

FLORIDA DEPARTMENT OF TRANSPORTATION
BRIDGE MANAGEMENT SYSTEM
Inspection/CIDR Report
(TRAFFIC SIGNAL MAST ARM INSPECTION REPORT)

Structure ID: 70M086

Inspection

DISTRICT: D5 - Deland

INSPECTION DATE: 3/20/2026 CGFM

BY:	Ayres Associates	STRUCTURE NAME:	US-1 (Washington Ave.) NB at SR-405 (South St.)
OWNER:	1 State Highway Agency	YEAR BUILT:	2009
MAINTAINED BY:	4 City/Municipal Hwy Agy	SECTION NO.:	70 030 000
STRUCTURE TYPE:	3 Steel - Traffic Signal Mast Arm	MP:	3.575
LOCATION:	0.5 Mile South of SR-406	ROUTE:	00001
SERV. TYPE ON:	Traffic Signal Mast Arm	FACILITY CARRIED:	US-1(Washington)NB
SERV. TYPE UNDER:	1 Highway	FEATURE INTERSECTED:	SR-405 (South St.)
MAST ARM CODE:	2	MAST ARM DESCRIPTION:	Mast arm is inside the mast arm boundary area

☐ FUNCTIONALLY OBSOLETE☐ STRUCTURALLY DEFICIENT

TYPE OF INSPECTION: Regular NBI

DATE FIELD INSPECTION WAS PERFORMED: ABOVE WATER: 3/20/2026 UNDERWATER: N/A

SUFFICIENCY RATING: -1
HEALTH INDEX: 100

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BY: Ayres Associates

STRUCTURE NAME: US-1 (Washington Ave.) NB at SR-405 (South St.)

OWNER: 1 State Highway Agency

YEAR BUILT: 2009

MAINTAINED BY: 4 City/Municipal Hwy Agy

SECTION NO.: 70 030 000

STRUCTURE TYPE: 3 Steel - Traffic Signal Mast Arm

MP: 3.575

LOCATION: 0.5 Mile South of SR-406

ROUTE: 00001

SERV. TYPE ON: Traffic Signal Mast Arm

FACILITY CARRIED: US-1(Washington)NB

SERV. TYPE UNDER: 1 Highway

FEATURE INTERSECTED: SR-405 (South St.)

MAST ARM CODE: 2

MAST ARM DESCRIPTION: Mast arm is inside the mast arm boundary area

- ☐ THIS BRIDGE CONTAINS FRACTURE CRITICAL COMPONENTS
- ☐ THIS BRIDGE IS SCOUR CRITICAL
- ☐ THIS REPORT IDENTIFIES DEFICIENCIES WHICH REQUIRE PROMPT CORRECTIVE ACTION
- ☐ FUNCTIONALLY OBSOLETE ☐ STRUCTURALLY DEFICIENT

TYPE OF INSPECTION: Regular NBI

DATE FIELD INSPECTION WAS PERFORMED: ABOVE WATER: 3/20/2026 UNDERWATER: N/A

OVERALL NBI RATINGS:

DECK: N N/A (NBI)	CHANNEL: N N/A (NBI)
SUPERSTRUCTURE: 7 Good	CULVERT: N N/A (NBI)
SUBSTRUCTURE: 7 Good	SUFF. RATING: -1
PERF. RATING: Performance Rating Not applicable or not calculable.	HEALTH INDEX: 100

FIELD PERSONNEL / TITLE / NUMBER:**INITIALS**

Howell, Tim - Bridge Inspector (CBI #00338) (lead)

TPH

Vieau, Dick - Assistant Bridge Inspector

REVIEWING BRIDGE INSPECTION SUPERVISOR:

Maslyn, Rick - Bridge Inspector (CBI #00271)

RM

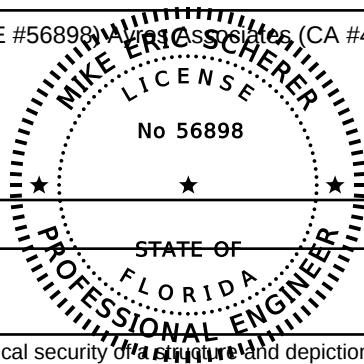
CONFIRMING REGISTERED PROFESSIONAL ENGINEER:

Scherer, Michael - Professional Engineer (PE #56898) Ayres Associates (CA #4356)
 8875 Hidden River Pkwy
 Suite 200
 Tampa FL 33637

THIS ITEM HAS BEEN DIGITALLY
 SIGNED AND SEALED BY

SIGNATURE: _____

DATE: _____



ON THE DATE ADJACENT TO THE SEAL.

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

This report contains information relating to the physical security of a structure and depictions of the structure. This information is confidential and exempt from public inspection pursuant to sections 119.071(3)(a) and 119.071(3)(b), Florida Statutes. Only the cover page of this report may be inspected and copied.

FLORIDA DEPARTMENT OF TRANSPORTATION
BRIDGE MANAGEMENT SYSTEM
Inspection/CIDR Report
(TRAFFIC SIGNAL MAST ARM INSPECTION REPORT)

Structure ID: 70M086

Inspection

DISTRICT: D5 - Deland

INSPECTION DATE: 3/20/2026 CGFM

All Elements

MISCELLANEOUS : Other Elements

Str Unit	Elem/Env	Description	Qty1	%1	Qty2	%2	Qty3	%3	Qty4	%4	T Qty
UNIT 0	8480 / 4	Mast Arm Foundation	1	100	0	.	0	.	0	.	1 (EA)

Element Inspection Notes:

8480/4 This element consists of 1 foundation.

INCIDENTAL:

F1 - (1) of (6) anchor bolt covers is missing (AB#1). NEW. Refer to Photo 1. REPAIR.

F1 - The grout ring is missing a drain hole. NEW. Refer to Photo 2. REPAIR.

F1 - There is a heavy accumulation of dirt and nesting material inside the column and below the base plate around the anchor bolts viewed with a borescope thru the terminal compartment. The anchor bolts and leveling nuts could not be directly viewed thru the debris. NEW. Refer to Photo 3. REPAIR.

FOUNDATION MEASUREMENTS:

Grout Pad (Non-Structural): F1 = Yes

Base Plate Thickness: F1 = 1 1/2 in.

Bolt Diameter: F1 = 2 in.

Nut Height: F1 = 2 in.

Washer Thickness: F1 = 1/4 in. (above base plate, not visible below)

Average Distance Bottom of Base Plate to Foundation: F1 = 2 3/4 in.

Average Estimated Standoff Distance: F1 = 3/4 in.

MISCELLANEOUS : Other Elements

Str Unit	Elem/Env	Description	Qty1	%1	Qty2	%2	Qty3	%3	Qty4	%4	T Qty
UNIT 0	8481 / 4	Metal Mast Arm Vertical	1	100	0	.	0	.	0	.	1 (EA)
UNIT 0	8518 / 4	Galvanized Steel	142	100	0	.	0	.	0	.	142 sq.ft

Element Inspection Notes:

8481/4 This element consists of 1 vertical.

Note: The vertical has a properly connected ground wire.

V1 - No deficiencies.

The following thickness measurement was taken below access hatch and below the moment connection:

V1 = 0.330 in.

Length of mast arm vertical member in linear feet.

V1 - 21.0 ft.

8518/4 Refer to Parent Element

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MISCELLANEOUS : Other Elements

Str Unit	Elem/Env	Description	Qty1	%1	Qty2	%2	Qty3	%3	Qty4	%4	T Qty
UNIT 0	8484 / 4	Metal Mast Arm Horizontal	1	100	0	.	0	.	0	.	1 (EA)
UNIT 0	8518 / 4	Galvanized Steel	254	100	0	.	0	.	0	.	254 sq.ft

Element Inspection Notes:

8484/4 This element consists of 1 horizontal.

NOTE: A borescope was used to inspect the horizontal arm interior; no nesting material, moisture or corrosion was observed during the 2026 inspection.

INCIDENTAL:

V1/H1 - There is a bird nest between the moment connection plates. NO CHANGE. Refer to Photo 4. REPAIR.

PREVIOUS CORRECTIVE ACTION EVALUATION:

V1/H1 - Remove the bird nest between the moment connection plates. The bird nest has not been removed since the 2021 Inspection or is re-occurring.

The following thickness measurement was taken on the horizontal at the moment connection:
V1/H1 = 0.375 in.

Length of mast arm horizontal member in linear feet:

V1/H1 - 67.0 ft.

Minimum Vertical Clearance:

V1/H1 - 18.5 ft. (to east signal)

8518/4 Refer to Parent Element

Total Number of ADE Elements*: 3

*excluding defects/protective systems

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Inspection

INSPECTION DATE: 3/20/2026 CGFM

Inspector Recommendations

UNIT: UNIT 0 MISCELLANEOUS

ELEMENT/ENV: 8480 / 4 Mast Arm Foundation

ELEM CATEGORY: Other Elements

CONDITION STATE			PRIORITY
1	MMS Quantity: 1 mh	Element Estimated Quantity: 1 (EA)	3
WORK ORDER RECOMMENDATION:			
F1 - Replace missing anchor bolt cover.			
1	MMS Quantity: 1 mh	Element Estimated Quantity: 1 (EA)	3
WORK ORDER RECOMMENDATION:			
F1 - Remove grout ring paint anchor bolts & leveling nuts & install wire screen per FDOT Spec.649-8.			

ELEMENT/ENV: 8484 / 4 Metal Mast Arm Horizontal

ELEM CATEGORY: Other Elements

CONDITION STATE			PRIORITY
1	MMS Quantity: 1 mh	Element Estimated Quantity: 1 (EA)	3
WORK ORDER RECOMMENDATION:			
V1H1 - Remove bird nests from moment connection plates & install screening.			

Structure Notes

Maintaining Agency:

City of Titusville

Kevin Cook, P.E.
Public Works Director
2910 Garden Street
Titusville, FL 32780
321-567-3846
kevin.cook@titusville.com

Joseph M. Arena
Traffic/Electrical Maintenance Supervisor
101 N. Singleton Av.
Titusville FL, 32796
Ph. 321-567-3820
joey.arena@titusville.com

This structure does not have plans available.

The year constructed date has been updated to 2009 based on a review of historical imagery from Google Earth.

INSPECTION NOTES: CGFM 3/20/2026

A 40 ft. insulated bucket truck was utilized for inspection.

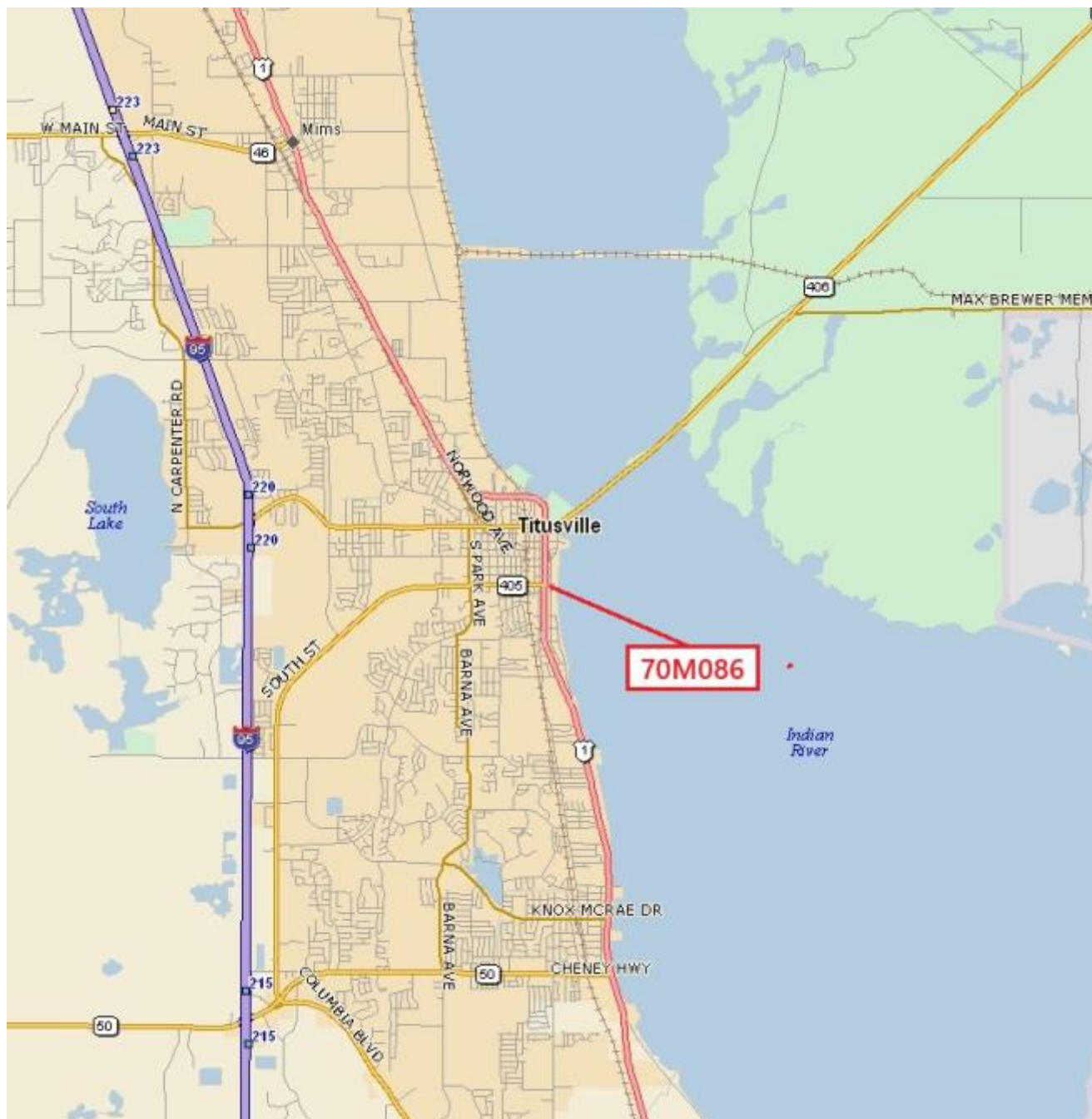
FLORIDA DEPARTMENT OF TRANSPORTATION
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Inspection

DISTRICT: D5 - Deland

INSPECTION DATE: 3/20/2026 CGFM



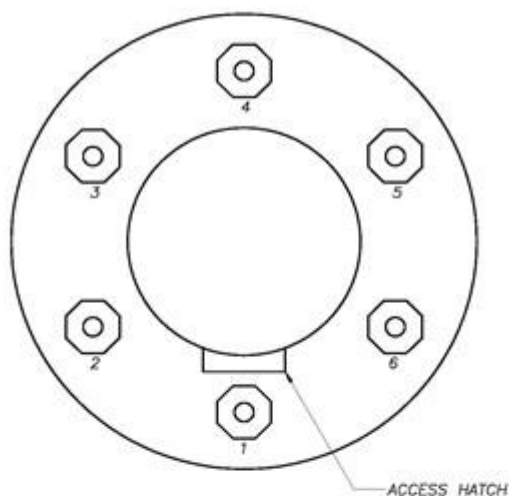
US-1 (Washington Ave.) NB at SR-405 (South St.) - 0.5 Miles South of SR-406 (Garden St.)

FLORIDA DEPARTMENT OF TRANSPORTATION
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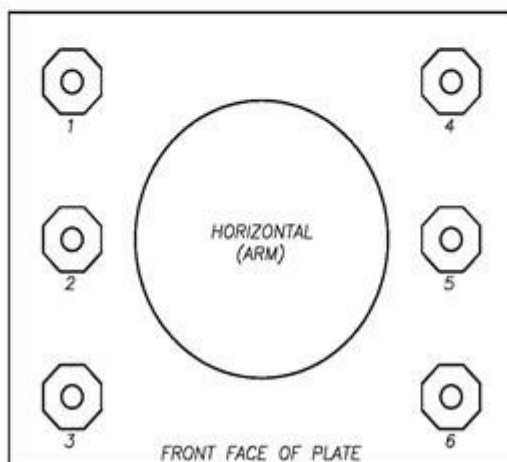
Structure ID: 70M086
 DISTRICT: D5 - Deland

Inspection

INSPECTION DATE: 3/20/2026 CGFM



TSM ANCHOR BOLT NUMBERING SCHEME



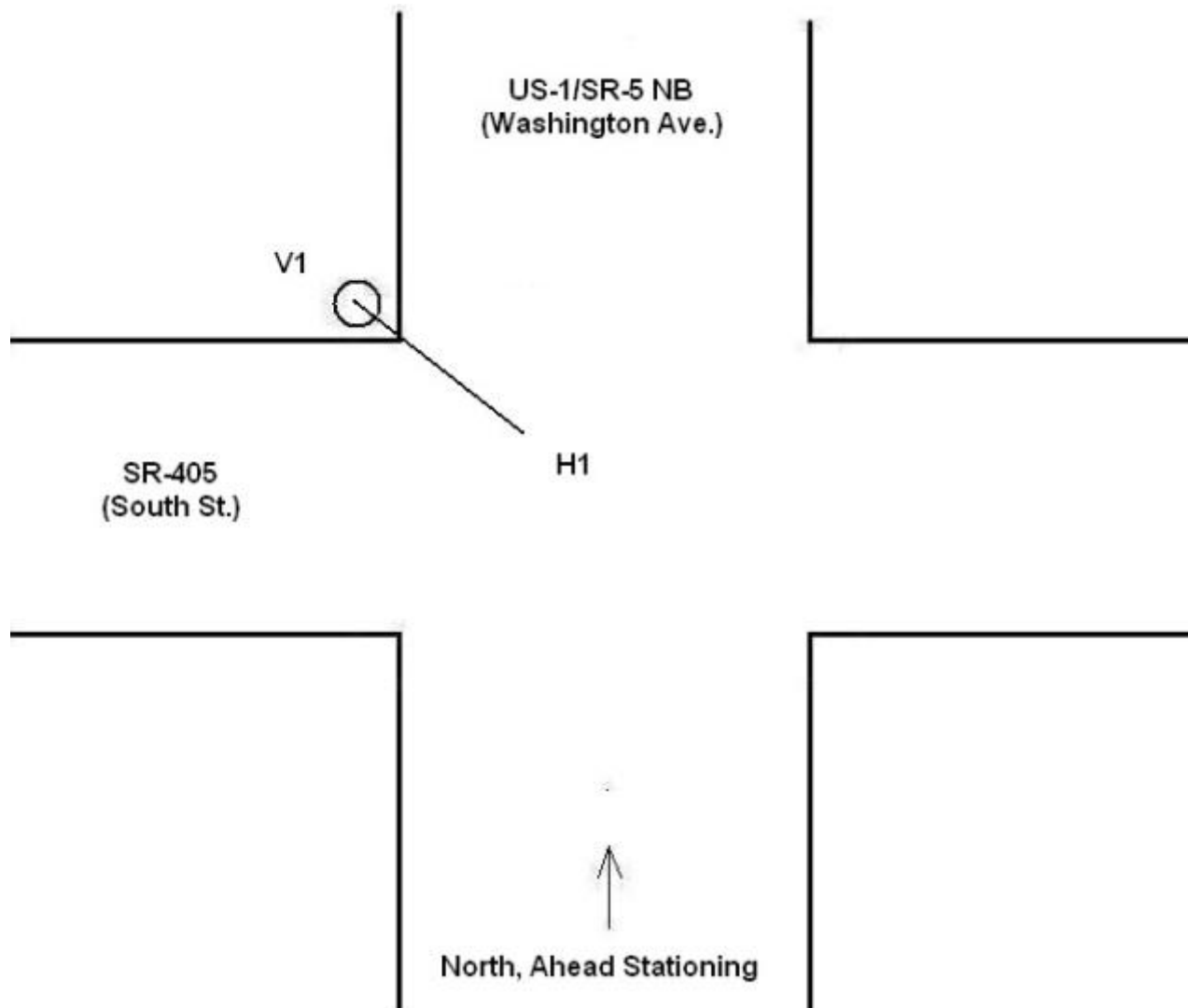
TSM MOMENT CONNECTION BOLT NUMBERING SCHEME

FLORIDA DEPARTMENT OF TRANSPORTATION
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DISTRICT: D5 - Deland

Inspection

INSPECTION DATE: 3/20/2026 CGFM



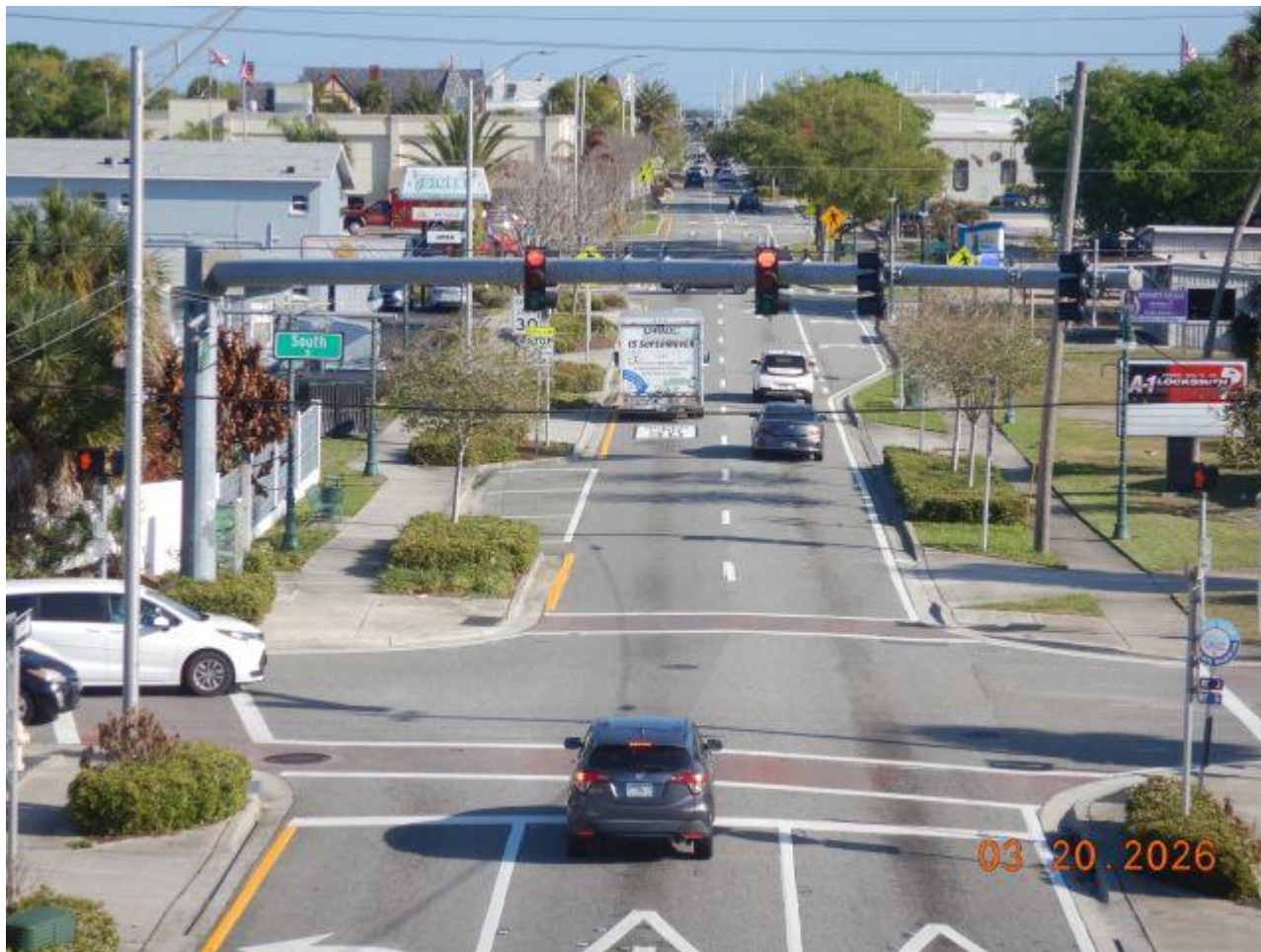
Intersection Layout

FLORIDA DEPARTMENT OF TRANSPORTATION
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Structure ID: 70M086
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INSPECTION DATE: 3/20/2026 CGFM



Intersection Overview (Looking North)

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Inspection

INSPECTION DATE: 3/20/2026 CGFM



Photo 1: Element 8480 / Mast Arm Foundation

F1 - Missing anchor bolt cover (AB#1).

REPAIR RECOMMENDATION:

F1 - Replace the missing anchor bolt cover.

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Inspection

INSPECTION DATE: 3/20/2026 CGFM



Photo 2: Element 8480 / Mast Arm Foundation

F1 - Grout ring missing drain hole.

REPAIR RECOMMENDATION:

F1 - Remove grout ring paint anchor bolts & leveling nuts & install wire screen per FDOT Spec.649-8.

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Inspection

INSPECTION DATE: 3/20/2026 CGFM



Photo 3: Element 8480 / Mast Arm Foundation

F1 - Dirt, debris & nesting material inside column and below base plate.

REPAIR RECOMMENDATION:

F1 - Remove grout ring paint anchor bolts & leveling nuts & install wire screen per FDOT Spec.649-8.

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Inspection

INSPECTION DATE: 3/20/2026 CGFM



Photo 4: Element 8484 / Mast Arm Horizontal

V1/H1 - Typical bird nest between moment connection plates.

REPAIR RECOMMENDATION:

V1H1 - Remove bird nests from moment connection plates & install screening.

FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM

REPORT ID: INSP005

Structure ID: 70M086

Inspection/CIDR Report TRAFFIC SIGNAL MAST ARM

DATE PRINTED: 4/27/2026

Description

Structure Unit Identification

Bridge/Unit Key: 70M086 1
 Structure Name: US-1 (Washington Ave.) NB at SR-405 (South St.)
 Description: TSMA
 Type: M - Main

Structure Identification

Admin Area: Space Coast
 District (2): D5 - Deland
 County (3): (70) Brevard
 Location (9): 0.5 Mile South of SR-406
 FIPS State/Region (1): 12 Florida Region 4-Atlanta
 NBIS Bridge Len (112): N - Does not meet NBI Length
 Maint. Resp. (21): 4 City/Municipal Hwy Agy
 Owner (22): 1 State Highway Agency
 Previous Structure:
 2nd Previous Structure:
 Replacement Structure:

Age and Service

Year Built (27): 2009
 Year Reconstructed (106): 0
 Type of Service On (42a): Traffic Signal Mast Arm
 Under (42b): 1 Highway

Structure Type and Material

Main Span Material (43A): 3 Steel
 Main Span Design (43B): Traffic Signal Mast Arm

NBI Rating

Superstructure (59): 7 Good
 Substructure (60): 7 Good

General Structure Information

Electrical Devices: Traffic control sys only
 Maintenance Yard: 590-Cocoa (590)

Mast Arm Managing Agency ID:
 Mast Arm Code: 2
 Mast Arm Description: Mast arm is inside the mast arm boundary area

Appraisal

Minimum Vertical Clearance

Over Structure (53): 99.99 ft
 Under (reference) (54a): H Hwy beneath struct
 Under (54b): 0 ft

Minimum Lateral Underclearance

Reference (55a): H Hwy beneath struct
 Right Side (55b): 0 ft
 Left Side (56): 0 ft

Schedule

Current Inspection

Inspection Date: 03/20/2026
 Inspector: KNAAATH - Tim Howell
 Bridge Group: CAT71
 Alt. Bridge Group:
 Primary Type: Regular NBI
 Review Required: ☒

Next Inspection Date Scheduled

NBI: 03/20/2031
 Element: 03/20/2031
 Other/Special:
 Inventory Photo Update Due: 03/31/2031

Inspection Types Performed

NBI ☒ Element ☒ Other Special ☐

Inspection Intervals Required (92) Frequency (92) Last Date (93) Inspection Resources

Other Special	☐	mos		Crew Hours: 1
NBI		60 mos (91)	03/20/2026 (90)	Flagger Hours: 0
				Helper Hours: 0
				Snooper Hours: 0

FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM

REPORT ID: INSP005

Structure ID: 70M086

Inspection/CIDR Report TRAFFIC SIGNAL MAST ARM

DATE PRINTED: 4/27/2026

Elements

Inspection Date: 03/20/2026 CGFM

MISCELLANEOUS : Other Elements

Str Unit	Elem/Env	Description	Qty1	%1	Qty2	%2	Qty3	%3	Qty4	%4	T Qty
UNIT 0	8480 / 4	Mast Arm Foundation	1	100	0	.	0	.	0	.	1 (EA)

MISCELLANEOUS : Other Elements

Str Unit	Elem/Env	Description	Qty1	%1	Qty2	%2	Qty3	%3	Qty4	%4	T Qty
UNIT 0	8481 / 4	Metal Mast Arm Vertical	1	100	0	.	0	.	0	.	1 (EA)
UNIT 0	8518 / 4	Galvanized Steel	142	100	0	.	0	.	0	.	142 sq.ft

MISCELLANEOUS : Other Elements

Str Unit	Elem/Env	Description	Qty1	%1	Qty2	%2	Qty3	%3	Qty4	%4	T Qty
UNIT 0	8484 / 4	Metal Mast Arm Horizontal	1	100	0	.	0	.	0	.	1 (EA)
UNIT 0	8518 / 4	Galvanized Steel	254	100	0	.	0	.	0	.	254 sq.ft

Total Number of ADE Elements*: 3

*excluding defects/protective systems

Inspection Information

Inspection Date: 03/20/2026

Type: Regular NBI

Inspector: KNAAATH - Tim Howell

Inspection Notes: A 40 ft. insulated bucket truck was utilized for inspection.

Structure Notes

Maintaining Agency:

City of Titusville

Kevin Cook, P.E.
Public Works Director
2910 Garden Street
Titusville, FL 32780
321-567-3846
kevin.cook@titusville.com

Joseph M. Arena
Traffic/Electrical Maintenance Supervisor
101 N. Singleton Av.
Titusville FL, 32796
Ph. 321-567-3820
joey.arena@titusville.com

This structure does not have plans available.

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Schedule Notes

FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM

REPORT ID: INSP005

Structure ID: 70M086

Inspection/CIDR Report TRAFFIC SIGNAL MAST ARM

DATE PRINTED: 4/27/2026

Under Route Information

Roadway Identification

NBI Structure No (8): 70M086
 Position/Prefix (5): A - 1st Route Under
 Kind Hwy (Rte Prefix): 2 U.S. Numbered Hwy
 Design Level of Service: 1 Mainline
 Route Number/Suffix: 00001 / 0 N/A (NBI)
 District (2): D5 - Deland
 County (3): (70) Brevard
 Place Code (4): Titusville
 Feature Intersect (6): SR-405 (South St.)
 Roadway Name: US-1 (Washington Ave)
 Mile Point (11): 3.575
 Latitude (16): 028d36'29.1" Long (17): 080d48'27.8"

Roadway Traffic and Accidents

Lanes (28): 2 Medians: 0 Speed: 40 mph

Roadway Classification

Nat. Hwy Sys (104): 1 On the NHS
 National base Net (12): 1 - On Base Network
 LRS Inventory Rte (13a): 70 030 000 Sub Rte (13b): 00
 Functional Class (26): 14 Urban Other Princ
 Federal Aid System: ON
 Defense Hwy (100): 0 Not a STRAHNET hwy
 Direction of Traffic (102): 1 1-way traffic
 Emergency: ☒

Roadway Clearances

Vertical (10): 0 ft
 Horiz. (47): 0 ft Roadway (51): 0 ft
 Truck Network (110): 0 Not part of natl netwo
 Toll Facility (20): 3 On free road
 Fed. Lands Hwy (105): 0 N/A (NBI)

FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM

REPORT ID: INSP005

Structure ID: 70M086

Inspection/CIDR Report TRAFFIC SIGNAL MAST ARM

DATE PRINTED: 4/27/2026

Under Route Information

Roadway Identification

NBI Structure No (8): 70M086
 Position/Prefix (5): B - 2nd Route Under
 Kind Hwy (Rte Prefix): 3 State Hwy
 Design Level of Service: 1 Mainline
 Route Number/Suffix: 00405 / 0 N/A (NBI)
 District (2): D5 - Deland
 County (3): (70) Brevard
 Place Code (4): Titusville
 Feature Intersect (6): SR-405 (South St.)
 Roadway Name: SR-405 (South St)
 Mile Point (11): 5.422
 Latitude (16): 028d36'29.1" Long (17): 080d48'27.8"

Roadway Traffic and Accidents

Lanes (28): 2 Medians: 0 Speed: 30 mph

Roadway Classification

Nat. Hwy Sys (104): 0 Not on NHS
 National base Net (12): 0 - Not on Base Network
 LRS Inventory Rte (13a): 70 160 000 Sub Rte (13b): 00
 Functional Class (26): 16 Urban Minor Arterial
 Federal Aid System: ON
 Defense Hwy (100): 0 Not a STRAHNET hwy
 Direction of Traffic (102): 2 2-way traffic
 Emergency: ☐

Roadway Clearances

Vertical (10): 0 ft
 Horiz. (47): 0 ft Roadway (51): 0 ft
 Truck Network (110): 0 Not part of natl netwo
 Toll Facility (20): 3 On free road
 Fed. Lands Hwy (105): 0 N/A (NBI)