

PALM BEACH COUNTY
BOARD OF COUNTY COMMISSIONERS

AGENDA ITEM SUMMARY

Meeting Date:	June 20, 2017	<input checked="" type="checkbox"/> Consent	<input type="checkbox"/> Regular
		<input type="checkbox"/> Ordinance	<input type="checkbox"/> Public Hearing

Department: Engineering & Public Works
Submitted By: Engineering & Public Works
Submitted For: Roadway Production Division

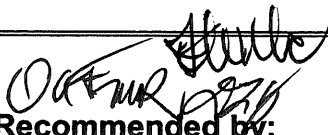
I. EXECUTIVE BRIEF

Motion and Title: Staff recommends motion to receive and file: a license from the City of West Palm Beach (City) for the Seminole Pratt Whitney Road crossing of the City's "M" Canal.

SUMMARY: This license is being submitted to the Clerk & Comptroller of Palm Beach County (County) for filing in the public records as stipulated in the license. The license was issued to the County by the City and addresses the widening of the Seminole Pratt Whitney Road bridge over the City's "M" Canal. District 6 (LBH)

Background and Justification: The County's bridge over the "M" Canal is being widened by the Seminole Improvement District as part of their project to construct Seminole Pratt Whitney Road as a 4 lane divided roadway from Seminole Ridge High School to north of the "M" Canal. The City requires issuance of a license for work within the "M" canal right of way.

- Attachments:**
- 1. Location Map
 - 2. License

Recommended by:		
	_____ Department Director	5/18/17 Date

Approved By:  _____
Assistant County Administrator
6/1/17
Date

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years	2017	2018	2019	2020	2021
Capital Expenditures	\$ -0-	-0-	-0-	-0-	-0-
Operating Costs	-0-	-0-	-0-	-0-	-0-
External Revenues	-0-	-0-	-0-	-0-	-0-
Program Income (County)	-0-	-0-	-0-	-0-	-0-
In-Kind Match (County)	-0-	-0-	-0-	-0-	-0-
NET FISCAL IMPACT	\$ **	-0-	-0-	-0-	-0-
# ADDITIONAL FTE POSITIONS (Cumulative)					

Is Item Included in Current Budget? Yes No

Budget Acct No.: Fund__ Dept.__ Unit__ Object
Program

Recommended Sources of Funds/Summary of Fiscal Impact:

**This item has no fiscal impact.

C. Departmental Fiscal Review: Alii Kovalainen

III. REVIEW COMMENTS

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

John W. [Signature] 5/23/17
OFMB Ext 5/23

Dr. J. Jacobson 5/30/17
Contract Dev. and Control
5/30/17 [Signature]

B. Approved as to Form
and Legal Sufficiency:

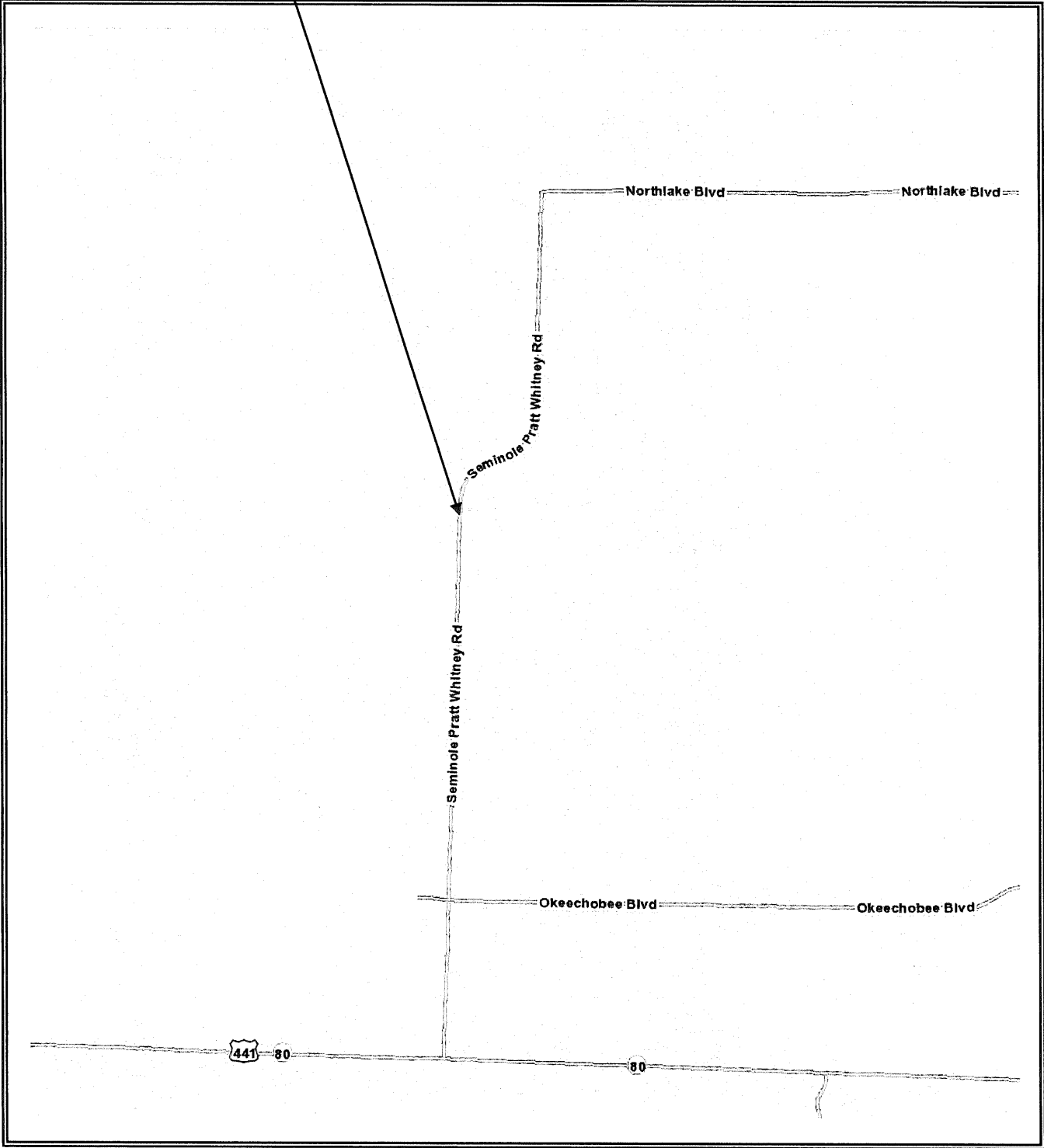
[Signature]
5/31/17 Assistant County Attorney

C. Other Department Review:

Department Director

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

SEMINOLE PRATT WHITNEY ROAD & “M” CANAL



LOCATION MAP

Record & Return to:

Howard J. Falcon III, Esq.
Chief Assistant County Attorney
Palm Beach County
P.O. Box 1989
West Palm Beach, FL 33402

City of West Palm Beach

LICENSE FOR
SEMINOLE PRATT WHITNEY ROAD CROSSING(S)

PERMITTEE: **PALM BEACH COUNTY, FLORIDA**, a political subdivision of the State of Florida (the "County");

LOCATION OF CROSSING: Property owned by the City of West Palm Beach bordering and crossing the M-Canal at Seminole Pratt Whitney Road, as shown on the engineering drawings titled Seminole Pratt-Whitney Road Bridge over "M" Canal prepared by Bridge Design Associates, Inc. (now acquired by Wantman Group, Inc.), and signed and sealed on November 30, 2016. The legal description and sketch showing the location of said crossing were prepared by the County and are attached hereto and incorporated as **Exhibit A** (the "Licensed Property").

WHEREAS, the City of West Palm Beach is the owner of the Water Catchment Area located in Palm Beach County, Florida (the "Water Catchment Area") for public water supply purposes and for environmental, educational and conservation purposes, pursuant to the Special Laws of the Florida Legislature, Ch. 67-2169 ("the Special Act"), as amended; and the Water Catchment Area serves as a natural surface water supply source for the City of West Palm Beach and has been designated as a Class I potable water supply protected by State and Federal laws; and the M-Canal is part of the City's Water Catchment Area; and

WHEREAS, this License is granted in accordance with the Interlocal Agreement Between Palm Beach County and the City of West Palm Beach Regarding M-Canal Crossings for bridge widening and pedestrian crossings at Seminole Pratt Whitney Road, dated February 3, 2015 (the "Interlocal Agreement");

WHEREAS, neither the County nor the City intend for this License to be construed as a lease or easement or to otherwise convey a real property interest to the County and both parties acknowledge that this License merely permits the County to use the Licensed Property as provided in the Interlocal Agreement and License and in a manner that is consistent with the Special Act.

NOW, THEREFORE, LICENSE AND PERMISSION IS HEREBY GRANTED to: **PALM BEACH COUNTY**, its successors, assigns, and employees, to use the Licensed Property to widen the bridge and locate a pedestrian crossings and appurtenant facilities and equipment across the M-Canal subject to the following terms and conditions:

1. Included within this license shall be the right of the County to enter upon the Licensed Property at any time to install, operate, maintain, service, construct, reconstruct, remove, relocate, repair, improve, expand, tie into, and inspect road and pedestrian crossings and appurtenant facilities and equipment. County shall maintain the road improvements, appurtenant facilities and equipment in good order and repair, at no expense to the City.

2. The City shall have access to the Licensed Property at all times.

3. County's use of the Licensed Property as intended shall not interfere with the City's use, maintenance and/or expansion of the M-Canal or the property within the Water Catchment Area, including adjacent service roads.

4. County's use of the Licensed Property shall not be inconsistent with or violative of the Special Act, or any applicable laws or regulations governing Class I potable water supplies or the Water Catchment Area.

5. Upon completion of installation of the roadway, pedestrian walkway and appurtenant facilities and equipment, County shall provide to the City's Engineering Department, as-built surveys or drawings of the crossings and appurtenances.

6. The County shall be responsible for recording this instrument in the public records of Palm Beach County, Florida.

7. This License shall not be revoked unless the County's use of the Licensed Property is inconsistent with or violates the Interlocal Agreement, the Special Act, or any applicable laws or regulations governing Class I potable water supplies or the Water Catchment Area, presently in effect or as may be amended; or interferes with the City's use, maintenance and/or expansion of the M-Canal. The City, in its sole discretion, may decide whether the County's use of the Licensed Property is inconsistent with or violates the Special Act, or any applicable laws or regulations governing Class I potable water supplies. The City shall provide the County with written notice of any inconsistent use or interference and allow one hundred eighty (180) days' time for the County to cure any such inconsistency or interference. However, in the event of an emergency affecting water quality in the Water Catchment Area, upon notice from the City, the County shall be required to take immediate action to cure any such emergency. The City acknowledges that this License is granted for the particular purpose of widening the existing bridge and locating new pedestrian walkway improvements across the M-Canal at the locations shown on attached **Exhibit B**; that the County will expend substantial amounts of money carrying out that particular purpose; and that said expenditures will be specifically made in reliance on the granting of this License.

8. Without waiving sovereign immunity except to an extent consistent with all applicable Florida law, including, but not limited to, Chapter 768, Florida Statutes, the County shall indemnify and hold the City harmless from and against any and all loss, suit, action, legal or administrative proceeding, claim, demand, damage, liability, interest, attorney fees, costs and/or expense of whatsoever kind or nature due to personal injury, property damage and/or environmental damage arising in any manner directly or indirectly related to County's use of the Licensed Property under this Permit and License.

9. County agrees that its use of the Licensed Area is non-exclusive and subject to all covenants, agreements, easements and other matters affecting the Licensed Property.

10. Nothing contained in this instrument shall be deemed to grant to County any additional rights with respect to the Licensed Area. Nothing in this instrument shall be deemed to grant to County any additional rights to cross the M-Canal at any other location or for any other purpose.

11. Notices: All notices require hereunder shall be in writing and shall be addressed to the following representatives of the parties:

As to the City:

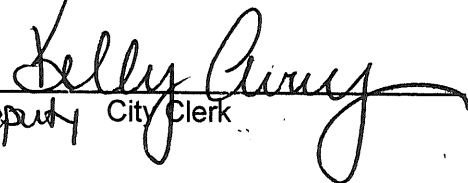
City Administrator
City of West Palm Beach
401 Clematis Street
(P.O. Box 3366 / 33402)
West Palm Beach, FL 33401

As to the County:

County Administrator
Palm Beach County
301 N. Olive Avenue, 11th Floor
West Palm Beach, Florida 33401

12. Any subsequent conditions, representations, warranties or agreements to this Permit and License shall not be valid and binding upon the parties unless they are in writing and signed by both parties and executed in the same manner as this instrument.

ATTEST:


Deputy City Clerk

CITY OF WEST PALM BEACH

By: 
Geraldine Muoio, Mayor

Dated: April 28 2017

CITY ATTORNEY'S OFFICE
Approved as to form and legality

By: KLR

EXHIBIT "A"

LEGAL DESCRIPTION:

A PARCEL OF LAND FOR AN EXPANDED LICENSE AGREEMENT TO ENCOMPASS THE SEMINOLE PRATT WHITNEY BRIDGE IMPROVEMENTS OVER THE M-CANAL. SAID PARCEL LYING IN SECTION 1, TOWNSHIP 43 SOUTH, RANGE 40 EAST, PALM BEACH COUNTY, FLORIDA, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHEAST CORNER OF SAID SECTION 1 IN ACCORDANCE WITH THE PUBLISHED POSITION OF SAID CORNER BY PALM BEACH COUNTY AND AS DELINEATED ON THE M-CANAL ROAD RIGHT-OF-WAY MAP AS SAID MAP IS RECORDED IN ROAD BOOK 6, PAGE 136 OF THE PUBLIC RECORDS OF PALM BEACH COUNTY, FLORIDA; THENCE SOUTH $01^{\circ}33'04''$ WEST, ALONG THE EAST LINE OF SAID SECTION 1, A DISTANCE OF 330.43 FEET TO THE SOUTHEAST CORNER OF THE M-CANAL ROAD AS SHOWN ON SAID MAP; THENCE SOUTH $88^{\circ}36'44''$ WEST, ALONG THE SOUTH LINE OF SAID M-CANAL ROAD, A DISTANCE OF 3,876.63 FEET TO THE INTERSECTION WITH THE WESTERLY RIGHT-OF-WAY LINE OF SEMINOLE PRATT WHITNEY ROAD AS SAID LINE IS DEPICTED ON A RIGHT-OF-WAY MAP FOR SEMINOLE PRATT WHITNEY ROAD PREPARED BY PALM BEACH COUNTY AND RECORDED IN ROAD BOOK 4, PAGE 34 OF SAID PUBLIC RECORDS AND CONVEYED BY RIGHT-OF-WAY DEED TO PALM BEACH COUNTY IN OFFICIAL RECORD BOOK 1544, PAGE 378 OF SAID PUBLIC RECORDS; THENCE NORTH $01^{\circ}42'54''$ EAST, ALONG SAID WESTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 80.12 FEET TO A POINT ON THE SOUTHERLY RIGHT-OF-WAY LINE OF THE M-CANAL AS RECORDED IN DEED BOOK 1156, PAGE 58 OF SAID PUBLIC RECORDS AND THE POINT OF BEGINNING OF THE FOLLOWING DESCRIBED PARCEL:

THENCE SOUTH $88^{\circ}36'44''$ WEST, ALONG SAID SOUTHERLY RIGHT-OF-WAY LINE, OF SAID M CANAL, A DISTANCE OF 85.13 FEET TO A POINT ON A LINE PARALLEL WITH AND 135.00 WESTERLY OF, AS MEASURED AT RIGHT ANGLES TO THE CENTERLINE OF THE 100 FOOT WIDE RIGHT-OF-WAY FOR SEMINOLE PRATT WHITNEY ROAD AS SAID RIGHT-OF-WAY IS DEPICTED ON THE PREVIOUSLY DESCRIBED RIGHT-OF-WAY MAP AND DEED; THENCE NORTH $01^{\circ}42'54''$ EAST, ALONG SAID PARALLEL LINE A DISTANCE OF 250.37 FEET TO THE NORTHERLY RIGHT-OF-WAY LINE OF SAID M CANAL; THENCE NORTH $88^{\circ}36'44''$ EAST, ALONG SAID NORTHERLY RIGHT-OF-WAY LINE, A DISTANCE IF 250.37 TO A POINT ON A LINE PARALLEL WITH AND 115.00 FEET EASTERLY OF, AS MEASURED AT RIGHT ANGLES TO SAID CENTERLINE; THENCE SOUTH $01^{\circ}42'54''$ WEST, ALONG SAID PARALLEL LINE, A DISTANCE OF 250.37 FEET TO SAID SOUTHERLY RIGHT-OF-WAY LINE OF THE M CANAL; THENCE SOUTH $88^{\circ}36'44''$ WEST ALONG SAID SOUTHERLY RIGHT-OF-WAY LINE, A DISTANCE OF 165.24 FEET TO THE POINT OF BEGINNING.

CONTAINING 62,592 SQUARE FEET OR 1.437 ACRES, MORE OR LESS.

SURVEYOR'S NOTES

- 1) NO SEARCH OF THE PUBLIC RECORDS HAS BEEN MADE BY THE SIGNING SURVEYOR
- 2) BEARINGS SHOWN HEREON ARE BASED ON THE EAST LINE OF SECTION 1, TOWNSHIP 43 S., RANGE 40 E. HAVING A GRID BEARING (NORTH AMERICAN DATUM OF 1983, 1990 ADJUSTMENT) OF SOUTH $01^{\circ}33'04''$ WEST.

LYING IN SECTION 1, TOWNSHIP 43 SOUTH, RANGE 40 EAST

PROJECT: SEMINOLE PRATT WHITNEY ROAD AT THE M-CANAL	DESIGN FILE NAME S-1-14-3517.DGN	DRAWING NO. S-1-14-3517	NO.	REVISION	BY	DATE
	<div>SCALE: 1" = 50' APPROVED: W.L.F. DRAWN: W.L.F. CHECKED: G.W.M. DATE: 05/27/14 FIELD BOOK NO.</div>					
<div>PROJECT NO. 1997511C28</div>			<div>PALM BEACH COUNTY ENGINEERING AND PUBLIC WORKS ROADWAY PRODUCTION 2300 NORTH JOG ROAD WEST PALM BEACH, FL 33411</div>			

SURVEYOR'S NOTES CONTINUED

- 3) COORDINATES SHOWN ARE GRID
DATUM = NAD 83, 1990 ADJUSTMENT
ZONE = FLORIDA EAST
LINEAR UNITS = US SURVEY FOOT
COORDINATE SYSTEM 1983 STATE PLANE TRANSVERSE MERCATOR PROJECTION
ALL DISTANCES ARE GROUND.
PROJECT SCALE FACTOR = 0.9999996
GROUND DISTANCE x SCALE FACTOR = GRID DISTANCE
- 4) ALL FEATURE SYMBOLS SHOWN ARE NOT TO SCALE.
- 5) THIS IS NOT A BOUNDARY SURVEY.
- 6) IT IS POSSIBLE THAT THERE ARE DEEDS OF RECORD, UNRECORDED DEEDS, EASEMENTS, OR OTHER INSTRUMENTS WHICH COULD AFFECT THE SUBJECT PROPERTY, WHICH ARE UNKNOWN TO THE SIGNING SURVEYOR.
- 7) THIS INSTRUMENT WAS PREPARED BY WAYNE LARRY FISH, P.S.M. IN THE OFFICE OF THE COUNTY ENGINEER, VISTA CENTER 2300 NORTH JOG ROAD, WEST PALM BEACH, FLORIDA 33411-2745.

LEGEND

ORB = OFFICIAL RECORD BOOK
RB = ROAD BOOK
DB = DEED BOOK
PG = PAGE
R/W = RIGHT-OF-WAY
EASE = EASEMENT
TWP = TOWNSHIP
RGE = RANGE
PBCO = PALM BEACH COUNTY

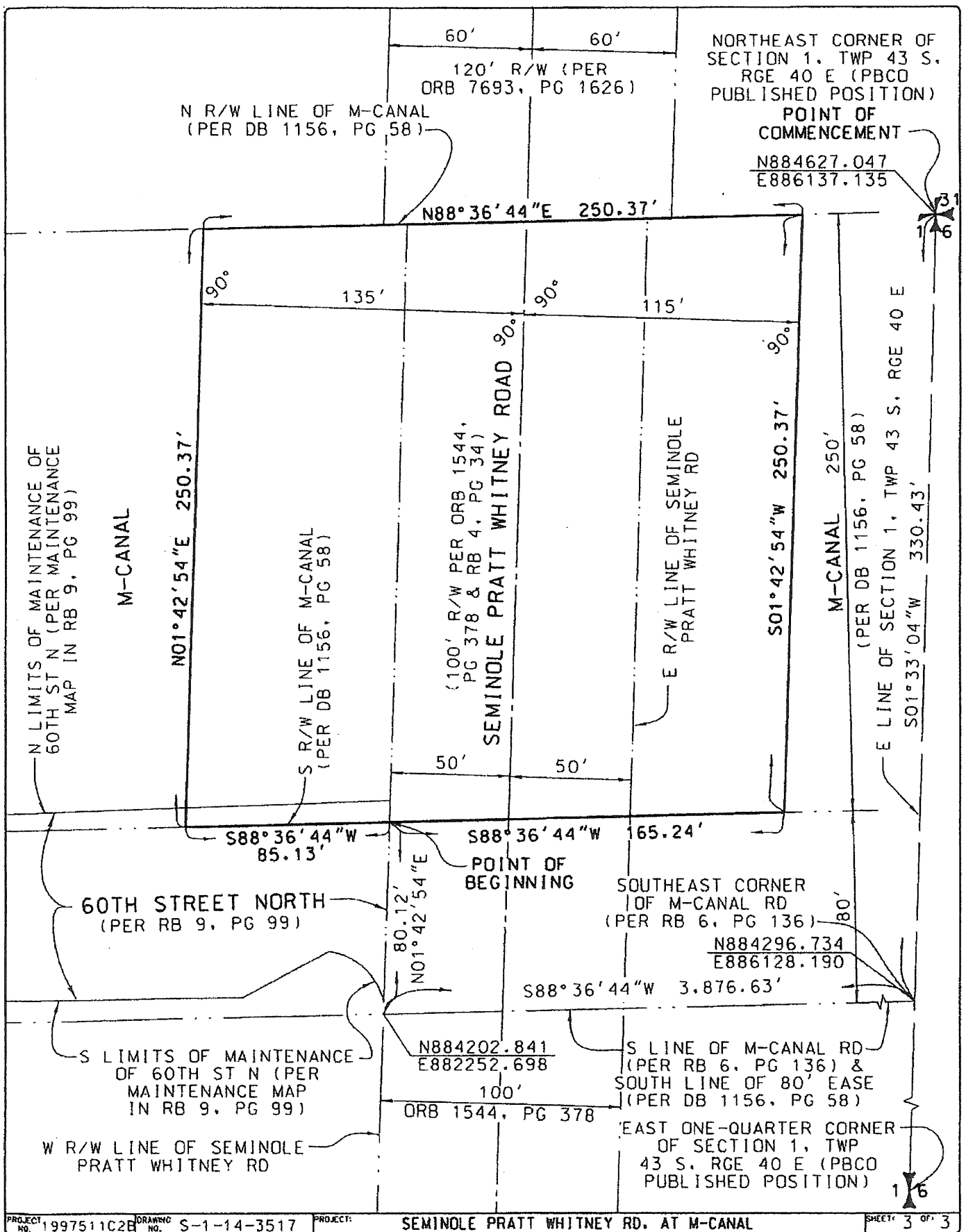
NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER

SURVEYOR'S CERTIFICATION

I HEREBY CERTIFY THAT THIS LEGAL DESCRIPTION AND SKETCH SHOWN HEREON WAS MADE UNDER MY RESPONSIBLE DIRECTION AND SUPERVISION AND THAT SAID SURVEY MEETS THE MINIMUM TECHNICAL STANDARDS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17.050-.052, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.


WAYNE LARRY FISH
PROFESSIONAL SURVEYOR & MAPPER
FLORIDA REGISTRATION NO. 3238

5/29/2014
DATE



SEMINOLE PRATT WHITNEY ROAD BRIDGE OVER "M" CANAL (SEC 36, RNG 40, TWP 42)

Sheet List Table

Sheet Number	Sheet Title
C-1	COVER SHEET
D-1	SUMMARY OF QUANTITIES SHEET
D-2	GENERAL NOTES SHEET
D-3	EXISTING AND PROPOSED CROSS SECTIONS
D-4	REQUIRED AND ULTIMATE CROSS SECTIONS
D-5	EXISTING BRIDGE AND ABUT.
D-6	EXISTING BRIDGE PLAN
D-7	PROPOSED BRIDGE AND ABUT.
D-8	PROPOSED REQUIRED BRIDGE PLAN
D-9	PROPOSED ULTIMATE BRIDGE PLAN
D-10	PROPOSED BRIDGE ELEVATION
D-10a	DIRECTIONAL FORERAMAN BORE FROM AS BUILT AND BRIDGE
D-10b	DIRECTIONAL WATER MAIN BORE FROM AS BUILT AND BRIDGE
D-11	SOIL BORINGS
D-12	PROPOSED SUBSTRUCTURE PILES PLAN
D-13	PILE DATA SHEET
D-14	PROPOSED SOUTH BENT BENT NO 1
D-15	PROPOSED SOUTH BENT BENT NO 1 ELEVATION
D-16	PROPOSED NORTH BENT BENT NO 2
D-17	PROPOSED NORTH BENT BENT NO 2 ELEVATION
D-18	OUTDOOR BENT DETAILS
D-19	WING BENT DETAILS
D-20	BENT BEARING AND SCHEDULE
D-21	PROPOSED REQUIRED TYPICAL SLAB LAYOUT CROSS SECTION
D-22	PROPOSED REQUIRED BRIDGE FINISH GRADE PLAN
D-23	PROPOSED REQUIRED BRIDGE SLAB LAYOUT PLAN
D-24	PRECAST SLAB UNIT TYPE A PLAN AND ELEVATION
D-25	PRECAST SLAB UNIT TYPE B PLAN AND ELEVATION
D-26	PRECAST SLAB 27_B DETAILS
D-27	SHEET WALL DETAILS
D-28	PROPOSED MEDIAN APPROACH PLAN
D-29	MISCELLANEOUS STRUCTURE DETAILS
D-30	WIDENING DETAILS
D-31	LOAD RATING DATA TABLE

Existing Bridge Drawings

Sheet No.
D-1 THRU D-31 FOR REFERENCE ONLY

F.D.O.T. Standard Sheets

Index No.	DESCRIPTION
423	TRAFFIC RAILING - CITY VERTICAL SHAPED (SHEETS 1-3)
422	ALUMINUM FRICTION/RECYCLE RAILING DETAILS (SHEETS 1-3)
2890	NOTES AND DETAILS FOR SQUARE PRESTRESSED CONCRETE PILES
2894	14" SQUARE PRESTRESSED CONCRETE PILE
2898	18" SQUARE PRESTRESSED CONCRETE PILE
2899	APPROACH SLABS (USED PAVEMENT APPROACHES)

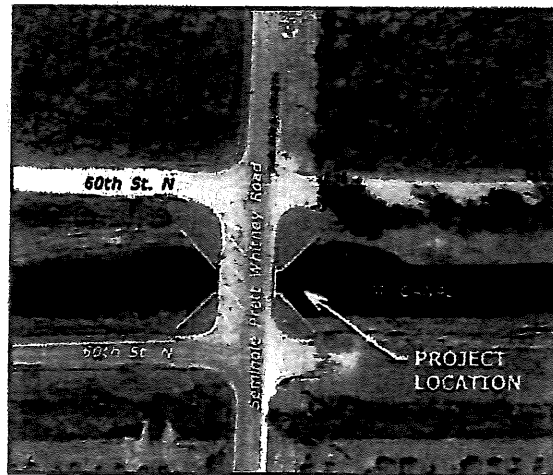
THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH AND ARE GOVERNED BY THE RULES OF PRACTICE, DEPARTMENT OF TRANSPORTATION, DESIGN STANDARDS, (BOOKLET DATED 1974)

CONTRACT SPECIFICATIONS
THE FLORIDA DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS
FOR ROAD AND BRIDGE CONSTRUCTION, DATED 2013, AND SPECIAL
PROVISIONS THEREOF AS NOTED IN THE CONTRACT SPECIFICATIONS
FOR THIS PROJECT.

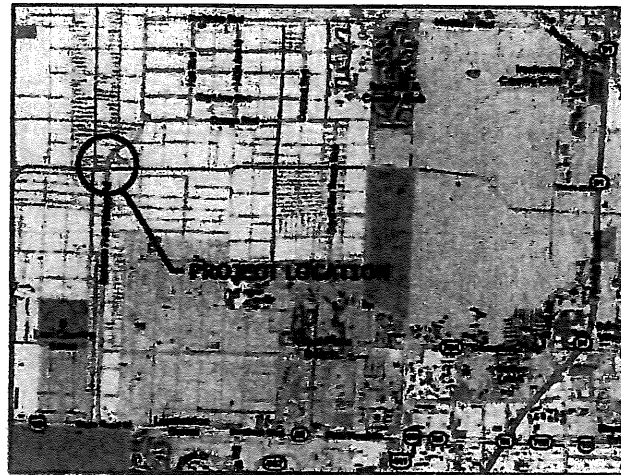
ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN
ALTERED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN
OBTAINING BIDDING DATA.

DESIGNER'S CERTIFICATION
I HEREBY CERTIFY THAT THE ATTACHED PLANS AND DESIGN ARE
DESIGNED IN ACCORDANCE WITH THE DESIGN STANDARDS AND SPECIAL
PROVISIONS OF THE RULES OF PRACTICE FOR PALM BEACH COUNTY DISSEMINATED BY THE
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION.

DRAWN BY: 11-30-10 PROFESSIONAL ENGINEER: ALAN DELAND
ALAN DELAND



SITE MAP
N.T.S.



LOCATION MAP
N.T.S.

100% SUBMITTAL



NO.	REVISION	DATE	BY



Proposed Bridge Widening for:
Seminole Pratt Whitney Road
Bridge over "M" Canal
Palm Beach County, Florida



EXHIBIT "B"

Pay Item Notes:

1. The Contract Unit Prices for the precast/prestressed units shall include the units, prestressing strands, reinforcing steel shipped with the units, post-tensioning tendons and anchor assemblies, neoprene bearing pads, pre-molded expansion material, epoxy grout and non-shrink grout.
2. Payment for incidental items which are not covered in the individual bid items shall be included in the contract unit price for the bid items.

Bidders Notes:

1. Deck Units and Closure Pours must be installed before End Bents are back filled to Elevation 20.0.
2. Existing Force Main and Water Main are to remain and Contractor is to locate and avoid damage during construction. See As-Built Drawings on Roadway Set for Additional Pipe Location Information.

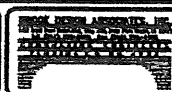
SUMMARY OF QUANTITIES

ITEM NO.	ITEM	NO. REQUIRED	UNIT	QUANTITY	AS BUILT
BRIDGE					
101-1	MOBILIZATION INCLUDING TURBIDITY BARRIER		L. S.	1	
101-2	DEMOLITION OF EXISTING COMPONENTS		L. S.	1	
(SUPERSTRUCTURE)					
PRESTRESSED PRECAST DECK UNITS					
450-04-15	15' x 6'-0" x 77'-0"	6	L. F.	165'-0"	
450-08-15	15' x 6'-0" x 77'-0"	2	L. F.	35'-0"	
400-2-4	CLASS II CONCRETE FOR CLOSURE POURS BETWEEN DECK UNITS		Cu. Yds.	11	
415-1-4	REINFORCING STEEL FOR CLOSURE POURS BETWEEN DECK UNITS		Lbs.	1,718	
531-5-5	CONCRETE TRAFFIC RAILING BARRIER (32" VERTICAL SHAPE) INCLUDING BARRIERS ON APPROACH SLABS		L. F.	178'-0"	
521-72-1	SHOULDER CONCRETE BARRIER WALL (INDEN NO. 410 - CANTILEVERED WALL)		L. F.	20'-0"	
400-70-2	ALUMINUM PEDESTRIAN/BICYCLE BARRIER RAILING		L. F.	57'-0"	
(SUBSTRUCTURE)					
400-2-8	CLASS II CONCRETE FOR PILES CAPS		Cu. Yds.	98	
415-1-5	REINFORCING STEEL FOR PILES CAPS		Lbs.	91,300	
PRESTRESSED PILES					
(ABUTMENT)					
455-142-3	18" SQUARE x 55'-0" MINIMUM (TEST PILE - ABUTMENT)	2 EACH	L. F.	110'-0"	
455-14-3	18" SQUARE x 40'-0" MINIMUM (ABUTMENT)	18 EACH	L. F.	660'-0"	
455-14-2	18" SQUARE x 30'-0" MINIMUM (WING BENT)	15 EACH	L. F.	450'-0"	
455-14-5	8" x 8'-0" x 14'-0" PRECAST CONCRETE SHEET PILE	2 EACH	L. F.	28'-0"	
455-14-6	8" x 7'-0" x 14'-0" PRECAST CONCRETE SHEET PILE	2 EACH	L. F.	28'-0"	
455-14	8" x 6'-0" x 14'-0" PRECAST CONCRETE SHEET PILE	25 EACH	L. F.	350'-0"	
(SIDEWALKS AND MEDIAN)					
400-2-4	CLASS II CONCRETE		Cu. Yds.	83	
415-1-4	REINFORCING STEEL		Lbs.	2,703	
(APPROACH SLABS)					
400-2-10	CLASS II (MAJOR DECK) CONCRETE		Cu. Yds.	114	
415-1-9	REINFORCING STEEL		Lbs.	23,000	
1050-112-12	40 PVE CONDUIT		L. F.	1,018'-0"	
520-3-4	RIP RAP ROCK RUBBLE (DITCH LINING)		TONS	400	

Contractor shall verify all dimensions and quantities prior to construction and fabrication. Discrepancies shall be brought to the attention of the Engineer before construction.



NO.	REVISION	DATE	BY
1	REVISED	05/17/12	EL
2	REVISED	05/17/12	EL
3	REVISED	05/17/12	EL
4	REVISED	05/17/12	EL
5	REVISED	05/17/12	EL
6	REVISED	05/17/12	EL
7	REVISED	05/17/12	EL
8	REVISED	05/17/12	EL
9	REVISED	05/17/12	EL
10	REVISED	05/17/12	EL



Proposed Bridge Widening for:
Seminole Pratt Whitney Road
Bridge over "M" Canal
Palm Beach County, Florida



GENERAL NOTES

GENERAL SPECIFICATIONS:

Florida Department of Transportation Standard Specification for Road and Bridge Construction (2014 Edition).

DESIGN SPECIFICATION:

8th Edition of the AASHTO LRFD Bridge Design Specifications 2014 with current Interims.
2014 Edition of the F.D.O.T. Structure Design Manual with current Interims.
F.D.O.T. Plans and Preparation Manual January 2014.

DESIGN LOADING:

Live Load:	
HL-93 with Dynamic Load Allowance	
Dead Load:	
32" Vertical Shape Traffic Railing and Pedestrian Railing	205 p.l.f.
Reinforced Concrete	150 p.l.f.
Future Wearing Surface	18 p.s.f.
Median	1,840 p.l.f.
Sidewalk	272 p.l.f.
Proposed 1 1/2" Asphalt	16 p.s.f.

CONCRETE:

Note: Concrete to be in compliance with F.D.O.T. Specifications 346.

CONCRETE CLASS	MINIMUM 28 DAY COMPRESSIVE STRESS (ksi)	LOCATION OF CONCRETE IN STRUCTURE
Class II	f'c = 3.4	Sidewalks and Barriers
Class IV	f'c = 3.3	Cast-in-place Pile Caps and Sheet Piles
Class II (Bridge Deck)	f'c = 4.5	Cast-in-place Approach Slabs
Class V (Special)	f'c = 6.0	Cast-in-place Closure Piers Prestressed Concrete Piles Prestressed Concrete Slabs

CONCRETE:

- Provide 3/4 inch chamfers on all exposed edges and corners except as otherwise noted.
- Construction joints will be permitted only at the locations indicated on the plans, additional construction joints or alterations to those shown will require approval by the engineer.

REINFORCEMENT:

- Reinforcement shall be ASTM A-615, Grade 60. Spiral ties for prestressed concrete piles shall be manufactured from cold drawn steel wire meeting the requirements of ASTM A82.
- All dimensions pertaining to location of reinforcing are to centerline of bars except where the clear dimension is shown to face of concrete.
- Reinforcement detail dimensions are out-to-out of bars.

MINIMUM CONCRETE COVER:

- CIP Superstructure = 2 in. (Typical except as noted).
- CIP Substructure/Bent Cap = 4 in. for external surfaces cast against earth and in contact with water.
- CIP Substructure/Bent Cap = 3 in. for other external surfaces.
- CIP Substructure/Sheet Walls, Precast Facade = 3 in.

Concrete covers shown in the plans do not include placement and fabrication tolerances unless shown as "minimum cover". See F.D.O.T. Standard Specifications for allowable tolerances.

DESIGN METHOD:

All elements were designed using the LRFD (Load and Resistance Factor Design).

PILE LOAD:

See Sheet B-13 for Pile Loads.

PILES:

18 inch square Prestressed Concrete Piles.

SURFACE FINISH:

All exposed surfaces of abutment wing walls and barriers shall receive a "Class 5" applied finish coating.

ENVIRONMENT:

Location: Inland
Superstructure: Slightly Aggressive
Substructure: Moderately Aggressive, controlling criteria:
Water Resistivity = 2,000 (ohm-cm)

DATUM:

All Elevations shown are in N.A.S.D. 29. Unless Noted Otherwise.
(Conversion 0.00 N.A.S.D. 88 = 1.473 M.S.V.D. 29)

PRESTRESSED MEMBERS NOTES

FINISH:

The top of prestressed units shall be finished to a smooth, dense surface with a steel trowel, then thoroughly broomed or raked to provide a surface suitable for bonding to asphalt. All other surfaces of the unit shall receive a "Class 3" surface finish. The edge of the top of the surface of the units shall be finished by use of a small radius tool.

CONCRETE STRENGTH:

At transfer of the prestressing load, the cylinder strength of the concrete shall be 4000 psi. It shall be 6,000 psi at twenty-eight (28) days for slab units.

HANDLING AND STORAGE:

During handling and storage, the prestressed units must be picked up at the ends of the units to prevent damage. The prestressed units must be stored in an up-right position at all times.

FORMS AND PALLETS:

All prestressed units shall be cast on concrete based pallets and in metal forms. Keyway form may be wood.

STRAND EXTENSION:

All strands shall extend 2-1/2 inches beyond the ends of the prestressed units.

SHOP DRAWINGS:

The contractor shall submit five (5) sets of shop drawings, showing complete details of the proposed prestressed units. The drawings shall include reinforcing steel, prestressing steel, prestressing bed layout, tensioning and detensioning schedules, and all computations required to control the work.

BEARING PADS:

Neoprene bearing pads shall be 1/2 inch x 6 inch strips in accordance with Section 932-2 of the Specifications. The pads may be continuous strips or multiple lengths of 2 feet and 0 inches minimum length. The pads may be cut from commercially available sheets.

POST TENSIONING:

Post tension cables shall be four (3) .5 inch diameter 270k LO LAX strands. Cables should be in accordance with ASTM Specification A-416. The cables shall be stressed and anchored at 125,000 pounds per (3) strand post-tension cable. The transverse post-tension cables shall not be tensioned until the concrete in the joints and keyways has been cured for a minimum of seventy-two (72) hours or has achieved 75% of design strength.

CABLE ANCHORAGES:

The fabricator shall submit details of the cable anchorage and anchorage reinforcement details for approval with the Shop Drawings.

CONSTRUCTION NOTES

EQUIPMENT ON UNITS:

Before heavy construction equipment is permitted on the structure during construction, sketches showing the axle spacing and anticipated loadings shall be submitted to and approved by the Engineer.

POST-TENSIONING SEQUENCE:

Post-tensioning shall be done according to the number sequence shown on the precast slab layout sheet. See sheet B-23.

FILLING CONCRETE JOINTS BETWEEN UNITS:

Joints between slab units shall be poured a minimum of seventy-two (72) hours or have 75% of the design strength before any post-tensioning operations can begin. Care should be taken to prevent intrusion of mix into ducts.

GROUTING POST-TENSION DUCTS:

The post-tensioned strands shall be grouted in accordance with Section 934 of the Specifications. The grouted strands shall not be disturbed, nor shall appreciable loads be placed on the span for a period of seventy-two (72) hours following grouting operations.

FILLING ANCHORAGE BLOCKOUTS:

All anchorage blockouts shall be filled with concrete and finished flush with surface of deck face.

PLACING BARRIER WALLS AND SURFACING:

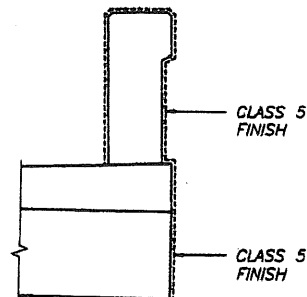
All post-tensioning strands shall have been grouted and the minimum seventy-two (72) hours have passed before the barrier walls and wearing course can be placed.

VIBRATION MONITORING:

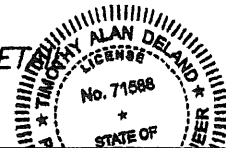
The settlement of structures and vibration levels shall be monitored in accordance with F.D.O.T. Specifications 453-1.1. A pre-construction video recording of all structures within the distances specified in the Specifications shall be made.

MISCELLANEOUS NOTES

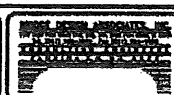
- Floating Turbidity Barrier with fine mesh shall be used in accordance with F.D.O.T. Standard Specifications, Section 104.



CLASS 5 FINISH DETAIL
NO SCALE

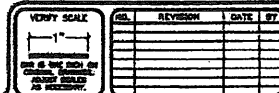


NO.	REVISION	DATE	BY



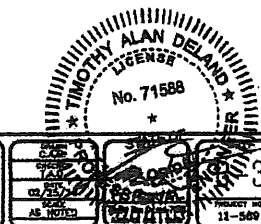
Proposed Bridge Widening for:
Seminole Pratt Whitney Road
Bridge over "M" Canal
Palm Beach County, Florida

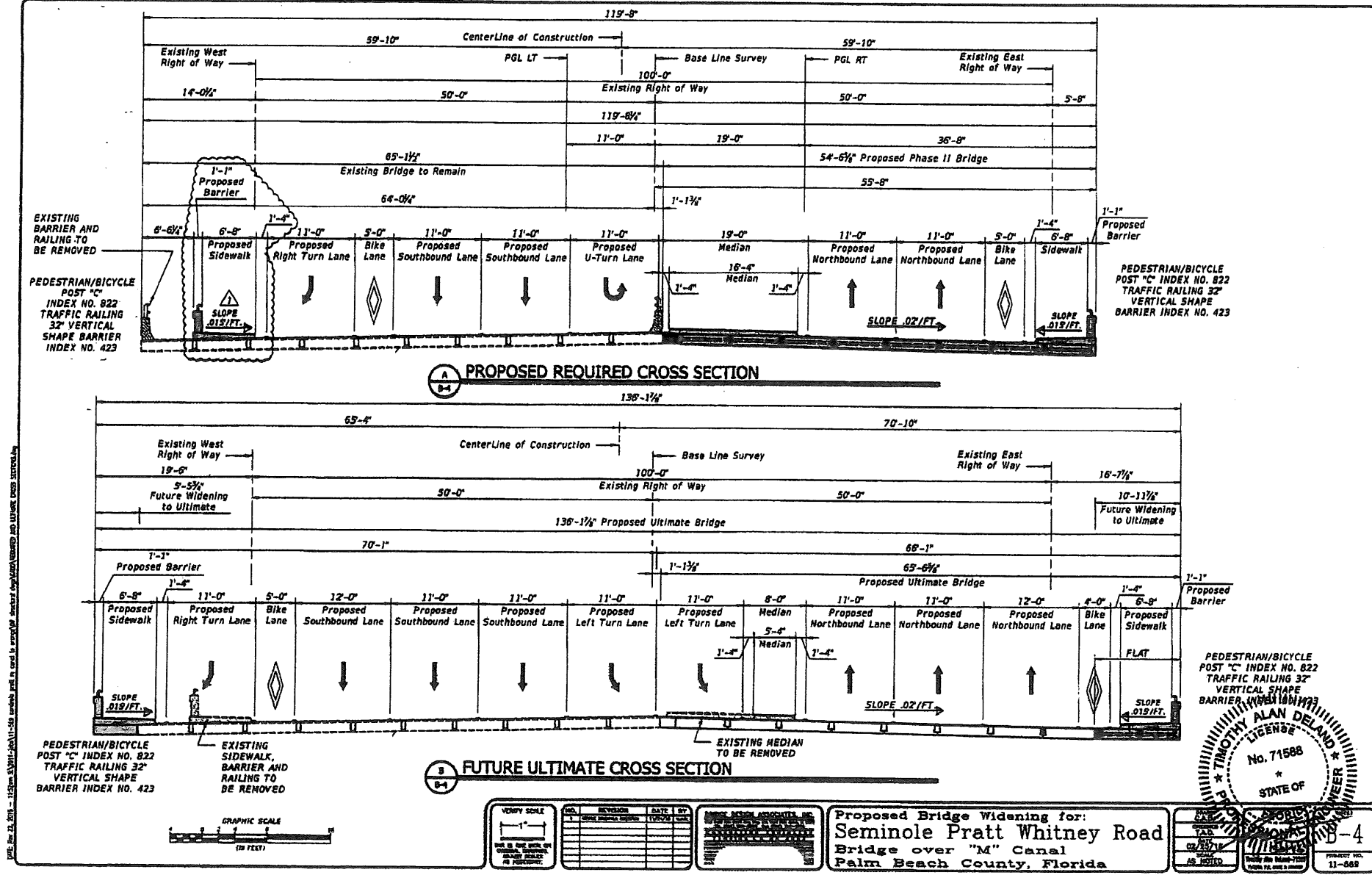


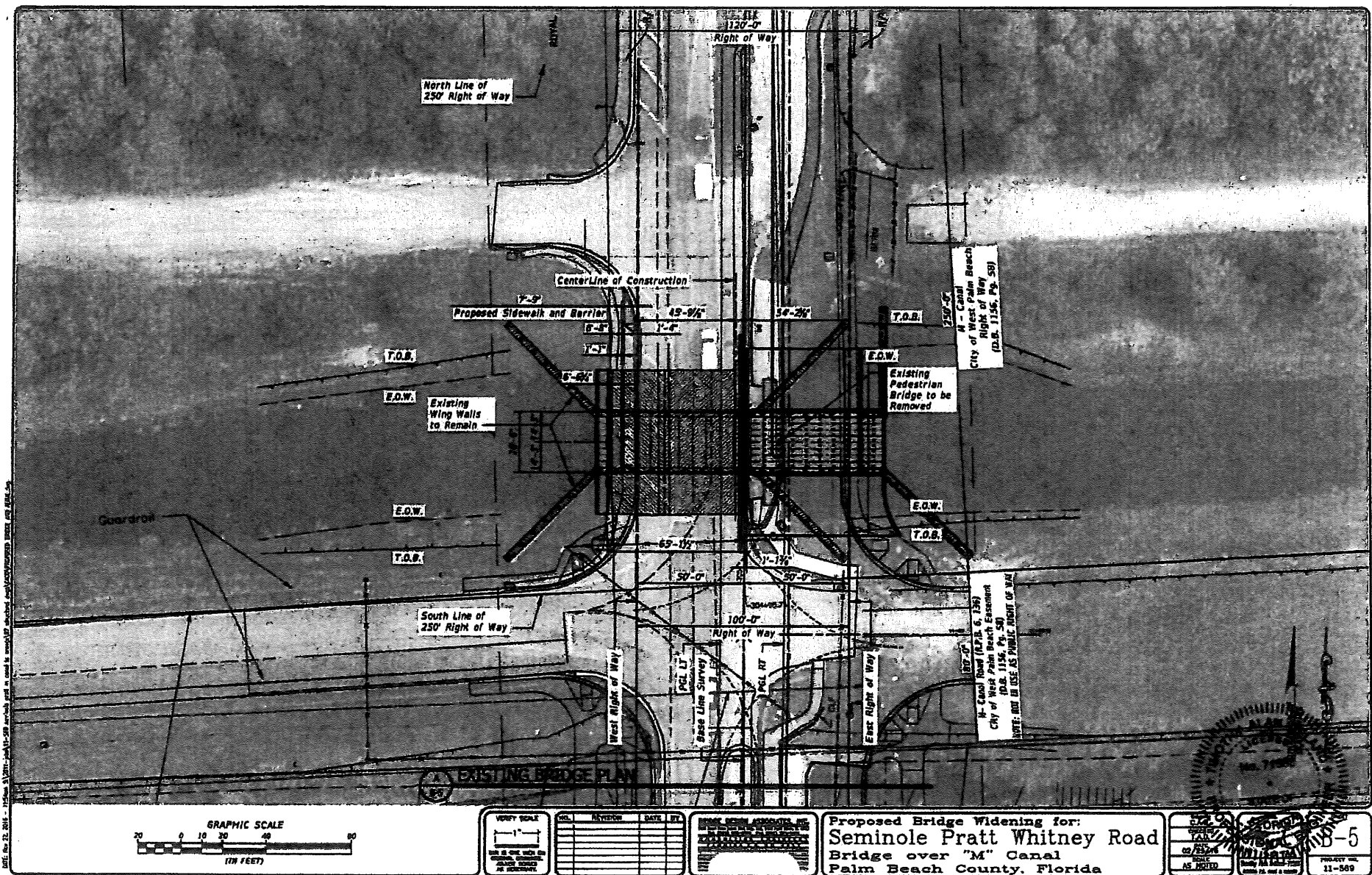


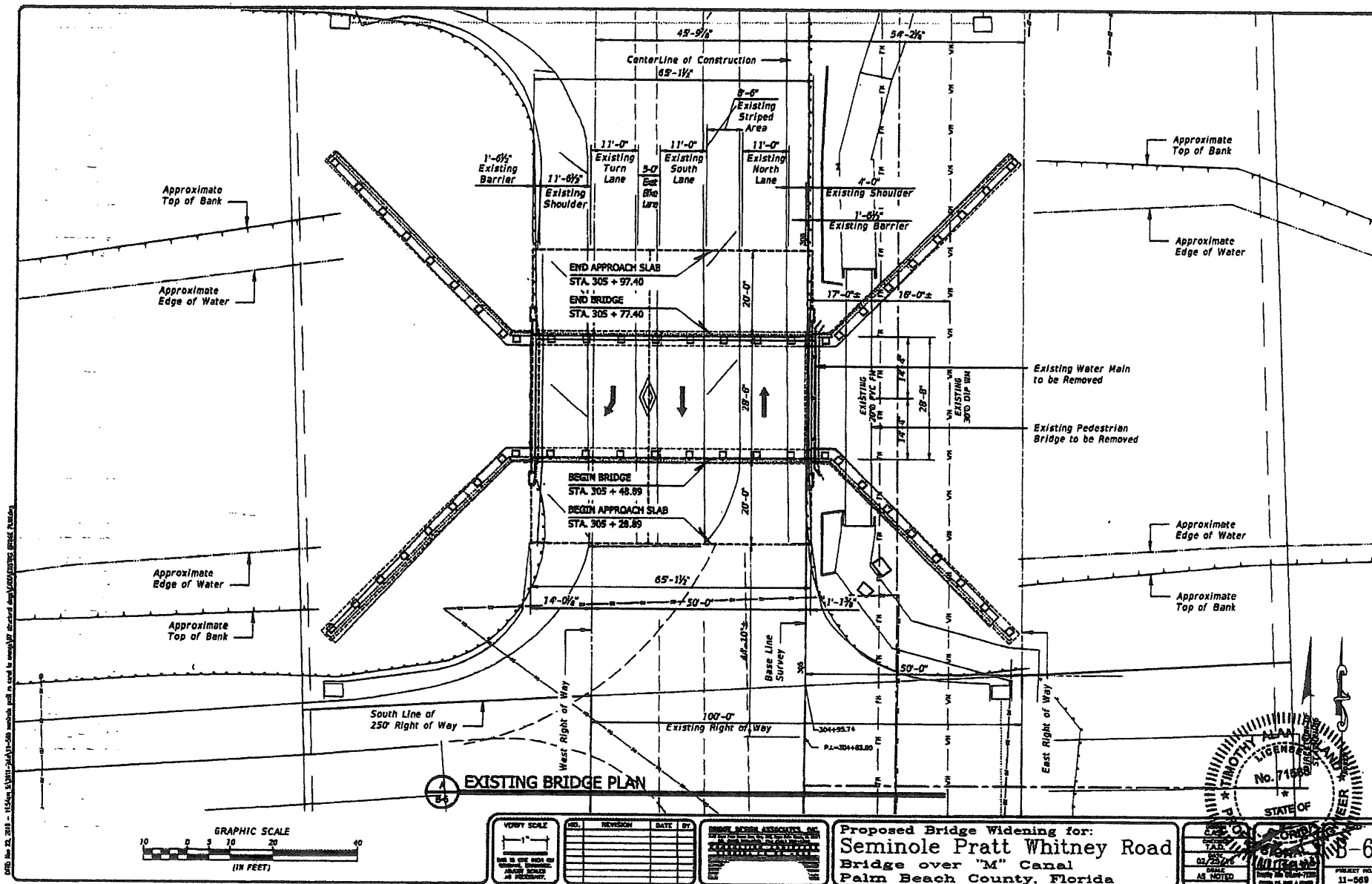
BRIDGE STREET ASSOCIATES, INC.
100 BRIDGE STREET, SUITE 200
NEWTON, MASSACHUSETTS 02459
TEL: (617) 552-1234
FAX: (617) 552-1235

Proposed Bridge Widening for:
Seminole Pratt Whitney Road
Bridge over "M" Canal
Palm Beach County, Florida

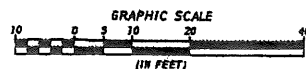








DATE: Jan 22, 2013 - 11:56am, S:\Projects\2013\13-0001\13-0001.dwg (13-0001.dwg)



VERIFY SCALE
 1" = 10'
 THIS IS ONE INCH PER
 TEN FEET SCALE
 AS INDICATED

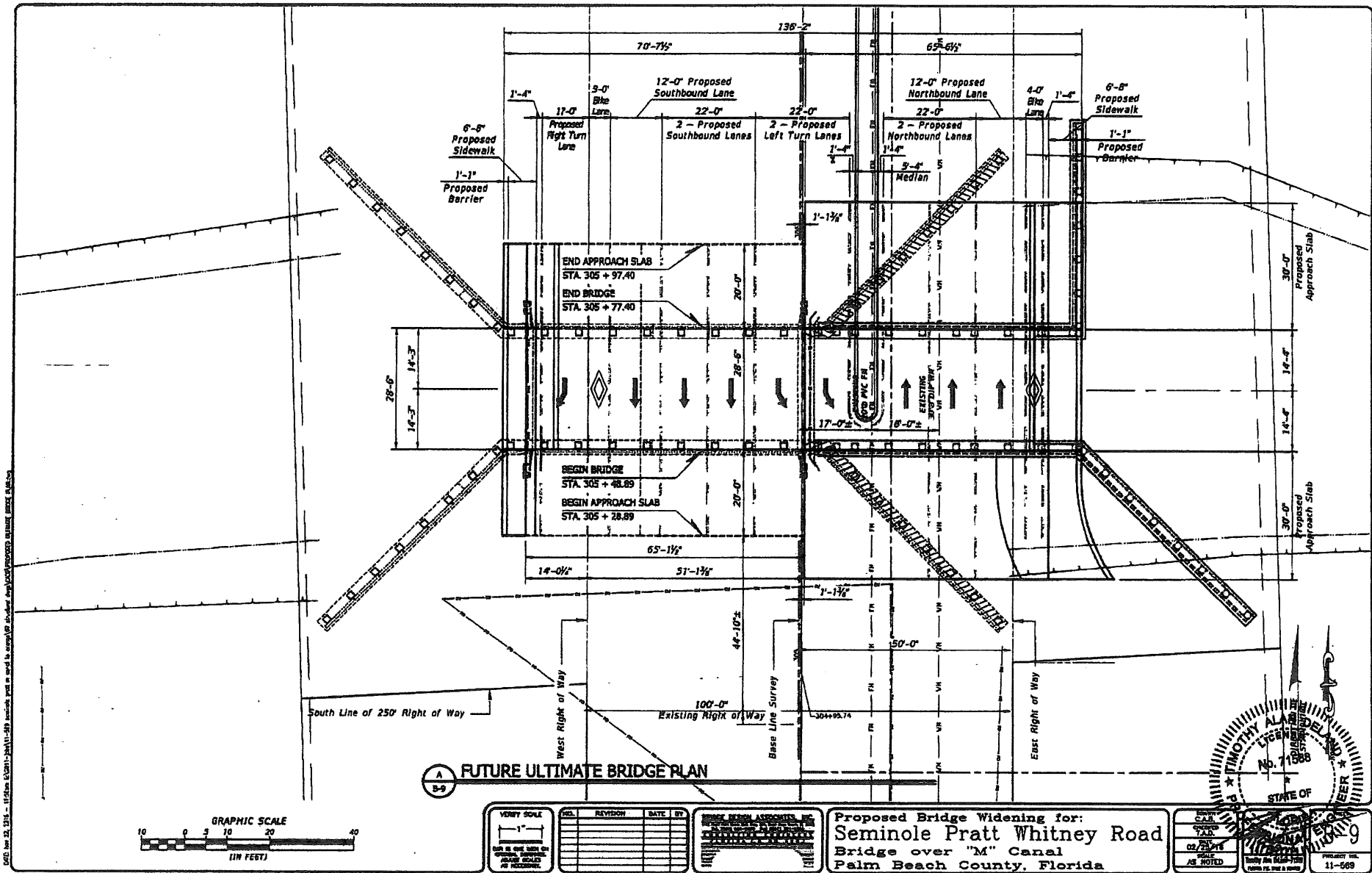
NO.	REVISION	DATE	BY

ENGINEER
 ARCHITECT
 SURVEYOR
 PLANNING
 CONSULTING
 INC.

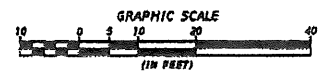
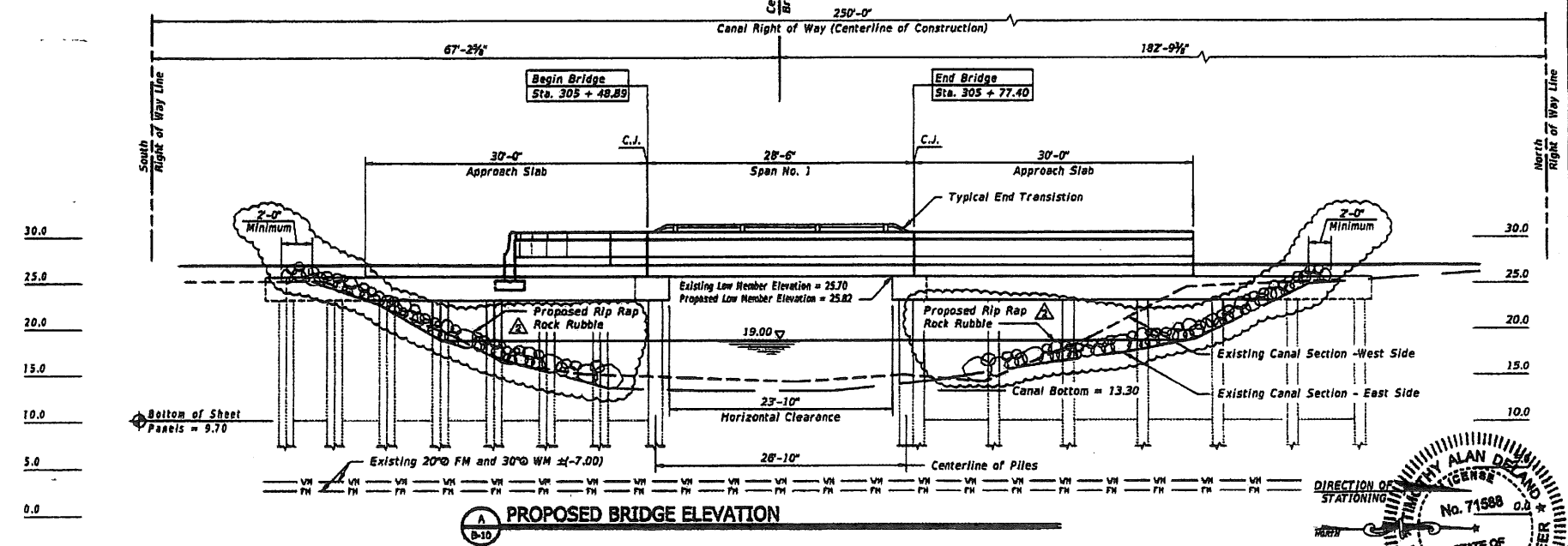
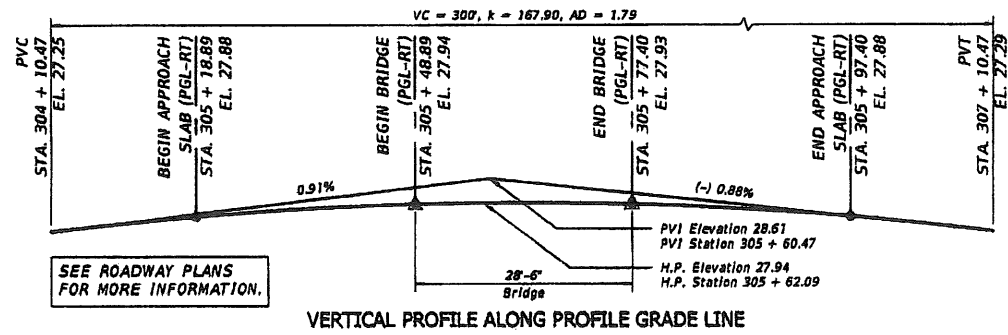
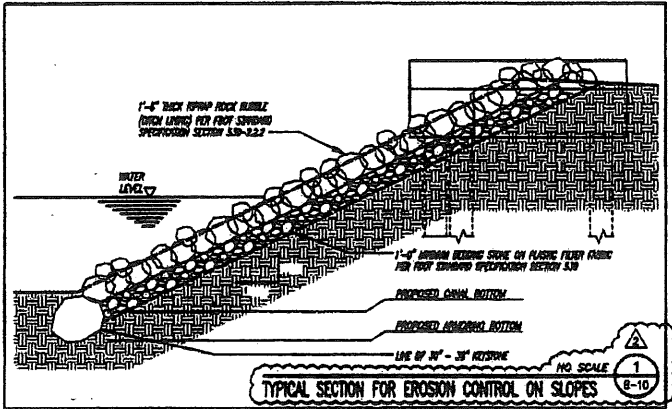
Proposed Bridge Widening for:
Seminole Pratt Whitney Road
 Bridge over "M" Canal
 Palm Beach County, Florida

PREPARED BY
 DATE
 CHECKED BY
 DATE
 AS NOTED

STATE OF
 No. 7155
 5-6
 11-568



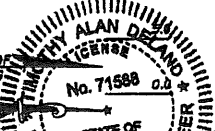
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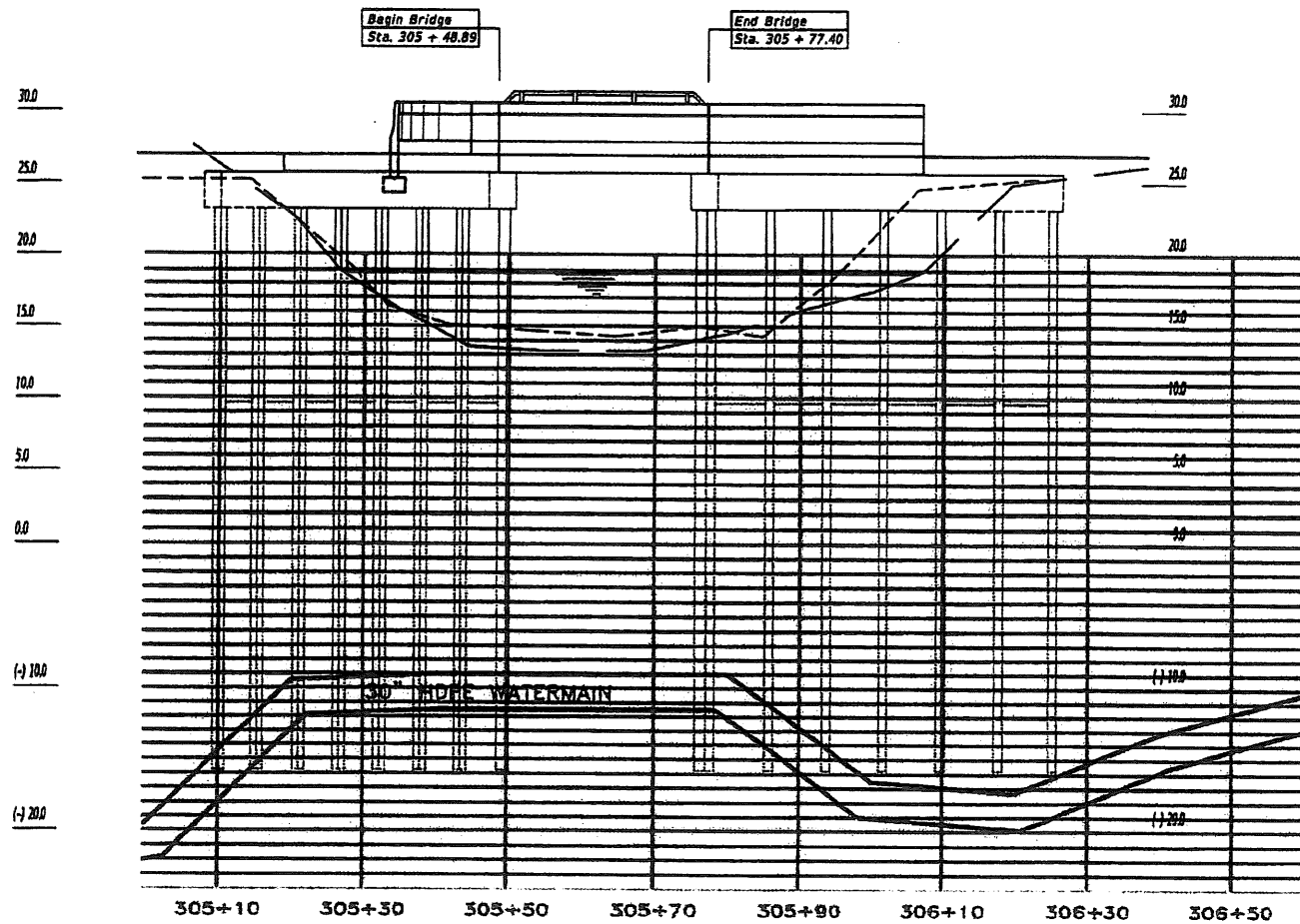


NO.	REVISION	DATE	BY
1	ISSUED FOR PERMIT	11/22/16	ALAN DEAN
2	REVISED FOR CONSTRUCTION		
3			
4			
5			

Proposed Bridge Widening for:
Seminole Pratt Whitney Road
Bridge over "M" Canal
Palm Beach County, Florida

DESIGNED BY ALAN DEAN	CHECKED BY ALAN DEAN	DATE 11/22/16
SCALE AS NOTED	PROJECT NO. 11-009	





A DIRECTIONAL WATER MAIN BORE FROM AS BUILTS

VERIFY SCALE
1" = 10'
THIS IS ONE VIEW OF
THE PROJECT
AS NOTED

NO.	REVISION	DATE	BY

PROJ. NO. 11-549
SHEET NO. 11-549
DATE 11-549

Proposed Bridge Widening for:
Seminole Pratt Whitney Road
Bridge over "M" Canal
Palm Beach County, Florida

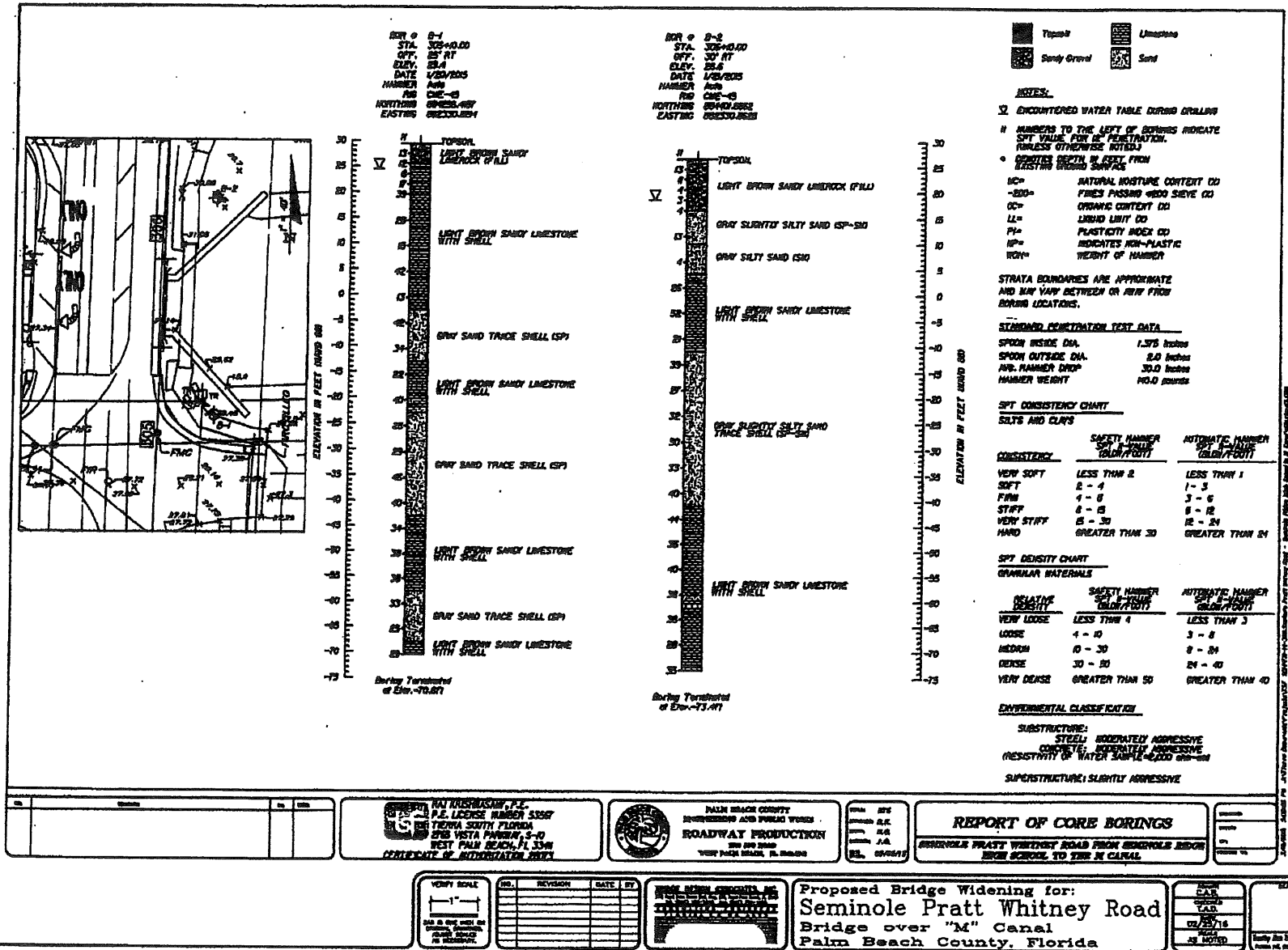
DIRECTION OF
STATIONING

NORTH

TIMOTHY ALAN DELAND
No. 71588

DATE
11-549
AS NOTED

11-549



DATE: Jan. 22, 2013 - 11:58am A:\2011-2012\11-58\unsubd\piles.mxd in model in layer 100, attached AutoCAD file: PILES.dwg

PILE DATA TABLE																Table Date 09-25-15
INSTALLATION CRITERIA									DESIGN CRITERIA							PILE CUT-OFF ELEVATIONS
BENT NUMBER	PILE NUMBERS	PILE SIZE (in.)	NOMINAL BEARING RESISTANCE (tons)	TENSION RESISTANCE (tons)	MINIMUM TIP ELEVATION (ft.)	TEST PILE LENGTH (ft.)	REQUIRED JET ELEVATION (ft.)	REQUIRED PREFORM ELEVATION (ft.)	FACTORED DESIGN LOAD (tons)	DOWN DRAG (tons)	TOTAL SCOUR RESISTANCE (tons)	NET SCOUR RESISTANCE (tons)	100-YEAR SCOUR ELEVATION (ft.)	LONG TERM SCOUR ELEVATION (ft.)	RESISTANCE FACTOR-B	
1	8	18	151	N/A	(-)10	55	N/A	N/A	98	0	N/A	N/A	N/A	N/A	0.65	24.06
1	1 - 7	18	46	N/A	(-) 8	-	N/A	N/A	30	0	N/A	N/A	N/A	N/A	0.65	24.06
1	9 - 16	18	151	N/A	(-)10	-	N/A	N/A	98	0	N/A	N/A	N/A	N/A	0.65	24.06
2	19	18	151	N/A	(-)10	55	N/A	N/A	98	0	N/A	N/A	N/A	N/A	0.65	24.06
2	17, 18, 20 - 25	18	151	N/A	(-)10	-	N/A	N/A	98	0	N/A	N/A	N/A	N/A	0.65	24.06
2	26 - 33	18	46	N/A	(-) 8	-	N/A	N/A	30	0	N/A	N/A	N/A	N/A	0.65	24.06

$$\frac{\text{Factored Design Load} + \text{Net Scour Resistance} + \text{Down Drag}}{B} \leq \text{Nominal Bearing Resistance}$$

TENSION RESISTANCE -

The ultimate side friction capacity that must be obtained below the 100 year scour elevation to resist pullout of the pile (Specify only when design requires tension capacity).

TOTAL SCOUR RESISTANCE -

An estimate of the ultimate static side friction resistance provided by the scourable soil.

NET SCOUR RESISTANCE -

An estimate of the ultimate static side friction resistance provided by the soil from the required preformed or jetting elevation to the scour elevation.

100-YEAR SCOUR ELEV. -

Estimated elevation of scour due to the 100 year storm event.

LONG TERM SCOUR ELEV. -

Estimated elevation of scour used in design for extreme event loading.

PILE INSTALLATION NOTES:


Contractor to verify location of all utilities prior to any pile driving.

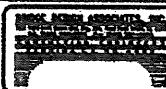
Minimum Tip Elevation is required for lateral stability.

The Contractor is not allowed to jet piles.

Service Pile Load = 66 Tons

Production Piles Estimated at 40 feet.

VERIFY SCALE	NO.	REVISION	DATE	BY
				
1" = 20'				



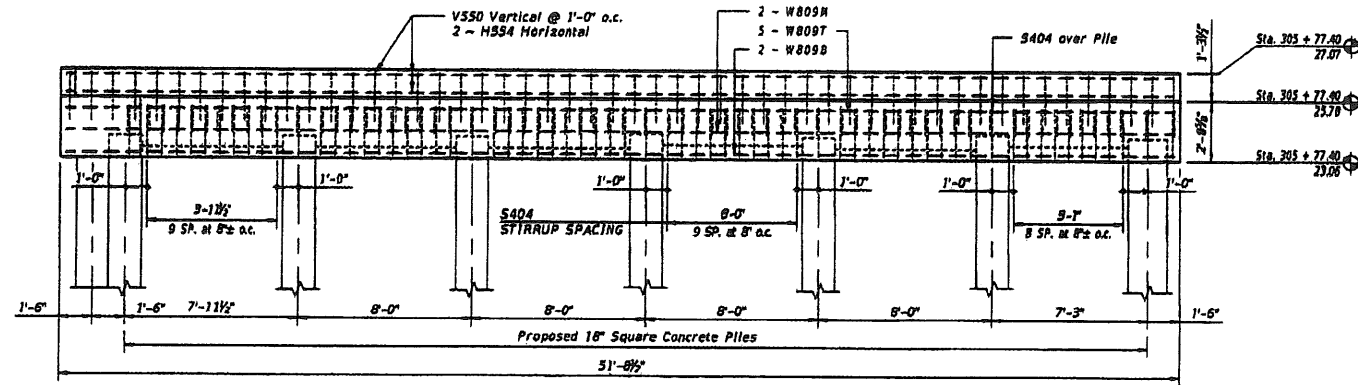
Proposed Bridge Widening for:
Seminole Pratt Whitney Road
Bridge over "M" Canal
Palm Beach County, Florida

DATE	02/27/15
BY	AS 2000
CHECKED	
DATE	02/27/15
PROJECT NO.	11-009

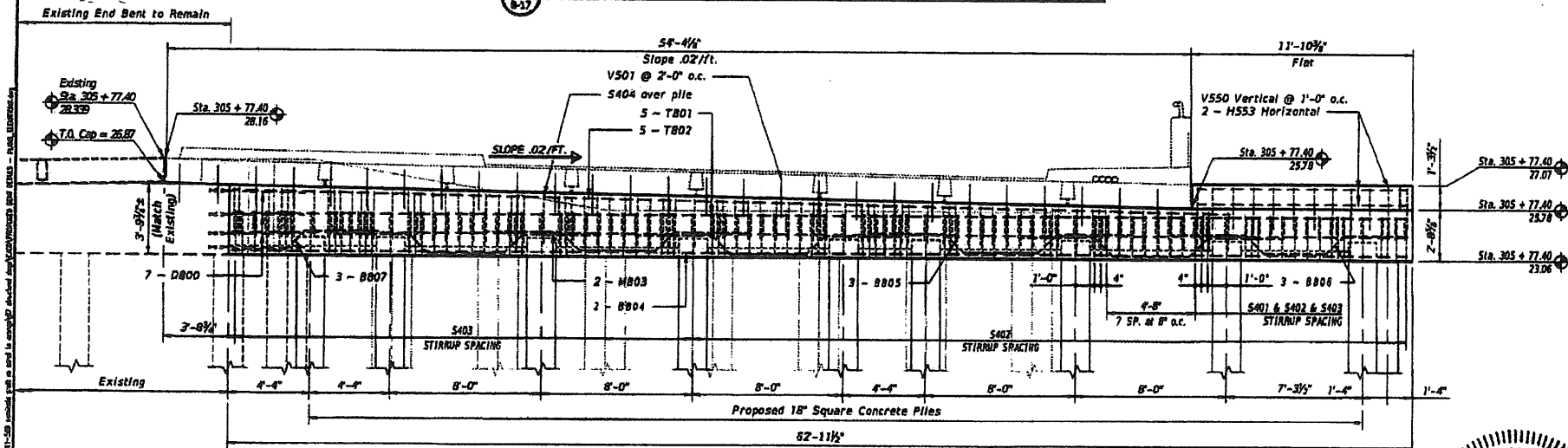
13

NOTE:

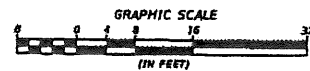
PROVIDE 2 - C556 CORNER BARS EACH CURB CORNER (TYPICAL)
PROVIDE 9 - C861 CORNER BARS EACH CORNER (TYPICAL) (NOT SHOWN FOR CLARITY-SEE BENDING DIAGRAM ON SHEET B-20)



PROPOSED NORTH END BENT NO. 2 WING BENT ELEVATION



PROPOSED NORTH END BENT NO. 2 ELEVATION

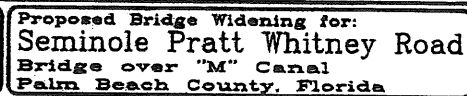


NO.	REVISION	DATE	BY

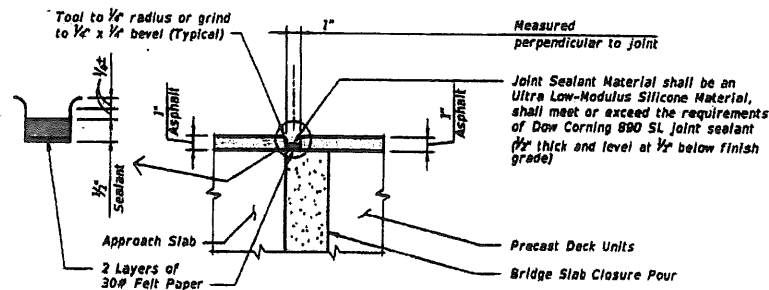


Proposed Bridge Widening for:
Seminole Pratt Whitney Road
Bridge over "M" Canal
Palm Beach County, Florida

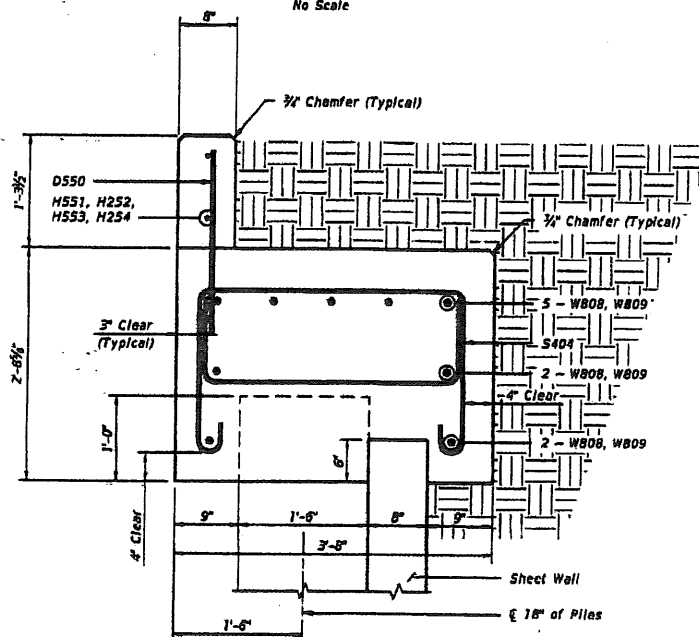


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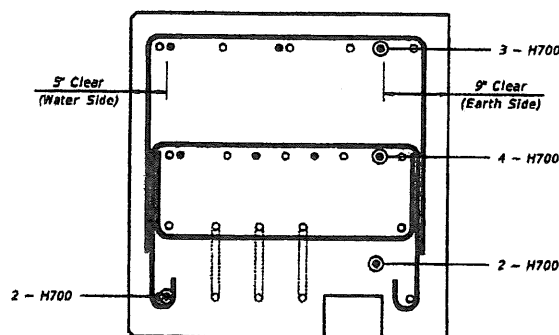
02/25/18
 AS NOTED
 PROJECT NO.
 11-589



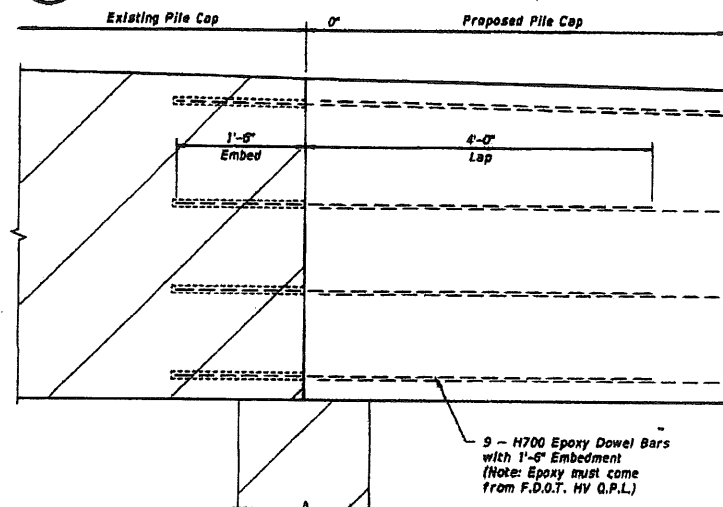
JOINT AT END BENT DETAIL
No Scale



1 EXTERIOR WING BENT DETAIL
B-19



3 TYPICAL PILE CAP CONNECTION DETAIL
B-19



2 TYPICAL PILE CAP CONNECTION DETAIL
B-19

NO.	REVISION	DATE	BY

PROPOSED BRIDGE WIDENING FOR:
Seminole Pratt Whitney Road
Bridge over "M" Canal
Palm Beach County, Florida

MOITY ALAN DELAND
LICENSED PROFESSIONAL ENGINEER
No. 71588
STATE OF FLORIDA

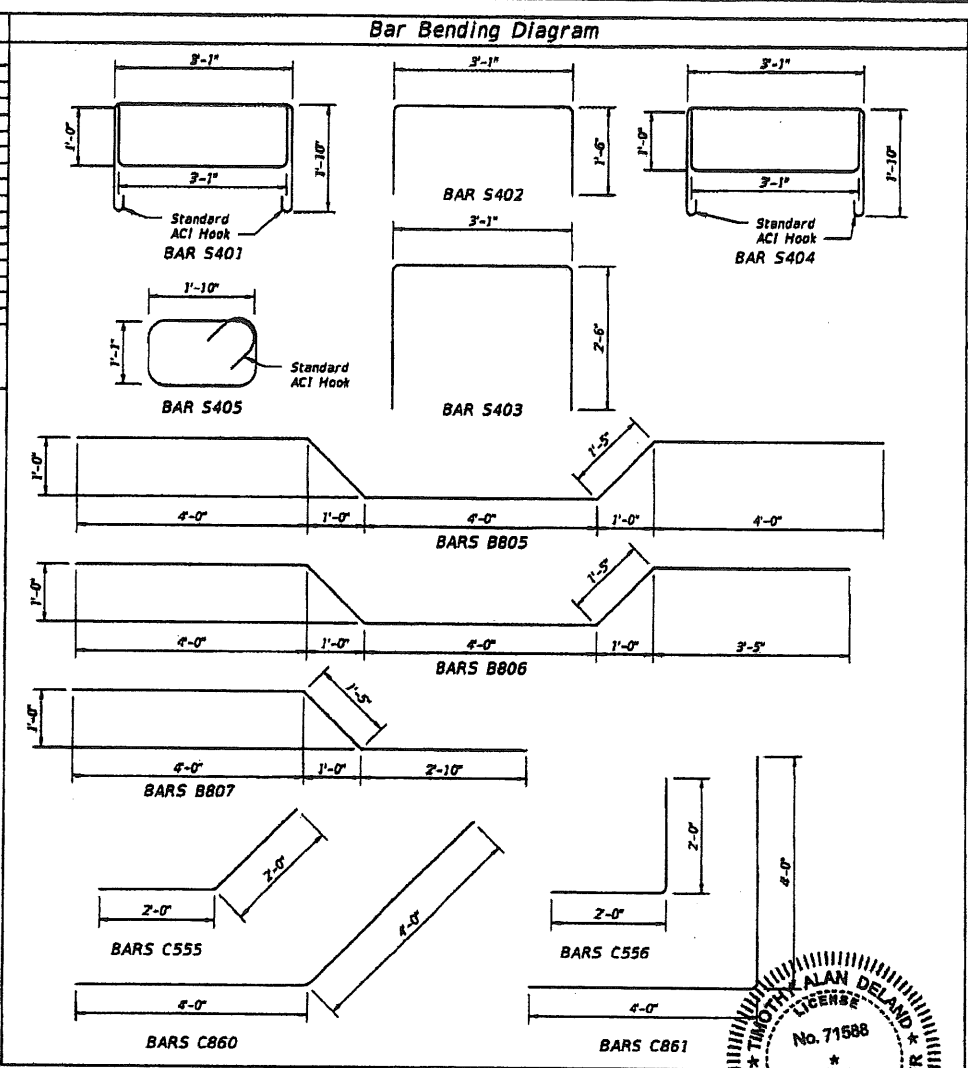
19
PROJECT NO. 11-509

DATE: Nov 22, 2011 - 1:25pm S:\3111-BAY-11-589\bridge\plan\11-589\bridge\plan.dwg (C:\Users\jason\Documents\11-589\bridge\plan.dwg) USER: jason

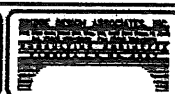
Estimated End Bent Quantities						Required Bar Lap Splices		
Item				Unit	Quantity	Mark	Size	Splice Length
Class II Concrete (Pile Cap)				Cu. Yds.	99	T	#4	25"
Reinforcing Steel (Pile Cap)				Lbs.	21,300	T	#5	30"
						T	#8	44"
						T	#9	70"
Bill of Reinforcing Steel								
Mark	Size	Number Required	Lap Splice	Total Length	Bending	Weight (lbs.)		
		End Bent No. 1	End Bent No. 2	Length plus Lap Splice				
H700	7	9	9		5'-0"	Straight	202.4	
T801	8	5	5	62'-7 1/2" + 0'-0"	69'-1 1/2"	Straight	1843.6	
T802	8	5	5	53'-0" + 0'-0"	53'-0"	Straight	1588.7	
H803	8	2	2	62'-7 1/2" + 4'-0"	69'-1 1/2"	Straight	738.3	
B804	8	2	2	62'-7 1/2" + 4'-0"	67'-7 1/2"	Straight	722.2	
B805	8	15	15		14'-10"	Bars B805	1188.2	
B806	8	3	3		14'-3"	Bars B806	226.3	
B807	8	3	3		8'-3"	Bars B807	132.2	
S401	4	106	106		12'-10"	Bars S401	1817.4	
S402	4	47	47		8'-1"	Bars S402	382.0	
S403	4	42	42		8'-1"	Bars S403	453.6	
V501	5	64	64		2'-0"	Straight	267.0	
W808T	8	9		57'-0" + 0'-0"	64'-0"	Straight	1597.9	
W808H	8	9		57'-0" + 4'-0"	62'-0"	Straight	1489.8	
W808B	8	9		51'-2" + 4'-0"	59'-0"	Straight	1337.7	
W809T	8		9	51'-2" + 0'-0"	57'-0"	Straight	1385.7	
W809H	8		9	51'-2" + 4'-0"	59'-0"	Straight	1337.7	
W809B	8		9	51'-2" + 4'-0"	55'-0"	Straight	1337.7	
S404	4	77	84		12'-10"	Bars S404	703.0	
C860	8	9			8'-0"	Bars C860	192.2	
C861	8		9		8'-0"	Bars C861	192.2	
Q550	5	71	84		17'-0"	Straight	1595.8	
H351	5	2	2		17'-0"	Straight	47.3	
H352	5	2	2		38'-11"	Straight	237.3	
H353	5	2	2		17'-0"	Straight	47.3	
H354	5	2	2		54'-2"	Straight	226.0	
C355	5	2	2		8'-0"	Bars C355	33.4	
C356	5	2	2		8'-0"	Bars C356	33.4	

Notes: Splice continuous bars thus:
Top bars at mid-span
Middle bars at mid-span between the piles
Bottom bars at the piles

Bill of Reinforcing Steel and Estimated Quantities is total for both pile caps.

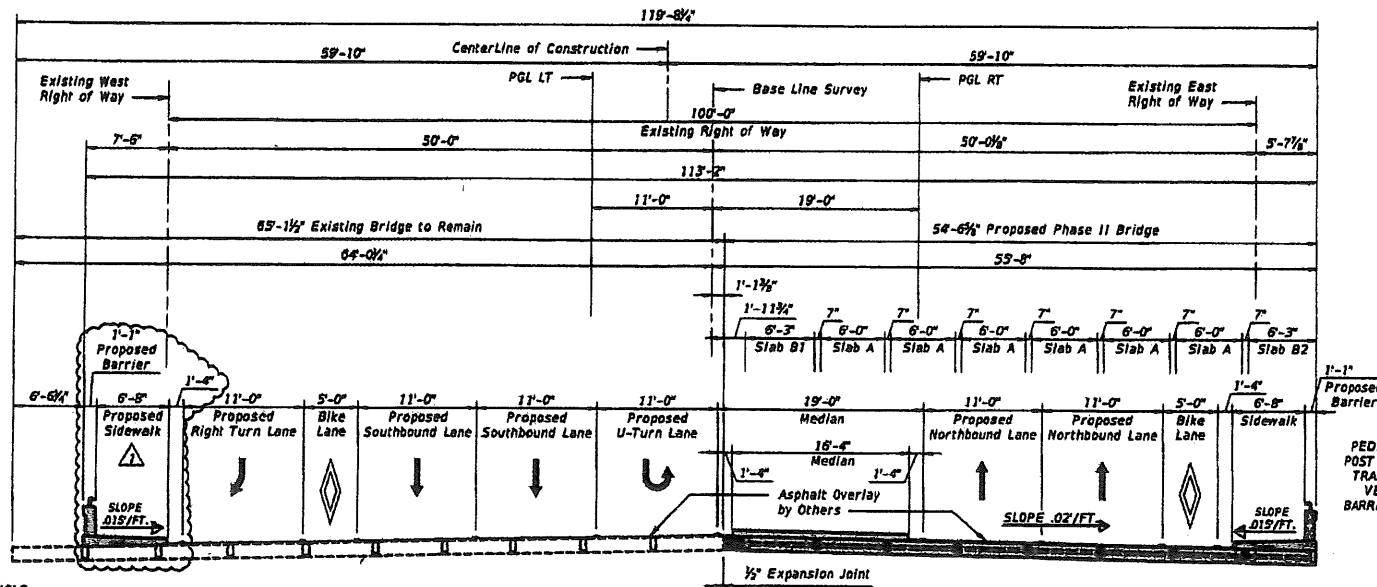


NO.	REVISION	DATE	BY



Proposed Bridge Widening for:
Seminole Pratt Whitney Road
Bridge over "M" Canal
Palm Beach County, Florida

STATE OF FLORIDA
TIMOTHY ALAN DELAND
No. 71588
11-589



PEDESTRIAN/BICYCLE
POST "C" INDEX NO. 822
TRAFFIC RAILING 32"
VERTICAL SHAPE
BARRIER INDEX NO. 423

PEDESTRIAN/BICYCLE
POST "C" INDEX NO. 822
TRAFFIC RAILING 32"
VERTICAL SHAPE
BARRIER INDEX NO. 423

PROPOSED REQUIRED TYPICAL SLAB LAYOUT CROSS SECTION

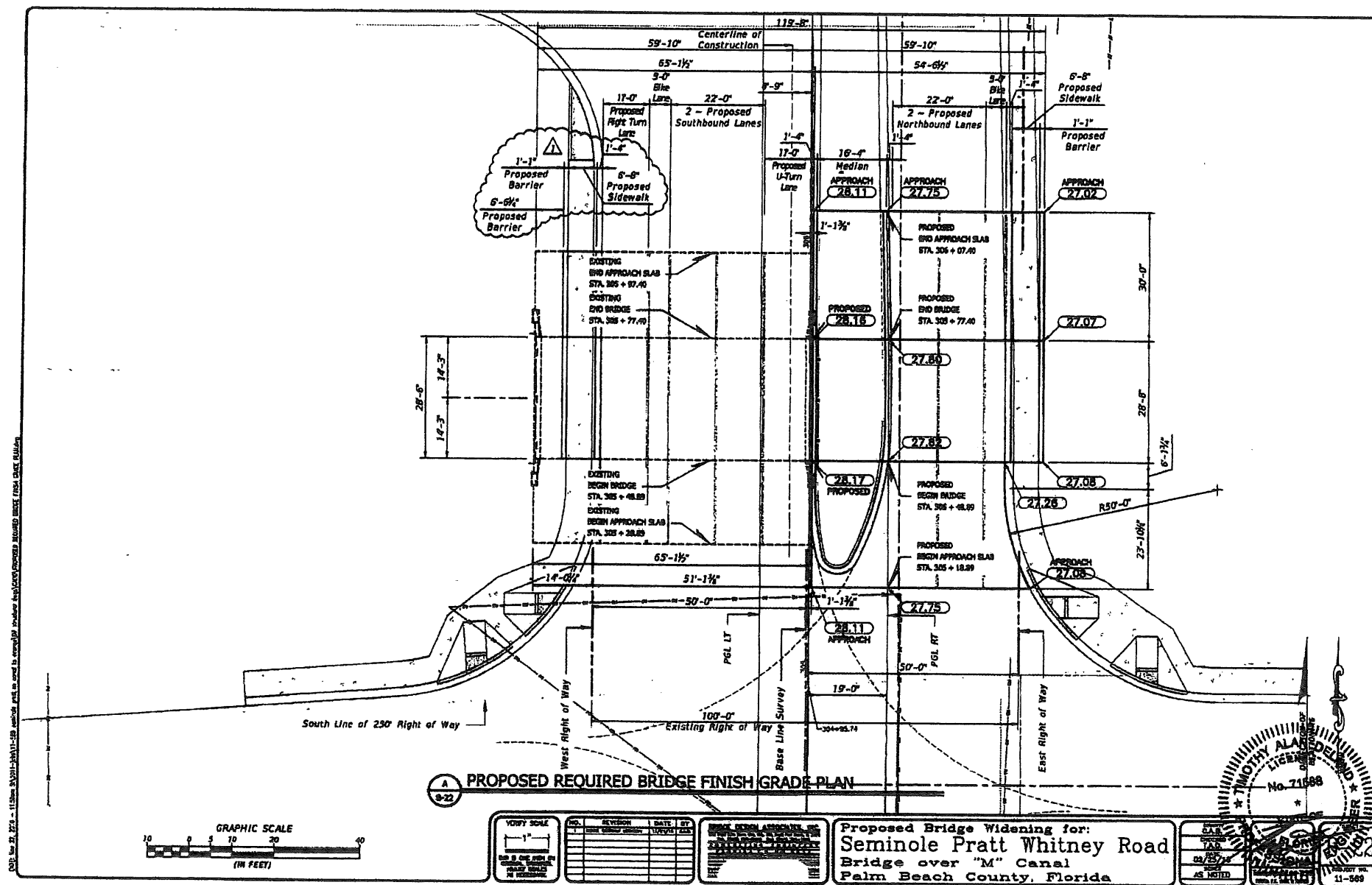


NO.	REVISION	DATE	BY
1	ISSUED FOR CONSTRUCTION	11/17/2011	AL



Proposed Bridge Widening for:
Seminole Pratt Whitney Road
Bridge over "M" Canal
Palm Beach County, Florida





Estimated Precast Slab Quantities

Item	Unit	Quantity
TYPE B1 SLAB UNITS (1 REQUIRED)	L. F.	27'-8"
TYPE B2 SLAB UNITS (1 REQUIRED)	L. F.	27'-8"

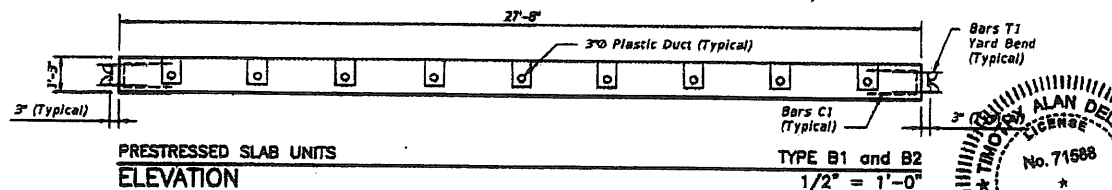
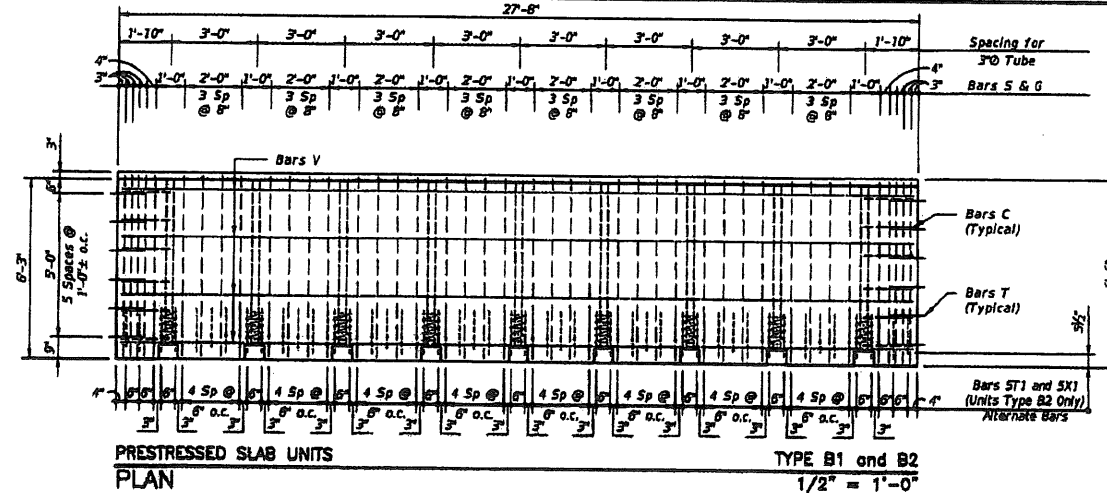
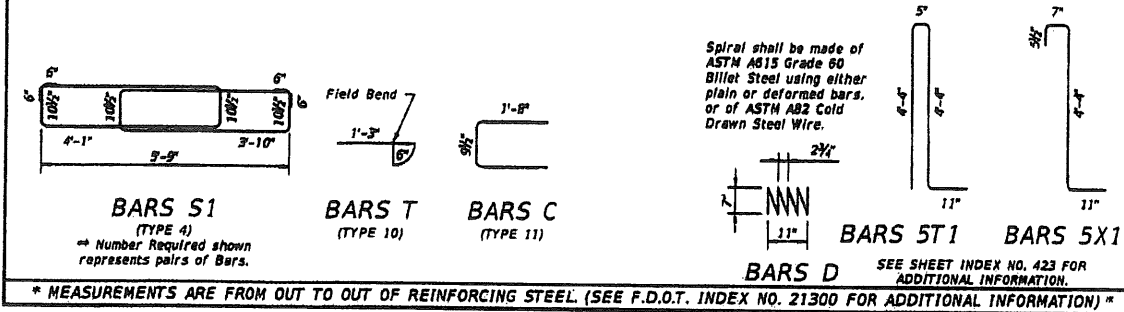
Bill of Reinforcing Steel

Mark	Size	Number Required (Type)	Length	Bending
		B1	B2	
C	4	12	12	4'-1 1/2"
D	3	12	12	9'-2"
G	5	42	42	5'-6"
ST1	4	42	42	20'-8"
T	4	24	24	1'-9"
V	5	4	4	22'-2"
ST1	5	28		10'-0"
ST1	5	36		5'-10"

Reinforcing is for one slab only.
(See Bending Diagram this Sheet)

Number required shown represents pairs of bars

BENDING DIAGRAM

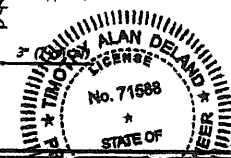


NO.	REVISION	DATE	BY
1			
2			
3			
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10			

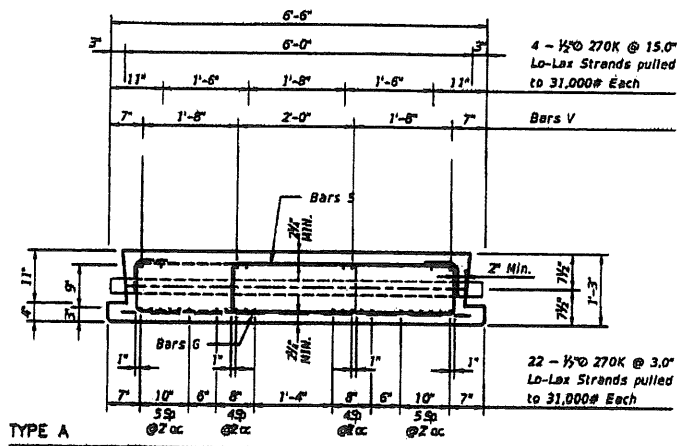


Proposed Bridge Widening for:
Seminole Pratt Whitney Road
Bridge over "M" Canal
Palm Beach County, Florida

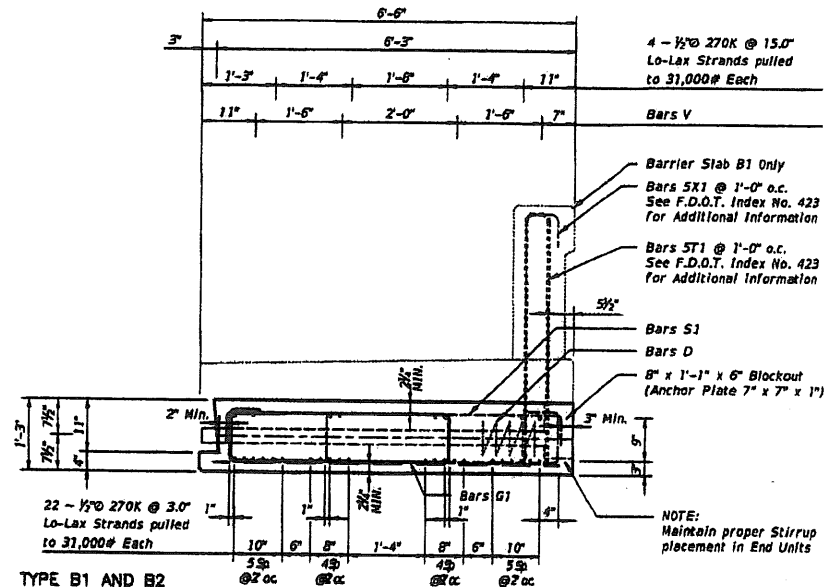
DATE	10/1/75
TIME	10:00 AM
BY	ALAN DELAND
AS NOTED	



PROJECT NO.	11-009
DATE	10/1/75
TIME	10:00 AM
BY	ALAN DELAND
AS NOTED	



TYPE A
TYPICAL SECTION



TYPE B1 AND B2
TYPICAL SECTION

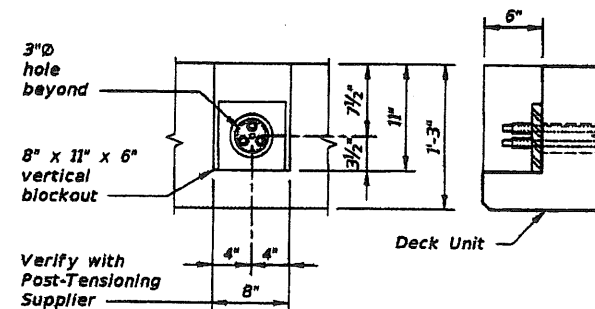
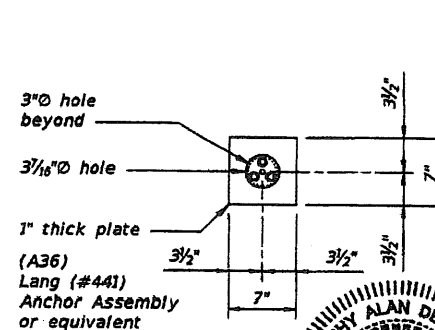
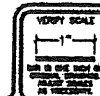


PLATE BLOCKOUT DETAIL
(3 STRANDS)



TYPICAL ANCHOR PLATE DETAIL
(3 STRANDS)



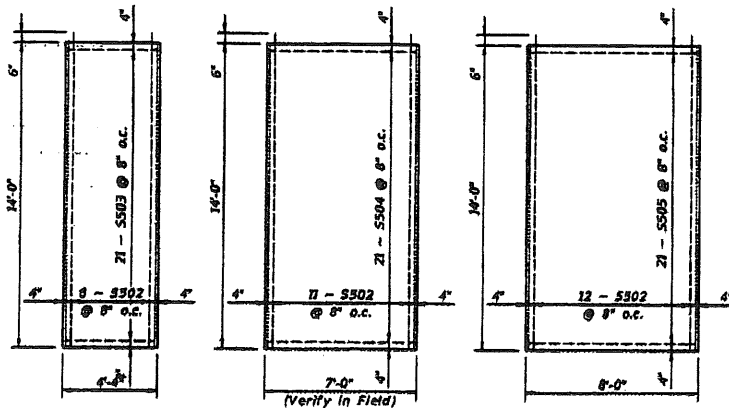
REV.	REVISION	DATE	BY



Proposed Bridge Widening for:
Seminole Pratt Whitney Road
Bridge over "M" Canal
Palm Beach County, Florida



26



(2 REQUIRED) (2 REQUIRED) (25 REQUIRED)

8" SHEET WALL DETAIL

PAYMENT

The contract unit price for precast concrete sheet piling shall include reinforcing steel and S.R. cables.

CONCRETE

F.D.O.T. Class IV Concrete ($f_c = 5,500$ p.s.i.) (28 Day) with 0.41 water/cement ratio and 564 lb/yd³ minimum cementitious material.

PICKUP BARS

At the option of the contractor, 2-7/16" strands may be substituted for No. 6 pickup bar. Strands shall be embedded in pile a minimum of two (2) feet.

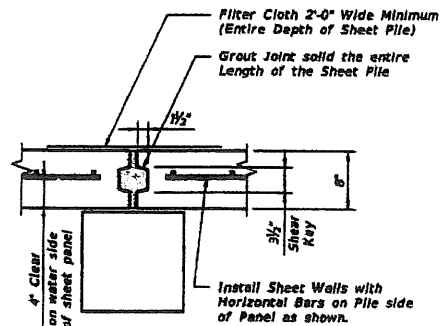
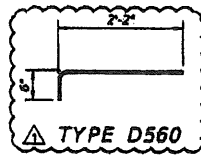
REINFORCING STEEL

Reinforcing steel shall be Grade 60.

PLASTIC FILTER FABRIC

A plastic filter fabric (see Florida Department of Transportation Standard Specifications for Road and Bridge Construction) shall be placed between fill and precast sheet piles for the entire depth of the sheet pile and extend into the cap. Cost of all labor and materials required for installing plastic filter fabric shall be included in the contract unit price for sheet piling.

BENDING DIAGRAM



SHEET WALL JOINT DETAIL

Estimated Sidewalk and Miscellaneous Quantities

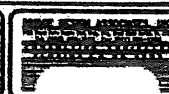
Item	Required	Unit	Quantity
Class II Concrete (Closure Pours)		Cu. Yds.	0.0
Reinforcing Steel (Closure Pours)		Lbs.	1718
Class II Concrete (Sidewalks)		Cu. Yds.	30.0
Reinforcing Steel (Sidewalks)		Lbs.	1,042
Class II Concrete (Median)		Cu. Yds.	93.0
Reinforcing Steel (Median)		Lbs.	1,279
8' x 4'-0" x 14'-0" Sheet Wall	2	L. F.	28'-0"
8' x 7'-0" x 14'-0" Sheet Wall	2	L. F.	28'-0"
8' x 8'-0" x 14'-0" Sheet Wall	25	L. F.	350'-0"
4" PVC Conduits		L. F.	830'-0"

Bill of Reinforcing Steel

Mark	Size	Number Required		Total Length	Bending	Weight (lbs.)	
SHEET WALLS (TOTAL)							
S502	5	334		14'-2"	Straight	4925	
S503	5	42		3'-2"	Straight	139	
S504	5	42		3'-10"	Straight	256	
S505	5	523		6'-10"	Straight	3742	
CLOSURE POURS (TOTAL)							
H506	5	14		28'-2"	Straight	411	
H507	5	8		28'-2"	Straight	766	
H405	4	2	2	33'-6" + 3'-0"	Straight	156	
S406	4	25	25	6'-30"	Bars S408	228	
D560	5	56		2'-8"	Straight	156	
SIDEWALKS (TOTAL)							
H407	4	91		7'-4"	Straight	446	
H507	5	12		28'-2"	Straight	353	
H507a	5	12		West Approach	79'-6"	Straight	244
H507b	5	6		East Approach	23'-6"	Straight	185
MEDIAN (TOTAL)							
H408	4	20		15'-6"	Straight	207	
H408a	4	21		15'-6"	Straight	217	
H408b	4	18		Average South Median (Length Varies)	17'-0"	Straight	132
H508	5	12		28'-2"	Straight	353	
H508a	5	12		Average North Median (Length Varies)	29'-6"	Straight	369
H508b	5	12		Average South Median (Length Varies)	15'-0"	Straight	197



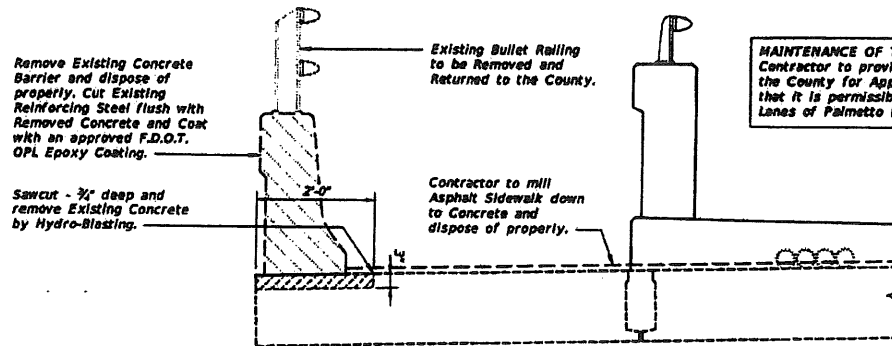
NO.	REVISION	DATE	BY
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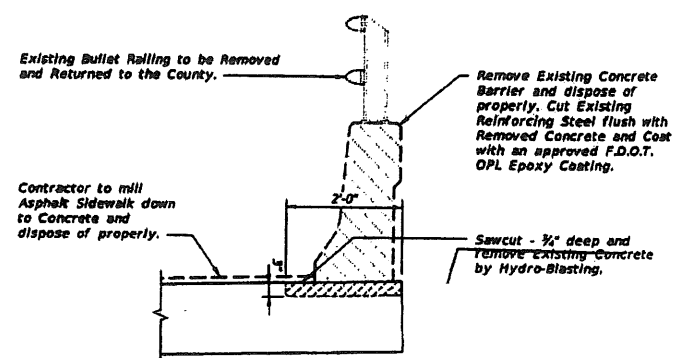
Proposed Bridge Widening for:
Seminole Pratt Whitney Road
Bridge over "M" Canal
Palm Beach County, Florida



PROJECT NO.
11-589

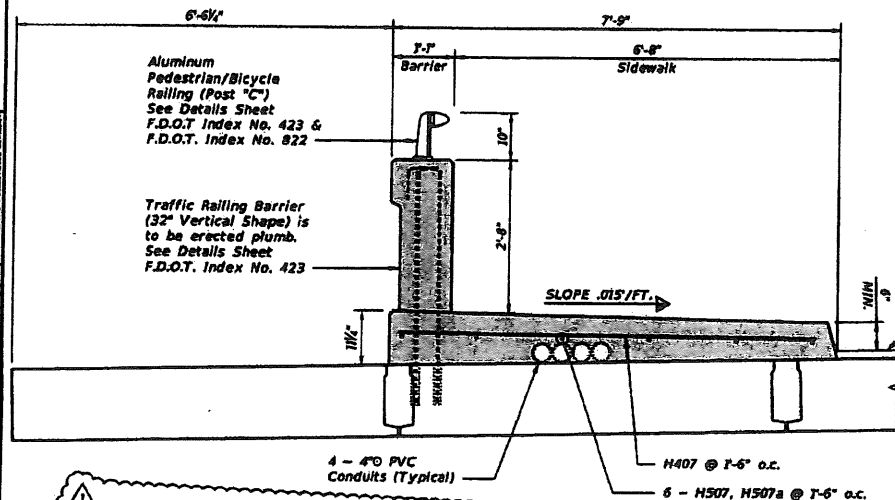


MAINTENANCE OF TRAFFIC:
Contractor to provide Maintenance of Traffic Plan to the County for Approval. The County has determined that it is permissible to close one of the East Bound Lanes of Palmetto Park Road during Construction.

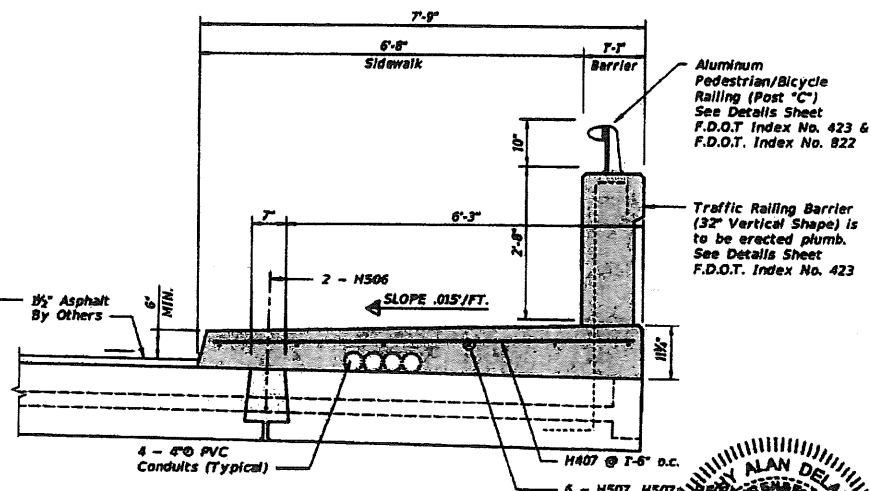


1 BARRIER DEMOLITION DETAIL
B-29

3 BARRIER DEMOLITION DETAIL
B-29



2 TYPICAL SIDEWALK SECTION
B-29



4 TYPICAL SIDEWALK SECTION
B-29



VERIFY SCALE

1"	1'
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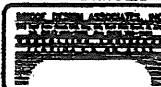
NO.	REVISION	DATE	BY



Proposed Bridge Widening for:
Seminole Pratt Whitney Road
Bridge over "M" Canal
Palm Beach County, Florida

DESIGN	DATE
CHECKED	DATE
IN CHARGE	DATE
AS NOTED	DATE

PROJECT NO.	11-569
DATE	11-569

[illegible]

INDEXED
 CAS
 CHICAGO
 T.A.D.
 DATE
 02/25/18
 TIME
 AS NOTED



100-30
PROPERTY NO.
11-689

★ TIMOTHY ALAN DELAND ★
LICENSE
No. 71588
★
STATE OF NEBRASKA ★

Load Rating Summary Details for Prestressed Concrete Bridges (Flat Slab and Deck/Girder)

Table Data 02-29-16

Table 2 - LRFR using Part A³

Level	Limit State	Vehicle	Weight (tons)	Load Factors			Moment (Strength) or Stress (Service)					Shear (Strength)					Comments: Interior/exterior beam DF Method if other than LRFD. Other appropriate comments
				LL	DC	DW	Distribution Factor (DF)	Rating Factor	Tons	Location	Dimension	Distribution Factor (DF)	Rating Factor	Tons	Location	Dimension	
Design Load Rating	Strength I (Inv)	HL-93	-	1.75	1.25	1.50	0.58	1.36	-	0.5L	14.00	0.68	1.70	-	Bearing	0.00	Moment (M) Interior
	Strength I (Op)	HL-93	-	1.35	1.25	1.30	0.58	1.77	-	0.5L	14.00	0.68	2.21	-	Bearing	0.00	
	Service III (Inv)	HL-93	-	0.80	1.00	1.00	0.58	1.32	-	0.5L	14.00	-	-	-	-	-	Moment (M) Interior
	Service III (Op)	HL-93	-	0.80	1.00	1.00	0.58	1.66	-	0.5L	14.00	-	-	-	-	-	
Legal Load Rating	Strength I	C5	40	1.35	1.25	1.50	0.58	2.37	94.96	0.5L	14.00	0.68	2.88	115.07	Bearing	0.00	(M) - Interior
	Strength I	ST5	40	1.35	1.25	1.50	0.58	2.62	104.84	0.5L	14.00	0.68	2.93	117.36	Bearing	0.00	(M) - Interior
	Strength I	SU4	35	1.35	1.25	1.50	0.58	1.92	67.20	0.5L	14.00	0.68	2.28	79.77	Bearing	0.00	(M) - Interior
	Service III	C5	40	0.80	1.00	1.00	0.58	2.23	89.38	0.5L	14.00	-	-	-	-	-	(M) - Interior
	Service III	ST5	40	0.80	1.00	1.00	0.58	2.47	98.67	0.5L	14.00	-	-	-	-	-	
	Service III	SU4	35	0.80	1.00	1.00	0.58	1.81	63.25	0.5L	14.00	-	-	-	-	-	
Permit Load Rating	Strength II	FL120	60	1.35	1.25	1.50	0.58	1.50	89.98	0.4L	11.10	0.68	1.51	90.54	Bearing	0.00	(M) - Interior
	Service I	FL120	60	1.00	1.00	1.00	0.58	2.02	121.33	0.4L	11.10	-	-	-	-	-	(M) - Interior

Abbreviations:
Inv - Inventory
Op - Operating

General Notes:

- This table is based on the requirements established in the January 2011 "Structures Manual".

Table 2 Notes:

- Permit capacity is determined by using the permit vehicle in all lanes.
- If the Design Operating Load Rating is greater than I.A. Load Rating using Legal Vehicles SU4, C5, and ST5 is not required.
- Service III Design Inventory tensile stress limits = 6√f_c, Service III Design Operating, Legal, and Permit tensile stress limits = 7.5√f_c.
- Has the AASHTO LRFD Specifications Article 5.8.3.5 longitudinal reinforcement been satisfied? ☒ Yes ☐ No

Controlling Load Rating

Limit State	Vehicle	Weight (Tons)	Rating Factor
Service III (Inv)	HL 93	47.5	1.32



REV.	REVISION	DATE	BY



Proposed Bridge Widening for:
Seminole Pratt Whitney Road
Bridge over "M" Canal
Palm Beach County, Florida



PROJECT NO.
11-008