

**PALM BEACH COUNTY
BOARD OF COUNTY COMMISSIONERS
AGENDA ITEM SUMMARY**

Meeting Date:	November 19, 2024	<input checked="" type="checkbox"/> Consent	<input type="checkbox"/> Regular
		<input type="checkbox"/> Ordinance	<input type="checkbox"/> Public Hearing
Department:	Engineering & Public Works		
Submitted By:	Engineering & Public Works		
Submitted For:	Traffic Division		

I. EXECUTIVE BRIEF

Motion and Title: Staff recommends motion to approve: Work Order G-22 in the amount of \$591,180.60 to the annual traffic signal contract dated August 23, 2022 (R2022-0791), as amended on August 20, 2024 (R2024-0882) with Gerelco Traffic Controls, Inc. (Gerelco) to upgrade the traffic signal from span wire to mast arm at the intersection of Summit Boulevard and Haverhill Road, Palm Beach County (County) Intersection ID Number 32049 (Project).

SUMMARY: Approval of this Work Order will allow Gerelco to construct the Project. Per County PPM CW-F-050, this Work Order exceeds the threshold relating to staff approvals of Work Orders to annual contracts, thus requiring approval from the Board of County Commissioners (BCC). Prior to and including this Work Order, \$4,702,392 of Gerelco's \$10,000,000 not to exceed contract amount has been spent or encumbered. On January 20, 2022, the Office of Equal Business Opportunity granted a waiver of the Affirmative Procurement Initiative (API) based upon the determination that sufficient qualified Small/Minority/Women Business Enterprises (S/M/WBE) providing the goods or services required by the contract are unavailable in the County to perform the specialized construction of traffic signals. On August 20, 2024, the BCC approved the first amendment to the contract, increasing the contract amount to \$10,000,000 from \$5,000,000 for Gerelco to provide for and install various signal components for traffic control devices. Gerelco has an office located in the County. District 3 (YBH)

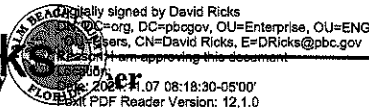
Background and Justification: The County requests Gerelco construct the Project in accordance with the Work Order. The construction cost is not to exceed \$591,180.60, including a contingency of \$98,530.10. The Engineering and Public Works Department recommends BCC approval.

Attachments:

1. Location Map
2. Work Order with Exhibit A
3. Office of Equal Business Opportunity Waiver

Recommended By:
YBH/TEL

David Ricks
County Engineer



Date

Approved By:

Deputy County Administrator

11/12/24

Date

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years	2025	2026	2027	2028	2029
Capital Expenditures	\$ 591,181	-0-	-0-	-0-	-0-
Operating Costs	-0-	-0-	-0-	-0-	-0-
External Revenues	-0-	-0-	-0-	-0-	-0-
Program Income (County)	-0-	-0-	-0-	-0-	-0-
In-Kind Match (County)	-0-	-0-	-0-	-0-	-0-
NET FISCAL IMPACT	\$ 591,181	-0-	-0-	-0-	-0-
# ADDITIONAL FTE POSITIONS (Cumulative)	-0-	-0-	-0-	-0-	-0-

Is Item Included in Current Budget?

Yes ☒ No ☐

Is this item using Federal Funds?

Yes ☐ No ☒

Is this item using State Funds?

Yes ☐ No ☒

Budget Account No:

Fund 3950 Dept 361 Unit 1713 Object 6555

Recommended Sources of Funds/Summary of Fiscal Impact:

Local Government One-Cent Infrastructure Surtax /
Summit Blvd.& Haverhill Road

Construction Contract	\$492,650.50
Contingency	\$ 98,530.10
Fiscal Impact	\$591,180.60

C. Departmental Fiscal Review: Danny Ramlehigh

III. REVIEW COMMENTS

A. OFMB Fiscal and/or Contract Dev. and Control Comments:

AK/DAK 10/21/24
KK 10/17 OFMB QA 10/18
DA 10/21

Brande Mackle
Contract Dev. and Control
MWS. 10/31/24 11/7/24

B. Approved as to Form
and Legal Sufficiency:

[Signature] 11/7/24
Assistant County Attorney

C. Other Department Review:

Department Director

This summary is not to be used as a basis for payment.



Location Map

WORK ORDER TO THE ANNUAL TRAFFIC SIGNAL CONTRACT (R2022-0791) BETWEEN PALM BEACH COUNTY AND GERELCO TRAFFIC CONTROLS, INC. TO CONSTRUCT A MAST ARM TRAFFIC SIGNAL AT THE INTERSECTION OF SUMMIT BLVD & HAVERHILL RD, PALM BEACH COUNTY INTERSECTION ID NUMBER 32049, SIGNAL PROJECT NUMBER 2022-820, PALM BEACH COUNTY, FLORIDA.

THIS WORK ORDER TO THE ANNUAL TRAFFIC SIGNAL CONTRACT DATED AUGUST 23, 2022 (R2022-0791), is made and entered into this ____ day of _____, 2024, by and between Palm Beach County, a political subdivision of the State of Florida, by and through its Board of County Commissioners (COUNTY), and GERELCO TRAFFIC CONTROLS, INC., a Florida corporation with an address of 560 NW Enterprise Drive, Port Saint Lucie, FL 34986 (CONTRACTOR).

WITNESSETH

WHEREAS, on August 23, 2022, COUNTY and CONTRACTOR entered into an Annual Contract (R2022-0791) (CONTRACT) to provide for the furnishing and installation of various signal components for traffic control devices on a work order basis; and

WHEREAS, the CONTRACT was amended on August 20, 2024 (R2024-0882) to increase the CONTRACT amount by \$5,000,000 to \$10,000,000; and

WHEREAS, COUNTY desires CONTRACTOR to construct a mast arm traffic signal at the intersection of Summit Blvd and Haverhill Rd, Palm Beach County Intersection ID Number 32049, (PROJECT); and

WHEREAS, CONTRACTOR agrees to construct the PROJECT in accordance with the terms and conditions of the CONTRACT, as directed and accepted by the COUNTY; and

WHEREAS, pursuant to the CONTRACT, a cost not to exceed \$591,180.60 has been calculated by COUNTY and found to be appropriate compensation for the services to be performed by CONTRACTOR to construct the PROJECT.

NOW, THEREFORE, THIS INDENTURE WITNESSETH: That for and in consideration of the mutual benefits to flow from each to the other, the parties hereto agree as follows:

1. The above recitals are true and correct and incorporated herein.
2. **CONTRACTOR** agrees to provide services for the **PROJECT** in accordance with the **CONTRACT** and as further described in **Exhibit A and B**.
3. **COUNTY** agrees to pay the **CONTRACTOR** a fee not to exceed \$591,180.60 to construct the **PROJECT**. Final payment shall be per documented quantities installed.

IN WITNESS WHEREOF, the Board of County Commissioners of Palm Beach County, Florida, has made and executed this Work Order for the **PROJECT**, pursuant to the **CONTRACT**, as amended, on behalf of the **COUNTY**, and **CONTRACTOR** has hereunto set its hand the day and year above written.

OWNER:

Palm Beach County, a political subdivision of the State of Florida by and through its Board of County Commissioners

BY: _____
Mayor

ATTEST:
Joseph Abruzzo
Clerk of the Circuit Court & Comptroller

BY: _____
Deputy Clerk

COUNTY SEAL

APPROVED AS TO TERMS AND
CONDITIONS

BY: _____
Motasem Al-Turk
Traffic Division, Director

APPROVED AS TO FORM & LEGAL
SUFFICIENCY:

BY: _____
Yelizaveta Herman
Assistant County Attorney

CONTRACTOR:

Gerelco Traffic Controls, Inc., a Florida Corporation

BY: _____
Jake Ridinger
Vice President

CORPORATE SEAL

WITNESS:

BY: _____

(Printed Name)

BY: _____

(Printed Name)

PALM BEACH COUNTY ENGINEERING & PUBLIC WORKS
TRAFFIC DIVISION WORK ORDER / ANNUAL CONTRACT R2022-0791

PROJECT NAME: Summit Blvd and Haverhill Rd
(PBC Intersection 32049)

BUDGET LINE ITEM:

KDO NUMBER: EN090424*287

PBC ENGINEERING ANNUAL SIGNAL CONTRACT NUMBER: 2022-052

PBC ENGINEERING PROJECT NUMBER: N/A

PBC TRAFFIC DIVISION SIGNAL PROJECT NUMBER: 2022-820

WORK ORDER NUMBER: G-22

DATE: _____ COMMISSION DISTRICT: 3

TO: Kenneth A. Geremia, Jr., Gerelco Traffic Controls, Inc.

In accordance with the terms of your contract dated August 23, 2022, you are directed to provide the following supplies and services: Provide for the furnishing and installation of a mast arm traffic signal as shown on the Signal Plan sheets, and Bidtab dated 11/30/2023.

The above work shall be performed at: Summit Blvd and Haverhill Rd (PBC Intersection 32049).

STARTING: The contract duration for this work is 210 days. A separate Notice to Proceed ("NTP") letter will be issued directing the contractor to commence work within the time specified in the NTP letter. The total amount of this Work Order, at the contract prices, is estimated to be \$591,180.60, which includes \$98,530.10 contingency (see attached Bidtab for quantities).
The Office of Equal Business Opportunity waived the API Requirements (see attached.)

This work shall be coordinated by, (48 hours prior notice to commencement of work):

<u>Fattoush Jafar, P.E., Ph.D.</u>	<u>Traffic Engineering & Operations Manager</u>	<u>(561) 684-4030</u>
Name	Title	Telephone

Please indicate your receipt of this Work Order by signing and returning a duplicate copy.

_____ Name	_____ Title	_____ Telephone
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Please sign below and submit with invoice at the completion of the project.
Project completed in compliance with Contract and Project specifications.

_____ Signature	_____ Title	_____ Telephone
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COUNTY OF PALM BEACH
STATE OF FLORIDA

SIGNALIZATION PLANS
**SUMMIT BOULEVARD
AT HAVERHILL ROAD**
P.B.C. PROJECT #2022820
P.B.C. INTERSECTION #32049

90% PLANS

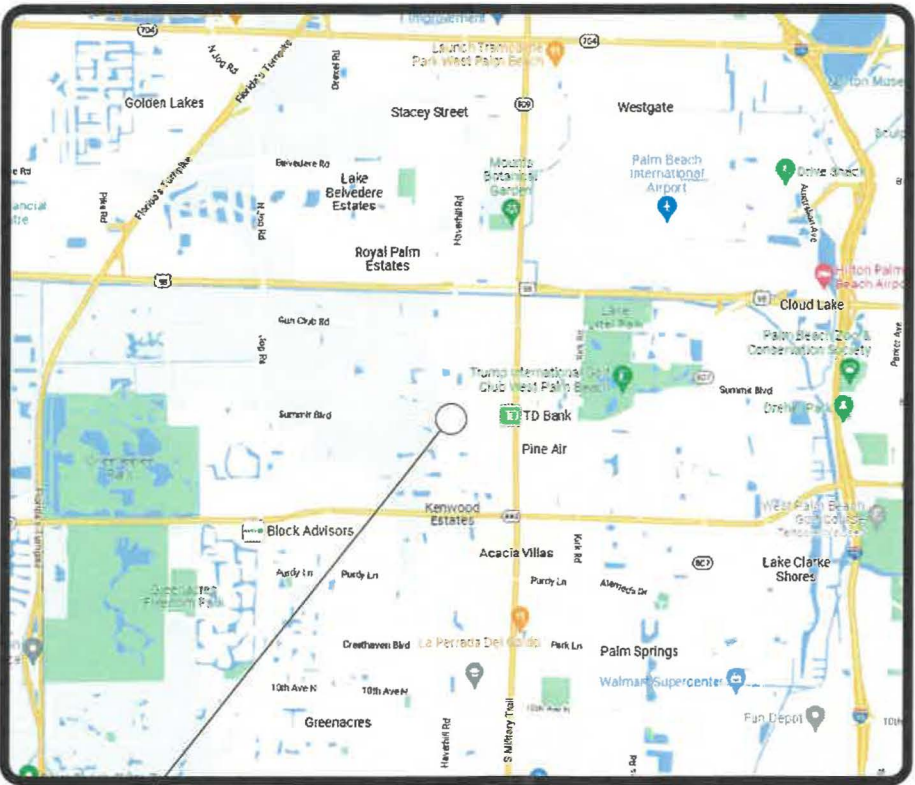
INDEX OF SHEETS	
SHEET No.	DESCRIPTION

T-1	KEY SHEET
T-2	TABULATION OF QUANTITIES
T-3	GENERAL NOTES
T-4 & T-5	SIGNALIZATION PLANS
T-6	MAST ARM TABULATION
T-7	MAST ARM ASSEMBLIES
T-8	SIGNAL DETAILS

STANDARDS AND SPECIFICATIONS:
FLORIDA DEPARTMENT OF TRANSPORTATION, STANDARD PLANS
LATEST EDITION AND STANDARD SPECIFICATIONS FOR ROAD
AND BRIDGE CONSTRUCTION LATEST EDITION, FEBRUARY 2021
PALM BEACH COUNTY TYPICALS FOR PAVEMENT MARKINGS,
SIGNING, AND GEOMETRICS, 2022 PALM BEACH COUNTY
TRAFFIC SIGNAL INSTALLATION STANDARDS AND DETAILS, AS
AMENDED BY CONTRACT DOCUMENTS.

MAINTENANCE OF TRAFFIC:
FOR INDEX #'S USE F.D.O.T. STANDARD PLANS
102-600, 601, 602, 603, 604, 613, 615, 660 & 661

APPLICABLE DESIGN STANDARDS REVISIONS:
For Design Standards Modifications click on
"Design Standards" at the following web site:
<https://www.fdot.gov/design/standardplans/current>



PROJECT LOCATION
LOCATION MAP
NOT TO SCALE

SEC. 01, TWP. 44S., RGE. 42E.
SEC. 02, TWP. 44S., RGE. 42E.
SEC. 11, TWP. 44S., RGE. 42E.
SEC. 12, TWP. 44S., RGE. 42E.

SUMMIT BOULEVARD = 45 M.P.H. SPEED LIMIT
HAVERHILL ROAD = 40 M.P.H. SPEED LIMIT

SIGNALIZATION SHOP DRAWINGS
TO BE SUBMITTED BY EMAIL TO:
TRICIA@SIMMONSANDWHITE.COM

PLANS PREPARED BY:
SIMMONS & WHITE, INC.
2581 METROCENTRE BLVD WEST, SUITE 3
WEST PALM BEACH, FL 33407

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

ENGINEER'S CERTIFICATION

I HEREBY CERTIFY THAT THE ATTACHED PLANS AND DESIGN ARE
IN SUBSTANTIAL COMPLIANCE WITH THE DESIGN STANDARDS AND
CRITERIA IN EFFECT ON THIS DATE FOR PALM BEACH COUNTY
ENGINEERING DEPARTMENT AND THE STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION.

DATE: _____ PROFESSIONAL ENGINEER #56925

PATRICIA BARR, P.E.

PATRICIA MARIE BARR, P.E., STATE OF FLORIDA,
PROFESSIONAL ENGINEER, LICENSE NO. 56925

THIS ITEM HAS BEEN DIGITALLY SIGNED AND
SEALED BY PATRICIA MARIE BARR, P.E.
ON 10/4/2023.

PRINTED COPIES OF THIS DOCUMENT ARE NOT
CONSIDERED SIGNED AND SEALED AND THE
SIGNATURE MUST BE VERIFIED ON ANY
ELECTRONIC COPIES.

Digitally signed
by Patricia Barr
Date:
2023.10.04
10:21:40 -04'00'



SIMMONS & WHITE
ENGINEERING | PLANNING | CONSULTING | SINCE 1982
2581 Metrocentre Blvd West • Suite 3 • West Palm Beach, Florida 33407 • (561) 478-7848

DESIGN T.B.	DRAWN C.O.	CHECKED A.L.	APPROVED R.R.	DATE
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**SUMMIT BOULEVARD
AT HAVERHILL ROAD**
P.B.C. PROJECT #2022820
P.B.C. INTERSECTION #32049
KEY SHEET

JOB NO. 22-046	DRAWING NO. 22046T01	SHEET T-1	OF T-8
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	TABULATION OF QUANTITIES							TOTAL THIS SHEET		GRAND TOTAL		REF. SHEET
FDOT PAY ITEM NO.	PBC PAY ITEM NO.	DESCRIPTION	UNIT	T-4		T-5						
				PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	
101-1	101-1	MOBILIZATION/DEMOBILIZATION	LS					1		1		
102-1	102-1-A	MOT	LS					1		1		
110-1-1	110-1-1	CLEARING AND GRUBBING	LS					1		1		
630-2-11	630-2-11-2	2" PVC (SCH 40) UNDERGROUND CONDUIT (F & I)	LF	310				310		310		
630-2-12	630-2-12-2-1	1-2" (HDPE SDR 11) UNDER PAVEMENT CONDUIT (DIRECTIONAL BORE) (F &I)	LF	225				225		225		
630-2-12A	630-2-12-2-2	2-2" (HDPE SDR 11) UNDER PAVEMENT CONDUIT (DIRECTIONAL BORE) (F &I)	LF	220				220		220		
630-2-12B	630-2-12-2-3	3-2" (HDPE SDR 11) UNDER PAVEMENT CONDUIT (DIRECTIONAL BORE) (F &I)	LF	740				740		740		
630-2-12D	630-2-12-2-5	5-2" (HDPE SDR 11) UNDER PAVEMENT CONDUIT (DIRECTIONAL BORE) (F &I)	LF	145				145		145		
630-2-14	630-2-14-1	1" RIGID CONDUIT HOT DIPPED GALVANIZED CONDUIT SURFACE MOUNTED (F & I)	LF	50				50		50		
632-7-1	632-7-1-19G	SIGNAL CABLE (SPAN LENGTH 751' - GREATER)	PI	1				1		1		
632-7-1A	632-7-1-4A	PEDESTRIAN SIGNAL CABLE - 4 CONDUCTOR (F & I)	PI	1				1		1		
632-7-1A	632-7-1-7A	PEDESTRIAN SIGNAL CABLE - 7 CONDUCTOR (F & I)	PI	1				1		1		
635-2-14	635-2-12-A	PULL BOX (17" x 30" x 12"D) HEAVY DUTY COVERS (TIER 22) (F&I)	EA	25				25		25		
635-2-14	635-2-12-D	PULL BOX (17" x 30" x 24"D) HEAVY DUTY SPLIT COVERS (ITS) (TIER 22) (F &I)	EA	2				2		2		
639-1-121	639-1-121	ELECTRICAL POWER SERVICE WITH METER BASE (UNDERGROUND) METER FURNISHED BY POWER COMPANY	AS	1				1		1		
639-2-1	639-2-1-3	ELECTRICAL SERVICE WIRE (SINGLE PHASE 3-WIRE, TRIPLEX) (F & I)	LF	225				225		225		
639-3-11	639-3-11	ELECTRICAL SERVICE DISCONNECT (BREAKER BOX, SHEET T 6.2 OF PBC STANDARDS) (F & I)	EA	1				1		1		
641-2-12	641-2-12-16	PRESTRESSED CONCRETE POLE (16' TYPE P-II) (F & I)	EA	1				1		1		
641-2-80	641-2-80	CONCRETE POLE REMOVAL - DEEP (INCLUDES POLE AND COMPLETE REMOVAL OF THE POLE FOUNDATION DEPTH OF UP TO 25 FEET)	EA	4				4		4		
646-1-11	646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL WITH TRANSFORMER BASE (8 FEET ABOVE GROUND) (F & I)	EA	4				4		4		
	649-2-18-50	DRILLED SHAFT FOUNDATION ASSEMBLY, 18' DEEP AND 5.0' DIAMETER, FURNISH AND INSTALL (DS/18/5.0)	EA	2				2		2		
	649-2-20-50	DRILLED SHAFT FOUNDATION ASSEMBLY, 20' DEEP AND 5.0' DIAMETER, FURNISH AND INSTALL (DS/20/5.0)	EA	2				2		2		
649-21-10	649-22-10L	MAST ARM ASSEMBLY WITH STREET LIGHT, FURNISH AND INSTALL ON EXISTING FOUNDATION, SINGLE ARM 60' (A60/S-P4/S/L)	EA	1				1		1		
649-21-15	649-22-15L	MAST ARM ASSEMBLY WITH STREET LIGHT, FURNISH AND INSTALL ON EXISTING FOUNDATION, SINGLE ARM 70' (A70/S-P5/S/L)	EA	2				2		2		
649-21-21	649-22-21L	MAST ARM ASSEMBLY WITH STREET LIGHT, FURNISH AND INSTALL ON EXISTING FOUNDATION, SINGLE ARM 78' (A78/S-P6/S/L)	EA	1				1		1		
650-1-14	650-1-13	TRAFFIC SIGNAL HEAD ALUMINUM (3-SECTION, 1-WAY) INCLUDES BACKPLATES (F & I)	AS			10		10		10		
650-1-16	650-1-14	TRAFFIC SIGNAL HEAD ALUMINUM (4-SECTION, 1-WAY) INCLUDES BACKPLATES (F & I)	AS			2		2		2		
650-1-19	650-1-15	TRAFFIC SIGNAL HEAD ALUMINUM (5-SECTION, 1-WAY) INCLUDES BACKPLATES (F & I)	AS			2		2		2		
653-1-12	653-192	PEDESTRIAN SIGNAL - COUNT DOWN (2-WAY) ALUMINUM (F & I)	AS			4		4		4		
660-2-106	660-2-106-B	LOOP ASSEMBLY (TYPE F 46') (F & I)	EA	16				16		16		
665-1-11	665-1-11	PEDESTRIAN DETECTOR (PUSH BUTTON) (F & I)	EA	8				8		8		
670-5-110	670-5-110-B	TRAFFIC CONTROLLER ASSEMBLY (TYPE 6) AS PER NAZTEC (F & I)	AS	1				1		1		
646-1-60	690-31-1	SIGNAL PEDESTAL, REMOVE	EA	1				1		1		
670-5-600	690-50-0	REMOVE CONTROLLER ASSEMBLY COMPLETE WITH FOUNDATION - INCLUDES DELIVERY OF REMOVED CONTROLLER EQUIPMENT	EA	1				1		1		
700-1-11	700-1-11	SINGLE POST SIGN (F & I) (GROUND) (≤ 12 SF)	AS									
700-1-60	700-1-60	SINGLE POST SIGN (REMOVE)	AS									
700-3-201	700-3-201	SIGN PANEL (F & I) (OVERHEAD) (≤ 12 SF)	EA			3		3		3		
700-5-22	700-5-22	INTERNALLY ILLUMINATED SIGN (8') FLUORESCENT (F & I)	EA			4		4		4		
715-5-31	715-5-11	LUMINAIRE & BRACKET ARM (F & I)	EA	4				4		4		


PAY ITEM NOTES:

- 102-1
- INCLUDES COST OF REMOVING ALL CONFLICTING PAVEMENT MARKINGS.
- 630-2-12-2-1
- CONSISTS OF THE COST ASSOCIATED WITH FURNISHING AND INSTALLING 1-2" CONDUITS (HDPE SDR 11) UNDERPAVEMENT BY DIRECTIONAL BORE.
- 630-2-12-2-2
- CONSISTS OF THE COST ASSOCIATED WITH FURNISHING AND INSTALLING 2-2" CONDUITS (HDPE SDR 11) UNDERPAVEMENT BY DIRECTIONAL BORE.
- 630-2-12-2-3
- CONSISTS OF THE COST ASSOCIATED WITH FURNISHING AND INSTALLING 3-2" CONDUITS (HDPE SDR 11) UNDERPAVEMENT BY DIRECTIONAL BORE.
- 630-2-12-2-5
- CONSISTS OF THE COST ASSOCIATED WITH FURNISHING AND INSTALLING 5-2" CONDUITS (HDPE SDR 11) UNDERPAVEMENT BY DIRECTIONAL BORE.
- 635-2-12-A
- TYPICAL SIGNAL PULL BOXES SHALL BE 17" X 30" X12" IN DIMENSION AND HEAVY DUTY TIER 22 OR HIGHER. LIDS TO BE MARKED "PBC TRAFFIC".
- 635-2-12-D
- TYPICAL ITS PULL BOXES SHALL BE 17" X 30" X 24" (SMALL) AND HEAVY DUTY TIER 22 OR HIGHER. LIDS TO BE MARKED "PBC TRAFFIC ITS".
- 649-XX-XXX
649-X-XX-XX
- AT THE DISCRETION OF THE ENGINEER OF RECORD AND WITH MUTUAL AGREEMENT OF PBC TRAFFIC ENGINEERING, FINAL LOCATIONS OF THE MAST ARMS MAY BE ADJUSTED IN THE FIELD IF THERE IS ANY CONFLICT WITH UTILITIES. SIGNAL CONTRACTOR SHALL VERIFY THE PROPOSED FOUNDATION ELEVATIONS.
- 650-1-XX
- TRAFFIC SIGNAL HEADS ARE TO BE CAST ALUMINUM. LED MODULES SHALL BE INSTALLED ON ALL SIGNAL DISPLAYS, INCLUDING ARROWS. THESE MODULES SHALL INCLUDE A MANUFACTURER'S WARRANTY OF AT LEAST FIVE YEARS. THE MAXIMUM POWER RATING SHALL BE 10 WATTS FOR RED BALLS, 14 WATTS FOR GREEN BALLS AND 7 WATTS FOR THE ARROWS. ALL SIGNAL HEADS SHALL HAVE TUNNEL VISORS AND BACK PLATES.
- 660-2-106-B
- TYPICAL LOOP SIZE IS 46' LONG.
- 665-1-XX
- ALL PEDESTRIAN PUSH BUTTONS SHALL BE ADA COMPLIANT. PBC PREFERS THE POLARA ENGINEERING INC BDL3 BULLDOG III SERIES PUSH BUTTON (APL 665-003-011) WITH COUNTY LOGO. CONTACT MANUFACTURER FOR THE CUSTOM ETCHED LOGO AND REFER TO BDL3-B-GE. COSTS OF PEDESTRIAN SIGN FTP-68B-06 SHALL BE INCLUDED IN UNIT PRICE FOR PEDESTRIAN DETECTORS.
- 700-5-XX
- INTERNALLY ILLUMINATED STREET NAME SIGNS SHALL BE DOUBLE SIDED AND FREE SWINGING MOUNTED EXCEPT WHERE NOTED. CONTRACTOR SHALL INSTALL ONE PHOTOCCELL PER INTERNALLY ILLUMINATED STREET NAME SIGN. PER THE F.D.O.T. PAY ITEM DETAIL, ALL MOUNTING HARDWARE IS INCLUDED IN THE SIGN PAY ITEM. PER MUTCD, USE CORRECT GREEN TRANSLUCENT FILM FOR SIGN PANEL.
- 715-5-XX
- LUMINAIRE SHALL BE AUTOBAHN SERIES ATB2 LED (ATB2- P601, R4, 4K, 175 INPUT WATTS WITH 24,770 LUMEN FIXTURE) AND EACH FIXTURE SHALL BE PROVIDED WITH PHOTOELECTRIC CELL. A SEPARATE CIRCUIT/BREAKER SHALL BE PROVIDED IN SIGNAL DISCONNECT FOR MAST ARMS WITH LUMINAIRES, COST OF WHICH IS INCLUDED UNDER THE PAY ITEM.

PATRICIA MARIE BARR, P.E., STATE OF FLORIDA,
PROFESSIONAL ENGINEER, LICENSE NO. 56925

THIS ITEM HAS BEEN DIGITALLY SIGNED AND
SEALED BY PATRICIA MARIE BARR, P.E.
ON 10/4/2023.

PRINTED COPIES OF THIS DOCUMENT ARE NOT
CONSIDERED SIGNED AND SEALED AND THE
SIGNATURE MUST BE VERIFIED ON ANY
ELECTRONIC COPIES.



SIMMONS & WHITE
ENGINEERING | PLANNING | CONSULTING | SINCE 1982
2581 Metracentre Blvd West • Suite 3 • West Palm Beach, Florida 33407 • (561) 478-7848

DESIGN T.B.	DRAWN C.O.	CHECKED A.L.	APPROVED R.R.	DATE
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**SUMMIT BOULEVARD
AT HAVERHILL ROAD**
P.B.C. PROJECT #2022820
P.B.C. INTERSECTION #32049
TABULATION OF QUANTITIES

JOB NO. 22-046	DRAWING NO. 22046T02	SHEET T-2 OF T-8
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SIGNALIZATION GENERAL NOTES

1.) SIGN ASSEMBLY LOCATIONS SHOWN ON PLANS WHICH ARE IN CONFLICT WITH LIGHTING, UTILITIES, DRIVEWAYS, WHEELCHAIR RAMPS, ETC, MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS (U.S. DEPARTMENT OF TRANSPORTATION, FHWA). WARNING SIGN LOCATION CHANGES MUST BE APPROVED BY THE DISTRICT TRAFFIC PLANS AND STANDARDS ENGINEER.

2.) CONTRACTOR SHOULD REVIEW AND ADHERE TO THE PALM BEACH COUNTY TRAFFIC SIGNAL INSTALLATION STANDARDS AND DETAILS 2022 (OR LATEST REVISED EDITION), AND CURRENT FDOT ROADWAY DESIGN STANDARDS (LATEST EDITION).

3.) THE CONTRACTOR SHALL REFURBISH EXISTING PAVEMENT MARKINGS DAMAGED DURING CONSTRUCTION.

4.) PRIOR TO EQUIPMENT ORDER, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL TO THE EOR AND PALM BEACH COUNTY TRAFFIC DIVISION EQUIPMENT SPECIFICATIONS OR DESIGN DATA FOR ALL MATERIAL PROPOSED FOR THE PROJECT. THIS SHALL INCLUDE, BUT IS NOT LIMITED TO:

I. NON-STRUCTURAL SUBMITTALS

ALL GUIDE SIGN LEGENDS (IF DIFFERENT FROM DETAILED)

CONTROLLER CABINET AND ASSEMBLY

VIDEO DETECTION SYSTEM.

II. STRUCTURAL SUBMITTALS

SIGN STRUCTURES, INCLUDING CANTILEVER TRUSSES AND FOUNDATIONS

MAST ARM, POLE AND FOUNDATIONS

MAST ARM POLES WITH LUMINAIRE ATTACHMENTS SHALL BE PROVIDED WITH SHOP DRAWINGS AND CALCULATIONS.

5.) SHOP DRAWINGS AND DESIGN DATA SHALL BE SUBMITTED ELECTRONICALLY TO THE ENGINEER OF RECORD WITH A COPY SENT TO PALM BEACH COUNTY TRAFFIC DIVISION AT ENG-TRAFF-INSPECTION@PBCGOV.ORG. ALLOW 30 DAYS TURN AROUND FOR SUBMITTALS. ALL SUBMITTALS SHOULD BE SUBMITTED TO: TRICIA@SIMMONSANDWHITE.COM
TEL: (561) 478-7848

6.) THE CONTRACTOR SHALL CONTACT PALM BEACH COUNTY TRAFFIC OPERATIONS AT 561 233-3900 FORTY-EIGHT (48) HOURS PRIOR TO CONSTRUCTION IF WORK IS BEING DONE WITHIN 10 FEET OF ANY SIGNAL EQUIPMENT OR IN ADVANCE OF ANY SIGNAL RELATED INSTALLATION WORK.

7.) ALL SIGNS AND OTHER TRAFFIC CONTROL DEVICES, EXCEPT EQUIPMENT SHOWN OR NOTED ON THE PLAN SHEETS FOR REMOVAL BY OTHERS, SHALL BE REMOVED BY THE CONTRACTOR AND STOCKPILED WITHIN THE RIGHT OF WAY ONLY AFTER 48 HOUR NOTICE TO THE MAINTAINING AGENCY. CONTROL DEVICES SHALL THEN BE REMOVED BY OTHERS FOR DELIVERY TO THE NOTIFIED AGENCY.

8.) ALL REMOVED ITEMS TO BE DELIVERED TO PBCTED AT 2555 VISTA PARKWAY WEST PALM BEACH FL - CALL 48 HOURS PRIOR TO DELIVERY (561) 233-3900. CONCRETE POLES CAN BE DISCARDED/PROPERLY DISPOSED OF.

9.) THE APPROPRIATE UTILITY COMPANIES SHALL BE NOTIFIED BY THE CONTRACTOR TWO (2) BUSINESS DAYS IN ADVANCE OF ANY EXCAVATION INVOLVING ITS UTILITIES SO THAT A COMPANY REPRESENTATIVE CAN BE PRESENT.

UTILITY OWNER:

SUNSHINE STATE ONE CALL AT&T COMCAST CROWN CASTLE FLORIDA POWER & LIGHT MCI PALM BEACH COUNTY TRAFFIC ITS PALM BEACH COUNTY TRAFFIC OPERATIONS PALM BEACH COUNTY WATER UTILITIES

TELEPHONE NUMBERS:

811 G27896@ATT.COM 954-789-9762 888-632-0931 X2 WEST-PALM-SERVICE-PLANNING-WBO@FPL.COM 800-624-9675 X2 561-681-4365 561-233-3900 561-493-6116

CONTACT PERSON:

MICHAEL CONNELL FIBERDIG TEAM ASG INVESTIGATIONS DANIEL RODRIGUEZ SUPERINTENDENT JACKIE MICHELS

10.) DURING DEEP REMOVAL OF MAST ARM FOUNDATION (AND ANY OTHER POLE REMOVAL), IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE ANY OTHER FOUNDATION OR STRUCTURE IN THE CLOSE PROXIMITY OF THE FOUNDATION BEING REMOVED. IF THE CONTRACTOR DETERMINES ANY STRUCTURE OR FOUNDATION IN CLOSE PROXIMITY OF FOUNDATION REMOVED COULD POTENTIALLY BE COMPROMISED, THEY SHALL SECURE IT.

11.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD CHECKING INTERSECTION OPERATIONS AS THEY RELATE TO THE INSTALLATION OF MAST ARMS.

12.) TEMPORARY DETECTION REQUIRED IF THE EXISTING VEHICLE DETECTION WILL BE IMPACTED AND OUT OF SERVICE FOR MORE THAN 30 DAYS AND IF PEDESTRIAN DETECTION OUT OF SERVICE FOR MORE THAN 3 DAYS WHILE LOCATION IS UNDER CONSTRUCTION.

13.) ALL PUBLIC LAND CORNERS AND MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE PROTECTED BY THE CONTRACTOR AS FOLLOWS: CORNERS AND MONUMENTS IN CONFLICT WITH THE WORK AND IN DANGER OF BEING DAMAGED, DESTROYED, OR COVERED HAVE TO BE PROPERLY REFERENCED BY A PROFESSIONAL LAND SURVEYOR. THIS SHALL BE DONE IN ACCORDANCE WITH THE MINIMUM TECHNICAL STANDARDS OF THE FLORIDA BOARD OF PROFESSIONAL LAND SURVEYORS. PRIOR TO BEGINNING WORK AT THE SITE, THE CONTRACTOR SHALL RETAIN A LAND SURVEYOR TO REFERENCE AND RESTORE, UPON COMPLETION OF THE WORK, ALL SUCH CORNERS AND MONUMENTS. THE CONTRACTOR SHALL FURNISH, TO THE DISTRICT LOCATION SURVEYOR, A SIGNED AND SEALED COPY OF THE LAND SURVEYOR'S REFERENCE DRAWING.

14.) ALL SURVEY BENCH MARK MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED AND REFERENCED BY THE CONTRACTOR IN THE SAME WAY AS PUBLIC LAND CORNERS, EXCEPT THAT THE LAND SURVEYOR SHALL NOT BE REQUIRED TO RESTORE THE N.G.V.D. BENCH MARK UPON COMPLETION OF THE WORK. THE CONTRACTOR SHALL PROMPTLY TRANSMIT ALL DISPLACED OR DAMAGED N.G.V.D. DISCS TO THE DISTRICT LOCATION SURVEYOR, WHO WILL NOTIFY THE GEODETIC INFORMATION CENTER.

15.) THE SIGNAL MAINTAINING AGENCY IS PALM BEACH COUNTY TRAFFIC OPERATIONS, SUPERINTENDENT, (561) 233-3900.

16.) ALL EXISTING SIGNALIZATION EQUIPMENT IS ASSUMED TO BE IN GOOD WORKING ORDER UNLESS PBCTED IS NOTIFIED IN WRITING PRIOR TO START OF CONSTRUCTION. ANY SUBSEQUENT DAMAGE TO THE SIGNAL EQUIPMENT SHALL BE REPAIRED BY THE CONTRACTOR.

17.) EXISTING COMMUNICATIONS OR COMMAND WIRE CONNECTIONS SHALL BE MAINTAINED AT ALL SIGNALIZED LOCATIONS DURING CONSTRUCTION. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, INTERCONNECT, RAILROAD FLASHING BEACONS, RAILROAD PREEMPTION, EMERGENCY VEHICLE PREEMPTION, AND SCHOOL ZONE FLASHERS. CONTRACTOR TO PROVIDE TEMPORARY LINES AND CONNECTIONS IF NECESSARY. COST OF MAINTAINING COMMUNICATION INCLUDING TEMPORARY CONNECTIONS SHALL BE INCLUDED IN PAY ITEM 102-1 MOT. A CELLULAR COMMUNICATION PLAN MAY NEED TO BE INSTALLED AND APPROVED BY THE COUNTY TO MAINTAIN CONTINUOUS COMMUNICATION THROUGHOUT THE PROJECT.

18.) NO EXISTING PEDESTRIAN CROSSING TO BE ELIMINATED AT ANY TRAFFIC SIGNAL WITHOUT PRE-APPROVAL FROM PBC TRAFFIC ENGINEERING.

19.) IT SHOULD BE NOTED THAT NO TEST BORINGS WERE MADE WHERE CONDUIT RUNS ARE TO BE INSTALLED BY DIRECTIONAL BORING OR TRENCHING. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS IN ACCORDANCE WITH SECTION 2-4 OF THE FDOT STANDARD SPECIFICATIONS.

20.) THE CONTRACTOR IS TO USE CAUTION WHEN WORKING IN OR AROUND AREAS OF EXISTING LOOP AND LEAD IN WIRE, OVERHEAD TRANSMISSION LINES, AND UNDERGROUND UTILITIES. THE CONTRACTOR SHALL EXCAVATE BY HAND WHERE CONFLICTS MAY EXIST. DAMAGE TO LOOPS AND ANY SIGNAL EQUIPMENT CAUSED BY CONSTRUCTION OF THIS PROJECT SHALL BE REPAIRED OR REPLACED TO ORIGINAL OR BETTER CONDITION AT NO COST TO PALM BEACH COUNTY.

21.) THE LOCATIONS OF EXISTING UTILITIES SHOWN IN THE PLANS ARE APPROXIMATE. EXACT LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION.

22.) THE PROPOSED LOCATIONS OF ALL POLES, PEDESTALS, AND OTHER EQUIPMENT REQUIRING EXCAVATION SHALL BE CONSIDERED APPROXIMATE DUE TO THE POTENTIAL OF CONFLICT WITH UNDERGROUND UTILITIES. SLIGHT ADJUSTMENTS DIRECTED BY THE ENGINEER MAY ALSO BE NECESSARY TO SATISFY SAFETY CODES.

23.) CONTRACTOR TO MAINTAIN EXISTING SIGNAL OPERATIONAL AT ALL TIMES.

24.) MAST ARM CONCRETE FOUNDATION SHALL BE POURED IN A SINGLE POUR; FOUNDATIONS THAT DO NOT COMPLY WITH THIS REQUIREMENT SHALL BE COMPLETELY REMOVED AND RE-POURED AT THE CONTRACTOR'S EXPENSE. A DRILL SHAFT INSTALLATION PLAN SHALL BE PART OF THE SHOP DRAWINGS.

25.) CONTRACTOR IS RESPONSIBLE FOR THE PROPER BOLT PROJECTION ABOVE FINISHED SIDEWALK GRADE. THE CONTRACTOR SHALL ENSURE THAT THE DRILL SHAFT AND BOLT PATTERNS ARE INSTALLED CORRECTLY SO THAT THE MAST ARM WILL BE ANGLED AS SHOWN ON THE PLANS.

26.) IF PHASE 1 (UNDERGROUND ONLY) AND PHASE 2 (ABOVE GROUND) IS PROPOSED ON PERMITTING PROJECTS, CONTRACTOR IS RESPONSIBLE TO ENSURE EXPOSED BOLTS ARE PROTECTED FROM THE ELEMENTS (INSTALL BOLT CAPS).

27.) FOR MAST ARM SIGNAL INSTALLATIONS, THE CONTRACTOR SHALL INSTALL WIRE MESH SUPPORT GRIPS FOR STRAIN RELIEF. ALL SIGNAL CABLE MUST BE HELD BY A STRAIN RELIEF (LE GRAND BC0750FSS) ATTACHED TO THE J HOOK INSIDE OF A MAST ARM. TO USE APPROVED EQUIVALENT, SHOP DRAWINGS SHALL BE SUBMITTED TO PBC ENGINEER FOR PRE-APPROVAL. WRITTEN APPROVAL FOR SHOP DRAWINGS SHALL BE PROVIDED AT TIME OF FINAL SIGNAL INSPECTION.

28.) SIGNAL CABLE - CONTRACTOR SHALL INSTALL TRAFFIC SIGNAL CABLE IN ACCORDANCE WITH PBC STANDARDS. THERE SHALL BE NO SPLICING. IF CONTINUOUS RUNS ARE NOT POSSIBLE, THEN TERMINAL BLOCK SHALL BE USED.

29.) CONTROLLER CABINET - THE CONTROLLER CABINET SHALL BE INSTALLED SUCH THAT THE CONTROLLER DOOR WILL OPEN AWAY FROM THE ROADWAY TRAVEL LANES AND POSITIONED TO ALLOW THE TECHNICIAN TO SEE THE INTERSECTION.

30.) CONTRACTOR TO PROVIDE A MINIMUM 2 FEET CABLE SLACK AT ALL PULL BOXES AND HAND HOLDS.

31.) PEDESTRIAN SIGNALS - EACH PEDESTRIAN SIGNAL SHALL BE FED WITH ONE 7 CONDUCTOR CABLE FOR PED SIGNAL HEAD AND ONE 4 CONDUCTOR CABLE FOR THE PED DETECTOR/PUSH BUTTON. THESE CABLES WILL RUN FROM EACH PEDESTRIAN SIGNAL/DETECTOR DIRECTLY TO CONTROL BOX WITH NO SPLICES.

32.) POSITION PULL BOXES, CABINETS, POLES AND OTHER OBSTRUCTIVE ITEMS CLEAR OF CURB CUT RAMPS. PULL BOXES SHALL BE PLACED BEHIND CURB AND GUTTER. IF THERE IS NO CURB AND GUTTER, THEN PULL BOXES SHALL BE PLACED AT LEAST 10 FEET FROM THE EDGE OF PAVEMENT. PULL BOXES SHALL NOT BE LOCATED AT THE BOTTOM OF ANY DITCH OR RETENTION AREA/POND. ALL PULL BOXES SHALL HAVE A 1' WIDE (MIN.) X 6" DEEP CONTINUOUS CONCRETE APRON SLOPED AWAY FROM BOX (TYPICALLY 1%).

33.) SPARE CABINET CONDUIT SHALL BE STUBBED AND CAPPED IN THE NEAREST PULL BOX. USE GEL CAPS FOR ANY SPARE/USED CONDUIT.

34.) THE USE OF "JONES" PLUGS FOR SIGNAL INSTALLATIONS SHALL BE PROHIBITED.

35.) 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.

36.) THE CONTRACTOR SHALL VERIFY COLOR CODES OF SIGNAL CABLE WITH PALM BEACH COUNTY BEFORE ORDERING.

37.) DO NOT INSTALL LOOP LEAD-INS WITHIN PAVERS OR IN THE AREA BETWEEN PAVERS AND EDGE OF CURB. FOR ANY INTERSECTIONS WITH PAVERS, THE LEAD-INS NEED TO RUN THROUGH CONDUITS UNDER THE PAVERS.

38.) INSTALL PEDESTRIAN SIGNALS PER ADA CLEARANCES, PROVIDING CONTINUOUS UNOBSTRUCTED PEDESTRIAN/WHEELCHAIR CIRCULATION PATH TO PEDESTRIAN AREAS (PUSH BUTTON, RAMP, ETC).

39.) THE T-BASE (PEDESTRIAN PEDESTAL BASE) SHALL BE ORIENTED SO THE TECHNICIAN CAN OPEN THE DOOR AND ALSO SEE ON-COMING TRAFFIC. CAULK AS NEEDED IF THERE IS A LARGE GAP BETWEEN CONCRETE FOUNDATION/SIDEWALK AND THE PEDESTAL BASE.

40.) PEDESTAL POLE BASE NUT SHOULD BE LARGE ENOUGH TO COVER HOLE AND WASHER.

41.) ALL SET SCREWS MUST BE INSTALLED (NONE SHOULD BE MISSING). MOST MANUFACTURERS HAVE THEM DESIGNED INTO THE PEDESTRIAN BASES FROM FACTORY. WHEN PEDESTAL POLE IS SET AT PROPER DIRECTION, DRILL AND TAP HOLE THRU BASE AND ALUMINUM CONDUIT. SET SCREWS SHOULD GO THROUGH SIDE OF BASE INTO PEDESTAL POLE TO PENETRATE INTO PIPE TO KEEP IT FROM ROTATING. USING A ¼"x20 SS HEX HEAD BOLT WILL LOCK THE PIPE FROM TURNING.

42.) BOLTS SHOULD BE LONG ENOUGH TO PROTRUDE THROUGH THE THREADED HOLE AND HOLD WASHER AND NUT.

43.) CAULKING/SEALANT TO BE APPLIED AT ALL SIGNALS FLANGE CONNECTIONS, INCLUDING BUT NOT LIMITED TO THE TOP OF THE FLASHER SIGNAL.

44.) THE CONTRACTOR SHALL BUILD NEW ELECTRICAL POWER SERVICE AND DISCONNECT ON MONUMENT WITH A MINIMUM HEIGHT OF EIGHT (8) FEET.

45.) THE CONTRACTOR SHALL COORDINATE AND FIELD VERIFY LOCATION(S) OF ELECTRICAL SERVICE POINT PRIOR TO INSTALLING CONDUIT, DISCONNECT SWITCH, TRANSFORMER AND PULL BOXES.

46.) POWER SOURCE - ON MODIFICATIONS/UPGRADES TO EXISTING TRAFFIC SIGNALS A) IF ADDING LOAD, THEN ADD METER; B) IF NOT ADDING LOAD (IE JUST RELOCATING SAME EQUIPMENT) KEEP EXISTING POWER SOURCE. ALL NEW INSTALLED SIGNALS WILL BE METERED. CONTRACTOR SHALL COORDINATE WITH FPL FOR NEW INSTALLATION AS REQUIRED. ELECTRIC SERVICE TO BE SET UP IN CONTRACTOR'S NAME, THEN TRANSFERRED TO PBC TRAFFIC DIVISION AFTER 90 DAY BURN AND FINAL ACCEPTANCE.

47.) THE CONTRACTOR SHALL COORDINATE WORK SCHEDULE, COORDINATE TIMING AND AUTHORIZATION OF POWER SERVICE WITH PALM BEACH COUNTY TRAFFIC ENGINEERING. CONTACT TIMING ENGINEER (561-684-4030) 2 WEEKS IN ADVANCE OF CONSTRUCTION AND TO COORDINATE TIMING CHANGES PRIOR TO LOOP DAMAGE. CONTACT PBC TRAFFIC OPERATIONS (561-233-3900) TO COORDINATE REPLACING THE OLD SCHOOL FLASHERS AND RETIMING THE NEW SCHOOL FLASHERS.

48.) THE CONTRACTOR SHALL SUBMIT IN WRITING TO THE MAINTAINING AGENCY FOR FINAL INSPECTION. ALLOW TWO (2) WEEKS FOR INSPECTION. TO SCHEDULE A SIGNAL INSPECTION, PLEASE EMAIL ENG-TRAFF-INSPECTION@PBCGOV.ORG.

49.) AT THE TIME OF FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL FURNISH PALM BEACH COUNTY WITH TWO (2) COMPLETE COPIES OF SIGNED AND SEALED AS-BUILT PLANS AND CONSULTANT TO PROVIDE ELECTRONIC CADD FILES.

50.) A 90 DAY BURN-IN PERIOD IS REQUIRED FOR ALL TRAFFIC SIGNAL EQUIPMENT. THE BURN-IN PERIOD WILL COMMENCE UPON A WRITTEN CONDITIONAL ACCEPTANCE BY THE MAINTAINING AGENCY. IF THE BURN-IN PERIOD EXCEEDS 90 DAYS, THEREAFTER, UNLESS AN EQUIPMENT MALFUNCTION OCCURS, THE BURN-IN PERIOD WILL BE EXTENDED TO 180 DAYS.

51.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION AND PERFORMING ALL TREE TRIMMING AND TREE REMOVAL.

52.) AFTER THE SIGNAL INSPECTION IS COMPLETED AND ALL OUTSTANDING ISSUES ARE RESOLVED (PUNCH LIST ITEMS COMPLETED), THE CONTRACTOR CAN REQUEST PALM BEACH COUNTY TO SCHEDULE THE SIGNAL ACTIVATION. CONTRACTOR OR CEI SHALL REQUEST ACTIVATION TWO WEEKS IN ADVANCE.

53.) DURING CONSTRUCTION OF NEW SIGNAL EQUIPMENT AT EXISTING SIGNALIZED INTERSECTION, THE CONTRACTOR SHALL COORDINATE THEIR ACTIVITIES TO ENSURE THAT FUNCTIONING TRAFFIC SIGNALS REMAIN VISIBLE TO MOTORISTS.

54.) SPAN WIRE SIGNALS ONLY - DISCONNECTS FOR SIGNAL HEADS ON SPAN WIRE SIGNALS SHALL BE MODEL #1156-T APL 659-004-007 WITH TRI STUD SPAN WIRE CLAMP ADAPTER MODEL #1156-T APL 659-016-002. BOTH ARE MANUFACTURED BY ENGINEERING CASTINGS AND SUPPLIED BY PELCO PRODUCTS. ALL EQUIPMENT TO BE APPROVED BY PBC TRAFFIC PRIOR TO ORDERING VIA THE SHOP DRAWINGS.

MAINTENANCE OF TRAFFIC:

55.) THE CONTRACTOR SHALL PREPARE TRAFFIC CONTROL PLANS AND SUBMIT THEM FOR REVIEW AND APPROVAL BY THE ENGINEER OF RECORD AND THE TRAFFIC DIVISION - MOT SECTION AT LEAST TWO (2) WEEKS IN ADVANCE OF PROPOSED WORK. NO LANE CLOSURES ARE ALLOWED DURING AM AND PM PEAK HOURS (BASED ON LANE CLOSURE ANALYSIS).

56.) THE CONTRACTOR SHALL INSTALL CONSTRUCTION SIGNING PRIOR TO COMMENCEMENT OF CONSTRUCTION AND SHALL MAINTAIN SIGNING DURING ALL PHASES OF CONSTRUCTION.

57.) NOTIFICATION OF PROPOSED LANE CLOSURES OR TEMPORARY DETOURS SHALL BE ACCOMPLISHED, IN WRITING, 14 BUSINESS DAYS IN ADVANCE OF CLOSURE OR DETOUR.

58.) AT THE DISCRETION OF THE ENGINEER, IF A LANE CLOSING CAUSES EXTENDED CONGESTION, THE CONTRACTOR SHALL BE DIRECTED TO REOPEN THE CLOSED LANE(S) UNTIL SUCH TIME AS TRAFFIC FLOW HAS RETURNED TO AN ACCEPTABLE LEVEL.

59.) THE ALTERATION OF TRAFFIC TRAVEL-WAYS TO CREATE A WORK ZONE SHALL NOT COMMENCE UNTIL ALL LABOR AND MATERIALS ARE READY FOR THE CONSTRUCTION IN THAT ZONE.

60.) REGULATORY SPEED DURING CONSTRUCTION SHALL REMAIN AT THE POSTED SPEED.

61.) ALL PEDESTRIAN DETOURS FOR MOT TO BE PRE-APPROVED BY PBC TRAFFIC ENGINEERING DIVISION.

62.) ANY SIGNAL MODIFICATION NECESSARY IN ORDER TO CARRY OUT PROJECT CONSTRUCTION SHALL BE SUBMITTED TO PBC TRAFFIC ENGINEERING DIVISION FOR APPROVAL. SIGNAL MODIFICATION SUBMITTAL TO BE IN A FORM OF A LEGIBLE PLAN THAT CLEARLY SHOWS THE SIGNAL HEAD FACES AND ALIGNMENT WITH THE PROPOSED LANE MODIFICATION, AND SIGNAL PHASING. ALL SIGNAL MODIFICATIONS TO FOLLOW MUTCD MINIMUM REQUIREMENTS.

63.) MOT PLANS WILL NOT BE APPROVED UNTIL THE SIGNAL MODIFICATION PLANS HAVE BEEN APPROVED BY PBC TRAFFIC ENGINEERING.

64.) THE CONTRACTOR SHALL REMOVE OR COVER ANY EXISTING OR PROPOSED SIGNS OR PAVEMENT MARKINGS WHICH CONFLICT WITH THE TRAFFIC CONTROL THROUGH THE WORK ZONE. WHEN THE CONFLICT NO LONGER EXISTS, THE CONTRACTOR SHALL RESTORE THE SIGNS OR PAVEMENT MARKINGS TO THEIR ORIGINAL POSITION.

PATRICIA MARIE BARR, P.E., STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 56925

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY PATRICIA MARIE BARR, P.E. ON 10/4/2023.

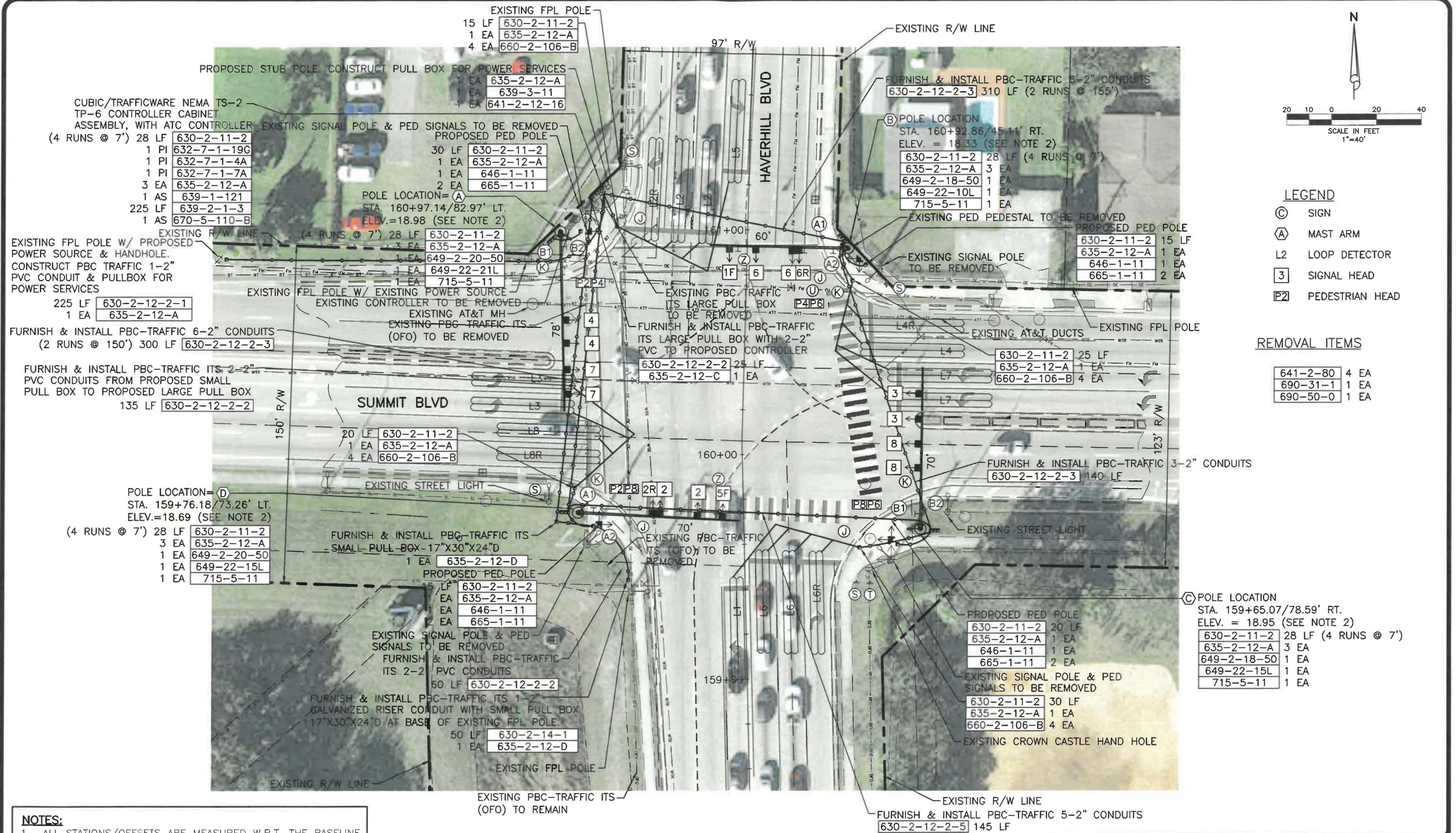
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JOB NO. 22-046	DRAWING NO. 22046T03	SHEET T-3	OF T-8
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SUMMIT BOULEVARD
AT HAVERHILL ROAD
P.B.C. PROJECT #2022820
P.B.C. INTERSECTION #32049
GENERAL NOTES



NOTES:

1. ALL STATIONS/OFFSETS ARE MEASURED W.R.T. THE BASELINE OF HAVERHILL BOULEVARD.
2. TOP OF FOUNDATION FOR MAST ARMS A, B, C & D SHALL BE 6" ABOVE EXISTING GRADE ELEVATION AT CENTER OF PROPOSED FOUNDATION. CONTRACTOR SHALL ADJUST TOP OF FOUNDATION ELEVATION AS NEEDED TO MAINTAIN 6" OFFSET BETWEEN TOP OF FOUNDATION AND EXISTING GRADE.

- LEGEND**
- Ⓒ SIGN
 - Ⓐ MAST ARM
 - L2 LOOP DETECTOR
 - 3 SIGNAL HEAD
 - Ⓔ PEDESTRIAN HEAD

REMOVAL ITEMS

641-2-80	4 EA
690-31-1	1 EA
690-50-0	1 EA

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PROFESSIONAL ENGINEER, LICENSE NO. 56925

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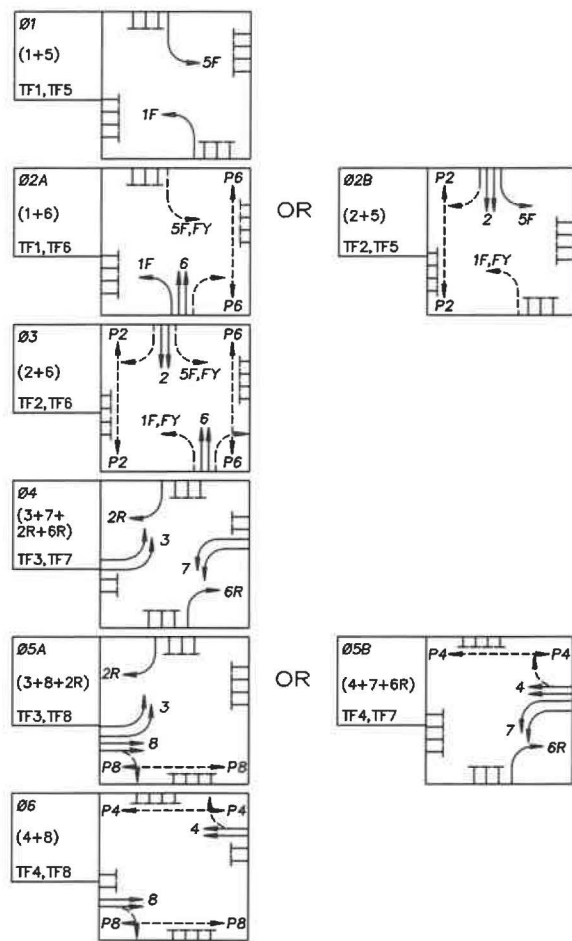
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T.B.	C.O.	A.L.	R.R.	

**SUMMIT BOULEVARD
AT HAVERHILL ROAD
P.B.C. PROJECT #2022820
P.B.C. INTERSECTION #32049
SIGNALIZATION PLAN**

JOB NO.	DRAWING NO.	SHEET
22-046	22046T04	OF T-4 T-8

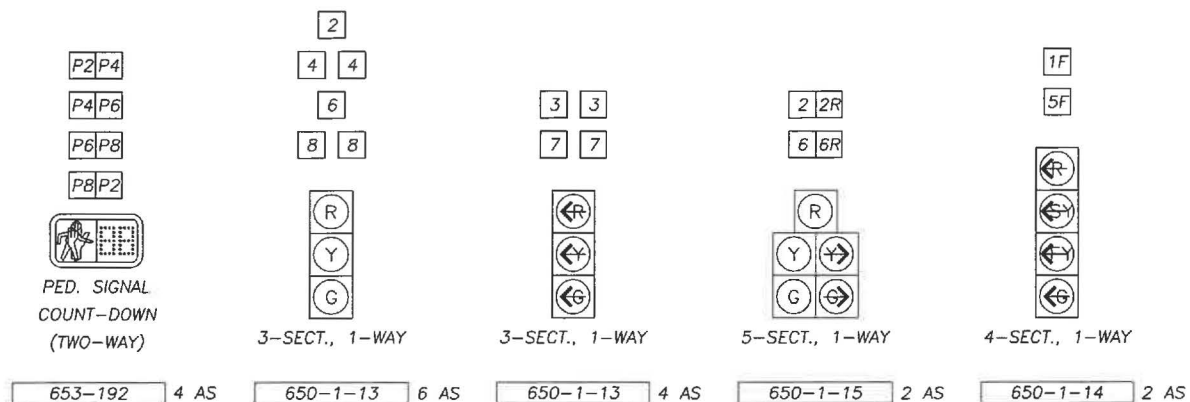


PHASES 2R AND 6R SHALL NOT BE IN CONFLICT WITH PEDESTRIAN PHASES P2 AND P6, RESPECTIVELY.

LOOP DETECTOR CONNECTION			
DETECTOR UNIT NO.	DETECTOR OPERATION	CONNECTED TO LOOP	CONNECTED TO TIMING FUNCTION
1	DELAY	L2R	TF2
2	NORMAL	L2	TF2
3	NORMAL	L5	TF5
4	DELAY/NORMAL	L4R	TF4
5	NORMAL	L4	TF4
6	NORMAL	L7	TF7
7	NORMAL	L6	TF6
8	NORMAL	L1	TF1
9	DELAY/NORMAL	L8R	TF8
10	DELAY/NORMAL	L8	TF8
11	NORMAL	L3	TF3

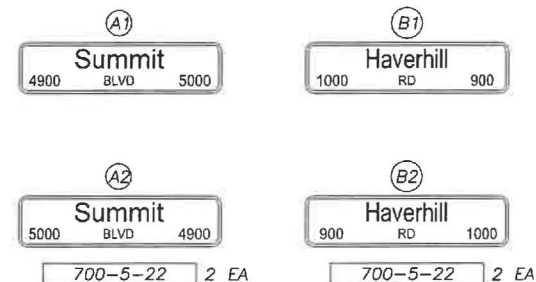
DETAIL OF SIGNAL HEADS

N.T.S.



DETAIL OF STREET NAME SIGNS

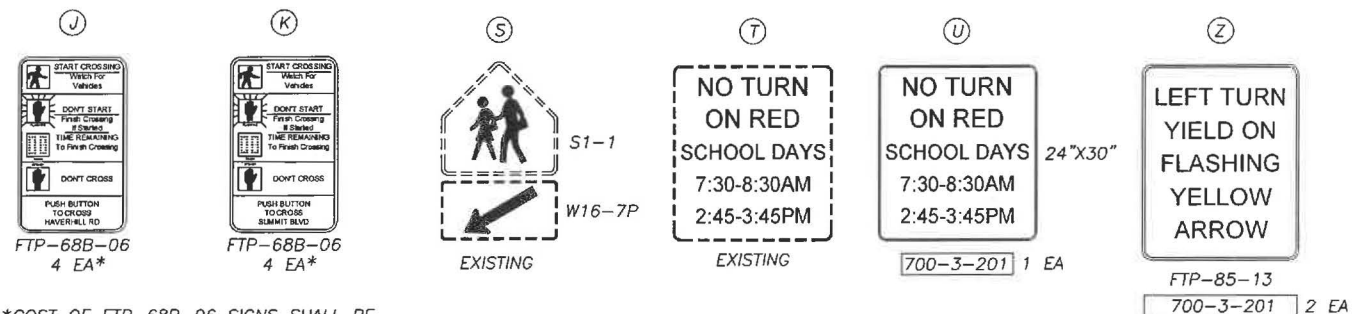
N.T.S.



-MAXIMUM SIGN DIMENSION 8' LENGTH MAX. AND 2' HEIGHT
-SIGNS SHALL MEET PALM BEACH COUNTY TYPICALS & MUTCD. REFER TO PALM BEACH COUNTY TYPICALS FOR DETAILS ON SIGN INSTALLATION, DIMENSION & LETTERING.

DETAIL OF SIGNS

N.T.S.



*COST OF FTP-68B-06 SIGNS SHALL BE INCLUDED UNDER PAY ITEM 665-1-11.

NOTES:

- CONTROLLER OPERATIONS:
 - THE CONTROLLER SHALL OPERATE AS SIGNAL OPERATING PLAN 10.
 - MAJOR STREET IS HAVERHILL ROAD AND MINOR STREET IS SUMMIT BOULEVARD.
 - FLASHING OPERATION TO BE YELLOW FOR MAJOR STREET MOVEMENTS 2 & 6 AND RED FOR ALL OTHER MOVEMENTS.
- ACTUAL SIGNAL TIMINGS AND COORDINATION PLANS ARE TO BE DETERMINED BY THE PALM BEACH COUNTY ENGINEER'S REPRESENTATIVE.
- THE SPEED LIMIT ON SUMMIT BOULEVARD IS 45 MPH & ON HAVERHILL ROAD IS 40 MPH.

PATRICIA MARIE BARR, P.E., STATE OF FLORIDA,
PROFESSIONAL ENGINEER, LICENSE NO. 56925

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**SUMMIT BOULEVARD
AT HAVERHILL ROAD**
P.B.C. PROJECT #2022820
P.B.C. INTERSECTION #32049
SIGNALIZATION PLAN

JOB NO. 22-046 DRAWING NO. 22046T05 SHEET OF T-5 T-8

STANDARD MAST ARM ASSEMBLIES DATA TABLE										TABLE DATE 11-01-16	
STRUCTURE ID NUMBERS	DESIGNATION	FIRST ARM		SECOND ARM		UF (deg)	LL (deg)	POLE			DRILLED SHAFT ID
		ARM ID	FAA (ft.)	ARM ID	SAA (ft.)			POLE ID	UAA (ft.)	UB (ft.)	
A	A78/S-P6/S/L-DS/20/5	A78/S					45	P6/S/L		21	DS/20/5
B	A60/S-P4/S/L-DS/18/5	A60/S					45	P4/S/L		21	DS/18/5
C	A70/S-P5/S/L-DS/18/5	A70/S					90	P5/S/L		21	DS/18/5
D	A70/S-P5/S/L-DS/20/5	A70/S					45	P5/S/L		21	DS/20/5

NOTES [Notes Date 11-01-16]:

1. If an entry appears in column FAA, a shorter arm is required. This is obtained by removing length from the arm tip and the arm length shortened from FA to FAA. SAA Similar.
2. If an entry appears in column UAA, a shorter pole is required. This is obtained by removing length from the pole tip and the pole height shortened from UA to UAA.
3. Work this sheet with the Signal Designer's "Mast Arm Tabulation". See "Mast Arm Tabulation" for special instructions that include non-standard Handhole location, paint color, terminal compartment requirement, and pedestrian features.
4. Work with Indexes 649-030 and 649-031.

GEOTECHNICAL NOTES:

1. The Contractor shall anticipate difficult drilled shaft installation due to the presence of loose to very loose sand, or compacted fill, or any combination of these layers. The presence of difficult soil conditions may occur at varying depths below the ground. The Contractor shall anticipate potential cave-in of the sandy soils, and difficult/impossible conditions to retain bentonite/polymer slurry inside the drilled holes.

PATRICIA MARIE BARR, P.E., STATE OF FLORIDA,
PROFESSIONAL ENGINEER, LICENSE NO. 56925

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**SUMMIT BOULEVARD
AT HAVERHILL ROAD
P.B.C. PROJECT #2022820
P.B.C. INTERSECTION #32049
MAST ARM ASSEMBLIES**

JOB NO. 22-046	DRAWING NO. 22046T07	SHEET T-7 OF T-8
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WARNING
BURIED
SIGNAL
CABLE
BEFORE DIGGING
IN THIS AREA
CALL
P B COUNTY
TRAFFIC DIV.
561-233-3900

12" DEEP BED OF PEA ROCK
OR CRUSHED #57 STONE
EXTEND 6" BEYOND PULL BOX

INSTALL ROUTE MARKER AT EVERY OTHER
PULL BOX WHERE PULL BOXES ARE IN TURF AREAS AND
ON BOTH SIDES OF CANAL CROSSING. DO NOT INSTALL
MARKERS IF THE PULL BOXES ARE IN OR NEXT TO SIDEWALK.
COST OF ROUTE MARKER SHALL BE INCLUDED IN COST OF CONDUITS.

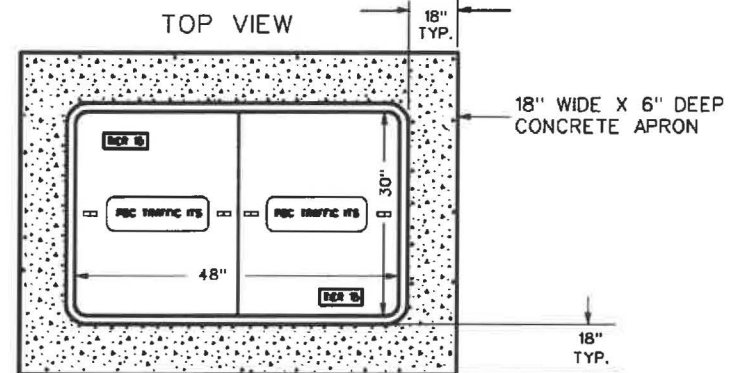
30x48" Lid size
x24" deep
LARGE PULL BOX

18" WIDE X 6" THICK
CONCRETE APRON
SLOPE 1/4" PER 1'

TIE LOCATE WIRES AND PULL CORD
TOGETHER IN PULL BOX.

6" TYP
PULL BOX ENTRY OF CONDUITS,
14 AWG WIRE & PULL CORD

TOP VIEW



PULL BOX MATERIAL: FIBERGLASS REINFORCED POLYMER CONCRETE
LOAD SPECIFICATION: MIN. TIER 15 (20K-22K) EXCEPT IN ROADWAY USE AASHTO H-20.
LID STAMPED: "PBC TRAFFIC ITS". LID TYPE: TWO PANEL WITH TWO PULL SLOTS EACH

Store 200' of slack Fiber Optic Cable
in 30x48x24" large pull boxes,
store 20' in 17x30x24" pull boxes, and
store 200' on each side of FO splice enclosure.

NOTE: SIGNAL pull boxes (for signal cables)
shall be 17x30x12" deep, not 24" deep.
Refer to PBC Signal Typical.

LABELS ARE SUPPLIED BY
PALM BEACH COUNTY TRAFFIC.
FOR LABELS CALL: 561-681-4326
(SEE NOTE NO. 6)



WARNING
BURIED
SIGNAL
CABLE
BEFORE DIGGING
IN THIS AREA
CALL
P B COUNTY
TRAFFIC DIV.
561-233-3900

ROUTE MARKER

17x30 Lid size
x24" Deep
Typ. PULL BOX

18" WIDE X 6" THICK
CONCRETE APRON
SLOPE 1/4" PER 1'

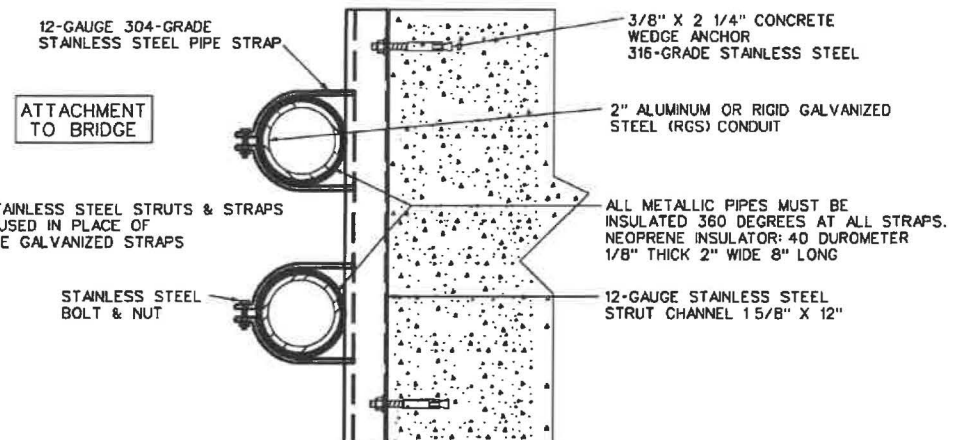
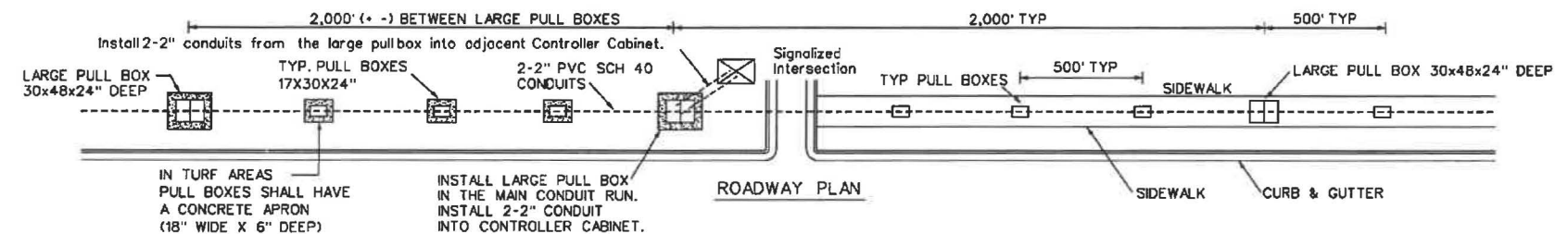
WARNING TAPE 24"
BELOW GRADE

12" DEEP BED OF PEA ROCK
OR CRUSHED #57 STONE
EXTEND 6" BEYOND PULL BOX

90 DEGREES STANDARD SWEEP
MINIMUM 9.5" RADIUS,
GRAY ELECTRICAL GRADE
PVC SCH. 40 CONDUIT

PULL BOX ENTRY OF CONDUITS,
WITH 14 AWG WIRE & PULL CORD

INSTALL A TYPICAL PULL BOXES (17X30X24" DEEP) EVERY 500' (+/-). INSTALL A LARGE PULL BOX (30X48X24" DEEP) EVERY 2000' (+/-)
AND AT EACH SIGNALIZED INTERSECTION, OR AS SHOWN ON THE PLANS.
WHERE A LARGE PULL BOX IS INSTALLED, IT TAKES THE PLACE OF THE TYPICAL PULL BOX.



NOTE: STAINLESS STEEL STRUTS & STRAPS
MAY BE USED IN PLACE OF
TWO HOLE GALVANIZED STRAPS

STAINLESS STEEL
BOLT & NUT

ATTACHMENT
TO BRIDGE

12-GAUGE 304-GRADE
STAINLESS STEEL PIPE STRAP

3/8" X 2 1/4" CONCRETE
WEDGE ANCHOR
316-GRADE STAINLESS STEEL

2" ALUMINUM OR RIGID GALVANIZED
STEEL (RGS) CONDUIT

ALL METALLIC PIPES MUST BE
INSULATED 360 DEGREES AT ALL STRAPS.
NEOPRENE INSULATOR: 40 DUROMETER
1/8" THICK 2" WIDE 8" LONG

12-GAUGE STAINLESS STEEL
STRUT CHANNEL 1 5/8" X 12"

NOTES:

1. Typical (T-14) for applications not covered in this typical the contractor shall refer to the FDOT Standards Specifications 630 for Road and Bridge Construction.
2. Pull Boxes and Lids in sidewalks and turf areas shall be a minimum TIER 15 (20K-22K). In vehicular traffic areas (in the roadway) pull boxes shall be AASHTO H-20. Pull Box Lid shall be stamped "PBC TRAFFIC ITS". Large Pull Box Lids (30x48") shall have two panels with two pulling slots in each panel.
3. Underground Conduits and Sweeps shall be gray electrical grade 2" PVC SCH 40 or HDPE SDR 11. Install conduits 36" below grade. Ends of conduit shall be sealed with water resistance duct seal.
4. One run of conduit between pull boxes shall not contain more than four (4) 90 degree bends (360 degrees) including pull box bends.
5. Signalized Intersections, install two-2" PVC Sch. 40 conduits from the large pull box into the traffic controller cabinet.
6. Locate Wire, install a 14 AWG insulated THWN strand copper wire (locate wire) in one conduit and a polypropylene pull cord in the other conduit(s). The locate wire, pull cord, warning tape, and guide post shall be included in the cost of the conduits.
7. Concrete Apron, all pull boxes shall be provided with concrete aprons when not located within sidewalk. Aprons shall be 18" wide x 6" thick sloped 1/4" per 1' away from pull box. Apron shall be Min. 2,500 PSI non structural Class I concrete. The cost of the apron is to be included in the cost to furnish and install pull box.
8. Pedestrian Ramp, pull box shall not be placed in a pedestrian ramp or slopped area of a pedestrian ramp.
9. Conduits in Pull Box shall be extended up 5" to 6" from the bottom of the pull box.
10. Bridge Attachment, when attaching conduits to bridge, wrap neoprene (rubber) gasket completely around galvanized or aluminum IMC conduit at each pipe strap to insulate conduit from pipe strap. Size of neoprene (rubber) insulator: 1/8" thick x 2" wide x 8" long.
11. Warning Tape: 3" wide, 6 mil thick, intended for burial and use as an underground utility warning notice, marked 'CAUTION BURIED FIBER OPTIC'. Tape shall be orange with black 2" high block letters on non color fading material. The marking tape shall be buried 24" below grade in the conduit trench from pull box to pull box. Cost included in cost of conduits.
12. Warning Labels, Palm Beach County Traffic Engineering, 2300 N Jog Rd, Tel: 561-681-4326 will supply the Contractor with two warning label for each route marker.
13. PBC Engineer may request two or more 2" conduits as needed.

PATRICIA MARIE BARR, P.E., STATE OF FLORIDA,
PROFESSIONAL ENGINEER, LICENSE NO. 56925

THIS ITEM HAS BEEN DIGITALLY SIGNED AND
SEALED BY PATRICIA MARIE BARR, P.E.
ON 10/4/2023.

PRINTED COPIES OF THIS DOCUMENT ARE NOT
CONSIDERED SIGNED AND SEALED AND THE
SIGNATURE MUST BE VERIFIED ON ANY
ELECTRONIC COPIES.



2581 Metrocentre Blvd West Suite 3 West Palm Beach, Florida 33407 • (561) 478-7848

DESIGN T.B. DRAWN C.O. CHECKED A.L. APPROVED R.R. DATE

SUMMIT BOULEVARD
AT HAVERHILL ROAD
P.B.C. PROJECT #2022820
P.B.C. INTERSECTION #32049
SIGNAL DETAILS

JOB NO. 22-046 DRAWING NO. 22046T08 SHEET OF T-8 T-8



Office of
Equal Business Opportunity
50 South Military Trail, Suite 202
West Palm Beach, FL 33415
(561) 616-6840
www.pbcgov.com/oebo



**Palm Beach County
Board of County
Commissioners**

Robert S. Weinroth, Mayor

Gregg K. Weiss, Vice Mayor

Maria G. Marino

Dave Kerner

Maria Sachs

Melissa McKinlay

Mack Bernard

County Administrator

Verdenia C. Baker

"An Equal Opportunity
Affirmative Action Employer"

Official Electronic Letterhead

INTER-OFFICE MEMORANDUM

Date: Thursday, January 20, 2022

To: David L. Ricks, County Engineer
Engineering and Public Works

From: Tonya Davis Johnson, Director *T. Johnson*
Office of Equal Business Opportunity

Re: Approval of Request for Waiver of API Requirements for
Annual Traffic Signal Construction Contract Palm Beach
County Project #2022052

Your Request for Waiver of API Requirements for the above named project was received on Thursday, January 06, 2022 and has been reviewed. It is the determination of the Office of Equal Business Opportunity (OEBO) that the request for Waiver of API Requirements is **APPROVED**.

The OEBO is granting this waiver based upon the determination that sufficient qualified S/M/WBEs providing the goods or services required by the contract are unavailable in Palm Beach County despite every reasonable attempt to locate them.

If you have any questions, please contact Allen Gray at 561-616-6842 or email at agray@pcgov.org.

Thank you.

cc: Allen Gray, Manager