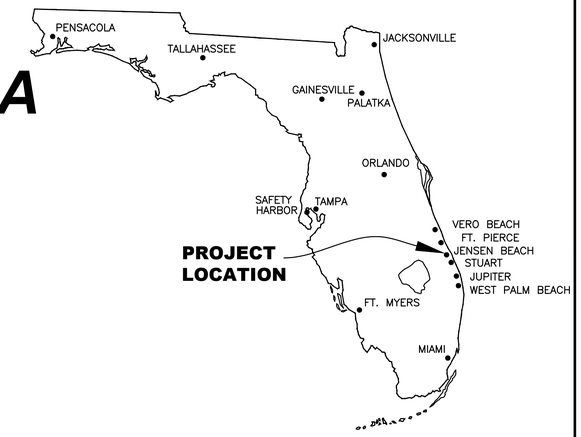
BOARD OF COUNTY COMMISSIONERS:

DOUG SMITH	DISTRICT 1
STACEY HETHERINGTON	DISTRICT 2
HAROLD JENKINS	DISTRICT 3
SARAH HEARD	DISTRICT 4
EDWARD CIAMPI	DISTRICT 5

Construction Plans and Specifications Of

NE SAVANNAH ROAD AT NE COY SENDA ROUNDABOUT

Lying In
Section 27, Township 37 South, Range 41 East
Martin County, Florida



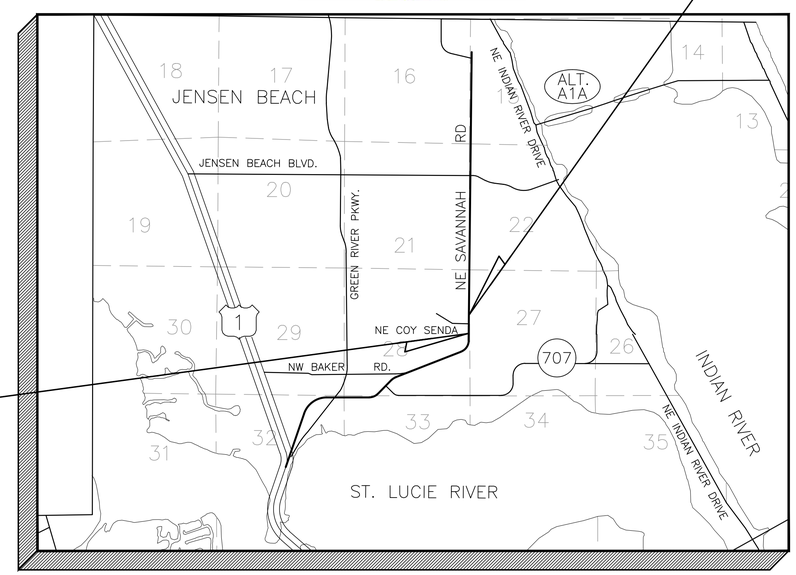
SHEET INDEX

NUMBER - TITLE

1 - COVER
2 - SUMMARY OF PAY ITEMS
3 - GENERAL NOTES
4 - TYPICAL SECTIONS
5 - MARTIN COUNTY DETAILS
6 - PROJECT CONTROL SHEET
7 - INTERSECTION DETAILS
8 - EROSION AND SEDIMENT CONTROL
9 - DEMOLITION PLAN
10 - PAVING, GRADING AND DRAINAGE
11 - PROFILES
12 - CROSS SECTIONS
13 - CROSS SECTIONS
14 - UTILITY ADJUSTMENTS
15 - PAVEMENT MARKING AND SIGNAGE
16 - MAINTENANCE OF TRAFFIC
LA-1- LA-3 - LANDSCAPE PLANS
E0.1- E1.2 - ELECTRICAL / LIGHTING PLANS

END PROJECT AT SAVANNAH RD. ℄ SURVEY STA. 60+17

BEGIN PROJECT AT SAVANNAH RD. ℄ SURVEY STA 53+41



LOCATION MAP

NOT TO SCALE

GOVERNING SPECIFICATIONS:

- FDOT STANDARD PLANS FOR ROAD & BRIDGE CONSTRUCTION, FY2019-20.

-FDOT STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION, 2019 EDITION.

-THE MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTUCTION, AND MAINTENANCE FOR STREETS AND HIGHWAYS (FLORIDA GREENBOOK), 2016 EDITION.

-THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) MANUAL ON TRAFFIC CONTROL DEVICES (M.U.T.C.D.), 2009 EDITION.

-THE MARTIN COUNTY PUBLIC WORKS STANDARD DETAILS FOR ROAD AND SITE CONSTRUCTION AND PUBLIC FACILITIES, 12/03/2020 EDITION.

THIS DOCUMENT MAY BE REPRODUCED UPON REQUEST IN AN ALTERNATIVE FORMAT BY CONTACTING THE COUNTY ADA COORDINATOR (772) 320-3131, THE COUNTY ADMINISTRATION OFFICE (772) 288-5400, FLORIDA RELAY 711, OR BY COMPLETING OUR ACCESSIBILITY FEEDBACK FORM AT WWW.MARTIN.FL.US/ACCESSIBILITY-FEEDBACK.

CAPTEC Engineering, Inc.
Civil Engineering Professionals
Civil Engineering Professionals
Engineering Business No. EB-0007657
301 N.W. Flagler Avenue
Stuart, Florida 34994
Phone: (772) 692-4344
Fax: (772) 692-4341

MARTIN COUNTY ENGINEERING
2401 SE MONTEREY ROAD
STUART, FLORIDA 34996
PHONE: (772) 288-5927
FAX: (772) 288-5955
www. martin.fl.us

Joseph W. Capra, P.E.
301 N.W. Flagler Ave.
Stuart, Florida 34994
P.E. No. 37638
(seal)
Signature Date

KNOW WHAT'S BELOW ALWAYS CALL 811 BEFORE YOU DIG
It's fast. It's free. It's the law.
www.callsunshine.com

LENGTH OF PROJECT

	LINEAR FEET	MILES
ROADWAY IMPROVEMENTS	676	0.13
NET LENGTH OF PROJECT	676	0.13
GROSS LENGTH OF PROJECT	676	0.13

REVISIONS

01	PERMIT PLANS	3-27-2020	MDB
	DESCRIPTION	DATE	APPR.

P:\1300\1329.2 - Reserve at Jensen Beach\Dwg\1329.2 ROUNDABOUT COVER MARTIN.dwg, 3/27/2020 2:02:27 PM, DWG To PDF.pc3

NE SAVANNAH ROAD AT NE COY SENDA ROUNDABOUT
SUMMARY OF PAY ITEMS

Item	Description	Quantity	Unit
101-1	Mobilization / Demobilization / General Conditions (Includes Video)	1	LS
102-1	Maintenance of Traffic	1	LS
102-2	Temporary Asphalt	130	TN
103	Survey (Construction Staking & As-Builts)	1	LS
104	NPDES Compliance (Erosion Control)	1	LS
104-2	Staked Silt Fence	1,550	LF
110-1-1	Demolition / Clearing & Grubbing	1.30	AC
120-6	Embankment	730	CY
160-4	Type 'B' Stabilization (12")	2,350	SY
285-709	Optional Base Group 9	2,350	SY
327-70-1	Milling Exist. Asphalt 1" Avg Depth	2,050	SY
334-1-13	2" Type SP-12.5 Asphaltic Concrete	285	TN
334-1-13	1" Type SP-9.5 Asphaltic Concrete	230	TN
425-1-352	Type 'P-5' Inlet	3	EA
425-1-362	Type 'P-6' Inlet	1	EA
425-1-551	Type E Inlet	3	EA
430-175-118	18" RCP (Storm and Cross Drain)	128	LF
430-175-124	24" RCP (Storm and Cross Drain)	164	LF
430-175-136	36" RCP (Storm and Cross Drain)	19	LF
520-1-10	Concrete Curb & Gutter, Type F	1,916	LF
520-2-8	Concrete Curb, Type RA	280	LF
522-2	Concrete Sidewalk (Includes ADA Mat & Directional Indicator) (6" Thick)	770	SY
523-1	Patterned Pavement (Liquid Brick Crosswalk & Truck Apron)	345	SY
570-1-2	Performance Turf / Sod	1,000	SY
580-1	Landscape (includes all materials, labor and installation for complete job)	1	LS
700-20-11	(R1-2) Yield Sign (48" x 48" x 48")	4	EA
700-20-11	(R1-6A) Stop Within Crosswalk	4	EA
700-20-11	(R4-7) Keep Right Sign	2	EA
700-20-11	(R6-4) Directional Arrow Sign	4	EA
700-20-11	(W2-6) Roundabout Warning Sign (30" x 30")	4	EA
700-20-11	(W13-1P) Speed Limit Sign (20 mph)	4	EA
706-3	Reflective Pavement Markers	100	EA
711-11-123	Thermoplastic White 12" Solid Line (Crosswalks)	220	LF
711-14-170	Thermoplastic Standard White Arrow	3	EA
711-11-180	Thermoplastic White Yield Line (5 Triangles per Line)	64	LF
711-11-213	Thermoplastic Yellow 18" Solid Line (Gore Striping)	35	LF
711-11-131	Thermoplastic White 6" 2-4 Skip Line	0.02	GM
711-11-131	Thermoplastic White 6" 6-10 Skip Line	0.50	GM
711-11-111	Thermoplastic White 6" Solid Line	0.40	GM
711-11-211	Thermoplastic Yellow 6" Solid Line	0.30	GM
715	Lighting (includes all materials, labor and installation for complete job)	1	LS
1080-15	Utility Adjustments (includes valve boxes & manhole covers)	1	LS

PAY ITEMS NOTES:

102-1 MAINTENANCE OF TRAFFIC INCLUDES THE COST OF THE PROJECT INFORMATION SIGN. SIGN SHALL BE SAME SIZE AS REQUIRED BY FLORIDA DEPARTMENT OF TRANSPORTATION.

110-1-1 PAY ITEM INCLUDES THE COST TO COMPLETELY REMOVE AND DISPOSE OF ALL EXISTING PIPES AND DRAINAGE STRUCTURES SHOWN TO BE REMOVED.

1080-15 PAY ITEM TO INCLUDE ALL NECESSARY TIME AND MATERIALS TO ADJUST VALVE BOXES, PIGGING STATIONS, AIR RELEASE VALVE BOXES, AND SANITARY CLEANOUTS TO COMPLY WITH M.C. UTILITY STANDARDS THIS ALSO INCLUDES THE ADJUSTMENT OF ANY FIBER OPTIC TRAFFIC SIGNAL CABLE BOXES AND APPURTENANCE . THE COST OF ADJUSTING UTILITY MARKERS, PLAQUES, MONUMENTS, ETC. IS INCIDENTAL TO THE COST OF THIS ITEM.

MARTIN COUNTY ENGINEERING
2401 SE MONTEREY ROAD
STUART, FLORIDA 34996
PHONE: (772) 288-5927
FAX: (772) 288-5955
www. martin.fl.us

DESIGNED BY: SPM		DATE: 3-27-2020
DWN BY: MDB	CKD BY: JWC	SOLICITATION NO.:
SUBMITTED BY: SPM		CONTRACT NO.: 2017-2971
SCALE: NA	PLOT DATE: 3/27/2020	FILE NUMBER: 1329.2
SIZE: 24X36	FILE NAME: 1329.2 ROUNDABOUT NOTES AND DETAILS.DWG	

	DESCRIPTION	DATE	APPR.
1	PERMIT PLANS	3-27-2020	

NE SAVANNAH ROAD AT NE COY SENDA ROUNDABOUT
MARTIN COUNTY, FLORIDA
SUMMARY OF PAY ITEMS

CAPTEC Engineering, Inc.
Civil Engineering Professionals
301 N.W. Flagler Ave.
Stuart, Florida 34994
Phone: (772) 692-4344
Fax: (772) 692-4341
Engineering Business No. EB-0007657

Joseph W. Capra, P.E.
301 N.W. Flagler Ave.
Stuart, Florida 34994
P.E. No. 37638
(seal)
Signature Date

SHEET IDENTIFICATION
2
SHEET 2 OF 16

P:\1329\1329.2 - Reserve at Jensen Beach\Dwg\1329.2 ROUNDABOUT NOTES AND DETAILS.dwg, 3/27/2020 2:02:34 PM, DWG To PDF.pc3

GENERAL NOTES:

1. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGE OR DEVIATIONS FROM THE DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE ENGINEER. CONTRACTOR TO UTILIZE "APPROVED FOR CONSTRUCTION PLANS" ONLY.

2. THE CONTRACTOR SHALL NOTIFY ALL AFFECTED UTILITY COMPANIES 14 DAYS PRIOR TO CONSTRUCTION OPERATIONS ADJACENT TO THEIR FACILITIES. THIS ITEM SHALL BE COMPLETED IN COMPLIANCE WITH THE GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT.

3. THE LOCATION AND SIZE OF ALL EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND ARE BASED ON THE BEST AVAILABLE INFORMATION. ADDITIONAL UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITIES BY ELECTRONIC METHODS AND BY HAND EXCAVATION IN COORDINATION WITH ALL UTILITY COMPANIES, PRIOR TO BEGINNING ANY CONSTRUCTION OPERATIONS. ANY AND ALL CONFLICTS OF EXISTING UTILITIES WITH PROPOSED IMPROVEMENTS SHALL BE RESOLVED BY THE ENGINEER AND THE OWNER PRIOR TO BEGINNING ANY CONSTRUCTION OPERATIONS. THIS WORK BY THE CONTRACTOR SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED. ALL BELL SOUTH, FPL, LOCAL CABLE, AND ALL LOCAL UTILITY COMPANY (CITY, COUNTY, WATER AND SEWER) LOCATIONS SHOWN ARE TAKEN FROM INFORMATION PROVIDED BY THAT UTILITY COMPANY. THESE LOCATIONS HAVE NOT BEEN VERIFIED IN THE FIELD. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION. THE CONTRACTOR TO EXPOSE ALL CROSSINGS WITH SOUTHERN BELL, CABLES/CATV AND FLORIDA POWER AND LIGHT CONDUITS PRIOR TO BEGINNING CONSTRUCTION AND DELIVERY OF PIPE. THE CONTRACTOR IS TO USE EXTREME CAUTION WITHIN THE VICINITY OF PRIVATE UTILITY FACILITIES. THE CONTRACTOR WILL REQUEST A PRIVATE UTILITY REPRESENTATIVES PRESENCE DURING CONSTRUCTION IN THE VICINITY OF THEIR FACILITIES. A PROFILE OF THE PRIVATE UTILITY FACILITIES ARE NOT PROVIDED IN THESE DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE PRIVATE UTILITIES AND OBTAINING THE APPROXIMATE LOCATION OF THESE FACILITIES. THIS ITEM SHALL BE COMPLETED IN COMPLIANCE WITH THE GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT.

4. CONTRACTOR SHALL PROTECT ALL EXISTING ABOVE OR UNDERGROUND STRUCTURES, LANDSCAPE FEATURES, TREES AND UTILITIES NOT SHOWN ON THE PLANS TO BE REMOVED BY CONSTRUCTION.

5. PROJECT SUPERINTENDENT: THE CONTRACTOR SHALL PROVIDE A QUALIFIED SUPERINTENDENT TO REMAIN ON THE JOB SITE AT ALL TIMES WHEN WORK IS BEING PERFORMED. THE SUPERINTENDENT SHALL BE PRESENT AT THE PRE- CONSTRUCTION MEETING. THE CONTRACTOR SHALL NOTIFY THE LOCAL UTILITY COMPANY BY LETTER REQUESTING ATTENDANCE AT THE PRE-CONSTRUCTION MEETING THE SUPERINTENDENT FOR THIS PROJECT SHALL SUBMIT A FORMAL RESUME SHOWING QUALIFICATIONS PRIOR TO THE PRE-CONSTRUCTION MEETING. THIS ITEM SHALL BE COMPLETED IN COMPLIANCE WITH THE GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT.

6. IT IS THE CONTRACTOR'S RESPONSIBILITY T0 ENSURE HIS COMPLETE FAMILIARITY WITH THE PROJECT SITE AND COMPONENTS TO INCLUDE SUBSURFACE CONDITIONS OF SOIL AND GROUNDWATER TABLE. BY SUBMITTAL OF A BID FOR THIS PROJECT, THE CONTRACTOR ACKNOWLEDGES HIS COMPLETE UNDERSTANDING AND RESPONSIBILITIES WITH RESPECT TO THE CONSTRUCTION ACTIVITIES REQUIRED UNDER THE SCOPE OF THIS PROJECT.

7. THE "TRENCH SAFETY ACT" SHALL BE INCORPORATED INTO THIS CONTRACT AS ENACTED BY THE LEGISLATURE OF THE STATE OF FLORIDA TO BE IN EFFECT AS OF OCTOBER 1, 1990.

8. AS-BUILT RECORD DRAWINGS: UPON COMPLETION OF THE WORK, BUT PRIOR TO SUBMITTAL OF REQUEST FOR FINAL PAYMENT OR FINAL ACCEPTANCE, THE CONTRACTOR OR DEVELOPER'S ENGINEER SHALL OBTAIN AND SUBMIT RECORD INFORMATION CERTIFIED BY A FLORIDA PROFESSIONAL SURVEYOR AND MAPPER PREPARED IN ACCORDANCE WITH MARTIN COUNTY UTILITIES AND SOLID WASTE DEPARTMENT MINIMUM CONSTRUCTION STANDARDS - SECTION 7 - RECORD DRAWINGS. TWO (2) PAPER PRINTS OF THE PLAN SHEETS, PROFILES, DETAILS AND LIFT STATION SHALL BE PROVIDED. THE PRINT SHALL BE SIGNED AND SEALED BY THE FLORIDA PROFESSIONAL SURVEYOR AND MAPPER AND THE FLORIDA PROFESSIONAL ENGINEER RESPONSIBLE FOR CERTIFYING THE PROJECT. ALL SHEETS MUST INCLUDE THE VERTICAL DATUM AND HORIZONTAL DATUM USED IN EASILY READABLE PRINT.

   THREE (3) ELECTRONIC RECORD DRAWING FILES SHALL ALSO BE PROVIDED AS FOLLOWS: ONE (1) DIGITAL RECORD DRAWING CAD FILE SAVED IN THE ORIGINAL FORMAT AS DESIGNED, BUT BEING AUTOCAD VERSION 2004 OR NEWER. ONE (1) DIGITAL RECORD DRAWING SAVED IN DWF FORMAT AS AN EXACT REPRODUCTION OF THE SIGNED AND SEALED RECORD DRAWING ON PAPER, WITHOUT SIGNATURE OR SEAL WITH A RESOLUTION OF 300 DOTS PER INCH (DPI). ONE (1) DIGITAL RECORD DRAWING SAVED IN PDF FORMAT AS AN EXACT REPRODUCTION OF THE SIGNED AND SEALED RECORD DRAWING ON PAPER, WITHOUT SIGNATURE OR SEAL WITH A RESOLUTION OF 300 DOTS PER INCH (DPI).

   ALL RECORD DRAWING INFORMATION SHALL ACCURATELY DEPICT ALL SURVEYED INFORMATION WITH ALL HORIZONTAL VECTOR INFORMATION BEING SHOWN IN THE NORTH AMERICAN DATUM OF 1983 (NAD83) AND IN THE FLORIDA EAST ZONE STATE PLANE COORDINATE SYSTEM OR THE LATEST NGS ADOPTED DATUM USING U.S. SURVEY FEET AS THE UNIT OF MEASUREMENT.

   CAD FILES: THE DIGITAL RECORD DRAWING CAD FILE SHALL FOLLOW THESE GENERAL STANDARDS FOR INCLUSION IN THE UTILITY'S GEOGRAPHIC INFORMATION SYSTEM (GIS): ALL RECORD DRAWING PIPING INFORMATION SHALL BE PLACED ON SEPARATE LAYERS BY PIPING TYPE, DIAMETER AND MATERIAL. ALL RECORD DRAWING FIXTURE INFORMATION (FIRE HYDRANTS, VALVES, METERS, REDUCERS, TEES, WYES, CROSSES, CAPS, ETC.) SHALL BE PLACED ON SEPARATE LAYERS BY THE PIPING TYPE THEY ARE ATTACHED TO. ALL PIPING SHALL BE DRAFTED AS POLYLINES; SEPARATED ONLY AT JUNCTIONS OR CHANGES IN PIPE DIAMETER. ALL PIPING POLYLINES SHALL SNAP TO ONE ANOTHER AT EVERY JUNCTION AND CHANGE IN PIPE DIAMETER. A TEMPLATE FILE SHALL BE PROVIDED TO THE UTILITY DEPARTMENT WHICH CLEARLY DEPICTS RECORD DRAWING LAYERS AND BLOCKS TO BE USED IN FINAL RECORD DRAWING SUBMITTALS. ALL RECORD DRAWING CAD FILES SHALL ADHERE TO THE LAYER AND BLOCK STRUCTURE SUBMITTED IN THE TEMPLATE FILE.

9. THE CONTRACTOR WILL SUBMIT FOR APPROVAL BY OWNER A PLAN SHOWING THE SCHEDULE OF WORK, INCLUDING A HIGHLIGHTED PLAN SHOWING THE ORDER OF CONSTRUCTION WHICH WILL FACILITATE MAINTAINING EXISTING SERVICES DURING CONSTRUCTION. CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND COUNTY RULES AND REGULATIONS GOVERNING THE USE OF STREETS FOR PROTECTION OF THE WORK AND PUBLIC SAFETY. MAINTENANCE OF TRAFFIC SHALL BE PROVIDED BY CONTRACTOR IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION - LATEST EDITION AND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

10. ALL CONSTRUCTION IS TO BE IN ACCORDANCE WITH FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARDS AND SPECIFICATIONS (LATEST EDITION), THE REQUIREMENTS OF MARTIN COUNTY CODES AND REGULATIONS AND MARTIN COUNTY UTILITIES AND SOLID WASTE DEPARTMENT SPECIFICATIONS AND STANDARDS (AUGUST 2016). IN ADDITION ALL ACTIVITIES ARE TO BE IN ACCORDANCE WITH F.D.E.P. STANDARDS AND ITEMS DESCRIBED IN THE TECHNICAL PROVISIONS OF THE CONSTRUCTION CONTRACT.

GENERAL NOTES (CONT.):

11. ANY MONUMENT WITHIN THE LIMITS OF CONSTRUCTION IS TO BE PROTECTED. IF IN DANGER OF DAMAGE, THE CONTRACTOR SHOULD NOTIFY,

    GEODETIC INFORMATION CENTER
    ATTN.: CHARLIE NOVICE
    ATTN.: M/CG - 162
    6001 EXECUTIVE BOULEVARD
    ROCKVILLE, MARYLAND 20852
    TELEPHONE: (301) 443-8319

12. BENCH MARK DATA IS NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD '88).

13. SHOP DRAWING SUBMITTAL APPROVALS ARE REQUIRED FOR ALL STRUCTURES AND SHALL BE SUBMITTED TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ORDERING. THE ENGINEER REQUIRES FIVE (5) BUSINESS DAYS TO REVIEW SHOP DRAWINGS AFTER RECEIPT. THIS ITEM SHALL BE COMPLETED IN COMPLIANCE WITH THE GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT.

14. ALL UNSUITABLE MATERIALS, SUCH AS MUCK, ORGANIC MATERIAL AND OTHER DELETERIOUS MATERIAL AS CLASSIFIED BY AASHTO M 145, FOUND SHALL BE REMOVED DOWN TO ROCK OR SUITABLE MATERIAL, AND REPLACED WITH THE SPECIFIED FILL MATERIAL IN MAXIMUM 12 INCH LIFTS COMPACTED TO NOT LESS THAN 98% MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE IN ACCORDANCE WITH AASHTO T-180. THICKNESS OF LAYERS MAY BE INCREASED, PROVIDED THAT THE EQUIPMENT AND METHODS USED ARE PROVEN BY FIELD DENSITY TESTING AND CAPABLE OF COMPACTING THICK LAYERS TO SPECIFIED DENSITIES.

15. ALL AREAS SHALL BE CLEARED AND GRUBBED PRIOR TO CONSTRUCTION. THIS CLEARING AND GRUBBING SHALL CONSIST OF THE COMPLETE REMOVAL AND DISPOSAL OF ALL TREES, BRUSH, STUMPS, GRASS, WEEDS, RUBBISH AND ALL OTHER OBSTRUCTIONS RESTING ON, OR PROTRUDING THROUGH THE SURFACE OF THE EXISTING GROUND TO A DEPTH OF ONE (1) FOOT. ITEMS DESIGNATED TO REMAIN, TO BE RELOCATED, OR TO BE ADJUSTED SHALL BE DESIGNATED ON THE DRAWINGS.

16. FILL MATERIAL SHALL BE CLASSIFIED AS A-1, A-3, OR A-2-4 IN ACCORDANCE WITH AASHTO M-145. FILL SHOULD BE FREE FROM DEBRIS; VEGETATION, ORGANIC OR OTHER DELETERIOUS MATTER, AND SHOULD CONSIST OF CLEAN GRANULAR MATERIAL. IT SHOULD CONTAIN NOT MORE THAN 10 PERCENT PASSING THE U.S. STANDARD NUMBER 200 SIEVE, AND HAVE AN ORGANIC CONTENT LESS THAN ONE PERCENT. FILL SHOULD BE PLACED IN APPROXIMATELY LEVEL LIFTS OF LESS THAN 12 INCHES IN UNCOMPACTED THICKNESS, BE MOISTURE CONDITIONED AS NECESSARY, AND UNIFORMLY COMPACTED TO AT LEAST 98 PERCENT RELATIVE COMPACTION AS DETERMINED BY THE MODIFIED PROCTOR PROCEDURE (ASTM D1557). THE EXCAVATED SURFACE AND EACH LAYER OF BACKFILL SHOULD BE COMPACTED WITH A SELF-PROPELLED STEEL DRUM VIBRATORY ROLLER HAVING A MINIMUM TOTAL APPLIED FORCE OF 10 TONS. CONTRACTOR TO OVER EXCAVATE ALL DRY DETENTION AREAS TO FULLY REMOVE ANY SOILS THAT MAY LIMIT THE INFILTRATION OF STORM WATER LOCATED WITHIN 24" OF THE HARD PAN LAYER.

17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING CERTIFIED MATERIAL TEST RESULTS TO THE ENGINEER OF RECORD PRIOR TO THE RELEASE OF FINAL CERTIFICATION BY THE ENGINEER. TEST RESULTS SHALL INCLUDE, BUT MAY NOT BE LIMITED TO: DENSITIES FOR SUBGRADE AND BASE DENSITIES AT UTILITY CROSSINGS, MANHOLES, INLETS AND STRUCTURES. TEST SHALL INCLUDE ASPHALT GRADATION REPORTS, CONCRETE CYLINDERS, ETC. DENSITY TESTS SHALL BE PERFORMED AT THREE (3) LOCATIONS AROUND AND WITHIN 2' OF ALL STRUCTURES. TEST SHALL BE TAKEN IN THE FIRST FOOT ABOVE THE BOTTOM OF THE STRUCTURE AND THEN EVERY TWO FEET UP TO WITHIN TWO FEET OF THE FINISH GRADE.

18. ALL DISTURBED AREAS SHALL BE SODDED UPON COMPLETION OF GRADING TO AVOID EROSION AFTER AS-BUILT GRADE ELEVATIONS ARE APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CORRECTION OF ANY EROSION OR SHOALING OF THE WATER QUALITY MANAGEMENT SYSTEM.

19. TRENCHES AND EXCAVATIONS SHOULD BE KEPT DRY WHILE WORK IS IN PROGRESS. EXCAVATED MATERIALS, SUCH AS BOULDERS AND LOGS THAT ARE NOT SUITABLE FOR BACKFILL, SHOULD BE REMOVED FROM SITE. THE PIPE BARREL SHALL BE UNIFORMLY SUPPORTED ALONG ITS ENTIRE LENGTH ON UNDISTURBED SOIL OR BEDDING MATERIAL. PROPER BEDDING SHALL BE SUPPLIED IF THE EXISTING MATERIAL INCLUDES ROCK, ORGANIC MATTER OR OTHER SHARP OR UNSTABLE MATERIAL.

20. THE CONTRACTOR SHALL CONSTRUCT THE IMPROVEMENTS IN A MANNER SO AS TO MINIMIZE ANY ADVERSE IMPACTS OF THE WORKS ON FISH, WILDLIFE, NATURAL ENVIRONMENTAL VALUES AND WATER QUALITY ON OR OFF-SITE. THE CONTRACTOR SHALL INSTITUTE NECESSARY MEASURES DURING THE CONSTRUCTION PERIOD, INCLUDING FULL COMPACTION OF ANY FILL MATERIAL PLACED AROUND NEWLY INSTALLED STRUCTURES TO REDUCE EROSION, TURBIDITY, NUTRIENT LOADING AND SEDIMENTATION IN THE RECEIVING WATERS. ALL WORK WITHIN THIS PROJECT WILL BE COMPLETED IN STRICT COMPLIANCE WITH THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES).

21. ALL EXISTING LINES THAT ARE ABANDONED SHALL BE CUT, PLUGGED AND GROUTED, OR REMOVED AND DISPOSED OF PROPERLY BY THE CONTRACTOR AS REQUIRED BY THE ENGINEER AND OWNER. SINCE EXISTING LINES WITHIN THE PROJECT ARE ASBESTOS CONCRETE PIPE THEY SHALL BE HANDLED BY F.D.E.P. RULES AND REGULATIONS.

CLEAN-UP:

1. THE CONTRACTOR SHALL MAINTAIN THE JOB SITE IN A NEAT CONDITION AT ALL TIMES AND SHALL RESTORE/REPAIR ALL DRIVEWAYS, SIDEWALKS, UTILITIES, LANDSCAPING, IRRIGATION SYSTEMS, ETC., AFFECTED BY CONSTRUCTION ACTIVITIES.

2. THE CONTRACTOR SHALL REMOVE ALL EXCESS MATERIALS, DEBRIS, EQUIPMENT, ETC., FROM THE JOB SITE IMMEDIATELY AFTER COMPLETION OF CONSTRUCTION OPERATIONS.

3. UNLESS OTHERWISE SPECIFIED OR NOTED; ALL DISTURBED AREAS SHALL BE RESTORED BY CONTRACTOR TO PRE-CONSTRUCTION CONDITION OR BETTER PRIOR TO ACCEPTANCE BY THE OWNER AND LOCAL REGULATOR

4. ALL DISTURBED AREAS WILL BE SODDED UPON COMPLETION FOR STABILIZATION.

EROSION AND SEDIMENT CONTROL / ENVIRONMENTAL PROTECTION

1. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE LATEST LOCAL WATER MANAGEMENT DISTRICT SURFACE WATER PERMIT, COMPLETE WITH ALL CONDITIONS, ATTACHMENTS, EXHIBITS, AND PERMIT MODIFICATIONS IN GOOD CONDITIONS AT THE CONSTRUCTION SITE. THE COMPLETE PERMIT MUST BE AVAILABLE FOR REVIEW UPON REQUEST BY DISTRICT REPRESENTATIVES. THE CONTRACTOR SHALL REVIEW THE COMPLETE PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY AUTHORIZED BY THE PERMIT. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN A NATIONAL POLLUTANT DISCHARGE ELIMINATION STSTEM (NPDES) PERMIT ALONG WITH AN APPROVED STORMWATER POLLUTION PREVENTION PLAN (SWPPP), AND THESE DOCUMENTS MUST REMAIN ON THE PROJECT SITE AT ALL TIMES. THROUGHOUT THE CONSTRUCTION OF THE PROJECT, THE CONTRACTOR COULD BE REQUIRED TO ENHANCE UPON THE SWPPP PLANS TO COMPLY WITH THE NPDES PERMIT AND THE STATE WATER QUALITY GUIDELINES. THESE ENHANCEMENTS ARE CONSIDERED INCIDENTIAL TO THE COST OF EROSION AND SEDIMENT CONTROL.

2. ALL ACTIVITIES SHALL BE IMPLEMENTED AS SET FORTH IN THE PLANS, SPECIFICATIONS, AND PERFORMANCE CRITERIA AS APPROVED BY LOCAL SURFACE WATER PERMIT. ANY DEVIATION FROM THE PERMITTED ACTIVITY AND THE CONDITIONS FOR UNDERTAKING THAT ACTIVITY SHALL BE CONSIDERED A VIOLATION OF THE PERMIT. PRIOR TO ANY WORK, A NOTICE OF PENDING CONSTRUCTION NEEDS TO BE SUBMITTED TO THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT.

3. THE LOCAL WATER MANAGEMENT DISTRICT AUTHORIZED STAFF, UPON PROPER IDENTIFICATION, MUST BE GRANTED PERMISSION TO ENTER, INSPECT, AND OBSERVE THE SYSTEM TO INSURE CONFORMITY WITH THE PLANS AND SPECIFICATIONS APPROVED BY THE PERMIT.

4. PRIOR TO AND DURING CONSTRUCTION, THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES (BEST MANAGEMENT PRACTICES) REQUIRED TO RETAIN SEDIMENT ON-SITE AND TO PREVENT VIOLATIONS OF STATE WATER QUALITY STANDARDS. ALL PRACTICES MUST BE IN ACCORDANCE WITH THE GUIDELINES AND SPECIFICATIONS IN CHAPTER 6 OF THE FLORIDA LAND DEVELOPMENT MANUAL. A GUIDE TO SOUND LAND AND WATER MANAGEMENT (FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATIONS 1988), WHICH ARE HEREBY INCORPORATED BY REFERENCE, UNLESS A PROJECT SPECIFIC EROSION AND SEDIMENT CONTROL PLAN IS APPROVED AS PART OF THE SFWMD PERMIT, IN WHICH CASE THE PRACTICES MUST BE IN ACCORDANCE WITH THE PLAN. IF SITE SPECIFIC CONDITIONS REQUIRE ADDITIONAL MEASURES DURING ANY PHASE OF CONSTRUCTION OR OPERATION TO PREVENT EROSION OR CONTROL SEDIMENT, BEYOND THOSE SPECIFIED IN THE EROSION AND SEDIMENT CONTROL PLAN, THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL BEST MANAGEMENT PRACTICES AS NECESSARY, IN ACCORDANCE WITH THE SPECIFICATIONS IN CHAPTER 6 OF THE FLORIDA LAND DEVELOPMENT MANUAL: A GUIDE TO SOUND LAND AND WATER MANAGEMENT (FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION 1988). THE CONTRACTOR SHALL CORRECT ANY EROSION OR SHOALING THAT CAUSES ADVERSE IMPACTS TO THE WATER RESOURCES.

5. STABILIZATION MEASURES UTILIZING SOD OR SEED AND MULCH SHALL BE INITIATED FOR EROSION AND SEDIMENT CONTROL ON DISTURBED AREAS AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN SEVEN (7) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. ALL WORK ON THIS PROJECT WILL BE CONSTRUCTED IN COMPLIANCE WITH THE APPROVED NPDES PERMIT.

6. THE STORM WATER MANAGEMENT SYSTEM MUST BE COMPLETE IN ACCORDANCE WITH THE PERMITTED PLANS AND PERMIT CONDITIONS PRIOR TO THE INITIATION OF THE PERMITTED USE OF SITE INFRASTRUCTURE. THE SYSTEM MUST BE COMPLETE IN ACCORDANCE WITH THE PERMITTED PLANS AND PERMIT CONDITIONS PRIOR TO TRANSFER AND RESPONSIBILITY FOR OPERATION AND MAINTENANCE OF THE STORM WATER MANAGEMENT SYSTEM TO A RESPONSIBLE ENTITY. THE OWNER WILL NOT RELEASE FINAL PAYMENTS AND ALLOW REDUCTION OF RETAINAGE UNTIL ALL ITEMS ARE COMPLETED AND ACCEPTED BY THE OWNER.

7. NPDES PERMIT MONITORING MUST BE COMPLETED BY CONTRACTOR IN COMPLIANCE WITH THE REQUIREMENTS SET FORTH BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND MARTIN COUNTY.

GEOTECHNICAL NOTES

FILL PLACEMENT

NEW FILL MATERIALS MUST BE PLACED UNDER ENGINEERING SUPERVISION OF A GEOTECHNICAL ENGINEER. THE FILL SHOULD BE INORGANIC GRANULAR SOILS FREE FROM DELETERIOUS MATERIALS AND APPROVED BY OUR FIRM. THE FILL SHOULD BE PLACED IN LIFTS OF NO GREATER THAN 12 INCHES THICK, AND EACH LIFT SHOULD BE COMPACTED TO 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED COMPACTION TEST (ASTM 01 557). IN RESTRICTED AREAS WHERE A SMALL COMPACTOR MUST BE USED, THE LIFT THICKNESS SHOULD BE REDUCED TO 6 INCHES, AS DIRECTED BY THE INSPECTING GEOTECHNICAL ENGINEER. BACKFILL PLACED ADJACENT TO THE PILE CAPS AND GRADE BEAMS SHOULD BE COMPACTED TO AT LEAST 98 PERCENT OF THE ASTM D-1557 MAXIMUM DRY DENSITY.

BACKFILL BEHIND WALLS SHOULD BE APPROVED SAND FILL AS INDICATED PREVIOUSLY AND SHOULD BE PLACED IN LOOSE LIFTS NOT EXCEEDING 12 INCHES IN THICKNESS AND SHOULD BE COMPACTED TO MINIMUM DRY DENSITY OF BETWEEN 92 PERCENT AND 95 PERCENT OF THE MAXIMUM MODIFIED PROCTOR DRY DENSITY USING SMALL VIBRATORY COMPACTION EQUIPMENT. OVER COMPACTION IN THESE AREAS SHOULD BE AVOIDED. THE WALLS SHOULD BE TEMPORARILY BRACED DURING COMPACTION TO PREVENT OVERSTRESSING OF THE WALLS. PRIOR TO INITIATING COMPACTION OPERATIONS, REPRESENTATIVE SAMPLES OF THE STRUCTURAL FILL MATERIAL TO BE USED AND ACCEPTABLE IN-PLACE SOILS SHOULD BE COLLECTED AND TESTED TO DETERMINE THEIR COMPACTION AND CLASSIFICATION CHARACTERISTICS. THE MAXIMUM DRY DENSITY, OPTIMUM MOISTURE CONTENT, GRADATION AND PLASTICITY CHARACTERISTICS SHOULD BE DETERMINED. THESE TESTS ARE NEEDED FOR COMPACTION QUALITY CONTROL OF THE STRUCTURAL FILL AND EXISTING SOILS, AND TO DETERMINE IF THE FILL MATERIAL IS ACCEPTABLE.

EXCAVATION REQUIREMENTS

EXCAVATIONS OF FIVE FEET OR MORE IN DEPTH SHOULD BE SLOPED OR SHORED IN ACCORDANCE WITH OSHA AND STATE OF FLORIDA REQUIREMENTS. MATERIALS REMOVED FROM ANY EXCAVATION SHOULD NOT BE STOCKPILED IMMEDIATELY ADJACENT TO THE OPEN EXCAVATION AS THIS LOAD MAY CAUSE A SUDDEN COLLAPSE OF THE SIDEWALLS.

IN OCTOBER OF 1989, AS PUBLISHED IN THE FEDERAL REGISTRAR, VOLUME 54, NO. 209, THE UNITED STATES DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AMENDED ITS; "CONSTRUCTION STANDARDS FOR EXCAVATIONS, 29CRF PART 1926, SUBPART P". IT IS MANDATED BY THIS FEDERAL REGULATION THAT ALL EXCAVATIONS, WHETHER THEY BE UTILITY TRENCHES, BASEMENT EXCAVATION OR FOOTING EXCAVATIONS, BE CONSTRUCTED IN ACCORDANCE WITH THE NEW OSHA GUIDELINES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DESIGNING AND CONSTRUCTING STABLE, TEMPORARY EXCAVATIONS AND SHOULD SHORE, SLOPE, OR BENCH THE SIDES OF THE EXCAVATIONS AS REQUIRED TO MAINTAIN STABILITY OF BOTH THE EXCAVATION SIDES AND BOTTOM.

IF CONDITIONS ARE ENCOUNTERED WHICH ARE NOT CONSISTENT WITH THE 'FINDINGS PRESENTED IN THIS REPORT, OR IF PROPOSED CONSTRUCTION IS MOVED FROM THE LOCATION STUDIED, THIS OFFICE SHALL BE NOTIFIED IMMEDIATELY SO THAT THE CONDITION OR CHANGE CAN BE EVALUATED AND APPROPRIATE ACTION TAKEN.

ENVIRONMENTAL:
GFA INTERNATIONAL, INC.
607 NW COMMODITY COVE
PORT ST. LUCIE, FLORIDA 34986
(772) 924-3575

GEOTECHNICAL FIRM:
ECS FLORIDA, LLC
2000 AVENUE P, SUITE 3
WEST PALM BEACH, FLORIDA 33404
(561) 840-3667

ELECTRICAL / LIGHTING ENGINEER :
BEACON CONSULTING ENGINEERS, INC
625 CASA LOMA BLVD., SUITE 106
BOYNTON BEACH, FLORIDA 33435
(561) 242-3270

PLANNER / LANDSCAPE ARCHITECT:
LUCIDO AND ASSOCIATES, INC.
701 SE OCEAN BOULEVARD
STUART, FLORIDA 34994
(772) 220-2100

21 DAYS PRIOR TO SUBMITTAL OF SHOP DRAWINGS, THE CONTRACTOR WILL POTHOLE THE LOCATION OF ALL EXISTING UTILITIES TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATIONS. NO POTHOLES IN PAVEMENT AREA WILL BE ALLOWED.

MARTIN COUNTY ENGINEERING
2401 SE MONTEREY ROAD
STUART, FLORIDA 34996
PHONE: (772) 288-5927
FAX: (772) 288-5955
www. martin.fl.us

DESIGNED BY: SPM		DATE: 3-27-2020
DWN BY: MDB	CKD BY: JWC	SOLICITATION NO.:
SUBMITTED BY: SPM		CONTRACT NO.: 2017-2971
SCALE: NA	PLOT DATE: 3/27/2020	FILE NUMBER: 1329.2
SIZE: 24X36	FILE NAME: 1329.2 ROUNDABOUT NOTES AND DETAILS.DWG	

	DESCRIPTION	DATE	APPR.
1	PERMIT PLANS	3-27-2020	

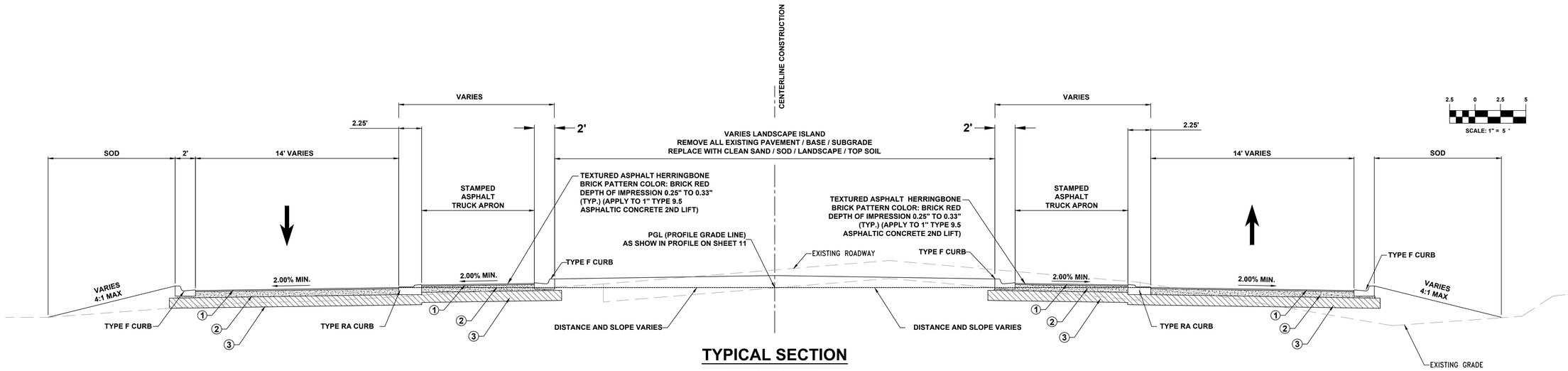
NE SAVANNAH ROAD AT NE COY SENDA ROUNDABOUT
MARTIN COUNTY, FLORIDA
GENERAL NOTES

CAPTEC Engineering, Inc.
Civil Engineering Professionals
301 N.W. Flagler Ave.
Stuart, Florida 34994
Phone: (772) 692-4344
Fax: (772) 692-4341
Engineering Business No. EB-0007657

Joseph W. Capra, P.E.
301 N.W. Flagler Ave.
Stuart, Florida 34994
P.E. No. 37638
(seal)
Signature / Date

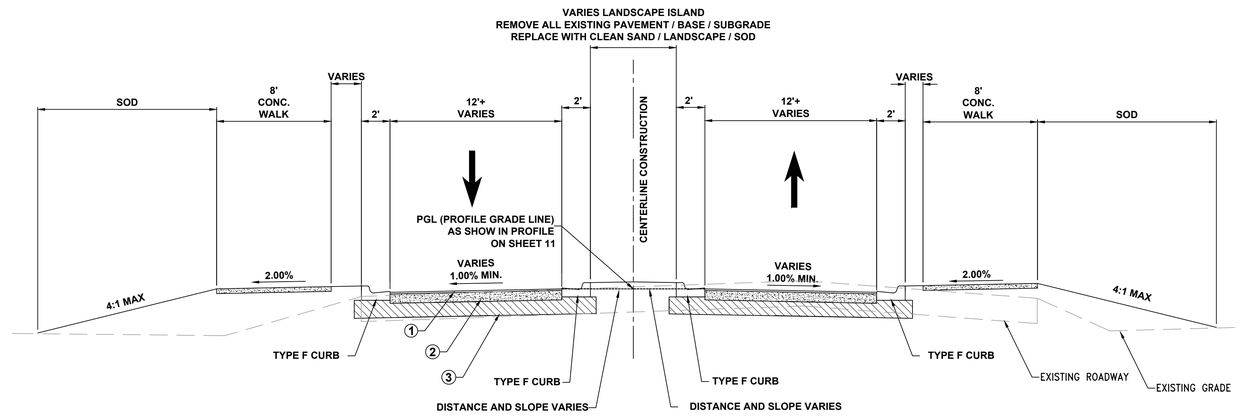
SHEET IDENTIFICATION
3
SHEET 3 OF 16

P:\1300\1329.2 - Reserve at Jensen Beach\Dwg\1329.2 ROUNDABOUT NOTES AND DETAILS.dwg, 3/27/2020 2:02:35 PM, DWG To PDF.pc3



TYPICAL SECTION

ROUNDABOUT



TYPICAL SECTION

APPROACHES

MILLING AND OVERLAY

MILL 1" AVERAGE
OVERLAY WITH 1" SP-9.5 ASPHALT

ARTERIAL (SN-4.0 MIN.)

1. *2" TYPE SP-12.5 ASPHALTIC CONCRETE (1st LIFT)*
   1" TYPE SP-9.5 ASPHALTIC CONCRETE (2nd LIFT)
2. *OPTIONAL BASE GROUP 9 (10") (MIN. LBR 100)*
3. *12" TYPE 'B' STABILIZATION (MIN. LBR 40)*

BENCHMARK
ELEV. 11.62 NAVD SEE SHEET 6

NOTES

1. *SEE PLAN AND/OR CROSS SECTION SHEETS FOR DIMENSIONS ELEVATIONS AND SLOPES INDICATED AS VARIES.*
2. *ALL DISTURBED AREAS WITHIN RIGHT OF WAY SHALL BE SODDED USING COMMON BAHIA SOD EXCEPT WHEN MATCHING EXISTING FLORATAM GRASSES.*
3. *MAXIMUM SIDEWALK SLOPE IS 2%*
4. *PROPOSED LANDSCAPE IMPROVEMENT SEE LANDSCAPE PLANS*

MARTIN COUNTY
ENGINEERING
2401 SE MONTEREY ROAD
STUART, FLORIDA 34996
PHONE: (772) 288-5927
FAX: (772) 288-5955
www.martin.fl.us

DESIGNED BY: SPM		DATE: 3-27-2020
DWN BY: MDB	CKD BY: JWC	SOLICITATION NO.:
SUBMITTED BY: SPM		CONTRACT NO.: 2017-2971
SCALE: 1" = 5'	PLOT DATE: 3/27/2020	FILE NUMBER: 1329.2
SIZE: 24X36	FILE NAME: 1329.2 ROUNDABOUT TYP SECTIONS.DWG	

	DESCRIPTION	DATE	APPR.
1	PERMIT PLANS	3-27-2020	

NE SAVANNAH ROAD AT NE COY SENDA ROUNDABOUT

MARTIN COUNTY, FLORIDA

TYPICAL SECTIONS

CAPTEC Engineering, Inc.
Civil Engineering Professionals
301 N.W. Flagler Ave.
Stuart, Florida 34994
Phone: (772) 692-4344
Fax: (772) 692-4341
Engineering Business No. EB-0007657

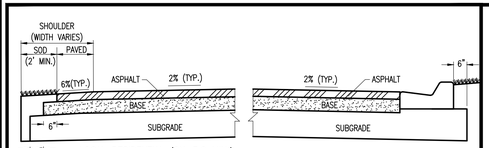
Joseph W. Capra, P.E.
301 N.W. Flagler Ave.
Stuart, Florida 34994
P.E. No. 37638
(seal)
Signature Date

SHEET IDENTIFICATION

4

SHEET 4 OF 16

P:\1300\1329.2 - Reserve at Jensen Beach\Dwg\1329.2 ROUNDABOUT TYP SECTIONS.dwg, 3/27/2020 2:02:36 PM, DWG To PDF.pc3



LOCAL RESIDENTIAL (SN-3.0 MIN.)

MIN. E.O.P. ELEVATION ▷ PEAK STAGE OF 10-YR / 24-HR STORM EVENT

- SURFACE COURSE: 1½" TYPE SP-9.5 ASPHALTIC CONCRETE
- BASE COURSE: OPTIONAL BASE GROUP 6 PER FDOT FLEXIBLE PAVEMENT DESIGN MANUAL TABLE 5.6
- SUBGRADE: 12" COMPACTED OR STABLIZED SUBGRADE (LBR-40)

COLLECTOR & LOCAL COMMERCIAL/INDUSTRIAL (SN-3.5 MIN.)

MIN. E.O.P. ELEVATION ▷ PEAK STAGE OF 10-YR / 24-HR STORM EVENT (MINOR)
MIN. E.O.P. ELEVATION ▷ PEAK STAGE OF 25-YR / 24-HR STORM EVENT (MAJOR)

- SURFACE COURSE 1½" TYPE SP-12.5 ASPHALTIC CONCRETE (1ST LIFT)
  1" TYPE SP-9.5 ASPHALTIC CONCRETE (2ND LIFT)
- BASE COURSE: OPTIONAL BASE GROUP 6 PER FLEXIBLE PAVEMENT DESIGN MANUAL TABLE 5.6
- SUBGRADE: 12" COMPACTED OR STABILIZED SUBGRADE (LBR-40)

ARTERIAL (SN-4.0 MIN.)

MIN. E.O.P. ELEVATION ▷ PEAK STAGE OF 25-YR / 72-HR STORM EVENT

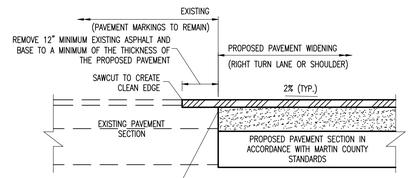
- SURFACE COURSE 2" TYPE S-I OR SP-12.5 ASPHALTIC CONCRETE (1ST LIFT)
  1" TYPE SP-9.5 ASPHALTIC CONCRETE (2ND LIFT)
- BASE COURSE: OPTIONAL BASE GROUP 9 PER FDOT FLEXIBLE PAVEMENT DESIGN MANUAL TABLE 5.6
- SUBGRADE: 12" COMPACTED OR STABILIZED SUBGRADE (LBR-40)

NOTES:

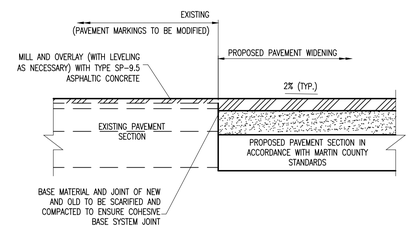
1. SHOULDER DESIGN:
   - SURFACE COURSE: SAME AS TRAVEL LANE SURFACE COURSE
   - BASE COURSE: OPTIONAL BASE GROUP 4 PER FDOT FLEXIBLE PAVEMENT DESIGN MANUAL TABLE 5.6
2. STRUCTURAL NUMBER (SN) PER FDOT STANDARDS (REFER TO FDOT FLEXIBLE PAVEMENT DESIGN MANUAL).
3. SUBSTITUTIONS MAY BE APPROVED BY MARTIN COUNTY, PROVIDED MINIMUM SN IS DEMONSTRATED.
4. ASPHALT MIX SHALL NOT CONTAIN MORE THAN 30% RECLAIMED ASPHALT PAVEMENT (R.A.P.)
5. ALL MATERIAL USED WITHIN THE ROADWAY MUST MEET FDOT SPECIFICATIONS AND BE SUPPLIED FROM A FDOT CERTIFIED MINING OPERATION AND ASPHALT PLANT.
6. A MINIMUM OF TWO DENSITY TESTS SHALL BE TAKEN FOR EACH SIX (6) INCH LIFT OF SUB GRADE AND BASE. WHEN THE SPECIFIED COMPACTED BASE IS GREATER THAN SIX AND ONE-HALF (6 ½") INCHES THE BASE SHALL BE CONSTRUCTED IN TWO OR MORE COURSES. PROCTORS FOR MATERIALS USED IN BACK-FILLING SHALL BE OBTAINED BY A CERTIFIED LABORATORY. DENSITY TESTS SHALL BE CONDUCTED BY A CERTIFIED LABORATORY. THE PERCENTAGE OF MAXIMUM DENSITY REQUIRED SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS. A COPY OF ALL COMPLETED AND ACCEPTED DENSITY TESTS SHALL BE FURNISHED TO THE COUNTY ENGINEER'S OFFICE PRIOR TO FINAL INSPECTION.
7. CRUSHED CONCRETE MAY NOT BE USED WITHIN COUNTY-MAINTAINED ROADWAY.
8. ANY IN-LINE PARKING DEFICIENCIES SHALL BE ADDRESSED IN ACCORDANCE TO FDOT SPECIFICATION SECTION 330.

MARTIN COUNTY ENGINEERING - STANDARD DETAILS	DETAIL R-10
FLEXIBLE PAVEMENT	DATE: 12/03/19

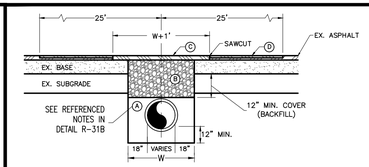
ADDITION OF A RIGHT TURN LANE OR SHOULDER:



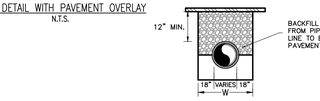
OTHER PAVEMENT ADDITIONS:



MARTIN COUNTY ENGINEERING - STANDARD DETAILS	DETAIL R-30
PAVEMENT WIDENING	DATE: 12/03/19

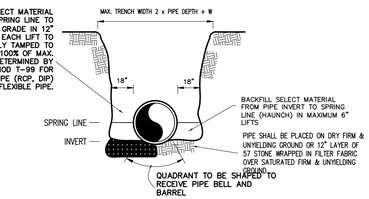


TRENCH DETAIL WITH PAVEMENT OVERLAY
N.T.S.



PIPE WITHIN BASEROCK
N.T.S.

BACKFILL SELECT MATERIAL FROM PIPE SPRING LINE TO SURFACE GRADE IN 12" MAXIMUM LIFTS. EACH LIFT TO BE MECHANICALLY TAMPED TO A MINIMUM 100% OF MAX. DENSITY AS DETERMINED BY AASHTO METHOD T-99 FOR NON-FLEXIBLE PIPE (RCP, DIP) AND 98% FOR FLEXIBLE PIPE.



TRENCH DETAIL
N.T.S.

NOTES:

SEE SPECIFICATIONS & NOTES ON DETAIL R-31B

MARTIN COUNTY ENGINEERING - STANDARD DETAILS	DETAIL R-31A
TYPICAL OPEN CUT TRENCH	DATE: 12/03/19

BACKFILL AND BASE

A. PROVIDE CLEAN BACKFILL. BACKFILL SHALL BE REPLACED IN 12" LIFTS. EACH LIFT SHALL BE MECHANICALLY COMPACTED TO A MINIMUM 100% DENSITY AS DETERMINED BY AASHTO T-180, METHOD "C" (MINIMUM LBR OF 40).
B. BASE ROCK MATERIAL SHALL BE A MINIMUM OF 2' THICK AND BE PLACED IN 6" LIFTS OR AS OTHERWISE APPROVED AND EACH LAYER THOROUGHLY MECHANICALLY COMPACTED TO 100% DENSITY AS DETERMINED BY AASHTO T-180. ALL BASE MATERIAL MUST MEET FDOT SPECIFICATIONS FROM A CERTIFIED MINING OPERATION. DEPTH OF BASE MATERIAL VARIES ON ROADWAY TYPE AS PER MARTIN COUNTY PUBLIC WORKS STANDARD DETAIL R-10.

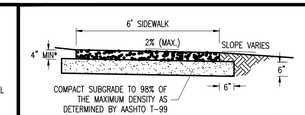
PAVING

A. A TEMPORARY PATCH SHALL BE NO LESS THAN 2" THICK OR MATCH EXISTING PAVEMENT THICKNESS, WHICHEVER IS GREATER. ASPHALT PATCHES MUST BE OF A HOT MIX TYPE FRICTION COURSES. MARTIN COUNTY DOES NOT ALLOW COLD PATCH IN COUNTY MAINTAINED ROADWAYS. THE PATCH IS TO REMAIN 30 DAYS AT MINIMUM TO ASSURE ANY SETTLING OF THE ROADWAY TRENCH HAS TAKEN PLACE.
B. MILL 1" OF ASPHALT A MINIMUM OF 25' FROM CENTER OF TRENCH ON BOTH SIDES, SEE NOTE #1. PAVE AND COMPACT 1" OF SP-9.5 OR MATCH EXISTING TYPE OF FRICTION COURSE.
C. WHEN OPEN CUT IS PARALLEL TO TRAVEL LANE, THE FULL ROADWAY SECTION IS REQUIRED TO BE RESURFACED 10' BEYOND TRENCH IN EACH DIRECTION OF TRAVEL.
D. ASPHALT MIX TO CONTAIN NO MORE THAN 30% RECLAIMED ASPHALT PAVEMENT (R.A.P.).
E. ASPHALT PAVEMENT PATCH SHALL BE PLACED WITHIN 72 HOURS AFTER TRENCH HAS BEEN BACKFILLED.

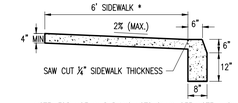
NOTES:

1. ANY OPEN CUT OF PAVEMENT MUST BE REVIEWED BY THE COUNTY ENGINEER PRIOR TO ANY WORK BEING DONE IN COUNTY MAINTAINED RIGHT-OF-WAY. DEPENDING ON THE LOCATION OF THE OPEN CUT ADDITIONAL MILLING AND PAVING MAY BE REQUIRED; ALL PAVEMENT JOINTS SHALL BE MECHANICALLY SAWED.
2. ALL MATERIAL USED WITHIN THE ROADWAY MUST MEET FDOT SPECIFICATIONS AND BE SUPPLIED FROM A FDOT CERTIFIED MINING OPERATION AND ASPHALT PLANT.
3. A MINIMUM OF TWO DENSITY TESTS SHALL BE TAKEN FOR EACH SIX (6) INCH LIFT OF SUB GRADE AND EACH OPEN CUT CROSSING. WHEN THE SPECIFIED COMPACTED BASE IS GREATER THAN SIX AND ONE-HALF (6 ½") INCHES THE BASE SHALL BE CONSTRUCTED IN TWO OR MORE COURSES. PROCTORS FOR MATERIALS USED IN BACK-FILLING SHALL BE OBTAINED BY A CERTIFIED LABORATORY. DENSITY TESTS SHALL BE CONDUCTED BY A CERTIFIED LABORATORY. THE PERCENTAGE OF MAXIMUM DENSITY REQUIRED SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS. A COPY OF ALL COMPLETED AND ACCEPTED DENSITY TESTS SHALL BE FURNISHED TO THE COUNTY ENGINEER'S OFFICE PRIOR TO FINAL INSPECTION.
4. CRUSHED CONCRETE MAY NOT BE USED WITHIN COUNTY-MAINTAINED ROADWAY.

MARTIN COUNTY ENGINEERING - STANDARD DETAILS	DETAIL R-31B
TYPICAL OPEN CUT TRENCH	DATE: 12/03/19

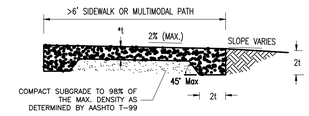


TYPICAL SIDEWALK
N.T.S.



NOTE: FOR USE IN PARKING LOTS ONLY. SEE NOTE 1 ON MARTIN COUNTY PUBLIC WORKS STANDARD DETAILS R-40

TYPE "D" CURB & SIDEWALK COMBINATION
N.T.S.



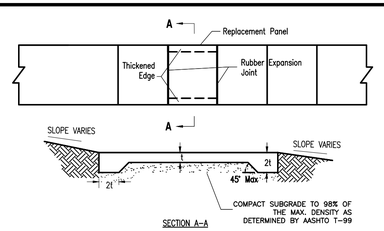
*t IS TYPICALLY 4" - 6" AND SHALL BE SPECIFIED BY ENGINEER OF RECORD

TYPICAL MULTIMODAL PATHWAY or SIDEWALK > 6'
N.T.S.

NOTES:

1. SIDEWALK MATERIALS AND CONSTRUCTION SHOWN HEREIN SHALL BE IN ACCORDANCE WITH APPLICABLE FDOT STANDARD SPECIFICATIONS 522 AND FDOT STANDARD PLANS INDEX 522.
2. FIBER-REINFORCED CONCRETE FOR CURBS AND SIDEWALKS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS WITH A WATER TO CEMENT RATIO NOT MORE THAN 0.53 (LB/LB).
3. THICKENED EDGE SHALL CONTAIN APPLICABLE SUBGRADE COMPACTED TO 98% OF MAXIMUM DRY DENSITY (AASHTO T-99)
4. A DESIRED 8 FEET SHALL BE MAINTAINED BETWEEN EDGE OF TRAVEL LANE AND SIDEWALK WHERE CURB AND GUTTER DOES NOT EXIST (MINIMUM SHALL BE 4.5 FEET, UNLESS OTHERWISE APPROVED BY THE COUNTY ENGINEER).

MARTIN COUNTY ENGINEERING - STANDARD DETAILS	DETAIL R-41
SIDEWALK	DATE: 12/03/19



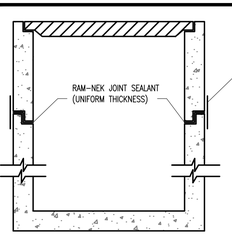
SECTION A-A

PROCEDURES FOR SIDEWALK PLACEMENT & REPAIR:

1. REMOVE EXISTING SIDEWALK TO THE FULL WIDTH FROM CONTROL JOINT TO CONTROL JOINT (I.E. ONE "SECTION")
2. COMPLETELY REMOVE ANY STRUCTURE, POLE OR DEVICE LOCATED WITHIN SECTION TO BE REPLACED.
3. BACKFILL ANY VOID CREATED OR CAUSED BY REMOVAL OF SUCH STRUCTURE, POLE OR DEVICE AND COMPACT TO 98% OF AASHTO T-99.
4. COMPACT SOIL UNDER PROPOSED SIDEWALK AND 12" BEYOND EACH SIDE OF SIDEWALK (WHEN RIGHT-OF-WAY ALLOWS) TO 98% OF AASHTO T-99
5. CONCRETE PREP AERATION AND PLACEMENT:
   a) INSTALL EXPANSION JOINT AT ALL COLD JOINTS FLUSH WITH THE SURFACE OF THE SIDEWALK
      1) EXPANSION JOINT MATERIAL SHALL MEET THE AASHTO M153 STANDARD FOR TYPE IV: POLYURETHANE-BONDED RECYCLED RUBBER. FIBER EXPANSION JOINT MATERIAL SHALL NOT BE UTILIZED.
   b) INSTALL 4" MINIMUM THICKNESS SIDEWALK OR MATCH EXISTING THICKNESS IF GREATER THAN 4".
      1) MIN. 3,000 PSI
      2) CONCRETE LOAD TICKETS SHOULD BE KEPT FOR FINAL INSPECTION AND SIGN-OFF
   c) SCREED THE CONCRETE PERPENDICULAR TO THE FORMS TO OBTAIN THE REQUIRED GRADE AND REMOVE SURPLUS WATER AND LAITANCE.
   d) FINISH WITH A BROOM AND ENSURE THAT THE SURFACE VARIATIONS ARE NOT MORE THAN ¼" UNDER A 10-FOOT STRAIGHTEDGE, OR MORE THAN ⅛" ON A 5 FOOT TRANSVERSE SECTION. FINISH THE EDGE OF THE SIDEWALK WITH AN EDGING TOOL HAVING A RADIUS OF ½".
6. REPAIR ALL RUTS AND/OR SOD THAT HAS BEEN DAMAGED. REGRADE WORK AREA AND PLACE NEW SOD IN ALL DISTURBED AREAS.
7. PEDESTRIAN SAFETY: ENSURE A PEDESTRIAN PATH IS SAFELY MAINTAINED IN ACCORDANCE WITH FDOT STANDARD PLAN INDEX 102-660.

NOTE: ANY ADDITIONAL SECTION OF SIDEWALK THAT ABUTS THE WORK AREA AND IS DEEMED UNSAFE BY THE COUNTY ENGINEER, SHALL BE REPLACED.

MARTIN COUNTY ENGINEERING - STANDARD DETAILS	DETAIL R-42
SIDEWALK REPLACEMENT / REPAIR	DATE: 12/03/19



DRAINAGE INLET STRUCTURE
N.T.S.

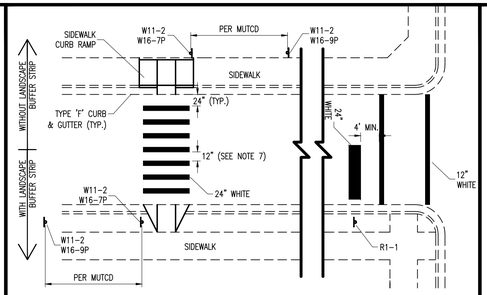
INLET TYPE	CAST IRON	STEEL*
TYPE C	USF 6212	USF 6611
TYPE D	N/A	USF 6626
TYPE E	USF 6291	USF 6616
TYPE H	USF 6292	USF 6621

DRAINAGE INLET GRATE TYPES
*SEE NOTE #9

NOTES:

1. ALL INLET MATERIALS AND CONSTRUCTION NOT SHOWN HEREIN SHALL BE IN ACCORDANCE WITH FDOT STANDARD SPECIFICATION 425 AND FDOT STANDARD PLANS INDEX SERIES 425.
2. USE OF FDOT TYPE "9" CURB INLETS AND VALLEY GUTTER INLETS SHALL ONLY BE ACCEPTABLE ON LOCAL ROADWAYS AND WITHIN PARKING AREAS.
3. USE OF FDOT TYPE "10" CURB INLETS IS NOT ACCEPTABLE AT ANY LOCATION UNLESS APPROVED BY COUNTY ENGINEER.
4. INLET SHALL BE 1-PIECE MONOLOTHIC. INLETS THAT REQUIRE TWO PIECES AS REQUIRED BY LOAD CONSTRAINTS ARE TO CONTAIN SEALED KEY WAYS WITH RAM-NEK ASPHALTIC SEALANT AND EXTERIOR JOINT SEALANT WITH WRAPIDSEAL OR APPROVED EQUIVALENT. ANY PROPOSED 2-PIECE STRUCTURE SHALL BE APPROVED BY THE COUNTY ENGINEER.
5. ALL INLETS SHALL HAVE A MINIMUM SUMP OF 18", UNLESS OTHERWISE APPROVED BY THE COUNTY ENGINEER.
6. DITCH BOTTOM INLETS SHALL NOT HAVE A SEPARATED TOP SLAB UNLESS OTHERWISE APPROVED BY THE COUNTY ENGINEER.
7. ALL INLETS SHALL BE PLACED OVER DRY, FIRM AND UNYIELDING MATERIAL OR IN ACCORDANCE WITH STANDARD DETAIL R-31A TYPICAL TRENCH DETAIL
8. DITCH BOTTOM INLETS SHALL HAVE ANGLE IRON IN THE GRATE RECESSES TO ACCOMMODATE H-20 LOADING.
9. ALL INLET GRATES SHALL BEAR TRAFFIC LOADS AND SHALL BE CAST IRON IF APPLICABLE, OTHERWISE INLET GRATES SHALL BE HOT-DIPPED GALVANIZED STEEL.

MARTIN COUNTY ENGINEERING - STANDARD DETAILS	DETAIL R-50
LOCAL ROAD INLET	DATE: 12/03/19



MID-BLOCK CROSSWALK

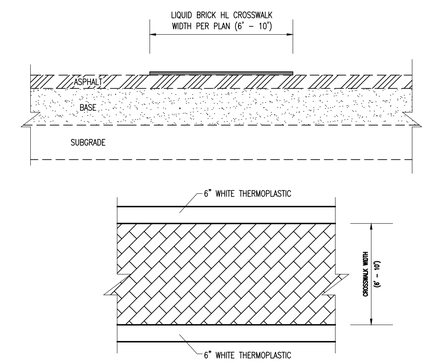
STOP-CONTROLLED CROSSWALK

SIGN DETAILS

NOTES:

1. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC IN ACCORDANCE WITH FDOT STANDARD SPECIFICATION 711.
2. MID-BLOCK CROSSWALK MARKINGS SHALL BE WHITE SPECIAL EMPHASIS.
3. STOP-CONTROLLED CROSSWALK MARKINGS SHALL BE STANDARD.
4. PUBLIC SIDEWALK CURB RAMPS AND DETECTABLE WARNING SURFACES SHALL BE DESIGNED IN ACCORDANCE WITH FDOT STANDARD PLANS INDEX 522. DETECTABLE WARNING SURFACES SHALL BE CAST IN PLACE ARMOR TILE OR APPROVED EQUAL AND BRICK RED IN COLOR. BOLT OR SCREW DOWN TYPES ARE PROHIBITED.
5. CROSSWALK WARNING SIGNAGE SHALL BE YELLOW, UNLESS CROSSWALK IS LOCATED IN A SCHOOL ZONE WHERE LIME-GREEN SHALL BE USED.
6. SIGN INSTALLATION SHALL BE PER TRAFFIC CONTROL DETAIL, R-140A.
7. MAY BE INCREASED TO 24" WHERE MORE THAN TWO LANES ARE CROSSED.

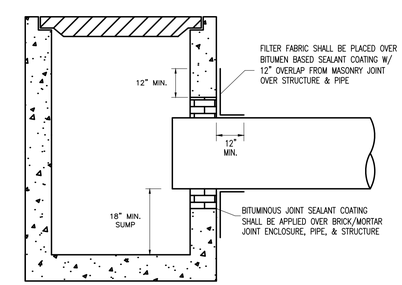
MARTIN COUNTY ENGINEERING - STANDARD DETAILS	DETAIL R-120A
CROSSWALK	DATE: 12/03/19



NOTES:

1. THE STAMPED APPLICATION SHALL BE AN FDOT APPROVED LIQUID BRICK- HF W/ NATURA COLORED AGGREGATE WITH A HIGH FRICTION SURFACING SYSTEM COMPRISED OF A THERMOSETTING MODIFIED EPOXY COMPOUND MANUFACTURED BY ATLANTIC PAVING COMPANY INC., OR APPROVED EQUAL.
2. CROSSWALK EPOXY-AGGREGATE COMPOUND MAT MUST HAVE PARALLEL 12" WHITE STRIPING ON BOTH SIDES OF PATTERN OR 12" WHITE THERMOPLASTIC ON ADJACENT ASPHALT.
3. SUBSTITUTION REQUESTS MUST BE SUBMITTED AND APPROVED BY COUNTY ENGINEER BEFORE APPLICATION.

MARTIN COUNTY ENGINEERING - STANDARD DETAILS	DETAIL R-120B
CROSSWALK (STAMPED)	DATE: 12/03/19



NOTES:

1. ALL INLET MATERIALS AND CONSTRUCTION NOT SHOWN HEREIN SHALL BE IN ACCORDANCE WITH FDOT STANDARD SPECIFICATION 425 AND FDOT STANDARD PLANS INDEX SERIES 425.
2. DRAINAGE STRUCTURE-PIPE CONNECTION MASONRY JOINT SHALL BE FILLED WITH MIXTURE OF APPROVED BRICK AND TYPE I AND/OR II CONCRETE MORTAR.
3. ALL MASONRY JOINT SEAL BRICK OR WALL MATERIAL UNIT SHALL BE SATURATED BEFORE GROUT SEALING.
4. ALL MASONRY JOINT CONCRETE MORTAR SHALL BE TYPE I AND/OR II PREMIXED SILICA SAND-PORTLAND CEMENT (3:1 MAX). NO MIXING OF SAND-CEMENT IS PERMITTED ON SITE UNLESS APPROVED BY THE COUNTY ENGINEER.

MARTIN COUNTY ENGINEERING - STANDARD DETAILS	DETAIL R-60
PIPE - STRUCTURE CONNECTION	DATE: 12/03/19

MARTIN COUNTY ENGINEERING
2401 SE MONTEREY ROAD
STUART, FLORIDA 34996
PHONE: (772) 288-5927
FAX: (772) 288-5955
www.martin.fl.us

DESIGNED BY: SPM	DATE: 3-27-2020
DWN BY: MDB / CKD BY: JWC	SOLICITATION NO.:
SUBMITTED BY: SPM	CONTRACT NO.: 2017-2971
SCALE: NA / PLOT DATE: 3/27/2020	FILE NUMBER: 1329.2
SIZE: 24X36	FILE NAME: 1329.2 ROUNDABOUT NOTES AND DETAILS.DWG

	DESCRIPTION	DATE	APPR.
1	PERMIT PLANS	3-27-2020	

NE SAVANNAH ROAD AT NE COY SENDA ROUNDABOUT

MARTIN COUNTY, FLORIDA

MARTIN COUNTY DETAILS

CAPTEC Engineering, Inc.
Civil Engineering Professionals
301 N.W. Flagler Ave.
Stuart, Florida 34994
Phone: (772) 692-4344
Fax: (772) 692-4341
Engineering Business No. EB-0007657

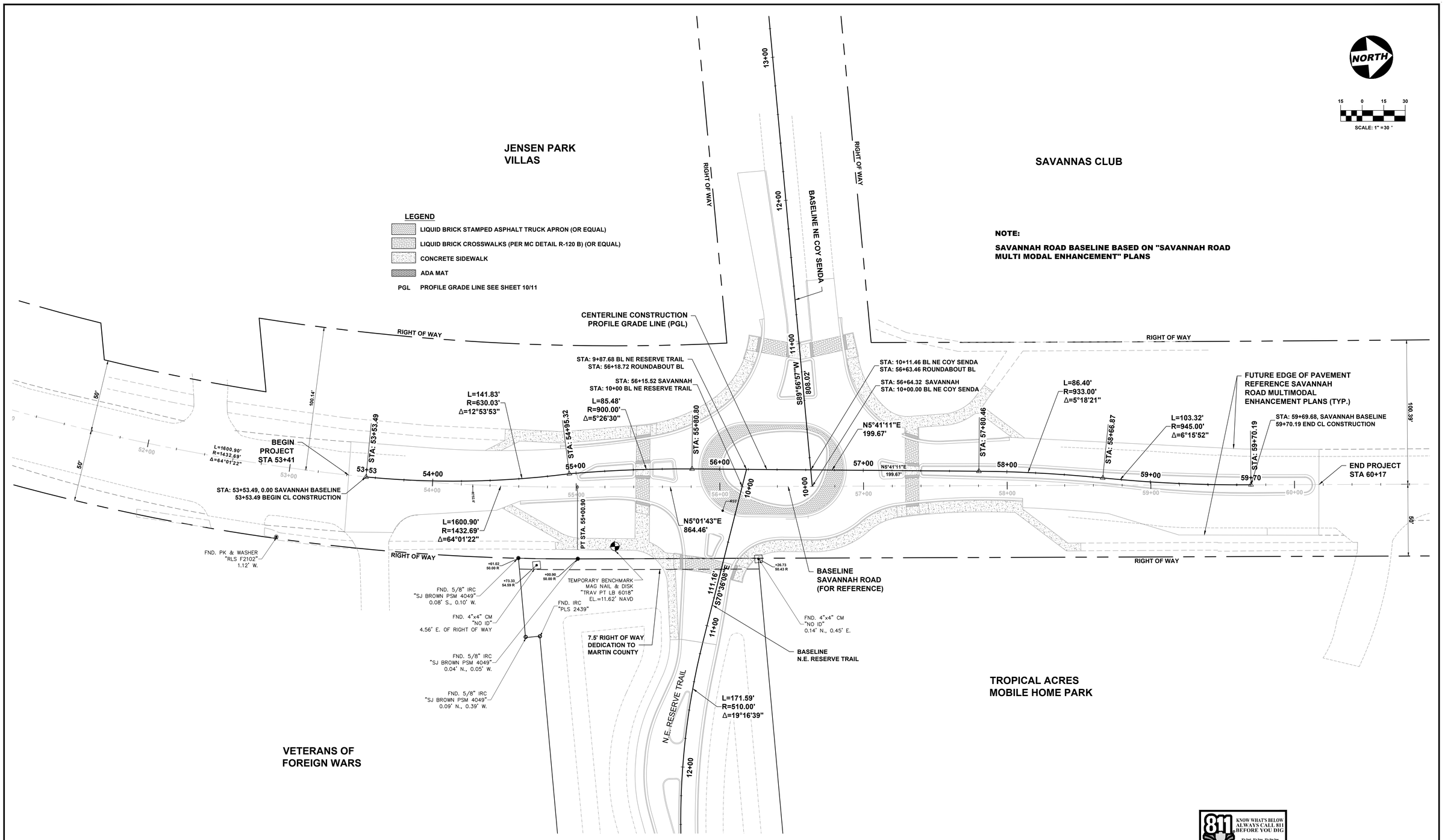
Joseph W. Capra, P.E.
301 N.W. Flagler Ave.
Stuart, Florida 34994
P.E. No. 37638
(seal)
Signature / Date

SHEET IDENTIFICATION

5

SHEET 5 OF 16

P:\1300\1329.2 - Reserve at Jensen Beach\Dwg\1329.2 ROUNDABOUT NOTES AND DETAILS.dwg, 3/27/2020 2:02:42 PM, DWG To PDF.pc3



CONCEPT CIRCLE DESIGN BY:
MICHAEL J. WALLWORK

KNOW WHAT'S BELOW ALWAYS CALL 811 BEFORE YOU DIG
It's fast. It's free. It's the law.
www.callsunshine.com

MARTIN COUNTY ENGINEERING
2401 SE MONTEREY ROAD
STUART, FLORIDA 34996
PHONE: (772) 288-5927
FAX: (772) 288-5955
www. martin.fl.us

DESIGNED BY: SPM		DATE: 3-27-2020
DWN BY: MDB	CKD BY: JWC	SOLICITATION NO.:
SUBMITTED BY: SPM		CONTRACT NO.: 2017-2971
SCALE: 1" = 30'	PLOT DATE: 3/27/2020	FILE NUMBER: 1329.2
SIZE: 24X36	FILE NAME: 1329.2 ROUNDABOUT CONTROL SHEET.DWG	

	DESCRIPTION	DATE	APPR.
1	PERMIT PLANS	3-27-2020	

NE SAVANNAH ROAD AT NE COY SENDA ROUNDABOUT

MARTIN COUNTY, FLORIDA

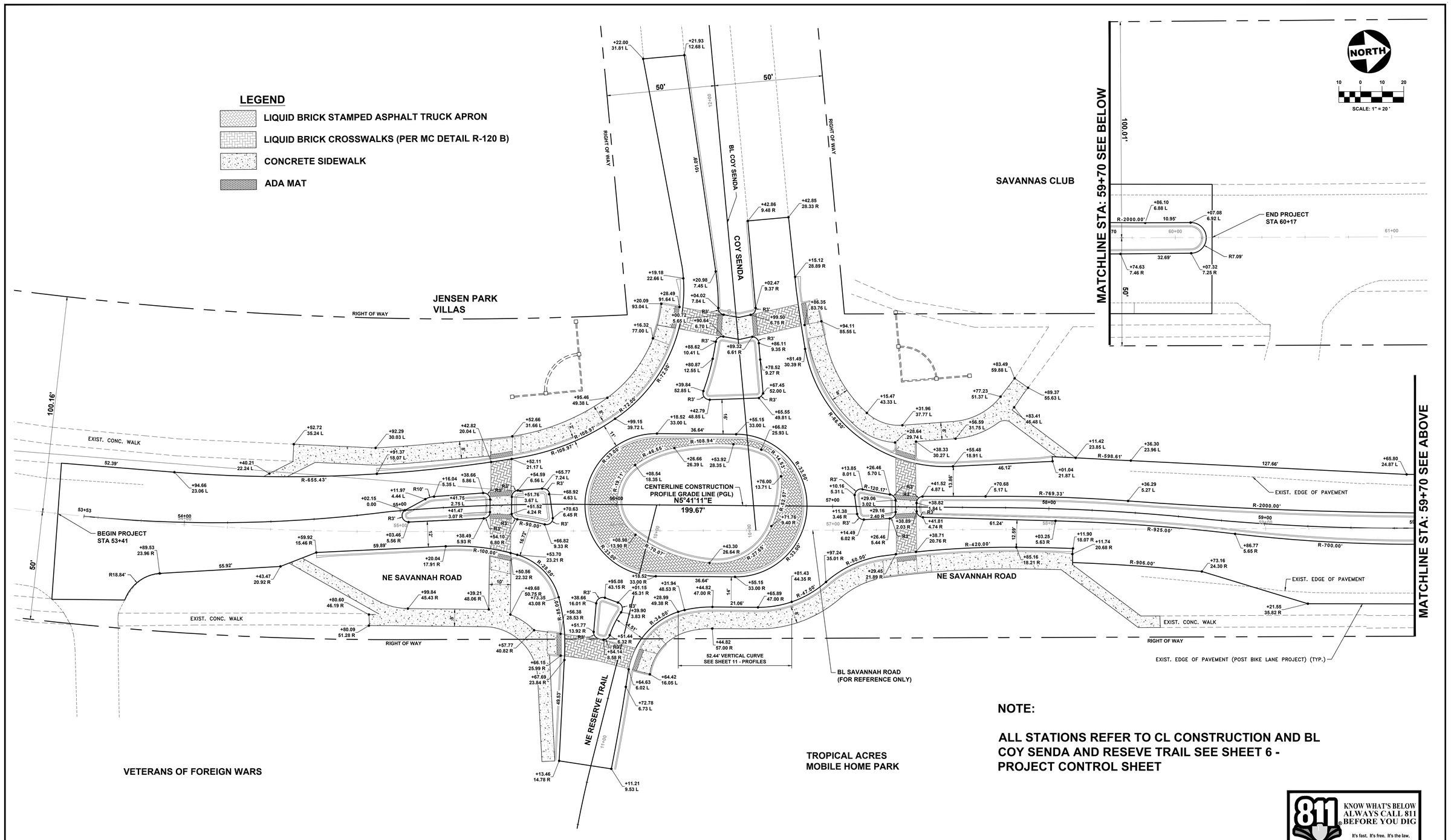
PROJECT CONTROL SHEET

CAPTEC Engineering, Inc.
Civil Engineering Professionals
301 N.W. Flagler Ave.
Stuart, Florida 34994
Phone: (772) 692-4344
Fax: (772) 692-4341
Engineering Business No. EB-0007657

Joseph W. Capra, P.E.
301 N.W. Flagler Ave.
Stuart, Florida 34994
P.E. No. 37638
(seal)
Signature Date

SHEET IDENTIFICATION
6
SHEET 6 OF 16

P:\1329\1329.2 - Reserve at Jensen Beach\Dwg\1329.2 ROUNDABOUT CONTROL SHEET.dwg, 3/27/2020 2:02:51 PM, DWG To PDF.pc3



NOTE:

ALL STATIONS REFER TO CL CONSTRUCTION AND BL COY SENDA AND RESEVE TRAIL SEE SHEET 6 - PROJECT CONTROL SHEET

811 KNOW WHAT'S BELOW ALWAYS CALL 811 BEFORE YOU DIG
It's fast. It's free. It's the law.
www.callsunshine.com

MARTIN COUNTY ENGINEERING
2401 SE MONTEREY ROAD
STUART, FLORIDA 34996
PHONE: (772) 288-5927
FAX: (772) 288-5955
www. martin.fl.us

DESIGNED BY: SPM	DATE: 3-27-2020
DWN BY: MDB / CKD BY: JWC	SOLICITATION NO.:
SUBMITTED BY: SPM	CONTRACT NO.: 2017-2971
SCALE: 1" = 20' / PLOT DATE: 3/27/2020	FILE NUMBER: 1329.2
SIZE: 24X36	FILE NAME: 1329.2 ROUNDABOUT INT DETAIL.DWG

	DESCRIPTION	DATE	APPR.
1	PERMIT PLANS	3-27-2020	

NE SAVANNAH ROAD AT NE COY SENDA ROUNDABOUT

MARTIN COUNTY, FLORIDA

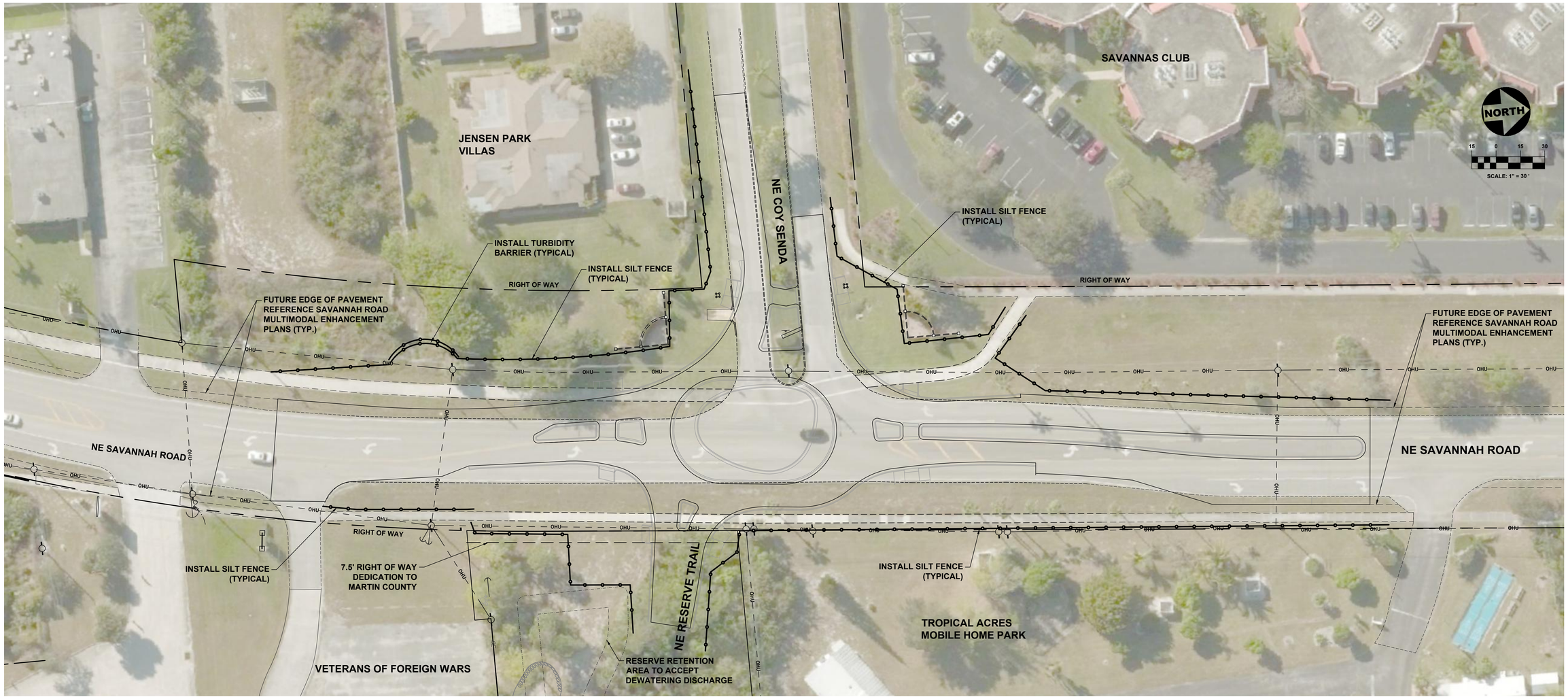
INTERSECTION DETAILS

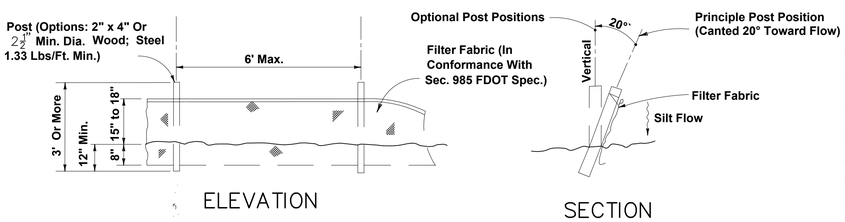
CAPTEC Engineering, Inc.
Civil Engineering Professionals
301 N.W. Flagler Ave.
Stuart, Florida 34994
Phone: (772) 692-4344
Fax: (772) 692-4341
Engineering Business No. EB-0007657

Joseph W. Capra, P.E.
301 N.W. Flagler Ave.
Stuart, Florida 34994
P.E. No. 37638
Signature Date

SHEET IDENTIFICATION
7
SHEET 7 OF 16

P:\1329\1329.2 - Reserve at Jensen Beach\Dwg\1329.2 ROUNDABOUT INT DETAIL.dwg, 3/27/2020 2:02:54 PM, DWG To PDF.pc3





Note: Silt Fence to be paid for under the contract unit price for Staked Silt Fence (LF).

TYPE III SILT FENCE

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO MARTIN COUNTY, SFWMD, FDEP AND FDOT STANDARD SPECIFICATIONS AND REQUIREMENTS, WHICHEVER IS MORE STRINGENT.
2. ELEVATIONS SHOWN HEREON REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88), PER MARTIN COUNTY BENCHMARKS "SAV-3", ELEVATION = 13.244 FEET (NGVD 29) AND "D-30", ELEVATION = 9.771 FEET (NGVD 29) CONVERTED TO NAVD 88 BY SUBTRACTING 1.50 FEET.
3. PROPERTY CORNERS SHALL BE LOCATED BY A LICENSED LAND SURVEYOR AND CLEARLY MARKED IN THE FIELD PRIOR TO THE MARTIN COUNTY ENGINEERING DEPT PRE-CONSTRUCTION MEETING FOR SITE DEVELOPMENT.
4. CLEARING LIMITS ARE APPROXIMATE AND WILL BE ADJUSTED ON SITE TO PRESERVE EXISTING PROTECTED TREES.
5. ALL CONSTRUCTION BARRICADES AND SILT FENCES WILL REMAIN IN PLACE AND SHALL BE MONITORED FOR SUFFICIENCY DURING THE CLEARING ACTIVITIES.
6. SOIL STABILIZATION SHALL BE COMPLETED WITHIN 30 DAYS OF COMPLETION OF CONSTRUCTION ACTIVITIES CAUSING VEGETATION REMOVAL.
7. THE PROPOSED LAND CLEARING DEBRIS METHOD SHALL BE CHIPPED ON SITE FOR OFF-SITE DISPOSAL.
8. CONTRACTOR WILL MAKE EVERY EFFORT TO UTILIZE EXISTING DISTURBED AND/ OR CLEARED AREAS ON SITE.
9. ANY PROTECTED TREES WILL BE IDENTIFIED AND MITIGATED FOR ON THE LANDSCAPE PLANS PREPARED BY LUCIDO & ASSOCIATES.
10. CONTRACTOR SHALL OBTAIN A MARTIN COUNTY RIGHT-OF-WAY USE PERMIT FOR ALL WORK PERFORMED WITHIN NE SAVANNAH ROAD RIGHT-OF-WAY.

CLEARING AND GRUBBING

THE CONTRACTOR WILL NOT CLEAR AND GRUB ANY SITE WITHOUT PRIOR CONFIRMATION OF WETLAND AND UPLAND PRESERVATION REQUIREMENTS. ALL PRESERVATION AREAS WILL BE FENCED TO AVOID ENCROACHMENT AND WILL BE STRICTLY ENFORCED. CAPTEC ENGINEERING INC. WILL NOT BE RESPONSIBLE FOR ENCROACHMENT BY CONTRACTOR WITHIN UPLAND PRESERVE AREAS. CONTRACTOR IS CAUTIONED TO REVIEW ALL PERMITS AND CONSTRUCTION DOCUMENTS PRIOR TO THE CLEARING/GRUBBING PHASE.

ORDER OF EXCAVATION

1. INSTALL SILT FENCES AND ORANGE SAFETY FENCES.
2. INSTALL WELL POINTS OR UNDERGROUND SOCK DRAINS AS NEEDED.
3. DEWATERING SHALL DISCHARGE INTO THE RESERVE RETENTION AREAS ONLY.
4. SET DEWATERING PUMPS IF NEEDED FOR EXCAVATION.
5. PUMP TO RETENTION AREAS.
6. INSTALL DRAINAGE SYSTEMS AND UTILITY ADJUSTMENTS.

DEWATERING NOTES

PUMPING OPERATIONS:

AVERAGE DAILY PUMPAGE

SINGLE (1) 2,500 GPM, 8" DISCHARGE PUMP OPERATING AT 40% MAXIMUM CAPACITY FOR AN AVERAGE PUMPING RATE OF 2,500 GPM x 40% x 1 PUMP = 1,000 GPM
TOTAL AVERAGE DAILY PUMPING RATE = 1,000 GPM @ 8HR = 480,000 GPD

MAXIMUM DAILY PUMPAGE

SINGLE (1) 2,500 GPM, 8" DISCHARGE PUMP OPERATING AT 80% MAXIMUM CAPACITY FOR A MAXIMUM PUMPING RATE OF 2,500 GPM x 80% x 1 PUMP = 2,000 GPM
TOTAL MAXIMUM DAILY PUMPING RATE = 2,000 GPM @ 8HR = 960,000 GPD

811 KNOW WHAT'S BELOW ALWAYS CALL 811 BEFORE YOU DIG
It's fast. It's free. It's the law.
www.callsunshine.com

MARTIN COUNTY ENGINEERING
2401 SE MONTEREY ROAD
STUART, FLORIDA 34996
PHONE: (772) 288-5927
FAX: (772) 288-5955
www. martin.fl.us

DESIGNED BY: SPM		DATE: 3-27-2020
DWN BY: MDB	CKD BY: JWC	SOLICITATION NO.:
SUBMITTED BY: SPM		CONTRACT NO.:
SCALE: 1" = 30'	PLOT DATE: 3/27/2020	FILE NUMBER: 1329.2
SIZE: 24X36	FILE NAME: 1329.2 ROUNDABOUT DEMO & ERO.DWG	

	DESCRIPTION	DATE	APPR.
1	PERMIT PLANS	3-27-2020	

NE SAVANNAH ROAD AT NE COY SENDA ROUNDABOUT

MARTIN COUNTY, FLORIDA

EROSION AND SEDIMENT CONTROL

CAPTEC Engineering, Inc.
Civil Engineering Professionals
301 N.W. Flagler Ave.
Stuart, Florida 34994
Phone: (772) 692-4344
Fax: (772) 692-4341
Engineering Business No. EB-0007857

Joseph W. Capra, P.E.
301 N.W. Flagler Ave.
Stuart, Florida 34994
P.E. No. 37638
Signature Date

SHEET IDENTIFICATION
8
SHEET 8 OF 16

P:\1300\1329.2 - Reserve at Jensen Beach\Dwg\1329.2 ROUNDABOUT DEMO & ERO.dwg 3/27/2020 2:02:38 PM DWG To PDF.pc3

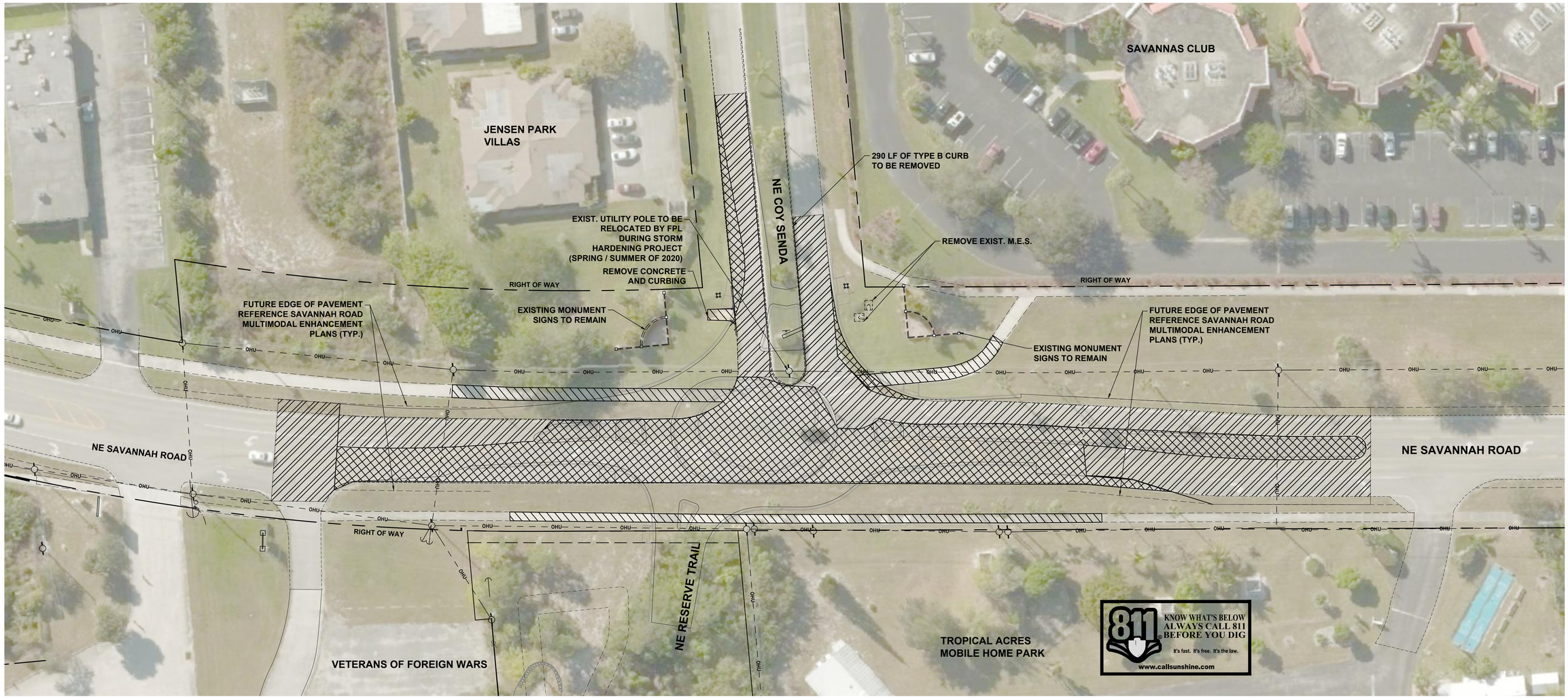
LEGEND

- PAVEMENT TO REMOVED
- CONCRETE WALKS ETC. TO BE REMOVED
- MILLING AND OVERLAY

NORTH

15 0 15 30

SCALE: 1" = 30 '



MARTIN COUNTY ENGINEERING
2401 SE MONTEREY ROAD
STUART, FLORIDA 34996
PHONE: (772) 288-5927
FAX: (772) 288-5955
www. martin.fl.us

DESIGNED BY: SPM		DATE: 3-27-2020
DWN BY: MDB	CKD BY: JWC	SOLICITATION NO.:
SUBMITTED BY: SPM		CONTRACT NO.:
SCALE: 1" = 30'	PLOT DATE: 3/27/2020	FILE NUMBER: 1329.2
SIZE: 24X36	FILE NAME: 1329.2 ROUNDABOUT DEMO & ERO.DWG	

	DESCRIPTION	DATE	APPR.
1	PERMIT PLANS	3-27-2020	

NE SAVANNAH ROAD AT NE COY SENDA ROUNDABOUT

MARTIN COUNTY, FLORIDA

DEMOLITION PLAN

CAPTEC Engineering, Inc.
Civil Engineering Professionals
301 N.W. Flagler Ave.
Stuart, Florida 34994
Phone: (772) 692-4344
Fax: (772) 692-4341
Engineering Business No. EB-0007657

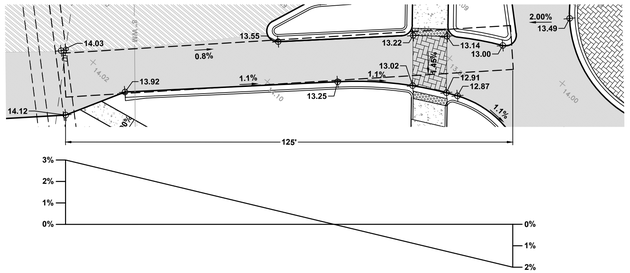
Joseph W. Capra, P.E.
301 N.W. Flagler Ave.
Stuart, Florida 34994
P.E. No. 37638
Signature Date

SHEET IDENTIFICATION

9

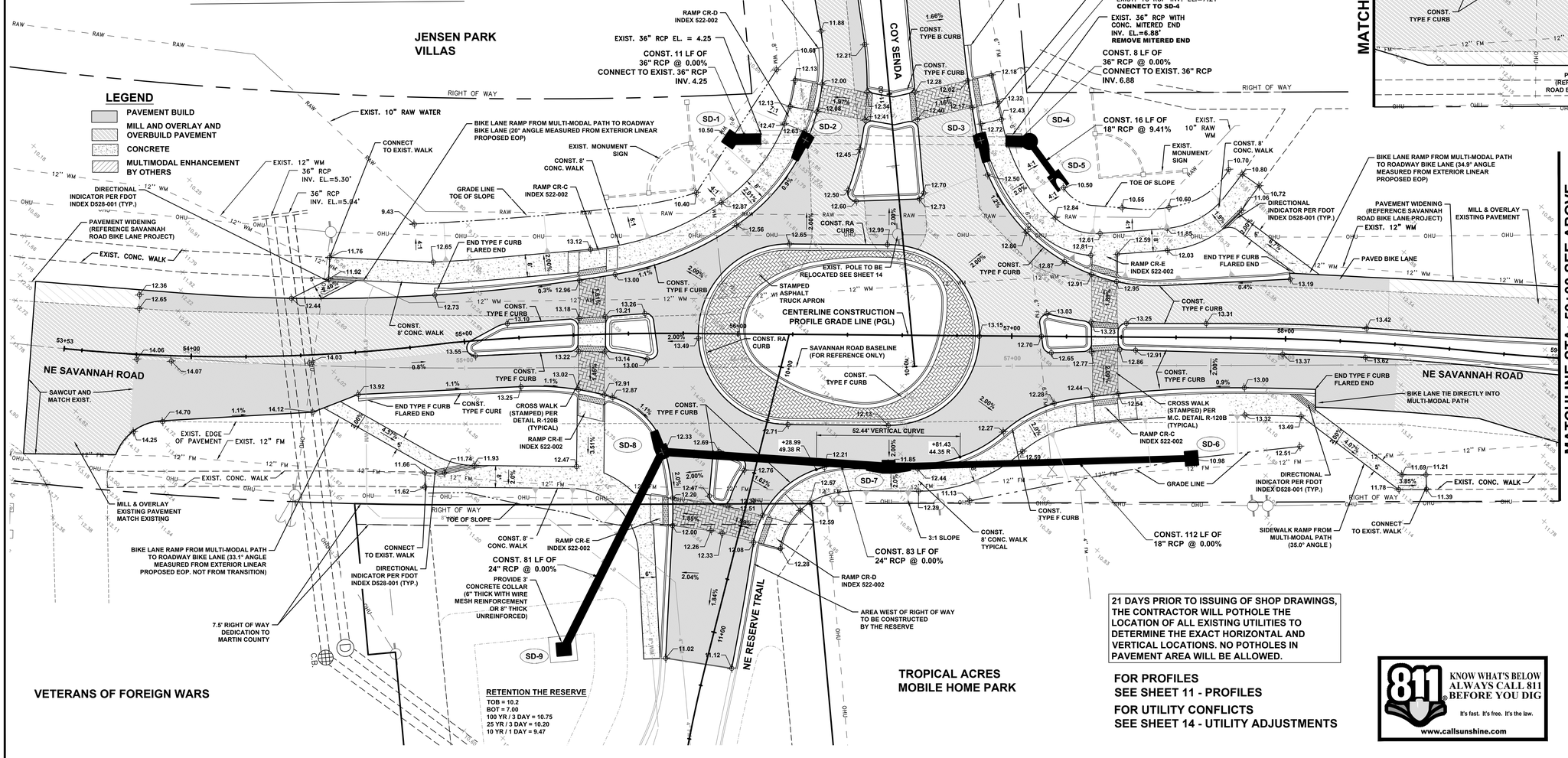
SHEET 9 OF 16

P:\1300\1329.2 - Reserve at Jensen Beach\Dwg\1329.2 ROUNDABOUT DEMO & ERO.dwg 3/27/2020 2:02:59 PM, DWG To PDF.pc3



1. CROSS SLOPE TRANSITION = SUPER ELEV. CROSS SLOPE (%) + NORMAL CROWN CROSS SLOPE (%) = 3% + 2% = 5%
2. SLOPE TRANSITION DELTA = SUPER ELEV. CROSS SLOPE (FT.) + CROWN CROSS SLOPE (FT.) = 0.36 FT. + 0.24 FT. = 0.60 FT.
3. REQUIRED TRANSITION LENGTH = DELTA (FT.) x 100 = 0.60 FT. x 100 = 60 FT.
4. MINIMUM TRANSITION LENGTH = 100 FT.
5. USE 125 FT. TRANSITION LENGTH

SUPER ELEVATION TRANSITION



LEGEND

- PAVEMENT BUILD
- MILL AND OVERLAY AND OVERBUILD PAVEMENT
- CONCRETE
- MULTIMODAL ENHANCEMENT BY OTHERS

21 DAYS PRIOR TO ISSUING OF SHOP DRAWINGS, THE CONTRACTOR WILL POTHOLE THE LOCATION OF ALL EXISTING UTILITIES TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATIONS. NO POTHOLES IN PAVEMENT AREA WILL BE ALLOWED.

FOR PROFILES
SEE SHEET 11 - PROFILES

FOR UTILITY CONFLICTS
SEE SHEET 14 - UTILITY ADJUSTMENTS

KNOW WHAT'S BELOW ALWAYS CALL 811 BEFORE YOU DIG
It's fast. It's free. It's the law.
www.callsunshine.com

INLETS TABLE

NAME	DETAILS
SD-1	STA: 55+96.93, -71.06 L CONST. TYPE E INLET GRATE EL. = 10.50 N INV. 4.25
SD-6	STA: 57+66.00, 44.16 R CONST. TYPE E INLET GRATE EL. = 10.98 S INV. 3.00
SD-9	STA: 55+30.95, 114.51 R CONST. TYPE E INLET BUBBLE UP w/CONC. APRON GRATE EL. = 7.00 NW INV. 3.00

CURB INLETS TABLE

NAME	DETAILS
SD-2	STA: 56+24.05, -71.05 L CONST. TYPE P-5 INLET CONNECT TO EXIST. 36" RCP APPROX. INV 4.58 EOP EL. = 12.17
SD-3	STA: 56+88.11, -71.41 L CONST. TYPE P-5 INLET CONNECT TO EXIST. 36" RCP APPROX. INV 6.61 EOP EL. = 12.32
SD-7	STA: 56+55.39, 48.13 R CONST. TYPE P-6 INLET EOP EL. = 11.85 S INV. 3.00 N INV. 3.00
SD-8	STA: 55+72.35, 43.28 R CONST. TYPE P-5 INLET EOP EL. = 12.33 N INV. 3.00 SE INV. 3.00

MITERED END SECTIONS

NAME	DETAILS
SD-5	STA: 57+15.40, -58.39' L CONST. 18" MES SW INV. 10.50

STORM MANHOLES

NAME	DETAILS
SD-4	STA: 57+05.85, -71.15' L CONST. TYPE 7 MANHOLE RIM EL. = 11.21 S INV. 6.88 NE INV. 9.00 W INV. 7.21

MARTIN COUNTY ENGINEERING
2401 SE MONTEREY ROAD
STUART, FLORIDA 34996
PHONE: (772) 288-5927
FAX: (772) 288-5955
www.martin.fl.us

DESIGNED BY: SPM	DATE: 3-27-2020
DWN BY: MDB / CKD BY: JWC	SOLICITATION NO.:
SUBMITTED BY: SPM	CONTRACT NO.: 2017-2971
SCALE: 1" = 20' / PLOT DATE: 3/27/2020	FILE NUMBER: 1329.2
SIZE: 24X36	FILE NAME: 1329.2 ROUNDABOUT.P&D.DWG

	DESCRIPTION	DATE	APPR.
1	PERMIT PLANS	3-27-2020	

NE SAVANNAH ROAD AT NE COY SENDA ROUNDABOUT

MARTIN COUNTY, FLORIDA

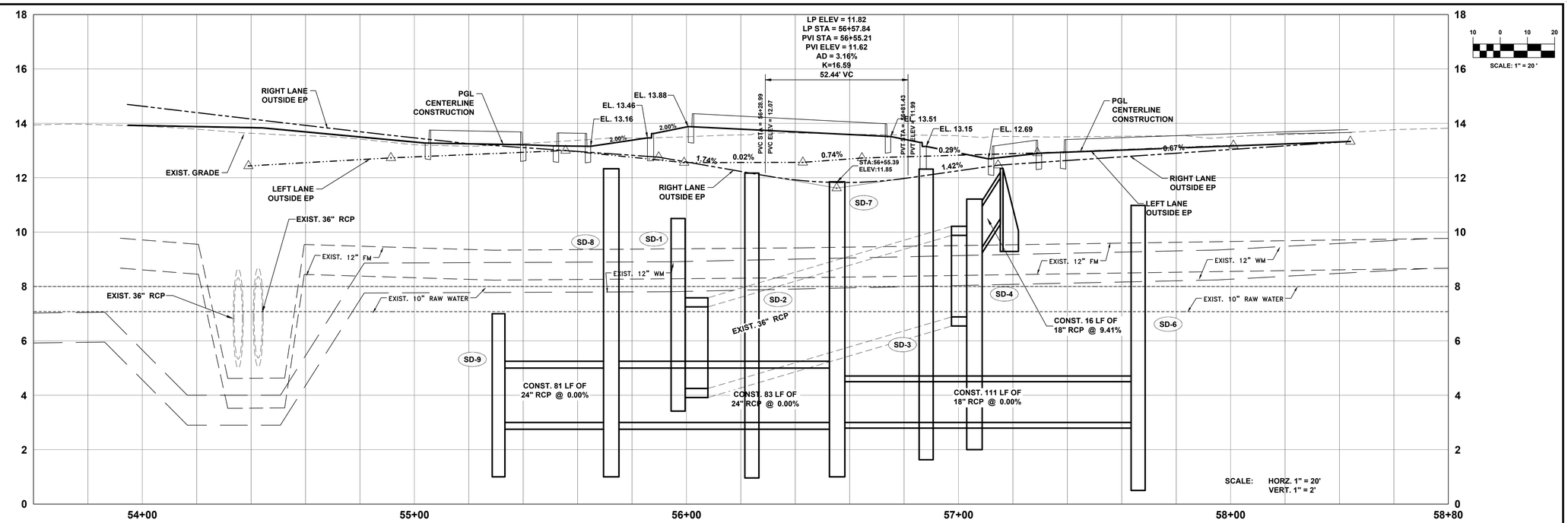
PAVING, GRADING AND DRAINAGE

CAPTEC Engineering, Inc.
Civil Engineering Professionals
301 N.W. Flagler Ave.
Stuart, Florida 34994
Phone: (772) 692-4344
Fax: (772) 692-4341
Engineering Business No. EB-0007657

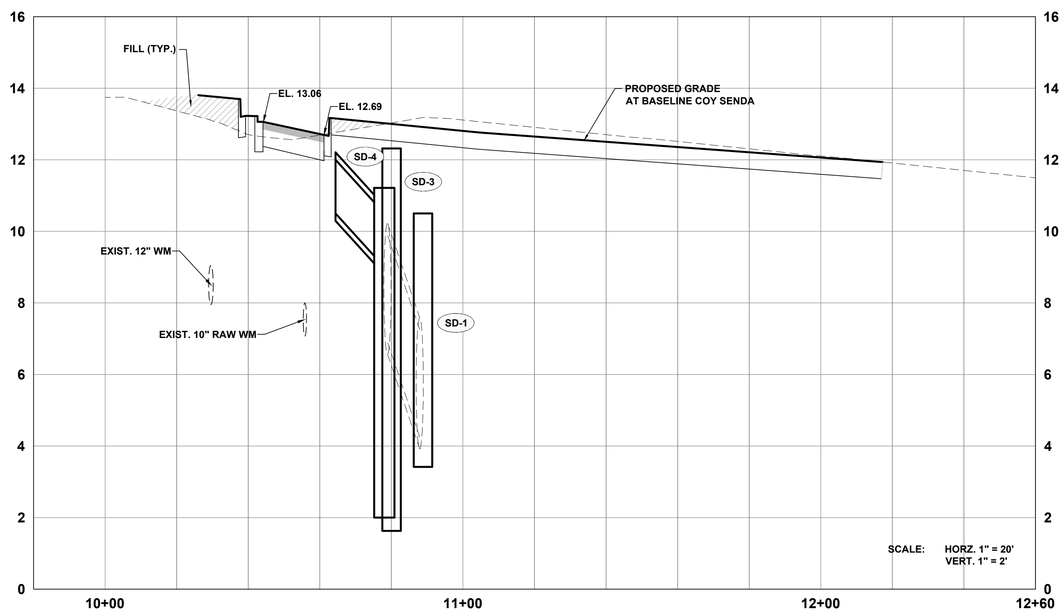
Joseph W. Capra, P.E.
301 N.W. Flagler Ave.
Stuart, Florida 34994
P.E. No. 37638
Signature / Date

SHEET IDENTIFICATION
10

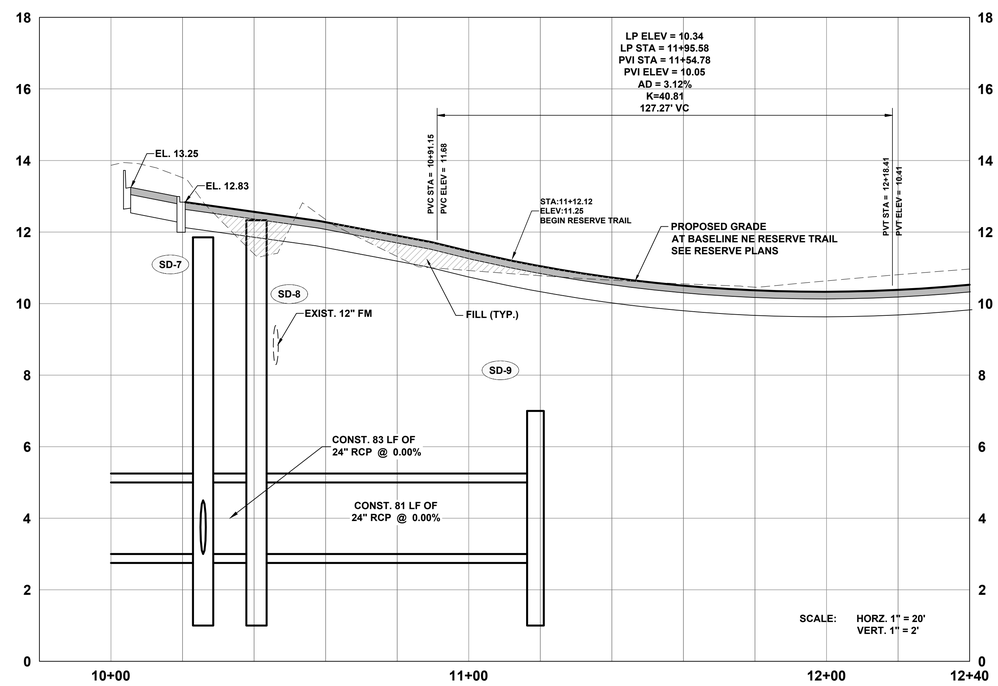
P:\1300\1329.2 - Reserve at Jensen Beach\Dwg\1329.2 ROUNDABOUT P&D.dwg, 3/27/2020 2:03:00 PM, DWG To PDF.pc3



PROFILE NE SAVANNAH ROAD
BASELINE ROUNDABOUT



PROFILE COY SENDA



PROFILE NE RESERVE TRAIL

KNOW WHAT'S BELOW ALWAYS CALL 811 BEFORE YOU DIG
It's fast. It's free. It's the law.
www.callsunshine.com

MARTIN COUNTY ENGINEERING
2401 SE MONTEREY ROAD
STUART, FLORIDA 34996
PHONE: (772) 288-5927
FAX: (772) 288-5955
www. martin.fl.us

DESIGNED BY: SPM	DATE: 3-27-2020
DWN BY: MDB / CKD BY: JWC	SOLICITATION NO.:
SUBMITTED BY: SPM	CONTRACT NO.: 2017-2971
SCALE: 1" = 20' / PLOT DATE: 3/27/2020	FILE NUMBER: 1329.2
SIZE: 24X36	FILE NAME: 1329.2 ROUNDABOUT.P&D.DWG

	DESCRIPTION	DATE	APPR.
1	PERMIT PLANS	3-27-2020	

NE SAVANNAH ROAD AT NE COY SENDA ROUNDABOUT

MARTIN COUNTY, FLORIDA

PROFILES

CAPTEC Engineering, Inc.
Civil Engineering Professionals
301 N.W. Flagler Ave.
Stuart, Florida 34994
Phone: (772) 692-4344
Fax: (772) 692-4341
Engineering Business No. EB-0007657

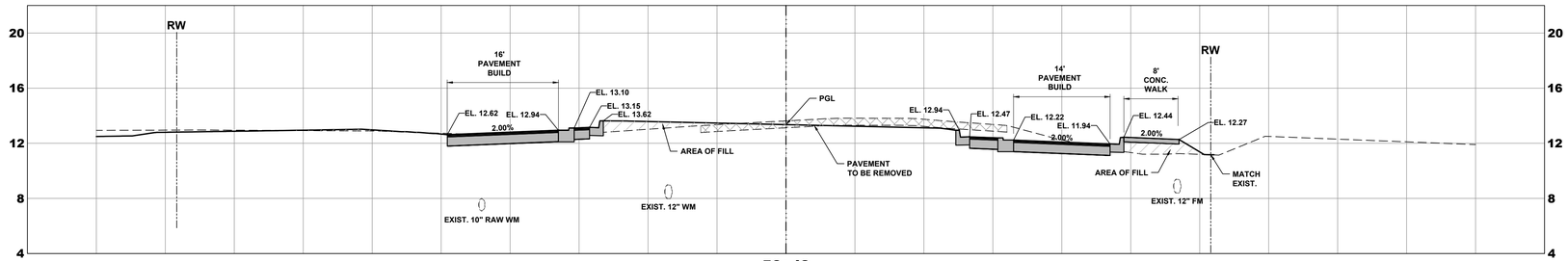
Joseph W. Capra, P.E.
301 N.W. Flagler Ave.
Stuart, Florida 34994
P.E. No. 37638
Signature Date

SHEET IDENTIFICATION

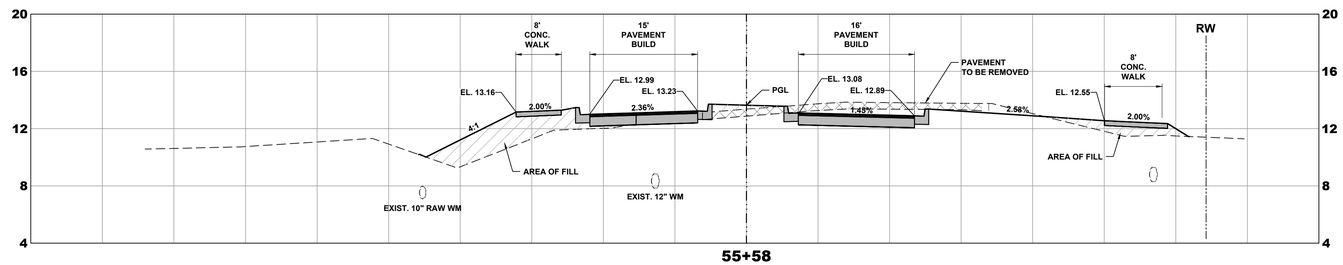
11

SHEET 10 OF 16

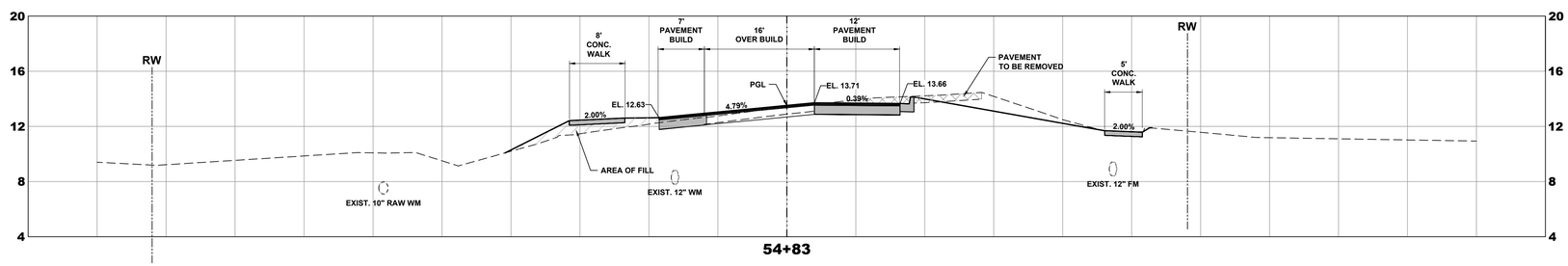
P:\1300\1329.2 - Reserve at Jensen Beach\Dwg\1329.2 ROUNDABOUT P&D.dwg, 3/27/2020 2:03:09 PM, DWG To PDF.pc3



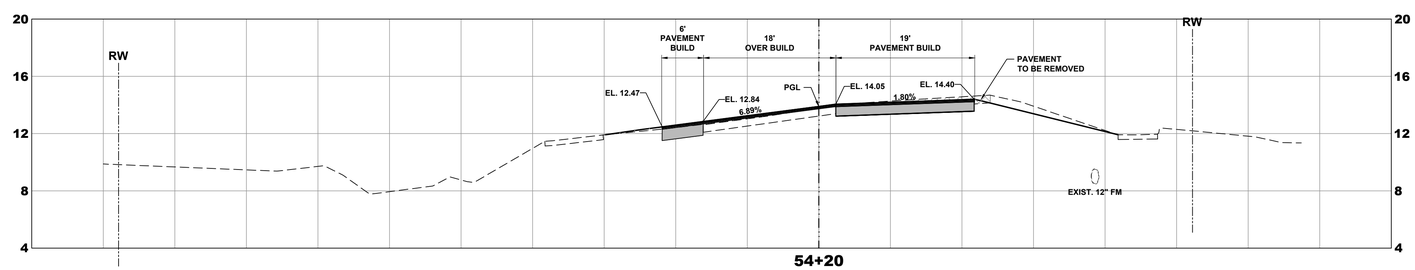
56+49



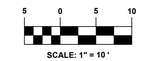
55+58



54+83



54+20



SCALE: HORZ. 1" = 10'
VERT. 1" = 5'

MARTIN COUNTY ENGINEERING
2401 SE MONTEREY ROAD
STUART, FLORIDA 34996
PHONE: (772) 288-5927
FAX: (772) 288-5955
www. martin.fl.us

DESIGNED BY: SPM		DATE: 3-27-2020
DWN BY: MDB	CKD BY: JWC	SOLICITATION NO.:
SUBMITTED BY: SPM		CONTRACT NO.: 2017-2971
SCALE: 1" = 10'	PLOT DATE: 3/27/2020	FILE NUMBER: 1329.2
SIZE: 24X36	FILE NAME: 1329.2 ROUNDABOUT CORRIDOR.DWG	

	DESCRIPTION	DATE	APPR.
1	PERMIT PLANS	3-27-2020	

NE SAVANNAH ROAD AT NE COY SENDA ROUNDABOUT

MARTIN COUNTY, FLORIDA

CROSS SECTIONS

CAPTEC Engineering, Inc.
Civil Engineering Professionals
301 N.W. Flagler Ave.
Stuart, Florida 34994
Phone: (772) 692-4344
Fax: (772) 692-4341
Engineering Business No. EB-0007657

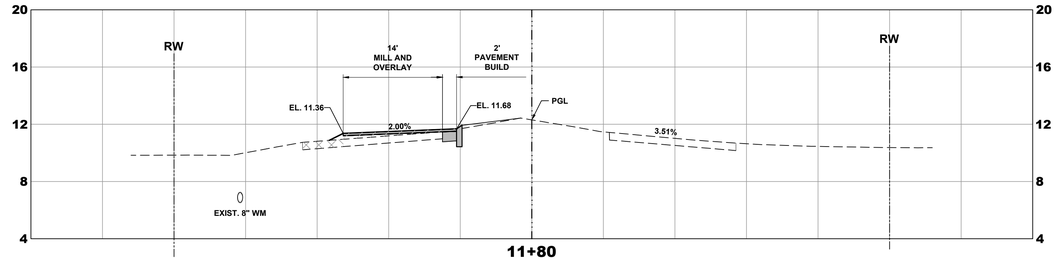
Joseph W. Capra, P.E.
301 N.W. Flagler Ave.
Stuart, Florida 34994
P.E. No. 37638
(seal)
Signature Date

SHEET IDENTIFICATION

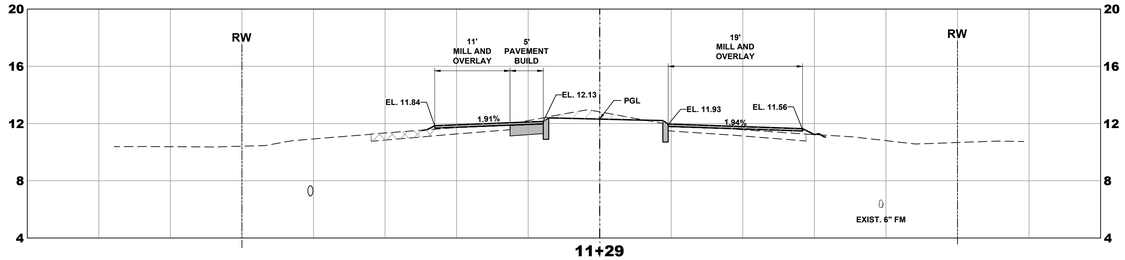
12

SHEET 12 OF 16

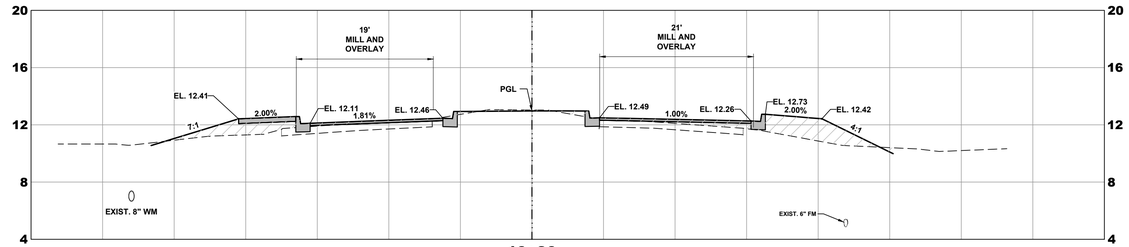
P:\1300\1329.2 - Reserve at Jensen Beach\Dwg\1329.2 ROUNDABOUT corridor.dwg, 3/27/2020 2:03:12 PM, DWG To PDF.pc3



11+80

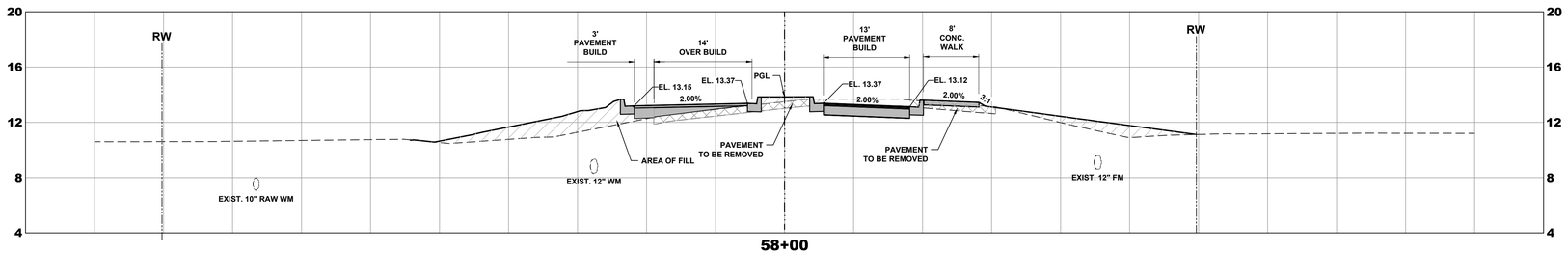


11+29

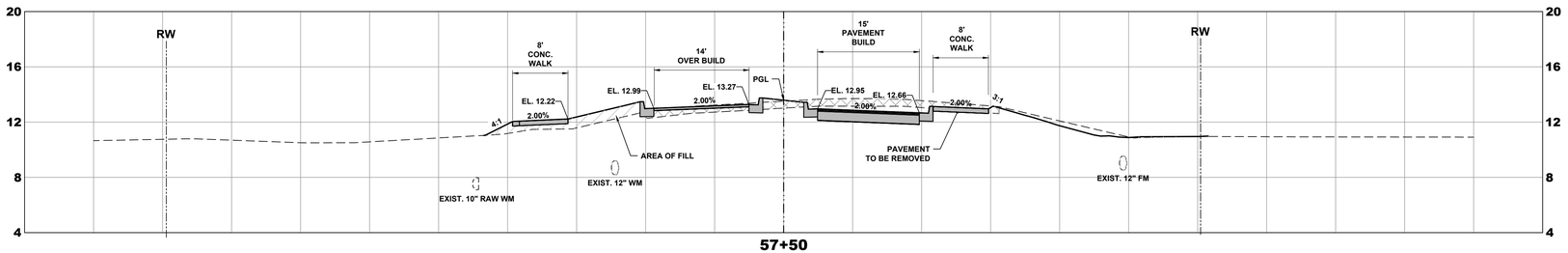


10+80

NE COY SENDA



58+00



57+50

811 KNOW WHAT'S BELOW ALWAYS CALL 811 BEFORE YOU DIG
It's fast. It's free. It's the law.
www.callsunshine.com

SCALE: HORZ. 1" = 10'
VERT. 1" = 5'

MARTIN COUNTY ENGINEERING
2401 SE MONTEREY ROAD
STUART, FLORIDA 34996
PHONE: (772) 288-5927
FAX: (772) 288-5955
www. martin.fl.us

DESIGNED BY: SPM		DATE: 3-27-2020
DWN BY: MDB	CKD BY: JWC	SOLICITATION NO.:
SUBMITTED BY: SPM		CONTRACT NO.: 2017-2971
SCALE: 1" = 10'	PLOT DATE: 3/27/2020	FILE NUMBER: 1329.2
SIZE: 24X36	FILE NAME: 1329.2 ROUNDABOUT CORRIDOR.DWG	

	DESCRIPTION	DATE	APPR.
1	PERMIT PLANS	3-27-2020	

NE SAVANNAH ROAD AT NE COY SENDA ROUNDABOUT

MARTIN COUNTY, FLORIDA

CROSS SECTIONS

CAPTEC Engineering, Inc.
Civil Engineering Professionals
301 N.W. Flagler Ave.
Stuart, Florida 34994
Phone: (772) 692-4344
Fax: (772) 692-4341
Engineering Business No. EB-0007657

Joseph W. Capitel, P.E.
301 N.W. Flagler Ave.
Stuart, Florida 34994
P.E. No. 37638
(seal)
Signature Date

SHEET IDENTIFICATION

13

SHEET 13 OF 16

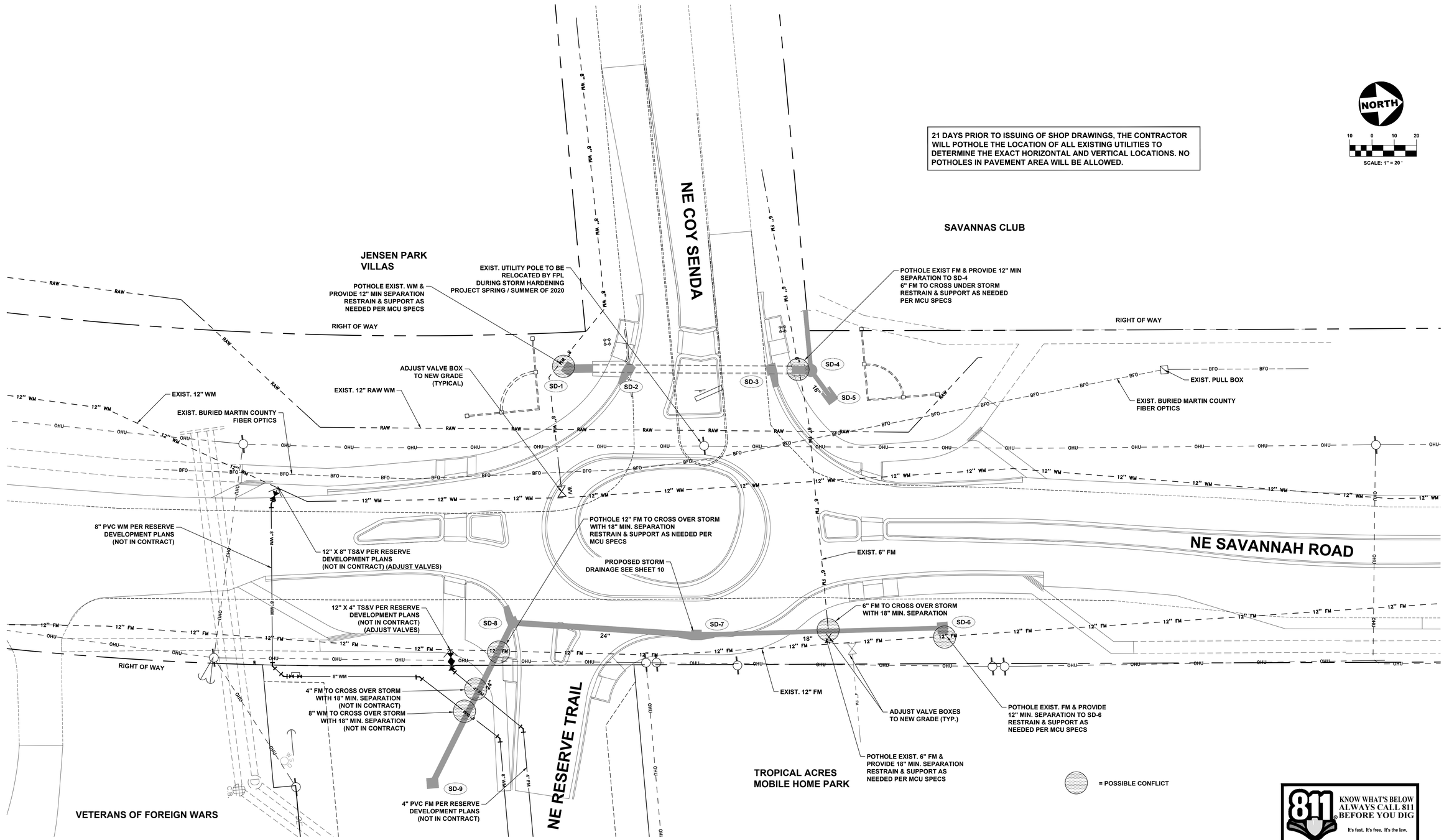
P:\1329\1329.2 - Reserve at Jensen Beach\Dwg\1329.2 ROUNDABOUT corridor.dwg 3/27/2020 3:03:14 PM, DWG To PDF.pc3

21 DAYS PRIOR TO ISSUING OF SHOP DRAWINGS, THE CONTRACTOR WILL POTHOLE THE LOCATION OF ALL EXISTING UTILITIES TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATIONS. NO POTHOLES IN PAVEMENT AREA WILL BE ALLOWED.

NORTH

10 0 10 20

SCALE: 1" = 20 '



KNOW WHAT'S BELOW ALWAYS CALL 811 BEFORE YOU DIG

It's fast. It's free. It's the law.

www.callsunshine.com

MARTIN COUNTY ENGINEERING
2401 SE MONTEREY ROAD
STUART, FLORIDA 34996
PHONE: (772) 288-5927
FAX: (772) 288-5955
www. martin.fl.us

DESIGNED BY: SPM		DATE: 3-27-2020
DWN BY: MDB	CKD BY: JWC	SOLICITATION NO.:
SUBMITTED BY: SPM		CONTRACT NO.:
SCALE: 1" = 20'	PLOT DATE: 3/27/2020	FILE NUMBER: 1329.2
SIZE: 24X36	FILE NAME: 1329.2 ROUNDABOUT UTIL ADJUST.DWG	

	DESCRIPTION	DATE	APPR.
1	PERMIT PLANS	3-27-2020	

NE SAVANNAH ROAD AT NE COY SENDA ROUNDABOUT

MARTIN COUNTY, FLORIDA

UTILITY ADJUSTMENTS

CAPTEC Engineering, Inc.
Civil Engineering Professionals
301 N.W. Flagler Ave.
Stuart, Florida 34994
Phone: (772) 692-4344
Fax: (772) 692-4341
Engineering Business No. EB-0007657

Joseph W. Capra, P.E.
301 N.W. Flagler Ave.
Stuart, Florida 34994
P.E. No. 37638
(seal)
Signature Date

SHEET IDENTIFICATION

14

SHEET 14 OF 16

P:\1300\1329.2 - Reserve at Jensen Beach\Dwg\1329.2 ROUNDABOUT UTIL ADJUST.dwg, 3/27/2020 2:03:14 PM, DWG To PDF.pc3

MAINTENANCE OF TRAFFIC CONTROL DEVICES

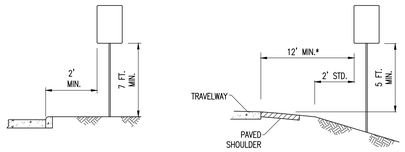
TRAFFIC SIGNS ON PRIVATELY MAINTAINED ROADS ARE THE RESPONSIBILITY OF THE MAINTAINING ENTITY, TYPICALLY, THE HOMEOWNERS OR PROPERTY OWNERS ASSOCIATION. WHERE PRIVATELY MAINTAINED ROADS INTERSECT STATE OR COUNTY MAINTAINED ROADS, THE TRAFFIC SIGNS (SUCH AS STREET NAME "BLADES" AND REGULATORY SIGNS) AND MARKINGS (SUCH AS STOP BARS) "SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER AND CURRENT USER ENTITY" NOT THE COUNTY OR THE STATE. PRIOR TO THE MARTIN COUNTY SHERIFF'S OFFICE PATROLLING ON PRIVATE ROADS, AN AGREEMENT FOR TRAFFIC CONTROL ON PRIVATE ROADS MUST BE EXECUTED WITH MARTIN COUNTY. THE HOMEOWNERS OR PROPERTY OWNERS ASSOCIATION SHALL SUBMIT A CERTIFICATION OF COMPLIANCE WITH THESE REGULATIONS PRIOR TO THE EXECUTION OF THE AGREEMENT FOR TRAFFIC CONTROL ON PRIVATE ROADS; THE CERTIFICATION MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF FLORIDA.

THE DESIGN AND MANUFACTURING OF ALL SIGNING AND MARKINGS REQUIRED FOR THE OPERATION OF THE CONNECTION (SUCH AS STOP BARS AND STOP SIGNS FOR THE CONNECTION) SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER AND CURRENT ENTITY RESPONSIBLE FOR THE CONNECTION, OR GOVERNMENTAL ENTITY HAVING JURISDICTION OVER THE CONNECTION, ROAD, OR INTERSECTION OF THE COUNTY ROAD REGARDLESS OF THE OWNER OF THE RIGHT-OF-WAY AS PROVIDED IN CHAPTER 316, FLORIDA STATUTES.

ALL TRAFFIC CONTROL DEVICES INSTALLED ON COUNTY OR PRIVATELY MAINTAINED ROADS SHALL BE IN CONFORMANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARD PLANS, AND THESE STANDARDS.

PLACEMENT OF TRAFFIC CONTROL DEVICES

PER FLORIDA STATUTE 316.0747, THE PLACEMENT OR POSITION OF TRAFFIC CONTROL DEVICES ALONG ROADS WHERE THE PUBLIC IS INVITED, INCLUDING THOSE DEVICES INSTALLED ON PRIVATE PROPERTY, SHALL MEET THE STATE STANDARDS ADOPTED BY THE FDOT, WHICH INCLUDES THOSE IDENTIFIED IN THE MUTCD. IF THE STANDARD POSITION CANNOT BE ATTAINED DUE TO IMMOBILE OBSTRUCTIONS, ALTERNATIVE PLACEMENT MAY BE PERMITTED BY THE COUNTY ENGINEER.



*THE SETBACK FOR STOP OR YIELD SIGNS MAY BE REDUCED TO 3' MINIMUM FROM THE DRIVING LANE IF REQUIRED FOR VISIBILITY IN BUSINESS OR RESIDENTIAL AREAS WITH NO CURB AND SPEEDS OF 30 MPH OR LESS

MARTIN COUNTY ENGINEERING - STANDARD DETAILS | DETAIL R-140A
TRAFFIC CONTROL | DATE: 12/03/19

SIGNS AND MARKINGS

STOP R1-1

INSTALLATION OF STOP SIGNS SHALL BE IN ACCORDANCE WITH THE SECTION 28.04 OF THE MUTCD. MULTI-WAY STOP SIGNS SHALL BE PLACED ONLY IF APPLICABLE IN ACCORDANCE WITH SECTION 28.07 OF THE MUTCD. STOP SIGNS ARE USED TO INDICATE THAT TRAFFIC IS ALWAYS REQUIRED TO STOP AND SHOULD NEVER BE USED TO SLOW OR CALM TRAFFIC FLOW. STOP SIGNS SHALL BE OCTAGONAL AND AT LEAST 30 INCHES HIGH BY 30 INCHES WIDE WITH WHITE DIAMOND GRADE SHEETING BACKGROUND AND CLEAR RED ELECTROCUT OVERLAY OR SILKSCREENED WITH CLEAR ULTRAVIOLET RESISTANT OVERLAY.

A STOP BAR OR LINE IS REQUIRED AT EACH LOCATION WHERE A STOP SIGN EXISTS. THE STOP BAR SHALL CONSIST OF A SOLID 24-INCH WIDE WHITE THERMOPLASTIC LINE THAT EXTENDS ACROSS THE APPROACH LANES TO INDICATE THE POINT AT WHICH THE STOP IS INTENDED OR REQUIRED TO BE MADE.

YIELD R1-2

YIELD SIGNS SHALL BE USED ONLY TO CONTROL MERGE MOVEMENTS AND TO ASSIGN THE RIGHT OF WAY AT THE ENTRANCE OF A ROUNDABOUT INTERSECTION. YIELD SIGNS ARE TRIANGULAR AND SHALL BE AT LEAST 36 INCHES ALONG EACH SIDE WITH WHITE DIAMOND GRADE SHEETING BACKGROUND AND CLEAR RED ELECTROCUT OVERLAY OR SILKSCREENED WITH CLEAR ULTRAVIOLET RESISTANT OVERLAY.

R3-1

NO RIGHT TURN OR NO LEFT TURN SIGNS SHOULD BE PLACED WHERE THEY WILL BE MOST EASILY SEEN BY ROAD USERS WHO MIGHT BE INTENDING TO TURN. THESE SIGNS ARE THE ONLY SIGNS (OTHER THAN THE SUPPLEMENTAL PLAQUE) PERMITTED TO BE PLACED ON THE POST IN CONJUNCTION WITH A STOP OR YIELD WHEN LOCATED ON OR NEAR THE RIGHT CORNER OF THE INTERSECTION. TURN PROHIBITION SIGNS SHALL BE AT LEAST 24 INCHES HIGH BY 24 INCHES WIDE WITH WHITE DIAMOND GRADE SHEETING BACKGROUND AND CLEAR RED ELECTROCUT OVERLAY OR SILKSCREENED WITH CLEAR ULTRAVIOLET RESISTANT OVERLAY.

SPEED LIMIT 30 R2-1

SPEED LIMITS SHALL BE ESTABLISHED IN ACCORDANCE WITH THE FDOT' SPEED ZONING FOR HIGHWAYS, ROADS, AND STREETS IN FLORIDA. SPEED LIMIT SIGNS SHALL BE AT LEAST 30 INCHES HIGH BY 24 INCHES WIDE WITH WHITE DIAMOND GRADE SHEETING BACKGROUND OR SILKSCREENED WITH CLEAR ULTRAVIOLET RESISTANT OVERLAY.

THE MINIMUM POSTED SPEED IN MARTIN COUNTY IS 25 MPH; HOWEVER, SCHOOL ZONES MAY BE POSTED AT 20 MPH.

ONLY SCHOOL WARNING SIGNS, INCLUDING THE "SCHOOL" PORTION OF THE SCHOOL SPEED LIMIT SIGN AND INCLUDING ANY SUPPLEMENTAL PLAQUES USED IN ASSOCIATION WITH THESE WARNING SIGNS, SHALL HAVE A FLUORESCENT YELLOW-GREEN BACKGROUND WITH A BLACK LEGEND AND BORDER.

ALL OTHER WARNING SIGNS SHALL HAVE A FLUORESCENT YELLOW BACKGROUND WITH A BLACK LEGEND AND BORDER.

DEAD END

THE DEAD END SIGN (OR FLAG ON A STREET NAME) BLADE SHALL BE USED AT THE ENTRANCE OF A SINGLE ROAD OR STREET THAT TERMINATES IN A DEAD END OR CUL-DE-SAC.

NO OUTLET

THE NO OUTLET SIGN (OR FLAG ON A STREET NAME BLADE) SHALL BE USED AT THE ENTRANCE TO A ROAD OR ROAD NETWORK FROM WHICH THERE IS NO OTHER EXIT.

THE TOP PORTION OF THE PARKING BY DISABLED PERMIT ONLY SIGN SHALL DISPLAY WHITE REFLECTIVE LEGEND AND BORDER WITH A BLUE REFLECTIVE BACKGROUND. THE BOTTOM PORTION OF THE SIGN SHALL DISPLAY AN OPAQUE BLACK LEGEND AND BORDER WITH A REFLECTIVE WHITE BACKGROUND. SIGN FABRICATION SHALL CONSIST OF ONE PANEL.

MARTIN COUNTY ENGINEERING - STANDARD DETAILS | DETAIL R-140B
TRAFFIC CONTROL | DATE: 12/03/19

STREET NAME BLADES

RECOMMENDED MINIMUM LETTER HEIGHTS ON STREET NAME BLADES

TYPE OF MOUNTING	TYPE OF STREET OR HIGHWAY	SPEED LIMIT	RECOMMENDED MINIMUM LETTER HEIGHT (IN INCHES) INITIAL UPPER-CASE	LOWER-CASE
OVERHEAD	ALL TYPES	ALL SPEED LIMITS	12	9
POST-MOUNTED	MULTI-LANE	MORE THAN 40 MPH	8	6
POST-MOUNTED	MULTI-LANE	40 MPH OR LESS	6	4.5
POST-MOUNTED	2-LANE	ALL SPEED LIMITS	*6	*4.5

sr Main st D3-1

*ON LOCAL TWO-LANE STREETS WITH SPEED LIMITS OF 25 MPH, 4-INCH INITIAL UPPER-CASE LETTERS WITH 3-INCH LOWER-CASE LETTERS MAY BE USED.

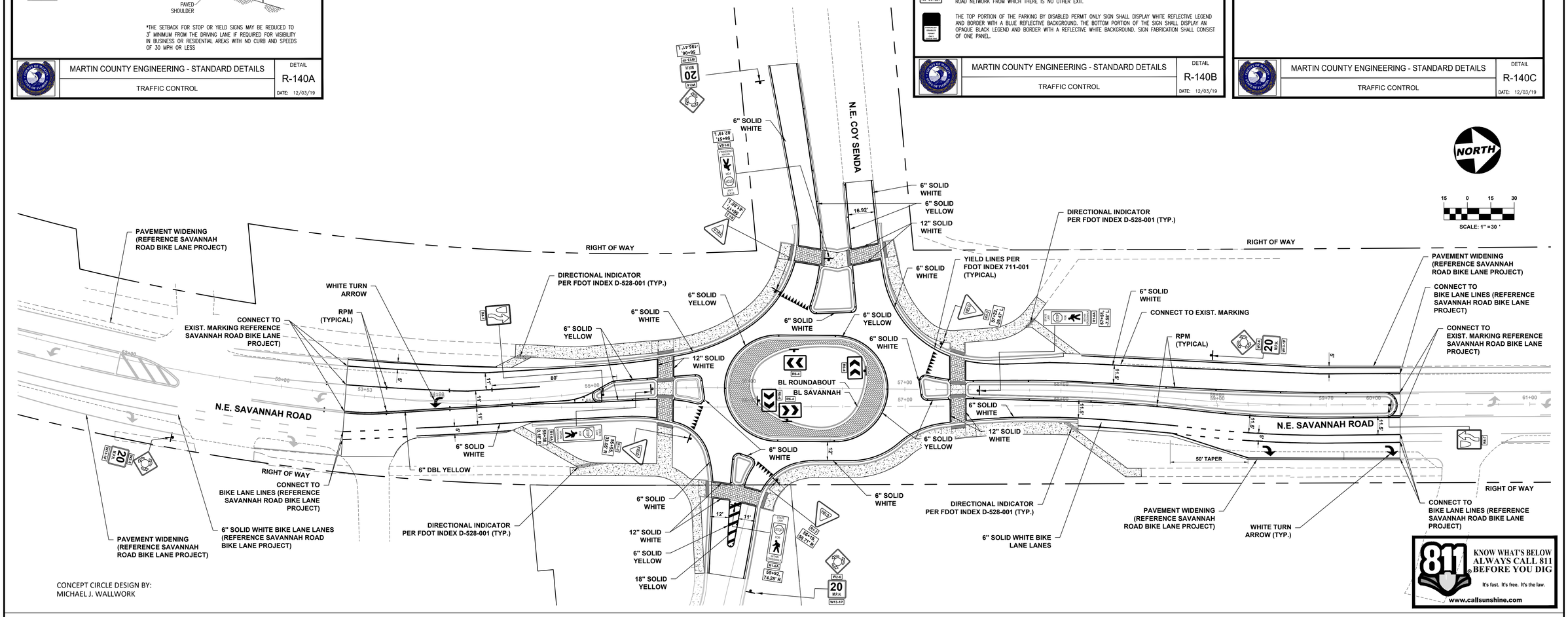
ON COUNTY MAINTAINED ROADS THE LETTERING SHALL BE HIGHWAY C OR HIGHWAY B FONT. ALL LETTERING SHALL BE AT LEAST 1 INCH FROM THE TOP, BOTTOM, AND EACH SIDE OF THE BLADE. ABBREVIATIONS SHALL BE LIMITED TO THOSE THAT ARE COMMONLY RECOGNIZED AND UNDERSTOOD. THE SUPPLEMENTARY LETTERING INDICATING THE COUNTY QUADRANT OR STREET TYPE SHALL BE SUPER-SCRIPTED UPPER CASE AND ONE-HALF THE HEIGHT OF THE INITIAL UPPERCASE LETTER(S). UNLESS SPECIFICALLY STATED OTHERWISE, THE BORDER SHALL BE WHITE AND SHALL BE AT LEAST 1/2 INCH INSIDE THE EDGE OF THE BLADE. THE CORNERS OF THE BLADE SHALL BE ROUNDED. ALL STREET NAME BLADES SHALL BE MADE OF 0.063 ALUMINUM WITH WHITE DIAMOND GRADE SHEETING BACKGROUND AND GREEN ELECTRO-CUT OVERLAY. TWO BLADES SHALL BE MOUNTED BACK-TO-BACK ON A SQUARE POST WITH TWO 5/16 x 2-3/4 BOLTS WITH NYLON WASHERS AND LOCK WASHERS PLUS ONE 5/16 X 3/4 BOLT WITH A NYLON WASHER AND LOCK WASHER AT EACH END OF THE BLADES.

ON NON-COUNTY (OR NON-STATE) MAINTAINED ROADS THE BACKGROUND MUST BE EITHER BLUE OR BROWN WITH WHITE LETTERING OR WHITE WITH BLACK LETTERING.

MARTIN COUNTY ENGINEERING - STANDARD DETAILS | DETAIL R-140C
TRAFFIC CONTROL | DATE: 12/03/19

NOTES:

1. **STRIPING PER FDOT INDEX 711-001 AND 711-002. REFERENCE MUTCD ROUNDABOUT CH. 3C.**
2. **REFLECTIVE PAVEMENT MARKERS (RPM'S) PER FDOT INDEX 706-001.**
3. **BLUE RPM AT FIRE HYDRANT VALVES PER MCU DETAILS.**
4. **ROUNDABOUT DESIGNED TO TIE INTO "MARTIN COUNTY SAVANNAH ROAD MULTI MODAL ENHANCEMENT AND BIKE LANES PLANS".**



CONCEPT CIRCLE DESIGN BY:
MICHAEL J. WALLWORK

KNOW WHAT'S BELOW ALWAYS CALL 811 BEFORE YOU DIG
It's fast. It's free. It's the law.
www.callsunshine.com

MARTIN COUNTY ENGINEERING
2401 SE MONTEREY ROAD
STUART, FLORIDA 34996
PHONE: (772) 288-5927
FAX: (772) 288-5955
www. martin.fl.us

DESIGNED BY: SPM		DATE: 3-27-2020
DWN BY: MDB	CKD BY: JWC	SOLICITATION NO.:
SUBMITTED BY: SPM		CONTRACT NO.: 2017-2971
SCALE: 1" = 30'	PLOT DATE: 3/27/2020	FILE NUMBER: 1329.2
SIZE: 24X36	FILE NAME: 1329.2 ROUNDABOUT MARKING.DWG	

	DESCRIPTION	DATE	APPR.
1	PERMIT PLANS	3-27-2020	

NE SAVANNAH ROAD AT NE COY SENDA ROUNDABOUT

MARTIN COUNTY, FLORIDA

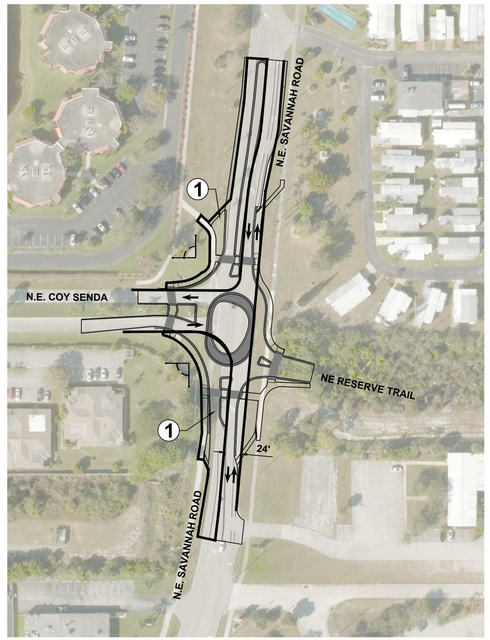
PAVEMENT MARKING AND SIGNAGE

CAPTEC Engineering, Inc.
Civil Engineering Professionals
301 N.W. Flagler Ave.
Stuart, Florida 34994
Phone: (772) 692-4344
Fax: (772) 692-4341
Engineering Business No. EB-0007657

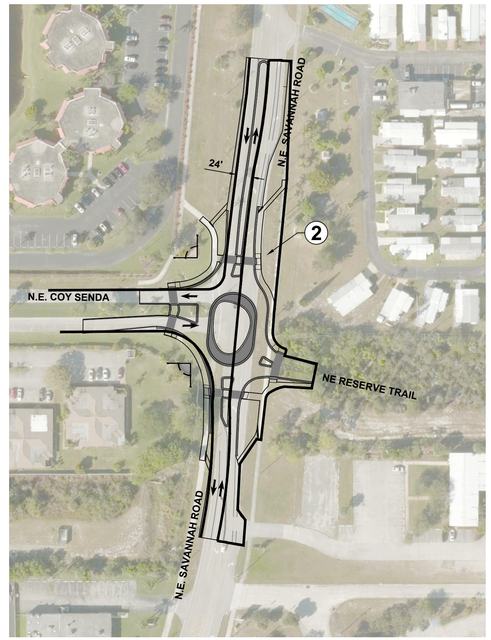
Joseph W. Capra, P.E.
301 N.W. Flagler Ave.
Stuart, Florida 34994
P.E. No. 37638
(seal)
Signature | Date

SHEET IDENTIFICATION
15
SHEET 15 OF 16

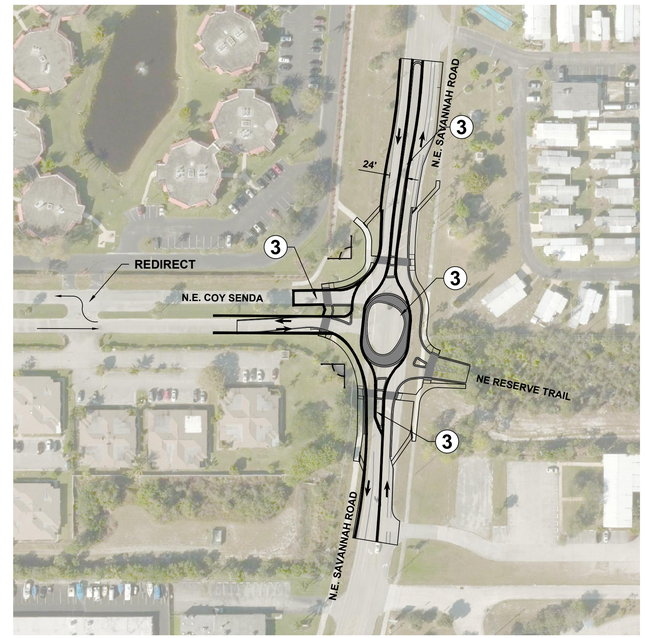
P:\1300\1329.2 - Reserve at Jensen Beach\Dwg\1329.2 ROUNDABOUT MARKING.dwg, 3/27/2020 2:03:21 PM, DWG To PDF.pc3



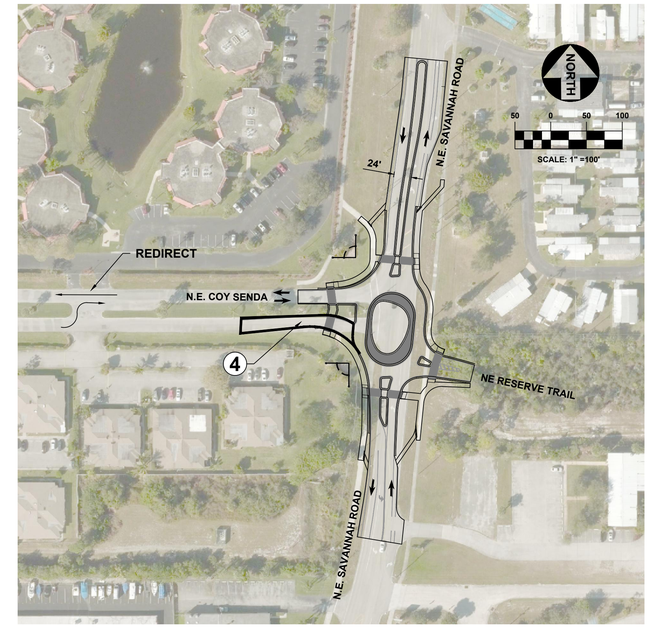
PHASE 1



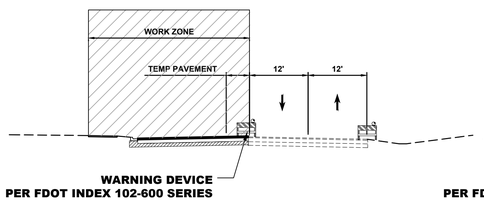
PHASE 2



PHASE 3



PHASE 4

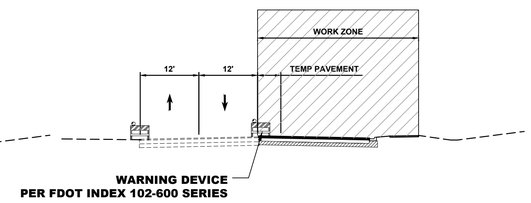


NOTE: MAINTAIN 2 LANES (2-WAY TRAFFIC) AT ALL TIMES

*** MAINTAIN DRAINAGE/EROSION CONTROL DURING CONSTRUCTION**

PHASE 1

N.T.S.

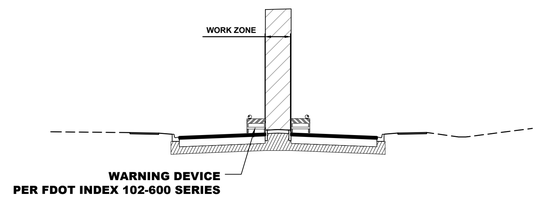


NOTE: MAINTAIN 2 LANES (2-WAY TRAFFIC) AT ALL TIMES

*** MAINTAIN DRAINAGE/EROSION CONTROL DURING CONSTRUCTION**

PHASE 2

N.T.S.



NOTE: MAINTAIN 2 LANES (2-WAY TRAFFIC) AT ALL TIMES

*** MAINTAIN DRAINAGE/EROSION CONTROL DURING CONSTRUCTION**

PHASE 3

N.T.S.

NOTES:

1. ***INSTALL ADVANCED WARNING SIGNS ON SIDE STREETS. SIGN TO REMAIN DURING ALL PHASES.***
2. ***PLACE TEMPORARY WORK SIGNS, CHANNELIZING DEVICES AND OTHER TRAFFIC CONTROL DEVICES DURING CONSTRUCTION ACTIVITIES PER FDOT INDEX 102-600, 102-613, 102-615 AND 102-616.***
3. ***USE STANDARD CLEARING AND GRUBBING FOR EXISTING MEDIAN PREPARATION.***
4. ***UPON COMPLETION OF PHASES 1, 2, AND 3, PLACE TEMPORARY PAVEMENT MARKINGS AND STRIPING .***
5. ***UPON COMPLETION OF ALL PHASES, PLACE PERMANENT PAVEMENT MARKINGS AND STRIPING.***

NOTE:
PER FDOT INDEX 102-600, ANY DROP-OFF CONDITION THAT IS CREATED AND RESTORED WITHIN THE SAME WORK PERIOD WILL NOT BE SUBJECT TO THE USE OF BARRIERS; HOWEVER, WARNING DEVICES WILL BE REQUIRED.

SEQUENCING OF CONSTRUCTION

MAINTENANCE OF TRAFFIC (MOT) PLAN
NE SAVANNAH ROAD / NE COY SENDA INTERSECTION ROUNDABOUT

MOT BASIS
1. **SAVANNAH RD MULTIMODAL ENHANCEMENT PROJECT WILL BE CONSTRUCTED PRIOR TO ROUNDABOUT**
2. **COY SENDA INTERSECTION TO REMAIN OPEN DURING CONSTRUCTION AT ALL TIMES**

MOBILIZATION
SET UP EROSION CONTROL / PLACE TEMPORARY SIGNAGE AND MARKINGS PER FDOT INDEX 102-600 SERIES.

PHASE 1: WEST SECTION CONSTRUCTION
MAINTAIN NORTH SOUTH TRAFFIC ON EAST SIDE OF ROADWAY
CONSTRUCT OUTSIDE CURBING / PLACE DRAINAGE / OPEN CUT / INSTALL BASE & OVERBUILD / 1ST LAYER OF ASPHALT/ SIDEWALK / DO NOT BUILD MEDIANS OR SPLITTER ISLANDS--PAVE THRU / RELOCATE ANY DRY UTILITIES / SET CONDUITS FOR LIGHTING. USE EXISTING PAVEMENT IN MEDIAN LOCATION FOR PHASE 2 TRAFFIC.

PHASE 2: EAST SECTION CONSTRUCTION
MAINTAIN NORTH SOUTH TRAFFIC ON WEST SIDE OF ROADWAY.
CONSTRUCT OUTSIDE CURBING / PLACE DRAINAGE / OPEN CUT / INSTALL BASE & OVER-BUILD / 1ST LAYER OF ASPHALT/ SIDEWALK / DO NOT BUILD MEDIANS OR SPLITTER ISLANDS--PAVE THRU / RELOCATE ANY DRY UTILITIES / SET CONDUITS FOR LIGHTING.

PHASE 3: ROUNDABOUT & MEDIAN CONSTRUCTION, NORTH LANE COY SENDA
MAINTAIN TRAFFIC ON OUTSIDE LANES. REDIRECT TRAFFIC ON COY SENDA TO SOUTH LANES, RIGHT TURN ONLY AT SAVANNAH ROAD.
CONSTRUCT MEDIAN CURBING / CUT IN ISLANDS & ROUNDABOUT / INSTALL BASE / 1ST LAYER OF ASPHALT/ SET CONDUITS FOR LIGHTING / TEMPORARY STRIPING AT ROUNDABOUT / SPLITTER ISLANDS / SIGNAGE / ADD PATTERNED PAVEMENT / ADD FINAL LAYER OF ASPHALT / PAINT PAVEMENT MARKINGS / ADD LIGHT POLES / ADD LANDSCAPING.

PHASE 4: SOUTH LANE COY SENDA
REDIRECT TRAFFIC ON COY SENDA TO NORTH LANE, MAINTAIN TRAFFIC ON ROUNDABOUT. CONSTRUCT OUTSIDE CURBING / INSTALL BASE / FINAL LAYER OF ASPHALT/ SIDEWALK / RELOCATE ANY DRY UTILITIES.

FINAL PHASE:
PLACE THERMOPLASTIC STRIPING / REMOVE TEMPORARY SIGNAGE / CLEAN UP / SOD / LIGHT STARTUP.

811 KNOW WHAT'S BELOW ALWAYS CALL 811 BEFORE YOU DIG
It's fast. It's free. It's the law.
www.callsunshine.com

MARTIN COUNTY ENGINEERING
2401 SE MONTEREY ROAD
STUART, FLORIDA 34996
PHONE: (772) 288-5927
FAX: (772) 288-5955
www. martin.fl.us

DESIGNED BY: SPM		DATE: 3-27-2020
DWN BY: MDB	CKD BY: JWC	SOLICITATION NO.:
SUBMITTED BY: SPM		CONTRACT NO.: 2017-2971
SCALE: 1" = 100'	PLOT DATE: 3/27/2020	FILE NUMBER: 1329.2
SIZE: 24X36	FILE NAME: 1329.2 ROUNDABOUT MOT.DWG	

	DESCRIPTION	DATE	APPR.
1	PERMIT PLANS	3-27-2020	

NE SAVANNAH ROAD AT NE COY SENDA ROUNDABOUT

MARTIN COUNTY, FLORIDA

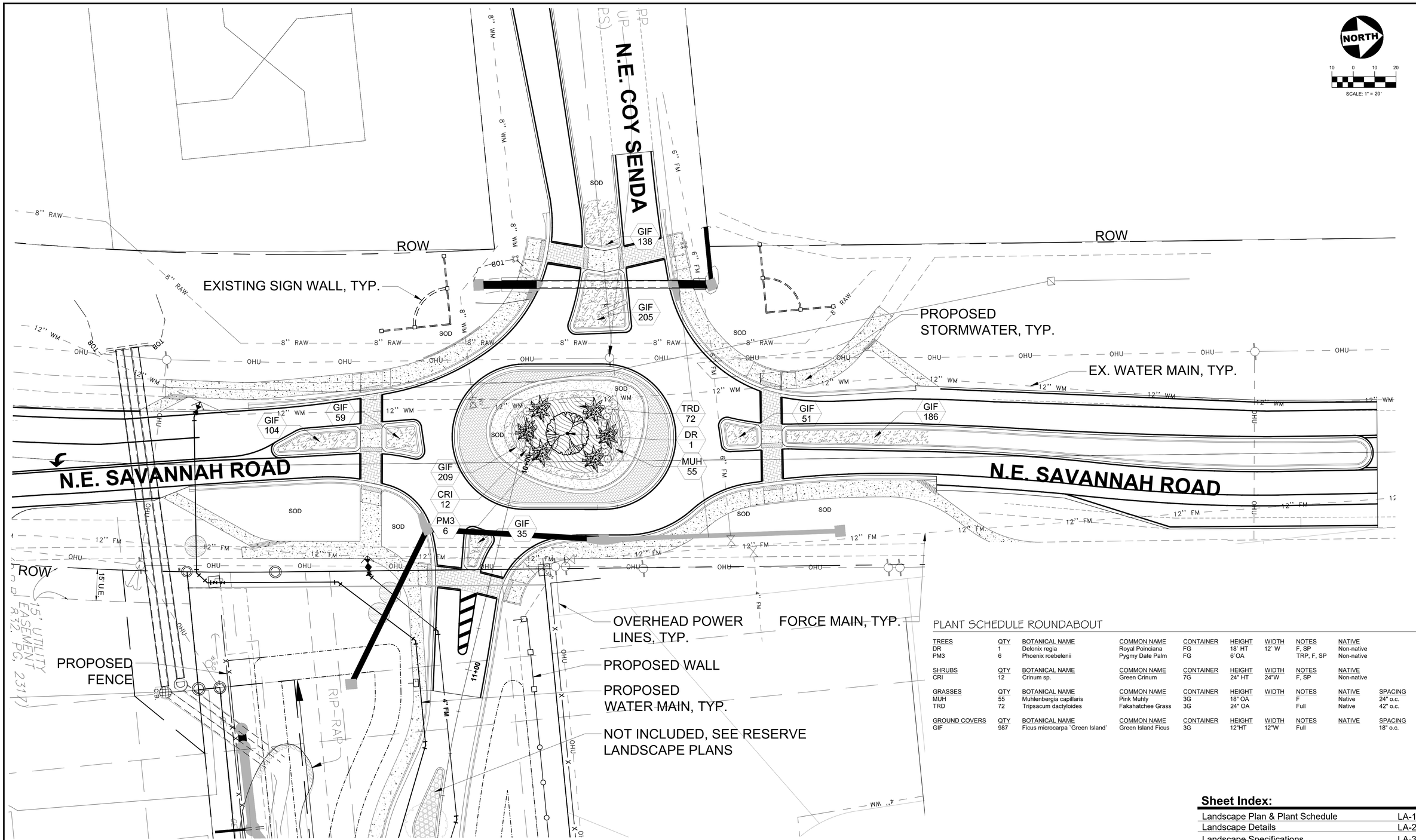
MAINTENANCE OF TRAFFIC

CAPTEC Engineering, Inc.
Civil Engineering Professionals
• 301 N.W. Flagler Ave.
Stuart, Florida 34994
Phone: (772) 692-4344
Fax: (772) 692-4341
Engineering Business No. EB-0007657

Joseph W. Capra, P.E.
301 N.W. Flagler Ave.
Stuart, Florida 34994
P.E. No. 37638
(seal)
Signature Date

SHEET IDENTIFICATION
16

P:\1300\1329.2 - Reserve at Jensen Beach\Dwg\1329.2 ROUNDABOUT MOT.dwg, 3/27/2020 2:03:47 PM, DWG To PDF.pc3



PLANT SCHEDULE ROUNDABOUT

TREES	QTY	BOTANICAL NAME	COMMON NAME	CONTAINER	HEIGHT	WIDTH	NOTES	NATIVE
DR	1	Delonix regia	Royal Poinciana	FG	18` HT	12` W	F, SP	Non-native
PM3	6	Phoenix roebelenii	Pygmy Date Palm	FG	6`OA		TRP, F, SP	Non-native

SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	CONTAINER	HEIGHT	WIDTH	NOTES	NATIVE
CRI	12	Crinum sp.	Green Crinum	7G	24" HT	24"W	F, SP	Non-native

GRASSES	QTY	BOTANICAL NAME	COMMON NAME	CONTAINER	HEIGHT	WIDTH	NOTES	NATIVE	SPACING
MUH	55	Muhlenbergia capillaris	Pink Muhly	3G	18" OA		F	Native	24" o.c.
TRD	72	Tripsacum dactyloides	Fakahatchee Grass	3G	24" OA		Full	Native	42" o.c.

GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	CONTAINER	HEIGHT	WIDTH	NOTES	NATIVE	SPACING
GIF	987	Ficus microcarpa `Green Island`	Green Island Ficus	3G	12"HT	12"W	Full		18" o.c.

Sheet Index:

Landscape Plan & Plant Schedule	LA-1
Landscape Details	LA-2
Landscape Specifications	LA-3

MARTIN COUNTY ENGINEERING
2401 SE MONTEREY ROAD
STUART, FLORIDA 34996
PHONE: (772) 288-5927
FAX: (772) 288-5955
www. martin.fl.us

DESIGNED BY: BW		DATE: 07/12/2019
DWN BY: BW	CKD BY: PG	SOLICITATION NO.:
SUBMITTED BY: ###		CONTRACT NO.: 2017-2971
SCALE: 1" = 20'	PLOT DATE: 07/12/2019	FILE NUMBER: 18-020
SIZE: 24X36	FILE NAME: 18-020 THE RESERVE AT JENSEN BEACH - LANDSCAPE PLAN - ROUNDABOUT ONLY.DWG	

	DESCRIPTION	DATE	APPR.
1	PERMIT PLAN	5-29-20	

NE SAVANNAH ROAD AT COY SENDA ROUNDABOUT

MARTIN COUNTY, FLORIDA

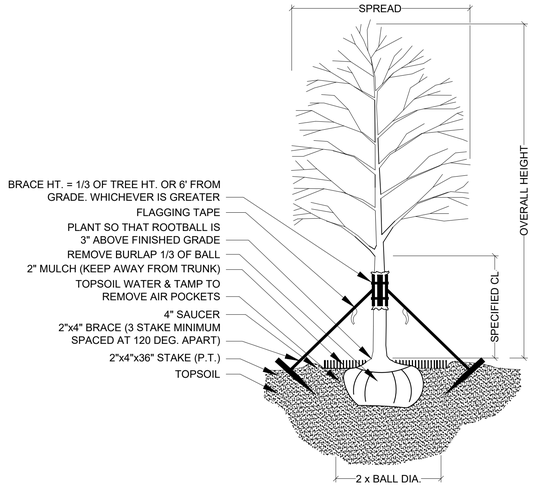
Landscape Plan

lucido & associates
701 SE Ocean Blvd., Stuart, Florida 34994 (772) 220-2100, Fax (772) 223-0220
REG. # 1018
Thomas P. Lucido

SHEET IDENTIFICATION

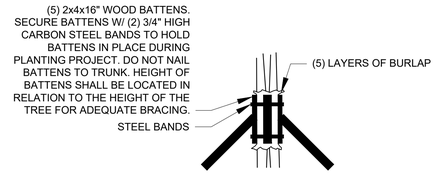
LA-1

SHEET 1 OF 3



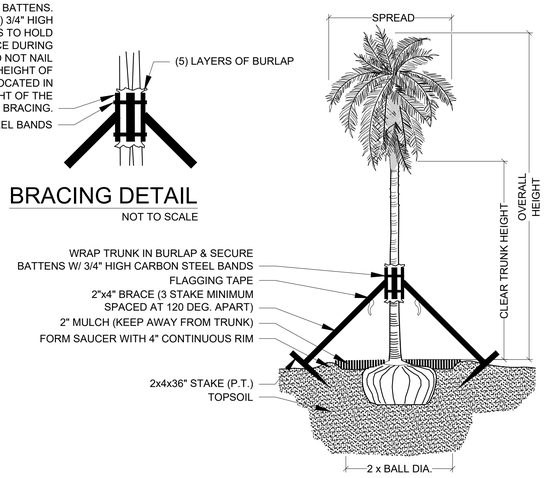
TREE PLANTING & STAKING

NOT TO SCALE



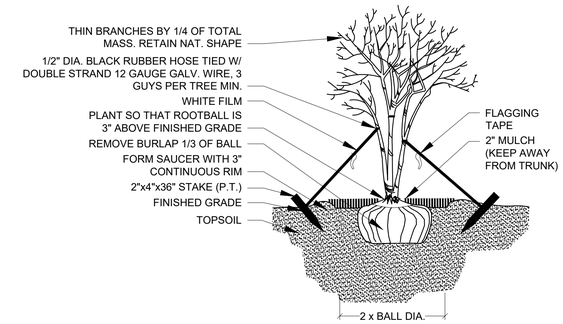
BRACING DETAIL

NOT TO SCALE



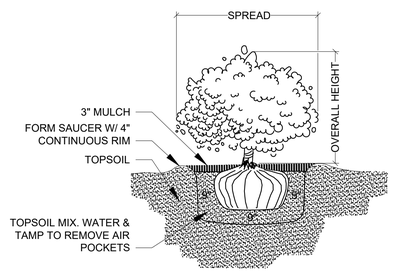
PALM PLANTING - ANGLE STAKE

NOT TO SCALE



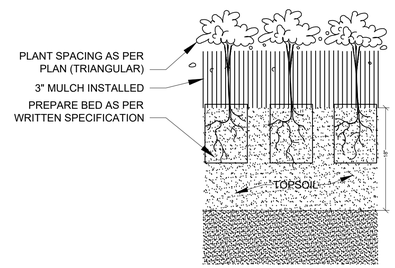
MULTI-TRUNK PLANTING & GUYING

NOT TO SCALE



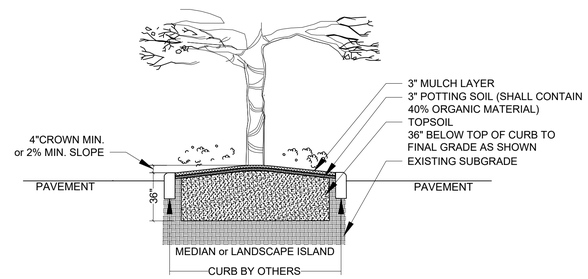
SHRUB PLANTING

NOT TO SCALE



GROUNDCOVER PLANTING DETAIL

NOT TO SCALE

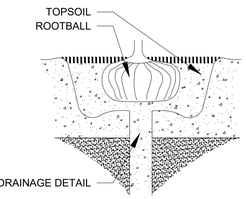


THIS DETAIL SHOWN DEPICTS A MEDIAN AND/OR LANDSCAPE ISLAND AND IS FOR GRAPHIC PURPOSES ONLY; SOIL PREPARATION SHALL APPLY TO ALL TREE, SHRUB, & GROUND COVER AREAS. THIS DOES NOT INCLUDE SOD AREAS

LANDSCAPE AREA PREPARATION DETAIL

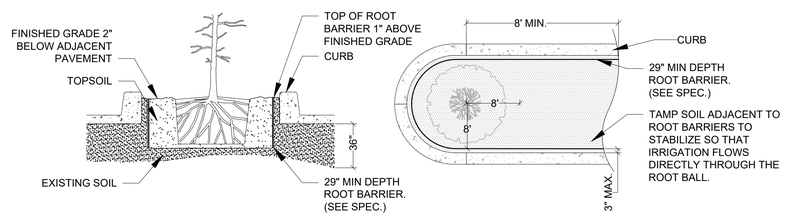
NOT TO SCALE

- *TOPSOIL SHALL BE NATURAL, FRIABLE, FINE LOAMY SOIL POSSESSING CHARACTERISTICS OF REPRESENTATIVE TOPSOIL IN THE VICINITY OF THE PROJECT SITE THAT PRODUCES HEAVY GROWTH.
- TOPSOIL SHALL HAVE A PH RANGE OF 5.5-7.4, FREE FROM SUBSOIL, WEEDS, LITTER, SODS, CLAY, STONES, STUMPS, ROOTS, TRASH, HERBICIDES, TOXIC SUBSTANCES, OR ANY OTHER MATERIAL WHICH MAY BE HARMFUL TO PLANT GROWTH, OR HINDER PLANTING OPERATIONS.
- TOPSOIL SHALL CONTAIN A MINIMUM OF 3% ORGANIC MATERIAL.
- TOPSOIL MUST PERCOLATE WATER AT A RATE OF 1" PER HOUR (SEE ALSO DRAINAGE TESTING DETAIL FOR TREES)
- LANDSCAPE AREA SOILS SHALL BE APPROVED BY LANDSCAPE ARCHITECT/OWNER PRIOR TO PLANTING



DRAINAGE TESTING DETAIL

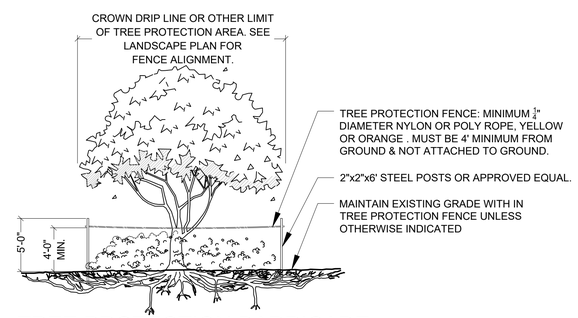
NOT TO SCALE



SPECIAL APPLICATIONS ROOT BARRIER DETAIL

NOT TO SCALE

NOTES:
1- ROOT BARRIER SHALL BE INSTALLED WHEN ROOT BALL IS LOCATED WITHIN 8' OF PAVEMENT AND OR CURB.
2- ROOT BARRIER SHALL BE "BIO-BARRIER 29" DEPTH OR APPROVED EQUAL.
3- ROOT BARRIER SHALL BE INSTALLED PER MANUFACTURE'S SPECIFICATIONS AND RECOMMENDATIONS.



TREE PROTECTION BARRICADE

NOT TO SCALE

NOTES:
1- SEE LANDSCAPE PLAN FOR FENCE ALIGNMENT.
3- NO PRUNING SHALL BE PERFORMED EXCEPT BY APPROVED ARBORIST.
4- NO EQUIPMENT SHALL OPERATE INSIDE THE PROTECTIVE FENCING INCLUDING DURING FENCE INSTALLATION AND REMOVAL.

DRAINAGE TESTING/DRAINAGE CHANNEL REQUIREMENTS.

PRIOR TO PLANTING, ALL PLANTING PITS SELECTED FOR TESTING SHALL BE TESTED IN THE FOLLOWING MANNER.

A. DIG EACH PLANTING PIT TO THE MINIMUM SPECIFIED SIZE.

B. FILL PLANTING PIT WITH TWELVE INCHES (12") OF WATER. IF THE WATER LEVEL DROPS FOUR (4") OR MORE WITHIN FOUR (4) HOURS, THE DRAINAGE IS SUFFICIENT AND A DRAINAGE CHANNEL IS NOT REQUIRED. IF THE WATER LEVEL DROPS LESS THAN FOUR INCHES (4") WITHIN THE FOUR (4) HOUR PERIOD, A DRAINAGE CHANNEL IS REQUIRED.

C. WHERE REQUIRED, THE DRAINAGE CHANNEL MUST EXTEND DOWN THROUGH THE NON POROUS SOIL AND INTO POROUS SOIL. (SEE DETAIL)

D. ALL MATERIAL REMOVED FROM THE DRAINAGE CHANNEL SHALL BE DISCARDED.

E. WHEN BACKFILLING PLANTING PITS WITH NATIVE TOPSOIL, CARE MUST BE TAKEN TO KEEP THE CONSISTENCY OF THE SOIL MIX THE SAME THROUGHOUT THE PLANTING PIT AND DRAINAGE CHANNEL.

MARTIN COUNTY ENGINEERING
2401 SE MONTEREY ROAD
STUART, FLORIDA 34996
PHONE: (772) 288-5927
FAX: (772) 288-5955
www. martin.fl.us

DESIGNED BY: BW		DATE: 07/12/2019
DWN BY: BW	CKD BY: PG	SOLICITATION NO.:
SUBMITTED BY: ###		CONTRACT NO.: 2017-2971
SCALE: 1" = 20'	PLOT DATE: 07/12/2019	FILE NUMBER: 18-020
SIZE: 24X36	FILE NAME: 18-020 THE RESERVE AT JENSEN BEACH - LANDSCAPE PLAN - ROUNDABOUT ONLY.DWG	

	DESCRIPTION	DATE	APPR.
1	PERMIT PLAN	5-29-20	

NE SAVANNAH ROAD AT COY SENDA ROUNDABOUT

MARTIN COUNTY, FLORIDA

Landscape Details

lucido & associates
701 SE Ocean Blvd., Stuart, Florida 34994 (772) 220-2100, Fax (772) 223-0220
REG. # 1018
Thomas P. Lucido

SHEET IDENTIFICATION

LA-2

LANDSCAPE SPECIFICATIONS

PART 1: GENERAL CONDITIONS

1.01 SCOPE:
A. The landscape contract includes the supplying and planting of all trees, shrubs, vines, and ground cover together with all necessary labor, equipment, tools and materials needed for the successful completion, execution and maintenance of the landscape plans.

1.02 AGENCY STANDARDS:
A. Grades and standards of plant materials to be used shall be true to name, size, condition and graded Florida #1 or better as stated in: Grades and Standards of Florida Plant Materials published by the State of Florida Department of Agriculture, Tallahassee, Florida.

1.03 SITE EXAMINATION:
A. The Landscape Contractor shall personally examine the site and fully acquaint him/herlself with all of the existing conditions in order that no mis-understanding may afterwards arise as to the character or extent of the work to be performed, and, additionally, in order to acquaint him/herself with all precautions to be taken in order to avoid injury to property or persons. No additional compensation will be granted because of any unusual difficulties which may be encountered in the execution or maintenance of any portion of the work.

1.04 ERRORS AND OMISSIONS:
A. The plant list is a part of the drawings and is furnished as a convenience. The plant list indicates the name, size and quantities of specific plant materials as called for and is located on the drawings. The Landscape Contractor is responsible for his/her own quantity count, and any discrepancy between drawings and plant list shall be considered as correct on the drawings.

B. The Landscape Contractor shall not take advantage of errors or omissions in the specifications or contract drawings. Full instruction will be given if such errors are discovered. Upon the discovery of any discrepancies in, or omissions from the drawings or documents, or should the Landscape Contractor be in doubt as to their meaning, the Landscape Architect shall be notified and will determine the actions necessary to each query.

C. If plans and specifications are found to disagree after the contract is awarded, the Landscape Architect shall be the judge as to which was intended.

1.05 EXECUTION OF THE WORK:
A. The Landscape Contractor shall have his labor crews controlled and directed by a Foreman well versed in plant materials, planting methods, reading plans, and coordination between job and nursery in order to execute installation correctly and in a timely manner.

B. The Landscape Contractor shall provide a competent English-speaking Foreman on the project at all times, who shall be fully authorized as the Contractor's agent on the work. The Foreman shall be capable of reading and thoroughly understanding the Plans, Specifications and other Contract Documents. If the Superintendent is deemed incompetent by the Landscape Architect, he (the superintendent) shall be immediately replaced.

C. The Landscape Contractor shall be available for any meetings with the Owner and/or Landscape Architect during implementation of the job. Any additional work or changes required as a result of failure to communicate with the Owner or Landscape Architect during implementation will be the responsibility of the Landscape Contractor.

1.06 PROTECTION OF PUBLIC AND PROPERTY:
A. The Landscape Contractor shall protect all materials and work against injury from any cause and shall provide and maintain all necessary safeguards for the protection of the public. He shall be held responsible for any damage or injury to persons or property which may occur as a result of his fault or negligence in the execution of the work, i.e. damage to underground pipes or cables.

1.07 CHANGES AND EXTRAS:
A. The Contractor shall not start work on any changes or "extras" in the project until a written agreement setting forth the adjusted prices has been executed by the Owner and the Contractor. Any work performed on changes or "extras" prior to execution of a written agreement may or may not be compensated for by the Owner at his discretion.

1.08 GUARANTEE:
The Landscape Contractor shall furnish a written guarantee warranting all materials, workmanship and plant materials, except sod, for a period of 18 MONTHS from the time of completion and acceptance by the Landscape Architect and Owner. Sod shall be guaranteed to 90 calendar days after acceptance by the Landscape Architect and Owner. All plant material shall be alive and in satisfactory condition and growth for each specific kind of plant at the end of the guarantee period. The guaranteeing of plant material shall be construed to mean complete and immediate replacement with plant material of the same variety, type, size, quality and grade as that of the originally specified material. During the guarantee period it shall be the Landscape Contractor's responsibility to immediately replace any dead or unhealthy material as determined by the Landscape Architect. The guarantee will be null and void if plant material is damaged by lightning, hurricane force winds, or any other acts of God, as well as vandalism or lack of proper maintenance.

B. At the end of the specified guarantee period, any plant required under this contract that is dead or not in satisfactory condition, as determined by the Landscape Architect, shall be replaced. The Landscape Contractor shall be responsible for the full replacement cost of plant materials for the first replacement and share subsequent replacement (s) costs equally with the Owner, should the replacement plant fail to survive.

1.09 CARE AND MAINTENANCE:
A. The Landscape Contractor shall be responsible for the care and maintenance of all plant materials and irrigation when applicable until final acceptance by the Owner or Landscape Architect.

B. The Owner agrees to execute the instructions for such care and maintenance.

1.10 SAFETY:
A. It shall be the responsibility of the Landscape Contractor to protect all persons from injury and to avoid property damage. Adequate warning devices shall be placed and maintained during the progress of the work.

B. It shall be the contractor's responsibility to conform to all local, state, and federal safety laws and codes including the Federal Occupational Safety And Health Act (O.S.H.A.).

1.11 CONTRACTOR QUALIFICATION:
A. The Owner may require the apparent contractor (s) to qualify him/herself to be a responsible entity by furnishing any or all of the following documentary data:
1. A financial statement showing assets and liabilities of the company current to date.
2. A listing of not less than (3) completed projects of similar scope and nature.
3. Permanent name and address of place of business.
4. The number of regular employees of the organization and length of time the organization has been in business under the present name.

1.12 INSURANCE AND BONDING:
A. The contractor (s) shall submit proof of insurance for this job for the time period that the work is done. The minimum amount of insurance shall be $300,000.00 per person and $300,000.00 per aggregate or as required by owner and agreed to in the contract. The successful bidder shall be required to have this coverage in effect before beginning work on the site.

B. The Owner shall have the right to require the Contractor to furnish bonds covering faithful performance of the Contract and payment obligations arising thereunder as stipulated in bidding requirements or specifically required in the Contract Documents on the date of execution of the Contract.

1.13 PERMITS AND CERTIFICATES:
A. All contractors shall secure and pay for all permits and certificates required for his/her class of work.

PART 2: MARTERIALS

2.01 PLANT MATERIALS:
A. A complete list of plants is shown on the drawings, including a schedule of quantities, sizes, and such other requirements deemed necessary. In the event discrepancies occur, the specifications on the drawings shall govern.

B. Substitutions: Substitutions of plant materials or changes in size or spacing of materials will be permitted ONLY upon written authorization by the Owner or the Landscape Architect. If plant material is not of sufficient size to meet applicable codes, a letter of variance from the appropriate agency must be obtained by the Contractor prior to issuance of any change order. If material of smaller size is to be accepted, the quantity of material shall be increased, at no additional cost to the Owner, to meet the intent of the drawings.

C. All plant materials shall have a habit of growth that is normal for the species and shall be healthy, vigorous and equal to or exceed the measurements specified in the plant list, which are the minimum acceptable sizes. Plants shall be measured before pruning with branches in normal position. Any necessary pruning shall be done at the time of planting.

D. All plant materials shall be nursery grown, unless otherwise noted, Florida #1 or better and shall comply with all required inspections, grading standards and plant regulations as set forth by the Florida Department of Agriculture's Grades and Standards for Nursery Plants, most current addition and Grades and Standards for Nursery Plants, most current addition.

E. Plants that do not have the normal balance of height and spread typical for the respective plant shall not be acceptable.

F. The Landscape Contractor shall install each plant to display its best side. Adjustments may be required if plants are not installed properly and/or approved by the Landscape Architect at no additional cost to owner.

2.02 INSPECTION

A. The Landscape Architect and Owner may inspect trees and shrubs at place of growth or at site before planting, for compliance with requirements for genus, species, variety, size and quality. The Landscape Architect and Owner retain the right to further inspect trees and shrubs for size and condition of balls and root systems, insects, injuries and latent defects, and to reject unsatisfactory or defective material at any time during progress of work. Rejected plant materials shall be immediately removed from project site.

2.03 PROTECTION OF PLANT MATERIALS:
A. Balled and burlapped plants (B & B) shall be dug with firm natural balls of earth of sufficient diameter and depth to encompass the fibrous and feeding root system necessary for full recovery of the plant. Balls shall be firmly wrapped with burlap similar materials and bound with cord, rope, or wire mesh. All collected plants shall be balled and burlapped.

B. Plants with broken, damaged or insufficient rootballs will be rejected.

C. All plant material shall be protected from possible bark injury or breakage of branches. All plants transported by open trucks shall be adequately covered to prevent windburn, drying or damage to plants.

D. Plants which cannot be planted immediately on delivery to the site shall be covered with moist soil, mulch or other protection from the drying of wind and sun. All plants shall be watered as necessary by the Landscape Contractor until planted.

2.04 STORAGE
A. All plant materials shall be stored on the site in designated areas, specified by the Landscape Architect or Owner's agent.

B. No plant material shall be stored longer than seventy-two (72) hours unless approved by Landscape Architect and/or owner.

C. The Landscape Architect reserves the right to reject any plant materials not in conformance with these specifications.

D. All rejected material shall be immediately removed from the site and replaced with acceptable material at no cost to the Owner.

2.05 PROTECTION DURING PLANTING:
A. Trees moved by winch or crane shall be thoroughly protected from chain marks, girdling or bark slippage by means of burlap, wood battens or other approved methods. Battens shall NOT be attached to the tree with nails

2.06 TOP SOIL:
A. Planting soil for all plantings shall consist of topsoil and be natural, friable, fertile, fine loamy soil possessing characteristics of representative topsoil in the vicinity of the project site that produces heavy growth. Topsoil shall have a PH range of 5.5-7.4, free from subsoil, weeds, litter, sods, clay, stones, stumps, roots, trash, herbicides, toxic substances, or any other material which may be harmful to plant growth, or hinder planting operations. Topsoil shall contain a minimum of 3% organic material. Topsoil must percolate water at a rate of 1" per hour (See also drainage testing detail for trees)

B. Landscape Area Preparation. The intent of this section is to ensure a healthy growing environment for all planting material in all landscaped areas. Landscape Contractor to examine existing soils prior to planting to ensure conformance to all definitions of "Topsoil" (seeLandscape Area Preparation Detail); In addition, a 3" layer of high organic (min 40%) potting soil shall be added to the topsoil and mixed in at time of planting. *East Coast Recycling Inc.* is a recommended source for imported Topsoil (if needed) as well as the top 3" layer of potting soil.

Existing soils must meet all definitions of 'Topsoil' as described above in all planting areas throughout the site. If existing soils do not meet all definitions of Topsoil, please refer to the 'Landscape Area Preparation' detail. Examination may require existing soils to be tested by an accredited testing laboratory. Should a soil test be necessary, Contractor shall contact soil testing lab directly to confirm such lab's soil collection and transmittal protocol; all costs if any shall be borne by the Contractor. Contractor shall provide to Landscape Architect for review the results of the soil test if conducted. Contractor shall schedule an on-site meeting with Landscape Architect to review existing and/or imported soils prior to planting. The Landscape Area Preparation is the responsibility of the Landscape Contractor. He/she shall except all responsibility of planting soils and shall honor all guarantee items in section 1.08.

2.07 FERTILIZER:
A. Commercial fertilizer shall comply with the state and local fertilizer laws. Nitrogen shall not be less than 40% from organic source. Inorganic chemical nitrogen shall not be derived from the sodium form of nitrate. Fertilizers shall be delivered to the site in unopened original containers, each bearing the manufacturer's guaranteed analysis. Any fertilizer that becomes caked or otherwise damaged shall be rejected.

B. Thoroughly mixed 3 lbs. of commercial fertilizer to each cubic yard of planting soil.

C. Tabletized fertilizer shall be Agriform planting tablets 20-10-5 formula, 21 gram or equal. All trees and shrubs shall be fertilized with tabletized fertilizer as follows. While backfilling plant holes, fertilizer tablets shall be equally spaced and placed adjacent to the ball mid-way in depth in accordance with the following rates:

1 gallon container	1 tablet
3 gallon container	2 tablets
5 gallon container	3 tablets
7 gallon container	5 tablets

Large tubs, wire baskets, grow bags, and balled and burlapped material shall have 1 tablet for each 1/2 inch of trunk diameter (measured 3 feet from ground) or for each foot of height or spread of larger shrub material. The Landscape Architect reserves the right to inspect and review the application of fertilizer.

2.08 MULCH:
A. Mulch material shall be clean, dry, free of weeds, seeds and pests, moistened at the time of application to prevent wind displacement. Cypress &/or Red mulch is prohibited.

B. All trees and shrub beds shall receive 3" mulch immediately after planting and thoroughly watered. Apply 2" max on tree & palm rootballs, keep 6" away from tree & palm trunks or as required by local jurisdiction.

PART 3 EXECUTION
3.01 DIGGING:
A. The Landscape Contractor shall exercise care in digging and other work so as not to damage existing work, including overhead wires, underground pipes and cables and the pipes and hydrants of watering systems. Should such overhead or underground obstructions be encountered which interfere with planting, the Owner shall be consulted and contractor will adjust the location of plants to clear such obstruction. The Contractor shall be responsible for the immediate repair of any damage caused by his work.

3.02 GRADING:
A. Grading for drainage, swales, etc. to within 4 inches of the finished grade to be provided by others.

B. It shall be the responsibility of the Landscape Contractor to provide the final grading during the course of landscape installation so as to bring sod and planting areas to their proper elevations in relation to walks, paving, drain structures, and other site conditions. The site grading plan must be checked prior to installation of sod to insure that drainage and other conditions will NOT be modified.

3.03 PLANTING:
A. Planting shall take place during favorable weather conditions.

B. The Contractor shall call for utility locates and ascertain the location of all utilities and easements so proper precautions can be taken not to damage or encroach on them.

C. Tree Planting shall be located where it is shown on the plan. No planting holes shall be dug until the proposed locations have been staked on the ground by the Contractor.

D. Excavation of holes shall extend to the required subgrades as specified on the planting diagrams located in the landscape plans. Plant pits shall be circular in outline and shall have a profile which conforms to the aforementioned "Tree and Shrub Planting Diagrams".

E. A representative number of planting pits (a minimum of one in every 25 feet throughout the entire site) shall be tested for proper drainage. See Landscape Details for complete testing methods and requirements.

F. Planting pits shall be excavated to the following dimensions and backfilled with Topsoil- see Landscape Area Preparation Detail;
1 Gallon material (1 gal.): 12" x 12" x 12" min.
3 Gallon material (3 gal.): 20" x 20" x 18" min.
Lerio material (7 gal.): 30" x 30" x 24" min.
Field grown material and trees: 1-1/2 times width of ball and depth of ball plus 12" min.

G. No planting or laying of sod shall be initiated until the area has been cleaned of existing sod or other plant materials, rough grass, weeds, debris, stones etc. and the ground has been brought to an even grade, with positive drainage away from buildings and towards drain inlets and swales and approved by Landscape Architect or owner's rep.

H. Each plant shall be planted in an individual hole as specified for trees, shrubs, and vines.

I. All plants shall be set to ultimate finished grade. No filling will be permitted around trunks or stems. All ropes, wire, stakes, etc., shall be removed from sides and top of the ball and removed from hole before filling in.

J. All flagging ribbon shall be removed from trees and shrubs before planting.

K. Excess excavation (fill) from all holes shall be removed from the site, at no additional expense to Owner.

L. All palms shall be backfilled with sand, thoroughly washed in during planting operations and with a shallow saucer depression left at the soil line for future watering's. Saucer areas shall be top-dressed two (2") inches deep with topsoil raked and left in a neat, clean manner.

3.04 PRUNING:
A. Remove dead and broken branches from all plant material. Prune to retain typical growth habit of individual plants with as much height and spread as possible in a manner which will preserve the plant's natural character.

B. Make all cuts with sharp instruments flush with trunk or adjacent branch, in such a manner as to insure elimination of stubs. Cuts made at right angles to line of growth will not be permitted.

C. Trees shall not be poled or topped.

D. Remove all trimming from site.

3.05 GUYING:
A. All trees over six (6') feet in height shall, immediately after setting to proper grade, be guyed with three sets of two strands, No. 12 gauge malleable galvanized iron, in tripod fashion. See Detail.

B. Wires shall not come in direct contact with the tree but shall be covered with an approved protection device at all contact points. Wires shall be fastened in such a manner as to avoid pulling crotches apart.

C. Stake & Brace all trees larger than 12' oa. See detail. Stakes shall be 2" x 2" lumber of sufficient length to satisfactorily support each tree.

D. Turnbuckles for guying trees shall be galvanized or cadmium plated and shall be of adequate size and strength to properly maintain tight guy wires.

3.06 WATER:
A. Each plant or tree shall be thoroughly watered in after planting. Watering of all newly installed plant materials shall be the responsibility of the Landscape Contractor until final acceptance by the Landscape Architect.

B. Prior to installing any irrigation system components, the contractor shall obtain a water sample from the proposed water supply and conduct a particle size and count analysis on the sample using the services of a reputable lab certified in such analysis. Submit the test results to the owner/owner's representative for review and approval. Do not proceed further with system installation until given written approval to do so.

3.07 SOD:
A. The Landscape Contractor shall sod all areas indicated on the drawings.

B. It shall be the responsibility of the Landscape Contractor to fine grade all landscape areas, eliminating all bumps, depressions, sticks, stones, and other debris.

C. The sod shall be firm, tough texture, having a compacted growth of grass with good root development. It shall contain no noxious weeds, or any other objectionable vegetation, fungus, insects, or disease. The soil embedded in the sod shall be good clean earth, free from stones and debris.

D. Before being cut and lifted, the sod shall have been mowed at least three times with a lawn mower, with the final mowing not more than seven days before the sod is cut. The sod shall be carefully cut into uniform dimensions.

E. 6-6-6 fertilizer with all trace elements is to be applied at the rate of 40 lbs. per 1,000 sq. ft. prior to laying sod.

F. Solid sod shall be laid with closely abutting, staggered joints with a tamped or rolled, even surface.

G. The finished level of all sod areas after settlement shall be one (1") inch below the top of abutting curbs, walks, paving and wood borders to allow for building turf.

H. If in the opinion of the Landscape Architect, top dressing is necessary after rolling, clean yellow sand will be evenly applied over the entire surface and thoroughly washed in.

3.08 SEEDING:
A. The Landscape Contractor shall remove all vegetation and rocks larger than (1") in diameter from areas to be seeded, scarify the area, then apply fertilizer at a rate of 500 lbs. per acre.

B. Application: Argentine Bahia Grass seed- 200 Pounds per acre mixed with common hulled Bermuda seed- 30 lbs. per acre. All other seed mixtures shall be applied per the manufacturer's instructions.

C. Roll immediately after seeding with a minimum 500 pound roller, then apply straw mulch at the rate of 2,500 pounds per acre.

D. Apply fertilizer at the rate of 150 lbs. per acre 45-60 days after seeding.

3.09 CLEANING UP:
A. The contractor shall at all times keep the premises free from accumulations of waste materials or rubbish caused by his employees or work. He shall leave all paved areas "broom clean" when completed with his work.

3.10 MAINTENANCE:
A. Maintenance shall begin immediately after each plant is installed and shall continue until all planting has been accepted by the Owner or Landscape Architect. Maintenance shall include watering, weeding, removal of dead materials, resetting plants to proper grades or upright positions, spraying, restoration of planting saucer and/or any other necessary operations.

B. Proper protection to lawn areas shall be provided and any damage resulting from planting operations shall be repaired promptly.

C. Replacement of plants during the maintenance period shall be the responsibility of the Contractor, excluding vandalism or damage on the part of others, lighting, or hurricane force winds, until final acceptance.

D. In the event that weeds or other undesirable vegetation become prevalent, it shall be the Contractor's responsibility to remove them.

E. Trees or other plant material which fall or are blown over during the maintenance period will be reset by the Contractor at no additional expense to the Owner, the only exception being hurricane force winds.

3.11 COMPLETION, INSPECTION AND ACCEPTANCE:
A. Completion of the work shall mean the full and exact compliance and conformity with the provisions expressed or implied in the Drawings and in the Specifications, including the complete removal of all trash, debris, soil or other waste created by the Landscape Contractor.

B. Inspection of work to determine completion of contract, exclusive of the possible replacement of plants, will be made by the Owner and/or Landscape Architect at the conclusion of all planting and at the request of the Landscape Contractor.

C. All plant material shall be alive and in good growing condition for each specified kind of plant at the time of acceptance. The rating of each plant according to Florida Grades and Standards shall be equal to or better than that called for on the plans and in these Specifications at the time of final inspection and acceptance.

D. After inspection, the Landscape Contractor will be notified by the Owner of the acceptance of all plant material and workmanship, exclusive of the possible replacement of plants subject to guarantee.

E. All trees & shrubs shall be straight and in correct position per the landscape plans, details and specifications. All nursery, shipping and identification tags & ribbons shall be removed from trees & shrubs immediately after planting.

MARTIN COUNTY ENGINEERING
2401 SE MONTEREY ROAD
STUART, FLORIDA 34996
PHONE: (772) 288-5927
FAX: (772) 288-5955
www.martin.fl.us

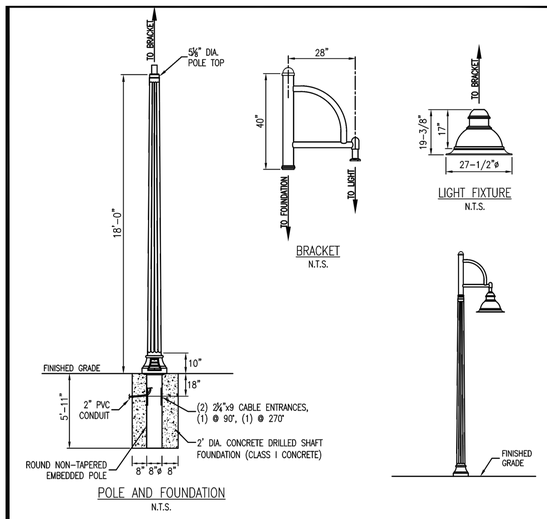
DESIGNED BY: BW		DATE: 07/12/2019
DWN BY: BW	CKD BY: PG	SOLICITATION NO.:
SUBMITTED BY: ###		CONTRACT NO.: 2017-2971
SCALE: 1" = 20'	PLOT DATE: 07/12/2019	FILE NUMBER: 18-020
SIZE: 24X36	FILE NAME: 18-020 THE RESERVE AT JENSEN BEACH - LANDSCAPE PLAN - ROUNDABOUT ONLY.DWG	

	DESCRIPTION	DATE	APPR.
1	PERMIT PLAN	5-29-20	

NE SAVANNAH ROAD AT COY SENDA ROUNDABOUT
MARTIN COUNTY, FLORIDA
Landscape Specifications

lucido & associates
701 SE Ocean Blvd., Stuart, Florida 34994 (772) 220-2100, Fax (772) 223-0220
REG. # 1018
Thomas P. Lucido

SHEET IDENTIFICATION
LA-3
SHEET 3 OF 3



NOTES:

1. WIRING SHALL BE IN ACCORDANCE WITH THE FDOT STANDARD plans INDEX 715-001, LATEST EDITION.
2. POLE: AMERON CO. CAT. #VEF5.5(233A)T6; TENON SIZE 4" DIA. X 9" LONG WITH ACRYLIC ANTI-GRAFFITI COATING OR APPROVED EQUAL. COLOR OF POLE SHALL BE SANDSTONE. △2
3. FIXTURE: LUMEC CO. CAT. #DMS50-80W48LED-4K-T-LE3F-240-GB2TX OR APPROVED EQUAL.
4. BRACKET: LUMEC CO. CAT. #VR308-1A-BG2TX OR APPROVED EQUAL.
5. FOUNDATION: 3,000 PSI MIN. CLASS I CONC., 2' DIA., 5'-11" DEEP W/ POLE DIRECTLY EMBEDDED. APPROX. 0.61 CY EA.
6. POLES SHALL NOT HAVE OUTLETS OR BANNER ARMS. △2

	MARTIN COUNTY PUBLIC WORKS - STANDARD DETAILS	DETAIL R-130
	STREET LIGHT	DATE: 04/23/19

ELECTRICAL GENERAL NOTES:

1. THE ELECTRICAL CONTRACTOR SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH THE DRAWINGS, WHERE A DISCREPANCY OR CONFLICT IS FOUND BETWEEN ONE DRAWING AND ANOTHER THE CONTRACTOR SHALL NOTIFY THE A/E IMMEDIATELY IN WRITTEN FORM. CONTRACTOR SHALL NOT PROCEED WITH THAT PORTION OF THE WORK UNTIL A WRITTEN DIRECTIVE HAS BEEN RETURNED. IN GENERAL, THE MOST STRINGENT REQUIREMENT SHALL GOVERN UNLESS THE DISCREPANCY CONFLICTS WITH APPLICABLE CODES, WHEREIN THE CODE SHALL GOVERN.

2. THE DRAWINGS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO SHOW EVERY DETAIL OF CONSTRUCTION, METHODS, MATERIALS AND EQUIPMENT, OR EXACT LOCATIONS, ROUTING, ETC. THEY INDICATE THE RESULT TO BE ACHIEVED BY THE ASSEMBLAGE OF SEVERAL SYSTEMS FOR A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM. DO NOT SCALE THE CONTRACT DOCUMENTS. COORDINATE EXACT EQUIPMENT LOCATIONS WITH THE ARCHITECTURAL PORTIONS OF THE CONTRACT DOCUMENTS, AS WELL AS FIELD CONDITIONS, APPROVED SHOP DRAWINGS, AND WORK OF ALL OTHER DIVISIONS/TRADES.

3. THE TERM "PROVIDE" USED IN THE CONTRACT DOCUMENTS INDICATES THAT THE CONTRACTOR SHALL FURNISH AND INSTALL MATERIALS, INCLUDING ALL COST FOR SHIPPING, UNLOADING, STORAGE, UNPACKING, ERECTION, ANCHORING, ETC. REQUIRED FOR CORRECT INSTALLATION OF A COMPLETE SYSTEM, UNLESS SPECIFICALLY NOTED OTHERWISE.

4. UNLESS NOTED AS EXISTING, ALL ELECTRICAL INDICATED IN THE CONTRACT DOCUMENTS SHALL BE NEW. EQUIPMENT SHALL BE INSTALLED AND USED IN ACCORDANCE WITH ANY INSTRUCTIONS INCLUDED IN THE LISTING OR LABELING.

5. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC), ALL APPLICABLE LOCAL CODES, ORDINANCES AND ALL REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION (AHJ), AS A MINIMUM.

6. THE CONTRACTOR SHALL CARRY ALL INSURANCE REQUIRED TO PROTECT AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THIS PROJECT.

7. THE CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP ARE FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE A/E AND OWNER. THE CONTRACTOR, AT NO ADDITIONAL COSTS, SHALL PROVIDE THE CORRECTION OF ANY DEFECTS INCLUDING REPAIR OR REPLACEMENT.

8. THE CONTRACTOR SHALL VISIT AND CAREFULLY EXAMINE THOSE PORTIONS OF THE SITE AFFECTED BY THIS WORK PRIOR TO SUBMITTING PROPOSALS, SO AS TO BECOME FAMILIAR WITH EXISTING CONDITIONS AND DIFFICULTIES THAT MAY AFFECT EXECUTION OF THE WORK. SUBMISSION OF A PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT SUCH EXAMINATION HAS BEEN MADE. LATER CLAIMS FOR LABOR, EQUIPMENT AND/OR MATERIALS REQUIRED DUE TO DIFFICULTIES ENCOUNTERED THAT COULD HAVE REASONABLY BEEN OBSERVED BY THE CONTRACTOR WILL NOT BE RECOGNIZED.

9. THE CONTRACTOR SHALL COORDINATE ALL PROJECT SCHEDULING REQUIREMENTS WITH A/E AND OWNER PRIOR TO SUBMITTING PROPOSAL. THIS PROJECT MAY REQUIRE PHASING SEQUENCES AND POTENTIAL PREMIUM TIME WORK AND ALL COSTS FOR SUCH SHALL BE INCLUDED IN THE CONTRACTOR'S PROPOSAL. THE CONTRACTOR SHALL PROVIDE ADEQUATE WORK FORCE, EQUIPMENT, AND SHALL WORK SUCH HOURS INCLUDING PREMIUM TIME AS MAY BE REQUIRED IN ORDER TO ADHERE TO THE PROJECT SCHEDULE. ADDITIONALLY, THE CONTRACTOR SHALL ENSURE THAT LONG-LEAD ITEMS DO NOT IMPACT THE PROJECT'S SCHEDULE OR PHASING.

10. ALL TEMPORARY DOWNTIME REQUIRED FOR SYSTEM TIE-IN OR SWITCHOVER FOR ANY PORTION OF THE ELECTRICAL SYSTEM SHALL BE PRE-APPROVED BY THE OWNER AND SCHEDULED IN ADVANCE.

11. IF HAZARDOUS MATERIALS ARE ENCOUNTERED, THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE RULES, REGULATIONS AND GUIDELINES CONCERNING REMOVAL, HANDLING, DISPOSAL, AND PROTECTION AGAINST ENVIRONMENTAL EXPOSURE OR POLLUTION. CONTRACTOR SHALL PROVIDE DOCUMENTATION OF SAID COMPLIANCE.

12. CONDUCT WORK OPERATIONS AND DEBRIS REMOVAL IN A MANNER THAT ENSURES MINIMUM INTERFERENCE WITH NORMAL BUSINESS OPERATIONS, TRAFFIC, PARKING, ETC. ONGOING IN ADJACENT OCCUPIED SPACES OR FACILITIES. PROVIDE ALL THAT IS REQUIRED TO EFFECTIVELY PROTECT SURROUNDING OCCUPANTS, EQUIPMENT, FINISHES, FURNITURE, ETC. FROM DAMAGE OR EXCESSIVE NOISE THROUGHOUT THE DURATION OF THIS PROJECT. ANY DAMAGE TO SURROUNDING ELEMENTS RESULTING FROM THE CONTRACTOR'S FAILURE TO ADHERE TO THIS REQUIREMENT SHALL BE RESTORED TO ORIGINAL CONDITION BY THE CONTRACTOR, TO THE SATISFACTION OF THE A/E AND OWNER, AT NO ADDITIONAL COSTS. REPORT ANY SUCH OCCURRENCE TO THE A/E AND OWNER IMMEDIATELY AND AWAIT WRITTEN DIRECTION PRIOR TO PROCEEDING WITH REPAIRS.

13. CONTRACTOR SHALL MAINTAIN A CURRENT ACCURATE SET OF PROJECT RECORD DOCUMENTS (AS-BUILTS) AT THE SITE THROUGHOUT THE DURATION OF THIS PROJECT. RECORD DRAWINGS SHALL BE UPDATED EACH DAY TO REFLECT THE ACTUAL LOCATIONS, SIZES, ROUTING, ETC. OF EACH PORTION OF THE ELECTRICAL SYSTEM AFFECTED BY THIS WORK. A FINAL SET OF RECORD DOCUMENTS SHALL BE ISSUED TO THE A/E FOR REVIEW AND THEN SUBMITTED TO THE OWNER AT THE CONCLUSION OF THE PROJECT.

14. IN GENERAL, VOLTAGE DROP FOR ANY BRANCH CIRCUIT SHALL NOT EXCEED 3%. VOLTAGE DROP FOR ANY FEEDER SHALL NOT EXCEED 2%. WHERE VOLTAGE DROP EXCEEDS THESE REQUIREMENTS, THE CONTRACTOR SHALL INCREASE THE SIZE OF THE CONDUCTORS AND RACEWAY AS REQUIRED.

15. ALL COMPONENTS OF THE ELECTRICAL SYSTEM LOCATED OUTDOORS OR INDOORS WHERE EXPOSED TO SIGNIFICANT MOISTURE SHALL BE RAINPROOF TYPE NEMA 3R (MINIMUM), WHETHER INDICATED ON CONTRACT DOCUMENTS OR NOT.

16. THE USE OF ALUMINUM CONDUCTORS, RACEWAYS, BOXES, BUSSING, WINDINGS, ETC. ARE PROHIBITED UNLESS SPECIFICALLY NOTED OTHERWISE.

17. FLEXIBLE METAL CONDUIT AND LIQUIDTIGHT FLEXIBLE METAL CONDUIT (FMC & LFMC) SHALL NOT BE USED IN LENGTHS THAT EXCEED 6'-0" UNLESS SPECIFICALLY NOTED OTHERWISE, OR UNLESS A/E AND OWNER GRANTS WRITTEN PERMISSION.

18. PROVIDE TYPED PANEL DIRECTORIES FOR ALL PANELBOARDS.

19. CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE OF DEFECTS FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE.

20. PROVIDE FIELD MARKINGS WARNING PERSONNEL OF POTENTIAL ARC FLASH HAZARDS IN ACCORDANCE WITH NEC 110.

ELECTRICAL SHEET INDEX

E0.1	ELECTRICAL NOTES & DETAILS
E1.1	ELECTRICAL SITE PLAN – PHOTOMETRIC VALUES
E1.2	ELECTRICAL SITE PLAN

PERMIT SET
07/17/19

TO THE BEST OF MY KNOWLEDGE THE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AS DETERMINED BY THE LOCAL AUTHORITY IN ACCORDANCE WITH THE 2017 FLORIDA BUILDING CODE, ALL AMENDMENTS AND SECTION 633 OF THE FLORIDA STATUTES.

Beacon Consulting Engineers
625 Casa Loma Blvd., Suite 106
Boynton Beach, FL 33435
561 424 3270
Mechanical · Plumbing · Electrical · Fire-Protection
Consulting Engineering

NE SAVANNAH ROAD AT COY SENDA ROUNDABOUT
MARTIN COUNTY, FLORIDA

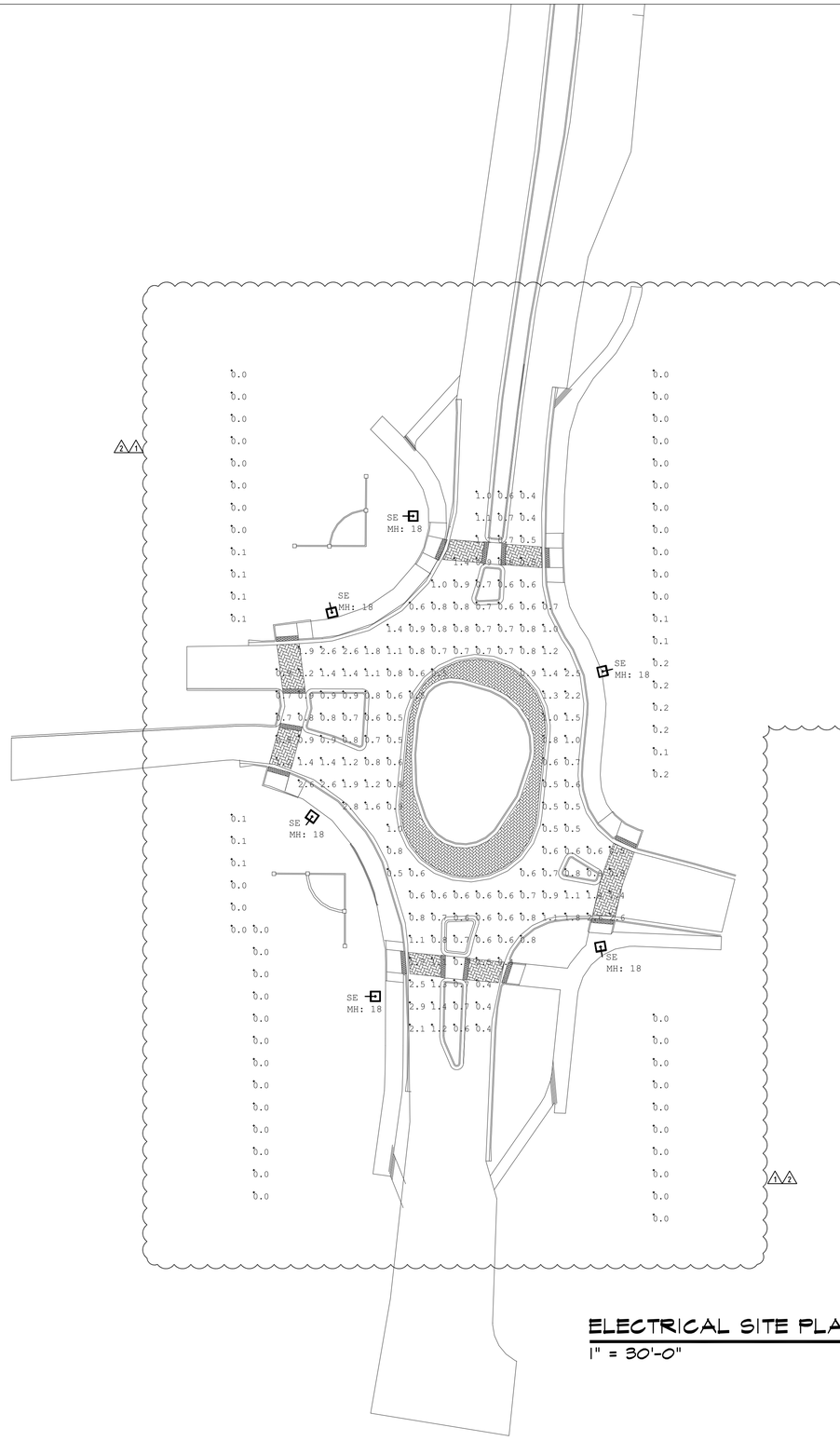
SEAL

Joeven M. Valenzuela P.E.
Florida Reg. No. 60287

PROJECT NO.: 190125
ISSUE DATE: 07/17/19
PLOT DATE:
FILE NO.:
DRAWN BY: DJM/JMV

REVISIONS:
△1 BLDG. DEPT. COMMENTS 11/22/19
△2 BLDG. DEPT. COMMENTS 06/02/20

E0.1



Luminaire Schedule						
Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description
	6	SE	SINGLE	N.A.	0.900	Lumec Co # DMS50-80W48LED4K-T-LE4F-240-BG2TX

Calculation Summary						
Label	CalcType	Units	Avg	Max	Min	Avg/Min
Right of Way	Illuminance	Fc	0.03	0.2	0.0	N.A.
Roadway	Illuminance	Fc	0.97	2.9	0.4	2.43

ELECTRICAL SITE PLAN - PHOTOMETRIC VALUES

1" = 30'-0"

NORTH

PERMIT SET
07/17/19

TO THE BEST OF MY KNOWLEDGE THE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AS DETERMINED BY THE LOCAL AUTHORITY IN ACCORDANCE WITH THE 2017 FLORIDA BUILDING CODE, ALL AMENDMENTS AND SECTION 633 OF THE FLORIDA STATUTES.

Beacon Consulting Engineers
625 Casa Loma Blvd., Suite 106
Boynton Beach, FL 33435
561 424 3270
Mechanical · Plumbing · Electrical · Fire-Protection
Consulting Engineering

NE SAVANNAH ROAD AT COY SENDA
ROUNDABOUT
MARTIN COUNTY, FLORIDA

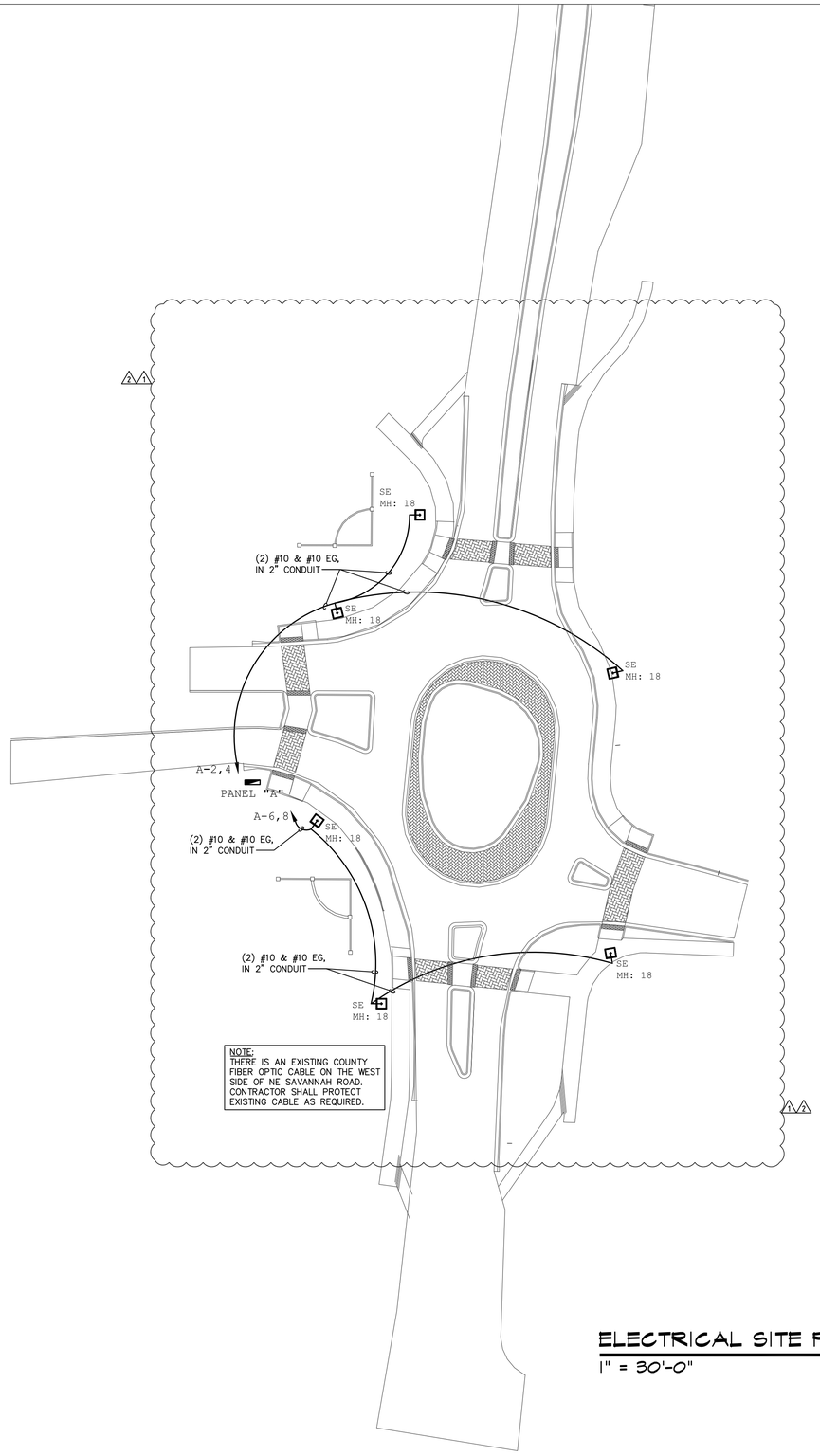
SEAL

Joeven M. Valenzuela P.E.
Florida Reg. No. 60287

PROJECT NO.: 190125
ISSUE DATE: 07/17/19
PLOT DATE:
FILE NO.:
DRAWN BY: DJM/JMV

REVISIONS:
1 BLDG. DEPT. COMMENTS 11/22/19
2 BLDG. DEPT. COMMENTS 06/02/20

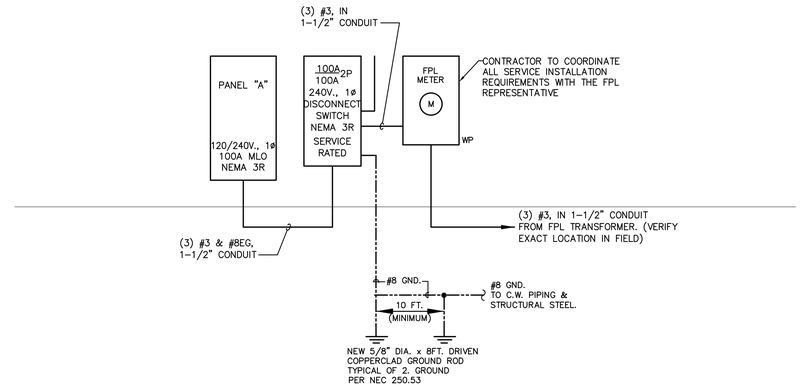
E1.1



NOTE:
THERE IS AN EXISTING COUNTY FIBER OPTIC CABLE ON THE WEST SIDE OF NE SAVANNAH ROAD. CONTRACTOR SHALL PROTECT EXISTING CABLE AS REQUIRED.

ELECTRICAL SITE PLAN

1" = 30'-0"



ELECTRICAL RISER DIAGRAM

SCALE: NONE

CONTRACTOR SHALL VERIFY ACTUAL TRANSFORMER SECONDARY FAULT CURRENT WITH FPL REPRESENTATIVE AND PROVIDE INFORMATION TO ARCHITECT/ENGINEER.

A.I.C. RATING 22,000
TYPE SQUARE D NQOD
MOUNTING SURFACE – NEMA 3R

FED FROM SERVICE DISCONNECT SWITCH
PANEL "A"

MAINS 100A M.L.O.
BUS RATING 100A
VOLTAGE 120/240V, 1PH, 3W

DESCRIPTION		WIRE	GRD.	COND.	CB	CKT.	KILOWATTS A	KILOWATTS B	KILOWATTS A	KILOWATTS B	CKT.	CB	COND.	GRD.	WIRE	DESCRIPTION
SITE LIGHTS – ROUNDABOUT	*	2#10	#10	2"	20	1	0.2		–		2	–	–	–	–	SPACE
						3		0.2		–	4	–	–	–	–	SPACE
SITE LIGHTS – ROUNDABOUT	*	2#10	#10	2"	20	5	0.2		–		6	–	–	–	–	SPACE
						7		0.2		–	8	–	–	–	–	SPACE
SPACE		–	–	–	–	9	–		–		10	–	–	–	–	SPACE
SPACE		–	–	–	–	11		–		–	12	–	–	–	–	SPACE
SPACE		–	–	–	–	13	–		–		14	–	–	–	–	SPACE
SPACE		–	–	–	–	15		–		–	16	–	–	–	–	SPACE
SPACE		–	–	–	–	17	–		–		18	–	–	–	–	SPACE
SPACE		–	–	–	–	19		–		–	20	–	–	–	–	SPACE
SPACE		–	–	–	–	21	–		–		22	–	–	–	–	SPACE
SPACE		–	–	–	–	23		–		–	24	–	–	–	–	SPACE
SUBTOTAL							0.4	0.4	0.0	0.0						
TOTAL LOAD / PHASE								0.4	0.4							

SUB-TOTAL: = 0.8 KW
TOTAL: = 3.33 AMPS

* – INDICATES SWITCHED VIA PHOTOCELL CONTROL 2

CIRCUITRY SHALL BE FINALIZED AT A LATER TIME.

PERMIT SET
07/17/19

TO THE BEST OF MY KNOWLEDGE THE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AS DETERMINED BY THE LOCAL AUTHORITY IN ACCORDANCE WITH THE 2017 FLORIDA BUILDING CODE, ALL AMENDMENTS AND SECTION 633 OF THE FLORIDA STATUTES.

Beacon Consulting Engineers
625 Casa Loma Blvd., Suite 106
Boynton Beach, FL 33435
561 424 3270
Mechanical-Plumbing-Electrical Fire-Protection
Consulting Engineering

NE SAVANNAH ROAD AT COY SENDA
ROUNDABOUT
MARTIN COUNTY, FLORIDA

SEAL

Joeven M. Valenzuela P.E.
Florida Reg. No. 60287

PROJECT NO.: 190125
ISSUE DATE: 07/17/19
PLOT DATE:
FILE NO.:
DRAWN BY: DJM/JMV

REVISIONS:
1 BLDG. DEPT. COMMENTS 11/22/19
2 BLDG. DEPT. COMMENTS 06/02/20

E1.2