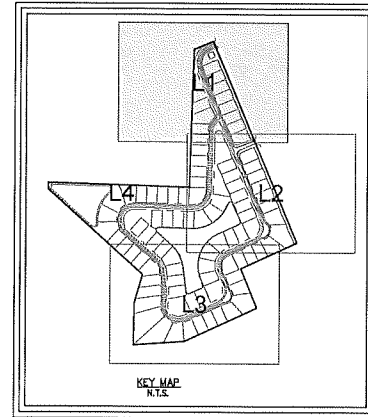
Lot Area = gross area - wetland, buffer, easement, and pond areas

Lot No.	Lot Area (AC)	Lot Area (\$F)	Req. Trees
48	0.21	9,000	3
49	0.29	12,489	4
50	0.21	9,000	3
51	0.21	9,000	3
52	0.21	9,000	3
53	0.21	9,000	3
54	0.21	9,000	3
55	0.21	9,140	3
56	0.31	13,651	4
57	0.25	10,676	3
58	0.20	8,925	2
59	0.20	8,925	2
60	0.20	8,925	2
61	0.20	8,925	2
62	0.20	8,925	2
63	0.20	8,925	2
64	0.27	11,626	4
65	0.21	9,017	3
66	0.30	12,835	4
67	0.28	12,169	4
68	0.26	11,140	4
69	0.26	11,430	4
70	0.22	9,776	3
71	0.31	13,407	4
72	0.22	9,575	3
73	0.12	4,951	1
74	0.38	16,648	4
75	0.22	9,560	3
76	0.20	8,925	2
77	0.22	9,488	3
78	0.26	11,397	4
79	0.21	9,235	3
80	0.20	8,925	2
81	0.21	9,250	3
82	0.21	9,000	3
83	0.21	9,226	3
84	0.20	8,925	2
85	0.20	8,925	2
86	0.20	8,937	2
87	0.27	11,804	4
88	0.24	10,414	3
89	0.27	11,905	4
<b>TOTAL</b>			<b>279</b>

**One and two-family dwellings.** Each single family and two-family lot must provide at least one (1) tree per three thousand (3,000) square feet of lot area for the first quarter acre (10,890 sf) of lot area. For lots exceeding one-quarter (¼) acre, one (1) tree for every additional one-quarter (¼) acre, or major fraction thereof, must be preserved or planted. Existing canopy trees, sabal palms and pine trees may be used to satisfy this requirement, in whole or in part, provided that they have a minimum caliper of four (4) inches DBH. When trees are planted to meet the minimum requirement they must be more than one species of tree listed in Tables 37-1 or 37-2 and meeting the material standards of this section. The foregoing represent the entire requirement applicable to individual one and two-family dwellings.



NOTE:  
MAINTAIN 3.5-FOOT MINIMUM  
HORIZONTAL CLEARANCE FROM  
FORCE MAIN AND WATER MAIN AS  
SHOWN. PROVIDE HDPE ROOT  
BARRIERS @ .7MM THICKNESS OR  
GREATER FOR EACH TREE  
BETWEEN TREE AND FORCEMAIN  
TO EXTEND VERTICALLY BETWEEN  
BOTTOM OF FORCEMAIN TO  
6-INCHES BELOW FINISHED GRADE



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Florida Registy 3650 L.A. Number LC26000311

LANDSCAPE PLAN

SANDY RIDGE  
YULEE, FLORIDA

WILLIAM & PITHMAN, WLL, P.C.A.  
LA 1601

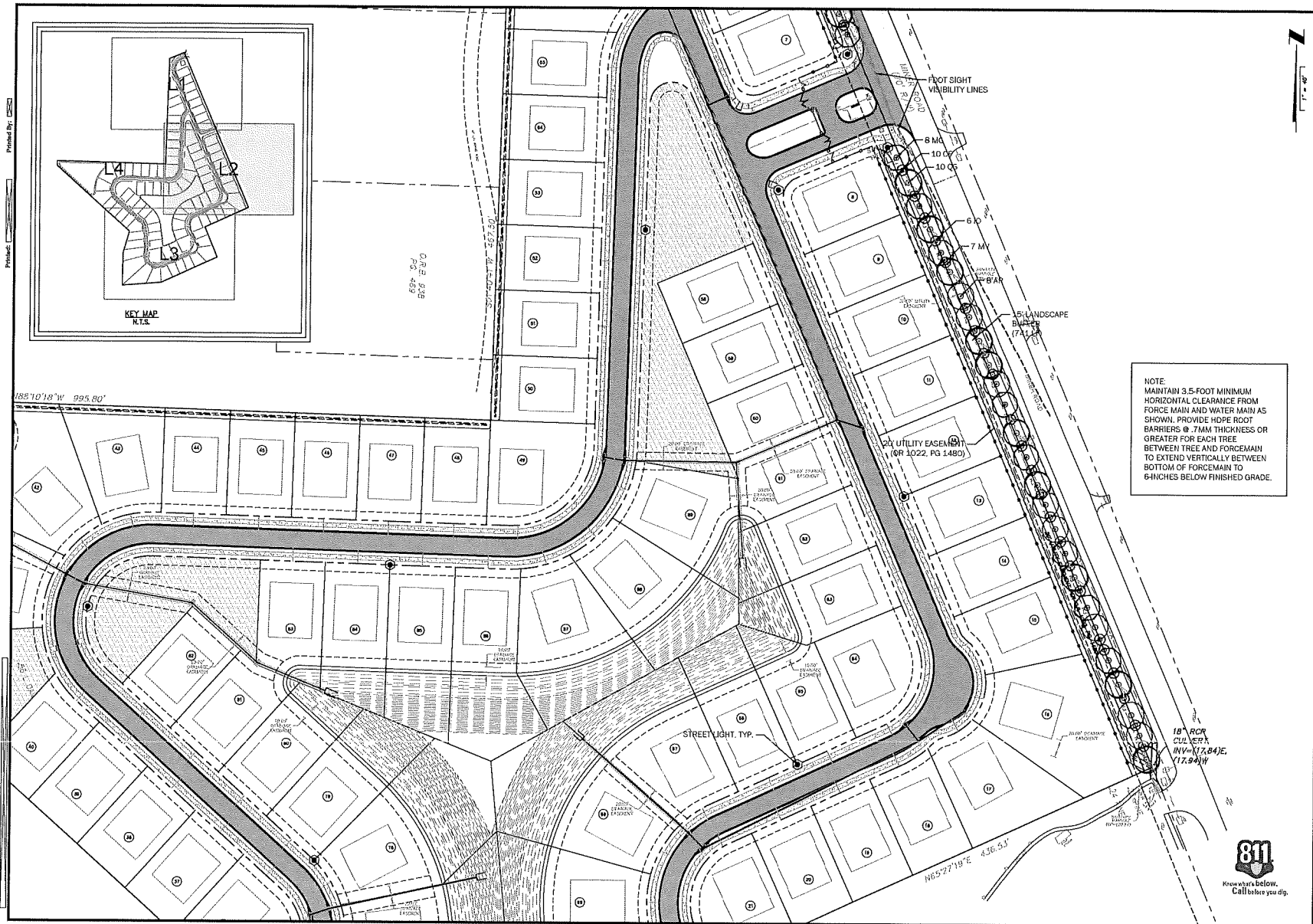
Reg. Landscape Architect

Reg. Landscape Architect	DATE OF PREPARATION	DATE OF REVISION	DATE OF REVISION
		No. Date	By
		Revision	

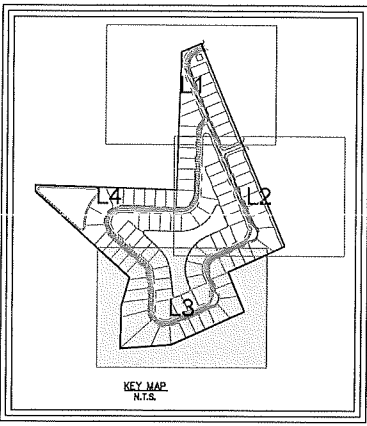
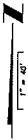
FLORIDA REGISTRY 3650 L.A. NUMBER: LC26000311

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Project No: 20-01-0009	
Designed: ABP	Drawn: ABP
Checked: MEL	O.C.: RCW
Date: AUGUST 4, 2021	
Scale: 1" = 40'	
Sheet L1	



NOTE:  
MAINTAIN 3.5-FOOT MINIMUM  
HORIZONTAL CLEARANCE FROM  
FORCE MAIN AND WATER MAIN AS  
SHOWN. PROVIDE HOPE ROOT  
BARRIERS @ .7MM THICKNESS OR  
GREATER FOR EACH TREE  
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TO EXTEND VERTICALLY TO  
BOTTOM OF FORCEMAIN TO  
6-INCHES BELOW FINISHED GRADE.



KEY MAP  
N.T.S.

808 94  
8201 810



<b>OW Connelly &amp; Wicker Inc.</b> Planning • Engineering • Landscape Architecture 10660 Shimmer Lake Drive, Suite 500 Jacksonville, Florida 32246 (904) 256-3030 FAX: (904) 265-4031 www.oweng.com Florida Registry #680 L.A. Number: LC26000311		
Project No.: 20-01-0009 Designed: JMD Check: JMD Date: AUGUST 4, 2021 Scale: 1" = 40' Sheet: L3	LANDSCAPE PLAN SANDY RIDGE YULEE, FLORIDA PREPARED FOR SEMANK INVESTMENT CORPORATION ANDREW B. BITMAN, M.A., B.U. L.A. 1501 Reg. Landscape Architect	Revision By Date No. Date

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Printed:  Printed By: 

1. Contractor shall furnish all labor, materials, and insurance to complete the work as shown in the plan.
2. Contractor is responsible for acquiring all required permits and associated fees to complete the work.
3. Contractor shall locate and visibly mark all buried utilities prior to construction and notify the landscape architect of any conflicts.
4. Contractor shall demolish and remove from the premises all pavement, sod and other materials required to implement the plan.
5. All work shall be completed in a timely manner and in accordance with standard industry practices.
6. Contractor shall coordinate a work plan with the owner or agent and the landscape architect prior to starting work and shall comply with all state and federal requirements for work safety.
7. Contractor shall coordinate an approved staging area with the owner prior to starting the work and shall maintain a clean and orderly site throughout the construction process and shall protect and preserve all existing trees and vegetation.
8. Contractor shall proceed with approved work in an orderly and timely fashion.
9. Contractor shall prevent off-site erosion, both by wind and rain, during construction using adequate means such as silt fencing, hay bales, and drain socks.
10. Contractor shall provide all new materials in full compliance with the specifications.
11. Substitutions shall be rejected unless approved by the landscape architect prior to installation.
12. Contractor shall repair and/or replace at Contractor's cost and in an expedient manner any existing pipes, conduits, cables, fences, pavement, plant material, or any other utilities, property within or abutting the project site damaged by Contractor during the course of the project.
13. Contractor shall notify the owner and landscape architect at least one week in advance for a substantial completion inspection. The landscape architect shall provide a punch list to the contractor outlining items to be completed by the contractor. The contractor shall correct any deficiencies in the same manner before calling for a final inspection by the owner and the landscape architect.
14. Final payment for the work shall not be issued until a final inspection is completed and approved by the landscape architect and/or the owner.
15. All work shall be warranted against defects and failure for at least 1 year following the final acceptance.
16. Contractor shall clean site of all construction debris, materials, and trash. Disturbed areas shall be regraded and landscaped according to the plans, or sodded with approved seed and straw. Site must be clean and neat before a final acceptance and payment will be issued.

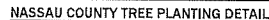
1. Install plants according to Florida Department of Transportation Index Number 444 Landscape Installation (<http://www.dot.state.fl.us>). However, stake trees according to the detail provided in Nassau County ordinance section 37.09B.
2. Do not use plants that are susceptible to root rot or other diseases.
3. Contractor shall verify and determine all final quantities based on new trees prior to bidding and pricing. In the occurrence of a discrepancy between the plants and the plant list, the plants shall take precedence.
4. All plants shall meet the specifications on the plant list or plant schedule.
5. All plants shall be good, healthy, 1. grade or better according to the Florida grades and standards handbook.
6. All plants shall be nursery-grown containerized or b&b stock.
7. All plants shall be free of holes, vigorous, evenly leaved, and thickly foliated when in leaf. All plants shall be free of disease, insects, including eggs and larvae, as well as have a healthy, developed root system. They should also be free of physical injury and adverse conditions that would prevent thriving growth.
8. Plant material, tree trunks, and root ball outlines shall be staked or flagged on site by the contractor and shall be adjusted as representative to fit actual as-built conditions on site and approved by the owner or owner's representative, prior to installation.
9. Unless otherwise specified, existing plant material within the areas of new construction as shown on the plan shall be removed and properly disposed of at the project site. Plant material outside of these areas shall remain and shall be replaced with like kind if killed or damaged via landscape installation activities (see general construction instructions and tree and existing vegetation protection).
10. Planting beds shall be cut or mowed to form a uniform, clean line between beds and lawn areas.
11. Remove synthetic material and remove burlap and wire basked material from top of root ball prior to backfilling.
12. Shade trees shall be planted a minimum of 4 feet from any edge of pavement and 15 feet from overhead electric as measured from the average centerline (refer to local ordinance for more detail).
13. All plant material shall be warranted for a period of one year from the date of final acceptance of the work and not the date on which it was installed.
14. Contractor shall provide all fine surface grading preparation for planting and shall maintain finished grade throughout the project. Contractor shall provide adequate drainage. Report any drainage problems associated with finished grade or finished soil characteristics to the owner and the landscape architect.
15. Consideration of planting areas with installation of irrigation system or hose bibbs as specified.
16. Contractor shall provide mulch for all newly installed landscape areas. Provide a minimum 5" diameter mulch ring for all installed trees. Provide uniform coverage for landscape mulch at the specified depth. Keep mulch at least 6" from all woody trunks and stems.
  - 16.1. Mulch shall be pine bark chips.
  - 16.2. Mulch shall be 4" uniform depth.
17. Install soil or cover, as specified in the plans, according to the Florida Department of Transportation standard specification section 670 performance tree (<http://www.dot.state.fl.us>) unless otherwise specified.
18. Contractor shall provide certified, healthy soil, free of weeds, disease, fungus, insects, or nematodes.
  - 18.1. Soil shall be:
    - a. 18.1.1. Argentine bahia
19. Contractor shall provide plant maintenance during the construction period through final acceptance and the owner shall provide maintenance during the warranty period following final acceptance. Unless otherwise specified in the contract documents.
20. Contractor shall remove all above-ground geying material at the end of the establishment period.

3. Contractor shall minimize soil compaction to all new planting areas by limiting access to those areas designated for planting purposes only. Contractor shall not store, clean, or empty equipment or materials within any area specified for preservation or reseeded areas.
2. Prior to plant installation, Contractor shall conduct a soil test in at least three locations on the site that best represent the plant distribution and conditions shown on the planting plan. The soil test shall be conducted by an independent laboratory qualified to test soils. The test shall be conducted to determine:
  - 2.1. Soil type
  - 2.2. Soil pH
  - 2.3. Nutrient content
  - 2.4. Recommended amendments
3. Contractor shall furnish a copy of the soil report(s) along with the contractor's recommended amendments to the landscape architect and the owner prior to installing plants. Contractor shall not install plant installation without a written or verbal response from the landscape architect or owner indicating receipt of the report and agreement with the amendment approach. Do not apply synthetic fertilizer to any planting area without the approval of the landscape architect or owner.
4. The default soil amendment shall be:
  - 4.1. Plant soils: integrate 8-10 percent by volume organic plant bark compost uniformly throughout the planting soil prior to plant installation.
  - 4.2. Soil surface: integrate 50% by volume organic compost into the top 6" of the planting soil. Well-composted, post-consumer yard waste is the preferred source.

1. Approximate street light locations are shown on the landscape plans. Final locations to be determined by the utility provider and the project developer.
2. Lighting shall be in accordance with Hassau County Code Section 29-43 Street Lighting. Final street lighting to be designed by JEA Utility. Poles shall not exceed 35 in height, shall meet the placements requirements of Section 29-43 B, and illumination and spacing requirements of the JEA Lighting Handbook, current edition. Operation and Maintenance shall be handled by the Homeowners Association.

QTY	ABV	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	TREE TYPE	ORIGIN
<b>CANOPY TREES</b>							
14	AR	Acer rubrum	Red maple	4" cal / 13-19" ht	As shown	Canopy	Native
15	MG	Magnolia grandiflora	Southern magnolia	4" cal / 12-24" ht	As shown	Canopy	Native
18	QS	Quercus shumardi	Shumard oak	4" cal / 13-15" ht	As shown	Canopy	Native
47	Total						
<b>UNDERSTORY TREES</b>							
19	CF	Cornus florida	Flowering dogwood	3" cal / 8-10" ht	As shown	Understory	Native
11	IO	Ilex opaca	American holly	3" cal / 8-10" ht	As shown	Understory	Native
15	MV	Magnolia virginiana	Sweetbay magnolia	3" cal / 8-10" ht / std	As shown	Understory	Native
43	Total						
<b>BOD</b>							
		Paspalum notatum 'Argentine'	Argentine bahagrass	Sold spg	Square foot		

1. Contractor shall provide a new automatic irrigation system that ensures 100% head-to-head coverage of all landscaped areas within the project area.
2. Install bubblers only for code-required areas, one per tree.
3. Irrigation zone shall be composed of 1/2" polyethylene pipe and/or on pipe valve.
4. Contractor shall provide a double-check backflow preventer equal to a DCA-100 (per approved local), mounted in a rectangular valve box on the serving side and adjacent to the meter.
5. Contractor shall submit a preliminary irrigation design plan and cost estimate for the proposed new system installation along with unit costs for components and all related work such as sleeve in, design, electrical work, and repairs.
6. Upon completion, contractor shall submit as-built plan for the installed irrigation system, location of all components and sleeves to the owner (and municipal authority if required).
7. Contractor shall furnish all warranty, maintenance equipment, and operating instructions.
8. Contractor shall show owner or maintenance superintendent how to operate the controller, operate the system manually, shut system off, adjust heads and sprays, and provide other critical and helpful information necessary to properly operate and maintain the system.



\* May not equal 100 due to rounding

Know what's below.  
Call before you dig

Project No.: 20-01-0009	
Designed: ABP	Drawn: ABP
Checked: MEL	O.C.: RCW
Date: AUGUST 4, 2021	
Scale:	
Sheet <b>L5</b>	

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