SIGNALIZATION PLANS FOR RYE ROAD AT FIRE RESCUE STATION 3

MANATEE COUNTY, FLORIDA



INDEX OF SIGNALIZATION CONCEPT

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GOVERNING DESIGN STANDARDS:

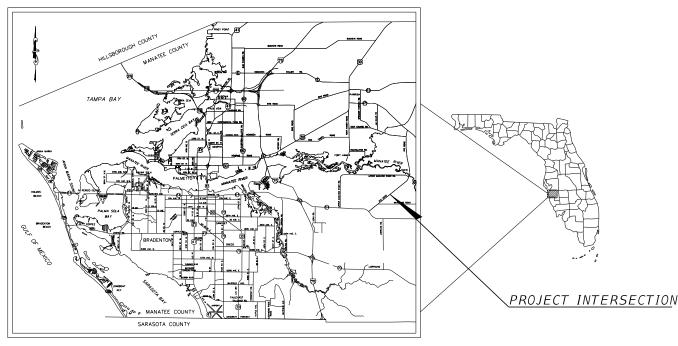
Florida Department of Transportation, FY2024-25 Standard Plans for Road Construction at the following website: https://www.fdot.gov/design/standardplans

Manatee County Public Work Standards and Specifications at the following website: https://public-works-standards-public-manateegis.hub.arcgis.com/

GOVERNING STANDARD SPECIFICATIONS:

Florida Department of Transportation, FY2024-25 Standard Specifications for Road and Bridge Construction at the following website: https://www.fdot.gov/programmanagement/Implemented/SpecBooks

Manatee County Public Work Standards and Specifications at the following website: https://public-works-standards-public-manateegis.hub.arcgis.com/



PROJECT VICINITY MAP

100% DESIGN SUBMITTAL
AUGUST 2024
PREPARED BY

Kimley»Horn

SIGNALIZATION PLANS ENGINEER OF RECORD:

NICOLE R. HECK, P.E. NO: 84306

Kimley » Horn

200 SOUTH ORANGE AVENUE SUITE 600 ORLANDO, FLORIDA 32801 TEL: (407) 898-1511 VENDOR NO. F560885615-001 REGISTRY: 35106

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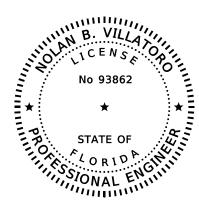
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THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SIGNALIZATION PLANS

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T-16	UTILITY CONFLICT SHEET
T-17	CLEARANCE CALCULATIONS
T-18	FUTURE SIGNALIZATION CONCEPT



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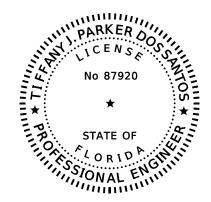
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KIMLEY HORN AND ASSOCIATES, INC. 200 SOUTH ORANGE AVENUE, SUITE 600 ORLANDO, FLORIDA 32801 NOLAN B. VILLATORO, P.E. NO. 93862

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SIGNALIZATION PLANS

T-2 SIGNATURE SHEET T-14 SPECIAL MAST ARM ASSEMBLIES DATA TABLE



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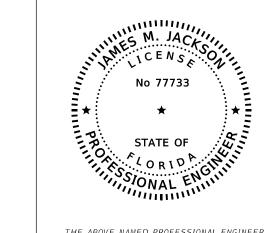
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KIMLEY HORN AND ASSOCIATES, INC. 200 SOUTH ORANGE AVENUE, SUITE 600 ORLANDO, FLORIDA 32801 TIFFANY J. PARKER DOS SANTOS, P.E. NO. 87920

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

SIGNALIZATION PLANS

T-2	SIGNATURE SHEET
L-1	LIGHTING GENERAL NOTES
L-2	LIGHTING LEGEND
L-3	LIGHTING DATA TABLE
L-4	LIGHTING PLAN
L-5	SERVICE POINT DETAIL



THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Jackson email=Jmjackson2@Terracon.com

Digitally signed by James M Jackson DN: cn=James M Jackson, c=US, o=TERRACON CONSULTANTS INC,

ON THE DATE ADJACENT TO THE SEAL

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TERRACON CONSULTANTS INC. 8260 VICO COURT SARASOTA, FLORIDA 34240 JAMES M. JACKSON, P.E. NO. 77733

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

SIGNALIZATION PLANS

T-2 SIGNATURE SHEET

T-19 REPORT OF CORE BORINGS FOR SIGNAL POLES

REVISIONS DATE

Kimley »Horn

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KHA PROJECT 6115560 DATE AUGUST 2024 SCALE AS SHOWN DESIGNED BY: JBQ DRAWN BY: JBQ

CHECKED BY: NRH

RYE ROAD AT FIRE RESCUE STATION 3 MANATEE COUNTY

LICENSED PROFESSIONAL

NICOLE R HECK, P.E. FLLICENSE NUMBER 84306

SIGNATURE SHEET

SHEET NUMBER

T-2

K:\ORL TPTO\148400114 Gene Witt Elementary\148400114\signals\SIGNSG02.dgn

TABULATION OF QUANTITIES

PAY ITEM	DESCRIPTION	UNIT							HEET NUMBER	I				TOTA	$S \mid \frac{GF}{T}$	GRAND TOTAL	
NO.	DESCRIPTION			-6		- 7	T -		T-9	T - 10	T - 11	L -	<u> </u>	SHEE	: /		
		1	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN FINAL	PLAN FINAL	PLAN FINAL	PLAN F	-INAL P	LAN	FINAL PLAN	FINA	
101-1	MOBILIZATION	LS	1											1	1		
102-1	MAINTENANCE OF TRAFFIC	LS	1		-									1	1		
110-4-10	REMOVAL OF EXISTING CONCRETE	SY	9											9	9		
110-23	TREE REMOVAL	EA							1					1	1	_	
522 - 1	CONCRETE SIDEWALK AND DRIVEWAYS, 4" THICK	SY	9											9	9	_	
570 - 1 - 2	PERFORMANCE TURF, SOD	SY	69											69	69		
630-2-11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF								115		105		220	220		
630-2-12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF								735	60	75		870	870		
630-2-14	CONDUIT, FURNISH & INSTALL, ABOVEGROUND	LF									100	185		285	285		
632-7-1	SIGNAL CABLE - NEW OR RECONSTRUCTED INTERSECTION, FURNISH & INSTALL	PΙ							1					1	1		
633-2-32	FIBER OPTIC CONNECTION, INSTALL, TERMINATION	EA								2				2	2		
633-3-17	FIBER OPTIC CONNECTION HARDWARE, F&I, CONNECTOR PANEL	EA								2				2	2		
633-4-11	TELEPHONE CABLE, FURNISH & INSTALL	LF								625				625	625		
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA								11	1	8		20	20		
39 - 1 - 122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS										1		1	1		
639-2-1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF								360		10		370	370		
539 - 3 - 11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA								1		1		2	2		
639-4-6	EMERGENCY GENERATOR - PORTABLE, INSTALL HOUSING ONLY	EA							1					1	1		
541-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-11 SERVICE POLE	EA								1		1		2	2		
546 - 1 - 11	ALUMINUM SIGNALS POLE, PEDESTAL	EA							2					2	2		
49-21-21	STEEL MAST ARM ASSEMBLY, FURNISH AND INSTALL, SINGLE ARM 78'	EA							1					1	1		
650 - 1 - 34	VEHICULAR TRAFFIC SIGNAL, FURNISH & INSTALL POLYCARBONATE, 3 SECTION, 1 WAY	AS							6					6	6		
665-1-11	PEDESTRIAN DETECTOR, FURNISH & INSTALL, STANDARD	EA									4			4	4		
70-5-111	TRAFFIC CONTROLLER ASSEMBLY, F&I, NEMA, 1 PREEMPTION	AS							1					1	1		
671-2-40	TRAFFIC CONTROLLER, MODIFY	EA								1				1	1		
676 - 3 - 10	SMALL EQUIPMENT ENCLOSURE, FURNISH AND INSTALL, LESS THAN 10"W X 13"H X 11" D	EA									1			1	1		
676-3-60	SMALL EQUIPMENT ENCLOSURE, REMOVE- POST/CABINET TO REMAIN	EA									1			1	1		
82-1-113	ITS CCTV CAMERA, F&I, DOME PTZ ENCLOSURE - PRESSURIZED, IP, HIGH DEFINITION	EΑ							1					1	1		
684-6-11	WIRELESS COMMUNICATION DEVICE, FURNISH & INSTALL ETHERNET ACCESS POINT	EA								1				1	1		
685-1-13	UNINTERRUPTIBLE POWER SUPPLY, FURNISH & INSTALL, LINE INTERACTIVE WITH CABINET	EA							1					1	1		
00-1-111	SINGLE COLUMN GROUND SIGN ASSEMBLY, F&I GROUND MOUNT, LESS THAN 12 SF	EA					2							2	2		
00-1-112	SINGLE COLUMN GROUND SIGN ASSEMBLY, F&I GROUND MOUNT, 12.0-20.0 SF	EA			1		1							2	2		
	SINGLE COLUMN GROUND SIGN ASSEMBLY, RELOCATE	EA					2							2	2		
	SIGN PANEL, FURNISH & INSTALL OVERHEAD MOUNT, UP TO 12 SF	EA							2					2	2		
	ENHANCED HIGHWAY SIGN ASSEMBLY, AC POWERED, REMOVE - GROUND MOUNT	EA			1		1							2	2		
	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF			112		164							276	276		
	THERMOPLASTIC, STANDARD, WHITE, SOLID, 24" FOR STOP LINE AND CROSSWALK	LF					23							23	23	_	
	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF			78									78	78	_	
	THERMOPLASTIC. STANDARD-OPEN GRADED ASPHALT SURFACES WHITE, SOLID, 6"	GM		<u> </u>	 		0.036							.036	0.036	;	
711-17-1	THERMOPLASTIC, REMOVE EXISTING THERMOPLASTIC PAVEMENT MARKINGS- SURFACE TO REMAIN	SF			105		3.000							105	105	+	
715-1-12	LIGHTING CONDUCTORS, F&I, INSULATED, NO.8 - 6	LF		+	+	1						2050		2050	2050	+	
715-7-11	LOAD CENTER, F&I, SECONDARY VOLTAGE	EA		+	+							1		1	1	_	
	LIGHT POLE COMPLETE, F&I, STANDARD POLE STANDARD FOUNDATION, 40' MOUNTING HEIGHT, 10' ARM LENGTH	EA		+								3	-	.3	3	+	
101-021	POLE CABLE DISTRIBUTION SYSTEM, FURNISH AND INSTALL, CONVENTIONAL	L A			1							3		,			

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No.	REVISIONS	DATE	BY	
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KHA PROJECT 6115560 DATE AUGUST 2024 SCALE AS SHOWN CHECKED BY: NRH RYE ROAD AT FIRE RESCUE STATION 3



NICOLE R. HECK, P.E. FLLICENSE NUMBER 84306

LICENSED PROFESSIONAL

SHEET NUMBER

TABULATION OF QUANTITIES

T-3

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- 1. THE MAINTAINING AGENCY IS MANATEE COUNTY. THE CONTRACTOR SHALL NOTIFY THE MAINTAINING AGENCY SEVEN DAYS PRIOR TO BEGINNING WORK. THE CONTRACTOR IS RESPONSIBLE TO CONTACT THE MAINTAINING AGENCY FOR THE PHYSICAL ADDRESS ONCE THE SERVICE DROP LOCATION HAS BEEN ESTABLISHED.
- 2. THE CONTRACTOR IS TO NOTIFY UTILITY OWNERS THROUGH SUNSHINE ONE CALL OF FLORIDA, INC. (1-800-432-4770) TWO (2) FULL BUSINESS DAYS IN ADVANCE OF BEGINNING CONSTRUCTION ON THE JOB SITE. ALL UTILITY CONFLICTS SHALL BE RESOLVED PRIOR TO SETTING OF THE SIGNAL POLES OR THE LAYING OF CONDUIT.
- 3. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY COMPANY AT LEAST TWO WORKING DAYS IN ADVANCE OF POLE SETTING OPERATIONS WHERE CONFLICT WITH OVERHEAD ELECTRICAL CONDUCTORS IS EXPECTED. ALL SAFETY CLEARANCES TO PRIMARY ELECTRICAL LINES SHALL BE STRICTLY ADHERED TO.
- 4. AT THE TIME OF FINAL INSPECTION, THE CONTRACTOR SHALL FURNISH THE ENGINEER WITH TWO COMPLETE SETS OF AS-BUILT PLANS. THE CONTRACTOR SHALL ALSO FURNISH THREE COMPLETE SETS OF AS-BUILT PLANS AND ONE SET OF APPROVED SHOP DRAWINGS TO THE MAINTAINING AGENCY.
- 5. 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.
- 6. 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 COUTY WILL RESPOND WITHIN 5 WORKING DAYS TO ESTABLISH A TIME TABLE FOR THE TRANSFER OF MAINTENANCE RESPONSIBILITY.
- 7. THE CONTRACTOR SHALL MEET ALL CRITERIA OUTLINED IN "THE MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES" AND ALL STANDARDS AND SPECIFICATIONS UTILIZED BY THE MAINTAINING AGENCY.
- 8. IT SHOULD BE NOTED THAT NO TEST BORINGS WERE MADE WHERE CONDUIT RUNS ARE TO BE INSTALLED BY DIRECTIONAL DRILLING OR TRENCHING.
- 9. INSTALL ONE SPARE 2" CONDUIT FOR FUTURE USE AT ALL INTERSECTION CROSSINGS. CONDUIT SHALL TERMINATE AT A PULL BOX AND BE STUBBED AND PROPERLY CAPPED.
- 10. A #14 AWF INSULATED PULL WIRE SHALL BE INSTALLED IN ALL SPARE CONDUITS. AT LEAST TWO FEET OF PULL WIRE SHALL BE ACCESSIBLE AT EACH CONDUIT TERMINATION AND BE SECURED WITHIN THE PULL BOX. PAYMENT OF THE PULL WIRE SHALL BE INCIDENTAL TO THE CONDUIT.
- 11. ALL UNDERGROUND CONDUIT ENTRY HOLES ON SIGNAL POLES SHALL BE STUBBED OUT AND CAPPED IN A PROPOSED PULL BOX.
- 12. AT LOCATIONS WHERE UNDERGROUND UTILITIES ARE IN CLOSE PROXIMITY TO THE SIGNAL POLE FOUNDATION OR CONDUIT RUN AS DETERMINED BY THE ENGINEER, THE CONTRACTOR SHALL HAND-DIG THE FIRST 48 INCHES OF DEPTH FOR THE POLE FOUNDATION OR THE CONDUIT RUN.
- 13. PULL BOXES SHALL BE POLYMER CONCRETE TYPE MATERIAL AND BE TRAFFIC BEARING.
- 14. A MANUAL PUSH BUTTON CORD SHALL BE INSTALLED IN THE CONTROLLER CABINET.
- 15. CONTROLLER CABINET DOOR SHALL OPEN TOWARD THE RIGHT OF WAY LINE AND AWAY FROM TRAFFIC.
- 16. WHEN INSTALLING GROUND WIRE IN THE CONTROLLER CABINETS, THE COPPER GROUND WIRE SHALL NOT COME INTO CONTACT WITH THE ALUMINUM CABINET, EXCEPT AT THE TERMINATION POINT.
- 17. ALL FIELD WIRING, INCLUDING SIGNAL HEAD WIRING AND LOOP LEAD-INS SHALL BE IDENTIFIED WITH CLEARLY MARKED WEATHERPROOF TAGS. THE PROPOSED TAGGING SYSTEM SHALL BE IN ACCORDANCE WITH THE FDOT AND THE MAINTAINING AGENCIES STANDARD SPECIFICATIONS.

- 18. THE SIGNAL CONTRACTOR IS RESPONSIBLE TO SIZE ALL SIGNAL CABLES TO ENSURE NO MORE THAN A 5% VOLTAGE DROP AT THE END OF ANY CIRCUIT OCCURS. VOLTAGE DROP IS REFERENCED TO THE LINE SIDE OF THE METER
- 19. ALL SIGNAL EQUIPMENT TO REMAIN UNLESS OTHERWISE NOTED.
- 20. ALL REMOVED SIGNAL EQUIPMENT TO BE RETURNED TO MANATEE COUNTY TRAFFIC OPERATIONS. CONTACT: CORY MILES (941) 708-7509 (EXT. 7262)
- 21. AT LEAST FIVE (5) FULL BUSINESS DAYS PRIOR TO BEGINNING THE TRAFFIC SIGNAL INSTALLATION, CONTRACTOR SHALL CONTACT THE TRAFFIC SIGNAL INSPECTORS/LIAISONS:

MANATEE COUNTY TRAFFIC OPERATIONS DIVISION

MR. AARON BURKETT

2904 12TH STREET COURT EAST

BRADENTON, FL 34208

PHONE: 941-708-7509

MANATEE COUNTY TRAFFIC ENGINEERING DIVISION

MR VISHAL KAKKAD

2904 12TH STREET COURT EAST

BRADENTON, FL 34208

PHONE: 941-749-3500

MANATEE COUNTY PROJECT MANAGEMENT DIVISION

DEREK O'SULLIVAN

1022 26TH AVENUE EAST

BRADENTON, FL 34208

PHONE: 941-708-7450

22. AT THE COMPLETION OF THE PROJECT, PROVIDE AS-BUILT PLANS IN ELECTRONIC FORM (PDF) TO:

MANATEE COUNTY

MR. AARON BURKETT

2904 12TH STREET COURT EAST

BRADENTON, FL 34208

EMAIL: AARON.BURKETT@MYMANATEE.ORG

PHONE: 941-708-7509

- 23. THE LOCATIONS OF THE UTILITIES SHOWN IN THE PLANS ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY.
- 24. EXISTING UTILITIES ARE TO REMAIN IN PLACE UNLESS OTHERWISE NOTED.
- 25. THE CONTRACTOR MUST NOTIFY THE TRAFFIC OPERATIONS 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.
- 26. CONTRACTOR SHALL COORDINATE PAVEMENT MARKINGS AND SIGNAGE WORK WITH SCHEDULING OF SIGNAL ACTIVATION. THE SIGNAL SHALL NOT BE FULLY ACTIVATED UNTIL ALL PROPOSED STOP BARS, CROSSWALKS, RAMPS, AND PAVEMENT REMOVAL WORK IS COMPLETE. THE EXISTING STOP BARS SHALL BE REMOVED UPON SIGNAL ACTIVATION.
- 27. LIST OF UTILITY OWNERS:

CHARTER COMMUNICATIONS FLORIDA POWER & LIGHT FRONTIER COMMUNICATIONS MANATEE COUNTY TRANSPORTATION MANATEE COUNTY UTILITY OPERATIONS

PEACE RIVER ELECTRIC

TECO PEOPLES GAS ZAYO GROUP

THOMAS MUMEA 941-737-0003 BRIAN GARVER 941-723-4442 DENISE HUTTON 941-504-9652 KATHY MCMAHON 941-792-8811 KATHY MCMAHON 941-792-8811 PAUL ROBERTS 863-767-4650

JOAN DOMNING

813-275-3783 406-496-6510

HENRY KLOBUCAR

REVISIONS DATE

Kimley» Horn

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KHA PROJECT 6115560 DATE AUGUST 2024 SCALE AS SHOWN DESIGNED BY: JBQ

DRAWN BY: IBO



RYE ROAD AT FIRE RESCUE STATION 3

NICOLE R HECK, P.E. FLLICENSE NUMBER 84306

LICENSED PROFESSIONAL

GENERAL NOTES (01)

T-4

SHEET NUMBER

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MANATEE COUNTY

- 1. COORDINATE AND SCHEDULE ALL FIRE STATION PREMISES WORK WITH THE LOGISTICS OFFICER INCLUDING BUT NOT LIMITED TO CONSTRUCTION SCHEDULE, DOWNTIME REQUIREMENTS BETWEEN REMOVING THE EXISTING PUSH BUTTON AND ACTIVATION OF NEW PUSH BUTTON, AND/OR LOCATION OF CONDUIT AND PUSH BUTTON.
- 2. CONTRACTOR SHALL TEST PREEMPTION PLANS PRIOR TO FINAL ACCEPTANCE WITH THE COUNTY. CONTRACTOR SHALL COORDINATE WITH MANATEE COUNTY TRAFFIC OPERATIONS AND TRAFFIC ENGINEERING DIVISIONS, AS WELL AS THE FIRE STATION REPRESENTATIVE. SO THAT THEY CAN ALL BE IN ATTENDANCE DURING THE TEXT.
- 3. FIRE STATION REPRESENTATIVE CONTACT INFORMATION:

SCOTT RHODES
EAST MANATEE FIRE RESUCE
LOGISTICS OFFICER
OFFICE: (941) 751-5611
CELL: (941) 224-0117
SRHODES@EMFR.ORG

MAINTENANCE OF TRAFFIC NOTES:

- 1. TRAFFIC CONTROL FOR THE PROJECT SHALL COMPLY WITH THE LATEST EDITION OF THE FDOT DESIGN STANDARDS, THE MUTCD, THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AND MANATEE COUNTY PUBLIC WORK STANDARDS. THE CONTRACTOR MAY BE DIRECTED BY THE ENGINEER TO DEVELOP AND IMPLEMENT MODIFICATIONS TO THE TRAFFIC SIGNAL OPERATIONS (I.E. TIMING AND PHASING) FOR ANY SIGNAL LOCATED WITHIN THE PROJECT LIMITS. THE CONTRACTOR'S RESPONSE TIME TO ALL REPORTED MALFUNCTIONS OF A TRAFFIC SIGNAL SHALL BE NO MORE THAN 2 HOURS AND SHALL RESTORE ALL MALFUNCTIONS OF THE SIGNAL EQUIPMENT TO ITS LEVEL OF OPERATION PRIOR TO THE MALFUNCTION WITHIN 24 HOURS. DURING THIS TIME, THE CONTRACTORS SHALL PROVIDE AT HIS EXPENSE, TEMPORARY TRAFFIC CONTROL DEVICES, FLAGGER PERSONNEL, AND LAW ENFORCEMENT PERSONNEL AS NECESSARY TO MAINTAIN A SAFE AND EFFICIENT FLOW OF TRAFFIC AT THE EFFECTED SIGNALIZED AND UNSIGNALIZED INTERSECTIONS. THE ENGINEER SHALL APPROVE ALL MODIFICATIONS PRIOR TO THEIR IMPLEMENTATION.
- 2. ALL WORK MUST FOLLOW FDOT 102-600 SERIES STANDARDS FOR MOT. NO LANE CLOSURE WITHOUT PM AND DIRECTOR APPROVAL. 9AM 2PM AND/OR NIGHT HOURS ONLY.
- 3. ATTENTION IS CALLED TO THE FOLLOWING FDOT STANDARD PLANS FOR DEVELOPING THE MAINTENANCE OF TRAFFIC PLAN:
 - 102-600
 - 102-601
 - 102-602
 - 102-603
 - 102-660

PAY ITEM NOTES:

PAY ITEM 630-2-14

CONDUIT TO BE PAINTED TO MATCH WALL. USE RIGID ALUMINUM FOR ALL ABOVE GROUND CONDUIT AND FITTINGS. USE MINIMUM SIZE CONDUIT NECESSARY BASED ON THE SIZE OF CONDUCTORS UTILIZED. COST FOR CONDUCTORS ARE INCIDENTAL.

PAY ITEM 633-2-31

PAYMENT FOR SPLICING OF THE TELEPHONE CABLE.

PAY ITEM 633-4-11

PROVIDE GREATER THAN CAT-5 CABLE TYPE WITH RJ45 CONDUCTOR COUNT. EXISTING CONDUIT PROVIDING COMMUNICATION BETWEEN THE FIRE STATION AND THE TRAFFIC SIGNAL BEACONS TO BE ABANDONED IN PLACE.

PAY ITEM 635-2-11

STANDARD PULL BOX DIMENSION SHALL BE 17" X 30" X 12" AND THE LID SHALL BE STAMPED "MANATEE COUNTY TRAFFIC SIGNAL" ON THE COVER.

PAY ITEM 639-4-6

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

PAY ITEM 665-1-11

INSTALL NON-STANDARD PUSH BUTTONS INSIDE THE FIRE STATION. ONE BUTTON FOR THE NORTHBOUND DIRECTION AND ONE PUSH BUTTON FOR THE SOUTHBOUND DIRECTION. THE BUTTONS SHALL BE LABELED WITH ALUMINUM TAGS MOUNTED ABOVE EACH BUTTON, "NORTH" AND "SOUTH". PUSH BUTTON SIGN AND HOUSING IS INCIDENTAL TO THE PUSH BUTTON.

PAY ITEM 670-5-111

PROVIDE TRAFFICWARE 980 ATC TRAFFIC CONTROLLER AND TYPE 6 CABINET WITH FRONT AND BACK ACCESS DOORS PER MANATEE COUNTY SPEC.

PAY ITEM 676-3-10

INSTALL SMALL ELECTRICAL EQUIPMENT ENCLOSURE, AND ALL ASSOCIATED COMPONENTS TO ENSURE A COMPLETE SYSTEM, FOR THE PURPOSE OF EMERGENCY SIGNAL DETECTION AND PRE-EMPTION. ENCLOSURE TO BE PAINTED TO MATCH WALL.

PAY ITEM 676-3-60

REMOVE EXISTING SMALL ELECTRICAL EQUIPMENT ENCLOSURE FOR THE EXISTING EMERGENCY SIGNAL DETECTOR.

PAY ITEM 682-1-113

PROVIDE BOSCH SECURITY SYSTEMS DOME CAMERA MODEL VG5 ITS 70001 STARLITE SERIES 1080P 30X40 FULLY COMPATIBLE WITH THE EXISTING ADVANCED TRAFFIC MANAGEMENT SYSTEM. SHALL BE MOUNTED ON THE MAST ARM 2 FEET OUTSIDE OF THE VEHICULAR TRAVEL LANE.

PAY ITEM 684-6-11

PROVIDE RUGGEDCOM RX1400 DEVICE WITH EXTERNAL ANTENNA 6GK6014-0AM23-0BA0-Z A07+B00+C02+D02+E00+F00+G00+V00.

PAY ITEM 685-1-13

PROVIDE ALPHA FXM HP1100 LINE INTERACTIVE WITH CABINET ASSEMBLY.

PAY ITEM 700-141-902

REMOVAL OF EXISTING PULL BOXES IS INCIDENTAL TO THE REMOVAL OF THE EXISTING TRAFFIC SIGNAL BEACONS. EXISTING CONDUIT PROVIDING COMMUNICATION BETWEEN THE FIRE STATION AND THE TRAFFIC SIGNAL BEACONS TO BE ABANDONED IN PLACE.

No. REVISIONS DATE BY

Kimley»Horn

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6115560

DATE
AUGUST 2024

SCALE AS SHOWN
DESIGNED BY: JBQ



RYE ROAD AT FIRE RESCUE STATION 3

NICOLE R. HECK, P.E. FLLICENSE NUMBER 84306

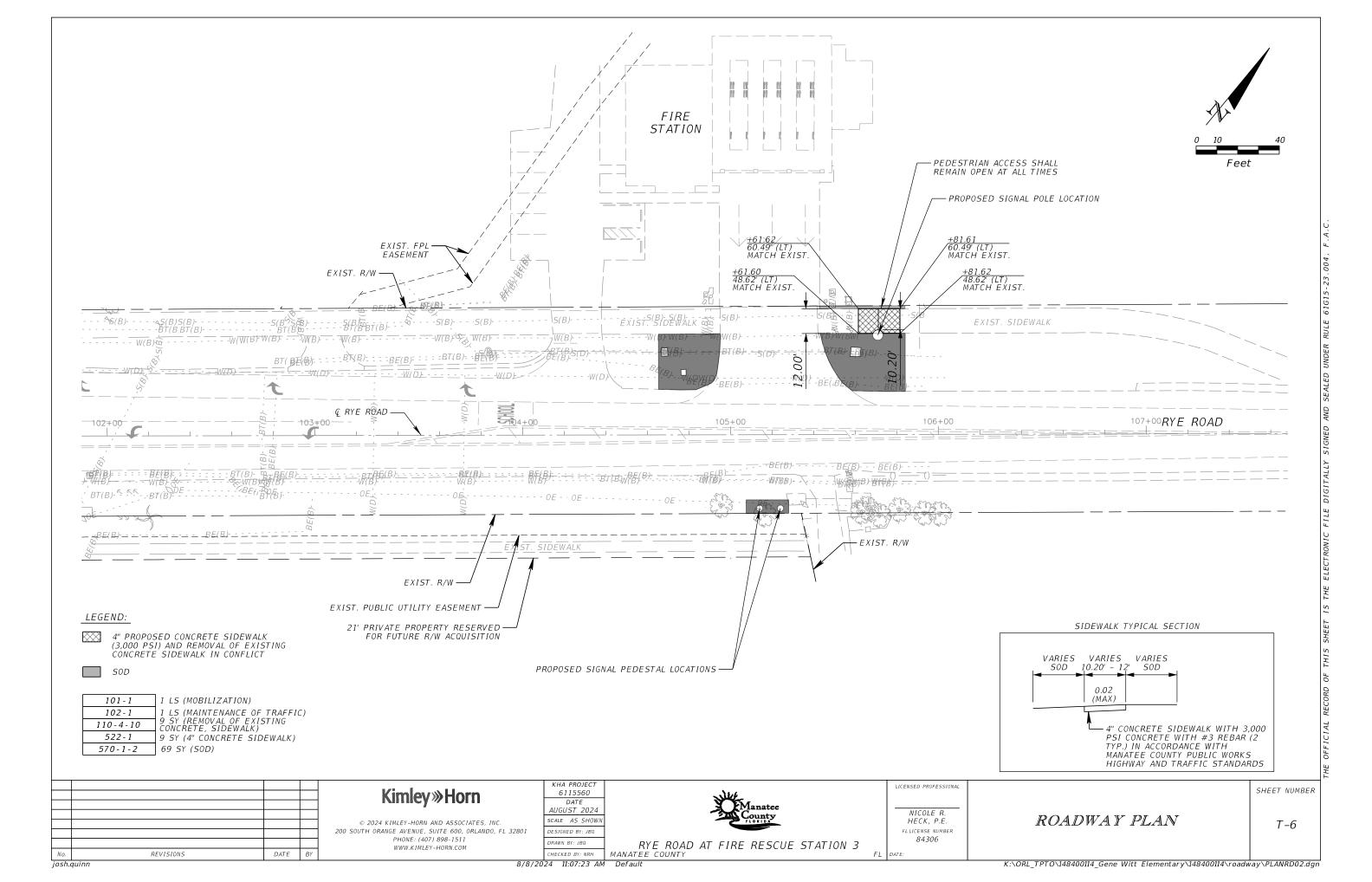
LICENSED PROFESSIONAL

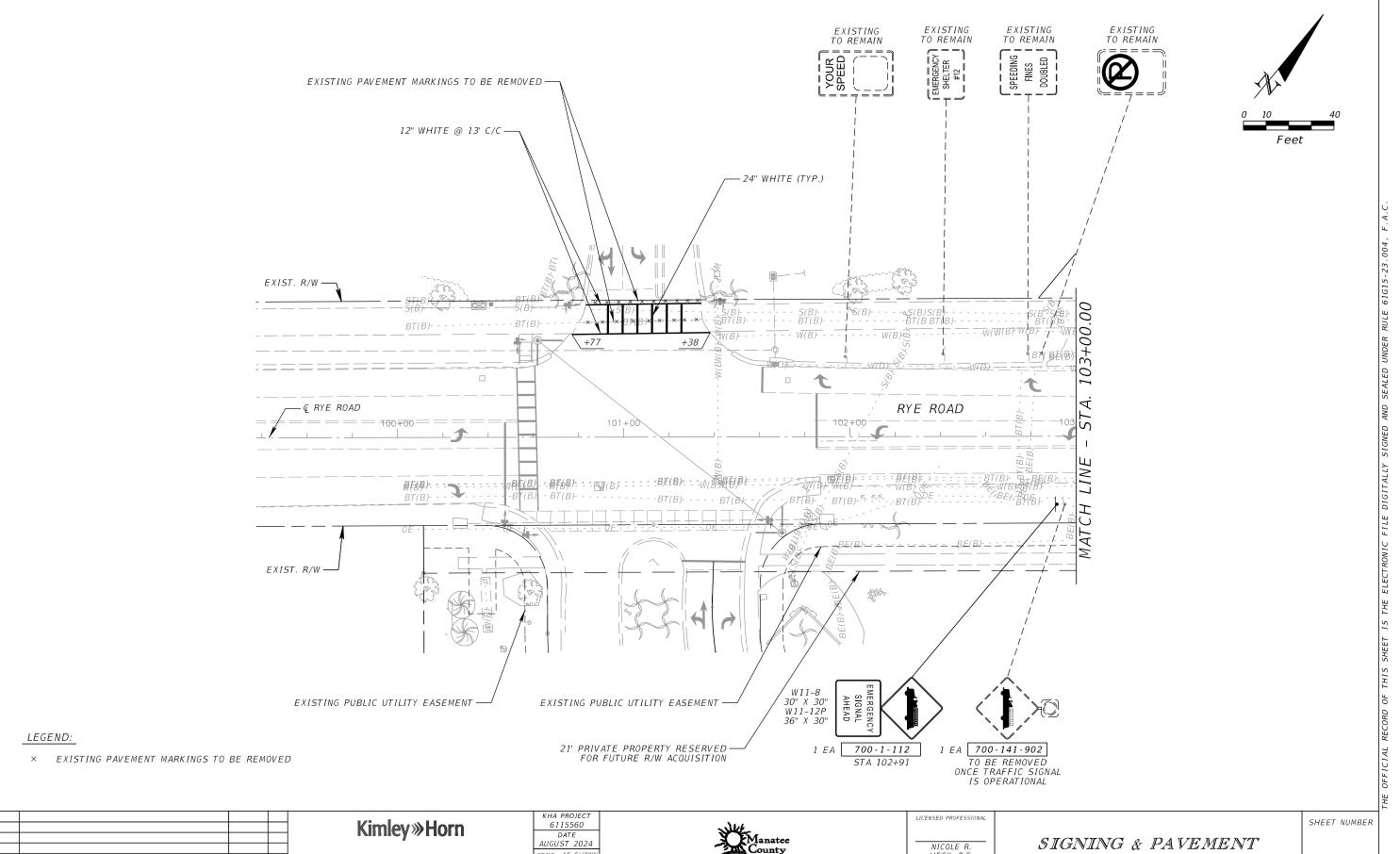
GENERAL NOTES (02)

SHEET NUMBER

T-5

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DATE
AUGUST 2024
SCALE AS SHOWN
DESIGNED BY: JBQ
DRAWN BY: JBQ
CHECKED BY: NRH

RYE ROAD AT FIRE RESCUE STATION 3

HECK, P.E.

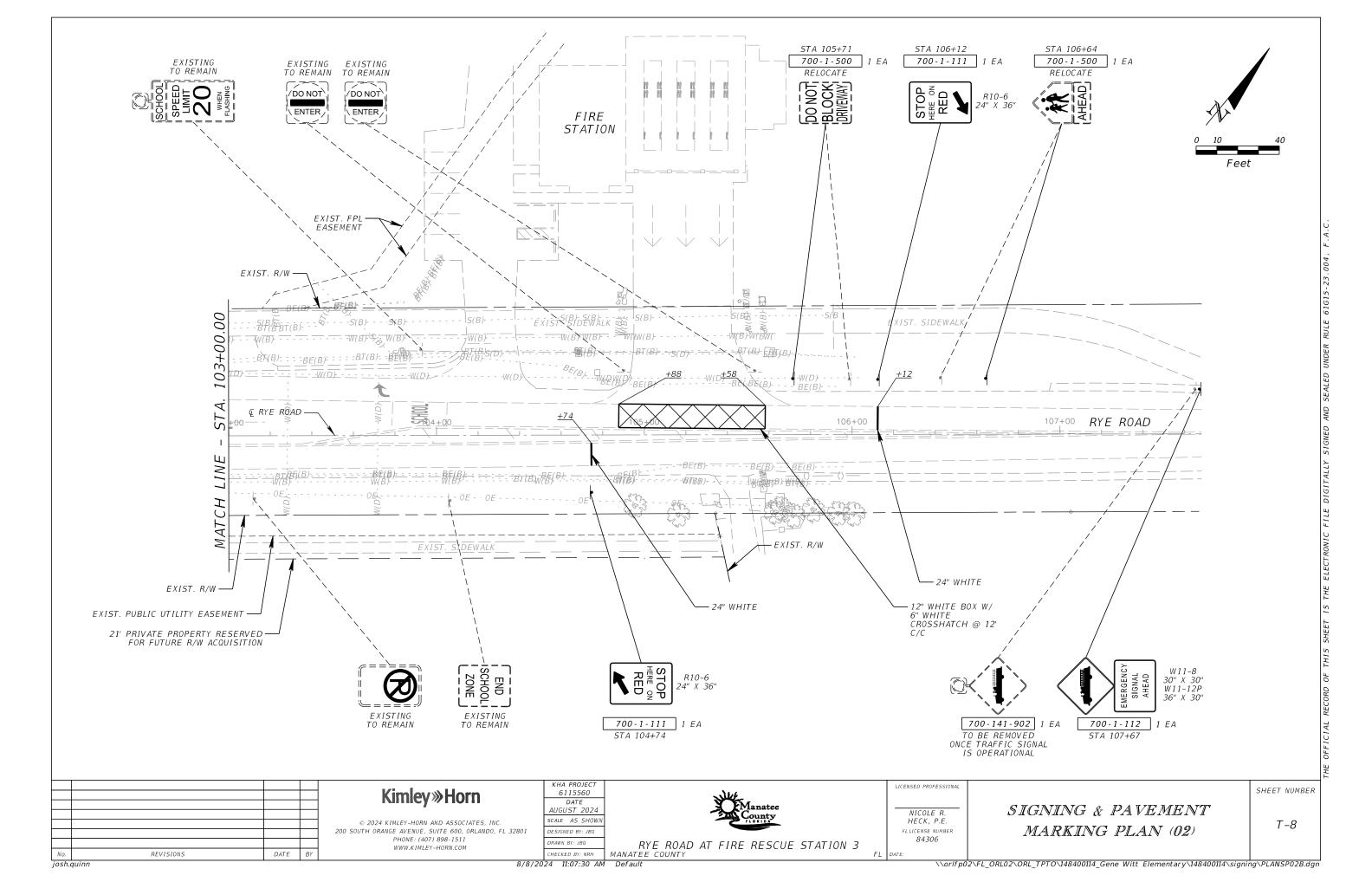
FLLICENSE NUMBER

84306

SIGNING & PAVEMENT MARKING PLAN (01)

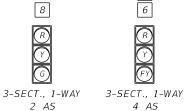
T-7

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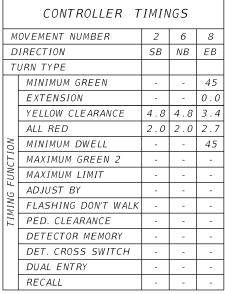
650 - 1 - 34



650 - 1 - 34







SIGNAL OPERATING PLAN

S.O.P. 1



LEGEND:

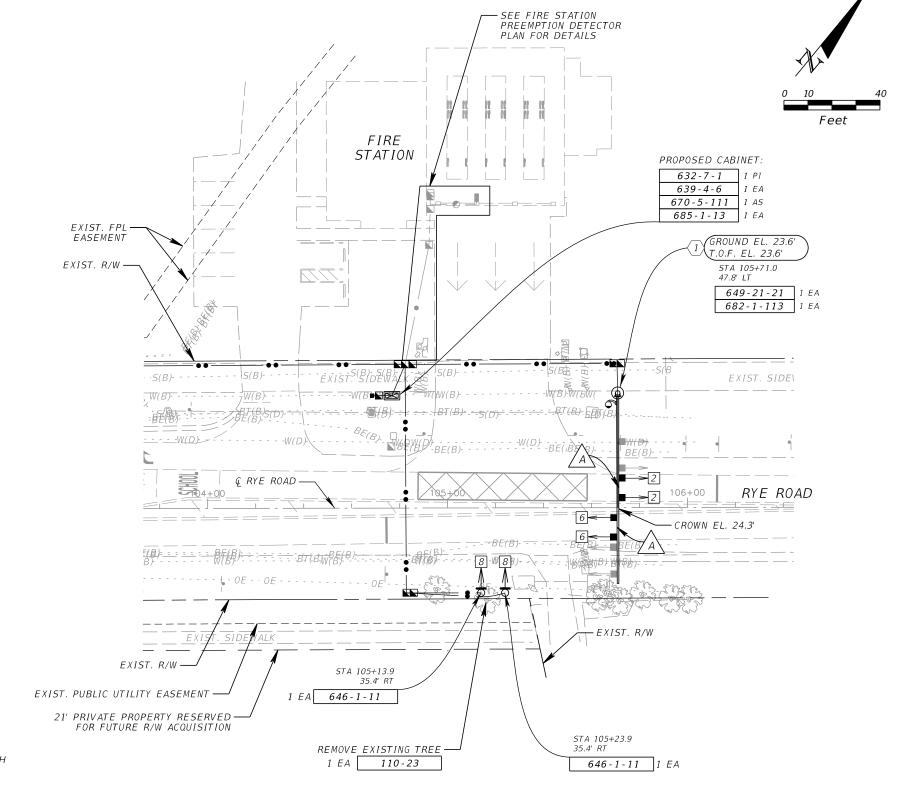
→ PROPOSED SIGNAL HEAD → FUTURE SIGNAL HEAD

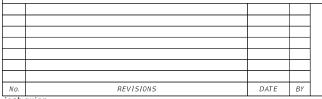
CCTV CAMERA

- 1. INITIAL TIMINGS MAY REQUIRE FIELD ADJUSTMENT DURING CONSTRUCTION.
- 2. ENTRY INTO PREEMPTION SHALL NOT VIOLATE MINIMUM GREEN OR PEDESTRIAN CLEARANCE INTERVALS.
- 3. YELLOW AND ALL RED INTERVALS DURING PREEMPTION SHALL BE THE SAME VALUES USED DURING NORMAL CONTROLLER OPERATIONS.
- 4. NORMAL OPERATION GREEN RESTS ON PHASE 2 & 6 (NORTHBOUND AND SOUTHBOUND)

CONTROLLER NOTES

- 1. THE MAJOR STREET IS RYE ROAD (SPEED LIMIT 45 MPH). THE MINOR STREET IS THE FIRE STATION (SPEED LIMIT NOT LISTED. SPEED LIMIT OF 25 MPH USED FOR CLEARANCE CALCULATIONS).
- 2. FLASHING OPERATION: MOVEMENTS 2 AND 6 YELLOW, ALL OTHER MOVEMENTS RED.
- 3. SEE CONDUIT SCHEMATIC SHEET FOR CONDUIT AND PULL BOX PAY ITEMS.





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KHA PROJECT 6115560 DATE AUGUST 2024 SCALE AS SHOWN DESIGNED BY: JBQ DRAWN BY: JBQ

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RYE ROAD AT FIRE RESCUE STATION 3

NICOLE R HECK, P.E. FL LICENSE NUMBER 84306

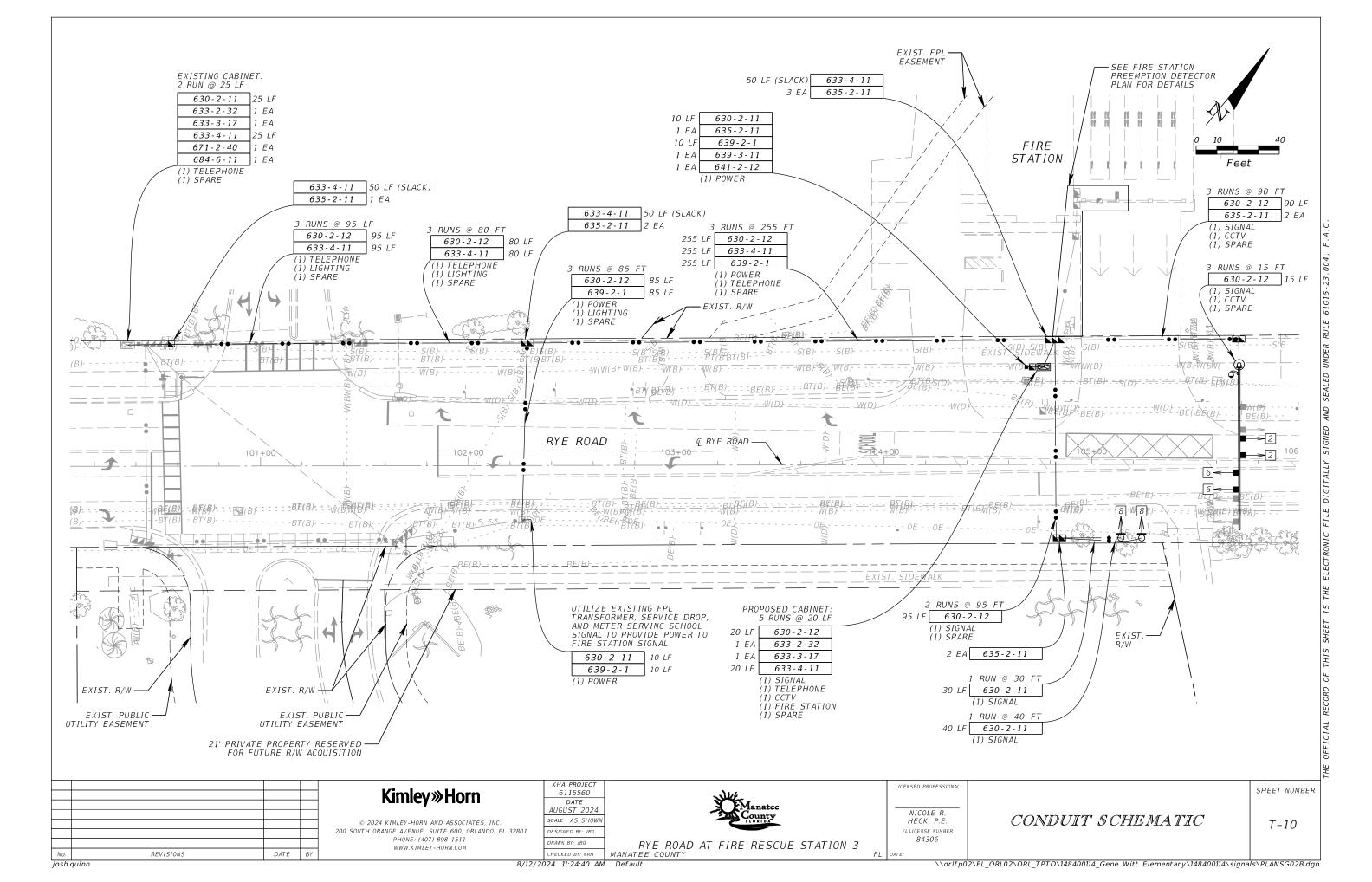
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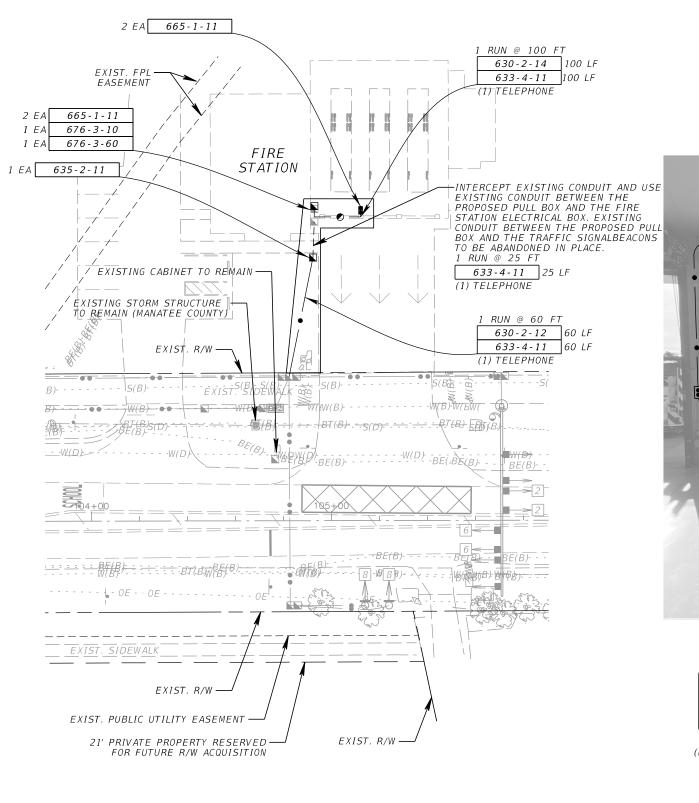
SIGNALIZATION PLAN

SHEET NUMBER

T-9

MANATEE COUNTY 8/12/2024 11:24:37 AM Default





ABOVE GROUND CONDUIT FASTENED TO THE FACE OF THE INTERIOR WALL TWO PUSH BUTTONS

EXISTING ELECTRICAL BOX WITH CONNECTION -TO THE EXTERIOR ELECTRICAL BOX TO BE REMOVED. EXISTING CONDUCTOR/TELEPHONE CABLE TO BE REMOVED AND REPLACED WITH PROPOSED CONDUCTOR/TELEPHONE CABLE. MOUNT NEW CONDUIT WITH -COUPLING TO ATTACH TO Feet EXISTING CONDUIT AND EXTEND TO NEW CABINET EXISTING ELECTRICAL BOX -ON THE EXTERIOR WALL TO REMAIN IN USE TWO PUSH BUTTONS PROPOSED ELECTRICAL
BOX WITH CONNECTION
TO THE EXTERIOR ELECTRICAL BOX



EXISTING CONDUIT TO REMAIN. EXISTING CONDUCTOR/TELEPHONE CABLE TO BE REMOVED AND REPLACED WITH PROPOSED CONDUCTOR/TELEPHONE CABLE.

NOTES

PUSH BUTTON TRAFFIC SIGNAL

R10-4 (MODIFIED) 9" X 12"

1. THE EMERGENCY SIGNAL PREEMPTION WILL OCCUR FROM A DEVICE ADDED WITHIN THE FIRE STATION.

2. FOR BOTH PUSH BUTTON ASSEMBLIES INSIDE THE FIRE STATION, EACH ASSEMBLY WILL HAVE TWO PUSH BUTTONS. ONE BUTTON WILL BE UTILIZED WHEN TRAVELING IN THE NORTHBOUND DIRECTION AND ONE PUSH BUTTON WILL BE UTILIZED FOR TRAVELING IN THE SOUTHBOUND DIRECTION. BUTTONS SHALL BE LABELED WITH ALUMINUM TAGS MOUNTED ABOVE EACH BUTTON, "NORTH" AND "SOUTH".

3. PUSH BUTTONS SHALL ACTIVATE PREEMPTION FOR: SOUTHBOUND -> EMERGENCY SIGNAL AND GENE WITT ELEMENTARY INTERSECTION NORTHBOUND -> EMERGENCY SIGNAL ONLY

- 4. INSTALL NEW ABOVE GROUND CONDUIT ALONG THE FACE OF THE WALL TO THE NEW PUSH BUTTONS.
 5. PREEMPTION CABLE SHALL BE CONTINUOUS FROM CABINET CONNECTION TO PUSH BUTTON WITH NO SPLICES.

REVISIONS

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CHECKED BY: NRH



RYE ROAD AT FIRE RESCUE STATION 3 MANATEE COUNTY

NICOLE R HECK, P.E. FL LICENSE NUMBER 84306

LICENSED PROFESSIONAL

FIRE STATION PREEMPTION DETECTOR PLAN

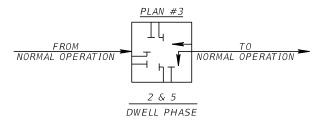
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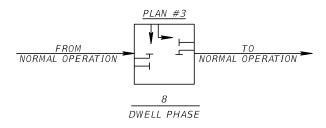




EMERGENCY VEHICLE P AT GENE WITT ELL	REEM! EMENT	PTION ARY S	(RYE I CH00L	ROAD)		
PREEMPTION TIMING PLAN	1	2	3(SB)	4	5	6
PRIORITY			6			
DELAY BEFORE PREEMPTION (SEC)			0			
MINIMUM GREEN BEFORE PREEMPTION (SEC)			*			
LOCK CALL			ON			
MAXIMUM PRESENCE (SEC)			120			
YELLOW CLEARANCE (SEC)			**			
RED CLEARANCE (SEC)			**			
DWELL PHASE(S)			2 & 5			
MINIMUM DWELL (SEC)			15			
YELLOW CLEARANCE (SEC)**			**			
RED CLEARANCE (SEC)**			**			
EXIT PHASES			2 & 6			

NOTES:

- * ENTRY INTO PREEMPTION SHALL NOT VIOLATE MINIMUM GREEN OR PEDESTRIAN
- ** YELLOW AND ALL RED INTERVALS DURING PREEMPTION SHALL BE THE SAME VALUES USED DURING NORMAL CONTROLLER OPERATIONS.
- THE MAJOR STREET IS RYE ROAD (SPEED LIMIT 45 MPH). THE MINOR STREET IS GENE WITT ELEMENTARY SCHOOL / RYE RESERVE (SPEED LIMIT NOT LISTED. SPEED LIMIT OF 25 MPH USED FOR CLEARANCE CALCULATIONS).



EMERGENCY VEHICLE P AT FIRE S			(RYE	ROAD		
PREEMPTION TIMING PLAN	1	2	3(EB)	4	5	6
PRIORITY			6			
DELAY BEFORE PREEMPTION (SEC)			0			
MINIMUM GREEN BEFORE PREEMPTION (SEC)			*			
LOCK CALL			ON			
MAXIMUM PRESENCE (SEC)			120			
YELLOW CLEARANCE (SEC)			**			
RED CLEARANCE (SEC)			**			
DWELL PHASE(S)			8			
MINIMUM DWELL (SEC)			45			
YELLOW CLEARANCE (SEC)**			**			
RED CLEARANCE (SEC)**			**			
EXIT PHASES			2 & 6			

NOTES:

- * ENTRY INTO PREEMPTION SHALL NOT VIOLATE MINIMUM GREEN OR PEDESTRIAN
- ** YELLOW AND ALL RED INTERVALS DURING PREEMPTION SHALL BE THE SAME VALUES USED DURING NORMAL CONTROLLER OPERATIONS.
- THE MAJOR STREET IS RYE ROAD (SPEED LIMIT 45 MPH). THE MINOR STREET IS THE FIRE STATION (SPEED LIMIT NOT LISTED. SPEED LIMIT OF 25 MPH USED FOR CLEARANCE CALCULATIONS).

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KHA PROJECT 6115560 DATE AUGUST 2024 SCALE AS SHOWN DESIGNED BY: JBQ DRAWN BY: JBQ



NICOLE R. HECK, P.E. FL LICENSE NUMBER 84306 RYE ROAD AT FIRE RESCUE STATION 3

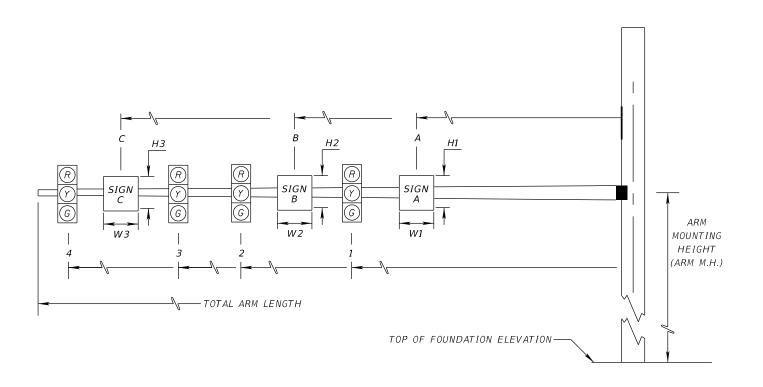
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PREEMPTION TIMING

SHEET NUMBER

T-12

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* DENOTES NUMBER OF SECTIONS IN SIGNAL HEAD ASSEMBLY

											SI	GNAL	DATA													51	GN DA	4TA					
ID SHEET	LOCATION BY	TOP OF FOUNDATION	RDWY	CROWN	LUMIN- AIRE	TERM.	SIGNAL	BACK		1	DISTA	ANCE	FROM	POLE					TAL A	4RM	ANGLE BETWEEN	,,	DIST	ANCE	FROM	POLE ,	/ HEIG	HT AN	D WIDT	H OF S	SIGN	DETECTOR	PAINT COLOR
NO. NO.	STA.; OFFSET	ELEVATION	NO.	ELEV.	Y/N	COMP. Y/N	V/H	PLATES Y/N	Y/N	1	*	2	*	3 *	4	*	5	* LEN	GTH N	м.н. 🛭 🛭	OUAL ARMS 90/270		Α	H1	W1	В	Н2	W2	С	Н3	W3	DETECTOR	PAINT COLOR
PROPOSED L	LOADING																																
A T-9 S	STA 105+71.0; 47.8' LT	23.6'	1	24.3'	T N	Ιγ	V	Υ	N	36.0'	3 4	14.0'	3 52	·.5' 3	60.5'	3		7	8' 2	1.5	_	_	40.0'	2'-0"	3'-0"	56.5	2'-0"	3'-0"				5'	GALVANIZED
			2																													_	
FUTURE (DE	ESIGN) LOADING																																
	STA 105+71.0; 47.8' LT	23.6'	1	24.3'	I N	T y	V	l y l	N	22.0'	3 :	33.0'	3 65	i.0' 3	76.0'	3		7	8' 2	1 5'	_	_	18.0'	4'-0"	3'-0"	27 5'	2'-6"	3'-6"	70.5'	2'-6"	3'-6"	5', 31', 74'	GALVANIZEL
,, , , , ,	3,7,103,7,1.0, 47.0 Er	23.0	2	2 7.3	1	1 '	,	<u>'</u>		22.0		, , , ,		5	+ , 0.0			- ´					10.0		1	1 27.5	+	+	1,0.5	+		3,31,74	5,12V AN12 E E

No.	REVISIONS	DATE	BY

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6115560

DATE
AUGUST 2024
SCALE AS SHOWN
DESIGNED BY: JBQ
DRAWN BY: JBQ



RYE ROAD AT FIRE RESCUE STATION 3

MANATEE COUNTY

HECK
FILICEN
84

NICOLE R. HECK, P.E. FLLICENSE NUMBER 84306

LICENSED PROFESSIONAL

STANDARD MAST ARM TABULATION SHEET NUMBER

T-13

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						SPECI	'AL MAS	T ARM .	ASSEMB	LIES DA	TA TAB	LE								
STRUCTURE		FIRST	ARM		SECON	ID ARM		.,,		POLE		DRILLED				SHAFT	r AND I	REINF.		
ID NUMBERS	DESIGNATION	ARM ID	FAA (ft.)	FJ (in.)	ARM ID	SAA (ft.)	UF (deg)	(deg)	POLE ID	UAA (ft.)	UB (ft.)	SHAFT ID	DA(ft)	DB(ft)	RA	RB	RC	RD(in)	RE	RF(in)
А	A78/S - P6/S	A78/S	-	37	-	-	-	-	P6/S	-	21.5	DS/31/5.0	31	5	11	19	10	6	10	9

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. WORK THIS SHEET WITH THE SIGNAL DESIGNER'S "MAST ARM TABULATION". SEE "MAST ARM TABULATION" FOR SPECIAL INSTRUCTIONS THAT MAY INCLUDE NON-STANDARD HANDHOLE LOCATION, PAINT COLOR, TERMINAL COMPARTMENT REQUIREMENT, AND PEDESTRIAN FEATURES.
- 4. WORK WITH INDEX 649-030 AND 649-031 (FY 2024-25). VALUES PROVIDED IN DATA TABLE ABOVE SUPERCEDE VALUES SHOWN IN INDEX 649-030
- 5. DESIGN WIND SPEED = 150 MPH (MANATEE COUNTY).

FOUNDATION NOTES:

- 1. DESIGN BASED ON BORINGS PROVIDED BY TERRACON DATED MAY 23, 2023 SEALED BY JAMES M. JACKSON P.E. LICENSE NO. 77733.
- 2. IF EXISTING SOILS VARY FROM THE CRITERIA PRESENTED BELOW, CONTACT THE ENGINEER PRIOR TO CONSTRUCTION OF THE DRILLED SHAFT.
- 3. FOUNDATION ASSUMPTIONS AND VALUES USED IN DESIGN:

MAST ARM A: BORING: B-4

CLASSIFICATION: COHESIONLESS SOIL (SAND)

FRICTION ANGLE: 29 ° UNIT WEIGHT: 43 PCF N-SPT #: 5

1-SPI #: 5

SOIL LAYER THICKNESS: 28 FT

DESIGN WATER TABLE: O' BELOW SURFACE (ASSUMED)

No. REVISIONS DATE BY

Kimley **Horn

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6115560
DATE
AUGUST 2024
SCALE AS SHOWN
DESIGNED BY: NBV
DRAWN BY: NBV



VILLATORO, P.E.

FLLICENSE NUMBER

93862

LICENSED PROFESSIONAL

NOLAN B

SPECIAL MAST ARM
ASSEMBLIES DATA TABLE

SHEET NUMBER

T - 14

PRAWN BY: NBV RYE ROAD AT FIRE RESCUE STATION 3

RYE ROAD AT FIRE RESCUE STATION 3

MANATEE COUNTY

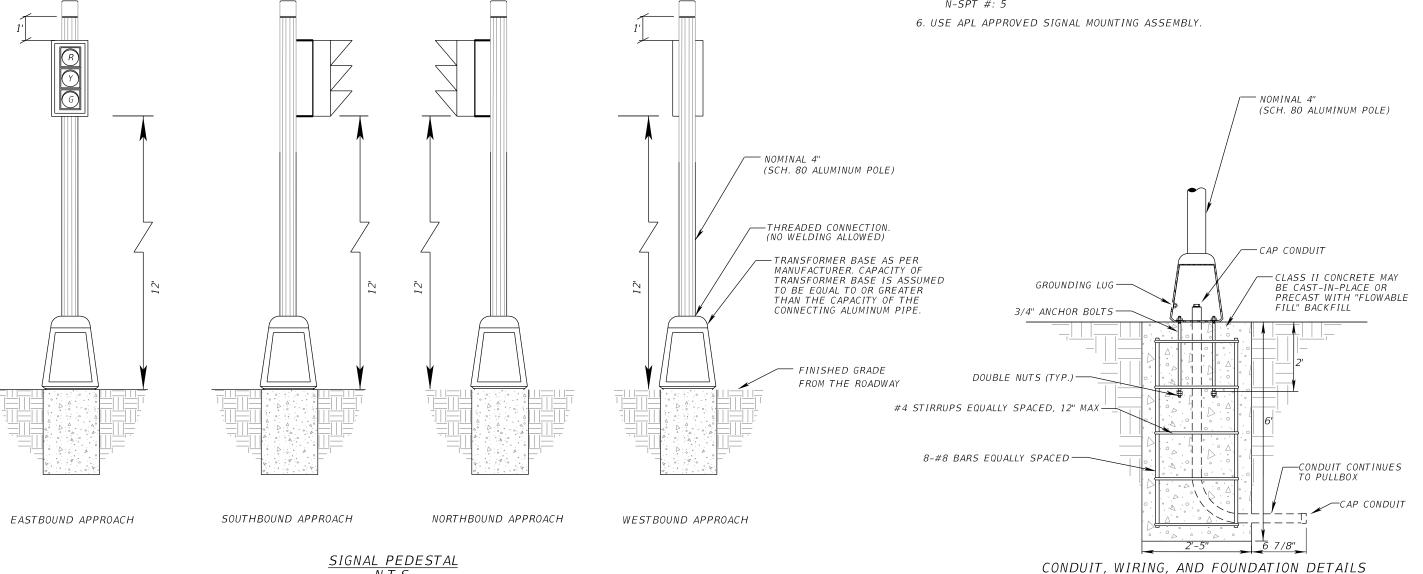
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LOCATIONS:

STA 105+13.9; 35.4' RT STA 105+23.9; 35.4' RT

NOTES:

- 1. WORK THIS DETAIL WITH FDOT STANDARD PLANS INDICES 646-001, 700-120 AND SPECIFICATION 646.
- 2. ENSURE THAT THE LOWEST POINT ON PEDESTAL-MOUNTED SIGNAL HEADS IS 12 FEET ABOVE FINISHED GRADE OF THE ROADWAY
- 3. ENGAGE ALL THREADS ON THE TRANSFORMER BASE AND POST UNLESS THE ALUMINUM POST IS FULLY SEATED INTO BASE.
- 4. DESIGN WIND SPEED = 150 MPH (MANATEE COUNTY).
- 5. FOUNDATION ASSUMPTIONS AND VALUES USED IN DESIGN: CLASSIFICATION: COHESIONLESS SOIL (SAND) FRICTION ANGLE: 29° EFFECTIVE SOIL DENSITY (SUBMERGED): 43 PCF



N.T.S.

REVISIONS

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1	KHA PROJECT
I	6115560
I	DATE
l	AUGUST 2024
I	SCALE AS SHOWN
I	DESIGNED BY: JBQ
I	DRAWN BY, 180

RYE ROAD AT FIRE RESCUE STATION 3 MANATEE COUNTY

NICOLE R. HECK, P.E. FLLICENSE NUMBER 84306

LICENSED PROFESSIONAL

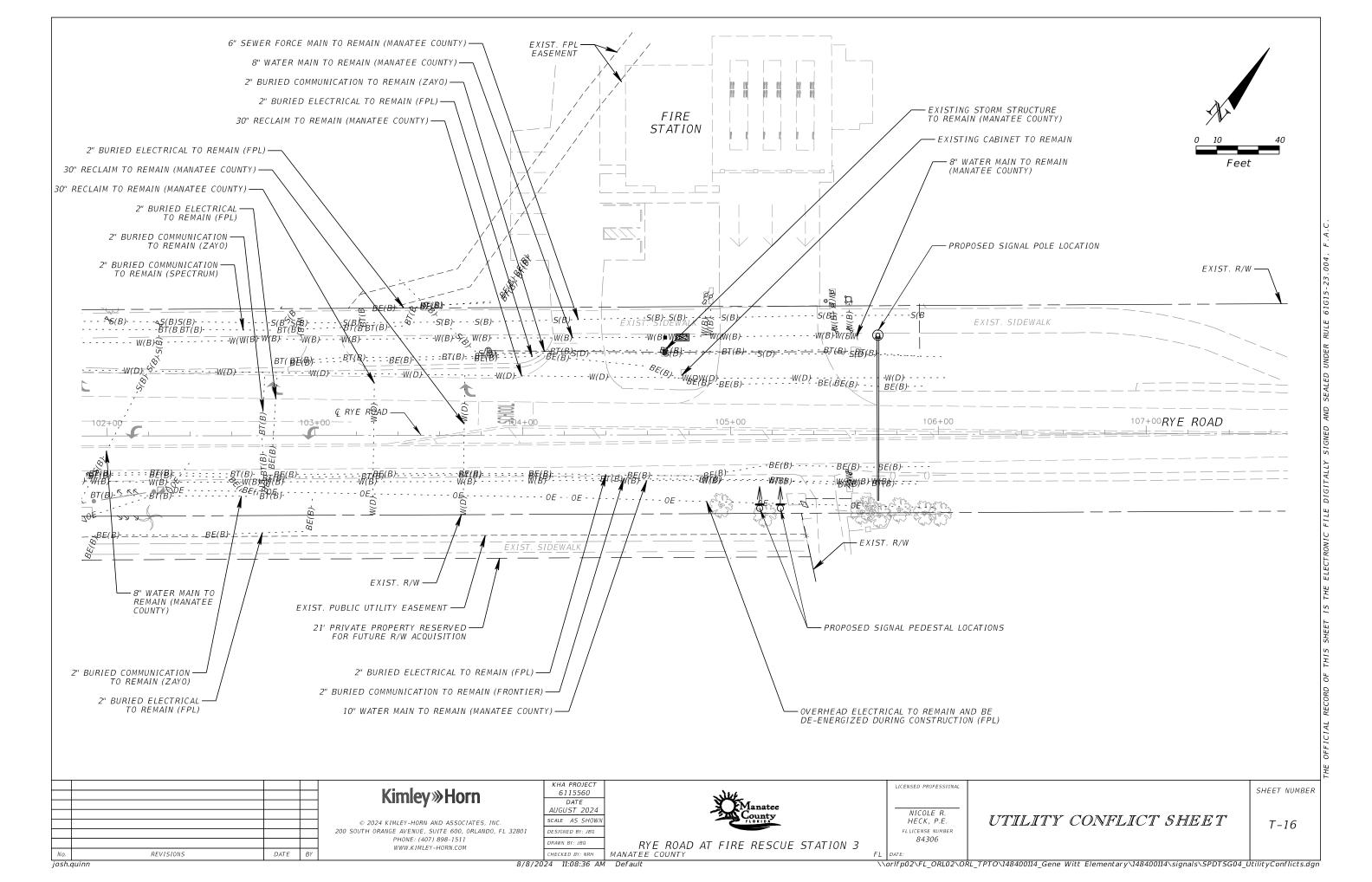
PEDESTAL MOUNTED SIGNAL HEAD DETAIL

SHEET NUMBER

T-15

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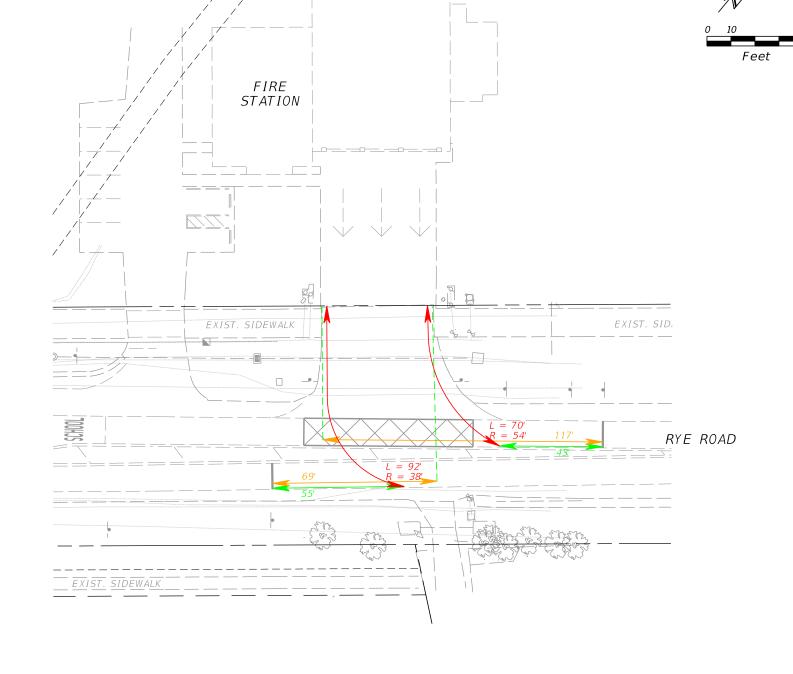
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Vehicle Clearance Interval Evaluation									
Movement		EB	EBL1	EBL2	NB	SB			
Posted Speed Limit (mph)		25	25	25	45	45			
Width of Clearance to worst-ovehicle conflict point (W) (ft)	ase	0	70	92	69	117			
Width of Clearance to worst-opedestrian conflict poing (P)		0			0	0			
Approach Grade (%)		0.00%	0.00%	0.00%	0.00%	0.00%			
Friction Factor (f)		0.35	0.35	0.35	0.35	0.35			
Superelevation (e)		2	2	2	2	2			
Turning Speed (V) (mph) (V=5 root [15R x (0.01e + f)] (minim mph if V>44ft)		N/A	20.00	14.52	N/A	N/A			
Approximate average turning (ft) (R)	radius		54	38					
Perception Reaction Time (Se	1.4	1.4	1.4	1.4	1.4				
Conflict Headway (D) (ft)	10	43	55	10	10				
Accelleration Rate (7 ft/sec2)	7	7	7	7	7				
Deceleration Rate (-10 ft/sec	-10	-10	-10	-10	-10				
Conflict Headway calculated ({CH= Square root [2D/(As-Ar)]	1.08	2.25	2.54	1.08	1.08				
Conflict Headway to be used (Seconds)	(CH)	1.00	2.30	2.60	1.00	1.00			
[(W + L) / U] -CH (seconds) (U up to a MAX of 3 sec	=1.47V)	-	0.76	2.65	1	-			
[(P+L) / U] - 2 (seconds) (U=s limit for thru movements oth its 1.47V)		-1.46	-		-1.70	-1.70			
Velocity of Vehicle (ft/sec) (v)	36.75	36.75	36.75	66.15	66.15			
Width of Intersection (TEM Measurement) (W)		0	70	92	69	117			
TEM Formula ALL RED (Second	ls)	-0.46	1.45	2.05	0.35	1.07			
Minimum Yellow Interval (Se per Table 3.6-1 TEM	conds)	3.4	3.4	3.4	4.8	4.8			
Vallow Interval (Second-1	Calc	3.3	2.9	2.5	4.8	4.8			
Yellow Interval (Seconds)	USE	3.4	3.4		4.8	4.8			
All Dad lateral (Constant)	Calc	-0.5	1.5	2.7	0.4	1.1			
All-Red Interval (Seconds)	USE	2.0	2	.7	2.0	2.0			

Controller Timings								
Movement #	2	6	8					
Direction	SB	NB	EB					
Turn Type	-	-	-					
Min Green	-	-	45					
Ext	-	-	0.0					
Yellow	4.8	4.8	3.4					
All Red	2.0	2.0	2.7					
Min Dwell	-	-	45					
Max II	-	-	-					
Max Limit	-	-	-					
Adjust By	-	-	-					
Walk	-	-	-					
Flashing Don't Walk	-	-	-					
Detector Memory	-	-	-					
Det. Cross Switch	-	-	-					
Dual Entry	-	-	-					
Recall	-	-	-					

*INITIAL TIMINGS MAY BE FIELD ADJUSTED DURING CONSTRUCTION



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KHA PROJECT 6115560 DATE AUGUST 2024 SCALE AS SHOWN



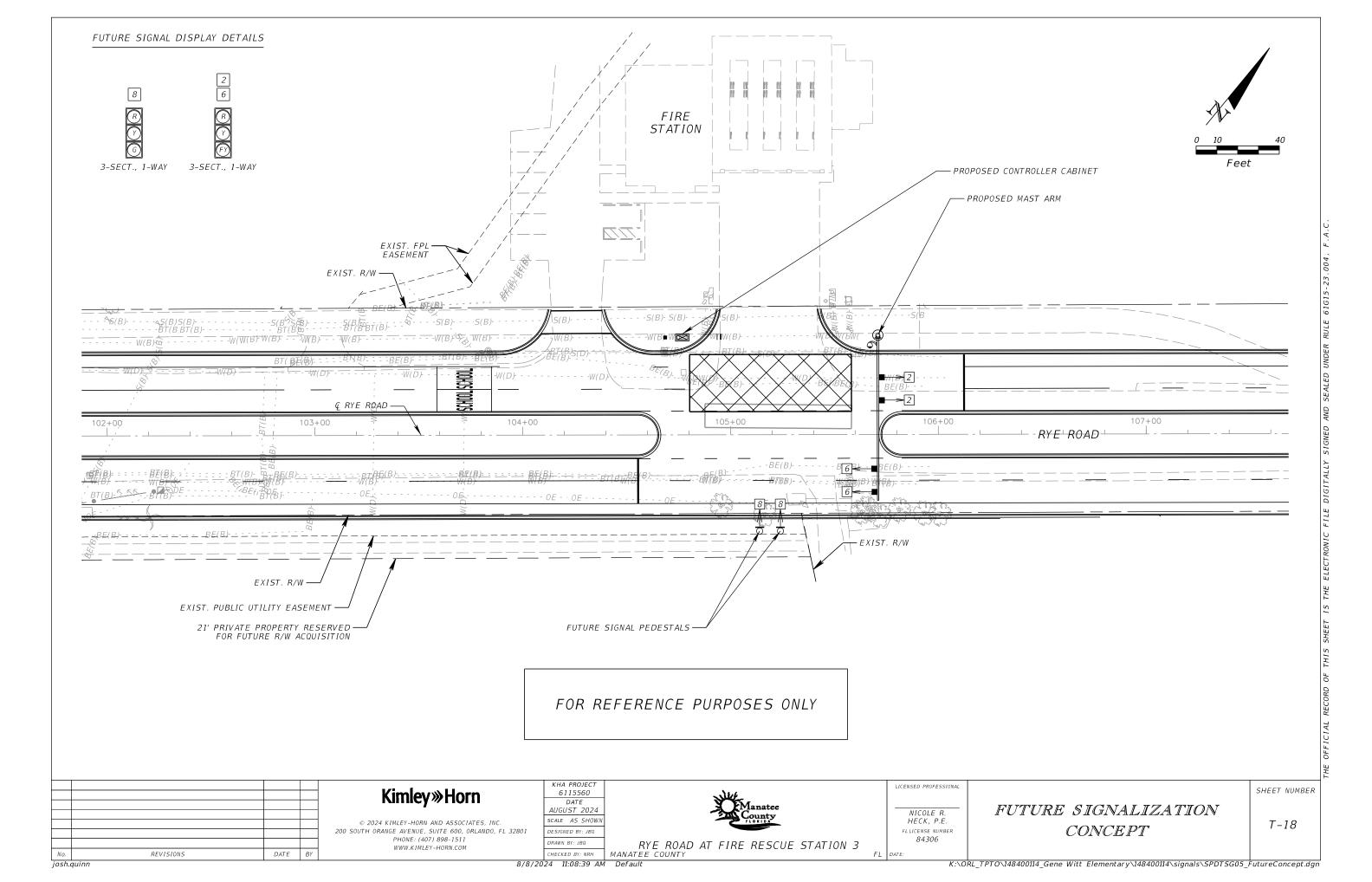
NICOLE R. HECK, P.E. FLLICENSE NUMBER 84306

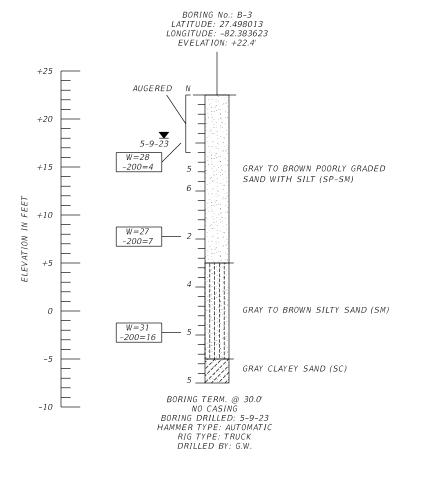
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CLEARANCE CALCULATIONS

SHEET NUMBER

T - 17





BORING No.: B-4 LATITUDE: 27.498321 LONGITUDE: -82.383643 EVELATION: +23.6' +25 AUGERED N W=12 -200=7 +20 **▼** 5-9-23 GRAY TO BROWN POORLY GRADED SAND WITH SILT (SP-SM) +15 W=22 -200=4 +10 GRAY TO BROWN SILTY SAND (SM) -200=21 GRAY CLAYEY SAND (SC) BORING TERM. @ 30.0' NO CASING BORING DRILLED: 5-9-23 HAMMER TYPE: AUTOMATIC RIG TYPE: TRUCK -10 DRILLED BY: G.W.

LEGEND

CLAYEY SAND

SAND SILTY SAND

W=0 -200=0

SCALE IN FEET

15

UNIFIED SOIL CLASSIFICATION GROUP (SP) SYMBOL

ENCOUNTERED GROUNDWATER LEVEL 5-9-23

(DATE OF READING)

NATURAL MOISTURE CONTENT (%) FINES PASSING No. 200 SIEVE (%)

STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT UNLESS OTHERWISE NOTED

<u>AUTOMATIC HAMMER</u>

STANDARD PENETRATION TEST DATA

SPOON INSIDE DIA. 1 3/8 in. SPOON OUTSIDE DIA. ASTM STANDARD DROP AUTOMATIC HAMMER AVG. HAMMER DROP 30 in. HAMMER WEIGHT 140 lbs.

GRANULAR MATERIALS

RELATIVE	SP:
DENSITY	(BLOWS/F007
VERY LOOSE	LESS THAN
L00SE	3
MEDIUM DENSE	8
DENSE	24-
VERY DENSE	GREATER THAN

SILTS AND CLAYS

CONSISTENCY	SPT (BLOWS/FOOT)
VERY SOFT SOFT	LESS THAN 1 1-3
FIRM	3-6
STIFF	6-12
VERY STIFF	12-24
HARD	GREATER THAN 24

NOTES:

- 1) LAYER BOUNDARIES ARE APPROXIMATE AND REPRESENT SOIL LAYERS AT EACH TEST HOLE LOCATION ONLY. SUBSURFACE VARIATIONS BETWEEN BORINGS SHOULD BE ANTICIPATED.
- 3) LATITUDE AND LONGITUDE AT BORING LOCATIONS IS BASED ON HANDHELD GPS DEVICE.

LEGEND

APPROXIMATE LOCATION OF STANDARD PENETRATION TEST BORING

SOIL DESIGN PARAMETERS FOR B-3 (NE)

DEPTH			IEIGHT (pcf)	SOIL FRICTION	COHESION	ULTIMATE SHEAR	EARTH P COEFF	SOIL MODULUS,		
(FEET)	SOIL TYPE	TOTAL (Y) (ABOVE GWT)	EFFECTIVE (Y)	ANGLE (🌓) (DEGREES)	(psf)	STRENGTH (psf)	ACTIVE	PASSIVE		
0-6	SAND	105	43	29	0	0	0.347	2.88	10	
6-30	SAND	105	43	29	0	0	0.347	2.88	10	
AVE	ERAGE	105	43	29	0	0	0.347	2.88	10	

SOIL DESIGN PARAMETERS FOR B-4 (NW)

DERTH		SOIL UNIT W	EIGHT (pcf)	SOIL FRICTION	COLLECTON	ULTIMATE SHEAR	EARTH P COEFF	SOIL MODULUS,		
DEPTH (FEET)	SOIL TYPE	TOTAL (Y) (ABOVE GWT)	EFFECTIVE (Y)	LUHESIUI		STRENGTH (psf)	ACTIVE	PASSIVE		
0-6	SAND	105	43	29	0	0	0.347	2.88	10	
6-30	SAND	105	43	29	0	0	0.347	2.88	10	
AVE	ERAGE	105	43	29	0	0	0.347	2.88	10	



6		REVI	SIONS			ENGINEER OF RECORD	DRAWN BY:			SHEET TITLE:				
DA	E BY	DESCRIPTION	DATE	BY	DESCRIPTION	JAMES JACKSON, P.E.	AS 4-18-24		PUBLIC WORKS			REPORT OF CORE BORINGS FOR SIGNAL POLES		
3						LICENSE NUMBER 77733	CHECKED BY: JJ 4-18-24				<u></u>		1 1	
3						TERRACON	DESIGNED BY:	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME:	DVE DOAD GYOUNG	OUEETAIO	
ē						8260 VICO COURT	XXX MM-YY					RYE ROAD SIGNALS	SHEET NO.	
						SARASOTA, FLORIDA 34240	CHECKED BY: XXX MM-YY	RYE RD	MANATEE			RYE ROAD NEAR WITT ELEMENTARY	T-19	
							AAA MM-11							

- 1. 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 LOCATIONS/ELEVATIONS APPLY ONLY AT THE POINTS SHOWN. INTERPOLATIONS BETWEEN THESE POINTS HAVE NOT BEEN VERIFIED.
- 2. LIST OF UTILITY OWNERS:

CHARTER COMMUNICATIONS	THOMAS MUMEA	941-737-0003
FLORIDA POWER & LIGHT	BRIAN GARVER	941-723-4442
FRONTIER COMMUNICATIONS	DENISE HUTTON	941-504-9652
MANATEE COUNTY TRANSPORTATION	KATHY MCMAHON	941-792-8811
MANATEE COUNTY UTILITY OPERATIONS	KATHY MCMAHON	941-792-8811
PEACE RIVER ELECTRIC	PAUL ROBERTS	863-767-4650
TECO PEOPLES GAS	JOAN DOMNING	813-275-3783
ZAYO GROUP	HENRY KLOBUCAR	406-496-6510

- NO LIGHTING IMPROVEMENTS SHOULD BE INSTALLED, ADJUSTED, OR REMOVED OUTSIDE OF COUNTY R/W OR EXISTING/PROPOSED PERMANENT EASEMENTS.
- ALL LOCATIONS WHERE UNDERGROUND UTILITIES ARE CLOSE TO LIGHT POLE FOUNDATION, CONTRACTOR SHALL HAND DIG THE FIRST 48 INCHES OF DEPTH FOR THE POLE FOUNDATION.
- 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 PRIOR TO ANY FURTHER WORK ACTIVITY.
- THE LOCATIONS AND OFFSETS OF THE POLES, CONDUIT, AND PULLBOXES ARE BASED ON INFORMATION KNOWN AT THE TIME OF DESIGN AND MAY BE SHIFTED TO ACCOMMODATE LOCAL CONDITIONS AND EXISTING UTILITY LOCATIONS. ENGINEER APPROVAL IS REQUIRED FOR POLE ADJUSTMENTS GREATER THAN 5' IN ANY DIRECTION.

FDOT SIGNALIZED INTERSECTION & ROUNDABOUT LIGHTING DESIGN CRITERIA (ISOLATED LIGHTING)

AVERAGE INITIAL INTENSITY: 1.0 - 1.5 H.F.C.

1.0 - 1.5 V.F.C.

UNIFORMITY RATIO AVG. / MIN.: 4 : 1 OR LESS** UNIFORMITY RATIO MAX. / MIN.: 10 : 1 OR LESS**

**ILLUMINATION UNIFORMITY RATIOS DO NOT APPLY TO V.F.C.

REVISIONS

Kimley »Horn

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KHA PROJECT 6115560 DATE AUGUST 2024 SCALE AS SHOWN DESIGNED BY: MKZ

DRAWN BY: MKZ



RYE ROAD AT FIRE RESCUE STATION 3

LICENSED PROFESSIONAL TIFFANY I PARKER

DOS SANTOS, P.E. FLLICENSE NUMBER 87920

LIGHTING GENERAL NOTES

SHEET NUMBER

L-1

CHECKED BY: TJP MANATEE COUNTY 8/8/2024 11:08:41 AM Default

LIGHTING LEGEND

FAM SETTING NUMBER

GE EVOLVE LED ERL2 SERIES 3000K, 252W, PHOTOMETRIC CURVE NO. ERL2_31D530, SEE POLE DATA TABLE FOR IES FILE AND LIGHT DISTRIBUTION WIRED FOR 120V OPERATION

AVAILABLE WITH FIELD ADJUSTABLE MODULE (FAM), SEE PRODUCT SPECIFICATION SHEET. SEE PLANS FOR POSITION SETTINGS. FAM SETTINGS ARE AS FOLLOWS:

1. FAM-8 = 25,245 LUMENS (85%)

PROPOSED LOAD CENTER

— 2" OPEN TRENCH CONDUIT

— 2" DIRECTIONAL BORE CONDUIT

PROPOSED LOCATION OF 13" X 24" LIGHTING PULL BOX

REVISIONS

Kimley≫**Horn**

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KHA PROJECT 6115560 DATE AUGUST 2024 SCALE AS SHOWN

DRAWN BY: MKZ

CHECKED BY: TJP

RYE ROAD AT FIRE RESCUE STATION 3

TIFFANY J. PARKER DOS SANTOS, P.E. FLLICENSE NUMBER 87920

LICENSED PROFESSIONAL

LIGHTING LEGEND

SHEET NUMBER

L-2

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	POLE DATA														
POLE NO.	CIRCUIT	STATION	POLE OFFSET	SIDE	POLE SETBACK*	POLE OWNER AND MAINTAINING AGENCY	POLE TYPE	LUMINAIRE WATTAGE**	LUMINAIRE OUTPUT**	MOUNTING HEIGHT (FT)	ARM LENGTH (FT)	LUMINAIRE MODEL	IES FILE	DISTRIBUTION TYPE	PAY ITEM
01	A - 1	99+91.6	42.9'	LT	11.8'	MANATEE COUNTY	ST ANDARD ALUM I NUM	252	29,700	40	10	GE EVOLVE	ERL2_31D530	TYPE III (FWT)	715-61-321
02	A - 1	100+71.2	59.2'	LT	11.2'	MANATEE COUNTY	ST ANDARD ALUM I NUM	252	29,700	40	10	GE EVOLVE	ERL2_31D530	TYPE III (FWT)	715-61-321

29,700

252

STANDARD ALUMINUM

50.7'

MANATEE COUNTY

7.5'

BY	DATE	REVISIONS	No.
	DATE		No.

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TIFFANY J. PARKER DOS SANTOS, P.E. FLLICENSE NUMBER 87920

LICENSED PROFESSIONAL

10

GE EVOLVE

L-3

SHEET NUMBER

RYE ROAD AT FIRE RESCUE STATION 3

LIGHTING DATA TABLE

03

A - 1

101+62.4

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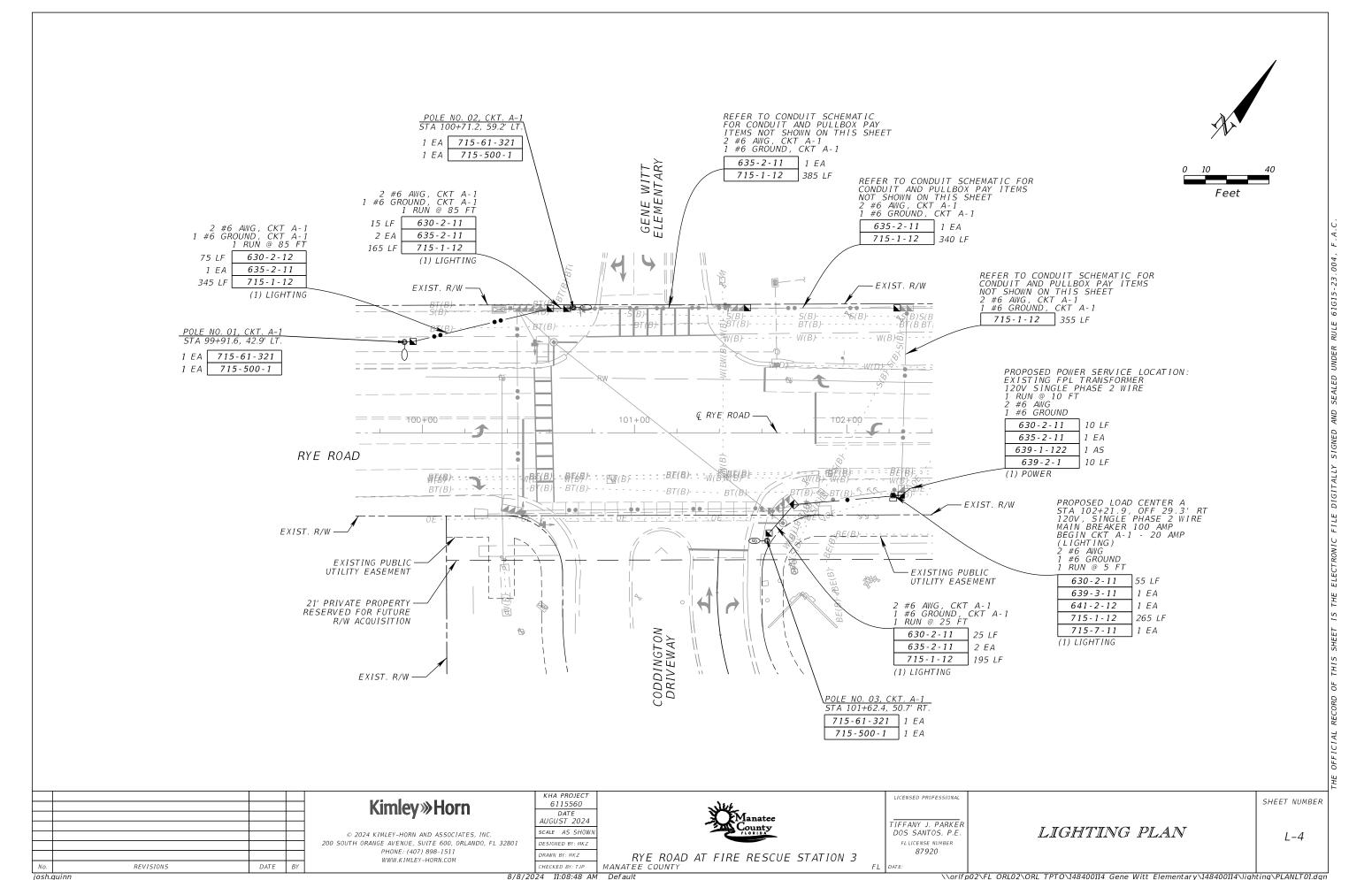
TYPE III (FWT)

715-61-321

ERL2_31D530

^{*} HORIZONTAL DISTANCE FROM THE EDGE OF THE TRAVEL LANE/AUXILIARY LANE TO THE POLE

** REFER TO LIGHTING LEGEND AND LUMINAIRE SPECIFICATION SHEET FOR FIELD ADJUSTABLE MODULE (FAM) POSITION SETTINGS



\\orlfp02\FL_ORL02\ORL_TPTO\\148400114_Gene Witt Elementary\\148400114\lighting\PLANLT01.dgn

LOAD CENTER "A" 120V, SINGLE PHASE, 2 WIRE STA. 102+21.9, 29.3' RT. (@ CONST. RYE ROAD)

LOAD CENTER DESIGNATION	MAIN & CIRCUIT BREAKER SIZES	# OF BRANCH CIRCUITS	TOTAL DEMAND LOAD (AMPS)	TOTAL DESIGN LOAD (AMPS)	# SERVICE ENTRANCE CONDUCTORS & CONDUIT AND BRANCH CIRCUIT SIZE
А	100 A, 1P	1	6.3	7.9	#6 AWG
A-1	20 A, 1P		6.3	7.9	#6 AWG
SPARE					

REVISIONS

Kimley »Horn

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TIFFANY J. PARKER DOS SANTOS, P.E. FLLICENSE NUMBER 87920

LICENSED PROFESSIONAL

SERVICE POINT DETAIL

L-5

SHEET NUMBER

RYE ROAD AT FIRE RESCUE STATION 3
MANATEE COUNTY DRAWN BY: MKZ CHECKED BY: TJP

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