

**MANATEE COUNTY PUBLIC WORKS DEPT.
ENGINEERING SERVICES**

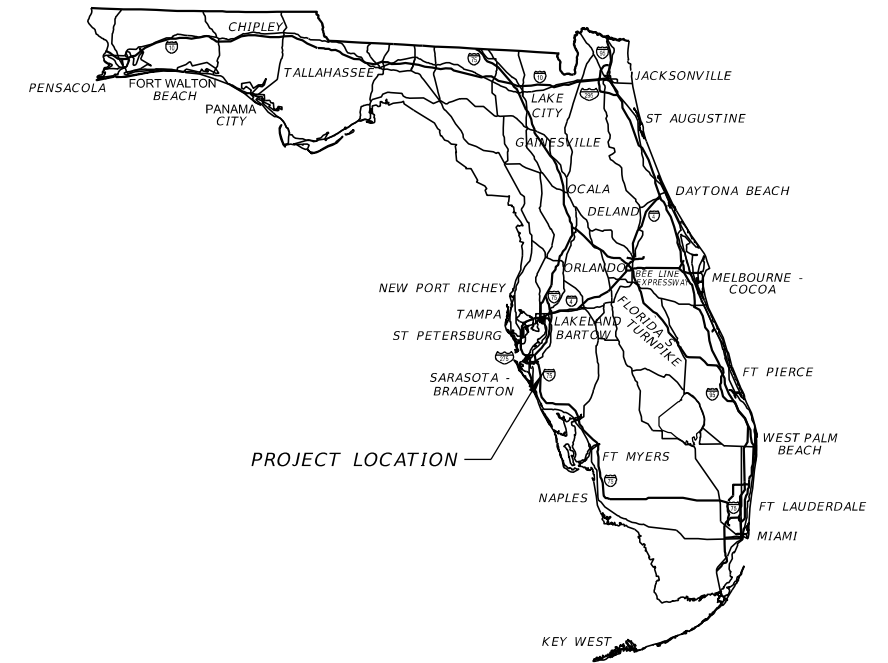
CONTRACT PLANS

PROJECT NUMBER 215615900

MOCCASIN WALLOW SEGMENT 1 (PHASE 1)

WEST OF 75TH STREET E. EAST TO WEST OF US 301

SIGNALIZATION PLANS



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SIGNALIZATION SHOP DRAWINGS
TO BE SUBMITTED TO:

LAWRENCE E. OVERN, II, P.E. No. 60816
STANTEC CONSULTING SERVICES, INC.
6920 PROFESSIONAL PARKWAY EAST
SARASOTA, FLORIDA 34240

PLANS PREPARED BY:

STANTEC CONSULTING SERVICES, INC.
6920 PROFESSIONAL PARKWAY EAST
SARASOTA, FLORIDA 34240
PH. 941-907-6900
VENDOR No. VF 112-167-170
CERTIFICATE OF AUTHORIZATION No. 27013

NOTE: THE SCALE OF THESE PLANS MAY
HAVE CHANGED DUE TO REPRODUCTION.

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>

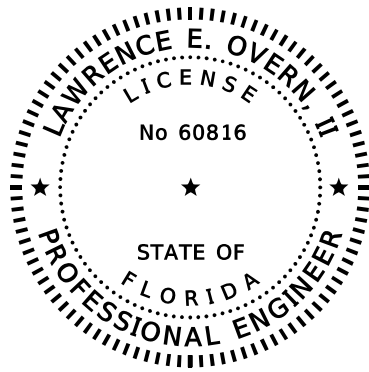
SIGNALIZATION PLANS
ENGINEER OF RECORD: LAWRENCE E. OVERN, II, P.E.

P.E. NO.: 60816

SHEET
NO.

T-1

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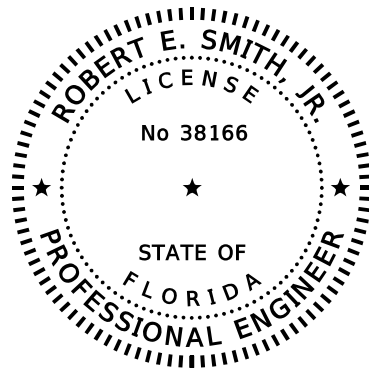
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6920 PROFESSIONAL PARKWAY EAST
SARASOTA, FLORIDA 34240
CERTIFICATE OF AUTHORIZATION: 27013
LAWRENCE E. OVERN, II, P.E. NO. 60816

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

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STANTEC CONSULTING SERVICES INC.
2056 VISTA PARKWAY, SUITE 100
WEST PALM BEACH, FLORIDA 33411
CERTIFICATE OF AUTHORIZATION: 27013
ROBERT E. SMITH, P.E. NO. 38166

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SIGNALIZATION PLANS

SHEET NO.	SHEET DESCRIPTION
T-1A	SIGNATURE SHEET
T-8	SPECIAL MAST ARM ASSEMBLIES

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REVISIONS				LAWRENCE E. OVERN, II, P.E. P.E. LICENSE NUMBER 60816 STANTEC CONSULTING SERVICES INC. 6920 PROFESSIONAL PARKWAY EAST SARASOTA, FLORIDA 34240 CERTIFICATE OF AUTHORIZATION 27013	MANATEE COUNTY PUBLIC WORKS DEPT. ENGINEERING SERVICES			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NAME	COUNTY	STANTEC PROJECT ID	
					FORT HAMER RD EXT. SEG. A	MANATEE	215615900	<i>SIGNATURE SHEET</i>
								T-1A

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																TOTAL THIS SHEET	
			T-5		T-6		T-9		T-10		T-11		T-12		T-13		T-14		PLAN	FINAL
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL		
102-104	TEMPORARY SIGNALIZATION AND MAINTENANCE, INTERSECTION	ED	200															200		
102-107-1	TEMPORARY TRAFFIC DETECTION AND MAINTENANCE, INTERSECTION	ED	200															200		
630-2-11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	140		130		570		660		820		670		795		570	4355		
630-2-12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF							110				95					205		
632-7-1	SIGNAL CABLE - NEW OR RECONSTRUCTED INTERSECTION, F&I	PI	1		1													2		
633-1-121	FIBER OPTIC CABLE, F&I, UNDERGROUND, 2-12 FIBERS	LF					100				530		865		760			2255		
633-1-122	FIBER OPTIC CABLE, F&I, UNDERGROUND, 13-48 FIBERS	LF					670		870		595							2135		
633-2-31	FIBER OPTIC CONNECTION, INSTALL, SPLICE	EA					4				52							56		
633-3-11	FIBER OPTIC CONNECTION HARDWARE, F&I, SPLICE ENCLOSURE	EA					1				1							2		
633-3-12	FIBER OPTIC CONNECTION HARDWARE, F&I, SPLICE TRAY	EA					1				1							2		
633-3-15	FIBER OPTIC CONNECTION HARDWARE, F&I, PATCH PANEL, PRETERMINATED	EA					1							1				2		
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, FURNISH & INSTALL	LF									325						685	1010		
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA												2		1		3		
635-2-12	PULL & SPLICE BOX, F&I, 24" x 36" COVER SIZE	EA							2				2		1			5		
635-2-13	PULL & SPLICE BOX, F&I, 30" x 60" RECTANGULAR	EA				1												1		
639-1-122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS													1			1		
639-2-1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF													135			135		
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA													1			1		
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA													1			1		
641-2-13	PRESTRESSED CONCRETE POLE, F&I, TYPE P-III	EA													1	1		2		
646-1-11	ALUMINUM SIGNALS POLE, F&I, PEDESTAL	EA	8		7													15		
649-21-21	STEEL MAST ARM ASSEMBLY, F&I, SINGLE ARM 78'	EA	1															1		
649-21-A	OPTIONAL ITEM - MAST ARMS POWDER COATED BROWN/BRONZE	EA	1															1		
649-26-03	STEEL MAST ARM ASSEMBLY, REMOVE, SHALLOW, BOLT ON ATTACHMENT	EA	1															1		
650-1-34	VEHICULAR TRAFFIC SIGNAL, FURNISH & INSTALL, POLYCARBONATE, 3 SECTION, 1 WAY	AS	5		7													12		
650-1-36	VEHICULAR TRAFFIC SIGNAL, FURNISH & INSTALL, POLYCARBONATE, 4 SECTION, 1 WAY	AS	4		2													6		
650-1-39	VEHICULAR TRAFFIC SIGNAL, FURNISH & INSTALL, POLYCARBONATE, 5 SECTION CLUSTER, 1 WAY	AS	2		2													4		
653-1-11	PEDESTRIAN SIGNAL, F&I, LED COUNTDOWN, 1 WAY	AS	8		6													14		
653-1-12	PEDESTRIAN SIGNAL, F&I, LED COUNTDOWN, 2 WAYS	AS			1													1		
660-3-11	VEHICLE DETECTION SYSTEM - WAVETRONIX SMARTSENSOR HD, F&I CABINET EQUIPMENT	EA													1	1		2		
660-3-12	VEHICLE DETECTION SYSTEM - WAVETRONIX SMARTSENSOR HD, F&I, ABOVE GROUND EQUIPMENT	EA													1	1		2		
660-3-42A	VEHICLE DETECTION SYSTEM - WAVETRONIX SMARTSENSOR ADVANCE, RELOCATE, ABOVE GROUND EQUIPMENT	EA	1															1		
660-3-42M	VEHICLE DETECTION SYSTEM - WAVETRONIX SMARTSENSOR MATRIX, RELOCATE, ABOVE GROUND EQUIPMENT	EA	1															1		
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	EA	8		8													16		
676-2-122	ITS CABINET, F&I, ITS CABINET, POLE MOUNT W/ SUNSHIELDS, 336S, 24"W X 46" H X 22" D	EA													1			1		
676-3-10	SMALL EQUIPMENT ENCLOSURE, FURNISH AND INSTALL, LESS THAN 10"W X 13"H X 11" D	EA														1		1		
684-1-1	MANAGED FIELD ETHERNET SWITCH, F&I	EA													1			1		
700-3-501	SIGN PANEL, RELOCATE, UP TO 12 SF	EA	2															2		
700-5-50	INTERNALLY ILLUMINATED SIGN, RELOCATE	EA	1															1		

<table border="1"> <thead> <tr> <th colspan="4">REVISIONS</th> </tr> <tr> <th>DATE</th> <th>DESCRIPTION</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>				REVISIONS				DATE	DESCRIPTION	DATE	DESCRIPTION					LAWRENCE E. OVERN, II, P.E. P.E. LICENSE NUMBER 60816 STANTEC CONSULTING SERVICES INC. 6920 PROFESSIONAL PARKWAY EAST SARASOTA, FLORIDA 34240 CERTIFICATE OF AUTHORIZATION 27013			MANATEE COUNTY PUBLIC WORKS DEPT. ENGINEERING SERVICES ROAD NAME COUNTY STANTEC PROJECT ID FORT HAMER RD MANATEE 215615900 EXT. SEG. A			TABULATION OF QUANTITIES				SHEET NO. T-2
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SIGNALIZATION GENERAL NOTES:

1. THE AGENCY RESPONSIBLE FOR MAINTENANCE OF THE TRAFFIC SIGNALS AND RELATED COMMUNICATIONS EQUIPMENT IS MANATEE COUNTY TRAFFIC ENGINEERING.

2. PROVIDE SUBMITTAL DATA THAT IS COMPATIBLE WITH THE MAINTAINING AGENCY. PROVIDE THE MAINTAINING AGENCY'S REQUIRED EQUIPMENT AND VERIFY WITH THE MAINTAINING AGENCY PRIOR TO PURCHASING SUCH EQUIPMENT. CONTACT INFORMATION IS:

MUKUNDA GOPALAKRISHNA, EMAIL: mukunda.gopalakrishna@mymanatee.org, PHONE NO. 941-749-3500 EXT. 7813

3. COMPLY WITH THE MANATEE COUNTY PUBLIC WORKS MANUAL; PART 3 - HIGHWAY & TRAFFIC STANDARDS, SECTION 3.2.

4. BECOME FAMILIAR WITH AND COMPLY WITH MANATEE COUNTY'S INSPECTION PROCEDURES.

5. THE ELEVATION OF THE TOP OF THE MAST ARM FOUNDATION SHALL BE 6 INCHES ABOVE EXISTING GRADE. IF LOCATED DIRECTLY BEHIND SIDEWALK, AT SIDEWALK GRADE.

6. INSTALL FIBER OPTIC CABLES, CONDUITS, FIBER OPTIC CONNECTION HARDWARE, AND JUNCTION BOXES AS PER DIRECTION OF THE COUNTY OF MANATEE. THE FIBER OPTIC CABLES ARE TO BE INSTALLED TO CONNECT THE PROPOSED TRAFFIC CONTROLLER ASSEMBLIES WITHIN THE PROJECT LIMITS WITH THE FIBER OPTIC COMMUNICATION LINES ALONG FT. HAMER ROAD. ALL MATERIALS, SPLICING, AND PATCH PANELS SHALL BE COMPATIBLE WITH THE EXISTING SYSTEM AND MEET MANATEE COUNTY STANDARDS.

7. ONE WEEK PRIOR TO THE BEGINNING OF THE TRAFFIC SIGNAL INSTALLATION, LOOP CUTTING OR TURN ON OF A NEW SIGNAL, THE CONTRACTOR SHALL NOTIFY:

MANATEE COUNTY PUBLIC WORKS DEPARTMENT
MANATEE COUNTY PROJECT MANAGEMENT DIVISION
1022 26TH AVENUE EAST
BRADENTON, FLORIDA 34208
PHONE: 941-708-7510

MANATEE COUNTY PUBLIC WORKS DEPARTMENT
MANATEE COUNTY TRAFFIC ENGINEERING DIVISION
2101 47TH TERRACE EAST
BRADENTON, FLORIDA 34203
PHONE: 941-749-3502

8. THE CONTRACTOR SHALL PERFORM ALL WORK AS PER LATEST FDOT SPECIFICATIONS AT TIME OF BID, INCLUDING THE 2022-23 STANDARD PLANS AND THE JANUARY 2022 FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS WITH CURRENT SUPPLEMENTAL SPECIFICATIONS THERETO. FDOT SPECIFICATIONS SHALL BE FOLLOWED. WHEN FDOT AND MANATEE COUNTY SPECIFICATIONS DIFFER, THE MORE STRINGENT SPECIFICATIONS WILL TAKE PRECEDENCE. MANATEE COUNTY TRAFFIC SPECIFICATIONS AND THE TRAFFIC SIGNAL DESIGN GUIDE SHALL BE OBTAINED BY THE CONTRACTOR FROM THE PROJECT MANAGEMENT DEPARTMENT.

9. THE CONTRACTOR SHALL PROVIDE A QUALIFIED TECHNICIAN. TO PERFORM CONSTRUCTION ENGINEERING & INSPECTION SERVICES FOR THE INSTALLATION OF THE TRAFFIC SIGNAL AND TO CERTIFY THAT ALL WORK HAS BEEN DONE IN ACCORDANCE WITH THE COUNTY'S STANDARDS, SPECIFICATIONS, PERMIT REQUIREMENTS, AND ALL APPLICABLE FEDERAL STATE AND LOCAL STATUTES, RULES, AND REGULATIONS IN ADDITION, THE ON-SITE INSPECTOR SHALL BE IMSA LEVEL II CERTIFIED.

10. RESULTS OF FIELD TESTS (I.E. SECTION 611-4) SHALL BE MADE AVAILABLE TO THE PROJECT ENGINEER IN WRITTEN FORM, A QUALIFIED CONTRACTOR'S REPRESENTATIVE SHALL BE PRESENT AT THE CONDITIONAL ACCEPTANCE INSPECTION OF THE CONTROLLER ASSEMBLY. THE QUALIFICATIONS OF THE REPRESENTATIVE SHALL INCLUDE:

A) COMPLETE FAMILIARITY WITH ALL SYSTEMS ELEMENTS INCLUDING CONTROLLERS, COORDINATING UNITS, SYSTEM CLOCKS AND SYSTEM COMMUNICATIONS ELEMENTS. THE REPRESENTATIVE SHALL BE QUALIFIED TO INPUT AND RECALL ALL CONTROLLER AND SYSTEM TIMING FUNCTIONS.

11. THE CONTRACTOR SHALL SUPPLY AND INSTALL ALL COMPONENTS NECESSARY FOR THE WAVETRONIX DETECTION SYSTEM INTEGRATION. A SITE SURVEY SHOULD BE REQUESTED AS WELL AS A COMPLETE MATERIALS LIST FROM JIMMY FOUNTAIN WITH WAVETRONIX, (jimmy.fountain@wavetronix.com). EXTRA MOUNTING HARDWARE MAY BE NECESSARY TO COMPLETE AN ACCEPTABLE INSTALLATION.

12. THE CONTRACTOR SHALL COORDINATE WITH MANATEE COUNTY FOR THE ACCEPTABLE AND COMPATIBLE WAVETRONIX DETECTION SYSTEM TO INSTALL. INSTALL THE DETECTION SYSTEM IN STRICT ACCORDANCE WITH THE GUIDANCE CONTAINED IN THE DETECTION SYSTEM'S INSTALLATION MANUALS. THE CONTRACTOR SHALL ONLY USE MANUFACTURER APPROVED CABLING, CONNECTORS, AND COMPONENTS TO COMPLETE THE INSTALLATION OF THE DETECTION SYSTEM. THE SIGNAL CONTRACTOR SHALL CONSULT WITH THE TECHNICAL REPRESENTATIVES (JIMMY FOUNTAIN WITH WAVETRONIX) PRIOR TO ORDERING THE SYSTEM COMPONENTS AND TO OBTAIN OPTIMUM DETECTOR PLACEMENT AND MOUNTING HEIGHT FOR EACH DETECTOR PRIOR TO INSTALLATION. AFTER THE SYSTEM INSTALLATION IS COMPLETE THE CONTRACTOR SHALL REQUEST A SYSTEM CRITIQUE FROM THE DETECTION EQUIPMENT SUPPLY MANUFACTURER. THE RESULTS OF THE SYSTEM CRITIQUE SHALL BE PROVIDED, IN WRITING, TO MANATEE COUNTY PRIOR TO SCHEDULING THE FINAL INSPECTION OF THE SIGNAL SYSTEM.

13. THE CONTRACTOR MUST NOTIFY THE TRAFFIC ENGINEERING DIVISION (MR. AARON BURKETT, 941-708-7509) AT LEAST TWO (2) BUSINESS DAYS IN ADVANCE TO SCHEDULE THE FINAL INSPECTION.

14. THE CONTRACTOR IS RESPONSIBLE TO CONTACT MANATEE COUNTY AT 941-708-7510 FOR THE ASSIGNMENT OF THE PHYSICAL ADDRESS ONCE THE SERVICE DROP LOCATION HAS BEEN ESTABLISHED.

15. EXTREME CARE SHALL BE TAKEN TO INSURE THAT ALL SIGNAL EQUIPMENT IS INSTALLED AS SHOWN IN PLANS WITHIN EXISTING RIGHT-OF-WAY.

16. THE CONTRACTOR SHALL PROVIDE A DETAILED PROJECT WIRING DIAGRAM. THE WIRING DIAGRAM SHALL LIST THE CABLE TYPES, PAIR COUNTS, FIBER COUNTS, MANUFACTURER CABLE PRODUCT ID, PAIR USAGE, AND WIRE GAUGE OF EACH CABLE INSTALLED. THE DIAGRAM SHALL CLEARLY AND ACCURATELY SHOW THE POINT TO POINT ROUTING OF EACH CABLE OR CONDUCTOR INSTALLED WITHIN THE SCOPE OF THE PROJECT. THREE COPIES OF THE WIRING DIAGRAM SHALL BE DELIVERED TO MANATEE COUNTY PRIOR TO SCHEDULING THE FINAL INSPECTION.

17. UPON PROJECT COMMENCEMENT THE SIGNAL SUBCONTRACTOR SHALL BE AVAILABLE TO RESPOND TO ALL SIGNAL RELATED MALFUNCTIONS AND POWER OUTAGES. THE CONTRACTOR SHALL MAINTAIN AN ADEQUATE REPAIR INVENTORY, EQUIPMENT AND NEARBY PERSONNEL TO RESPOND AND CORRECT TRAFFIC SIGNAL MALFUNCTIONS AND MOT RELATED PHASING AND TIMING ISSUES FOR THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL PROVIDE A QUALIFIED SIGNAL TECHNICIAN WHO CAN RESPOND WITHIN A MINIMUM OF TWO HOURS, 24 HOURS A DAY, 7 DAYS A WEEK.

18. UPON PASSING THE FINAL INSPECTION, THE CONTRACTOR SHALL SEND A WRITTEN REQUEST TO THE MANATEE COUNTY TRAFFIC OPERATIONS DIVISION, 2904 12TH STREET COURT EAST, BRADENTON FLORIDA 34208 (ATTN: MR. AARON BURKETT) REQUESTING TO TRANSFER MAINTENANCE FROM THE CONTRACTOR TO MANATEE COUNTY. MANATEE COUNTY WILL RESPOND WITHIN 5 WORKING DAYS TO ESTABLISH A TIME TABLE FOR THE TRANSFER OF MAINTENANCE RESPONSIBILITY.

19. 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 THE 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.

20. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS IN ADVANCE OF POLE SETTING OPERATIONS WHERE CONFLICT WITH OVERHEAD ELECTRIC CONDUCTERS IS EXPECTED AND IN ALL CASES WHERE JOINT USE POLES ARE CALLED FOR.

21. 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.

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

23. THE LOCATION OF THE UTILITIES SHOWN ON THE PLANS ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATIONS OF ALL UTILITIES.

24. EXISTING UTILITIES ARE TO REMAIN IN PLACE UNLESS OTHERWISE NOTED.

25. THE CONTRACTOR SHALL NOTIFY UTILITY OWNERS OF ANY EXCAVATION OR DEMOLITION ACTIVITY THROUGH SUNSHINE ONE CALL OR FLORIDA INC. (1-800-432-4770) AND SHALL ALSO NOTIFY THOSE UTILITY OWNERS/AGENCIES LISTED WITHIN OR IMPACTED BY THESE PLANS. NOT LESS THAN TWO (2) FULL BUSINESS DAYS IN ADVANCE OF BEGINNING CONSTRUCTION ON THE JOB SITE.

26. DETECTION MUST BE MAINTAINED FOR VEHICLES AND PEDESTRIANS FOR THE LIFE OF THE PROJECT. ANY DAMAGE TO THE EXISTING DETECTION SYSTEM AT AN INTERSECTION MUST BE RESTORED WITHIN TWENTY-FOUR (24) HOURS AT NO ADDITIONAL COST TO THE COUNTY. THE COST FOR ANY TEMPORARY DETECTION SHALL BE INCLUDED IN PAY ITEM 102-1, MOT.

27. EARTHING CONDUCTORS (FORMERLY GROUNDING ELECTRODE CONDUCTOR). TRANSIENT VOLTAGE AND SURGE PROTECTION DEVICES SHALL TAKE THE SHORTEST PATH TO ITS TERMINATION POINT WITHIN THE STRUCTURE THAT IS TO BE PROTECTED. SHARP BENDS AND ROUTING THAT CREATES UNNECESSARY CABLE LENGTH WILL NOT BE ACCEPTED.

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

29. WHEN CONSTRUCTION IS COMPLETE PROVIDE A SET OF "AS-BUILT" PLANS IN ELECTRONIC FORM (PDF) TO:

Vishal S. Kakkad, P.E.
Traffic Design Division Manager
2101 47TH TER E
Bradenton, FL, 34203
Email: vishal.kakkad@mymanatee.org
Phone: 941-749-3500

REVISIONS				LAWRENCE E. OVERN, II, P.E. P.E. LICENSE NUMBER 60816 STANTEC CONSULTING SERVICES INC. 6920 PROFESSIONAL PARKWAY EAST SARASOTA, FLORIDA 34240 CERTIFICATE OF AUTHORIZATION 27013	MANATEE COUNTY PUBLIC WORKS DEPT. ENGINEERING SERVICES			SHEET NO. T-3
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NAME	COUNTY	STANTEC PROJECT ID	
						FORT HAMER RD EXT. SEG. A	MANATEE	

GENERAL NOTES

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PAY ITEM NOTES:

630-2-11
 ALL CONDUIT RUNS SHOWN ON THE PLANS ARE SCHEMATIC AND FIELD ADJUSTMENTS MAY BE NECESSARY, WITH THE EXCEPTION OF ELECTRICAL POWER SERVICE DUCTS, JACK AND BORE SLEEVES, AND DIRECTIONAL BORE CONDUITS. ALL UNDERGROUND AND UNDER PAVEMENT CONDUITS SHALL BE SCHEDULE 40 PVC WITH A MINIMUM SIZE OF TWO INCHES UNLESS OTHERWISE SPECIFIED IN THE PLANS. COST FOR PULL WIRE IS INCLUDED UNDER THIS PAY ITEM.

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

INTERCONNECT CONDUIT INSTALLED USING TRENCH METHOD SHALL BE COMPOSED OF TWO 2-INCH HDPE CONDUITS.

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

INTERCONNECT CONDUIT INSTALLED USING DIRECTIONAL BORE SHALL BE COMPOSED OF TWO 2-INCH HDPE CONDUITS.

632-7-1
 VERIFY THE COLOR CODE OF SIGNAL CABLE WITH THE MAINTAINING AGENCY PRIOR TO WIRING INTERSECTION. USE A MINIMUM OF 7 CONDUCTOR SIGNAL CABLE.

633-8-1
 WAVETRONIX 8-CONDUCTOR COMMUNICATION CABLE.

635-2-11
 PULL BOX SHALL BE FDOT APPROVED POLYMER WITH DIMENSIONS OF 17"x30" WITH "MANATEE COUNTY TRAFFIC SIGNAL" STAMPED ON THE COVER IN RAISED LETTERS.

635-2-12
 PULL BOX SHALL BE FDOT APPROVED POLYMER WITH DIMENSIONS OF 24"x36"x38" WITH "MANATEE COUNTY FIBER OPTIC SYSTEM" STAMPED ON THE COVER IN RAISED LETTERS.

635-2-13
 PULL BOX SHALL BE FDOT APPROVED POLYMER WITH DIMENSIONS OF 30"x60" WITH "MANATEE COUNTY FIBER OPTIC SYSTEM" STAMPED ON THE COVER IN RAISED LETTERS.

639-1-122 AND 639-3-11
 THE BREAKERS SHALL BE CLEARLY MARKED. THE ELECTRICAL SERVICE DISCONNECT IS 100 AMP, COMPRISING OF A SIX (6) CIRCUIT DISCONNECT BOX WITH FOUR CIRCUIT BREAKERS - ONE 40 AMP/120 VOLT FOR CONTROLLER, ONE 30 AMP FOR INTERNALLY ILLUMINATED STREET NAME SIGNS, ONE 15 AMP/120 VOLT FOR LIGHTING LUMINAIRE AND ONE 15 AMP/120 VOLT FOR FUTURE USE.

THIS PAY ITEM INCLUDES THE PHOTOCELL FOR THE INTERNALLY ILLUMINATED SIGNS, INSTALL A PHOTOELECTRIC CELL FOR ILLUMINATED STREET NAME SIGNS ON THE TRAFFIC SIGNALS ELECTRIC SERVICE DISCONNECT.

USE ALUMINUM RIGID ABOVE GROUND CONDUIT FOR ELECTRICAL POWER SERVICE.

POWER SERVICE SHALL BE METERED.

649-21-21
 THE CONTRACTOR SHALL CONTACT THE LOCAL POWER COMPANY FOR THEIR ASSISTANCE IN PERFORMING ALL NECESSARY WORK UNDER POWER LINES AT SIGNAL POLE(S). SUCH AS THE INSTALLATION OF MAST ARM FOUNDATIONS OR POLES. A SPARE 2 INCH CONDUIT RUN SHALL BE PROVIDED FOR EACH MAST ARM POLE. THE CONDUIT SHALL BE CAPPED IN THE NEAREST PULL BOX. USE THREE 2-INCH AND ONE 3/4" CONDUITS STUBBED OUT THROUGH THE MAST ARM POLE FOUNDATION AND TEMPORARY POLE. 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.

660-3-11 AND 660-3-12
 PROVIDE WAVETRONIX SMARTSENSOR HD MICROWAVE VEHICLE DETECTION SYSTEM (MVDS) AS SHOWN ON SHEET T-9. RUN THE MULTI-CONDUCTOR COMMUNICATION CABLE FROM THE MVDS TO THE CONTROLLER CABINET AT THE INTERSECTION. ITEMS INCLUDE ALL INCIDENTAL MATERIALS NECESSARY FOR A COMPLETE AND ACCEPTABLE INSTALLATION AS DETERMINED BY THE COUNTY AND AS DETAILED ON SHEETS T-9 AND T-10. COORDINATE FINAL PRODUCT SELECTION WITH WAVETRONIX AND MANATEE COUNTY.

665-1-11
 INCLUDES COST OF FTP-68B-06 SIGN AT ALL PEDESTRIAN DETECTORS.

676-3-10
 CABINET SHALL BE A NEMA 3R ENCLOSURE.

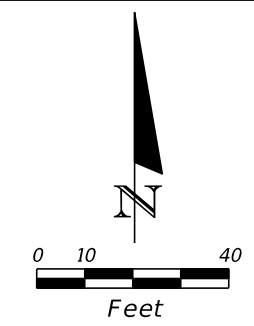
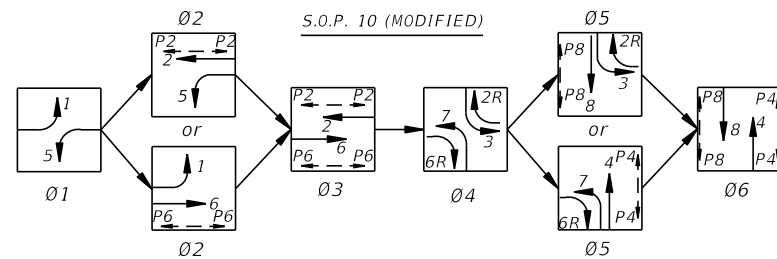
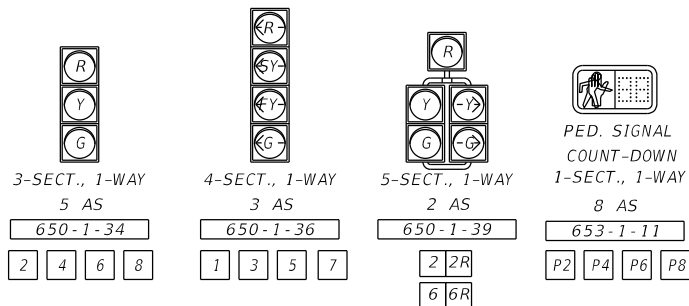
684-1-1
 RUGGEDCOM SWITCH MODEL NUMBER RSG920P (6GK6092-0PS23-0BA0-Z A05+B05+C02+D02). SWITCH REQUIRES EXTERNAL POWER SUPPLY RUGGEDCOM RPS 1300

REVISIONS				LAWRENCE E. OVERN, II, P.E. P.E. LICENSE NUMBER 60816 STANTEC CONSULTING SERVICES INC. 6920 PROFESSIONAL PARKWAY EAST SARASOTA, FLORIDA 34240 CERTIFICATE OF AUTHORIZATION 27013	MANATEE COUNTY PUBLIC WORKS DEPT. ENGINEERING SERVICES			SHEET NO. T-4
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NAME	COUNTY	STANTEC PROJECT ID	
						FORT HAMER RD EXT. SEG. A	MANATEE	

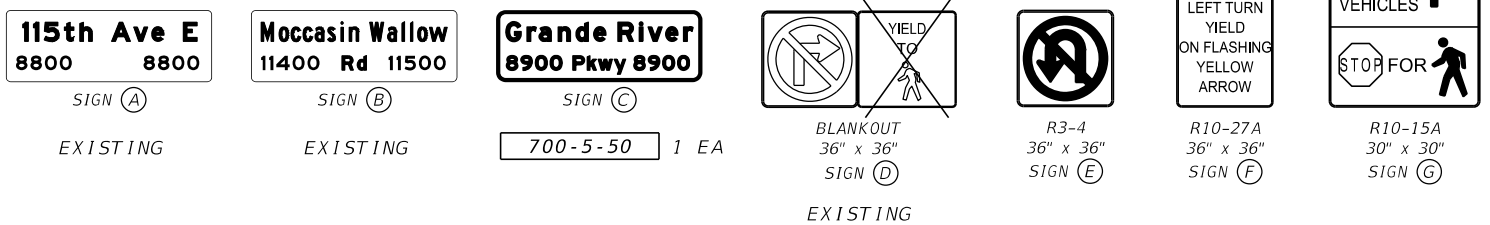
GENERAL NOTES

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

SIGNAL HEAD DETAILS

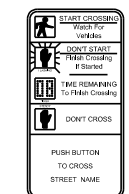


SIGN DETAILS

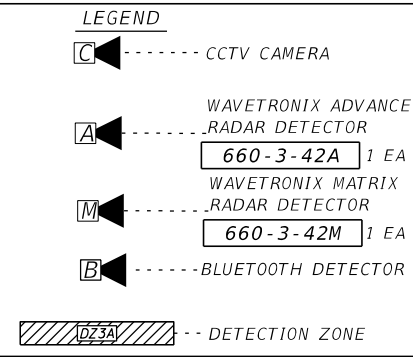


CONTROLLER TIMINGS

TIMING FUNCTION	1	2	3	4	5	6	7	8
MINIMUM GREEN	8	20	8	12	8	20	8	12
EXTENSION	3	5	3	3	3	5	3	3
MAXIMUM GREEN 1	20	70	20	30	20	70	20	30
MAXIMUM GREEN 2								
YELLOW CLEARANCE	4.8	4.8	3.4	3.4	4.8	4.8	3.4	3.4
ALL RED	2.4	2.4	3.6	3.6	2.4	2.4	3.6	3.6
PEDESTRIAN WALK	7		7		7		7	
PED. CLEARANCE	33		22		27		24	
RECALL	MIN				MIN			



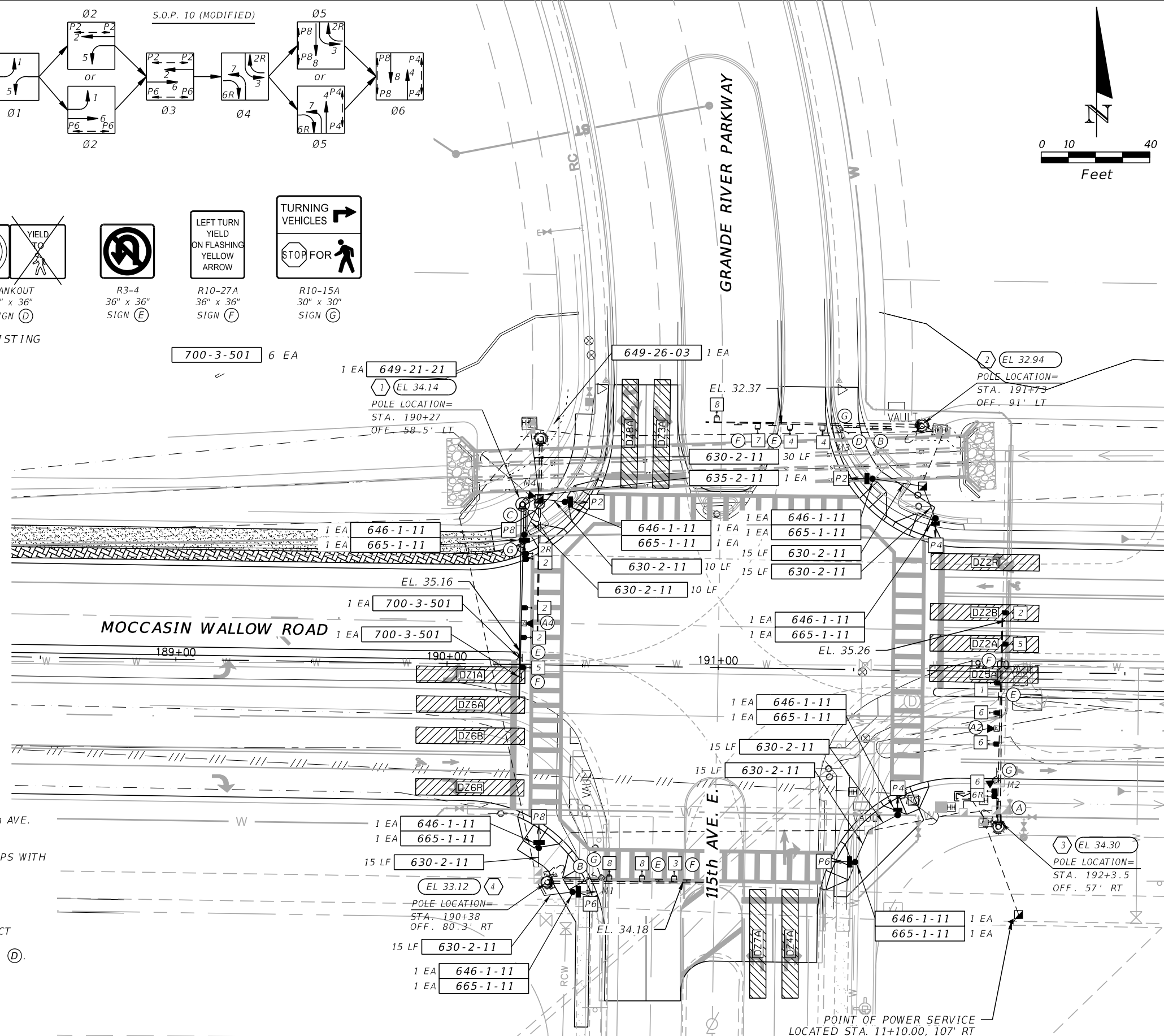
FTP-68B-06



WAVETRONIX MATRIX VEHICLE DETECTION ASSIGNMENTS

DETECTOR	DETECTION ZONE	CONNECT TO TIMING FUNCTION	DELAY TIME (SECS.)
M1	1A	TF 1	
	6A, 6B	TF 6	
	6R	TF 7	
M2	7A	TF 7	
	4A	TF 4	
M3	5A	TF 5	
	2A, 2B	TF 2	
M4	2R	TF 3	
	3A	TF 3	
	8A	TF 8	

- NOTES:**
- MAJOR STREET IS MOCCASIN WALLOW, MOVEMENTS 1, 2, 5, 6. MINOR STREET IS 115th AVE. E., MOVEMENTS 3, 4, 7, 8.
 - FURNISH AND INSTALL FTP-68B-06 SIGNS AT PED. DETECTOR LOCATIONS.
 - STANDARD SOP 10, MODIFIED FOR EASTBOUND AND WESTBOUND RIGHT TURN OVERLAPS WITH THE FOLLOWING:
 - A. CONCURRENT/ACTUATED PEDESTRIANS FOR MOVEMENTS P2, P4, P6, AND P8.
 - B. WHEN SIGNAL IS IN FLASHING MODE, MOVEMENTS 2 AND 6 SHALL FLASH YELLOW. ALL OTHER MOVEMENTS SHALL FLASH RED.
 - SEE SHEETS T-9 - T-14 FOR FIBER OPTIC INTERCONNECT DETAILS.
 - TIMINGS ARE INITIAL AND MAY REQUIRE FIELD ADJUSTMENT AS DIRECTED BY PROJECT ENGINEER.
 - CONTRACTOR SHALL DISCONNECT "YIELD TO PEDESTRIAN" PORTION OF EXISTING SIGN (D).



REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

LAWRENCE E. OVERN, II, P.E.
 P.E. LICENSE NUMBER 60816
 STANTEC CONSULTING SERVICES INC.
 6920 PROFESSIONAL PARKWAY EAST
 SARASOTA, FLORIDA 34240
 CERTIFICATE OF AUTHORIZATION 27013

MANATEE COUNTY PUBLIC WORKS DEPT. ENGINEERING SERVICES

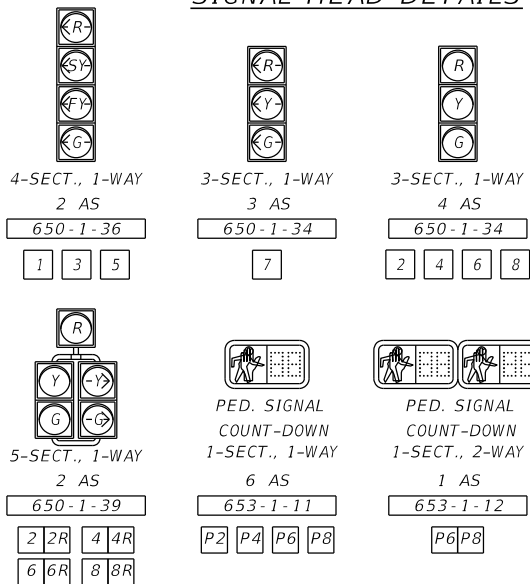
ROAD NAME	COUNTY	STANTEC PROJECT ID
FORT HAMER RD EXT. SEG. A	MANATEE	215615900

SIGNALIZATION PLAN

SHEET NO. T-5

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

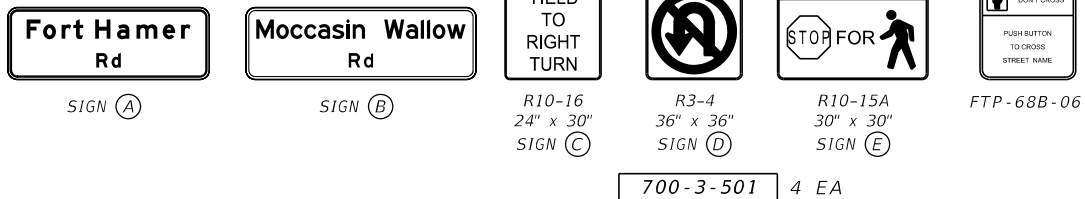
SIGNAL HEAD DETAILS



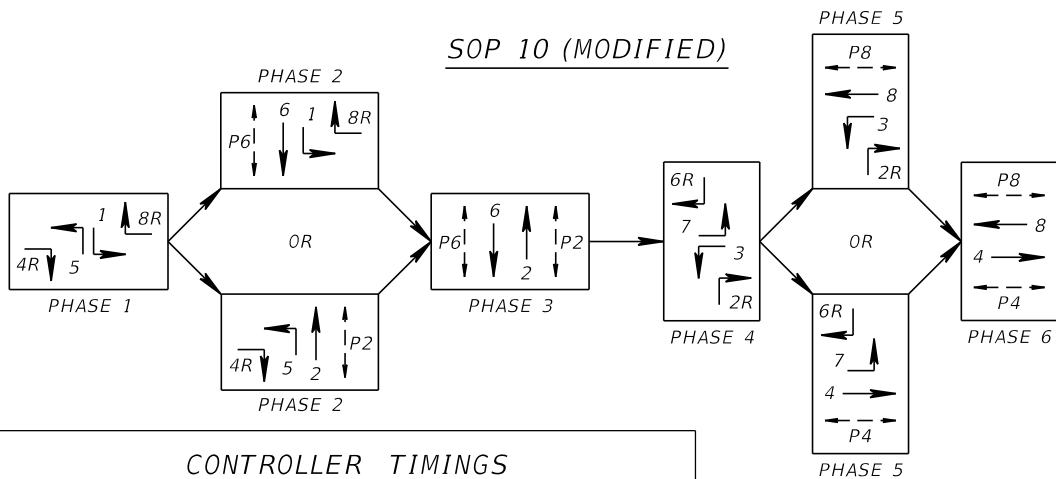
NOTES:

1. MAJOR STREET IS FORT HAMER ROAD, MOVEMENTS 1, 2, 5, AND 6. MINOR STREET IS MOCCASIN WALLOW ROAD, MOVEMENTS 3, 4, 7, AND 8.
2. FURNISH AND INSTALL FTP-68B-06 SIGNS AT PED. DETECTOR LOCATIONS.
3. STANDARD SOP 10, MODIFIED FOR RIGHT TURN OVERLAPS WITH THE FOLLOWING:
 - A. CONCURRENT/ACTUATED PEDESTRIANS FOR MOVEMENTS P2, P4, P6, AND P8.
 - B. WHEN SIGNAL IS IN FLASHING MODE, ALL MOVEMENTS SHALL FLASH RED.
4. SEE SHEETS T-9 - T-14 FOR FIBER OPTIC INTERCONNECT DETAILS.

SIGN DETAILS



SOP 10 (MODIFIED)

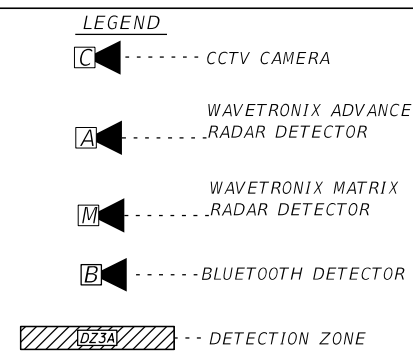
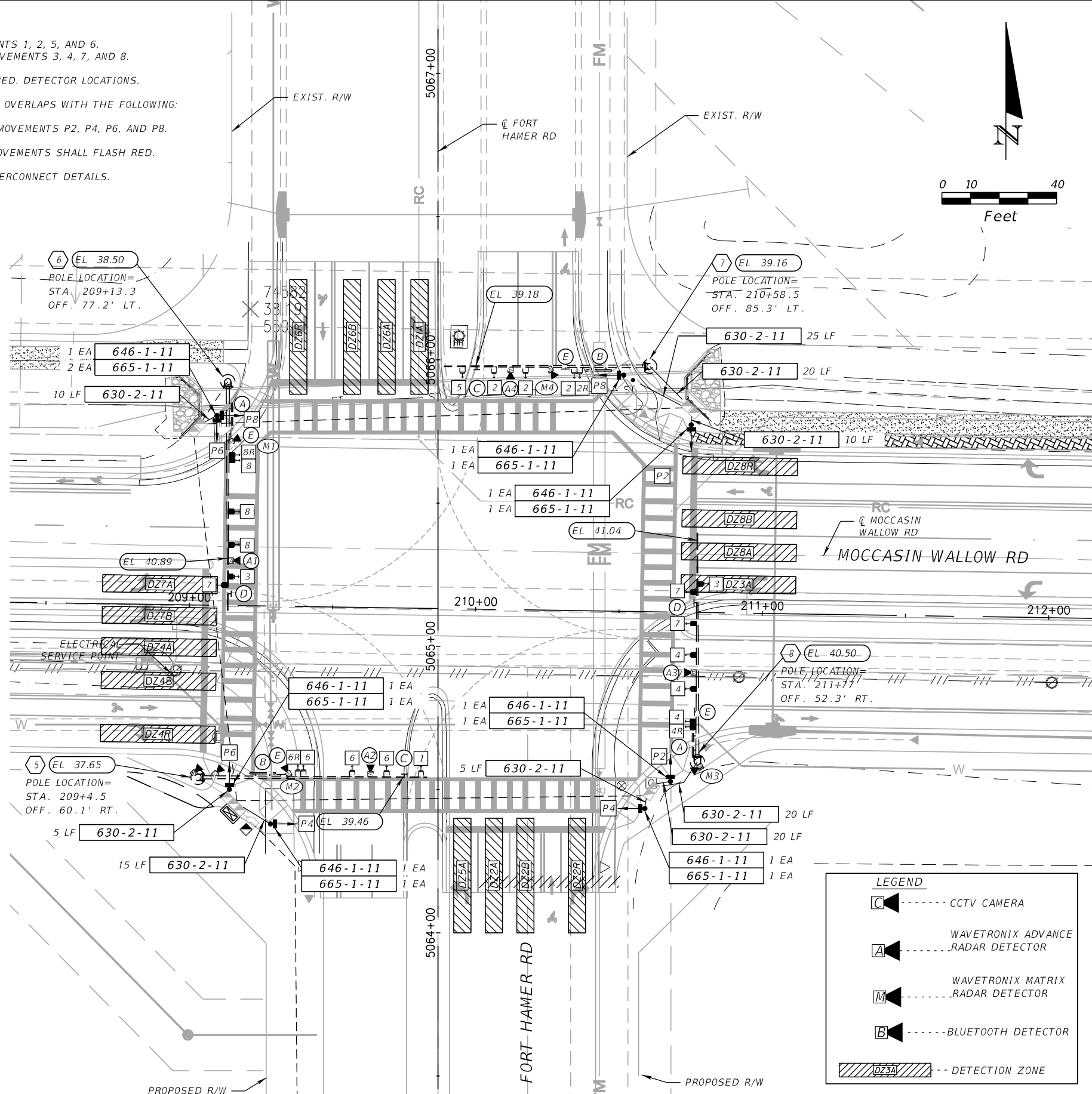


CONTROLLER TIMINGS

TIMING FUNCTION								
MOVEMENT NUMBER	1	2	3	4	5	6	7	8
MINIMUM GREEN	10	20	7	10	10	20	7	10
EXTENSION	3	3	3	3	3	3	3	3
MAXIMUM GREEN 1	20	39	14	23	26	33	26	11
MAXIMUM GREEN 2								
YELLOW CLEARANCE	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
ALL RED	2.0	2.0	2.4	2.4	2.0	2.0	2.4	2.4
PEDESTRIAN WALK		7		7		7		7
PED. CLEARANCE		20		37		20		37
RECALL		MAX				MAX		

TIMINGS ARE INITIAL AND MAY REQUIRE FIELD ADJUSTMENT AS DETERMINED BY THE PROJECT ENGINEER.

WAVETRONIX MATRIX VEHICLE DETECTION ASSIGNMENTS			
DETECTOR	DETECTION ZONE	CONNECT TO TIMING FUNCTION	DELAY TIME (SECS.)
M1	1A	TF 1	
	6A, 6B	TF 6	
	6R	TF 7	
M2	7A, 7B	TF 7	
	4A, 4B	TF 4	
M3	4R	TF 5	
	5A	TF 5	
M4	2A, 2B	TF 2	
	2R	TF 3	
	3A	TF 3	
	8A, 8B	TF 8	
	8R	TF 1	



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

LAWRENCE E. OVERN, II, P.E.
 P.E. LICENSE NUMBER 60816
 STANTEC CONSULTING SERVICES INC.
 6920 PROFESSIONAL PARKWAY EAST
 SARASOTA, FLORIDA 34240
 CERTIFICATE OF AUTHORIZATION 27013

MANATEE COUNTY PUBLIC WORKS DEPT. ENGINEERING SERVICES		
ROAD NAME	COUNTY	STANTEC PROJECT ID
FORT HAMER RD EXT. SEG. A	MANATEE	215615900

SIGNALIZATION PLAN

SHEET NO. T-6

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

SPECIAL MAST ARM ASSEMBLIES DATA TABLE																							Table Date 01-01-12	
NUMBER OF LOCATIONS	STRUCTURE NUMBER	FIRST ARM				FIRST ARM EXTENSION				SECOND ARM				SECOND ARM EXTENSION				POLE						
		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)	UF(deg)	UG(ft)
1	1	38.0	8.68	14	0.375	35	13.10	18	0.5	-	-	-	-	-	-	-	39	22	18.6	24	0.375	-	37.5	

SPECIAL MAST ARM ASSEMBLIES DATA TABLE (CONT.)																						Table Date 01-01-12
STRUCTURE NUMBER	FIRST ARM CONNECTION (in) First Arm Camber Angle = 2 Degrees												SECOND ARM CONNECTION (in) Second Arm Camber Angle = 2 Degrees									
	#Bolts	HT	FJ	FK	FL	FN	FO	FP	FR	FS	FT	#Bolts	HT	SJ	SK	SL	SN	SO	SP	SR	SS	ST
1	6	30	36	3	0.75	0.5	18.0	1.25	2.5	12.5	0.5	-	-	-	-	-	-	-	-	-	-	-

SPECIAL MAST ARM ASSEMBLIES DATA TABLE (CONT.)																							Table Date 07-01-15	
STRUCTURE NUMBER	POLE BASE CONNECTION (in)					SHAFT AND REINF.								LUMINAIRE AND LUMINAIRE CONNECTION										
	#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)
1	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	45

NOTES [Notes Date 07-01-13]:

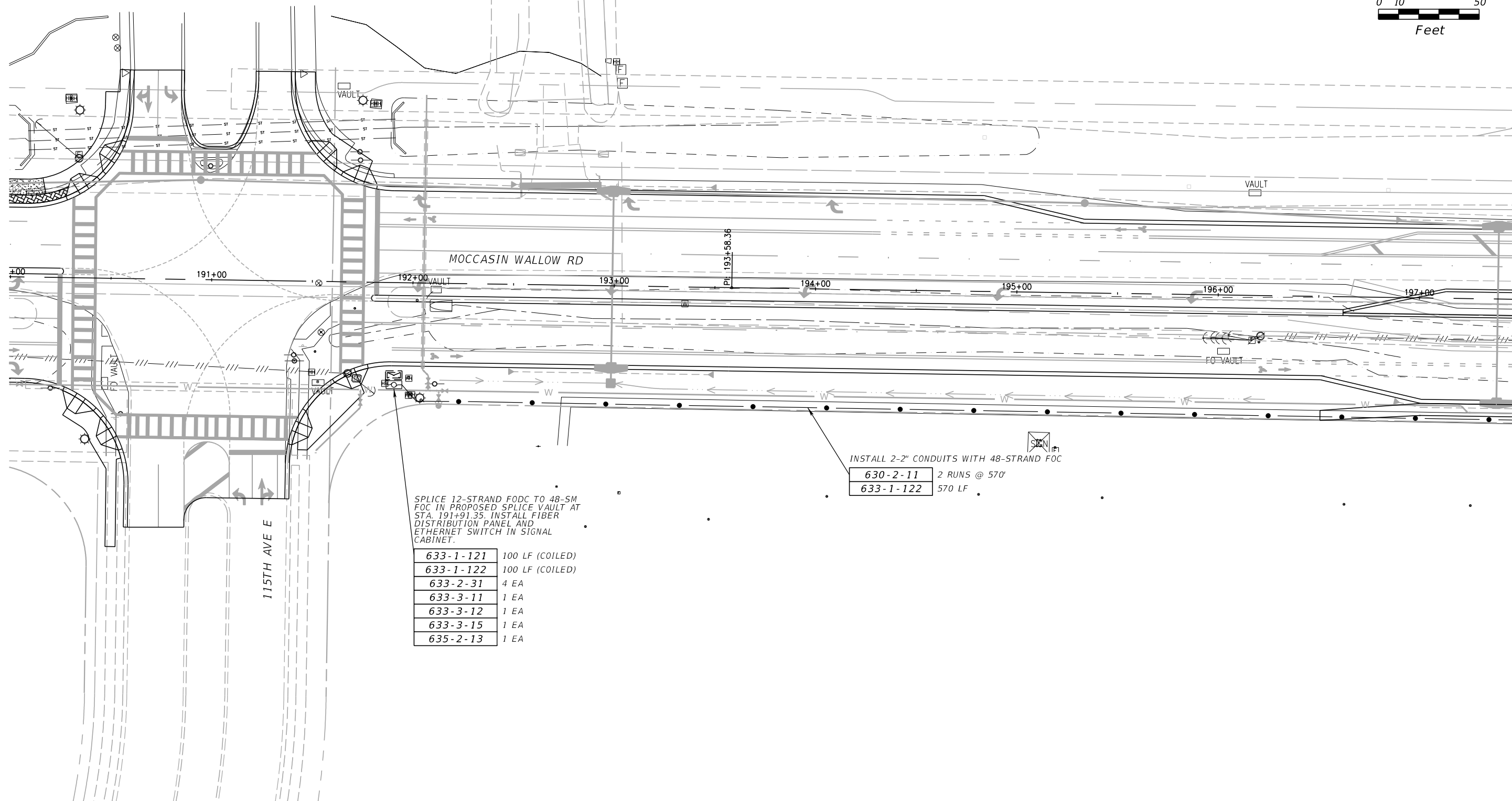
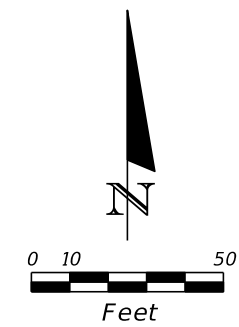
- Structures 2 thru 8 are existing structures constructed under another project, thus not included in this data table
- Work with Index 649-031.
- Design Wind Speed = 150mph

FOUNDATION NOTES:

- Design based on Borings taken 8/14/2019 sealed by Driggers Engineering Services, Inc.
- Assumptions and Values used in design:
 Soil Type = Sand
 Soil Layer Thickness = Varies
 Soil Friction Angle = Varies
 Soil Weight = Varies
 Design Water Table is at ground surface

REVISIONS				ROBERT E. SMITH, JR., P.E. P.E. LICENSE NUMBER 38166 STANTEC CONSULTING SERVICES INC. 2056 VISTA PARKWAY, SUITE 100 WEST PALM BEACH, FLORIDA 33411	MANATEE COUNTY PUBLIC WORKS ENGINEERING DIVISION			SHEET NO. T-8
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	STANTEC PROJECT ID	
					FORT HAMER RD EXT. SEG. A	MANATEE	215615900	

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



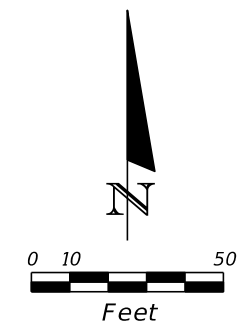
SPLICE 12-STRAND FODC TO 48-SM FOC IN PROPOSED SPLICE VAULT AT STA. 191+91.35. INSTALL FIBER DISTRIBUTION PANEL AND ETHERNET SWITCH IN SIGNAL CABINET.

633-1-121	100 LF (COILED)
633-1-122	100 LF (COILED)
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA
633-3-15	1 EA
635-2-13	1 EA

630-2-11	2 RUNS @ 570'
633-1-122	570 LF

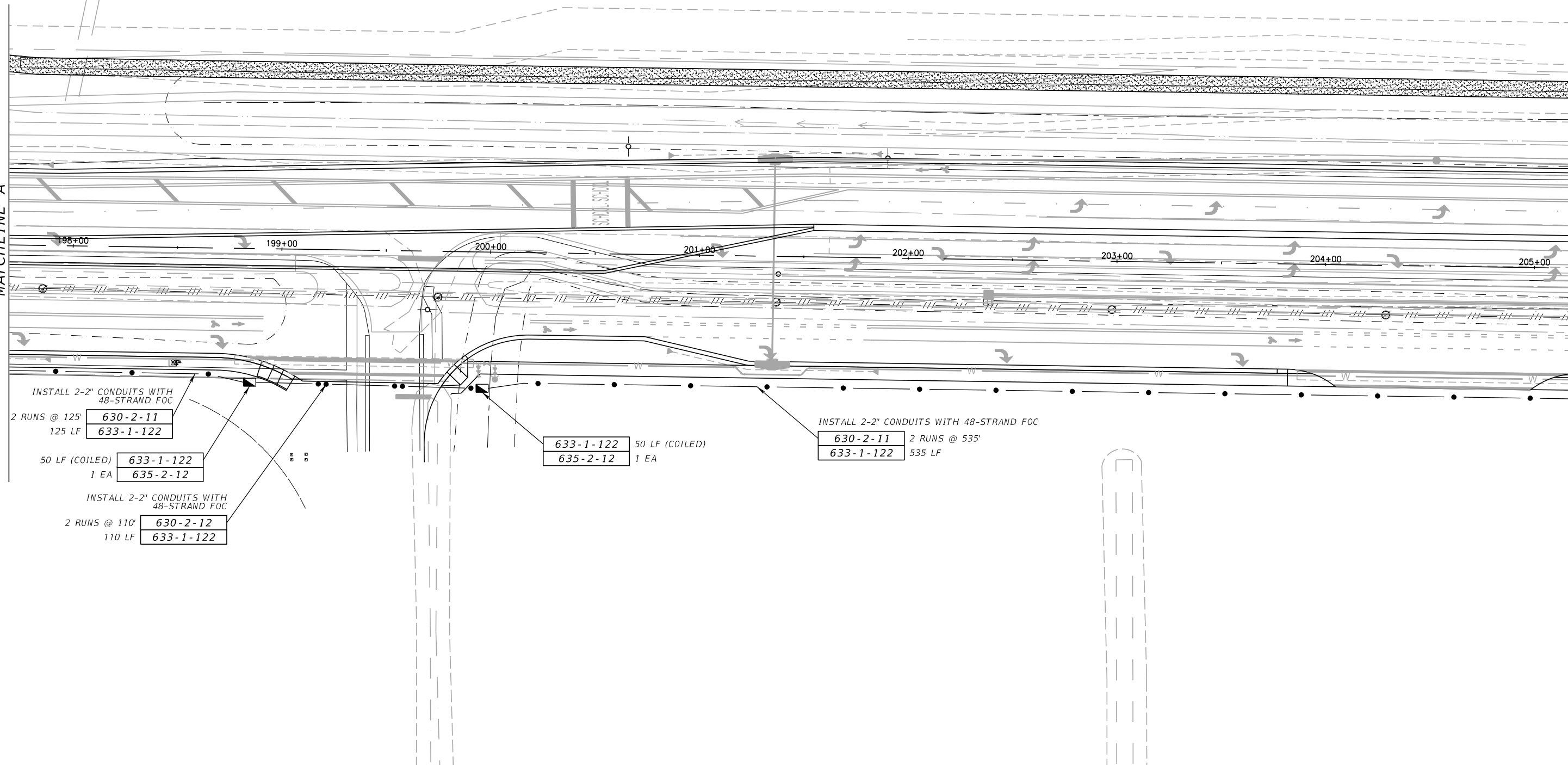
REVISIONS		DATE	DESCRIPTION	LAWRENCE E. OVERN, II, P.E. P.E. LICENSE NUMBER 60816 STANTEC CONSULTING SERVICES INC. 6920 PROFESSIONAL PARKWAY EAST SARASOTA, FLORIDA 34240 CERTIFICATE OF AUTHORIZATION 27013	MANATEE COUNTY PUBLIC WORKS DEPT. ENGINEERING SERVICES		SHEET NO.		
DATE	DESCRIPTION				ROAD NAME	COUNTY		STANTEC PROJECT ID	
					FORT HAMER RD EXT. SEG. A	MANATEE	215615900	INTERCONNECT PLAN	T-9

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



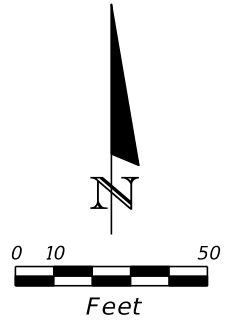
MATCHLINE A

MATCHLINE B



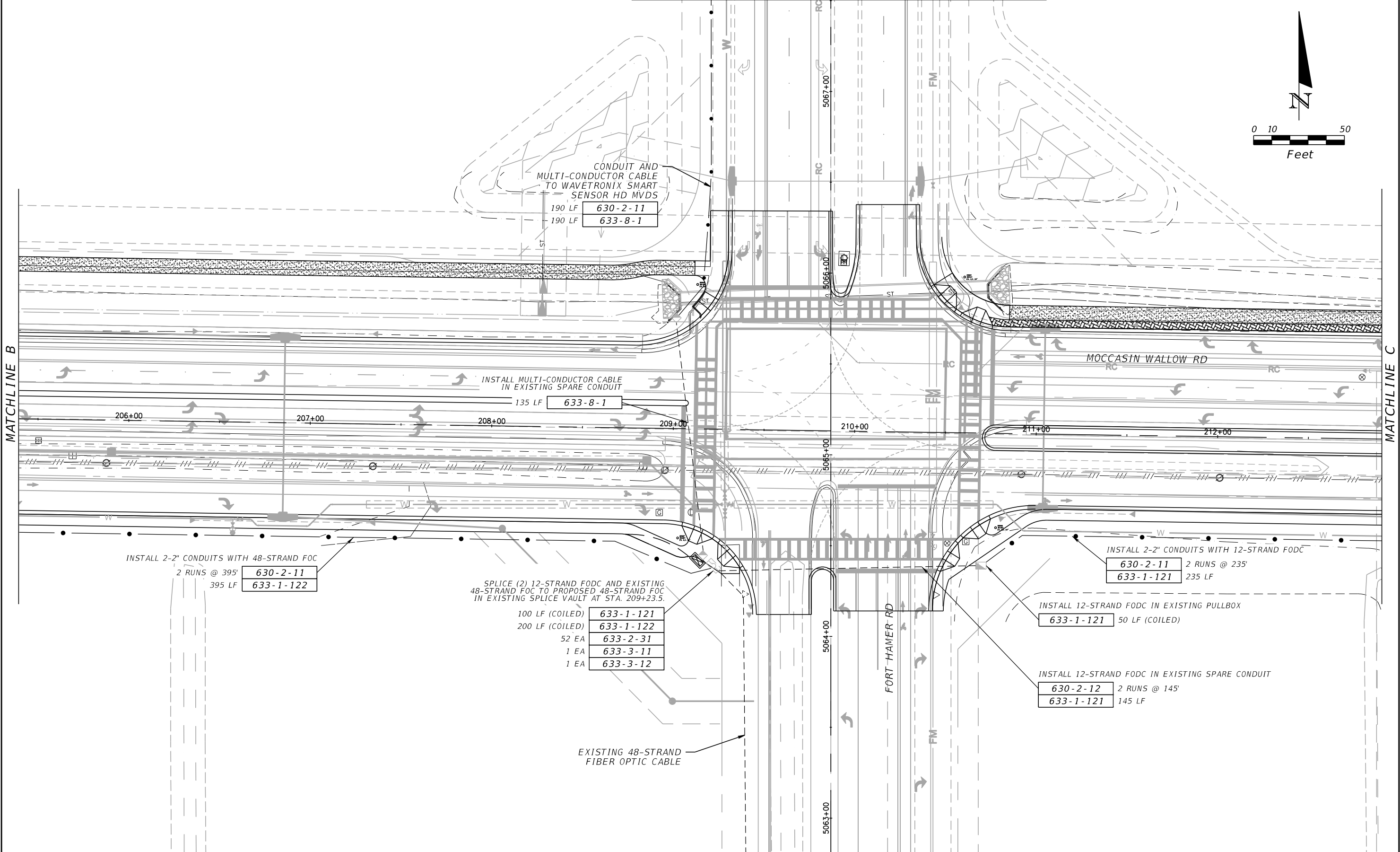
REVISIONS				LAWRENCE E. OVERN, II, P.E. P.E. LICENSE NUMBER 60816 STANTEC CONSULTING SERVICES INC. 6920 PROFESSIONAL PARKWAY EAST SARASOTA, FLORIDA 34240 CERTIFICATE OF AUTHORIZATION 27013	MANATEE COUNTY PUBLIC WORKS DEPT. ENGINEERING SERVICES		INTERCONNECT PLAN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NAME	COUNTY		STANTEC PROJECT ID
					FORT HAMER RD EXT. SEG. A	MANATEE	215615900	

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MATCHLINE B

MATCHLINE C



CONDUIT AND MULTI-CONDUCTOR CABLE TO WAVETRONIX SMART SENSOR HD MVDS
 190 LF 630-2-11
 190 LF 633-8-1

INSTALL MULTI-CONDUCTOR CABLE IN EXISTING SPARE CONDUIT
 135 LF 633-8-1

INSTALL 2-2" CONDUITS WITH 48-STRAND FOC
 2 RUNS @ 395'
 395 LF 630-2-11
 633-1-122

SPLICE (2) 12-STRAND FODC AND EXISTING 48-STRAND FOC TO PROPOSED 48-STRAND FOC IN EXISTING SPLICE VAULT AT STA. 209+23.5.
 100 LF (COILED) 633-1-121
 200 LF (COILED) 633-1-122
 52 EA 633-2-31
 1 EA 633-3-11
 1 EA 633-3-12

INSTALL 2-2" CONDUITS WITH 12-STRAND FODC
 630-2-11 2 RUNS @ 235'
 633-1-121 235 LF

INSTALL 12-STRAND FODC IN EXISTING PULLBOX
 633-1-121 50 LF (COILED)

INSTALL 12-STRAND FODC IN EXISTING SPARE CONDUIT
 630-2-12 2 RUNS @ 145'
 633-1-121 145 LF

EXISTING 48-STRAND FIBER OPTIC CABLE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

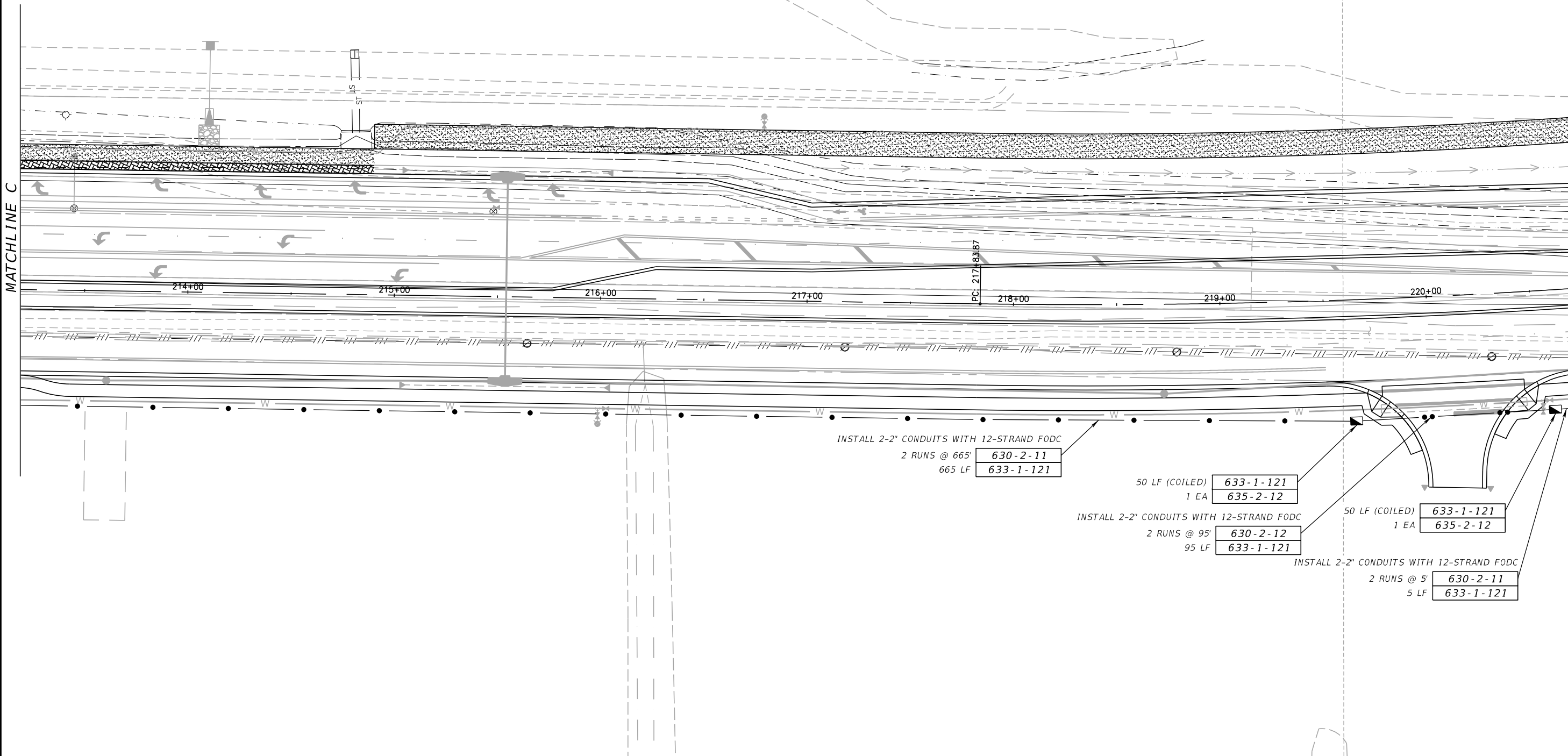
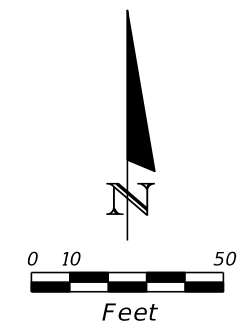
LAWRENCE E. OVERN, II, P.E.
 P.E. LICENSE NUMBER 60816
 STANTEC CONSULTING SERVICES INC.
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MANATEE COUNTY PUBLIC WORKS DEPT. ENGINEERING SERVICES		
ROAD NAME	COUNTY	STANTEC PROJECT ID
FORT HAMER RD EXT. SEG. A	MANATEE	215615900

INTERCONNECT PLAN

SHEET NO.
T-11

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

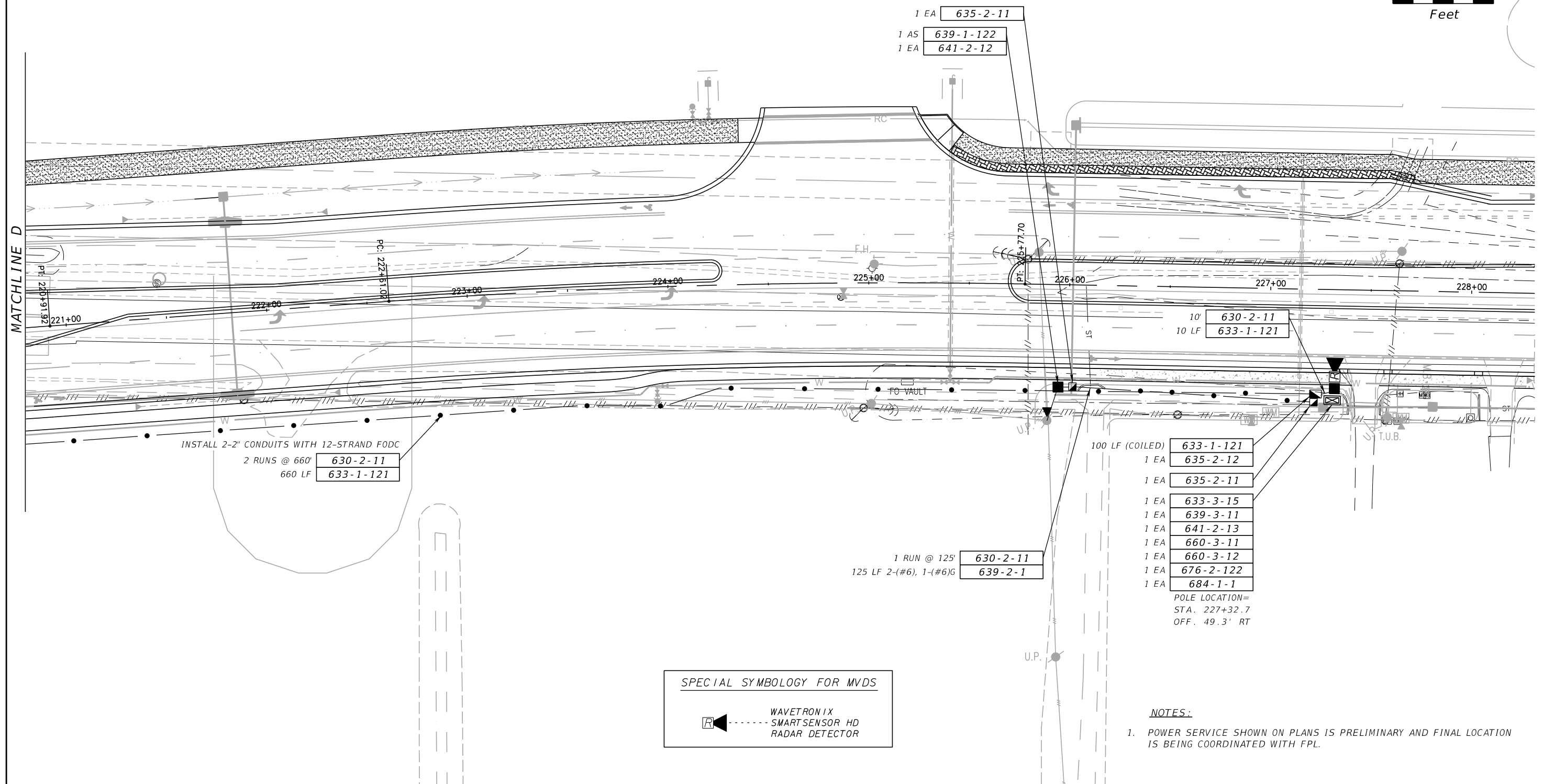
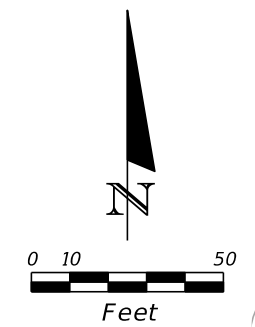
LAWRENCE E. OVERN, II, P.E.
 P.E. LICENSE NUMBER 60816
 STANTEC CONSULTING SERVICES INC.
 6920 PROFESSIONAL PARKWAY EAST
 SARASOTA, FLORIDA 34240
 CERTIFICATE OF AUTHORIZATION 27013

MANATEE COUNTY PUBLIC WORKS DEPT. ENGINEERING SERVICES		
ROAD NAME	COUNTY	STANTEC PROJECT ID
FORT HAMER RD EXT. SEG. A	MANATEE	215615900

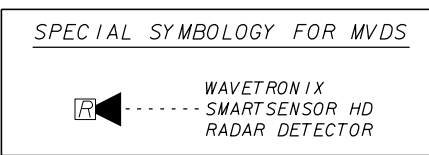
INTERCONNECT PLAN

SHEET NO.
T-12

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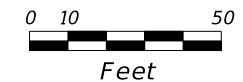
MATCHLINE D



- NOTES:**
- POWER SERVICE SHOWN ON PLANS IS PRELIMINARY AND FINAL LOCATION IS BEING COORDINATED WITH FPL.

REVISIONS				LAWRENCE E. OVERN, II, P.E. P.E. LICENSE NUMBER 60816 STANTEC CONSULTING SERVICES INC. 6920 PROFESSIONAL PARKWAY EAST SARASOTA, FLORIDA 34240 CERTIFICATE OF AUTHORIZATION 27013		MANATEE COUNTY PUBLIC WORKS DEPT. ENGINEERING SERVICES		INTERCONNECT PLAN		SHEET NO. T-13
DATE	DESCRIPTION	DATE	DESCRIPTION			ROAD NAME	COUNTY			

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

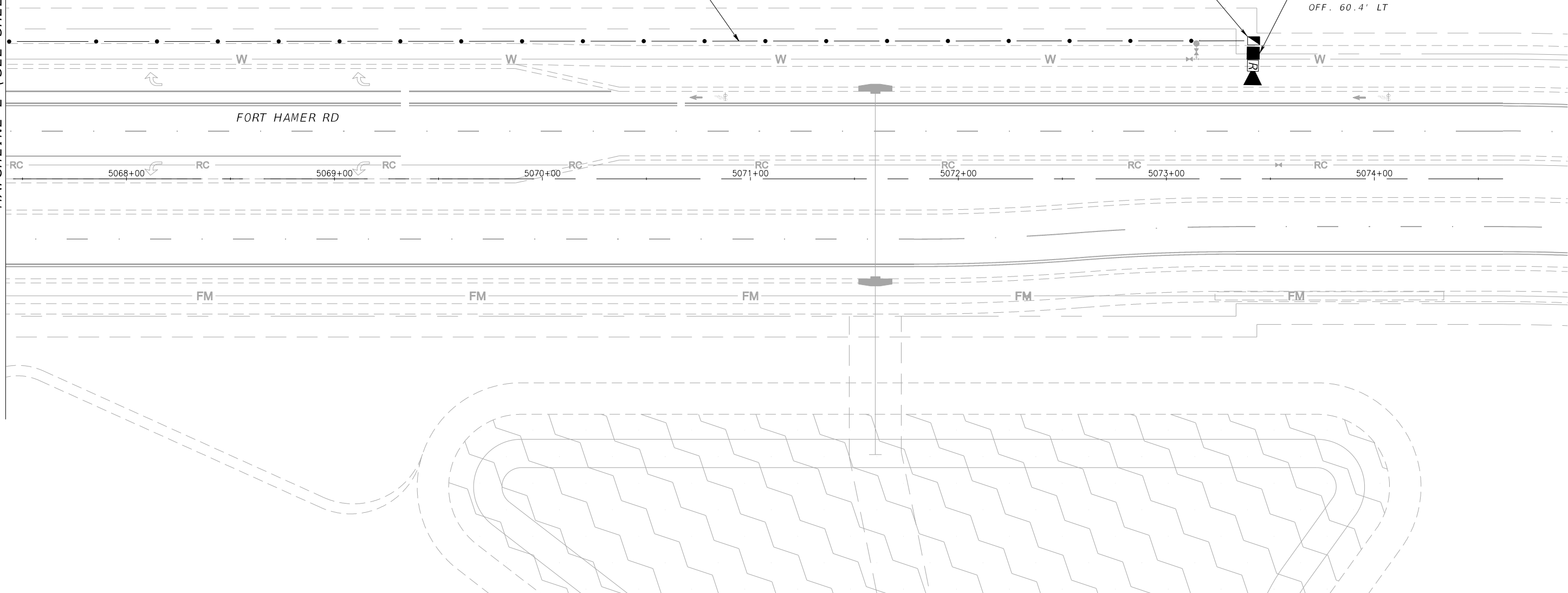


MATCHLINE E (SEE SHEET T-11)

CONDUIT AND
MULTI-CONDUCTOR CABLE
TO WAVETRONIX SMART
SENSOR HD MVDS
585 LF **630-2-11**
585 LF **633-8-1**

100 LF (COILED) **633-8-1**
1 EA **635-2-11**

641-2-13 1 EA
660-3-11 1 EA
660-3-12 1 EA
676-3-10 1 EA
POLE LOCATION=
STA. 5073+41.69
OFF. 60.4' LT



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

LAWRENCE E. OVERN, II, P.E.
P.E. LICENSE NUMBER 60816
STANTEC CONSULTING SERVICES INC.
6920 PROFESSIONAL PARKWAY EAST
SARASOTA, FLORIDA 34240
CERTIFICATE OF AUTHORIZATION 27013

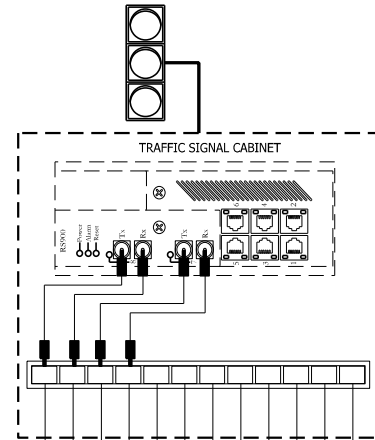
MANATEE COUNTY PUBLIC WORKS DEPT. ENGINEERING SERVICES		
ROAD NAME	COUNTY	STANTEC PROJECT ID
FORT HAMER RD EXT. SEG. A	MANATEE	215615900

INTERCONNECT PLAN

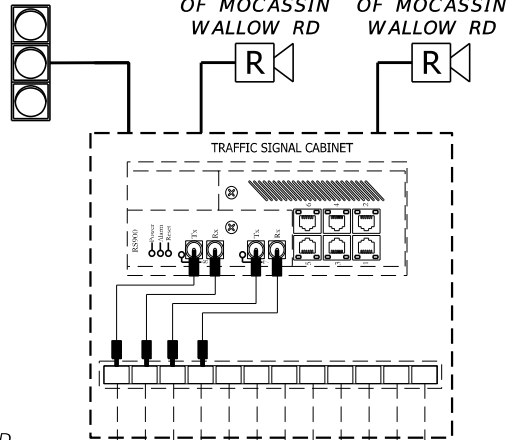
SHEET NO.
T-14

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TRAFFIC SIGNAL
MOCASSIN WALLOW RD.
AT 115TH AVE.



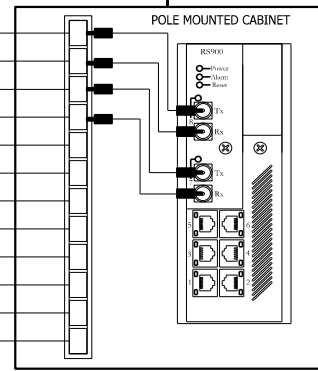
TRAFFIC SIGNAL
MOCASSIN WALLOW RD.
AT FT. HAMER RD.



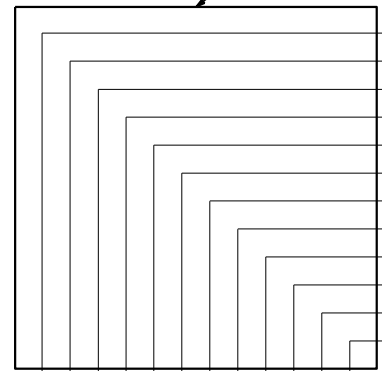
PROPOSED
MVDS NORTH
OF MOCASSIN
WALLOW RD

EXISTING
MVDS SOUTH
OF MOCASSIN
WALLOW RD

PROPOSED
MVDS EAST OF
FT HAMER RD



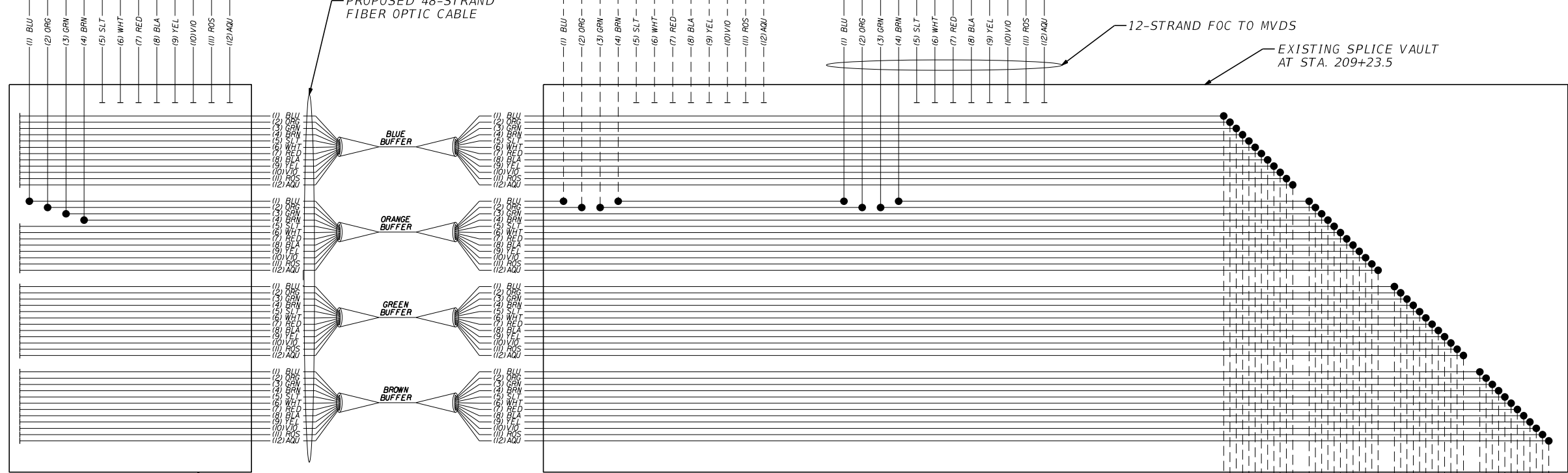
PULLBOX AT
STA. 227+23.1



PROPOSED 48-STRAND
FIBER OPTIC CABLE

12-STRAND FOC TO MVDS

EXISTING SPLICE VAULT
AT STA. 209+23.5



PROPOSED SPLICE VAULT
AT STA. 191+91.35

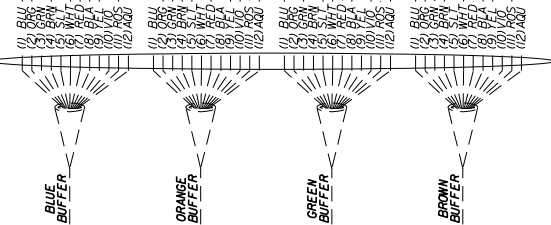
LEGEND

- = DARK FIBER
- = SPLICE
- = DEAD IN SPLICE TRAY
- = LAYER 2 MANAGED FIELD HARDENED ETHERNET SWITCH
- = INTERFACE PATCH PANEL
- = ST CONNECTOR
- = JUMPERS
- = COMPOSITE CABLE

NOTE:

CONTRACTOR SHALL VERIFY WITH COUNTY STAFF THAT THE EXISTING SPLICING SHOWN ON THIS PAGE IS ACCURATE. CONTRACTOR SHALL COORDINATE WITH COUNTY STAFF ON THE ACCURACY OF THE PROPOSED SPLICING DIAGRAMS AND IDENTIFY ANY VARIANCE.

EXISTING 48-STRAND
FIBER OPTIC CABLE



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

LAWRENCE E. OVERN, II, P.E.
P.E. LICENSE NUMBER 60816
STANTEC CONSULTING SERVICES INC.
6920 PROFESSIONAL PARKWAY EAST
SARASOTA, FLORIDA 34240
CERTIFICATE OF AUTHORIZATION 27013

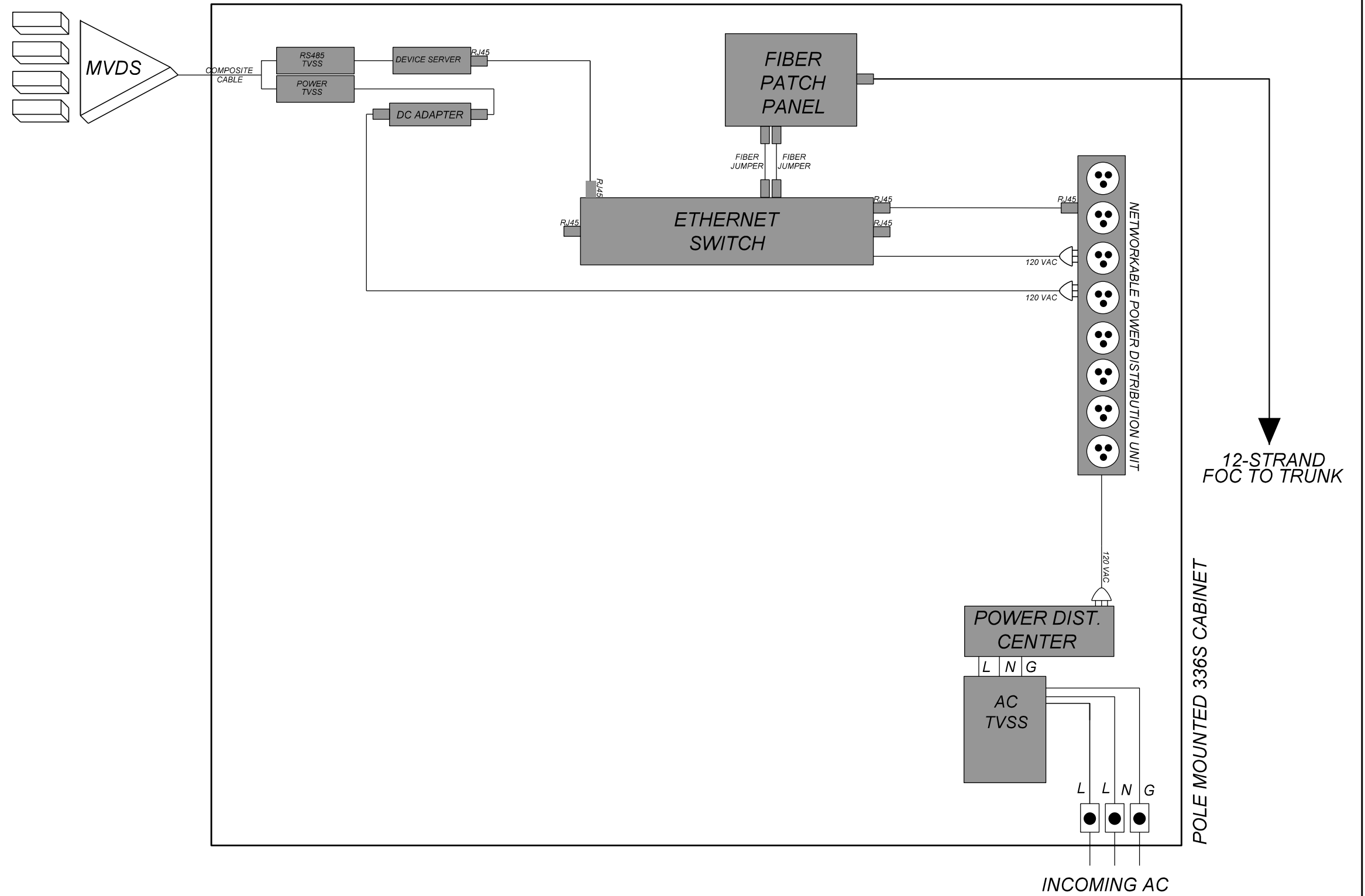
MANATEE COUNTY PUBLIC WORKS DEPT. ENGINEERING SERVICES		
ROAD NAME	COUNTY	STANTEC PROJECT ID
FORT HAMER RD EXT. SEG. A	MANATEE	215615900

**FIBER OPTIC
SPLICING DETAILS**

SHEET NO.
T-15

PROPOSED MVDS CABINET

N.T.S.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

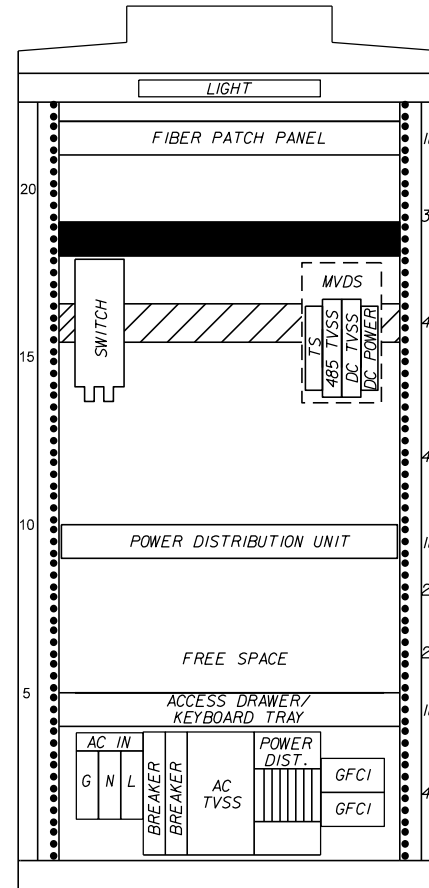
LAWRENCE E. OVERN, II, P.E.
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MANATEE COUNTY PUBLIC WORKS DEPT. ENGINEERING SERVICES		
ROAD NAME	COUNTY	STANTEC PROJECT ID
FORT HAMER RD EXT. SEG. A	MANATEE	215615900

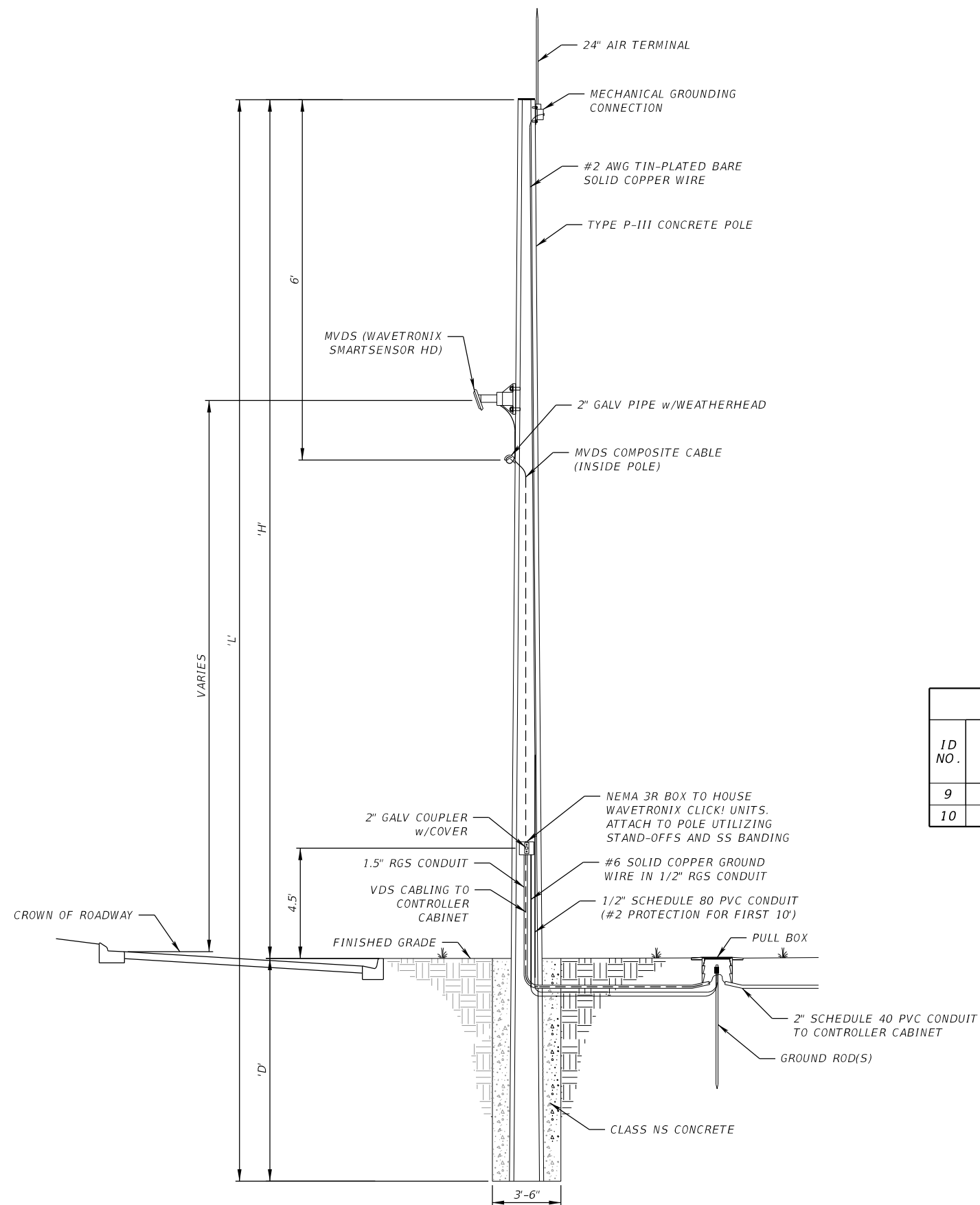
WIRING DIAGRAMS

SHEET NO.
T-16

MVDS
POLE MOUNTED 336S CABINET



REVISIONS				LAWRENCE E. OVERN, II, P.E. P.E. LICENSE NUMBER 60816 STANTEC CONSULTING SERVICES INC. 6920 PROFESSIONAL PARKWAY EAST SARASOTA, FLORIDA 34240 CERTIFICATE OF AUTHORIZATION 27013	MANATEE COUNTY PUBLIC WORKS DEPT. ENGINEERING SERVICES			<i>ITS CABINET DETAILS</i>	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NAME	COUNTY	STANTEC PROJECT ID		T-17
					FORT HAMER RD EXT. SEG. A	MANATEE	215615900		



NOTES:

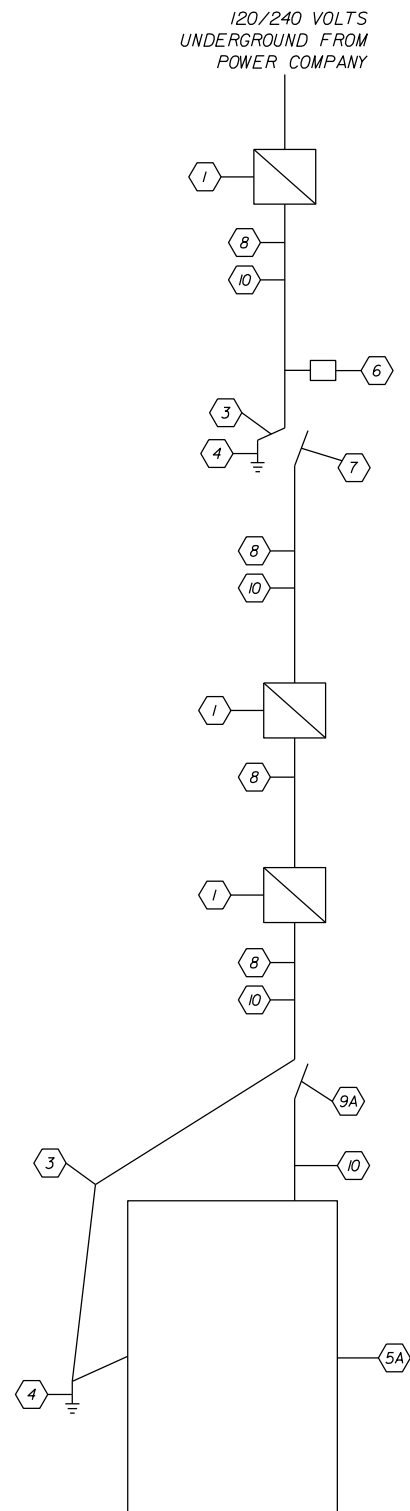
1. WORK THIS SHEET WITH FDOT 2019-20 STANDARD PLANS INDEX 641-010.
2. THE NEMA 3R BOX AND MOUNTING ARMS FOR THE MVDS SHALL BE ATTACHED TO THE POLE USING 3/4" STAINLESS STEEL BANDING.
3. INSTALL GROUNDING FOR THE MVDS SITE PER THE FDOT JULY 2019 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 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 BOX FOR MAINTENANCE ACCESS.
4. CONFIRM MANUFACTURER RECOMMENDATIONS FOR ALL EQUIPMENT AND MOUNTING HEIGHT DIMENSIONS PRIOR TO INSTALLATION.
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 COUNTY STAFF.

STRAIN POLE SCHEDULE									
ID NO.	SHEET NO.	POLE LOCATION		FINAL GRADE ELEVATION	CROWN ELEVATION	POLE TYPE	POLE LENGTH (L)	POLE HEIGHT (H)	CONCRETE POLE DEPTH (D)
		STATION	OFFSET						
9	T-13	227+32.7	49.3' RT	39.73'	41.37'	P-III	35'	28'	7'
10	T-14	5073+41.69	60.4' LT	41.61'	41.02'	P-III	35'	28'	7'

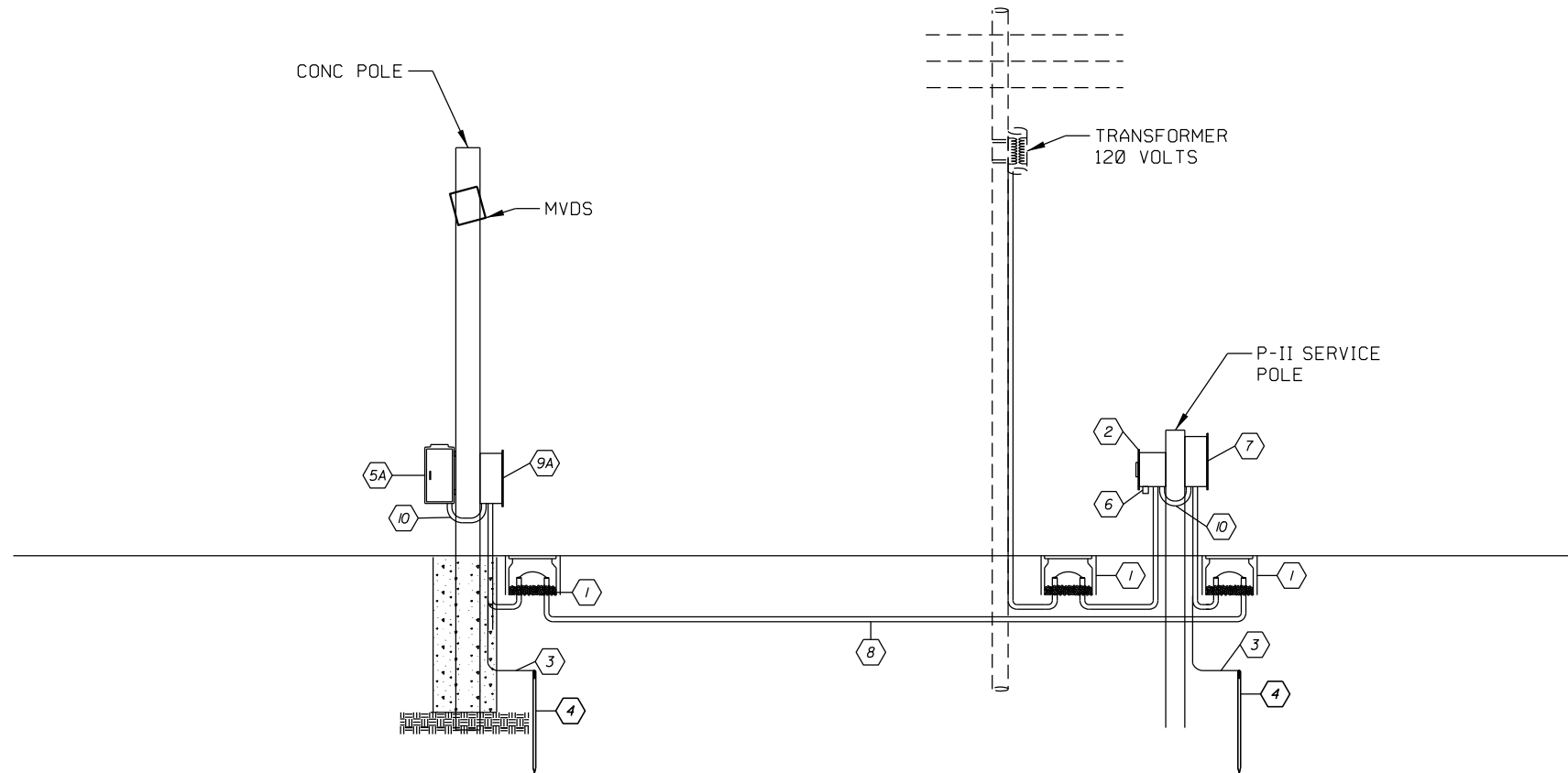
REVISIONS				LAWRENCE E. OVERN, II, P.E. P.E. LICENSE NUMBER 60816 STANTEC CONSULTING SERVICES INC. 6920 PROFESSIONAL PARKWAY EAST SARASOTA, FLORIDA 34240 CERTIFICATE OF AUTHORIZATION 27013	MANATEE COUNTY PUBLIC WORKS DEPT. ENGINEERING SERVICES			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NAME	COUNTY	STANTEC PROJECT ID	
					FORT HAMER RD EXT. SEG. A	MANATEE	215615900	MVDS DETAILS
								T-18

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

ONE-LINE DIAGRAM



**POWER SERVICE DETAIL
MVDS**



KEYED NOTES:

- 1 PULL BOX
- 2 POWER METER BY CONTRACTOR
- 3 #2 INSULATED COPPER GROUND WIRE IN 1/2" RIGID GALVANIZED STEEL
- 4 COPPER CLAD GROUND ROD 5/8" DIA. 10' MIN. LONG.
- 5A 336S POLE MOUNT CABINET
- 6 SURGE ARRESTOR
- 7 30A, 120V LOAD CENTER BREAKER
- 8 2" SCHEDULE 40 PVC CONDUIT OR SDR 13.5 ("UL LISTED" HDPE CONDUIT)
- 9A POWER DISCONNECT WITH 30A/1P, 120V CIRCUIT BREAKER
- 10 2" RIGID GALVANIZED STEEL CONDUIT

NOTES:

- 1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
- 2. SEE PLAN SHEETS FOR NUMBER AND PLACEMENT OF PULL BOXES.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

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ENGINEERING SERVICES

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SERVICE POINT DETAILS

SHEET NO.

T-19