



INVITATION TO BID (ITB) O-00119

FOR

DYNAMIC MESSAGE SIGN (DMS) STRUCTURE REPLACEMENT

ITB Issue Date: 2/1/19

ITB Response Due Date: 2/28/19

RESPONSIBLE DEPARTMENT

David May, P.E.
Director of Expressway Operations

PROCUREMENT DEPARTMENT

Man Le, PMP
Procurement Manager
1104 East Twiggs Street, Suite 300
Tampa, Florida 33602
Telephone Number: (813) 272-2307
Email: Man.Le@tampa-xway.com

TABLE OF CONTENTS

<u>TITLE</u>	<u>PAGE</u>
I. INTRODUCTION.....	3
SCOPE OF WORK.....	3
II. INSTRUCTIONS TO FIRMS.....	6
III. SELECTION PROCESS.....	7
<u>IV. TIMETABLE.....</u>	<u>7</u>
V. TERMS & CONDITIONS.....	8
VI. STATEMENT ON PUBLIC ENTITY CRIMES ~ EXHIBIT A.....	14
VII. DRUG-FREE WORKPLACE ~ EXHIBIT B.....	16
VIII. PRICE PROPOSAL FORM ~ EXHIBIT C.....	17
IX. CONTRACTOR'S QUESTIONNAIRE ~ EXHIBIT D.....	14
X. PUBLIC CONSTRUCTION BOND ~ EXHIBIT E.....	21

Attachment A ~ Contract Plans – DMS Structure Replacement E. Twiggs St. & SR 618

I. INTRODUCTION

The Tampa Hillsborough Expressway Authority (THEA) is seeking a qualified firm to provide Dynamic Message Sign (DMS) structure replacement.

01010 - SUMMARY OF WORK

1. DESCRIPTION

- 1.1 This section provides a general summary or overview of the work to be performed in the Invitation to Bid (ITB). In performing the work, the contract documents, plans and specifications shall be adhered to.

2. SCOPE OF WORK

- 2.1 The general Scope of Work consists of, but is not limited to: Providing all the labor, equipment, materials, tools, transportation, supplies, insurance, incidentals, mobilization, demobilization and maintenance of traffic necessary to fabricate and install a new DMS Structure which includes the removal of the existing structure, removal, storage, and reinstallation of existing static signs and intelligent transportation systems (ITS) cabinet, modifications to the existing foundation and median barrier wall, installation of required wiring, conduits, cabinets, and pull boxes, and coordination with THEA's Dynamic Message (DMS) Sign Contractor performing the installation and functionality of the new DMS sign on the newly erected structure.
- 2.2 The Lump Sum Contract Price is anticipated to include:
- DMS Support Structure, Remove
 - DMS Support Structure, Cantilever, (41-50ft)
 - Wiring, Conduits, Cabinets, Pull Boxes
 - Off Duty Officers
 - Maintenance Of Traffic
 - Mobilization
- 2.3 The DMS Support Structure, Cantilever, (41-50 ft) shall include the cost of painting the entire assembly white to match the existing structure. The contractor shall submit two paint samples that are 12-inch by 12-inch. Samples shall be submitted to the engineer and approval obtained prior to ordering and fabrication.
- 2.4 Maintenance of Traffic (MOT) is to be provided by the Contractor during all set-up and take-down activities and work activities. MOT to include at a minimum one (1) off-duty law enforcement officer per work operation. MOT to be performed by "MOT certified" staff in accordance with the latest edition of the Florida Department of Transportation (FDOT), Standard Specifications for Road and Bridge Construction, Section 102, Maintenance of Traffic.

- 2.5 Work to be performed between the hours of 7:00 pm EST and 5:00 am EST, Friday through Monday.
- 2.6 Work performance total duration is **30 calendar days**. This includes active work only and not material acquisition and fabrication.
- 2.7 The Contractor is to take any and all precautions to protect the vehicular traffic and any appurtenances during all phases of construction. All claims for damage due to the activities of the Contractor and/or its sub-contractors will be the responsibility of the Contractor.
- 2.8 Existing structure to be removed by Contractor becomes the property of the Contractor and removal and disposal of this structure is borne by the Contractor.
- 2.9 All existing static signs currently installed on the DMS Support Structure are to be salvaged and re-installed on the new DMS Support Structure as part of this Contract.
- 2.10 All lightning protection is to be salvaged and re-used on the new DMS Support Structure.
- 2.11 All conduit and/or raceways are to be protected during demolition and reconstruction of the median barrier wall.
- 2.12 Storage of the static signs, until their time of re-installation, will be at the north end of THEA's overflow parking lot.
- 2.13 The Contractor is responsible for removing, storing, and re-installing the existing ITS cabinet assembly for the DMS sign when the new structure is erected.
- 2.14 It is the responsibility of the Contractor to coordinate with THEA's DMS Sign Contractor performing the installation and functionality of the new DMS sign on the newly erected structure.
- 2.15 Any damage to existing equipment that is intended to be salvaged and re-used shall be repaired or replaced by the Contractor as determined by the Owner.

3. SUBMITTALS

- 3.1 Submit the following in accordance with shop drawing submittal requirements of the General Provisions.
 - 3.1.1 DMS Support Structure
 - 3.1.2 Maintenance of Traffic Plan. The Contractor shall prepare and submit to the Authority a Maintenance of Traffic Plan in accordance with the most recent edition of the Florida Department of Transportation (FDOT), Standard Plans, Indices 102.

4. CONTRACT DRAWINGS

4.1 The following is a list of contract construction drawings. The drawings accompany and supplement these specifications. Should disagreements between the drawings, specifications and/or general conditions or existing field conditions be uncovered, said disagreements shall be promptly brought to the attention of the Authority.

4.1.1 Drawings – DMS Structure Replacement (Attachment A)
Plan Sheets 1 through 10

5. PRODUCTS

5.1 None

6. EXECUTION

6.1 Work Sequence: **All** active contract work shall be completed within 30 calendar days of Day One as established based on the Contractor's approved (by THEA) procurement schedule. . Work to be performed between the hours of 7:00 pm, EST and 5:00 am, EST, Fridays through Mondays only.

7. MEASUREMENT AND PAYMENT

7.1 See Section 01026

8. SPECIAL PROVISIONS

- 8.1 Existing structure to be removed by Contractor becomes the property of the Contractor and removal and disposal of this structure is borne by the Contractor.
- 8.2 All existing static signs currently installed on the DMS structure are to be salvaged and re-installed on the new DMS structure as part of this Contract.
- 8.3 All lightning protection is to be salvaged and re-used on the new DMS structure.
- 8.4 All conduit and/or raceways are to be protected during demolition and reconstruction of the median barrier wall.
- 8.5 Storage of the static signs, until their time of re-installation, will be at the north end of THEA's overflow parking lot.
- 8.6 The Contractor is responsible for re-installing the existing controller cabinet for sign DT-C01, when the new DMS structure is erected.
- 8.7 It is the responsibility of the Contractor to re-install the DMS sign (DT-C01) and make operational, on the newly erected DMS structure.

[END OF 01010 - SUMMARY OF WORK]

II. INSTRUCTIONS TO FIRMS

1. The Authority must receive all submittals at the locations stated below, **not later than 2:00 PM Eastern on February 28, 2019**. Any submittal received after the stated time and date shall not be considered. It shall be the sole responsibility of the firm to have its package delivered to the Authority by U.S. Mail, hand delivery, or any other method available to them; however, facsimile or telegraphic submittals will not be accepted. Delay in delivery shall not be the responsibility of the Authority. Submittals received after the deadline shall not be considered, and may be returned only at the firm's expense.
2. Each firm shall examine all documents and shall determine all matters relating to the interpretation of such documents.
3. One (1) original of the Price Proposal Form and required Exhibits A through D of the submittal must be delivered to the Authority's Procurement Department in one package, clearly marked on the outside, "Invitation to Bid O-00119 for DMS Structure Replacement for the Tampa Hillsborough County Expressway Authority," with date sent or delivered to:

Man Le ~ Procurement Manager
1104 East Twiggs Street, Suite 300
Tampa, FL 33602

4. The Authority shall not be liable for any expenses incurred in the preparation of the proposals.
5. The Authority reserves the right to accept or reject any or all proposals, to waive irregularities and technicalities, and to request resubmission or to re-advertise for all or any part of the services. The Authority shall be the sole judge of the submittals and the resulting negotiated agreement that is in the Authority's best interest, and the Authority's decision shall be final.
6. Joint proposals will not be accepted.
7. The successful firm shall be required to execute an agreement, in form and content acceptable to the Authority, indemnifying and holding harmless the Authority, its officials, officers, employees, and agents from all claims.
8. **Firms, their agents, or associates shall refrain from contacting or soliciting any Authority staff or members of the Board directly or indirectly regarding this ITB during the selection process. Failure to comply with this provision may result in the disqualification of the firm. All requests for clarification or additional information should be made in writing via email to: Man.Le@tampa-xway.com**

III. SELECTION PROCESS

The procurement process that will be utilized for this project is an Invitation to Bid (ITB). It is THEA's intention to solicit responses from qualified bidders/contractors; to evaluate those bids and responses and to award a contract for services to the lowest, responsive and responsible bidder, as determined by THEA, in its sole and absolute discretion, considering all relevant facts and information.

IV. TIMETABLE

EVENT	DATE/TIME
Release of ITB	February 1, 2019
Non-Mandatory Pre-Bid Conference <i>Location:</i> Transportation Management Center (TMC) 1104 East Twiggs Street, Suite 300 Tampa, FL 33602	February 12, 2019 @ 2 p.m.
Deadline for Questions/Request for Clarification	February 15, 2019
Deadline for THEA to respond to firm's questions	February 18, 2019
Proposal Package Due Date/Time (Deadline) <i>Location:</i> Transportation Management Center (TMC) 1104 East Twiggs Street, Suite 300 Tampa, FL 33602 Public Opening of Price Proposal (Firms not required to attend, however, the opening is open to the public.)	February 28, 2019 by 2 p.m. EST
Post Notice of Intent to the Authority's website and Demandstar.	March 1, 2019
Board Approval of Final Ranking & Award of Contract @ TMC, Board Room	March 25, 2019 @ 1:30 p.m.
Posting of Notice of Board Approval & Award of Contract to the Authority's website and Demandstar.	March 26, 2019

V. TERMS AND CONDITIONS

The Authority reserves the right to reject all proposals, any proposal not conforming to this Request for Qualifications, and to waive any irregularity or informality with respect to any proposal. The Authority further, reserves the right to request clarification of information submitted and to request additional information from one or more firms.

The Authority requires that the firm selected will not discriminate under the contract against any person in accordance with federal, state, and local governments' regulations. The Authority requires the firm selected make an affirmative statement to the effect that their retention shall not result in conflict of interests with respect to the Authority.

The Authority requires that the firm make an affirmative statement to the effect that they have not contacted, or attempted to contact, any member of the Board, or Authority staff, except as expressly permitted in the ITB.

VI. STATEMENT ON PUBLIC ENTITY CRIMES

Failure of the firm to certify the firm as free from any "public entity crime" as defined in the Florida Statutes, Subsection 287.133 shall result in rejection or disqualification of your proposal.
(See Exhibit A)

VII. DRUG-FREE WORKPLACE

Failure of the firm to certify the firm as a drug-free workplace in accordance with Florida Statutes, Subsection 287.087 shall result in rejection or disqualification of your proposal.
(See Exhibit B).

VIII. PRICE PROPOSAL FORM (See Exhibit C).

IX. CONTRACTOR'S QUESTIONNAIRE (See Exhibit D).

X. PUBLIC CONSTRUCTION BOND (See Exhibit E).

EXHIBIT A

**SWORN STATEMENT UNDER SECTION 287.133 (3)(a)
FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES**

1. This sworn statement is submitted by _____ as
_____ of
_____ whose business address is
_____ and (if applicable) its
Federal Employer Identification Number (FEIN) is _____.

2. I understand that a “public entity crime” as defined in Section 287.133(1)(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity in Florida or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any bid or contract for goods or services to be provided to any public entity or an agency or political subdivision and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.

3. I understand that “convicted” or “conviction” as defined in Paragraph 287.133(1)(b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.

4. I understand that “affiliate” as defined in Paragraph 287.133(1)(a), Florida Statutes, means:
 - A. A predecessor or successor of a person convicted of a public entity crime; or

 - B. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm’s length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.

5. I understand that a "person" as defined in Paragraph 287.133(1)(e), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

6. Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members or agents who are active in the management of _____, the entity, nor any affiliate of the entity have been convicted of a public entity crime subsequent to July 1, 1989.

By

Date

STATE OF
COUNTY OF

The foregoing instrument was acknowledged before me this _____ day of _____, 20____, by _____ who is personally known to me or who produced a _____ as identification and who did take an oath.

Notary Public

My commission expires:

EXHIBIT B

DRUG-FREE WORKPLACE FORM

The undersigned firm, in accordance with Florida Status 287.087 hereby certifies that _____ does:

Name of Business

1. Publish a statement of notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
3. Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in Paragraph 1.
4. In the statement specified in paragraph 1, notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employees will abide by the terms of a statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Florida Statute 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.
5. Impose a sanction of, or require the satisfactory participation in a drug abuse assistance or rehabilitation program is such is available in the employee's community, by any employee who is convicted.
6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs 1 thru 5.

As the person authorized to sign this statement, I certify that this firm complies with the above requirements.

Firm's Signature

Date

EXHIBIT C

PRICE PROPOSAL FORM

(Print this page on Firm's letterhead)

Date: _____

Tampa Hillsborough Expressway Authority
1104 East Twiggs Street, Suite 300
Tampa, FL 33602

Subject: DMS Structure Replacement ITB O-00119

Having carefully examined the ITB Instructions and Submittal Documents, Supplementary Instructions, Technical Specifications, of the above subject project, as well as the premises and the conditions affecting the work, the undersigned proposes the following hourly rates in this Price Proposal Form.

The Lump Sum Contract Price is anticipated to include:

- DMS Support Structure, Remove
- DMS Support Structure, Cantilever, (41-50ft)
- Wiring, Conduits, Cabinets, Pull Boxes
- Off Duty Officers
- Maintenance Of Traffic

TOTAL GENERAL CONSTRUCTION PRICE: \$ _____

TOTAL LUMP SUM BID PRICE \$ _____

WRITTEN AMOUNT: _____ DOLLARS AND _____ CENTS

Authorized Signature

Date

The undersigned firm agrees to keep this offer open for acceptance for One Hundred Twenty (120) days after date of opening the Price Proposals.

The signer of this Price Proposal Form hereby declares that the only person, persons, company or parties interested in this Proposal as principals are named herein, that this Proposal is made without connection with any other person, persons, company or parties submitting a proposal; and that it is in all respects fair and in good faith, without collusion or fraud.

The signer of this Price Proposal Form hereby declares that the firm or agents, officers or employees thereof have not either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action, in restraint of free competitive bidding in connection with the submitted. The signer of this Proposal hereby warrants that they are duly authorized to sign and bind on behalf of the firm.

BY: _____

Signature	_____	Name Printed	_____
_____	Name of Company	_____	Title
_____	Street Address of Company	_____	State of Incorporation
_____	City, State, Zip of Company		
_____	(Company Telephone Number)		(Corporate Seal)

NOTE: If Firm is a corporation, indicate the State of Incorporation under the signature; and if a partnership, give full name of all parties.

NOTE: The person signing for the Firm shall in his/her own handwriting, sign the Company's name, his/her own name and his/her title. Where the person signing for a corporation is other than the President or Vice-President, he/she must by affidavit, show his/her authority to bind the Company. Said affidavit shall be attached to this Price Proposal Form.

[END OF PRICE PROPOSAL FORM]

EXHIBIT D

CONTRACTOR'S QUESTIONNAIRE

Bidder shall complete this questionnaire, sign, date and submit with its bid.

1. **BUSINESS INFORMATION:**

1.1. Name of Primary Contractor (Bidder): _____

1.2. Location of primary office which will handle this project:

1.3. Business Organization:

a. Number of years your firm (under any name) has been in Business: _____

b. With same person in top management position _____

c. Under present name _____

d. Number of years in Florida _____

e. Total number of full-time staff _____

f. Additional Part-time Staff _____

g. States in which you have performed activities:

2. NOT APPLICABLE

3. **EXPERIENCE AND REFERENCES:**

3.1. Experience:

3.1.1. State the total construction volume and value that your organization has been responsible for in the past five years in:

a. Total Dollar value _____

b. Number of Contracts _____

3.1.2. List the dollar volume and number of governmental projects you have completed in the past 5 years:

a. Dollar Value _____

b. Number of government projects _____

3.2 Provide information on at least three projects that Contractor has performed within the past five (5) years that were similar to this project. List chronologically, starting with the last project:

3.2.1 **Project # 1:**

a. Date Project Completed: _____

b. Project Name: _____

c. Owner Name: _____

d. Owner Address: _____

e. Owner Telephone: _____

f. Name of Reference for this Project: _____

g. Relationship of Reference to Owner: _____

h. Title and Position Reference held for this Project:

i. Firm name where Reference was employed for this Project:

j. Reference's Telephone: _____

k. Dollar Amount: _____

l. List any other special criteria – i.e. specialized repair or equipment, etc. worked: _____

m. Describe Your Specific Scope of Work: _____

n. General Contract Amount: _____

o. Your Participation was:

p. Completion Date: _____

q. Was Project completed on time? _____

r. Was Project completed within budget? _____

s. If not, explain: _____

t. Penalties imposed? (Yes or No; if Yes, explain) _____

u. Any liens, claims, or lawsuits? (Yes or No, if Yes, explain):

v. If a DW/MBE or Small Business Enterprise (SBE) percentage goal was required, indicate what the goal was and what success did your firm have in achieving the goal. _____

w. Provide names and phone numbers of the D/W/MBE or SBE firms used on the project: _____

x. Any other pertinent information? _____

[Use additional sheets as necessary.]

3.2.2 Project # 2:

a. Date Project Completed: _____

b. Project Name: _____

c. Owner Name: _____

d. Owner Address: _____

e. Owner Telephone: _____

f. Name of Reference for this Project: _____

g. Relationship of Reference to Owner: _____

h. Title and Position Reference held for this Project:

i. Firm name where Reference was employed for this Project:

j. Reference's Telephone: _____

k. Dollar Amount: _____

- l. List any other special criteria – i.e. specialized repair or equipment, etc. worked: _____
- m. Describe Your Specific Scope of Work: _____

- n. General Contract Amount: _____
- o. Your Participation was: _____

- p. Completion Date: _____
- q. Was Project completed on time? _____
- r. Was Project completed within budget?
- s. If not, explain: _____
- t. Penalties imposed? (Yes or No; if Yes, explain) _____

- u. Any liens, claims, or lawsuits? (Yes or No, if Yes, explain):

- v. If a DW/MBE or Small Business Enterprise (SBE) percentage goal was required, indicate what the goal was and what success did your firm have in achieving the goal. _____

- w. Provide names and phone numbers of the D/W/MBE or SBE firms used on the project: _____

- x. Any other pertinent information? _____

[Use additional sheets as necessary.]

3.2.3 Project # 3:

- a. Date Project Completed: _____
- b. Project Name: _____
- c. Owner Name: _____
- d. Owner Address: _____

- e. Owner Telephone: _____
- f. Name of Reference for this Project: _____
- g. Relationship of Reference to Owner: _____
- h. Title and Position Reference held for this Project:

- i. Firm name where Reference was employed for this Project:

- j. Reference's Telephone: _____
- k. Dollar Amount: _____
- l. List any other special criteria – i.e. specialized repair or equipment,
etc. worked: _____
- m. Describe Your Specific Scope of Work: _____

- n. General Contract Amount: _____
- o. Your Participation was: _____
- p. Completion Date: _____
- q. Was Project completed on time? _____
- r. Was Project completed within budget? _____
- s. If not explain: _____
- t. Penalties imposed? (Yes or No; if Yes explain) _____

- u. Any liens, claims, or lawsuits? (Yes or No, if Yes explain):

- v. If a D/W/MBE or Small Business Enterprise (SBE) percentage goal was required,
indicate what the goal was and what success did your firm have in achieving the
goal. _____
- w. Provide names and phone numbers of the D/W/MBE or SBE firms
used on the project: _____
- x. Any other pertinent information? _____

[Use additional sheets as necessary.]

4. **STAFF AND EQUIPMENT:**

4.1 Provide information on Contractor's staff that will be assigned to this Project including name, years' experience, credentials and professional licenses.

POSITION	EMPLOYEE NAME	CREDENTIALS & PROFESSIONAL LICENSE	YEARS EXP
Project Manager			
Superintendent			

4.2. Provide a profile of your staff listing classification of personnel, number of personnel and combined years of experience.

Classification	Number of Personnel	Combined Years of Experience	No. of 4-year Degrees
Project Manager	_____	_____	_____
Scheduler	_____	_____	_____
Estimator	_____	_____	_____
Project Accountant	_____	_____	_____
Contract Administrator	_____	_____	_____
Construction Manager (field)	_____	_____	_____
Other	_____	_____	_____

4.3 Provide information on Contractor's equipment that will be assigned to this Project.

Type of Equipment	Model No.	Size/Capacity	Age	Owned, Leased, or Subcontract Item

5. **WORKLOAD:**

5.1 . Total number of projects in the active planning phase _____

Dollar Amount \$ _____

5.2. Total number of projects presently under construction _____

Dollar Amount \$ _____

[REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK]

EXHIBIT E

**For Clerk of Court
Recording Purposes**

Return To: Contracts Manager
Tampa-Hillsborough County
Expressway Authority
1104 East Twiggs, Ste. #300
Tampa, Florida 33602

PUBLIC CONSTRUCTION BOND

BY THIS BOND, We, _____, a _____ corporation, as **Principal**, and _____, a _____ corporation, as **Surety**, located at _____ are bound to the **TAMPA HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY**, herein called **Owner**, in the sum of \$_____, for payment of which we bind ourselves, our heirs, personal representatives, successors, and assigns, jointly and severally.

THE CONDITION OF THIS BOND is that if Principal:

1. Performs the contract dated _____, 20__ between Principal and Owner for construction of DYNAMIC MESSAGE SIGN STRUCTURE REPLACEMENT at the Tampa-Hillsborough County Expressway Authority, Invitation to Bid (ITB) O-00119, Contract No. O-00119, the contract being made a part of this bond by reference, at the times and in the manner prescribed in the contract; and
2. Promptly makes payment to all claimants, as defined in Section 233.05(1), Florida Statutes, supplying Principal with labor, materials, or supplies, used directly or indirectly by Principal in the prosecution of the work provided for in the contract; and
3. Pays Owner all loss, damages expenses, costs, and attorney's fees, including appellate proceedings, that Owner sustains because of a default by Principal under the contract; and
4. Performs the guarantee of all work and materials furnished under the Contract for the time specified in the Contract for construction and any applicable warranty period, then this bond is void; otherwise it remains in full force.

The Surety, for value received, agrees that any changes, extensions of time, or additions to the Terms of the Contract Documents, and neither compliance nor noncompliance with any formalities connected with the contract or the changes shall not affect Surety's obligation under this bond. Surety hereby waives notice of any such changes.

Any action instituted by a claimant under this bond for payment must be in accordance with the notice and time limitation provisions in Section 255.05(2), Florida Statutes.

Any changes in or under the contract documents and compliance or noncompliance with any formalities connected with the contract or the changes does not affect Surety's obligation under this bond.

DATED ON: _____, 20_____.

Name of Principal (Contractor):

Name of Surety:

By: _____

By: _____
Attorney in Fact

Name: _____

Name: _____

Title: _____

Title: _____

Address: _____

Address: _____

Telephone No. _____

Telephone No. _____

Fax No. _____

Fax No. _____

(Attach "Certificate & Affidavit Form Surety Bond Insurer" and
"Power of Attorney" from Surety)

STATE OF _____ :

COUNTY OF _____ :

THE FOREGOING INSTRUMENT was acknowledged before me this ____ day of _____, 20____ by _____, who ____ is personally known to me or ____ has produced _____ as identification and did not take an oath. [Notary, check appropriate blank; and, if obtaining identification, fill in appropriate identification number.]

My Commission Expires:

Notary Public

(Printed Name of Notary)

(Serial Number, if any)

This form complies with
Section 255.05, Florida Statutes

CERTIFICATE AND AFFIDAVIT FOR SURETY BOND INSURER

TO: TAMPA HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY
RE: DYNAMIC MESSAGE SIGN STRUCTURE REPLACEMENT, Project No. O-00119

PROPOSER:

Name: _____

Address: _____

Telephone: _____

AMOUNT OF BOND: _____

SURETY BOND INSURER:

Name: _____

Address: _____

Telephone: _____

Before me, the undersigned authority, personally appeared, _____ on this _____ day of _____ 20____ who hereby certifies that, the insurer named above:

1. Is licensed to do business in the State of Florida;
2. Holds a certificate of authority authorizing it to write surety bonds in Florida;
3. Has twice the minimum surplus and capital required by the Florida Insurance Code at the time the invitation to bid is issued;
4. Is otherwise in compliance with the provisions of the Florida Insurance Code; and,
5. Holds a currently valid certificate of authority issued by the United States Department of the Treasury under Section 9304 to 9308 of Title 31 of the United States Code.

Signature of Officer of Surety Insurer

STATE OF _____:

COUNTY OF _____:

THE FOREGOING INSTRUMENT was sworn to, subscribed and acknowledged before me this _____ day of _____, 20____ by _____, who _____ is personally known to me or _____ has produced _____ as identification and did take an oath.

[Notary, check appropriate blank; and, if obtaining identification, fill in appropriate identification number.] _____

Notary Public

Printed Name of Notary

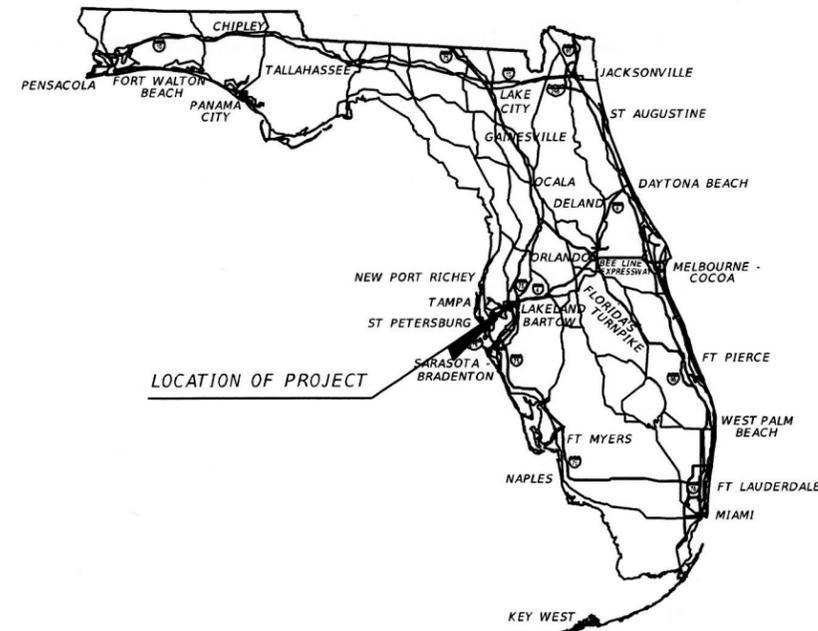
My Commission Expires:

(Serial Number, if any)

[END OF PUBLIC CONSTRUCTION BOND]

**TAMPA-HILLSBOROUGH
COUNTY EXPRESSWAY AUTHORITY**

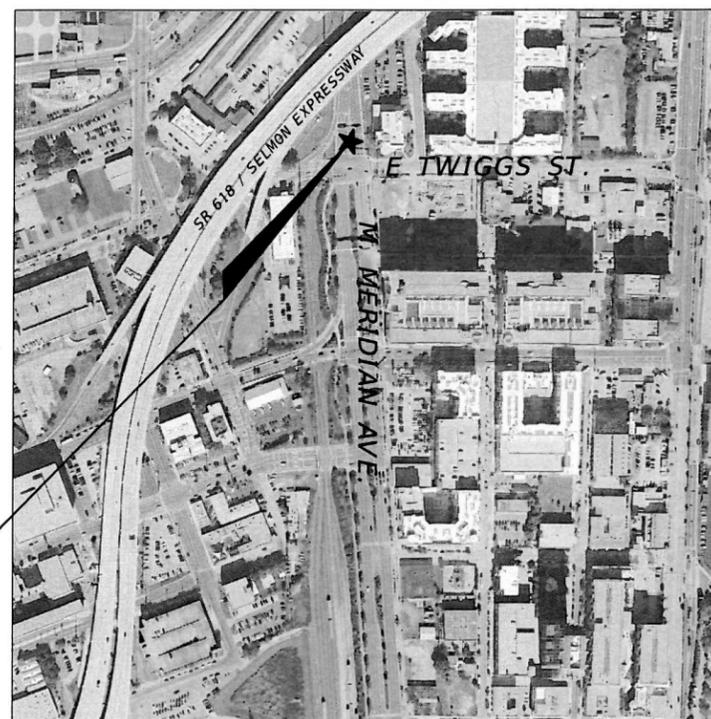
CONTRACT PLANS
DMS STRUCTURE REPLACEMENT
E TWIGGS ST. & SR 618



LOCATION OF PROJECT

INDEX OF PLANS

SHEET NO.	SHEET DESCRIPTION
1	KEY SHEET
2	R.E.L CLOSURE AT E TWIGGS ST. & SR 618
3	ITS PLAN
4-10	STRUCTURE PLANS



LOCATION MAP

Sign Structure Location

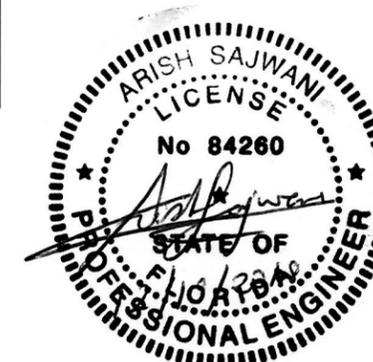


STRUCTURAL PLAN
SHOP DRAWINGS TO BE SUBMITTED TO:
ARISH SAJWANI, P.E.
201 N. FRANKLIN STREET, SUITE 1200
TAMPA, FL 33602
(954) 498-5120

PLANS PREPARED BY:
HNTB CORPORATION
201 N. FRANKLIN STREET, SUITE 1200
TAMPA, FL 33602
(813) 402-4150

CONTRACT NO: 0-00416
CERTIFICATE OF AUTHORIZATION NO: 6500

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



GOVERNING STANDARDS PLANS:
Florida Department of Transportation, FY2018-19 Standard Plans for Road and Bridge Construction and applicable Interim Revisions (IRs).

Standard Plans for Road Construction and associated IRs are available at the following website: <http://www.fdot.gov/design/standardplans>

GOVERNING STANDARD SPECIFICATIONS:
Florida Department of Transportation, July 2018 Standard Specifications for Road and Bridge Construction at the following website: <http://www.fdot.gov/programmanagement/Implemented/SpecBooks>

PRODUCED FOR: DAVID MAY, P.E.

KEY SHEET REVISIONS	
DATE	DESCRIPTION

ENGINEER OF RECORD: ARISH SAJWANI, P.E.

P.E. NO.: 84260

FISCAL YEAR	SHEET NO.
19	1

GENERAL NOTES:

1. THE EXISTING POSTED REGULATORY SPEED LIMIT SHALL REMAIN IN EFFECT FOR ALL TRAFFIC CONTROL AREAS. THE SPEED ON EAST TWIGGS STREET IS 35 MPH. THE SPEED ON NORTH MERIDIAN AVENUE IS 40 MPH. THE SPEED ON SR 618 (SELMON EXPRESSWAY) REVERSIBLE EXPRESS LANES IS 65 MPH.
2. WHENEVER CONSTRUCTION EQUIPMENT IS BEING DRIVEN OR TRANSPORTED ON OPEN TRAVEL LANES, UTILIZE INDEX 102-619.
3. LANE CLOSURES ARE ALLOWED ONLY BETWEEN THE HOURS LISTED BELOW:
FROM THE REVERSIBLE EXPRESS AT EAST TWIGGS STREET TO THE SLIP RAMP AT 34TH STREET, ALLOWED HOURS = WEEKEND CLOSURES ONLY FROM 7PM FRIDAY TO 5AM MONDAY
4. OFF-DUTY LAW ENFORCEMENT OFFICER TO BE PRESENT AT ALL TIMES ROAD IS CLOSED.

PHASING NOTES:

PHASE I (WEEKEND 1)

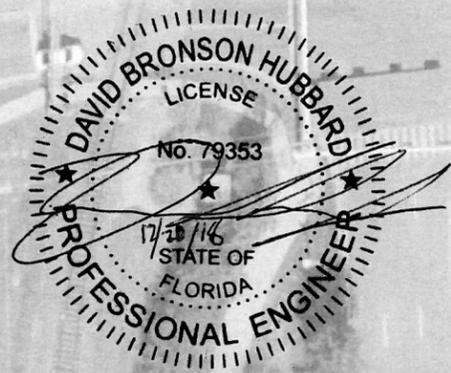
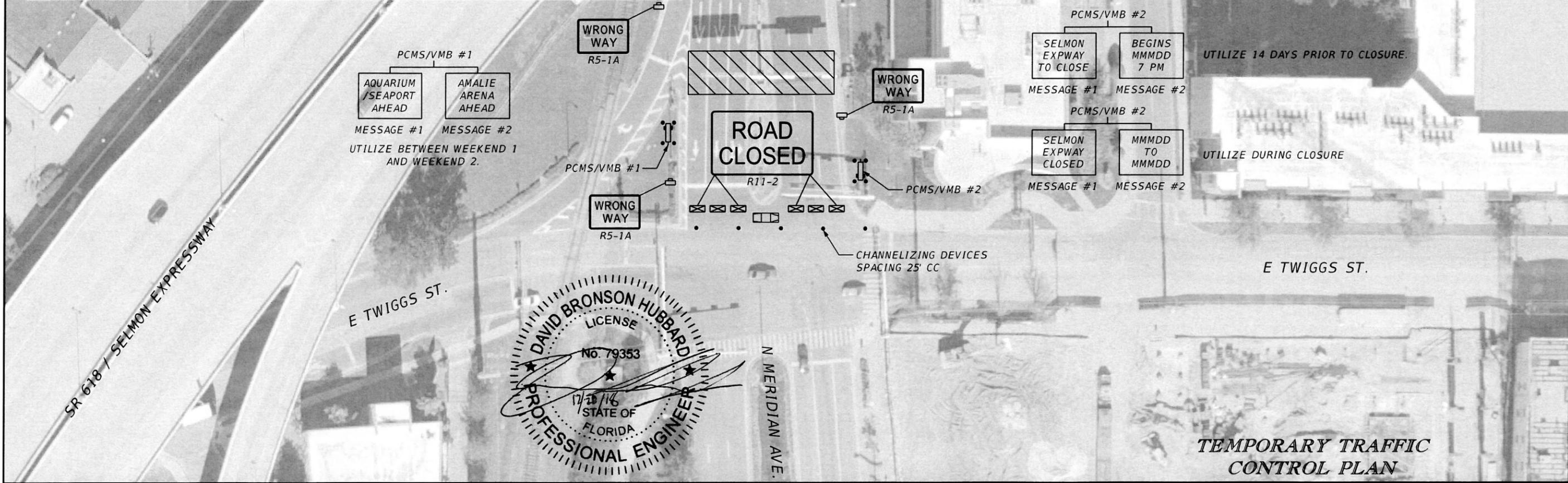
1. PLACE PORTABLE CHANGEABLE MESSAGE SIGN #2 (PCMS) 2 WEEKS PRIOR TO CLOSURE. PLACE CHANNELIZING DEVICES, TYPE III BARRICADES, ROAD CLOSED SIGNS AND WORK ZONE SIGNS AT THE SELMON EXPRESSWAY R.E.L. ENTRANCE/EXIT RAMP PER THE TEMPORARY TRAFFIC CONTROL PLAN (TTCP) PRIOR TO LANE CLOSURES.
2. REMOVE EXISTING STRUCTURE AND POUR NEW FOUNDATION COMPONENTS.
3. UPON COMPLETION OF WEEKEND CONSTRUCTION REMOVE CHANNELIZING DEVICES, TYPE III BARRICADES AND ROAD CLOSED SIGNS. PCMS AND WORK ZONE SIGNS ARE TO REMAIN UNTIL THE FOLLOWING WEEKEND. REOPEN THE ROAD FOR NORMAL TRAFFIC PATTERNS UNTIL THE FOLLOWING FRIDAY AT 7PM.

PHASE II (WEEKEND 2)

1. PLACE CHANNELIZING DEVICES, TYPE III BARRICADES AND ROAD CLOSED SIGNS AT THE SELMON EXPRESSWAY R.E.L. ENTRANCE/EXIT RAMP PER THE TTCP PRIOR TO LANE CLOSURES.
2. ERECT THE NEW BUTTERFLY SIGN STRUCTURE, REPLACE STATIC SIGNS AND INSTALL NEW DMS.
3. UPON COMPLETION OF THE BUTTERFLY SIGN INSTALLATION REMOVE PCMS, CHANNELIZING DEVICES, ROAD CLOSED SIGNS AND WORK ZONE SIGNS.

LEGEND:

-  WORK ZONE SIGN
-  TYPE III BARRICADE
-  CHANNELIZING DEVICES
-  PCMS/VMB
-  OFF-DUTY LAW ENFORCEMENT OFFICER
-  CLOSED ROADWAY/WORK ZONE



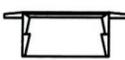
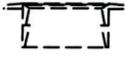
TEMPORARY TRAFFIC CONTROL PLAN

REVISIONS				DAVID B. HUBBARD, P.E. P.E. LICENSE NUMBER 79353 HNTB CORPORATION 201 N. FRANKLIN ST., SUITE 1200 TAMPA, FL 33602 CERTIFICATE OF AUTHORIZATION 6500	TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY			SHEET NO. 2
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR 618	HILLSBOROUGH		

PAY ITEM DESCRIPTION

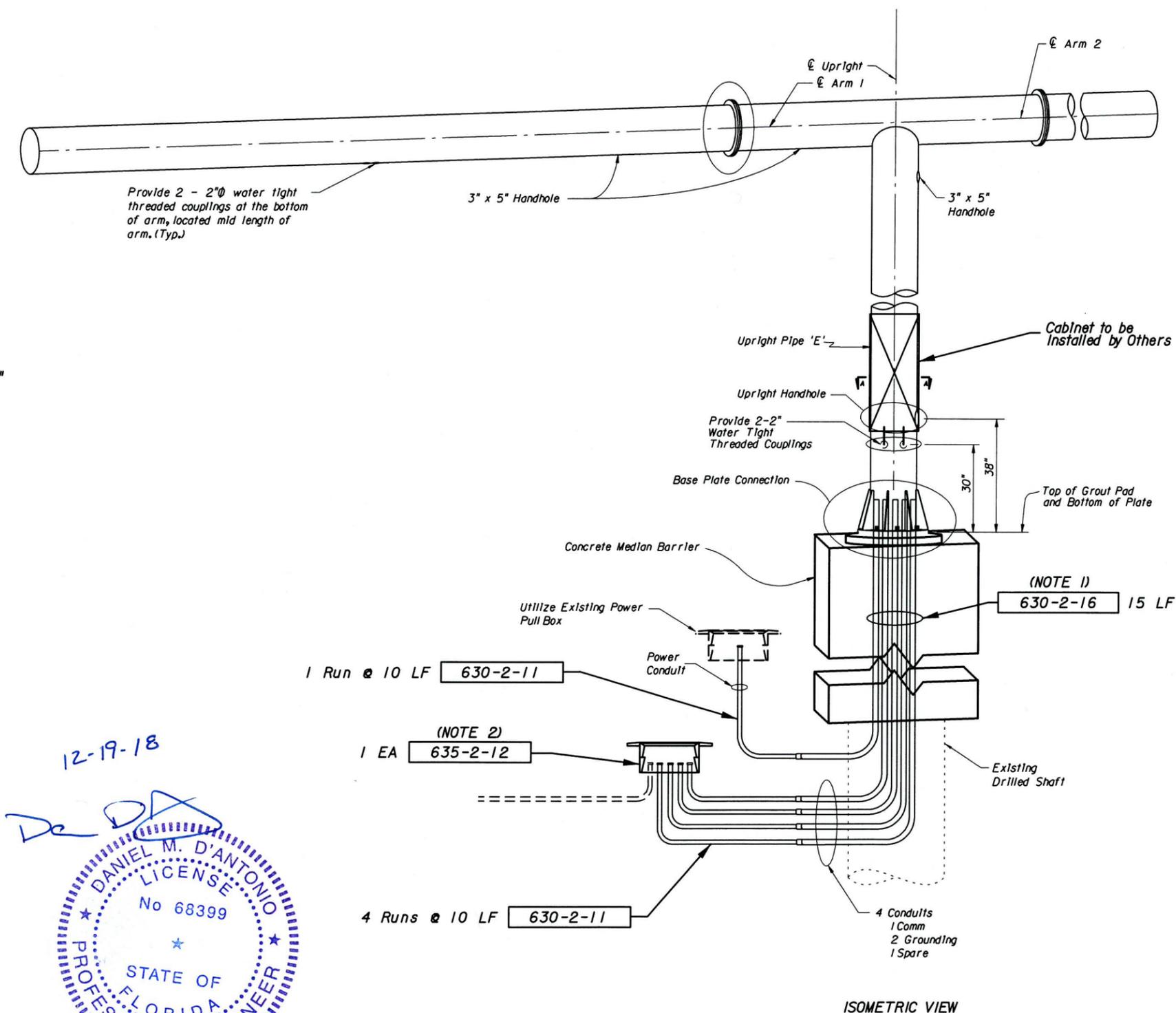
<u>Pay Item No.</u>	<u>Description</u>
630-2-11	Conduit, F&I, Open Trench
630-2-16	Conduit, F&I, Embedded Concrete Barriers
635-2-12	Pull & Splice Box, F&I, 24"x36" Cover Size

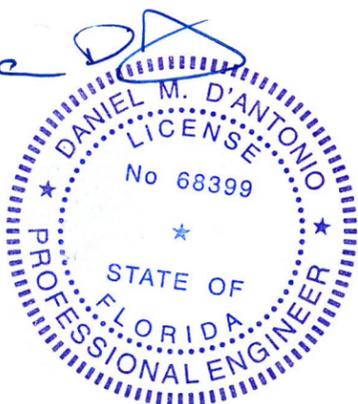
LEGEND

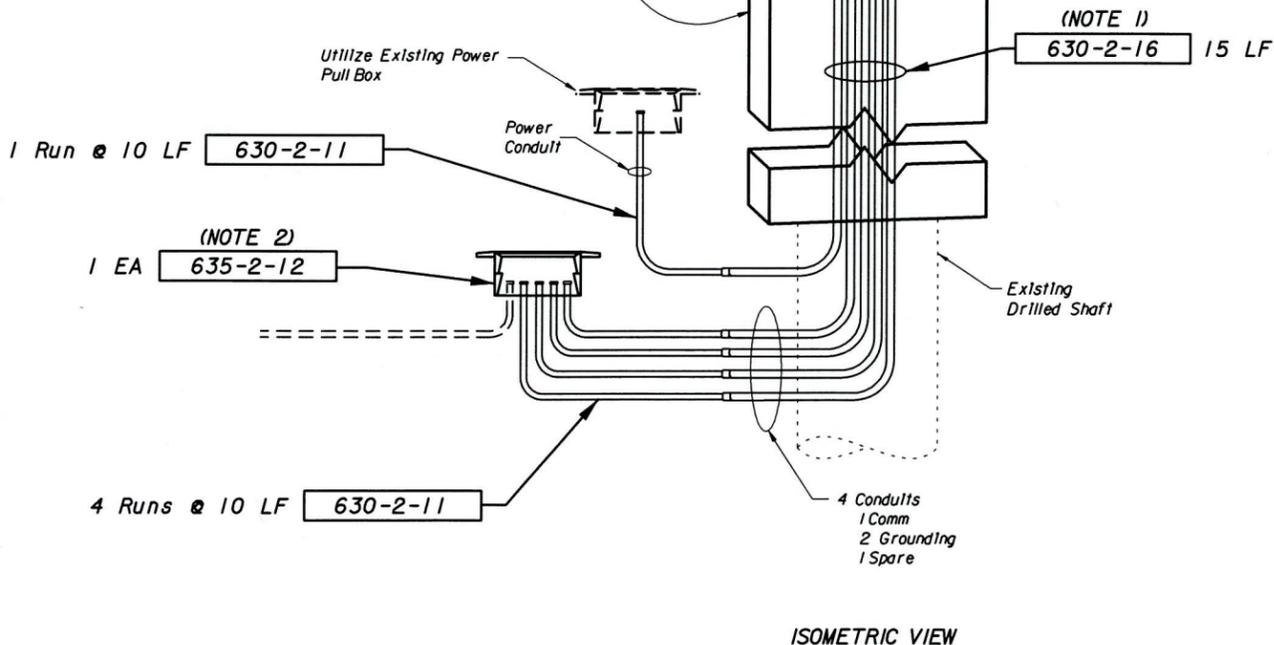
-  ROUND HOLE IN STRUCTURE UPRIGHT 2.75"
-  EXISTING CONDUIT
-  NEW CONDUIT
-  NEW PULL BOX, COMMUNICATION
-  EXISTING PULL BOX, POWER

PAY ITEM NOTES

- FURNISH AND INSTALL EMBEDDED 15 LF CONDUIT. PLACE 5'-2" HDPE CONDUIT EMBEDDED IN NEW DRILLED SHAFT BASE. LEAVE 12" EXPOSED ABOVE NEW CONCRETE BASE AND EXTEND ELECTRICAL CONDUIT TO EXISTING ELECTRIC PULL BOX; EXTEND COMM. CONDUITS (2) & (2) GROUNDING CONDUITS TO NEW ITS PULL BOX.
- FURNISH AND INSTALL NEW FIBER SPLICE BOX. CAPTURE EXISTING COMMUNICATIONS CONDUIT UNDER REL ENTRANCE RAMP. ACTUAL CONDUIT LOCATION IS UNKNOWN. CONTRACTOR SHALL LOCATE EXISTING CONDUIT TO CAPTURE AND SET NEW PULL BOX. ABANDON EXISTING CONDUCTORS IN PLACE FOR USE AS PULL STRING BY DMS SIGN CONTRACTOR.
- THE LOCATION(S) OF THE UTILITIES SHOWN IN THE PLANS ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. EXISTING UTILITIES ARE TO REMAIN IN PLACE UNLESS OTHERWISE NOTED.
- NEW ITS PULL BOX AND GROUNDING/BONDING PER FY 2017-2018 DESIGN STANDARDS INDEX 18300 - SHEETS 2 & 4.

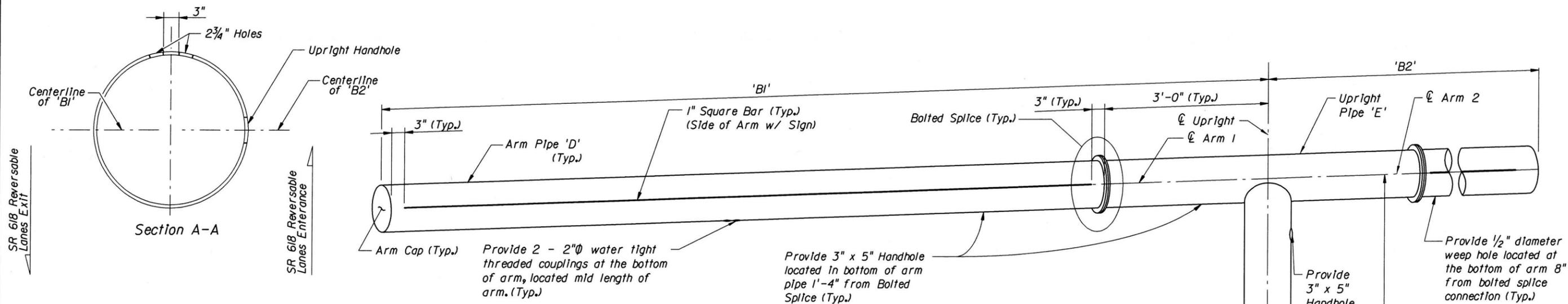


12-19-18




ISOMETRIC VIEW

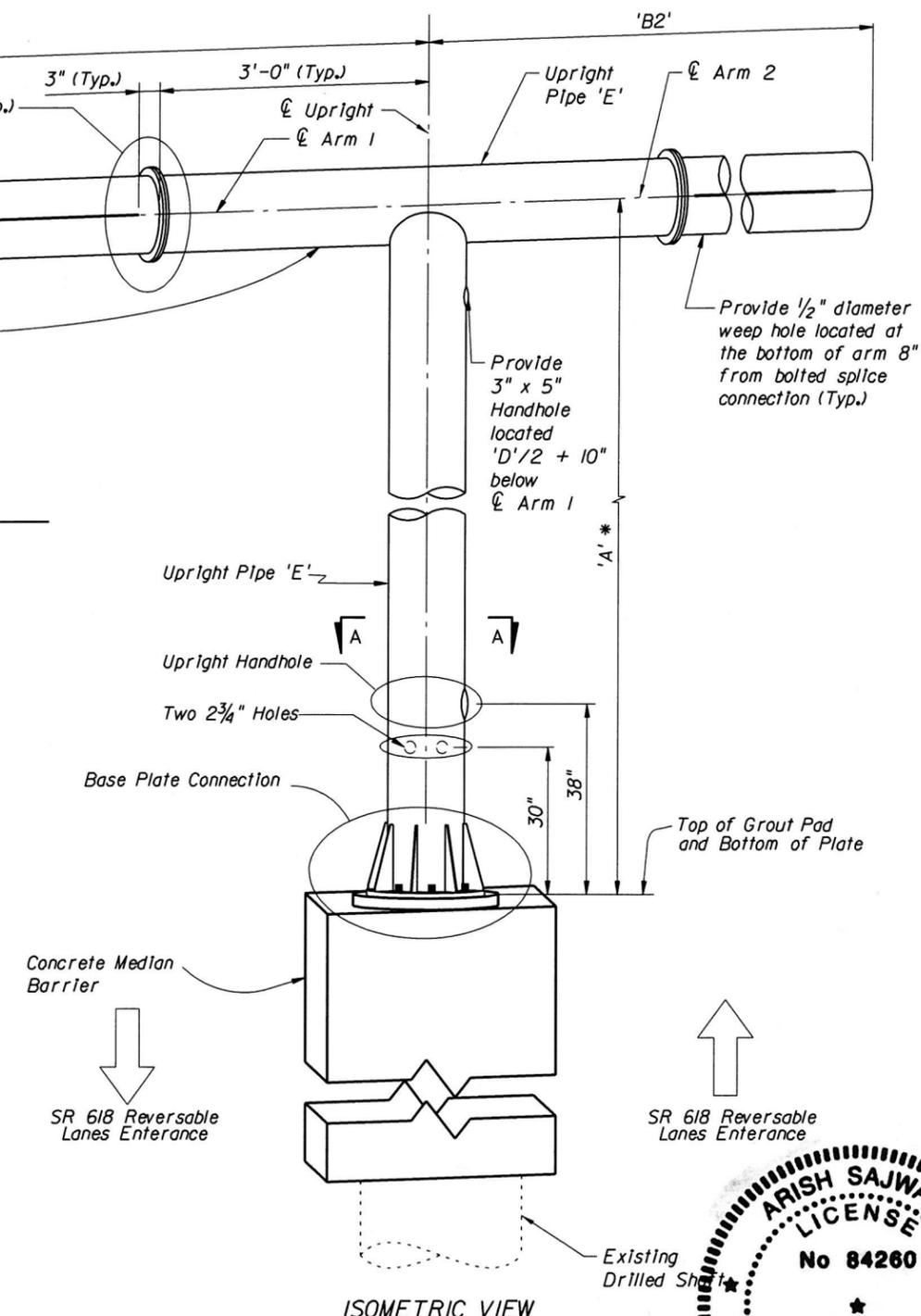
REVISIONS				DAN D'ANTONIO, P.E. P.E. LICENSE NUMBER 68399 HNTB CORPORATION 201 N. FRANKLIN STREET, SUITE 1200 TAMPA, FL 33602 CERTIFICATE OF AUTHORIZATION 6500	TAMPA - HILLSBOROUGH EXPRESSWAY AUTHORITY			ITS PLAN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 618	HILLSBOROUGH			



DOUBLE ARM CANTILEVER SIGN STRUCTURE NOTES

- General Specifications: Florida Department of Transportation (FDOT) Standard Specifications for Road and Bridge Construction (January 2019 Edition) and Supplements thereto.
- Design Specifications: American Association of State Highway and Transportation Officials (AASHTO) LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals (1st Edition, 2015). FDOT Structures Manual (January 2018). AASHTO Bridge Design Specifications (8th Edition).
- The Sign Structure shall be erected per FDOT Specification Section 700-2 and 700-4.
- In accordance 2018 Structures Manual The Basic Wind Speed for Extreme and Service limits are 150 mph and 90 mph, respectively.
- Sign Structure Materials shall be as follows:
 - Steel Pipe: Structural pipe shall be welded or seamless steel pipe and shall conform to one of the following Specifications:
 - API-5L-X42 (42 ksi yield)
 - ASTM A500, Grade B
 - ASTM A709, Grade 36
 - Handhole Frame: ASTM A500, Grade B
 - Handhole Cover: ASTM A1011, Grade 50, 55, 60 or 65
 - Steel Plates & Angles: ASTM A709, Grade 36
 - Weld Metal: E70XX
 - Bolts (except Anchor Bolts): ASTM A325 (Type 1) w/self-locking nuts
 - Stainless Steel Screws: AISI Type 316
- All Steel Items shall be Galvanized as follows:
 - All Nuts, Bolts, and Washers: ASTM F2329
 - All other steel items: ASTM A123
- Except for Anchor Bolts, all bolt hole diameters shall be equal to the bolt diameter plus 1/16". Hole diameters for Anchor Bolts equal the bolt diameter plus 1/2".
- All welding shall conform to American Welding Society Structural Welding Code (Steel) ANSI/AWS D1.1 (current edition). For additional welding requirements, see AASHTO LRFD Specification for Structural Supports for Highway Signs, Luminaires and Traffic Signals, Section 5.14, Welded Connections.
- Alternate Designs for this Structure are not allowed.
- Shop Drawings for this Structure are required and fabrication shall not begin until these Shop Drawings are approved. Shop Drawings shall include the Contractor's field verification of all upright heights and foundation elevations necessary to insure minimum vertical clearances per the cross section sheet. Shop drawings shall also include anchor bolt orientation with respect to arm and the direction of traffic.

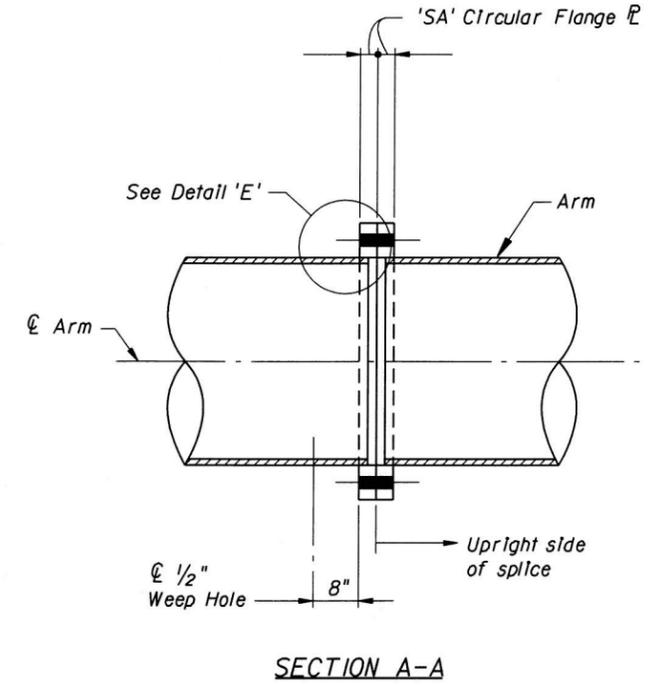
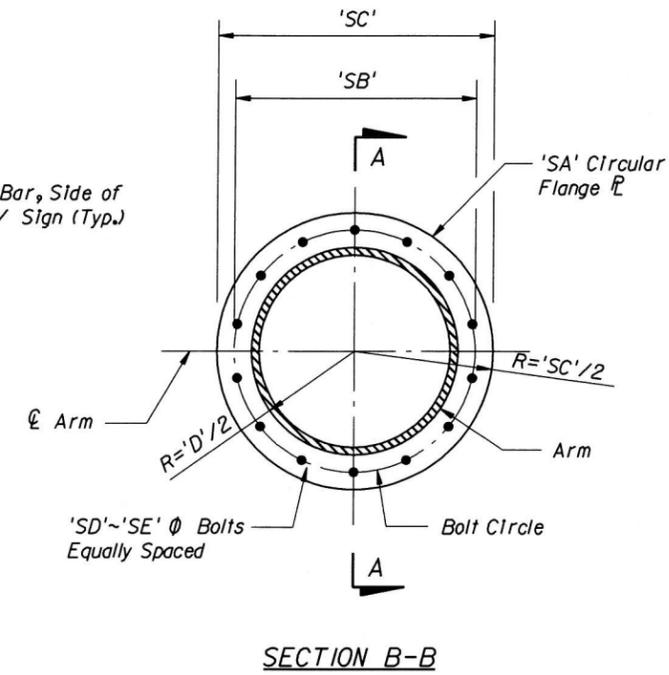
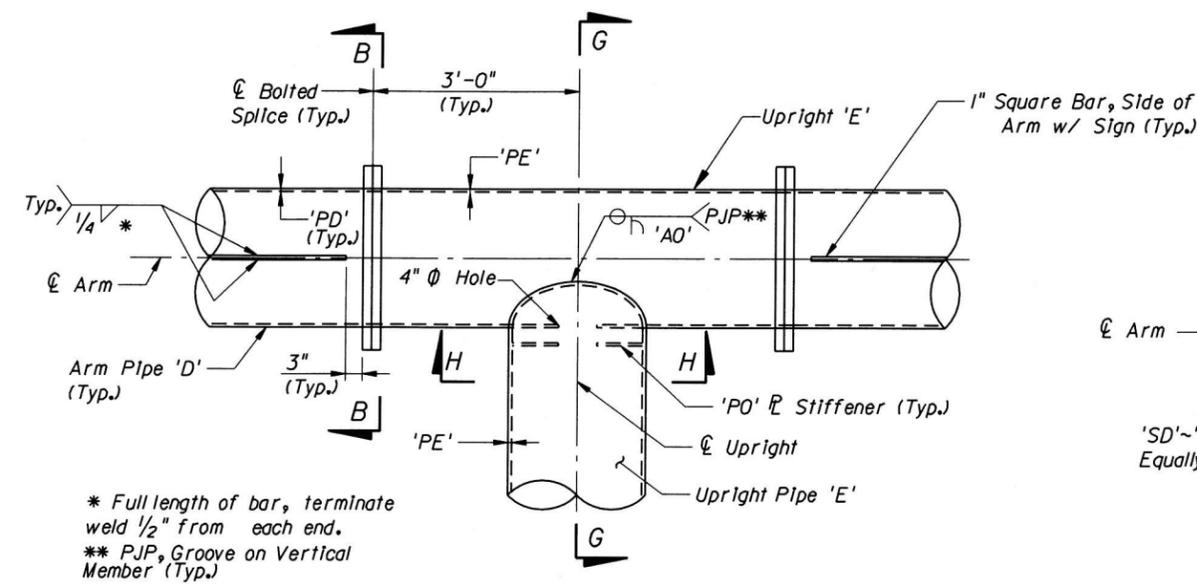
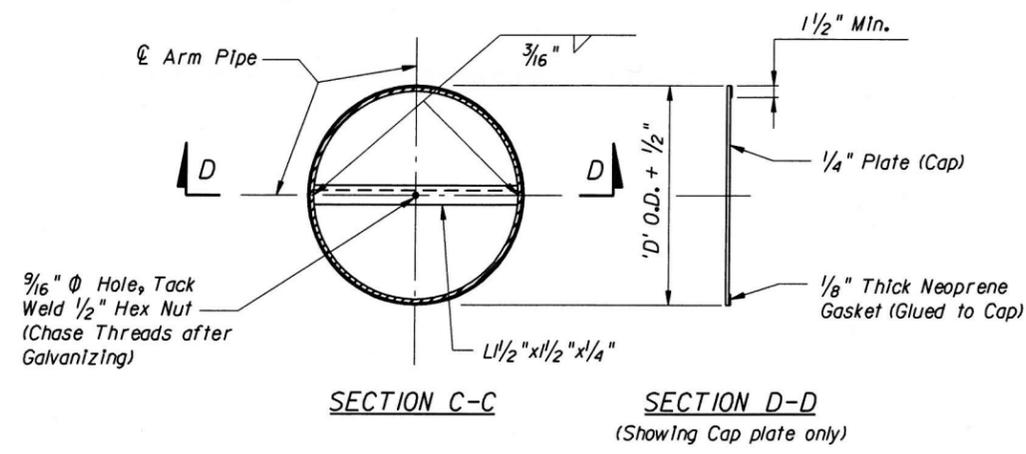
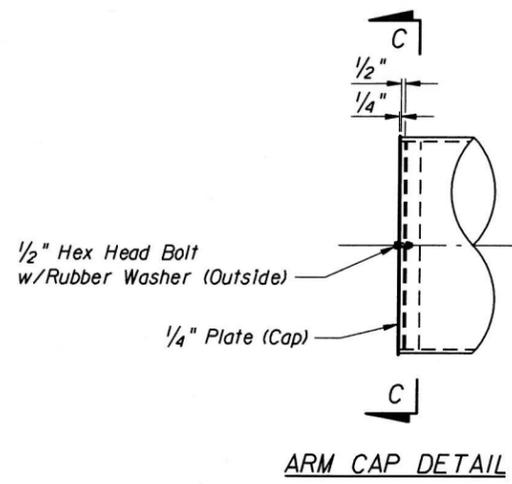
- All members of the Sign Structure are considered tension members and shall meet the AASHTO Specifications for notch toughness requirements for Zone 1.
- The Structure must be assembled after field survey of anchor bolt locations and Galvanizing and prior to shipment to the site to verify correct orientation and fit up. It may be disassembled for shipping. All steel plates and pipes shall be match marked to ensure proper assembly.
- Provide the Back Rake as Indicated on the Camber Diagram by adjusting leveling nuts beneath the base plate after placement of the Upright and prior to installation of the Arm.
- The Bolted Splice connection shall be completed (A325 Bolts tensioned per the Specifications) in the no-load condition.
- The Upright shall be firmly maintained in its final position by snug tightening of all anchor bolt nuts (including leveling nuts) after sign panels are installed and until the base plate is grouted for full contact with bottom of base plate and grout is cured.
- See cross section sheet for size and location of sign panels.
- Locate arm handholes aligned with centerline of arms.
- Locate upright handholes aligned with centerline of upright facing down station.
- The structure was designed for the Sign and DMS panels shown on the cross section sheet. DMS panel size of 15'-7" in width, 6'-9" in depth, with a maximum weight of 2010 pounds (including components required for attachment) was used in design. If actual DMS panels is bigger or heavier than these design assumptions, the Engineer shall be notified immediately.
- Sign Manufacturer shall provide the mounting hardware and signed-and-sealed shop drawings for Sign and DMS attachment to vertical hanger.
- Existing Structure Foundation shall be modified per the details provided.
- Verify CSL access tubes will not interfere with anchor bolt installation before excavating the shaft. When CSL access tube locations conflict with anchor bolt locations, move the CSL access tube locations +/- two inches along the inner circumference of the reinforcing cage. Notify the engineer before excavating the shaft if the CSL access tube locations cannot be moved out of conflict with anchor bolt locations.
- Conduit details for the DMS shall be per the ITS plans.
- Sign Structure shall be paid for per Pay Item 700-10-124. Concrete Median Barrier shall be paid for per Pay Item 521-1-14.



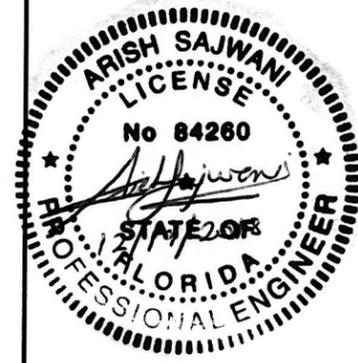
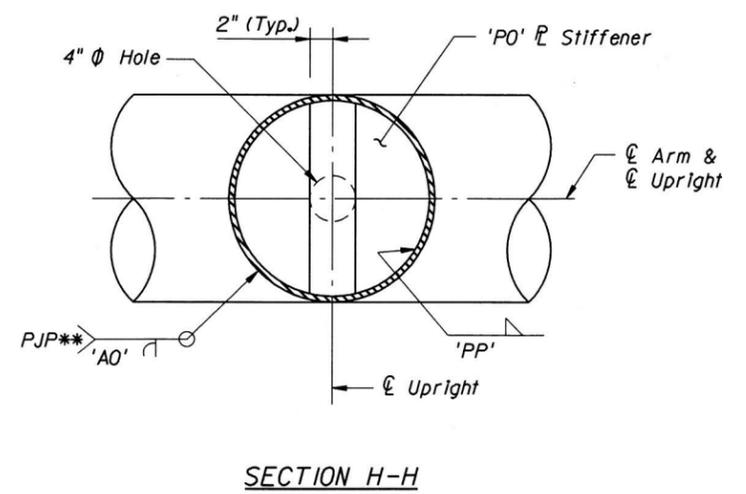
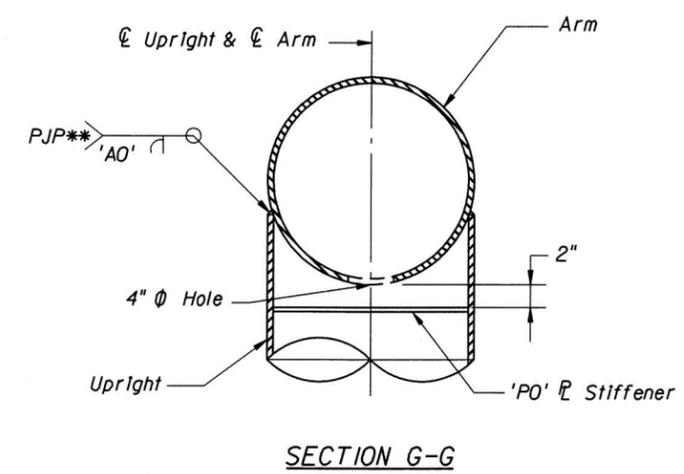
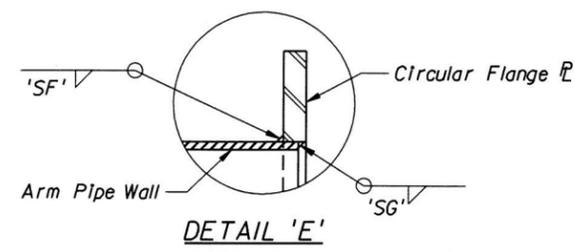
* NOTE: Contractor shall verify these Dimensions prior to fabrication



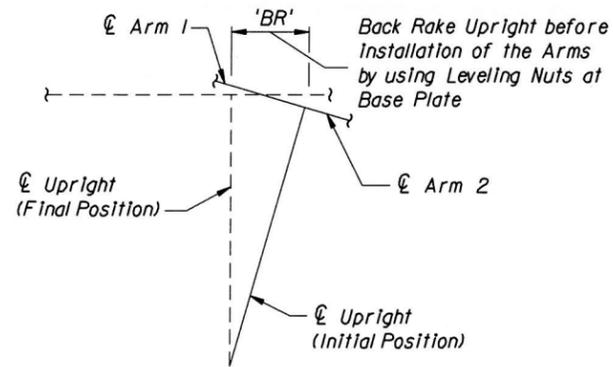
REVISIONS						DRAWN BY: AMS 8/18	CHECKED BY: CSG 8/18	DESIGNED BY: CSG 8/18	CHECKED BY: AMS 8/18	TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY			GENERAL INFORMATION		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION					ROAD NO.	COUNTY	THEA PROJECT ID	PROJECT NAME:	DOUBLE-ARM MONOTUBE CANTILEVER STRUCTURE REPLACEMENT N. MERIDIAN AVENUE AND SR 618 EXPRESS	
										SR 618	HILLSBOROUGH			4	



ELEVATION VIEW OF ARM-UPRIGHT CONNECTION
(Handholes not shown)



REVISIONS						DRAWN BY: AMS 8/18	CHECKED BY: CSG 8/18	TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY			SHEET TITLE: CONNECTION DETAILS	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	THEA PROJECT ID		
						DESIGNED BY: CSG 8/18	SR 618	HILLSBOROUGH		PROJECT NAME: DOUBLE-ARM MONOTUBE CANTILEVER STRUCTURE REPLACEMENT N. MERIDIAN AVENUE AND SR 618 EXPRESS	SHEET NO. 5	

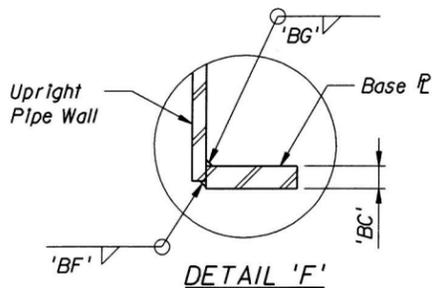


CAMBER DIAGRAM

(Looking In the Direction of Stationing)

Note:

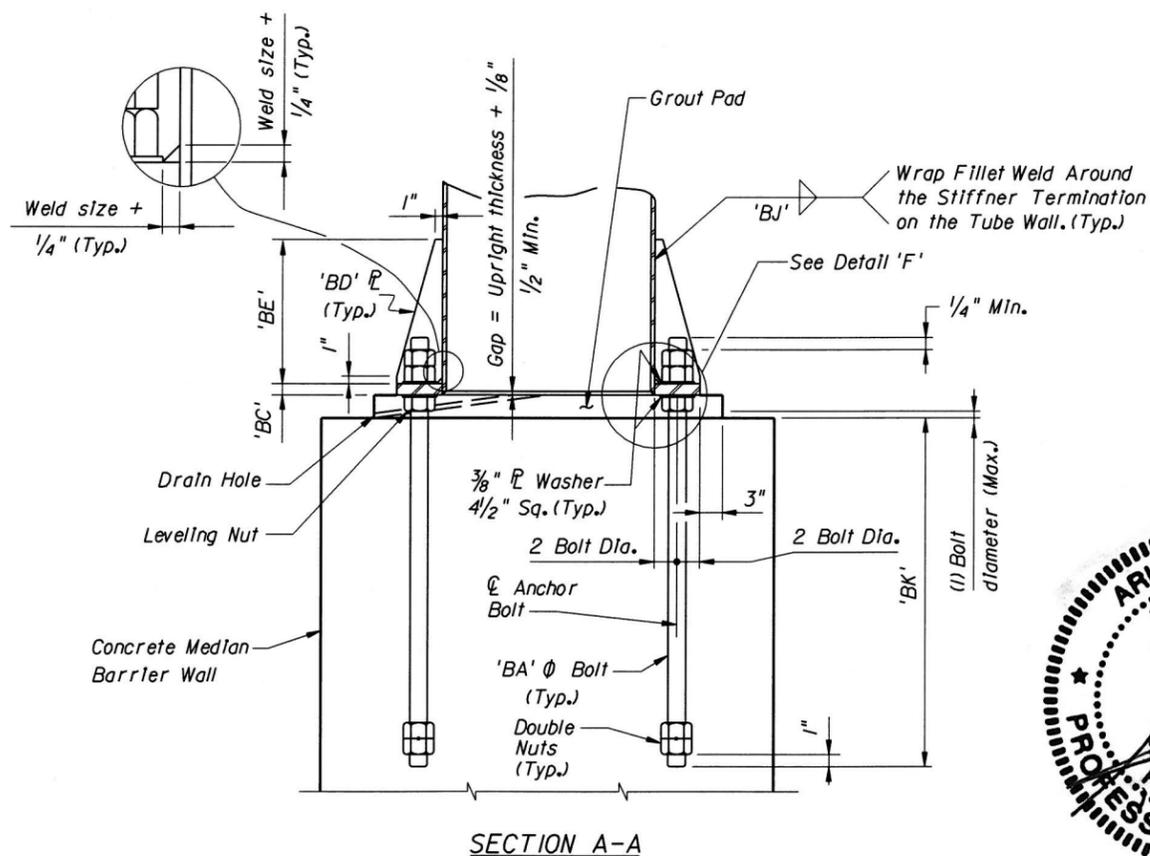
Arm 1 and Arm 2 correspond to dimensions 'B1' and 'B2', respectively.



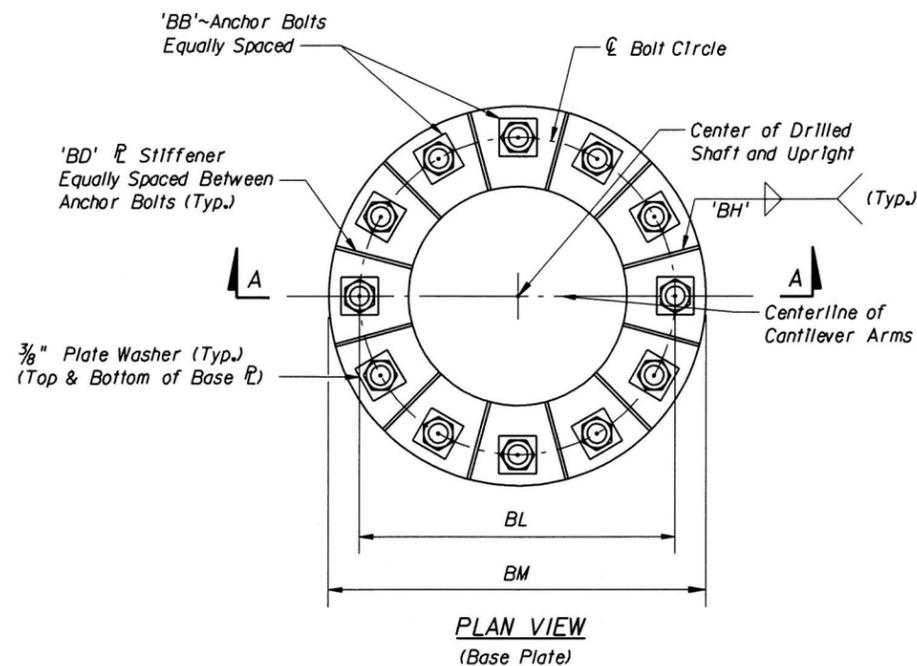
FOUNDATION/CONCRETE MEDIAN BARRIER NOTES

- Existing foundation is to be modified per detail provided on CONCRETE MEDIAN BARRIER DETAIL Sheets.
- Data concerning type and location of underground and other utilities is not guaranteed to be accurate or all inclusive. The Contractor shall contact Utility companies, coordinate with the Roadway Plans, and field verify utilities and other obstructions prior to construction to avoid damage thereto. The Engineer shall be contacted for any modifications required due to conflicts.
- Steel Anchor Bolts shall be ASTM F1554 GRADE 55. Bolts, Nuts and Washers shall be galvanized per ASTM F2329.
- Anchor Bolts shall have Double Nuts. Nuts for anchor bolts shall be ASTM A563 Grade A Heavy Hex. Washers for anchor bolts shall be ASTM F436, Type 1. Each exposed double nut shall be cased with an Aluminum Nut Cover (not shown). Aluminum Nut Covers shall be ASTM B26 (356-T6).
- Concrete Median Barrier should be constructed with Class IV concrete with a Minimum 28-day compressive Strength (f'c) of 5500 psi for all environmental classifications.
- Grout shall have a Minimum 28-day Compressive Strength of 5000 psi and shall meet the requirements of Section 934 of the Standard Specifications. Grout pad shall be constructed in accordance with FDOT Standard Specification Section 649-7.
- Reinforcing Steel shall be ASTM A615, Grade 60.
- The contractor shall coordinate the base plate fabrication details to coincide with the as-built anchor bolt orientation.
- Existing foundation design were based on the following assumptions:
The water table is assumed at the ground surface.

Soil Type: Sand
Soil Weight: 42.6 pcf
Friction Angle: 29 Degrees



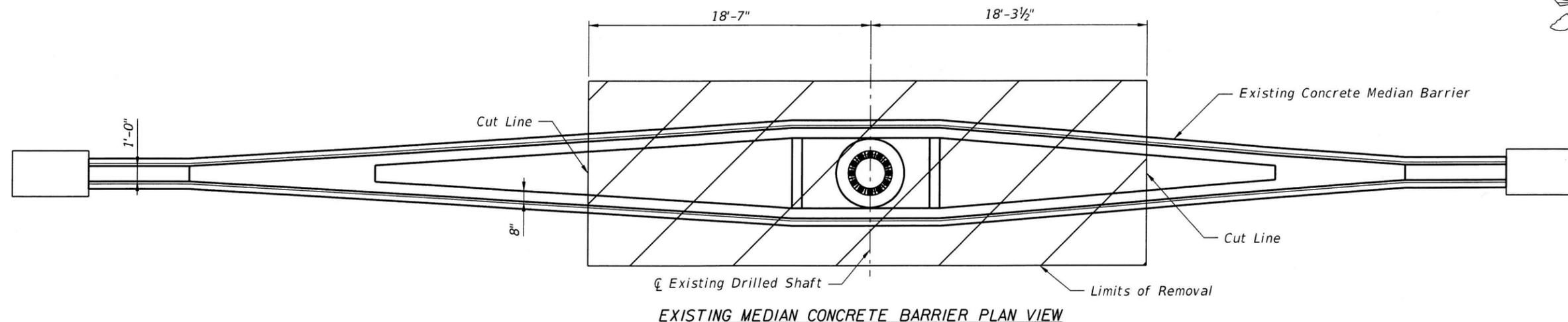
SECTION A-A



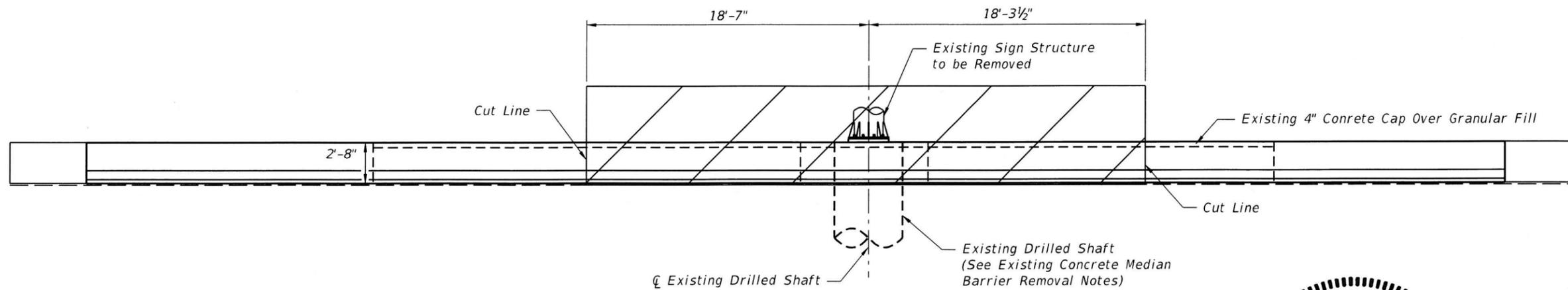
PLAN VIEW (Base Plate)



REVISIONS						DATE	BY	DESCRIPTION	DRAWN BY: AMS 8/18	CHECKED BY: CSG 8/18	DESIGNED BY: CSG 8/18	CHECKED BY: AMS 8/18	TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY			SHEET TITLE: BASE PLATE CONNECTION DETAILS AND FOUNDATION NOTES	REF. DWG. NO.
DATE	BY	DESCRIPTION	ROAD NO.	COUNTY	THEA PROJECT ID												
													SR 618	HILLSBOROUGH		PROJECT NAME: DOUBLE-ARM MONOTUBE CANTILEVER STRUCTURE REPLACEMENT N. MERIDIAN AVENUE AND SR 618 EXPRESS	SHEET NO. 6



EXISTING MEDIAN CONCRETE BARRIER PLAN VIEW



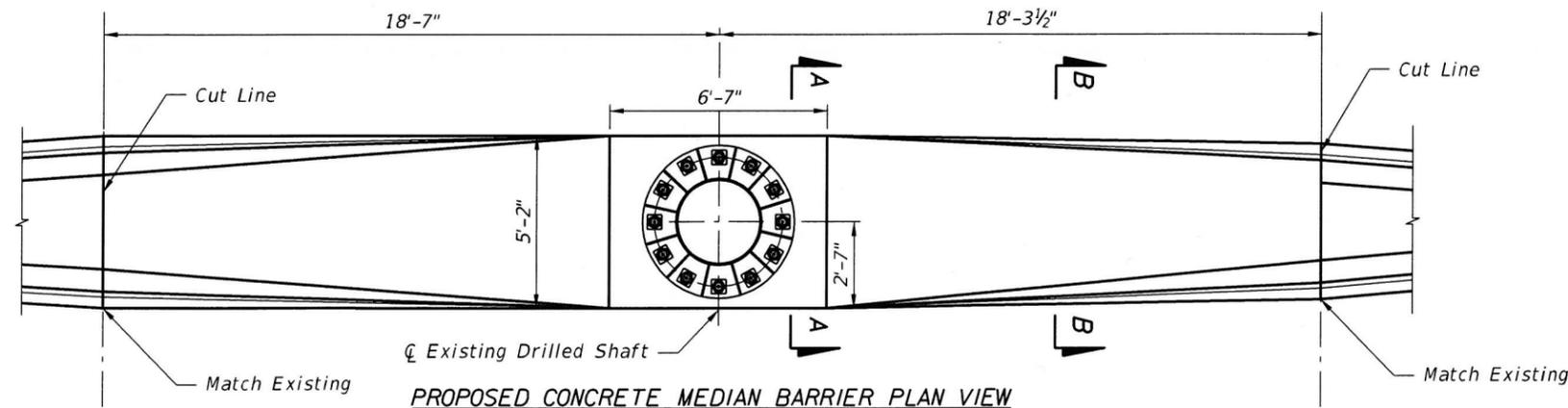
EXISTING MEDIAN CONCRETE BARRIER ELEVATION VIEW

EXISTING MEDIAN CONCRETE BARRIER REMOVAL NOTES

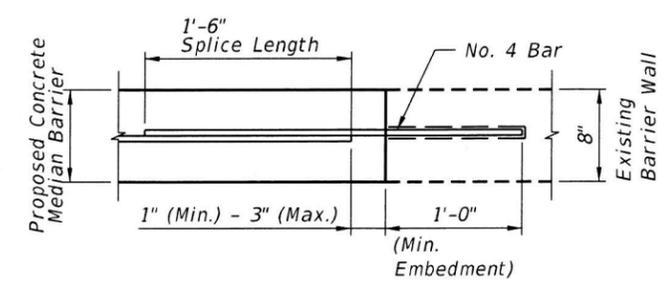
1. Existing Concrete Median Barrier to be removed to limits shown.
2. Contractor is responsible for maintaining granular fill in Existing Concrete Median Barrier at the cut lines.
3. Existing Drill Shaft to be removed only to the ground elevation.
4. Longitudinal reinforcement in existing drilled shaft to remain above ground elevation.
5. Remove existing drilled shaft stirrups above ground elevation.
6. Contractor must maintain any power or communication wires (with housing), during removal of existing drilled shaft. Provide access to wires through upright with new construction.



REVISIONS						ARISH SAJWANI, P.E. P.E. LICENSE NUMBER 84260 HNTB CORPORATION 201 N. FRANKLIN ST., SUITE 1200 TAMPA, FL 33602 CERTIFICATE OF AUTHORIZATION 6500	DRAWN BY: AMS-8/18 CHECKED BY: CSG-8/18 DESIGNED BY: CSG-8/18 CHECKED BY: AMS-8/18	TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY			SHEET TITLE: CONCRETE MEDIAN BARRIER DETAIL (1 OF 2)	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	THEA PROJECT ID		
							SR 618	HILLSBOROUGH		DOUBLE-ARM MONOTUBE CANTILEVER STRUCTURE REPLACEMENT N. MERIDIAN AVENUE AND SR 618 EXPRESS	7	



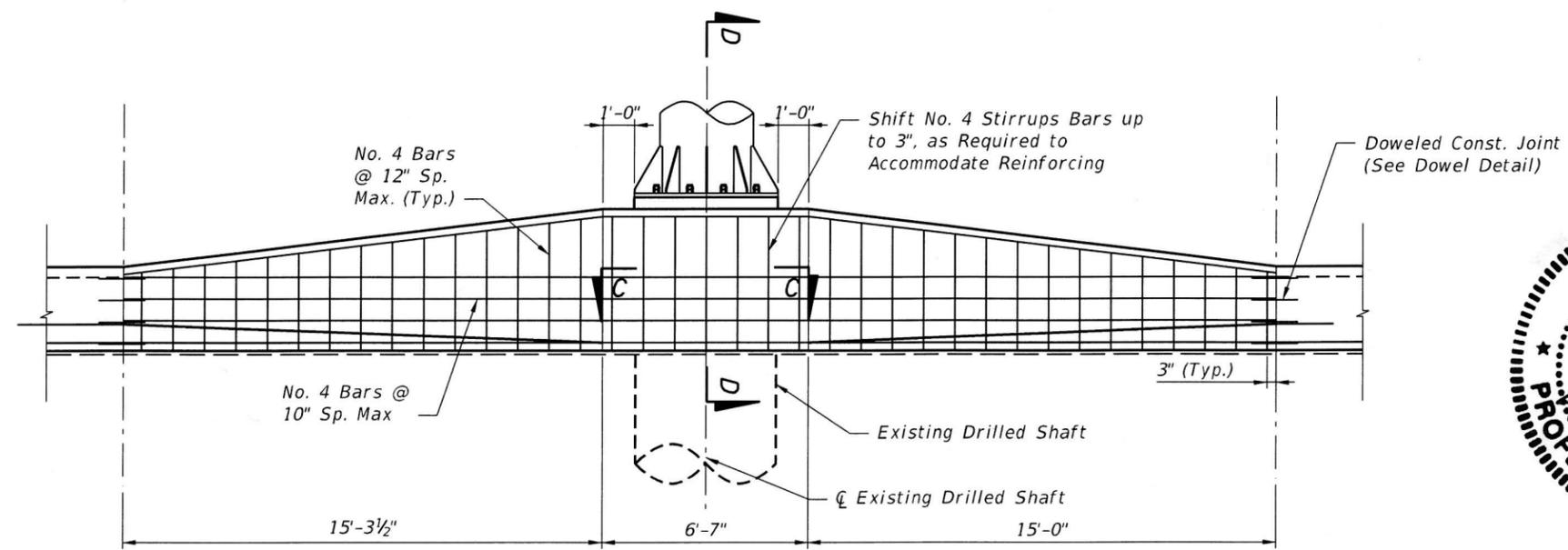
PROPOSED CONCRETE MEDIAN BARRIER PLAN VIEW



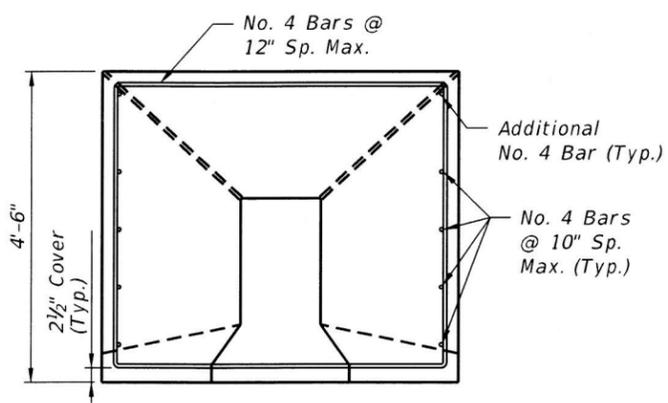
DOWEL DETAIL

DOWEL NOTE

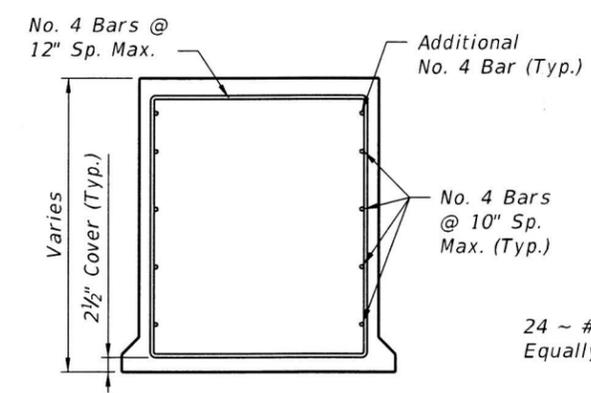
1. Dowel in #4 Bars @ 10" max. spacing into barrier wall in line with provided reinforcement steel.
2. Use Bonding Material System in accordance with Specification Section 416 & 937.



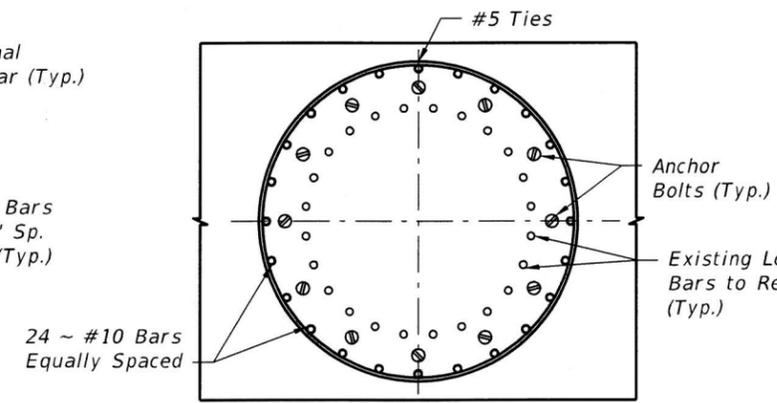
PROPOSED CONCRETE MEDIAN BARRIER ELEVATION VIEW



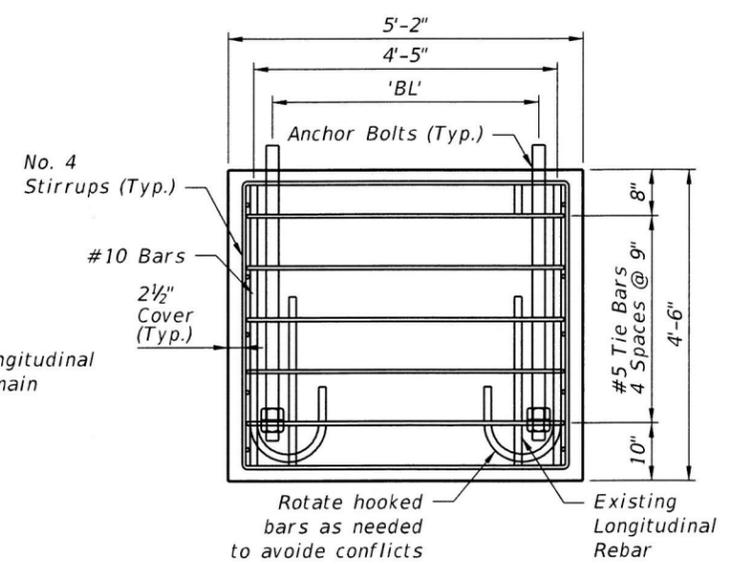
SECTION A-A



SECTION B-B

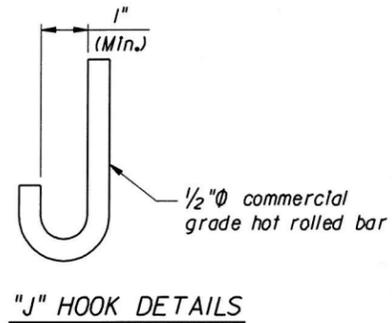
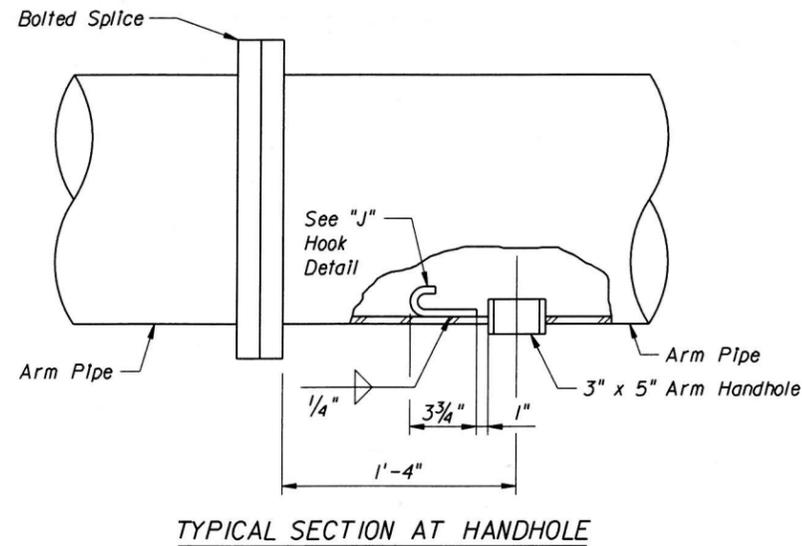


SECTION C-C

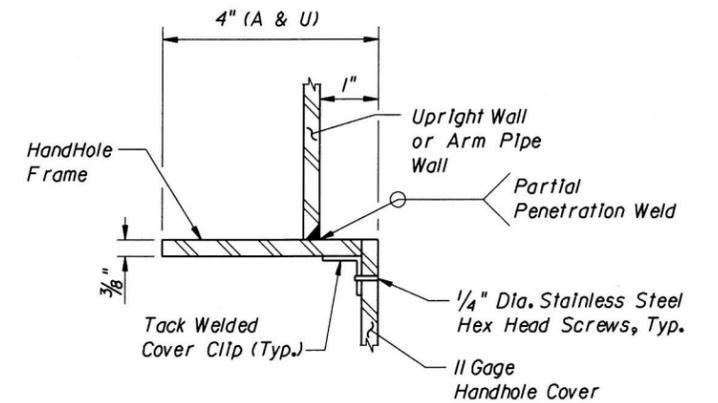
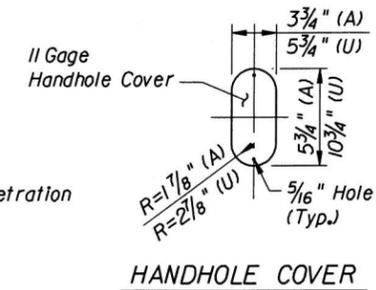
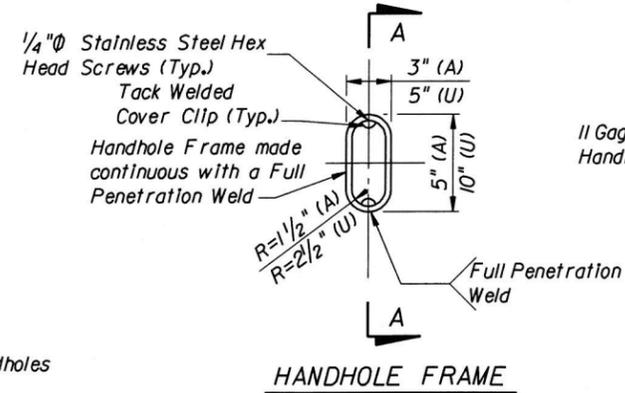


SECTION D-D
(Structure not shown for clarity)

REVISIONS						DRAWN BY: AMS 8/18	TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY	SHEET TITLE: CONCRETE MEDIAN BARRIER DETAILS (2 OF 2)	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION				
						CHECKED BY: CSG 8/18	ROAD NO. COUNTY THEA PROJECT ID	PROJECT NAME: DOUBLE-ARM MONOTUBE CANTILEVER STRUCTURE REPLACEMENT N. MERIDIAN AVENUE AND SR 618 EXPRESS	SHEET NO. 8
						DESIGNED BY: CSG 8/18	SR 618 HILLSBOROUGH		
						CHECKED BY: AMS 8/18			



- Handhole Notes:**
- A - Denotes 3" x 5" all Arm Handholes and Top Upright Handhole
U - Denotes 5" x 10" Bottom Upright Handhole with Terminal Compartment
 - Provide covers on all Handholes.

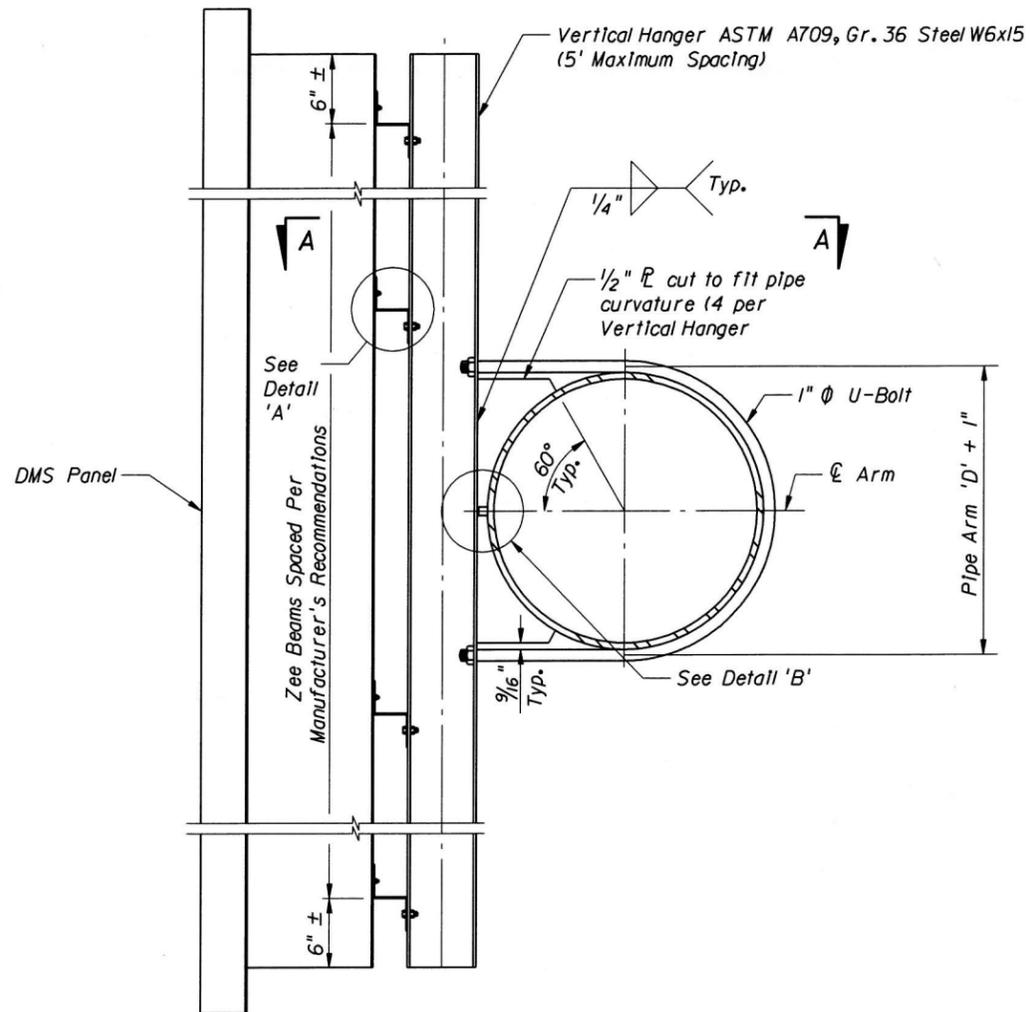


DOUBLE ARM CANTILEVER SIGN STRUCTURE VARIABLES																											
STRUCT PANEL	STATION	BASELINE	DIMENSIONS			MEMBER SIZES				ARM CONNECTION		STIFFENER	BACKRAKE	BASE CONNECTION						BOLTED SPLICE							
			A (ft.)	B1 (ft.)	B2 (ft.)	ARM (In.)		UPRIGHT (In.)		A0 (In.)	PO (In.)	PP (In.)	BR (In.)	BC (In.)	BD (In.)	BE (In.)	BF (In.)	BG (In.)	BH (In.)	BJ (In.)	SA (In.)	SB (In.)	SC (In.)	SD (In.)	SE (In.)	SF (In.)	SG (In.)
N.A.	N.A.	Meridian Ave.	22.25	41	37.77	30	0.5	30	5/8	3/8	1/2	1/4	0	3	1 1/16	14	1/2	1/2	5/8	1/4	2.5	38	44	18	1 1/8	3/8	3/8

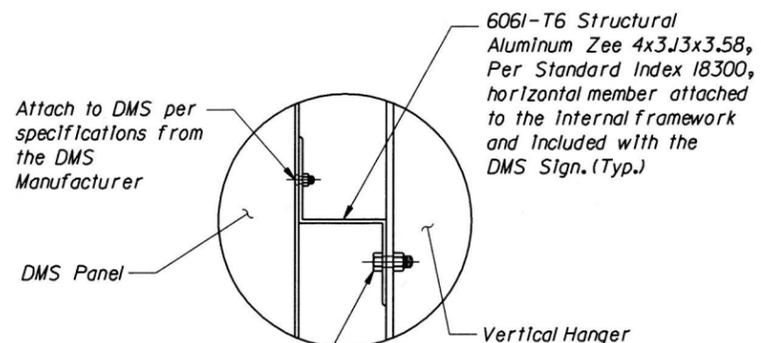
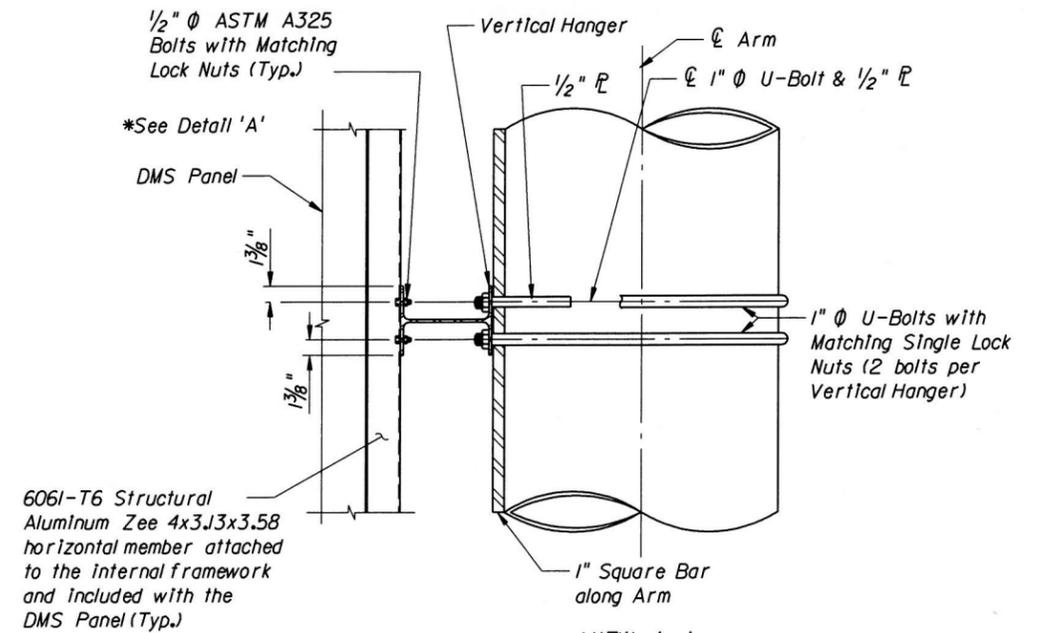
DOUBLE ARM CANTILEVER SIGN STRUCTURE VARIABLES							
STRUCT PANEL	STATION	BASELINE	BASE CONNECTION			BASE PLATE	
			BA (In.)	BB	BK (In.)	BL (In.)	BM (In.)
N.A.	N.A.	Meridian Ave.	2.25	12	47	46.5	55



REVISIONS						DRAWN BY: AMS 8/18	TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY	SHEET TITLE: MISCELLANEOUS DETAILS AND VARIABLES	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION				
						CHECKED BY: CSG 8/18	ROAD NO. COUNTY THEA PROJECT ID	PROJECT NAME: DOUBLE-ARM MONOTUBE CANTILEVER STRUCTURE REPLACEMENT N. MERIDIAN AVENUE AND SR 618 EXPRESS	SHEET NO. 9
						DESIGNED BY: CSG 8/18	SR 618 HILLSBOROUGH		
						CHECKED BY: AMS 8/18			

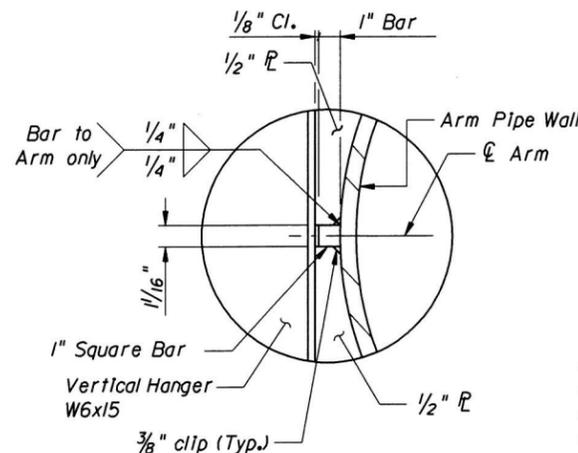


SECTION THROUGH SIGN SUPPORT



Field drill holes and provide 1/2" Ø ASTM A325 bolts with matching lock nuts (Per Standard Index 18300)

DETAIL 'A'



DETAIL 'B'



NOTES

1. New DMS panel to be attached. Contractor to provide new hangers, zee beams, U-bolts, and other specified attachments for the DMS connection.
2. The existing static signs will be reused along with the existing hangers, and zee beams. Contractor to provide new U-bolts and U-bolt attachments are required to be new to fit the new structure. Contractor shall drill new holes in existing hangers to accommodate new U-bolts.

REVISIONS						DRAWN BY: AMS 8/18	TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY	SHEET TITLE: MISCELLANEOUS DETAILS	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION				
						CHECKED BY: CSG 8/18	ROAD NO. COUNTY THEA PROJECT ID	PROJECT NAME: DOUBLE-ARM MONOTUBE CANTILEVER STRUCTURE REPLACEMENT N. MERIDIAN AVENUE AND SR 618 EXPRESS	SHEET NO. 10
						DESIGNED BY: CSG 8/18	SR 618 HILLSBOROUGH		
						CHECKED BY: AMS 8/18			