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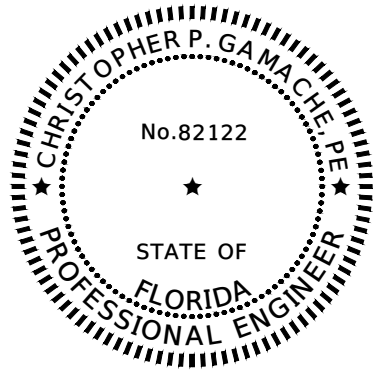
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DAVID J. ALLEN, PE
 STANTEC CONSULTING SERVICES, INC.
 3905 CRESCENT PARK DRIVE
 RIVERVIEW, FL 33578
 (813) 664-4500

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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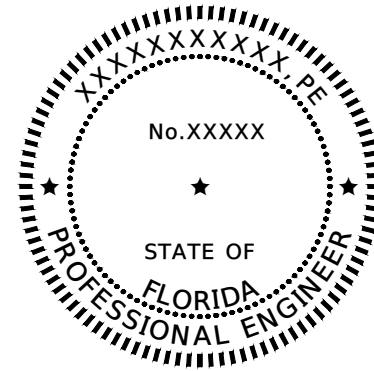
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CHRISTOPHER P. GAMACHE, PE
 STANTEC CONSULTING SERVICES, INC.
 380 PARK PLACE BLVD SUITE 300
 CLEARWATER, FL 33759
 (727) 531-3505

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

PLAN INDEX

SHEET NO.	DESCRIPTION
T-2	SIGNATURE SHEET
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XXXXXXXXXX, PE
 XXXXXXXXXXXX INC.
 XXXX XXXX XX
 XXXXXXX, FL XXXXX

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

PLAN INDEX

SHEET NO.	DESCRIPTION
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T-24	REPORT OF CORE BORINGS

REVISIONS			
NO.	DESCRIPTION	DATE	BY
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DAVID J. ALLEN, P.E.
 P.E. LICENSE NUMBER 58540
 3905 CRESCENT PARK DRIVE
 RIVERVIEW, FL 33578
 (813) 664-4500



MANATEE COUNTY
 PUBLIC WORKS
 COUNTY PROJECT NO:
 6108260

75TH STREET WEST FROM
 20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
SIGNATURE SHEET

SHEET NO.
 T-2

TABULATION OF QUANTITIES

PAY ITEM NO.		UNIT	SHEET NUMBERS														TOTAL THIS SHEET		GRAND TOTAL	
			T-7		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				
630-2-11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	200	10						60							270			
630-2-12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	295	350			560		560	645			560		560		3530			
632-7-1	SIGNAL CABLE- NEW OR RECONSTRUCTED INTERSECTION, FURNISH & INSTALL	PI	1														1			
632-7-6	SIGNAL CABLE, REMOVE- INTERSECTION	PI	1														1			
633-1-121	FIBER OPTIC CABLE, F&I, UNDERGROUND,2-12 FIBERS (12 SM)	LF		100						100							200			
633-1-123	FIBER OPTIC CABLE, F&I, UNDERGROUND,49-96 FIBERS (72 SM)	LF		400			610		610	660			610		610		3500			
633-1-620	FIBER OPTIC CABLE, REMOVE, UNDERGROUND	LF		350			560		560	560			560		560		3150			
633-2-31	FIBER OPTIC CONNECTION, INSTALL, SPLICE	EA		74						4							78			
633-2-32	FIBER OPTIC CONNECTION, INSTALL, TERMINATION	EA	12							12							24			
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		6						1							7			
633-3-16	FIBER OPTIC CONNECTION HARDWARE, F&I, PATCH PANEL- FIELD TERMINATED	EA	1							1							2			
635-2-12	PULL & SPLICE BOX, F&I, 24" X 36" COVER SIZE	EA					1		1				1		1		4			
635-2-13	PULL & SPLICE BOX, F&I, 30" X 60" RECTANGULAR	EA		1						1							2			
635-2-14	PULL & SPLICE BOX, F&I, 17" x 30" COVER SIZE	EA	12							3							15			
639-1-122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1							1							2			
639-1-620	ELECTRICAL POWER SERVICE, REMOVE UNDERGROUND	AS	1														1			
639-2-1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	145							135							280			
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA	1							1							2			
639-4-6	EMERGENCY GENERATOR - PORTABLE, INSTALL HOUSING ONLY	EA	1														1			
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA	2							1							3			
641-2-13	PRESTRESSED CONCRETE POLE, F&I, TYPE P-III	EA								1							1			
641-2-60	PRESTRESSED CONCRETE POLE, COMPLETE POLE REMOVAL- PEDESTAL/SERVICE POLE	EA	1														1			
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE POLE REMOVAL- POLE 30' AND GREATER	EA					1										1			
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL	EA	6														6			
649-21-1	STEEL MAST ARM ASSEMBLY, FURNISH AND INSTALL, SINGLE ARM 30'	EA	1														1			
649-21-3	STEEL MAST ARM ASSEMBLY, FURNISH AND INSTALL, SINGLE ARM 40'	EA	1														1			
649-21-6	STEEL MAST ARM ASSEMBLY, FURNISH AND INSTALL, SINGLE ARM 50'	EA	1														1			
649-26-5	STEEL MAST ARM ASSEMBLY, REMOVE, DEEP FOUNDATION- BOLT ON ATTACHMENT	EA	4														4			
650-1-14	VEHICULAR TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 3 SECTION, 1 WAY	AS	6														6			
650-1-16	VEHICULAR TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 4 SECTION, 1 WAY	AS	1														1			
653-1-11	PEDESTRIAN SIGNAL, FURNISH & INSTALL LED COUNTDOWN, 1 WAY	AS	6														6			
660-3-11	VEHICLE DETECTION SYSTEM- MICROWAVE, FURNISH & INSTALL CABINET EQUIPMENT	EA	1							1							2			
660-3-12	VEHICLE DETECTION SYSTEM- MICROWAVE, FURNISH & INSTALL, ABOVE GROUND EQUIPMENT	EA	5							1							6			
660-3-60	VEHICLE DETECTION SYSTEM - MICROWAVE, REMOVE, COMPLETE SYSTEM	EA					1										1			
665-1-11	PEDESTRIAN DETECTOR, FURNISH & INSTALL, STANDARD	EA	6														6			
670-5-110	TRAFFIC CONTROLLER ASSEMBLY, F&I, NEMA	AS	1														1			
670-5-600	TRAFFIC CONTROLLER ASSEMBLY, REMOVE CONTROLLER WITH CABINET	AS	1														1			
676-2-122	ITS CABINET, FURNISH & INSTALL, POLE MOUNT WITH SUNSHIELD, 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																		
682-1-133	ITS CCTV CAMERA, F&I, DOME ENCLOSURE - NON-PRESSURIZED, IP, HIGH DEFINITION	EA	1														1			
684-1-1	MANAGED FIELD ETHERNET SWITCH, FURNISH & INSTALL	EA	1							1							2			
685-1-11	UNINTERRUPTIBLE POWER SUPPLY, FURNISH AND INSTALL, LINE INTERACTIVE	EA								1							1			
685-1-13	UNINTERRUPTIBLE POWER SUPPLY, FURNISH AND INSTALL, LINE INTERACTIVE WITH CABINET	EA	1														1			
700-3-201	SIGN PANEL, FURNISH & INSTALL OVERHEAD MOUNT, UP TO 12 SF	EA	3														3			
700-5-22	INTERNALLY ILLUMINATED SIGN, FURNISH & INSTALL, OVERHEAD MOUNT, 12-18 SF	EA	3														3			

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REVISIONS NO. DESCRIPTION DATE BY				 STANTEC CONSULTING SERVICES, INC.	DAVID J. ALLEN, P.E. P.E. LICENSE NUMBER 58540 3905 CRESCENT PARK DRIVE RIVERVIEW, FL 33578 (813) 664-4500	 MANATEE COUNTY PUBLIC WORKS COUNTY PROJECT NO: 6108260	75TH STREET WEST FROM 20TH AVENUE W. TO MANATEE AVENUE W. (SR 64) TABULATION OF QUANTITIES (1)	SHEET NO. T-3
NO. DESCRIPTION DATE BY								

TABULATION OF QUANTITIES

PAY ITEM NO.		UNIT	SHEET NUMBERS														TOTAL THIS SHEET		GRAND TOTAL	
			T-15		T-16		T-17													
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
630-2-11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF			5												5		275	
630-2-12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	560		560		275										1395		4925	
632-7-1	SIGNAL CABLE- NEW OR RECONSTRUCTED INTERSECTION, FURNISH & INSTALL	PI																	1	
632-7-6	SIGNAL CABLE, REMOVE- INTERSECTION	PI																	1	
633-1-121	FIBER OPTIC CABLE, F&I, UNDERGROUND,2-12 FIBERS (12 SM)	LF																	200	
633-1-123	FIBER OPTIC CABLE, F&I, UNDERGROUND,49-96 FIBERS (72 SM)	LF	610		610		375										1595		5095	
633-1-620	FIBER OPTIC CABLE, REMOVE, UNDERGROUND	LF	560				275										835		3985	
633-2-31	FIBER OPTIC CONNECTION, INSTALL, SPLICE	EA					72										72		150	
633-2-32	FIBER OPTIC CONNECTION, INSTALL, TERMINATION	EA																	24	
633-3-11	FIBER OPTIC CONNECTION HARDWARE, F&I, SPLICE ENCLOSURE	EA					1										1		3	
633-3-12	FIBER OPTIC CONNECTION HARDWARE, F&I, SPLICE TRAY	EA					6										6		13	
633-3-16	FIBER OPTIC CONNECTION HARDWARE, F&I, PATCH PANEL- FIELD TERMINATED	EA																	2	
635-2-12	PULL & SPLICE BOX, F&I, 24" X 36" COVER SIZE	EA	1		1		1										3		7	
635-2-13	PULL & SPLICE BOX, F&I, 30" X 60" RECTANGULAR	EA																	2	
635-2-14	PULL & SPLICE BOX, F&I, 17" x 30" COVER SIZE	EA			2		1										3		18	
639-1-122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS																	2	
639-1-620	ELECTRICAL POWER SERVICE, REMOVE UNDERGROUND	AS																	1	
639-2-1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF																	280	
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA																	2	
639-4-6	EMERGENCY GENERATOR - PORTABLE, INSTALL HOUSING ONLY	EA																	1	
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA																	3	
641-2-13	PRESTRESSED CONCRETE POLE, F&I, TYPE P-III	EA			1												1		2	
641-2-60	PRESTRESSED CONCRETE POLE, COMPLETE POLE REMOVAL- PEDESTAL/SERVICE POLE	EA																	1	
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE POLE REMOVAL- POLE 30' AND GREATER	EA																	1	
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL	EA																	6	
649-21-1	STEEL MAST ARM ASSEMBLY, FURNISH AND INSTALL, SINGLE ARM 30'	EA																	1	
649-21-3	STEEL MAST ARM ASSEMBLY, FURNISH AND INSTALL, SINGLE ARM 40'	EA																	1	
649-21-6	STEEL MAST ARM ASSEMBLY, FURNISH AND INSTALL, SINGLE ARM 50'	EA																	1	
649-26-5	STEEL MAST ARM ASSEMBLY, REMOVE, DEEP FOUNDATION- BOLT ON ATTACHMENT	EA																	4	
650-1-14	VEHICULAR TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 3 SECTION, 1 WAY	AS																	6	
650-1-16	VEHICULAR TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 4 SECTION, 1 WAY	AS																	1	
653-1-11	PEDESTRIAN SIGNAL, FURNISH & INSTALL LED COUNTDOWN, 1 WAY	AS																	6	
660-3-11	VEHICLE DETECTION SYSTEM- MICROWAVE, FURNISH & INSTALL CABINET EQUIPMENT	EA			1												1		3	
660-3-12	VEHICLE DETECTION SYSTEM- MICROWAVE, FURNISH & INSTALL, ABOVE GROUND EQUIPMENT	EA			1												1		7	
660-3-60	VEHICLE DETECTION SYSTEM - MICROWAVE, REMOVE, COMPLETE SYSTEM	EA																	1	
665-1-11	PEDESTRIAN DETECTOR, FURNISH & INSTALL, STANDARD	EA																	6	
670-5-110	TRAFFIC CONTROLLER ASSEMBLY, F&I, NEMA	AS																	1	
670-5-600	TRAFFIC CONTROLLER ASSEMBLY, REMOVE CONTROLLER WITH CABINET	AS																	1	
676-2-122	ITS CABINET, FURNISH & INSTALL, POLE MOUNT WITH SUNSHIELD, 336S, 24" W X 46" H X 22" D	EA																	1	
676-3-10	SMALL EQUIPMENT ENCLOSURE, FURNISH AND INSTALL, LESS THAN 10"W X 13"H X 11" D	EA			1												1		1	
682-1-133	ITS CCTV CAMERA, F&I, DOME ENCLOSURE - NON-PRESSURIZED, IP, HIGH DEFINITION	EA																	1	
684-1-1	MANAGED FIELD ETHERNET SWITCH, FURNISH & INSTALL	EA																	2	
685-1-11	UNINTERRUPTIBLE POWER SUPPLY, FURNISH AND INSTALL, LINE INTERACTIVE	EA																	1	
685-1-13	UNINTERRUPTIBLE POWER SUPPLY, FURNISH AND INSTALL, LINE INTERACTIVE WITH CABINET	EA																	1	
700-3-201	SIGN PANEL, FURNISH & INSTALL OVERHEAD MOUNT, UP TO 12 SF	EA																	3	
700-5-22	INTERNALLY ILLUMINATED SIGN, FURNISH & INSTALL, OVERHEAD MOUNT, 12-18 SF	EA																	3	

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REVISIONS			
NO.	DESCRIPTION	DATE	BY
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DAVID J. ALLEN, P.E.
 P.E. LICENSE NUMBER 58540
 3905 CRESCENT PARK DRIVE
 RIVERVIEW, FL 33578
 (813) 664-4500



75TH STREET WEST FROM
 20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
TABULATION OF QUANTITIES (2)

SHEET NO.
 T-4

GENERAL NOTES

1. AT LEAST FIVE (5) BUSINESS DAYS PRIOR TO BEGINNING CONSTRUCTION, 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

2. 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:

MANATEE COUNTY SHERIFF'S OFFICE
515 11TH STREET WEST
BRADENTON, FLORIDA 34205
PH 941-747-3011

3. THE CONTRACTOR SHALL OBTAIN A COPY OF MANATEE COUNTY'S LATEST "TRAFFIC INFRASTRUCTURE DESIGN GUIDE" THROUGH THE COUNTY PROJECT MANAGER PRIOR TO ORDERING MATERIALS AND/OR EQUIPMENT. CONTACT THE MANATEE COUNTY TRAFFIC OPERATIONS DIVISION, MR. AARON BURKETT, 941-709-7509 FOR ADDITIONAL INFORMATION.

4. THE CONTRACTOR MUST NOTIFY THE TRAFFIC ENGINEERING DIVISION VIA THE PROJECT MANAGER AT LEAST FIVE (5) BUSINESS DAYS IN ADVANCE TO SCHEDULE THE INITIAL POWER SERVICE CONNECTION AND/OR TRAFFIC SIGNAL INSPECTION.

5. 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). MANATEE COUNTY WILL ASSIST IN PROVIDING EXISTING SYSTEM TIMINGS WHEN POSSIBLE.

6. THE SIGNAL CONTRACTOR SHALL BE AVAILABLE TO RESPOND TO TROUBLE CALLS TWENTY-FOUR HOURS 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 MANAGEMENT DIVISION AT COMMENCEMENT OF PROJECT. FURTHERMORE, WITHIN TWO 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 SHERIFF'S DEPARTMENT TO CONTROL TRAFFIC FOR THE PERIOD OF TIME UNTIL THE CONTRACTOR RESPONDS AND MAKES THE NEEDED REPAIRS, THE COST FOR THE MANATEE COUNTY SHERIFF'S OFFICE SHALL BE THE RESPONSIBILITY OF THE PRIME CONTRACTOR.

7. GROUNDING: ALL GROUND ROD 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 LOCATIONS WITH PERMANENT MARKER SUCH AS AN EPOXY 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. EQUIPMENT SHALL NOT BE PLACED INTO OPERATIONAL SERVICE UNTIL THE ASSOCIATED GROUNDING SYSTEM HAS BEEN INSPECTED AND APPROVED BY A MEMBER OF THE MANATEE COUNTY TRAFFIC OPERATIONS STAFF. A 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 SHALL BE PRESENT DURING THE TEST. CONNECTIVE DEVICES SHALL BE NON-CORROSIVE SPLIT BOLT, CLAMP, PRESSURE CONNECTORS, OR OTHER APPROVED MEANS TO ENSURE A POSITIVE CONNECTION.

8. IT SHOULD BE NOTED THAT NO TEST BORINGS WERE MADE WHERE CONDUIT RUNS ARE TO BE INSTALLED BY JACKING OR BORING. THE CONTRACTOR SHALL FIELD MARK THE PROPOSED CONDUIT INSTALLATION ALIGNMENT FOR REVIEW AND CONCURRENCE BY THE ENGINEER PRIOR TO TRENCHING AND/OR PLACEMENT. NO PULL BOXES SHALL BE LOCATED IN DRAINAGE SWALES OR PAVED SHOULDERS.

9. AT LEAST 5 BUSINESS DAYS PRIOR TO SCHEDULING THE INITIAL TRAFFIC SIGNAL INSPECTION, DELIVER THREE HARDCOPY SETS OF AS-BUILT RECORD DRAWINGS, TWO SETS OF IMSA INSPECTION FORMS, OTR FIBER OPTIC CABLE TEST RESULTS, AND ONE COMPACT DISC OF RECORD DRAWINGS IN ADOBE ADOBE (.PDF) AND AUTOCAD (.DWG) FORMAT TO:

MANATEE COUNTY TRAFFIC OPERATIONS DIVISION
MR. AARON BURKETT
2904 12TH ST CT EAST
BRADENTON, FL 34208

10. 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 FOR ALL ITEMS TO THE PROJECT MANAGER. THE CONTRACTOR SHALL SUBMIT ALL MATERIALS TO THE ENGINEER. PRIOR TO CONSTRUCTION, FOR APPROVAL.

11. ALL CONSTRUCTION ACTIVITIES SHALL FOLLOW CURRENT MANATEE COUNTY HIGHWAY, TRAFFIC & STORMWATER STANDARDS, ALONG WITH FDOT STANDARDS AND SPECIFICATIONS.

12. 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. CERTIFICATION OF ALL TECHNICIANS SHALL BE PROVIDED TO THE COUNTY PRIOR TO BEGINNING WORK. SIGNAL INSTALLATION TECHNICIANS SHALL HAVE A MINIMUM OF IMSA LEVEL I CERTIFICATION.

13. THE CONTRACTOR SHALL PROVIDE A WARRANTY/MAINTENANCE BOND FOR THE SIGNAL INSTALLATIONS IN ACCORDANCE WITH FDOT SPECIFICATION SECTION 611-5. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING BOND REQUIREMENTS WITH THE MANATEE COUNTY PUBLIC WORKS SENIOR ADMINISTRATIVE SPECIALIST, AT (941) 708-7450, EXT. 7613.

14. WHERE MAST ARM, STRAIN POLES, OR ANY OTHER SIGNAL EQUIPMENT REQUIRING FOUNDATIONS ARE PROPOSED WITHIN 4 FEET OF ANY UNDERGROUND UTILITY, LOCATE AND PROTECT THE UTILITY. HAND DIG THE INITIAL 5 FEET FOR THE FOUNDATION.

15. THE CONTRACTOR SHALL DE-WATER THE POLE FOUNDATION EXCAVATION IF THE ELEVATION OF WATER IS HIGHER THAN THE ELEVATION OF THE FOUNDATION BASE.

16. THE LOCATION(S) OF THE UTILITIES SHOWN IN THE PLANS (INCLUDING THOSE DESIGNATED VV VH AND VVH) ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE VERIFIED LOCATION/ELEVATIONS APPLY ONLY AT THE POINTS SHOWN. INTERPOLATION BETWEEN POINTS HAVE NOT BEEN VERIFIED. 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. AT 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. THE CONTRACTOR SHALL CONTACT LOCAL POWER COMPANY FOR THEIR ASSISTANCE IN PERFORMING ALL NECESSARY WORK UNDER POWER LINES, SUCH AS THE INSTALLATION OF SIGNAL CABLE, FIBERGLASS INSULATORS, AND SIGNAL POLES.

17. 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.

18. 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.

19. RESPONSIBILITIES RELATED TO UTILITIES ARE NOTED IN THE ROADWAY PLANS. SEE ROADWAY PLANS FOR UTILITY CONTACT INFORMATION.

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

21. COORDINATE PAVEMENT MARKINGS AND SIGNAGE WORK WITH THE SCHEDULING OF SIGNAL ACTIVATION. DO NOT ACTIVATE THE SIGNAL UNTIL ALL PROPOSED STOP BARS, CROSSWALKS, RAMPS, AND PAVEMENT WORK IS COMPLETE.

22. ALL MATERIALS, EQUIPMENT, AND OTHER CONTRACTOR SUPPLIED ITEMS SHALL BE INSTALLED AND MAINTAINED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS, UNLESS SPECIFICALLY DIRECTED OTHERWISE BY THE ENGINEER.

23. ELECTRICAL WIRING SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE PUBLISHED BY NATIONAL FIRE PROTECTION ASSOCIATION.

24. #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.

25. 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 IN 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.

A. PRIOR TO ACTIVATION, THE VMS SIGN SHALL BE:
(PANEL ONE - LINE 1) "TRAFFIC" (PANEL TWO - LINE 1) "ACTIVATED"
(PANEL ONE - LINE 2) "SIGNAL" (PANEL TWO - LINE 2) "ON DAY"
(PANEL ONE - LINE 3) "WILL BE" (PANEL TWO - LINE 3) "MONTH X"

B. SUBSTITUTION FOR THE WORD "DAY" SHALL BE AS FOLLOWS:
SUNDAY AS "SUN" THURSDAY AS "THUR"
MONDAY AS "MON" FRIDAY AS "FRI"
TUESDAY AS "TUES" SATURDAY AS "SAT"
WEDNESDAY AS "WED"



C. SUBSTITUTION FOR THE WORD "MONTH" SHALL BE AS FOLLOWS:
JANUARY AS "JAN" JULY AS "JUL"
FEBRUARY AS "FEB" AUGUST AS "AUG"
MARCH AS "MAR" SEPTEMBER AS "SEP"
APRIL AS "APR" OCTOBER AS "OCT"
MAY AS "MAY" NOVEMBER AS "NOV"
JUNE AS "JUN" DECEMBER AS "DEC"

D. SUBSTITUTION FOR THE WORD "XX" SHALL BE AS FOLLOWS:
1. THE NUMERICAL DAY OF THE MONTH, FROM ONE (1) TO THIRTY-ONE (31).
2. DATES LESS THAN TEN (10) SHALL BE PRECEDED BY A ZERO (0); EXAMPLE: "JAN 03" FOR JANUARY 3RD.

E. AFTER THE TURN-ON, THE VMS SHALL BE CHANGED TO
(PANEL ONE - LINE 1) "TRAFFIC" (PANEL TWO - LINE 1) "NOW"
(PANEL ONE - LINE 2) "SIGNAL" (PANEL TWO - LINE 2) "ACTIVE"

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

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REVISIONS				 STANTEC CONSULTING SERVICES, INC.	DAVID J. ALLEN, P.E. P.E. LICENSE NUMBER 58540 3905 CRESCENT PARK DRIVE RIVERVIEW, FL 33578 (813) 664-4500	 MANATEE COUNTY PUBLIC WORKS COUNTY PROJECT NO: 6108260	76TH STREET WEST FROM 20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)		SHEET NO.
NO.	DESCRIPTION	DATE	BY				GENERAL NOTES (1)		T-5
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PAY ITEM NOTES

1. 630-2-12:
THE CONTRACTOR SHALL PROVIDE BORE LOGS FOR ALL CONDUIT INSTALLED USING DIRECTIONAL BORE METHOD.

INSTALL ELECTRONIC ROUTE MARKERS (ERM) AND WIRE GROUNDING UNITS (WGU) WHERE INDICATED.
2. 632-7-1:
CONTACT MANATEE COUNTY FOR COLOR CODE VERIFICATION.

THIS PAY ITEM INCLUDES CONDUCTORS TO POWER THE OVERHEAD ILLUMINATED STREET NAME SIGNS.
3. 635-2-12, 635-2-13, 635-2-14:
PULL BOXES SHALL BE TRAFFIC BEARING, ALL POLYMER CONSTRUCTION (NOT CONCRETE). 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. ALL PULL BOXES AND SPLICE BOXES SHALL HAVE TRAFFIC BEARING LIDS WITH A MINIMUM LOAD RATING OF 20,000 LB.

STANDARD PULL BOX DIMENSIONS SHALL BE 17"x30"x12" AND THE LID SHALL BE STAMPED "MANATEE COUNTY TRAFFIC SIGNAL" ON THE COVER. FIBER OPTIC PULL BOXES SHALL BE 24"x36"x36" AND THE LID SHALL BE STAMPED "MANATEE COUNTY FIBEROPTIC SYSTEM". THE FIBER OPTIC SPLICE VAULTS SHALL BE 30"x60"x48" AND THE LID SHALL BE STAMPED "MANATEE COUNTY FIBEROPTIC SYSTEM" ON THE COVER.
4. 639-1-122, 639-3-11:
THIS PAY ITEM INCLUDES THE COST OF ALL SPECIAL IMPACT CONNECTION FEES CHARGED BY THE LOCAL POWER COMPANY FOR ELECTRICAL SERVICE CONNECTION. IT ALSO INCLUDES THE COST OF A PHOTOCCELL ATTACHED TO THE SERVICE DISCONNECT TO POWER THE OVERHEAD STREET NAME SIGNS.

THE ELECTRICAL SERVICE DISCONNECT SHALL BE 100 AMP MINIMUM, COMPRISED OF A SIX (6) CIRCUIT DISCONNECT BOX WITH THREE CIRCUIT BREAKERS: ONE 40 AMP FOR CONTROLLER CABINET, ONE 15 AMP/120 VOLT FOR INTERNALLY ILLUMINATED STREET NAME SIGNS AND ONE 15 AMP/120 VOLT FOR FUTURE USE.

USE RIGID ALUMINUM CONDUIT FOR ABOVE-GROUND APPLICATION.
5. 639-4-6:
INCLUDES FURNISHING AND INSTALLING A BASE MOUNTED GENERATOR CABINET ASSEMBLY COMPATIBLE WITH MANATEE COUNTY'S GENERATOR/INVERTER BACK UP PROGRAM. CABINET DIMENSIONS ARE APPROXIMATELY 36"x26"x43" WITH A PULLOUT SHELF AND INTERNAL FAN. THE GENERATOR CABINET BASE IS 36"x48" WITH THE BASE TOP AT SAME ELEVATION AS THE TOP OF THE CONTROLLER ASSEMBLY BASE. THE GENERATOR CABINET AND CONTROLLER CABINET CAN BE MOUNTED ON A SHARED BASE IF FIELD CONDITIONS ALLOW.

THE CABINET SHALL BE CAPABLE OF HOUSING TO OPERATE A 2500 WATT INVERTER GENERATOR TO PROVIDE POWER TO OPERATE THE TRAFFIC SIGNAL, CONTROLLER CABINET AND ALL PERIPHERAL EQUIPMENT HOUSED THEREIN, EXCLUDING LIGHTING CIRCUITS SUCH AS ILLUMINATED STREET NAME SIGNS AND STREET LIGHTING.

THIS CABINET ASSEMBLY REQUIRES SPECIFIC DESIGN AND INSTALLATION REQUIREMENTS INCLUDING POWER CONNECTION TO THE PROPOSED POWER SERVICE AND CONTROLLER CABINET. SEE TRAFFIC INFRASTRUCTURE DESIGN GUIDE FOR MORE DETAILS.
6. 650-1-14, 650-1-16:
USE ALUMINUM LOUVERED BACKPATES ON ALL SIGNAL HEADS. ALL BACKPLATES SHALL INCLUDE A 2" YELLOW REFLECTORIZED (TYPE III REFLECTIVITY) OUTER EDGE BORDER.
7. 653-1-11:
USE LOCKING COLLARS FOR MOUNTING PEDESTRIAN SIGNAL HEADS TO PEDESTALS.
8. 660-3-11, 660-3-12:
THE CONTRACTOR SHALL COORDINATE WITH THE VENDOR AND PROVIDE DETECTION OVERLAY PLANS TO THE COUNTY FOR REVIEW PRIOR TO FINALIZING INSTALLATION IN THE FIELD.

CONSULT WITH THE MANUFACTURER AND USE RECOMMENDED MATERIALS AND INSTALLATION METHODS. USE EQUIPMENT COMPATIBLE WITH MANATEE COUNTY'S EXISTING ATMS SYSTEM.

USE WAVETRONIX SMARTSENSOR MATRIX UNITS FOR STOP BAR DETECTION. USE WAVETRONIX SMARTSENSOR ADVANCE EXTENDED RANGE UNITS FOR ADVANCE DETECTION. USE WAVETRONIX SMARTSENSOR HD AT THE MVDS SITE.

INSTALL ALL MICROWAVE DETECTION CABLING IN CONTINUOUS LENGTHS FROM THE CONTROL CABINET TO POINT OF DEVICE TERMINATION.

ATTACH DETECTION DEVICES TO THE PROPOSED MAST ARMS USING MANUFACTURER'S RECOMMENDED HARDWARE AND POSITIONING AS REQUIRED FOR OPTIMAL OPERATION.

MODIFY THE EXISTING CABINET AT MANATEE AVENUE UNDER THESE PAY ITEMS TO ENABLE ALL MICROWAVE DETECTION.
9. 670-5-110:
THE TRAFFIC SIGNAL CONTROLLER, CONTROLLER CABINET AND ASSOCIATED HARDWARE SHALL MEET CURRENT MANATEE COUNTY SPECIFICATIONS AND BE COMPATIBLE WITH THE MANATEE COUNTY ATMS SYSTEM. THE CONTROLLER SUPPLIED WITH THE CABINET SHALL BE A NAZTEC 980 ATC EQUIPPED WITH SERIAL PORTS, (1) ETHERNET PORT AND (1) USB PORT. SEE APPENDIX 'A' OF THE TRAFFIC INFRASTRUCTURE DESIGN GUIDE FOR DETAILS. CONTACT MANATEE COUNTY TRAFFIC DESIGN DIVISION PRIOR TO ORDERING CONTROLLER ASSEMBLY TO CONFIRM EQUIPMENT COMPATIBILITY.

THE CABINET MOUNTING SURFACE OF THE CONTROLLER CABINET SHOULD BE ORIENTED TO ENSURE THE MAIN CABINET DOOR WILL OPEN AWAY FROM ONCOMING TRAFFIC. CONTROLLER CABINET FOUNDATIONS SHALL BE BUILT TO THE LATEST FDOT STANDARDS. THE CONTROLLER CABINET SHALL BE LOCATED AWAY FROM DRAINAGE DITCHES, SWALES, AND APEX OF CURVES. THE CONTRACTOR SHALL MAKE EVERY ATTEMPT TO LOCATE THE CONTROLLER CABINET IN AN EFFORT TO MINIMIZE EXPOSURE TO ERRANT VEHICLES.



ALL SIGNAL CONTROLLER CABINETS SHALL HAVE A FRONT AND BACK ACCESS DOOR. ALL CONTROLLER CABINET DOOR DIAGRAMS SHALL REFLECT THE CURRENT, CORRECT DATA AND DOCUMENTATION.

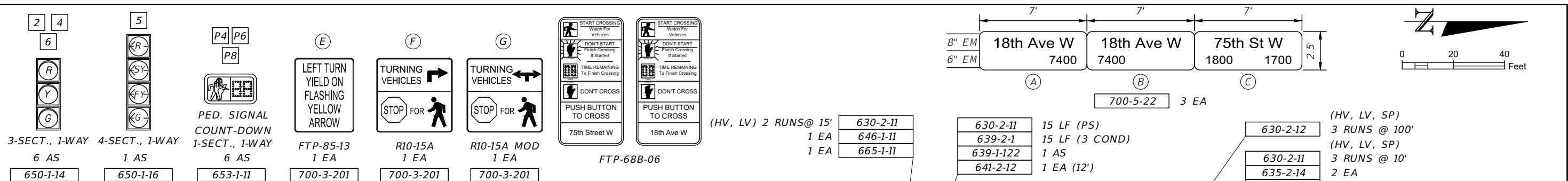
- CONTROLLER CABINETS SHALL BE WIRED FOR SOP 10 REGARDLESS OF THE PROPOSED SIGNAL OPERATION AT THE INTERSECTION AND SHALL OPERATE AS PER SIGNAL OPERATING PLAN SHOWN.
- SUBMIT CABINET DESIGN AND COMPONENTS TO THE COUNTY FOR APPROVAL.
10. 684-1-1:
PROVIDE RUGGEDCOM RSG920P (6GK6092-0PS23-0BA0-Z A05+B05+C02+D02) WITH TYPE SC CONNECTORS AND A RUGGEDCOM RPS1300 POWER-OVER-ETHERNET POWER SUPPLY.
 11. 685-1-11, 685-1-13:
SHALL INCLUDE AN UNINTERRUPTED POWER SUPPLY UNIT (UPS) EQUIPPED WITH AN ETHERNET PORT. ALL UNINTERRUPTIBLE POWER SUPPLIES SHALL SUPPORT SNMP (PROTOCOL) FOR REMOTE MONITORING AND MANAGEMENT. THE UPS SHALL BE SIZED TO ACCOMMODATE THE MAXIMUM CONNECTED LOAD. THE BATTERY BANK SHALL BE SIZED TO PROVIDE A MINIMUM 8 HOURS RUN TIME UNDER FULL LOAD INCLUDING ALL ITS DEVICES.

COORDINATE WITH THE COUNTY FOR AN ACCEPTABLE UPS MODEL PRIOR TO PURCHASE.

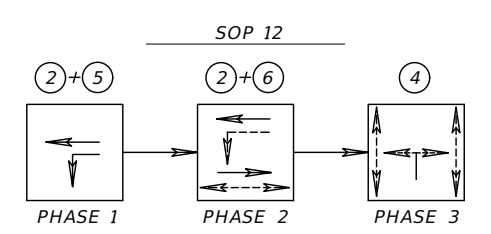
CONDUIT LEGEND
 HV = HIGH VOLTAGE CONDUIT
 LV = LOW VOLTAGE CONDUIT
 FO = FIBER OPTIC CONDUIT
 PS = POWER SERVICE CONDUIT
 SP = SPARE CONDUIT

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REVISIONS				 STANTEC CONSULTING SERVICES, INC.	DAVID J. ALLEN, P.E. P.E. LICENSE NUMBER 58540 3905 CRESCENT PARK DRIVE RIVERVIEW, FL 33578 (813) 664-4500	 MANATEE COUNTY PUBLIC WORKS COUNTY PROJECT NO: 6108260	75TH STREET WEST FROM 20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)		SHEET NO.
NO.	DESCRIPTION	DATE	BY				GENERAL NOTES (2)		T-6
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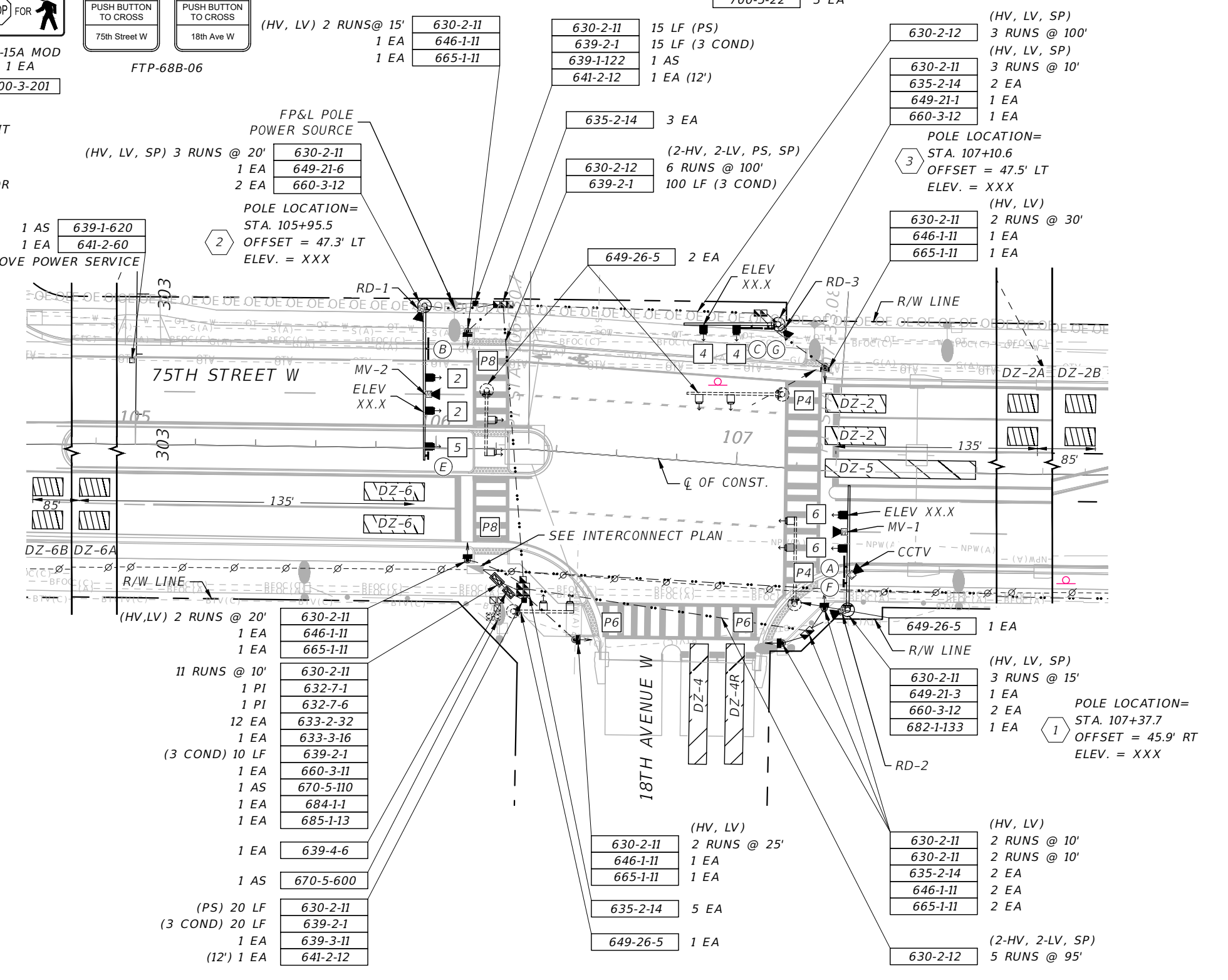
- NOTES:**
 1. POSTED SPEED LIMIT FOR 75TH STREET WEST IS 40 MPH. POSTED SPEED LIMIT FOR 18TH AVENUE WEST IS 30 MPH.
- CONTROLLER OPERATION**
 1. PROVIDE A 3-SECOND DELAY FOR BEGINNING OF FLASHING YELLOW ARROW FOR MOVEMENT 5.
 2. MAJOR STREET IS 75TH STREET WEST, MINOR STREET IS 18TH AVENUE WEST.
 3. FLASHING OPERATION SHALL BE YELLOW FOR MAIN STREET AND RED FOR ALL OTHER MOVEMENTS.



DETECTION ZONE ASSIGNMENTS			
RADAR DETECTOR NO.	DETECTION ZONE(S)	CONNECT TO MOVEMENT	DELAY TIME (SEC)
RD-1	DZ-6	6	
RD-2	DZ-4	4	
RD-2	DZ-4R	4	8
RD-3	DZ-2	2	
RD-3	DZ-5	5	
MV-1	DZ-6A	6	
MV-1	DZ-6B	6	
MV-2	DZ-2A	2	
MV-2	DZ-2B	2	

CONTROLLER TIMINGS									
TIMING FUNCTION		1	2	3	4	5	6	7	8
Movement Number									
MINIMUM GREEN		20	10	7	20				
EXTENSION		3.0	3.0	3.0	3.0				
MAXIMUM GREEN 1		40	20	30	40				
MAXIMUM GREEN 2									
YELLOW CLEARANCE		4.4	3.7	4.4	4.4				
ALL RED		2.0	4.3	2.0	2.0				
PEDESTRIAN WALK			7		7			7	
PED. CLEARANCE			21		18			20	
RECALL		MIN						MIN	
DETECTOR NON-LOCK					ON				

TIMINGS ARE INITIAL AND MAY REQUIRE FIELD ADJUSTING AS DIRECTED BY PROJECT ENGINEER.



REVISIONS			
NO.	DESCRIPTION	DATE	BY
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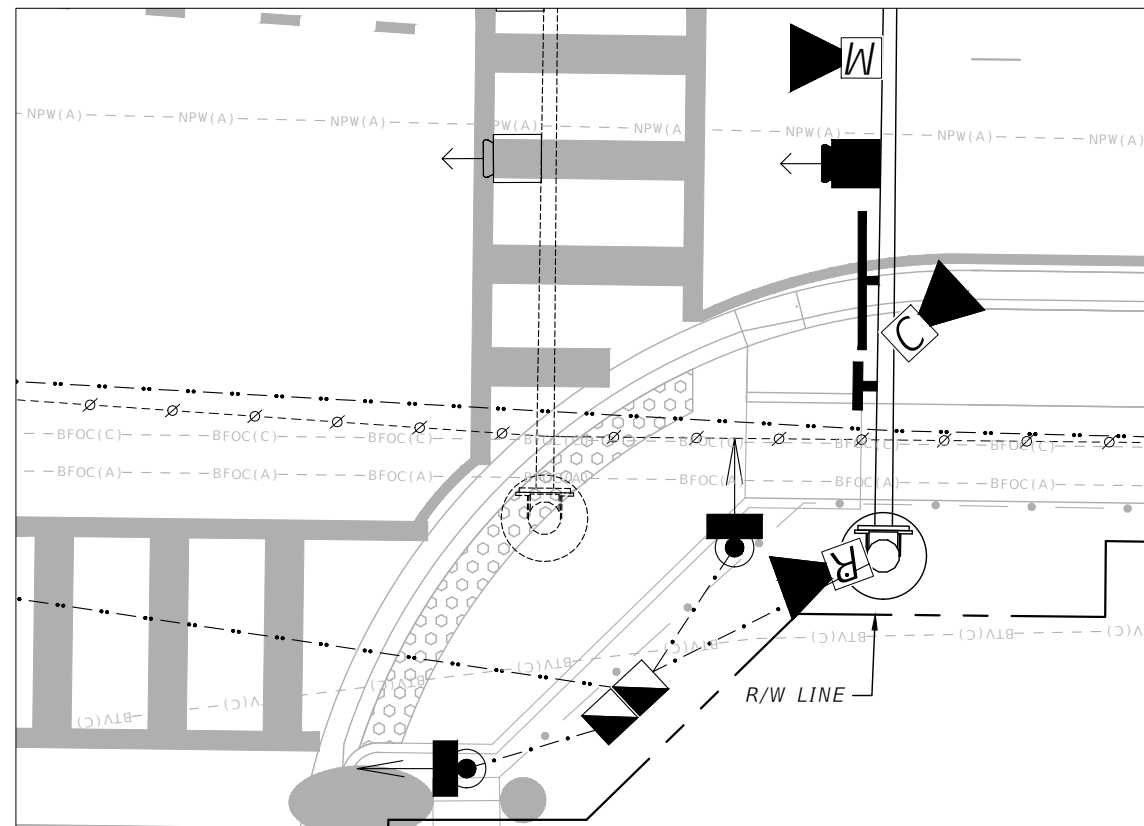
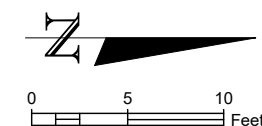
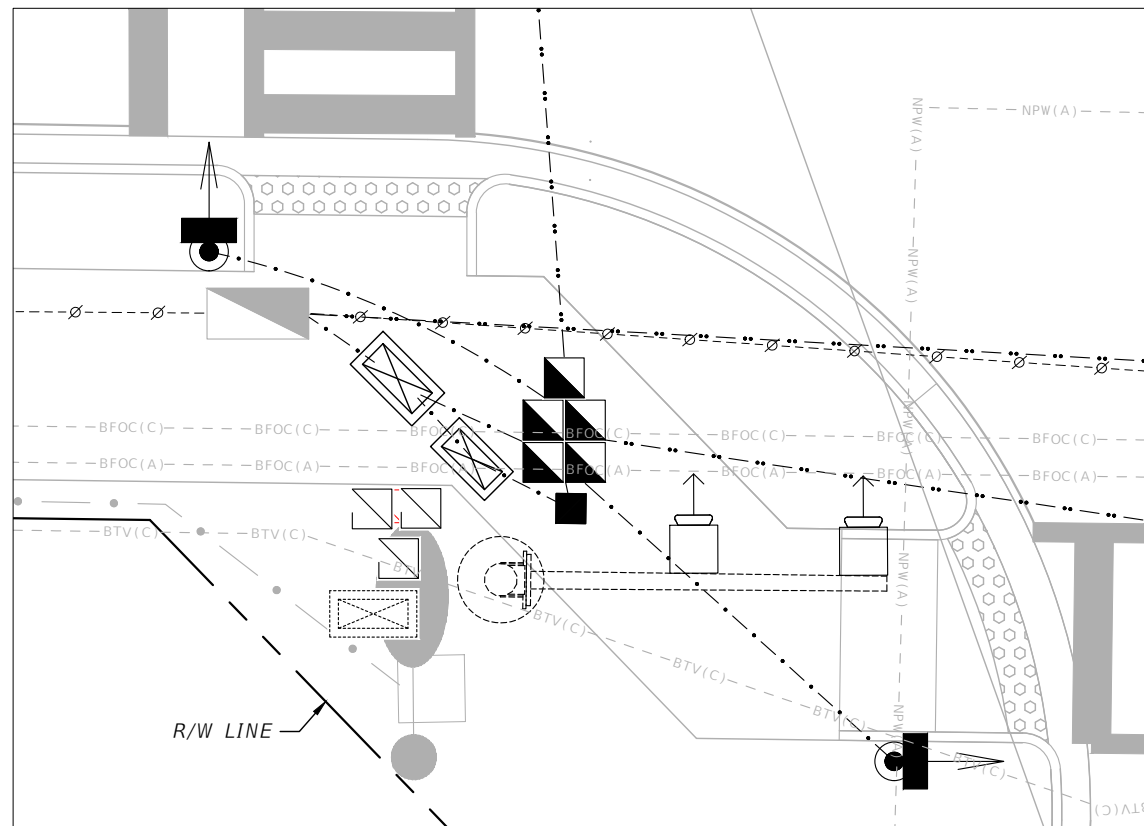
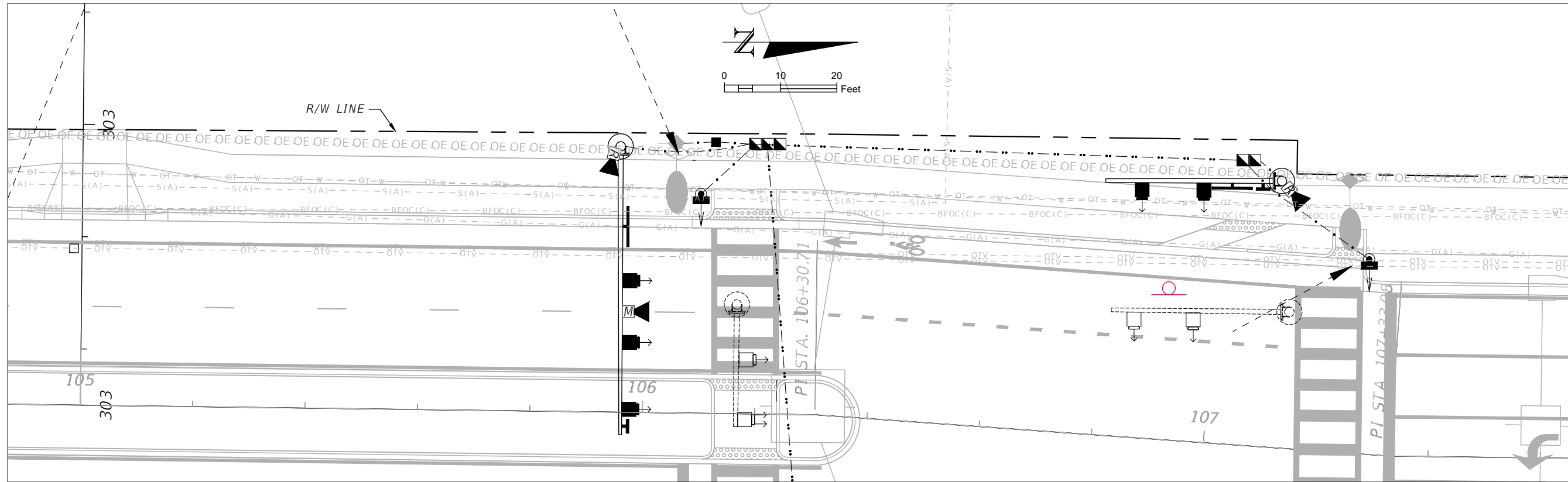


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75TH STREET WEST FROM 20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)		SHEET NO.
SIGNALIZATION PLAN (1)		T-7

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75TH STREET W

18TH AVENUE W

REVISIONS			
NO.	DESCRIPTION	DATE	BY



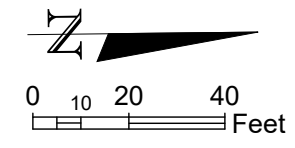
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MANATEE COUNTY
PUBLIC WORKS
COUNTY PROJECT NO:
6108260

SIGNALIZATION PLAN (2)

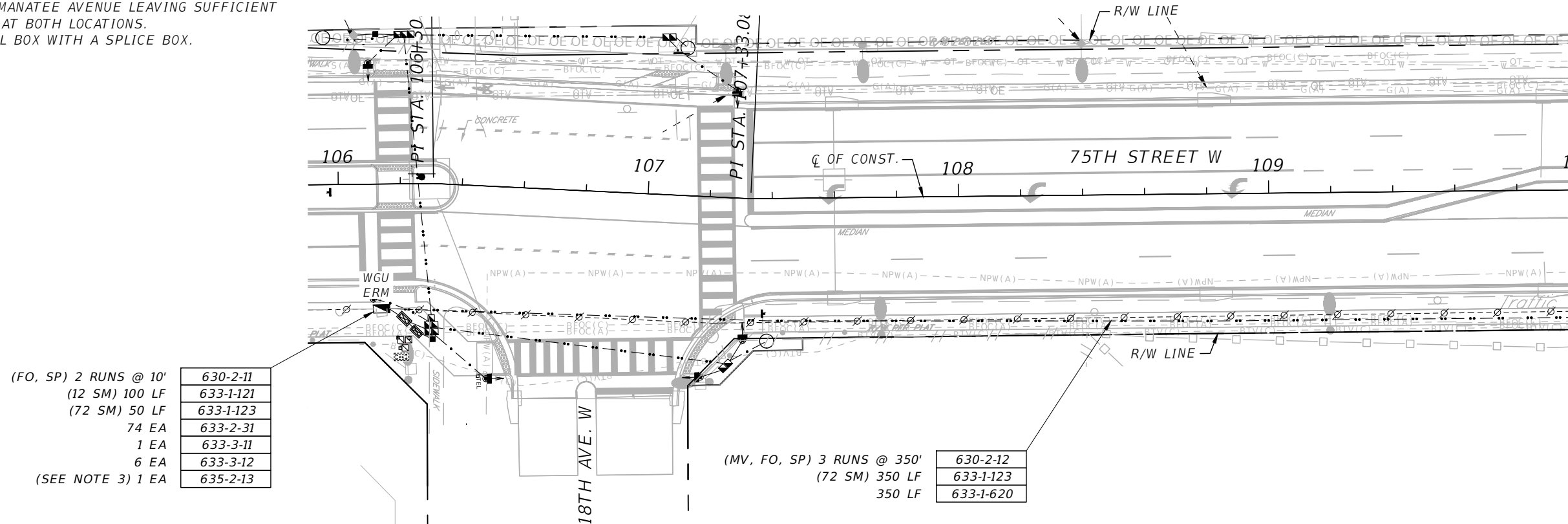
SHEET NO.
T-8

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NOTES

1. NOTIFY MANATEE COUNTY TRAFFIC ENGINEERING AT LEAST 5 BUSINESS DAYS PRIOR TO PERFORMING ANY WORK THAT AFFECTS EXISTING COMMUNICATIONS. SCHEDULE ALL PREPARATION WORK TO MINIMIZE ATMS COMMUNICATION DOWN TIME. PERFORM ALL WORK TO RESTORE COMMUNICATIONS WITHIN ONE WORK PERIOD.
2. REMOVE EXISTING 72 SM NORTH TO MANATEE AVENUE LEAVING SUFFICIENT SLACK TO PERFORM CABLE SPLICING AT BOTH LOCATIONS.
3. REPLACE EXISTING FIBER OPTIC PULL BOX WITH A SPLICE BOX.



(MV, FO, SP) 3 RUNS @ 350'	630-2-12
(72 SM) 350 LF	633-1-123
350 LF	633-1-620

REVISIONS			
NO.	DESCRIPTION	DATE	BY
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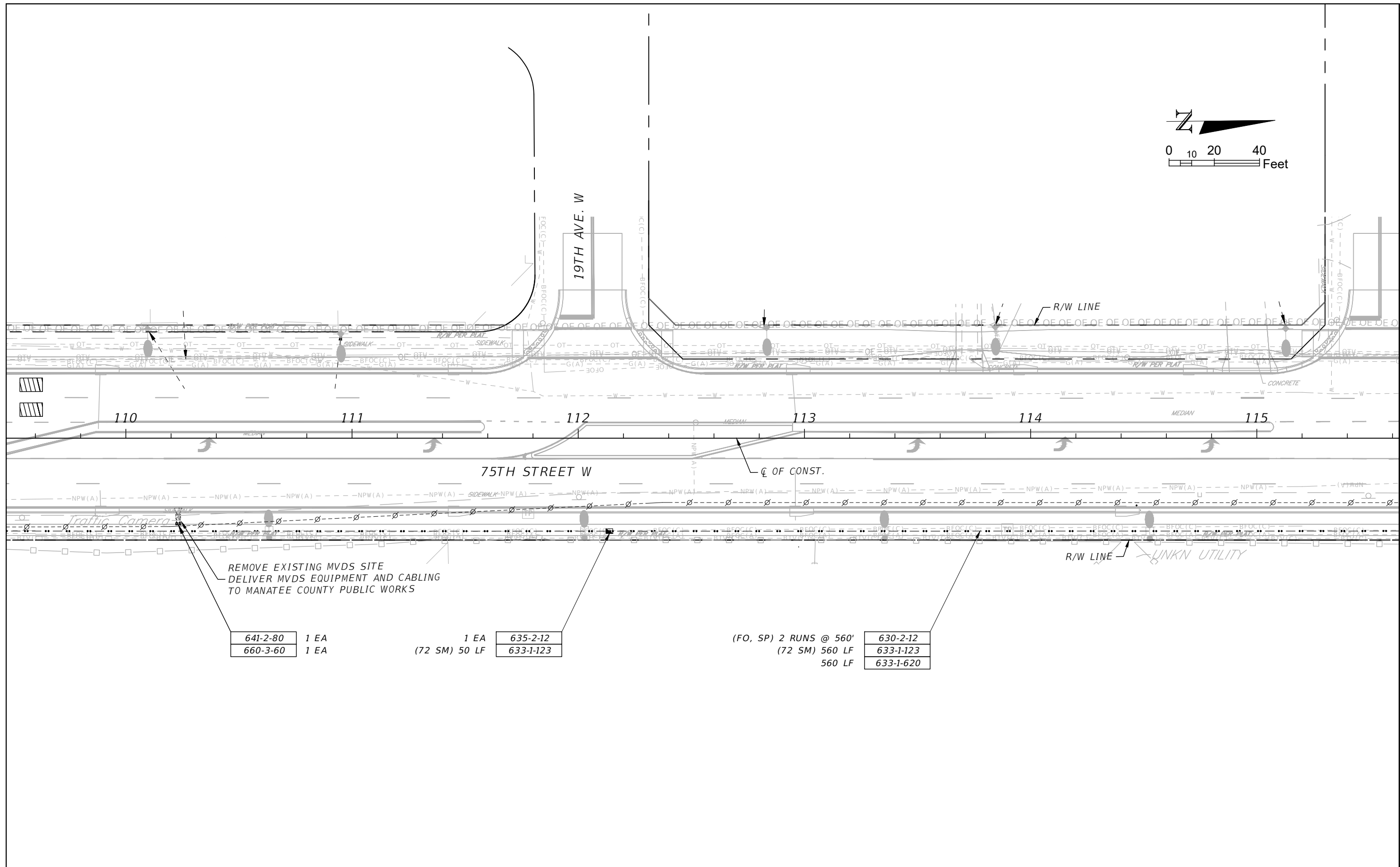
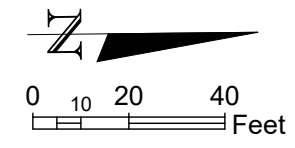
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75TH STREET WEST FROM
 20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
INTERCONNECT PLAN (1)

SHEET NO.
 T-9

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REMOVE EXISTING MVDS SITE
DELIVER MVDS EQUIPMENT AND CABLING
TO MANATEE COUNTY PUBLIC WORKS

641-2-80	1 EA
660-3-60	1 EA

1 EA	635-2-12
(72 SM) 50 LF	633-1-123

(FO, SP) 2 RUNS @ 560'	630-2-12
(72 SM) 560 LF	633-1-123
560 LF	633-1-620

REVISIONS			
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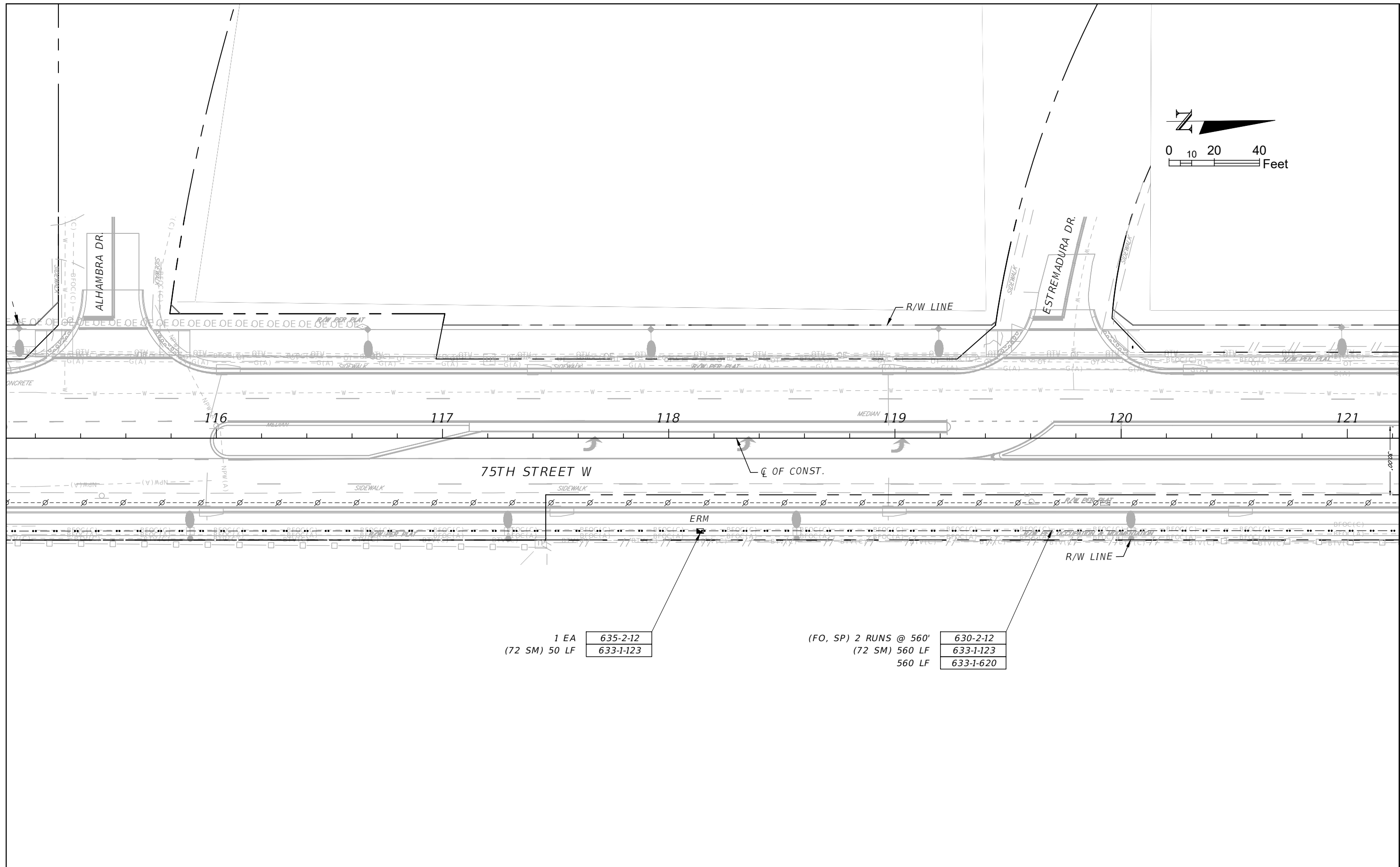
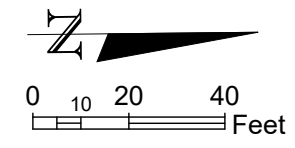
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75TH STREET WEST FROM
20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
INTERCONNECT PLAN (2)

SHEET NO.
T-10

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1 EA 635-2-12
(72 SM) 50 LF 633-1-123

(FO, SP) 2 RUNS @ 560' 630-2-12
(72 SM) 560 LF 633-1-123
560 LF 633-1-620

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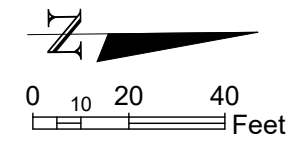


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75TH STREET WEST FROM
20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
INTERCONNECT PLAN (3)

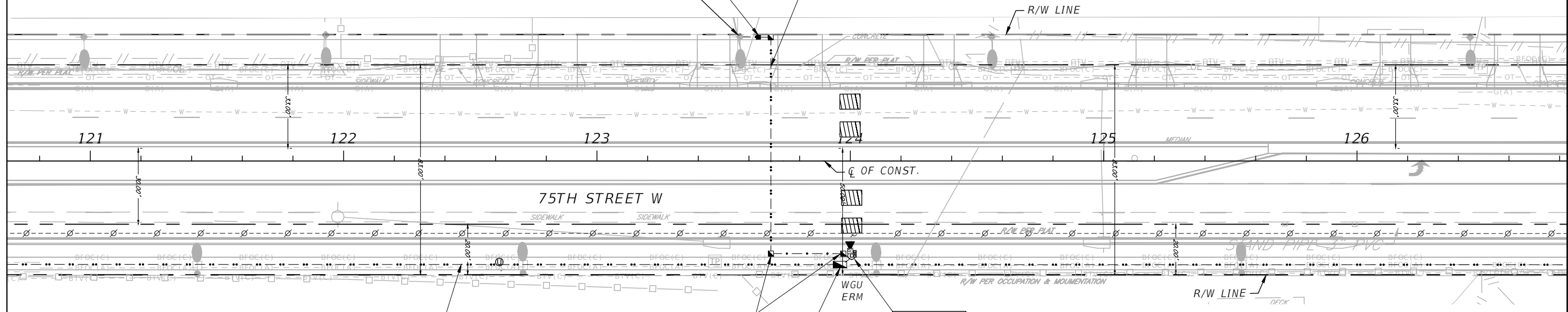
SHEET NO.
T-11



(PS) 15 LF	630-2-11
1 EA	635-2-14
1 AS	639-1-122
(3 COND) 15 LF	639-2-1
(12') 1 EA	641-2-12

630-2-12	(PS, SP) 2 RUNS @ 85'
639-2-1	85 LF

FP&L POLE
POWER SOURCE



(PS) 35 LF	630-2-11
2 EA	635-2-14
(3 COND) 35 LF	639-2-1

633-2-32	12 EA
633-3-16	1 EA
639-3-11	1 EA
641-2-13	1 EA
660-3-11	1 EA
660-3-12	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

MVDS SITE
STA. 124+00

= MVDS DETECTION ZONE

(FO, SP) 2 RUNS @ 560'	630-2-12
(72 SM) 560 LF	633-1-123
560 LF	633-1-620

(FO) 10 LF	630-2-11
(12 SM) 100 LF	633-1-121
(72 SM) 100 LF	633-1-123
4 EA	633-2-31
1 EA	633-3-11
1 EA	633-3-12
1 EA	635-2-13

REVISIONS			
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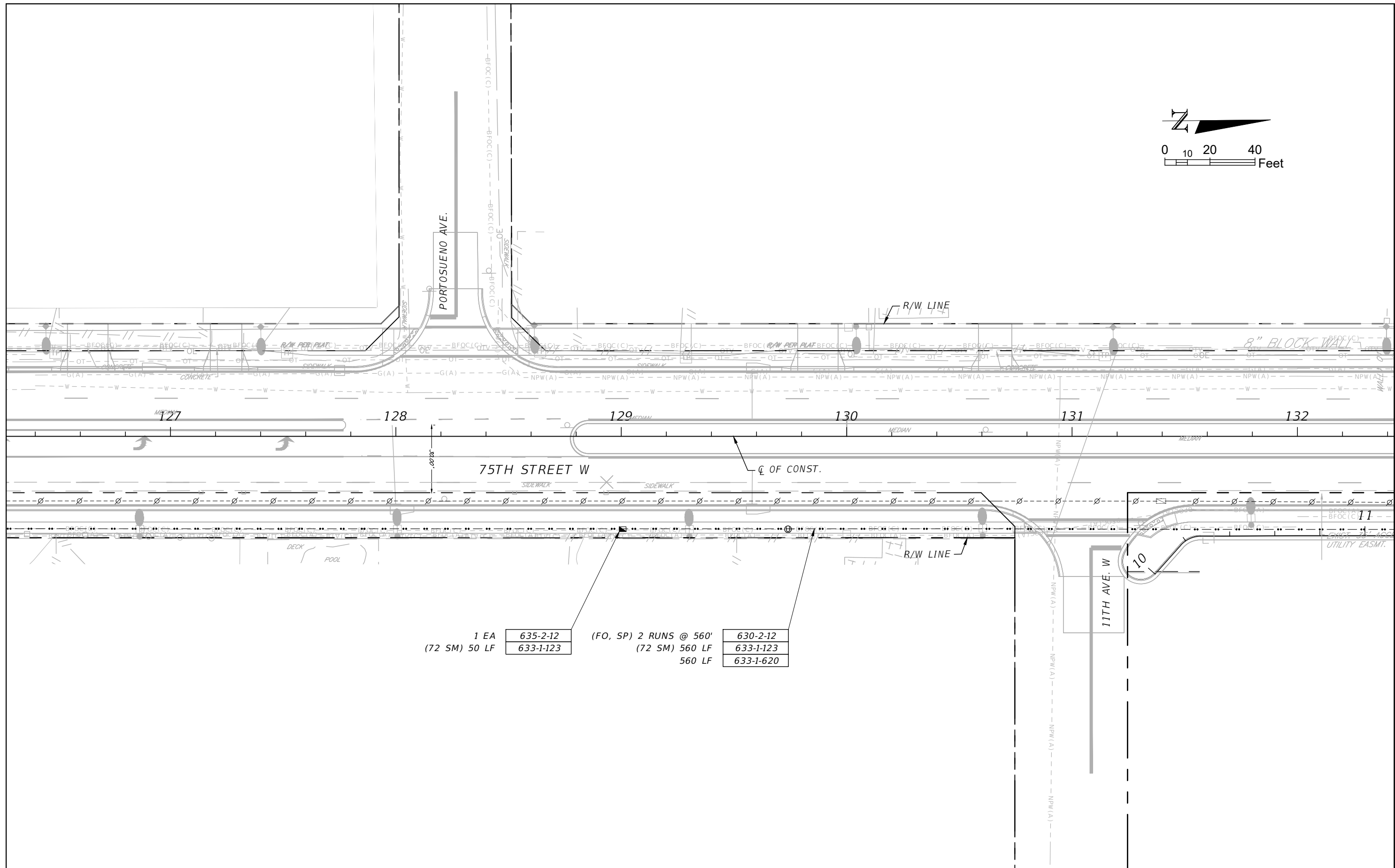
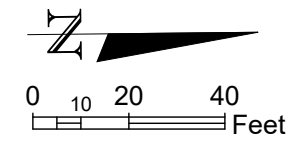
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75TH STREET WEST FROM
20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
INTERCONNECT PLAN (4)

SHEET NO.
T-12

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1 EA (72 SM) 50 LF	635-2-12 633-1-123	(FO, SP) 2 RUNS @ 560' (72 SM) 560 LF 560 LF	630-2-12 633-1-123 633-1-620
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NO.	DESCRIPTION	DATE	BY
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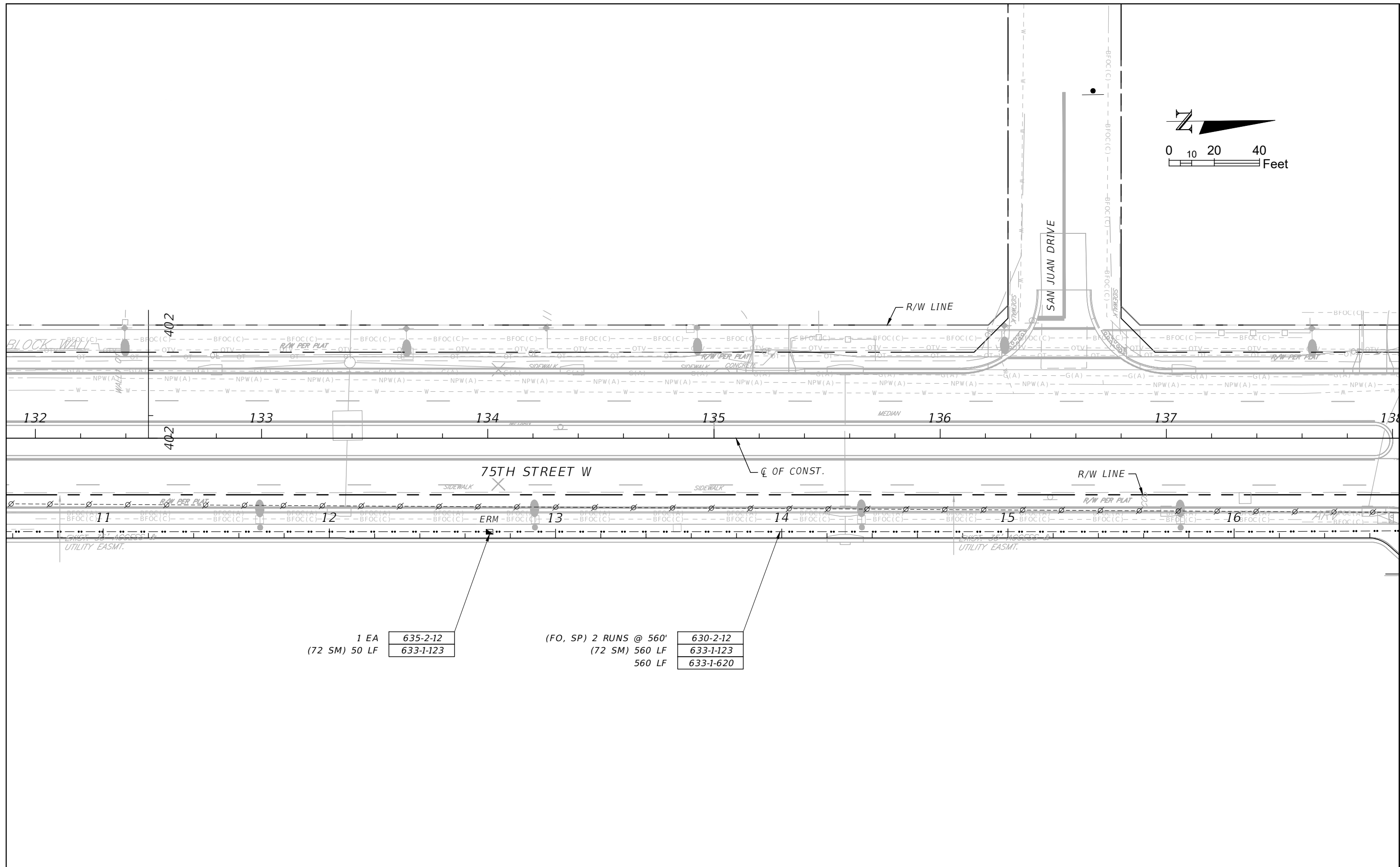
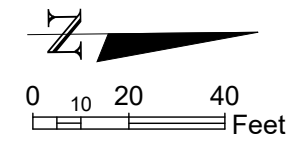


75TH STREET WEST FROM
20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)

INTERCONNECT PLAN (5)

SHEET NO.
T-13

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1 EA (72 SM) 50 LF 635-2-12
633-1-123 (FO, SP) 2 RUNS @ 560' (72 SM) 560 LF 630-2-12
633-1-123
633-1-620

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NO.	DESCRIPTION	DATE	BY

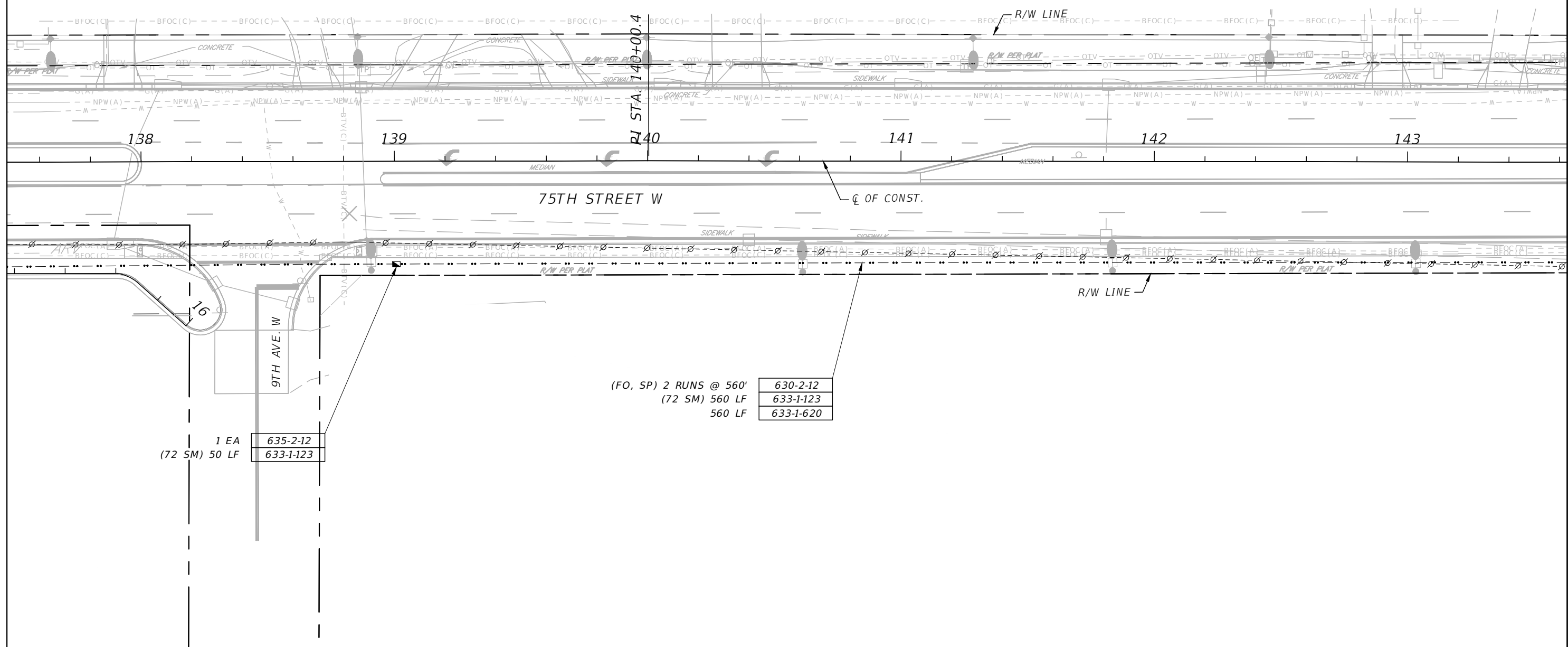
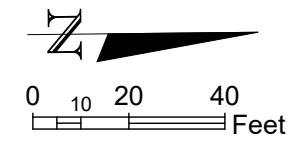


DAVID J. ALLEN, P.E.
P.E. LICENSE NUMBER 58540
3905 CRESCENT PARK DRIVE
RIVERVIEW, FL 33578
(813) 664-4500



75TH STREET WEST FROM
20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
INTERCONNECT PLAN (6)

SHEET NO.
T-14



1 EA	635-2-12
(72 SM) 50 LF	633-1-123

(FO, SP) 2 RUNS @ 560'	630-2-12
(72 SM) 560 LF	633-1-123
560 LF	633-1-620

REVISIONS			
NO.	DESCRIPTION	DATE	BY
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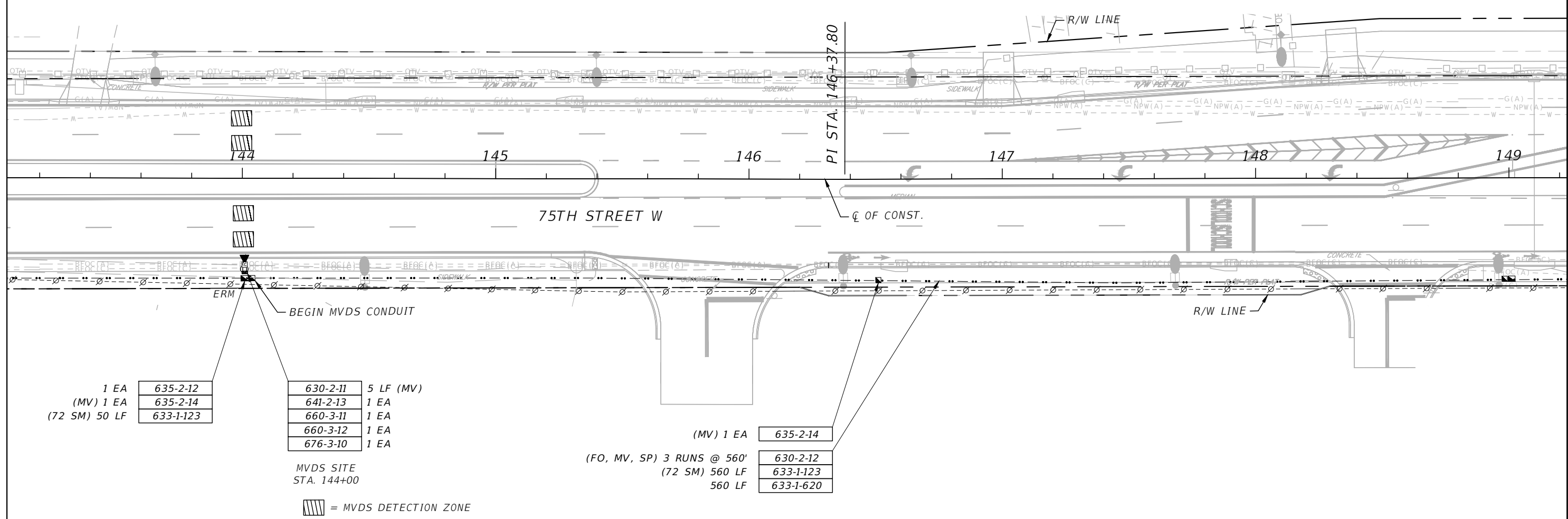
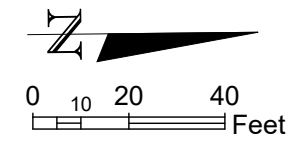
DAVID J. ALLEN, P.E.
 P.E. LICENSE NUMBER 58540
 3905 CRESCENT PARK DRIVE
 RIVERVIEW, FL 33578
 (813) 664-4500



75TH STREET WEST FROM
 20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
INTERCONNECT PLAN (7)

SHEET NO.
 T-15

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NO.	DESCRIPTION	DATE	BY
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P.E. LICENSE NUMBER 58540
3905 CRESCENT PARK DRIVE
RIVERVIEW, FL 33578
(813) 664-4500



75TH STREET WEST FROM
20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)

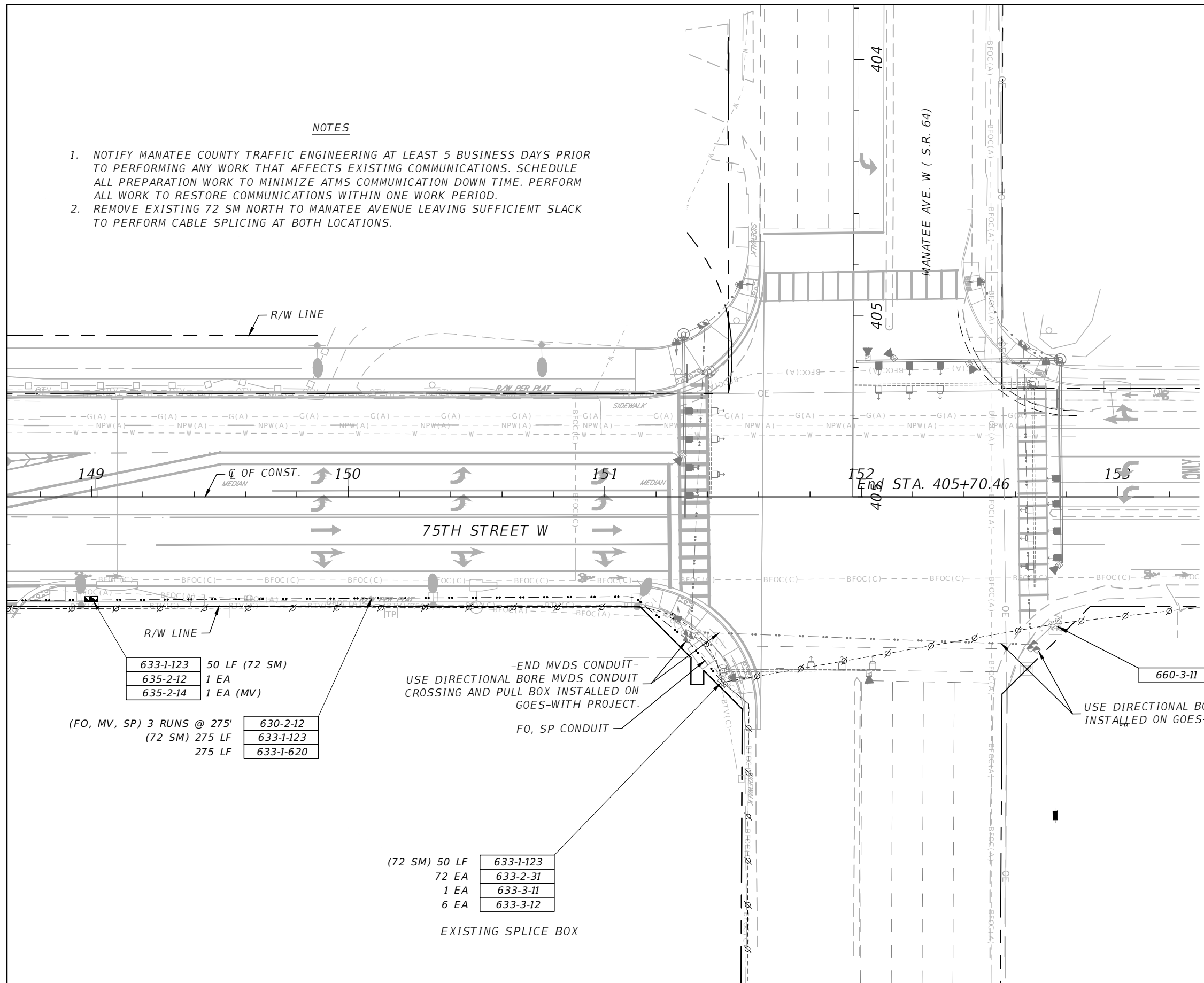
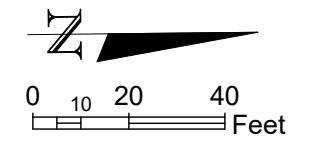
INTERCONNECT PLAN (8)

SHEET NO.
T-16

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

NOTES

1. NOTIFY MANATEE COUNTY TRAFFIC ENGINEERING AT LEAST 5 BUSINESS DAYS PRIOR TO PERFORMING ANY WORK THAT AFFECTS EXISTING COMMUNICATIONS. SCHEDULE ALL PREPARATION WORK TO MINIMIZE ATMS COMMUNICATION DOWN TIME. PERFORM ALL WORK TO RESTORE COMMUNICATIONS WITHIN ONE WORK PERIOD.
2. REMOVE EXISTING 72 SM NORTH TO MANATEE AVENUE LEAVING SUFFICIENT SLACK TO PERFORM CABLE SPLICING AT BOTH LOCATIONS.



633-1-123	50 LF (72 SM)
635-2-12	1 EA
635-2-14	1 EA (MV)

(FO, MV, SP) 3 RUNS @ 275'
(72 SM) 275 LF
275 LF

630-2-12
633-1-123
633-1-620

-END MVDS CONDUIT-
USE DIRECTIONAL BORE MVDS CONDUIT
CROSSING AND PULL BOX INSTALLED ON
GOES-WITH PROJECT.
FO, SP CONDUIT

660-3-11	1 EA
----------	------

USE DIRECTIONAL BORE MVDS CONDUIT AND PULL BOX
INSTALLED ON GOES-WITH PROJECT.

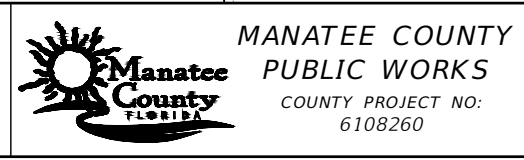
(72 SM) 50 LF	633-1-123
72 EA	633-2-31
1 EA	633-3-11
6 EA	633-3-12

EXISTING SPLICE BOX

REVISIONS			
NO.	DESCRIPTION	DATE	BY
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RIVERVIEW, FL 33578
(813) 664-4500



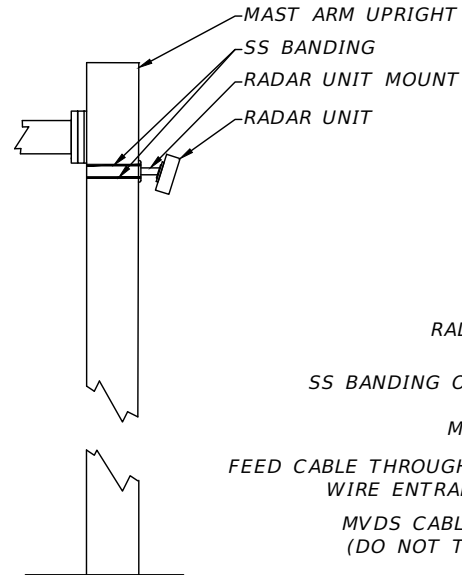
75TH STREET WEST FROM
20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
INTERCONNECT PLAN (9)

SHEET NO.
T-17

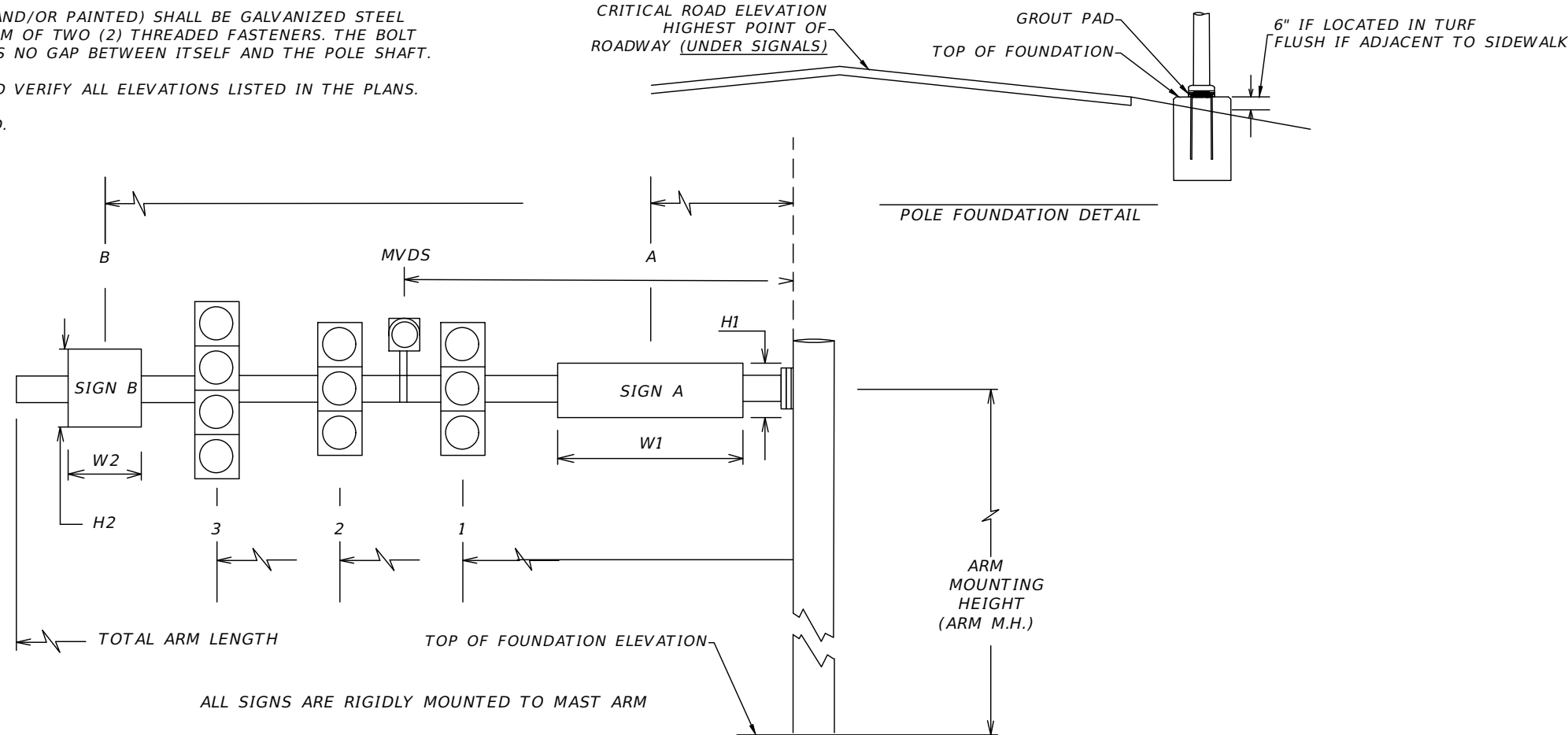
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

SPECIAL NOTES

- A. EACH POLE AND MAST ARM SHALL BE IDENTIFIED WITH A PERMANENT ONE INCH (1") HIGH ENGRAVED OR IMPRESSED MARK WHICH BEARS THE POLE IDENTIFICATION NUMBER SHOWN ON THE PLANS.
- B. ANCHOR BOLT COVERS (ORNAMENTAL, NON-ORNAMENTAL, AND/OR PAINTED) SHALL BE GALVANIZED STEEL OR CAST ALUMINUM AND SHALL BE SECURED BY A MINIMUM OF TWO (2) THREADED FASTENERS. THE BOLT COVERS SHALL BE OF SUFFICIENT SIZE SO THAT THERE IS NO GAP BETWEEN ITSELF AND THE POLE SHAFT.
- C. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL ELEVATIONS LISTED IN THE PLANS.
- D. ALL MAST ARM POLES SHALL BE GALVANIZED NON-PAINTED.



RADAR MOUNTING DETAILS



POLE FOUNDATION DETAIL

ALL SIGNS ARE RIGIDLY MOUNTED TO MAST ARM

* DENOTES NUMBER OF SECTIONS IN SIGNAL HEAD ASSEMBLY

-- FIELD INSTALLATION DATA --

FDOT ID NO.	POLE NO.	LOCATION BY STA.	TOP OF FOUND. ELEVATION	RDWY ARM NO.	CROWN ELEV.	SIGNAL DATA												TOTAL ARM LENGTH	ARM M.H.	ANGLE BETWEEN DUAL ARMS 90/270	SIGN DATA												MINOR DEVICE DISTANCE				
						SIGNAL V/H	BACK PLATES Y/N	PED. SIGNAL Y/N	DISTANCE FROM POLE												DISTANCE FROM POLE / HEIGHT AND WIDTH OF SIGN																
									1	*	2	*	3	*	4	*	5				*	A	H1	W1	B	H2	W2	C	H3	W3	D	H4			W4		
N/A	1	107+37.7 45.9 RT	XX	1	XX	V	Y	N	19	3	30	3																				24					
N/A	2	105+95.5 47.3 LT	XX	1	XX	V	Y	N	23	3	34	3	45	4																							
N/A	3	107+10.6 47.5 LT	XX	1	XX	V	Y	N	12	3	24	3																									

REVISIONS			
NO.	DESCRIPTION	DATE	BY
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DAVID J. ALLEN, P.E.
P.E. LICENSE NUMBER 58540
3905 CRESCENT PARK DRIVE
RIVERVIEW, FL 33578
(813) 664-4500



75TH STREET WEST FROM
20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)

MAST ARM TABULATION

SHEET NO.
T-18

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

<i>STANDARD MAST ARM ASSEMBLIES DATA TABLE</i>											Table Date 11-01-16
<i>STRUCTURE ID NUMBER</i>	<i>DESIGNATION</i>	<i>FIRST ARM</i>		<i>SECOND ARM</i>		<i>UF (deg)</i>	<i>LL (deg)</i>	<i>POLE</i>			<i>DRILLED SHAFT ID</i>
		<i>ARM ID</i>	<i>FAA (ft.)</i>	<i>ARM ID</i>	<i>SAA (ft.)</i>			<i>POLE ID</i>	<i>UAA (ft.)</i>	<i>UB (ft.)</i>	
1											
2											
3											

NOTES [Notes Date 11-01-16]:

- 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. 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.*
- 4. Work with Index 649-030 and 649-031.*

<i>REVISIONS</i>			
<i>NO.</i>	<i>DESCRIPTION</i>	<i>DATE</i>	<i>BY</i>
----	----		



CHRISTOPHER P. GAMACHE, P.E.
P.E. LICENSE NUMBER 82122
380 PARK PLACE BOULEVARD
SUITE 300
CLEARWATER, FLORIDA, 33759
(727) 531-3505



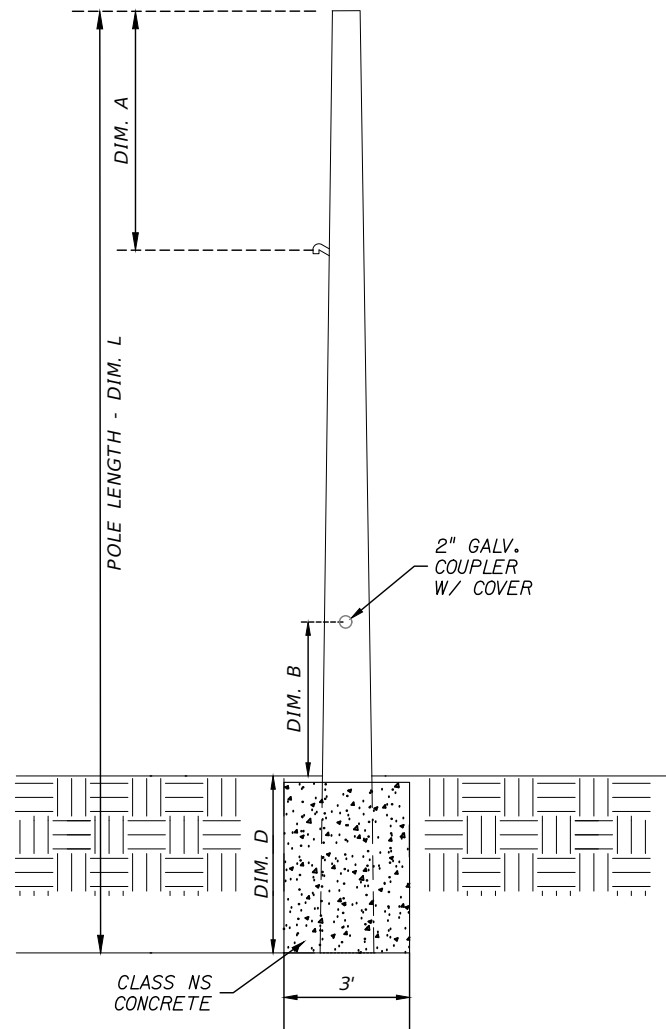
MANATEE COUNTY
PUBLIC WORKS
COUNTY PROJECT NO:
6108260

75TH STREET WEST FROM
20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
**STANDARD MAST ARM
ASSEMBLIES DATA TABLE**

SHEET NO.
T-19



NOTES:

1. WORK THIS SHEET WITH FDOT 2023-24 STANDARD PLAN INDEX 641-010.
2. SEE MVDS SITE DETAILS SHEET FOR SPECIFIC ATTACHMENTS.



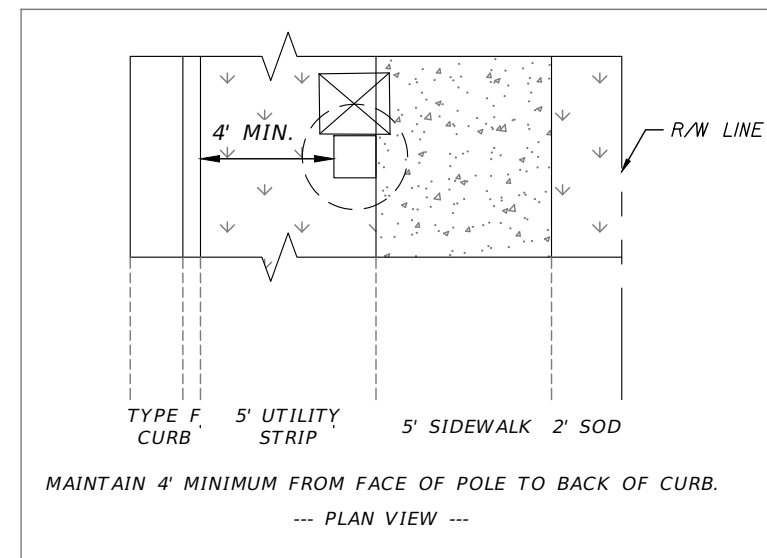
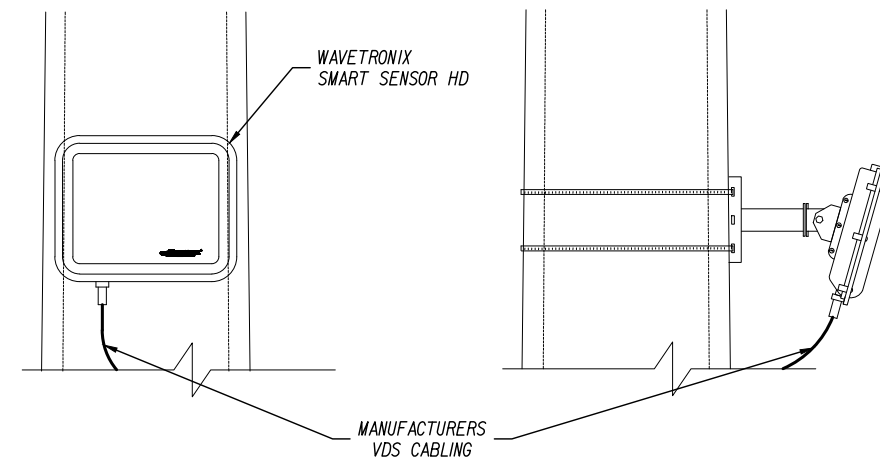
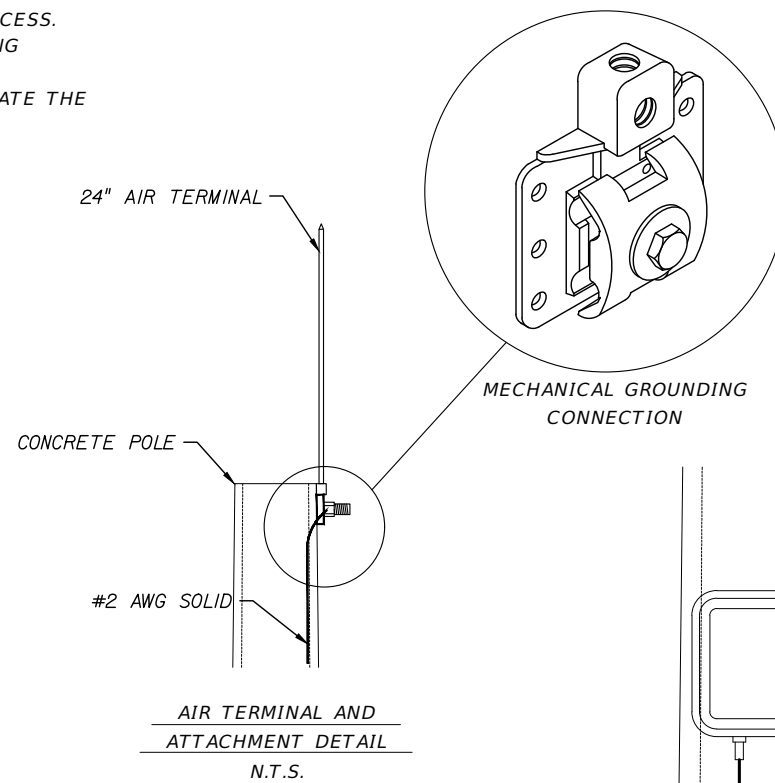
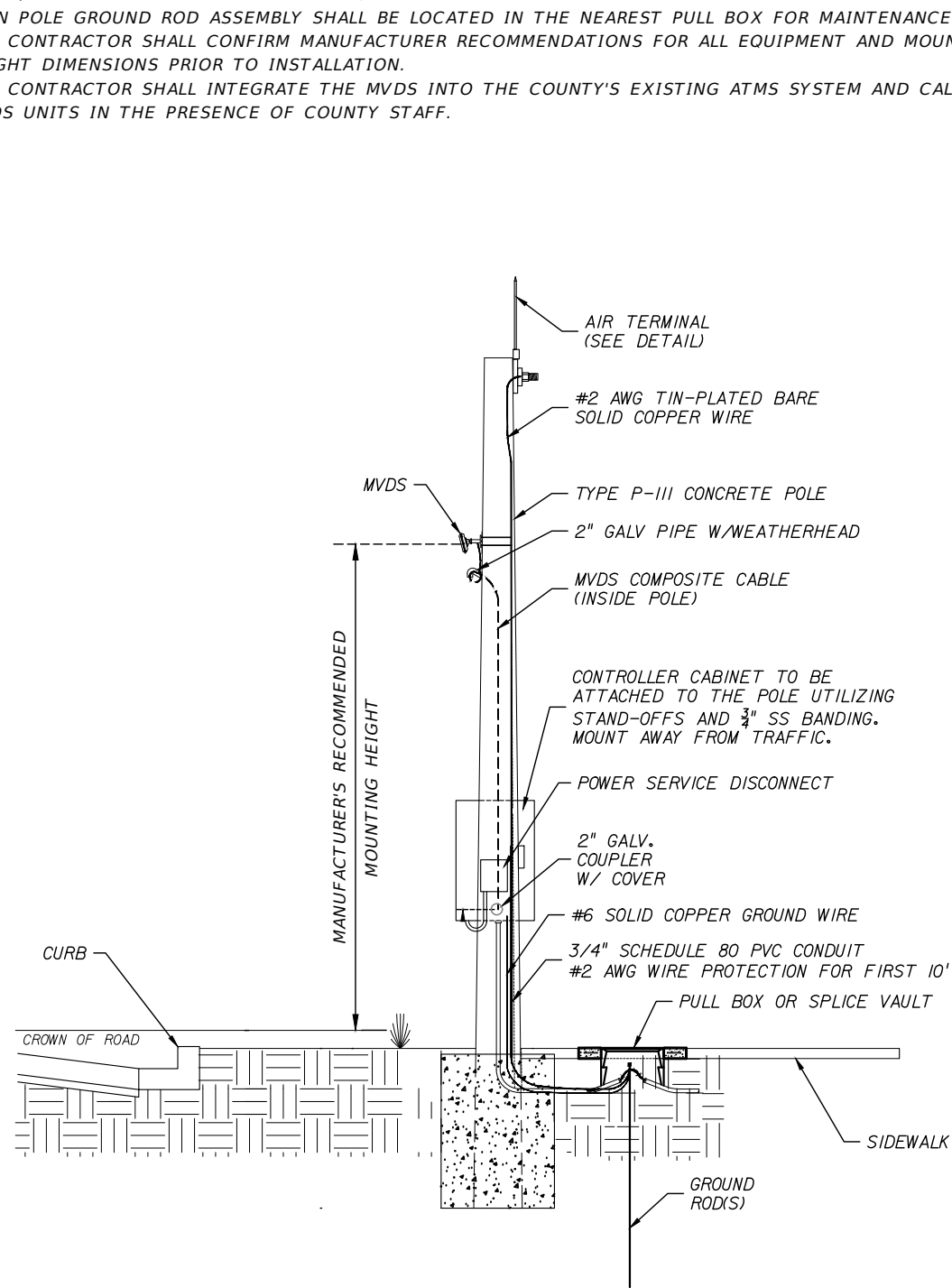
MVDS POLE VARIABLES					
MVDS STATION	DIM. A (FT)	DIM. B (FT)	DIM. D (FT)	DIM. L (FT)	LOCATION
124+00	6	4.5	13	36	FRONT OF SIDEWALK
144+00	6	4.5	13	36	FRONT OF SIDEWALK

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REVISIONS				 Stantec STANTEC CONSULTING SERVICES, INC.	CHRISTOPHER P. GAMACHE, P.E. P.E. LICENSE NUMBER 82122 380 PARK PLACE BOULEVARD SUITE 300 CLEARWATER, FLORIDA, 33759 (727) 531-3505	 MANATEE COUNTY PUBLIC WORKS COUNTY PROJECT NO: 6108260	75TH STREET WEST FROM 20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)		SHEET NO.
NO.	DESCRIPTION	DATE	BY				MVDS POLE VARIABLES		T-20
---	---	---	---						

NOTES:

1. THE MOUNTING ARM FOR THE MVDS SHALL BE ATTACHED TO THE POLE USING 3/4" STAINLESS STEEL BANDING.
2. INSTALL GROUNDING FOR THE MVDS SITE AS PER SECTION 620 OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. ACHIEVE A GROUND RESISTANCE OF 5 OHMS OR LESS 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.
3. THE CONTRACTOR SHALL CONFIRM MANUFACTURER RECOMMENDATIONS FOR ALL EQUIPMENT AND MOUNTING HEIGHT DIMENSIONS PRIOR TO INSTALLATION.
4. THE CONTRACTOR SHALL INTEGRATE THE MVDS INTO THE COUNTY'S EXISTING ATMS SYSTEM AND CALIBRATE THE MVDS UNITS IN THE PRESENCE OF COUNTY STAFF.



REVISIONS			
NO.	DESCRIPTION	DATE	BY
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DAVID J. ALLEN, P.E.
P.E. LICENSE NUMBER 58540
3905 CRESCENT PARK DRIVE
RIVERVIEW, FL 33578
(813) 664-4500



MANATEE COUNTY
PUBLIC WORKS
COUNTY PROJECT NO:
6108260

75TH STREET WEST FROM
20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)

MVDS SITE DETAILS

SHEET
NO.

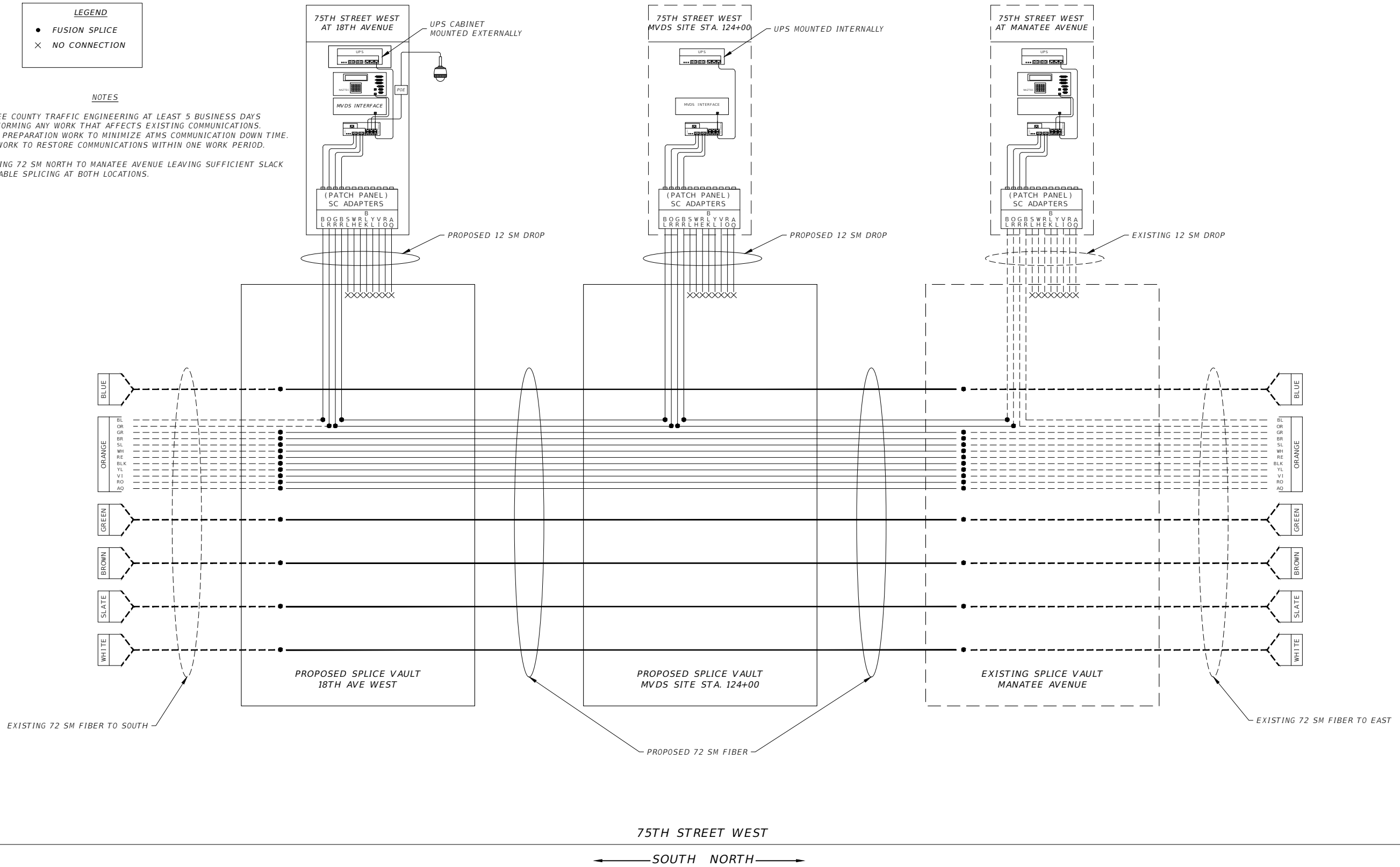
T-21

LEGEND

- FUSION SPLICE
- × NO CONNECTION

NOTES

1. NOTIFY MANATEE COUNTY TRAFFIC ENGINEERING AT LEAST 5 BUSINESS DAYS PRIOR TO PERFORMING ANY WORK THAT AFFECTS EXISTING COMMUNICATIONS. SCHEDULE ALL PREPARATION WORK TO MINIMIZE ATMS COMMUNICATION DOWN TIME. PERFORM ALL WORK TO RESTORE COMMUNICATIONS WITHIN ONE WORK PERIOD.
2. REMOVE EXISTING 72 SM NORTH TO MANATEE AVENUE LEAVING SUFFICIENT SLACK TO PERFORM CABLE SPLICING AT BOTH LOCATIONS.



REVISIONS			
NO.	DESCRIPTION	DATE	BY
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DAVID J. ALLEN, P.E.
 P.E. LICENSE NUMBER 58540
 3905 CRESCENT PARK DRIVE
 RIVERVIEW, FL 33578
 (813) 664-4500



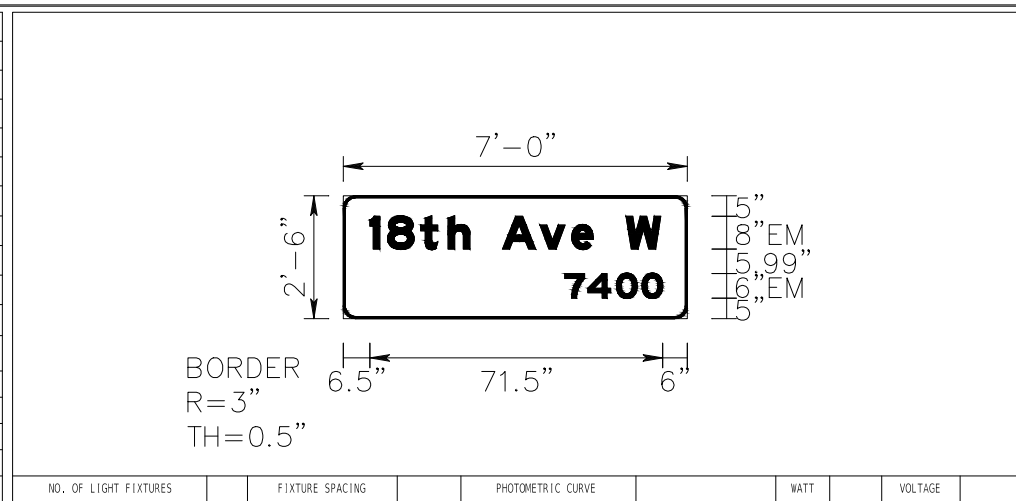
MANATEE COUNTY
 PUBLIC WORKS
 COUNTY PROJECT NO:
 6108260

75TH STREET WEST FROM
 20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
FIBER OPTIC SPLICE DETAILS

SHEET NO.
 T-22

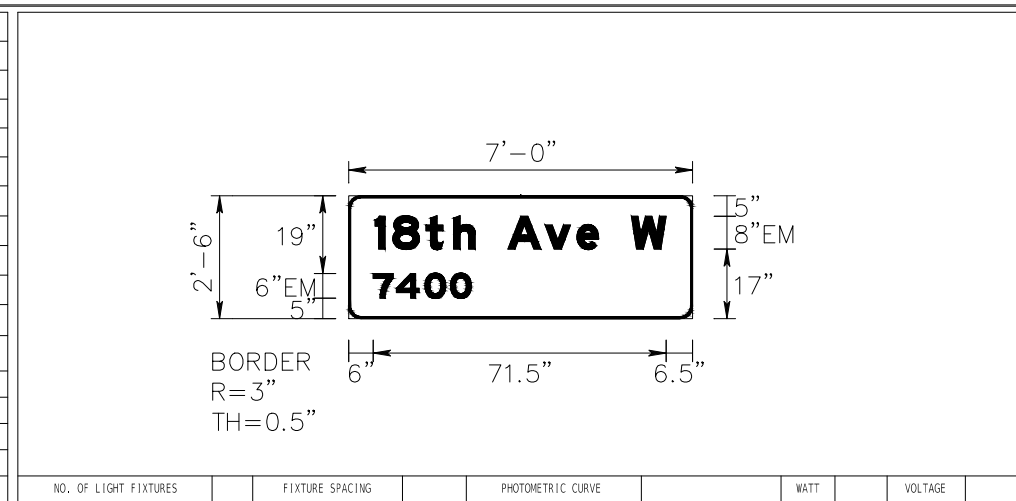
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SIGN NAME	A		QTY	/	SIGN NUMBER	STATION(S)
PANEL	BORDER		N/A			
WIDTH	7'-0"	WIDTH	0.5"			
HEIGHT	2'-6"	RADII	3"			
LEGEND	White	COLOR	White			
COLOR	Green					
SYMBOL(S)	ANGLE	X	Y	WID	HT	
SIGN NUMBER	NUMBER OF POSTS	CLEARANCE Edge Of Lane	COLUMN SIZE		AVERAGE LENGTH	



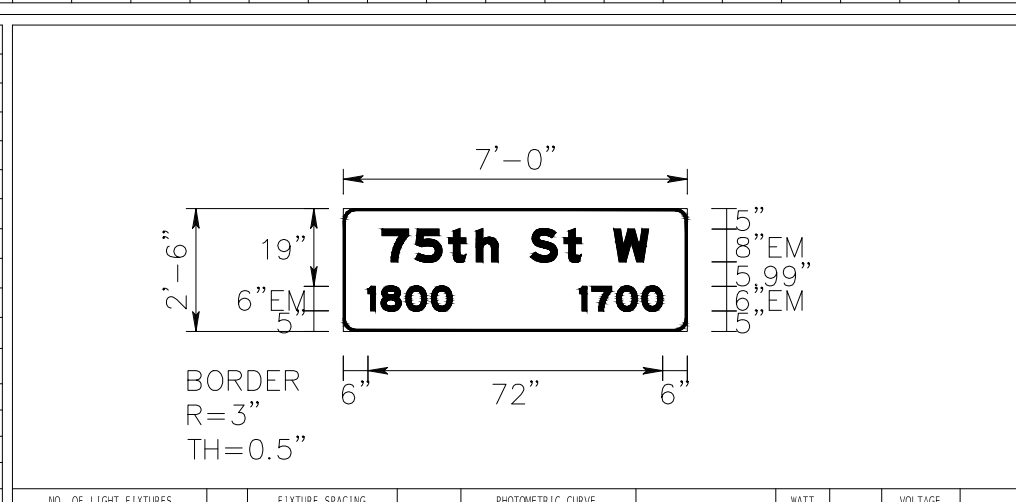
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SPACE	6.5	4.3	8.1	6.7	5.3	8	9.1	7.8	5.3	8	8.5	6.5	71						
COPY	7	4	0	0	L														
SPACE	54.1	5.6	7	6.2	5	6	23.9												
COPY																			
SPACE																			

SIGN NAME	B		QTY	/	SIGN NUMBER	STATION(S)
PANEL	BORDER		N/A			
WIDTH	7'-0"	WIDTH	0.5"			
HEIGHT	2'-6"	RADII	3"			
LEGEND	White	COLOR	White			
COLOR	Green					
SYMBOL(S)	ANGLE	X	Y	WID	HT	
SIGN NUMBER	NUMBER OF POSTS	CLEARANCE Edge Of Lane	COLUMN SIZE		AVERAGE LENGTH	



COPY	1	8	t	h	A	v	e	w	L										
SPACE	6.5	4.3	8.1	6.7	5.3	8	9.1	7.8	5.3	8	8.5	6.5	71						
COPY	7	4	0	0	L														
SPACE	6	5.6	7	6.2	5	54.1	23.9												
COPY																			
SPACE																			

SIGN NAME	C		QTY	/	SIGN NUMBER	STATION(S)
PANEL	BORDER		N/A			
WIDTH	7'-0"	WIDTH	0.5"			
HEIGHT	2'-6"	RADII	3"			
LEGEND	White	COLOR	White			
COLOR	Green					
SYMBOL(S)	ANGLE	X	Y	WID	HT	
SIGN NUMBER	NUMBER OF POSTS	CLEARANCE Edge Of Lane	COLUMN SIZE		AVERAGE LENGTH	



COPY	7	5	t	h	S	t	w	L											
SPACE	9.4	8.2	8.2	6.7	5.3	8	8.2	4.2	8	8.5	9.4	65.1							
COPY	1	8	0	0	L														
SPACE	6	3.2	6.1	6.2	5	57.4	20.6												
COPY	1	7	0	0	L														
SPACE	57.7	3	6.1	6.2	5	6	20.3												
COPY																			
SPACE																			

SIGN NAME			QTY	/	SIGN NUMBER	STATION(S)
PANEL	BORDER					
WIDTH	WIDTH					
HEIGHT	RADII					
LEGEND	COLOR					
COLOR						
SYMBOL(S)	ANGLE	X	Y	WID	HT	
SIGN NUMBER	NUMBER OF POSTS	CLEARANCE Edge Of Lane	COLUMN SIZE		AVERAGE LENGTH	

COPY																			
SPACE																			
COPY																			
SPACE																			

REVISIONS			
NO.	DESCRIPTION	DATE	BY
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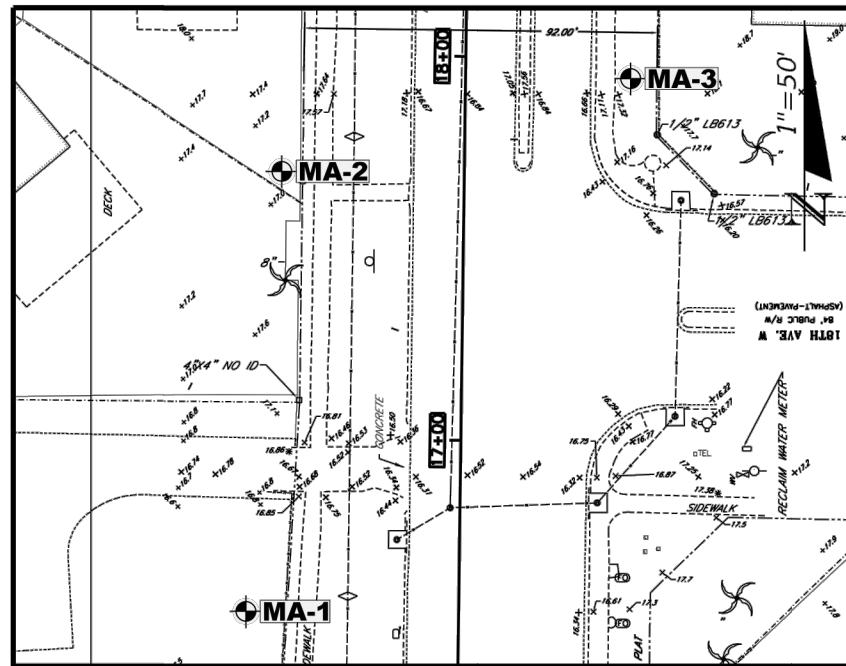
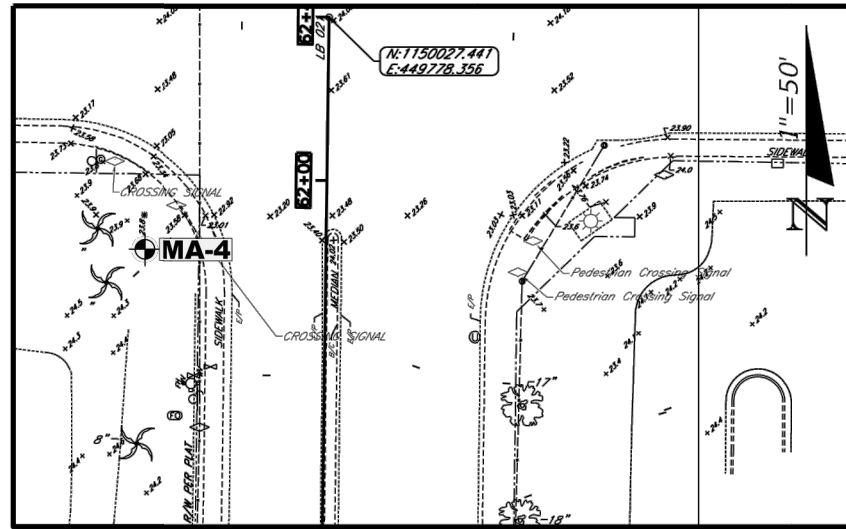


DAVID J. ALLEN, P.E.
P.E. LICENSE NUMBER 58540
3905 CRESCENT PARK DRIVE
RIVERVIEW, FL 33578
(813) 664-4500



75TH STREET WEST FROM
20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
GUIDE SIGN WORKSHEET
SHEET NO. T-23

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



BORING LOCATION PLAN

Approximate Location of SPT Boring

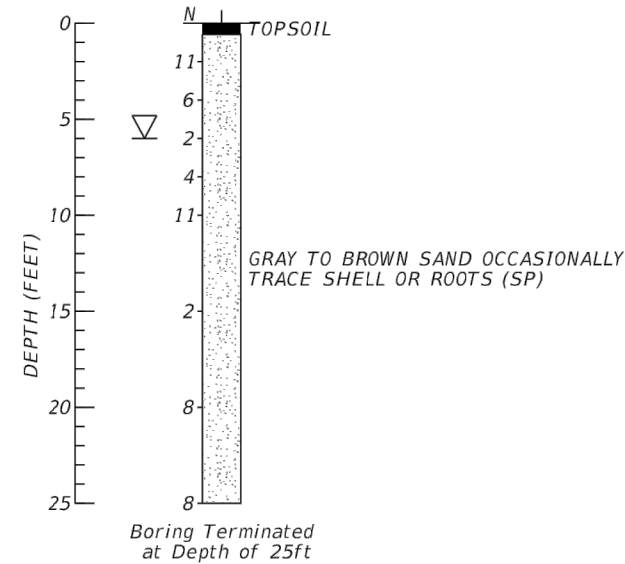
LEGEND

- ▽ ENCOUNTERED GROUNDWATER TABLE
- GNE GROUNDWATER NOT ENCOUNTERED IN UPPER 10 FEET
- || CASING
- Asphalt / Topsoil
- Sand
- Gravelly Sand

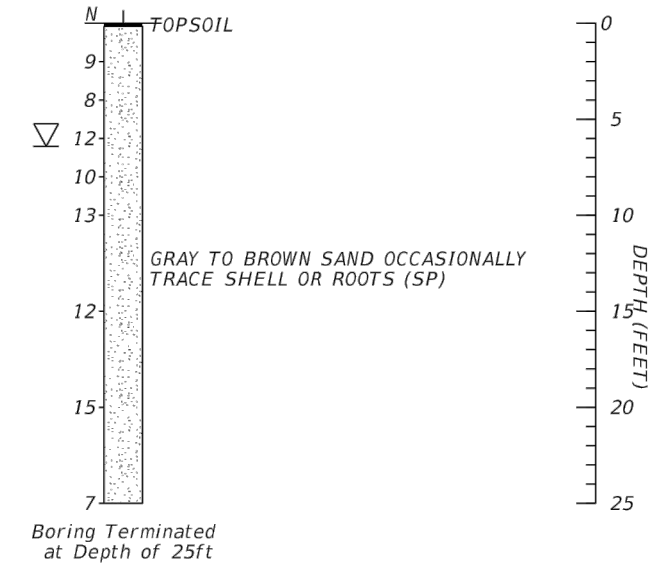
NOTES

1. BORING LOCATIONS WERE MARKED IN THE FIELD USING A HANDHELD GPSMAP GARMIN 78s. ACTUAL LOCATIONS AND THEIR COORDINATES ARE APPROXIMATE.
2. DEPTH SHOWN ARE IN FEET FROM EXISTING GROUND SURFACE
3. SPT N-VALUES SHOWN ABOVE WERE OBTAINED USING AUTOMATIC HAMMERS. GENERALLY DESIGN CORRELATIONS AND PROGRAMS USE SAFETY HAMMERS N-VALUES. HENCE, THE ABOVE N-VALUES NEED TO BE MULTIPLIED BY 1.24 TO OBTAIN EQUIVALENT SAFETY HAMMER N-VALUES FOR DESIGN PURPOSE.

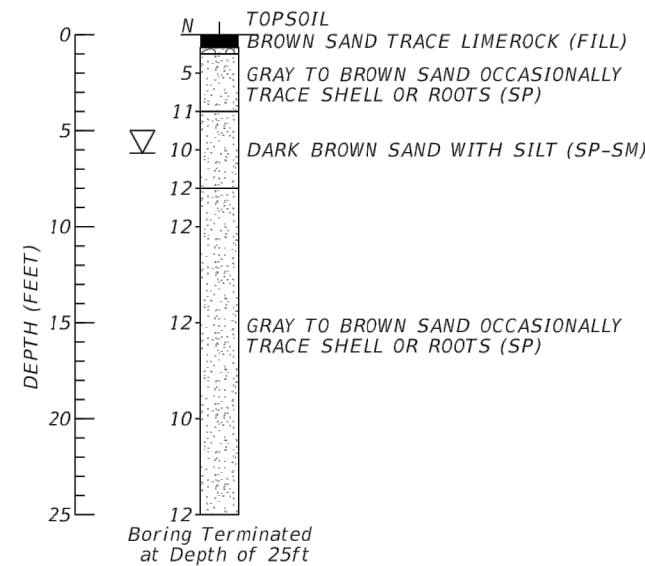
Bore # MA-01
 Date 5/27/2023
 Driller Y. OVIEDO
 Hammer AUTO
 Rig CME-55
 Latitude 27.483424
 Longitude -82.63689



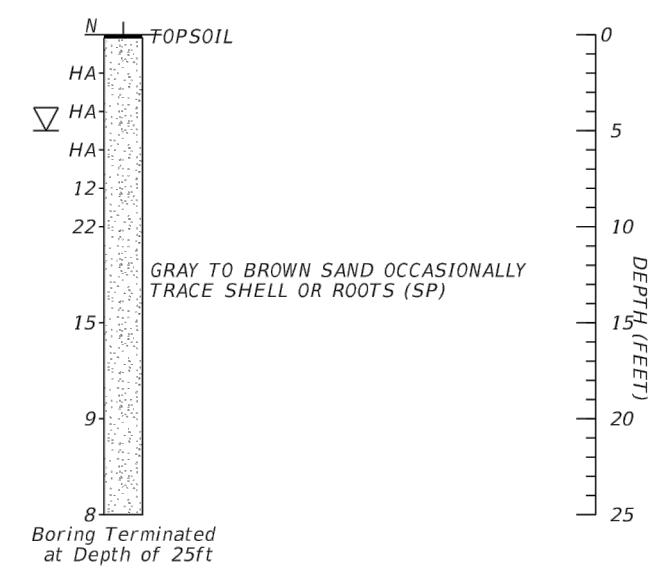
Bore # MA-02
 Date 5/27/2023
 Driller Y. OVIEDO
 Hammer AUTO
 Rig CME-55
 Latitude 27.483749
 Longitude -82.636879



Bore # MA-03
 Date 5/27/2023
 Driller Y. OVIEDO
 Hammer AUTO
 Rig CME-55
 Latitude 27.483813
 Longitude -82.63661



Bore # MA-04
 Date 5/27/2023
 Driller Y. OVIEDO
 Hammer AUTO
 Rig CME-55
 Latitude 27.495901
 Longitude -82.636822



REVISIONS			
NO.	DESCRIPTION	DATE	BY

AMY GUISSINGER, P.E.
 P.E. LICENSE NUMBER 63989
 TIERRA SOUTH FLORIDA, INC.
 6011 BENJAMIN RD, SUITE 106
 TAMPA, FL 33634



MANATEE COUNTY
 PUBLIC WORKS
 COUNTY PROJECT NO:
 6108260

76TH STREET WEST FROM
 20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
MAST ARMS
REPORT OF CORE BORINGS

SHEET NO.
 T-24