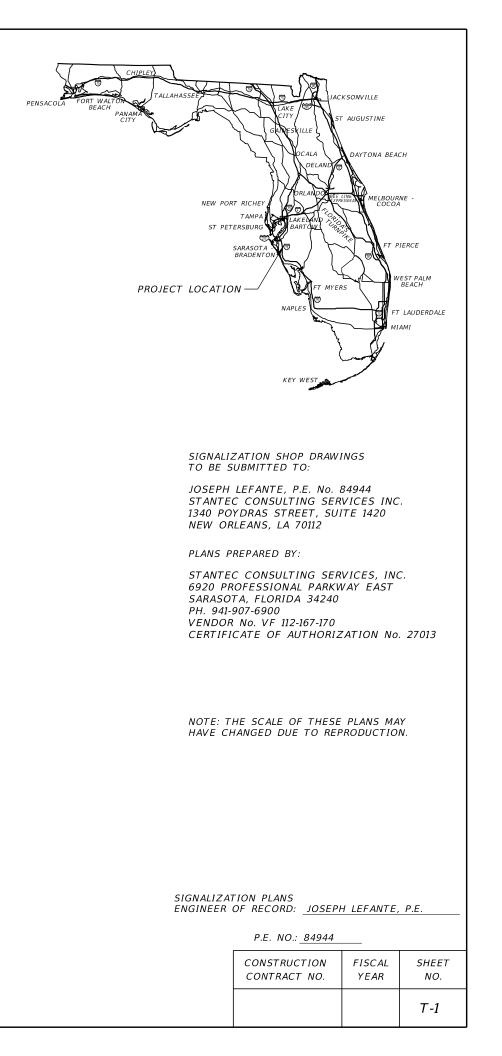
# MANATEE COUNTY PUBLIC WORKS DEPT. ENGINEERING SERVICES



# CONTRACT PLANS

PROJECT NUMBER 215617221

MOCCASIN WALLOW SEGMENT 2

I-75 TO U.S. 301

# SIGNALIZATION PLANS

# INDEX OF SIGNALIZATION PLANS

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STANDARD MAST ARM ASSEMBLIES TABLE
SPECIAL MAST ARM ASSEMBLIES TABLE
BORING DATA SHEETS - MAST ARMS
INTERCONNECT PLAN
SPLICE DIAGRAM
MVDS DETAILS

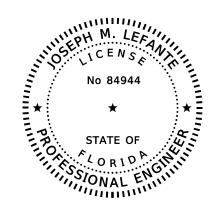
# GOVERNING DESIGN STANDARDS:

Florida Department of Transportation, FY2022-23 Standard Plans for Road and Bridge Construction and applicable Interim Revisions (IRs).

Standard Plans for Road Construction and associated IRs are available at the following website: http://www.fdot.gov/design/standardplans

# GOVERNING STANDARD SPECIFICATIONS:

Florida Department of Transportation, January 2022 Standard Specifications for Road and Bridge Construction at the following website: http://www.fdot.gov/programmanagement/Implemented/SpecBooks



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ON THE DATE ADJACENT TO THE SEAL

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STANTEC CONSULTING SERVICES INC. 1340 POYDRAS STREET, SUITE 1420 NEW ORLEANS, LA 70112 JOSEPH M. LEFANTE, P.E. NO. 84944

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

SIGNALIZATION PLANS

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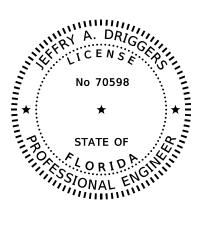
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STANTEC CONSULTING SERVICES INC. 2056 VISTA PARKWAY, SUITE 100 WEST PALM BEACH, FL 33411 ROBERT E. SMITH JR., P.E. NO. 38166

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 6IG15-23.004, F.A.C. SIGNALIZATION PLANS

T - 12	STANDARD MAST ARM ASSEMBLIES TABLE
Τ-13	SPECIAL MAST ARM ASSEMBLIES TABLE



SIGNALIZATION PLANS

T - 14

						MANATEE COUNTY PUBLIC W					
ĕ	DATE	DESCRIPTION	DATE	DESCRIPTION		ENGINEERING SERVICES					
Š							151461141515101146 013	10/10/20			
set:						ROAD NO.	COUNTY	STANTEC PROJECT NO.			
rk:											
NO.						MOCCASIN WALLOW RD	MANATEE	215617221			
ं						WALLOW RD					

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ON THE DATE ADJACENT TO THE SEAL

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DRIGGERS ENGINEERS SERVICES, INC. 12220 49TH STREET NORTH CLEARWATER, FL 33762 JEFFRY A. DRIGGERS, P.E. NO. 70598

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

BORING DATA SHEETS - MAST ARMS

SIGNATURE SHEET	SHEET NO.
SICINAI ORIL SIIILLI	T-2

# TABULATION OF QUANTITIES

	Summary of Signalization Items												
Pay Item Number	Pay Item Description	Unit of						Numbers					
630-2-11 630-2-12 632-7-1 633-1-121 633-1-122 633-2-31 633-3-11 633-3-12 633-3-13	l ay item beschption	Measure	T-8	T-15	T-16	T-17	T-18	T-19	T-20	T-21	T		
630 2 11	Conduit, Furnish & Install, Open Trench	LF	321	732	2058 ¦	1334	1294	1273	1452	1177			
	Conduit, Furnish & Instail, Directional Bore	LF	493	187	381 ;	159	208 !	12/5	1452	282	118		
	Signal Cable, New Or Reconstructed Intersection, Furnish & Install	PI	1 '	107	501	155	200	1	1	202	+ 110		
	Fiber Oble, F&I, Underground,2-12 Fibers	LF		1	377 '		1	1		+ + + + + + + + + + + + + + + + + + + +	+		
	Fiber Optic Cable, F&I, Underground,13-48 Fibers	LF			1535	1743	1752	1373	1602	1759	+		
	Fiber Optic Connection, Install, Splice	EA			4	1745	17.52	15/5	1002	48	+		
	Fiber optic Connection Hardware, F&I, Splice Enclosure	EA			1	· ·			i	+0 -	+		
	Fiber Optic Connection Hardware, F&I, Spice Tray	EA	1		1	1	1	1	1	1	+		
	Fiber Optic Connection Hardware, F&I, Preterminated Connector Assembly	EA	1	1	1	1	1	1	1	1	+		
	Fiber Optic Connection Hardware, F&I, Preterminated Connector Assembly	EA	1	1	1 '	1	1	1	1		+		
		LF		919	2373	1	1	1	1	+	957		
	Pull & Splice Box, F&I, 24" X 36" Cover Size	EA	+ :	5	4 '	5	5	2	3 :	4	5		
	Pull & Splice Box, F&I, 30" X 60" Rectangular Or 36" Round Cover Size	EA			1			2	5	4	+		
	Pull & Splice Box, F&I, 17" X 30" Cover Size	EA	6	-	1			-		+	+		
	Electrical Power Service, F&I, Underground, Meter Purchased By Contractor	AS					1	1		+	'		
	Electrical Service Vire, Funish & Install	LF	8	1	1	1	1	1	1	+	+		
	Electrical Service Disconnect, F&I, Pole Mount	EA		1	1	1	1	1	1	1	+		
	Emergency Generator Cab - Install Housing Only	EA	1				-			+	+		
	Prestressed Concrete Pole, F&I, Type P-II Service Pole	EA	1								+		
	Prestressed Concrete Pole, F&I, Type P-III	EA		1	1						1		
	Aluminum Sianals Pole, Furnish & Install, Pedestal	EA	8		1					+			
	Mast Arm Assembly, Furnish & Install, Single Arm 50'	EA		-	1	1	1	1	1	+	+		
	Mast Arm Assembly, Furnish & Install, Single Arm 50 Mast Arm Assembly, Furnish & Install, Single Arm 70'	EA	1	1		1	1	1	1		+		
	Mast Arm Assembly, Furnish & Install, Single Arm 78'	EA	4 '		1	1	1	1	1	+	+		
	Mast Arm Assembly, Furnish & Instan, Shife Arm 78'-78'	EA	1			-	-		-		+		
	Vehicular Traffic Signal, Furnish & Install Polycarbonate, 3 Section, 1 Way	AS	22							+	+		
	Vehicular Traffic Signal, Furnish & Install Polycarbonate, 5 Section Cluster, 1 Way	AS	4							<u> </u>	+		
	Pedestrian Signal, Furnish & Install Led Countdown, 1 Way	AS	8								+		
	Vehicle Detector System - Microwave, Furnish & Install Cabinet Equipment	EA	2	1	1	1	1	1	1	+	1		
	Vehicle Detector System - Microware, Furnish & Install, Above Ground Equipment	EA	8	1	1	1	1	1	1		1		
	Pedestrian Detector, Furnish & Install, Standard	EA	8	1	1	1	1	1	1				
	Traffic Controller Assembly, F&I, NEMA	AS			1		1			+	+		
	Small Equipment Enclosure, Furnish And Install, Less Than 10"W X 13"H X 11" D	EA		1	1			-			1		
	IT's CCTV Camera, F&I, Dome PTZ Enclosure – Pressurized, IP, High Definition	EA	1	1	1								
	Managed Field Ethernet Switch, Furnish & Install	EA	1							+			
	Uninterruptible Power Supply, Furnish And Install, Online/Double Conversion	EA	1	+			1		1	+	+		
	Remote Power Management Unit- Rpmu, Furnish And Install	EA	1			1	1		1	+ :	+		
	Sign Panel, Furnish & Install Ground Mount, Up To 12 SF	EA	10	1	1	1	1	1	1	+	+		
	Internally Illuminated Sign, Furnish & Install, Overhead Mount, 12–18 SF	EA	4	+ +			1	1		+ ;	+		
	Luminaire & Bracket Arm- Galv Steel, Furnish & Install New Luminaire And Arm On New/Existing Pole	EA	4							-	+		
	Lammane & Bracket Arm, ban steer, runnish & mistan New Lummane And Arm on New/Existing Fore	L LA	1 7 1	1	1 .	1	1	1	1 1		1		

		REVI	SIONS	ENGINEER OF RECORD	MANA 7	EE COUNTY PUBL	IC WORKS DEPT.	
	DATE	DESCRIPTION	DATE	JOSEPH LEFANTE, P.E.		ENGINEERING SI	ERVICES	
2012				P.E. LICENSE NUMBER 84944 STANTEC CONSULTING SERVICES INC.	ROAD NO.	COUNTY	STANTEC PROJECT NO.	TAB U
				1340 POYDRAS STREET, SUITE 1420 NEW ORLEANS, LA 70112	MOCCASIN WALLOW RD	MANATEE	215617221	

-22	T-23	Total Quantit	y Design Notes	Construction Remarks
FINAL	PLAN FINAL	PLAN FINA	L	incindi ito
	657 ¦	11137   1828		
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		4		
				SHEET
		4	ANTITIES	SHEET NO.

## SIGNALIZATION GENERAL NOTES:

- 1. THE CONTRACTOR SHALL CONTACT THE MANATEE COUNTY TRAFFIC ENGINEERING DIVISION BEFORE STARTING WORK
- THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER, IN 2. CONJUNCTION WITH MANATEE COUNTY'S TRAFFIC ENGINEERING DIVISION, AT LEAST TWO WEEKS BEFORE ANY CABINET MODIFICATIONS ARE TO BE PERFORMED. THE ENGINEER, IN CONJUNCTION WITH MANATEE COUNTY'S TRAFFIC ENGINEERING DIVISION PERSONNEL WILL REVIEW, ASSIST AND PROVIDE TECHNICAL SUPPORT RELEVANT TO ANY FIELD MODIFICATIONS THAT ARE NECESSARY
- 3. AT LEAST FIVE (5) BUSINESS DAYS PRIOR TO BEGINNING THE TRAFFIC SIGNAL INSTALLATION, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING DEPARTMENTS TO INFORM THEM OF CONSTRUCTION OPERATIONS.

MANATEE COUNTY TRAFFIC OPERATIONS DIVISION MR. AARON BURKETT 2904 12TH STREET COURT EAST BRADENTON, FLORIDA 34208 PHONE #: (941) 708-7450, EXT. 7509

MANATEE COUNTY TRAFFIC ENGINEERING DIVISION MR. VISHAL KAKKAD, P.E. PTOE 2101 47TH TERRACE EAST BRADENTON, FLORIDA 34208 PHONE #: (941) 749-3500 EXT. 7812

4. FORTY-EIGHT (48) HOURS PRIOR TO CONTRACT START DATE, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING AGENCIES IN WRITING GIVING THE LOCATION, START DATE AND EMERGENCY NUMBERS FOR AFTER HOURS REPAIRS.

FLORIDA HIGHWAY PATROL POST OFFICE BOX 20009 BRADENTON, FLORIDA 34203 PHONE #: (941) 751-7646

MANATEE SHERRIFF'S OFFICE 515 11TH STREET WEST BRADENTON, FLORIDA 34205 PHONE #: (941) 747-3011

- 5. THE CONTRACTOR SHALL HAVE AN IMSA CERTIFIED LEVEL II (ELECTRONICS OR ELECTRICAL TECHNICIAN) ON THE JOB SITE AT ALL TIMES WHILE WORK IS BEING PERFORMED. ALL SIGNAL INSTALLATION TECHNICIANS SHALL HAVE A MINIMUM OF IMSA LEVEL I CERTIFICATION
- 6. DELIVER THREE (3) SETS OF AS-BUILT PLANS TO SR PROJECT ENGINEER IN TRAFFIC ENGINEERING DIVISION:

MR. MUKUNDA GOPALAKRISHNA, P.E. PTOE 2101 47TH TERRACE EAST BRADENTON, FLORIDA 34208 PHONE #: (941) 749-3500 EXT. 7813

DELIVER THREE (3) SETS OF RECORD DRAWINGS, TWO (2) SETS OF IMSA INSPECTION FORMS AND ONE (1) COMPACT DISC OF RECORD DRAWINGS TO MR. AARON BURKETT, THE MANATEE COUNTY TRAFFIC OPERATIONS DIVISION MANAGER AT 2904 12TH ST CT E, BRADENTON, FLORIDA 34208. RECORD DRAWINGS MUST BE DELIVERED FIVE (5) BUSINESS DAYS PRIOR TO SCHEDULING THE FINAL INSPECTION.

- CONTRACTOR SHALL ESTABLISH TEMPORARY SIGNALIZATION AT THE 7. INTERSECTION OF MOCCASIN WALLOW RD AND SAWGRASS RD AND HAVE IT OPERATIONAL WITHIN 90 DAYS OF CONTRACT START. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYOUT AND DESIGN THAT MEETS MUTCD REQUIREMENTS. SIGNALIZATION SHALL INCLUDE VEHICLE DETECTION COST OF SUCH WORK (INCLUDING BUT NOT LIMITED TO MATERIALS, LABOR, MAINTENANCE, AND RELOCATION OF DEVICES AS REQUIRED FOR CONTRACT SEQUENCING), SHALL BE INCLUDED UNDER PAY ITEM 102-1, MAINTENANCE OF TRAFFIC.
- 8 PRIOR TO ORDERING MATERIALS, THE CONTRACTOR SHALL CONTACT THE TRAFFIC OPERATIONS DIVISION AND VERIFY THE CURRENT COLOR CODES TO BE USED FOR SIGNAL AND INTERCONNECT CABLE.

- AT LEAST FIVE (5) WORKING DAYS PRIOR TO SCHEDULING THE TRAFFIC SIGNAL FINAL INSPECTION, THE CONTRACTOR SHALL SUBMIT A COMPLETED IMSA INSPECTION CHECKLIST FORM TO THE MANATEE COUNTY TRAFFIC OPERATIONS DIVISION.
- 10. UPON PASSING THE FINAL INSPECTION, THE CONTRACTOR SHALL SEND A WRITTEN REQUEST TO THE MANATEE COUNTY TRAFFIC OPERATIONS DIVISION TO TRANSFER MAINTENANCE FROM THE CONTRACTOR TO MANATEE COUNTY. MANATEE COUNTY WILL RESPOND WITHIN FIVE (5) WORKING DAYS TO ESTABLISH A TIME TABLE FOR THE TRANSFER OF MAINTENANCE RESPONSIBILITY.
- 11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE LOCAL POWER COMPANY PROVIDING ELECTRICAL POWER TO DETERMINE IF A SERVICE PROCESSING FEE IS REQUIRED. ANY FEE SHALL BE INCLUDED AS PART OF PAYMENT FOR THE ELECTRICAL POWER SERVICE ASSEMBLY THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS OF THE ELECTRICAL SERVICE. THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION, INSPECTION AND ENERGIZING OF THE NEW POWER SERVICE IN A TIMELY MANNER IN ORDER TO PROMOTE PROJECT COMPLETION WITHIN CONTRACT TIME.
- 12. THE LOCATION OF UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE EXACT LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR, VIA SUNSHINE STATE ONE CALL OF FLORIDA, INC. AT 1-800-432-4770. IN COORDINATION WITH UNDERGROUND AND OVERHEAD UTILITY OWNERS. THE CONTRACTOR SHALL NOTIFY UTILITY OWNERS/AGENCIES LISTED WITHIN OR IMPACTED BY THESE PLANS, NOT LESS THAN TWO (2) FULL BUSINESS DAYS IN ADVANCE OF BEGINNING CONSTRUCTION.
- 13. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS IN ADVANCE OF POLE SETTING OPERATIONS WHERE CONFLICT WITH OVERHEAD ELECTRICAL CONDUCTORS IS EXPECTED AND, IN ALL CASES, WHERE JOINT USE POLES ARE CALLED FOR

THE CONTRACTOR SHALL CONTACT THE LOCAL POWER COMPANY FOR THEIR ASSISTANCE IN PERFORMING ALL NECESSARY WORK UNDER POWER LINES AT SIGNAL POLES, SUCH AS THE INSTALLATION OF SIGNAL CABLE, FIBERGLASS INSULATORS, AND SIGNAL POLES.

ALL LOCATIONS WHERE THE REQUIRED VERTICAL CLEARANCE TO THE POWER LINE CANNOT BE MAINTAINED, A QUALIFIED REPRESENTATIVE FROM THE POWER COMPANY SHALL BE PRESENT DURING ALL WORK UNDER POWER LINES. ANY COST ASSOCIATED WITH THIS SHALL BE INCLUDED IN THE RELATED PAY ITEMS.

- 14. THE CONTRACTOR SHALL HAND DIG THE FIRST 48 INCHES OF THE HOLE FOR THE POLE FOUNDATION OR CONDUIT RUN WHERE UTILITIES ARE IN CLOSE PROXIMITY
- 15. THE CONTRACTOR IS TO DE-WATER THE POLE FOUNDATION EXCAVATION IF THE ELEVATION OF WATER IS HIGHER THAN THE ELEVATION OF THE FOUNDATION BASE .
- 16. ALL MATERIALS, EQUIPMENT, AND OTHER CONTRACTOR SUPPLIED ITEMS SHALL BE INSTALLED AND MAINTAINED ACCORDING TO THE MANUFACTURERS' RECOMMENDATIONS, UNLESS SPECIFICALLY DIRECTED OTHERWISE BY THE ENGINEER.
- 17. #14 XHHW PULL WIRE SHALL BE INSTALLED IN ALL CONDUITS. AT LEAST 2 FEET OF PULL WIRE SHALL BE ACCESSIBLE AT EACH CONDUIT TERMINATION AND SECURED IN THE PULL BOX OR PLACE OF TERMINATION
- 18. ALL ELECTRICAL WIRING SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE PUBLISHED BY THE NATIONAL FIRE PROTECTION ASSOCIATION.

CONNECTING DEVICES SHALL BE NON-CORROSIVE SPLIT BOLT, CLAMPS, PRESSURE CONNECTORS, OR OTHER APPROVED MEANS TO ENSURE A POSITIVE CONNECTION

GROUND RESISTANCE TESTER, OR OTHER APPROVED MEANS SHALL BE USED TO ACQUIRE THE GROUND ROD RESISTANCE. THE ENGINEER, OR A REPRESENTATIVE OF THE ENGINEER FROM THE TRAFFIC OPERATIONS DIVISION STAFF BE PRESENT DURING THE TEST

- HORIZONTALLY: AND
- OF TRAFFIC OPERATIONS
- 24. EXISTING SPEED LIMITS ARE AS FOLLOW: 45 MPH ON MOCCASIN WALLOW RD

- ARM TABULATION SHEET"
- BRADENTON, FLORIDA 34208.

Ę		REVI:	SIONS		ENGINEER OF RECORD	MANATEE COUNTY PUBLIC WORKS DEPT.			
s\FDC	DATE	DESCRIPTION	DATE	DESCRIPTION	JOSEPH LEFANTE, P.E. P.E. LICENSE NUMBER 84944		ENGINEERING SE		
set					STANTEC CONSULTING SERVICES INC.	ROAD NO.	COUNTY	STANTEC PROJECT NO.	
C:\Work					STANTEC CONSULTING SERVICES INC. 1340 POYDRAS STREET, SUITE 1420 NEW ORLEANS, LA 70112	MOCCASIN WALLOW RD	MANATEE	215617221	

1*ge* P.M. 19. GROUNDING: ALL COSTS FOR GROUNDING SHALL BE INCLUDED IN THE COST OF THE ITEM BEING GROUNDED. ALL GROUND ROD ASSEMBLIES FOR POLES, SERVICES, CABINETS, AND OTHER RELATED EQUIPMENT SHALL BE BONDED TOGETHER TO FORM AN INTEGRATED GROUNDING SYSTEM USING #6 AWG THHN COPPER WIRE. THE UPPER END OF ALL GROUND RODS SHALL BE 18 INCHES BELOW GROUND ELEVATION. MARK GROUND ROD LOCATION WITH PERMANENT MARKER SUCH AS AN EPOXIED STICKER LOCATED ON THE NEAREST CURB AND PROVIDE AS-BUILT DRAWINGS WITH THE LOCATION OF GROUND RODS MARKED. GROUNDING CONDUCTOR MUST BE #6 OR LARGER INSULATED COPPER.

20. IT SHOULD BE NOTED THAT NO TEST BORINGS WERE MADE WHERE CONDUIT RUNS ARE TO BE INSTALLED BY JACKING OR BORING.

21. CONTRACTOR SHALL SUPPLY ALL MATERIAL SUBMITTALS TO THE ENGINEER, PRIOR TO CONSTRUCTION, FOR APPROVAL.

22. THE TYPE OF EQUIPMENT USED IN THE INSTALLATION OF MAST ARMS/FOUNDATIONS SHALL MEET THE FOLLOWING REQUIREMENT. A) OVERHEAD LINES SHALL STAY IN PLACE BOTH VERTICALLY AND

B) CONTRACTOR SHALL MEET ALL APPLICABLE OSHA REQUIREMENTS. ANY COST ASSOCIATED WITH THE TYPE OF EQUIPMENT REQUIRED FOR THIS INSTALLATION SHALL BE INCLUDED IN THE RELATED PAY ITEMS.

23. CONTRACTOR SHALL UTILIZE THE FDOT STANDARD PLANS INDEX 102 SERIES FOR TRAFFIC CONTROL THROUGH WORK ZONES, AS APPLICABLE, DURING MAINTENANCE

25. UNDER COUNTY'S SUPERVISION, THE CONTRACTOR SHALL PERFORM AN INITIAL OPERATION TEST TO ENSURE THE CCTV ASSEMBLY HAS BEEN INSTALLED CORRECTLY AS A COMPLETE AND FUNCTIONALLY ACCEPTABLE INSTALLATION

26. THE SIGNAL CONTRACTOR SHALL BE AVAILABLE TO RESPOND TO TROUBLE CALLS TWENTY-FOUR (24) A DAY, SEVEN DAYS A WEEK FOR THE DURATION OF THE PROJECT. THE PRIME CONTRACTOR SHALL PROVIDE CONTACT NUMBERS FOR THE SIGNAL CONTRACTOR TO THE TRAFFIC OPERATIONS DIVISION AT COMMENCEMENT OF THE PROJECT. FURTHERMORE, WITHIN TWO (2) HOURS OF NOTIFICATION OR DOCUMENTED ATTEMPTED NOTIFICATIONS, THE SIGNAL CONTRACTOR SHALL BE ON SITE MAKING NEEDED REPAIRS OR MODIFICATIONS. FAILURE TO MEET THE TIME REQUIREMENTS SHALL GIVE THE COUNTY, AT ITS DISCRETION, THE RIGHT TO REQUEST ASSISTANCE FROM THE MANATEE COUNTY SHERRIFF'S DEPARTMENT TO CONTROL TRAFFIC FOR THE PERIOD OF TIME UNTIL THE CONTRACTOR RESPONDS AND MAKES THE NEEDED REPAIRS. THE COST FOR MANATEE COUNTY SHERIFF'S OFFICE SHALL BE THE RESPONSIBILITY OF THE PRIME CONTRACTOR.

27. ELEVATION OF THE TOP OF THE MAST ARM FOUNDATION SHALL BE SIX (6) INCHES ABOVE EXISTING GRADE, UNLESS LOCATED DIRECTLY AT THE BACK OF SIDEWALK. IF LOCATED AT BACK OF SIDEWALK, THE FOUNDATION ELEVATION SHALL MATCH SIDEWALK GRADE. SEE TOP OF FOUNDATION ELEVATION ON "MAST

28. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW FOR ALL EQUIPMENT AND MATERIALS FURNISHED AND INSTALLED. THE CONTRACTOR SHALL FURNISH COPIES OF ALL DRAWINGS, SCHEDULES AND COMPLETE DESCRIPTIVE AND TECHNICAL DATA ON ALL ITEMS TO THE MR. AARON BURKETT, THE MANATEE COUNTY TRAFFIC OPERATIONS DIVISION MANAGER AT 2904 12TH ST CT E,

> SHEET NO. GENERAL NOTES Т-4

- 29. THE ACCEPTANCE OF ANY SUBMITTED DATA FOR MATERIALS, EQUIPMENT, APPARATUS, DEVICES, ARRANGEMENTS AND/OR LAYOUTS SHALL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY OF PLACING SAME AND PROPER DIMENSIONS, CAPACITIES, SIZES, QUANTITY AND INSTALLATIONS DETAILS TO EFFICIENTLY PERFORM THE REQUIREMENTS AND INTENT OF THE CONTRACT. SUCH ACCEPTANCE SHALL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS OF ANY SORT ON THE SUBMITTAL DATA.
- 30. CONTACTOR TO CONTACT TRAFFIC ENGINEERING DIVISION: MR. MUKUNDA GOPALAKRISHNA (941-749-3500 EXT. 7813) TO OBTAIN IP ADDRESSES FOR FIELD DEVICES AND ETHERNET SWITCH CONFIGURATION INFORMATION.
- 31. WHEN A CONTRACTOR IS WORKING ON A SIGNAL IN AN INTERSECTION (INSTALLING CONDUIT IN THE STREET, REMOVING EXISTING SIGNAL EQUIPMENT, LOOPS, HOME RUNS OR TURNING ON OF A NEW SIGNAL) WHERE A LANE IS CLOSED, THE ENGINEER MAY REQUIRE AN OFF-DUTY LAW ENFORCEMENT OFFICER TO DIRECT TRAFFIC. THE HOURLY RATE FOR AN OFF-DUTY LAW ENFORCEMENT OFFICER TO DIRECT, CAN BE OBTAINED FROM THE LOCAL LAW ENFORCEMENT OFFICE. THE COST OF THE OFFICER SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND INCLUDED IN PAY ITEM 102-1 (MAINTENANCE OF TRAFFIC).
- 32. CONTRACTOR SHALL COORDINATE PAVEMENT MARKINGS AND SIGNAGE WORK WITH SCHEDULING OF SIGNAL ACTIVATION. THE SIGNAL SHALL NOT BE FULLY ACTIVATED UNTIL ALL PROPOSED STOP BARS, CROSSWALKS, RAMPS AND PAVEMENT REMOVAL WORK IS COMPLETE. THE EXISTING STOP SIGNS SHALL BE REMOVED UPON FULL SIGNAL ACTIVATION.
- 33. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TWO PORTABLE 4' X 8' VARIABLE MESSAGE SIGNS (VMS) FOR A PERIOD OF TWO WEEKS. THE VMS WILL BE LOCATED AT AN APPROPRIATE DISTANCE IN ADVANCE OF EACH APPROACH TO THE NEW SIGNALIZED INTERSECTION AS SPECIFIED BY THE MAINTAINING AGENCY'S ENGINEER. THE VMS WILL BE PROVIDED (1) WEEK PRIOR TO THE SCHEDULED ACTIVATION TO FULL COLOR OPERATION AND SHALL REMAIN IN PLACE FOR ONE (1) WEEK FOLLOWING ACTIVATION. COST OF FURNISHING VMS TO BE INCLUDED UNDER THE ASSOCIATED PAY ITEM FOR MAINTENANCE OF TRAFFIC.

SUBSTITUTION FOR THE WORD "DAY" SHALL BE AS FOLLOWS: SUNDAY AS "SUN" MONDAY AS "MON" TUESDAY AS "TUES" WEDNESDAY AS "THES" WEDNESDAY AS "THUR" FRIDAY AS "FRI" SATURDAY AS "FRI" SATURDAY AS "SAT" SUBSTITUTION FOR THE WORD "MONTH" SHALL BE AS FOLLOWS: JANUARY AS "JAN" FEBRUARY AS "FEB" MARCH AS "MAR" APRIL AS "APR" MAY AS "MAY" JUNE AS "JUN" JULY AS "JUL" AUGUST AS "AUG" SEPTEMBER AS "SEP" OCTOBER AS "OCT" NOVEMBER AS "DCT" NOVEMBER AS "DCT" SUBSTITUTION FOR THE WORD "XX" SHALL BE AS FOLLOWS: THE NUMERICAL DAY OF THE MONTH, FROM ONE (1) TO THIRTY-ONE (31). DATES LESS THAN TEN (10) SHALL BE PROCEEDED BY A ZERO	PRIOR TO ACTIVATION, THE VMS SIGN SHALL BE: (PANEL ONE - LINE 1) "TRAFFIC" (PANEL ONE - LINE 2) "SIGNAL" (PANEL ONE - LINE 3) "WILL BE" (PANEL TWO - LINE 1) "ACTIVATED" (PANEL TWO - LINE 2) "ON DAY" (PANEL TWO - LINE 3) "MONTH XX"
JANUARY AS "JAN" FEBRUARY AS "FEB" MARCH AS "MAR" APRIL AS "APR" MAY AS "MAY" JUNE AS "JUN" JUNE AS "JUN" AUGUST AS "AUG" SEPTEMBER AS "SEP" OCTOBER AS "OCT" NOVEMBER AS "OCT" NOVEMBER AS "DEC" SUBSTITUTION FOR THE WORD "XX" SHALL BE AS FOLLOWS: THE NUMERICAL DAY OF THE MONTH, FROM ONE (1) TO THIRTY-ONE (31). DATES LESS THAN TEN (10) SHALL BE PROCEEDED BY A ZERO	SUNDAY AS "SUN" MONDAY AS "MON" TUESDAY AS "TUES" WEDNESDAY AS "WED" THURSDAY AS "THUR" FRIDAY AS "FRI"
THE NUMERICAL DAY OF THE MONTH, FROM ONE (1) TO THIRTY-ONE (31). DATES LESS THAN TEN (10) SHALL BE PROCEEDED BY A ZERO	JANUARY AS "JAN" FEBRUARY AS "FEB" MARCH AS "MAR" APRIL AS "APR" MAY AS "MAY" JUNE AS "JUN" JULY AS "JUL" AUGUST AS "AUG" SEPTEMBER AS "SEP" OCTOBER AS "OCT" NOVEMBER AS "NOV"
(31). DATES LESS THAN TEN (10) SHALL BE PROCEEDED BY A ZERO	SUBSTITUTION FOR THE WORD "XX" SHALL BE AS FOLLOWS:
(U). FOR EXAMPLE, JAW US FOR JAWUART SKD.	

AFTER THE TURN-ON, THE VMS SHALL BE CHANGED TO:

(PANEL	ONE	-	LINE	1)	"TRAFFIC"
(PANEL	ONE	-	LINE	2)	"SIGNAL"
(PANEL	ΤWΟ	-	LINE	1)	" NOW "
(PANEL	ΤWΟ	-	LINE	2)	" ACT IVE "

PANEL TWO, LINE 1 AND LINE 2, SHALL FLASH THREE (3) TIMES BEFORE REVERTING TO PANEL ONE.

34. THE PRIME CONTRACTOR SHALL BE RESPONSIBLE FOR THE SIGNAL MAINTENANCE, TIMING AND OPERATION OF ANY AND ALL SIGNALS AND SIGNAGE FROM COMMENCEMENT TO ACCEPTANCE OF THE PROJECT (I.E.: EXISTING LOOPS CUT, SYSTEM COMMUNICATION TERMINATED, LANE OR PAVEMENT MODIFICATIONS, PEDESTRIAN MODIFICATIONS, TRAFFIC SIGNAL SCHOOL FLASHER, WARNING FLASHER, ROADWAY LIGHTING, COUNT STATIONS, AND ANY OTHER TRAFFIC RELATED DEVICE LOCATED WITHIN THE CONSTRUCTION ZONE).

#### TRAFFIC CONTROLLER CABINET AND CONTROLLER ASSEMBLY

- 1. ALL TRAFFIC SIGNAL CONTROLLER CABINETS SUPPLIED, SHOULD BE TYPE VI.
- 2. ALL SIGNAL CONTROLLER CABINETS SHALL HAVE A FRONT AND BACK ACCESS DOOR.
- 3. PROVIDE ONE (1) PHOTOCELL OUTSIDE THE RESPECTIVE DISCONNECT BOX FOR THE INTERNALLY ILLUMINATED STREET NAME SIGNS AND LUMINAIRES.
- 4. ELECTRICAL SERVICE DISCONNECT IS 100 AMP, COMPRISING OF A SIX (6) CIRCUIT DISCONNECT BOX WITH THREE (3) CIRCUIT BREAKERS -ONE (1) 40 AMP/120 VOLT FOR CONTROLLER CABINET AND TWO (2) 15 AMP/120 VOLT FOR FUTURE USE.
- 5. CONTROLLER CABINET SHOULD BE WIRED FOR SOP 10 REGARDLESS OF THE PROPOSED SIGNAL OPERATION AT THE PROJECT'S INTERSECTION. HOWEVER, THE CONTROLLER SHALL BE PROGRAMMED ACCORDING TO THE PROPOSED SOP AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
- 6. CONTROLLER CABINET FOUNDATIONS SHALL BE BUILT TO THE LATEST FDOT STANDARDS. ONE FOUNDATION FOR BOTH, TRAFFIC CONTROLLER CABINET AND GENERATOR CABINET CAN BE DESIGNED IF THERE ARE NO RIGHT-OF-WAY RESTRICTIONS AND IF INTERSECTION SIGHTLINES ARE CLEAR.
- 7. THE MOUNTING SURFACE OF THE CONTROLLER CABINET SHOULD BE ORIENTED TO ENSURE THE MAIN CABINET DOOR WILL OPEN AWAY FROM ONCOMING TRAFFIC.
- 8. THE CONTROLLER CABINET SHALL BE LOCATED AWAY FROM DRAINAGE DITCHES, SWALES, APEX OF CURVES. THE DESIGNER SHALL MAKE EVERY ATTEMPT TO LOCATE THE CONTROLLER CABINET IN AN EFFORT TO MINIMIZE EXPOSURE TO ERRANT VEHICLES.
- 9. ALL CONTROLLER CABINET DOOR DIAGRAMS SHALL REFLECT THE CURRENT, CORRECT DATA AND DOCUMENTATION.
- 10. THE UPS SHALL BE MOUNTED TO THE SIDE OF THE TRAFFIC SIGNAL CONTROLLER CABINET IN A MANNER THAT DOES NOT OBSTRUCT ACCESS TO NEARBY TRAFFIC SIGNAL EQUIPMENT.
- 11. THE PROJECT IS TO FURNISH AND INSTALL A COMPLETE UPS ASSEMBLY THAT INCLUDES A CABINET AND BATTERIES THAT MEET COUNTY SPECIFICATIONS.
- 12. PROVIDE ONE (1) UNINTERRUPTABLE POWER SUPPLY (UPS) MODEL NO. APC 1300 EQUIPPED WITH AN ETHERNET PORT. ALL UPS'S SHALL SUPPORT SNMP (PROTOCOL) FOR REMOTE MONITORING AND MANAGEMENT
- 13. TRAFFIC CONTROLLER SHALL BE NAZTEC 980 ATC, COMPATIBLE WITH MANATEE COUNTY ATMS.NOW SYSTEM. THE CONTROLLER SUPPLIED WITH THE CABINET SHALL COME EQUIPPED WITH FOUR (4) SERIAL PORTS, ONE (1) ETHERNET PORT AND ONE (1) USB PORT.

## SIGNAL HEADS AND INTERNALLY ILLUMINATED SIGNS

- 1. USE ALUMINUM LOUVE BACK PLATES SHALL REFLECTIVITY) OUTE
- 2. PEDESTRIAN RAMP DE COMPLY WITH THE LA AND WITH THE LATES
- 3. USE BREAKAWAY ALUM PEDESTALS.
- 4. USE LOCKING COLLAR PEDESTRIAN PEDESTA
- 5. INTERNALLY ILLUMIN ARM AS SHOWN ON TH

### <u>DETECTION</u>

- 1. STOP BAR VEHICLE D MATRIX SENSOR.
- 2. THE CONTRACTOR SHA WAVETRONIX AND SUB
- 3. THE SYSTEM INSTALL CABLE AT EACH BRAC AND SECURED TO THE
- 4. A MINIMUM OF 10 FE EACH PULL BOX LOCA
- 5. IN ADDITION TO STO SHALL BE PROVIDED COLLECTION TO SUPP MEASURES (SPMS). T ADVANCE VEHICLE DE ENGINEERING DIVISI
- 6. VERIFY THE MANATEE DETECTION ZONES SE

#### CONDUIT NOTES

- 1. ALL HDPE CONDUIT C FUSION SPLICE.
- 2. THE CONTRACTOR SHA SERVICE POLE PLACE THE LOCATES. ANY S
- 3. THE CONDUITS TO BE ANY CONFLICTS WITH CONTRACTOR'S RESPO REQUIRED TO PLAN T CONDUITS WITHIN DE THE CONTRACTOR SHA AVOID CONFLICT WIT HAND EXCAVATION ME SEPARATE PAYMENT S BE USED BY THE CON AND COMPACTING ARC RESPONSIBLE FOR AN
- 4. IT SHALL BE THE CC ABOVEGROUND AND UN ANY CONDUIT OR OTH PROPOSED ALIGNMENT TO TRENCHING AND/C DRAINAGE SWALES OR

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sets					P.E. LICENSE NUMBER 84944 STANTEC CONSULTING SERVICES INC.	ROAD NO.	COUNTY	STANTEC PROJECT NO.	
C:\Work					1340 POYDRAS STREET, SUITE 1420 NEW ORLEANS, LA 70112	MOCCASIN WALLOW RD	MANATEE	215617221	

RNALLY ILLUMINATED SIGNS	
ERED BACK PLATES ON ALL VEHICULAR SIGNAL HEA INCLUDE A 2" YELLOW REFLECTORIZED (TYPE III ER EDGE BORDER.	
ESIGNS, PUSHBUTTON HEIGHTS AND ORIENTATION S ATEST AMERICAN DISABILITIES ACT (ADA) REQUIR ST FDOT STANDARDS.	
MINUM SQUARE BASE WITH ALUMINUM DOORS FOR PE	DESTRIAN
RS FOR MOUNTING PEDESTRIAN SIGNAL HEADS TO ALS.	
NATED SIGNS SHALL BE RIGIDLY ATTACHED TO THE HE PLANS.	MAST
DETECTION SHALL BE RADAR DETECTION USING WAV	ET RON I X
ALL REQUEST DETECTION SYSTEM OVERLAYS FROM BMIT THEM TO COUNTY'S REVIEW PRIOR TO FIELD	INSTALL .
LER SHALL LEAVE A MINIMUM OF 30 INCHES OF SP CKET. THE SLACK SHALL BE NEATLY FORMED INTO E SENSOR.	
EET OF SENSOR CABLE SLACK SHALL BE NEATLY ST ATION WITH A CONDUIT RUN.	ORED AT
OP BAR PRESENCE DETECTION, ADVANCE VEHICLE D FOR ALL MAJOR STREET APPROACHES TO ENABLE D PORT PURDUE/UTAH AUTOMATED SIGNAL PERFORMANC THE WAVETRONIX SMARTSENSOR ADVANCE SHALL BE ETECTION, UNLESS OTHERWISE APPROVED BY TRAFF ION.	ATA E USED FOR
E COUNTY TRAFFIC INFRASTRUCTURE DESIGN GUIDE ETTINGS.	FOR
CONNECTIONS SHALL BE JOINED WITH A FUSION CO	UPLER OR
ALL ADJUST THE CONDUIT RUNS, DEVICE POLES, B EMENT TO AVOID ANY UTILITY CONFLICTS IDENTIF SIGNIFICANT CHANGE SHALL BE APPROVED BY THE	IED BY
E INSTALLED ARE TO BE PLACED SO AS TO TOTALL H EXISTING UTILITIES ALONG THE ROUTE. IT IS ONSIBILITY TO OBTAIN THE NECESSARY INFORMATI THE WORK AHEAD FOR THE INSTALLATION OF THE R ESIGN OR SPECIFIED PARAMETERS AND HIS TIME F ALL ADJUST CONDUIT VERTICALLY OR HORIZONTALL TH UNDERGROUND UTILITIES. THE CONTRACTOR SHA ETHODS WHEN EXCAVATING NEAR EXISTING UTILITI SHALL BE MADE FOR THIS WORK. EXTREME CAUTION NTRACTOR WHEN EXCAVATING, INSTALLING, BACK F OUND EXISTING UTILITIES. THE CONTRACTOR SHAL NY DAMAGE TO ANY UTILITY.	THE ON EQUIRED RAME. Y TO .LL USE ES, NO 'SHALL ILLING
ONTRACTOR'S RESPONSIBILITY TO FIELD LOCATE A NDERGROUND CONFLICTS IN ADVANCE OF THE PLACE HER FACILITIES. THE CONTRACTOR SHALL FIELD M T FOR REVIEW AND CONCURRENCE BY THE ENGINEER OR PLACEMENT. NO PULL BOXES SHALL BE LOCATED R PAVED SHOULDERS.	MENT OF ARK THE PRIOR
GENERAL NOTES	SHEET NO.
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- 5. WHEN TRENCHING FOR INSTALLATION, THE CONTRACTOR MAY RUN COMMUNICATIONS AND POWER SERVICE IN THE SAME TRENCH. THE POWER SERVICE SHALL HAVE SEPARATE PULL BOXES FOR ACCESS. THE CONTRACTOR SHALL NOT INSTALL COMMUNICATIONS AND POWER SERVICE IN THE SAME CONDUIT, PULL BOX OR MANHOLE.
- 6. THE CONTRACTOR SHALL PLACE ALL CONDUITS IN A MANNER THAT MINIMIZES DEFLECTION BOTH HORIZONTALLY AND VERTICALLY. THUS, MINIMIZES STRESS ON CABLES DURING CABLE INSTALLATION. CONDUIT FOR FIBER OPTIC CABLE IN TRENCHES SHALL NOT DEFLECT MORE THAN 1 INCH PER FOOT VERTICALLY OR HORIZONTALLY. BENDS SHALL NOT BE PERMITTED EXCEPT AS SPECIFIED ON THE PLANS.
- 7. THE CONDUIT DETAILS GIVEN ARE MEANT TO BE SCHEMATIC IN NATURE. DUE TO ACTUAL FIELD CONDITIONS AND/OR NEEDS, DEVIATIONS MAY BE NECESSARY. DIMENSIONAL DISTANCES FOR CONDUIT LOCATIONS ARE PROVIDED TO ASSIST THE CONTRACTOR WITH CONDUIT PLACEMENT. THE CONTRACTOR SHALL TAKE THIS INTO ACCOUNT WHEN PLACING CONDUIT. THE CONTRACTOR IS RESPONSIBLE FOR FIELD LOCATING CONDUIT AROUND EXISTING UTILITIES AND OBSTRUCTIONS.
- 8. ALL CONDUIT TRENCHES SHALL BE BACKFILLED COMPLETELY TO PROVIDE SAFE CROSSING BY THE END OF THE WORKING DAY OR WHENEVER THE WORK ZONE BECOMES INACTIVE. DO NOT OPEN ANY AREA THAT CANNOT BE BACKFILLED IN THE SAME DAY/NIGHT OPERATION.

BRACKETS AND SPACERS WHICH ARE REQUIRED TO OFFSET THE RIGID METAL CONDUIT FROM THE MOUNTING, SHALL BE OF SIMILAR MATERIALS TO PREVENT CATHODIC REACTION.

9. ALL NEW CONDUIT SHALL BE PLACED AT A MINIMUM DEPTH OF 30 INCHES UNLESS PLACED IN AN AREA OF NEW FILL, IN WHICH CASE THE CONDUIT SHALL BE 48 INCHES. DIRECTIONALLY BORED CONDUIT SHALL BE AT A MINIMUM DEPTH OF 48 INCHES.

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## PAY ITEM NOTES:

630-2-11 & 630-2-12: CONDUIT INSTALLED WITH THE DIRECTIONAL BORE METHOD SHALL BE HDPE WITH A MINIMUM SIZE OF 2" UNLESS OTHERWISE NOTED IN THE PLANS. COST OF PULL WIRE SHALL BE INCLUDED UNDER THIS PAY ITEM.

#14 XHHW PULL WIRE SHALL BE INSTALLED IN ALL CONDUITS. AT LEAST 2 FEET OF PULL WIRE SHALL BE ACCESSIBLE.

ALL CONDUIT RUNS SHOWN ON THE PLANS ARE SCHEMATIC AND FIELD ADJUSTMENTS MAY BE NECESSARY. WITH THE EXCEPTION OF ELECTRICAL POWER SERVICE DUCTS, JACK & BORE SLEEVES, AND DIRECTIONAL BORE CONDUITS, ALL UNDERGROUND AND UNDER PAVEMENT CONDUITS SHALL BE SCHEDULE 40 PVC WITH A MINIMUM SIZE OF 2" UNLESS OTHERWISE SPECIFIED IN THE PLANS. COST OF PULL WIRE SHALL BE INCLUDED UNDER THIS PAY ITEM.

CONDUIT USED FOR FIBER SHALL BE TWO RUNS OF 2" SIZED HDPE CONDUIT.

FOUR SEPARATE UNDERGROUND CONDUIT RUNS LOCATED 180 DEGREES APART ARE REQUIRED FOR ALL MAST ARMS. THE SPARE CONDUIT SHALL BE CAPPED IN THE NEAREST PULL BOX. THERE SHALL BE A MINIMUM OF FOUR RUNS OF 2" CONDUIT BETWEEN THE LAST LOW VOLTAGE PULL BOX LOCATED NEAR THE CONTROLLER CABINET & THE CONTROLLER CABINET, ITSELF.

INSTALL CONDUIT UNDER PROPOSED ROADWAY AND/OR SIDEWALK PRIOR TO INSTALLATION OF ROADWAY BASE AND SURFACE OR CONCRETE.

#### 632-7-1:

USE A MINIMUM OF 7 CONDUCTOR SIGNAL CABLES FOR SIGNAL HEADS AND PEDESTRIAN HEADS.

EACH PHASE/MOVEMENT SHALL BE WIRED FROM THE SIGNAL DISPLAY TO THE CONTROLLER AS A SEPARATE PHASE/MOVEMENT. THIS INCLUDES THE LEFT TURN MOVEMENT WHICH SHALL HAVE CONDUCTORS AVAILABLE FOR EITHER PROTECTED OR PERMISSIVE MOVEMENTS. THE CONTRACTOR SHALL VERIFY COLOR CODES FOR SIGNAL CABLE WITH THE MANATEE COUNTY BEFORE ORDERING, AND WIRE THE SIGNAL IN ACCORDANCE WITH THAT COLOR CODE AND F.D.O.T. SPECIFICATIONS. THERE SHALL BE ONE NEUTRAL PER APPROACH. THIS PAY ITEM INCLUDES FURNISHING AND INSTALLING THE REQUIRED CABLING FOR THE PROPOSED PEDESTRIAN SIGNAL ASSEMBLIES. ALL PEDESTRIAN DETECTORS SHALL BE WIRED USING SEPARATE CABLE UTILIZING LOW VOLTAGE CONDUIT AND PULL BOXES.

#### 633-8-1:

WAVETRONIX 8-CONDUCTOR COMMUNICATION CABLE.

#### 635-2-12 & 635-2-14:

PULL BOXES SHALL BE TRAFFIC BEARING, ALL POLYMER CONTRUCTION (NOT CONCRETE), PULL BOXES AND LIDS (QUAZITE OR ANOTHER EQUIVALENT F.D.O.T APPROVED MANUFACTURER). PULL BOXES ARE TO BE PLACED BEHIND CURB AND GUTTER. IF THERE IS NO CURB AND GUTTER, PULL BOXES SHALL BE PLACED A MINIMUM OF 7' FROM THE EDGE OF PAVEMENT.

STANDARD PULL BOX DIMENSIONS SHALL BE 17" X 30" X 12" AND THE LID SHALL BE STAMPED "MANATEE COUNTY TRAFFIC SIGNAL" ON THE COVER. STANDARD FIBER OPTIC COMMUNICATIONS PULL BOX DIMENSIONS SHALL BE 24" X 36" X 24" AND THE LID SHALL BE STAMPED "MANATEE COUNTY COMMUNICATIONS" ON THE COVER.

#### 639-1-122 & 639-3-11:

THIS PAY ITEM SHALL INCLUDE THE COST OF ALL SPECIAL IMPACT CONNECTION FEES CHARGED BY LOCAL POWER COMPANIES FOR ELECTRICAL SERVICE CONNECTION. ANY CHARGES BY FPL (FLORIDA POWER AND LIGHT) TO BE ON SITE TO DE-ENERGIZE ELECTRIC SERVICE LINES AND MONITOR WORK WHILE LINES ARE REROUTED ONTO THE NEW SERVICE POLE WILL BE INCLUDED UNDER THIS PAY ITEM.

THIS PAY ITEM INCLUDES METER BASE AND SERVICE DISCONNECT. ELECTRICAL SERVICE DISCONNECT SHALL BE COMPRISED OF SIX (6) CIRCUIT DISCONNECT BOX WITH THREE CIRCUIT BREAKERS - ONE 15 AMP FOR FUTURE USE AND ONE 60 AMP FOR CONTROLLER CABINET MAIN BREAKER. ONE 15 AMP BREAKER FOR INTERNALLY ILLUMINATED SIGNS, ONE SIGNAL BREAKER AND SURGE SUPPRESSION BREAKER (FUTURE USE) SHOULD BE INSTALLED.

#### 639-4-6:

MANATEE COUNTY WILL NOT FURNISH THIS ITEM. THE CONTRACTOR SHALL FURNISH AND INSTALL THE HOUSING AND FOUNDATION / PAD. ALL COSTS FOR THE HOUSING FOUNDATION / PAD IS INCLUDED IN THE COST OF THIS PAY ITEM. THE CONTRACTOR SHALL COORDINATE WITH MANATEE COUNTY TO OBTAIN THE DESIRED HOUSING DIMENSIONS.

### 649-21-6, 649-21-15, 649-21-21, & 649-21-27:

THE CONTRACTOR SHALL FIELD VERIFY ALL CRITICAL ELEVATIONS PRIOR TO ORDERING MAST ARM ASSEMBLIES.

USE THREE 2" AND ONE 3/4" CONDUIT STUBBED OUT THROUGH THE MAST ARM POLE FOUNDATION AND TEMPORARILY SEALED.

THE CONTRACTOR SHALL CONTACT THE LOCAL POWER COMPANY FOR THEIR ASSISTANCE IN PERFORMING ALL NECESSARY WORK UNDER POWER LINES AT SIGNAL POLES. SUCH WORK SHALL INCLUDE, BUT IS NOT LIMITED TO THE INSTALLATION OF SIGNAL CABLE, INSTALLATION OF MAST ARM FOUNDATIONS OR POLES.

THE ELEVATION OF THE TOP OF THE MAST ARM BASE(S) SHALL BE SIX INCHES ABOVE EXISTING GRADE. IF LOCATED DIRECTLY BEHIND SIDEWALK, AT SIDEWALK GRADE.

650-1-34 & 650-1-39: USE SIGNAL HEAD SUPPORTING HANGER THAT IS CAPABLE OF ADJUSTING VERTICALLY A MINIMUM OF 1.5'

ALL SIGNAL HEADS SHALL HAVE ALUMINUM LOUVERED BACKPLATES INSTALLE HEADS USED & INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS. THE (TYPE III REFLECTIVITY) OUTER EDGE BORDER UNLESS SPECIFIED OTHERW

THE EXTERNAL COLOR OF SIGNAL HOUSING SHALL BE BLACK. ALL TRAFFIC SIGNAL HEADS SHALL HAVE TUNNEL VISORS. THE COST FOR THE TUNNEL VI

#### 653-1-11

PEDESTRIAN SIGNAL HEADS TO BE 16" INTERNATIONAL SYMBOL, LED COUNT PEDESTRIAN SIGNAL HEADS TO PEDESTRIAN PEDESTALS. USE BREAKAWAY AL PEDESTRIAN PEDESTALS.

#### 660-3-11 & 660-3-12:

PROVIDE WAVETRONIX SMARTSENSOR HD MICROWAVE VEHICLE DETECTION SYS MVDS (MID BLOCK) SHALL BE A WAVETRONIX EXPANSE SYSTEM WITH TWO XF CONTROLLER CABINET. RUN THE MULTI-CONDUCTOR COMMUNICATION CABLE F INTERSECTION. ITEMS INCLUDE ALL INCIDENTAL MATERIALS NECESSARY FO DETERMINED BY THE COUNTY AND AS DETAILED ON SHEET T-25. COORDINAT MANATEE COUNTY.

### 665-1-11:

SHALL INCLUDE ADDITIONAL COST OF LABOR AND MATERIALS REQUIRED FOR 06. THIS SIGN SHALL BE MOUNTED ABOVE EACH PEDESTRIAN DETECTOR. AL COMPLIANT. STREET NAMES SHALL BE IN ACCORDANCE WITH THE STREET NA

#### 670-5-110:

USE A NEMA TS2 TYPE 1 CONTROLLER, P-44 CABINET ASSEMBLY 7006-TS2, 2003 NEMA STANDARD TS2. THE NAZTEC ATC CONTROLLER SHALL COME EQU ALL CONTROLLER EQUIPMENT TO BE COMPATIBLE WITH MANATEE COUNTY'S E SYNCHROGREEN TRAFFIC CONTROLLER SOFTWARE. THE CABINET SHALL COME SEPARATE PAY ITEM NUMBER AND ALL THE NECESSARY SYSTEM COMPONENTS NETWORK. CONTACT MANATEE COUNTY PRIOR TO ORDERING CONTROLLER ASSE

#### TRAFFIC SIGNAL CONTROLLER BASE:

THIS ITEM SHAL INCLUDE THE INSTALLATION OF A CONRETE BASE FOR THE FOUNDATION SHALL HAVE A MINUMUM OF FOUR (4) - 2" CONDUIT SPARES. NEAREST PULL BOX AND FITTED WITH A WEATHERPROOF CAP. THE OTHER TW CABLE AND LOW VOLTAGE PULL BOXES. THE CABINET BASE WHEN SECURED T ATTACHED MUST WITHSTAND A MINIMUM WIND LOAD OF 130 MPH OR AN 850 BASE WITHOUT CAUSING THE BASE OR CABINET TO COME OUT OF THEIR AND ALL COSTS OF LABOR, CONCRETE, AND OTHER MATERIALS FOR THE CONTROL ARE INCLUDED IN THIS ITEM.

INSTALL A PVC SLEEVE TO PREVENT THE GROUND ROD FROM DIRECT EMBEDM LEAST 18-INCHES FROM THE EDGE OF THE SLAB. TERMINATE UNDERGROUND CAN BE REMOVED WITHOUT DAMAGING THE COUPING. ANCHOR THE CONTROLLE 1/2-13 NC BOLTS.

THE CONTROLLER BASE SHALL BE AT LEAST 2' HIGH OR THE SAME ELEVAT GREATER. THE MAXIMUM DISTANCE FROM THE TECHNICIAN PAD OR STEP TO OPEN TOWARDS OR PARALLEL TO THE RIGHT-OF-WAY LINE AND AWAY FROM T - TRAFFIC CONTROLLER: NAZTEC TS2 TYPE 1 980 ATC.

- TRAFFIC CONTROLLER CABINET: NAZTEC TS2 TYPE 1, SIZE: TYPE - VI

### 682-1-113

THE CCTV CAMERA UNIT SHALL BE BOSCH ITS 7000 STARLITE SERIES 1080 ONE (1) CCTV CAMERA UNIT AS SHOWN IN THE PLANS.

#### 684-1-1:

RUGGEDCOM SWITCH MODEL NUMBER RSG920P (6GK6092-0P523-0BAO-Z A05+E SWITCH REQUIRES EXTERNAL POWER SUPPLY RUGGEDCOM RPS 1300

#### 685-1-12.

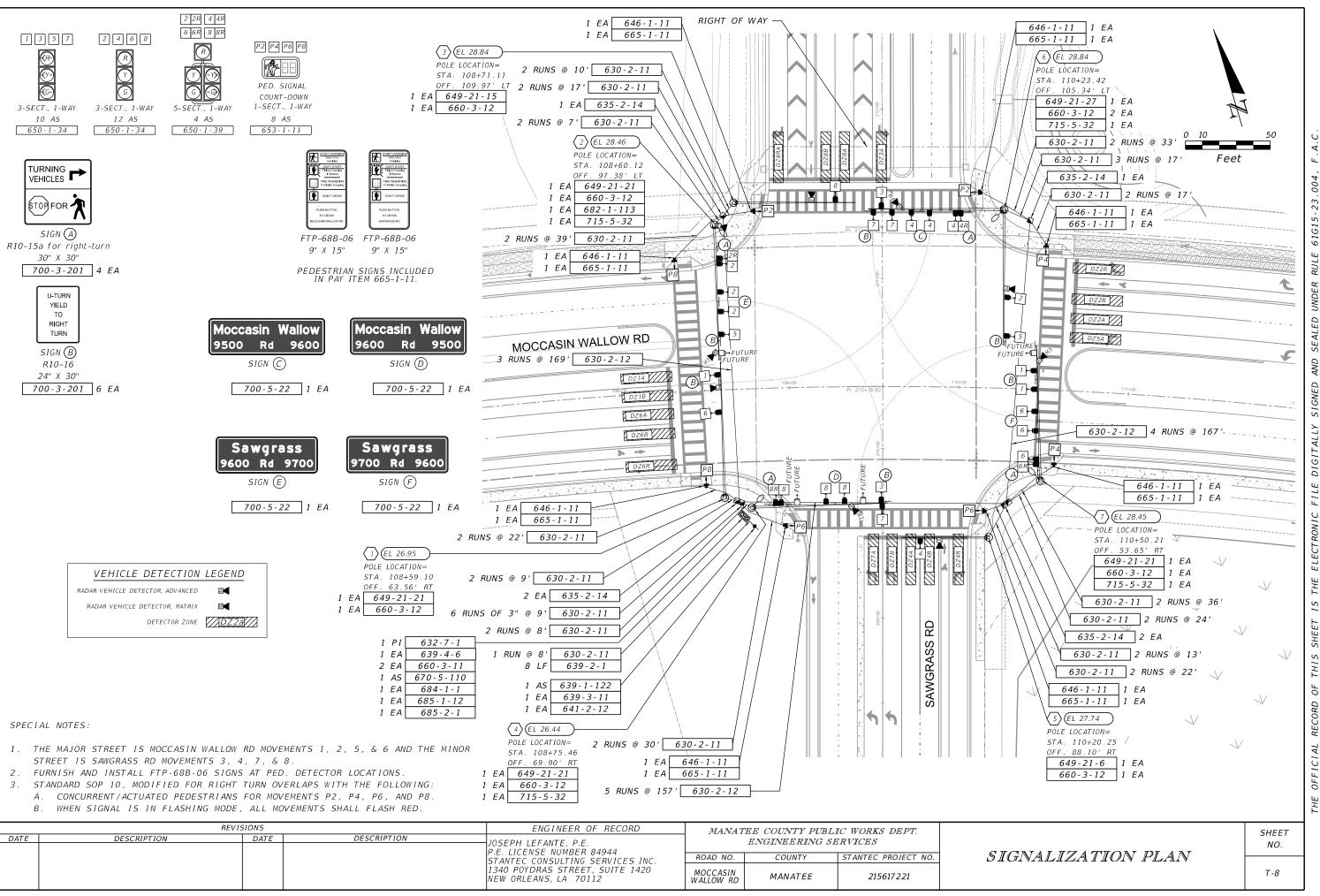
SHALL INCLUDE AN UNINTERRUPTIBLE POWER SUPPLY UNIT (UPS) MODEL NO UNINTERRUPTIBLE POWER SUPPLIES SHALL SUPPORT SNMP (PROTOCOL) FOR SIZED TO ACCOMMODATE THE MAXIMUM CONNECTED LOAD. THE BATTERY BANK TIME UNDER FULL LOAD.

#### 700-5-22:

ALL INTERNALLY ILLUMINATED STREET NAME SIGNS SHALL BE EDGE LIT LE PRODUCT LIST. THE COST OF THIS ITEM SHALL INCLUDE PROPERLY DESIGN AND ALL MISCELLANEOUS HARDWARE NECESSARY TO MOUNT THE SIGNS AS SF IMSA 50-2 CABLE. THIS ITEM SHALL ALSO INCLUDE INSTALLATION OF THE CABINET. INTERNALLY ILLUMINATED STREET NAME SIGNS SHALL HAVE 120 HAVE 28.5 WATTS POWER CONSUMPTION AT 1900 LUMENS AND TUBES 8 FOOT AT 2600 LUMENS.

12		REV	ISIONS		ENGINEER OF RECORD	MANAT	MANATEE COUNTY PUBLIC WORKS DEPT.								
NFDC	DATE	DESCRIPTION	DATE	DESCRIPTION	JOSEPH LEFANTE, P.E.	]	ENGINEERING SI								
-u/ sets					P.E. LICENSE NUMBER 84944 STANTEC CONSULTING SERVICES INC.	ROAD NO.	COUNTY	STANTEC PROJECT NO.							
C:\Work					1340 POYDRAS STREET, SUITE 1420 NEW ORLEANS, LA 70112	MOCCASIN WALLOW RD	MANATEE	215617221							

'ERTICALLY A MINIMUM OF 1.5'.	
.ED. BACKPLATES SHALL BE MANUFACTURED FOR THE IE BACKPLATE SHALL HAVE A 2" YELLOW REFLECTOR WISE IN THE PLANS.	
E SIGNAL HEAD INDICATIONS SHALL BE 12" LED. A VISORS SHALL BE INCLUDED UNDER THIS PAY ITEM.	LL
ITDOWN TYPE. USE LOCKING COLLARS FOR MOUNTING ALUMINUM SQUARE BASE WITH ALUMINUM DOORS FOR	
STEM (MVDS) AS SHOWN ON SHEETS T-15 THROUGH P20 SENSORS CONNECTED TO AN ARC DEVICE IN TH FROM THE MVDS TO THE CONTROLLER CABINET AT T OR A COMPLETE AND ACCEPTABLE INSTALLATION AS TE FINAL PRODUCT SELECTION WITH WAVETRONIX A	E HE
DR INSTALLATION OF PEDESTRIAN SIGNAL SIGN FTP ALL PEDESTRIAN PUSH BUTTONS SHALL BE A.D.A. IAMES ON THE PLAN SHEETS.	- 68B -
P/FL TYPE 6 ENCLOSURE AS SHOWN IN TABLE 7-1 0 HIPPED WITH SIX SERIAL PORTS AND ONE ETHERNET EXISTING ATMS SYSTEM (NAZTEC'S ATMS.NOW) AND E EQUIPPED WITH AN ETHERNET SWITCH PAID UNDER FOR INTEGRATION INTO AN ETHERNET-BASED FIBE SEMBLY TO CONFIRM EQUIPMENT COMPATIBILITY.	PORT .
IE CONTROLLER ASSEMBLY. THE CONTROLLER ASSEMB TWO (2) OF THE SPARES SHALL BE TERMINATED I WO (2) SPARES SHALL BE TERMINATED IN THE SIG TO THE CONCRETE SLAB WITH CONTROLLER CABINET D LB FORCE APPLIED AT 49" ABOVE THE BOTTOM OF ICHORED POSITION OR CAUSE ANY PERMANENT DEFOR DLLER ASSEMBLY, TECHNICIAN PADS, STEPS AS REQ	N THE NAL THE MATION.
OMENT IN THE SLAB. EXTEND CONDUITS FOR FUTURE WITH A COUPLING AND CAP AND SEAL SO THAT TH ER CABINET TO THE BASE USING FOUR STAINLESS	e seal
ION AS THE CROWN OF THE ROADWAY, WHICHEVER I ) THE FOUNDATION TOP IS 24". THE CABINET DOOR TRAFFIC.	
WITH FRONT AND BACK DOOR ACCESS.	
30P 30x40. THE CONTRACTOR SHALL FURNISH AND I	NSTALL
-B05+C02+D02).	
10. APC 1300 EQUIPPED WITH AN ETHERNET PORT. R REMOTE MONITORING AND MANAGEMENT. THE UPS S IK SHALL BE SIZED TO PROVIDE A MINIMUM 8 HOUR	HALL BE
ED TYPE AND SHALL BE LISTED IN THE FDOT APPR SMED AND SIZED ADJUSTABLE HANGERS, BRACKETS, SHOWN IN THE PLANS. THE SIGNS SHALL BE POWERE IE PHOTOCELL ON THE SEVICE POLE OR INSIDE SIG VOLT LED BULBS. BULB TUBES LESS THAN 8 FEET OT OR GREATER SHALL HAVE 38 WATTS POWER CONSU	CLAMPS, D USING NAL SHALL
GENERAL NOTES	SHEET NO.
	T-7

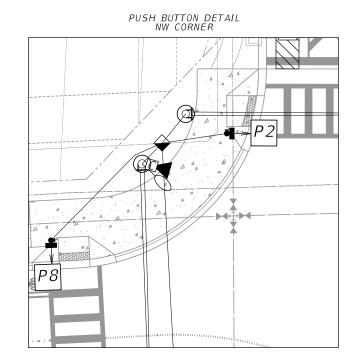


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	MA 17:67:1	sets/FD0T\215617221 Moccasin Wallow
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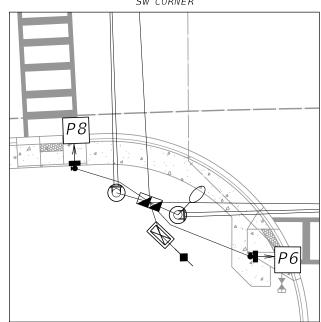
WAVETRO	NIX MATRIX N ASSIGNN	/EHICLE DETEC MENTS	TION
DETECTOR	DETECTION ZONE	CONNECT TO TIMING FUNCTION	DELAY TIME (SECS.)
	1A, 1B	TF 1	
М1	6A, 6B	TF 6	
	6R	TF 6	8
	7A, 7B	TF 7	
M2	4A, 4B	TF 4	
	4R	TF 4	8
	5A	TF 5	
M3	2A, 2B	TF 2	
	2R	TF 2	8
	3A	TF 3	
M4	8A, 8B	TF 8	
	8RA	TF 1, TF 8	8

DELAY TIME IS INITIAL AND MAY REQUIRE FIELD ADJUSTMENT AS DIRECTED BY PROJECT ENGINEER.

	CONTROLLER TIMINGS												
T.	MING FUNCTION	TF 1	TF2	TF3	TF4	TF5	TF6	TF7	TF8				
Μ	OVEMENT NUMBER	1	2	3	4	5	6	7	8				
	MINIMUM GREEN	8	20	8	12	8	20	8	12				
N	EXTENSION	3	5	3	3	3	5	3	3				
FUNCTION	MAXIMUM GREEN 1	20	70	20	30	20	70	20	30				
INC	MAXIMUM GREEN 2												
	YELLOW CLEARANCE	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8				
ING	ALL RED	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7				
TIMING	PEDESTRIAN WALK		7		7		7		7				
7	PED. CLEARANCE		31		31		26		31				
	RECALL		MIN				MIN						



PUSH BUTTON DETAIL SW CORNER

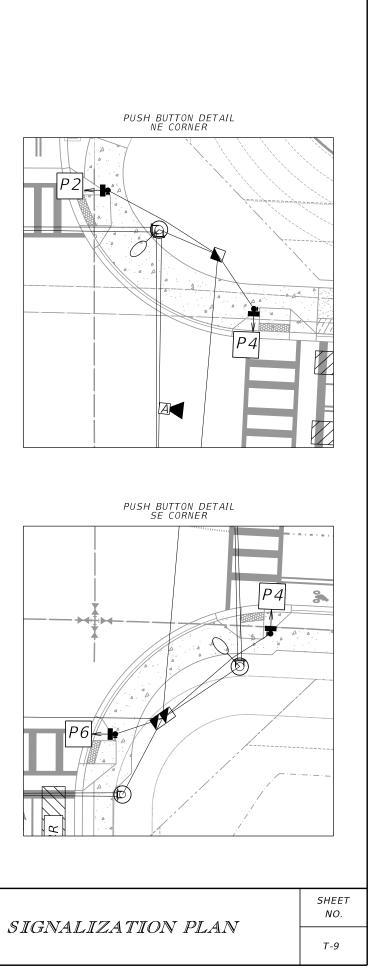


Ø2  $5 \sqrt{4R}$ or 0  $5\int_{4R}$ 6R BR ØЗ Ø1 Ø4 Ø6 Ø2 Ø5

S.O.P. 10 (MODIFIED)

	REV	ISIONS		ENGINEER OF RECORD	MANAT	MANATEE COUNTY PUBLIC WORKS DEPT.									
DATE	DESCRIPTION	DATE	DESCRIPTION	JOSEPH LEFANTE, P.E. P.E. LICENSE NUMBER 84944		ENGINEERING S	ERVICES								
				STANTEC CONSULTING SERVICES INC.	ROAD NO.	COUNTY	STANTEC PROJECT NO.								
				1340 POYDRAS STREET, SUITE 1420 NEW ORLEANS, LA 70112	MOCCASIN WALLOW RD	MANATEE	215617221								

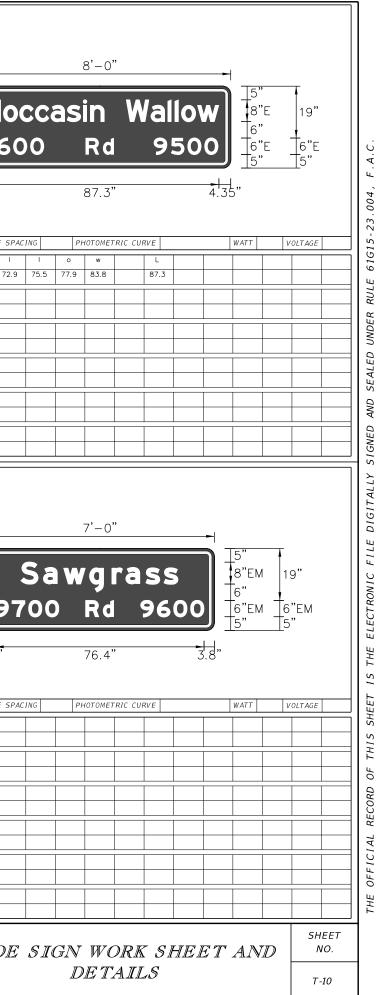
agriffith Moccasin 1:24:22 PM T\215617221 | 2023-11-07 C:NWorksetsN



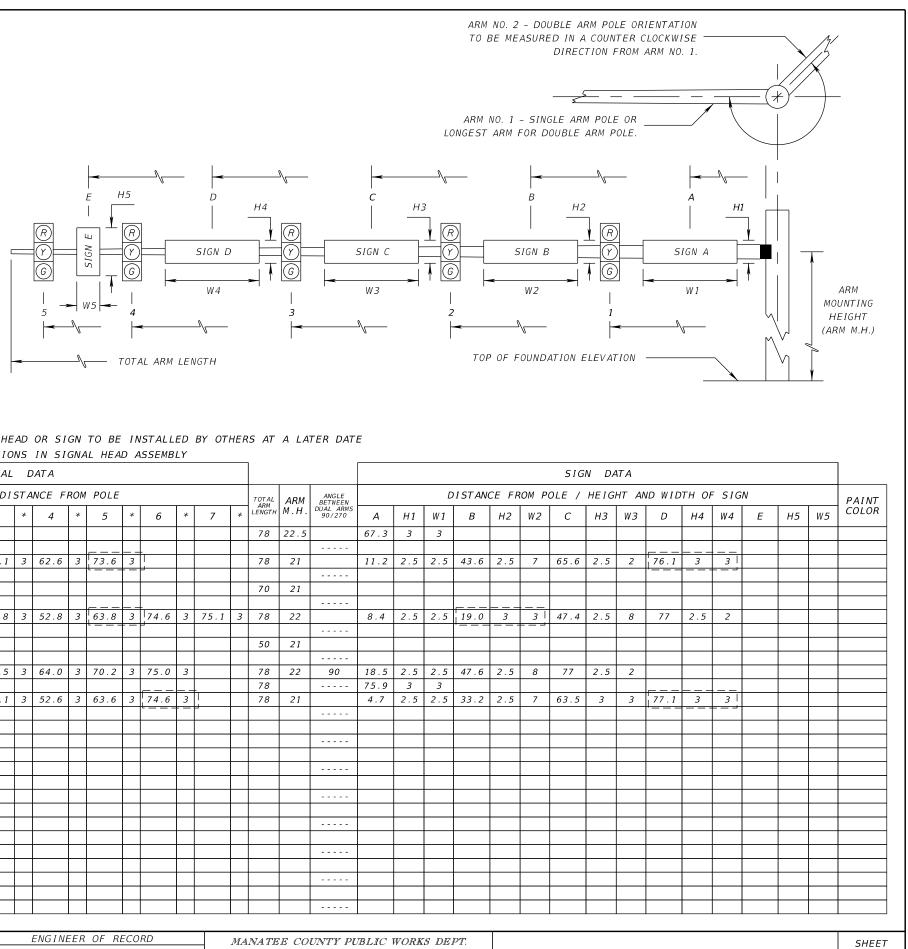


SIGN NAME C OTY 1 SIGN STATION	s)							SIGN NA	MED	(	2TY 1	SIGN NO.	STATIO						
PANEL BORDER 110+23.42								PAN		BORD		NO.	108+75						
WIDTH 8'-0" WIDTH /"								WIDTH		NIDTH									
HEIGHT 2'-6" RADII 2"								HEIGHT		RADII				—!					
LEGEND White COLOR White				8'-0"				LEGEND	White (	COLOR	White			!				H	4
COLOR Green							<u> </u>	COLOR	Green							Т		- <b>T</b>	
SYMBOL(S) ANGLE X Y WID HT		<sup>19</sup> " 5"E 5"				+	Ī	SYMBO	L(S) AN	IGLE	x	<i>Y</i> 1	WID	HT		Ī	I		
		19" <b>MO</b>	ccas		Wall	<b>00</b>	19"							/		2'-6"	1	9"	
			-			6"	<u> </u>									<u> </u>	i		
	_  ~  €	<sup>5</sup> "E <b>[950</b>	00	Rd	- 96	<b>00</b>   <b>1</b> 6"E	6"E 5"									$\sim$	6	"Е	96
		<u>5"</u>				<u> </u>	5"							/			1	<u>5"</u> [	
SIGN NO. OF CDGE OF COLUMN SIZE AVERAGE NO. POSTS CLEARANCE LENGTH		11.						SIGN NO.	NO. OF E POSTS CL	DGE OF LANE EARANCE	COLUI	MN SIZE	AVE LEN	RAGE VGTH					1.
	BORD	ER 4.35"		87.3"		4.35"										E	30RDI	ER 4.5	35"
		,,												/		F	₹=2"	,	
	TH=1													/ <sup>!</sup>			TH=1'		
	NO. OF LIGHT FIXTURE		ING	HOTOMETRIC	CUDVE	WATT	VOLTAGE							!	NO OF		N=1"	E	IXTURE
				W I					м	0	6	6	0			n		w	a
		57.7 66.7 72.9	75.5 77.9	83.8	87.3			COPY		12.7	с 18.6	с 24.4	a 30.1	s 36	42	44.6	49.7		56.7 7
		57.7 00.7 72.5	73.3 77.3	00.0	07.5			SPACE					50.1		72			57.7	
COPY         9         5         0         0         L								COPY	9	6	0	0		L			$ \longrightarrow $		
SPACE         4.3         10.7         16.7         22.9         23	.5							SPACE	4.3	10.4	16.4	22.6		23.2					
COPY R d L								COPY	R	d		L		· · · ·					
SPACE         42.9         49.2         10.2								SPACE	42.9	49.2		10.2							
COPY 9 6 0 0 L								СОРҮ	9	5	0	0				=	=		=
SPACE         67.8         73.9         79.9         86.1         23								SPACE	· 67.8	74.2	80.2	86.4		23.5		$ \rightarrow$	$\rightarrow$		-+
										1				$\square$		<u> </u>	$\longrightarrow$	[	
								COPY						<b>└──</b> ′	┝──┤	┢───┤			
SPACE								SPACE									$\square$		
COPY								COPY											
SPACE								SPACE											
SIGN NAME E OTY 1 SIGN STATION	s)							SIGN NA	MEE	(	2TY 1	SIGN NO.	STATI						
PANEL         BORDER         108+60.12								PAN		BORE		NO.	110+50						
TANEE BORDER 100100.12														· <i>L</i> / / / /					
WIDTH $Z' = O'' WIDTH I''$										NIDTH	/"			—— I I					
WIDTH 7'-0" WIDTH  " HEIGHT 2'-6" RADII 2"								WIDTH	7'-0" <b>I</b>	NIDTH RADII									
HEIGHT 2'-6" RADII 2"		L <del></del>		7'-0"				WIDTH HEIGHT	7'-0" <b>I</b> 2'-6"	RADII	2"								
				7'-0"			T	WIDTH	7'-0" <b> </b> 2'-6" White		2"								-
HEIGHT 2'-6" RADII 2" LEGEND White COLOR White				-			<b>T</b>	WIDTH HEIGHT LEGEND COLOR	7'-0" <b> </b> 2'-6" White	RADII COLOR	2"	Y I	WID	HT			Ŧ	<b>f</b>	-   - <b>(</b>
HEIGHT 2'-6" RADII 2" LEGEND White COLOR White COLOR Green		19"		-	ass	5" 8"EM	19"	WIDTH HEIGHT LEGEND COLOR	7'-0"   2'-6" White Green	RADII COLOR	2" White	Υ 1	WID			<u>د</u>	.0	19"	-
HEIGHT 2'-6" RADII 2" LEGEND White COLOR White COLOR Green		*	Saw	gra				WIDTH HEIGHT LEGEND COLOR	7'-0"   2'-6" White Green	RADII COLOR	2" White	Υ I	WID			(	9	19"	-
HEIGHT 2'-6" RADII 2" LEGEND White COLOR White COLOR Green		*	Saw	gra		6"		WIDTH HEIGHT LEGEND COLOR	7'-0"   2'-6" White Green	RADII COLOR	2" White	Υ 1	WID			(	9	19" 6"EM	
HEIGHT 2'-6" RADII 2" LEGEND White COLOR White COLOR Green SYMBOL(S) ANGLE X Y WID HT 		*		gra		6"		WIDTH HEIGHT LEGEND COLOR SYMBO	7'-0"   2'-6" White   Green L(5) AN	RADII COLOR IGLE	2" White X					(	9	_	
HEIGHT 2'-6" RADII 2" LEGEND White COLOR White COLOR Green SYMBOL(S) ANGLE X Y WID HT 	2,-0,"	6"EM 96	Saw	gra		6"EM		WIDTH HEIGHT LEGEND COLOR SYMBO	7'-0"   2'-6" White   Green L(5) AN	RADII COLOR IGLE	2" White X	Y I	AVE			(	2,-6	6"EM 5"	
HEIGHT 2'-6" RADII 2" LEGEND White COLOR White COLOR Green SYMBOL(S) ANGLE X Y WID HT SIGN NO. OF EDGE OF COLUMN SIZE AVERAGE	во	6"EM 5" RDER - 2 2"	Saw 00	gra		6"		WIDTH HEIGHT LEGEND COLOR SYMBO	7'-0"   2'-6" White Green	RADII COLOR IGLE	2" White X		AVE	HT		(	B0I	6"EM 5"	
HEIGHT 2'-6" RADII 2" LEGEND White COLOR White COLOR Green SYMBOL(S) ANGLE X Y WID HT 	#9 ,7 B0 R=	6"EM 5" 96 ST ST ST ST ST ST ST ST ST ST ST ST ST	Saw 00	/ <b>gr</b> a Rd		6"EM		WIDTH HEIGHT LEGEND COLOR SYMBO	7'-0"   2'-6" White   Green L(5) AN	RADII COLOR IGLE	2" White X		AVE	HT		(	9–,2 – BOI R=	6"EM 5" RDER 2"	
HEIGHT     2'-6"     RADII     2"       LEGEND     White     COLOR     White       COLOR     Green     SYMBOL(S)     ANGLE     X     Y     WID     HT	BO R= TH	6"EM 5" PRDER 3.8" =2" =1"	Saw 00	/ <b>gr</b> a Rd		6"EM		WIDTH HEIGHT LEGEND COLOR SYMBO	7'-0"   2'-6" White   Green L(5) AN	RADII COLOR IGLE	2" White X		AVE	HT		(	9–,2 BOI R= TH:	6"EM 5" RDER 2" =1"	
HEIGHT 2'-6" RADII 2" LEGEND White COLOR White COLOR Green SYMBOL(S) ANGLE X Y WID HT 	#9 ,7 B0 R=	6"EM 5" 96 2" 2" =1" =1"	Saw 00	/ <b>gr</b> a Rd	970	6"EM		WIDTH HEIGHT LEGEND COLOR SYMBO	7'-0"   2'-6" White   Green L(5) AN	RADII COLOR IGLE	2" White X		AVE	HT	NO. OF	, C	9–,2 – BOI R=	6"EM 5" RDER 2" = 1"	
HEIGHT     2'-6''     RADII     2''       LEGEND     White     COLOR     White       COLOR     Green     Image: Color of the second sec	BO R= TH NO. OF LIGHT FIXTURE	6"EM 5" 96 2" 2" =1" =1"	Saw 00	76.4"	970	6" 6"EM 5"	6"EM	WIDTH HEIGHT LEGEND COLOR SYMBO	7'-0"   2'-6"   White   Green L(S) AN NO. OF   POSTS   CI	RADII COLOR IGLE	2" White X COLUI	MN SIZE	AVE	HT		C C	9 ,2 BOI R= TH= IN=	6"EM 5" RDER 2" = 1"	 
HEIGHT       2'-6''       RADII       2''         LEGEND       White       COLOR       White         COLOR       Green       SYMBOL(S)       ANGLE       X       Y       WID       HT         SYMBOL(S)       ANGLE       X       Y       WID       HT         SIGN       NO. OF       EDGE OF       COLUMN SIZE       AVERAGE         NO.       POSTS       CLEARANCE       COLUMN SIZE       AVERAGE	BO R= TH NO. OF LIGHT FIXTURE	6"EM 5" 96 97 98 98 98 98 96 96 96 96 96 96 96 96 96 96 96 96 96	Saw 00	76.4"	970	6" 6"EM 5"	6"EM	WIDTH HEIGHT LEGEND COLOR SYMBO	7'-0"   2'-6"   White   Green L(S) AN NO. OF   POSTS   C	RADII COLOR IGLE	2" White X COLUI	MN SIZE	AVE LEN	HT	s	LIGHT F s	9 ,2 BOI R= TH= IN=	6"EM 5" RDER 2" = 1"	 
HEIGHT       2'-6''       RADII       2''         LEGEND       White       COLOR       White         COLOR       Green       SYMBOL(S)       ANGLE       X       Y       WID       HT         SYMBOL(S)       ANGLE       X       Y       WID       HT         SIGN       NO. OF       EDGE OF       COLUMN SIZE       AVERAGINE         SIGN       NO. OF       CLEARANCE       COLUMN SIZE       AVERAGINE         STACE       13.1       21.3       28.7       38.2       46.4       51.	BO R= TH NO. OF LIGHT FIXTURE 5 58.8 65.5	6"EM 5" 96 97 98 98 98 96 96 96 96 96 96 96 96 96 96 96 96 96	Saw 00	76.4"	970	6" 6"EM 5"	6"EM	WIDTH HEIGHT LEGEND COLOR SYMBO	7'-0"   2'-6"   White   Green   L(S)   AN   POSTS   Cl	RADII COLOR IGLE	2" White X COLUI 28.7	9 38.2		HT RAGE VGTH 51.5		C C	9 ,2 BOI R= TH= IN=	6"EM 5" RDER 2" = 1" 5 F	 
HEIGHT       2'-6"       RADII       2"         LEGEND       White       COLOR       White         COLOR       Green       SYMBOL(S)       ANGLE       X       Y       WID       HT         SYMBOL(S)       ANGLE       X       Y       WID       HT         SIGN       NO. OF       EDGE OF       COLUMN SIZE       AVERAGINE         SIGN       NO. OF       CLEARANCE       V       V         SIGN       NO. OF       EDGE OF       COLUMN SIZE       AVERAGINE         SIGN       NO. OF       EDGE OF       COLUMN SIZE       AVERAGINE         SPACE       13.1       21.3       28.7       38.2       46.4       51.         COPY       9       6       0       0       L	BO R= TH NO. OF LIGHT FIXTURE 5 58.8 65.5	6"EM 5" 96 97 98 98 98 98 96 96 96 96 96 96 96 96 96 96 96 96 96	Saw 00	76.4"	970	6" 6"EM 5"	6"EM	WIDTH HEIGHT LEGEND COLOR SYMBO SIGN NO. SIGN NO.	7'-0"   2'-6"   White   Green   L(5)   AN   NO. OF   POSTS   Cl 13.1 9 9	RADII COLOR IGLE	2" White X COLUI 28.7 0	9 38.2 0	AVE LEN	HT RAGE VGTH G 51.5	s	LIGHT F s	9 ,2 BOI R= TH= IN=	6"EM 5" RDER 2" = 1" 5 F	 
HEIGHT       2'-6"       RADII       2"         LEGEND       White       COLOR       White         COLOR       Green       SYMBOL(S)       ANGLE       X       Y       WID       HT         SYMBOL(S)       ANGLE       X       Y       WID       HT         SIGN       NO. OF       EDGE OF       COLUMN SIZE       AVERAGINE         SIGN       NO. OF       CLEARANCE       COLUMN SIZE       AVERAGINE         STACE       13.1       21.3       28.7       38.2       46.4       51.	BO R= TH NO. OF LIGHT FIXTURE 5 58.8 65.5	6"EM 5" 96 97 98 98 98 98 96 96 96 96 96 96 96 96 96 96 96 96 96	Saw 00	76.4"	970	6" 6"EM 5"	6"EM	WIDTH HEIGHT LEGEND COLOR SYMBO	7'-0"   2'-6"   White   Green   L(5)   AN   NO. OF   POSTS   Cl 13.1 9 9	RADII COLOR IGLE	2" White X COLUI 28.7	9 38.2	AVE LEN	HT RAGE VGTH 51.5	s	LIGHT F s	9 ,2 BOI R= TH= IN=	6"EM 5" RDER 2" = 1" 5 F	 
HEIGHT       2'-6"       RADII       2"         LEGEND       White       COLOR       White         COLOR       Green       SYMBOL(S)       ANGLE       X       Y       WID       HT         SYMBOL(S)       ANGLE       X       Y       WID       HT         SIGN       NO. OF       EDGE OF       COLUMN SIZE       AVERAGINE         SIGN       NO. OF       EDGE OF       COLUMN SIZE       AVERAGINE         SIGN       NO. OF       EDGE OF       COLUMN SIZE       AVERAGINE         SPACE       13.1       21.3       28.7       38.2       46.4       51.         COPY       9       6       0       0       L       SPACE       3.8       9.9       15.9       22.1       23         COPY       R       d       L       L       L       L       L       L	BO R= TH NO. OF LIGHT FIXTURE 5 58.8 65.5	6"EM 5" 96 97 98 98 98 98 96 96 96 96 96 96 96 96 96 96 96 96 96	Saw 00	76.4"	970	6" 6"EM 5"	6"EM	WIDTH HEIGHT LEGEND COLOR SYMBO SYMBO SIGN NO. SYMBO COPY SPACE COPY SPACE COPY	7'-0"   2'-6"   White   Green L(5)   AN   NO. OF   POSTS   CI   13.1   9 - 3.8   R	RADII COLOR IGLE IGLE EDGE OF LANE FARANCE 21.3 7 9.9 d	2" White X COLUI 28.7 0	MN SIZE 9 38.2 0 22.1	AVE LEN	HT RAGE VGTH G 51.5	s	LIGHT F s	9 ,2 BOI R= TH= IN=	6"EM 5" RDER 2" = 1" 5 F	 
HEIGHT         2'-6"         RADII         2"           LEGEND         White         COLOR         White         COLOR           COLOR         Green         Image: Color of the state of t	BO R= TH NO. OF LIGHT FIXTURE 5 58.8 65.5	6"EM 5" 96 97 98 98 98 98 96 96 96 96 96 96 96 96 96 96 96 96 96	Saw 00	76.4"	970	6" 6"EM 5"	6"EM	WIDTH HEIGHT LEGEND COLOR SYMBO SIGN NO. SIGN NO. SPACE COPY SPACE	7'-0"   2'-6"   White   Green L(5)   AN   NO. OF   POSTS   CI   13.1   9 3.8   R	RADII COLOR IGLE IGLE EDGE OF LANE FARANCE 21.3 7 9.9	2" White X COLUI 28.7 0	9 38.2 0 22.1	AVE LEN	HT RAGE VGTH G 51.5	s	LIGHT F s	9 ,2 BOI R= TH= IN=	6"EM 5" RDER 2" = 1" 5 F	 
HEIGHT       2'-6"       RADII       2"         LEGEND       White       COLOR       White         COLOR       Green       SYMBOL(S)       ANGLE       X       Y       WID       HT         SYMBOL(S)       ANGLE       X       Y       WID       HT         SIGN       NO. OF       EDGE OF       COLUMN SIZE       AVERAGE         SIGN       NO. OF       EDGE OF       COLUMN SIZE       AVERAGE         SIGN       NO. OF       EDGE OF       COLUMN SIZE       AVERAGE         SPACE       13.1       21.3       28.7       38.2       46.4       51.         COPY       9       6       0       0       L         SPACE       3.8       9.9       15.9       22.1       23         COPY       R       d       L       SPACE       56.9       43.2       10.2	BO R= TH NO. OF LIGHT FIXTURE 5 58.8 65.5 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6"EM 5" 96 97 98 98 98 98 96 96 96 96 96 96 96 96 96 96 96 96 96	Saw 00	76.4"	970	6" 6"EM 5"	6"EM	WIDTH HEIGHT LEGEND COLOR SYMBO SYMBO SIGN NO. SPACE COPY SPACE COPY SPACE	7'-0"   2'-6"   White   Green L(5)   AN   NO. OF   POSTS   CI   13.1   9 3.8   R	RADII COLOR IGLE IGLE EDGE OF LANE FARANCE 21.3 7 9.9 d	2" White X COLUI 28.7 0	MN SIZE 9 38.2 0 22.1	AVE LEN	HT RAGE VGTH G 51.5	s	LIGHT F s	9 ,2 BOI R= TH= IN=	6"EM 5" RDER 2" = 1" 5 F	 
HEIGHT       2'-6"       RADII       2"         LEGEND       White       COLOR       White         COLOR       Green       SYMBOL(S)       ANGLE       X       Y       WID       HT         SYMBOL(S)       ANGLE       X       Y       WID       HT         SIGN       NO. OF POSTS       EDGE OF LANE       COLUMN SIZE       AVERAGIN         SIGN       NO. OF POSTS       CLEARANCE       V       P       r         SPACE       13.1       21.3       28.7       38.2       46.4       51         COPY       9       6       0       0       L         SPACE       3.8       9.9       15.9       22.1       23         COPY       R       d       L       SPACE       36.9       43.2	BO R= TH NO. OF LIGHT FIXTURE 5 58.8 65.5 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6"EM 5" 96 97 98 98 98 98 96 96 96 96 96 96 96 96 96 96 96 96 96	Saw 00	76.4"	970	6" 6"EM 5"	6"EM	WIDTH HEIGHT LEGEND COLOR SYMBO SYMBO SIGN NO. SYMBO COPY SPACE COPY SPACE COPY	7'-0"   2'-6"   White   Green   L(5)   AN   NO. OF   POSTS   13.1 9 - 3.8 R - 3.6.9 9 9 - 3.8	RADII           COLOR           IGLE           IGLE	2" White X COLUI 28.7 0 15.9	9 38.2 0 22.1 L 10.2	AVE LEN	HT HT RAGE VGTH 51.5 L 23.2	s	LIGHT F s	9 ,2 BOI R= TH= IN=	6"EM 5" RDER 2" = 1" 5 F	 
HEIGHT       2'-6''       RADII       2''         LEGEND       White       COLOR       White         COLOR       Green       Image: Color of the state of the stat	BO R= TH NO. OF LIGHT FIXTURE 5 58.8 65.5 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6"EM 5" 96 97 98 98 98 98 96 96 96 96 96 96 96 96 96 96 96 96 96	Saw 00	76.4"	970	6" 6"EM 5"	6"EM	WIDTH HEIGHT LEGEND COLOR SYMBO SYMBO SYMBO COPY SPACE COPY SPACE COPY SPACE	7'-0"   2'-6"   White   Green   L(5)   AN   NO. OF   POSTS   13.1 9 - 3.8 R - 3.6.9 9 9 - 3.8	RADII           COLOR           IGLE           IGLE	2" White X COLUI COLUI 28.7 0 15.9 0 0	9 38.2 0 22.1 L 10.2 0	AVE LEN	HT HT RAGE VGTH 51.5 L 23.2 L L L	s	LIGHT F s	9 ,2 BOI R= TH= IN=	6"EM 5" RDER 2" = 1" 5 F	 
HEIGHT       2'-6''       RADII       2''         LEGEND       White       COLOR       White         COLOR       Green       Image: Color of the state of the stat	BO R= TH NO. OF LIGHT FIXTURE 5 58.8 65.5 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6"EM 5" 96 97 98 98 98 98 96 96 96 96 96 96 96 96 96 96 96 96 96	Saw 00	76.4"	970	6" 6"EM 5"	6"EM	WIDTH HEIGHT LEGEND COLOR SYMBO SYMBO SYMBO COLOR SPACE COPY SPACE COPY SPACE COPY SPACE COPY	7'-0"   2'-6"   White   Green L(S)   AN POSTS   - - - - - - - - - - - - -	RADII           COLOR           IGLE           IGLE	2" White X COLUI COLUI 28.7 0 15.9 0 0	9 38.2 0 22.1 L 10.2 0	AVE LEN	HT HT RAGE VGTH 51.5 L 23.2 L L L	s	LIGHT F s	9 ,2 BOI R= TH= IN=	6"EM 5" RDER 2" = 1" 5 F	 
HEIGHT       2'-6"       RADII       2"         LEGEND       White       COLOR       White         COLOR       Green       SYMBOL(S)       ANGLE       X       Y       WID       HT         SYMBOL(S)       ANGLE       X       Y       WID       HT         SIGN       NO. OF       EDGE OF       COLUMN SIZE       AVERAGE         NO.       POSTS       CLEARANCE       AVERAGE         SIGN       NO. OF       EDGE OF       COLUMN SIZE       AVERAGE         SPACE       13.1       21.3       28.7       38.2       46.4       51.         COPY       9       6       0       0       L         SPACE       3.8       9.9       15.9       22.1       23         COPY       R       d       L       SPACE       SPACE         SPACE       36.9       43.2       10.2       COPY       SPACE       23         COPY       9       7       0       L       SPACE       SPACE       SPACE         SPACE       57       63       69.1       75.3       23         COPY       SPACE       SPACE       SPACE       SPACE       SPA	BO R= TH NO. OF LIGHT FIXTURE 5 58.8 65.5 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6"EM 5" 96 97 98 98 98 98 96 96 96 96 96 96 96 96 96 96 96 96 96	Saw 00	76.4"	970	6" 6"EM 5"	6"EM	WIDTH HEIGHT LEGEND COLOR SYMBO SYMBO SYMBO SYMBO SPACE COPY SPACE COPY SPACE COPY SPACE COPY SPACE	7'-0"   2'-6"   White   Green L(S)   AN POSTS   - - - - - - - - - - - - -	RADII           COLOR           IGLE           IGLE	2" White X COLUI COLUI 28.7 0 15.9 0 0	9 38.2 0 22.1 L 10.2 0	AVE LEN	HT HT RAGE VGTH 51.5 L 23.2 L L L	s	LIGHT F s	9 ,2 BOI R= TH= IN=	6"EM 5" RDER 2" = 1" 5 F	 
HEIGHT       2'-6"       RADII       2"         LEGEND       White       COLOR       White       COLOR         SYMBOL(S)       ANGLE       X       Y       WID       HT         SYMBOL(S)       ANGLE       X       Y       WID       HT         SIGN       NO. OF       EDGE OF       COLUMN SIZE       AVERAGINE         SIGN       NO. OF       EDGE OF       COLUMN SIZE       AVERAGINE         SIGN       NO. OF       EDGE OF       COLUMN SIZE       AVERAGINE         SPACE       13.1       21.3       28.7       38.2       46.4       51.         COPY       9       6       0       0       L         SPACE       38.8       9.9       15.9       22.1       23         COPY       R       d       L       SPACE       57         SPACE       36.9       43.2       10.2       COPY       23         COPY       9       7       0       L       SPACE       57         SPACE       57       63       69.1       75.3       23         COPY       SPACE          SPACE         COPY	BO R= TH NO. OF LIGHT FIXTURE 5 58.8 65.5 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6"EM 5" 96 97 98 98 98 98 96 96 96 96 96 96 96 96 96 96 96 96 96	Saw 00	76.4"	970	6" 6"EM 5"	6"EM	WIDTH HEIGHT LEGEND COLOR SYMBO SYMBO SYMBO SYMBO SPACE COPY SPACE COPY SPACE COPY SPACE COPY SPACE COPY	7'-0"   2'-6"   White   Green   L(5)   AN   NO. OF   POSTS   13.1 9 - 3.8 R - 36.9 9 - 57 - - - - - - - - - - - - -	RADII           COLOR           IGLE           IGLE	2" White X COLUI COLUI 28.7 0 15.9 0 0	9 38.2 0 22.1 L 10.2 0	AVE LEN	HT HT RAGE VGTH 51.5 L 23.2 L L L	s	LIGHT F s	9 ,2 BOI R= TH= IN=	6"EM 5" RDER 2" = 1" 5 F	 
HEIGHT       2'-6''       RADII       2''         LEGEND       White       COLOR       White         COLOR       Green       SYMBOL(S)       ANGLE       X       Y       WID       HT         SYMBOL(S)       ANGLE       X       Y       WID       HT         SIGN       NO. OF       EDGE OF       COLUMN SIZE       AVERAGE         SIGN       NO. OF       EDGE OF       COLUMN SIZE       AVERAGE         SIGN       NO. OF       EDGE OF       COLUMN SIZE       AVERAGE         SPACE       13.1       21.3       28.7       38.2       46.4       51.         COPY       9       6       0       0       L         SPACE       3.8       9.9       15.9       22.1       23         COPY       R       d       L       SPACE       SPACE         SPACE       36.9       43.2       10.2       COPY       SPACE       SPACE         COPY       9       7       0       L       SPACE       SPACE       SPACE       SPACE       SPACE	s     s       5     58.8       2     0       2     0	6"EM 5" 96 97 98 98 98 98 96 96 96 96 96 96 96 96 96 96 96 96 96	Saw 00	76.4"	970	● 6" ● 6"EM ■ 5" ■ 10 ■ 1		WIDTH HEIGHT LEGEND COLOR SYMBO SYMBO SYMBO SYMBO SPACE COPY SPACE COPY SPACE COPY SPACE COPY SPACE	7'-0"   2'-6"   White   Green   L(5)   AN   NO. OF   POSTS   13.1 9 - 3.8 R - 36.9 9 - 57 - - - - - - - - - - - - -	RADII           COLOR           IGLE           IGLE	2" White X COLUI COLUI 28.7 0 15.9 0 0	9 38.2 0 22.1 L 10.2 0	AVE LEN	HT HT RAGE VGTH 51.5 L 23.2 L L L	s	LIGHT F s	9 ,2 BOI R= TH= IN=	6"EM 5" RDER 2" = 1" 5 F	 
HEIGHT       2'-6''       RADII       2''	s     s       5     58.8       65.5       2       1       2       1       1       2       1 <td>6"EM 5" 96 PRDER 3.8" = 2" = 1" = 1" 5 FIXTURE SPACE L 57.6 </td> <td></td> <td>76.4"</td> <td>970</td> <td></td> <td>6"EM 5"</td> <td>WIDTH HEIGHT LEGEND COLOR SYMBO SYMBO SYMBO SYMBO SPACE COPY SPACE COPY SPACE COPY SPACE COPY SPACE COPY</td> <td>7'-0"     2'-6"     White     Green     AA POSTS     9 3.8 R 3.8 R 3.6.9 9 57   1 1 1 1 1 1 1 1 1 1 1 1 1</td> <td>RADII           COLOR           IGLE           IGLE</td> <td>2" White X COLUI COLUI 28.7 0 15.9 0 15.9 0 69.1 0 69.1 COLUI CO</td> <td>MN SIZE 9 38.2 0 22.1 L 10.2 0 75.3 0 75.3</td> <td>r 46.4</td> <td>HT HT 0 51.5 L 23.2 23.2 23.2</td> <td>s 58.8</td> <td>LIGHT F 5 65.5 1 1 1 1 1 1 1 1 1 1 1 1 1</td> <td></td> <td>6"EM 5" RDER 2" = 1" 5 F</td> <td> </td>	6"EM 5" 96 PRDER 3.8" = 2" = 1" = 1" 5 FIXTURE SPACE L 57.6 		76.4"	970		6"EM 5"	WIDTH HEIGHT LEGEND COLOR SYMBO SYMBO SYMBO SYMBO SPACE COPY SPACE COPY SPACE COPY SPACE COPY SPACE COPY	7'-0"     2'-6"     White     Green     AA POSTS     9 3.8 R 3.8 R 3.6.9 9 57   1 1 1 1 1 1 1 1 1 1 1 1 1	RADII           COLOR           IGLE           IGLE	2" White X COLUI COLUI 28.7 0 15.9 0 15.9 0 69.1 0 69.1 COLUI CO	MN SIZE 9 38.2 0 22.1 L 10.2 0 75.3 0 75.3	r 46.4	HT HT 0 51.5 L 23.2 23.2 23.2	s 58.8	LIGHT F 5 65.5 1 1 1 1 1 1 1 1 1 1 1 1 1		6"EM 5" RDER 2" = 1" 5 F	 
HEIGHT       2'-6"       RADII       2"         LEGEND       White       COLOR       White       COLOR         SYMBOL(S)       ANGLE       X       Y       WID       HT         SYMBOL(S)       ANGLE       X       Y       WID       HT         SIGN       NO. OF       EDGE OF       COLUMN SIZE       AVERAGINE         SIGN       NO. OF       EDGE OF       COLUMN SIZE       AVERAGINE         SIGN       NO. OF       EDGE OF       COLUMN SIZE       AVERAGINE         SPACE       13.1       21.3       28.7       38.2       46.4       51.         COPY       9       6       0       0       L         SPACE       38.8       9.9       15.9       22.1       23         COPY       R       d       L       SPACE       57         SPACE       36.9       43.2       10.2       COPY       23         COPY       9       7       0       L       SPACE       57         SPACE       57       63       69.1       75.3       23         COPY       SPACE          SPACE         COPY	s     s       5     58.8       2     0       2     0	6"EM 5" 96 PRDER 3.8" = 2" = 1" = 1" 5 FIXTURE SPACE L 57.6 	Saw 00	76.4"	970		6"EM 5" <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i></i>	WIDTH HEIGHT LEGEND COLOR SYMBO SYMBO SYMBO SYMBO SPACE COPY SPACE COPY SPACE COPY SPACE COPY SPACE COPY	7'-0"     2'-6"     White     Green     AA POSTS     9 3.8 R 3.8 R 3.6.9 9 57   1 1 1 1 1 1 1 1 1 1 1 1 1	RADII           COLOR           IGLE           IGLE	2" White X COLUI COLUI 28.7 0 15.9 0 15.9 0 69.1 0 69.1 COLUI CO	9           38.2           0           22.1           L           10.2           0           75.3	r 46.4	HT HT 0 51.5 L 23.2 23.2 23.2	s 58.8	LIGHT F 5 65.5 1 1 1 1 1 1 1 1 1 1 1 1 1		6"EM 5" RDER 2" = 1" 57.6	
HEIGHT       2'-6''       RADII       2''	s     s       5     58.8       65.5       2       1       2       1       1       2       1 <td>6"EM 5" 96 PRDER 3.8" = 2" = 1" = 1" 5 FIXTURE SPACE L 57.6 </td> <td></td> <td>76.4"</td> <td>970</td> <td></td> <td>6"EM 6"EM 5" VOLTAGE VOLTAGE VOLTAGE 0 0 0 0 0 0 0 0 0 0 0 0 0</td> <td>WIDTH HEIGHT LEGEND COLOR SYMBO SYMBO SIGN NO. SIGN NO. SPACE COPY SPACE COPY SPACE COPY SPACE COPY SPACE COPY SPACE COPY SPACE</td> <td>7'-0"     2'-6"     White     Green     AA POSTS     9 3.8 R 3.8 R 3.6.9 9 57   1 1 1 1 1 1 1 1 1 1 1 1 1</td> <td>RADII           COLOR           IGLE           IGLE</td> <td>2" White X COLUI COLUI 28.7 0 15.9 0 69.1 0 69.1 CEECCE</td> <td>MN SIZE 9 38.2 0 22.1 L 10.2 0 75.3 0 75.3</td> <td>r 46.4</td> <td>HT HT STAGE VGTH 51.5 L 23.2 L 23.2 L 23.2 L Z 23.2 L Z SERV.</td> <td>s 58.8</td> <td>LIGHT F s 65.5</td> <td>BOI R= TH: IN= FIXTURES</td> <td>6"EM 5" RDER 2" = 1" 57.6</td> <td> </td>	6"EM 5" 96 PRDER 3.8" = 2" = 1" = 1" 5 FIXTURE SPACE L 57.6 		76.4"	970		6"EM 6"EM 5" VOLTAGE VOLTAGE VOLTAGE 0 0 0 0 0 0 0 0 0 0 0 0 0	WIDTH HEIGHT LEGEND COLOR SYMBO SYMBO SIGN NO. SIGN NO. SPACE COPY SPACE COPY SPACE COPY SPACE COPY SPACE COPY SPACE COPY SPACE	7'-0"     2'-6"     White     Green     AA POSTS     9 3.8 R 3.8 R 3.6.9 9 57   1 1 1 1 1 1 1 1 1 1 1 1 1	RADII           COLOR           IGLE           IGLE	2" White X COLUI COLUI 28.7 0 15.9 0 69.1 0 69.1 CEECCE	MN SIZE 9 38.2 0 22.1 L 10.2 0 75.3 0 75.3	r 46.4	HT HT STAGE VGTH 51.5 L 23.2 L 23.2 L 23.2 L Z 23.2 L Z SERV.	s 58.8	LIGHT F s 65.5	BOI R= TH: IN= FIXTURES	6"EM 5" RDER 2" = 1" 57.6	 
HEIGHT       2'-6''       RADII       2''	s     s       5     58.8       65.5       2       1       2       1       1       2       1 <td>6"EM 5" 96 PRDER 3.8" = 2" = 1" = 1" 5 FIXTURE SPACE L 57.6 </td> <td></td> <td>76.4"</td> <td>2URVE</td> <td>6" 6"EM 5" 6"EM 5" 6"EM 5" 6"EM 6"EM 6" 6" 6" 6" 6" 6" 6" 6" 6" 6"</td> <td>6"EM 5" <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i></i></td> <td>WIDTH HEIGHT LEGEND COLOR SYMBO SYMBO SYMBO SYMBO SPACE COPY SPACE COPY SPACE COPY SPACE COPY SPACE COPY SPACE COPY SPACE</td> <td>7'-0"   2'-6"   White   Green   L(S)   AN POSTS   Cl NO. OF   POSTS   Cl NO. OF   POSTS   Cl NO. OF   POSTS   Cl NO. OF   POSTS   NO. OF   POSTS   POSTS   NO. OF   POSTS   POST  </td> <td>RADII         COLOR         IGLE         IGLE</td> <td>2" White X COLUI COLUI 28.7 0 15.9 0 69.1 0 69.1 COLUI COLU</td> <td>9 38.2 0 22.1 10.2 0 75.3 0 75.3</td> <td>r 46.4</td> <td>HT HT STAGE VGTH 51.5 L 23.2 L 23.2 L 23.2 L Z 23.2 L Z SERV.</td> <td>s 58.8</td> <td>LIGHT F s 65.5</td> <td>BOI R= TH: IN= IN= INTURES</td> <td>6"EM 5" RDER 2" = 1" 57.6</td> <td></td>	6"EM 5" 96 PRDER 3.8" = 2" = 1" = 1" 5 FIXTURE SPACE L 57.6 		76.4"	2URVE	6" 6"EM 5" 6"EM 5" 6"EM 5" 6"EM 6"EM 6" 6" 6" 6" 6" 6" 6" 6" 6" 6"	6"EM 5" <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i>VOLTAGE</i> <i></i>	WIDTH HEIGHT LEGEND COLOR SYMBO SYMBO SYMBO SYMBO SPACE COPY SPACE COPY SPACE COPY SPACE COPY SPACE COPY SPACE COPY SPACE	7'-0"   2'-6"   White   Green   L(S)   AN POSTS   Cl NO. OF   POSTS   Cl NO. OF   POSTS   Cl NO. OF   POSTS   Cl NO. OF   POSTS   NO. OF   POSTS   POSTS   NO. OF   POSTS   POST   POST	RADII         COLOR         IGLE	2" White X COLUI COLUI 28.7 0 15.9 0 69.1 0 69.1 COLUI COLU	9 38.2 0 22.1 10.2 0 75.3 0 75.3	r 46.4	HT HT STAGE VGTH 51.5 L 23.2 L 23.2 L 23.2 L Z 23.2 L Z SERV.	s 58.8	LIGHT F s 65.5	BOI R= TH: IN= IN= INTURES	6"EM 5" RDER 2" = 1" 57.6	

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SF	PECI	AL .	INSTRUCTIONS										
ID NO.		D. TON		D. VALS	HANDHOLE LOCATION								



# [\_\_] denotes future signal head or sign to be installed by others at a later date \* DENOTES NUMBER OF SECTIONS IN SIGNAL HEAD ASSEMBLY

														5	IGNAL	D	ATA																	
ID		LOCATION	TOP OF FOUND.	RDWY ARM NO.	CROWN	LUMI -	TERM. COMP. Y/N	SIGNAL	BACK PLATES	PED. SIGNAI			-		DI	STA	NCE F	ROM	POLE						TOTAL ARM	ARM	ANGLE BETWEEN			Ľ	ISTAN	CE FF	ROM F	<i>י01</i>
NO .	NO .	BY STA.	ELEVATION	NO.	ELEV.	Y/N	Y/N	V/H	Y/N	Y/N	1	*	2	*	3	*	4	*	5	*	6	*	7	*	LENGTH	М.Н.	DUAL ARMS 90/270	A	Η1	W 1	В	Н2	W2	
1	T - 8	108+59.10	26.95	1	29.20	N	N	V	Y	N	48.8	3	70.9	3											78	22.5		67.3	3	3				Τ
				2																	-													Т
2	T - 8	108+60.12	28.46	1	29.17	Y	N	V	Y	N	19.4	5	37.6	3	49.1	3	62.6	3	73.6	3					78	21		11.2	2.5	2.5	43.6	2.5	7	(
				2																	_													T
3	T - 8	108+71.11	28.84	1	27.92	N	N	V	Y	N	58.2	3													70	21								
				2																														
4	T - 8	108+75.46	26.44	1	27.85	Y	N	V	Y	N	13.8	5	24.8	3	41.8	3	52.8	3	63.8	3	74.6	3	75.1	3	78	22		8.4	2.5	2.5	19.0	3	3	1 4
				2																											'			Т
5	T - 8	110+20.25	27.74	1	27.46	N	N	V	Y	N	38.9	3													50	21								Τ
				2																														T
6	T - 8	110+23.42	28.84	1	28.00	Y	N	V	Y	N	25.0	5	42.0	3	52.5	3	64.0	3	70.2	3	75.0	3			78	22	90	18.5	2.5	2.5	47.6	2.5	8	T
				2	29.23			V	Y	N	49.5	3	72.3	3									-		78			75.9	3	3				Τ
7	T - 8	110+50.21	28.45	1	29.14	Y	N	V	Y	N	9.5	5	27.7	3	39.1	3	52.6	3	63.6	3	74.6	3			78	21		4.7	2.5	2.5	33.2	2.5	7	
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s∖FD(	DATE	DESCRIPTION	DATE	DESCRIPTION	JOSEPH LEFANTE, P.E.		ENGINEERING S		STANDARD MAST ARM	NO.
l-07 <set:< th=""><th></th><th></th><th></th><th></th><th>P.E. LICENSE NUMBER 84944 STANTEC CONSULTING SERVICES INC.</th><th>ROAD NO.</th><th>COUNTY</th><th>STANTEC PROJECT NO.</th><th></th><th></th></set:<>					P.E. LICENSE NUMBER 84944 STANTEC CONSULTING SERVICES INC.	ROAD NO.	COUNTY	STANTEC PROJECT NO.		
2023-1: C:\Worl					1340 POYDRAS STREET, SUITE 1420 NEW ORLEANS, LA 70112	MOCCASIN WALLOW RD	MANATEE	215617221	TAB ULA TION	T-11

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	STANL					I					
STRUCTURE		FIRST	ARM	SECON	D ARM	UF			POLE		DRILLE
ID NUMBERS	DESIGNATION	ARM ID	FAA (ft.)	ARM ID	SAA (ft.)	(deg)	(deg)	POLE ID	UAA (ft.)	UB (ft.)	SHAF1 ID
1	A78/S-P6/S-DS/18/5	A78/S						P6/S		22.5	DS/18,
3	A70/S-P5/S-DS/14/5	A70/S						P5/S		21	DS/14,
5	A50/S-P3/S-DS/12/4.5	A50/5						P3/5		21	DS/12/4

NOTES:

- 1. If an entry appears in column FAA, a shorter arm is required. This is obtained by removing length from the arm tip and the arm length shortened from FA to FAA. SAA Similar.
- 2. If an entry appears in column UAA, a shorter pole is required. This is obtained by removing length from the pole tip and the pole height shortened from UA to UAA.
- 3. Arm mounting height UB must be between 18-22 feet.
- 4. Pole types P2 and larger require a minimum 4.5 foot diameter drilled shaft. Pole types P5 and larger require a minimum 5.0 foot diameter drilled shaft.
- 5. Work this sheet with the Signal Designer's "Mast Arm Tabulation". See "Mast Arm Tabulation" for special instructions that include non-standard Handhole location, paint color, terminal compartment requirement, and pedestrian features.

6. Work with Index 649-030 and 649-031.

FOUNDATION NOTES;

1. Design based on Borings taken and sealed by TBD

2. Assumptions and values used in design:

Soil Type	= Sand
Soil Layer Thickness	= 30ft.
Soil Friction Angle	= 29deg.
Soil Weight	= 43pcf.

Design Water Table is at surface.

2		REV	SIONS			MANAT	EE COUNTY PUBL	IC WORKS DEPT.	
FD(	DATE	DESCRIPTION	DATE	DESCRIPTION	STANTEC CONSULTING SERVICES, INC.		ENGINEERING S	ERVICES	G
sets					Robert E. Smith Jr., P.E.	ROAD NO.	COUNTY	STANTEC PROJECT NO.	U
C:\Work					P.E. License No. 38166 2056 Vista Pkwy., Suite 100 West Palm Beach, Florida 33411 (561) 686-7707	MOCCASIN WALLOW RD	MANATEE	215617221	A

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LED FT 0/4.5 1/4.5		THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004. F.A.C.
STANDARD MAST ARM ASSEMBLIES TABLE	SHEET NO. T-12	
		J

							SPI	ECIAL	MAST	ARM	ASSE	MBLIE	S DAT	ΓΑ ΤΑΕ	3LE									
NUMBER OF	STRUCTURE		FIRST	ARM		FIRS	ST ARM	EXTENS	SION		SECON	ID ARM		SECO	ND ARM	1 EXTEN	ISION				POLE			
LOCATIONS	NUMBER	FA(ft)	FB(in)	FC(in)	FD(in)	FE(ft)	FF(in)	FG(in)	FH(in)	SA(ft)	SB(in)	SC(in)	SD(in)	SE(ft)	SF(in)	SG(in)	SH(in)	UA(ft)	UB(ft)	UC(in)	UD(in)	UE(in) U	F(deg)	UG(ft
2	2 & 7	39	11.54	17	0.25	42.5	16.1	22	0.5	-	-	-	-	-	-	-	-	39	21	18.6	24	0.5	-	37.
1	4	39	12.54	18	0.25	42.5	17.1	23	0.5	-	_	-	-	-	-	-	-	39	22	18.6	24	0.5	-	37.
1	6	39	11.54	17	0.25	42.5	16.1	22	0.5	39	9.54	15	0.25	42	14.12	20	0.375	39	22	20.6	26	0.5	90	37.

						SPEC	CIAL N	IAST ,	ARM A	ASSEM	BLIES	DATA	TABL	.E (CC	DNT.)							
STRUCTURE	FI	RST AR	M CONN	ECTION	l (in)	First .	Arm Cai	mber Ar	ngle = 2	2 Degre	es	SECO	OND AR	м солл	IECTION	(in)	Secon	nd Arm	Camber	Angle =	= 2 Deg	rees
NUMBER	#Bolts	HT	FJ	FK	FL	FN	FO	FP	FR	FS	FT	#Bolts	ΗT	SJ	SK	SL	SN	50	SP	SR	55	ST
2 & 7	6	30	40	3	0.75	0.625	18	1.5	2.0	12	0.625	-	-	-	-	-	-	-	-	-	-	-
4	6	30	40	3	0.75	0.625	18	1.5	2.0	12	0.625	-	-	-	-	-	-	-	-	-	-	-
6	6	30	40	3	0.75	0.625	24	1.5	2.0	12	0.625	6	30	40	3	0.75	0.625	24	1.5	2.5	12	0.625

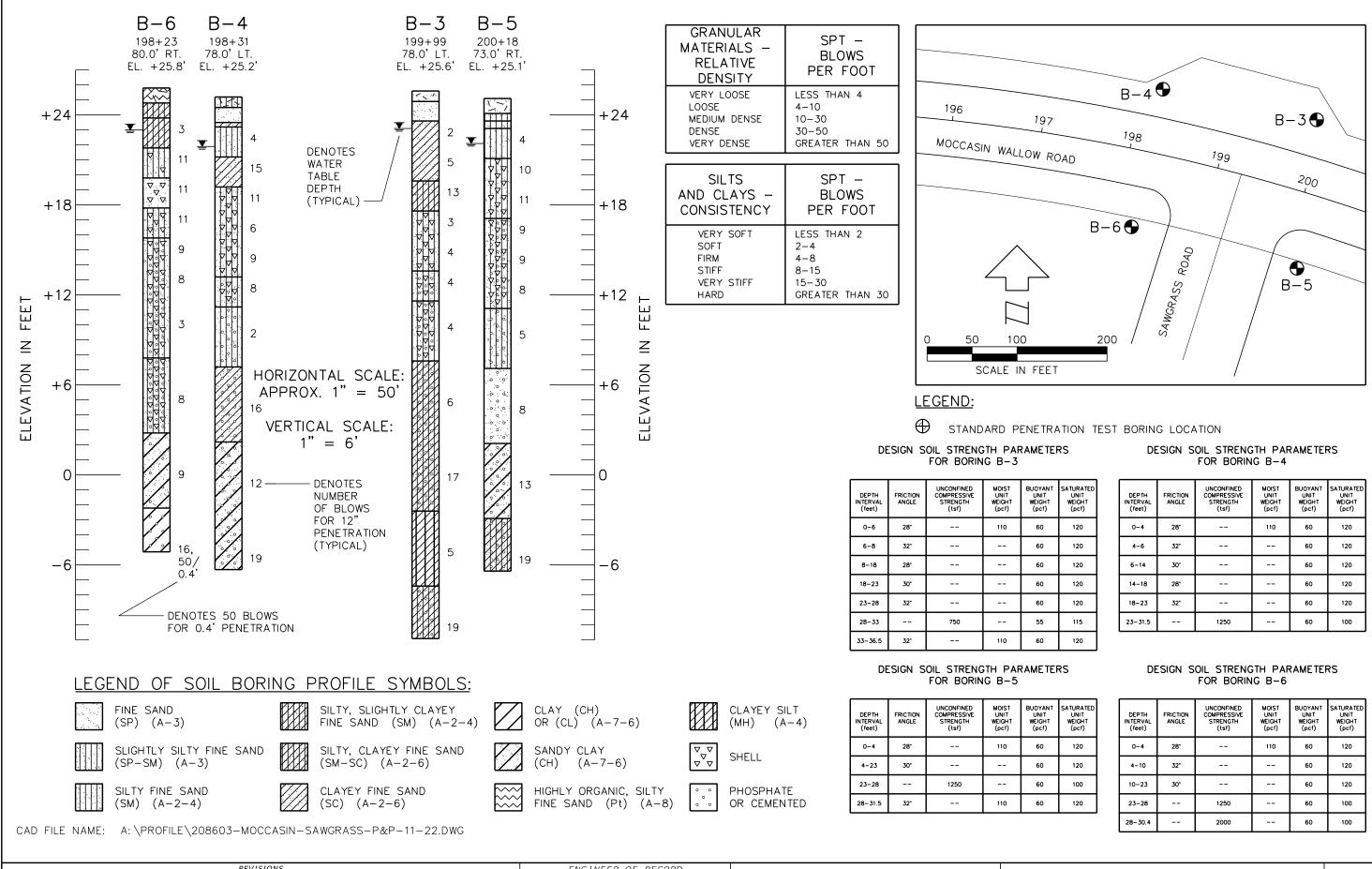
STRUCTURE	POL	E BASE	CONNE	CTION	'in)		SI	HAFT AN	ID REIN	F.						LL	JMINAIR	E AND	LUMINA	IRE CON	INECTIC	N					
NUMBER	#Bolts	BA	BB	BC	BF	DA(ft)	DB(ft)	RA	RB	RC	RD(in)	RE	RF(in)	LA(ft)	LB(ft)	LC(in)	LD(in)	LE	LF(ft)	LG(in)	LH(in)	LJ(in)	LK(in)	LL(deg			
2 & 7	8	40	2.5	2	40	25	5	11	18	10	6	10	9	40	10	3	0.125	0.5	8	0.5	0.75	0.25	0.25	4			
4	8	40	2.5	2	40	25	5	11	18	10	6	10	9	40	10	3	0.125	0.5	8	0.5	0.75	0.25	0.25	4			
6	8	42	2.5	2	40	26	5	11	18	10	4	10	6	40	10	3	0.125	0.5	8	0.5	0.75	0.25	0.25	4			

2 Z		REVI:	SIONS			MANAT	TEE COUNTY PUBL	IC WORKS DEPT.
FDC	DATE	DESCRIPTION	DATE	DESCRIPTION	STANTEC CONSULTING SERVICES, INC.		ENGINEERING SI	
sets					Robert E. Smith Jr., P.E.	ROAD NO.	COUNTY	STANTEC PROJECT NO.
C:\Work:					P.E. License No. 38166 2056 Vista Pkwy., Suite 100 West Palm Beach, Florida 33411 (561) 686-7707	MOCCASIN WALLOW RD	MANATEE	215617221

leg)	NOTES: 1. Work with Index 649-031. 2. Design Wind Speed = 150mph	
45 45	-	
45	<ul> <li>FOUNDATION NOTES:</li> <li>Design based on Borings taken TBD sealed by TBD</li> <li>Assumptions and Values used in des Soil Type = Sand Soil Layer Thickness = 30ft. Soil Friction Angle = 29deg. Soil Weight = 43pcf Design Water Table is at surface</li> </ul>	
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SPECIAL MAST ARM	SHEET NO.
ASSEMBLIES TABLE	T-13



REVISIONS				ENGINEER OF RECORD	MANAT	MANATEE COUNTY PUBLIC WORKS DEPT.		
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFRY A. DRIGGERS, P.E.	]	ENGINEERING SI		B
				P.E. LICENSE NUMBER 70598 DRIGGERS ENGINEERING SERVICES, INC.	ROAD NO.	COUNTY	STANTEC PROJECT NO.	
				12220 49TH STREET NORTH CLEARWATER, FLORIDA 33762	MOCCASIN WALLOW RD	MANATEE	215617221	

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2023-11 C:\Work

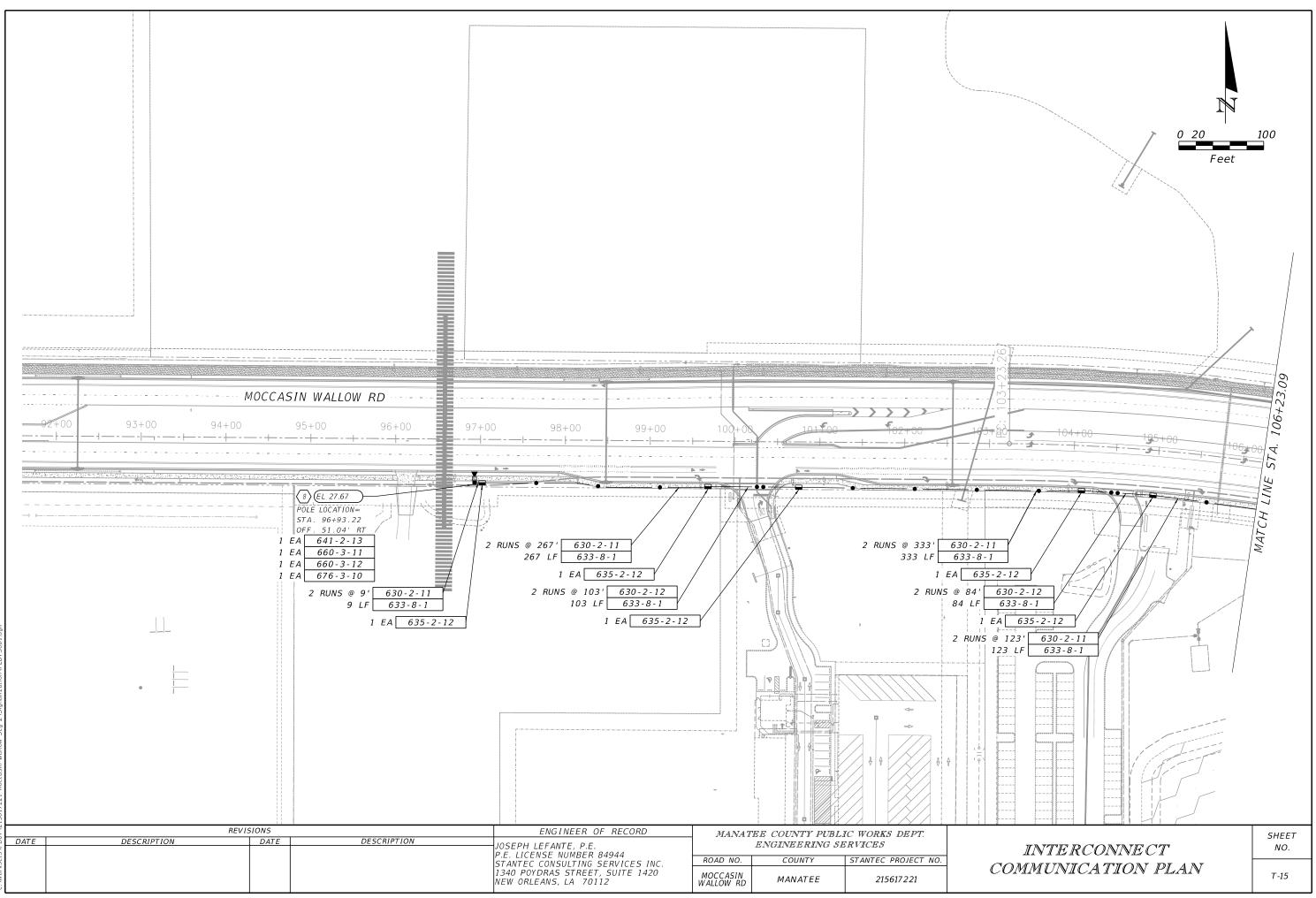
SATURATED UNIT WEIGHT (pcf)
120
120
120
120
120
115
120

DEPTH INTERVAL (feet)	FRICTION ANGLE	UNCONFINED COMPRESSIVE STRENGTH (tsf)	MOIST UNIT WEIGHT (pcf)	BUOYANT UNIT WEIGHT (pcf)	SATURATI UNIT WEIGHT (pcf)
0-4	28*		110	60	120
4-6	32*			60	120
6-14	30*			60	120
14-18	28'			60	120
18-23	32*			60	120
23-31.5		1250		60	100

DEPTH INTERVAL (feet)	FRICTION ANGLE	UNCONFINED COMPRESSIVE STRENGTH (tsf)	MOIST UNIT WEIGHT (pcf)	BUOYANT UNIT WEIGHT (pcf)	SATURATED UNIT WEIGHT (pcf)
0-4	28*		110	60	120
4-10	32*			60	120
10-23	30*			60	120
23-28		1250		60	100
28-30.4		2000		60	100

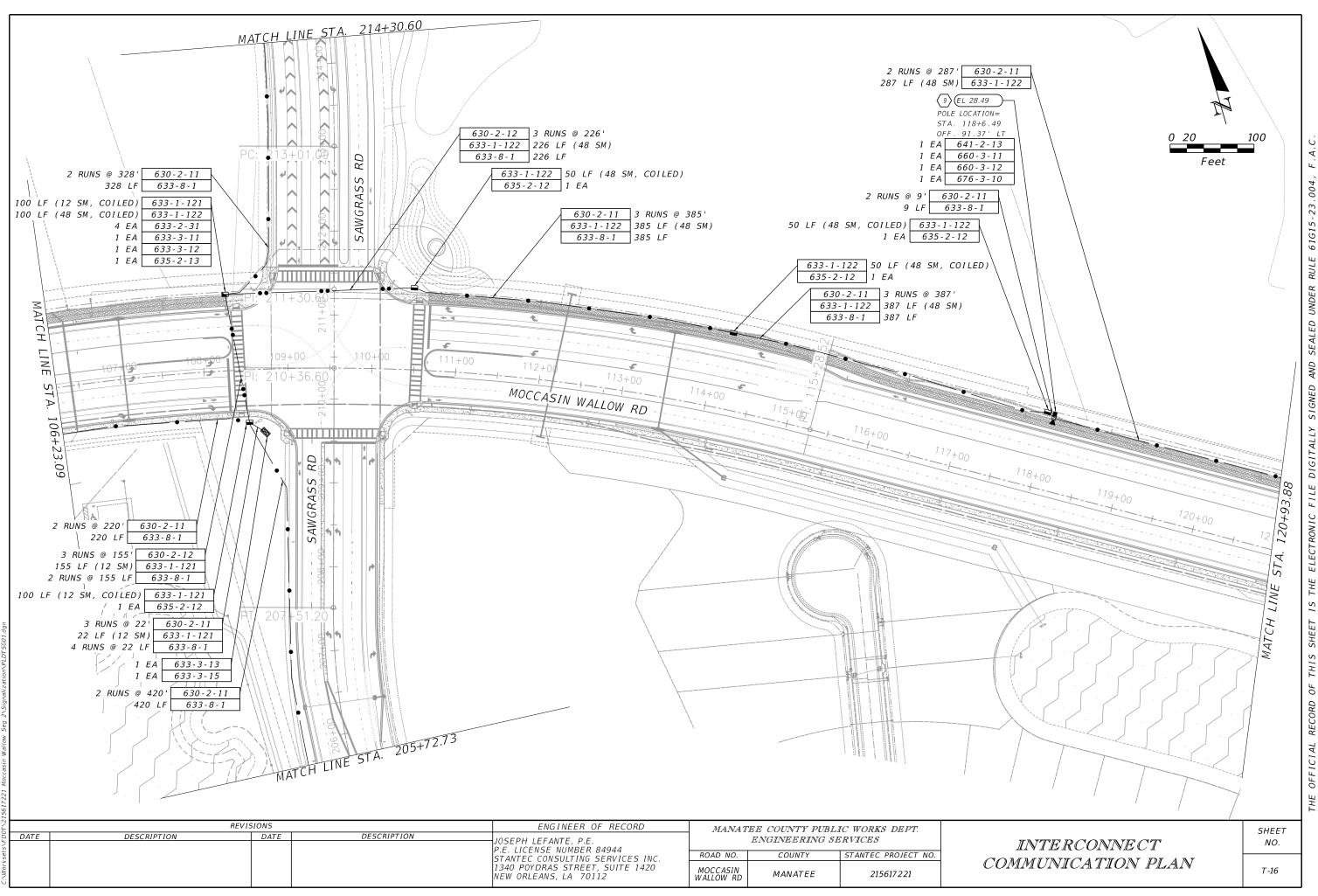
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BORING DATA SHEET -	NO.
MAST ARMS	T-14

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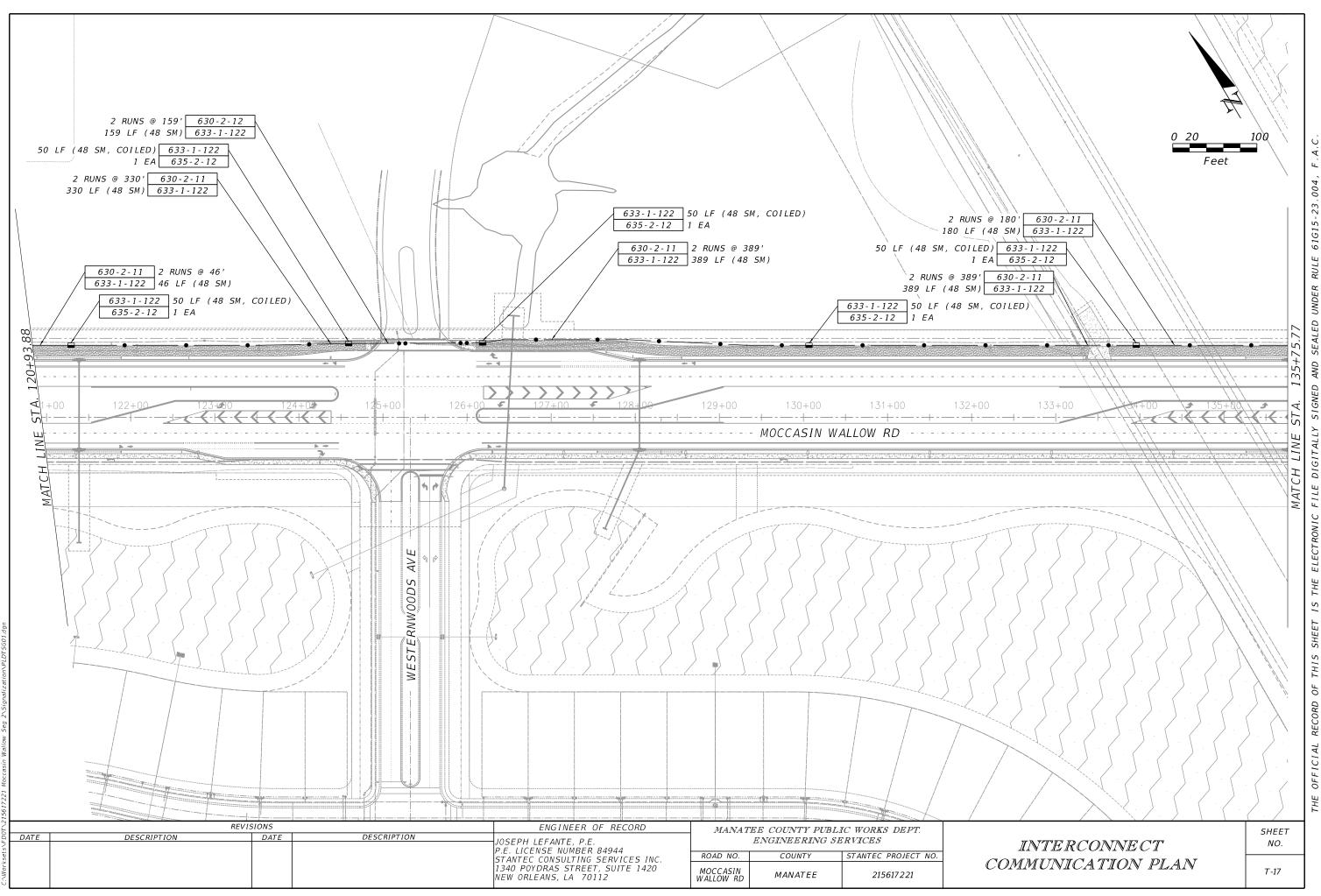


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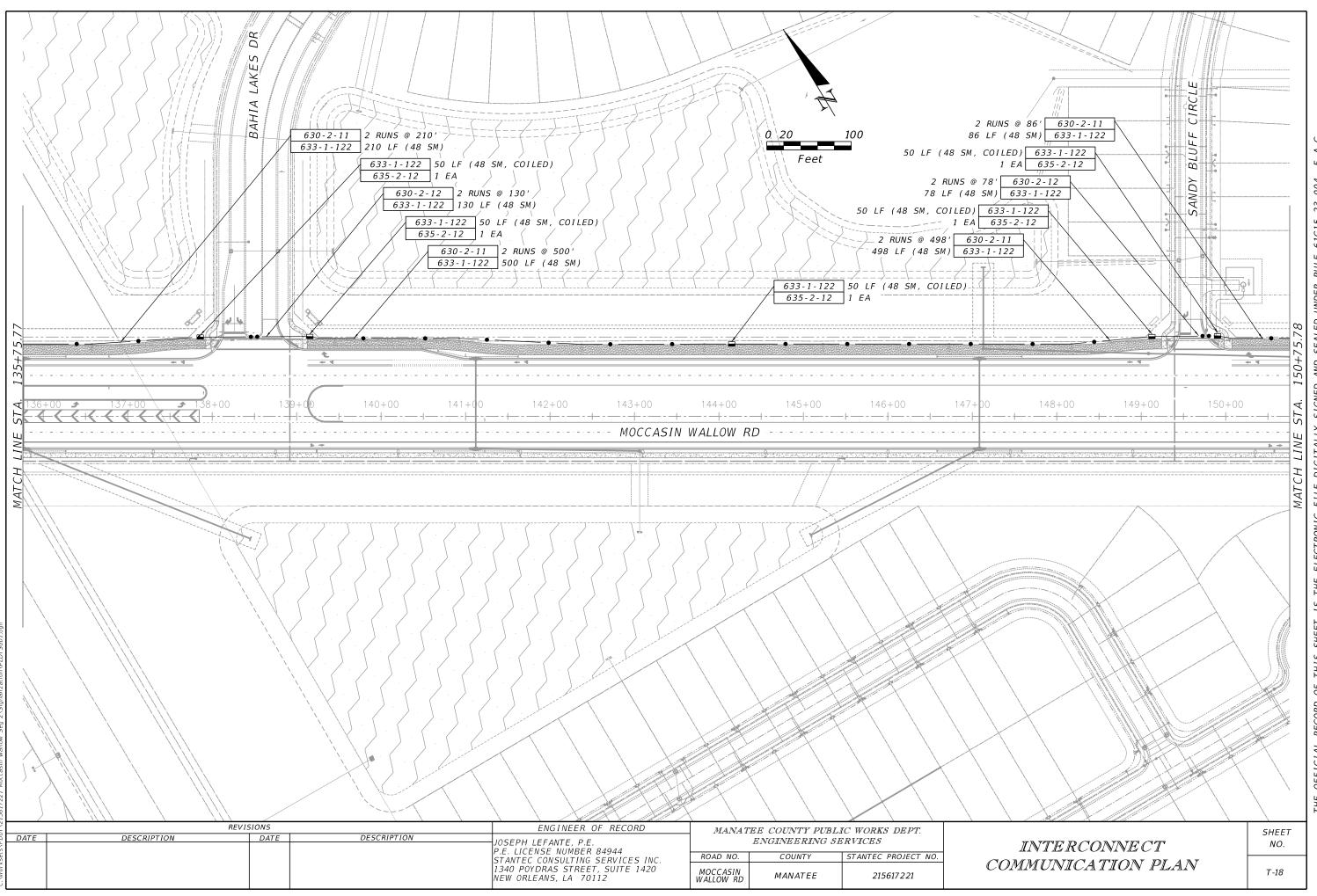
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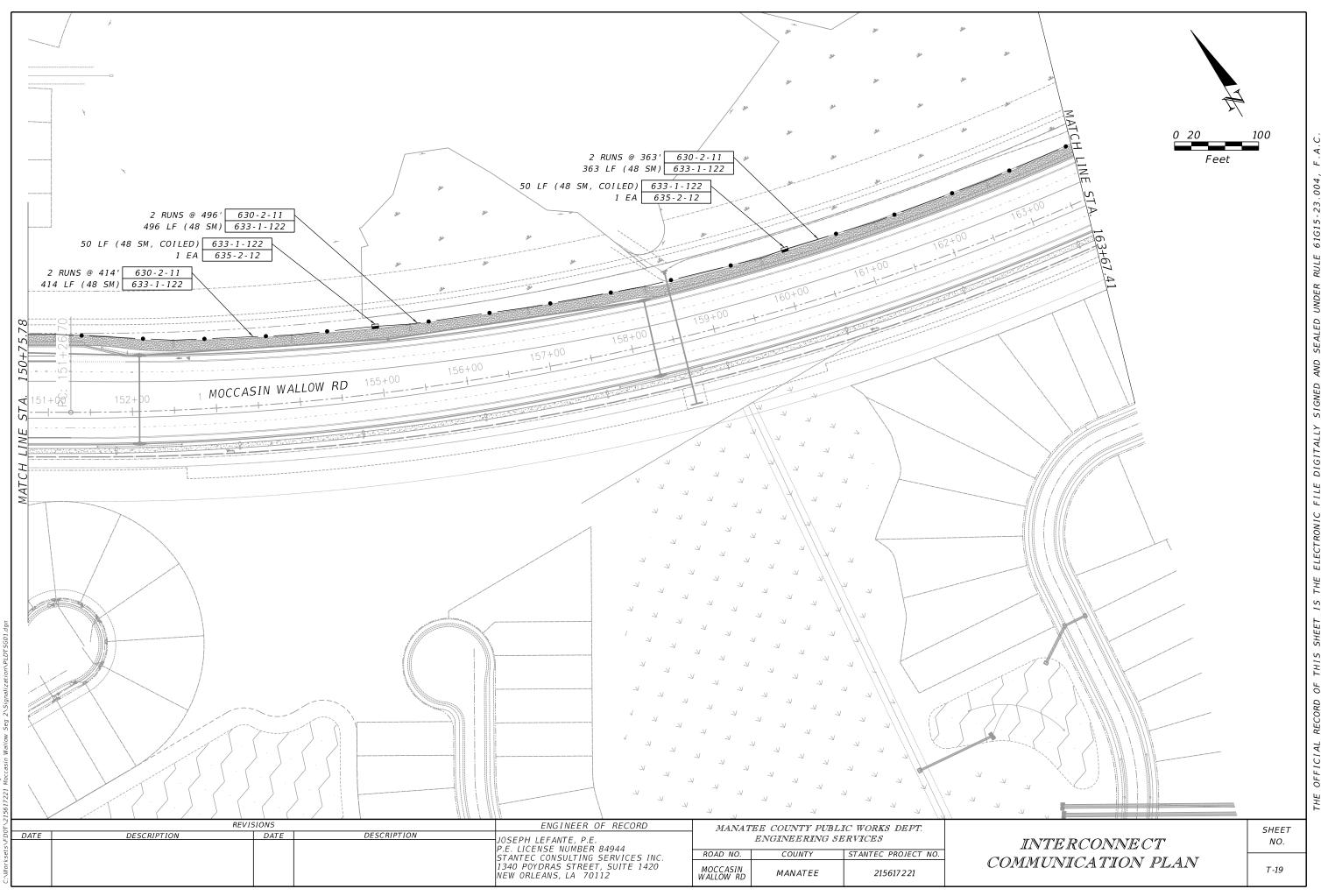
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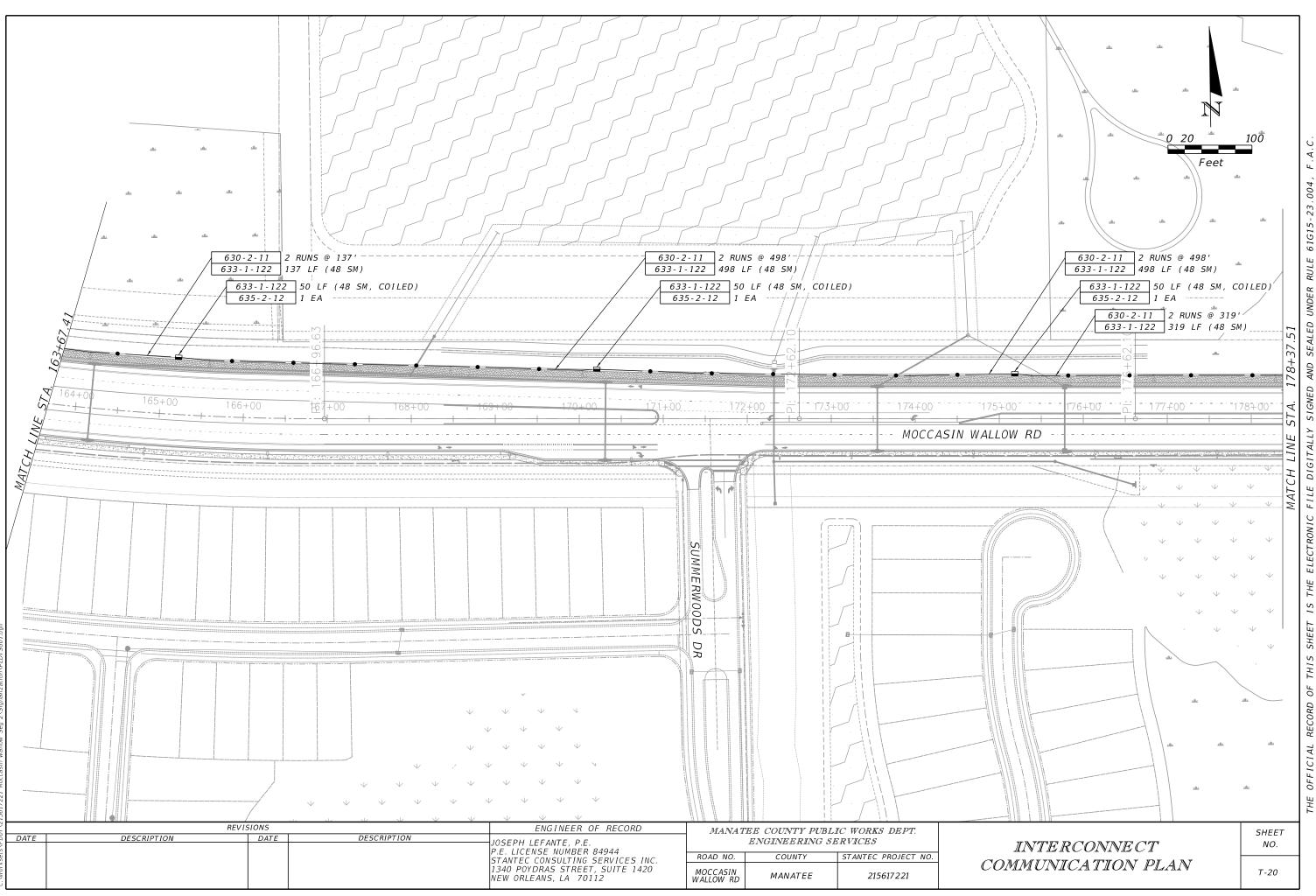
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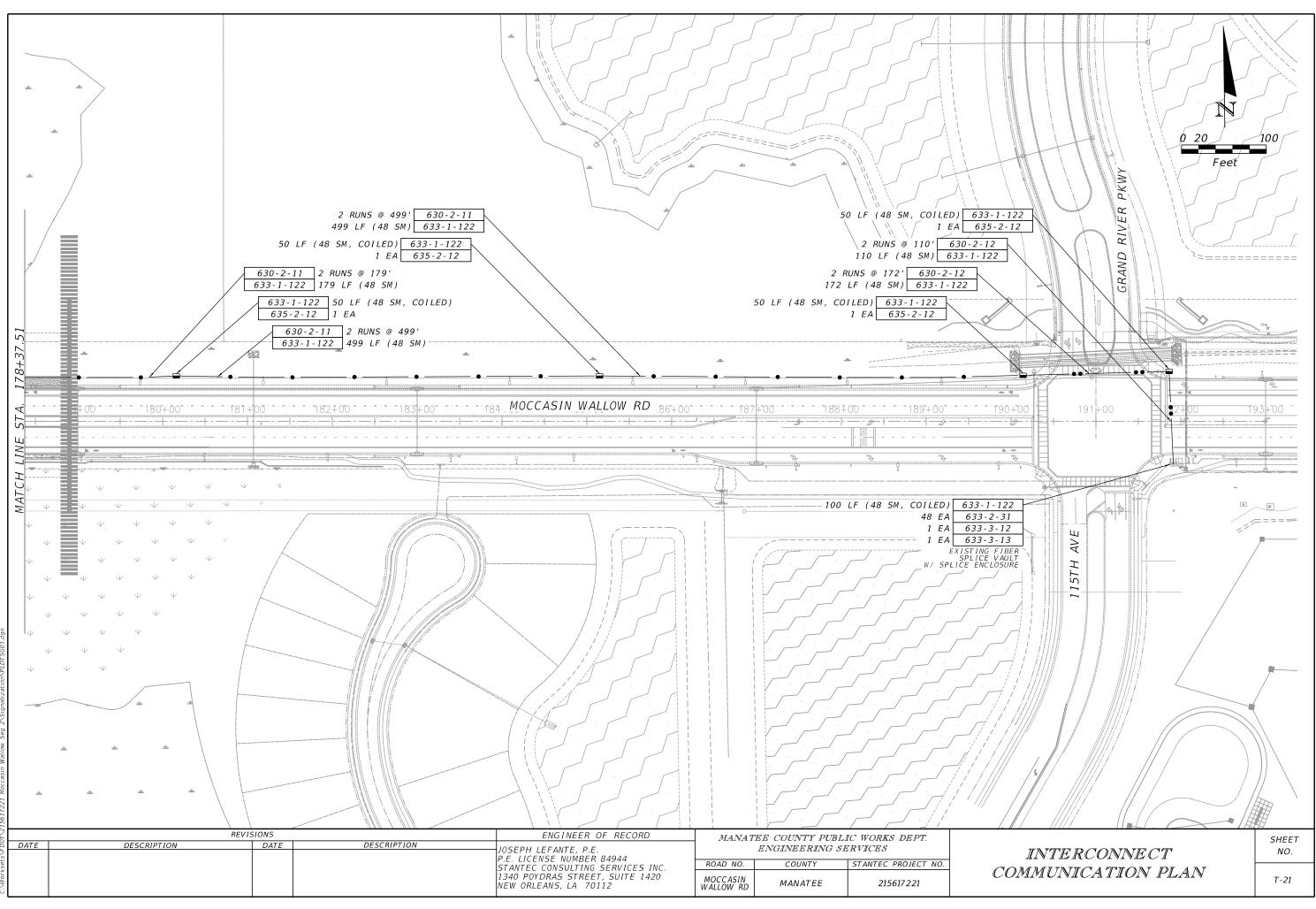
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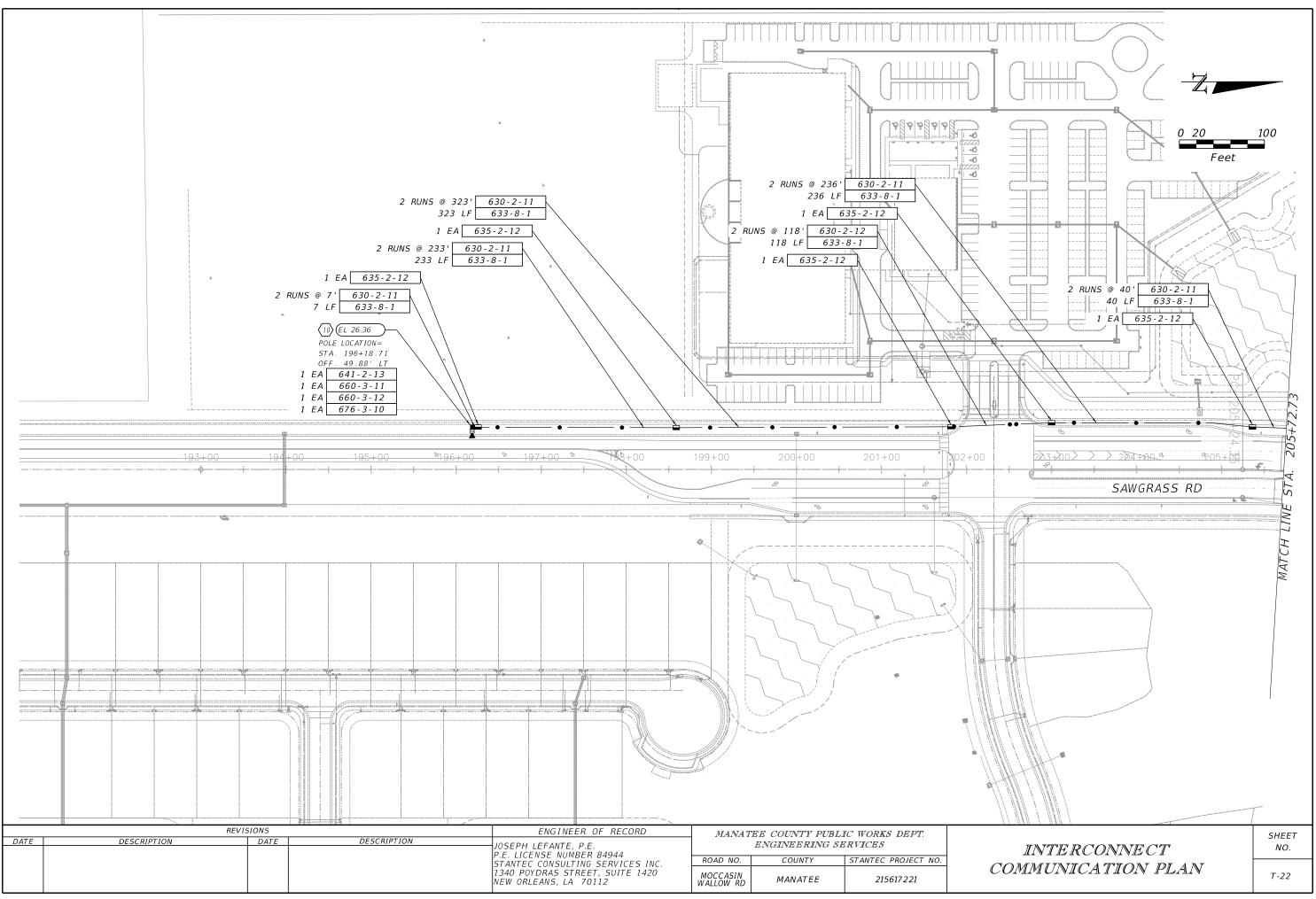


Md 38



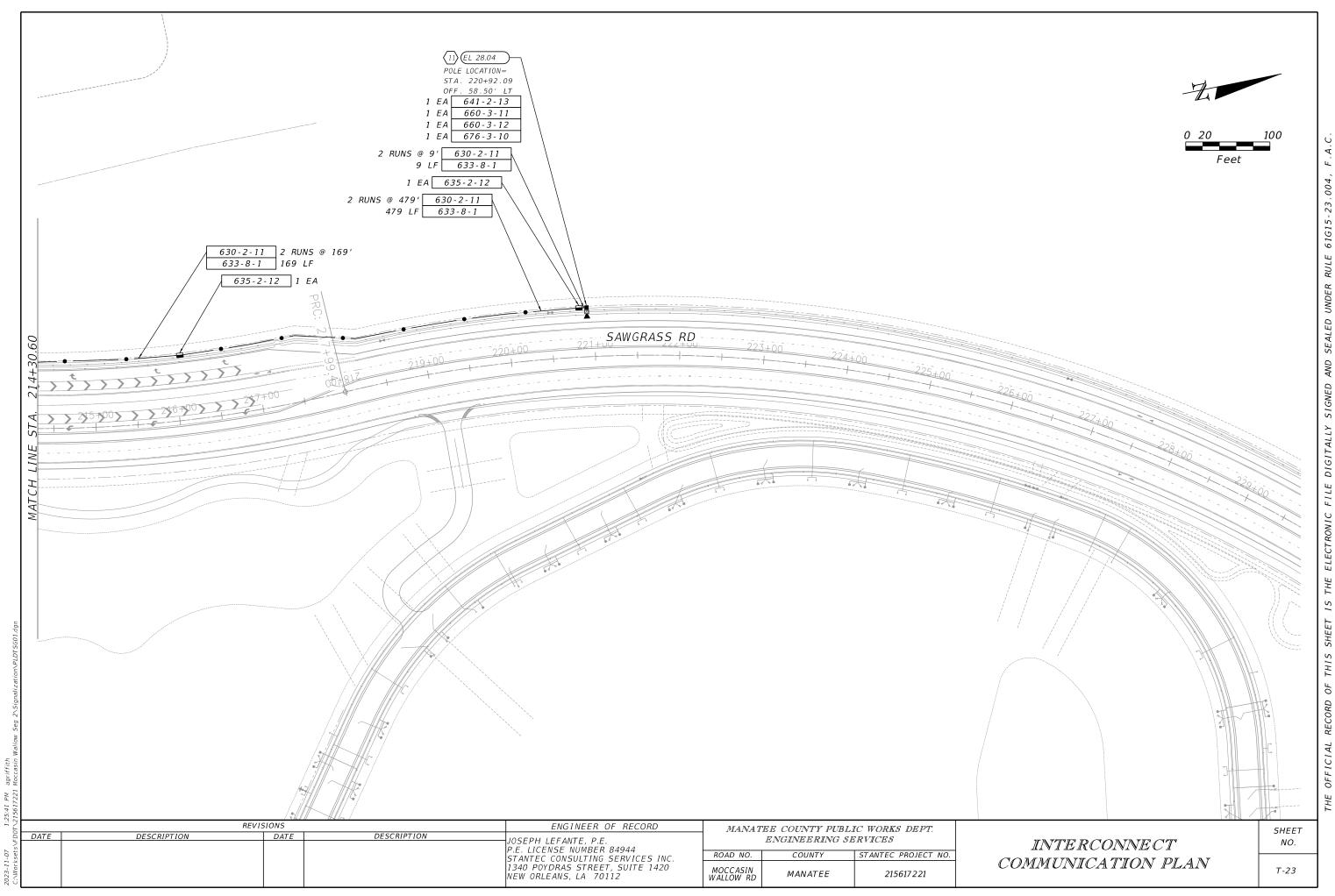
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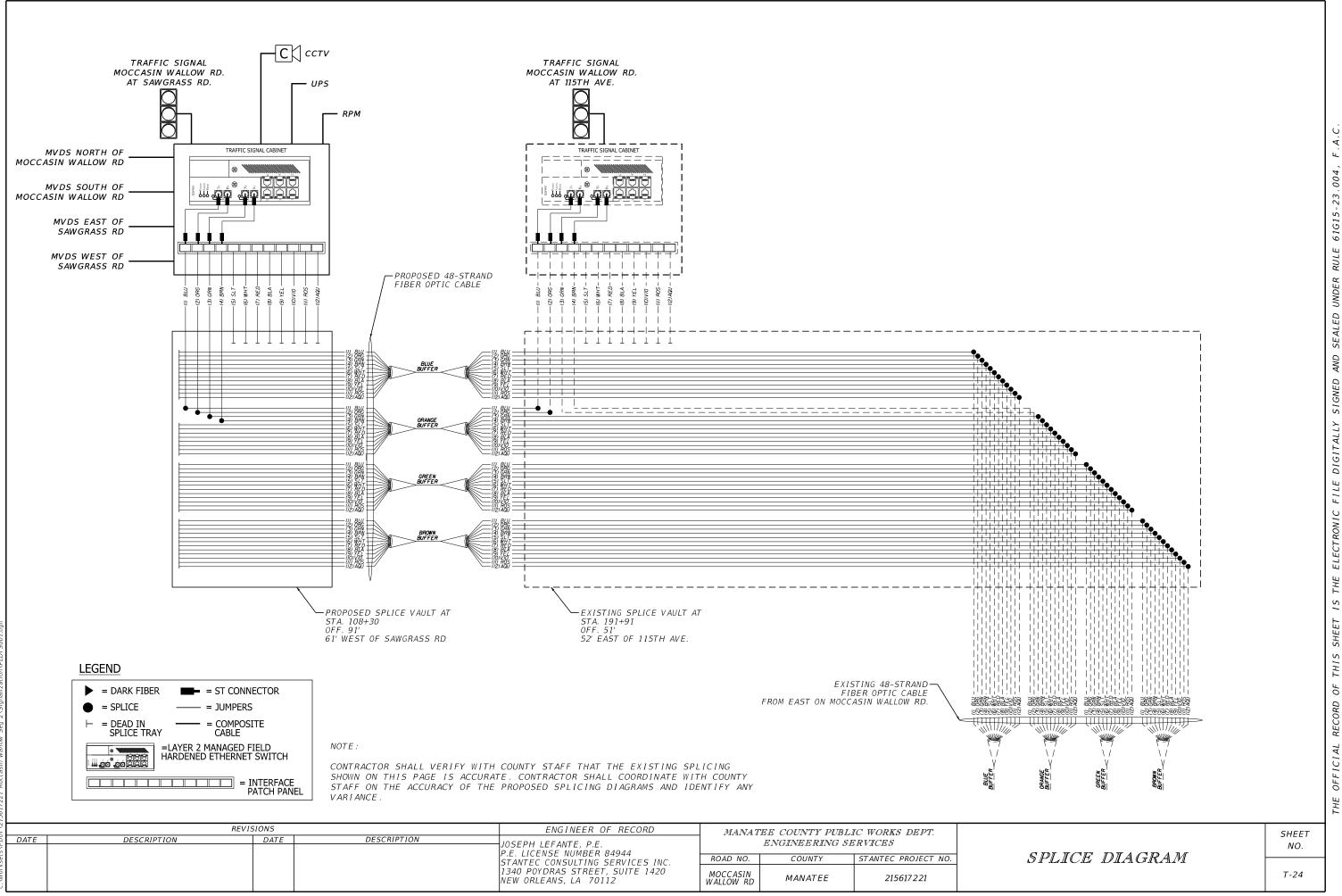


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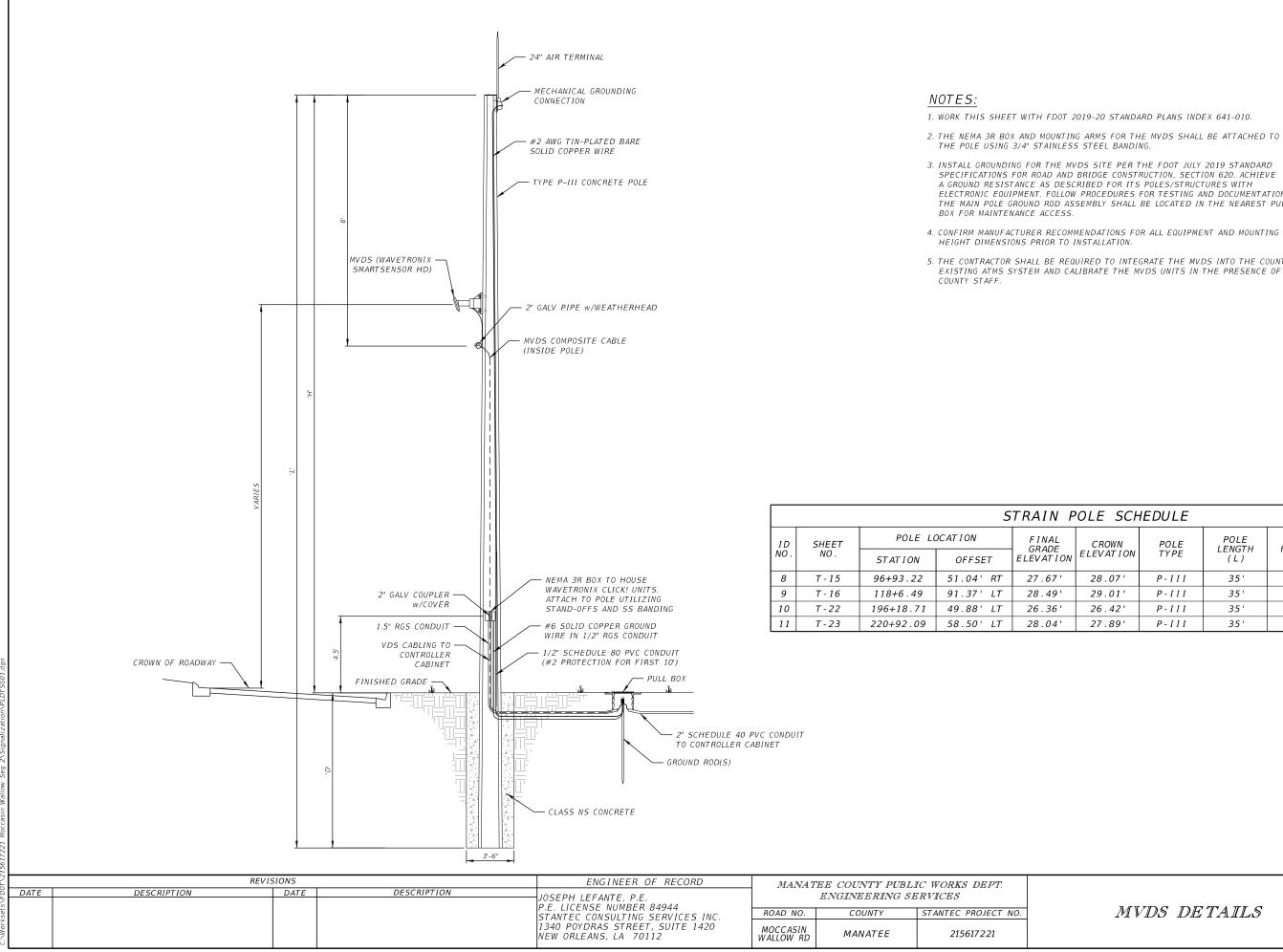
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1. WORK THIS SHEET WITH FDOT 2019-20 STANDARD PLANS INDEX 641-010.

SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 620. ACHIEVE A GROUND RESISTANCE AS DESCRIBED FOR ITS POLES/STRUCTURES WITH ELECTRONIC EQUIPMENT. FOLLOW PROCEDURES FOR TESTING AND DOCUMENTATION. THE MAIN POLE GROUND ROD ASSEMBLY SHALL BE LOCATED IN THE NEAREST PULL

4. CONFIRM MANUFACTURER RECOMMENDATIONS FOR ALL EQUIPMENT AND MOUNTING

5. THE CONTRACTOR SHALL BE REQUIRED TO INTEGRATE THE MVDS INTO THE COUNTY'S EXISTING ATMS SYSTEM AND CALIBRATE THE MVDS UNITS IN THE PRESENCE OF

OLE SCHEDULE						
CROWN ELEVATION	POLE TYPE	POLE LENGTH (L)	POLE HEIGHT (H)	CONCRETE POLE DEPTH (D)		
28.07'	P - I I I	35 '	28 '	7 '		
29.01'	P-III	35 '	28 '	7 '		
26.42'	P-III	35 '	28 '	7 '		
27.89'	P-III	35'	28 '	7 '		

MVDS DETAILS	SHEET NO.
IVI VIJS IJIG I ALILIS	T-25