

*INDIAN RIVER COUNTY
BOARD OF COUNTY COMMISSIONERS*

ROADWAY CONTRACT PLANS

66th AVENUE ROADWAY WIDENING

PHASE IB 57th STREET TO 69th STREET

INDIAN RIVER COUNTY PROJECT No. 1505

FDOT FPID 436379-1-52-01

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SIGNALIZATION SHOP DRAWINGS
TO BE SUBMITTED TO:

BRIAN GOOD, P.E.
KIMLEY-HORN AND ASSOCIATES, INC.
445 24th STREET, SUITE 200
VERO BEACH, FL 32960
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PLANS PREPARED BY:

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PROJECT NUMBER: 04703504I
CERTIFICATE OF AUTHORIZATION: 00000696

SIGNALIZATION PLANS
ENGINEER OF RECORD: BRIAN GOOD

P.E. NO. 56939

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

SIGNALIZATION CONTRACT PLANS

BID PLANS
DECEMBER 2020

P R E P A R E D F O R



Department of Public Works

RICHARD B. SZPYRKA, P.E., DIRECTOR

GOVERNING STANDARDS AND SPECIFICATIONS:
FLORIDA DEPARTMENT OF TRANSPORTATION,
"DESIGN STANDARDS" DATED JANUARY 2016,
AND "STANDARDS SPECIFICATIONS FOR ROAD
AND BRIDGE CONSTRUCTION" DATED 2016, AS
AMENDED BY CONTRACT DOCUMENTS.

SHEET
NO.

T-1

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. I.R.CO. Proj. No. 1505

SIGNALIZATION GENERAL NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD); FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (STANDARD SPECIFICATIONS) 2016; FLORIDA DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS (STANDARD INDEX(ES)) 2016, ALL SUPPLEMENTS THERETO; NATIONAL ELECTRIC CODE; INDIAN RIVER COUNTY TRAFFIC SIGNAL SPECIFICATIONS; AND ANY OR ALL INDIAN RIVER COUNTY TRAFFIC ENGINEERING DIVISION REQUIREMENTS.
2. THE AGENCY RESPONSIBLE FOR MAINTENANCE OF THE TRAFFIC SIGNAL AND RELATED COMMUNICATIONS EQUIPMENT IS INDIAN RIVER COUNTY TRAFFIC ENGINEERING DIVISION (IRCTED) (772) 226-1547. ALL TRAFFIC SIGNAL AND RELATED COMMUNICATIONS EQUIPMENT WHEN USING PAY ITEM SERIES: 632, 634, 635, 660, 670, 684 AND 685 FOR THIS CONTRACT SHALL BE COMPATIBLE WITH IRCTED'S CENTRAL COMPUTER NETWORK SYSTEM. PRIOR TO ANY PURCHASING OF THE ABOVE PRODUCTS, ENSURE THEY HAVE BEEN APPROVED FOR SYSTEM COMPATIBILITY BY THE MAINTAINING AGENCY.
3. IRCTED SHALL BE NOTIFIED AT (772) 226-1547 AT LEAST TWO (2) FULL BUSINESS DAYS PRIOR TO ANY WORK BEING PERFORMED AT A SIGNALIZED LOCATION IN ORDER TO PROPERLY TRANSFER MAINTENANCE RESPONSIBILITIES.
4. THE CONTRACTOR SHALL DELIVER ALL REMOVED TRAFFIC SIGNAL EQUIPMENT, EXCEPT CONCRETE STRAIN POLES, TO IRCTED LOCATED AT 4548 4TH STREET, VERO BEACH, FL 32967 (772) 226-3460. THE COST OF DELIVERY TO IRCTED SHALL BE INCLUDED IN THE REMOVAL OF THE RELATED SIGNAL PAY ITEM. THE CONTRACTOR SHALL CONTACT THE IRCTED SEVEN (7) FULL BUSINESS DAYS PRIOR TO THE DELIVERY OF ANY REMOVED EQUIPMENT. CONTRACTOR IS RESPONSIBLE FOR CONCRETE STRAIN POLE DISPOSAL AT THE CONTRACTOR'S EXPENSE.
5. THE CONTRACTOR SHALL BE ADVISED THAT OTHER PROJECTS MAY BE UNDER CONSTRUCTION CONCURRENTLY WITH THIS PROJECT AND THAT COORDINATION EFFORTS MAY BE NECESSARY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE CONSTRUCTION SCHEDULE AND FOR THE AMOUNT OF COORDINATION REQUIRED. THE COST SHALL BE INCLUDED IN THE BID.
6. LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF THE PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS AND OTHER FEATURES AFFECTING HIS/HER WORK PRIOR TO CONSTRUCTION, AND NOTIFY THE ENGINEER IMMEDIATELY AND PRIOR TO ANY FURTHER RELATED WORK ACTIVITY WHEN CONFLICT BETWEEN DRAWINGS AND ACTUAL CONDITIONS ARE DISCOVERED.
7. THE CONTRACTOR SHALL CALL SUNSHINE STATE ONE-CALL AT 1-800-432-4770 FOR LOCATIONS OF UTILITIES WITHIN THE AREA(S) OF CONSTRUCTION FOR THIS PROJECT A MINIMUM OF TWO (2) FULL BUSINESS DAYS PRIOR TO ANY DIGGING OR EXCAVATION ACTIVITIES. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE TO CONTACT ANY UTILITY OWNER(S) THAT MY NOT BE A "SUNSHINE" MEMBER.
8. EXISTING UTILITIES ARE TO REMAIN IN PLACE UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE LOCATION AND PROTECTION, REPAIR AND/OR REPLACEMENT OF ALL UTILITIES THAT MAY BE AFFECTED BY THE CONSTRUCTION OF THIS PROJECT. EXISTING UTILITIES SHALL BE MAINTAINED IN SERVICE DURING CONSTRUCTION UNLESS OTHERWISE APPROVED BY THE UTILITY OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ANY REQUIRED UTILITY RELOCATIONS.
9. THE CONTRACTOR SHALL NOTIFY ALL INVOLVED UTILITIES TWO (2) FULL BUSINESS DAYS IN ADVANCE, BEFORE SETTING TRAFFIC SIGNAL POLES OR PERFORMING ANY DIGGING OR OTHER EXCAVATION WORK, SO THAT A COMPANY REPRESENTATIVE CAN BE PRESENT. THE LOCATION OF THE UTILITIES SHOWN IN THE PLANS ARE APPROXIMATE ONLY. THE EXACT LOCATION SHALL BE DETERMINED BY THE CONTRACTOR. KNOWN UTILITY COMPANIES INCLUDE:

<u>COMPANY</u>	<u>FACILITIES</u>	<u>CONTACT</u>	<u>TELEPHONE NUMBER</u>
AT&T	TELEPHONE	LUKE FOLKERTS	(407) 496-6041
CITY GAS COMPANY OF FLORIDA	GAS	DOROTHY HAMILTON	(321) 638-3412
FLORIDA POWER & LIGHT (INDIAN RIVER)	ELECTRIC	ROB MORRIS	(772) 223-4215
INDIAN RIVER COUNTY PUBLIC WORKS	SIGNALIZATION	JOHN ANKENY	(772) 226-1563
INDIAN RIVER COUNTY	WATER & SEWER	JOHN BOYER	(772) 226-1823
	WATER & SEWER	JESSE ROLAND	(772) 226-1636
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE COMPANY PROVIDING ELECTRICAL POWER TO DETERMINE IF A SERVICE PROCESSING FEE IS REQUIRED. IF REQUIRED, FEE SHALL BE REFLECTED IN THE CONTRACTOR'S BID UNIT PRICE FOR ELECTRICAL POWER SERVICE ASSEMBLY.
11. THE CONTRACTOR SHALL COORDINATE AND FIELD VERIFY LOCATION(S) OF THE ELECTRIC SERVICE POINT PRIOR TO INSTALLING CONDUIT, DISCONNECT SWITCH, AND PULL BOXES.
12. (IF APPLICABLE) IT SHOULD BE NOTED THAT NO TEST BORINGS WERE MADE WHERE CONDUIT RUNS ARE TO BE INSTALLED BY JACKING OR TRENCHING. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE THE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS IN ACCORDANCE WITH SECTION 2-4 OF THE FDOT SPECIFICATIONS.
13. THE CONTRACTOR SHALL MAINTAIN TRAFFIC IN ACCORDANCE WITH THE APPLICABLE GUIDELINES SET FORTH IN FDOT DESIGN STANDARD INDEXES 600 THROUGH 660; THE MUTCD; AND SECTION 102 OF THE STANDARD SPECIFICATIONS.
14. THE CONTRACTOR SHALL MAKE ALL VIDEO DETECTORS INSTALLED AS PART OF THE PROJECT FULLY OPERATIONAL IN ACCORDANCE WITH THEIR ASSOCIATED ISOLATED INTERSECTION SIGNAL TIMING CHART PRIOR TO THE ACTIVATION OF THE SIGNAL.
15. THE CONTRACTOR SHALL VERIFY ALL SIGNAL POLE ELEVATIONS AND LOCATIONS INCLUDING POSSIBLE UTILITY CONFLICTS PRIOR TO PROCURMENT. THE CONTRACTOR SHALL VERIFY THAT ALL SIGNAL POLE ELEVATIONS WILL MEET MUTCD, FDOT AND INDIAN RIVER COUNTY REQUIREMENTS FOR LOW POINT OF CLEARANCE. 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.
16. UNDER NO CIRCUMSTANCES SHALL ENERGIZED SIGNAL CABLE BE PLACED IN THE SAME CONDUIT OR PULL BOX AS VIDEO DETECTION CABLE OR COMMUNICATION.
17. 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.
18. THE CABINET DOOR SHALL OPEN AWAY FROM THE INTERSECTION UNLESS SPECIFIED OTHERWISE.
19. TRAFFIC SIGNAL ACCEPTANCE TESTING PROCEDURES SHALL BE IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.
20. THERE WILL BE A 90 DAY WARRANTY PERIOD SUBJECT TO THE REQUIREMENTS CONTAINED IN ARTICLE (SECTIONS 611-5 THROUGH 611-7.3) "CONTRACTOR'S WARRANTY PERIOD FOR SIGNAL INSTALLATIONS" AS FOUND IN FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
21. THE CONTRACTOR SHALL PROVIDE FOUR COPIES OF MARKED-UP (AS-BUILT) CONSTRUCTION PLANS, ALSO A COPY OF SHOP DRAWING AND A COPY OF MAST ARM SPECIFICATION AND ANY/ALL APPROVED SHOP DRAWINGS AT THE TIME OF SIGNAL CONDITIONAL ACCEPTANCE INSPECTION BY THE MAINTAINING AGENCY.
22. ALL SUBMITTALS AND SHOP DRAWINGS SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW IN ACCORDANCE WITH SECTION 603 OF THE STANDARD SPECIFICATIONS: LATEST EDITION

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23. THE CONTRACTOR SHALL SUBMIT IN WRITING A REQUEST FOR SIGNAL INSPECTION TO THE MAINTAINING AGENCY. (ALLOW TWO (2) WEEKS FOR SIGNAL INSPECTION).
24. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN FOUR (4) PORTABLE CHANGEABLE (VARIABLE) MESSAGE SIGNS (PCMS) FOR A PERIOD OF TWO WEEKS. THE PCMS WILL BE LOCATED AT AN APPROPRIATE DISTANCE IN ADVANCE OF THE APPROACHES TO THE NEW SIGNALIZED INTERSECTION AS SPECIFIED BY THE MAINTAINING AGENCY'S ENGINEER. THE PCMS WILL BE PROVIDED ONE (1) WEEK PRIOR TO THE SCHEDULED ACTIVATION TO FULL COLOR OPERATION AND SHALL REMAIN IN PLACE FOR ONE (1) WEEK FOLLOWING ACTIVATION. COST OF FURNISHING PCMS TO BE INCLUDED UNDER PAY ITEM NO. 102-1 MAINTENANCE OF TRAFFIC.

REVISIONS						INDIAN RIVER COUNTY BOARD OF COUNTY COMMISSIONERS 66th AVENUE ROADWAY WIDENING - PHASE IB 49th STREET TO 69th STREET	GENERAL NOTES	SHEET NO.
DESCRIPTION	DATE	BY	DESCRIPTION	T-2				
					<small> BRIAN A. GOOD, P.E. P.E. LICENSE NUMBER 56939 445 24th STREET, SUITE 200 VERO BEACH, FL 32960 (772) 794-4100 CERTIFICATE OF AUTHORIZATION# 00000696 </small>			

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IR.CO. Proj. No.

INDIAN RIVER COUNTY - TRAFFIC SIGNAL GENERAL NOTES

29) IN ACCORDANCE WITH FDOT STANDARDS & SPECIFICATIONS, THE CONTRACTOR SHALL PROVIDE THE ASSOCIATED TRAFFIC SIGNAL MANUFACTURE WARRANTIES FOR THE ASSOCIATED MATERIALS AND/OR EQUIPMENT PRIOR TO THE FINAL ACCEPTANCE OF THE TRAFFIC SIGNAL.

30) PRIOR TO ACTIVATION THE PCMS SIGN SHALL BE:

- (PANEL ONE - LINE 1) "TRAFFIC"
- (PANEL ONE - LINE 2) "SIGNAL"
- (PANEL ONE - LINE 3) "WILL BE"
- (PANEL TWO - LINE 1) "ACTIVE"
- (PANEL TWO - LINE 2) "ON DAY"
- (PANEL TWO - LINE 3) "MONTH XX"

SUBSTITUTION FOR THE WORD "DAY" SHALL BE AS FOLLOWS:

- SUNDAY AS "SUN"
- MONDAY AS "MON"
- TUESDAY AS "TUES"
- WEDNESDAY AS "WED"
- THURSDAY AS "THUR"
- FRIDAY AS "FRI"
- SATURDAY AS "SAT"

SUBSTITUTION FOR THE WORD "MONTH" SHALL BE AS FOLLOWS:

- JANUARY AS "JAN"
- FEBRUARY AS "FEB"
- MARCH AS "MAR"
- APRIL AS "APR"
- MAY AS "MAY"
- JUNE AS "JUN"
- JULY AS "JUL"
- AUGUST AS "AUG"
- SEPTEMBER AS "SEP"
- OCTOBER AS "OCT"
- NOVEMBER AS "NOV"
- DECEMBER AS "DEC"

SUBSTITUTION FOR THE WORD "XX" SHALL BE AS FOLLOWS:

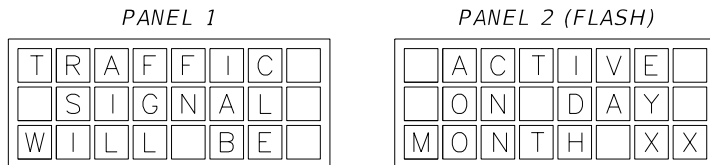
THE NUMERICAL DAY OF THE MONTH, FROM ONE (1) TO THIRTY-ONE (31). THE DATES LESS THAN TEN (10) SHALL BE PRECEDED BY A ZERO (0); EXAMPLE: "JAN 03" FOR JANUARY 3RD.

31) AFTER THE TURN-ON, THE PCMS SHALL BE CHANGED TO:

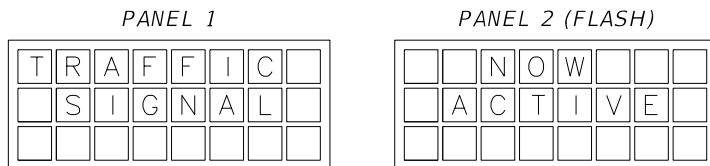
- (PANEL ONE - LINE 1) "TRAFFIC"
- (PANEL ONE - LINE 2) "SIGNAL"
- (PANEL TWO - LINE 1) "NOW"
- (PANEL TWO - LINE 2) "ACTIVE"

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

PRIOR TO SIGNAL ACTIVATION



AFTER SIGNAL ACTIVATION



32) THE ENGINEER OR CONTRACTOR SHALL SUBMIT IN WRITING A REQUEST FOR SIGNAL ACTIVATION (TURN-ON) TO THE MAINTAINING AGENCY. THE MAINTAINING AGENCY WILL SCHEDULE THE SIGNAL ACTIVATION A MINIMUM OF SEVEN (7) DAYS AFTER NOTIFICATION THAT THE SIGNAL HAS BEEN PLACED IN FLASHING MODE AND INSPECTIONS BY MAINTAINING AGENCY FORCES HAVE BEEN COMPLETED.

33) THE CONTRACTOR SHALL BE PRESENT AND SHALL CONDUCT THE TURN-ON TO FULL COLOR OPERATION IN THE PRESENCE OF THE MAINTAINING AGENCY'S ENGINEER. NO ACTIVATIONS SHALL BE SCHEDULED ON MONDAYS, FRIDAYS OR WEEKENDS UNLESS OTHERWISE APPROVED BY THE MAINTAINING AGENCY'S ENGINEER. ANY PROPOSED OR NECESSARY SCHEDULE CHANGE DURING THE SEVEN (7) DAYS PRIOR TO SCHEDULED TURN-ON WILL BE AT THE DETERMINATION AND DISCRETION OF THE MAINTAINING AGENCY'S ENGINEER.

34) UPON COMPLETION AND FINAL ACCEPTANCE OF THE PERMANENT TRAFFIC SIGNAL INSTALLATION BY INDIAN RIVER COUNTY, THE SIGNALS AND EQUIPMENT SHALL BE MAINTAINED BY IRCTED.

35) WHEN IRCTED DETERMINES THAT THE NEED FOR A TRAFFIC SIGNAL IS CRITICAL TO THE PUBLIC WELFARE, EARLY TURN ON OF THE SIGNAL WILL BE REQUIRED BEFORE THE COMPLETION OF THE CONTRACT. IF THIS NEED ARISES, IRCTED WILL ASSUME THE RESPONSIBILITY FOR MAINTENANCE AND LIABILITY, OR NEGOTIATE WITH THE CONTRACTOR FOR MAINTENANCE AND LIABILITY, FOR SUCH A SIGNAL. NEW SIGNALS SHALL NOT BE PLACED ON FULL COLOR OPERATION UNTIL THE DATE OF INSPECTION EXCEPT AS STATED ABOVE. NEW SIGNALS SHALL BE FLASHED NO LESS THAN A WEEK OR MORE THAN TWO WEEKS PRIOR TO THE INSPECTION. SIGNAL HEADS MUST BE BAGGED WITH BURLAP OR TURNED BACK UNTIL THIS TIME.

SIGNING AND PAVEMENT MARKING GENERAL NOTES

1. THE SIGNING AND PAVEMENT MARKING DEPICTED WITHIN THIS PLAN SET SHALL SUPERCEED THE SIGNING AND PAVEMENT MARKINGS DEPICTED ON THE ARCADIS 66TH AVENUE PHASE 1A PLAN SET. ALL SIGNING AND PAVEMENT MARKINGS HAVE BEEN WITHIN THIS PLAN SET HAVE BEEN QUANTIFIED WITHIN THE 66TH AVENUE PHASE 1B SIGNING AND PAVEMENT MARKING COMPONENT PLAN SET.

66TH AVENUE LIMITS: STA. 336+57.00 TO STA. 341+09.00
57TH STREET LIMITS: STA. 902+76.00 TO STA. 907+29.00

2. SIGNS AND PAVEMENT MARKINGS ARE TO CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION AND THE INDIAN RIVER COUNTY TYPICAL DRAWINGS FOR ROADWAY SIGNING, STRIPING & GEOMETRICS.

3. ALL PAVEMENT MARKINGS ARE TO CONSIST OF 90 mil EXTRUDED ALKYD THERMOPLASTIC.

4. RAISED REFLECTIVE PAVEMNT MARKERS (RPMs) ARE TO CONSIST OF 4-INCH SQUARE MONO-DIRECTIONAL WHITE AND BI-DIRECTIONAL YELLOW. LANE LINE RPMs ON THE 4 (OR MORE) LANE PORTION OF ANY DIVIDED ROADWAY SHALL BE BI-DIRECTIONAL WHITE/RED.

5. RPMs SHALL BE POSITIONED IN ACCORDANCE WITH FDOT INDEX # 17352 AND THIS PLAN.

6. ALL GROUND MOUNTED STREET NAME SIGNS SHALL HAVE 8 INCH CAPITAL LETTERS.

7. SINGLE COLUMN GROUND SIGNS SHALL BE INSTALLED W/ STEEL SQUARE TUBE POST. STEEL SQUARE TUBE POST SHALL BE SIZED IN ACCORDANCE W/ FDOT INDEX NO. 11865.

8. ALL EXISTING SIGNS AND POSTS ARE TO BE REMOVED UNLESS NOTED OTHERWISE.

9. ALL PAVEMENT MARKINGS SHALL MEET SPECIFICATIONS AND BE IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, FDOT DESIGN STANDARDS, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009, FDOT TRAFFIC ENGINEERING MANUAL AND INDIAN RIVER COUNTY STANDARDS, LATEST EDITIONS.

10. ALL PAVEMENT MARKING MATERIAL SHALL BE ON THE DEPARTMENT OF TRANSPORTATION APPROVED PRODUCTS LIST (APL), IN ADDITION TO BEING APPROVED BY INDIAN RIVER COUNTY TRAFFIC ENGINEERING, PRIOR TO INSTALLATION.

11. THE METHOD OF REMOVAL OF PAVEMENT MARKINGS SHALL BE HYDROBLASTING AND IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 711.

REVISIONS				Kimley»Horn <small>BRIAN A. GOOD, P.E. P.E. LICENSE NUMBER 56939 445 24th STREET, SUITE 200 VERO BEACH, FL 32960 (772) 794-4100 CERTIFICATE OF AUTHORIZATION# 00000696</small>	INDIAN RIVER COUNTY BOARD OF COUNTY COMMISSIONERS 66th AVENUE ROADWAY WIDENING - PHASE 1B 49th STREET TO 69th STREET	GENERAL NOTES	SHEET NO.
							T-3

1505 I.R.CO. Proj. No. THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

INDIAN RIVER COUNTY TRAFFIC SIGNAL SPECIFICATIONS (REV 04-04-17)

A) POWER SERVICE

- 1) POWER SERVICES SHALL FOLLOW THE LATEST STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION DESIGN STANDARD INDEX No. 17504, 17736.
- 2) SERVICE BREAKER BOX SHALL BE SQUARE-D MODEL #Q024L70RB, OR APPROVED EQUIVALENT.
- 3) POWER SERVICES ARE TO BE 120/240 VAC WITH TRIPLEX SERVICE DROP WIRE WITH TWO BLACK AND ONE WHITE CABLE FROM SERVICE DISCONNECT TO POWER SERVICE CONNECTION POINT.
- 4) ALL ABOVE GROUND CONDUIT SHALL BE HD GALVINIZED OR ALUMINUM.
- 5) MAST ARM POWER SERVICES SHALL BE MOUNTED ON A STUB POLE.
- 6) UNDERGROUND POWER SERVICE SHOULD HAVE AN FPL PULL BOX FOR THE LINE SIDE NEAR SERVICE DISCONNECT.
- 7) CONCRETE STRAIN POLE INSTALLATIONS SHOULD HAVE THE POWER SERVICE MOUNTED ON THE STRAIN POLE.

B) TRAFFIC SIGNAL CONTROLLER

- 1) SHALL BE COMPATIBLE WITH ECONOLITE SYSTEM SOFTWARE.
- 2) SHALL HAVE INTERNAL TIME-BASED CAPABILITIES.
- 3) SHALL HAVE INTERNAL RAILROAD PREEMPTION WITH IMMEDIATE RETURN TO COORDINATION.
- 4) SHALL HAVE A REMOVABLE EEPROM WITH DOWNLOAD AND UPLOAD CAPABILITIES.

C) TRAFFIC SIGNAL COMMUNICATIONS INTERCONNECT

NOTE: VARIANCE TO COMMUNICATION INTERCONNECT DUE TO DESIGN CRITERIA WOULD REQUIRE PRIOR APPROVAL FROM INDIAN RIVER COUNTY.

- 1) TWO 2" CONDUITS SHALL BE INSTALLED WITH ALL INTERCONNECT RUNS.
- 2) PULL BOXES CONTAINING INTERCONNECT ARE TO BE INSTALLED AT NO MORE THAN 1000 FOOT INTERVALS MARKED "TRAFFIC SIGNAL" (FDOT DESIGN STANDARD 17700).
- 3) FIBER OPTIC INTERCONNECT RUNS SHALL HAVE A SLACK/SPLICE BOX AT ALL SIGNALIZED INTERSECTIONS MARKED "FIBER OPTICS". SLACK/SPLICE BOXES SHALL CONTAIN A MINIMUM OF 100 FEET OF FIBER OPTIC CABLE SLACK (FDOT DESIGN STANDARD 635-001) AND SHALL BE LOCATED AT NO MORE THAN 1/2 MILE INTERVALS.
- 4) FIBER OPTIC CABLE SHALL BE 96-FIBER SINGLE MODE. A #14 AWG (OR IRC-APPROVED ALTERNATIVE) TRACE WIRE SHALL BE INSTALLED WITH THE FIBER RUN.
- 5) THE CONNECTION FROM THE SLACK/SPLICE BOX TO THE SIGNAL CABINET (PIG TAIL) SHALL BE A 12-FIBER SINGLE MODE CABLE. FIBER IN THE CABINET SHALL BE TERMINATED IN A FIBER OPTIC TERMINAL PANEL.
- 6) IN THE CABINET, DATA CONVERSION WILL BE ACCOMPLISHED WITH EXTREME GIGABIT ETHERNET SWITCH OR IRC-APPROVED EQUIVALENT.
- 7) RADIO LINK SHOULD BE ENCONOLITE INTUICOM RADIO ACCESS POINT OR REMOTE STATION. INCLUDE MOUNTING HARDWARE, PoE INJECTOR OR APPROVED EQUIVALENT.

D) TRAFFIC SIGNAL MAST ARM

- 1) MAST ARMS SHALL FOLLOW THE LATEST STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS INDEX No. 17743, 17745.
- 2) ALL MAST ARM POLES SHALL HAVE L.E.D., COBRA HEAD STYLE LUMINAIRES, BARRING OBSTRUCTIONS OR DESIGN CRITERIA. EACH LUMINARE SHALL BE PHOTO CELL CONTROLLER AND NOT POWERED THROUGH SIGNAL CABINET. WIRING SHALL BE #10 AWG OR LARGER SIZE AWG.
- 3) MAST ARM POLES ARE TO HAVE A TERMINAL COMPARTMENT IN PLACE OF A HAND HOLE, PER FDOT INDEX No. 649-031.
- 4) MAST ARM MOUNTING HEIGHT (MEASUREMENT UB INDEX No. 17743) SHALL BE 19- FEET FOR HORIZONTAL AND 20- FEET FOR VERTICAL MOUNTED SIGNALS, IN THE ABSENCE OF GEOMETRIC ABNORMALTIES.
- 5) ALL MAST ARMS SHALL BE GALVANIZED STEEL WITH FACTORY FINISHED U.S. GOVERNMENT FEDERAL STANDARD 595C #14066 (HIGHWAY GREEN) IN ACCORDANCE WITH FDOT.
- 6) EACH TERMINAL COMPARTMENT SHALL HAVE A 20 CIRCUIT AWG#14 TERMINAL BLOCK.
- 7) MAST ARMS ARE TO HAVE L.E.D. INTERNALLY-ILLUMINATED SINGLE-SIDED STREET NAME SIGNS WITH LOCAL STREET NAMES AND 1" WHITE BORDER. THE SIGNS SHALL BE CONTROLLED FROM A PHOTO CELL WITH IN THE SIGNAL CABINET THE SIGNS ARE NOT TO HAVE INDIVIDUAL PHOTO CELL. THE STREET NAME SIGNS ARE TO BE MOUNTED WITH FIXED BRACKETS ON THE ARM BETWEEN THE POLE AND THE FIRST TRAFFIC SIGNAL.

E) TRAFFIC SIGNAL POLES & SPAN WIRE

- 1) POLES SHALL FOLLOW THE LATEST STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD INDEX No. 17725.
- 2) STRAIN POLES SHALL HAVE L.E.D., COBRA HEAD STYLE LUMINAIRES, BARRING OBSTRUCTIONS OR DESIGN CRITERIA. EACH LUMINARE SHALL BE PHOTO CELL CONTROLLER AND NOT POWERED THROUGH SIGNAL CABINET.
- 3) ALL ABOVE GROUND CONDUIT SHALL BE HD GALVINIZED.
- 4) BOTH UPPER AND LOWER SPAN WIRE SHALL BE 3/8 INCH CABLE WIRE.
- 5) THE SIGNAL CABLE SHALL BE ATTACHED TO THE MESSENGER WIRE BY LASHING RODS.

F) TRAFFIC SIGNALS HEADS

- 1) TRAFFIC SIGNALS MOUNTED ON SPAN CABLE ARE TO BE LIGHTWEIGHT McCAIN SIGNAL, (RED SECTION TO BE ALUMINUM AND ALL OTHER SECTIONS TO BE POLY PLASTIC), 12-INCH INDICATIONS.
- 2) TRAFFIC SIGNALS MOUNTED ON MAST ARM SUPPORTS ARE TO BE ALUMINUM McCAIN SIGNAL 12-INCH INDICATIONS. THE MOUNTING SHALL BE HORIZONTAL USING PELCO ASTRO BRAC OR IRC-APPROVED EQUIVALENT. SPAN MOUNTS ARE TO BE MOUNTED VERTICAL. ALL VEHICLE SIGNAL HEADS ARE TO HAVE RETRO-REFLECTIVE BACK PLATES.
- 3) TRAFFIC SIGNALS ARE TO BE SUPPLIED WITH ALL L.E.D. INDICATIONS, INCLUDING ALL ARROWS AND YELLOWS.
- 4) TRAFFIC SIGNALS ARE TO BE SUPPLIED WITH TUNNEL VISORS.
- 5) PEDESTRIAN SIGNALS ARE TO BE COUNT DOWN PEDESTRIAN SIGNALS WITH INTERNATIONAL-STYLE HAND/MAN (SYMBOLS) WITH FULL (NOT OUTLINE) LED INDICATIONS. EACH CORNER WILL BE FED WITH ONE SEVEN CONDUCTOR CABLE FOR PEDESTRIAN SIGNAL HEAD AND ONE FOUR CONDUCTOR CABLE FOR PEDESTRIAN DETECTOR. THESE CABLES WILL RUN FROM PEDESTRIAN SIGNAL AND DETECTOR DIRECTLY TO CONTROLLER BOX (NO SPLICES).
- 6) VIDEO DETECTORS
 1. VIDEO DETECTION SYSTEM SHALL BE ECONOLITE LATEST TECHNOLOGY OR IRC-APPROVED EQUIVALENT.
- 7) VIDEO SURVEILLANCE
 1. VIDEO CAMERAS SHALL BE AXIS Q6055-E PTZ DOME NETWORK CAMERA, LATEST TECHNOLOGY OR IRC-APPROVED EQUIVALENT.
- 8) BATTERY BACK-UP
 1. BATTERY BACKUP SYSTEM TO BE USED ON ALL INSTALLATIONS UNLESS OTHERWISE STATED.
 2. BATTERY BACKUP SHALL BE MYERS UPS SYSTEM MP2000E-TB WITH STANDING CABINET.

REVISIONS

DESCRIPTION	DATE	BY	DESCRIPTION

Kimley»Horn

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VERO BEACH, FL 32960
(772) 794-4100
CERTIFICATE OF AUTHORIZATION# 00000696

**INDIAN RIVER COUNTY
BOARD OF COUNTY COMMISSIONERS**

**66th AVENUE ROADWAY WIDENING -
PHASE IB 49th STREET TO 69th STREET**

**INDIAN RIVER COUNTY
TRAFFIC SIGNAL
SPECIFICATIONS**

SHEET NO.

T-4

1505 I.R.CO. Proj. No. THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

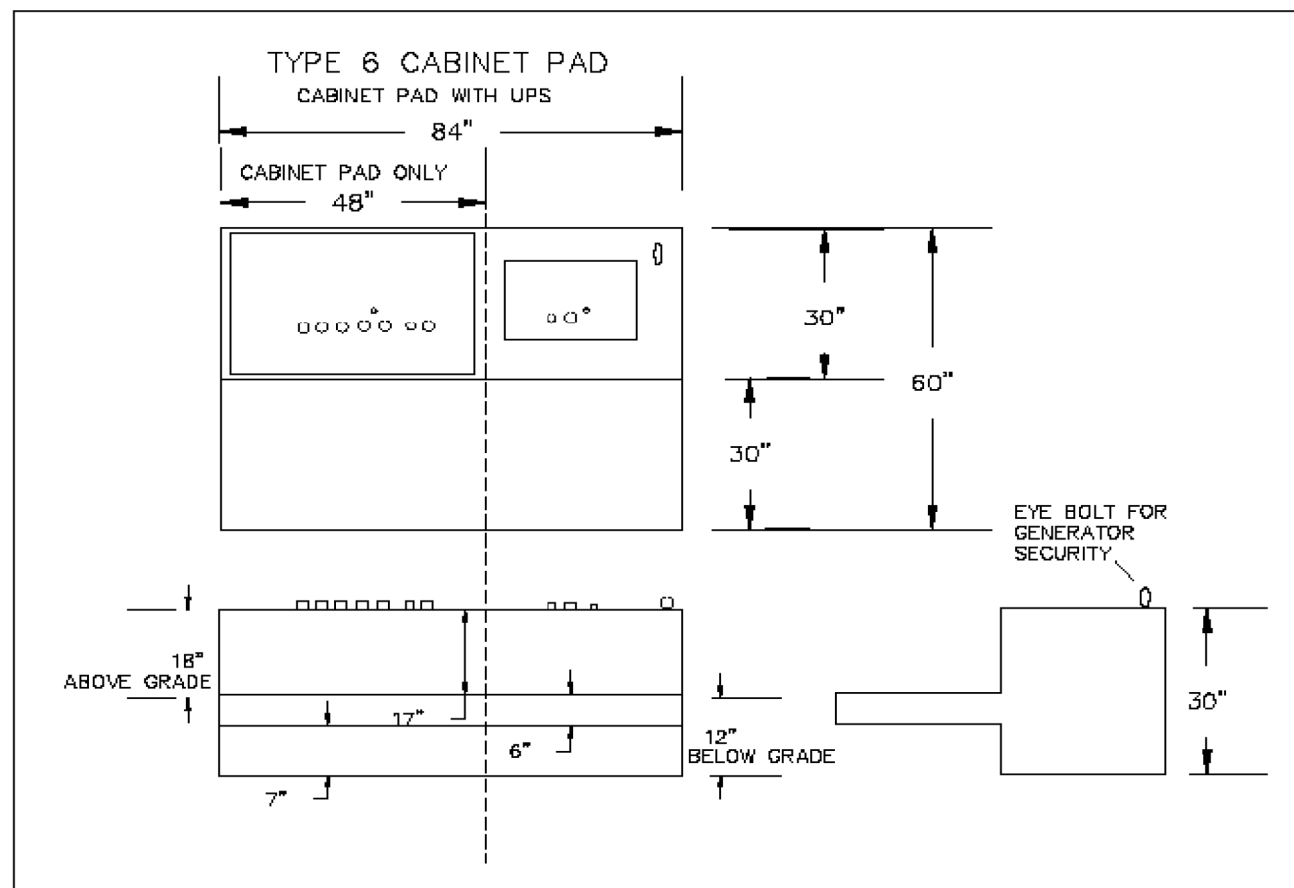
INDIAN RIVER COUNTY TYPICAL & CABINET PAD DETAIL

Signal Wiring 20 Pair				
Number	Color	Location	Phase	Comments
1	Green	Main Street	02, 06	
2	Orange	Main Street	02, 06	
3	Red	Main Street	02,06	
4	Green/Black	Side Street	04, 08	
5	Orange/Black	Side Street	04, 08	
6	Red/Black	Side Street	04,08	
7	Blue	Left Turn	01, 03, 05, 07	Green
8	White/Black	Left Turn	01, 03, 05, 07	Amber
9	Black/White	Left Turn	01, 03, 05, 07	Red
10	Blue/Black	Right Turn	02, 04, 06, 07	Amber
11	Black	Right Turn	02, 04, 06, 07	Green
12	White	Neutral		
13	Green/White	Spare		
14	Orange/Red	Spare		
15	Red/White	Spare		
16	Blue/White	Spare		
17	White/Red	Spare		
18	Black/Red	Spare		
19	Blue/Red	Spare		
20	Red/Green	Spare		

Pedestrian Head Wiring 7 pair				
Number	Color	Location	Phase	Comments
1	Green	Main Street	02, 06	Green
2	Orange	Side Street	04, 08	Green
3	Red	Main Street	02, 06	Red
4	Blue	Side Street	04, 08	Red
5	White/Black	Spare		
6	Black	Spare		
7	White	Neutral		

Pedestrian Button Wiring 4 pair				
Number	Color	Location	Phase	Comments
1	Green	Main Street	02, 06	
2	Red	Main Street	02, 06	
3	White	Side Street	04, 08	
4	Black	Side Street	04, 08	

Tape Color	
Direction	Color
North	Green
South	Red
East	Yellow
West	Blue



REVISIONS

DESCRIPTION	DATE	BY	DESCRIPTION

Kimley»Horn
 BRIAN A. GOOD, P.E.
 P.E. LICENSE NUMBER 56939
 445 24th STREET, SUITE 200
 VERO BEACH, FL 32960
 (772) 794-4100
 CERTIFICATE OF AUTHORIZATION# 00000696

**INDIAN RIVER COUNTY
 BOARD OF COUNTY COMMISSIONERS**
**66th AVENUE ROADWAY WIDENING -
 PHASE IB 49th STREET TO 69th STREET**

**INDIAN RIVER COUNTY
 TYPICAL & CABINET PAD
 DETAIL**

SHEET NO.

T-5

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																TOTAL THIS SHEET		GRAND TOTAL		REF. SHEET
			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 (SIGNAL) (F & I) (OPEN TRENCH)	LF			155		215												370		370		
630-2-12	CONDUIT (SIGNAL) (F & I) (DIRECTIONAL BORE)	LF			1795		1725												3520		3520		
632-7-1	CABLE (SIGNAL) (F & I)	PI			1		1												2		2		
632-7-6	CABLE (SIGNAL) (REMOVE) (INTERSECTION)	PI			1														1		1		
635-2-11	PULL BOX (F & I) (TRAFFIC SIGNAL)	EA			21		15												36		36		
639-1-111	ELECTRICAL POWER SERVICE (SIGNALS) (ABOVE GROUND) (METER PURCHASED BY CONTRACTOR)	AS			1		1												2		2		
639-1-610	ELECTRICAL POWER SERVICE (SIGNALS) (ABOVE GROUND) (REMOVE)	AS			1														1		1		
639-2-1	ELECTRICAL SERVICE WIRE (F & I)	LS			1		1												2		2		
639-3-11	ELECTRICAL SERVICE DISCONNECT (F & I) (POLE MOUNTED)	EA			1		1												2		2		
641-2-12	PRESTRESSED CONC. POLE (F & I) (TYPE P-II SERVICE POLE)	EA			1		1												2		2		
641-2-80	PRESTRESSED CONC. POLE (COMPLETE POLE REMOVAL)	EA			2														2		2		
646-1-11	ALUMINUM SIGNALS POLE (PEDESTAL)	EA			4		6												10		10		
649-31-106	MAST ARM (F & I) (WIND SPEED - 150) (SINGLE ARM W/ LUMINAIRE) (36')	EA					1												1		1		
649-31-107	MAST ARM (F & I) (WIND SPEED - 150) (SINGLE ARM W/ LUMINAIRE) (46')	EA					1												1		1		
649-31-108	MAST ARM (F & I) (WIND SPEED - 150) (SINGLE ARM W/ LUMINAIRE) (60')	EA			2		1												3		3		
649-31-109	MAST ARM (F & I) (WIND SPEED - 150) (SINGLE ARM W/ LUMINAIRE) (70.5')	EA			2		1												3		3		
650-1-14	TRAFFIC SIGNAL (F & I) (ALUMINIUM) (3-SECTION) (1-WAY)	AS			6		6												12		12		
650-1-16	TRAFFIC SIGNAL (F & I) (ALUMINIUM) (4-SECTION) (1-WAY)	AS			2		2												4		4		
650-1-18	TRAFFIC SIGNAL (F & I) (ALUMINIUM) (5-SECTION) (1-WAY) (STRAIGHT)	AS			2		2												4		4		
653-1-11	PEDESTRIAN SIGNAL (F & I) (LED-COUNTDOWN) (1-WAY)	AS			4		8												12		12		
665-1-11	PEDESTRIAN DETECTOR (F & I) (STANDARD)	EA			4		8												12		12		
660-4-11	VEHICLE DETECTION SYSTEM (F & I) (VIDEO) (CABINET EQUIPMENT)	EA			1		1												2		2		
660-4-12	VEHICLE DETECTION SYSTEM (F & I) (VIDEO) (ABOVE GROUND EQUIPMENT)	EA			4		4												8		8		
670-5-111	TRAFFIC CONTROLLER ASSEMBLY (F & I) (NEMA) (ONE PREEMPTION PLAN)	AS			1		1												2		2		
670-5-600	TRAFFIC CONTROLLER ASSEMBLY (REMOVE - CONTROLLER WITH CABINET)	AS			1														1		1		
682-1-133	ITS CCTV CAMERA (F&I) (DOME ENCLOSURE) (NON-PRESSURIZED) (IP) (HD)	EA			2		2												4		4		
684-1-1	MANAGED FIELD ETHERNET SWITCH (F & I)	EA			1		1												2		2		
685-1-13	UNINTERRUPTIBLE POWER SUPPLY (F & I) (LINE INTERACTIVE WITH CABINET)	EA			1		1												2		2		
700-5-22	INTERNALLY ILLUMINATED SIGN (F & I) (OVERHEAD MOUNT, 12-18 SF)	EA			4		4												8		8		
715-1-11	LIGHTING CONDUCTORS (F & I) (INSULATED, No. 10 OR <)	LF			1905		1830												3735		3735		

REVISIONS			
NO.	DESCRIPTION	DATE	BY

Kimley»Horn
BRIAN A. GOOD, P.E.
P.E. LICENSE NUMBER 56939
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VERO BEACH, FL 32960
(772) 794-4100
CERTIFICATE OF AUTHORIZATION# 00000696

**INDIAN RIVER COUNTY
BOARD OF COUNTY COMMISSIONERS**
**66th AVENUE ROADWAY WIDENING -
PHASE IB 49th STREET TO 69th STREET**

TABULATION OF QUANTITIES

SHEET NO. T-6

1505
I.R.CO. Proj. No.
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

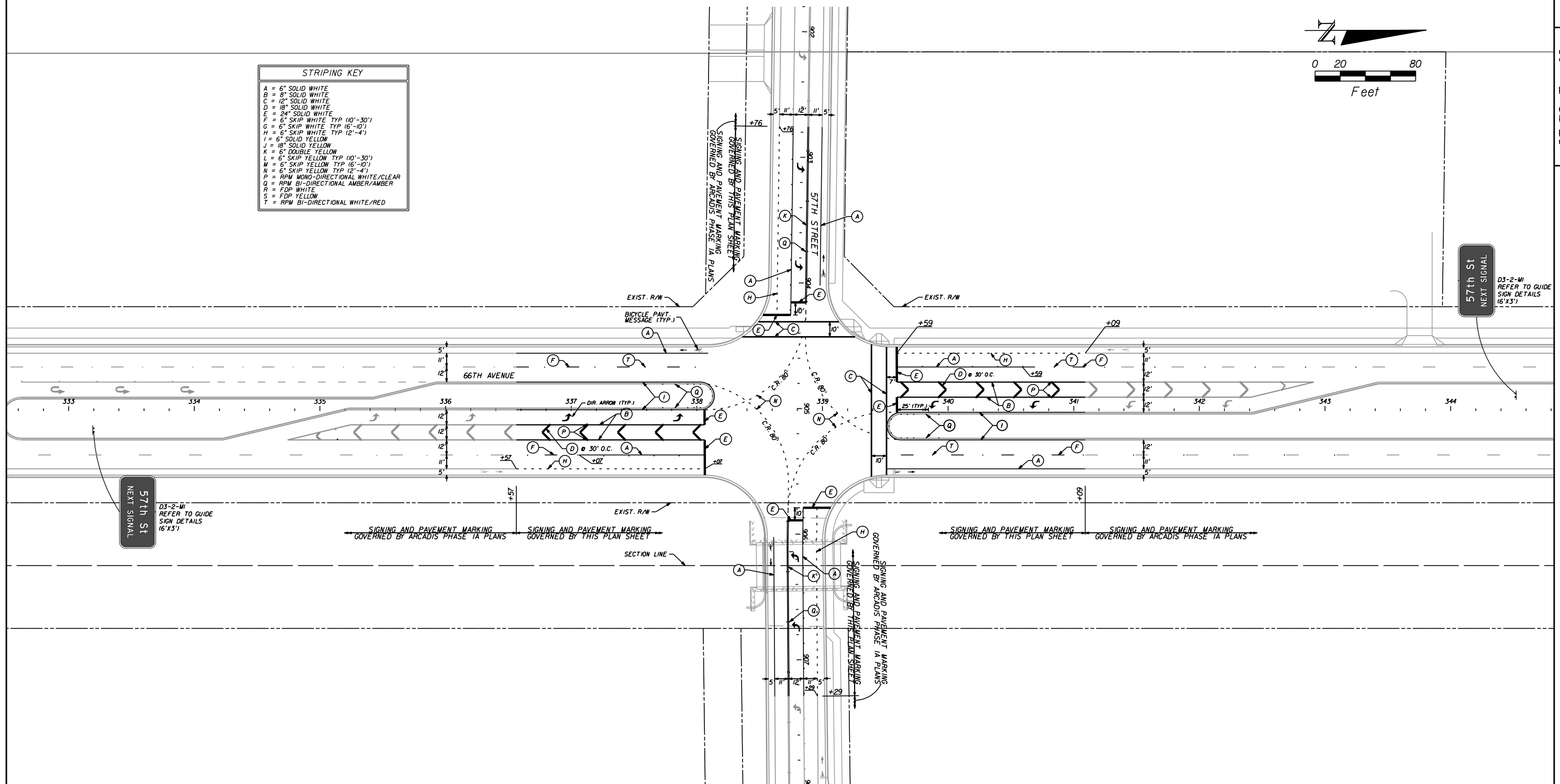
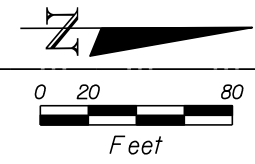
PAY ITEM FOOTNOTES

- 630-2-II THESE PAY ITEMS SHALL INCLUDE INSTALLING THE SPECIFIED ADDITIONAL CONDUIT RUNS IN THE TRENCH.
- 639-1-III THESE PAY ITEMS SHALL BE IN COMPLIANCE WITH INDIAN RIVER COUNTY TRAFFIC SIGNAL SPECIFICATIONS FOR POWER SERVICE. SEE SHEET T-4, SECTION A FOR DETAILS.
- 639-3-II
- 639-2-I COST TO INCLUDE WIRE RUN TO NEW SERVICE CONNECTION, CONTRACTOR TO COORDINATE WITH FPL FOR LOCATION OF SERVICE CONNECTION.
- 649-3I-XXX THESE PAY ITEMS SHALL BE IN COMPLIANCE WITH INDIAN RIVER COUNTY TRAFFIC SIGNAL SPECIFICATIONS FOR TRAFFIC SIGNAL MAST ARMS. SEE SHEET T-4, SECTION D FOR DETAILS.
- 650-1-14 THESE PAY ITEMS SHALL BE IN COMPLIANCE WITH INDIAN RIVER COUNTY TRAFFIC SIGNAL SPECIFICATIONS FOR TRAFFIC SIGNAL HEADS. SEE SHEET T-4, SECTION F FOR DETAILS.
- 650-1-16
- 650-1-18
- 653-1-II
- 653-1-12
- 646-1-II THIS PAY ITEM SHALL BE AN ALUMINUM PEDESTAL MOUNTED ON A TRANSFORMER BASE AND SHALL INCLUDE ALL LABOR, EQUIPMENT, HARDWARE AND INCIDENTALS NECESSARY FOR A COMPLETE AND ACCEPTED INSTALLATION.
- 660-4-12 THIS PAY ITEM SHALL BE IN COMPLIANCE WITH INDIAN RIVER COUNTY TRAFFIC SIGNAL SPECIFICATIONS FOR VIDEO DETECTORS. SEE SHEET T-4, SECTION G FOR DETAILS.
- 665-1-II THIS PAY ITEM SHALL INCLUDE AN FTP-68B-06 PEDESTRIAN SIGN.
- 670-5-III THIS PAY ITEM SHALL BE A TRAFFIC CONTROLLER ASSEMBLY IN COMPLIANCE WITH INDIAN RIVER COUNTY TRAFFIC SIGNAL SPECIFICATIONS FOR TRAFFIC SIGNAL CONTROLLERS. SEE SHEET T-4, SECTION B FOR DETAILS.
- 682-1-133 THIS PAY ITEM SHALL BE A CCTV CAMERA ASSEMBLY IN COMPLIANCE WITH INDIAN RIVER COUNTY TRAFFIC SIGNAL SPECIFICATIONS FOR VIDEO SURVEILLANCE. SEE SHEET T-4, SECTION H FOR DETAILS. THIS PAY ITEM SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS (INCLUDING MOUNTING BRACKETS AND WIRING) NECESSARY FOR A COMPLETE AND ACCEPTED INSTALLATION.
- 684-1-I THE COST SHALL INCLUDE ALL MATERIAL AND EQUIPMENT NECESSARY TO CONNECT PROPOSED TRAFFIC SIGNAL TO PROPOSED FIBER-OPTIC INTERCONNECT. FIBER-OPTIC CABLE SHALL CONSIST OF 12-FIBER SINGLE MODE CABLE.
- 700-5-22 THIS PAY ITEM SHALL BE AN INTERNALLY ILLUMINATED SIGN IN COMPLIANCE WITH INDIAN RIVER COUNTY TRAFFIC SIGNAL SPECIFICATIONS FOR INTERNALLY ILLUMINATED SIGNS MOUNTED ON MAST ARMS. SEE SHEET T-4, SECTION D FOR DETAILS. THIS PAY ITEM SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS (INCLUDING MOUNTING BRACKETS AND WIRING) NECESSARY FOR A COMPLETE AND ACCEPTED INSTALLATION.

1505
IR.CO. Proj. No.
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS						INDIAN RIVER COUNTY BOARD OF COUNTY COMMISSIONERS 66th AVENUE ROADWAY WIDENING - PHASE IB 49th STREET TO 69th STREET	SIGNALIZATION PAY ITEM FOOTNOTES	SHEET NO.
DESCRIPTION	DATE	BY	DESCRIPTION	T-7				
					<small>BRIAN A. GOOD, P.E. P.E. LICENSE NUMBER 56939 445 24th STREET, SUITE 200 VERO BEACH, FL 32960 (772) 794-4100 CERTIFICATE OF AUTHORIZATION# 00000696</small>			

STRIPING KEY	
A	= 6" SOLID WHITE
B	= 8" SOLID WHITE
C	= 12" SOLID WHITE
D	= 18" SOLID WHITE
E	= 24" SOLID WHITE
F	= 6" SKIP WHITE TYP (10'-30')
G	= 6" SKIP WHITE TYP (6'-10')
H	= 6" SKIP WHITE TYP (2'-4')
I	= 6" SOLID YELLOW
J	= 18" SOLID YELLOW
K	= 6" DOUBLE YELLOW
L	= 6" SKIP YELLOW TYP (10'-30')
M	= 6" SKIP YELLOW TYP (6'-10')
N	= 6" SKIP YELLOW TYP (2'-4')
P	= RPM MONO-DIRECTIONAL WHITE/CLEAR
Q	= RPM BI-DIRECTIONAL AMBER/AMBER
R	= FDP WHITE
S	= FDP YELLOW
T	= RPM BI-DIRECTIONAL WHITE/RED



57th St
NEXT SIGNAL
D3-2-M
REFER TO GUIDE
SIGN DETAILS
(6'X3')

57th St
NEXT SIGNAL
D3-2-M
REFER TO GUIDE
SIGN DETAILS
(6'X3')

REVISIONS				
NO.	DESCRIPTION	DATE	BY	DESCRIPTION

Kimley»Horn
 BRIAN A. GOOD, P.E.
 P.E. LICENSE NUMBER 56939
 445 24th STREET, SUITE 200
 VERO BEACH, FL 32960
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 CERTIFICATE OF AUTHORIZATION# 00000696

**INDIAN RIVER COUNTY
 BOARD OF COUNTY COMMISSIONERS**
 66th AVENUE ROADWAY WIDENING -
 PHASE IB 49th STREET TO 69th STREET

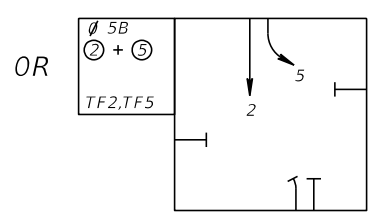
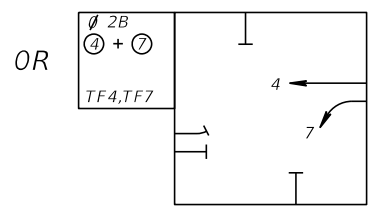
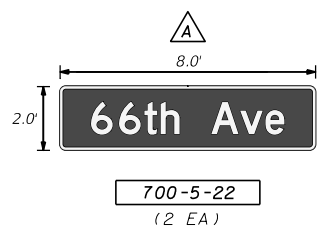
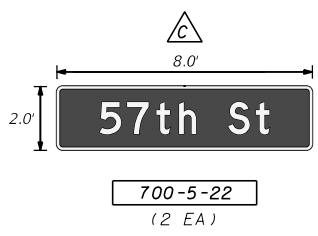
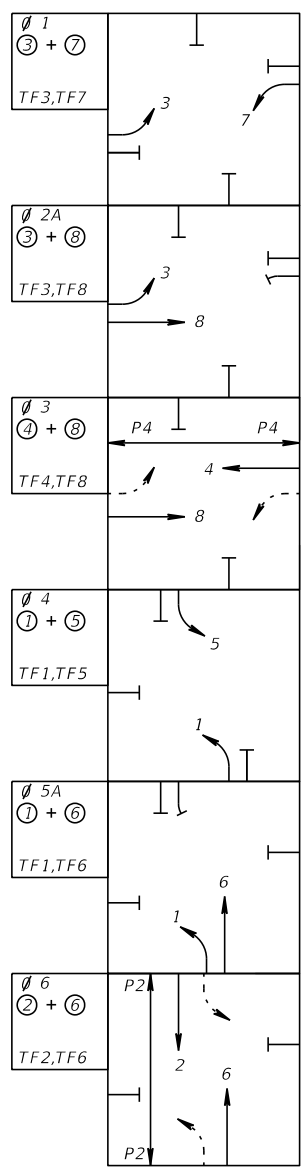
**66th AVENUE & 57th STREET
 SIGNING &
 PAVEMENT MARKING**

SHEET NO.	T-8
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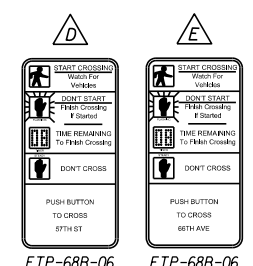
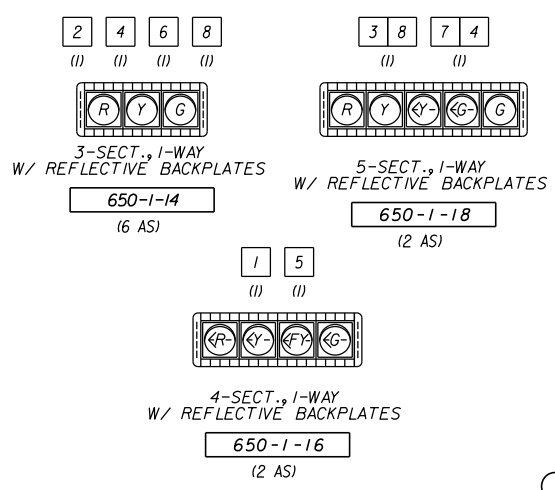
DETECTION CAMERA ASSIGNMENTS				
CAMERA NO.	ZONE NO.	DETECTOR OPERATION	TIMING FUNCTION	DELAY TIME (SEC)
V1	1	NORMAL	-	-
	6	NORMAL	-	-
V2	3	NORMAL	-	-
	8	NORMAL	-	-
V3	5	NORMAL	-	-
	2	NORMAL	-	-
V4	7	NORMAL	-	-
	4	NORMAL	-	-

DETECTION CAMERA ASSIGNMENTS AND DETECTION ZONE AREAS ARE PRELIMINARY AND MAY REQUIRE FIELD ADJUSTMENT BY THE CONTRACTOR DURING INSTALLATION. DELAY TIME IS INITIAL AND MAY REQUIRE FIELD ADJUSTING AS DIRECTED BY PROJECT ENGINEER.

ASSOCIATED PHASE MOVEMENTS



SIGNAL DISPLAY DETAILS



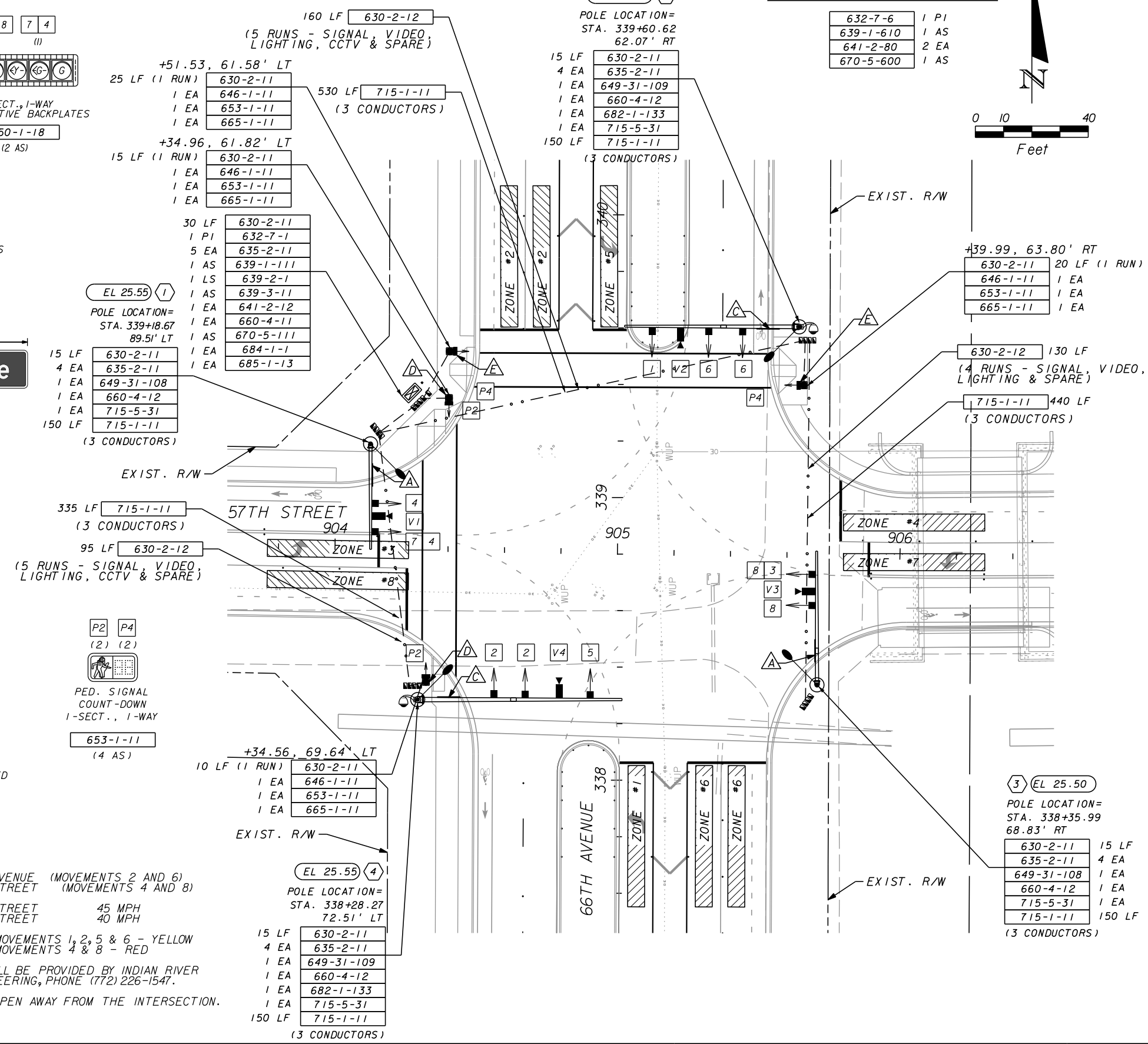
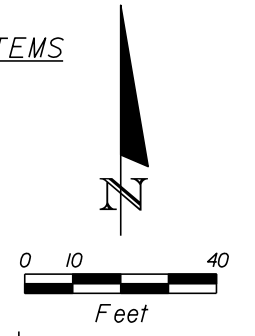
PEDESTRIAN PUSH BUTTON SIGNS FTP-68B-06 INCLUDED IN THE COST OF PAY ITEM 665-1-11.

CONTROLLER OPERATIONS

- MAJOR STREET: 66TH AVENUE (MOVEMENTS 2 AND 6)
MINOR STREET: 57TH STREET (MOVEMENTS 4 AND 8)
- SPEED LIMITS: 66TH STREET 45 MPH
57TH STREET 40 MPH
- FLASHING OPERATION: MOVEMENTS 1, 2, 5 & 6 - YELLOW
MOVEMENTS 4 & 8 - RED
- ALL SIGNAL TIMING SHALL BE PROVIDED BY INDIAN RIVER COUNTY TRAFFIC ENGINEERING, PHONE (772) 226-1547.
- CABINET DOOR SHALL OPEN AWAY FROM THE INTERSECTION.

SIGNAL REMOVAL PAY ITEMS

632-7-6	1 P1
639-1-610	1 AS
641-2-80	2 EA
670-5-600	1 AS



REVISIONS			
DESCRIPTION	DATE	BY	DESCRIPTION

Kimley»Horn
 BRIAN A. GOOD, P.E.
 P.E. LICENSE NUMBER 56939
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 VERO BEACH, FL 32960
 (772) 794-4100
 CERTIFICATE OF AUTHORIZATION# 00000696

INDIAN RIVER COUNTY BOARD OF COUNTY COMMISSIONERS
 66th AVENUE ROADWAY WIDENING - PHASE IB 49th STREET TO 69th STREET

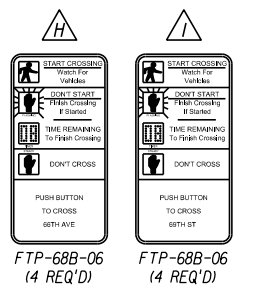
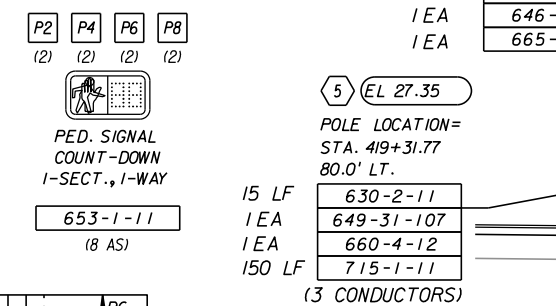
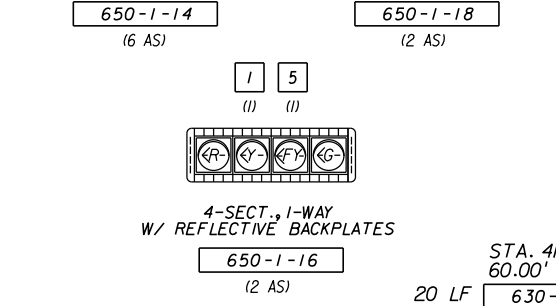
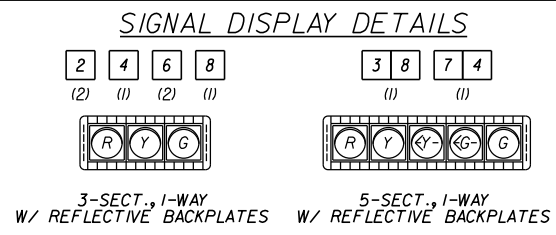
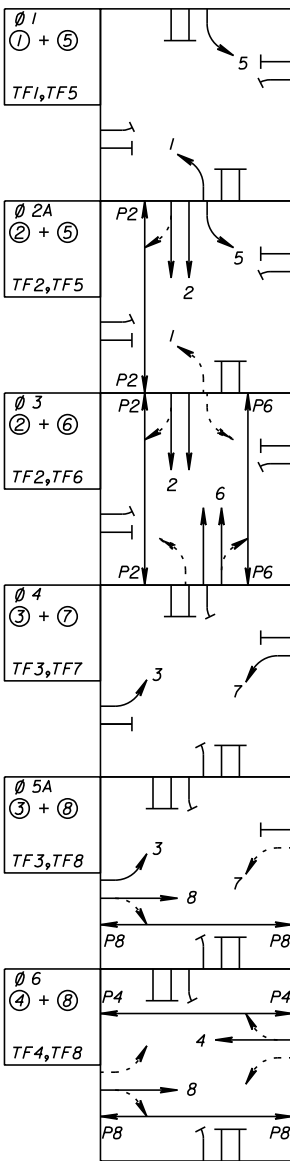
66th AVENUE & 57th STREET SIGNALIZATION PLAN

SHEET NO.	T-9
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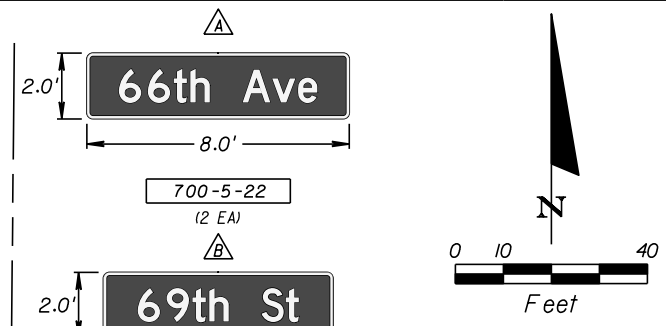
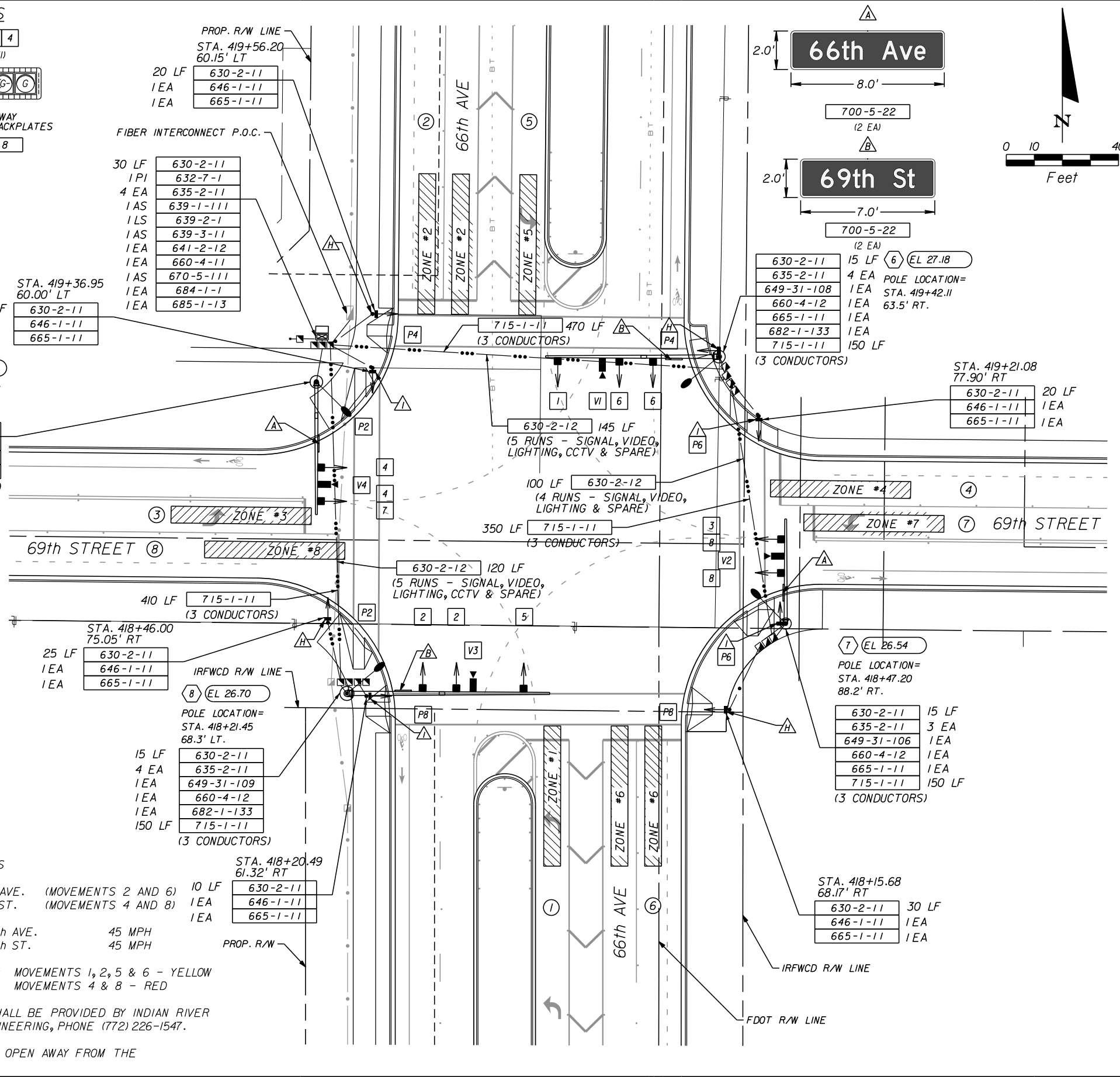
DETECTION CAMERA ASSIGNMENTS				
CAMERA NO.	ZONE NO.	DETECTOR OPERATION	TIMING FUNCTION	DELAY TIME (SEC)
V1	1	NORMAL	1	-
	6	NORMAL	6	-
V2	3	NORMAL	3	-
	8	NORMAL	8	-
V3	5	NORMAL	5	-
	2	NORMAL	2	-
V4	7	NORMAL	7	-
	4	NORMAL	4	-

DETECTION CAMERA ASSIGNMENTS AND DETECTION ZONE AREAS ARE PRELIMINARY AND MAY REQUIRE FIELD ADJUSTMENT BY THE CONTRACTOR DURING INSTALLATION. DELAY TIME IS INITIAL AND MAY REQUIRE FIELD ADJUSTING AS DIRECTED BY PROJECT ENGINEER.

ASSOCIATED PHASE MOVEMENTS



- CONTROLLER OPERATIONS**
- MAJOR STREET: 66th AVE. (MOVEMENTS 2 AND 6)
MINOR STREET: 69th ST. (MOVEMENTS 4 AND 8)
 - SPEED LIMITS: 66th AVE. 45 MPH
69th ST. 45 MPH
 - FLASHING OPERATION: MOVEMENTS 1, 2, 5 & 6 - YELLOW
MOVEMENTS 4 & 8 - RED
 - ALL SIGNAL TIMING SHALL BE PROVIDED BY INDIAN RIVER COUNTY TRAFFIC ENGINEERING, PHONE (772) 226-1547.
 - CABINET DOOR SHALL OPEN AWAY FROM THE INTERSECTION.



REVISIONS			
DESCRIPTION	DATE	BY	DESCRIPTION

Kimley»Horn
 BRIAN A. GOOD, P.E.
 P.E. LICENSE NUMBER 56939
 445 24th STREET, SUITE 200
 VERO BEACH, FL 32960
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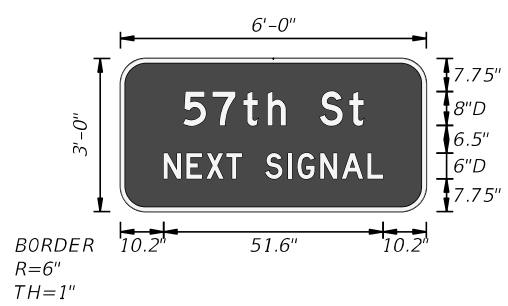
INDIAN RIVER COUNTY BOARD OF COUNTY COMMISSIONERS
66th AVENUE ROADWAY WIDENING - PHASE I 49th STREET TO 69th STREET

66th AVENUE AND 69th STREET SIGNALIZATION PLAN

SHEET NO. T-10

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. I.R.C.O. Proj. No. 1505

SIGN NAME	57ST	QTY	2	SIGN NO.		STATION(S)	
PANEL	BORDER						
WIDTH	6'-0"	WIDTH	1"				
HEIGHT	3'-0"	RADII	6"				
LEGEND	White	COLOR	White				
COLOR	Green						
SYMBOL(S)	ANGLE	X	Y	WID	HT		
SIGN NO.	NO. OF POSTS	EDGE OF LANE CLEARANCE	COLUMN SIZE	AVERAGE LENGTH			



Panel Style: ADVANCE_SIGNAL.ssi
M.U.T.C.D.: 2009 Edition

COPY	5	7	t	h	S	t	L												
SPACE	14.8	21.6	29	34.6	38.9	46.9	53.9	42.5											
COPY	N	E	X	T	S	I	G	N	A	L	L								
SPACE	10.2	15.5	20.2	25	28.6	34.1	39.4	41.7	47	52.1	58.1	51.6							
COPY																			
SPACE																			
COPY																			
SPACE																			
COPY																			
SPACE																			

SIGN NAME		QTY		SIGN NO.		STATION(S)	
PANEL	BORDER						
WIDTH	WIDTH						
HEIGHT	RADII						
LEGEND	COLOR						
COLOR							
SYMBOL(S)	ANGLE	X	Y	WID	HT		
SIGN NO.	NO. OF POSTS	EDGE OF LANE CLEARANCE	COLUMN SIZE	AVERAGE LENGTH			

NO. OF LIGHT FIXTURES	FIXTURE SPACING	PHOTOMETRIC CURVE	WATT	VOLTAGE

COPY																			
SPACE																			
COPY																			
SPACE																			
COPY																			
SPACE																			
COPY																			
SPACE																			
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REVISIONS				
NO.	DESCRIPTION	DATE	BY	DESCRIPTION

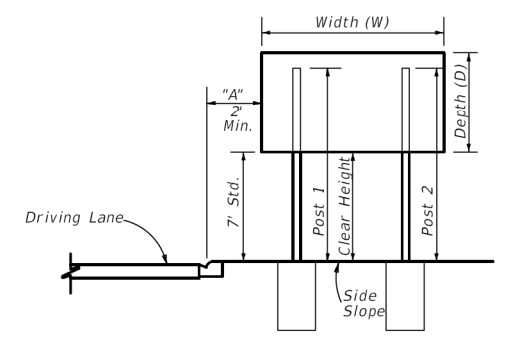
Kimley»Horn
 BRIAN A. GOOD, P.E.
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 445 24th STREET, SUITE 200
 VERO BEACH, FL 32960
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 CERTIFICATE OF AUTHORIZATION# 00000696

CLEARANCE FROM EDGE OF TRAVELED WAY TO EDGE OF SIGN ("A"XFT) (MIN.)	STATION OR M.P.	SIGN NO.	SIGN SIZE (W x D) (FT)	SIDE SLOPE (RISE : RUN)	CLEAR HEIGHT (FT)	NO. OF POSTS	AVERAGE LENGTH OF POSTS (FT)	STEEL POSTS	ALUMINUM BEAMS	AVERAGE LENGTH OF POSTS AND FOOTING (FT)	U-CHANNEL POSTS	SQUARE STEEL TUBES
2' - 0"	413+00	D3-2-M1	6' - 0" X 3' - 0"	FLAT	7'	2	9.66'	W 6X12	-	-	-	-
2' - 0"	424+75	D3-2-M2	6' - 0" X 3' - 0"	FLAT	7'	2	9.66'	W 6X12	-	-	-	-

* FOUNDATION DEPTH SHALL BE 6'-6"

NOTES:

- FOR ADDITIONAL DETAILS AND NOTES SEE STANDARD INDEX NO. 11200 AND 17302.
- CLEAR HEIGHT IS THE DISTANCE BETWEEN THE BOTTOM OF THE MAIN SIGN PANEL AND THE GROUND AT THE CENTER OF THE MAIN SIGN PANEL.
- IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY THE LENGTH OF THE SIGN SUPPORTS IN THE FIELD PRIOR TO FABRICATION.
- AVERAGE LENGTH OF POSTS COLUMN IS APPLICABLE TO STEEL POST AND ALUMINUM BEAMS.
- AT LOCATIONS WHERE MULTI-POST SIGNS ARE BEING INSTALLED OVER PROPOSED DRAINAGE PIPES THE CONTRACTOR SHALL PLACE THE ASSEMBLY POST EITHER SIDE OF THE PIPE SO THAT THE SIGN STRADDLES THE PIPE. THE CONTRACTOR SHALL EXERCISE CAUTION IN THESE SITUATIONS IN ORDER TO AVOID DAMAGING THE PROPOSED PIPE.



TYPICAL SECTIONS FOR PLACEMENT OF MULTI-COLUMN SIGNS N.T.S.

INDIAN RIVER COUNTY BOARD OF COUNTY COMMISSIONERS
 66th AVENUE ROADWAY WIDENING - PHASE IB 49th STREET TO 69th STREET

GUIDE SIGN WORK SHEET
 SHEET NO. T-14