LAKE COUNTY, FL
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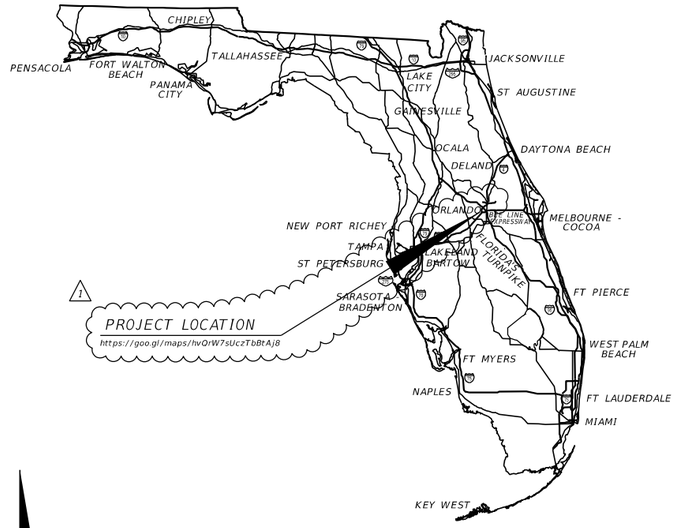
LAKE COUNTY, FLORIDA

PUBLIC WORKS DEPARTMENT

CONSTRUCTION PLANS

SAWGRASS BAY BOULEVARD AND PACIFIC ACE WAY

SIGNALIZATION PLANS



INDEX OF SIGNALIZATION PLANS

LAKE COUNTY BOARD OF COUNTY COMMISSIONERS

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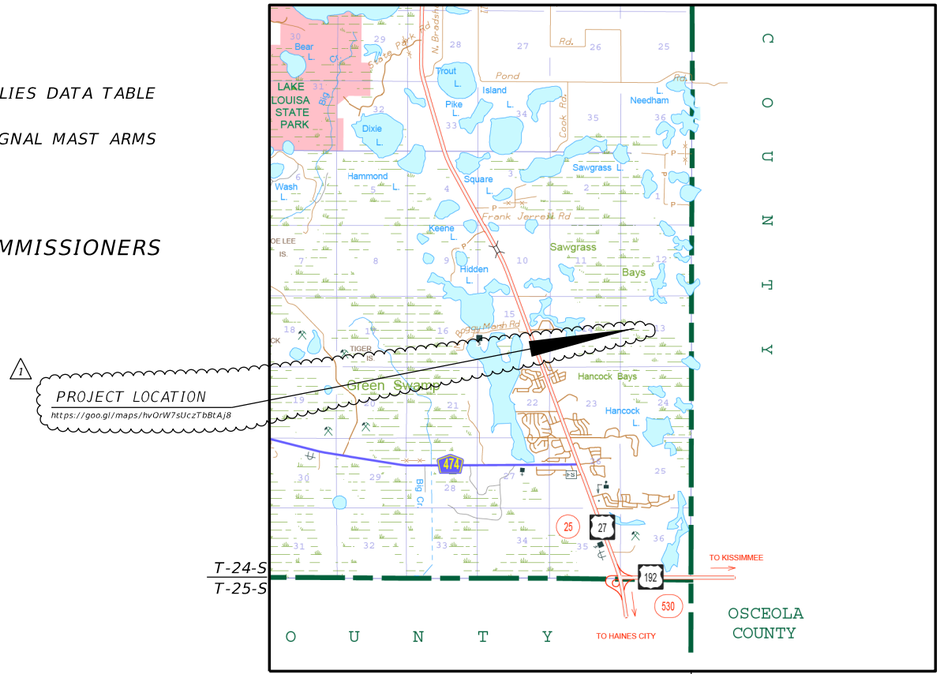

SIGNALIZATION SHOP DRAWINGS
TO BE SUBMITTED TO:
AYMAN HASAN AS-SAIDI, PE
TRAFFIC & MOBILITY CONSULTANTS LLC
3101 MAGUIRE BLVD
SUITE 265
ORLANDO, FL 32803
(407) 531-5332

PLANS PREPARED BY:

TMC Traffic & Mobility Consultants

TRAFFIC & MOBILITY CONSULTANTS LLC
3101 MAGUIRE BLVD
SUITE 265
ORLANDO, FL 32803
(407) 531-5332
CERTIFICATE OF AUTHORIZATION: CA 30024

GOVERNING STANDARD PLANS:

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

APPLICABLE IRs: N/A

Standard Plans for Bridge Construction are included in the Structures Plans Component

GOVERNING STANDARD SPECIFICATIONS:

Florida Department of Transportation, JULY 2023 Standard Specifications for Road and Bridge Construction at the following website: http://www.fdot.gov/programmanagement/Implemented/SpecBooks

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

REVISION PLANS
08/04/2023

REVISIONS:
SIGNALIZATION SHEEETS T-1, T-2A, T-3 THRU T-5, & T-7 THRU T-11

KEY SHEET REVISIONS

DATE	DESCRIPTION
08/02/23	ADDED SHEET NUMBER T-2A TO THE INDEX AND REVISED SHEET NUMBERS T-3 THRU T-5, & T-7 THRU T-11. UPDATED GOVERNING STANDARDS, PROJECT TITLE, LOCATION, NUMBER AND FISCAL YEAR

ENGINEER OF RECORD: AYMAN HASAN AS-SAIDI, PE
P.E. NO.: 56849

TMC PROJECT NO.	FISCAL YEAR	SHEET NO.
19009.4	23	T-1

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

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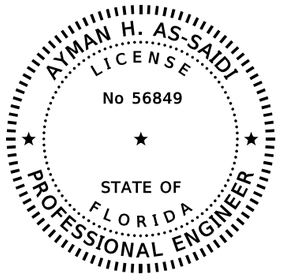

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

AYMAN H AS-SAIDI
2023.08.04 15:49:43 -04'00'

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AYMAN HASAN AS-SAIDI, P.E.
P.E. LICENSE NUMBER 56849
TRAFFIC & MOBILITY CONSULTANTS LLC.
3101 MAGUIRE BLVD, SUITE 265
ORLANDO, FL 32803
CERTIFICATE OF AUTHORIZATION 30024

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

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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LAKE COUNTY
FLORIDA

SIGNATURE SHEET

SHEET NO.
T-2A

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TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS T-7 PLAN	T-7 FINAL	TOTAL THIS SHEET PLAN	TOTAL THIS SHEET FINAL	GRAND TOTAL PLAN	GRAND TOTAL FINAL
630-2-11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	213		213		213	
630-2-12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	448		448		448	
632-7-1	SIGNAL CABLE- NEW OR RECONSTRUCTED INTERSECTION, FURNISH & INSTALL	PI	1		1		1	
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	20		20		20	
635-2-13	PULL & SPLICE BOX, F&I 30" X 60" RECTANGULAR SPLICE VAULT	EA	1		1		1	
639-1-122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND METER PURCHASED BY CONTRACTOR FROM POWER COMPANY	AS	1		1		1	
639-2-1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	200		200		200	
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA	1		1		1	
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA	1		1		1	
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL	EA	8		8		8	
649-21-13	STEEL MAST ARM ASSEMBLY, FURNISH AND INSTALL, DOUBLE ARM 60'-50'	EA	1		1		1	
649-21-14	STEEL MAST ARM ASSEMBLY, FURNISH AND INSTALL, DOUBLE ARM 60'-60'	EA	1		1		1	
650-1-14	VEHICULAR TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 3 SECTION, 1 WAY	AS	8		8		8	
650-1-16	VEHICULAR TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 4 SECTION, 1 WAY	AS	4		4		4	
653-1-11	PEDESTRIAN SIGNAL, FURNISH & INSTALL LED COUNTDOWN, 1 WAY	AS	8		8		8	
660-3-11	VEHICLE DETECTION SYSTEM- MICROWAVE, FURNISH & INSTALL CABINET EQUIPMENT	EA	1		1		1	
660-3-12	VEHICLE DETECTION SYSTEM- MICROWAVE, FURNISH & INSTALL ABOVE GROUND EQUIPMENT	EA	4		4		4	
663-1-111	SIGNAL PRIORITY AND PREEMPTION SYSTEM, F&I, OPTICAL, CABINET ELECTRONICS	EA	1		1		1	
663-1-112	SIGNAL PRIORITY AND PREEMPTION SYSTEM, FURNISH AND INSTALL, OPTICAL DETECTOR	EA	4		4		4	
665-1-11	PEDESTRIAN DETECTOR, FURNISH & INSTALL, STANDARD	EA	8		8		8	
670-5-112	TRAFFIC CONTROLLER ASSEMBLY, F&I, NEMA, 2 PREEMPTION PLAN	AS	1		1		1	
684-1-1	MANAGED FIELD ETHERNET SWITCH, FURNISH & INSTALL	EA	1		1		1	
684-6-12	WIRELESS COMMUNICATION DEVICE, FURNISH & INSTALL ETHERNET SUBSCRIBER UNIT	EA	1		1		1	
685-1-13	UNINTERRUPTIBLE POWER SUPPLY, LINE INTERACTIVE, WITH CABINET	EA	1					
700-5-22	INTERNALLY ILLUMINATED SIGN, FURNISH & INSTALL, CANTILEVER MOUNT, 12-18 SF	EA	4		4		4	

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
08/02/23	1 QUANTITIES UPDATED		

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LAKE COUNTY FLORIDA

TABULATION OF QUANTITIES

SHEET NO. T-3

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GENERAL

1. THESE PLANS REFLECT CONDITIONS KNOWN DURING PLAN DEVELOPMENT. IN THE EVENT ACTUAL PHYSICAL CONDITIONS PREVENT THE APPLICATION OR THE PROGRESSION OF ANY WORK SPECIFIED IN THESE PLANS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY AND PRIOR TO ANY FURTHER WORK ACTIVITY.

2. A PRE-CONSTRUCTION MEETING SHALL BE SCHEDULED WITH LAKE COUNTY TRAFFIC OPERATIONS, (352) 742-1766, PRIOR TO ANY CONSTRUCTION.

3. IT SHALL BE NOTED THAT NO TEST BORINGS BE MADE WHERE CONDUIT RUNS ARE TO BE INSTALLED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE THE JOB SITE CONDITIONS PRIOR TO SUBMITTING BID PROPOSALS.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING LAKE COUNTY TRAFFIC OPERATIONS, AT (352) 742-1766, 48 HOURS IN ADVANCE OF ALL PHASES OF CONSTRUCTION INCLUDING AND NOT LIMITED TO, INSTALLING SIGNAL POLES, GROUND RODS, UNDERGROUND CONDUIT, SIGNAL HEAD ASSEMBLIES, AND LOOP INSTALLATION.

5. DURING CONSTRUCTION TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH THE FDOT TRAFFIC DESIGN STANDARDS.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL NECESSARY PERMITS INCLUDING THE ELECTRIC PERMIT. THE APPLICATION FOR POWER SHOULD BE COORDINATED WITH LAKE COUNTY.

7. THE EXACT LOCATIONS OF ALL UTILITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR PRIOR TO BEGINNING OF CONSTRUCTION.

8. THE CONTRACTOR SHALL STAKE ALL POLE LOCATIONS AND HAVE APPROVED BY LAKE COUNTY TRAFFIC OPERATIONS.

9. ALL MATERIALS AND HARDWARE SHALL BE FDOT APPROVED, AND PRE-APPROVED BY LAKE COUNTY TRAFFIC OPERATIONS.

10. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS AND SPECIFICATIONS FOR APPROVAL PRIOR TO PURCHASING EQUIPMENT.

11. UNLESS OTHERWISE NOTED, ALL REMOVED EQUIPMENT SHALL BE DELIVERED TO LAKE COUNTY TRAFFIC OPERATIONS, 28127 CR 561, TAVARES, (352) 742-1766, EXCEPT CONCRETE POLES AND MAST ARMS, WHICH SHALL BE DISPOSED OF BY THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY LAKE COUNTY TRAFFIC OPERATIONS AT 352-742-1766 TWO (2) BUSINESS DAYS PRIOR TO BEGINNING CONSTRUCTION. NOTE: CARE SHALL BE TAKEN NOT TO DAMAGE THE EQUIPMENT IN THE REMOVAL PROCESS.

12. ANY STRIPING/PAVEMENT MARKINGS, SIGNAGE OR LANSCAPING DESTROYED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE RESTORED AT THE CONTRACTOR'S EXPENSE.

13. WHENEVER SIGNAL WORK IS BEING PERFORMED AT AN INTERSECTION (INSTALLING CONDUIT IN THE STREET, REMOVING EXISTING SIGNAL EQUIPMENT, INSTALLING NEW SIGNAL EQUIPMENT, INSTALLING LOOPS AND RUNS, AND TURNING ON NEW SIGNALS) WHERE A LANE IS CLOSED AN OFF-DUTY LAW ENFORCEMENT OFFICER SHALL DIRECT THE TRAFFIC. THE COST OF AN OFF-DUTY LAW ENFORCEMENT OFFICER SHALL BE INCIDENTAL TO THE WORK AND WILL NOT BE PAID SEPARATELY.

14. THE CONTRACTOR SHALL HAND DIG THE FIRST 4 FEET AT EACH POLE LOCATION AND THE FIRST TWO (2) FEET AT EACH PEDESTAL LOCATION TO VERIFY THERE ARE NO UTILITY CONFLICT.

15. THE CONTRACTOR SHALL VERIFY COLOR CODES FOR BOTH SIGNAL AND INTERCONNECT CABLE WITH LAKE COUNTY BEFORE ORDERING.

16. THE LOCAL PERMIT MANAGER SHALL BE INFORMED TWO (2) BUSINESS DAYS BEFORE ANY DIRECTIONAL BORE.

17. NEW SIGNAL LOCATIONS SHALL BE IN FLASH PHASE FOR 14 DAYS. CHANGEABLE MESSAGE SIGN SHALL BE INSTALLED AT THE START OF FLASH PHASE DISPLAYING DATE OF ACTIVATION. SIGNS SHALL BE INSTALLED AT ALL APPROACHES OF SIGNAL. SIGNS SHALL BE FURNISHED BY CONTRACTOR, COST OF SIGN(S) SHALL BE INCLUDED IN MOT PAY ITEM.

18. DURING NON-WORKING HOURS, NO EQUIPMENT, VEHICLES OR MATERIALS SHALL BE PARKED OR STORED WITHIN 30 FEET OFF THE ROADWAY CARRYING TRAFFIC. IF THE ABOVE IS NOT POSSIBLE, A STORAGE AREA WITH PROPER DELINEATION AND ADVANCED WARNING SHALL BE USED WITH THE APPROVAL OF THE ENGINEER.

19. THE CONTRACTOR SHALL MAINTAIN ANY REQUIRED TEMPORARY TRAFFIC SIGNALS THROUGHOUT THE PROJECT DURATION.

20. THE CONTRACTOR SHALL MAINTAIN VEHICLE DETECTION AT ALL TIMES. IN THE EVENT PERMANENT VEHICLE DETECTION IS DISRUPTED, PROVIDE AN ALTERNATIVE MEANS OF DETECTION TO ALL LANES APPROACHING THE INTERSECTION, SEPARATING EACH MOVEMENT WHICH PREVIOUSLY HAD DETECTION. THE TYPE OF DETECTOR SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. EQUIPMENT SHALL ONLY DETECT THE INTENDED MOVEMENT.

21. THE CONTRACTOR SHALL FURNISH LAKE COUNTY TRAFFIC OPERATIONS WITH EMERGENCY CONTACTS AND PHONE NUMBERS AND HAVE AN IMSA LEVEL II CERTIFIED SIGNAL TECHNICIAN ON CALL WITHIN A TWO (2) HOUR MINIMUM RESPONSE TIME.

22. THE CONTRACTOR IS REQUIRED TO INSPECT THE INSTALLATION OF THE TRAFFIC SIGNALS IN ACCORDANCE WITH FDOT SPECIFICATION 105. THE CONTRACTOR SHALL COORDINATE THE FINAL ACCEPTANCE INSPECTION IN ACCORDANCE WITH FDOT SPECIFICATION 611-2.2 WITH THE ENGINEER AT LEAST TEN DAYS IN ADVANCE. THE LAKE COUNTY TRAFFIC OPPERATIONS (352) 742-1766 SHALL BE CONTACTED TEN DAYS BEFORE THE INSPECTION, SO THEY MAY BE PRESENT.

23. AT THE TIME OF THE FINAL PROJECT INSPECTION, THE CONTRACTOR SHALL FURNISH TO THE INSPECTOR THREE (HARD COPY) AND ONE (DIGITAL COPY) COMPLETE SETS OF AS-BUILT PLANS THAT INCLUDE CONDUIT AND PULL BOX LOCATIONS. ONE SET SHALL BE LEFT IN THE CABINET.

24. IT IS THE INTENT OF THESE PLANS THAT THE PROPOSED EQUIPMENT TO BE INSTALLED IS TO BE PLACED IN SUCH A MANNER SO AS TO AVOID ANY CONFLICTS WITH EXISTING UTILITIES ALONG THE ROUTE. IT IS THE CONTRACTORS RESPONSIBILITY TO OBTAIN THE NECESSARY INFORMATION TO PLAN THEIR WORK WITHIN THE DESIGN OR SPECIFIED PARAMETERS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL ABOVEGROUND AND UNDERGRDOUND CONFLICTS IN ADVANCE OF THE PLACEMENT OF ANY CONDUIT OR OTHER FACILITIES.

25. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY DEPARTMENT AT LEAST 48 HOURS IN ADVANCE OF POLE SETTING OPERATIONS WHERE A CONFLICT WITH OVERHEAD ELECTRICAL CONDUCTORS IS EXPECTED AND WHEN JOINT USE POLES ARE TO BE USED.

26. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE POWER COMPANY PROVIDING THE ELECTRICAL POWER, TO DETERMINE IF ANY ADDITIONAL FEES ARE REQUIRED TO CONNECT POWER. IF REQUIRED, THE FEE SHALL BE INCLUDED AS PART OF BID ITEM PAYMENT FOR ELECTRICAL SERVICE ASSEMBLY.

27. THE LOCATION OF THE UTILITIES SHOWN IN THE PLANS IS BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE EXACT LOCATIONS OF THE UNDERGROUND UTILITIES PRIOR TO DIGGING.

28. THE CONTRACTOR SHALL NOTIFY ALL UTILITIES AT LEAST 48 HOURS IN ADVANCE OF ANY OPERATION THAT MAY CONFLICT WITH OVERHEAD OR UNDERGROUND UTILITIES, INCLUDING POLE SETTING OPERATIONS WHERE A CONFLICT WITH OVERHEAD ELECTRICAL CONDUCTORS IS EXPECTED.

UTILITY OWNERS

BELOW IS A LIST OF UTILITY OWNERS NOTIFIED ON 03/29/2023:

COMPANY	CONTACT	TELEPHONE #
CHARTER COMMUNICATIONS	DUFFY MCCLELLAND	(352) 527-2189
CENTURYLINK	BILL MCCLOUD	(850) 599-1444
SUNSHINE WATER SERVICES - LUSI S	BRYAN GEORGE	(866) 842-8432 X 1360
SUMTER ELECTRIC COOPERATIVE, INC.	JANET COX	(352) 569-9642

VIDEO DETECTION/CONDUIT/PULL BOXES

29. THE VIDEO DETECTION ZONE FOR SIDE STREETS AND MAIN STREET LEFT TURN LANES SHALL MIMIC THE TYPE 'F' LOOP (40'X6') DIMENSIONS AND SHALL EXTEND 5' IN FRONT OF THE STOP BAR. CONTRACTOR SHALL NOTIFY LAKE COUNTY 48 HOURS PRIOR TO DETECTION INSTALLATION TO VERIFY PLACEMENT.

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REVISIONS			
DATE		DATE	DESCRIPTION
08/04/23	1 UPDATED UTILITY OWNERS		

TRAFFIC & MOBILITY CONSULTANTS LLC
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LAKE COUNTY FLORIDA

GENERAL NOTES

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30. THE ADVANCED VIDEO DETECTION ZONES ON MAIN STREET (POSTED 40 MPH ZONE) SHALL EXTEND 120' FROM STOP BAR.

31. AS DIRECTED BY THE PROJECT ENGINEER, THE CONTRACTOR SHALL ADJUST CONDUIT VERTICALLY & HORIZONTALLY TO AVOID ANY POSSIBLE CONFLICTS WITH UNDERGROUND UTILITIES.

32. ALL CONDUIT TO BE INSTALLED UNDER PAVEMENT OR SIDEWALK SHALL BE INSTALLED PRIOR TO THE INSTALLATION OF THE BASE COURSE.

33. ALL CONDUIT SHALL BE SCHEDULE 40, 2 INCH DIA. MINIMUM UNLESS OTHERWISE SPECIFIED IN PLANS, EXCEPT ELECTRICAL POWER SERVICE DUCT.

34. THE CONTRACTOR SHALL INSTALL A MINIMUM OF 12 INCHES CONDUIT STUB WITH CAP OUTSIDE THE POLE FOOTING COMPLETED WITH SWEEP UP INTO THE POLE. THE FOOTING, TOP OF SIDEWALK, SIDE OF POLE, ETC. SHALL BE MARKED WITH AN APPROPRIATE ETCHED "X" IN ORDER THAT IT MAY BE READILY LOCATED FOR FUTURE USE.

35. ALL ENDS OF CONDUITS IN PULL BOXES AND CABINETS SHALL BE SEALED WITH ELECTRICAL PUTTY, AFTER WIRING IS COMPLETED.

36. THREE RUNS OF CONDUIT SHALL BE PROVIDED FROM EACH PULL BOX NEAREST TO THE POLE.

37. PULL BOX COVERS SHALL BE FDOT APPROVED NON-METALLIC WITH RECESSED COVER LOGO "TRAFFIC SIGNAL" OR "FIBER OPTICS" AS APPROPRIATE.

38. PULL BOXES SHALL BE PLACED BEHIND CURB AND GUTTER OR FOR FLUSH SHOULDERS AT LEAST 10 FEET FROM THE EDGE OF PAVEMENT AND SHALL BE PROVIDED WITH CONCRETE APRON.

39. UNDER NO CIRCUMSTANCES SHALL ENERGIZED CABLE BE PLACED IN THE SAME CONDUIT OR PULL BOX AS CAT-5 CABLES.

40. ALL CABLES SHALL BE PULLED IN THE CONDUIT WITH A CABLE GRIP DESIGNED TO PROVIDE A FIRM HOLD ON THE EXTERIOR COVERING OF THE CABLE. A WINCH WITH A SLIP CLUTCH SHALL BE USED TO ENSURE THAT THE ALLOWABLE TENSION UNIT IS NOT EXCEEDED. AN APPROVED LUBRICANT SHALL BE USED TO FACILITATE THE PULLING OF THE CABLE.

41. CIRCULAR DRIP LOOPS (MINIMUM ONE CIRCLE) ARE TO BE PROVIDED AT ALL AERIAL DISCONNECT HANGER, INTERCONNECT JUNCTION BOX, ELECTRICAL SIGN AND POLE JUNCTIONS.

42. ALL FIBER OR FUTURE USE CONDUIT SHALL HAVE A LOCATE WIRE WITH PULL STRING INSTALLED TO INCLUDE FIBER OPTIC MARKERS AT 500 FOOT INTERVALS FOR THE FIBER OPTIC INTERCONNECT LINE. THE FOLLOWING MARKERS SHALL HAVE THE FOLLOWING INFORMATION: BEFORE DIGGING CALL LAKE COUNTY TRAFFIC OPERATIONS 352-742-1766.

CABINET/CONTROLLER

1 43. THE CONTROLLER ASSEMBLY SHALL BE A TS2-1 TYPE 6 STRETCH, FRONT/REAR DOOR, PEC, WHITE INSIDE; WITH A TS2-2 CONTROLLER ETHERNET ENABLED (BYPASS CAPABILITIES) COMPATIBLE WITH THE COUNTY SIGNAL SYSTEM AND TRAFFIC MANAGEMENT SOFTWARE SYSTEM, TO INCLUDE A GENERATOR SWITCH BOX PANEL.

44. A GENERATOR PAD, 3'X3'X4" CONCRETE SHALL BE INSTALLED WITH 5/8" EYEBOLT INSTALLED IN THE PAD ADJACENT TO CABINET BASE.

45. THE CABINET CONCRETE BASE SHALL BE A MINIMUM OF 32"X 48" TO ACCOMMODATE TYPE 6 CABINETS. THE BASE SHALL BE 4 INCHES MAXIMUM ABOVE GRADE AROUND THE CABINET PER FDOT STANDARD INDEX.

46. UNINTERRUPTABLE POWER SUPPLY (UPS) SHALL BE STAND ALONE WITHIN ITS OWN CABINET, INSTALLED ON A CONCRETE PAD ADJACENT TO THE CABINET BASE.

47. GROUNDING FOR THE CONTROLLER ASSEMBLY SHALL MEASURE 25 OHMS OR LESS.

48. THE CABINET DOOR SHALL OPEN AWAY FROM THE INTERSECTION AND WITHIN THE RIGHT-OF-WAY WHEN POSSIBLE.

49. THE MOUNTING OF THE ELECTRICAL SERVICE TO THE TRAFFIC SIGNAL CABINET SHALL BE PROHIBITED.

50. A MANUAL PUSH BUTTON CORD SHALL BE FURNISHED IN ALL CONTROLLER CABINETS.

51. THE CONTROLLER SHALL REVERT TO TIME-BASED COORDINATION UPON DISCONNECTING THE COORDINATING UNIT WHEN LOOPS/VIDEO ARE AVAILABLE ON THE NON-COORDINATED APPROACHES.

52. THREE SPARE WIRES ARE REQUIRED FOR SIGNAL CABLE. SPARES SHALL BE BOUND AND GROUNDED IN CABINET.

53. ALL FIELD WIRING SHALL BE NEATLY BUNDLED AND CLEARLY IDENTIFIED WITH PERMANENT, LEGIBLE, WEATHERPROOF TAGS THAT ARE SECURELY ATTACHED TO EACH CABLE. THE TAGGING SYSTEM PROPOSED SHALL BE SUBMITTED FOR APPROVAL WITH THE OTHER EQUIPMENT SUBMITTALS REQUIRED FOR THIS PROJECT.

SIGNAL HEAD/PEDESTRIAN FEATURES

54. SIGNAL HEADS SHALL BE WIRED DIRECTLY TO THE TERMINAL BLOCKS. THE USE OF "JONES" PLUGS IS PROHIBITED.

55. DISCONNECTS SHALL OPEN FROM THE SIGNAL FACE (NOT FROM THE REAR).

56. SIGNAL HEADS SHALL BE WIRED PER IMSA NEMA PHASING, PHASES 2 AND 6 ARE TYPICALLY ASSIGNED TO MAJOR STREET WITH PHASE 2 BEING SOUTH OR WESTBOUND THROUGH MOVEMENTS. THE USUAL CONVENTION IS FOR THROUGH PHASES TO BE NUMBERED IN THE CLOCKWISE DIRECTION STARTING WITH PHASE 2, AND THE LEFT-TURN PHASES TO BE NUMBERED IN THE CLOCKWISE DIRECTION, WITH PHASE 1 BEING ACCOMPANYING LEFT-TURN TO PHASE 6.

57. VEHICLE SIGNAL HEAD ASSEMBLIES SHALL BE BLACK, CAST ALUMINUM WITH TUNNEL VISORS, LED'S AND BACKPLATES WITH YELLOW BORDERS FOR ALL INDICATIONS UNLESS OTHERWISE NOTED. PAYMENT FOR TUNNEL VISORS SHALL BE INCLUDED IN THE PRICE OF THE SIGNAL HEADS.

58. PEDESTRIAN SIGNAL ASSEMBLIES SHALL BE CAST ALUMINUM.

59. ALL PEDESTRIAN SIGNAL HEADS SHALL HAVE LOUVERS.

60. ALL PEDESTRIAN SIGNALS NOT MOUNTED ON SIGNAL POLES OR MAST ARM POLES SHALL BE THE BREAKAWAY TYPE COMMONLY REFERRED TO AS A "T- BASE". THIS T-BASE WILL HAVE AN ACCESS DOOR FOR WIRING AND MAINTENANCE.

61. PEDESTRIAN SIGNALS SHALL NOT BE SPLICED IN THE PEDESTRIAN BASE OR PULL BOX. A SEPARATE 7 CONDUCTOR # 14 CABLE FROM THE CABINET TO EACH PEDESTRIAN SIGNAL HEAD AND A 12 CONDUCTOR #14 CABLE FROM SIGNAL CABINET TO EACH DOUBLE PEDESTRIAN HEAD.

62. SIGNAL CABLE SHALL BE ATTACHED TO MESSENGER WIRE USING PROPER SIZE SPIRAL WRAP.

63. THE CONTRACTOR SHALL ENSURE THAT A 48" X 48" FLAT LANDING AREA IS ADJACENT TO ALL DETECTORS FOR PEDESTRIAN ACCESS.

64. NO POLYCARBONATE HOUSING OR MOUNTING HARDWARE WILL BE PERMITTED FOR VEHICULAR HEAD ASSEMBLIES.

65. ALL SIGNAL ASSEMBLIES SHALL HAVE A VERTICAL CLEARANCE OF 17.5 FEET MINIMUM AND 19 FEET MAXIMUM FROM THE BOTTOM OF THE ASSEMBLY TO THE ROAD.

66. PAY ITEM NO. 650-1-14 SHALL INCLUDE BACK PLATES WITH RETRO-REFLECTERS.

67. PAY ITEM 665-1-11 COST OF FURNISHING AND INSTALLING FTP-68B-06 SHALL BE INCLUDED IN PRICE OF PAY ITEM.

STREET SIGNS

68. INTERNALLY ILLUMINATED STREET NAME SIGNS (LED), SHALL BE INSTALLED 1' BELOW THE MESSENGER CABLE WHERE POSSIBLE, POWERED BY A SEPARATE CIRCUIT BREAKER, AND BE DESIGNED AND INSTALLED IN ACCORDANCE WITH LAKE COUNTY PUBLIC WORKS INTERNALLY ILLUMINATED STREET NAME SIGN DETAIL AND SPECIFICATIONS. A PHOTOCELL SHALL BE INSTALLED NEAR THE ELECTRIC SERVICE WITHIN REACH OF A LIFT TRUCK. CARE TO BE GIVEN TO INSTALL WHERE STREET LIGHTING DOES NOT AFFECT OPERATION.

69. THE CONTRACTOR SHALL INSTALL AND TEST THE SIGNS IN PLACE. THE SIGNS SHALL BE BURNED IN FOR 60 DAYS BEFORE FINAL ACCEPTANCE. THE SIGNS SHALL BE RUN THROUGH A SEPARATE BREAKER FROM THE SIGNAL CABINET AND SHALL BE CONTROLLED BY ONE MASTER PHOTOCELL.

REVISIONS			
DATE		DATE	DESCRIPTION
08/04/23	1 GENERAL NOTES UPDATED		

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SHEET NO. T-5

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MAST ARMS

70. *IF A CONTINUOUS RUN OF SIGNAL CABLE IS NOT POSSIBLE FROM THE CABINET TO THE SIGNAL HEAD, THEN A TERMINAL COMPARTMENT SHALL BE USED IN MAST ARM POLE.*

71. *SIX FEET OF ADDITIONAL SIGNAL CABLE SLACK SHALL BE WOUND AND NEATLY STORED INSIDE THE UPRIGHT AND SUPPORTED BY THE CABLE CLAMP SUCH THAT THE TERMINAL CAN BE REMOVED FROM THE UPRIGHT TO ALLOW FOR TROUBLE SHOOTING.*

72. *THE CABLE GRIP SHALL BE OF SUFFICIENT SIZE TO NOT COMPROMISE THE INSULATION ON THE SIGNAL CABLE.*

73. *FOR STRUCTURES THAT HAVE BEEN COMPLETED AND SCHEDULED FOR ACCEPTANCE, THE CONTRACTOR SHALL CONTACT THE MAINTAINING AGENCY ONE MONTH PRIOR TO COMPLETION OF PROJECT TO SCHEDULE AN INSPECTION OF STRUCTURES INCLUDING CANTILEVER SIGNS.*

74. *THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING APPROVED SHOP DRAWINGS SHOWING THE BOLT PATTERN AND ARM ORIENTATION PRIOR TO THE PRE-DRILL SHAFT MEETING.*

75. *THE TOP OF THE TRAFFIC SIGNAL MAST ARM FOUNDATION SHOULD BE AT LEAST 6 INCHES ABOVE GRADE TO PREVENT THE ANCHOR BOLTS FROM BEING SUBMERGED IN WATER AND/OR BURIED, UNLESS THE MAST ARM WILL BE ADJACENT TO AN EXISTING OR PROPOSED SIDEWALK, THEN THE TOP OF THE FOUNDATION SHOULD BE FLUSHED WITH THE SIDEWALK.*

76. *THE MAST ARM COLOR SHALL BE MIDNIGHT NEUTRAL. MAST ARMS SHALL BE PAINTED WITH THREE COAT PROCESS OF PRIMER OF CARBOLINE CARBOZINC 11, AN INTERMEDIATE COAT OF CARBOLINE CARBOZINC 893, AND A FINISH COAT OF CARBOLINE CARBOTHANE 134 HG. CONTRACTOR SHALL COORDINATE WITH LAKE COUNTY TO CONFIRM THE COLOR CODE BEFORE FABRICATION.*

CONDUIT

77. *A MINIMUM OF SIX RUNS OF CONDUIT SHALL BE INSTLALED PER LEG OF A SIGNALIZED INTERSECTION. ONE RUN EACH FOR SIGNAL, PEDESTRIAN, SIGNS, VIDEO DETECTION/CCTV, GROUND & SPARE. AN ADDITIONAL RUN OF CONDUIT SHALL BE INSTALLED FOR FIBER OPTIC CABLE IF REQUIRED.*

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REVISIONS			
DATE		DATE	DESCRIPTION

TRAFFIC & MOBILITY CONSULTANTS LLC
3101 MAGUIRE BLVD, SUITE 265
ORLANDO, FL 32803
OFFICE: (407) 531-5332
FAX: (407) 531-5331
AYMAN HASAN AS-SAIDI, P.E. 56849
CERTIFICATE OF AUTHORIZATION: 30024

LAKE COUNTY FLORIDA

GENERAL NOTES

SHEET NO. T-6

TRAFFIC SIGNAL HEAD DETAILS

1

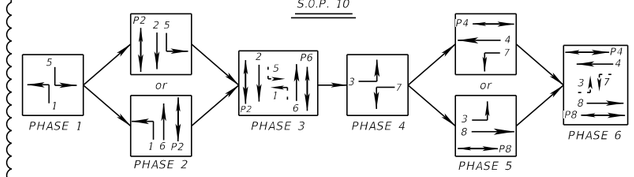
3-SECT., 1-WAY
8 AS
650-1-14

4-SECT., 1-WAY
4 AS
650-1-16

PED. SIGNAL COUNT-DOWN 1-SECT., 1-WAY
8 AS
653-1-11

R10-3i
9"X18"
8 EA
(INCLUDED IN 665-1-11)

S.O.P. 10



INTERNALLY ILLUMINATED CANTILEVER SIGNS (DOUBLE SIDED) N.T.S.

A — Sawgrass Bay Blvd

700-5-22 2 EA

B — Pacific Ace Way

700-5-22 2 EA

MICROWAVE DETECTION PAY ITEMS

R1 R2 R3 R4

660-3-12 4 EA

CABINET PAY ITEMS
8 RUNS @ 38 LF
1-2" SIGNAL
1-2" VEHICLE DETECTION
1-2" PEDESTRIAN
1-2" PED DETECTOR
1-2" LIGHTING
1-2" ELECTRIC SERVICE
2-2" SPARE

630-2-11	38 LF
632-7-1	1 PI
635-2-11	1 EA
635-2-13	1 EA
639-3-11	1 EA
641-2-12	1 EA
660-3-11	1 EA
663-1-111	1 EA
670-5-112	1 AS
684-1-1	1 EA
684-6-12	1 EA
685-1-13	1 EA

INITIAL CONTROLLER TIMINGS

TIMING FUNCTION	MOVEMENT NUMBER	1	2	3	4	5	6	7	8
TIMING FUNCTION	MINIMUM GREEN	5.0	15.0	5.0	10.0	5.0	15.0	5.0	10.0
	EXTENSION	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
	MAXIMUM GREEN 1	30	50	35	30	30	50	30	35
	MAXIMUM GREEN 2								
	YELLOW CLEARANCE	4.4	4.4	3.4	3.4	4.4	4.4	3.4	3.4
	ALL RED	2.0	2.0	3.6	3.6	2.0	2.0	3.6	3.6
	PEDESTRIAN WALK		7		7		7		7
	PED. CLEARANCE		13		26		17		25
	RECALL		MIN				MIN		
	FLASH	R	Y	R	R	R	Y	R	R

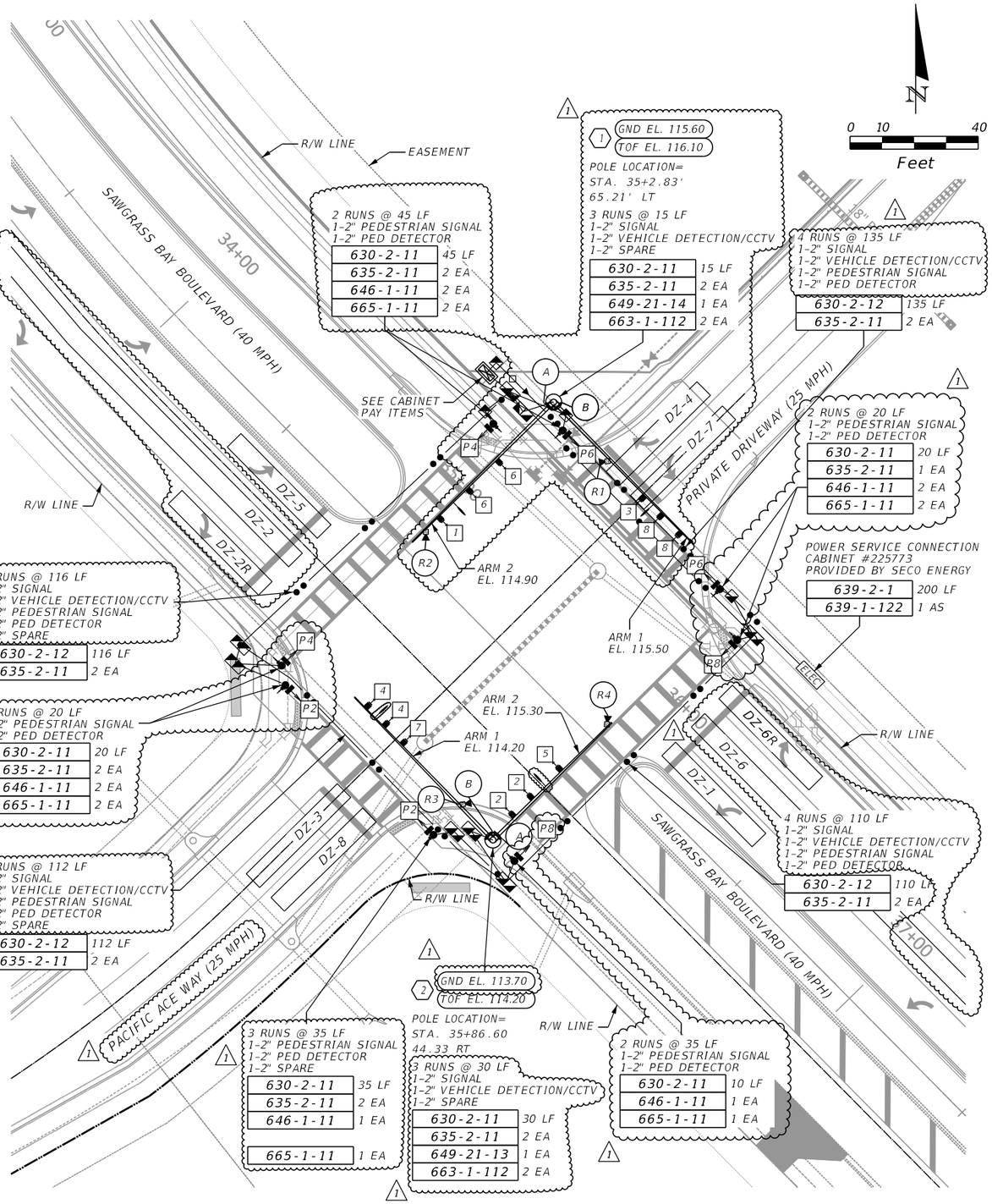
1 SIGNAL TIMING TO BE ADJUSTED BY LAKE COUNTY BASED ON OBSERVED TRAFFIC FLOW WITHIN TWO WEEKS AFTER INSTALLATION

MICROWAVE DETECTOR CONNECTION CHART

CAMERA DETECTION	DETECTION ZONE	DELAY TIME (SEC)	DETECTION ZONE DIMENSION
R1	DZ-2	-	6' X 245'
	DZ-2R	5	6' X 40'
	DZ-5	-	6' X 40'
R2	DZ-8	-	6' X 40'
	DZ-3	-	6' X 40'
R3	DZ-1	-	6' X 40'
	DZ-6	-	6' X 245'
	DZ-6R	5	6' X 40'
R4	DZ-4	-	6' X 40'
	DZ-7	-	6' X 40'

1 SIZE AND PLACEMENT OF VIDEO DETECTION ZONES ARE INITIAL AND MAY REQUIRE FIELD ADJUSTING AS DIRECTED BY PROJECT ENGINEER.

SIGNALIZATION NOTES
1. THE MAJOR STREET IS SAWGRASS BAY BOULEVARD (SPEED LIMIT 40 MPH). THE MINOR STREETS ARE PACIFIC ACE WAY & PRIVATE DRIVEWAY (SPEED LIMIT 25 MPH).
2. THE MAJOR STREET MOVEMENTS ARE 1,2,5&6, AND THE MINOR STREET MOVEMENT ARE 3,4,7&8.
3. DURING FLASH OPERATION, MOVEMENTS 1,3,4,5,7&8 SHALL FLASH RED, MOVEMENTS 2&6 SHALL FLASH YELLOW.
4. CONTRACTOR SHALL COORDINATE WITH SECO FOR CONNECTION TO POWER SERVICE.
5. CONTRACTOR TO ENSURE ALL PEDESTRIAN DETECTORS ARE IMMEDIATELY ADJACENT TO A MINIMUM 48" X 48" FLAT LANDING.
6. THE SIGNAL SHALL NOT BE ACTIVATED UNTIL SAWGRASS BAY BOULEVARD IS OPEN AS A 2 LANE DIVIDED ROADWAY AS SHOWN PER PLAN.
7. THE SIGNAL HEADS FOR MOVEMENTS 4&7 SHALL BE INACTIVE AND COVERED UNTIL THE PRIVATE DRIVEWAY IS OPEN TO TRAFFIC.



DATE		DESCRIPTION
08/02/23	1 POLE 1 LOCATION UPDATED AND PEDESTRIAN FEATURES ADDED TO ALL APPROACHES. PAY ITEMS AND DETAILS UPDATED.	

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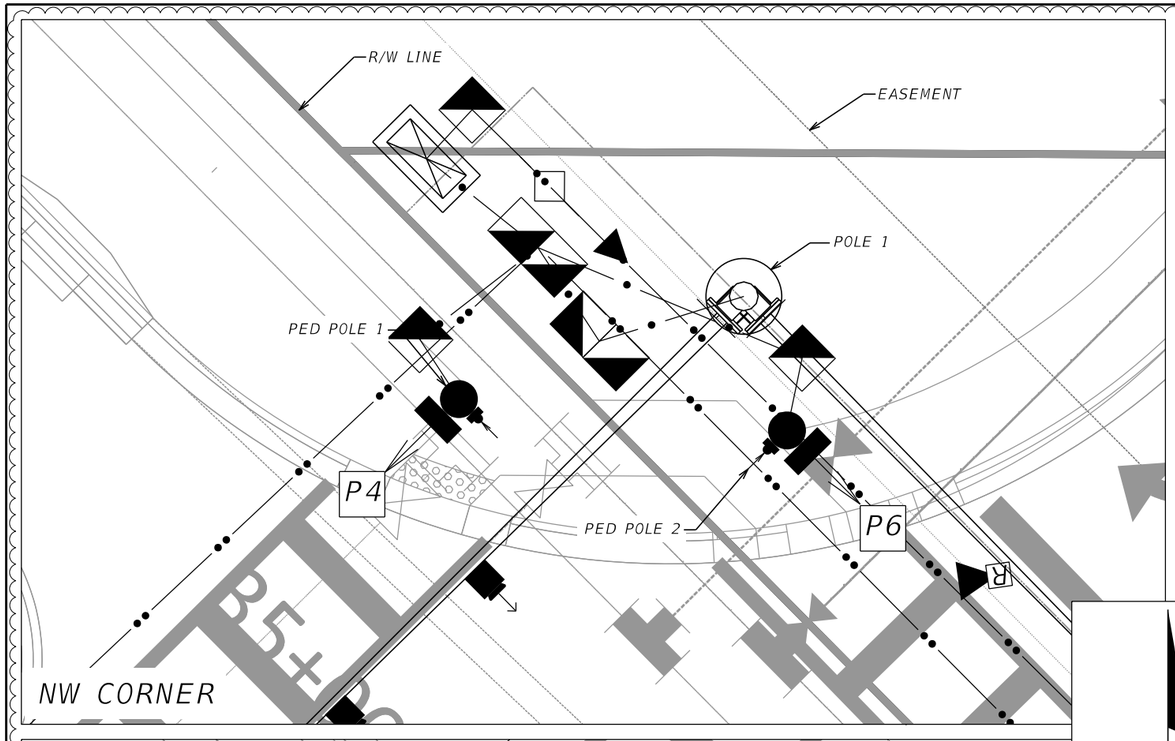
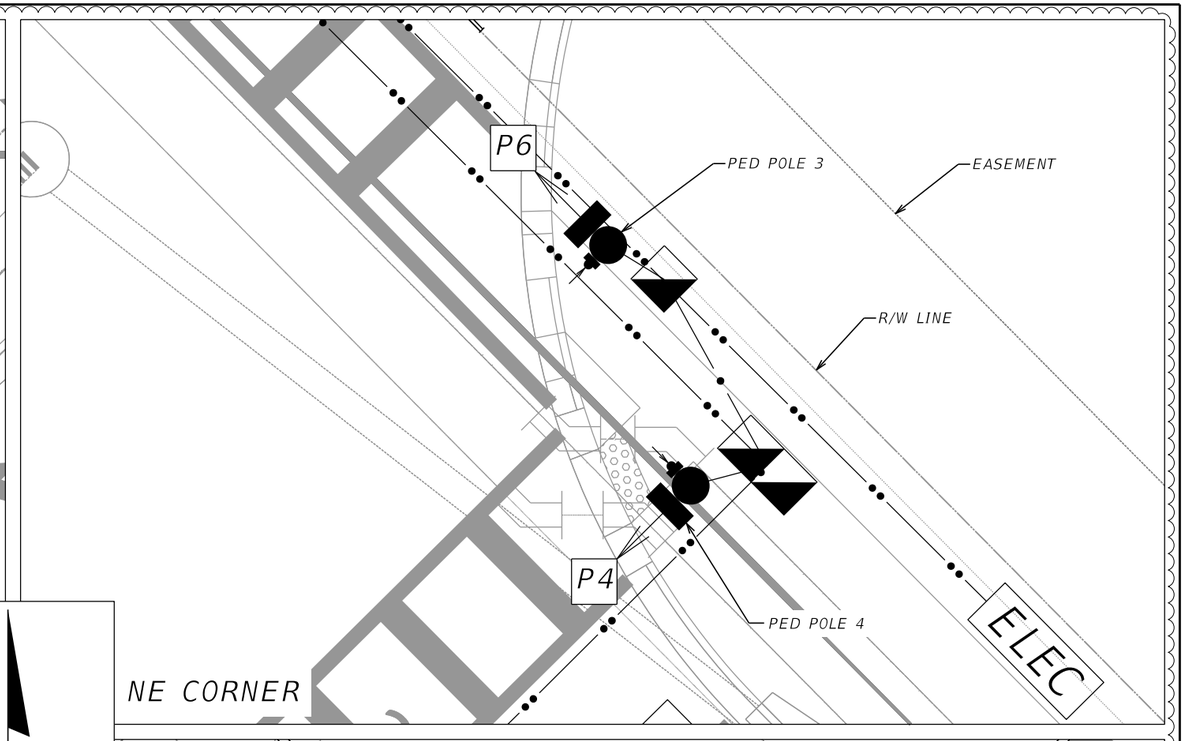
LAKE COUNTY FLORIDA

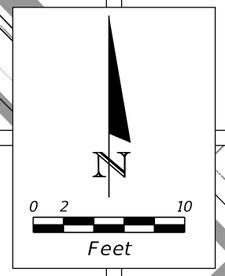
SIGNALIZATION PLAN

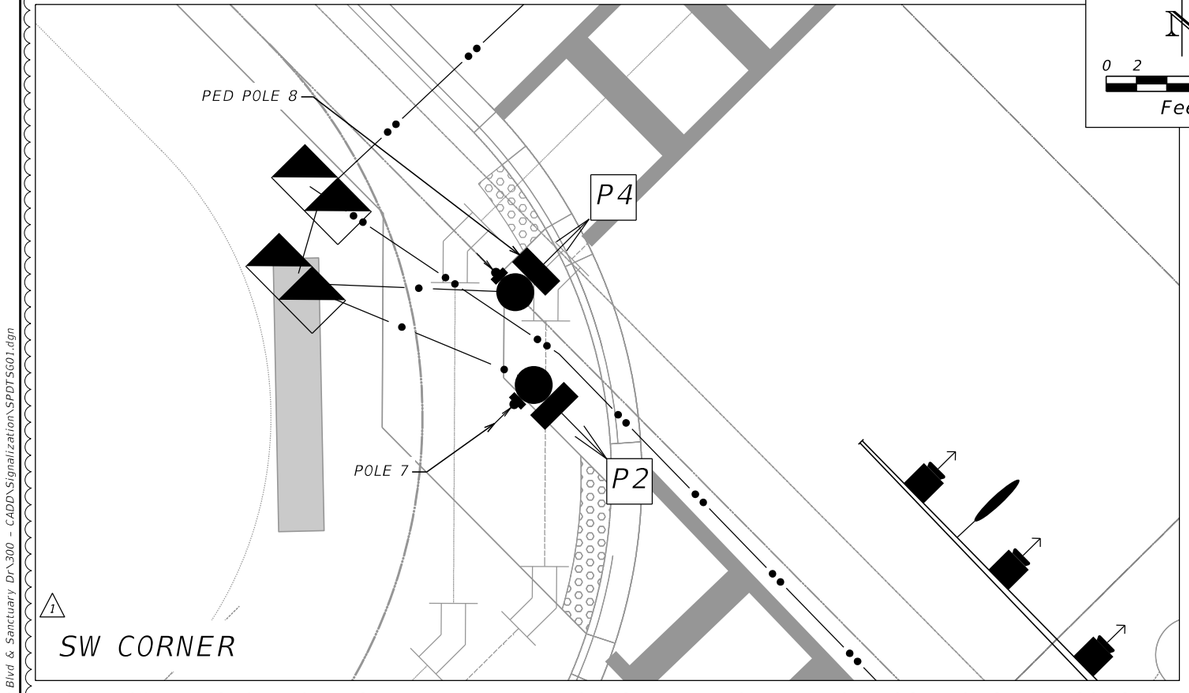
SHEET NO. T-7

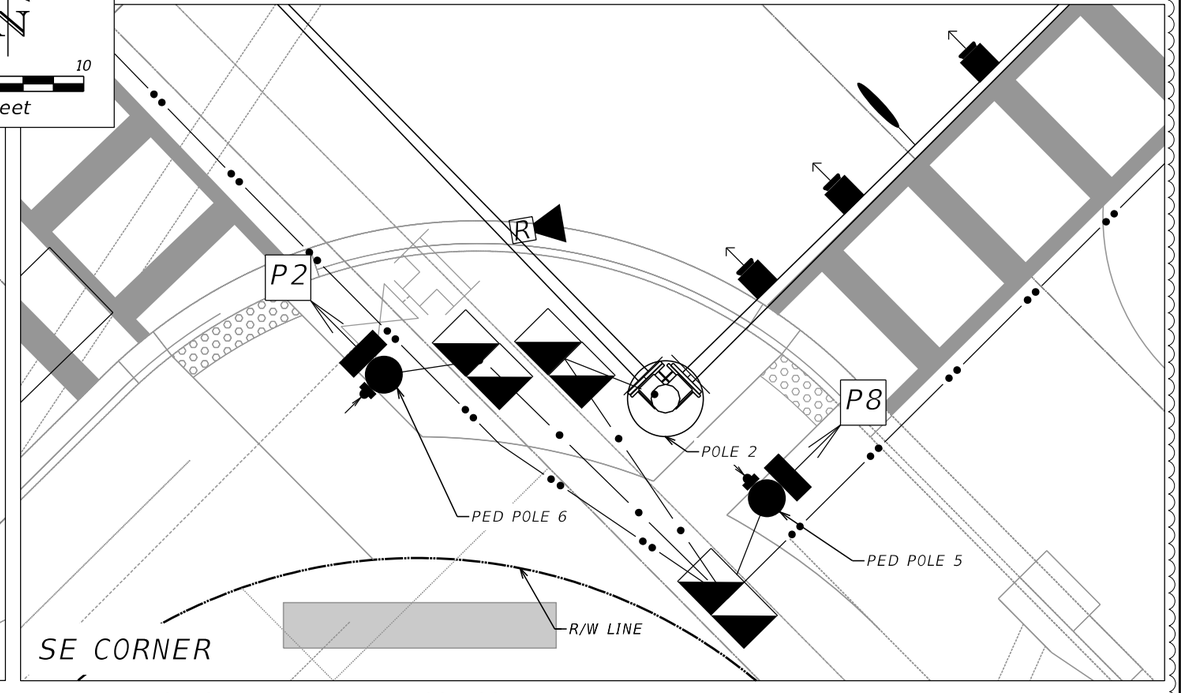
8/4/2023 3:23:14 PM kv 60% SIGNAL PLANS P:\19009.4 Sawgrass Bay Blvd & Sanctuary Dr\300 - CADD\Signalization\PLANS601.dgn











NOTE: CONTRACTOR TO ENSURE THAT PED POLES AND PUSH BUTTON LOCATIONS ARE CONSISTENT WITH FDOT STANDARD INDEX 665-001.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
08/04/23	1 CORNER CLIPS UPDATED TO REFLECT SIGNAL PLAN CHANGES		

TMC Traffic & Mobility Consultants

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LAKE COUNTY FLORIDA

CORNER CLIPS

SHEET NO. T-8

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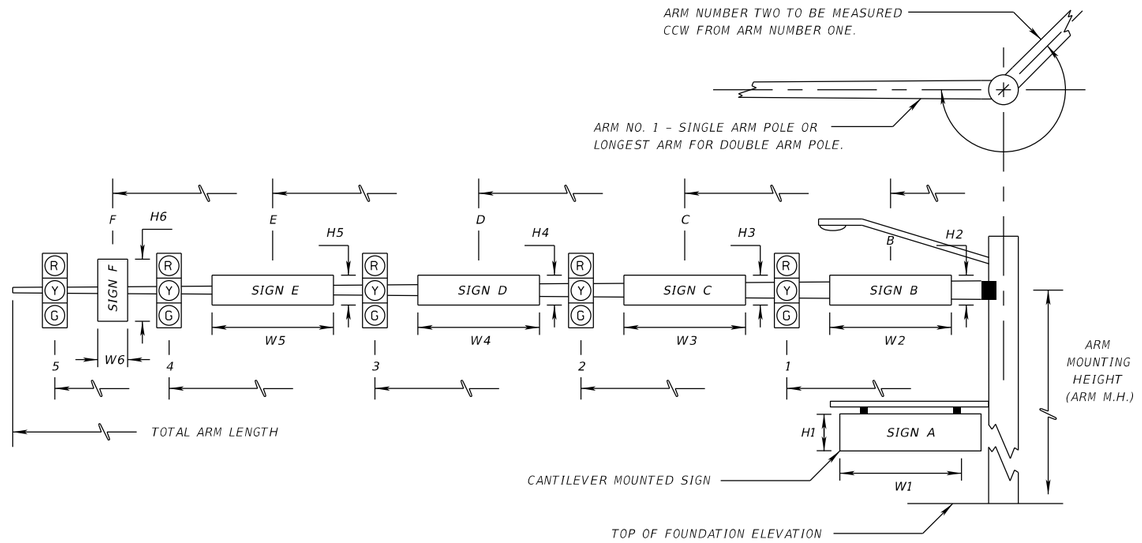
SPECIAL INSTRUCTIONS

ID NO.	PED. BUTTON		PED. SIGNALS		HANDHOLE LOCATION

1



* DENOTES NUMBER OF SECTIONS IN SIGNAL HEAD ASSEMBLY

ID NO.	SHEET NO.	LOCATION BY STA.	TOP OF FOUND. ELEVATION	RDWY ARM NO.	CROWN ELEV.	SIGNAL DATA: SIGNAL V/H	BACK PLATES Y/N	PED. SIGNAL Y/N	DISTANCE FROM POLE: 1	*	2	*	3	*	4	*	5	*	TOTAL ARM LENGTH	ARM M.H.	ANGLE BETWEEN DUAL ARMS 90/270	SIGN DATA: DISTANCE FROM POLE / HEIGHT AND WIDTH OF SIGN: A	H1	W1	B	H2	W2	C	H3	W3	D	H4	W4	E	H5	W5	PAINT COLOR
1	T-7	35+2.83, 65.21 LT	116.10	1	115.50	V	Y	N	39.0	4	47.0	3	55.0	3					60	21.0	270	0.0	2.0	9.0															MIDNIGHT NEUTRAL
---	-----	----------	-------	2	114.90	V	Y	N	23.5	3	36.3	3	48.9	4					60	21.0	-----	0.0	2.0	8.0															
2	T-7	35+86.60, 44.33 RT	114.70	1	114.20	V	Y	N	39.2	4	47.2	3	55.2	3					60	22.0	270	0.0	2.0	9.0															
---	-----	----------	-------	2	115.30	V	Y	N	7.8	3	15.8	3	28.3	4					50	22.0	-----	0.0	2.0	8.0															

1

ID NO.	SHEET NO.	LOCATION BY STA.	TOP OF FOUND. ELEVATION	RDWY ARM NO.	CROWN ELEV.	SIGNAL V/H	BACK PLATES Y/N	PED. SIGNAL Y/N	DISTANCE FROM POLE (FUTURE LOADING): 1	*	2	*	3	*	4	*	5	*	TOTAL ARM LENGTH	ARM M.H.	ANGLE BETWEEN DUAL ARMS 90/270	DISTANCE FROM POLE / HEIGHT AND WIDTH OF SIGN: A	H1	W1	B	H2	W2	C	H3	W3	D	H4	W4	E	H5	W5	PAINT COLOR
1	T-7	35+2.83, 65.21 LT	116.10	1	#	V	Y	N	#	#	#	#	#	#					60	21.0	270	#	#	#															MIDNIGHT NEUTRAL
---	-----	----------	-------	2	#	V	Y	N	36.3	3	48.9	3	57.0	4					60	21.0	-----	#	#	#															
2	T-7	35+86.60, 44.33 RT	114.70	1	#	V	Y	N	#	#	#	**	#	#					60	22.0	270	#	#	#															
---	-----	----------	-------	2	#	V	Y	N	15.8	3	28.3	3	39.0	4					50	22.0	-----	#	#	#															

1

# DENOTES EXISTING CONDITIONS TO REMAIN

NOTES:
1. TOTAL ARM LENGTH, SIGNAL HEAD AND SIGN PLACEMENT IS MEASURED FROM FACE OF THE ARM BASE PLATE ALONG THE CENTER LINE OF THE ARM.
2. THE FUTURE LOADING ACCOMMODATES THE WIDENING OF SAWGRASS BAY BOULEVARD TO A 4-LANE DIVIDED ROADWAY.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
08/04/23	1 UPDATED POLE 1 LOCATION AND LOADINGS DUE TO POLE SHIFT. ADDED OVERHEAD SIGN TO TABLE.		

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LAKE COUNTY FLORIDA

MAST ARM TABULATION

SHEET NO. T-9

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STANDARD MAST ARM ASSEMBLIES DATA TABLE

STRUCTURE ID NUMBERS	DESIGNATION	FIRST ARM		SECOND ARM		UF (deg)	LL (deg)	POLE			DRILLED SHAFT ID
		ARM ID	FAA (ft.)	ARM ID	SAA (ft.)			POLE ID	UAA (ft.)	UB (ft.)	
1	A60/ D- A60/ D- P5/ D	A60/ D		A60/ D		270		P5/ D		21	DS/ 20/ 5. 0
2	A60/ D- A50/ D- P4/ D	A60/ D		A50/ D		270		P4/ D		22	DS/ 18/ 5. 0

TABLE NOTES

1. *If an entry appears in column FAA, a shorter arm is required. This is obtained by removing length from the arm tip and the arm length shortened from FA to FAA. SAA Similar.*
2. *If an entry appears in column UAA, a shorter pole is required. This is obtained by removing length from the pole tip and the pole height shortened from UA to UAA.*
3. *Arm mounting height UB must be between 18-22 feet.*
4. *Pole Type P2 and larger require a minimum 4.5 foot diameter drilled shaft. Pole Types P5 and larger require a minimum 5.0 foot diameter shaft.*
5. *Work this sheet with the Signal Designer's "Mast Arm Tabulation". See "Mast Arm Tabulation" for special instructions that include non-standard Handhole location, paint color, terminal compartment requirement, and pedestrian features.*
6. *Design Wind Speed = 150 mph*
7. *Work this Data Table with FDOT Standard Plans Index 649-030 and 649-031.*

FOUNDATION NOTES

1. *Design based on Limited Geotechnical Exploration for Proposed Traffic Signal Mast Arms at Sawgrass Bay Boulevard and Pacific Ace. Lake County, Florida. By Universal Engineering Sciences. UES Report No. 1830756. Dated January 14, 2021. Signed and Sealed by Gautham S. Pillappa. P.E. No. 82816.*
2. *Assumptions and values used in design:*
   Soil Type = Sand
   Design Water Table is 0 feet below surface.

   Pole 1:
   Soil Layer Thickness = 30 ft
   Soil Friction Angle = 27.8 deg
   Average SPT "N" Value = 12.1
   Soil Weight = 44.5 pcf

   Pole 2:
   Soil Layer Thickness = 30 ft
   Soil Friction Angle = 29.0 deg
   Average SPT "N" Value = 8.4
   Soil Weight = 50.0 pcf
3. *Drilled shaft bottoms shall be relatively clean of loose cuttings prior to concrete placement.*
4. *Layers of dense sand may be encountered at this site. Such materials may make shaft excavations and/or temporary casing installation difficult. The Contractor shall expect to encounter these types of materials at all shaft locations and shall be prepared to use specialized equipment and/or procedures to facilitate shaft excavation and/or temporary casing installation. When temporary casing is used, the casing tip shall be reinforced and the casing thickness shall be adequate to prevent causing damage/deformation during installation through dense layers.*
5. *Drilled shafts shall be constructed in accordance with FDOT Standard Specifications Section 455. Natural slurry shall not be relied upon to prevent caving of soils and maintaining an open hole.*
6. *High groundwater levels are possible during periods of heavy or prolonged rainfall, so the Contractor shall have resources on site to address potential artesian conditions and localized inflows of water.*

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
07/2022	CHANGES TO POLE 1		

AVCON, INC.
ENGINEERS & PLANNERS
5555 EAST MICHIGAN STREET, SUITE 200
ORLANDO, FL 32822-2779
OFFICE: (407) 599-1122
CORPORATE CERTIFICATE OF AUTHORIZATION No: 5057
EOR: Luca DelVerme P.E. 63055

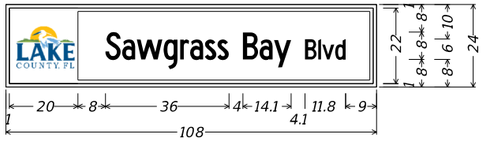
LAKE COUNTY
FLORIDA

STANDARD MAST ARM ASSEMBLIES DATA TABLE

SHEET NO.
T-10

SIGN NUMBER	A
QUANTITY	2
WIDTH	9'-0"
HEIGHT	2'-0"
BORDER WIDTH	2"
BORDER RADII	0"
BACKGROUND COLOR	3M EC GREEN
LEGEND & BORDER COLOR	3M 490T BLACK
STATION(S)	N/A

NOTES:
1. SIGNS SHALL BE DOUBLE SIDED FREE SWINGING MOUNTED ON CANTILEVER ARM ATTACHED TO THE SIGNAL UPRIGHT.

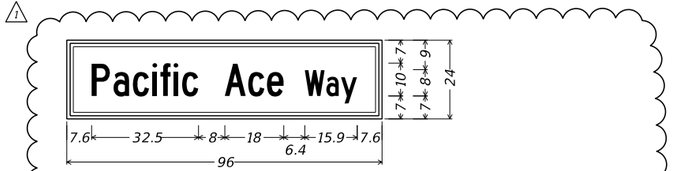


1.0" Inner border White, 6.0" Radius, 1.0" Outer border, Black on Green;
Rectangle White;
"Sawgrass Bay Blvd" White, C 2K specified length;
Table of distances between letter and object lefts

1.0	□ 28.0	S 4.9	a 4.2	w 7.9	g 4.8	r 2.9	a 4.3	s 3.6	s 3.4	
	4.0	B 4.9	a 4.3	y 9.0	B 3.8	l 1.2	v 3.7	d 3.1	9.0	

SIGN NUMBER	B
QUANTITY	2
WIDTH	8'-0"
HEIGHT	2'-0"
BORDER WIDTH	2"
BORDER RADII	0"
BACKGROUND COLOR	3M EC GREEN
LEGEND & BORDER COLOR	3M 490T BLACK
STATION(S)	N/A

NOTES:
1. SIGNS SHALL BE DOUBLE SIDED FREE SWINGING MOUNTED ON CANTILEVER ARM ATTACHED TO THE SIGNAL UPRIGHT.



1.0" Inner border White, 0" Radius, 1.0" Outer border, Black on Green;
"Pacific Ace Way" White, C 2K 80% spacing;
Table of distances between letter and object lefts

7.6	P 6.6	a 5.9	c 6.0	i 2.4	f 4.0	i 2.6	c 13.0	A 7.1	c 5.8	e 5.1				
	6.4	W 6.5	a 4.5	y 4.9	7.6									

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

8/4/2023 2:35:26 PM kv
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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
06/29/23	1 UPDATED STREET NAME AND ADDED MOUNTING NOTES.		

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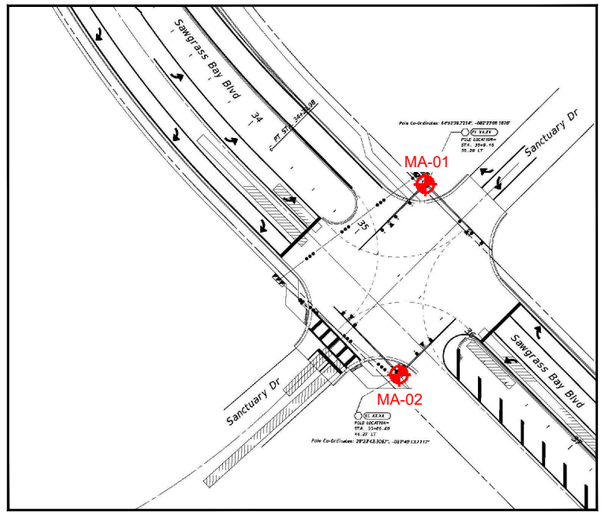
CERTIFICATE OF AUTHORIZATION: 30024

LAKE COUNTY FLORIDA

GUIDE SIGN WORKSHEET

SHEET NO.
T-11



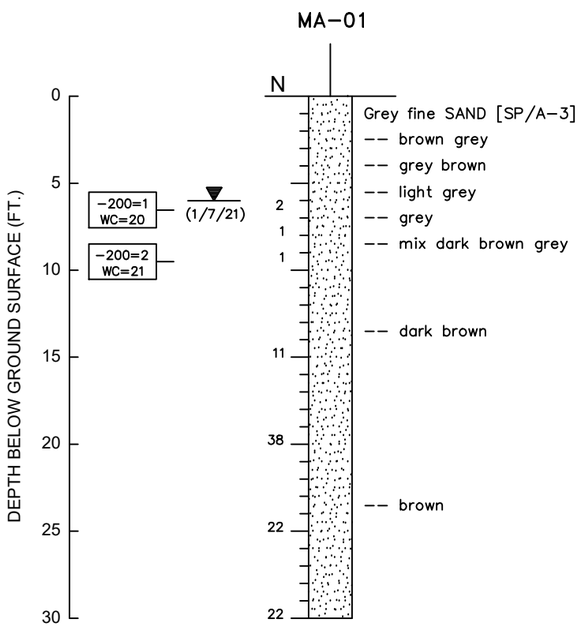
THIS DRAWING CREATED USING PLAN PROVIDED BY CLIENT.

0 100
SCALE (FT.)

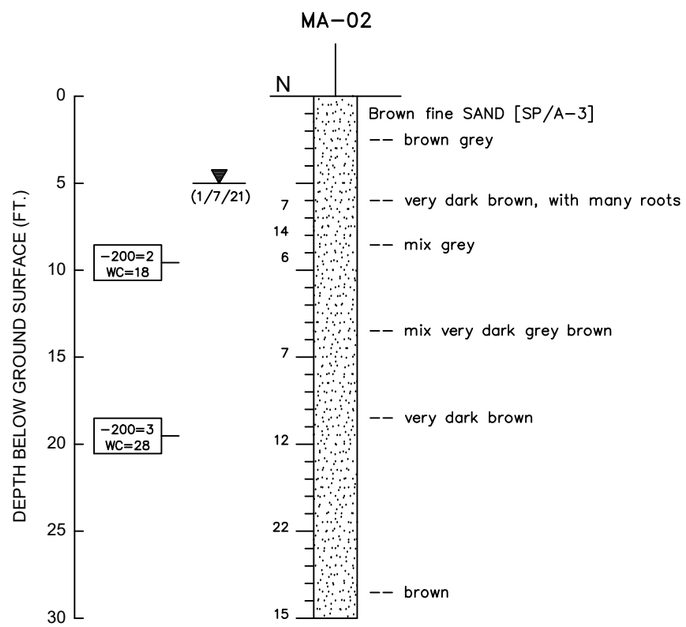
N

LEGEND

APPROX. STANDARD PENETRATION TEST (SPT) BORING LOCATION PERFORMED 1/7/2021



BORING TERMINATED AT 30 FT.



BORING TERMINATED AT 30 FT.

NOTES

1. SUBSURFACE VARIATIONS BETWEEN BORINGS SHOULD BE ANTICIPATED AS INDICATED IN SECTION 2-4 OF THE STANDARD SPECIFICATIONS.
2. PLAN PROVIDED BY CLIENT.
3. ALL SOIL BORING LOCATIONS ARE APPROXIMATE (NOT SURVEYED).
4. SOIL BORINGS PERFORMED ON 1/7/2021

KEY TO BORING LOGS

SAND

N	STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT (18" SPOON – ASTM D-1586)
SP	USCS GROUP SYMBOL BASED ON VISUAL OBSERVATION AND LABORATORY TESTS
▽	ESTIMATED SEASONAL HIGH GROUNDWATER TABLE
▼ (DATE)	WATER TABLE LEVEL DURING DRILLING OPERATION
−200	PERCENT PASSING NO. 200 U.S. STANDARD SIEVE
WC	NATURAL MOISTURE CONTENT (%)
ORG	ORGAINC CONTENT
NS	NOT SURVEYED

CORRELATION OF STANDARD PENETRATION RESISTANCE WITH RELATIVE DENSITY AND CONSISTANCY OF SOIL

GRANULAR MATERIALS (SILTS, SANDS & GRAVELS)		COHESIVE SOILS (CLAYS)	
CONSISTENCY DESIGNATION	SPT N (BLOWS/FT.)	CONSISTENCY DESIGNATION	SPT N (BLOWS/FT.)
VERY LOOSE	0-4	VERY SOFT	0-2
LOOSE	5-10	SOFT	3-4
MEDIUM DENSE	11-30	FIRM	5-8
DENSE	31-50	STIFF	9-16
VERY DENSE	50+	VERY STIFF	17-30
		HARD	30+

REVISIONS		
Date	By	Description

Dates	Names	
Drawn by	N.F.	1/12/21
Checked by	G.P.	X/XX/XX
Designed by		
Checked by		
Approved by		

ENGINEER OF RECORD:
Universal Engineering Sciences
3532 Maggie Boulevard
Orlando, Florida 32811
Phone: (407) 423-0504
Cert. of Authorization #549

CLIENT: *TRAFFIC MOBILITY CONSULTANTS, LLC*

ROAD NO.	COUNTY	UES PROJECT NUMBER
	LAKE	0130.2000540.0000

SHEET TITLE: *SPT BORINGS FOR TRAFFIC SIGNAL MAST ARMS*

PROJECT NAME: *GEOTECHNICAL EXPLORATION*
TRAFFIC SIGNAL MAST ARMS
SAWGRASS BAY BOULEVARD & PACIFIC ACE
CLERMONT, LAKE COUNTY, FLORIDA

SHEET NO. B-1

21-0022-01