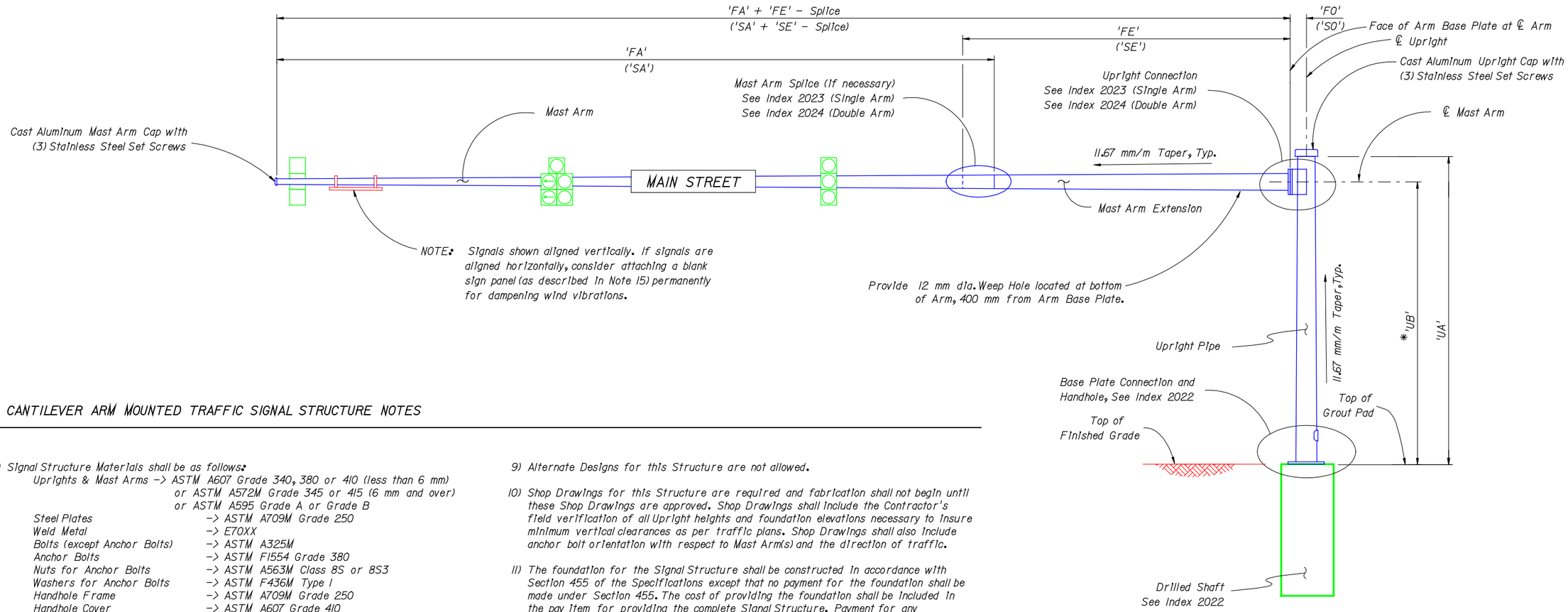
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.
3	FLA.			



ELEVATION VIEW

(Single Arm Shown, Double Arm Similar)
(Luminaire Arm Not Shown)

*NOTE: Contractor shall verify these Dimensions Prior to Fabrication of Upright.

CANTILEVER ARM MOUNTED TRAFFIC SIGNAL STRUCTURE NOTES

1) Signal Structure Materials shall be as follows:

Uprights & Mast Arms	-> ASTM A607 Grade 340, 380 or 410 (less than 6 mm) or ASTM A572M Grade 345 or 415 (6 mm and over) or ASTM A595 Grade A or Grade B
Steel Plates	-> ASTM A709M Grade 250
Weld Metal	-> E70XX
Bolts (except Anchor Bolts)	-> ASTM A325M
Anchor Bolts	-> ASTM F1554 Grade 380
Nuts for Anchor Bolts	-> ASTM A563M Class 8S or 8S3
Washers for Anchor Bolts	-> ASTM F436M Type 1
Handhole Frame	-> ASTM A709M Grade 250
Handhole Cover	-> ASTM A607 Grade 410
Aluminum Caps and Covers	-> ASTM B26 (356-T6)
Stainless Steel Screws	-> AISI Type 316

2) Reinforcing Steel shall be ASTM A615M-96, Grade 420.

3) Concrete shall be Class IV (Drilled Shaft) with a minimum 28-day compressive strength of 28 MPa for all environmental classifications.

4) Grout shall have a minimum 28-day compressive strength of 35 MPa and shall meet the requirements of Special Provision Section 934.

5) All welding shall conform to American Welding Society Structural Welding Code (Steel) ANSI/AWS D1.1 (current edition)

6) All Steel Items shall be galvanized as follows:

All Nuts, Bolts and Washers	-> ASTM A153 Class C or D depending on size
All other steel items	-> ASTM A123

7) The Structure must be assembled after galvanizing and prior to shipment to the site to assure fit up. It may be disassembled for shipping.

8) The Design Wind Speed is in conformance with the "Structures Design Guidelines" (current edition) with a 30 percent gust factor.

9) Alternate Designs for this Structure are not allowed.

10) 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 as per traffic plans. Shop Drawings shall also include anchor bolt orientation with respect to Mast Arm(s) and the direction of traffic.

11) The foundation for the Signal Structure shall be constructed in accordance with Section 455 of the Specifications except that no payment for the foundation shall be made under Section 455. The cost of providing the foundation shall be included in the pay item for providing the complete Signal Structure. Payment for any incidental items incurred in furnishing and installing this Signal Structure shall be included in the pay item for providing the complete Signal Structure.

12) Except for Anchor Bolts, all bolt hole diameters shall be equal to the bolt diameter plus 2 mm, prior to galvanizing. Hole diameters for Anchor Bolts shall not exceed the bolt diameter plus 13 mm.

13) Sign Panels and Signals attached to the Mast Arm shall be centered in elevation on the arm. Sign Panels shall be aluminum. Wire access holes shall not exceed 12 mm in diameter.

14) The Upright pipe shall be installed vertically. Camber shall be accounted for in the Mast Arm connection as detailed.

15) If the Traffic Signals or Sign Panels are not in place within two working days after the Mast Arm is erected, a 1.0 m by 0.6 m (min.) blank Sign Panel shall be attached to the bottom of the Mast Arm within two meters of the Mast Arm tip. This blank Sign Panel shall remain in place until the permanent Signals and Signs are mounted.

16) The Upright tube shall not be erected until the foundation concrete has been allowed to cure for a minimum of seven days.

17) Mast Arms and Upright pipes shall be tapered with the diameter changing at a rate of 11.67 mm per meter.

NOTE: Work this Drawing with Index Nos. 2022, 2023, 2024 (Optional), 2025 (Optional), and S-2026.

NOTE: See Index S-2026 for referenced dimensions, sizes, and quantities.

NOTE: Details for the 'J' Hook, Ground Rod, Signal and Sign Locations, Signal Head Attachment, Sign Attachment, Pedestrian Head Attachment, and Foundation Conduit can be found elsewhere.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
			97R		

	NAMES	DATES
DRAWN BY	AVP	10-94
CHECKED BY	MHA	10-94
DESIGNED BY	AVP	10-94
CHECKED BY	MHA	10-94
APPROVED BY	REN	

ENGINEER OF RECORD:
STRUCTURES DESIGN OFFICE
CENTRAL OFFICE
605 Suwannee Street, MS 33
Tallahassee, Florida 32399-0450

LOGO:

SEAL:

FLORIDA DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN OFFICE

ROAD NO.	COUNTY	PROJECT NO.

SHEET TITLE: CANTILEVER SIGNAL STRUCTURE ELEVATION AND NOTES

PROJECT NAME:

DRAWING NO. 1 of 1

INDEX NO. 2021

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DATE "" TIME