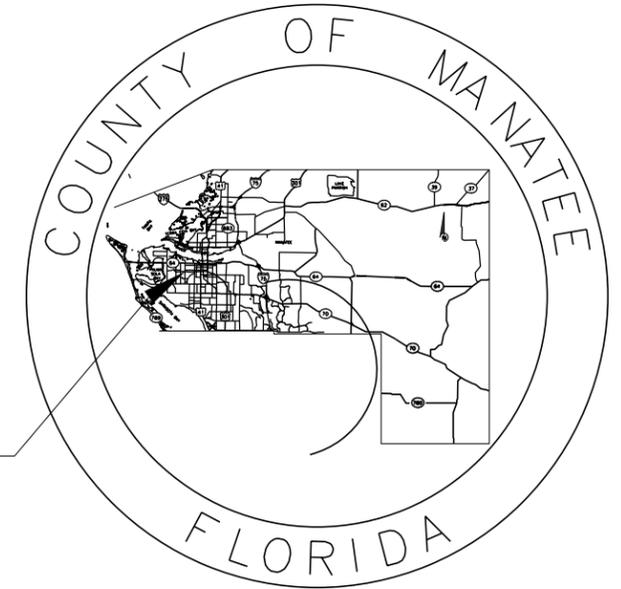


STATE OF FLORIDA

COUNTY OF MANATEE

PROPOSED SIGNALIZATION PLANS FOR 43RD STREET WEST RIGHT TURN LANE NORTH OF CORTEZ ROAD

MANATEE COUNTY PROJECT No: 307-6076861
FPID 437145-1-54-01 (D1)
FDOT MILE POST: 5.862

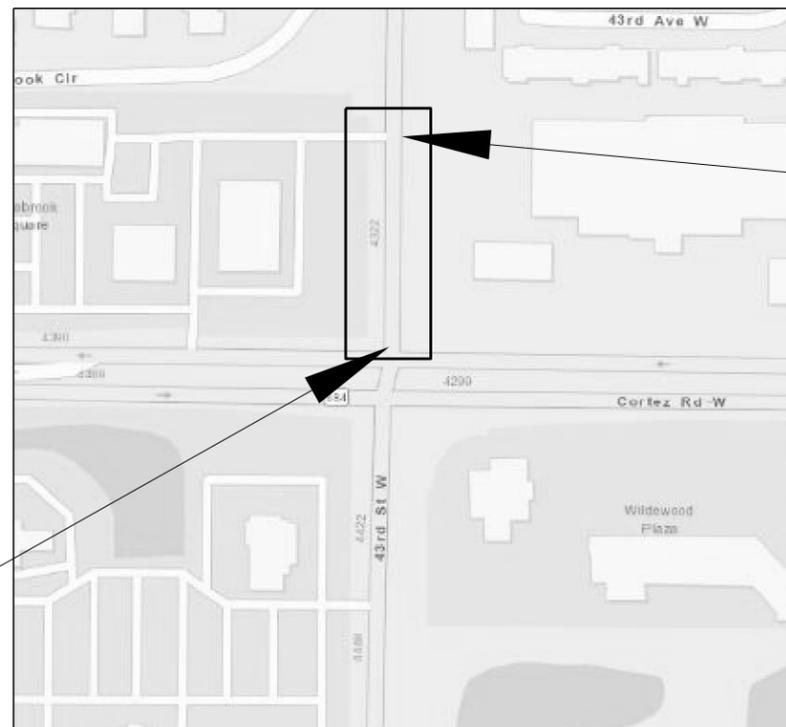


LOCATION
OF PROJECT

INDEX OF SIGNALIZATION PLANS

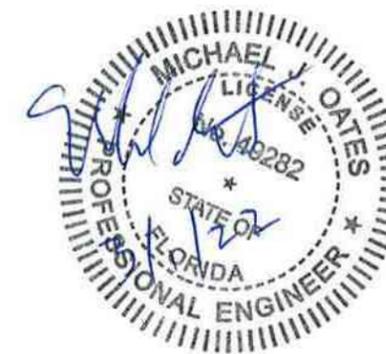
<u>SHEET NO.</u>	<u>DESCRIPTION</u>
T-1	COVER SHEET
T-2	TABULATION OF QUANTITIES
T-3	SIGNALIZATION GENERAL NOTES
T-4	SIGNALIZATION PAY ITEM NOTES
T-5	SIGNALIZATION PLAN
T-6	MAST ARM TABULATION
T-7	SIGNING AND PAVEMENT MARKING GENERAL NOTES
T-8 - T-9	SIGNING AND PAVEMENT MARKING PLANS
T-10	LIGHTING PLAN

MARCH 2022



BEGIN PROJECT
STA. 301+34.00

END PROJECT
STA. 307+60.00



N.T.S.

NAVD 88

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN ENLARGED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

SIGNALIZATION PLANS
PROFESSIONAL OF RECORD: MICHAEL J. OATES, P.E.
FLORIDA P.E. # 49282

HDR ENGINEERING INC.
2601 CATTLEMEN RD, SUITE 400
SARASOTA, FL 34232
(813) 282-2300

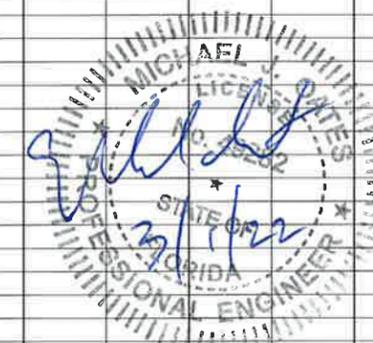


Know what's below
Call before you dig

SHEET NO.
T-1

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS												TOTAL THIS SHEET		GRAND TOTAL	
			T-5		T-8		T-9		T-10		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	60						25								85	85
632-7-1	SIGNAL CABLE- REPAIR/REPLACE/OTHER, FURNISH & INSTALL	PI	1														1	1
635-2-11	PULL & SPLICE BOX, F&I, 17" x 30" COVER SIZE	EA	1						1								2	2
646-1-40	ALUMINUM SIGNALS POLE, RELOCATE	EA	2														2	2
650-1-14	VEHICULAR TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 3 SECTION, 1 WAY	AS	4														4	4
650-1-16	VEHICULAR TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 4 SECTION, 1 WAY	AS	4														4	4
650-1-19	VEHICULAR TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 5 SECTION CLUSTER, 1 WAY	AS	1														1	1
650-1-60	VEHICULAR TRAFFIC SIGNAL, REMOVE- POLES TO REMAIN	AS	6														6	6
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	2														2	2
660-4-42	VEHICLE DETECTION SYSTEM- VIDEO, RELOCATE ABOVE GROUND EQUIPMENT	EA	2														2	2
670-5-400	TRAFFIC CONTROLLER ASSEMBLY, MODIFY	AS	1														1	1
678-1-104	CONTROLLER ACCESSORIES, REPLACE EXISTING- FURNISH AND INSTALL, LOAD SWITCH	EA	1														1	1
700-1-11	SINGLE POST SIGN, F&I GROUND MOUNT, UP TO 12 SF	AS			3		2										5	5
700-1-50	SINGLE POST SIGN, RELOCATE	AS			1												1	1
700-1-60	SINGLE POST SIGN, REMOVE	AS			1		1										2	2
700-3-201	SIGN PANEL, FURNISH & INSTALL OVERHEAD MOUNT, UP TO 12 SF	EA	2														2	2
700-5-50	INTERNALLY ILLUMINATED SIGN, RELOCATE	EA	2														2	2
706-1-3	RAISED PAVEMENT MARKER, TYPE B (WHITE/RED) (YELLOW/YELLOW)	EA			34 20		32										34 52	86
710-90	PAINTED PAVEMENT MARKINGS, FINAL SURFACE	LS			1												1	1
*	PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, SOLID, 6"	GM			0.250		0.074										0.324	0.324
*	PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, SOLID FOR CROSSWALK AND ROUNDABOUT, 12"	LF			136												136	136
*	PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, SOLID FOR STOP LINE OR CROSSWALK, 24"	LF			52												52	52
*	PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, 2-4 DOTTED GUIDELINE/ 6-10 DOTTED EXT, 6"	GM			0.009		0.006										0.015	0.015
*	PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, MESSAGE OR SYMBOL (ONLY)	EA			4												4	4
*	PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, ARROWS	EA			4												4	13
	LEFT				4												4	
	RIGHT				4												4	
	THRU				5												5	
*	PAINTED PAVEMENT MARKINGS, STANDARD, YELLOW, SOLID, 6"	GM			0.156		0.135										0.291	0.291
*	PAINTED PAVEMENT MARKINGS, STANDARD, YELLOW, SOLID, 18"	LF			2		35										37	37
711-11-123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF			136												136	136
711-11-125	THERMOPLASTIC, STANDARD, WHITE, SOLID, 24" FOR STOP LINE	LF			52												52	52
711-11-141	THERMOPLASTIC, STANDARD, WHITE, 2-4 DOTTED GUIDELINE/ 6-10 GAP EXTENSION, 6"	GM			0.009		0.006										0.015	0.015
711-11-160	THERMOPLASTIC, STANDARD, WHITE, MESSAGE OR SYMBOL (ONLY)	EA			4												4	4
711-11-170	THERMOPLASTIC, STANDARD, WHITE, ARROW	EA			4												4	13
	LEFT				4												4	
	RIGHT				4												4	
	THRU				5												5	
711-11-224	THERMOPLASTIC, STANDARD, YELLOW, SOLID, 18" FOR DIAGONAL OR CHEVRON	LF			2		35										37	37
711-16-101	THERMOPLASTIC, STANDARD-OTHER SURFACES, WHITE, SOLID, 6"	GM			0.250		0.074										0.324	0.324
711-16-201	THERMOPLASTIC, STANDARD-OTHER SURFACES, YELLOW, SOLID, 6"	GM			0.156		0.135										0.291	0.291
715-1-12	LIGHTING CONDUCTORS, F&I, INSULATED, NO.8 - 6	LF							300								300	300
715-1-60	LIGHTING CONDUCTORS, REMOVE & DISPOSE, CONTRACTOR OWNS	LF							300								300	300
715-4-60	LIGHT POLE COMPLETE, RELOCATE	EA							1								1	1
715-500-1	POLE CABLE DISTRIBUTION SYSTEM, FURNISH AND INSTALL, CONVENTIONAL	EA							1								1	1



* THESE QUANTITIES ARE PAID FOR UNDER PAINTED PAVEMENT MARKINGS (FINAL SURFACE), LUMP SUM ITEM NO. 710-90. THE QUANTITIES SHOWN ARE FOR ONE APPLICATION: SEE SPECIFICATION 710 FOR THE NUMBER OF APPLICATIONS REQUIRED.

NUMBER	DESCRIPTION	DATE	PROJECT #	307-8078861	SURVEYED	FDC	07/14/20	MICHAEL J. DATES, PE FLORIDA PE #49282  SIGNATURE AND DATE	 HDR Engineering, Inc. 4520 W. Kennedy Blvd., Suite 400 Tampa, FL 33609	43RD STREET WEST RIGHT TURN LANE NORTH OF CORTEZ ROAD TABULATION OF QUANTITIES	SHEET NO.
			SURVEY #	0577-0038	DESIGNED	GAS	08/13/21				T-2
			SEC./TWN./RGE	04/35/17	DRAWN	GAS	08/13/21				
			SCALE		CHECKED	MJO	08/13/21				

GENERAL NOTES

1. THE CONTRACTOR SHALL CONTACT THE ENGINEER, IN CONJUNCTION WITH MANATEE COUNTY'S PROJECT MANAGEMENT DIVISION BEFORE STARTING WORK.
2. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER, IN CONJUNCTION WITH MANATEE COUNTY'S TRAFFIC ENGINEERING DIVISION (941-749-3502 EXT. 7817), AT LEAST TWO WEEKS BEFORE ANY CABINET MODIFICATIONS ARE TO BE PERFORMED. THE ENGINEER, IN CONJUNCTION WITH MANATEE COUNTY ENGINEERING DIVISION PERSONNEL WILL REVIEW, ASSIST AND PROVIDE TECHNICAL SUPPORT RELEVANT TO ANY FIELD MODIFICATIONS THAT ARE NECESSARY.
3. AT LEAST TWO (2) FULL BUSINESS DAYS PRIOR TO BEGINNING THE TRAFFIC SIGNAL INSTALLATION, PERMITTEE TO CONTACT THE TRAFFIC SIGNAL INSPECTOR/LIAISON:

MANATEE COUNTY PROJECT MANAGEMENT DIVISION
MIKE STURM
1022 26TH AVENUE EAST
BRADENTON, FLORIDA 34208
PHONE: 941-708-7450 EXT. 7332
4. ONE WEEK PRIOR TO THE BEGINNING OF THE TRAFFIC SIGNAL INSTALLATION OR TURN ON OF A NEW SIGNAL, THE CONTRACTOR SHALL NOTIFY THE ENGINEER:

MANATEE COUNTY PROJECT MANAGEMENT DIVISION
MIKE STURM
1022 26TH AVENUE EAST
BRADENTON, FLORIDA 34208
PHONE: 941-708-7450 EXT. 7332

MANATEE COUNTY TRAFFIC ENGINEERING DIVISION
VISHAL KAKKAD
2101 47TH TERRACE EAST
BRADENTON, FLORIDA 34203
PHONE: 941-749-3500 EXT. 7812
5. AT THE COMPLETION OF THE PROJECT PROVIDE AS-BUILT PLANS IN ELECTRONIC FORM (PDF) TO:

FDOT TRAFFIC OPERATIONS
RENJAN JOSEPH, P.E., TSM&O ENGINEER
801 N. BROADWAY AVE
P.O. BOX 1249
BARTOW, FL 33830-1249
EMAIL: RENJAN.JOSEPH@DOT.STATE.FL.US
PHONE: 863-519-2746
6. DELIVER THREE SETS OF RECORD DRAWINGS, TWO SETS OF IMSA INSPECTION FORMS AND ONE COMPACT DISC OF RECORD DRAWINGS TO MR. AARON BURKETT, THE MANATEE COUNTY TRAFFIC OPERATIONS DIVISION MANAGER AT 2904 12TH ST CT E, BRADENTON, FL 34208. RECORD DRAWINGS MUST BE DELIVERED TO THE COUNTY 5 BUSINESS DAYS PRIOR TO SCHEDULING THE FINAL INSPECTION.
7. UPON PASSING THE FINAL INSPECTION THE CONTRACTOR SHALL SEND A WRITTEN REQUEST TO THE PROJECT MANAGEMENT DIVISION AND THE TRANSPORTATION DIVISION TO TRANSFER MAINTENANCE FROM THE CONTRACTOR TO MANATEE COUNTY. MANATEE COUNTY WILL RESPOND WITHIN 5 WORKING DAYS TO ESTABLISH A TIME TABLE FOR THE TRANSFER OF MAINTENANCE RESPONSIBILITY.
8. THE LOCATION OF UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE EXACT LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR, VIA SUNSHINE STATE ONE CALL OF FLORIDA, INC AT 811 OR 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.

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

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

AT LOCATIONS WHERE THE REQUIRED VERTICAL CLEARANCE TO THE POWER LINES CANNOT BE MAINTAINED, A QUALIFIED REPRESENTATIVE FROM THE POWER COMPANY SHALL BE PRESENT DURING ALL WORK UNDER POWER LINES. ANY COST ASSOCIATED WITH THIS SHALL BE INCLUDED IN THE RELATED PAY ITEMS.
10. THE CONTRACTOR SHALL HAND DIG THE FIRST 48 INCHES OF THE HOLE FOR THE POLE FOUNDATION OR CONDUIT RUN WHERE UTILITIES ARE IN CLOSE PROXIMITY.
11. THE CONTRACTOR IS TO DE-WATER THE POLE FOUNDATION EXCAVATION IF THE ELEVATION OF WATER IS HIGHER THAN THE ELEVATION OF THE FOUNDATION BASE.
12. ALL MATERIALS, EQUIPMENT, AND OTHER CONTRACTOR SUPPLIED ITEMS SHALL BE INSTALLED AND MAINTAINED ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS, UNLESS SPECIFICALLY DIRECTED OTHERWISE BY THE ENGINEER.
13. #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.
14. ALL ELECTRICAL WIRING SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE PUBLISHED BY THE NATIONAL FIRE PROTECTION ASSOCIATION.
15. GROUNDING: ALL COSTS FOR GROUNDING SHALL BE INCLUDED IN THE COST OF THE ITEM BEING GROUNDED. ALL GROUND ROD ASSEMBLIES FOR POLES, SERVICES, CABINETS, AND OTHER RELATED EQUIPMENT SHALL BE BONDED TOGETHER TO FORM AN INTEGRATED GROUNDING SYSTEM USING #6 AWG THHN COPPER WIRE. THE UPPER END OF ALL GROUND RODS SHALL BE 18 INCHES BELOW GROUND ELEVATION. MARK GROUND ROD LOCATION WITH PERMANENT MARKER SUCH AS AN 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.

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

GROUND RESISTANCE TESTER, OR OTHER APPROVED MEANS SHALL BE USED TO ACQUIRE THE GROUND ROD RESISTANCE. THE ENGINEER, OR A REPRESENTATIVE OF THE ENGINEER FROM THE TRAFFIC OPERATIONS DIVISION STAFF SHALL BE PRESENT DURING THE TEST.
16. IT SHOULD BE NOTED THAT NO TEST BORINGS WERE MADE WHERE CONDUIT RUNS ARE TO BE INSTALLED BY JACKING OR BORING.
17. CONTRACTOR SHALL SUPPLY ALL MATERIAL SUBMITTALS TO THE ENGINEER PRIOR TO CONSTRUCTION FOR APPROVAL.
18. CONTRACTOR SHALL UTILIZE FDOT STANDARD PLANS INDEX 102-600, 102-615, 102-616, 102-617 AND 102-660 AS APPLICABLE DURING MAINTENANCE OF TRAFFIC OPERATIONS.
19. EXISTING SPEED LIMITS ARE AS FOLLOWS:
45 MPH ON CORTEZ ROAD
40 MPH ON 43RD AVENUE EAST (TO THE NORTH)
35 MPH ON 43RD AVENUE EAST (TO THE SOUTH)

20. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW FOR ALL EQUIPMENT AND MATERIALS FURNISHED AND INSTALLED. THE CONTRACTOR SHALL FURNISH COPIES OF ALL DRAWINGS, SCHEDULES AND COMPLETE DESCRIPTIVE AND TECHNICAL DATA ON ALL ITEMS TO THE PROJECT MANAGER.
21. THE ACCEPTANCE OF ANY SUBMITTED DATA FOR MATERIALS, EQUIPMENT, APPARATUS, DEVICES, ARRANGEMENTS AND/OR LAYOUTS SHALL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY OF PLACING SAME AND PROPER DIMENSIONS, CAPACITIES, SIZES, QUANTITY AND INSTALLATIONS DETAILS TO EFFICIENTLY PERFORM THE REQUIREMENTS AND INTENT OF THE CONTRACT. SUCH ACCEPTANCE SHALL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS OF ANY SORT ON THE SUBMITTAL DATA.
22. CONTRACTOR TO CONTACT TRAFFIC ENGINEERING DIVISION: MUKUNDA GOPALAKRISHNA (941-749-3500 EXT. 7813) TO OBTAIN IP ADDRESSES FOR FIELD DEVICES AND ETHERNET SWITCH CONFIGURATION INFORMATION.
23. WHEN A CONTRACTOR IS WORKING ON A SIGNAL IN AN INTERSECTION (INSTALLING CONDUIT IN THE STREET, REMOVING EXISTING SIGNAL EQUIPMENT, LOOPS, HOMERUNS OR TURNING ON OF NEW SIGNAL) WHERE A LANE IS CLOSED, THE ENGINEER MAY REQUIRE AN OFF DUTY LAW ENFORCEMENT OFFICER TO DIRECT TRAFFIC. THE HOURLY RATE FOR AN OFF DUTY LAW ENFORCEMENT OFFICER CAN BE OBTAINED FROM THE LOCAL LAW ENFORCEMENT OFFICE. THE COST OF THE OFFICER SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND INCLUDED IN PAY ITEM 102-1-104.

CONDUIT NOTES

1. ALL HDPE CONDUIT CONNECTIONS SHALL BE JOINED WITH A FUSION COUPLER OR FUSION SPLICE.
2. THE CONTRACTOR SHALL ADJUST THE CONDUIT RUNS, DEVICE POLES, BORES AND SERVICE POLE PLACEMENTS TO AVOID ANY UTILITY CONFLICTS IDENTIFIED BY THE LOCATES. ANY SIGNIFICANT CHANGE SHALL BE APPROVED BY THE ENGINEER.
3. THE CONDUITS TO BE INSTALLED ARE TO BE PLACED SO AS TO TOTALLY AVOID ANY CONFLICTS WITH EXISTING UTILITIES ALONG THE ROUTE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE NECESSARY INFORMATION REQUIRED TO PLAN THE WORK AHEAD FOR THE INSTALLATION OF THE REQUIRED CONDUITS WITHIN DESIGN OR SPECIFIED PARAMETERS, AND HIS TIME FRAME. THE CONTRACTOR SHALL ADJUST CONDUIT VERTICALLY OR HORIZONTALLY TO AVOID CONFLICT WITH UNDERGROUND UTILITIES. THE CONTRACTOR SHALL USE HAND EXCAVATION METHODS WHEN EXCAVATING NEAR EXISTING UTILITIES, NO SEPARATE PAYMENT SHALL BE MADE FOR THIS WORK. EXTREME CAUTION SHALL BE USED BY THE CONTRACTOR WHEN EXCAVATING, INSTALLING, BACK FILLING AND COMPACTING AROUND EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY UTILITY.
4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD LOCATE ALL ABOVEGROUND AND UNDERGROUND CONFLICTS IN ADVANCE OF THE PLACEMENT OF ANY CONDUIT OR OTHER FACILITIES. THE CONTRACTOR SHALL FIELD MARK THE PROPOSED 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.
5. WHEN TRENCHING FOR INSTALLATION, THE CONTRACTOR MAY RUN COMMUNICATIONS AND POWER SERVICE IN THE SAME TRENCH. THE POWER SERVICE SHALL HAVE SEPARATE PULL BOXES FOR ACCESS. THE CONTRACTOR SHALL NOT INSTALL COMMUNICATIONS AND POWER SERVICE IN THE SAME CONDUIT, PULL BOX OR MANHOLE.
6. THE CONTRACTOR SHALL PLACE ALL CONDUITS IN A MANNER THAT MINIMIZES DEFLECTION BOTH HORIZONTALLY AND VERTICALLY, THUS MINIMIZING STRESS ON CABLES DURING CABLE INSTALLATION.
7. THE CONDUIT DETAILS GIVEN ARE MEANT TO BE SCHEMATIC IN NATURE. DUE TO ACTUAL FIELD CONDITIONS AND/OR NEEDS, DEVIATIONS MAY BE NECESSARY. DIMENSIONAL DISTANCES FOR CONDUIT LOCATIONS ARE PROVIDED TO ASSIST THE CONTRACTOR WITH CONDUIT PLACEMENT. THE CONTRACTOR SHALL TAKE THIS INTO ACCOUNT WHEN PLACING CONDUIT. THE CONTRACTOR IS RESPONSIBLE FOR FIELD LOCATING CONDUIT AROUND EXISTING UTILITIES AND OBSTRUCTIONS.
8. ALL CONDUIT TRENCHES SHALL BE BACKFILLED COMPLETELY TO PROVIDE SAFE CROSSING BY THE END OF THE WORKING DAY OR WHENEVER THE WORK ZONE BECOMES INACTIVE. DO NOT OPEN ANY AREA THAT CANNOT BE BACKFILLED IN THE SAME DAY/ NIGHT OPERATION.

BRACKETS AND SPACERS WHICH ARE REQUIRED TO OFFSET THE RIGID METAL CONDUIT FROM THE MOUNTING, SHALL BE OF SIMILAR MATERIALS TO PREVENT CATHODIC REACTION.
9. ALL NEW CONDUIT SHALL BE PLACED AT A MINIMUM DEPTH OF 30" UNLESS PLACED IN AN AREA OF NEW FILL, IN WHICH CASE THE CONDUIT SHALL BE 48".



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			SURVEY #	0577-0038	DESIGNED	GAS	08/19/21
			SEC./TWN./RGE	04/35/17	DRAWN	GAS	08/13/21
			SCALE		CHECKED	MJO	08/13/21

MICHAEL J. DATES, P.E.
FLORIDA P.E. # 49282

SIGNATURE AND DATE

3/1/22



43RD STREET WEST RIGHT TURN LANE
NORTH OF CORTEZ ROAD

SIGNALIZATION GENERAL NOTES

SHEET NO.
T-3

PAY ITEM NOTES

1. 630-2-11:
#14 XHHW PULL WIRE SHALL BE INSTALLED IN ALL CONDUITS, AT LEAST 2 FEET OF PULL WIRE SHALL BE ACCESSIBLE. ALL CONDUIT RUNS SHOWN ON THE PLANS ARE SCHEMATIC AND FIELD ADJUSTMENTS MAY BE NECESSARY. WITH THE EXCEPTION OF ELECTRICAL POWER SERVICE DUCTS, JACK & BORE SLEEVES, AND DIRECTIONAL BORE CONDUITS, ALL UNDERGROUND AND UNDER PAVEMENT CONDUITS SHALL BE SCHEDULE 40 PVC WITH A MINIMUM SIZE OF 2" UNLESS OTHERWISE SPECIFIED IN THE PLANS. COST OF PULL WIRE SHALL BE INCLUDED UNDER THIS PAY ITEM.

2. 632-7-1:
USE A MINIMUM OF 7 CONDUCTOR SIGNAL CABLES FOR SIGNAL HEADS AND PEDESTRIAN HEADS. THIS ITEM ONLY INCLUDES ANY ADDITIONAL WIRING NECESSARY TO CONSTRUCT THE PROJECT. THE INTENT IS NOT TO REWIRE THE ENTIRE INTERSECTION.

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

3. 635-2-11:
PULL BOXES SHALL BE TRAFFIC BEARING, ALL POLYMER CONSTRUCTION (NOT CONCRETE), PULL BOXES AND LIDS (QUAZITE OR ANOTHER EQUIVALENT FDOT APPROVED MANUFACTURER). PULL BOXES ARE TO BE PLACED BEHIND CURB AND GUTTER. IF THERE IS NO CURB AND GUTTER, PULL BOXES SHALL BE PLACED A MINIMUM OF 7' FROM THE EDGE OF PAVEMENT.

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

4. 646-1-60:
INCLUDES ALL ATTACHMENTS WITH THE RELOCATION (FOUNDATION, POLE, DETECTOR AND SIGNAL HEADS).

5. 650-1-14, 650-1-16 & 650-1-19:
USE SIGNAL HEAD SUPPORTING HANGER THAT IS CAPABLE OF ADJUSTING VERTICALLY A MINIMUM OF 1.5'.

ALL SIGNAL HEADS SHALL HAVE FLEXIBLE BACKPLATES INSTALLED. ALL EXISTING SIGNAL HEADS SHALL ALSO RECEIVE FLEXIBLE BACKPLATES, INCIDENTAL TO THIS PAY ITEM. BACKPLATES SHALL BE MANUFACTURED FOR THE SIGNAL HEADS USED & INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS. THE BACKPLATE SHALL HAVE A 2" YELLOW REFLECTORIZED (TYPE III REFLECTIVITY) OUTER EDGE BORDER UNLESS SPECIFIED OTHERWISE IN THE PLANS.

THE EXTERNAL COLOR OF SIGNAL HOUSING SHALL BE BLACK. ALL TRAFFIC SIGNAL HEAD INDICATIONS SHALL BE 12" LED. ALL SIGNAL HEADS SHALL HAVE TUNNEL VISORS. THE COST FOR THE TUNNEL VISORS SHALL BE INCLUDED UNDER THIS PAY ITEM.

INSTALL ALL SIGNAL HEADS AT A MINIMUM OF 17.5' VERTICAL HEIGHT ABOVE THE PAVEMENT SURFACE.

6. 660-3-11:
SHALL INCLUDE ALL NECESSARY WAVETRONIX CLICKS UNITS FOR A COMPLETE AND OPERATIONAL SETUP.

7. 660-3-12:
SHALL INCLUDE WAVETRONIX SMARTSENSOR HD ADVANCE MVDS AS NOTED IN PLANS. THIS PAY ITEM WILL INCLUDE ALL NECESSARY MOUNTING BRACKETS AND CLAMPING EQUIPMENT. SHALL INCLUDE ANY COST ASSOCIATED WITH PHYSICAL INSTALLATION OF SENSOR AND ANY SOFTWARE NECESSARY TO PROGRAM THE SENSOR.

8. 670-5-400:
INCLUDES MODIFYING THE EXISTING SIGNAL TIMINGS AND ADJUSTMENT / ADDITION OF THE NEW SIGNAL EQUIPMENT TO ACCOMMODATE THE PROPOSED INTERSECTION DESIGN.

REQUEST UPDATED SIGNAL TIMINGS FROM FDOT TSM&O ENGINEER - ARTERIALS (863-519-2216) WHEN ALL LANES, STRIPING, SIGNALS AND PEDESTRIAN FACILITIES ARE IN THEIR FINAL CONFIGURATION AND THE SIGNAL IS OPERATING AS DESIGNED. PROVIDE FDOT WITH ALL 'AS-BUILT' INFORMATION NECESSARY TO DEVELOP THE BASIC SIGNAL TIMING PARAMETERS AND ALLOW THREE (3) WEEKS FOLLOWING THE REQUEST FOR FDOT TO DEVELOP THE UPDATED TIMINGS. PROGRAM THE CONTROLLER PER THE TIMINGS PROVIDED BY FDOT.

9. 715-4-60:
RELOCATED POLES INCLUDE THE REMOVAL OF THE EXISTING FOUNDATION AND A NEW FOUNDATION AT THE PROPOSED LOCATION.



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MICHAEL J. DATES, P.E.
FLORIDA P.E. #49282

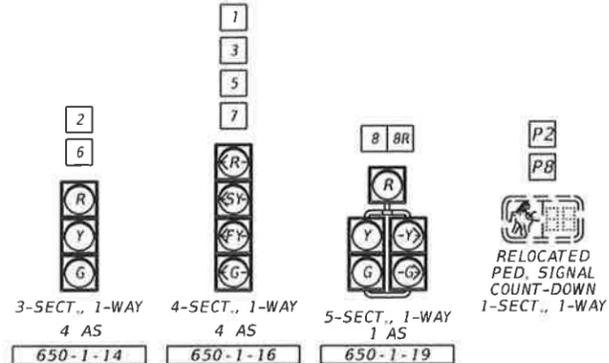
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43RD STREET WEST RIGHT TURN LANE
NORTH OF CORTEZ ROAD

SIGNALIZATION PAY ITEM NOTES

SHEET NO.
T-4

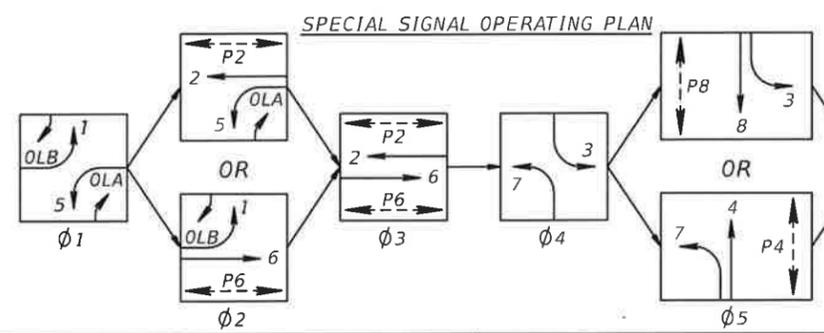


- INTERSECTION NOTES:
- THE POSTED SPEED LIMIT IS AS FOLLOWS:
CORTEZ ROAD = 45 MPH
43RD AVENUE EAST = 35 MPH (TO THE SOUTH)
43RD AVENUE EAST = 40 MPH (TO THE NORTH)

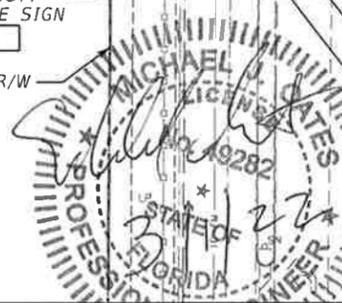
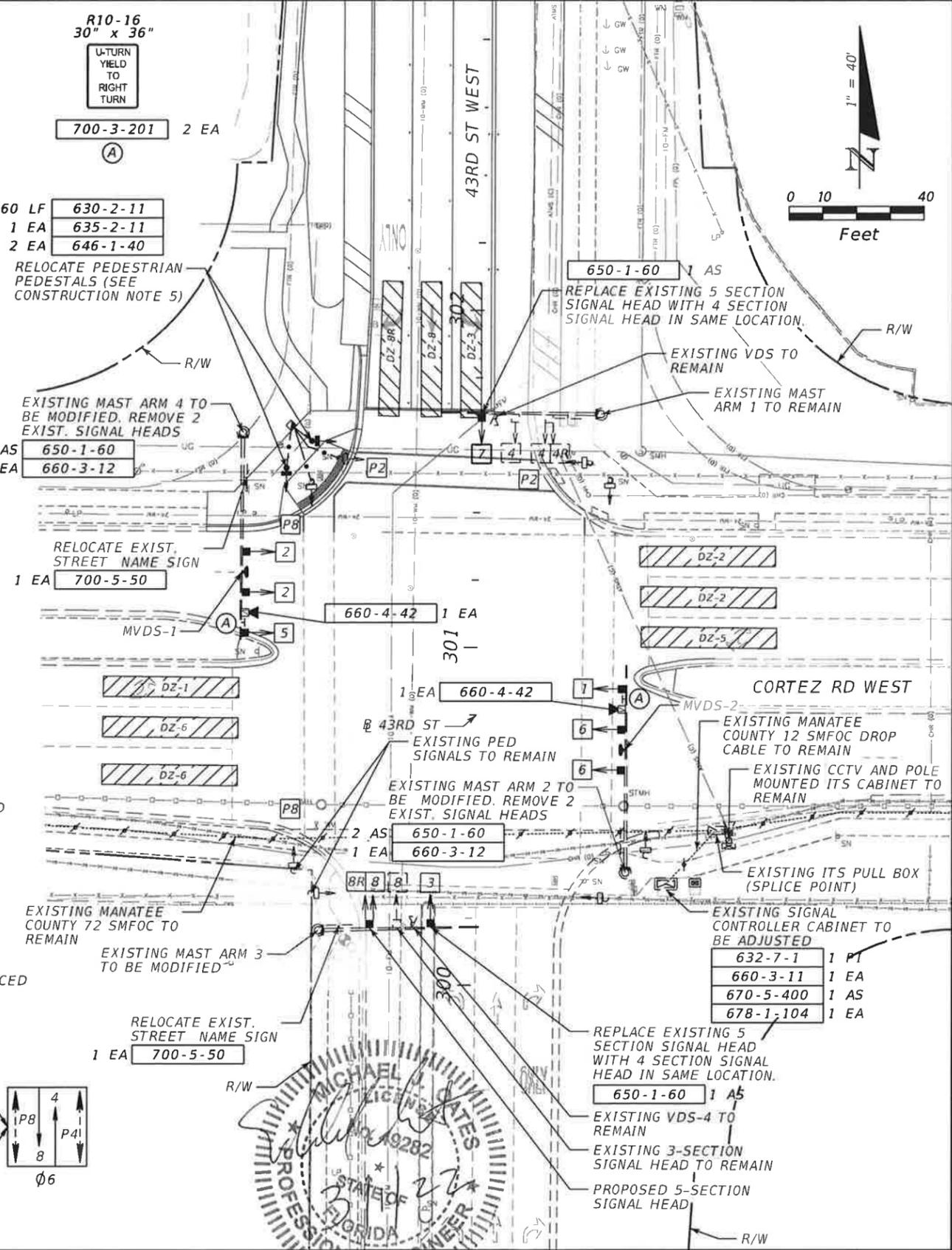
- CONTROLLER OPERATIONS:
- MAJOR STREET IS CORTEZ ROAD (SR 684), MOVEMENTS 2 & 6, MINOR STREET IS 43RD STREET W, MOVEMENTS 4 & 8.
 - MODIFY THE EXISTING SIGNAL OPERATING PLAN (SOP) 10 TO ADD OVERLAP B (OLB) AS SHOWN IN THE DIAGRAM BELOW. OLB = OVERLAP FOR MOVEMENT 8R TO COME UP WITH MOVEMENT 1 WITH MIN. GREEN = 5 SEC., YELLOW = 4.4 SEC., ALL RED = 2.7 SEC. THE EXISTING OVERLAP A (OLA) FOR MOVEMENT 4R COMES UP WITH MOVEMENT 5 WITH MIN. GREEN = 5 SEC., YELLOW = 4.4 SEC., ALL RED = 2.7 SEC.
A) OVERLAP OLA SHALL BE OMITTED WHEN P4 IS ACTIVE.
B) OVERLAP OLB SHALL BE OMITTED WHEN P8 IS ACTIVE.
 - PROGRAM PHASE RESTRICTIONS TO OMIT MOVEMENT 1 AND REDIRECT CALLS FROM MOVEMENT 1 TO MOVEMENT 6, WHEN MOVEMENT 2 IS GREEN AND TO OMIT MOVEMENT 5 AND REDIRECT CALLS FROM MOVEMENT 5 TO MOVEMENT 2, WHEN MOVEMENT 6 IS GREEN.
 - CONFIGURE THE PHASE SEQUENCE, PHASE CONCURRENCY AND OVERLAP PROGRAMMING TO COMPLY WITH THE MUTCD.
 - MOVEMENTS 2 AND 6 SHALL FLASH YELLOW. ALL OTHER MOVEMENTS SHALL FLASH RED. MOVEMENT 8R SHALL BE TURNED OFF DURING FLASHING OPERATION.

- CONSTRUCTION NOTES:
- EXISTING SIGNAL PHASING TO BE REVISED TO ADD OLB PER THE SOP SHOWN. THE SIGNAL TIMINGS SHOULD BE REVISED PER THE TIMINGS NOTED IN CONTROLLER TIMING CHART.
 - EXISTING MAST ARMS SHOWN ARE FOR GRAPHICAL PURPOSES ONLY, CONTRACTOR SHALL VERIFY LENGTH OF MAST ARM AND POSITION OF TRAFFIC SIGNAL HEADS BEFORE PERFORMING ANY WORK.
 - EXISTING VIDEO VEHICLE IMAGING DETECTION SYSTEM, AND STREET NAME SIGNS ON THE MAST ARMS TO REMAIN EXCEPT NOTED OTHERWISE.
 - RE-CONFIGURE EXISTING VIDEO VEHICLE DETECTION CAMERAS TO DETECT THE ZONES AS SHOWN. DETECTION ZONES SHALL BE 6' X 40' POSITIONED 2' BEYOND STOP BAR. COST SHALL BE INCLUDED UNDER PAY ITEM 670-5-400.
 - RELOCATE THE TWO EXISTING ALUMINUM PEDESTRIAN SIGNALS (PEDESTALS) IN THE NW QUADRANT AS SHOWN. INCLUDE A NEW FOUNDATION FOR BOTH RELOCATED PEDESTALS. INSTALL PROPOSED CONDUIT FROM THE NEW PEDESTAL LOCATIONS AND CONNECT TO EXISTING CONDUITS AS SHOWN.
 - MODIFY EXISTING SIGNAL CABINET AND CONTROLLER TO INCLUDE THE PEDESTRIAN TIMING, WIRING AND ASSIGNING DETECTION FOR THE OLB MOVEMENT. NOTE THAT THE PEDESTRIAN SIGNAL TIMING CHANGES MUST ALSO BE REFLECTED IN THE AUDIBLE PEDESTRIAN SIGNALS FOR THE CROSSWALKS OF ALL PEDESTRIAN SIGNALS FOR P2 AND P8.
 - SEE MAST ARM TABULATION SHEET FOR ADVANCE MVDS DILEMMA ZONE DETECTION DETAIL.
 - BACKPLATES ON ALL PROPOSED SIGNAL HEADS SHALL BE FLEXIBLE TYPE. THE RIGID BACKPLATES ON EXISTING TO REMAIN HEADS SHALL BE REPLACED WITH FLEXIBLE BACKPLATES.

CONTROLLER TIMINGS (SECONDS)								
MOVEMENT NUMBER	1	2	3	4	5	6	7	8
DIRECTION	EBL	WB	SBL	NB	WBL	EB	NBL	SB
TURN TYPE	PROT/PERM		PROT/PERM		PROT/PERM		PROT/PERM	
MINIMUM GREEN	5	15	5	7	5	15	5	7
EXTENSION	3.0	2.0	3.0	3.0	3.0	2.0	3.0	3.0
YELLOW	4.8	4.8	4.4	4.4	4.8	4.8	4.4	4.4
ALL RED	5.0	5.0	2.8	2.8	5.0	5.0	2.8	2.8
MAX I	15	30	20	20	15	30	20	20
MAX II	25	115	25	35	25	115	25	35
WALK		7		7		7		7
FLASHING DON'T WALK		18		30		22		32
DETECTOR MEMORY								
DET. CROSS SWITCH.	Ø6		Ø8		Ø2		Ø4	
DUAL ENTRY		ON		ON		ON		ON
VEHICLE RECALL		MIN				MIN		



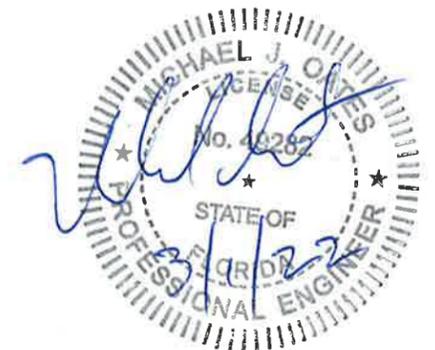
VIDEO VEHICLE DETECTION ASSIGNMENTS			
VIDEO DETECTION	DETECTION ZONE	DELAY TIME (SECS.)	CONNECT TO MOVEMENT
VDS-4	DZ-3	3	3
VDS-4	DZ-8		8
VDS-4	DZ-8R	8	8



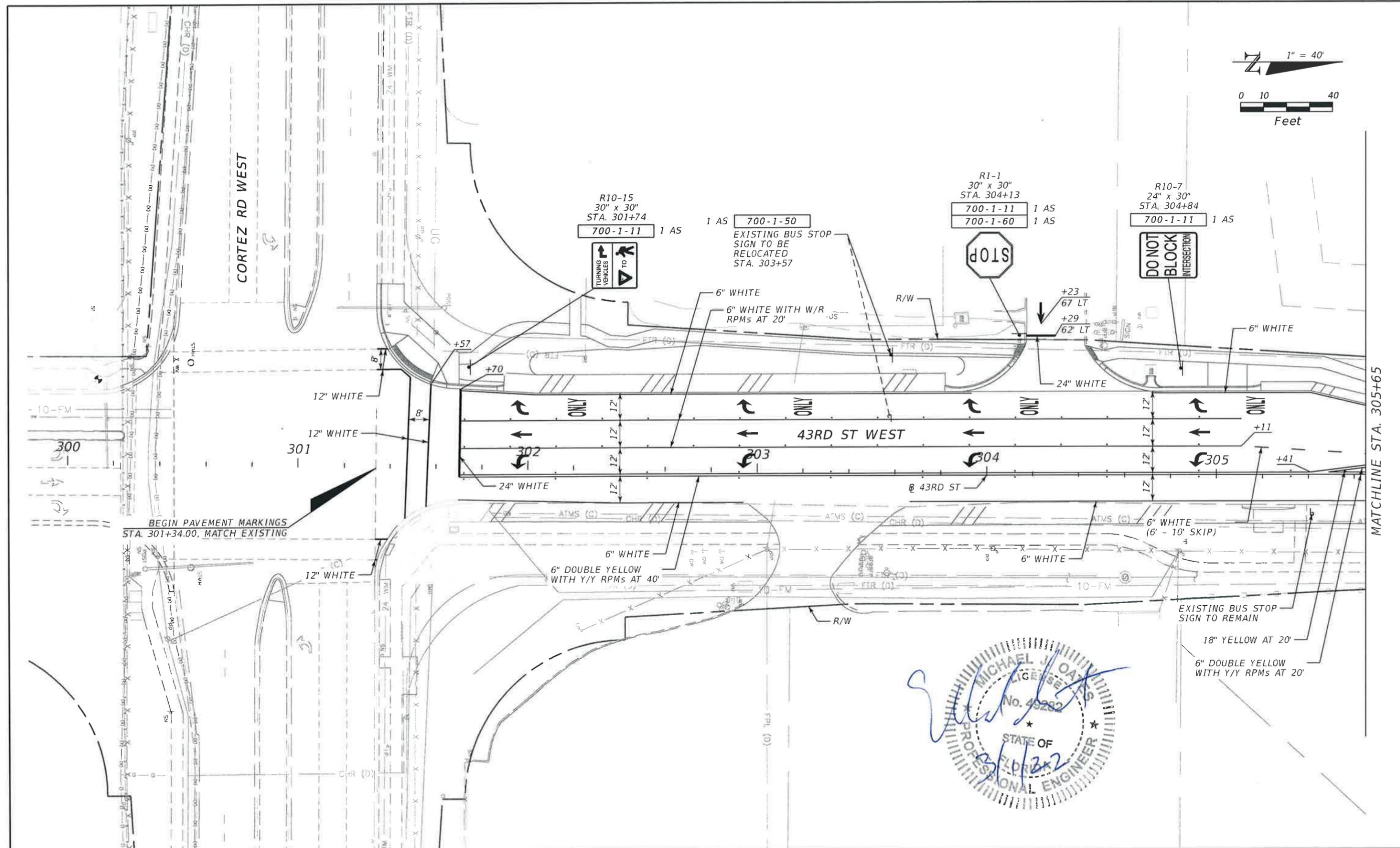
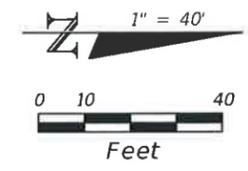
NUMBER DESCRIPTION DATE	PROJECT # SURVEY # SEC./TWN./RGE SCALE	307-8076861 0577-0038 04/35/17 CHECKED	SURVEYED DESIGNED DRAWN CHECKED	FDC GAS GAS MJO	07/14/20 08/13/21 08/13/21 08/13/21	MICHAEL J. DATES, P.E. FLORIDA P.E. # 49282 SIGNATURE AND DATE 10:45:18 AM			43RD STREET WEST RIGHT TURN LANE NORTH OF CORTEZ ROAD SIGNALIZATION PLAN	SHEET NO. T-5
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SIGNING AND PAVEMENT MARKING GENERAL NOTES:

1. ALL FLORIDA ROUTE MARKERS MUST CONFORM TO F.D.O.T. STANDARD PLANS INDEX NO. 700-102.
2. PAVEMENT MARKINGS SHALL BE PLACED AS SHOWN IN THE PLANS AND THE APPROPRIATE F.D.O.T. STANDARD PLANS.
3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LENGTH OF SIGN COLUMN SUPPORTS IN THE FIELD PRIOR TO FABRICATION.
4. REFER TO F.D.O.T. STANDARD PLANS INDEX NO. 706-001 FOR RETRO-REFLECTIVE PAVEMENT MARKER PLACEMENT DETAILS.
5. CAUTION SHALL BE EXERCISED WHILE RELOCATING EXISTING SIGNS SO AS TO PREVENT DAMAGE TO THE SIGNS. IF THE SIGNS ARE DAMAGED BEYOND USE, AS DETERMINED BY THE ENGINEER, THEY SHALL BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE.
6. THE SIGN LOCATIONS ARE APPROXIMATE AND MAY REQUIRE FIELD ADJUSTMENT AS DIRECTED BY THE ENGINEER.
7. ANY EXISTING SIGN TO REMAIN THAT IS DISTURBED DURING CONSTRUCTION OR RELOCATED SHALL BE RESET TO CURRENT STANDARDS FOR HEIGHT, OFFSET, AND METHOD OF INSTALLATION. COST OF THIS WORK SHALL BE REFLECTED IN THE PAY ITEM NO. 102-1 IN THE SUMMARY OF ROADWAY PAY ITEMS.
8. COLUMNS (POSTS) FOR SINGLE COLUMN SIGNS ON CORTEZ ROAD SHALL BE ALUMINUM ROUND TUBE. SIGNS ON 43RD STREET WEST SHALL BE U-CHANNEL POST.
9. ALL SINGLE COLUMN SIGNS WITHIN THE LIMITS OF CLEARING AND GRUBBING SHALL BE REMOVED UNLESS OTHERWISE NOTED IN THE PLANS. PAYMENT SHALL BE REFLECTED IN THE PAY ITEM NO. 110-1-1 IN THE SUMMARY OF ROADWAY PAY ITEMS.
10. AT LOCATIONS WHERE UNDERGROUND UTILITIES ARE IN CLOSE PROXIMITY TO SIGN FOUNDATIONS AS DETERMINED BY THE CONTRACTOR, THE CONTRACTOR SHALL HAND DIG THE FIRST FOUR FEET OF THE HOLE FOR THE MULTI POST FOUNDATIONS.
11. UNLESS OTHERWISE NOTED ON PLAN SHEETS, ALL CROSSWALKS SHALL BE EIGHT FEET (8') IN WIDTH TO MATCH THE EXISTING CROSSWALKS. MEASUREMENTS SHALL BE FROM INSIDE TO INSIDE OF 12" STRIPES.



NUMBER	DESCRIPTION	DATE	PROJECT #	307-6076881	SURVEYED	FDC	07/14/20	MICHAEL J. BATES, P.E. FLORIDA P.E. # 49282			43RD STREET WEST RIGHT TURN LANE NORTH OF CORTEZ ROAD SIGNING AND PAVEMENT MARKING GENERAL NOTES	SHEET NO.				
			SURVEY #	0577-0038	DESIGNED	GAS	08/13/21									T-7
			SEC./TWN./RGE	04/35/17	DRAWN	GAS	08/13/21									
			SCALE		CHECKED	MJO	08/13/21					SIGNATURE AND DATE				



MATCHLINE STA. 305+65



NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	FDC	07/14/20
			307-8078861	DESIGNED	GAS	08/13/21
			0577-0038	DRAWN	GAS	08/13/21
			04/35/17	CHECKED	MJO	08/13/21

MICHAEL J. DATES, P.E.
FLORIDA P.E. # 49282

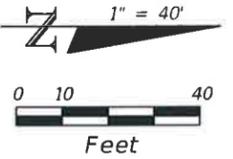
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43RD STREET WEST RIGHT TURN LANE
NORTH OF CORTEZ ROAD

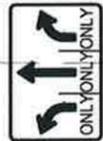
SIGNING AND PAVEMENT MARKING PLANS

SHEET NO.
T-8



MATCHLINE STA. 305+65

R3-8B
48" x 30"
STA. 306+10
700-1-11 1 AS



6" YELLOW WITH Y/Y
RPMs AT 20'
18" YELLOW AT 20'

+91
9' LT
12'

SPEED
LIMIT
40

R2-1
24" x 30"
STA. 305+93
700-1-11 1 AS
700-1-60 1 AS

43RD ST WEST

END PAVEMENT MARKINGS
STA. 307+60.00, MATCH EXISTING

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	FDC	07/14/20
			307-6076661			
			SURVEY #	0577-0038	DESIGNED	GAS 08/13/21
			SEC./TWN./RGE	04/35/17	DRAWN	GAS 08/13/21
			SCALE		CHECKED	MJO 08/13/21

MICHAEL J. DATES, P.E.
FLORIDA P.E. #49282



43RD STREET WEST RIGHT TURN LANE
NORTH OF CORTEZ ROAD
SIGNING AND PAVEMENT MARKING PLANS

SHEET NO.
T-9

SIGNATURE AND DATE

11:41:32 AM

3/1/2022

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LEGEND

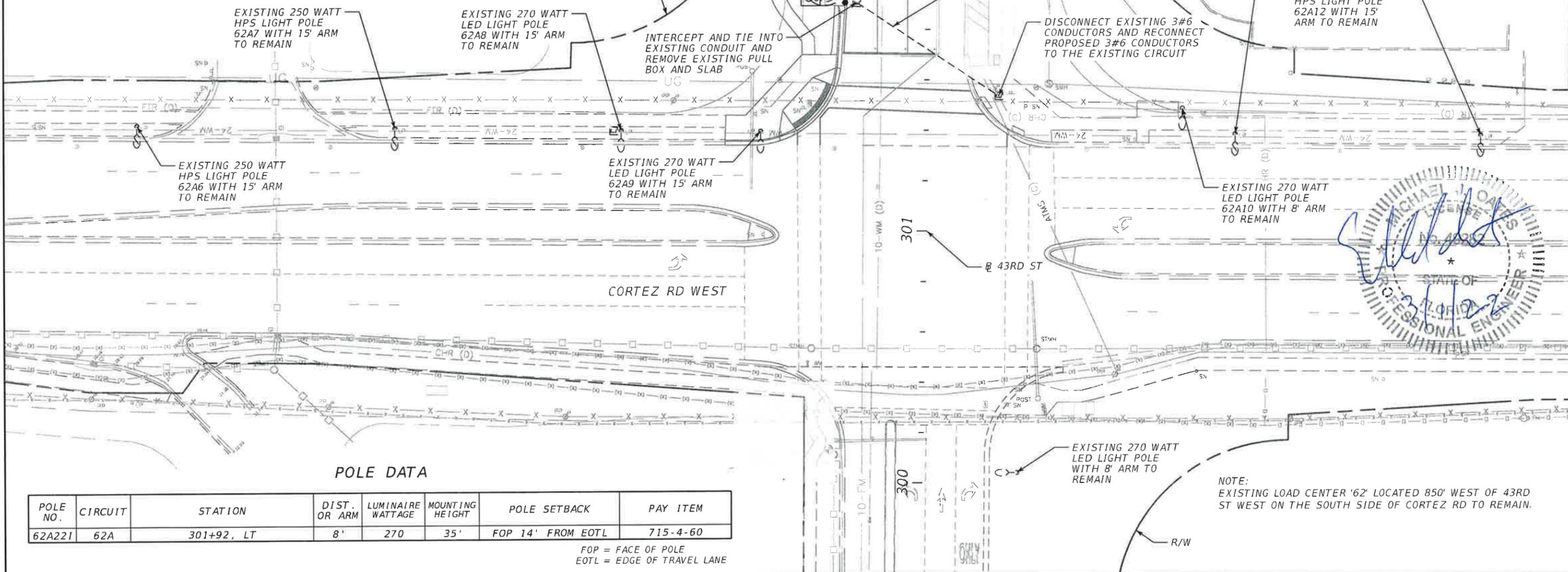
SYMBOLS

DESCRIPTION

-  RELOCATED 270 WATT LED LUMINAIRE AND CONVENTIONAL SHOULDER MOUNTED LIGHT POLE, ANALYZED USING AMERICAN ELECTRIC LIGHTING LUMINAIRE, PHOTOMETRIC CURVE NUMBER ATB2_BOBLEDE10_XXXXX_R3_4K_5K AT 32415 LUMENS, POLE MOUNTING HEIGHT IS 35 FT AND ARM LENGTH IS 8 FT. SYMBOL INCLUDES RELOCATED LUMINAIRE, ARM AND POLE WITH PROPOSED STANDARD FOUNDATION, PULL BOX, BREAKAWAY TRANSFORMER BASE, AND POLE CABLE DISTRIBUTION SYSTEM. THE LUMINAIRE IS A CUTOFF FIXTURE DESIGNED FOR MEDIUM THROW TYPE III DISTRIBUTION WITH ZERO TILT.
-  CONDUIT INSTALLED BY OPEN TRENCH METHOD WITH CONDUCTORS INSIDE, RUN ONE (1) COPPER GROUND BONDING CONDUCTOR (GREEN INSULATION) INSIDE WITH OTHER CONDUCTORS.
-  EXISTING CONDUIT
-  EXISTING LIGHTING PULL BOX
-  EXISTING LIGHT POLE TO BE RELOCATED.
-  EXISTING LIGHT POLES TO REMAIN.

CONVENTIONAL LIGHTING DESIGN CRITERIA FOR SIGNALIZED INTERSECTION

DESIGN WIND SPEED	140 MPH
AVERAGE HORIZONTAL INITIAL ILLUMINATION	1.5 H.F.C. STD / 1.0 H.F.C. MIN
AVERAGE VERTICAL INITIAL ILLUMINATION	1.5 V.F.C. STD / 1.0 V.F.C. MIN
AVERAGE TO MIN.	4:1 OR LESS
MAX TO MIN.	10:1 OR LESS



POLE DATA

POLE NO.	CIRCUIT	STATION	DIST. OR ARM	LUMINAIRE WATTAGE	MOUNTING HEIGHT	POLE SETBACK	PAY ITEM
62A221	62A	301+92, LT	8'	270	35'	FOP 14' FROM EOTL	715-4-60

FOP = FACE OF POLE
EOTL = EDGE OF TRAVEL LANE

NOTE:
EXISTING LOAD CENTER '62' LOCATED 850' WEST OF 43RD ST WEST ON THE SOUTH SIDE OF CORTEZ RD TO REMAIN.

NUMBER	DESCRIPTION	DATE
	PROJECT #	307-6078861
	SURVEYED	FDC 07/14/20
	DESIGNED	GAS 08/13/21
	DRAWN	GAS 08/13/21
	CHECKED	MJO 08/13/21

MICHAEL J. DATES, P.E.
FLORIDA P.E. #49282



43RD STREET WEST RIGHT TURN LANE
NORTH OF CORTEZ ROAD

LIGHTING PLAN

SHEET NO.
T-10