



# Traffic Signal Installation at Palm Avenue and SW 7 Street

## Invitation for Bids # PSEN-24-01

General Information		
<b>Project Cost Estimate</b>	\$765,052	See Section 1.4
<b>Project Timeline</b>	150 calendar days from NTP.	See Section 1.4
<b>Evaluation of Proposals</b>	Staff	See Section 1.7
<b>Non-Mandatory Pre-Bid Meeting</b>	10:00 a.m. on March 12, 2024, at the Public Services Building Large Conference Room, 8300 S. Palm Drive, Pembroke Pines, FL 33025	See Section 1.8
<b>Question Due Date</b>	March 19, 2024	See Section 1.8
<b>Proposals will be accepted until</b>	2:00 p.m. on April 2, 2024	See Section 1.8
<b>Proposal Security / Bid Bond</b>	<input type="checkbox"/> Not required. <input checked="" type="checkbox"/> Required only for bidders that have a total cumulative base proposal amount that exceeds \$200,000. Proposal Security shall be in the amount of 5% of the total cumulative base amount proposed. <input type="checkbox"/> Required for every bidder, regardless of proposal amount. Proposal Security shall be in the amount of 5% of the total cumulative base amount proposed. <input type="checkbox"/> Required for every bidder, regardless of proposal amount. Proposal Security shall be in the amount of \$10,000 or 5% of the total cumulative base amount proposed, whichever is less.	See Section 4.1
<b>100% Payment and Performance Bonds</b>	<input type="checkbox"/> Not required. <input type="checkbox"/> Required, regardless of the awarded contract amount. <input checked="" type="checkbox"/> Required in the event that the awarded contract exceeds \$200,000.	See Section 4.2
<b>Grant or Federal Funding Information</b>	Not Applicable	Not Applicable

**THE CITY OF PEMBROKE PINES**  
**PROCUREMENT DEPARTMENT**  
**8300 SOUTH PALM DRIVE**  
**PEMBROKE PINES, FLORIDA 33025**  
**(954) 518-9020**



Table of Contents

SECTION 1 - INSTRUCTIONS..... 5
1.1 NOTICE..... 5
1.1.1 VIRTUAL BID OPENING..... 5
1.2 PURPOSE..... 6
1.3 SCOPE OF WORK..... 7
1.4 PROJECT COST ESTIMATE & TIMELINE..... 7
1.4.1 PERMIT, LICENSE, IMPACT OR INSPECTION FEES ..... 7
1.5 PROPOSAL REQUIREMENTS ..... 8
1.5.1 Pricing Sheet / Bid Tables..... 8
1.5.2 Questionnaires..... 9
1.5.3 Other Completed Documents..... 9
1.5.4 Optional Documentation..... 10
1.6 VENDOR REGISTRATION DOCUMENTS ..... 12
1.6.1 Vendor Information Form..... 12
1.6.2 Form W-9 (Rev. October 2018)..... 12
1.6.3 Company Profile Form ..... 12
1.6.4 Sworn Statement on Public Entity Crimes Form..... 12
1.6.5 Equal Benefits Certification Form ..... 12
1.6.6 Vendor Drug-Free Workplace Certification Form ..... 12
1.6.7 Scrutinized Company Certification..... 12
1.6.8 E-Verify System Certification Statement ..... 12
1.6.9 Veteran Owned Small Business Preference Certification ..... 13
1.6.10 Local Business Tax Receipts ..... 13
1.6.11 Local Vendor Preference Certification ..... 13
1.7 EVALUATION OF PROPOSALS & PROCESS OF SELECTION ..... 13
1.8 TENTATIVE SCHEDULE OF EVENTS ..... 13
1.8.1 NON-MANDATORY PRE-BID MEETING..... 14
1.9 SUBMISSION REQUIREMENTS ..... 14
SECTION 2 - INSURANCE REQUIREMENTS..... 15
SECTION 3 - GENERAL TERMS & CONDITIONS..... 22
3.1 EXAMINATION OF CONTRACT DOCUMENTS ..... 22
3.2 CONFLICT OF INSTRUCTIONS ..... 22



3.3 ADDENDA or ADDENDUM ..... 22

3.4 INTERPRETATIONS AND QUESTIONS ..... 22

3.5 RULES, REGULATIONS, LAWS, ORDINANCES and LICENSES ..... 22

3.6 WARRANTIES FOR USAGE ..... 23

3.7 BRAND NAMES..... 23

3.8 QUALITY ..... 23

3.9 SAMPLES..... 23

3.11 DEVELOPMENT COSTS ..... 23

3.12 PRICING..... 23

3.13 DELIVERY POINT ..... 24

3.14 TAX EXEMPT STATUS ..... 24

3.15 CONTRACT TIME ..... 24

3.16 COPYRIGHT OR PATENT RIGHTS ..... 24

3.17 PUBLIC ENTITY CRIMES ..... 24

3.18 CONFLICT OF INTEREST ..... 24

3.19 FACILITIES ..... 24

3.20 ENVIRONMENTAL REGULATIONS..... 25

3.21 SIGNATURE REQUIRED..... 25

3.22 MANUFACTURER’S CERTIFICATION..... 25

3.23 MODIFICATION OR WITHDRAWAL OF PROPOSAL ..... 25

3.24 PUBLIC BID; BID OPENING AND GENERAL EXEMPTIONS ..... 25

3.25 RESERVATIONS FOR REJECTION AND AWARD..... 26

3.26 BID PROTEST ..... 26

3.27 INDEMNIFICATION..... 26

3.28 DEFAULT PROVISION ..... 27

3.29 ACCEPTANCE OF MATERIAL..... 27

3.30 LOCAL GOVERNMENT PROMPT PAYMENT ACT ..... 28

3.31 SCRUTINIZED COMPANIES LIST ..... 28

3.32 PUBLIC RECORDS; TRADE SECRET, PROPRIETARY AND CONFIDENTIAL  
SUBMITTALS ..... 28

3.33 PURCHASING AGREEMENTS WITH OTHER GOVERNMENT AGENCIES.... 29

3.34 CONE OF SILENCE ..... 29

3.35 E-VERIFY ..... 30

3.36 JESSICA LUNSFORD ACT ..... 31



3.37 PROHIBITION AGAINST CONSIDERING SOCIAL, POLITICAL OR IDEOLOGICAL INTERESTS IN GOVERNMENT CONTRACTING ..... 31

SECTION 4 - SPECIAL TERMS & CONDITIONS ..... 32

4.1 PROPOSAL SECURITY ..... 32

4.2 PAYMENT AND PERFORMANCE BONDS ..... 33

4.3 OWNER’S CONTINGENCY ..... 34

4.4 TAX SAVER PROGRAM ..... 34

4.5 RELEASE OF LIEN..... 34

4.6 SOLID WASTE CONSTRUCTION AND DEMOLITION DEBRIS COLLECTION AND DISPOSAL REQUIREMENTS ..... 34

ATTACHMENTS

- Attachment A: Non-Collusive Affidavit
- Attachment B: Sample Insurance Certificate
- Attachment C: Specimen Contract – Construction Agreement
- Attachment D: Standard Release of Lien Form
- Attachment E: Traffic Signal Installation at Palm Avenue and SW 7 Street Specifications and Drawings



## **SECTION 1 - INSTRUCTIONS**

### **1.1 NOTICE**

Notice is hereby given that the City Commission of the City of Pembroke Pines is seeking sealed proposals for:

#### **IFB # PSEN-21-01 Traffic Signal Installation at Palm Avenue and SW 7 Street**

Solicitations may be obtained from the City of Pembroke Pines website at <http://www.ppines.com/index.aspx?NID=667> and on the <https://ppines.bonfirehub.com/> website.

If you have any problems downloading the solicitation, please contact the Bonfire Support at [Support@GoBonfire.com](mailto:Support@GoBonfire.com).

If additional information help is needed with downloading the solicitation package please contact the Procurement Department at (954) 518-9020 or by email at [purchasing@ppines.com](mailto:purchasing@ppines.com). The Procurement Department hours are between 7:00 a.m. - 6:00 p.m. on Monday through Thursday and is located at 8300 South Palm Drive, Pembroke Pines, Florida 33025.

The City requires all questions relating to the solicitation be entered through the "Messages" section for the specific project on the <https://ppines.bonfirehub.com/> website. Under the "Messages" section, vendors will find the "Opportunity Q&A" tab in which they can ask their specific question(s). Responses to the questions will be provided online at [https://ppines.bonfirehub.com](https://ppines.bonfirehub.com/). Such request must be received by the "Question Due Date" stated in the solicitation. The issuance of a response via Bonfire is considered an Addendum and shall be the only official method whereby such an interpretation or clarification will be made.

**Proposals will be accepted until 2:00 p.m., Tuesday, April 2, 2024.** Proposals must be **submitted electronically at <https://ppines.bonfirehub.com/>**. The sealed electronic proposals will be publicly opened at 2:30 p.m. by the City Clerk's Office, in the City Hall Administration Building, 4<sup>th</sup> Floor Conference Room located at 601 City Center Way, Pembroke Pines, Florida, 33025.

#### **1.1.1 VIRTUAL BID OPENING**

The bid opening for this project will be held in the **City Clerk's Office Conference Room** located on the 4<sup>th</sup> Floor in the Charles F. Dodge City Center/City Hall Administration Building at 601 City Center Way, Pembroke Pines, Florida, 33025 at **2:30 PM on the bid due date.**



In light of public health concerns and to ensure accessibility for all, the City encourages interested parties, vendors, and the public to participate virtually via live streaming instead of attending the meeting in person. To virtually attend the bid opening, please use the Cisco Webex Meetings platform.

**Virtual Meeting Details:**

- WebEx Meeting Link: <https://ppines.webex.com/meet/purchasing>
- Cisco Webex Meeting Number: 717 019 586
- Join by Phone Number: +1-408-418-9388

The public may download the **Cisco Webex Meetings app** from <https://www.webex.com/downloads.html/>

To ensure an efficient meeting process, participants are requested to mute their audio and camera during the meeting. While the public is welcome to attend the virtual bid opening, **please note that active participation and commenting will not be allowed during the proceedings.**

For further information about the bid opening or assistance in accessing the virtual meeting, please contact:

Danny Benedit, Procurement Department  
 City of Pembroke Pines  
 8300 South Palm Drive,  
 Pembroke Pines, FL 33025  
 954-518-9022 or 954-518-9020  
[purchasing@ppines.com](mailto:purchasing@ppines.com)

**1.2 PURPOSE**

The City of Pembroke Pines is seeking proposals from qualified firms, hereinafter referred to as the Contractor, to furnish all labor, materials, equipment, services and incidentals for the Traffic Signal Installation at Palm Avenue and SW 7 Street, in accordance with the terms, conditions, and specifications contained in this solicitation.

The project consists of clearing and grubbing/demolition, roadway milling and resurfacing, sidewalks, curb ramps, widening, signing and pavement markings, signalization and maintenance of traffic and any additional items to provide a complete intersection in accordance with all local and Broward County Traffic Engineering Division standards, policies, procedures, and guidelines. The aforementioned project details are a summary of the work needed for the project but are not intended to be all inclusive, thereby please reference Attachment E in conjunction to the requirements outline in this bid package for the full project requirements.



### **1.3 SCOPE OF WORK**

Refer to Attachment **E: Traffic Signal Installation at Palm Avenue and SW 7 Street Specifications and Drawings** for the scope of work, specifications, and drawings related to this bid. In addition, consult Attachment E in conjunction with the specifications outlined in this bid package for the full requirements.

### **1.4 PROJECT COST ESTIMATE & TIMELINE**

Staff estimates this project to cost approximately \$765,052.18, which does not include permit costs.

Please note that the City will waive all City related permit, license, impact or inspection fees (including the Building Department and Engineering Department Permit Fees) related to this project. Any related State or County fees, for the aforementioned permits, will be paid by the City.

In addition, the City shall cover the cost for any other permit fees related to external entities through the City's Owner's Contingency for this project, **therefore proposers should not include permit costs in their total proposal price.**

The work shall be completed within 190 days from issuance of CITY's Notice to Proceed.

In addition, please note the city's average time for a contractor to apply for and receive an approved permit is 30 days; delays in this timeline caused by the contractor's failure to actively monitor the permit process and submit all required documentation in a timely manner, will count against the project's contractual completion period.

#### **1.4.1 PERMIT, LICENSE, IMPACT OR INSPECTION FEES**

With the exception of the City related permit, license, impact or inspection fees (including the Building Department and Engineering Department Permit Fees), which will be waived for this project, the City does not anticipate any additional permit, license, impact or inspection fees for this project.

The City shall determine the amount of the Owner's Contingency at time of award. The Owner's Contingency may be based on a specified percent of the proposed project amount and shall be established for the specific project being performed under the contract. This dollar amount shall be shown on the specific project purchase order as a distinct item from the vendor's overall offer to determine the total potential dollar value of the contract. Any Owner's Contingency funds that have not been utilized at the end of the project will remain with the City, if the permit fees exceed the Owner's Contingency indicated, the City will reimburse the contractor the actual amount of the permit fees required for project completion.



## 1.5 PROPOSAL REQUIREMENTS

The <https://ppines.bonfirehub.com> website allows for vendors to complete, scan and upload their documents as part of the proposer’s submittal on the website.

Prospective proposers interested in responding to this solicitation are requested to provide all of the information listed in this section. Submittals that do not respond completely to all of requirements specified herein may be considered non-responsive and eliminated from the process. Brevity and clarity are encouraged.

The Bonfire system utilizes “Questionnaires” to request the following information from prospective proposers.

### 1.5.1 Pricing Sheet / Bid Tables

1. **Bid Table:** The vendor must provide their pricing through the designated lines items listed on the Excel Sheet that is available for download on the Bonfire website under the “**Pricing Sheet / Bid Table**” section. Please follow the instructions given in this package and on the Excel Sheet to complete and upload the information back onto the Bonfire website.
2. **Responses:** This tab of the Bid Table includes a “**Vendor Notes**” column for any additional comments regarding the requested line item(s). A comment is required in the “**Vendor Notes**” column. If the vendor does not need to submit any comments, please enter N/A or similar.
  - a. Below is a sample of the “**Primary Responses**” tab of the Bid Table:

**Responses**

Success: All data is valid!

				Numeric		Text	
Status	Bid/No Bid Decision	#	Item	Lump Sum Cost	Vendor Notes	Total Cost	
Success: All values provided	Bid	#0-1	Cost to complete all road related improvements including sidewalks, milling and resurface and asphalt, curb ramps and curbs shown on the plans	\$ 350,000.00	N/A	\$ 350,000.00	
Success: All values provided	Bid	#0-2	Cost to complete all traffic signal related improvements including pavement markings and signs shown on the plans	\$ 350,000.00	N/A	\$ 350,000.00	
Success: All values provided	Bid	#0-3	Cost for Payment & Performance Bond	\$ 35,000.00	N/A	\$ 35,000.00	
Basket Total						\$ 735,000.00	
Grand Total						\$ 735,000.00	

Instructions Responses





### **1.5.2 Questionnaires**

1. Contact Information Form
2. Proposer's Background Information
3. Vendor Registration Checklist
4. **References Form:** Provide specific examples of similar contracts delivered by the proposed team members. Provide details on related projects (preferably where the team was the same). A minimum of 3 references should be from the last five years and should be capable of explaining and confirming your firm's capacity to successfully complete the scope of work outlined herein. As part of the proposal evaluation process, the City may conduct an investigation of references, including a record check or consumer affairs complaints. Proposers' submission of a proposal constitutes acknowledgment of the process and consent to investigate. The City is the sole judge in determining Proposers qualifications. In this section you will have the ability to enter information for 5 different references including the Reference Contact Information and the specific Project Information.

In addition, **do not provide City of Pembroke Pines projects as any of your references and do not utilize any current City of Pembroke Pines employees as reference contacts.**

- A) References Contact Information
  - a. Name of Firm, City, County or Agency
  - b. Address
  - c. Contact Name
  - d. Contact Title
  - e. Contact E-mail Address
  - f. Contact Telephone #
- B) Project Information
  - a. Name of Contractor Performing the work
  - b. Name and location of the project
  - c. Nature of the firm's responsibility on the project
  - d. Project duration
  - e. Completion (Anticipated) Date
  - f. Size of project
  - g. Cost of project
  - h. Work for which staff was responsible

### **1.5.3 Other Completed Documents**

1. Attachment A: Non-Collusive Affidavit



2. Proposal Security (Bid Bond Form or Cashier's Check)
  - a. Each Proposal should be accompanied by a certified or cashier's check or by a Bid Bond made payable to the City of Pembroke Pines on an approved form, duly executed by the Proposer as principal and having as surety thereon a surety company acceptable to CITY and authorized to write such Bond under the laws of the State of Florida, in an amount not less than five percent (5%) of the amount of the base Proposal price.
  - b. Contingency is not to be counted in the total amount the proposal security is based on.
  - c. Proposers must submit a scanned copy of their bid security (bid bond form or cashier's check) with their bid submittal through Bonfire.
  - d. Proposers should also submit their original bid security (bid bond form or cashier's check) at time of the bid due date, or they may be deemed as non-responsive.
  - e. The original Bid Bond or Cashier's Check should be in a sealed envelope, plainly marked "**BID SECURITY - IFB # PSEN-24-01 Traffic Signal Installation at Palm Avenue and SW 7 Street**" and sent to the City of Pembroke Pines, City Clerk's Office, 4th Floor, 601 City Center Way, Pembroke Pines, Florida, 33025.
  - f. Please see SECTION 4 - SPECIAL TERMS & CONDITIONS of this document for additional information.

#### **1.5.4 Optional Documentation**

1. **Trade Secrets:**
  - a. The Proposer's response to this solicitation is a public record pursuant to Florida law, which is subject to disclosure by the City under the State of Florida Public Records Law, Florida Statutes Chapter 119.07 ("Public Records Law"). The City shall permit public access to all documents, papers, letters or other material submitted in connection with this solicitation and the Contract to be executed for this solicitation, subject to the provisions of Chapter 119.07 of the Florida Statutes.
  - b. Any language contained in the Proposer's response to the solicitation purporting to require confidentiality of any portion of the Proposer's response to the solicitation, except to the extent that certain information is in the City's opinion a Trade Secret pursuant to Florida law, shall be void. If a Proposer submits any documents or other information to the City



which the Proposer claims is Trade Secret information and exempt from Florida Statutes Chapter 119.07 (“Public Records Laws”), the Proposer shall clearly designate that it is a Trade Secret and that it is asserting that the document or information is exempt. The Proposer must specifically identify the exemption being claimed under Florida Statutes 119.07. The City shall be the final arbiter of whether any information contained in the Proposer’s response to the solicitation constitutes a Trade Secret.

- c. EXCEPT FOR CLEARLY MARKED PORTIONS THAT ARE BONA FIDE TRADE SECRETS PURSUANT TO FLORIDA LAW, DO NOT MARK YOUR RESPONSE TO THE SOLICITATION AS PROPRIETARY OR CONFIDENTIAL. DO NOT MARK YOUR RESPONSE TO THE SOLICITATION OR ANY PART THEREOF AS COPYRIGHTED. ALL DOCUMENTS THAT THE FIRM PURPORTS TO BE CONFIDENTIAL, PROPRIETARY OR A TRADE SECRET SHALL BE UPLOADED TO THE BONFIRE WEBSITE AS A SEPARATE ATTACHMENT, IN THIS SECTION, CLEARLY IDENTIFYING THE EXEMPTION BEING CLAIMED UNDER FLORIDA STATUTES 119.07.
- d. The city’s determination of whether an exemption applies shall be final, and the proposer agrees to defend, indemnify, and hold harmless the city and the city’s officers, employees, and agent, against any loss or damages incurred by any person or entity as a result of the city’s treatment of records as public records.

## 2. Financial Statements:

- a. The City is **not** requesting the vendor to submit any financial statements for this project and prefers if the vendor does not submit financial statements. In addition, if the City needs a copy of the vendor’s financial statements, the City can contact the vendor after the bid due date to request those documents. However, if the vendor does submit the financial statements, they should be uploaded in this section.
- b. Any claim of confidentiality on financial statements must be asserted at the time of submittal. The firm must identify the specific statute that authorizes the exemption from the Public Records Law. Please note that the financial statement exemption provided for in Section 119.071(1)c, Florida Statutes only applies to submittals in response to a solicitation for a “public works” project.

## 3. Additional Information:



- a. Please provide any additional information that you deem necessary to complete your proposal in this section, if it has not been requested in another section.

## **1.6 VENDOR REGISTRATION DOCUMENTS**

The <https://ppines.bonfirehub.com/> website will allow vendors to update their information and documents on an as-needed basis. This process is intended to make the bidding process easier for vendors that bid on multiple City projects. This process will allow vendors to complete and submit the following standard forms and documents at any time prior to bidding on a project. In addition, the vendors will be able to utilize these same forms without the need to re-fill and re-submit the forms each time they bid on a City project. In the event that the City does not have one of the forms or documents listed below for your company, the City may reach out to your company after the bid has closed to obtain the document(s).

**Furthermore, please make sure to update this information on an as-needed basis so that all pertinent information is accurate, such as local business tax receipts, and any other relevant information.**

The following documents can be completed prior to the bidding process through the <https://ppines.bonfirehub.com/> website and do not need to be attached to your submittal as the Bonfire website will automatically include it.

### **1.6.1 Vendor Information Form**

### **1.6.2 Form W-9 (Rev. October 2018)**

- a. Previously dated versions of this form will delay the processing of any payments to the selected vendor.

### **1.6.3 Company Profile Form**

### **1.6.4 Sworn Statement on Public Entity Crimes Form**

### **1.6.5 Equal Benefits Certification Form**

### **1.6.6 Vendor Drug-Free Workplace Certification Form**

### **1.6.7 Scrutinized Company Certification**

### **1.6.8 E-Verify System Certification Statement**

- a. Effective January 1, 2021, pursuant to Section 448.095, Florida Statutes, the City may not enter into a contract with a vendor/contractor/subcontractor unless that vendor/contractor/subcontractor is registered with and uses the E-Verify system administered by the U.S. Department of Homeland Security (“DHS”).



- b. Contractor shall also require all subcontractors to provide an affidavit attesting that the subcontractor does not employ, contract with, or subcontract with, an unauthorized alien. The Contractor shall maintain a copy of such affidavit for the duration of the contract.

**1.6.9 Veteran Owned Small Business Preference Certification**

- a. If claiming Veteran Owned Small Business Preference Certification, business must attach the “Determination Letter” from the United States Department of Veteran Affairs Center for Verification and Evaluation notifying the business that they have been approved as a Veteran Owned Small Business (VOSB).
- b. The Veteran Owned Small Business Preference Certification form must be completed by/for the proposer; the proposer **WILL NOT** qualify for Veteran Owned Small Business Preference based on their sub-contractors’ qualifications.

**1.6.10 Local Business Tax Receipts**

**1.6.11 Local Vendor Preference Certification**

**1.7 EVALUATION OF PROPOSALS & PROCESS OF SELECTION**

- A. Staff will evaluate all responsive proposals received from proposers who meet or exceed the bid requirements contained in the solicitation. Evaluations shall be based upon the information contained in the proposals as submitted.
- B. Staff will make a recommendation to the City Commission for award of contract.

**1.8 TENTATIVE SCHEDULE OF EVENTS**

<b>Event</b>	<b>Time &amp;/or Date</b>
Issuance of Solicitation (Posting Date)	<b>February 27, 2024</b>
Non-Mandatory Pre-Bid Meeting	<b>10:00 a.m. on March 12, 2024</b>
Question Due Date	<b>March 19, 2024</b>
Anticipated Date of Issuance for the Addenda with Questions and Answers	<b>March 25, 2024</b>
Proposals will be accepted until	<b>2:00 p.m. on April 2, 2024</b>
Proposals will be opened at	<b>2:30 p.m. on April 2, 2024</b>
Evaluation of Proposals by Staff	<b>April 2 – May 15, 2024</b>
Recommendation of Contractor to City Commission award	<b>May 15, 2024</b>
Issuance of Notice to Proceed	<b>TBD</b>
Project Commencement	<b>Not later than 10 days after NTP</b>



Project Completion	150 days after NTP
--------------------	--------------------

### **1.8.1 NON-MANDATORY PRE-BID MEETING**

There will be a non-mandatory scheduled pre-bid meeting on **March 12, 2024 at 10:00 a.m.** Meeting location will be at the Public Services Building, Large Conference Room, located at 8300 S. Palm Drive, Pembroke Pines, FL 33025.

### **1.9 SUBMISSION REQUIREMENTS**

Bids/proposals **must be submitted electronically** at <https://ppines.bonfirehub.com/> on or before **2:00 p.m. on April 2, 2024.**

Please note vendors should be registered on Bonfire under the name of the organization that they are operating as and it should match the organization name on the documents that they are submitting and utilizing when responding to the solicitation.

In addition, the vendor must complete any questionnaires on the <https://ppines.bonfirehub.com/> website and provide any additional information requested throughout this solicitation. Any additional information requested in the solicitation should be scanned and uploaded.

The City recommends for proposers to submit their proposals as soon as they are ready to do so. Please allow ample time to submit your proposals on the <https://ppines.bonfirehub.com/> website. Proposals may be modified or withdrawn prior to the deadline for submitting Proposals. Bonfire Support is happy to help you with submitting your proposal and to ensure that you are submitting your proposals correctly, but we ask that you contact [Support@GoBonfire.com](mailto:Support@GoBonfire.com) with ample time before the bid closing date and time.

**PLEASE DO NOT SUBMIT ANY PROPOSALS VIA MAIL, E-MAIL OR FAX.**

However, please note that any required Bid Bond or Cashier's Check should be in a sealed envelope, plainly marked "**BID SECURITY - IFB # PSEN-24-01 Traffic Signal Installation at Palm Avenue and SW 7 Street**" and sent to the City of Pembroke Pines, City Clerk's Office, 4th Floor, 601 City Center Way, Pembroke Pines, Florida, 33025.

## Attachment E

### PROJECT MANUAL - SPECIFICATIONS AND PLANS

#### PROJECT NAME: TRAFFIC SIGNAL INSTALLATION AT PALM AVENUE AND SW 7 STREET

#### PURPOSE

THE CITY OF PEMBROKE PINES IS SEEKING BIDS FROM QUALIFIED FIRMS, HEREINAFTER REFERRED TO AS CONTRACTOR(S), TO PROVIDE SERVICES FOR THE PALM AVENUE & SW 7<sup>TH</sup> STREET INTERSECTION IMPROVEMENTS. PROJECT INCLUDES THE FOLLOWING, BUT LIMITED TO THE FOLLOWING: CLEARING AND GRUBBING/DEMOLITION, ROADWAY MILLING AND RESURFACING, SIDEWALKS, CURB RAMPS, WIDENING, SIGNING AND PAVEMENT MARKINGS, SIGNALIZATION, LIGHTING, MAINTENANCE OF TRAFFIC, AND ANY ADDITIONAL ITEMS REQUIRED TO PROVIDE A COMPLETE INTERSECTION IN ACCORDANCE WITH ALL LOCAL, AND BROWARD COUNTY TRAFFIC ENGINEERING DIVISION (BCTED) STANDARDS, POLICIES, PROCEDURES, AND GUIDELINES.

#### PRINCIPLE FEATURES OF THE WORK

1. **WORKING HOURS ARE LIMITED TO MONDAY THROUGH THURSDAY 7:00 A.M. TO 6:00 P.M. LANE CLOSURES ARE LIMITED TO MONDAY THROUGH THURSDAY BETWEEN 9:00 A.M. AND 4:00 P.M. NO WORK IS PERMITTED ON FRIDAY, SATURDAY OR SUNDAY WITHOUT THE PERMISSION OF THE CITY ENGINEER OR HIS DESIGNEE.**
2. PROPOSER ACKNOWLEDGES THAT THEY HAVE INSPECTED THE SITE AND THAT HE/SHE IS FAMILIAR WITH EXISTING SITE CONDITIONS.
3. THE AWARDED PROPOSER SHALL BE RESPONSIBLE FOR SUPPLYING ALL MATERIALS, LABOR, TOOLS, PARTS, WIRING, EQUIPMENT, ELECTRICAL PARTS, AND MAKING ALL CONNECTIONS NEEDED TO REMOVE, INSTALL AND/OR REPLACE THE ITEMS NOTED ON THE CONTRACT PLANS.
4. THE AWARDED PROPOSER SHALL USE EXTREME CARE NOT TO DAMAGE ANY PORTION OF THE EXISTING ROADWAY AND THE SURROUNDING PROPERTY. THE PROPOSER SHALL REPAIR ANY DAMAGE CAUSED BY THIS PROJECT.
5. PROPOSER ACKNOWLEDGES THAT THEY ARE AWARE OF THE \$250 PER DAY IN LIQUIDATED DAMAGES THEY WILL BE ASSESSED IF THEY FAIL TO COMPLETE THE PROJECT ON TIME, OR NOT FOLLOWING THE PLANS AND/OR SPECIFICATIONS INCLUDING PROPER MAINTENANCE OF TRAFFIC.
6. THE PROPOSER FURTHER ACKNOWLEDGES THAT THE CITY MAY HIRE AN INDEPENDENT CONTRACTOR OF THEIR CHOICE, TO MAKE TEMPORARY REPAIRS TO THE INTERSECTION IN THE EVENT THE AWARDED PROPOSER FAILS TO REMOVE/INSTALL/REPLACE THE ITEMS SHOWN ON THE PLANS. FAILS TO MAKE ALL PROPER CONNECTIONS AND/OR FAILS TO RETURN THIS INTERSECTION TO NORMAL OPERATION. PROPOSER AGREES THAT ALL FUNDS TO PAY FOR THE INDEPENDENT CONTRACTOR WILL BE TAKEN FROM THE FUNDS USED TO PAY THE AWARDED CONTRACT AND SUBTRACTED FROM THE AMOUNT DUE TO THE AWARDED PROPOSER.
7. THE AWARDED PROPOSER AGREES TO REQUEST AND HAVE INSEPTIONS DONE BY THE CITY OF PEMBROKE PINES ENVIRONMENTAL SERVICES DIVISION AND BROWARD COUNTY TRAFFIC ENGINEERING DIVISION. CONTRACTOR AGREES THAT 20% OF THE CONTRACT AMOUNT WILL BE WITHHELD UNTIL SUCH TIME AS ALL INSPECTIONS ARE APPROVED BY BOTH BROWARD COUNTY TRAFFIC ENGINEERING DIVISION AND THE ENGINEERING DIVISION.

## Attachment E

8. THE PROPOSER IS REQUIRED TO COMPLETE THE PROPOSAL SHEET AND PROVIDE UNIT PRICES IN THE PLAN SHEETS ATTACHED TO THE PROPOSAL. PROPOSALS THAT FAIL TO SUBMIT UNIT PRICES WILL BE CONSIDERED NONRESPONSIVE.
9. THE PROPOSER IS REQUIRED TO HAVE A GENERAL CONTRACTORS LICENSE AND HAVE PRIOR EXPERIENCE IN THE INSTALLATION OF TRAFFIC SIGNALS AND ROAD IMPROVEMENTS. THE PROPOSER SHALL SUBMIT A COPY OF THEIR LICENSE, A LIST OF ALL PROPOSED SUBCONTRACTORS, A LIST OF PREVIOUS PROJECTS COMPLETED IN THE LAST FIVE (5) YEARS, AND A LIST OF REFERENCES FOR THOSE PROJECTS.
10. CONTRACTOR IS RESPONSIBLE FOR MILLING 1-1/2" ASPHALT WITHIN THE LIMITS OUTLINED ON THE ATTACHED SET OF PLANS. CONTRACTOR SHALL PAVE FROM RIGHT-OF-WAY LINE TO RIGHT-OF-WAY LINE – INCLUDING ALL INTERSECTIONS AND TURN LANES UNLESS NOTED OTHERWISE ON THE PLANS. ASPHALT CORINGS INDICATE THAT THE EXISTING ASPHALT ON PALM AVE IS BETWEEN 1-1/2" AND 2-3/4" OF ASPHALT. THE ASPHALT MAY BE LESS THAN 1-1/2" IN PLACES AND MORE THAN 2-3/4" IN SOME PLACES. THE CONTRACTOR IS REQUIRED TO MILL 1-1/2" OF THE ASPHALT FROM ALL AREAS UNLESS THE ROCK BASE IS EXPOSED. IF THE ROCK BASE IS EXPOSED THE CONTRACTOR SHALL ADJUST THE MILL DEPTH TO A DEPTH SUCH THAT THE ROCK BASE IS NO LONGER EXPOSED.
11. ALL NEW ASPHALT IS TO BE 1-1/2" TYPE SP-9.5 PER SECTION 334 OF THE FLORIDA DEPARTMENT OF TRANSPORTATION'S REQUIREMENTS FOR HOT MIX ASPHALT FOR LOCAL AGENCIES.
12. THE CONTRACTOR MUST PAVE THE AREAS MILLED AND TEMPORARILY STRIPE (TRAFFIC PAINT) THE ROAD ON THE SAME DAY. NO MILLING OR ASPHALT WORK IS PERMITTED ON RAIN DAYS. ALL MILLING AND ASPHALT WORK MUST BE COMPLETED BY 4:00 P.M. EACH DAY.
13. ALL THERMOPLASTIC MARKINGS INSTALLED ON THIS PROJECT ARE REQUIRED TO MEET BROWARD COUNTY TRAFFIC ENGINEERING DIVISION STANDARDS. A DETAIL SHEET IS ATTACHED TO THE PLANS.
14. CONTRACTOR TO INSTALL SIGNALIZATION IMPROVEMENTS PER PLANS. ALL SIGNALIZATION IMPROVEMENTS TO COMPLY WITH BROWARD COUNTY REQUIREMENTS.
15. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING AND REPLACING/REPAIRING ANY DRIVEWAYS, MAILBOXES, GRASS, CURBS, UTILITIES, SIGNS OR OTHER PUBLIC OR PRIVATE PROPERTY DAMAGED AS A RESULT OF THE MILLING, STRIPING AND/OR PAVING OPERATIONS.
16. THE CONTRACTOR IS RESPONSIBLE FOR SUPPLYING ALL MATERIALS, PROPER MAINTENANCE OF TRAFFIC, LABOR, AND EQUIPMENT REQUIRED FOR THE INSTALLATION OF PERMANENT THERMOPLASTIC MARKINGS. TEMPORARY ASPHALT IS TO BE A MINIMUM OF 3/4" OF COMPACTED SP-9.5 ASPHALT OR APPROVED EQUAL. ANY TEMPORARY ASPHALT INSTALLED MUST BE REMOVED PRIOR TO THE INSTALLATION OF THE PERMANENT ASPHALT. PERMANENT ASPHALT IS TO BE A SINGLE LIFT OF SP-9.5 ASPHALT. THE ASPHALT PRICE MUST INCLUDE INSTALLATION, MOBILIZATION, MILLING, ALL MATERIALS, ALL LABOR, TACK COAT, PRIME COAT FOR EXPOSED ROCK, ASPHALT PREPARATION AND REPLACEMENT OF ALL EXISTING TRAFFIC MARKINGS. A LEVELING COURSE OR ADDITIONAL ASPHALT WILL BE REQUIRED WHERE THE ROCK IS EXPOSED/GOUGED DURING THE MILLING PROCESS. THESE SERVICES MUST BE INCLUDED IN THE TOTAL COST OF THE PROJECT. ALL EXPOSED ROCK MUST BE PROOF-ROLLED BEFORE IT IS PAVED.
17. CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL GRASS FROM THE EDGE OF PAVEMENT PRIOR TO PAVING.



## Attachment E

18. CONTRACTOR MUST PROVIDE PROPER MAINTENANCE OF TRAFFIC AT ALL TIMES PER FDOT INDEX SERIES# 600. A FLAG PERSON AND AN ARROW BOARD MUST BE PRESENT ON BOTH ENDS OF CONSTRUCTION AND ADVANCED WARNING SIGNS MUST BE PROVIDED PER FDOT INDEX SERIES #600 WHEN ANY WORK IS BEING DONE, LANES ARE BEING CLOSED OR A DETOUR IS IN PLACE. THE CONTRACTOR IS REQUIRED TO SUBMIT AND HAVE APPROVED BY BROWARD COUNTY TRAFFIC ENGINEERING DIVISION AND THE CITY ENGINEER A MAINTENANCE OF TRAFFIC PLAN PRIOR TO STARTING WORK AND FOR THE REQUIRED LANE CLOSINGS ON PALM AVENUE AND SW 7 STREET.
19. ONE-HALF OF ALL STREETS MUST BE OPEN TO TRAFFIC AT ALL TIMES. CONTRACTOR MUST PROVIDE ACCESS TO ALL HOMES, SCHOOLS, BUSINESS, AND PARKS AT ALL TIMES EXCEPT WHEN ACTUALLY PAVING IN FRONT OF THAT PARTICULAR SUBDIVISION ENTRANCE, BUSINESS OR DRIVEWAY.
20. CONTRACTOR MUST ADJUST ALL NEW ASPHALT AT ALL DRIVEWAYS TO BE FLUSH WITH THE EXISTING DRIVEWAY.
21. CONTRACTOR IS TO KEEP THE PRIMING AND TACKING EQUIPMENT AS CLOSE AS POSSIBLE TO THE ASPHALT MACHINE TO MINIMIZE THE AMOUNT OF EXPOSED PRIME AND/ OR TACK COAT. CONTRACTOR IS RESPONSIBLE FOR CLEANING/REPLACING ALL ROADS, MARKINGS, SIDEWALKS OR OTHER PROPERTY DAMAGED BY THE TACKING AND/OR PRIMING OPERATION.
22. ANY ASPHALT AREAS WHICH ARE NOT STRAIGHT AND/OR LOOSE WILL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
23. CONTRACTOR IS TO USE EXTREME CARE NOT TO DAMAGE PAVERS, CONCRETE OR DECORATIVE PAVERS ADJACENT TO THIS PROJECT. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY THIS PROJECT.
24. CONTRACTOR IS RESPONSIBLE FOR ADJUSTING ALL MANHOLE COVERS AND WATER VALVES WITH RING RISERS AFTER MILLING AND PRIOR TO PAVING IF NEEDED. CONTRACTOR MUST ALSO SEAL RISERS WITH RAMNEK OR OAE.
25. CONTRACTOR MUST CLEAN ALL CATCH BASINS, MANHOLE COVERS & VALVES AND/OR TAKE PRECAUTIONS TO KEEP BASINS, COVERS & VALVES FREE FROM ASPHALT. CONTRACTOR MUST INSTALL FILTER CLOTH IN ALL CATCH BASINS ADJACENT TO HIATUS ROAD PRIOR TO STARTING THE PAVING OPERATION AND REMOVE THE FILTER CLOTH AFTER THE PAVING OPERATION IS COMPLETE.
26. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING PROPER EROSION CONTROL AND FOR PROPERLY PROTECTING ALL CATCH BASINS AND DRAINAGE INLETS.
27. ALL ASPHALT WORK TO MEET AND BE INSTALLED CONSISTENT WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
28. ALL SIDEWALK REPLACEMENT IS TO MEET CITY OF PEMBROKE PINES ENGINEERING DEPARTMENT STANDARD R-28. ALL REQUIRED HANDICAP RAMPS TO HAVE A TACTILE SURFACE MEETING FDOT INDEX 304. THE CONTRACTOR IS RESPONSIBLE FOR OFFSETTING THE SIDEWALKS AS NEEDED IN ORDER TO AVOID EXISTING SHRUBS AND TREES. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY IRRIGATION DAMAGED DURING SIDEWALK INSTALLATION.
29. THE CONTRACTOR IS REQUIRED TO REQUEST AND HAVE A FORMWORK INSPECTION DONE BY THE CITY OF PEMBROKE PINES ENGINEERING DIVISION PRIOR TO POURING ANY NEW SIDEWALK.
30. THE CONTRACTOR IS REQUIRED TO REPAIR ALL DAMAGE TO PUBLIC OR PRIVATE PROPERTY CAUSED BY THIS PROJECT.

## Attachment E

31. CONTRACTOR TO SUBMIT A SET OF AS-BUILTS PLANS. THE COMPLETED RECORD PLANS SHALL BE CERTIFIED BY A PROFESSIONAL SURVEYOR & MAPPER REGISTERED IN THE STATE OF FLORIDA. THE CONTRACTOR TO FURNISH TO THE CITY 1 SET OF FULL SCALED ENGINEERING PLANS AND ONE USB DRIVE OF FINAL CADD FILES.
32. WITHIN THIRTY (30) CALANDER DAYS FROM THE FIRST NOTICE-TO-PROCEED (NTP), THE CONTRACTOR SHALL SUBMIT A DETAILED CRITICAL PATH METHOD (CMP) SCHEDULE OF THE ENTIRE PROJECT TO CITY PROJECT MANAGER.
33. DURING CONSTRUCTION, THE CONTRACTOR SHALL MEET WITH THE CITY'S PROJECT MANAGER ON A WEEKLY BASIS AND PROVIDE A TWO (2) WEEK LOOK-AHEAD FOR ACTIVITIES TO BE PERFORMED THE UPCOMING WEEK.
34. CONTRACTOR TO SCHEDULE AND COORDINATE A PRE-CONSTRUCTION MEETING WITH ENGINEER OF RECORD AND CITY STAFF PRIOR TO THE BEGINNING OF CONSTRUCTION.
35. CONTRACTOR SHALL FURNISH, AT ITS EXPENSE, PROPERLY ZONED AREAS SUITABLE FOR MATERIAL STORAGE AND EQUIPMENT SERVICE AND STORAGE. NO MATERIAL OR SERVICE EQUIPMENT MAY BE STORED IN THE PUBLIC RIGHT-OF-AWAY WITHOUT PRIOR AUTHORIZATION BY THE AGENCY HAVING JURISDICTION. STORAGE SITES SHALL KEEP THE STORAGE SITES IN A CLEAN AND ORDERLY CONDITION SO AS NOT TO CAUSE NUISANCE OR SIGHT OBSTRUCTION TO MOTORISTS, BICYCLISTS, PEDESTRIANS, RESIDNETS, AND BUSINESSES. NO MATERIAL OR SERVICE EQUIPMENT MAY BE STORED WITHIN THE ROADWAY'S CLEAR ZONE UNLESS PROPERTY PROTECTED BY TEMPORARY BARRIER WALL OR GUARDRAIL.
36. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE CONSTRUCTION SITE IN A SAFE, NEAT, AND PRESENTABLE CONDITION; CLEAR OF ALL TEMPORARY STRUCTURES AND SURPLUS MATERIALS, RUBBISH, BROKEN ASPHALT, BROKEN CONCRETE, MISCELLANEOUS CONDUITM REINFORCING STEEL, SHARP OBJECTS, ECT. AND LEAVE THE SITE IN AN UNOBSTRUCTED CONDITION EACH DAY SO THAT MOTORIST, BICYCLIST, AND PEDESTRIANS ARE NOT ENDANGERED OR PRESENTED WITH CONDITIONS THAT COULD CUASE THEM TO BE EXPOSED TO HARMFUL OR DANGEROUS CONDITIONS, OR TO BECOME DISTRACTED, CONFUSED, OR ILL-TEMPERED.
37. CONTRACTOR TO COORDINATE WITH BROWARD COUNTY TRAFFIC ENGINEERING DIVISION TO ENSURE THE PROPRIETARY PRODUCTS CERTIFICATION PROCESS IS IMPLEMENTED SPECIFICALLY FOR THIS PROJECT FOR ALL PROPOSED EQUIPMENT.
38. ALL PRODUCTS TO COMPLY WITH BROWARD COUNTY TRAFFIC ENGINEERING DIVISION STANDARDS AND COUNTY'S APPROVAL.

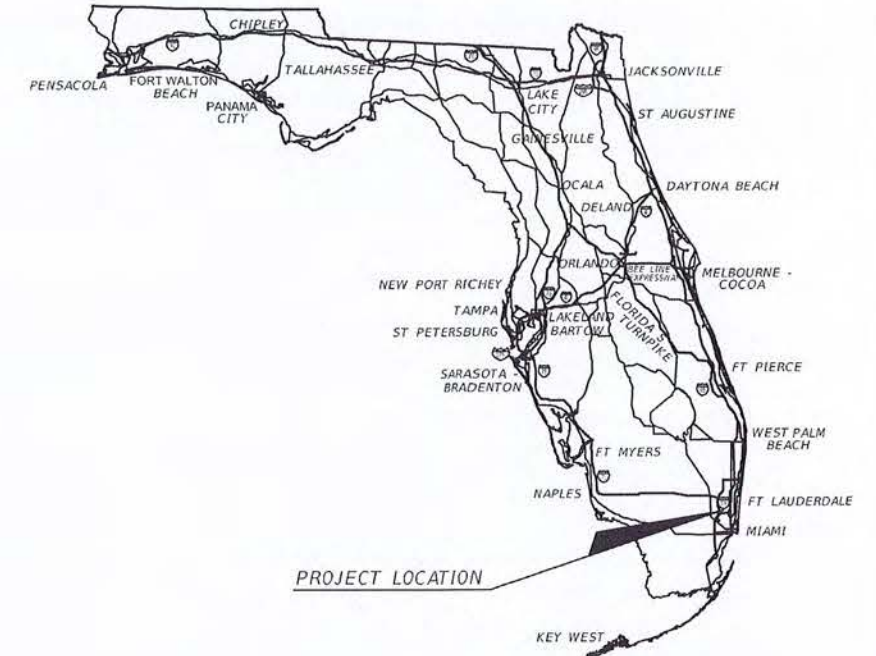


**CITY OF PEMBROKE PINES**

**PALM AVENUE & SW 7TH STREET**

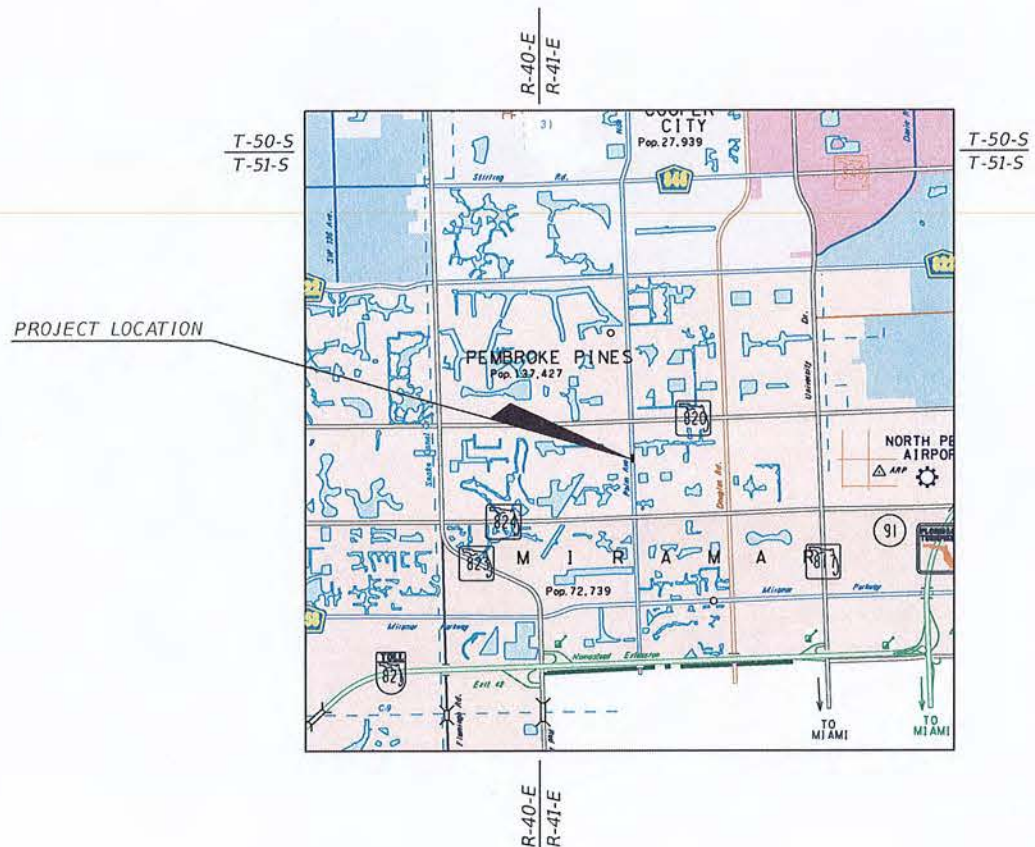
**SIGNALIZATION & SIGNING & PAVEMENT MARKINGS PLANS**

R.J. BEHAR PROJECT NO. 20006



**INDEX OF PLANS**

SHEET NO.	SHEET DESCRIPTION
1	KEY SHEET
2	TABULATION OF QUANTITIES
3 - 4	GENERAL NOTES
5	ROADWAY PLAN
6	SIGNALIZATION PLAN
7	SIGNING & PAVEMENT MARKING PLAN
8	GUIDE SIGN WORKSHEET
9	MAST ARM TABULATION
10	STANDARD MAST ARM ASSEMBLIES DATA TABLE
1 of 1	PAVEMENT MARKING AND SIGNS DETAIL (BROWARD COUNTY STANDARD DETAIL)
1 of 1	GROUND SIGN ASSEMBLY DETAILS (BROWARD COUNTY STANDARD DETAIL)



SHOP DRAWINGS TO BE SUBMITTED TO:

R.J. BEHAR & COMPANY, INC.  
6861 S.W. 196 AVENUE, SUITE 302  
PEMBROKE PINES, FL 33332

PLANS PREPARED BY:



R.J. Behar & Company, Inc.  
Engineers • Planners  
6861 S.W. 196 Avenue, Suite 302  
Pembroke Pines, Florida 33332

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



ENGINEER OF RECORD: ROBERT J. BEHAR

P.E. NO.: 21755

100% SUBMITTAL  
August, 2023

REVISIONS	
DATE	DESCRIPTION
5/9/23	

**GOVERNING STANDARDS AND SPECIFICATIONS:**

FLORIDA DEPARTMENT OF TRANSPORTATION,  
STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION.  
CURRENT EDITION AVAILABLE ON THE FOLLOWING WEBSITE:  
<http://www.fdot.gov/design/standardplans>

MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)

FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (STANDARD SPECIFICATIONS)

BROWARD COUNTY MINIMUM STANDARDS

BROWARD COUNTY TRAFFIC ENGINEERING DIVISION STANDARDS AND SPECIFICATIONS

CITY ENGINEER: KARL KENNEDY, PE

SHEET NO.  
1

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS														TOTAL THIS SHEET		GRAND TOTAL	
			5		6		7													
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
101-1	MOBILIZATION	LS	1															1	1	
102-1	MAINTENANCE OF TRAFFIC	LS	1															1	1	
110-1-1	CLEARING AND GRUBBING	LS	1															1	1	
110-4-10	REMOVAL OF EXISTING CONCRETE	SY	26															26	26	
327-70-01	MILLING EXISTING ASPHALT PAVEMENT (1" AVG. DEPTH)	SY	3571															3571	3571	
285-709	OPTIONAL BASE, BASE GROUP 09	SY	7															7	7	
334-1-13	SUPERPAVE ASPHALTIC CONCRETE, TRAFFIC C	TN	197															197	197	
337-7-82	ASPHALTIC FRICTION COURSE, TRAFFIC C, FC-9.5, PG 76-22	TN	197															197	197	
520-1-10	CONCRETE CURB AND GUTTER (TYPE "F") INCLUDES COST OF LIMEROCK	LF	80															80	80	
522-2	CONCRETE SIDEWALK (6" THICK)(INCLUDING PEDESTRIAN RAMP)	SY	34															34	34	
527-2	DETECTABLE WARNING	SF	18															18	18	
630-2-11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF		60														60	60	
630-2-12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF		285														285	285	
632-7-1	SIGNAL CABLE- NEW OR RECONSTRUCTED INTERSECTION, FURNISH & INSTALL	PI		1														1	1	
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA		26														26	26	
635-2-12	PULL & SPLICE BOX, F&I, 24" X 36" COVER SIZE	EA		1														1	1	
639-1-112	ELECTRICAL POWER SERVICE, F&I, OVERHEAD, METER PURCHASED BY CONTRACTOR	AS		1														1	1	
639-2-1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF		30														30	30	
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II PEDESTAL	EA		1														1	1	
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL	EA		3														3	3	
649-21-1	STEEL MAST ARM ASSEMBLY, FURNISH AND INSTALL, SINGLE ARM 30'	EA		2														2	2	
649-21-6	STEEL MAST ARM ASSEMBLY, FURNISH AND INSTALL, SINGLE ARM 50'	EA		1														1	1	
649-21-10	STEEL MAST ARM ASSEMBLY, FURNISH AND INSTALL, SINGLE ARM 60'	EA		1														1	1	
650-1-14	VEHICULAR TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 3 SECTION, 1 WAY	AS		8														8	8	
650-1-18	VEHICULAR TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 5 SECTION, 1 WAY	AS		2														2	2	
653-1-11	PEDESTRIAN SIGNAL, FURNISH & INSTALL LED COUNTDOWN, 1 WAY	AS		2														2	2	
653-1-12	PEDESTRIAN SIGNAL, FURNISH & INSTALL LED COUNTDOWN, 2 WAY	AS		1														1	1	
660-4-11	VEHICLE DETECTION SYSTEM- VIDEO, FURNISH & INSTALL CABINET EQUIPMENT	EA		1														1	1	
660-4-12	VEHICLE DETECTION SYSTEM- VIDEO, FURNISH & INSTALL ABOVE GROUND EQUIPMENT	EA		3														3	3	
665-1-12	PEDESTRIAN DETECTOR, FURNISH & INSTALL, ACCESSIBLE	EA		5														5	5	
670-5-140	TRAFFIC CONTROLLER ASSEMBLY, FURNISH & INSTALL MODEL 2070	AS		1														1	1	
684-1-1	MANAGED FIELD ETHERNET SWITCH, FURNISH & INSTALL	EA		1														1	1	
685-1-11	UNINTERRUPTIBLE POWER SUPPLY, FURNISH AND INSTALL, LINE INTERACTIVE	EA		1														1	1	
700-1-60	SINGLE POST SIGN, REMOVE	AS					3											3	3	
700-5-21	INTERNALLY ILLUMINATED SIGN, FURNISH & INSTALL, OVERHEAD MOUNT, UP TO 12 SF	EA		4														4	4	
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	EA					110											110	110	
711-11-123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF					344											344	344	
711-11-124	THERMOPLASTIC, STANDARD, WHITE, SOLID, 18" FOR DIAGONALS AND CHEVRONS	LF					60											60	60	
711-11-125	THERMOPLASTIC, STANDARD, WHITE, SOLID, 24" FOR STOP LINE AND CROSSWALK	LF					122											122	122	
711-11-170	THERMO., STD., ARROWS	EA					9											9	9	
711-11-224	THERMOPLASTIC, STANDARD, YELLOW, SOLID, 18" FOR DIAGONAL OR CHEVRONS	LF					32											32	32	
710-11-290	PAINTED PAVEMENT MARKINGS, STANDARD, YELLOW, ISLAND NOSE	SF					13											13	13	
711-16-101	THERMOPLASTIC, STANDARD, OTHER SURFACES, WHITE, SOLID, 6"	GM					0.283											0.283	0.283	
711-16-131	THERMOPLASTIC, STANDARD, OTHER SURFACES, WHITE, SKIP, 6" (10/30)	GM					0.030											0.030	0.030	
711-16-201	THERMOPLASTIC, STANDARD, OTHER SURFACES, YELLOW, SOLID, 6"	GM					0.127											0.127	0.127	
713-10-125	PERMANENT TAPE, WHITE, SOLID, 24" FOR STOP LINE AND CROSSWALK	LF					29											29	29	
713-10-170	PERMANENT TAPE, ARROWS	EA					2											2	2	



REVISIONS		
DATE	DESCRIPTION	DATE

**CITY OF PEMBROKE PINES**  
 ENVIRONMENT-ENGINEERING DIVISION  
 8300 S. Palm Drive  
 Pembroke Pines, FL 33025

**R.J. Behar & Company, Inc.**  
 Engineers • Planners  
 6861 S.W. 196 Avenue, Suite 302  
 Pembroke Pines, Florida 33332  
 ROBERT J. BEHAR, P.E. LICENSE NO. 21755

*BROWARD COUNTY, FLORIDA*

RJB NO. 20006	INTERSECTION PALM AVENUE & SW 7th ST
------------------	---

**TABULATION OF QUANTITIES**

SHEET NO.  
2

SURVEY

1. BENCHMARK ELEVATIONS SHOWN ON THE PLANS ARE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
2. ALL SURVEY INFORMATION WAS OBTAINED FROM A LICENSED FLORIDA PROFESSIONAL SURVEYOR AND MAPPER AND UTILIZED AS SUPPORTING DATA IN THE PRODUCTION OF DESIGN PLANS FOR CONSTRUCTION ON SUBJECT PROJECT. THE PROFESSIONAL SURVEYOR AND MAPPER OF RECORD IS:  
SELVIN P. BRUCE, P.S.M.  
P.S.M. NO: 5290  
BISCAYNE ENGINEERING COMPANY, INC.  
529 WEST FLAGLER STREET, MIAMI, FL 33130  
CERTIFICATE OF AUTHORIZATION: LB-0000129
3. THERE MAY BE ADDITIONAL EASEMENTS, RIGHTS-OF-WAY, OR OTHER RESTRICTIONS THAT ARE NOT SHOWN ON THIS SURVEY THAT MAY BE FOUND IN THE PUBLIC RECORDS OF BROWARD COUNTY.
4. THE CONTRACTOR SHALL CAREFULLY PROTECT FROM DISTURBANCE ALL SURVEY MONUMENTS, STAKES AND BENCH MARKS. ALL MAJOR SURVEY MONUMENTS THAT HAVE BEEN DAMAGED BY THE CONTRACTOR, INCLUDING SECTION CORNERS, 1/4 SECTION CORNERS, PROPERTY CORNERS OR BLOCK CONTROL POINTS SHALL BE REPLACED UNDER THE SUPERVISION OF A FLORIDA REGISTERED LAND SURVEYOR AND MAPPER AT THE CONTRACTORS EXPENSE WITH MARKERS OF A SIZE AND TYPE APPROVED BY THE SURVEYOR.

UTILITIES

1. THE LOCATION OF THE UTILITIES SHOWN IN THE PLANS IS BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE EXACT LOCATION SHALL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION. UTILITIES SHALL REMAIN UNLESS OTHERWISE NOTED.
2. IT IS THE INTENT OF THESE PLANS THAT THE PROPOSED EQUIPMENT TO BE INSTALLED IS TO BE PLACED IN SUCH A MANNER SO AS TO TOTALLY AVOID ANY CONFLICTS WITH EXISTING UTILITIES ALONG THE ROUTE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE NECESSARY INFORMATION TO PLAN THEIR WORK WITHIN THE DESIGN OR SPECIFIED PARAMETERS, AND THE SPECIFIED TIMEFRAME. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL ABOVEGROUND AND UNDERGROUND CONFLICTS IN ADVANCE OF THE PLACEMENT OF ANY CONDUIT OR OTHER FACILITIES.
3. THE CONTRACTOR SHALL USE HAND EXCAVATION METHODS WHEN EXCAVATING NEAR EXISTING UTILITIES, OR WHERE HAND-DIGGING IS SPECIFIED ON THE PLANS. NO SEPARATE PAYMENT SHALL BE MADE FOR THIS WORK. EXTREME CAUTION SHALL BE USED BY THE CONTRACTOR WHEN EXCAVATING, INSTALLING, BACKFILLING AND COMPACTING AROUND EXISTING UTILITIES.
4. 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.
5. THE CONTRACTOR SHALL COORDINATE WITH FPL AND FIELD VERIFY LOCATION(S) OF FPL SERVICE POINT PRIOR TO INSTALLING CONDUIT, DISCONNECT, AND PULL BOXES.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE COMPANY PROVIDING ELECTRIC POWER TO DETERMINE IF A SERVICE PROCESSING FEE IS REQUIRED. IF REQUIRED, THE FEE SHALL BE REFLECTED IN THE CONTRACTORS BID UNIT PRICE FOR ELECTRICAL POWER SERVICE ASSEMBLY.
7. THE CONTRACTOR IS ADVISED THAT THE PRESENCE OF OVERHEAD ELECTRIC CONDUCTORS IN CLOSE PROXIMITY TO THE LOCATIONS OF THE PROPOSED SIGNAL MAST ARMS MAY LIMIT THE TYPE OF EQUIPMENT THAT CAN BE USED IN CONSTRUCTION OF THE MAST ARM AND ITS FOUNDATION. CONTRACTOR SHALL COORDINATE WITH FPL TO DEACTIVATE LINES IF NECESSARY.
8. THE CONTRACTOR SHALL NOTIFY UTILITY OWNERS THROUGH SUNSHINE ONE CALL OF FLORIDA INC. (1- 800-432-4770) AND UTILITY OWNERS LISTED BELOW TWO (2) BUSINESS DAYS IN ADVANCE OF BEGINNING CONSTRUCTION ON THE JOB SITE. A CONTRACTOR'S REPRESENTATIVE SHALL BE PRESENT WHEN THE UTILITY COMPANY LOCATES THEIR FACILITIES. THE LOCATION OF EXISTING UTILITIES SHALL BE DETERMINED BY THE CONTRACTOR AND THE UTILITY REPRESENTATIVE WHEN NECESSARY DURING CONSTRUCTION.

UTILITY OWNERS	TELEPHONE NUMBERS	CONTACT PERSON
COMCAST CABLE	954-447-8405	LEONARD MAXWELL-NEWBOLD
BROWARD COUNTY TRAFFIC	954-847-2745	ROBERT BLOUND
FLORIDA POWER & LIGHT	305-378-2634	JOEL BRAY
BUCKEYE PIPELINE CO	832-541-3946	DANIEL MANGUM
CITY OF PEMBROKE PINES SEWER-WATER	954-435-6511	DENA MANNING
MASTEC, INC.	512-202-1633	RICKIE QUINN
INVESTIGATIONS	469-886-4091	-
AT&T DISTRIBUTION	561-997-0240	DINO FARRUGGIO

BCTED GENERAL NOTES

1. UNLESS OTHERWISE NOTED IN THE TECHNICAL SPECIFICATIONS: INSTALLATION, ACCEPTANCE, AND PAYMENT FOR ALL ITEMS REQUIRED IN THESE PLANS SHALL BE IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING, THE STANDARDS AND SPECIFICATIONS OF THE CITY OF PEMBROKE PINES, FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (STANDARD SPECIFICATIONS), FDOT STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION (STANDARD INDEXES), MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), BROWARD COUNTY MINIMUM STANDARDS, BROWARD COUNTY TRAFFIC ENGINEERING DIVISION STANDARDS AND SPECIFICATIONS, AND ANY OR ALL BROWARD COUNTY TRAFFIC ENGINEERING REQUIREMENTS THAT MEET OR EXCEED THOSE FOUND IN THE ABOVE REFERENCED DOCUMENTS.

2. 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 CONTRACTOR SHALL COORDINATE ANY AND ALL CONSTRUCTION ACTIVITIES AND TRAFFIC CONTROL PHASES WITH ANY OTHER CONTRACTOR WITHIN OR ADJACENT TO PROJECT LIMITS.
3. NOTHING IN THE GENERAL NOTES OR SPECIAL PROVISIONS SHALL RELIEVE THE CONTRACTOR FROM THEIR RESPONSIBILITIES TOWARD THE SAFETY AND CONVENIENCE OF THE GENERAL PUBLIC AND THE RESIDENCES ALONG THE PROPOSED CONSTRUCTION AREA.
4. OFFSETS TO POLES, CABINETS AND PULL BOXES ARE TO THE CENTER OF THOSE ITEMS. THE LOCATION OF ALL PROPOSED EQUIPMENT TO BE INSTALLED SHALL BE CONSIDERED TO BE APPROXIMATE. FIELD ADJUSTMENT OF ALL PROPOSED EQUIPMENT MAY BECOME NECESSARY TO ACCOMMODATE EXISTING FIELD CONDITIONS. VARIATIONS FROM THE PROPOSED LOCATION MUST BE PRE-APPROVED BY THE ENGINEER OF RECORD IN WRITING.
5. 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 OF RECORD PRIOR TO ANY FURTHER WORK ACTIVITY.

STRUCTURES

1. THE CONTRACTOR SHALL VERIFY STRUCTURE ORIENTATION PRIOR TO PLACEMENT. STRUCTURES OF INCORRECT ORIENTATION SHALL BE REPLACED AT CONTRACTORS EXPENSE. THE CONTRACTOR SHALL VERIFY THAT ALL STRUCTURES AND FOUNDATIONS ARE SET TO ELEVATIONS THAT WILL MEET GRADING REQUIREMENTS AT SIDEWALKS AND SLOPES, AND VERTICAL CLEARANCE REQUIREMENTS SPECIFIED IN FDOT, MUTCD, AND COUNTY STANDARDS PRIOR TO INSTALLING STRUCTURAL MATERIAL. IF A DISCREPANCY IS FOUND, CONTACT THE ENGINEER OF RECORD.

SIGNALIZATION NOTES

1. AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE WRITTEN NOTICE OF COMMENCEMENT, VIA EMAIL, TO TEINSPECTION@BROWARD.ORG. NOTICE SHALL INCLUDE THE DATE OF COMMENCEMENT, LOCATION AND TYPE OF WORK & INFORMATION REGARDING ANY MALFUNCTIONING SIGNAL EQUIPMENT. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO OBTAIN AND FILL OUT THE COUNTY'S "ACCEPTANCE OF TRAFFIC SIGNAL MAINTENANCE AND TIMING BY CONTRACTOR DURING CONSTRUCTION AND BURN-IN PERIOD" FORM LETTER, AVAILABLE AT BCTED, PRIOR TO COMMENCEMENT OF ANY WORK. MAINTENANCE OF THE SIGNAL OPERATION, INCLUDING TIMING ADJUSTMENTS, WILL BE THE RESPONSIBILITY OF THE CONTRACTOR UNTIL THE COUNTY ISSUES WRITTEN FINAL ACCEPTANCE OF THE INTERSECTION, AT WHICH TIME MAINTENANCE RESPONSIBILITIES ARE PROPERLY TRANSFERRED TO THE COUNTY.
2. APPROVAL OF SHOP DRAWINGS DOES NOT CONSTITUTE A WARRANTY THAT THE SIGNAL EQUIPMENT COMPLIES WITH THE STANDARDS OF THE MAINTAINING AGENCY. THE CONTRACTOR IS RESPONSIBLE FOR INSURING THAT THE PROPOSED SIGNAL EQUIPMENT MEETS THE REQUIREMENTS SPECIFIED IN THE CONTRACT, SPECIFICATIONS AND CONTRACT PLANS.
3. THE VIDEO DETECTION SYSTEM SHALL BE IN ACCORDANCE TO THE TECHNICAL SPECIFICATIONS INCLUDED IN THE "Vehicle Detection Pay Item Notes" DOCUMENT POSTED ON THE BROWARD COUNTY TRAFFIC ENGINEERING WEBSITE AT <http://www.broward.org/Traffic/Pages/Publications.aspx>. THE VIDEO DETECTION SYSTEM SHALL BE ON THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) APPROVED PRODUCTS LIST AND MEET ALL QUALIFYING SPECIFICATIONS AS DESCRIBED IN FDOT SECTION 660 "VEHICLE DETECTION SYSTEM" AS IT APPLIES TO VIDEO VEHICLE DETECTION SYSTEMS.

SIGNING AND PAVEMENT MARKINGS NOTES

1. PAVEMENT MARKINGS SHALL BE PLACED ACCORDING TO THE BROWARD COUNTY PAVEMENT MARKING AND SIGNS DETAIL SHEET.
2. MATCH EXISTING PAVEMENT MARKINGS AT THE BEGINNING AND AT THE END OF THE PROJECT.
3. REMOVAL OF EXISTING STOP SIGNS SHALL OCCUR IMMEDIATELY AFTER THE TRAFFIC SIGNAL IS OPERATIONAL.
4. ALL TRAFFIC CONTROL DEVICES MAINTAINED BY BROWARD COUNTY, THAT ARE REMOVED OR DAMAGED BY CONSTRUCTION, SHALL BE REPLACED BY CONTRACTOR USING CURRENT BROWARD COUNTY TRAFFIC ENGINEERING DIVISION STANDARDS.

THE FOLLOWING ITEMS ARE NOT REVIEWED OR ACCEPTED BY BROWARD COUNTY:

1. BROWARD COUNTY TRAFFIC ENGINEERING DIVISION'S REVIEW DOES NOT INCLUDE A REVIEW AND ACCEPTANCE OF THE PROJECT'S DESIGN OR OPERATION. THESE ITEMS ARE TO BE REVIEWED AND APPROVED BY THE CITY ENGINEER.
2. BROWARD COUNTY TRAFFIC ENGINEERING DIVISION DOES NOT REVIEW AND APPROVE, OR INSPECT AND ACCEPT THE FOLLOWING ITEMS FOR MAINTENANCE: PAVEMENT MARKINGS ON OR ADJACENT TO PAVER BRICKS, PAINTED ASPHALT, STAMPED ASPHALT OR PAVEMENT MARKINGS MADE OF PAVER BRICKS, RAISED INTERSECTIONS AND RELATED MARKINGS AND SIGNING, UN-WARRANTED MID-BLOCK CROSSWALKS AND RELATED MARKINGS AND SIGNING, UN-WARRANTED CROSSWALKS AND RELATED MARKINGS AND SIGNING, PAINTED/DECORATIVE CROSSWALKS, RAISED CROSSWALKS AND RELATED MARKINGS AND SIGNING, ADVANCED WARNING PAVEMENT MARKINGS FOR SPEED TABLES, BLINKER SIGNS, RECTANGULAR RAPID FLASHER BEACONS AND RELATED MARKINGS AND SIGNING, ON-STREET PARKING AND RELATED MARKINGS AND SIGNING, IN-ROAD LIGHTING AND RELATED MARKINGS AND SIGNING, GREEN BIKE LANES, FLEXIBLE DELINEATORS, DECORATIVE SIGNS AND DECORATIVE SIGN POSTS, PLANTERS, ON-SITE PAVEMENT MARKINGS AND SIGNING, OFF-SITE PAVEMENT MARKINGS AND SIGNING IN RIGHT-OF-WAY THAT IS NOT DEDICATED FOR PUBLIC USE, SIDEWALK WORK OR ASPHALT WORK.
3. THE CITY ENGINEER IS RESPONSIBLE FOR THE REVIEW AND APPROVAL OF THE DESIGN AND OPERATION OF THE PROJECT, AND FOR THE INSPECTION AND ACCEPTANCE OF THE FOLLOWING ITEMS THAT WILL BE MAINTAINED BY THE CITY: PAVEMENT MARKINGS ON OR ADJACENT TO PAVER BRICKS, PAINTED ASPHALT, STAMPED ASPHALT OR PAVEMENT MARKINGS MADE OF PAVER BRICKS, PAVEMENT MARKINGS ON OR ADJACENT TO PAINTED ASPHALT, RAISED INTERSECTIONS AND RELATED MARKINGS AND SIGNING, UN-WARRANTED MID-BLOCK CROSSWALKS AND RELATED MARKINGS AND SIGNING, UN-WARRANTED CROSSWALKS AND RELATED MARKINGS AND SIGNING, PAINTED/DECORATIVE CROSSWALKS, RAISED CROSSWALKS AND RELATED MARKINGS AND SIGNING, ADVANCED WARNING PAVEMENT MARKINGS FOR SPEED TABLES, BLINKER SIGNS, RECTANGULAR RAPID FLASHER BEACONS AND RELATED MARKINGS AND SIGNING, ON-STREET PARKING AND RELATED MARKINGS AND SIGNING, IN-ROAD LIGHTING AND RELATED MARKINGS AND SIGNING, GREEN BIKE LANES, FLEXIBLE DELINEATORS, DECORATIVE SIGNS AND DECORATIVE SIGN POSTS, PLANTERS, ON-SITE PAVEMENT MARKINGS AND SIGNING, OFF-SITE PAVEMENT MARKINGS AND SIGNING IN RIGHT-OF-WAY THAT IS NOT DEDICATED FOR PUBLIC USE, AND SIDEWALK WORK.

REVISIONS		
DATE	DESCRIPTION	DATE



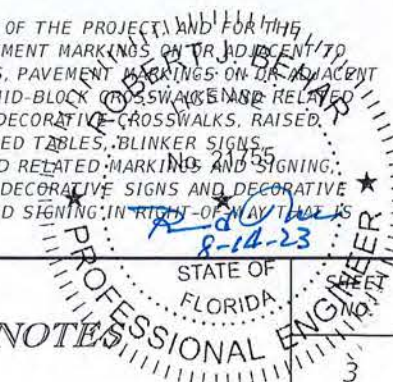
**CITY OF PEMBROKE PINES**  
ENVIRONMENT-ENGINEERING DIVISION  
8300 S. Palm Drive  
Pembroke Pines, FL 33025



**R.J. Behar & Company, Inc.**  
Engineers • Planners  
6861 S.W. 196 Avenue, Suite 302  
Pembroke Pines, Florida 33332  
ROBERT J. BEHAR, P.E. LICENSE NO. 21755

BROWARD COUNTY, FLORIDA	
RJB NO.	INTERSECTION
20006	PALM AVENUE & SW 7th ST

**GENERAL NOTES**



## Attachment E

BCTED REF.#200818060

1. THE TRAFFIC CONTROL SHALL COMPLY WITH THE LATEST EDITION OF THE FDOT STANDARD PLANS, MUTCD, AND STANDARD SPECIFICATIONS. FDOT INDICES 102-612, 102-613, 102-616 & 102-660 SHALL BE USED FOR THE CONSTRUCTION OF THE SIGNALIZATION AND SIGNING AND PAVEMENT MARKINGS.
2. IF THE CONTRACTOR IS REQUIRED BY BROWARD COUNTY TO DEVELOP AND IMPLEMENT MODIFICATIONS TO THE TRAFFIC SIGNAL OPERATIONS, OR IF THE CONTRACTOR DETERMINES A NEED TO MODIFY THE TRAFFIC SIGNAL OPERATIONS, THESE CHANGES MUST BE REPORTED TO THE BCTED'S CENTRAL COMPUTER SITE AT 954-847-2770 PRIOR TO THEIR IMPLEMENTATION.
3. EARLY "TURN-ON" OF ANY NEW SIGNAL INSTALLATION WILL ONLY BE PERMITTED IF AUTHORIZED IN WRITING BY BCTED. IF THIS NEED ARISES, BCTED WILL NEGOTIATE WITH THE CONTRACTOR FOR MAINTENANCE OF THE SIGNAL. NEW SIGNAL LOCATIONS SHALL BE FLASHED NO LESS THAN THREE DAYS, AND NO MORE THAN FOURTEEN DAYS PRIOR TO THE INSPECTION. SIGNAL HEADS MUST BE BAGGED WITH BURLAP OR TURNED UNDER UNTIL THIS TIME.
4. THE CONTRACTOR SHALL MAINTAIN ON-LINE COMMUNICATIONS OF EXISTING OR TEMPORARY SIGNALIZATION VIA INTERCONNECT COMMUNICATION CABLE OR TELCO PHONE LINES, FIBER EQUIPMENT, OR CELLULAR EQUIPMENT DURING CONSTRUCTION. CONTRACTOR SHALL PROVIDE TEMPORARY LINES AND CONNECTIONS AS NECESSARY. A TIME-BASED-COORDINATION (TBC) SYSTEM IS TO BE UTILIZED ONLY IF PROVISION OF THE TEMPORARY LINES IS NOT FEASIBLE. THE DEVELOPMENT AND IMPLEMENTATION OF THE TBC PROGRAM IS TO BE PERFORMED BY THE CONTRACTOR WITH OVERSIGHT BY A TRAFFIC ENGINEER REGISTERED IN THE STATE OF FLORIDA. COST OF MAINTAINING COMMUNICATION WITH THE CENTRAL SITE, INCLUDING TEMPORARY LINES AND CONNECTIONS, SHALL BE PAID FOR UNDER THE MAINTENANCE OF TRAFFIC PAY ITEM NUMBER. ALL REPORTED MALFUNCTIONS OF THE COMMUNICATIONS SYSTEM SHALL BE RESPONDED TO BY THE CONTRACTOR WITHIN TWO HOURS AND SHALL BE REPAIRED WITHIN 24 HOURS.
5. THE REGULATORY SPEED LIMITS ON BOTH ROADWAY CORRIDORS FOR THE INTERSECTION(S) DURING CONSTRUCTION SHALL BE MAINTAINED AT THE EXISTING POSTED SPEED LIMITS, UNLESS A SPEED REDUCTION IS REQUIRED FOR SAFE ROUTES TO SCHOOL.
6. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A SAFE AND ADEQUATE WALKING SURFACE APPLICABLE TO THE AMERICANS WITH DISABILITIES ACT (ADA) FOR PEDESTRIANS DURING CONSTRUCTION. SAFE WALK ROUTES FOR ALL PEDESTRIANS AND TRANSIT BUS USERS WITHIN THE VICINITY OF THE CONSTRUCTION ZONE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION. THIS INCLUDES SAFE WALK ROUTES/ACCESS TO AND FROM EXISTING BUS STOPS AND TRANSIT VEHICLES.
7. THERE WILL BE NO LANE CLOSURES ALLOWED BETWEEN THE HOURS OF 6:00 AM TO 9:00 AM AND 3:30 PM TO 7:00 PM MONDAY THROUGH FRIDAY. ONE TRAVEL LANE CLOSURE SHALL BE ALLOWABLE IN EITHER DIRECTION DURING ACTIVE WORK PERIODS BETWEEN 9:00 AM TO 3:30 PM MONDAY THROUGH FRIDAY. ALL LANE CLOSURES REQUESTED DURING THESE TIMES SHALL BE SUBMITTED AT LEAST TWO WEEKS AHEAD OF THE DATE OF CLOSURE, AND SHALL BE APPROVED BY THE COUNTY IN ACCORDANCE WITH FDOT LANE CLOSURE REQUIREMENTS.
8. LANE CLOSURES ON SATURDAY AND SUNDAY BETWEEN 8:00 AM TO 5:00 PM WILL BE ALLOWED, BUT ONLY WITH ADVANCED APPROVAL BY THE CITY OF PEMBROKE PINES AND THE COUNTY, AND NOT DURING SPECIAL EVENTS. THE REQUEST FOR A LANE CLOSURE MUST BE MADE AT LEAST THREE (3) WEEKS IN ADVANCE OF THE SPECIFIED DATE FOR THE CLOSURE. THE REQUEST SHALL BE MADE THROUGH THE DESIGN CRITERIA PROFESSIONAL IN ACCORDANCE WITH FDOT LANE CLOSURE REQUIREMENTS.
9. IF TWO OR MORE LANES MUST BE CLOSED AT A TIME, THE CONTRACTOR SHALL REQUEST APPROVAL FROM THE CITY AND THE COUNTY AT LEAST THREE (3) WEEKS IN ADVANCE AND MAKE ARRANGEMENTS FOR THE WORK TO OCCUR BETWEEN THE HOURS OF 9:00 PM AND 5:00 AM ON MONDAY THROUGH SUNDAY WITH THE PROPER USE OF LAW ENFORCEMENT OFFICER(S). COSTS FOR THE LAW ENFORCEMENT OFFICERS SHALL BE INCLUDED IN THE TOTAL CONTRACT PRICE UNDER MAINTENANCE OF TRAFFIC.
10. THE CONTRACTOR SHALL REPORT ALL LANE CLOSURES, INCLUDING ROADWAY RAMP CLOSURES, TO THE LOCAL EMERGENCY AGENCIES, THE MEDIA AND THE COUNTY AT LEAST ONE WEEK PRIOR TO THE SCHEDULED CLOSURES. ALSO, CONTRACTOR SHALL DEVELOP THE PROJECT TO BE ABLE TO PROVIDE FOR ALL LANES OF TRAFFIC TO BE OPEN IN THE EVENT OF AN EMERGENCY OR IF THE LANE CLOSURE CAUSES A DRIVER DELAY GREATER THAN 20 MINUTES. AT THE DISCRETION OF THE ENGINEER, THE CONTRACTOR SHALL BE DIRECTED TO REOPEN ANY CLOSED LANES UNTIL SUCH TIME AS TRAFFIC FLOW HAS RETURNED TO AN ACCEPTABLE LEVEL.
11. THE CONSTRUCTION AND INSTALLATION OF TRAFFIC SIGNAL MAST ARMS AND THEIR FOUNDATIONS SHALL BE LIMITED TO ONE QUADRANT OF THE INTERSECTION AT ANY ONE TIME PERIOD. AFTER WORK IS COMPLETED IN ONE QUADRANT, ADDITIONAL WORK MAY PROCEED TO ANOTHER QUADRANT OF THE INTERSECTION.
12. SIDEWALKS, GUTTERS, DRAINS, FIRE HYDRANTS AND PRIVATE DRIVES SHALL BE KEPT IN GOOD CONDITION FOR THEIR INTENDED USES. FIRE HYDRANTS ON OR ADJACENT TO THE WORK SHALL BE KEPT ACCESSIBLE TO FIRE APPARATUS AT ALL TIMES, AND NO MATERIAL OR OBSTRUCTION SHALL BE PLACED WITHIN TEN (10) FEET OF ANY SUCH HYDRANT.

4. THE APPLICATION OF THE FOLLOWING MATERIALS TO VARIOUS TRAFFIC SIGNAL COMPONENTS SHALL BE PERFORMED DURING ASSEMBLY:
  - THREADED HARDWARE: ALL NON-ELECTRICAL THREADED HARDWARE (i.e. ASTRO BRACKET HARDWARE, POLE HARDWARE OR ANY THREADED SURFACE) SHALL BE COATED WITH AN ANTI-SEIZE LUBRICANT APPROVED BY THE ENGINEER OF RECORD. NO SPRAY ON ANTI-SEIZE COMPOUND WILL BE ACCEPTED.
  - GASKETING SURFACES: ALL GASKET SURFACES SHALL BE LIGHTLY COATED WITH COUNTY APPROVED SILICONE GREASE.
  - ELECTRICAL CONNECTIONS: ALL MECHANICAL/ELECTRICAL CONNECTIONS SHALL HAVE THE VARIOUS COMPONENTS OF THE SPLICE OR TERMINATION COATED WITH COUNTY APPROVED OXIDE INHIBITOR.
  - GALVANIZED SURFACES: ALL SCRATCHES AND FIELD-DRILLED HOLES SHALL BE TREATED IN ACCORDANCE WITH THE 'MAST ARM PAINT SPECIFICATION' PROVISIONS AS POSTED ONLINE AT THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION PUBLICATIONS WEBSITE AT <http://www.broward.org/Traffic/Pages/Publications.aspx>.
  - WEATHERPROOFING: IRREGULAR MATING SURFACES SHALL BE RENDERED WEATHERPROOF BY APPLYING AN APPROPRIATE BEAD OF CLEAR SILICON CAULK. THESE AREAS INCLUDE SERRATED SIGNAL COUPLINGS, CONTROLLER CABINET FOUNDATION, PEDESTRIAN PUSH BUTTONS, AND ANY OTHER AREAS TYPICALLY PRONE TO MOISTURE INFILTRATION.
  - CABLE ENTRY/EXIT: WHENEVER A CABLE ENTERS OR EXITS A FIELD DRILLED HOLE, THE CABLE SHALL BE PROTECTED FROM ABRASION WITH AN APPROVED MEANS.
5. IN AN INSPECTION CONTRACTOR SHALL PROVIDE ALL NECESSARY EQUIPMENT INCLUDING A TWO MAN BUCKET TRUCK OR PLATFORM LIFT TRUCK FOR USE BY THE INSPECTOR AND MAINTENANCE STAFF.

PAY ITEM NOTES

- 102-1 PAYMENT FOR THIS ITEM SHALL ONLY BE MADE IF THE APPROVED MAINTENANCE OF TRAFFIC PLAN INCLUDES A UNIFORMED TRAFFIC CONTROL OFFICER, WITH A MARKED LAW ENFORCEMENT VEHICLE, TO ASSIST IN CONTROLLING AND DIRECTING TRAFFIC IN THE WORK ZONE; AND IF IT WAS VERIFIED TO BE PRESENT AT THE ACTIVE WORK ZONE BY THE ENGINEER OR INSPECTOR.
- 649-2X-XXX POLES REQUIRING MODIFICATION OF THE ARM LENGTH SHALL BE TREATED PER THE GENERAL NOTES ON THE RESPECTIVE DETAIL SHEETS PROVIDED IN THE CONTRACT PLANS. COMPONENTS REQUIRING FIELD METALLIZING AND TOUCH UP SHALL BE TREATED PER SECTION 975 AND IN ACCORDANCE WITH THE 'MAST ARM PAINT SPECIFICATION' PROVISIONS AS POSTED ONLINE AT THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION PUBLICATIONS WEBSITE AT <http://www.broward.org/Traffic/Pages/Publications.aspx>. STEEL PROVIDED FOR STRUCTURAL MODIFICATIONS SHOWN IN THE CONTRACT PLANS SHALL BE PER SECTION 962 AND OF A SIMILAR TYPE AND GRADE OF THE COMPONENT ATTACHED TO. IF REQUIRED, FIELD WELDING SHALL BE DONE ONLY WITH THE APPROVAL OF THE STRUCTURAL ENGINEER AND SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 460 INCLUDING FDOT SUPPLEMENTAL SPECIFICATIONS.

ALL MAST ARMS SHALL BE PROVIDED WITH A TERMINAL COMPARTMENT.

BID PRICE FOR INSTALLATION OF MAST ARMS SHALL INCLUDE FOUNDATION CONSTRUCTION, INCLUDING CSL TUBES (NUMBER AND CONFIGURATION OF CSL TUBES SHALL COMPLY WITH STANDARDS AND SPECIFICATIONS SECTION 455-16.4 CSL TUBES AND FDOT STANDARD PLANS INDEX 649-031).

THE CONTRACTOR SHALL BE RESPONSIBLE AT THE TIME OF PICK-UP TO VERIFY AND NOTE ANY EXISTING DEFECTS OR MISSING ITEMS. ITEMS NOT NOTED AT THE TIME OF PICK-UP SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSES. PAYMENT INCLUDES THE DEVELOPMENT AND SUBMITTAL OF A DRILLED SHAFT INSTALLATION PLAN PER INTERSECTION FOR THE COUNTY'S APPROVAL AS REFERENCED IN FDOT SPECIFICATIONS. A GIVEN MAST ARM/POLE ASSEMBLY LOCATION SHALL BE FIELD VERIFIED AND IDENTIFIED AS FREE OF CONFLICTS AND/OR OBJECTS BY THE CONTRACTOR PRIOR TO PROCUREMENT OF THE ASSOCIATED MAST ARM/POLE ASSEMBLY.

THE EQUIPMENT AND/OR THE FPL COORDINATION SHALL BE REFLECTED IN THE CONTRACTOR'S BID UNIT PRICE FOR MAST ARM CONSTRUCTION.

- 650-1-XX ALL TRAFFIC SIGNAL HEADS SHALL BE STANDARD, NOT LIGHTWEIGHT.
- 670-5-14X THE CONTROLLER ASSEMBLY SHALL CONSIST OF A 2070 CONTROLLER WITH VERSION 76 FIRMWARE AND A TS2 TYPE 1 SHELF MOUNTED WITHIN A TYPE VI CONTROLLER CABINET WITH FRONT AND BACK DOORS (SPECIAL NOTE: IF THERE IS LIMITED SIDEWALK ADA CLEARANCE, A REDUCED DEPTH TYPE VI CABINET CAN BE USED WITH PRIOR APPROVAL FROM BCTED). EQUIPMENT USED MUST BE CERTIFIED FROM THE FDOT APL LIST. THIS 2070 CONTROLLER SHALL PROVIDE TOTAL UTILITY AND INTEROPERABILITY WITH BCTED'S ATMS.NOW COMPUTER SYSTEM. THE CABINET SHALL INCLUDE A MINIMUM OF SIXTEEN (16) LOAD SWITCH BAYS AND ACCOMMODATIONS FOR THE VIDEO DETECTION SYSTEM. THE CABINET AIR FILTER SHALL BE OF THE REUSABLE WASHABLE ALUMINUM TYPE. THE TOP OF THE CONTROLLER PAD SHALL BE AT LEAST SIX INCHES ABOVE THE ROADWAY ELEVATION. THIS PAY ITEM SHALL ALSO INCLUDE COMPLETE REINTEGRATION OF THE EXISTING GPS PRIORITY CONTROL PREEMPTION EQUIPMENT, AND RELOCATION TO/FROM THE EXISTING CABINET. A FLUSH MOUNTED AUTOMATIC POWER TRANSFER SWITCH SHALL BE INCLUDED ON THE CABINET. A TECHNICIAN SERVICE PAD 30" IN WIDTH SHALL ALSO BE PROVIDED. WHENEVER POSSIBLE, THE CABINET IS TO BE PLACED SO THAT THE DOOR OPENS AWAY FROM THE INTERSECTION AND OPENS FULLY WITHIN THE RIGHT OF WAY. THIS PAY ITEM INCLUDES THE COST OF THE CONCRETE FOR THE CONTROLLER PAD AND THE SERVICE PAD.


- 684-1-X INCLUDES CISCO IR1101-A-K9, CISCO SL-IR1101-NA, CISCO 10T-OTHER, CISCO NO-10T-SOLUTION, CISCO SR1101-K9-173 P-LTE-MNA (CELLULAR MODULE), MEAN WELL GST60A24-P1J POWER SUPPLY.
- CONTRACTOR SHALL COORDINATE THE ORDER AND DELIVERY OF THE CELLULAR COMMUNICATIONS EQUIPMENT SIX (6) WEEKS PRIOR TO FINAL INSPECTION WITH THE COMMUNICATIONS MANAGER (954-847-2745) OR EMAIL AT [TECOMMUNICATIONS@BROWARD.ORG](mailto:TECOMMUNICATIONS@BROWARD.ORG).
- 700-1-60 INCLUDES DELIVERY OF REMOVED ASSEMBLY TO BROWARD COUNTY TRAFFIC ENGINEERING DIVISION AT 3300 WEST COMMERCIAL BLVD FORT LAUDERDALE. PLEASE CONTACT THE TRAFFIC SIGNS SUPERINTENDENT AT 954-847-2717 TO COORDINATE THE DELIVERY OF MATERIALS. EXISTING STOP SIGN ASSEMBLIES ARE TO BE REMOVED IMMEDIATELY UPON COMPLETION OF SIGNALIZATION.
- 700-5-XX ILLUMINATED STREET SIGNS SHALL BE LED TYPE AND PRODUCE A MINIMUM OF 50 LUMENS PER WATT.

INSPECTIONS

1. ALL FINAL INSPECTIONS ARE TO BE SCHEDULED IN ACCORDANCE WITH CONTRACT DOCUMENTS.
2. CONTRACTOR SHALL HAVE THE APPROVED SHOP DRAWINGS AVAILABLE ON THE PROJECT SITE.
3. ALL WORK WHICH WILL NOT BE READILY VISIBLE UPON COMPLETION SHALL NOT BE CONCEALED UNTIL AN APPROVED INSPECTION. IN THE EVENT THAT ITEMS ARE CONCEALED, IT WILL BE THE CONTRACTORS RESPONSIBILITY TO EXPOSE THE QUESTIONED ITEM(S) FOR THE INSPECTORS APPROVAL, AT NO ADDITIONAL COST TO THE COUNTY. THIS INCLUDES, BUT IS NOT LIMITED TO BURIED OR IMBEDDED CONDUIT, GROUND WIRE, RODS, AND ARRAY, COMMUNICATIONS WIRING AND HOMERUNS. SPLICES BEFORE ENCAPSULATING. ALL MEG OHM AND CONTINUITY TESTING SHALL BE DONE IN THE PRESENCE OF THE COUNTY INSPECTOR.



REVISIONS		
DATE	DESCRIPTION	DATE



**CITY OF PEMBROKE PINES**  
ENVIRONMENT-ENGINEERING DIVISION  
8300 S. Palm Drive  
Pembroke Pines, FL 33025



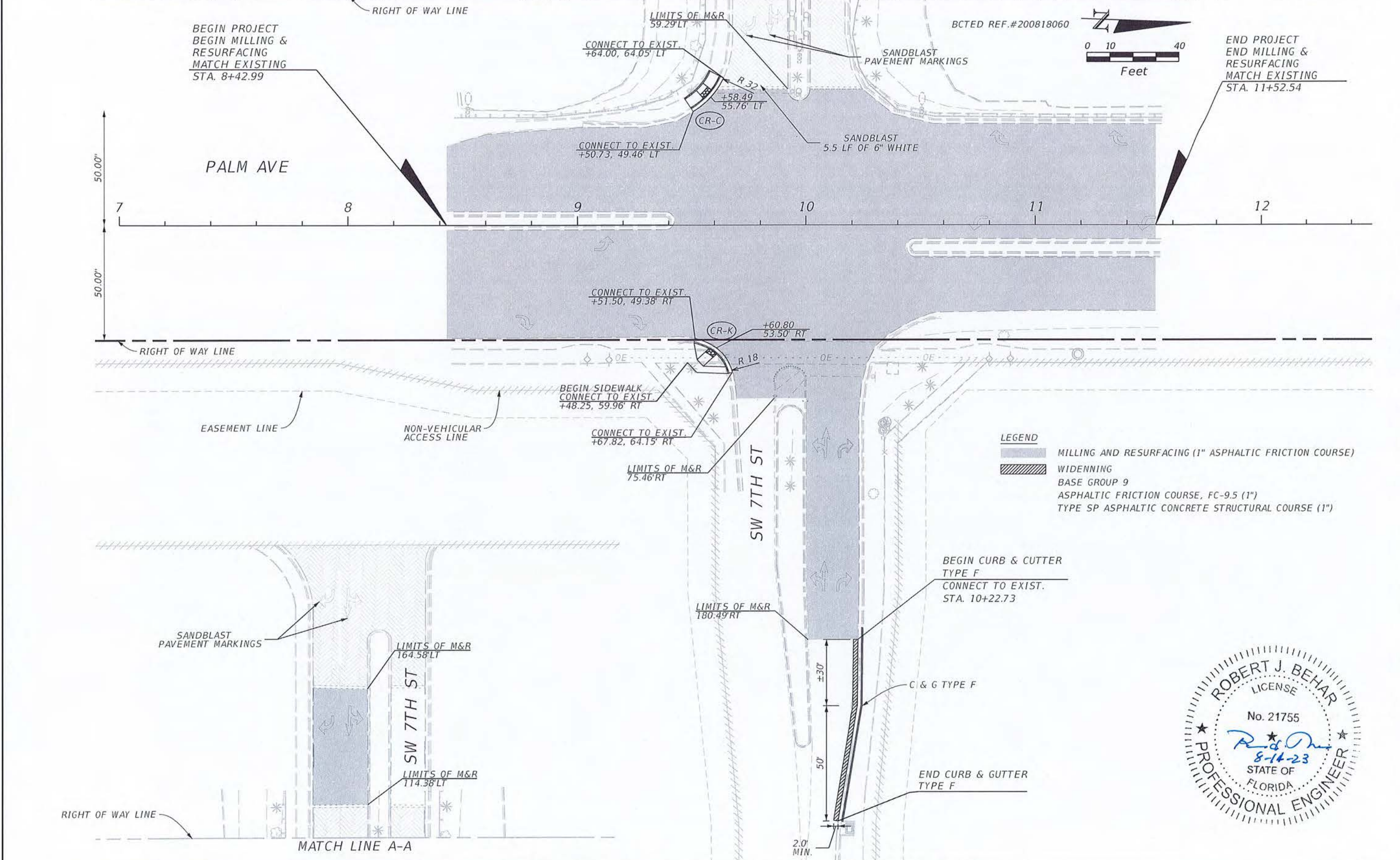
**R.J. Behar & Company, Inc.**  
Engineers • Planners  
6861 S.W. 196 Avenue, Suite 302  
Pembroke Pines, Florida 33332  
ROBERT J. BEHAR, P.E. LICENSE NO. 21755

BROWARD COUNTY, FLORIDA	
RJB NO.	INTERSECTION
20006	PALM AVENUE & SW 7th ST

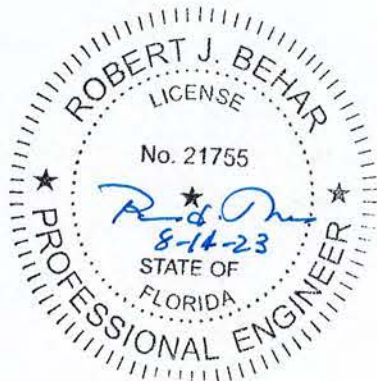
GENERAL NOTES

SHEET NO. 4

Attachment E



- LEGEND**
- MILLING AND RESURFACING (1" ASPHALTIC FRICTION COURSE)
  - WIDENNING
  - BASE GROUP 9
  - ASPHALTIC FRICTION COURSE, FC-9.5 (1")
  - TYPE SP ASPHALTIC CONCRETE STRUCTURAL COURSE (1")



REVISIONS		
DATE	DESCRIPTION	DATE

**CITY OF PEMBROKE PINES**  
 ENVIRONMENT-ENGINEERING DIVISION  
 8300 S. Palm Drive  
 Pembroke Pines, FL 33025

**R.J. Behar & Company, Inc.**  
 Engineers • Planners  
 6861 S.W. 196 Avenue, Suite 302  
 Pembroke Pines, Florida 33332  
 ROBERT J. BEHAR, P.E. LICENSE NO. 21755

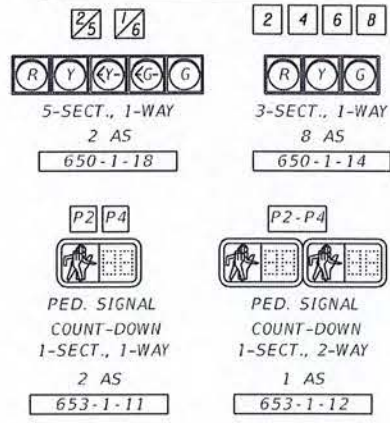
BROWARD COUNTY, FLORIDA	
RJB NO.	INTERSECTION
20006	PALM AVENUE & SW 7th ST

**ROADWAY PLAN**

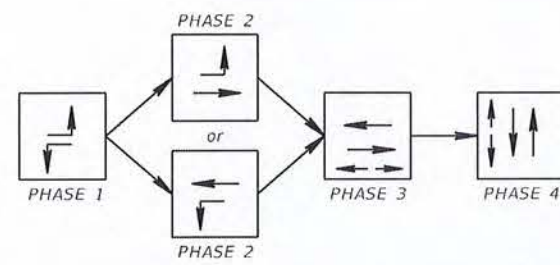
SHEET NO.  
**5**

## Attachment E

### SIGNAL HEAD DETAILS



#### SPECIAL S.O.P.

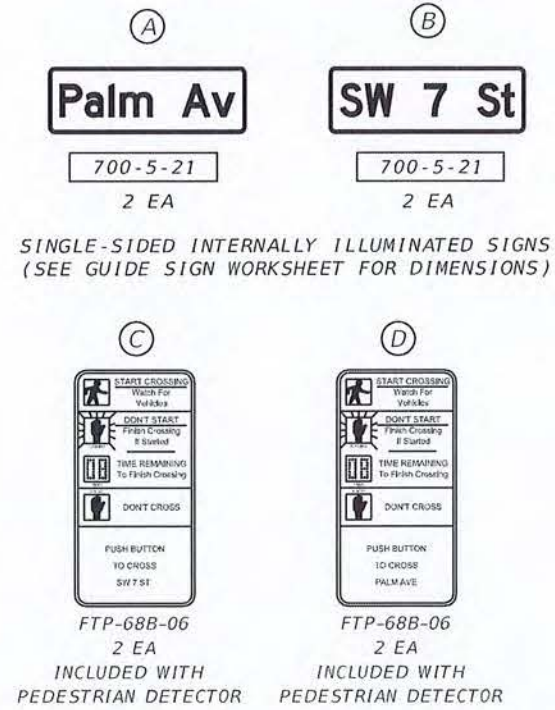


### SIGNAL OPERATION NOTES

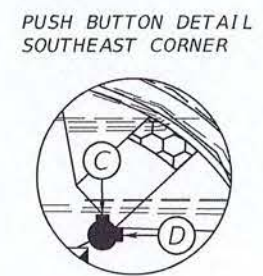
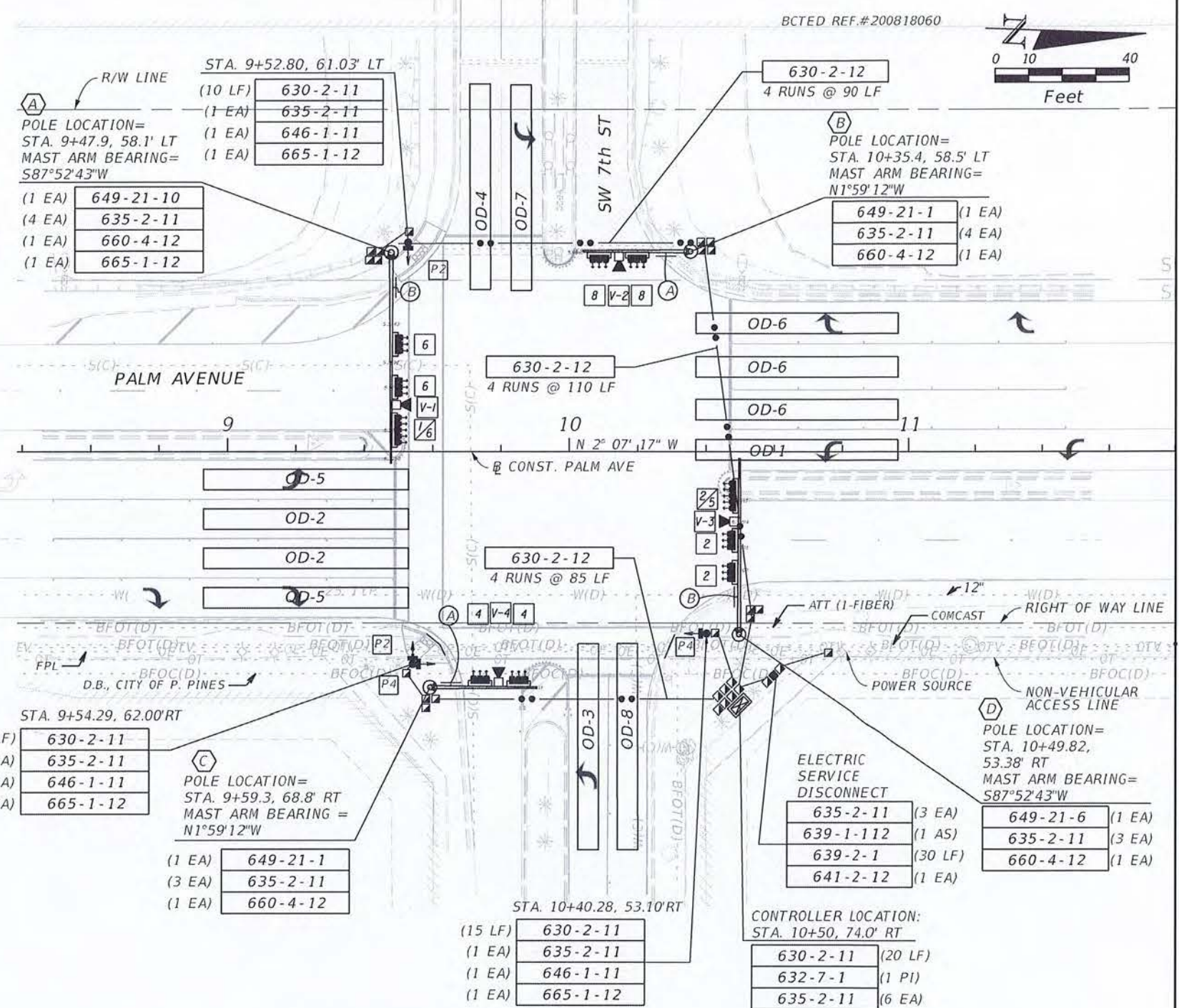
- CONTROLLER OPERATIONS  
- MAJOR STREET IS PALM AVENUE - FLASH YELLOW  
- MINOR STREET IS SW 7TH STREET - FLASH RED
- VIDEO DETECTION ZONES SHALL BE 60' LONG PER LANE, INCLUDING 10 FEET BEYOND THE STOP BAR.
- CONTROLLER SHALL OPERATE ACCORDING TO S.O.P. SHOWN.

CONTROLLER TIMINGS								
	SBL NB	EB NBL SB	WB					
TIMING FUNCTION	1	2	3	4	5	6	7	8
MOVEMENT NUMBER	1	2	3	4	5	6	7	8
MINIMUM GREEN	4	7		6	4	7		6
EXTENSION	1.5			2	1.5	0		2
MAXIMUM GREEN 1	12	50		25	12	50		25
MAXIMUM GREEN 2								
YELLOW CLEARANCE	5	5		4	5	5		4
ALL RED	2	2		2	2	2		2
PEDESTRIAN WALK		7		7				
PED. CLEARANCE		17		26				
RECALL	OFF	MAX		OFF	OFF	MAX		OFF

### SIGN DETAILS



VIDEO DETECTOR CONNECTION CHART				
DETECTOR	OPERATION	CONNECTED TO MOVEMENT	CONTROLLER TIMING FUNCTION	DELAY SETTING
V-1	PRESENCE	6,1	TF 1, TF 6	
V-2	PRESENCE	3,8	TF 3	
V-3	PRESENCE	2,5	TF 2, TF 5	
V-4	PRESENCE	7,4	TF 3	



PROFESSIONAL ENGINEER  
No. 21755  
STATE OF FLORIDA  
R. J. Behar  
8-14-23

REVISIONS		
DATE	DESCRIPTION	DATE

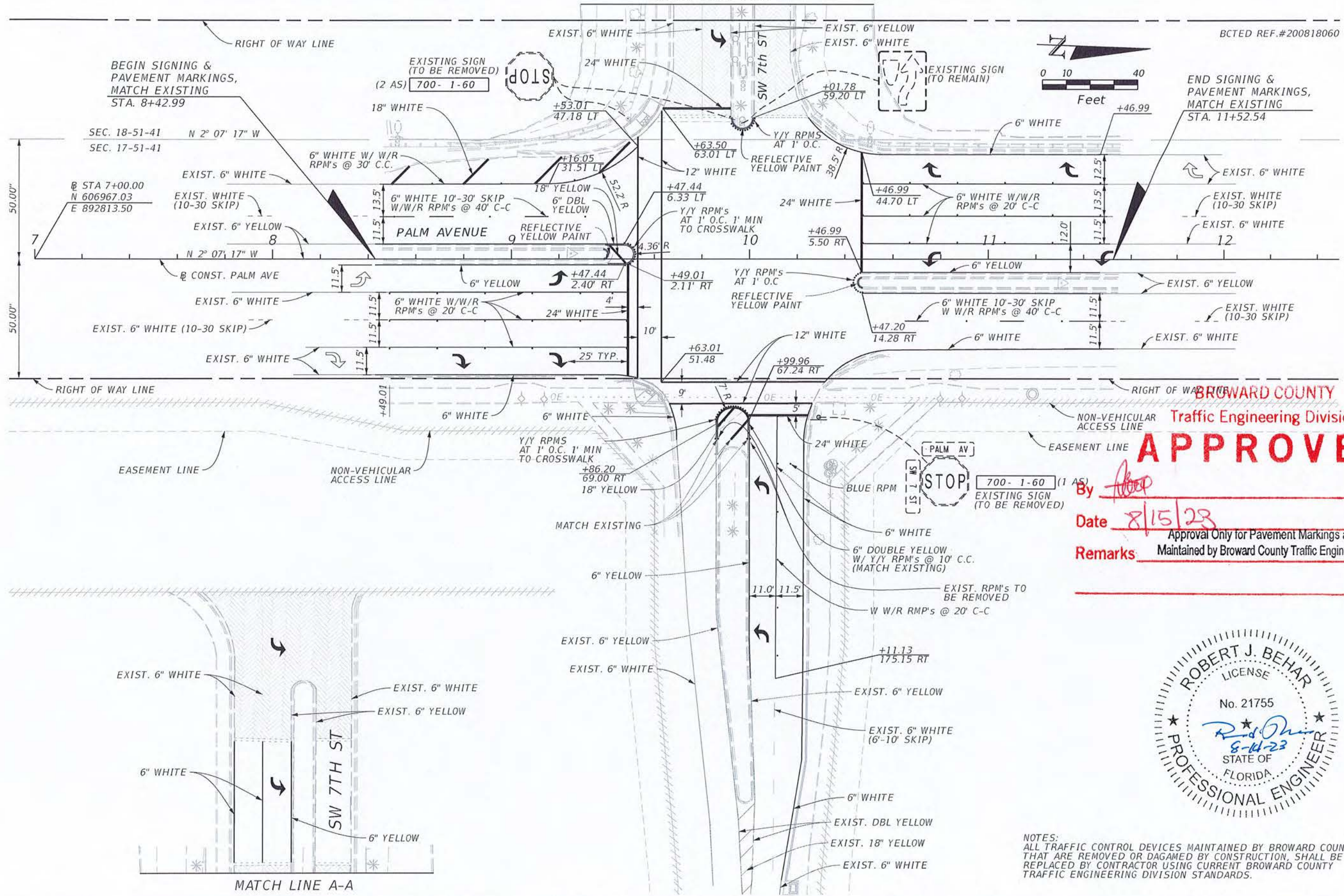
CITY OF PEMBROKE PINES  
ENVIRONMENT-ENGINEERING DIVISION  
8300 S. Palm Drive  
Pembroke Pines, FL 33025

R.J. Behar & Company, Inc.  
Engineers • Planners  
6861 S.W. 196 Avenue, Suite 302  
Pembroke Pines, Florida 33332  
ROBERT J. BEHAR, P.E. LICENSE NO. 21755

BROWARD COUNTY, FLORIDA	
RJB NO.	INTERSECTION
20006	PALM AVENUE & SW 7th ST

SIGNALIZATION PLAN  
SHEET NO. 6





BCTED REF.#200818060

**BROWARD COUNTY**  
Traffic Engineering Division  
**APPROVED**

By *[Signature]*  
Date 8/15/23  
Remarks: Approval Only for Pavement Markings and Signing  
Maintained by Broward County Traffic Engineering Division



NOTES:  
ALL TRAFFIC CONTROL DEVICES MAINTAINED BY BROWARD COUNTY, THAT ARE REMOVED OR DAMAGED BY CONSTRUCTION, SHALL BE REPLACED BY CONTRACTOR USING CURRENT BROWARD COUNTY TRAFFIC ENGINEERING DIVISION STANDARDS.

REVISIONS		
DATE	DESCRIPTION	DATE

**CITY OF PEMBROKE PINES**  
ENVIRONMENT-ENGINEERING DIVISION  
8300 S. Palm Drive  
Pembroke Pines, FL 33025

**R.J. Behar & Company, Inc.**  
Engineers • Planners  
6861 S.W. 196 Avenue, Suite 302  
Pembroke Pines, Florida 33332  
ROBERT J. BEHAR, P.E. LICENSE NO. 21755

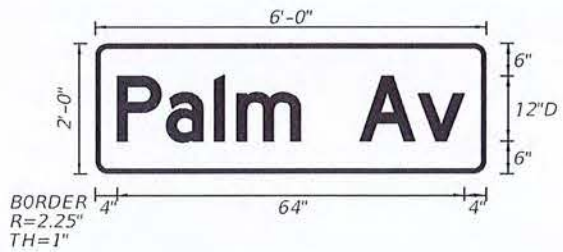
BROWARD COUNTY, FLORIDA	
RJB NO.	INTERSECTION
20006	PALM AVENUE & SW 7th ST

**SIGNING AND PAVEMENT MARKING PLAN**

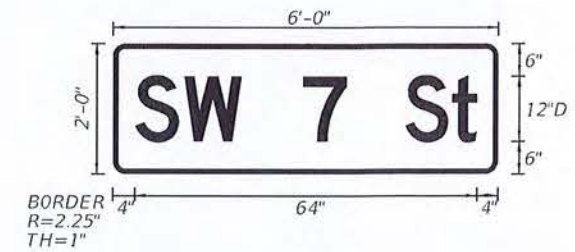
SHEET NO.  
7

**Attachment E**

SIGN NAME A		QTY	SIGN NUMBER	STATION(S)
PANEL		BORDER		
WIDTH	6'-0"	WIDTH	1"	
HEIGHT	2'-0"	RADII	2.25"	
LEGEND	White	COLOR	White	
COLOR	Green			
SYMBOL(S)	ANGLE	X	Y	WID
HT				
SIGN NUMBER	NUMBER OF POSTS	CLEARANCE Edge of Lane	COLUMN SIZE	AVERAGE LENGTH
NO. OF LIGHT FIXTURES	FIXTURE SPACING	WATT		
PHOTOMETRIC CURVE	VOLTAGE			



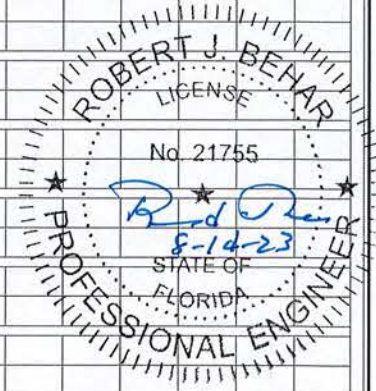
SIGN NAME B		QTY	SIGN NUMBER	STATION(S)
PANEL		BORDER		
WIDTH	6'-0"	WIDTH	1"	
HEIGHT	2'-0"	RADII	2.25"	
LEGEND	White	COLOR	White	
COLOR	Green			
SYMBOL(S)	ANGLE	X	Y	WID
HT				
SIGN NUMBER	NUMBER OF POSTS	CLEARANCE Edge of Lane	COLUMN SIZE	AVERAGE LENGTH
NO. OF LIGHT FIXTURES	FIXTURE SPACING	WATT		
PHOTOMETRIC CURVE	VOLTAGE			



BCTED REF.#200818060

COPY	P	a	l	m	A	v	L
SPACE	4	13	21.9	26	37.9	48.7	59.5
COPY							
SPACE							
COPY							
SPACE							
COPY							
SPACE							
COPY							
SPACE							
COPY							
SPACE							
COPY							
SPACE							
COPY							
SPACE							
COPY							
SPACE							
COPY							
SPACE							
COPY							
SPACE							
COPY							
SPACE							
COPY							
SPACE							
COPY							
SPACE							
COPY							
SPACE							
COPY							
SPACE							
COPY							
SPACE							
COPY							
SPACE							
COPY							
SPACE							
COPY							
SPACE							
COPY							
SPACE							

COPY	S	W	7	S	t	L
SPACE	4	13.1	23.7	35	43.1	54.4
COPY						
SPACE						
COPY						
SPACE						
COPY						
SPACE						
COPY						
SPACE						
COPY						
SPACE						
COPY						
SPACE						
COPY						
SPACE						
COPY						
SPACE						
COPY						
SPACE						
COPY						
SPACE						
COPY						
SPACE						
COPY						
SPACE						
COPY						
SPACE						
COPY						
SPACE						
COPY						
SPACE						
COPY						
SPACE						
COPY						
SPACE						
COPY						
SPACE						
COPY						
SPACE						
COPY						
SPACE						
COPY						
SPACE						
COPY						
SPACE						
COPY						
SPACE						



REVISIONS DESCRIPTION	DATE

**CITY OF PEMBROKE PINES**  
 ENVIRONMENT-ENGINEERING DIVISION  
 8300 S. Palm Drive  
 Pembroke Pines, FL 33025

**R.J. Behar & Company, Inc.**  
 Engineers • Planners  
 6861 S.W. 196 Avenue, Suite 302  
 Pembroke Pines, Florida 33332  
 ROBERT J. BEHAR, P.E. LICENSE NO. 21755

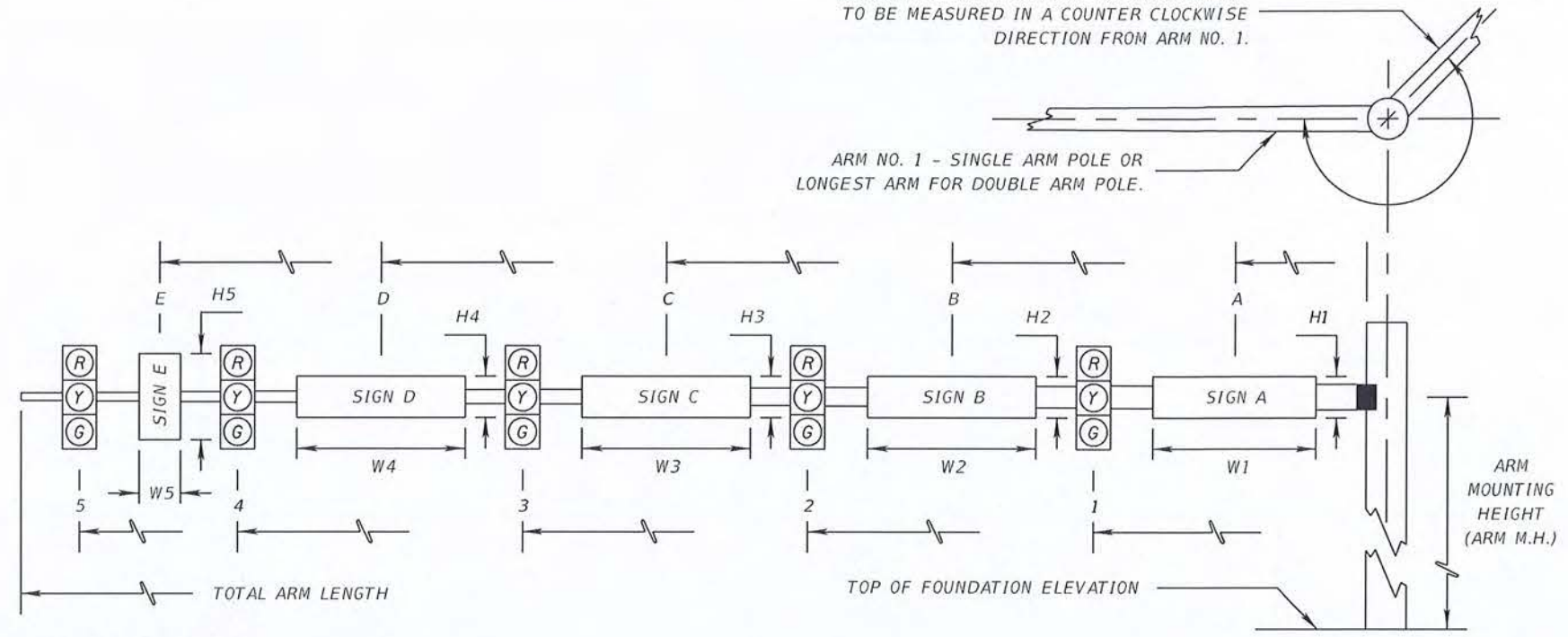
BROWARD COUNTY, FLORIDA	
RJB NO.	INTERSECTION
20006	PALM AVENUE & SW 7th ST

**GUIDE SIGN WORKSHEET**

SHEET NO.  
**8**

# DRAFT DOCUMENT FOR COMMISSION REVIEW

SPECIAL INSTRUCTIONS			
ID NO.	PED. BUTTON	PED. SIGNALS	HANDHOLE LOCATION



\* DENOTES NUMBER OF SECTIONS IN SIGNAL HEAD ASSEMBLY

ID NO.	SHEET NO.	LOCATION BY STA.	TOP OF FOUND. ELEVATION	RDWY ARM NO.	CROWN ELEV.	LUMI-NAIRE Y/N	SIGNAL DATA											SIGN DATA											VIDEO DATA									
							SIGNAL V/H	BACK PLATES Y/N	PED. SIGNAL Y/N	DISTANCE FROM POLE					TOTAL ARM LENGTH	ARM M.H.	ANGLE BETWEEN DUAL ARMS 90/270	DISTANCE FROM POLE / HEIGHT AND WIDTH OF SIGN											DISTANCE FROM POLE	PAINT COLOR								
										1	*	2	*	3				*	4	*	5	*	A	H1	W1	B	H2	W2			C	H3	W3	D	H4	W4	E	H5
A	6	9+47.90		1	6.35'	N	H	Y	N	25.5'	3	38'	3	50.5'	5		60'	22'		9'	2'	6'													43'			
				2																																		
B	6	10+35.40		1	6.00'	N	H	Y	N	14.5'	3	25.5'	4			30'	22'		6'	2'	6'														19.5'			
				2																																		
C	6	9+59.30		1	5.25'	N	H	Y	N	13.5'	3	25'	4			30'	22'		5'	2'	6'															19'		
				2																																		
D	6	10+49.80		1	6.25'	N	H	Y	N	17'	3	26'	3	39'	5		50'	22'		10'	2'	6'																
				2																																		
				1																																		
				2																																		
				1																																		
				2																																		
				1																																		
				2																																		
				1																																		
				2																																		
				1																																		
				2																																		
				1																																		
				2																																		
				1																																		
				2																																		



(1) OPTICAL VEHICLE DETECTOR

REVISIONS		
DATE	DESCRIPTION	DATE

**CITY OF PEMBOKE PINES**  
ENVIRONMENT-ENGINEERING DIVISION  
8300 S. Palm Drive  
Pembroke Pines, FL 33025

**R.J. Behar & Company, Inc.**  
Engineers • Planners  
6861 S.W. 196 Avenue, Suite 302  
Pembroke Pines, Florida 33332  
ROBERT J. BEHAR, P.E. LICENSE NO. 21755

BROWARD COUNTY, FLORIDA	
RJB NO.	INTERSECTION
20006	PALM AVENUE & SW 7th ST

MAST ARM TABULATION

SHEET NO.
9

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	A60/S - P4/S	A60/S						P4/S		22	DS/20/5.0
B	A30/S - P1/S	A30/S						P1/S		22	DS/12/4.0
C	A30/S - P1/S	A30/S						P1/S		22	DS/12/4.0
D	A50/S - P3/S	A50/S						P3/S		22	DS/16/4.5

**NOTES [Notes Date 11-01-16]:**

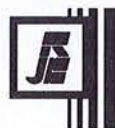
1. If an entry appears in column FAA, a shorter arm is required. This is obtained by removing length from the arm tip and the arm length shortened from FA to FAA. SAA Similar.
2. If an entry appears in column UAA, a shorter pole is required. This is obtained by removing length from the pole tip and the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



REVISIONS		
DATE	DESCRIPTION	DATE



**CITY OF PEMBROKE PINES**  
 ENVIRONMENT-ENGINEERING DIVISION  
 8300 S. Palm Drive  
 Pembroke Pines, FL 33025



**R.J. Behar & Company, Inc.**  
 Engineers • Planners  
 6861 S.W. 196 Avenue, Suite 302  
 Pembroke Pines, Florida 33332  
 ROBERT J. BEHAR, P.E. LICENSE NO. 21755

*BROWARD COUNTY, FLORIDA*

RJB NO.	INTERSECTION
20006	PALM AVENUE & SW 7th ST

*STANDARD MAST ARM ASSEMBLIES DATA TABLE*

SHEET NO.  
**10**

BCTED REF NO: 221102060

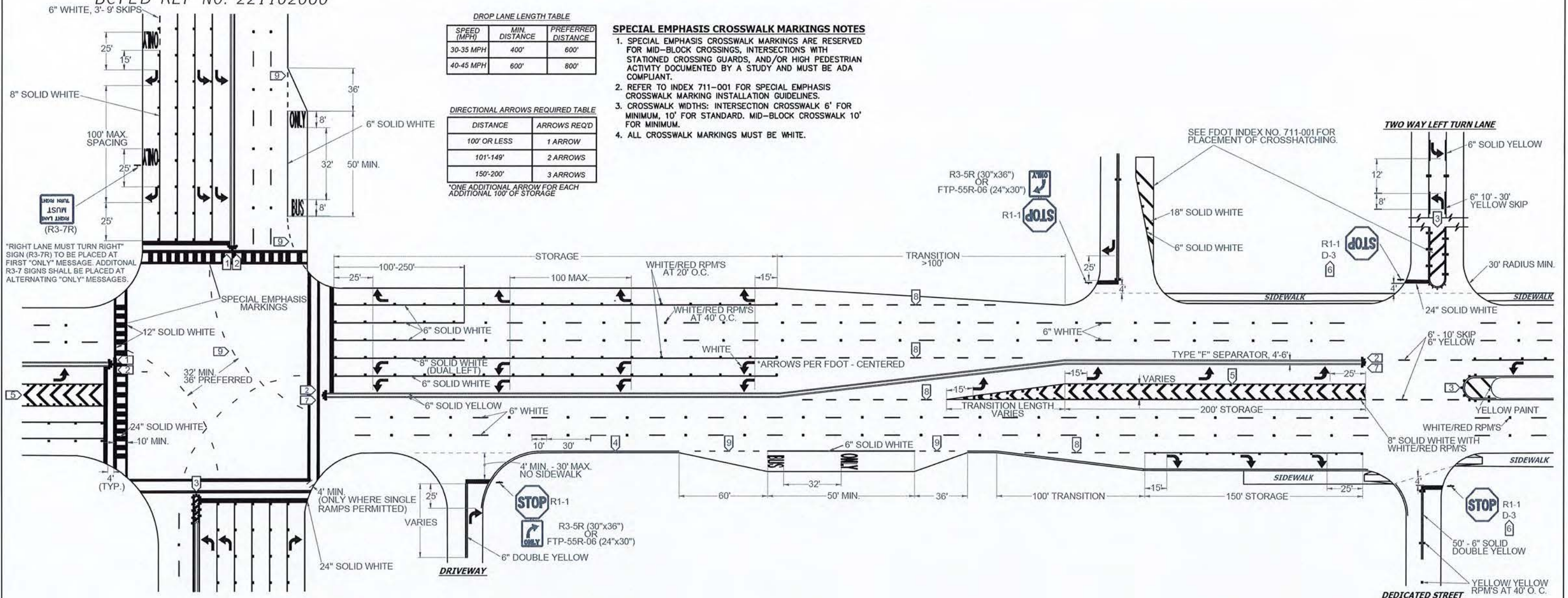
SPEED (MPH)	MIN. DISTANCE	PREFERRED DISTANCE
30-35 MPH	400'	600'
40-45 MPH	600'	800'

DISTANCE	ARROWS REQ'D
100' OR LESS	1 ARROW
101'-149'	2 ARROWS
150'-200'	3 ARROWS

ONE ADDITIONAL ARROW FOR EACH ADDITIONAL 100' OF STORAGE

**SPECIAL EMPHASIS CROSSWALK MARKINGS NOTES**

- SPECIAL EMPHASIS CROSSWALK MARKINGS ARE RESERVED FOR MID-BLOCK CROSSINGS, INTERSECTIONS WITH STATIONED CROSSING GUARDS, AND/OR HIGH PEDESTRIAN ACTIVITY DOCUMENTED BY A STUDY AND MUST BE ADA COMPLIANT.
- REFER TO INDEX 711-001 FOR SPECIAL EMPHASIS CROSSWALK MARKING INSTALLATION GUIDELINES.
- CROSSWALK WIDTHS: INTERSECTION CROSSWALK 6' FOR MINIMUM, 10' FOR STANDARD. MID-BLOCK CROSSWALK 10' FOR MINIMUM.
- ALL CROSSWALK MARKINGS MUST BE WHITE.



**NOTES**

- ALL PAVEMENT MARKINGS SHALL BE ALKYD BASED THERMOPLASTIC AND FULLY RETROREFLECTORIZED.
- ALL PAVEMENT MARKINGS ON PAVER SYSTEMS SHALL BE 3M 380/381 SERIES TAPE OR EQUIVALENT AND APPLIED WITH P60 ADHESIVE AS PER MANUFACTURERS SPECIFICATIONS.
- ALL PAVEMENT MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", BCTED STANDARDS, AND FDOT DESIGN STANDARDS.
- SEE FDOT INDEX NO 706-001 FOR PLACEMENT OF RPM'S (FOR BULLNOSE RPM TREATMENT, SEE LEGEND NO. 1)
- RPM'S SHALL BE CLASS "B" OR EQUIVALENT, APPLIED WITH EPOXY OR BITUMINOUS ADHESIVE.
- FDOT APPROVED SEALER SHALL BE USED WHEN APPLYING MARKINGS ON CONCRETE.
- FOR BIKE LANE DETAILS SEE FDOT INDEX NO. 711-002.
- EXISTING MARKINGS SHALL BE REMOVED BY WATER BLASTING OR SAND BLASTING.
- ALL STOP LINES TO BE 4' BEHIND CROSSWALK OR SIDEWALK.
- PAVEMENT MARKING REFLECTIVITY SHALL BE UNIFORM ACROSS THE ENTIRE STRIPE AND SHALL HAVE A MINIMUM REFLECTIVITY READING OF 250 MILLICANDELAS FOR WHITE AND 175 MILLICANDELAS FOR YELLOW.
- ALL PRODUCTS MUST BE ON FDOT'S APPROVED PRODUCTS LIST (APL).
- RPMS SHALL NOT BE INSTALLED ADJACENT TO BIKE LANES.
- LONGITUDINAL CROSSWALK MARKINGS SHALL BE INSTALLED AT ALL CROSS STREETS ON COUNTY ROADS THAT ARE FOUR LANES OR GREATER.

**LEGEND**

<p><b>1 YELLOW/YELLOW RPM DETAILS</b></p>	<p><b>4 EDGE LINE DETAILS</b></p>	<p><b>7 TYPE IV SEPARATOR DETAILS</b></p>
<p><b>2 MEDIAN NOSE PAINT DETAILS</b></p>	<p><b>5 CHEVRON DETAILS - CROSSWALK AREAS AND IN FRONT OF CURB RAMPS</b></p>	<p><b>8 6'-10' SKIP DETAILS</b></p> <p>6' - 10' SKIPS 6" WHITE SHALL BE USED FOR THE FOLLOWING CONDITIONS:</p> <ul style="list-style-type: none"> <li>TRANSITIONS AT ALL LEFT AND RIGHT TURN LANES</li> </ul>
<p><b>3 PAINTED MEDIAN DETAILS</b></p>	<p><b>6 STREET NAME BLADE DETAILS</b></p> <p>SEE BCTED STOP SIGN AND STREET IDENTIFICATION ASSEMBLY TYPICAL DETAILS.</p>	<p><b>9 2'-4' SKIP DETAILS</b></p> <p>2' - 4' SKIPS 6" WHITE SHALL BE USED FOR THE FOLLOWING CONDITIONS:</p> <ul style="list-style-type: none"> <li>RADIUS GUIDE LINES BETWEEN DUAL LEFTS TURN MOVEMENT (90' RADIUS PREFERRED OR AS NOTED ON PLANS)</li> <li>BUS BAY TRANSITIONS</li> </ul> <p><b>STOP SIGN NOTE</b></p> <p>WHERE SIDE ROADS INTERSECT A MULTI LANE STREET OR HIGHWAY THAT HAS A SPEED LIMIT OF 45 MPH OR HIGHER, THE MINIMUM SIZE OF THE STOP SIGNS FACING THE SIDE ROAD APPROACHES, EVEN IF THE SIDE ROAD ONLY HAS ONE APPROACH LANE, SHALL BE 36"x36".</p> <p>WHERE SIDE ROADS INTERSECT A MULTI-LANE (INCLUDING TURN LANE) STREET OR HIGHWAY THAT HAS A SPEED LIMIT OF 40 MPH OR LOWER, THE MINIMUM SIZE OF THE STOP SIGN FACING THE SIDE ROAD APPROACHES SHALL BE 36"x36".</p>

DATE	DESCRIPTION
11-24-2020	UPDATED NOTES
04-14-2021	UPDATED NOTES
05-06-2022	UPDATED NOTES



**PUBLIC WORKS DEPARTMENT  
TRAFFIC ENGINEERING DIVISION**

DESIGN BY: CARMELO CARATTOZZOLO, P.E.    SCALE: NTS  
 DRAWN BY: STEPHON RAMOUTAR  
 CHECKED BY: CARMELO CARATTOZZOLO, P.E.

**PAVEMENT MARKINGS  
AND SIGNS  
DETAILS**

**SHEET  
NO.  
1 OF 1**

## Attachment E

### GUIDE TO USE THIS STANDARD:

1. Calculate the Total Panel Area and the centroid 'C' for an individual sign or a sign cluster.
2. Determine the height 'H' from the groundline for the individual sign or the cluster.
3. Consult the Post Size Table and find the intersection point.
4. Design the post and the foundation according to the required Post Size and Assembly Details.

BCTED REF NO: 221102060



Centroid of Sign Cluster

'H' Sign Assembly Height

7' Min Ground Clearance

6' Min Ground Clearance

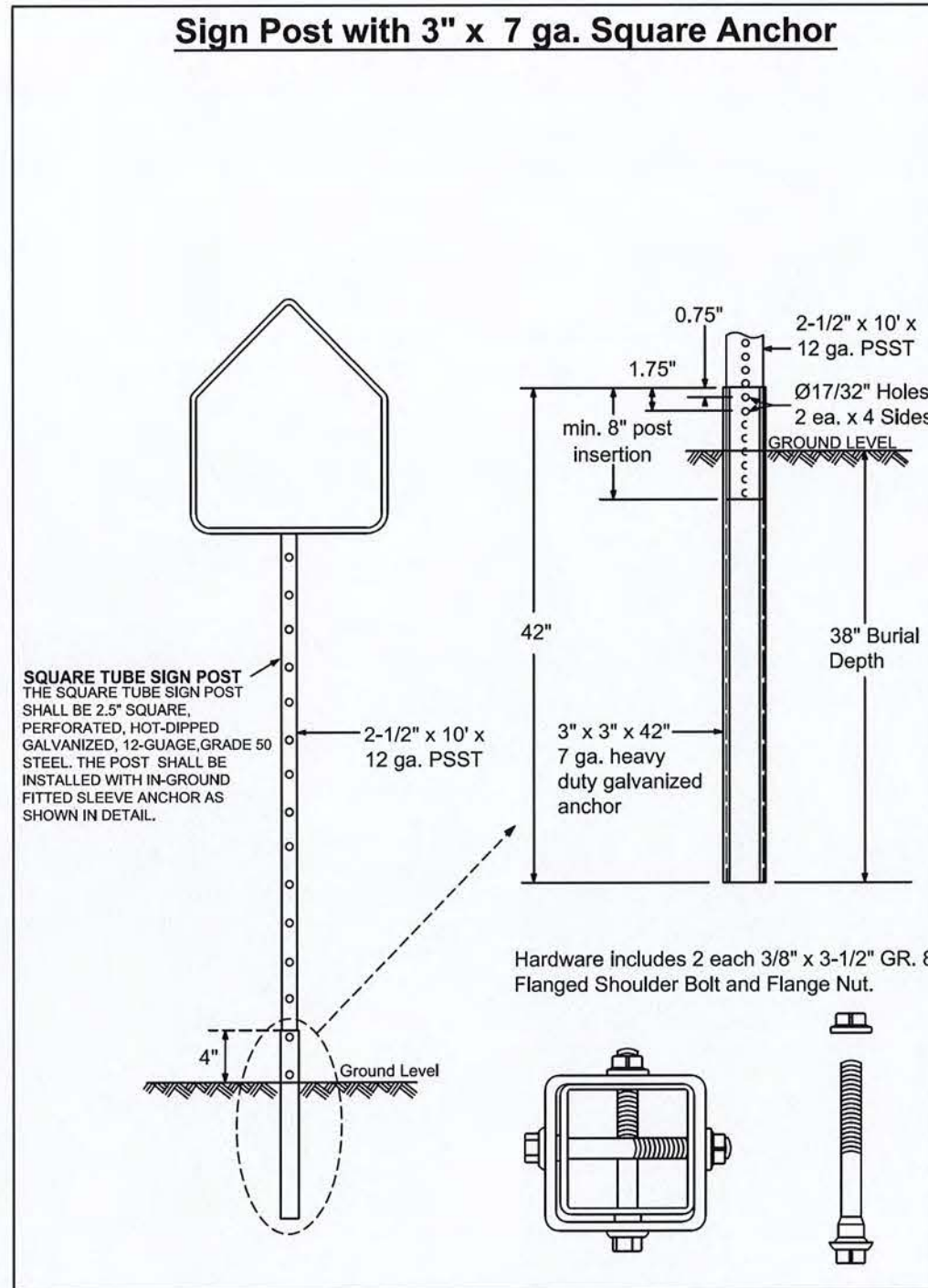
GROUND LEVEL

**Post Size Table**

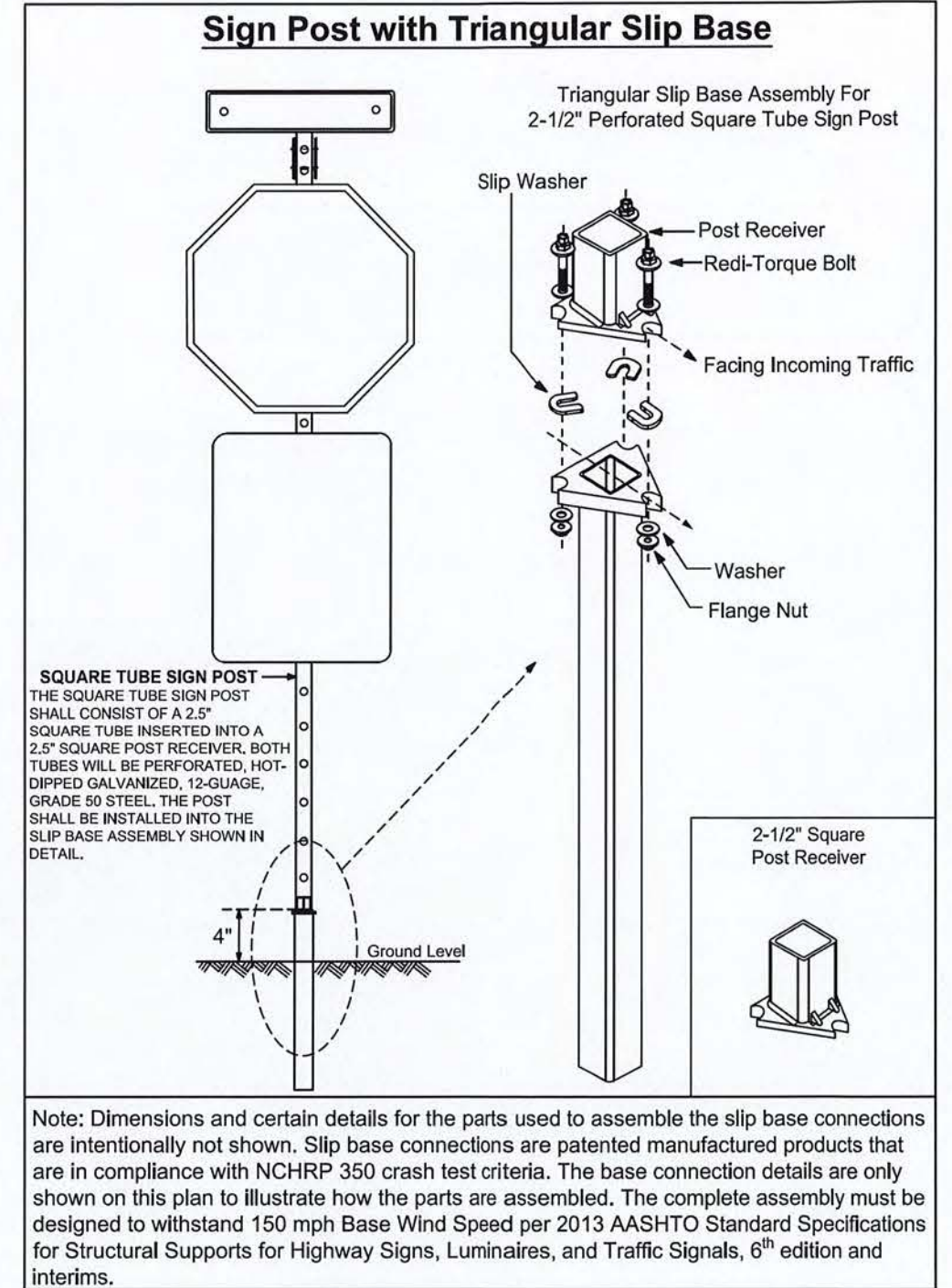
	'H' Sign Assembly Height (ft) (measure from ground)				
	8	8.5	9	9.5	10
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20+					

\*REGARDLESS OF POST SIZE TABLE; IF A SIGN PANEL IS EQUAL TO OR GREATER THAN 4 FEET IN WIDTH, A TWO POST INSTALLATION IS REQUIRED WITH A TRIANGULAR SLIP BASE.

### Sign Post with 3" x 7 ga. Square Anchor



### Sign Post with Triangular Slip Base



**PUBLIC WORKS DEPARTMENT  
TRAFFIC ENGINEERING DIVISION**

DESIGN BY: YVES D'ANJOU, P.E.      SCALE: NTS

DRAWN BY: STEPHON RAMOUTAR

CHECKED BY: ANDREW SEBO, P.E., PTOE

## GROUND SIGN ASSEMBLY DETAILS

SHEET NO.

1 OF 1

REVISIONS	
DATE	DESCRIPTION
03-21-2017	UPDATED POST SIZE
11-24-2020	ADDED POST SIZE NOTE
02-05-2021	UPDATED POST BASE HEIGHT