Memorandum

MIAMI-DADE COUNTY

Date: September 21, 2010

To: Honorable Chairman Dennis C. Moss
and Members, Board of County Commissioners

Agenda Item No. 5(A)

From: George M. Burgess
County Manager

Subject: Class I Permit Application by the Town of Golden Beach for the Replacement of The Strand Avenue Two-Lane Bridge Spanning the Grand Canal in the Town of Golden Beach

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Attached, please find for your consideration an application by the Town of Golden Beach for a Class I permit. Also, attached is the recommendation of the Director of the Department of Environmental Resources Management and a resolution seeking the Board's approval of the aforesaid Class I permit.

Assistant County Manager

Memorandum

MIAMI-DADE COUNTY

Date: August 24, 2010

To: George M. Burgess
County Manager

From: Carlos Espinosa, P.E., Director
Environmental Resources Management

Subject: Class I Permit Application by the Town of Golden Beach for the Replacement of The Strand Avenue Two-Lane Bridge Spanning the Grand Canal in the Town of Golden Beach

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Recommendation
I have reviewed the attached Class I permit application submitted by the Town of Golden Beach. Based upon the applicable evaluation factors set forth in Section 24-48.3 of the Code of Miami-Dade County (Code), Florida, I recommend that the Board of County Commissioners (Board) approve the issuance of a Class I permit for the reasons set forth below.

Scope
The project site is located between Golden Beach Drive and Center Island Drive, Golden Beach, Miami-Dade County, in Commission District 4.

Fiscal Impact/Funding Source
Not applicable.

Track Record/Monitor
Not applicable.

Background
The subject Class I permit application involves the removal of The Strand Avenue two-lane bridge which spans the Grand Canal in the Town of Golden Beach, and the replacement of said bridge with a wider two-lane bridge. The project site is located between Center Island Drive and Golden Beach Drive in the Town of Golden Beach in northeastern Miami-Dade County, Florida. The proposed project is required to be reviewed and approved by the Board at a public hearing because the scope of work is not specifically referenced in Section 24-48.2 of the Code as work that can be processed administratively with a short form application. Therefore, a standard form application including a public hearing is required.

The project will occur within the North Island Grand Canal, a man-made waterway that connects to the Intracoastal Waterway, north of Dumfoundling Bay. The existing, fixed span concrete bridge was built in 1955 and provides residents the only access between Center Island and Golden Beach Drive. The existing bridge is structurally deficient and does not meet the current safety and design standards of the Town of Golden Beach and the Florida Department of Transportation (FDOT). The Town of Golden Beach, as applicant, is proposing to replace the existing bridge with a 42 foot wide by 100 foot long two-lane bridge with a pedestrian and bicycle pathway. The proposed bridge incorporates a design that will improve stormwater drainage, lighting, signage, and landscaping. The bridge abutments will be widened and reconstructed in order to properly connect to the wider bridge. In order to provide navigational access and maintain sufficient clearance, the proposed bridge has been designed to yield a minimum of five (5) feet over water clearance, which is the same over water clearance provided by the existing bridge.

The shorelines adjacent to the proposed bridge are stabilized by existing concrete seawalls. The seawalls on both banks of the canal, within the right-of-way, will be replaced as a result of this project. In order to backfill behind the new seawalls, twenty-two point six (22.6) square feet of tidal waters will be filled. Section 24-48.4 of the Code requires that adverse environmental impacts to natural resources be avoided and minimized. A benthic survey conducted by biologists from the Department of Environmental Resources Management (DERM) revealed that no significant benthic resources were located within the project footprint. Therefore, the work associated with the bridge and seawall replacement and the filling of tidal waters is not expected to result in impacts to benthic resources. However, the project will result in minor temporary water quality impacts to the surrounding area from the demolition and construction of the two-lane bridge and associated seawalls. To mitigate for these impacts, the applicant has agreed to provide a contribution to the Biscayne Bay Environmental Enhancement Trust Fund in the amount of $9,309.00 that will be used for the creation of a marine habitat.

The proposed project will result in the temporary relocation of a gas main and sewer force main that run along the sides of the existing bridge. Said utilities are owned by TECO Peoples Gas and Miami-Dade County Water and Sewer Department, respectively. The above-mentioned utility companies have no objection to the project as proposed and have provided authorization for the temporary relocation and re-installation of said utilities.

The proposed project is located within an area identified by the Miami-Dade County Manatee Protection Plan as essential manatee habitat for the West Indian Manatee (*Trichechus manatus*). Therefore, the Class I permit will require that all standard manatee construction permit conditions shall be followed during all in-water construction operations.

The proposed project has been designed in accordance with all relevant Miami-Dade County coastal construction criteria and is consistent with all other Miami-Dade County coastal protection provisions. Please find attached a DERM Project Report which sets forth the reasons the proposed project is recommended for approval by DERM pursuant to the applicable evaluation factors set forth in Section 24-48.3 of the Code. The conditions, limitations, and restrictions set forth in the Project Report attached hereto are incorporated herein by references hereto.

Attachments

Attachment A: Class I Permit Application
Attachment B: Owner/Agent Letter, Engineer Certification Letter and Project Sketches
Attachment C: Zoning Memorandum
Attachment D: Names and Addresses of Owners of All Riparian or Wetland Property within Three Hundred (300) Feet of the Proposed Work
Attachment E: DERM Project Report

NOTICE OF PUBLIC HEARING ON AN APPLICATION BY THE TOWN OF GOLDEN BEACH FOR A CLASS I PERMIT FOR THE REPLACEMENT OF THE NAVONA AVENUE TWO-LANE BRIDGE SPANNING THE GRAND CANAL IN THE TOWN OF GOLDEN BEACH

BOARD OF COUNTY COMMISSIONERS
MIAMI-DADE COUNTY, FLORIDA

NOTICE IS HEREBY GIVEN pursuant to Article IV, Division 1 of Chapter 24 of the Code of Miami-Dade County that the Board of County Commissioners of Miami-Dade County will hold and conduct a Public Hearing on a request by the Town of Golden Beach for a Class I permit for the replacement of the Navona Avenue two-lane bridge spanning the Grand Canal in the Town of Golden Beach, Miami-Dade County, Florida. Such Public Hearing will be held on the 21st day of September 2010 at 9:30 AM in the County Commission Chambers on the 2nd Floor of the Stephen P. Clark Center at 111 NW 1st Street in Miami, Florida.

Plans and details concerning the work requested in the application may be reviewed by interested persons at the office of the Miami-Dade County Department of Environmental Resources Management, 6th Floor, 701 NW 1st Court, Miami, Florida 33136.

Oral statements will be heard and appropriate records made. For accuracy of records, all important facts and arguments should be prepared in writing in triplicate, with two copies being submitted to the Deputy Clerk of the County Commission at the hearing or mailed to her beforehand (Diane Collins, Deputy Clerk), 111 NW 1st Street, Stephen P. Clark Center, Suite 17-202, Miami, Florida 33128; and with one copy being submitted beforehand to the Miami-Dade County Department of Environmental Resources Management, 701 NW 1st Court, Miami, Florida 33136.

A person who decides to appeal any decision made by any Board, Agency, or Commission with respect to any matter considered at its meeting or hearing, will need a record of proceedings. Such person may need to ensure that a verbatim record of the proceedings is made, including the testimony and evidence upon which the appeal is to be based.

BOARD OF COUNTY COMMISSIONERS
MIAMI-DADE COUNTY, FLORIDA

HARVEY RUVIN, CLERK

BY: _____
Diane Collins, Deputy Clerk

MEMORANDUM
(Revised)

TO: Honorable Chairman Dennis C. Moss and Members, Board of County Commissioners

DATE: September 21,2010

FROM: R. A. Cuevas, Jr. County Attorney

SUBJECT: Agenda Item No. 5(A)

Please note any items checked.

_____ **"3-Day Rule" for committees applicable if raised**

_____ **6 weeks required between first reading and public hearing**

_____ **4 weeks notification to municipal officials required prior to public hearing**

_____ **Decreases revenues or increases expenditures without balancing budget**

_____ **Budget required**

_____ **Statement of fiscal impact required**

_____ **Ordinance creating a new board requires detailed County Manager's report for public hearing**

✓ **No committee review**

_____ **Applicable legislation requires more than a majority vote (i.e., 2/3's ____, 3/5's ____, unanimous _____) to approve**

_____ **Current information regarding funding source, index code and available balance, and available capacity (if debt is contemplated) required**

5

Approved _____ Mayor
Veto _____
Override _____

Agenda Item No. 5(A)
9-21-10

RESOLUTION NO. _____

RESOLUTION RELATING TO AN APPLICATION BY THE TOWN OF GOLDEN BEACH FOR A CLASS I PERMIT FOR THE REPLACEMENT OF THE NAVONA AVENUE TWO-LANE BRIDGE SPANNING THE GRAND CANAL IN THE TOWN OF GOLDEN BEACH

WHEREAS, this Board desires to accomplish the purposes outlined in the accompanying memorandum, a copy of which is incorporated herein by reference,

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA, that this Board having considered all the applicable factors contained within Section 24-48.3 of the Code of Miami-Dade County, hereby approves the application by the Town of Golden Beach for a Class I permit for the replacement of the Navona Avenue two-lane bridge spanning the Grand Canal in the Town of Golden Beach, Miami-Dade County, Florida, subject to the conditions set forth in the memorandum from the Director of the Miami-Dade County Department of Environmental Resources Management, a copy of which is attached hereto and made a part hereof. The issuance of this approval does not relieve the applicant from obtaining all applicable Federal, State, and local permits.

The foregoing resolution was offered by Commissioner , who moved its adoption. The motion was seconded by Commissioner and the vote was as follows:

Dennis C. Moss, Chairman
Jose "Pepe" Diaz, Vice-Chairman

Bruno A. Barreiro	Audrey M. Edmonson
Carlos A. Gimenez	Sally A. Heyman
Barbara J. Jordan	Joe A. Martinez
Dorrin D. Rolle	Natacha Seijas
Katy Sorenson	Rebeca Sosa
Sen. Javier D. Souto	

The Chairperson thereupon declared the resolution duly passed and adopted this 21st day of September, 2010. This resolution shall become effective ten (10) days after the date of its adoption unless vetoed by the Mayor, and if vetoed, shall become effective only upon an override by this Board.

MIAMI-DADE COUNTY, FLORIDA
BY ITS BOARD OF COUNTY
COMMISSIONERS

HARVEY RUVIN, CLERK

Approved by County Attorney as
to form and legal sufficiency. _____

By:_____
Deputy Clerk

Thomas H. Robertson

Attachment A

Class I Permit Application

MIAMI-DADE COUNTY

Class I Permit Application

FOR DEPARTMENTAL USE ONLY

Date Received: RECEIVED AUG 11 2010 DERM Coastal Resources Section Natural Resources Regulation & Restoration

Application Number:

Application Fee:

Application must be filled out in its entirety. Please indicate N/A for non-applicable fields.

1. Applicant Information:

Name: Town of Golden Beach

Address: 1 Golden Beach Drive

Golden Beach, FL Zip Code: 33160

Phone #: 305-932-0744 Fax#: 305-933-3825

Email: AlexDiaz@goldenbeach.us

* This should be the applicant's information for contact purposes.

2. Applicant's Authorized Permit Agent:

Agent is allowed to process the application, furnish supplemental information relating to the application and bind the applicant to all requirements of the application.

Name: Ramon Castella, P.E.

Address: 901 Ponce De Leon Blvd, Suite 900

Coral Gables, FL Zip Code: 33134

Phone #: 305-445-2900 Fax #: 305-445-5366

Email: RCastella@C3TS.com

3. Location where proposed activity exists or will occur (latitude and longitude are only necessary for properties without address or folio #):

Folio #(s): N/A Birdge/Roadway Right-of-Way Latitude: 25 58' 20" N Longitude: 80 07' 16" W

Street Address: Navona Ave b/wGolden Beach Dr&North Dr Section: 35 Township: 51S Range: 42E

In City or Town: Town of Golden Beach Near City or Town: Town of Golden Beach

Name of waterway at location of the activity: Grand Canal Waterway

4. Describe the proposed activity (check all that apply):

- ☒ Seawall
  - ☒ New/Replacement Seawall
  - ☒ Seawall Cap
  - ☐ Batter Piles
  - ☐ King Piles
  - ☐ Footer/Toe Wall
  - ☐ Riprap
- ☐ Dock(s)
- ☐ Pier(s)
- ☐ Viewing Platform
- ☐ Boatlift
- ☐ Mooring Piles
- ☐ Fender Piles
- ☐ Davits
- ☐ Dredging
  - ☐ Maintenance
  - ☐ New
- ☐ Filling
- ☐ Mangrove Trimming
- ☐ Mangrove Removal

☒ Other:

Estimated project cost = $5,000,000

Are you seeking an after-the-fact approval (ATF)? ☐Yes ☒No If "Yes", describe the ATF work:

5. Proposed Use (check all that apply):

- ☐ Single Family
- ☐ Multi-Family
- ☐ Private
- ☒ Public
- ☐ Commercial
- ☐ Industrial
- ☐ Utility

6. If the proposed work relates to the mooring of vessels provide the following information (please also indicate if the applicant does not have a vessel):

Proposed Vessel Type (s): N/A

Vessel Make/Model (if known): N/A

Draft (s)(range in inches.): N/A Length (s)(range in feet.): N/A

Total Number of Slips: N/A

7. List all permits or certifications that have been applied for or obtained for the above referenced work:

Issuing Agency	Type of Approval	Identification Number	Application Date	Approval Date
SEE ATTACHED				

Revised 10/10/09

8. Contractor Information (If known):

Name: CONTRACTOR TO BE DETERMINED License # (County/State): _____

Address: _____ Zip Code: _____

Phone #: _____ Fax #: _____ E-mail: _____

9. IMPORTANT NOTICE TO APPLICANTS: The written consent of the property owner is required for all applications to be considered complete. Your application WILL NOT BE PROCESSED unless the Applicant and Owner Consent portion of the application is completed below. You have the obligation to apprise the Department of any changes to information provided in this application.

Application is hereby made for a Miami-Dade County Class I permit to authorize the activities described herein. I agree to or affirm the following:

- **I possess the authority to authorize the proposed activities at the subject property, and**
- **I am familiar with the information, data and plans contained in this application, and**
- **To the best of my knowledge and belief, the information, data and plans submitted are true, complete and accurate, and**
- **I will provide any additional information, evidence or data necessary to provide reasonable assurance that the proposed project will comply with the applicable State and County water quality standards both during construction and after the project is completed, and**
- **I am authorizing the permit agent listed in Section 2 of this application to process the application, furnish supplemental information relating to this application and bind the applicant to all requirements of this application, and**
- **I agree to provide access and allow entry to the project site to inspectors and authorized representatives of Miami-Dade County for the purpose of making the preliminary analyses of the site and to monitor permitted activities and adherence to all permit conditions.**

A. IF APPLICANT IS AN INDIVIDUAL

Signature of Applicant | Print Applicant's Name | Date

B. IF APPLICANT IS OTHER THAN AN INDIVIDUAL OR NATURAL PERSON
(Examples: Corporation, Partnership, Trust, LLC, LLP, etc.)

The Town of Golden Beach | | Florida

Print Name of Applicant (Enter the complete name as registered) | Type (Corp, LLC, LLP, etc.) | State of Registration/Incorporation

Under the penalty of perjury, I certify that I have the authority to sign this application on behalf of the Applicant, to bind the Applicant, and if so required to authorize the issuance of a bond on behalf of the Applicant. (If asked, you must provide proof of such authority to the Department). ***Please Note: If additional signatures are required, pursuant to your governing documents, operating agreements, or other applicable agreements or laws, you must attach additional signature pages. ***

Signature of Authorized Representative | Alexander Diaz | Town Manager | 8/10/2010

Signature of Authorized Representative | Print Authorized Representative's Name | Title | Date

C. IF APPLICANT IS A JOINT VENTURE Each party must sign below(If more than two members, list on attached page)

Print Name of Applicant (Enter the complete name as registered) | Type (Corp, LLC, LLP, etc.) | State of Registration/Incorporation

Print Name of Applicant (Enter the complete name as registered) | Type (Corp, LLC, LLP, etc.) | State of Registration/Incorporation

Under the penalty of perjury, I certify that I have the authority to sign this application on behalf of the Applicant, to bind the Applicant, and if so required to authorize the issuance of a bond on behalf of the Applicant. (If asked, you must provide proof of such authority to the Department). ***Please Note: If additional signatures are required, pursuant to your governing documents, operating agreements, or other applicable agreements or laws, you must attach additional signature pages. ***

Signature of Authorized Representative | Print Authorized Representative's Name | Title | Date

Signature of Authorized Representative | Print Authorized Representative's Name | Title | Date

RECEIVED
AUG 11 2010
DERM Coastal Resources Section

10. WRITTEN CONSENT OF THE PROPERTY OWNER OF THE AREA OF THE PROPOSED WORK

I/We are the fee simple owner(s) of the real property located at Navona Avenue Brdige, Town of Golden Beach Miami-Dade County, Florida, otherwise identified in the public records of Miami-Dade County as Folio No. NOT APPLICABLE. I am aware and familiar with the contents of this application for a Miami-Dade County Class I Permit to perform the work on or adjacent to the subject property, as described in Section 4 of this application. I possess the riparian rights to the area of the proposed work (if applicable) and hereby consent to the work identified in this Class I Permit application.

A. IF THE OWNER(S) IS AN INDIVIDUAL

Signature of Owner	Print Owner's Name	Date
Signature of Owner	Print Owner's Name	Date

B. IF THE OWNER IS OTHER THAN AN INDIVIDUAL OR NATURAL PERSON
(Examples: Corporation, Partnership, Joint Venture, Trust, LLC, LLP, etc.)

Print Name of Owner (Enter the complete name as registered)	Type (Corp, LLC, LLP, etc.)	State of Registration/Incorporation
Town of Golden Beach		Florida

Address of Owner: 1 Golden Beach Drive, Golden Beach, FL 33160

Under the penalty of perjury, I certify that I have the authority to sign this application on behalf of the Owner, to bind the Owner, and if so required to authorize the issuance of a bond on behalf of the Owner. (If asked, you must provide proof of such authority to the Department). ***Please Note: If additional signatures are required, pursuant to your governing documents, operating documents, or other applicable arrangements or laws, you must attach additional signature pages.***

Signature of Authorized Representative	Print Authorized Representative's Name	Title	Date
	Alexander Diaz	Town Manager	8/10/2010
Signature of Authorized Representative	Print Authorized Representative's Name	Title	Date

Please Review Above

Appropriate signature(s) must be included in:

Box 9: either A, B or C

AND

Box 10: either A or B

RECEIVED

AUG 11 2010

DERM Coastal Resources Section
Natural Resources Regulation & Restoration
Revised 11/16/09

Attachment B

Owner/Agent Letter, Engineer Certification Letter and Project Sketches

PERMIT APPLICANT/ AUTHORIZED AGENT STATEMENT

Date: July 21, 2010

To:
Miami Dade County DERM
Class I Permitting Program
701 NW 1st Court
Miami FL, 33136

Re: Class I Standard Form Permit Application Number 2009-CLI-PER-00058

By the attached Class I Standard Form permit application with supporting documents, I, Ramon Castella, Vice President, Corzo Castella Carballo Thompson Salman, P.A., am the Applicant's Authorized Permit Agent and hereby request permission to perform the work associated with Class I permit application 2009-CLI-PER-00058. I understand that a Miami-Dade County Class I Standard Form Permit is required to perform this work.

If approval is granted for the proposed work by the Board of County Commissioners, complete and detailed plans and calculations of the proposed work shall be prepared by an engineer registered/licensed in the State of Florida in accordance with the minimum requirements of Chapter 24 of the Code of Miami-Dade County, Florida. Said plans and calculations shall be subject to the review and approval of the Department of Environmental Resources Management. The permit applicant will secure the services of an engineer registered/licensed in the State of Florida to conduct inspections throughout the construction period, and said engineer shall prepare all required drawings of record. In the event that the proposed work which is the subject of this Class I Permit application involves the cutting or trimming of a mangrove tree(s), a detailed plan of the proposed cutting or trimming shall be prepared by a licensed landscape architect and submitted to the Department for review and approval, and the permit applicant will secure the services of a licensed landscape architect to supervise the trimming or cutting.

Respectfully submitted,

Mr. Ramon Castella, P.E.
Vice President
Corzo Castella Carballo Thompson Salman, P.A.
Applicant's Authorized Permit Agent

Engineers
Architects
Planners

July 21, 2010

Miami-Dade County DERM
Class I Permitting Program
701 NW 1st Court
Miami, Florida 33136

Re: Class I Standard Form Permit Application Number 2009-CLI-PER-00058

Ladies and Gentlemen:

EB0005022
AAC002142

This letter will certify that I am an engineer registered/licensed in the State of Florida, qualified by education and experience in the area of construction, and that to the best of my knowledge and belief, the proposed work does not violate any laws of the State of Florida or any provision of the Code of Miami Dade County which may be applicable, that diligence and recognized standard practices of the engineering profession have been exercised in the engineer's design process for the proposed work, and in my opinion based upon my knowledge and belief, the following will not occur:

a. Harmful obstruction or undesirable alteration of the natural flow of the water within the area of the proposed work.
b. Harmful or increased erosion, shoaling of channels or stagnant areas of water. (Not applicable to Class IV Permits)
c. Material injury to adjacent property.
d. Adverse environmental impacts from changes in water quality or quantity. (Applicable to Class IV Permits only)

Further, I have been retained by the applicant to provide inspections throughout the construction period and to prepare a set of reproducible record prints of drawings showing changes made during the construction process based upon the marked-up prints, drawings, and other data furnished by the contractor to me
Sincerely,

Corzo Castella Carballo Thompson Salman, P.A.

Ricardo De Jesus Blanco, P.E. (P.E. # 53135)

901 Ponce de Leon Blvd., Suite 900 Coral Gables, Florida 33134 305.445.2900 1.800.448 0227 Facsimile 305.445.3366
Web Site: www.c3ts.com Equal Opportunity Employer

TOWN OF GOLDEN BEACH
NAVONA AVENUE BRIDGE REPLACE

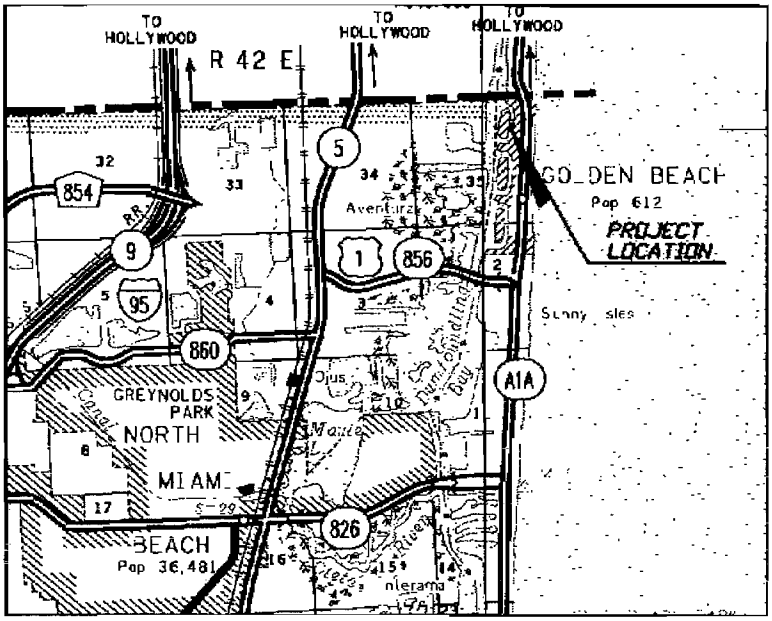
MIAMI–DADE COUNTY, FLORIDA

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
C0	COVER SHEET
C1	TYPICAL SECTIONS
C2	GENERAL NOTES
C3	CONSTRUCTION DETAILS
C4	SOIL STABILIZATION PLAN
C5	SOIL STABILIZATION DETAILS
C6	BACK OF SIDEWALK PROFILE
C7	ROADWAY PLAN & PROFILE
C8–C10	CROSS SECTIONS
C11–C14	UTILITY ADJUSTMENT PLAN
C15	TRAFFIC CONTROL NOTES
C16	TRAFFIC CONTROL PLAN
C17	TEMPORARY SIGNAL PLAN
C18	EROSION CONTROL PLAN
C19–C20	SIGNING & MARKING PLAN
E1–E4	LIGHTING PLANS
LA1	LANDSCAPING PLANS

BRIDGE PLANS

B–1	GENERAL NOTES, INDEX OF BRIDGE SHEETS AND BID ITEM NOTES
B–2	STANDARD BAR BENDING DETAILS
B–3	PLAN AND ELEVATION
B–4	BRIDGE HYDRAULIC RECOMMENDATIONS
B–5	CONSTRUCTION SEQUENCE
B–6	REPORT OF CORE BORINGS (1 OF 3)
B–7	REPORT OF CORE BORINGS (2 OF 3)
B–8	REPORT OF CORE BORINGS (3 OF 3)
B–9	FOUNDATION LAYOUT
B–10	DRILLED SHAFT DETAILS (1 OF 2)
B–11	DRILLED SHAFT DETAILS (2 OF 2)
B–12	END BENT NO. 1
B–13	END BENT NO. 3
B–14	END BENT DETAILS (1 OF 2)
B–15	END BENT DETAILS (2 OF 2)
B–16	INTERMEDIATE BENT NO. 2
B–17	FINISH GRADE ELEVATIONS
B–18	SUPERSTRUCTURE
B–19	SUPERSTRUCTURE DETAILS (1 OF 4)
B–20	SUPERSTRUCTURE DETAILS (2 OF 4)
B–21	SUPERSTRUCTURE DETAILS (3 OF 4)
B–22	SUPERSTRUCTURE DETAILS (4 OF 4)
B–23	PRESTRESSED SLAB UNITS (1 OF 2)
B–24	PRESTRESSED SLAB UNITS (2 OF 2)
B–25	APPROACH SLABS
B–25	APPROACH SLABS DETAILS
B–27	REINFORCING BAR LIST (1 OF 5)
B–28	REINFORCING BAR LIST (2 OF 5)
B–29	REINFORCING BAR LIST (3 OF 5)
B–30	REINFORCING BAR LIST (4 OF 5)
B–31	REINFORCING BAR LIST (5 OF 5)
B–32	LOAD RATING
BX–1 AND BX–2	*EXISTING BRIDGE PLANS*



NORTH

NTS

C3TS PROJECT NO. 00734–03.005

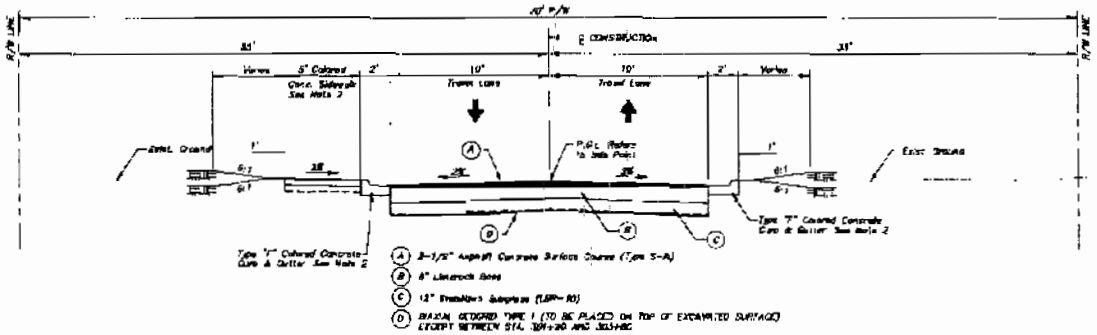
American Consulting Engineers Council Member
Supporting Excellence in Engineering

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS · ARCHITECTS · PLANNERS
901 PONCE DE LEON BLVD., SUITE 900
CORAL GABLES, FLORIDA 33134
MIAMI (305)-445-2900 FLORIDA (800)-448-0227
FL REGISTRATIONS E3800C5022 AAC002142

1-800-432-4770

Counc

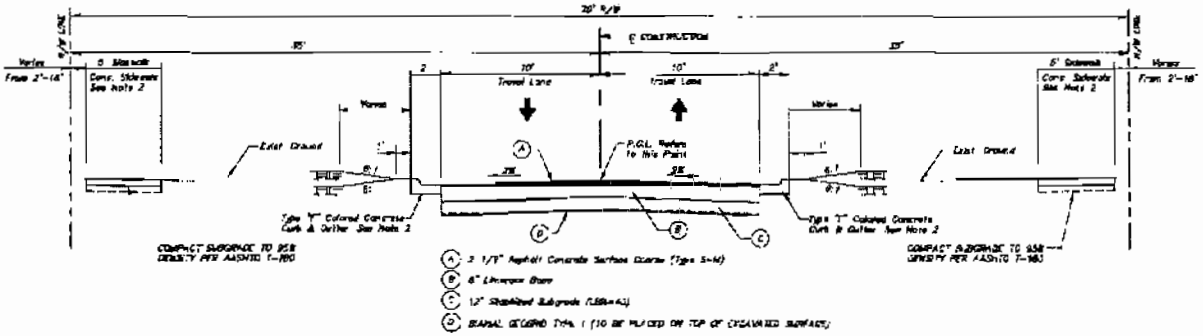
To
To



NAVONA AVENUE

STA 300+08 TO STA 301+60

N.T.S.



NAVONA AVENUE

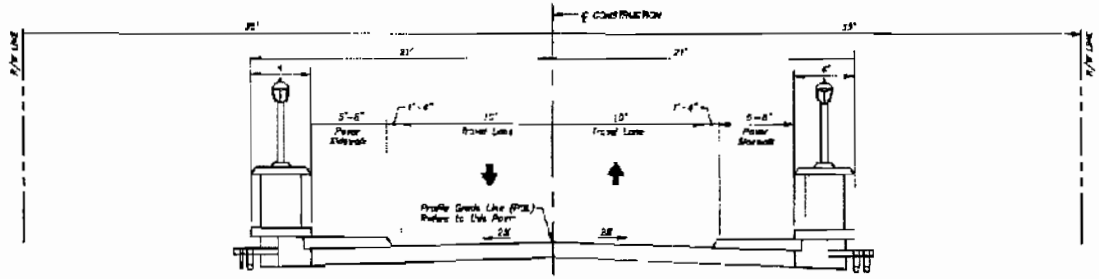
STA 303+70 TO STA 304+60

N.T.S.

DESIGN SPEED= 25 MPH

NOTES:

1. THE COST OF LIMEROCK BASE UNDER TYPE F CURB AND GUTTER TO BE INCLUDED IN THE PRICE OF CURB AND GUTTER.
2. CONCRETE SIDEWALK AND CURB & GUTTER SHALL BE INTEGRALLY COLORED "GOLDEN BEACH TAN" (MESA BEIGE U.S. SHEET CEMENT) BY LAMBERT CORPORATION AT THE DISCRETION OF THE ENGINEER OF RECORD, THE CONTRACTOR SHALL CAST TEST PLACE IN THE FIELD TO DETERMINE THE EXACT AMOUNT OF COLORING AGENT TO BE USED. CONCRETE FOR ALL COLORED CONCRETE SHALL BE PURCHASED BY THE CONTRACTOR FROM THE SAME READY-MIX COMPANY TO ENSURE COLOR CONSISTENCY THROUGHOUT.



TYPICAL BRIDGE SECTION

STA 302+00.70 TO STA 302+38.38

N.T.S.

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY

DATE:

CARLOS M. HERGOCIA, P.E
FLORIDA REGISTRATION No. 47550

C/R/O CASTILLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS·ARCHITECTS·PLANNERS
80 PONCE DE LEON BLVD. SUITE 800
CORAL GABLES, FLORIDA 33134
MIAMI (305) 446-8828 FLORIDA (800) 446-0337
FL REGISTRATION: EB3005032 AAC026146

DATE:	01/08/2009
DRAWN:	RM
DESIGNED:	CH
CHECKED:	RC
QC:	RC
CADD FILE:	00734-03

TOWN OF GOLDEN BEACH

NAVONA AVE BRIDGE REPLACEMENT

00734-03

SHEET NO. C1

GENERAL NOTES

1. THE BENCH MARK ON PLAN SHEETS: GEODETIC VERTICAL DATUM OF 1929 (NGVD).
2. ALL PUBLIC LAND CORNERS AND MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE PROTECTED. IF CONTRACTOR AS FOUNDED, CORNERS AND MONUMENTS IN CONFLICT WITH THE WORK IN DANGER OF BEING DISTURBED OR DAMAGED SHALL BE PROPERLY DESTRESSED BY A REGISTERED LAND SURVEYOR IN ACCORDANCE WITH THE MINIMUM TECHNICAL STANDARDS OF THE FLORIDA BOARD OF PROFESSIONAL LAND SURVEYORS PRIOR TO BEGINNING WORK AT THAT SITE. THE CONTRACTOR SHALL RETAIN THE LAND SURVEYOR TO REESTABLISH, AND MONITOR UPON COMPLETION OF THE WORK. ALL SUCH CORNERS AND MONUMENTS SHALL PURSUANT TO THE SURVEYOR'S COMPREHENSIVE A SIGNED AND SEALED COPY OF THE LAND SURVEYOR'S APPROVED DRAWING. INCLUDE ALL COST OF REFERENCING, MONITORING AND PRESERVING, IN THE BID ITEM PRICE FOR ITEM 104-1 MOBILIZATION.
3. ALL ALTERED, DEFORMED MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED AND REFERENCED BY THE CONTRACTOR IF THE SAME MAY BE PUBLIC LAND CORNERS, EXCEPT THAT THE LANE CORNERS SHALL NOT BE REQUIRED TO RESTORE THE B.L.M. BRASS DISKS UPON COMPLETION OF THE WORK. THE CONTRACTOR SHALL PROMPTLY REPORT ALL MISPLACED OR DAMAGED MARKS TO THE DISTRICT LOCATION SUPERVISOR, WHO SHALL NOTIFY THE APPROPRIATE INFORMATION CENTER. INCLUDE ALL COST OF REFERENCING AND PROTECTING IN THE BID PRICE FOR ITEM 104-1 MOBILIZATION.
4. ALL EXCESS MATERIAL AS DETERMINED BY THE ENGINEER TO BE DISPOSED BY THE CONTRACTOR IN AREA PROVIDED BY HIM WITHIN 72 HOURS OF BEING DEPOSITED IN THE CONSTRUCTION AREA AND AT THE CONTRACTOR'S EXPENSE.
5. THE CONTRACTOR SHALL HAVE A STREET SWEEPER (SMALL MOTOR, OR OTHER EQUIPMENT CAPABLE OF CONTROLLING AND REMOVING DUST). APPROVAL OF THE USE OF SUCH EQUIPMENT IS DEPENDENT UPON ITS DEMONSTRATED ABILITY TO DO THE WORK. CLEANING AND SWEEPING IS TO BE INCLUDED IN ITEM 102-1 MAINTENANCE OF TRAFFIC.
6. THE CONTRACTOR SHALL PERFORM ALL OPERATIONS WITH STANDARD PLACEMENT ON THE FACE OF THE CURB.
   a. PRIOR TO THE BEGINNING OF THE PROJECT WHERE THE CURB IS TO REMAIN
   b. AT THE CURB NOT LATER THAN 72 HOURS AFTER SWEEP POURED.
   c. WHERE CURB DOES NOT EXIST AND SHALL NOT BE CONSTRUCTED THE CONTRACTOR SHALL MAINTAIN WITH SUBSEQUENT STAGES.

   THE CONTRACTOR SHALL MAINTAIN THE STATION MARKS VISIBLE (with Paint, inspection). COST TO BE INCLUDED IN RELATED BID ITEM 102-1 MAINTENANCE OF TRAFFIC.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE DRIVEWAYS PERMIT. COST OF PERMIT AND DRIVEWAYS SHALL BE INCLUDED IN THE RELATED BID ITEM FOR THE WORK BEING DONE.
8. IF SHEETING, BRACING, OR OTHER FORMS, INCLUDING WELL POINTS ARE NECESSARY, THE CONTRACTOR MUST MONITOR AND CONTROL ALL WORK THAT MAY CHARACTERIZING TO AND ADJACENT BUILDING, STRUCTURE OR PROPERTY AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES CAUSED BY THESE OPERATIONS. COST OF SHEETING, BRACING OR DEWATERING, INCLUDING WELL POINTS, AND ALL DEWATERING COST SHALL BE INCLUDED IN THE RELATED BID ITEMS FOR THE WORK BEING DONE.
9. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ACCURATE AND NEW MUCK CLEAN OF MILLING MATERIAL, LIMEROCK, DEBRIS, ETC. FROM THE CONSTRUCTION OF THE PROJECT AT NO ADDITIONAL COST.
10. CLEANING AND GRINDING, GROOVING AND OTHER PROPERTIES, WORK NECESSARY FOR SATISFACTION ON CURBS AND SHALL BE INCLUDED IN RELATED BID ITEMS (ASPHALT, BASE, CONCRETE, GROUT, ETC.)
11. THE CONTRACTOR SHALL PERFORM MILLTIME CLEANING AND GRUBBING FOR THE MONITORING DONE. COST TO BE INCLUDED IN LB-1-1 CLEARING & GRUBBING.
12. THE CONTRACTOR SHALL PROVIDE WARNING AND SAFETY EMERGENCY FOR MONITORING OF ADJACENT EXISTING STRUCTURES AS PER PLAN AND SPECIFICATIONS. THE COST OF ALL WARNING MONITORING AS REQUIRED HERE AND SPECIFIED IN SECTION 102 SHALL BE PAID FOR UNDER PAY ITEM No. 102-1B, PROTECTION OF EXISTING STRUCTURES.
13. COST OF THE FIELD OFFICE ONE MONTH BEFORE THE CONSTRUCTION BEGINS AND ONE MONTH AFTER THE CONSTRUCTION IS FINISHED TO BE INCLUDED IN PAY ITEM 102-1, MAINTENANCE OF TRAFFIC. COST OF FIELD OFFICE DURING CONSTRUCTION TO BE INCLUDED IN 102-71-2.
14. THE FIELD OFFICE SHALL BE LOCATED WITHIN 100 MILE OF THE LIMITS OF CONSTRUCTION.

DRAINAGE NOTES

1. EXISTING DRAINAGE STRUCTURES WITHIN CONSTRUCTION LIMIT SHALL REMAIN UNLESS OTHERWISE NOTED.
2. SPECIAL ATTENTION IS DIRECTED TO THE FACT THAT PORTIONS OF SOME DRAINAGE STRUCTURES EXTEND INTO THE STABILIZED PORTION OF THE ROADBED AND EXTENDED CAUTION SHALL BE PROCEEDED IN SHAPING PROPERLY TO THESE LOCATIONS.

ENVIRONMENTAL NOTES

1. THE CONTRACTOR SHALL COORDINATE REGULATORY REVIEW OF ANY PROPOSED STORAGE AREAS ASSOCIATED WITH THIS PROJECT WITH THE DEPARTMENT'S ENVIRONMENTAL PERMITS COMPLIANCE MONITOR DURING THE PRE-CONSTRUCTION MEETING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE DEPARTMENT ENVIRONMENTAL COMPLIANCE MONITOR AT (305) 470-5338 AT LEAST 24 HOURS PRIOR TO BEGINNING ANY PHASE OF THE PROJECT. THE STORAGE AREAS WILL BE RESTORED TO ITS ORIGINAL CONDITION BEFORE, AT NO ADDITIONAL COST TO THE DEPARTMENT.
2. THE CONTRACTOR SHALL MAINTAIN APPROPRIATE BARRIERS AND APPROPRIATE MATERIAL AT THE WORK AREA FOR IMMEDIATE DEPLOYMENT IN THE EVENT OF AN ACCIDENTAL SPILL.
3. THE CONTRACTOR SHALL COMPLY WITH ALL CONDITIONS OF THE ENVIRONMENTAL PERMITS WHICH ARE A PART OF THIS PROJECT. PAYMENT FOR PERMIT RELATED WORK SHALL BE INCLUDED IN PAY ITEM 101-1, MOBILIZATION.
4. THE PROJECT CORRIDOR IS LOCATED IN THE VICINITY OF AREAS FOR PRESERVATION, WHICH IS DESIGNATED AS CONDITIONAL MANATEE HABITATS. PRESERVATION AND DESTRUCTION OF WATER QUALITY SHALL BE MAINTAINED. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING THE CORRIDOR OF TURBIDITY BARRIER AND ANCHOR INCLUDING THE PLACEMENT OF THE WATER. APPROPRIATE SEDIMENT CONTROL MEASURES SHOULD BE INSTALLED TO COMPLETELY DISCONNECT THE WORK AREA DURING CONSTRUCTION ACTIVITIES AND THE TURBIDITY LEVELS BEYOND THE CONTROL BARRIERS ARE NOT ALLOWED TO EXCEED NATURAL BACKGROUND LEVELS.
5. THE CONTRACTOR IS PROHIBITED FROM ALLOWING BRIDGE FRAGMENTS OR DEBRIS BEING DEPOSITED INTO THE WATER. THE CONTRACTOR WILL PROVIDE TO THE ENGINEER IN ADVANCE PRIOR TO PLACING ANY DECKING OR PAVEMENT DEMOLITION PLANS, PROCEDURE AND DOCUMENTATION ACCURATE FROM EXTENDED FOR THE PERMANENT. ANY MATERIAL THAT BREAKS THE CHAIN WILL BE REMOVED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF THE NEXT PHASE OF CONSTRUCTION. ALL WASTE MATERIAL SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
6. WEST INDIAN MANATEES (TRICHECHUS MANATUS) MAY INHABIT LOCATIONS ANY MEANDER TURTLE THE PROJECT AREA. THE WEST INDIAN MANATEE IS A FEDERAL AND STATE LISTED ENDANGERED SPECIES PROTECTED BY THE ENDANGERED SPECIES ACT OF 1973, AS AMENDED. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS PERTAINING TO ENDANGERED SPECIES AND USE POOR ENDANGERED SPECIES BROCHURE, PROVIDED. THE CONTRACTOR SHALL POST TEMPORARY SIGNS ON SITE CONSPICUOUS MANATEE CAUSE IS AND SHALL BE CONTEMPLATE ACTIVITIES, AND REMOVE ALL SIGNS UPON COMPLETION OF THE PROJECT. THE CONTRACTOR MUST PROVIDE A SIGNED MONITORING AT LEAST 5 BY 4 FEET PAST BEACH CONTROL BARRIER AND SHALL CONTROL PROGRESSIVELY MOVE TO WATER AS THE CONSTRUCTION CREWS. IF MANATEES ARE ASSOCIATED WITH THE CONSTRUCTION AREA, ADDITIONAL BARRIER SHALL BE SUPPLIED AND MOVE TO THE CONTROLS SHALL CONSTRUCTION-RELATED VEHICLE, MAINTAIN AT LEAST 1.5 TO 1.1 SPEED AND SLOW CAUTION MANATEE PRESENT. THE COST OF PROVIDING AND MAINTAINING ITEMS DESCRIBED FOR THE MONITORING AND PROTECTION OF MANATEES, SUCH AS BUT NOT LIMITED TO SIGNS FOR SAFETY, FOR CONTROL BARRIER, MAINTAIN ALL MANATEE CONTROL AND CONTROL PROVISIONS SHALL BE INCLUDED UNDER PAY ITEM 102-1, MOBILIZATION.

UTILITY NOTES

1. FOR UTILITY REPLACEMENT REFERENCE, SEE STANDARD INDEX No. 000
2. ALL EXISTING UTILITIES ARE TO REMAIN UNLESS OTHERWISE NOTED.
3. TWO FULL BUSINESS DAYS PRIOR TO BEGINNING THE CONSTRUCTION SHALL CALL SUNSHINE STATE ONE CALL OF FLORIDA, TELEPHONE NUMBER 1-800-432-4770, AND THE UTILITY OWNER AND REQUEST UTILITY LOCATIONS. A CONTRACTOR'S REPRESENTATIVE MUST BE PRESENT WHEN UTILITY COMPANIES LOCATE THEIR FACILITIES.
4. THE CONTRACTOR IS ADVISED THAT PROPERTIES ADJACENT TO THE PROJECT HAVE ELECTRIC, TELEPHONE, CABLE TELEVISION AND/OR SERVICE LATERALS WHICH MAY NOT BE SHOWN ON PLANS. THE CONTRACTOR MUST REQUEST THE LOCATION OF THESE LATERALS WITHIN THE UTILITY COMPANIES. THE ADDITIONAL COST OF EXCAVATING, BORING, BACKFILLING AND CONNECTING ABOVE PARTIAL LATERAL SERVICES MUST BE INCLUDED IN THE BID RELATED ITEM FOR THE WORK BEING DONE.
5. PRE-TRENCHING IN THE ALIGNMENT AND GRADE OF PROPOSED PIPES STRUCTURES, SUBSEQUENT PILES, FRENCH DRAINS, SLAB OR OTHER TRENCHES, DURING MAIN SERVICE SHALL BE PERFORMED APPROXIMATE IN ADVANCE OF ITS CONSTRUCTION. THE CONTRACTOR SHALL PROBE UNDERGROUND UTILITY COMPANIES AND THE DEPARTMENT WITH A MINIMUM OF 48 HOURS ADVANCE NOTICE OF ANY CONFLICT WITH PROPOSED CONSTRUCTION. THE NOTICE FOR SHALL PROVIDE SUFFICIENT INFORMATION AND AT CONFLICT WITH UTILITY ALIGNMENT, GRADE AND POSITION IS CORRECTED. PAYMENT FOR THE REMOVING, PUMPING AND BACKFILLING SHALL BE INCLUDED IN THE COST OF THE RELATED BID ITEM FOR THE WORK BEING DONE.
6. THE LOCATIONS OF THE UTILITIES SHOWN IN THE PLANS (INCLUDING PROVIDE DESIGNATED VIA VIA AND HOLD AND BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE INFORMATION/LOCATIONS APPLY ONLY AT THE POINTS SHOWN. INTERPOLATIONS BETWEEN THESE POINTS AS HAS BEEN ASSESSED. THE EXACT LOCATION SHALL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION.
7. UTILITY OWNERS:

ATLANTIC COMMUNICATIONS	(305) [illegible]
AT&T-CATV	(305) 795-3543
AT&T	(770) 946-[illegible]
COMCAST	(561)624-3417
FLORIDA CITY GAS	(305) 558-4100
FLORIDA POWER & LIGHT	(305) 558-4234
FPL - PERMIT	(305) 883-4234
MCI	(972) 729-8116
MIAMI-DADE WATER & SEWER	(305) 358-5214
CITY OF NORTH MIAMI BEACH	(305)948-2937
TECO PEOPLES GAS	(305) 653-3804

PAY ITEM NOTES

102-1 INCLUDES THE COST OF FURNISHING, PLACING AND REMOVING COMMERCIAL MATERIAL FOR DEPARTMENT MAINTENANCE.

120-1-1 TURBIDITY BARRIER SHALL BE OF SUFFICIENT DEPTH TO REACH THE BOTTOM OF THE CANAL.

120-2 INCLUDES THE COST OF REMOVING ALL MATERIAL DOWN TO THE BOTTOM OF THE LAND TRANSFER PLATFORM, STORING ALL MATERIAL EXCEPT ASPHALT AS POSSIBLE OUTSIDE THE WORKING AREA AT A PLACE FOR PROCESSING FOR DISPOSAL. EXCESS MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR AT HIS EXPENSE.

120-3 INCLUDES THE COST OF THE SEMI-LIQUID STRUCTURAL FILL, LIMEROCK FILL AND 57 STONE.

160-70-7 INCLUDES THE COST OF FILTER FABRIC.

200-1-1 INCLUDES 4 CY FOR MINOR MARGINAL CONSTRUCTION AS DIRECTED BY THE ENGINEER.

200-10-3 INCLUDES THE COST OF SEDIMENTATION CONTROL PROGRAM.

400-4-10 INCLUDES 4 CY FOR MISCELLANEOUS CONSTRUCTION AS DIRECTED BY THE ENGINEER.

430-971 INCLUDES THE COST OF CONNECTION OF NEW PIPES TO THE EXISTING DRAINAGE STRUCTURE.

430-982-3 INCLUDES THE CONSTRUCTION OF 18" CONCRETE MITERED END PIPES.

522-2 INCLUDES THE COST OF THE MAIN PIER EXCLUDING GRATE.

522-2-2 INCLUDES THE COSTS FOR BOTH THE MAINSPAN AND CANTILEVER CONCRETE EDGE CONTRAINER.

525-1 INCLUDES THE COST OF FILTER FABRIC AND COARSE AGGREGATE.

570-1-2 INCLUDES THE COST OF SEEDING, FERTILIZER AND TOPSOIL.

710- ALL PAVEMENT MARKINGS SHALL BE PAINTED UNLESS OTHERWISE NOTED IN THE PLANS. PAVEMENT MARKING CHARACTERS SHOWN ON THE PLANS AND MARKINGS MARKED THROUGH INTERSECTIONS FOR ONE WAY OPERATION. THE APPLICATIONS OF PAVEMENT SYMBOLS WILL BE REQUIRED. THE TOTAL SHOWN ON THE ADDITIONAL SUMMARY OF PAY ITEMS INCLUDED THE QUANTITIES FOR PAVEMENT SYMBOLS USED FOR TRAFFIC CONTROL. PAVEMENT MARKERS ARE TWO APPLICATIONS OF PAINT PAVEMENT SYMBOLS.

GENERAL NOTES

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY:

DATE:

CARLOS M. HERDOCCIA, P.E.
FLORIDA REGISTRATION No. 47660

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS-ARCHITECTS-PLANNERS
801 PONCE DE LEON BLVD., SUITE 900
CORAL GABLES, FLORIDA 33134
MIAMI (305) 445 2900 FLORIDA (800)-448 0227
FL REGISTRATION: EB-0000922 AA-0002142

DATE:	01/08/2009
DRAWN:	RM
DESIGNED:	CH
CHECKED	RC
QC:	RC
CADD FILE	00734-03

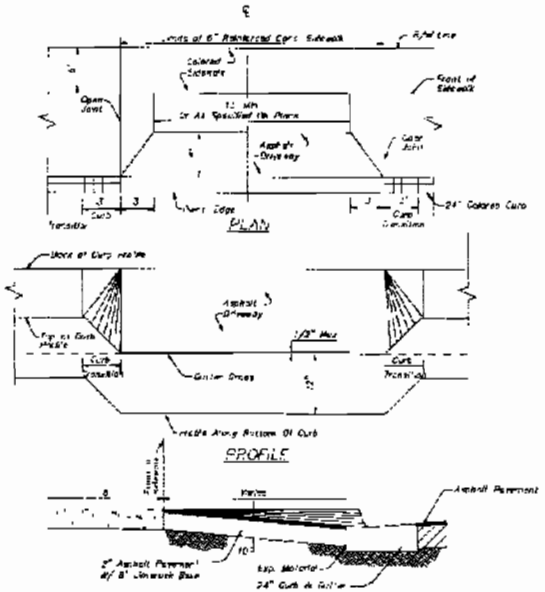
TOWN OF GOLDEN BEACH

NAVONA AVE
BRIDGE REPLACEMENT

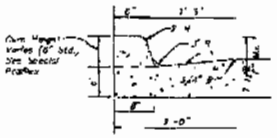
00734-03

SHEET NO
C2

17

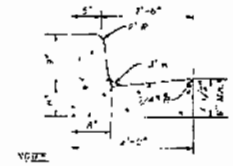


TYPICAL ASPHALT DRIVEWAY WITH CURB & GUTTER
N.T.S.



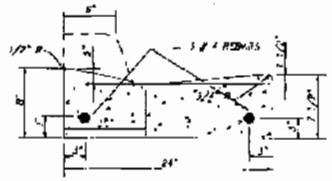
NOTES
1. Provide 1/8" to 1/4" Construction Joints at 10' Centers (Max.)

TYPE "F" COLORED CURB & GUTTER
N.T.S.



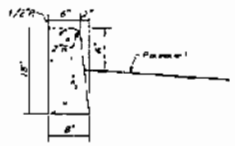
NOTES
1. Provide 1/8" to 1/4" Construction Joints at 10' Centers (Max.)

MODIFIED TYPE "F" COLORED CURB & GUTTER
N.T.S.



Curb & Gutter or Curb shall be constructed in sections not to exceed 50' in length with 1/8" to 1/4" open expansion joint between each section, and Construction Joints at 10' intervals

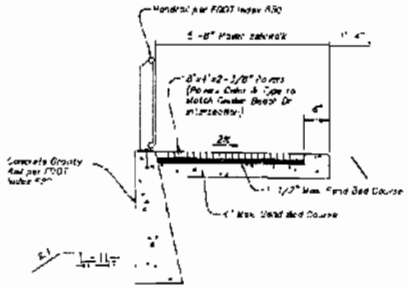
DRIVEWAY COLORED CURB & GUTTER
N.T.S.



NOTES
1. Provide 1/8" to 1/4" Construction Joints At 10' Intervals (Max.)
2. Subgrade Shall be Compacted to a 95% Density, AASHTO T-180C

TYPE "D" COLORED CURB
N.T.S.

NOTE: ALL CONCRETE CURBS AND SIDEWALKS SHALL BE COLORED "COLOR IN ACH TAN" CONTRACTOR SHALL SUBMIT SAMPLES OF ALL PAVERS, COLORS, TREATMENTS ETC FOR APPROVAL BY THE ENGINEER.



GRAVITY WALL\PAVER SIDEWALK DETAIL
N.T.S.

81

CONSTRUCTION DETAILS

REVISIONS	
DESCRIPTION	DATE
1	
2	
3	
4	

APPROVED BY:

DATE

CARLOS M. HERODCIA, P.E.
FLORIDA REGISTRATION No 47660

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS · ARCHITECTS · PLANNERS
801 PONCE DE LEON BLVD SUITE 900
CORAL GABLES FLORIDA 33134
MIAMI (305)-445-2900 FLORIDA (800)-446-0287
FLINTER KATCHER 800008083 AA000049

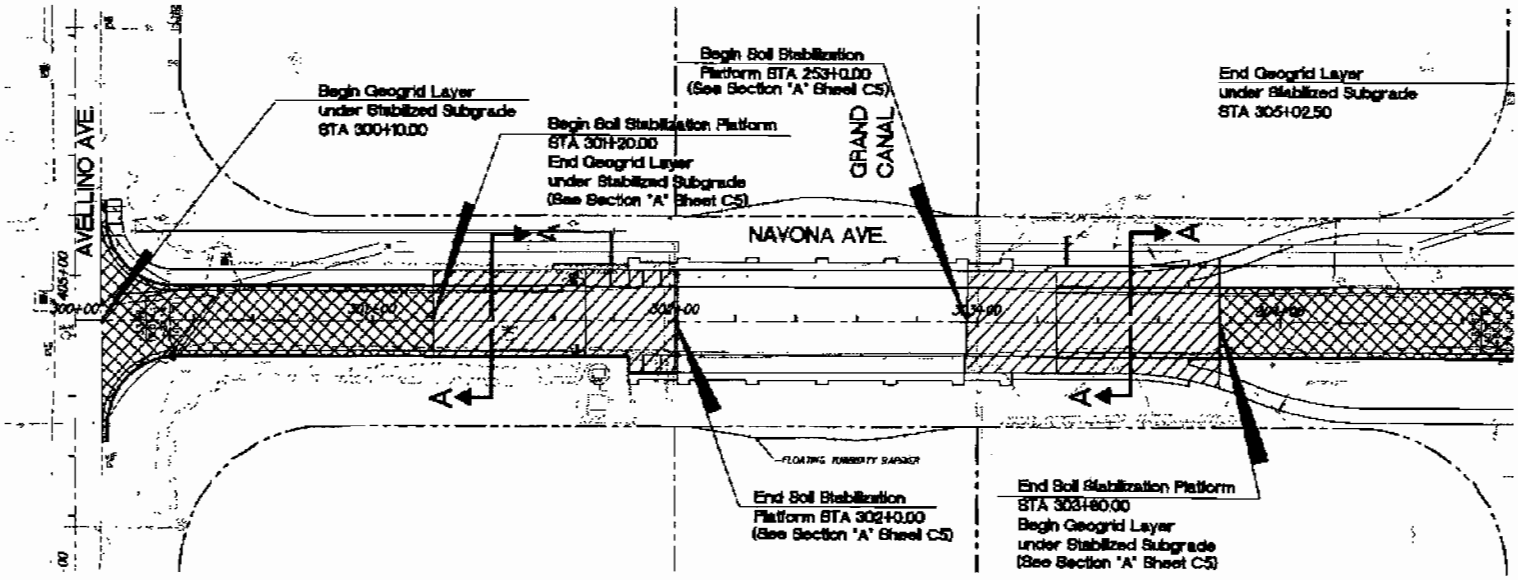
DATE:	01/08/2009
DRAWN:	RM
DESIGNED:	DH
CHECKED:	RC
QC:	RC
CADD FILE:	00734-03

TOWN OF GOLDEN BEACH

NAVONA AVE
BRIDGE REPLACEMENT

00734-03

SHEET NO
C3



NOTES:

1. THE SOILS STABILIZATION AREA SYSTEM SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA. SIGNED AND SEALED DESIGN CALCULATIONS AND SHOP DRAWINGS SHALL BE SUBMITTED AT LEAST 45 DAYS PRIOR TO STARTING CONSTRUCTION.

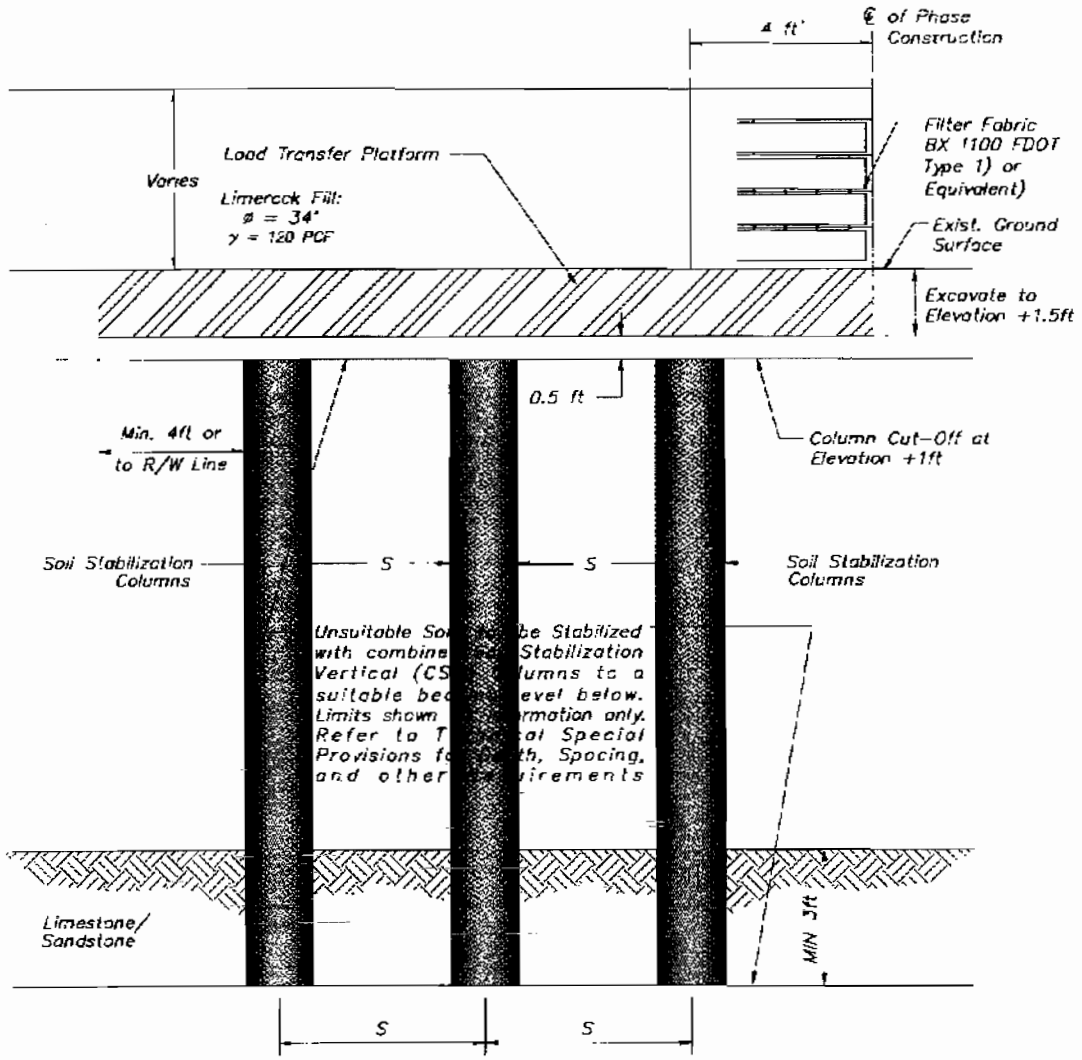
2. THE SOIL STABILIZATION SYSTEM SHALL HAVE A TOTAL SETTLEMENT OF NO MORE THAN 0.50 INCHES AND DIFFERENTIAL SETTLEMENT OF NO MORE THAN 0.40 INCHES

LEGEND:

Soil Stabilization Pla

Geogrid Reinforcem

REVISIONS		APPROVED BY				
DESCRIPTION	DATE			DATE	01/08/2009	TOWN OF GOLDEN BEACH
1.				DRAWN:	RM	
2.				DESIGNED:	CH	
3.		DATE:		CHECKED:	RC	
4.		CARLOS M. HERDOCIA, P.E.	CARZO CASTELLA CARBALLO THOMPSON SALVAN, P.A.	QC	RC	
		FLORIDA REGISTRATION No. 47560	ENGINEERS•ARCHITECTS•PLANNERS	CADD FILE:	00734-03	



SECTION "A" TYPICAL SOIL STABILIZATION CROSS SECTION

N.T.S

NOTES:

1. THE LOAD TRANSFER PLATFORM PROFESSIONAL ENGINEER REGIST AND SEALED DESIGN CALCULATIO SUBMITTED AT LEAST 45 DAYS
2. THE DESIGN OF THE LOAD TRAN THE FOLLOWING CRITERIA:

   A. THE LOAD TRANSFER PLAT LOADS TO THE COLUMNS (TR ALLOWING FOR A MAXIMUM D. PLATFORM AT THE MIDDLE DIS

   B. THE GRANULAR STRUCTURA "TECHNICAL SPECIAL PROVISIO LIMITING THE MAXIMUM AGGRE FILL SHALL HAVE A UNIT WEI
3. THE LOAD TRANSFER PLATFORM OF FURNISHING AND INSTALLING THE ARCHING EFFECT OF THE CI CONSTRUCTION SHOP DRAWINGS
4. PLACE LAYERS OF ADDITIONAL ST THE EMBANKMENT TO THE BOTTO OF THE EMBANKMENT ALONG THI CONSTRUCTION SHALL BE STREN OR EQUIVALENT, AND A FILTER F
5. SEE BRIDGE PLANS SHEET 8-5 ROADWAY PLANS SHEET G-14 F

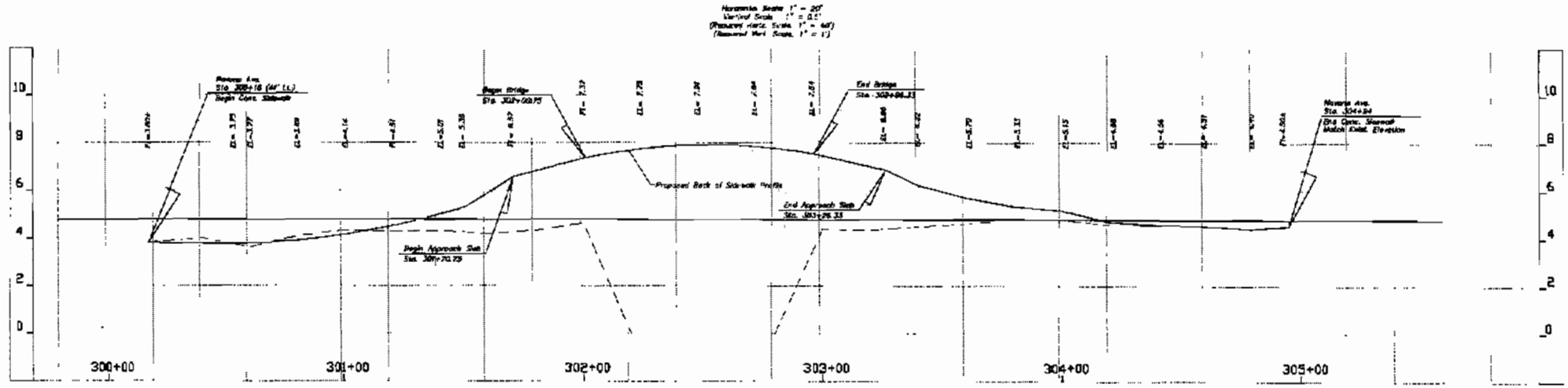
REVISIONS			
DESCRIPTION	DATE	APPROVED BY:	DATE:
1.		CARLOS V. HERDOCIA, P.E. FLORIDA REGISTRATION No. 47860	
2.			
3.			
4.			

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS-ARCHITECTS-PLANNERS
80 PONCE DE LEON BLVD., SUITE 900
CORAL GABLES, FLORIDA 33134
FLORIDA (305)-444-0192
CERTIFICATE OF AUTHORIZATION

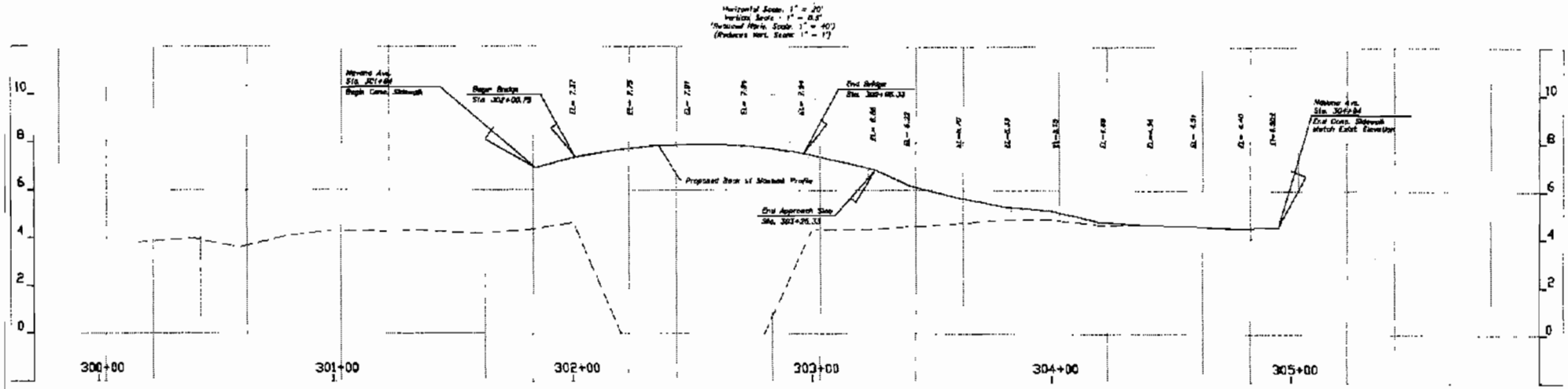
DATE	01/08/2009
DRAWN	RM
DESIGNED:	CH
CHECKED	RC
QC:	RC
CADD FILE.	00734-03

TOWN OF GOLDEN BEACH

LEFT SIDE OF NAVONA AVE.



RIGHT SIDE OF NAVONA AVE.



BACK OF SIDEWALK PROFILE

REVISIONS		APPROVED BY:	COSTA CASTELLA CARBALLO THOMPSON SALWANI, P.A. ENGINEERS·ARCHITECTS·PLANNERS	DATE: 01/08/2009	TOWN OF GOLDEN BEACH	NAVONA AVE. BRIDGE REPLACEMENT	SHEET NO
DESCRIPTION	DATE	DATE:	801 PONCE DE LEON BLVD., SUITE 800 CORAL GABLES, FLORIDA 33134	DRAWN: RM			00734-03
1.		CARLOS M. HERDOCIA, P.E.	MIAMI (305)-443-8300 FLORIDA (800) 488 0221	DESIGNED: CH			C6
2.		FLORIDA REGISTRATION No. 47660	FL REG #"RATIONS: C00006022 AAC002142	CHECKED: RC			
3.				DC: RC			
4.				CADD FILE: 00734-03			

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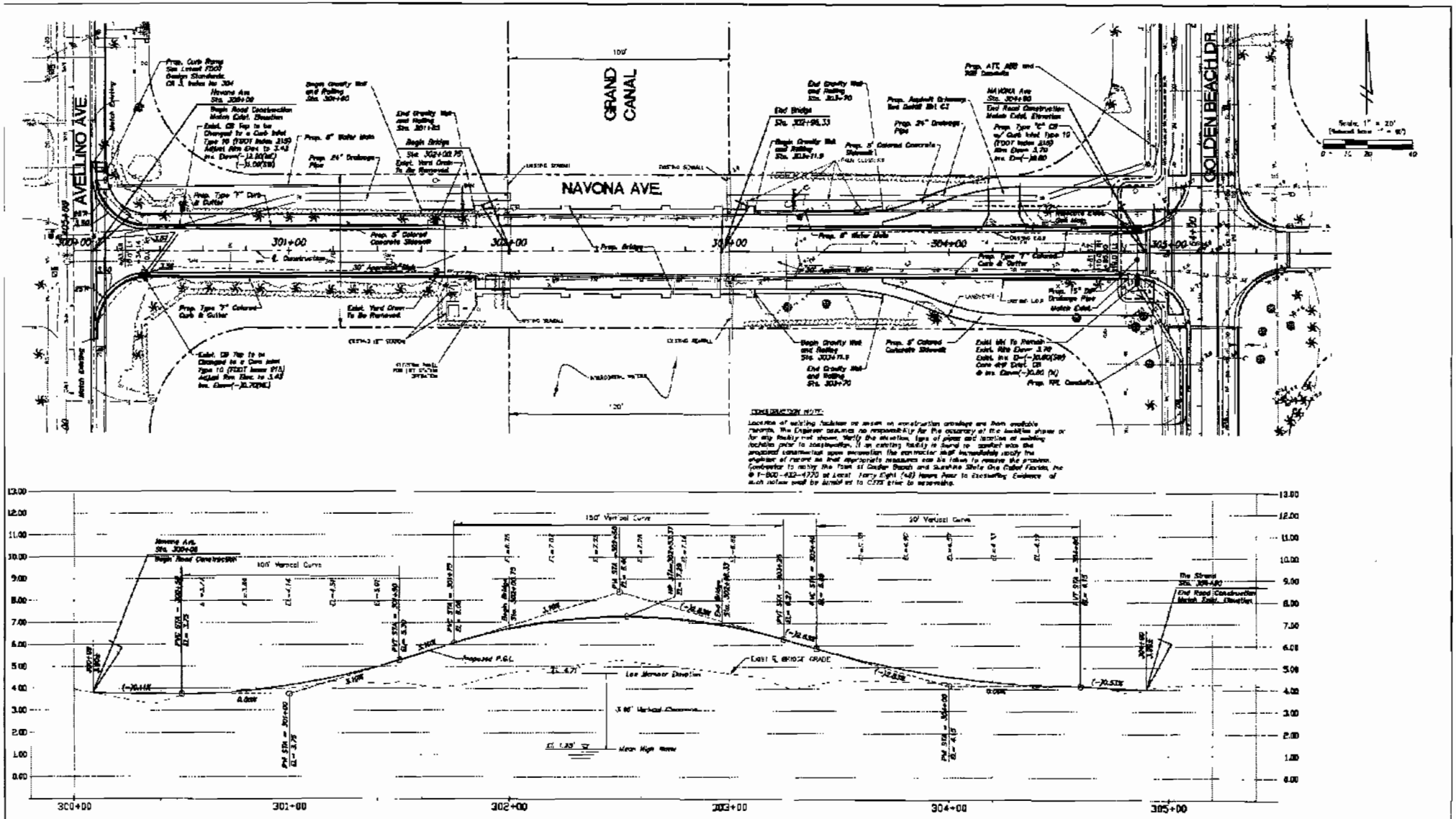

REVISIONS	
DESCRIPTION	DATE
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APPROVED BY:

DATE.

CARLOS M. HERDOCIA, P.E.
FLORIDA REGISTRATION No. 47660

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS·ARCHITECTS·PLANNERS
90° PONCE DE LEON BLVD., SUITE 900
CORAL GABLES, FLORIDA 33134
TEL (305)-446-2900 FLORIDA (800)-446-0922
TEL REGISTRATIONS 2000C5022 AA0002142

DATE:	01/08/2009
DRAWN:	RM
DESIGNED:	CH
CHECKED:	RC
QC:	RC
CADD FILE:	00734-03

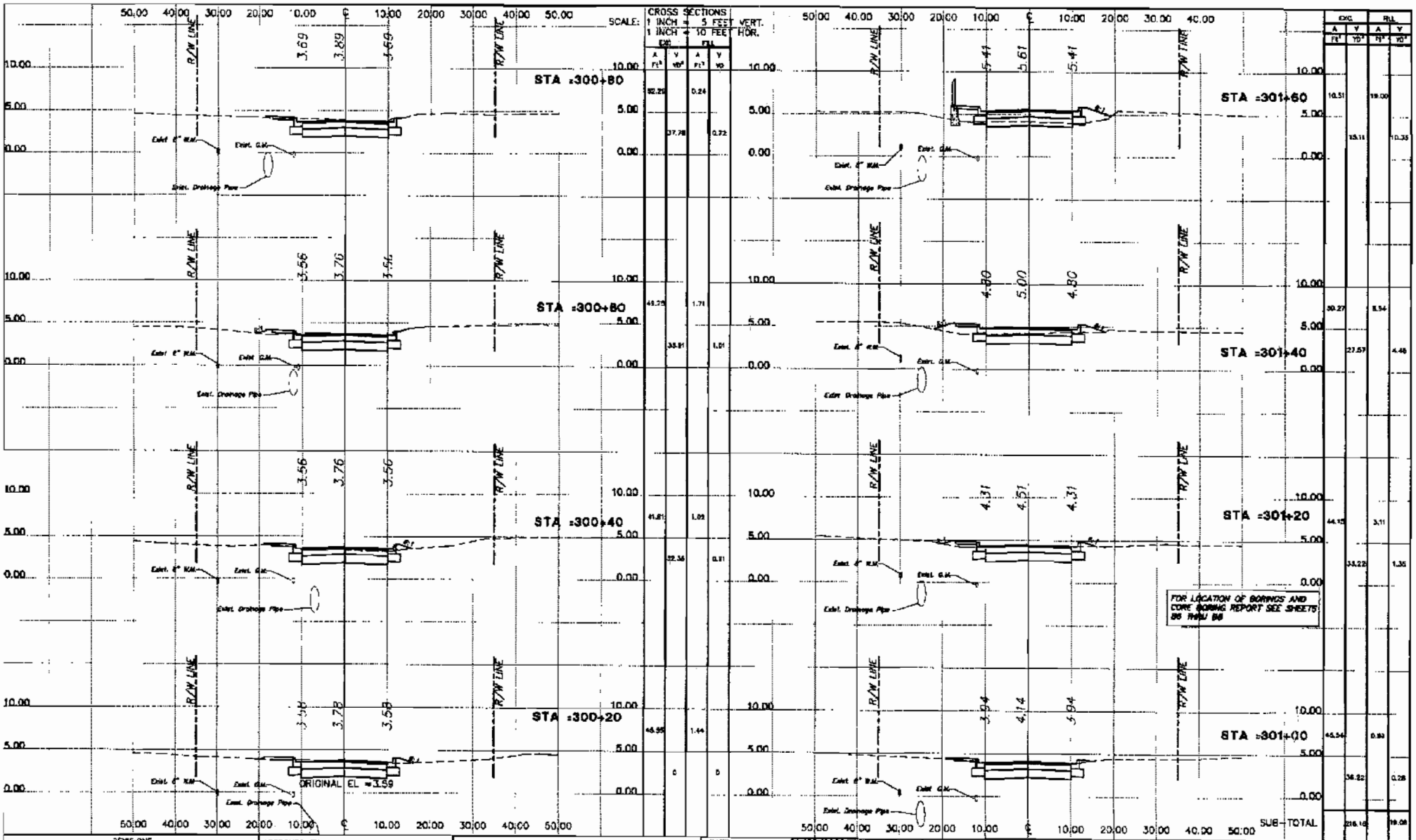
TOWN OF GOLDEN BEACH

NAVONA AVE BRIDGE REPLACEMENT

00734-03

SHEET NO. C7

22



REVISIONS	
DESCRIPTION	DATE
1.	
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3.	
4.	

APPROVED BY:

DATE:

CARLOS M. HERDOCIA, P.E.
FLORIDA REGISTRATION No. 47660

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS·ARCHITECTS·PLANNERS
801 PONCE DE LEON BLVD., SUITE 930
CORAL GABLES, FLORIDA 33134
MIAMI (305)-445-2802 FLORIDA (800)-446-0217
FL REGISTRATIONS EB0006032 AA0002142

DATE:	01/08/2009
DRAWN	RM
DESIGNED:	CH
CHECKED:	RC
QC:	RC
CADD FILE:	00734-03

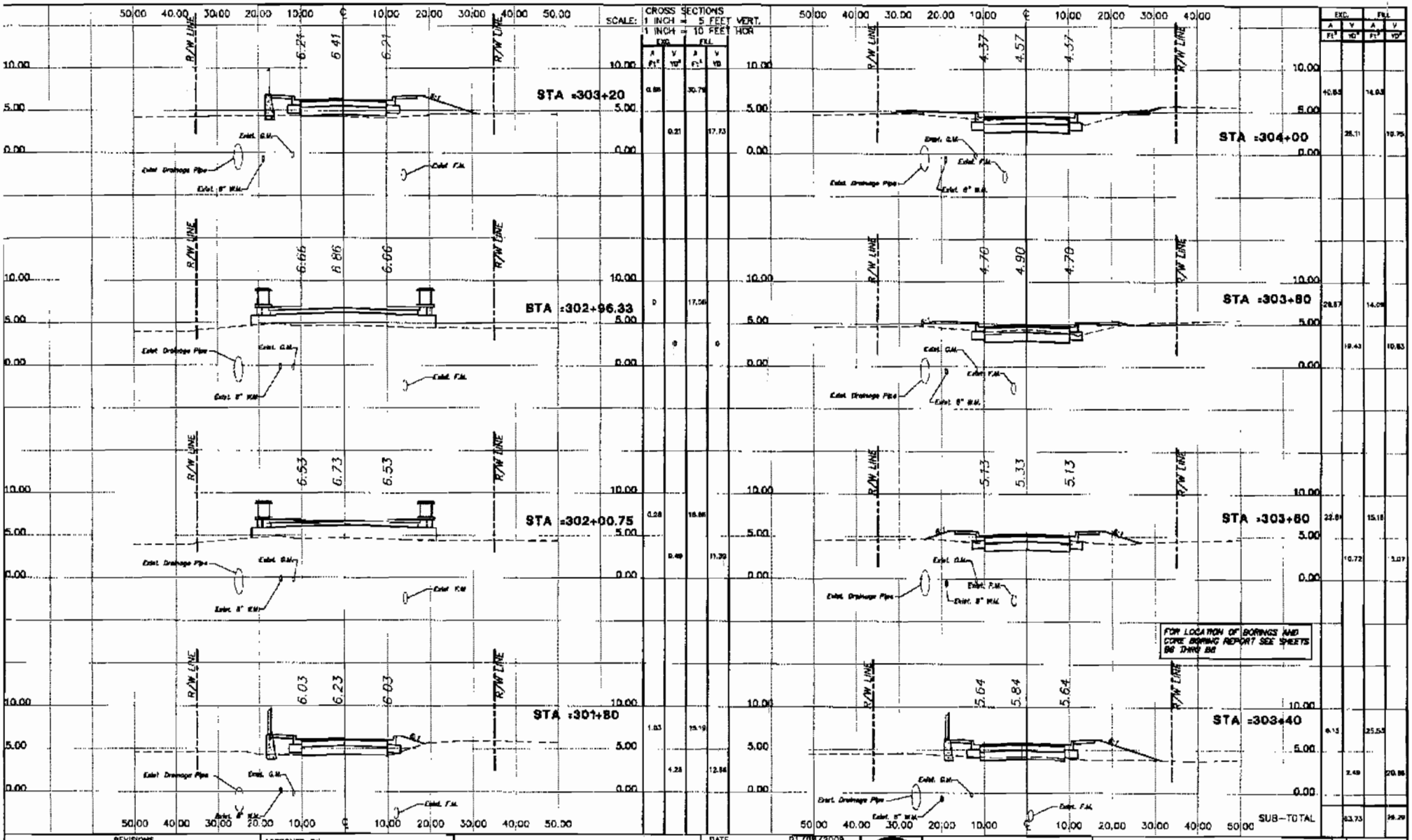
TOWN OF GOLDEN BEACH

NAVONA AVE
BRIDGE REPLACEMENT
CROSS SECTIONS

00734-03

SHEET NO
C8

23



REVISIONS	
DESCRIPTION	DATE
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APPROVED BY:

DATE:

CARLOS M. HERDOCIA, P.E.
FLORIDA REGISTRATION No 47660

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS·ARCHITECTS·PLANNERS
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TEL (305)-446-0808 FLORIDA (800)-446-0237
FL REGISTRATIONS ES0005086 AAC003142

DATE	01/08/2009
DRAWN:	RM
DESIGNED:	CH
CHECKED:	RC
QC:	RC
CADD FILE:	00734-03

TOWN OF GOLDEN BEACH

NAVONA AVE
BRIDGE REPLACEMENT
CROSS SECTIONS

00734 03

SHEET NO
C9

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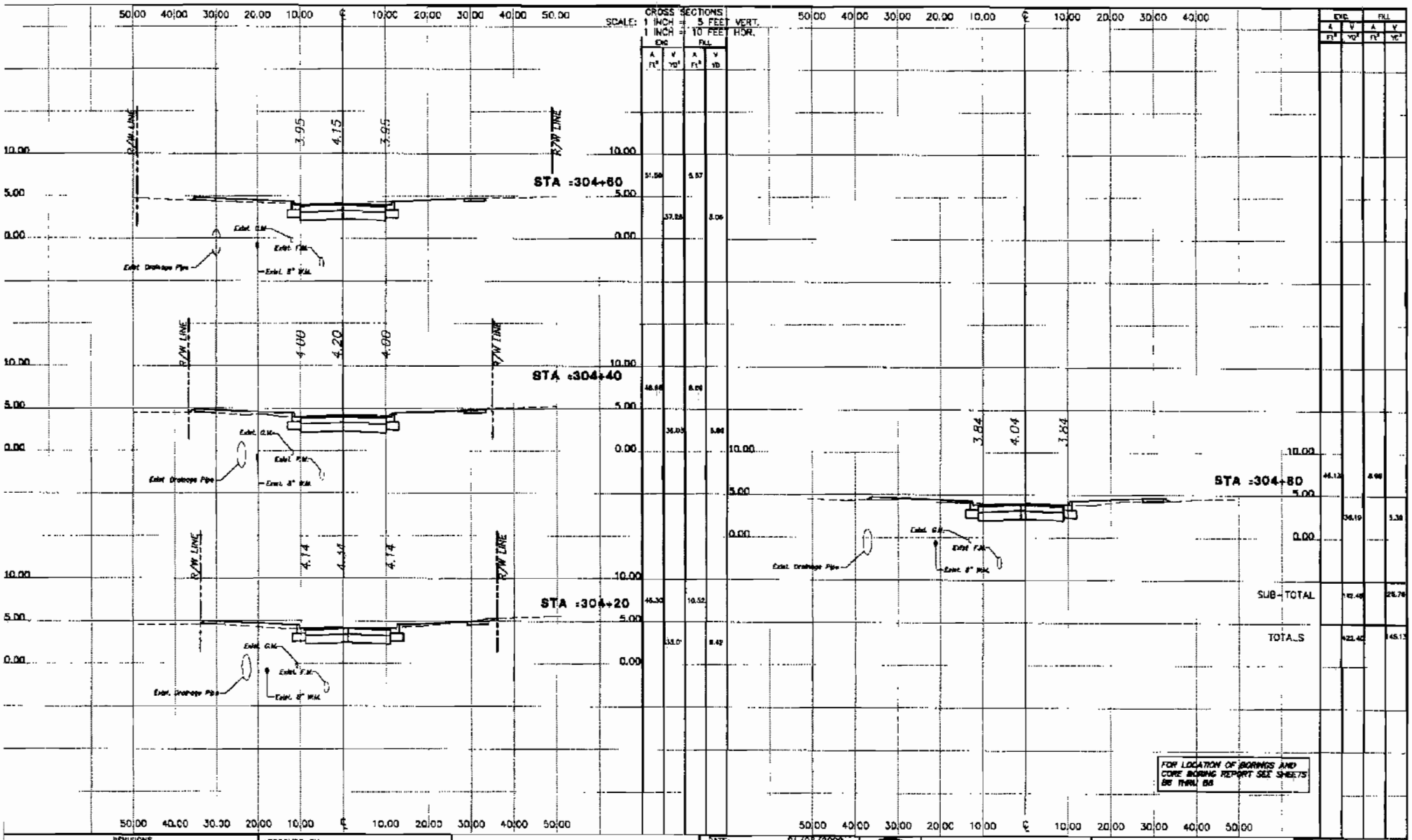

REVISIONS	
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CARLOS M. HERNDOCIA, P.E.
FLORIDA REGISTRATION No 47660

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
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CORAL GABLES, FLORIDA 33134

DATE:	01/08/2009
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DESIGNED:	CH
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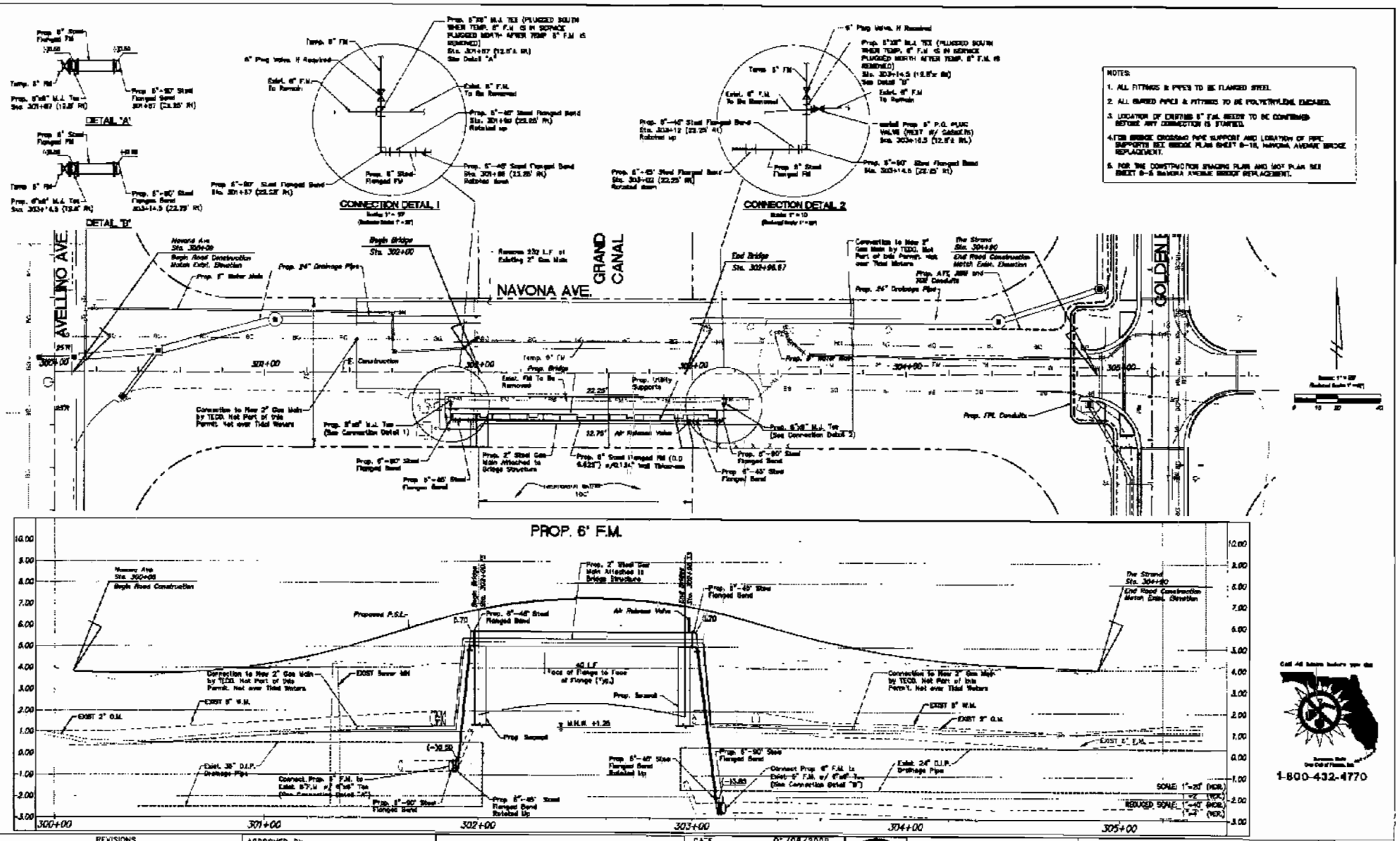
TOWN OF GOLDEN BEACH

NAVONA AVE
BRIDGE REPLACEMENT
CROSS SECTIONS

00734-03

SHEET NO.
C10



NOTES:

1. ALL FITTINGS & PIPES TO BE FLANGED STEEL.
2. ALL BURIED PIPES & FITTINGS TO BE POLYETHYLENE ENCASED.
3. LOCATION OF EXISTING 6" F.M. NEEDS TO BE CONFIRMED BEFORE ANY CONNECTION IS STARTED.
4. FOR BRIDGE CROSSING PIPE SUPPORT AND LOCATION OF PIPE SUPPORTS SEE BRIDGE PLAN SHEET B-18, NAVONA AVENUE BRIDGE REPLACEMENT.
5. FOR THE CONSTRUCTION STAGING PLAN AND MOT PLAN SEE SHEET B-5 NAVONA AVENUE BRIDGE REPLACEMENT.

Call 48 hours before you dig
1-800-432-4770

REVISIONS	
DESCRIPTION	DATE
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APPROVED BY

DATE:

CARLOS M. HERDOCIA, P.E.
FLORIDA REGISTRATION No. 47660

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS • ARCHITECTS • PLANNERS
CORAL GABLES, FLORIDA

DATE	07/08/2009
DRAWN:	RM
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CHECKED:	RC
QC	RC
CADD FILE:	00734-03

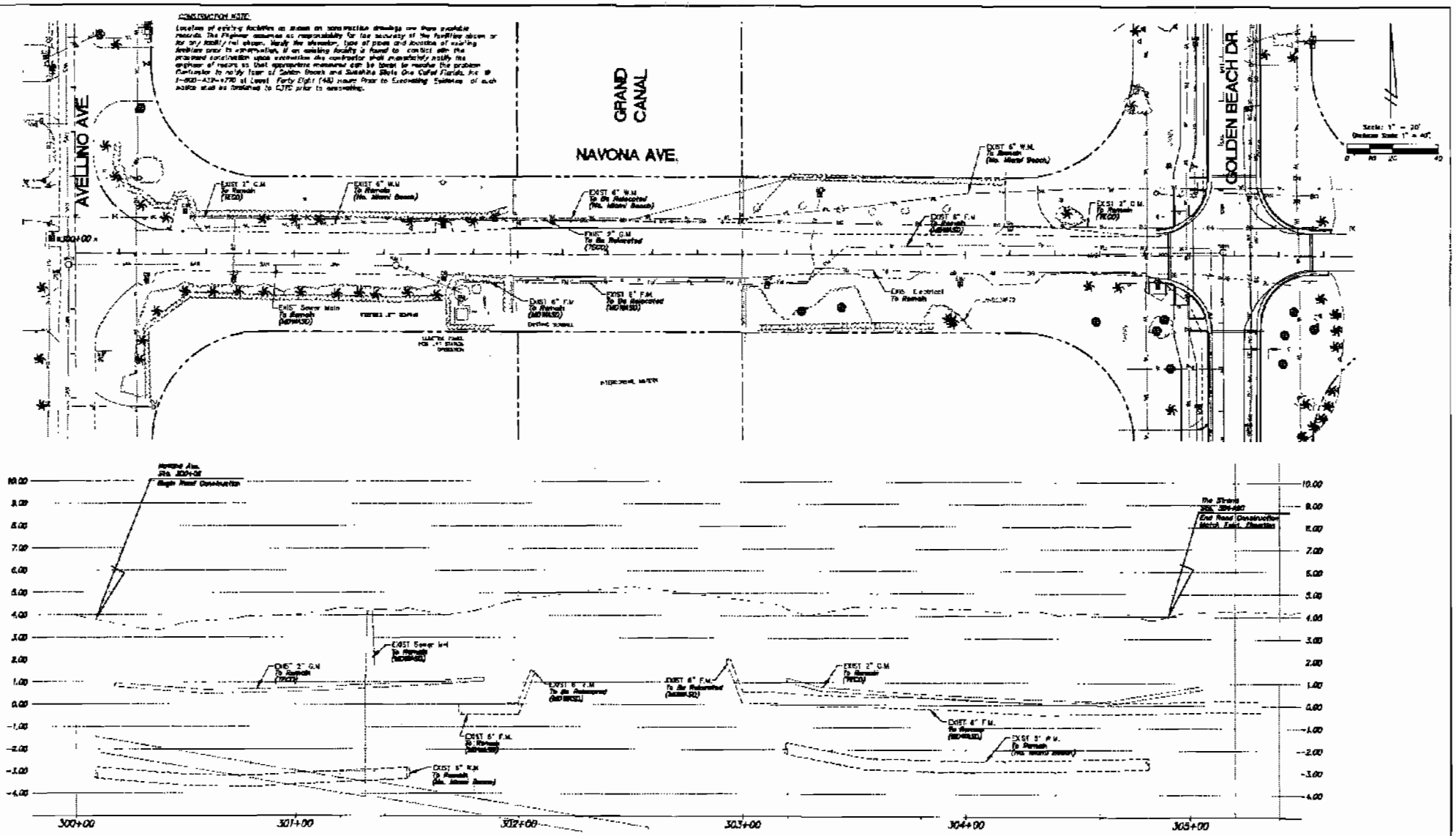
TOWN OF GOLDEN BEACH

NAVONA AVE BRIDGE REPLACEMENT

PERMANENT FORCE MAIN PLAN & PROFILE

00734-03

SHEET NO. C11

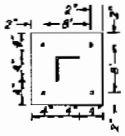


UTILITY ADJUSTMENT PLAN

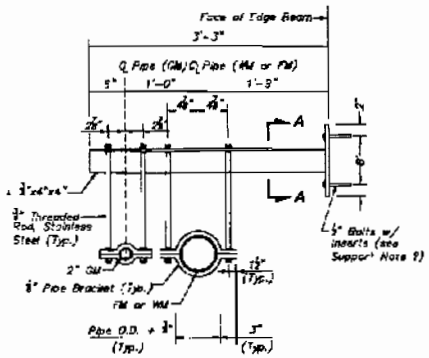
REVISIONS		APPROVED BY	CORZO CASTELLA CARBALLO THOMPSON SALMAN P.A. ENGINEERS·ARCHITECTS·PLANNERS	DATE: 01/08/2009	TOWN OF GOLDEN BEACH	NAVONA AVE BRIDGE REPLACEMENT	SHEET NO
DESCRIPTION	DATE	DATE	901 PONCE DE LEON BLVD., SUITE 900 CORAL GABLES, FLORIDA 33134	DRAWN: RM			00734-03 C11A
1.		CARLOS M. HERDOCIA, P.E.	MIAMI (305)-445-2900 FLORIDA (800)-448-2909	DESIGNED: CH			
2.		FLORIDA REGISTRATION No. 47660	FL REGISTRATION 0000000022 AA0002142	CHECKED: RC			
3.				QC: RC			
4.				CADD FILE: 00734-03			

27

1. Detail of 6" Sanitary Sewer or 2" Gas Main shown. 2" Water Main similar, without Gas Main support.
2. All steel to be ASTM A-276 OR 304 Stainless Steel.
3. Attachment bolts and threaded hanger rod to be Stainless Steel and have a minimum tensile capacity of 2,000 lbs.
4. Insert anchoring's free edge beam shall be as required to develop required capacity.
5. All cost of utility support shall be included in Item 430-4-1 Clips for Concrete Structure.



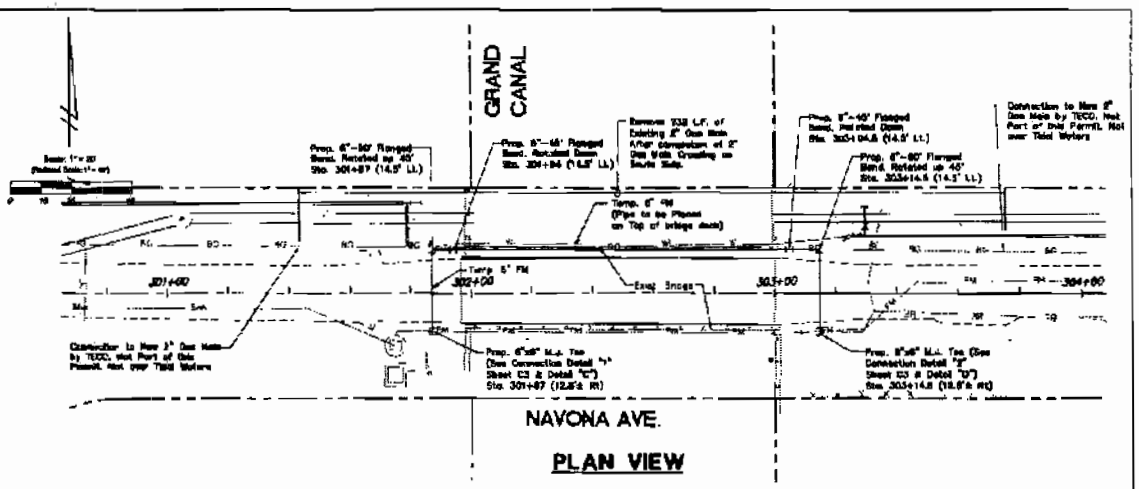
SECTION A-A



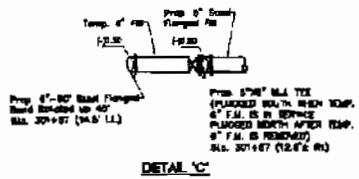
TYPICAL UTILITY SUPPORT

NOTES:

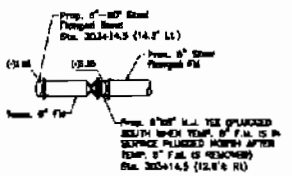
1. THE TEMPORARY FORCE MAIN SHALL BE 6" D.I.P. WITH MECHANICAL JOINTS. AERIAL CROSSING SHALL BE SUPPORTED BY C.I.P. USING THE TEMPORARY PIPE SUPPORTS AS SHOWN ON THE DETAIL IN THIS SHEET
2. LOCATION OF EXISTING 6" F.M. , NEEDS TO BE CONFIRMED BEFORE ANY CONNECTION IS STARTED
3. FOR THE CONSTRUCTION STAGING PLAN AND NOT PLAN SEE SHEET B-8 NAVONA AVENUE BRIDGE REPLACEMENT



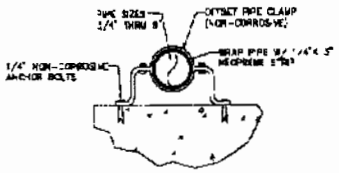
PLAN VIEW



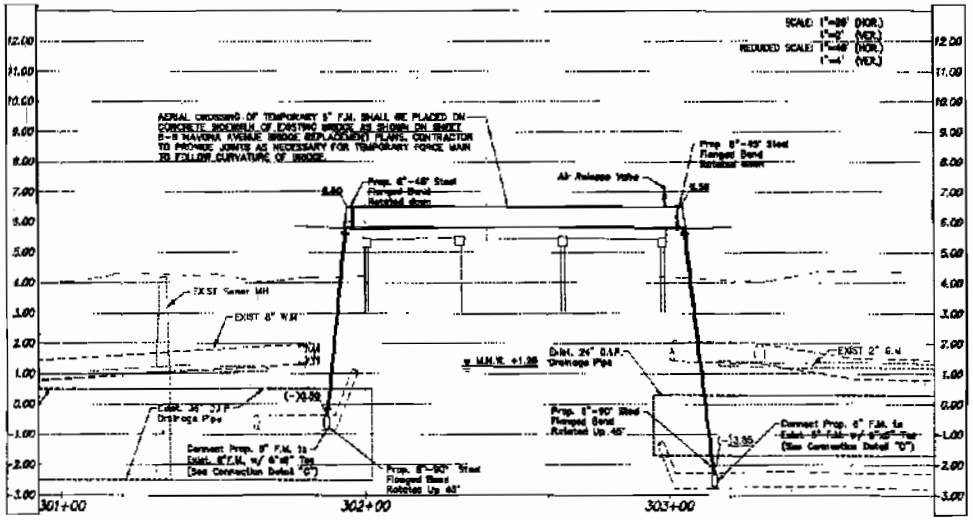
DETAIL "C"



DETAIL "D"



TEMPORARY PIPE SUPPORT



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CARLOS M. HERDOCIA, P.E.
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PL REGISTRATIONS: ENGINEERS AA0002448

DATE:	01/08/2009
DRAWN:	RM
DESIGNED:	CH
CHECKED:	RC
QC:	RC
CADD FILE:	00734-03

TOWN OF GOLDEN BEACH

NAVONA AVE
BRIDGE REPLACEMENT
TEMPORARY WATER MAIN
PLAN & PROFILE

00734-03

SHEET NO.
C12

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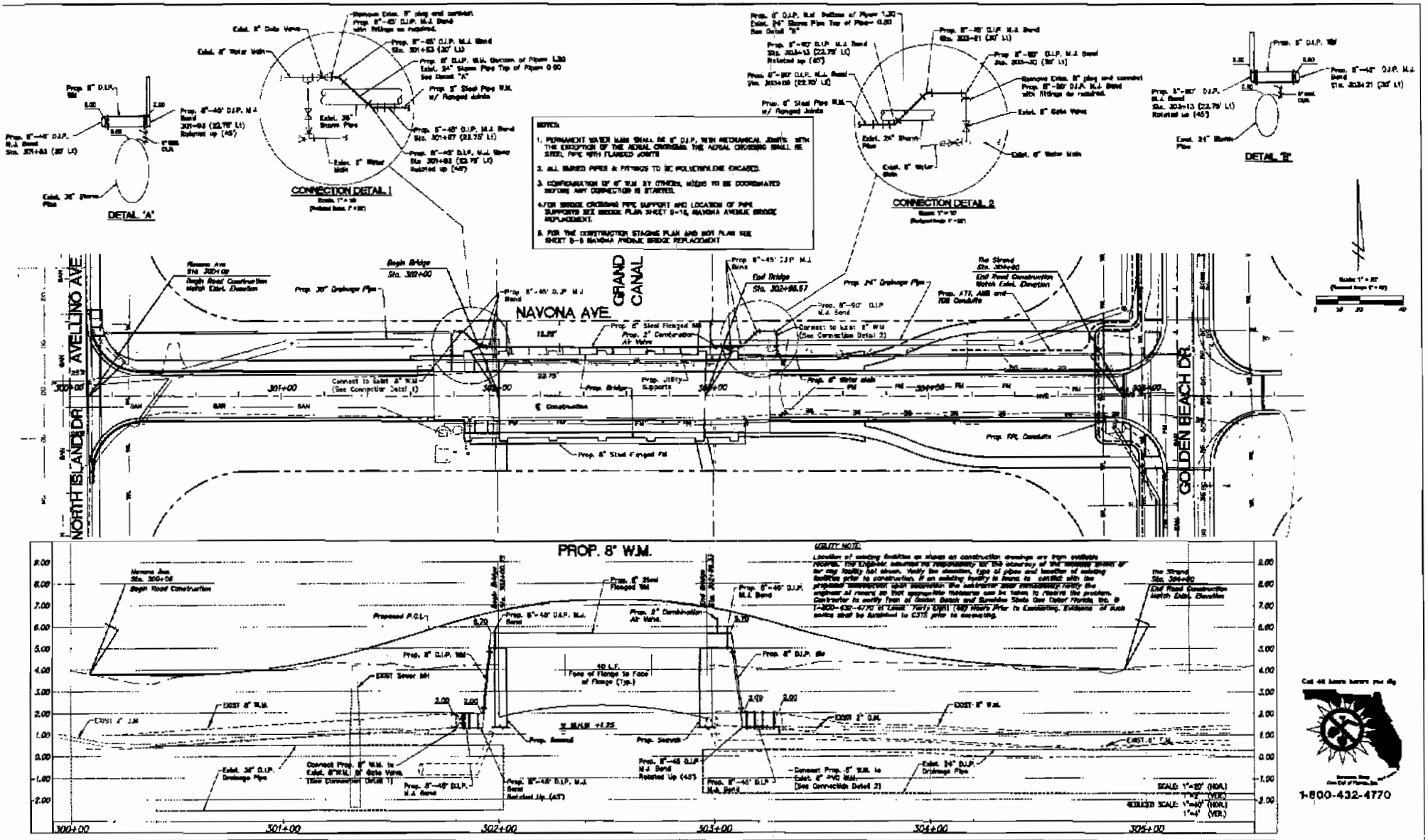

REVISIONS	
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APPROVED BY:

CARLOS M. HERDOCIA, P.E.
FLORIDA REGISTRATION No. 42880
DATE:

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
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FL REGISTRATION# E9000602 AA0003148

DATE:	01/08/2009
DRAWN:	RM
DESIGNED	CH
CHECKED	RC
QC:	RC
CADD FILE:	D0734-03

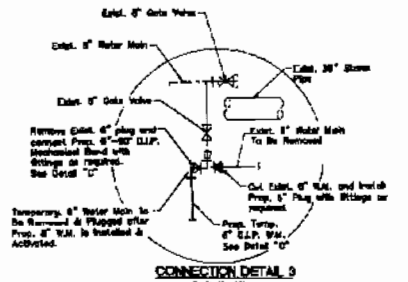
TOWN OF GOLDEN BEACH

NAVONA AVE BRIDGE REPLACEMENT

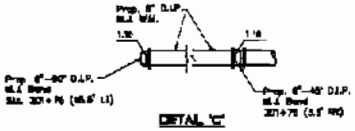
PERMANENT WATER MAIN PLAN & PROFILE

D0734-03

SHEET NO. C13



CONNECTION DETAIL 3



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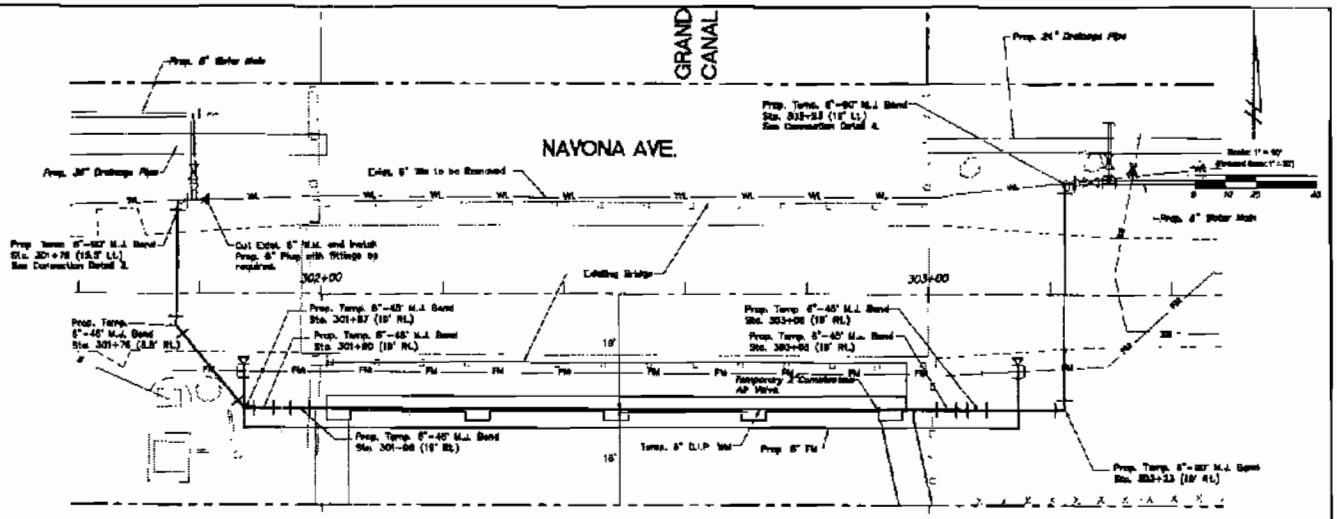
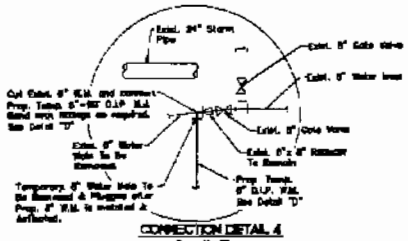
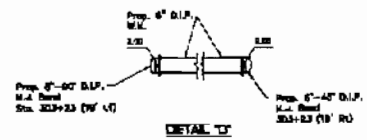


NOTES

1. TEMPORARY WATER MAIN SHALL BE 6" D.I.P. WITH MECHANICAL JOINTS. AERIAL CROSSING SHALL BE SUPPORTED 10' O.C. USING THE TEMPORARY PIPE SUPPORTS AS SHOWN ON THE DETAIL IN SHEET C12.
2. ALL BURIED PIPES & FITTINGS TO BE POLYETHYLENE ENCASED.
3. COORDINATION OF 8" W.M. BY OTHERS. NEEDS TO BE COORDINATED BEFORE ANY CONNECTION IS STARTED.
4. FOR BRIDGE CROSSING PIPE SUPPORT AND LOCATION OF PIPE SUPPORTS SEE BRIDGE PLAN SHEET B-10, NAVONA AVENUE BRIDGE REPLACEMENT
5. FOR THE CONSTRUCTION STAGING PLAN AND MOT PLAN SEE SHEET B-5 NAVONA AVENUE BRIDGE REPLACEMENT



CONNECTION DETAIL 4



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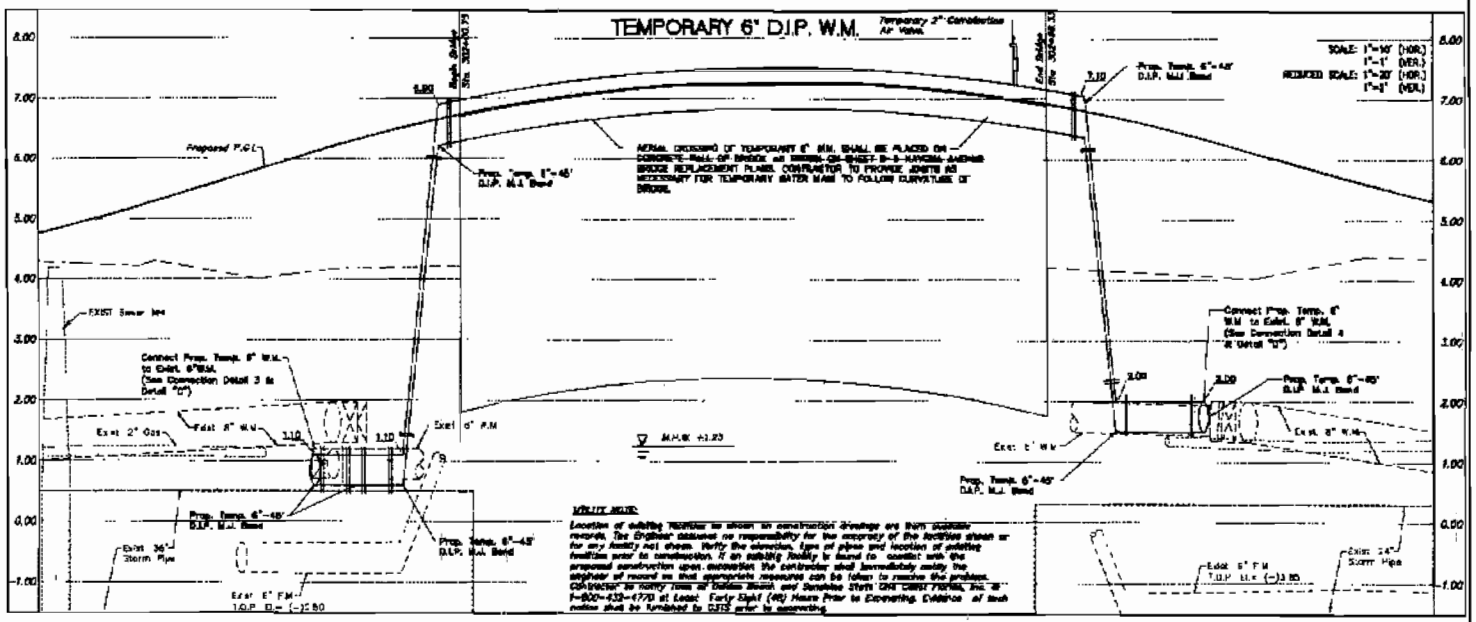

UTILITY NOTE:
Location of existing facilities as shown on construction drawings are from available records. The Engineer assumes no responsibility for the accuracy of the facilities shown or for any facility not shown. Verify the elevation, type of pipes and location of existing facilities prior to construction. If an existing facility is found to conflict with the proposed construction upon excavation the contractor shall immediately notify the engineer of record so that appropriate measures can be taken to resolve the problem. CONTRACTOR to notify Sunshine Station and Sunshine State One Call of Florida, Inc. at 1-800-432-4770 at Least Forty Eight (48) Hours Prior to Excavating. Evidence of such notice shall be furnished to OBIS prior to excavating.

REVISIONS	
DESCRIPTION	DATE
1.	
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APPROVED BY:

DATE:

CARLOS M. NERDOCIA, P.E.
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DATE:	01/08/2009
DRAWN	RM
DESIGNED	CH
CHECKED:	RC
QC.	RC
CADD FILE:	00734-03

TOWN OF GOLDEN BEACH

NAVONA AVE BRIDGE REPLACEMENT

TEMPORARY WATER MAIN PLAN & PROFILE

00734-03

SHEET NO. C14

TRAFFIC CONTROL NOTES:

1. TRAFFIC CONTROLS SHALL BE IN ACCORDANCE WITH THE PROJECT PLANS, THE CURRENT EDITION OF THE FLORIDA DOT DESIGN STANDARDS (600 SERIES), THE STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AS MINIMUM CRITERIA.

2. THE CONTRACTOR SHALL IMMEDIATELY REPAIR ALL POTHOLES THAT DEVELOP WITHIN THE PROJECT LIMITS AND WILL MAINTAIN A SUPPLY OF COLD MIX ON THE PROJECT SITE TO EXPEDITE THOSE REPAIRS. COST OF REPAIR TO BE INCLUDED IN PAY ITEM 102-1, MAINTENANCE OF TRAFFIC.

3. NOTIFICATION OF LANE CLOSURES OR TEMPORARY DETOURS SHALL BE ACCOMPLISHED 14 WORKING DAYS PRIOR TO COSURE OR DETOUR BY SUBMITTING THE REQUIRED LANE CLOSURE FORM, SKETCHES, CALCULATIONS, AND OTHER DATA THROUGH THE ENGINEER TO THE DISTRICT TRAFFIC OPERATIONS OFFICE.

4. THE TRAFFIC AND TRAVEL WAYS SHALL NOT BE ALTEREO BY THE CONTRACTOR TO CREATE A WORK ZONE UNTIL ALL LABOR AND MATERIAL ARE AVAILABLE FOR THE CONSTRUCTION IN THAT AREA.

5. REGULATORY SPEED ESTABLISHED WITHIN WORK ZONE TRAVEL WAYS SHALL BE 20 MPH. REDUCE SPEED AND REGULATORY SPEED SIGNS SHALL BE INSTALLED ON SEPARATE POSTS IN ACCORDANCE WITH THE STANDARD INDEXES.

6. AS DETERMINED BY THE ENGINEER, THE CONTRACTOR SHALL COVER WORK ZONE SIGNS WHEN CONDITIONS NO LONGER WARRANT THEIR USE. COST OF COVERING AND UNCOVERING THE SIGNS SHALL BE INCLUDED IN PAY ITEM 102-1, MAINTENANCE OF TRFFIC.

7. CONTRACTOR SHALL REMOVE, RELOCATE OR COVER ANY EXISTING OR PROPOSED SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL PLANS. WHEN THE CONFLICT NO LONGER EXISTS, THE CONTRACTOR SHALL RESTORE THE SIGNS TO THEIR ORIGINAL POSITION. COST OF TEMPORARILY REMOVING, RELOCATING, COVERING AND RESTORING THE SIGNS SHALL BE INCLUDED IN PAY ITEM 102-1, MAINTENANCE OF TRAFFIC.

8. EACH EXISTING STREET NAME AND STOP SIGN AFFECTED BY CONSTRUCTION SHALL BE RELOCATED AND MAINTAINED IN AN APPROPRIATE VISIBLE LOCATION FOR THE DURATION OF THE PROJECT, IN ORDER TO FACILITATE EMERGENCY VEHICLE TRAFFIC. WHEN NO LONGER AFFECTED BY CONSTRUCTION, THESE SIGNS SHALL BE RESTORED TO THEIR ORIGINAL POSITION. COST OF TEMPORARILY RELOCATING AND RESTORING THE SIGNS SHALL BE INCLUDED IN PAY ITEM 102-1, MAINTENANCE OF TRAFFIC.

9. FOR DROP OFFS, THE CONTRACTOR'S ATTENTION IS DIRECTED TO STANDARD INDEX NO. 600, SHEET 6 OF 10. THE CONTRACTOR SHALL USE SHOULDER TREATMENT DETAIL WHEN NO BARRIERS ARE REQUIRED IN THE PLANS.

10. THE CONTRACTOR SHALL REMOVE ANY EXISTING OR TEMPORARY PAVEMENT MARKINGS THAT CONFLICT WITH THE TRAFFIC CONTROL PLANS. GRINDING OR MILLING WITHOUT ASPHALT OVERLAY SHALL ONLY BE PERMITTED IN NON-TRAFFIC AREAS AS DESIGNEATED BY THE ENGINEER. COST OF REMOVAL OF TEMPORARY PAVEMENT MARKINGS, REGARDLESS OF METHOD, IS INCLUDED IN THE RELATED PAVEMENT MARKING PAY ITEMS. USE OF BLACK PAINT TO COVER EXISTING AND/OR TEMPORARY PAVEMENT MARKINGS IS PROHIBITED.

11. TEMPORARY LANE TRANSITIONS, SHIFTS, AND CROSSOVERS SHALL HAVE SOLID LANE AND EDGE LINES FOR THE LENGTH OF THE TRANSITION, SHIFT OR CROSSOVER.

12. WORK HOURS ARE RESTRICTED TO 7 AM TO 9 PM ON WEEKDAYS AND 8 AM TO 5 PM ON WEEKENDS. NO WORK WILL BE ALLOWED ON HOLIDAYS.

13. ARROWS DENOTE DIRECTION OF TRAFFIC ONLY AND DO NOT REFLECT PAVEMENT MARKINGS.

14. SEE BRIDGE PLAN SHEET B-5 FOR THE PHASES OF CONSTRUCTION.

15. PROPERTY ACCESS SHALL BE MAINAINED IN ACCORDANCE TO ARTICLE 102-2-4 OF THE STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION.

16. TEMPORARY RAISED PAVEMENT MARKERS (RPM'S) SHALL BE INSTALLED ON THE ENDGE, CENTER, AND LANE LINES OF ALL CROSSOVERS, TRANSITIONS, AND TANGENT SECTIONS WITHIN THE WORK ZONE WHERE THE VEHICLE PATHS ARE ALTERED. THE SPACING FOR THESE RPM'S SHALL BE 40 FT. ON CENTERS FOR TANGENT SECTIONS AND 5 FT. FOR TRANSITIONS, CURVES, AND CROSSOVERS. COST OF THE TEMPORARY RPM'S SHALL BE INCLUDED IN PAY ITEM 102-78, TEMPORARY REFLECTIVE PAVEMENT MARKER.

17. AT THE END OF EACH WORK DAY OR WHENEVER THE WORK ZONE BECOMES INACTIVE, ANY DROP OFF ADJACENT TO VEHICULAR, PEDESTRIAN, BICYCLE, AND WHEELCHAIR TRAVEL PATHS SHALL BE BACKFILLED FLUSH WITH THE SAID PATHS OR PROTECTED WITH BARRICADES, TEMPORARY CONCRETE BARRIER WALL, OR APPROVED HANDRAIL. COST OF BACKFILLING DROP OFF SHALL BE INCLUDED IN PAY ITEM 102-1, MAINTENANCE OF TRAFFIC.

18. PEDESTRIAN, BICYCLE, AND WHEELCHAIR TRAFIC SHALL BE MAINTAINED AND GUIDED USING APPROVED WARNING LIGHTS, SIGNING, AND DELINEATION DEVICES ON AT LEAST ONE SIDE OF THE PROJECT AT ALL TIMES THROUGHOUT THE PROJECT LIMITS. THE TRAVEL PATH SHALL BE A MINIMUM OF 4 FT. WIDE WITH A SMOOTH SURFACE THAT IS NOT SLICK AND IT SHOULD BE RAMPED AS NECESSARY FOR CONTINUITY. COST TO CONSTRUCT AND MAINTAIN THE TRAVEL PATH AS REQUIRED SHALL BE INCLUDED IN PAY ITEM 102-1, MAINTENANCE OF TRAFFIC

19. ONE LANE OF TRAFFIC IS TO BE MAINTAINED AT ALL TIOMES. LANE CLOSURES TO CORRESPOND WITH PHASE CONSTRUCTION OF BRIDGE.

20. TRAFFIC CONTROL PHASING

PHASE I
MAINTAIN IN BOTH DIRECTIONS OF TRAFFIC (ONE LANE) ON THE NORTH SIDE OF ROAD AND CONSTRUCT ROADWAY AND BRIDGE PER PLAN ON THE SOUTH SIDE OF THE ROAOD. UTILIZE FLAGGING OPERATIONS FOR CONSTRUCTION OF ROADWAY SECTION NOT PROTECTED BY TEMPORARY BARRIER WALL.

PHASE II
SHIFT BOTH DIRECTIONS OF TRAFFIC (ONE LANE) TO THE SOUTH SIDE OF ROAD AND CONSTRUCTION ROADWAY AND BRIDGE PEOR PLAN ON THE NORTH SIDE OF THE ROAD. UTILIZE FLAGGING OPERATIONS FOR CONSTRUCTION OF ROADWAY SECTION NOT PROTECTED BY TEMPORARY BARRIER WALL.

PHASE III
SHIFT TRAFFIC BACK TO TWO-WAY TRAFFIC AND REMOVE ALL TEMPORARY CONSTRUCTION ITEMS.

21. FLAGGING CONTROL OPERATIONS SHALL BE UTILIZED DURING ACTIVE WORK PERIODS. TEMPORARY SIGNAL CONTROL OPERATIONS SHALL BE UTILIZED DURING INACTIVE WORK PERIODS ONLY. THE TEMPORARY TRAFIC CONTROL WARNING SIGN W21-1a SHOWN IN THE TRAFFIC CONTROL PLAN SHALL BE CHANGED TO W20-7a DURING ACTIVE WORK PERIODS.

22. THE MESSAGE FOR THE TEMP. VARIABLE MESSAGE SIGN SHALL READ "BRIDGE & ROADWAY WORK BEGINS XX/XX/XX". EACH SCREEN SHALL BE DISPLAYED A MINIMUM OF SEVEN SECONDS. THE VMS IS TO BE INSTALLED SEVEN DAYS PRIOR TO BEGINNING CONSTRUCTION.

23. THE CONTRACTOR SHALL FURNISH AND MAINTAIN VARIABLE MESSAGE SIGNS (VMS) AT LOCATIONS SHOWN ON THE PLANS. MESSAGES FOR THE VMS SHALL BE AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE VMS SHALL BE IN PLACE ONE WEEK BEFORE THE START OF ANY WORK ITEMS AFFECTING THE EXISTING VEHICULAR AND PEDESTRIAN TRAFFIC. VMS INSTALLATION, OPERATION AND REMOVAL BEFORE CONSTRUCTION BEGINS SHALL BE PAID UNDER PAY ITEM 102-1, MAINTENANCE OF TRAFFIC. VMS INSTALLATION, OPERATION AND REMOVAL DURING CONSTRUCTION SHALL BE PAID UNDER PAY ITEM 102-99, VARIABLE MESSAGE SIGN.

24. THE CONTRACTOR IS PERMITTED TO PLACE TRAFFIC ON MILLED SURFACE DURING CONSTRUCTION.

25. THE CONTRACTOR SHALL INSTALL THE TEMPORARY FORCE MAIN PRIOR TO PHASE 1A ON SHEET B-5. TRAFFIC CONTROL AS PER STANDARD INDEX 600 SERIES.

MOT LEGEND

DESCRIPTION	SYMBOL
WORK ZONE SIGN	
BARRIER WALL	
TEMP. BARRICADE (TYPES I, II, VP & DRUM)	
TEMP. BARRICADE (TYPE III) (8')	
TEMP. IMPACT ATTENUATOR (REDIRECT OPTION)	
TEMP. VARIABLE MESSAGE SIGN	

W21-1A

INACTIVE WORK PERIOD

W20-7A

ACTIVE WORK PERIOD

TRAFFIC CONTROL NOTES

REVISIONS		
DESCRIPTION	DATE	
1		
2		
3		
4		

APPROVED BY:

DATE:

CARLOS M. HERIDOCIA, P.E
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TOWN OF GOLDEN BEACH

NAVONA AVE
BRIDGE REPLACEMENT

00734-03

SHEET NO
C15

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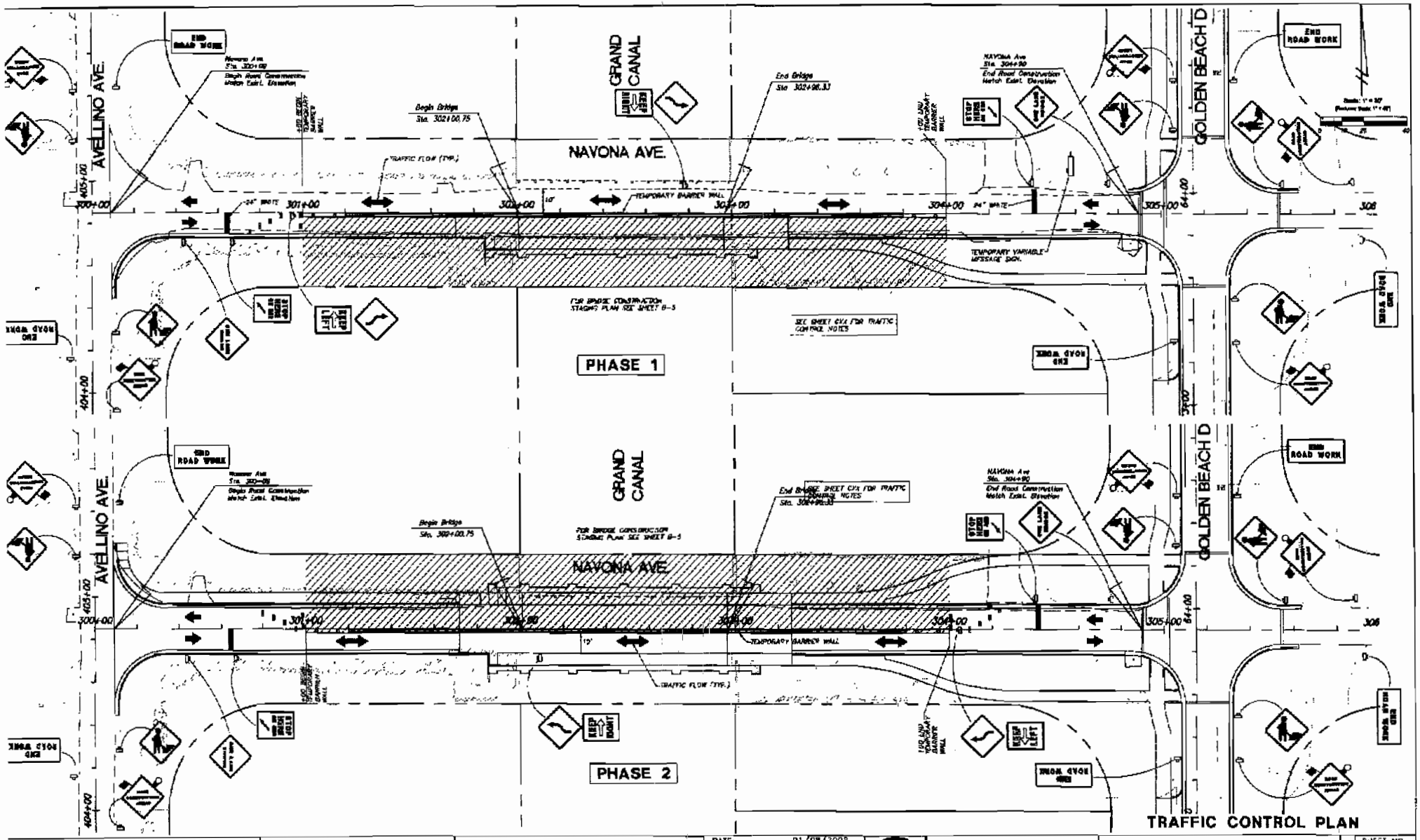

TRAFFIC CONTROL PLAN

REVISIONS	
DESCRIPTION	DATE
1	
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APPROVED BY:

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CARLOS M. HERDOCIA, P.E.
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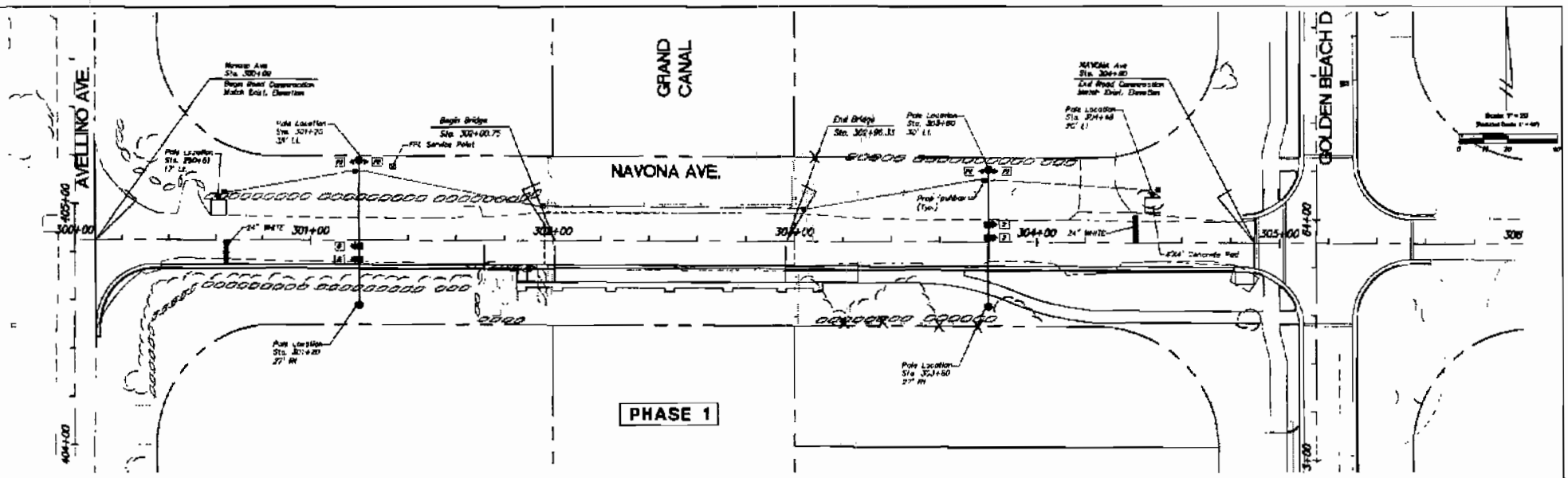
TOWN OF GOLDEN BEACH

NAVONA AVE
BRIDGE REPLACEMENT

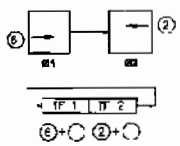
00734-03

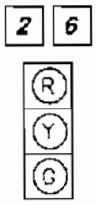
SHEET NO.
C16

32

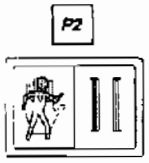


SPECIAL SIGNAL OPERATIONAL PLAN



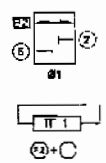


3-SECT. 1-WAY (12" LENS)
ITEM NO. 650-51-313
(4 REQ'D)



PEDESTRIAN COUNTDOWN SIGNAL
ITEM No. 653-181
(4 REQ'D)

SPECIAL PEDESTRIAN OPERATIONAL PLAN



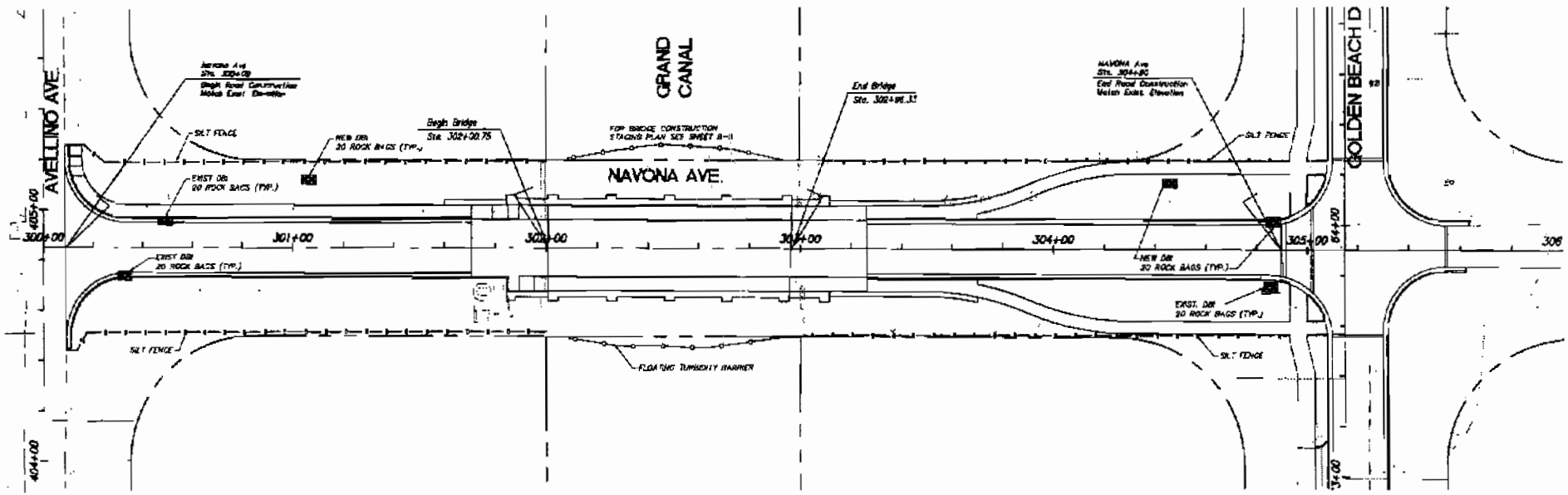
TEMPORARY SIGNAL PLAN GENERAL NOTES:

1. S.O.P. TIMINGS TO BE BASED ON 90 SECOND CYCLE LENGHT WITH 21 SECOND GREEN, 4 SECOND YELLOW AND 20 SECONDS ON ALL RED FOR EACH PHASE. P.O.P. TIMINGS TO BE BASED ON 120 SECOND CYCLE LENGHT WITH 120 SECONDS ON ALL RED. THE P.O.P. PHASE SHALL ONLY BE ACTUATED WHEN THE PEDESTRIAN DETECTOR IS ACTIVATED. NORMAL S.O.P. CYCLE SHALL RESUME AT THE END OF THE P.O.P. CYCLE.
2. FOR PHASE II TRAFFIC CONTROL, SIGNAL HEADS ARE TO BE ADJUSTED TO ALIGNMAINTAINED TRAFFIC TO THE SOUTH HALF OF THE TYPICAL SECTION. TEMPORARY BRIDGE MOUNTED SIGNAL CABLE IS TO BE RELOCATED AND TEMPORARILY ATTACHED TO THE NEW BRIDGE. TEMPORARY PULL BOXES ARE TO BE RELOCATED TO THE SOUTH HALF OF THE TYPICAL SECTION. THE R10-6 SIGNS ARE TO BE RELOCATED AND TEMPORARY 24" WHITE STOP BARS ARE TO BE PLACED AT LOCATIONS ADJACENT TO THOSE SHOWN ON PHASE I. PEDESTRIAN ACTUATORS AND SIGNALS TO BE RELOCATED TO SOUTH SIDE OF ROADWAY. FP&L SERVICE POINT TO BE RELOCATED TO SOUTH SIDE OF ROADWAY. THE COST OF RELOCATION, ADJUSTMENT AND REMOVAL OF TEMPORARY SIGNALIZATION WORK SHALL BE INCLUDED IN THE PAY ITEM 102-104-2, TEMPORARY TRAFFIC CONTROL SIGNALS. REMOVED SIGNAL ITEMS TO REMAIN THE PROPERTY OF THE CONTRACTOR. THE COST OF REMOVING THE FOUR BY FOUR CONCRETE PAD IS INCLUDED IN THE PAY ITEM 102-104-2.
3. PAYMENT FOR THESE ITEMS SHOWN ON THIS SHEET ARE COVERED UNDER PAY ITEM 102-104-2, TEMPORARY TRAFFIC CONTROL SIGNAL (FIXED) PER EACH SIGNAL INSTALLED.
4. FLAGGING CONTROL OPERATIONS SHALL BE UTILIZED DURING ACTIVE WORK PERIODS. TEMPORARY SIGNAL CONTROL SHALL BE UTILIZED DURING INACTIVE WORK PERIODS ONLY.
5. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND OBTAINING THE FLORIDA POWER AND LIGHT SERVICE POINT. PAYMENT FOR THIS WORK IS COVERED UNDER PAY ITEM 102-104-2, TEMPORARY CONTROL SIGNALS.

TEMPORARY SIGNAL PLAN

REVISIONS		APPROVED BY:	CORZO CASTELLÓ CARBALLO THOMPSON SALMAN, P.A. ENGINEERS · ARCHITECTS · PLANNERS	DATE: 01/08/2009	TOWN OF GOLDEN BEACH	NAVONA AVE BRIDGE REPLACEMENT	00734-03	SHEET NO. C17
DESCRIPTION	DATE	DATE:	901 PONCE DE LEON BLVD. SUITE 900 CORAL GABLES, FLORIDA 33134	DRAWN: RM				
1		CARLOS M. HERDOCIA, P.E.	MIAMI (305)-415-2939 FLORIDA (305)-446-0327	DESIGNED: CH				
2		FLORIDA REGISTRATION No. 47880	F. REGISTRATIONS: EDGBCS025 AAC002142	CHECKED: RC				
3				QC: RC				
4				CADD FILE: 00734-03				

NOTE:
FOR FLOATING TURBIDITY BARRIER LOCATIONS SEE SHEET (B-3).



ENVIRONMENTAL NOTES:

1. THE CONTRACTOR SHALL COORDINATE SELECTION AND REVIEW OF ANY PROPOSED STAGING AREAS ASSOCIATED WITH THIS PROJECT WITH THE DEPARTMENT'S ENVIRONMENTAL PERMITS COMPLIANCE MONITOR DURING THE PRE-CONSTRUCTION MEETING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE DISTRICT ENVIRONMENTAL COMPLIANCE MONITOR AT (305) 470-5329 AT LEAST 72 HOURS PRIOR TO STAGING. AT THE END OF THE PROJECT, THE STAGING AREAS WILL BE RESTORED TO ITS ORIGINAL CONDITION OR BETTER, AT NO ADDITIONAL COST TO THE DEPARTMENT.

2. THE CONTRACTOR SHALL MAINTAIN APPROPRIATE SKIMMERS AND ABSORBENT MATERIAL AT THE WORK AREA FOR IMMEDIATE DEPLOYMENT IN THE EVENT OF AN ACCIDENTAL SPILL.

3. THE CONTRACTOR SHALL COMPLY WITH ALL CONDITIONS OF THE ENVIRONMENTAL PERMITS WHICH ARE A PART OF THIS PROJECT. PAYMENT FOR PERMIT RELATED WORK SHALL BE INCLUDED IN PAY ITEM 104-1, MOBILIZATION.

4. THE PROJECT CORRIDOR IS LOCATED IN THE VICINITY OF BISCAYNE BAY/BAY, WHICH IS DESIGNATED AS OUTSTANDING FLORIDA WATERS. THEREFORE, NO DEGRADATION OF WATER QUALITY SHALL BE PERMITTED. THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING THE DISCHARGE OF FOREIGN MATTER BY AND/OR INCLUDING THE TURBIDITY OF THE WATER. APPROPRIATE SEDIMENT CONTROL MEASURES SHOULD BE INSTALLED TO COMPLETELY ENCAPSULATE THE WORK AREA DURING CONSTRUCTION ACTIVITIES AND THE TURBIDITY LEVELS BEYOND THE CONTROL MECHANISMS ARE NOT ALLOWED TO EXCEED NATURAL BACKGROUND LEVELS.

5. THE CONTRACTOR IS PROHIBITED FROM ALLOWING BRIDGE FRAGMENTS OR DEBRIS BEING DISPOSED INTO THE WATER. THE CONTRACTOR WILL PREVENT TO THE MAXIMUM EXTENT PRACTICABLE ANY DEBRIS OR FRAGMENT GENERATED DURING DEMOLITION AND CONSTRUCTION ACTIVITIES FROM ENTERING THE WATERWAY. ANY MATERIAL THAT ENTERS THE CANAL WILL BE REMOVED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF THE NEXT PHASE OF CONSTRUCTION. ALL WASTE MATERIAL SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS.

6. WEST INDIAN MANATEES (TRICHECHUS MANATUS LATIROSTRIS) MAY INFRIGATE THROUGH THE PROJECT AREA. THE WEST INDIAN MANATEE IS A FEDERAL AND STATE LISTED ENDANGERED SPECIES PROTECTED BY THE ENDANGERED SPECIES ACT OF 1973, AS AMENDED. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL AND STATE REQUIREMENTS REGARDING ENDANGERED SPECIES, AND THE FOLLOWING ADDITIONAL SPECIAL PROVISIONS. THE CONTRACTOR SHALL POST TEMPORARY SIGNS ON SITE CONCERNING MANATEES PRIOR TO AND DURING ANY CONSTRUCTION ACTIVITIES, AND REMOVE ALL SIGNS UPON COMPLETION OF THE PROJECT. THE CONTRACTOR MUST POST A SIGNED MEASURING AT LEAST 3.27-4 FEET WIDE TO DISPLAY MANATEE DISPLAY IN A LOCATION PROXIMALLY VISIBLE TO WATER-RELATED CONSTRUCTION DURING ALL VESSELS ARE ASSOCIATED WITH THE CONSTRUCTION AREA. ADDITIONAL SIGNAGE SHALL BE DISPLAYED NEXT TO WAT CONTROLS ON ALL CONSTRUCTION-RELATED VESSELS. MEASURE AT LEAST 8.5 X 11 INCHES AND READ "CAUTION MANATEE PRESENT". THE COST OF PROVIDING AND REMOVING ALL ITEMS REQUIRED FOR THE MONITORING AND PROTECTION OF MANATEES, INCLUDING, BUT NOT LIMITED TO MANATEE SIGNS, POLARIZED SCREENS, SIMILAR AREA, MANATEE OBSERVER AND CERTIFIED TRAINING SHALL BE INCLUDED UNDER PAY ITEM 104-1, MOBILIZATION.

EROSION CONTROL PLAN

REVISIONS		
DESCRIPTION	DATE	
1.		
2.		
3.		
4.		

APPROVED BY:

DATE:

CARLOS M. HORDOCH, P.E.
FLORIDA REGISTRATION No. 47660

CORZO CASTELLA CARBALLO THOMPSON SALMAN P.A.
ENGINEERS · ARCHITECTS · PLANNERS
901 PONCE DE LEON BLVD., SUITE 900
CORAL GABLES, FLORIDA 33134
MIAMI (305) 445-3900 FLORIDA (800) 445-0287
EB 0005032 AA0002448

DATE:	01/08/2009
DRAWN:	RM
DESIGNED:	CH
CHECKED:	RC
QC:	RC
CADD FILE:	00734-03

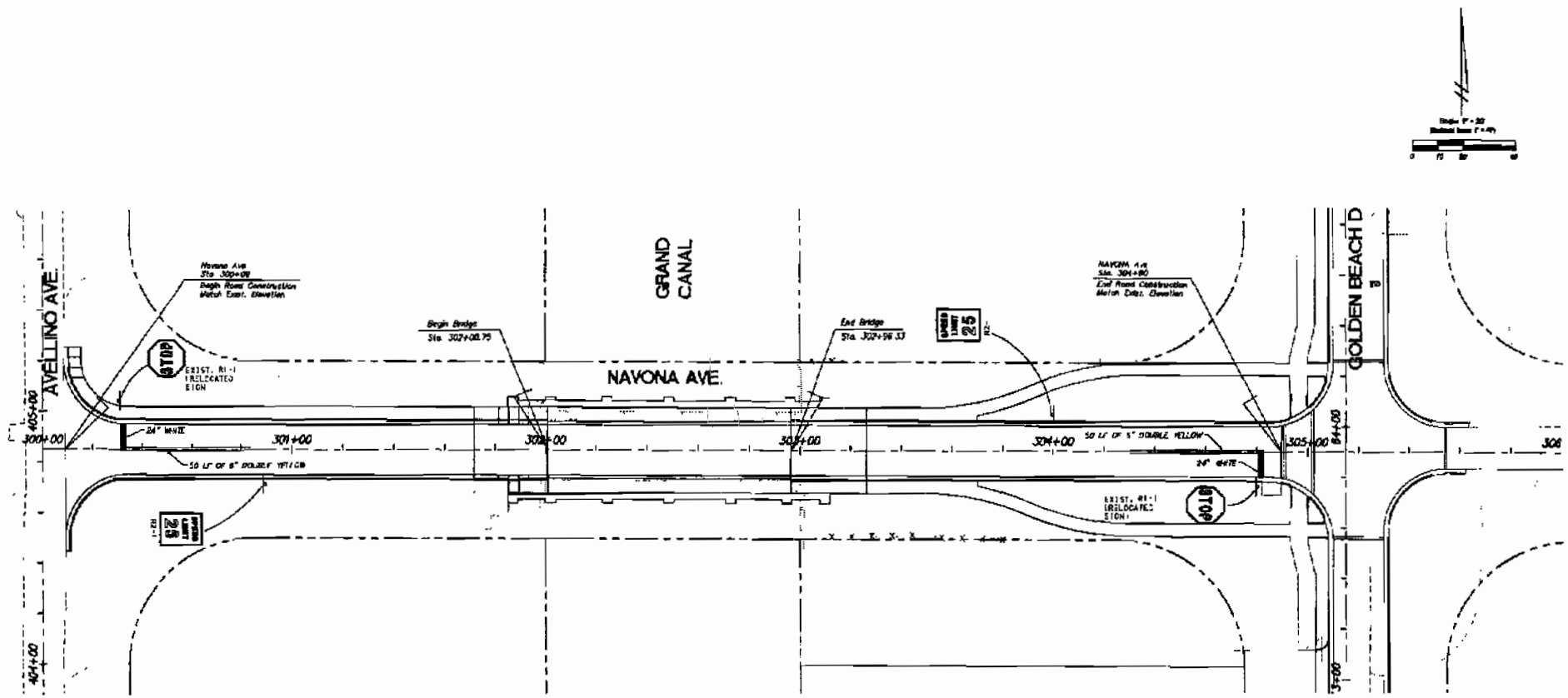
TOWN OF GOLDEN BEACH

NAVONA AVE
BRIDGE REPLACEMENT

00734-03

SHEET NO
C18

36



SIGNING & MARKING PLAN

REVISIONS		APPROVED BY						
DESCRIPTION	DATE		CONZEL CASTELLA CARBALLO THOMPSON SALMAN, P.A. ENGINEERS · ARCHITECTS · PLANNERS 801 PONCE DE LEON BLVD., SUITE 900 CORAL GABLES, FLORIDA 33134	DATE: 01/08/2009	TOWN OF GOLDEN BEACH	NAVONA AVE BRIDGE REPLACEMENT	00734-03	SHEET NO. C19
1.		DATE.		DRAWN: RM				
2.		CARLOS M. HERDOCIA, P.E.		DESIGNED: CH				
3.		FLORIDA REGISTRATION No. 47660		CHECKED: RC				
4.				QC: RC				
				CADD FILE: 00734-03				

35

SIGNING AND PAVEMENT MARKINGS

TABULATION OF QUANTITIES

BID ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS: THE STRAND C-6 PLAN	C-6 FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	TOTAL THIS SHEET PLAN	TOTAL THIS SHEET FINAL	GRAND TOTAL PLAN	GRAND TOTAL FINAL	REF. SHEET
700-40-2	ROADSIDE SIGN (SPEED LIMIT 35 MPH R2-1, SINGLE POST)	AS	2																										2				
700-40-2	ROADSIDE SIGN (SPEED LIMIT 35 MPH R2-1, MOUNTED ON LIGHT POLE)	AS																															
700-40-2	ROADSIDE SIGN (ONLY R3-5, SINGLE POST)	AS																															
700-40-2	ROADSIDE SIGN (STOP AHEAD W3-1, SINGLE POST)	AS																															
700-40-2	ROADSIDE SIGN (PED.-SCHOOL CROSSING S1-1, W/ W16-9P, SINGLE POST)	AS																															
700-40-2	ROADSIDE SIGN (PED.-SCHOOL CROSSING S1-1, W/ W16-7P, SINGLE POST)	AS																															
700-40-2	ROADSIDE SIGN (PEDESTRIAN W11-2, SINGLE POST)	AS																															
700-40-2	ROADSIDE SIGN (PEDESTRIAN W11-2 W/ W16-9P, SINGLE POST)	AS																															
700-40-2	ROADSIDE SIGN (PEDESTRIAN W11-2 W/ W16-9P, MOUNTED ON LIGHT POLE)	AS																															
700-40-2	ROADSIDE SIGN (PEDESTRIAN W11-2 W/ W16-7P, SINGLE POST)	AS																															
700-40-2	ROADSIDE SIGN (R4-7, SINGLE POST)	AS																															
700-40-2	ROADSIDE SIGN (SW 12TH NEXT SIGNAL D3-2, SINGLE POST)	AS																															
700-40-2	ROADSIDE SIGN (CASE YELLOW REFLECTOR, SINGLE POST)	AS																															
700-40-2	ROADSIDE SIGN (CASE YELLOW REFLECTOR W/ W1-7, SINGLE POST)	AS																															
700-40-2	ROADSIDE SIGN (CASE YELLOW REFLECTOR W/ W1-6, SINGLE POST)	AS																															
700-40-2	ROADSIDE SIGN (CASE I RED REFLECTOR SINGLE POST)	AS																															
700-40-2	ROADSIDE SIGN (DEAD END W1-6, SINGLE POST)	AS																															
706-3	REFLECTIVE PAVEMENT MARKER (BI-DIRECTIONAL WHITE/RED)	EA	12																										12				
706-3	REFLECTIVE PAVEMENT MARKER (BI-DIRECTIONAL BLUE)	EA																															
711-4	DIRECTIONAL ARROWS	EA																															
711-31	SKIP TRAFFIC STRIPE (10'-30', 6" WHITE)	GM																															
711-31	SKIP TRAFFIC STRIPE (2'-4', 6" WHITE)	GM																															
711-32	SKIP TRAFFIC STRIPE (10'-30', 6" YELLOW)	GM																															
711-35-61	SOLID TRAFFIC STRIPE (6" WHITE)	LF																															
711-35-81	SOLID TRAFFIC STRIPE (8" WHITE)	LF																															
711-35-121	SOLID TRAFFIC STRIPE (12" WHITE)	LF																															
711-35-181	SOLID TRAFFIC STRIPE (18" WHITE)	LF																															
711-35-24'	SOLID TRAFFIC STRIPE (24" WHITE)	LF	20																														
711-36-61	SOLID TRAFFIC STRIPE (6" YELLOW)	LF	100																														
711-36-181	SOLID TRAFFIC STRIPE (18" YELLOW)	LF																															

NOTES:

1. WHEN SINGLE AND MULTIPLE GROUND SIGN SUPPORTS ARE USED WITH STANDARD SIGN PANELS, FABRICATED IN ACCORDANCE WITH THESE PLANS, NO SHOP DRAWINGS ARE REQUIRED
2. ALL STOP, YIELD, DO NOT ENTER WRONG WAY SIGNS FACES SHALL BE FABRICATED ENTIRELY WITH TYPE "B" REFLECTIVE SHEETING AS SPECIFIED IN SECTION 994-3 OF THE STANDARD SPECIFICATIONS.
3. ALL PAVEMENT MARKINGS, MESSAGES & ARROWS SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED
4. SIGN ASSEMBLY LOCATIONS SHOWN ON PLANS, WHICH ARE IN CONFLICT WITH LIGHTING, UTILITIES DRIVEWAYS, WHEELCHAIR RAMPS, ETC., MAY BE ADJUSTED SLIGHTLY AS DIRECTED BY THE ENGINEER
5. PAVEMENT MARKINGS SHOULD BE PLACED AS SHOWN IN THE PLANS AND TRAFFIC DESIGN STANDARDS.
6. EXISTING GROUND MOUNTED SIGNS THAT ARE NOT UTILIZED, ARE TO BE CAREFULLY REMOVED WITHOUT CAUSING ANY DAMAGE, AND DELIVERED TO THE TOWN OF GOLDEN BEACH
7. MATCH EXISTING PAVEMENT MARKERS AT THE BEGINNING AND AT THE END OF THE PROJECT AND AT ALL SIDE STREETS WITHOUT JOGS OR OFFSETS.

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY:

DATE:

CARLOS M. HERDOCIA, P.E.
FLORIDA REGISTRATION No. 47660

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
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801 PONCE DE LEON BLVD., SUITE 800
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MIAMI (305)-443-3805 FLORIDA (800)-448-0227
FL AEC#3179(E) EB0003623 AA0000142

DATE:	01/08/2009
DRAWN:	RM
DESIGNED	CH
CHECKED	RC
QC:	RC
CADD FILE:	D0734-03

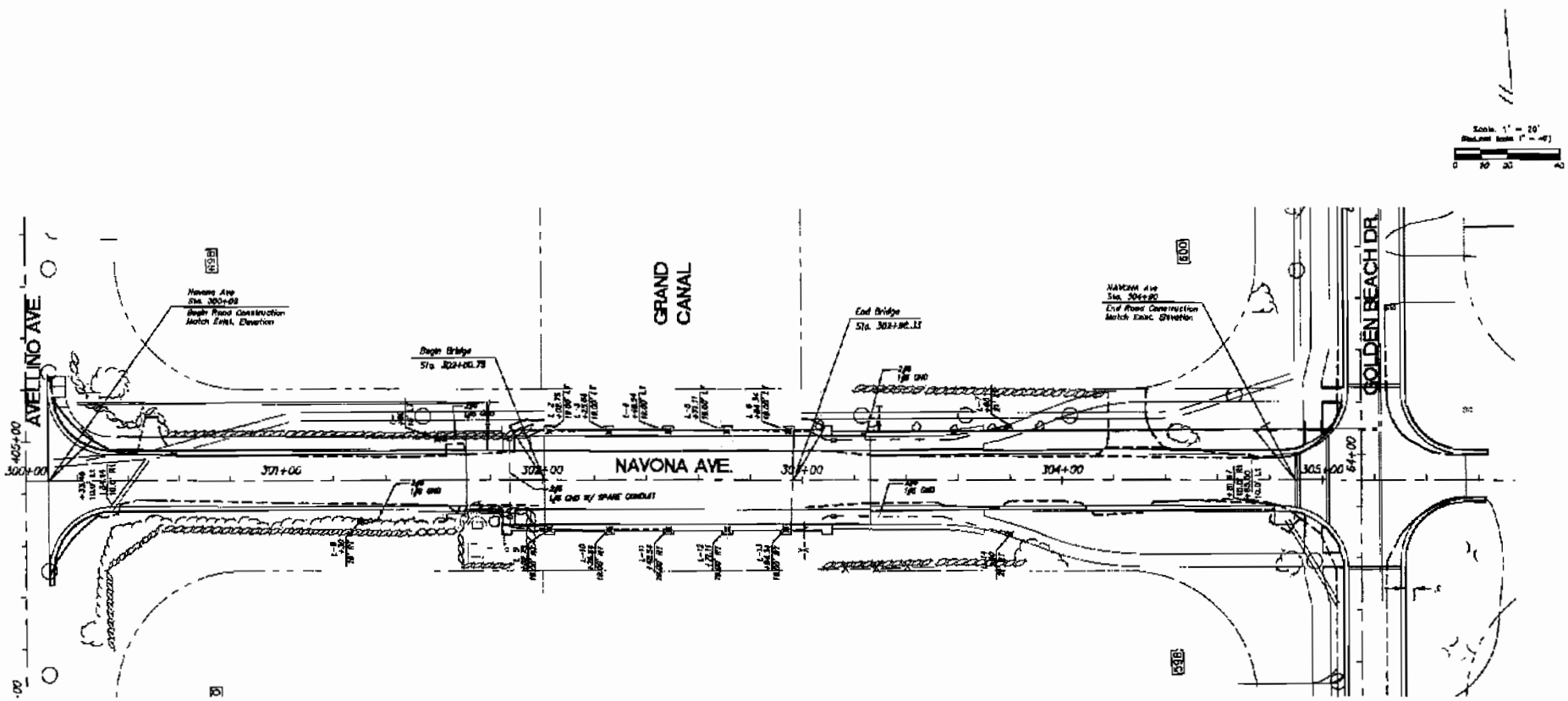
TOWN OF GOLDEN BEACH

NAVONA AVE
BRIDGE REPLACEMENT

D0734-03

SHEET NO.
C20

36



NOTE:

ALL EXISTING FPL POLE AND LUMINARIES TO BE REMOVED BY FPL

LIGHTING PLAN

REVISIONS		
DESCRIPTION		DATE
1.		
2.		
3.		
4.		

APPROVED BY

DATE.

MANUEL J. GARBONELL, P.E.
FLORIDA REGISTRATION No. 65584

CORED CASILLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS·ARCHITECTS·PLANNERS
801 PONCE DE LEON BLVD. SUITE 900
CORAL GABLES, FLORIDA 33134
MIAMI (305)-445-2800 FLORIDA (800)-445-0247
FL REGISTRATIONS: PHOTOGRAPHY AA00002142

DATE:	01/08/2009
DRAWN:	RM
DESIGNED:	MJC
CHECKED:	BC
QC:	RC
CADD FILE:	00734-03

TOWN OF GOLDEN BEACH

NAVONA AVE BRIDGE REPLACEMENT

00734-03

SHEET NO.

E1

POLE DATA & CODED NOTES

POLE No.	CIRCUIT	LUMINAIRE STATION	SIDE	MOUNTING HEIGHT	LAMP WATT	REMARKS	NOTES
L-1		301+80	Lt	16'	175	BACK OF SIDEWALK	
L-2		302+02.75	Lt	11'	70	PILASTER MOUNTED	
L-3		302+25.64	Lt	8'	70	PILASTER MOUNTED	
L-4		302+48.54	Lt	8'	70	PILASTER MOUNTED	
L-5		302+71.11	Lt	8'	70	PILASTER MOUNTED	
L-6		302+94.34	Lt	11'	70	PILASTER MOUNTED	
L-7		303+60	Lt	16'	175	BACK OF SIDEWALK	
L-8		301+50	Rt	16'	175	BACK OF SIDEWALK	
L-9		302+02.75	Rt	11'	70	PILASTER MOUNTED	
L-10		302+25.64	Rt	8'	70	PILASTER MOUNTED	
L-11		302+48.54	Rt	8'	70	PILASTER MOUNTED	
L-12		302+71.11	Rt	8'	70	PILASTER MOUNTED	
L-13		302+94.34	Rt	11'	70	PILASTER MOUNTED	
L-14		303+60	Rt	16'	175	BACK OF SIDEWALK	

CONVENTIONAL LIGHTING DESIGN CRITERIA

A. DESIGN WIND SPEED..... 150 M.P.H. PLUS 30% GUST FACTOR

B. UNIFORMITY RATIO ..... REQUIRED VALUE <=4:1.....PROVIDED.....1.78

C. MAX. TO MIN. RATIO ..... REQUIRED VALUE <= 10:1.....PROVIDED.....4.47

D. AVERAGE INITIAL ILLUMINATION ..... 1.5 F.C.....PROVIDED.....3.03

E. AT THE FINAL INSPECTION THE CONTRACTOR SHALL VERIFY THE HORIZONTAL FOOT CANDLE LEVELS ON THEROADWAY WITH AN APPROVED CURRENT CALIBRATED LIGHT METER TO THE SATISFACTION OF THE PROJECT ENGINEER

LEGEND

SERVICE POINT, SEE SHEET E7 FOR DETAILS. CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF SERVICE POINT PRIOR TO INSTALLATION. ENCLOSURE TO BE MOUNTED OPPOSITE APPROACHING TRAFFIC.

ROADSIDE PULL BOX WITH POLYMER HEAVY DUTY TRAFFIC COVER MARKED "STREET LIGHTING"

SIZE 2" SCHEDULE 40 PVC CONDUIT UNDERGROUND WITH RHW-XLP CONDUCTORS INSIDE (CONDUCTOR SIZE AND NUMBER OF CONDUCTORS AS SHOWN ON PLAN SHEETS). RUN 1/8 (THW GREEN INSULATION) COPPER BOND WIRE INSIDE CONDUIT WITH OTHER CONDUCTOR.

SIZE 2" SCHEDULE 40 PVC CONDUIT UNDERPAVEMENT WITH RHW-XLP CONDUCTORS INSIDE (CONDUCTOR SIZE AND NUMBER OF CONDUCTORS AS SHOWN ON PLAN SHEETS). RUN 1/8 (THW GREEN INSULATION) COPPER BOND WIRE INSIDE CONDUIT WITH OTHER CONDUCTOR. EXTEND CONDUIT BEYOND EDGE OF PAVEMENT TO PULL BOXES.

SIZE 2" SCHEDULE 40 PVC CONDUIT EMBEDDED IN WALL STRUCTURE WITH 2/8 RHW-XLP CONDUCTORS AND 1/8 THW GROUND FURNISHED AND INSTALLED CONDUIT BY ELECTRICAL CONTRACTOR. THE COST OF THIS CONDUIT IS INCLUDED IN THE COST OF WALL STRUCTURE.

POLE MOUNTED LUMINAIRE AND ROADSIDE PULL BOX, DECORATIVE METAL HALIDE LUMINAIRE CUTOFF TYPE III DISTRIBUTION.
LUMEC No.175MHA12OSCB3W12OBRTX OR APPROVED EQUIVALENT. (DES FILE S01040022)

POLE MOUNTED LUMINAIRE, DECORATIVE METAL HALIDE LUMINAIRE. CUTOFF TYPE III DISTRIBUTION. LUMEC No.70MHA12OSCB3W12OBRTX OR APPROVED EQUIVALENT. (DES FILE S01040035)

EXISTING FPL POLE AND LUMINAIRE TO BE REMOVED BY FPL

LIGHTING PLANS
POLE DATA & CODED NOTES

REVISIONS DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY.

DATE:

MANUEL J. CARBONELL, P.E.
FLORIDA REGISTRATION No. 68564

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS·ARCHITECTS·PLANNERS
801 PONCE DE LEON BLVD., SUITE 800
CORAL GABLES, FLORIDA 33134
MIAMI (305)-445-2900 FLORIDA (800)-445-0587
FL REGISTRATION #: E0000800 AA0002147

DATE:	01/08/2009
DRAWN:	RM
DESIGNED:	MJC
CHECKED:	RC
QC:	RC
CADD FILE:	00734-03

TOWN OF GOLDEN BEACH

NAVONA AVE BRIDGE REPLACEMENT

00734-03

SHEET NO. **E2**

GENERAL NOTES

GENERAL NOTES

1. THE MAINTENANCE OF TRAFFIC FOR THE PROJECT SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (M.U.T.C.D.T., FHWA). ATTENTION IS DIRECTED TO INDEX NOS. 400, 672, AND 625 OF THE ROADWAY AND TRAFFIC DESIGN STANDARDS (LATEST EDITION).

2. THE LOCATION OF THE UTILITIES SHOWN IN THE PLANS IS APPROXIMATE. THE EXACT LOCATION SHALL BE DETERMINED BY THE CONTRACTOR AND UTILITY OWNERS DURING CONSTRUCTION.

3. THE CONTRACTOR IS TO USE CAUTION WHEN WORKING IN OR AROUND AREAS OF OVERHEAD TRANSMISSION LINES OR UNDERGROUND UTILITIES

4. TWO FULL BUSINESS DAYS PRIOR TO DIGGING THE CONTRACTOR SHALL CALL SUNSHINE STATE CALL OF FLORIDA, TELEPHONE NUMBER 1-800-432-4770, AND THE UTILITY OWNER AND REQUEST UTILITY LOCATIONS. A CONTRACTOR'S REPRESENTATIVE MUST BE PRESENT DURING UTILITY COMPANY LOCATIONS OF THEIR FACILITIES.

UTILITY OWNER:	PHONE NO.:
ATLANTIC COMMUNICATIONS	(305) 888-0977
ATT-DIST.	(954) 753-3940
AT&T	(770) 314-5434
COMCAST	(954)434-7417
FLORIDA CITY GAS	(305) 635-3000
FLORIDA POWER & LIGHT	(800) 858-5554
FPL - RIBERNET	(305) 552-3554
MCI	(972) 729-5979
MIAMI-DADE WATER & SEWER	(786) 468-6514
TECO/PEOPLES GAS	(954) 453-0924

5. SEVEN COPIES OF SHOP DRAWINGS AND DESIGN DATA SHALL BE SUBMITTED TO THE ENGINEER OF RECORD WITH A COPY OF THE SUBMITTAL LETTER SENT TO THE DEPARTMENT'S RESIDENT CONSTRUCTION ENGINEER IN CHARGE OF THE PROJECT. ALLOW A 15 DAY TURNAROUND FOR SUBMITTALS.

6. PRIOR TO ANY EQUIPMENT ORDER, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL, EQUIPMENT SPECIFICATIONS OR DESIGN DATA FOR MATERIAL PROPOSED FOR THE PROJECT AND SHALL INCLUDE, BUT NOT BE LIMITED TO:

   A) LUMINAIRE AND LUMINAIRE PHOTOMETRICS. SUBMITTAL SHALL INCLUDE A COMPUTER PRINTOUT SHOWING HORIZONTAL FOOT-CANDLE LEVELS TO BE OBTAINED USING THE SUBMITTED LUMINAIRES ON THE PROJECT.
   B) CONDUCTORS, CONDUIT, GROUND RODS AND PULL BOXES.
   C) FUSES, FUSE HOLDERS, SURGE PROTECTORS.
   D) SAFETY SWITCHES, PANELS, CIRCUIT BREAKERS AND OTHER MAJOR SERVICE POINT COMPONENTS
   E) LIGHTING POLES INCLUDING ARMS.
   F) FOUNDATIONS.
   G) COPIES OF ALL WARRANTIES FROM THE MANUFACTURER.

7. ALL ELECTRICAL WORK SHALL MEET THE REQUIREMENTS OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, THE NATIONAL ELECTRICAL SAFETY CODE AND THE STATE OF FLORIDA, D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. ALL COMPONENTS SHALL BE PROPERLY GROUNDED AND BONDED PER N.E.C. REQUIREMENTS.

8. THE CONTRACTOR SHALL MAINTAIN THE EXISTING LEVEL OF LUMINITION ON THE TRAVELLED ROADWAY THROUGHOUT CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE TEMPORARY OVERHEAD LIGHTING FOLLOWING THE REMOVAL OF THE EXISTING LIGHT POLES BY FPL. CONTRACTOR TO COORDINATE THIS WORK WITH FPL, MR. ELLIS CLEMMON TEL. (305) 779-7604.

9. HANDHOLE COVERS FOR POLES AND TRANSFORMER BASES SHALL BE LOCATED OPPOSITE APPROACHING TRAFFIC.

10. END OF CONDUIT SHALL BE SEALED WITH POLYURETHANE FOAM AFTER WIRING IS COMPLETE.

11. SPLICES AND CONNECTIONS MADE IN PULL BOXES SHALL BE PROPERLY TAPED AND HEAT SHRINK TUBES OR CAPS SHALL BE USED TO WATERPROOF THESE CONNECTIONS.

12. GROUND RODS TO BE INSTALLED AT EACH PULL BOX AND BE THW GREEN BONDED TO IT.

13. SYSTEM SHALL BE GROUNDED WITH #6 THW GREEN INSULATION RUN INSIDE CONDUIT.

14. PULL BOXES SHALL HAVE EXTERIOR DIMENSIONS OF 37" X 16" X 18" AND SHALL BE CONCRETE OR POLYMER (HEAVY WEAVE FIBERGLASS) REINFORCED CONCRETE WITH POLYMER HEAVY DUTY TRAFFIC COVERS. PROVIDE 10 FT. 5/8", GROUND ELECTRODE AT EACH PULL BOX. COVERS TO BE PROVIDED WITH GROUND LUG AND MARKED "STREET LIGHTING"

15. INSTALL #6 THW GREEN INSULATED PIGTAIL ON PULL BOX COVER AND CONNECT TO GROUND ROD.

16. PULL BOX COVER BOLTED TO PULL BOX USING TAMPER PROOF NUT.

17. CABLE DISTRIBUTION SHALL BE TWISTING & DURALINE AND SHALL BE PROPERLY IDENTIFIED BY HAVING THE MIAMI-DADE COUNTY NUMBER MDCPRINT-14-555 MOLDED ON THE DISTRIBUTION BLOCK AS REQUIRED BY MIAMI-DADE COUNTY, THE MAINTENANCE AGENCY.

18. SPECIAL ATTENTION IS DIRECTED TO SECTIONS 715-12 AND 715-15 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, DATED 2006, FOR LABELING OF EQUIPMENT AND TRANSFER OF WARRANTIES.

19. THE CONTRACTOR SHALL MEASURE THE GROUND ROD RESISTANCE AT EACH POLE, PULL BOX AND SERVICE POINT AS REQUIRED PER MIAMI-DADE COUNTY. THE MAINTAINING AGENCY. THE RESISTANCE SHALL BE RECORDED AND COPY GIVEN TO THE PROJECT ENGINEER FOR HIS RECORD.

20. THE CONTRACTOR SHALL TEST ALL WIRING AND CONNECTIONS FOR CONTINUITY AND GROUNDS. WHEN DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL DEMONSTRATE SAME BY MEGGER TEST. TEST SHALL BE PERFORMED BEFORE CONNECTION TO BALLAST. THE INSULATION RESISTANCE TEST SHALL INDICATE ANY FAULTY INSULATION. IF ANY, THE CONTRACTOR SHALL LOCATE THE POINTS OF SUCH INSULATION, PULL THE CONDUCTOR AT FAULT, AND REPLACE SAME WITH NEW, AT HIS EXPENSE. THE ELIMINATION OF SUCH FAULT SHALL BE DEMONSTRATED BY FURTHER TESTING. COST OF SUCH WORK IS INCIDENTAL TO PAY ITEMS 715-516-115 AND 715-516-110.

21. IDENTIFICATION PLATES ARE TO BE INSTALLED ON ALL POLES. PLATES SHALL CONTAIN THE FOLLOWING INFORMATION: CIRCUIT NUMBER AND POLE NUMBER AS SHOWN ON THE POLE DATA SHEET. IDENTIFICATION PLATES SHALL BE PLACED AT BACK OF POLE. COST OF SUCH ITEM IS INCIDENTAL TO PAY ITEM 715-516-115 AND 715-516-110. SEE SECTION 715-105 OF THE STANDARD SPECIFICATIONS.

22. THE CONTRACTOR SHALL MAINTAIN TWO COMPLETE SETS OF AS-BUILT PLANS INDICATING ALL CHANGES AND DEVIATIONS FROM PROPOSED CONSTRUCTION. USE COLOR PEN OR PENCIL TO MARK CHANGES AT TIME OF EXECUTION. THE COMPLETED SETS SHALL BE GIVEN TO THE MAINTAINING AGENCY

23. ALL GROUNDING CONNECTIONS SHALL BE EXOTHERMICALLY WELDED AS PER F.D.O.T. SECTION 620 AND MIAMI-DADE COUNTY MAINTENANCE AGENCY NEW SPECIFICATION.

REVISIONS		
	DESCRIPTION	DATE
1.		
2.		
3.		
4.		

APPROVED BY:

DATE:

MANUEL J. CARBONELL, P.E.
FLORIDA REGISTRATION No. 65584

CORLO CASTELLA CARBALLO THOMPSON SALMAN P.A.
ENGINEERS·ARCHITECTS·PLANNERS
801 PONCE DE LEON BLVD., SUITE 400
CORAL GABLES FLORIDA 33134
PHN (305)446-2800 FAXNO (305)446-2833
E-MAIL ADDRESS EB0003022 AA0001145

DATE:	01/06/2009
DRAWN:	RM
DESIGN CD:	MJC
CHECKED	RC
QC:	RC
CADD FILE.	00734-03

TOWN OF GOLDEN BEACH

NAVONA AVE
BRIDGE REPLACEMENT

00734-03

SHEET NO.
E3

SUMMARY OF QUANTITIES AND GENERAL NOTES

NAVONA AVE. SUMMARY OF QUANTITIES			
ITEM No.	ITEM	UNIT	TOTAL QUANTITY
715-1-1	GROUNDING ELECTRODE (POLES AND DISTRIBUTION POINT)	LF	XX
715-411-145	LIGHTING POLE COMPLETE (ALUMINUM) (45 FT. MOUNTING HEGHT & 10' BRACKET ARM)	EACH	X
715-100-11	400 WATT. (480 V.) HIGH PRESSURE SODIUM VAPOR LUMINAIRE WITH LAMP	EACH	X
715-95-2	ELECTRIC SERVICE & COORDINATION	AS	1
715-7-11	LOAD CENTER (INCLUDES SWITCH, WEATHER HEAD & WIRE AT SERVICE POINT)	EACH	1
715-80-21	CONCRETE POLE BASE	EACH	X
715-14-12	PULL BOX (INCLUDING GROUND ROD COMPLETE WITH CLAMP)	EACH	X
715-2-115B	CONDUIT, 2" UNDERGROUND	LF	XXXX
715-1-114	CONDUCTORS #4	LF	XXXX
715-500-1C	DOT 3 MODULAR POLE CABLE DISTRIBUTION KIT FROM MG SQUARE	EACH	XX

GENERAL NOTES

A) POWER COMPANY SHALL PROVIDE 480 V. TO GROUND, P.E. CONTROLLED INCOMING SERVICE AT LOCATION SPECIFIED. THE DATE REQUIRED FOR INCOMING SERVICE TO BE COMPLETED MUST BE COORDINATED BY THE CONTRACTOR WITH THE POWER COMPANY AT THE PRE CONSTRUCTION MEETING.

B) POWER COMPANY RESERVES THE RIGHT TO INSTALL THE RISER, SWITCH GEAR AND WEATHER HEAD ON POWER COMPANY POLES AT THE EXPENSE OF THE CONTRACTOR, CONTACT THE POWER COMPANY FOR COST OR FOR AUTHORIZATION FOR AN ALTERNATE PROCEDURE.

C) ALL CONDUIT EXPOSED OR SURFACE MOUNTED SHALL BE GALVANIZED STEEL AND GROUNDED.

D) CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDER-GROUND AND STRUCTURAL CONFLICTS IN COOPERATION WITH THE UTILITY COMPANY (S)

E) STATIONING MAY BE ADJUSTED AS DIRECTED TO AVOID UTILITY OR STRUCTURAL CONFLICTS NOT INDICATED IN THE PLANS.

F) SIDEWALK SLABS DAMAGED DURING CONSTRUCTION SHALL BE REPLACE IN FULL AND COLORED WHERE NECESSARY TO MATCH THE EXISTING SIDEWALK.

G) CONTRACTOR MUST MAINTAIN THE EXISTING LIGHTING SYSTEM OR SUPPLY A TEMPORARY ONE UNTIL THE NEW LIGHTING SYSTEM CAN BE ACTIVATED IF THE EXISTING LIGHTING SYSTEM IS OWNED BY FLORIDA POWER AND LIGHT COMPANY. SEE SPECIFICATION FOR ROADWAY LIGHTING SPECIAL PROVISIONS, SECTION 715

H) ALL MATERIAL, UNLESS OTHERWISE SPECIFIED, SHALL BE UNDERWRITERS LABORATORY APPROVED.

I) POLES, BRACKET ARMS AND TRANSFORMER BASES SHALL BE ALUMINUM AND DESIGNED IN ACCORDANCE WITH LOCAL DESIGN CRITERIA USING THE APPLICABLE EQUATIONS FOUND IN "STANDARD SPECIFICATIONS FOR HIGHWAY SIGNS, LUMINARIES AND TRAFFIC SIGNALS" PUBLISHED BY A.A.S.H.T.O. COPYRIGHT 1975, SECTION 7.

J) THE WIRES AT THE PULL BOXES SHALL BE LOOPED UP IN THE POLE AND PULL BOXES WITH SUFFICIENT LENGTH TO COMPLETELY REMOVE CONNECTORS TO THE OUTSIDE, TO MAKE THEM ACCESSIBLE FOR CHANGING FUSES AND TROUBLE SHOOTING THE SYSTEM.

K) THE LUMINARIES MANUFACTURER SHALL PLACE A PERMANENT TAG ON THE LUMIN-AIRE HOUSING ON WHICH IS IMPRINTED THE FOLLOWING INFORMATION: WALLAGE, BALLAST TYPE, LAMP SHOWN ON DESIGN PLANS, LAMP SETTING (POSITION IN LUMINARIES) IES LIGHT DISTRIBUTION WITH THE LAMP IN THE POSITION SPECIFIED INPUT VOLTAGE AND POWER FACTOR LUMINARIES PHOTO METRIC SUBMITTALS REQUIRED

L) GROUND RODS SHALL HAVE A RESISTANCE TO GROUND NOT TO EXCEEDED 25 OHMS WHERE THE RESISTANCE IS NOT AS LOW AS 25 OHMS, TWO OR MORE GROUND RODS CONNECTED IN PARALLEL SHALL BE USED.

M) THESE MATERIALS ARE TO BE FURNISHED BY THE CONTRACTOR AND DEPOSITED AT A SITE DESIGNATED BY THE TOWN, WHERE THEY SHALL BE INSPECTED AS TO THEIR ACCEPTANCE BY THE TOWN OF GOLDEN BEACH.

INCIDENTAL ITEMS OR ACCESSORIES REQUIRED TO COMPLETE THE WORK FOR EACH ITEM BID, SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR THAT SPECIFIC ITEM AS INDICATED IN THE BID FORM, SUCH AS BUT NOT LIMITED TO: ELBOWS, SPLIT BOLT CON-NECTORS, FUSES & FUSE HOLDERS, ELECTRICAL TAPE, SCOTCHKOTE, P.V.C GLUE, TRENCHING, BACKFILLING PAVEMENT RESTORATION, CONCRETE SLAB REPLACEMENT ETC

LIGHTING PLANS
SUMMARY OF QUANTITIES

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY:

DATE:

MANUEL J. CARBONELL, P.E.
FLORIDA REGISTRATION No. 65584

CORZO CASTILLA CARBALLO THOMPSON SALMAN, P.A.
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FL REGISTRATION: EB0000022 AA0002142

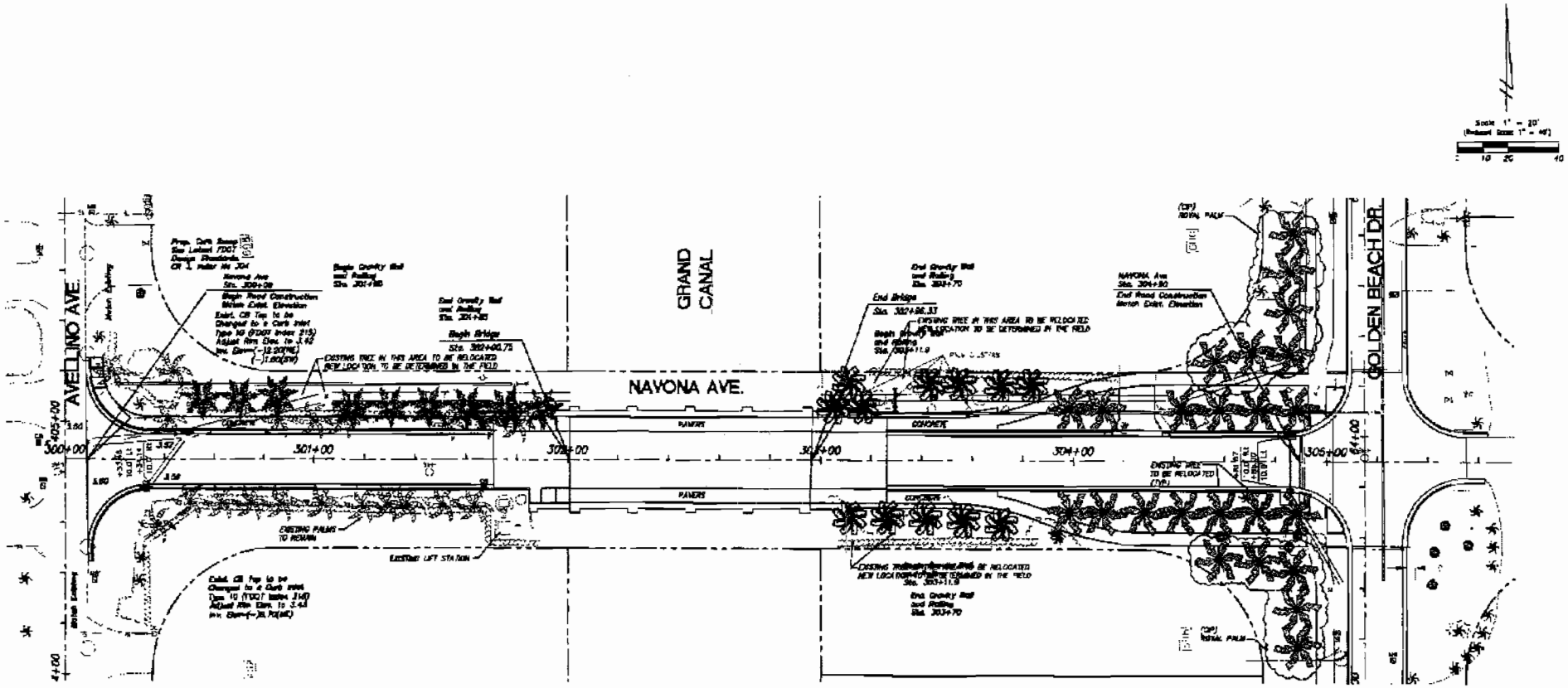
DATE:	01/08/2009
DRAWN:	RM
DESIGNED:	MJC
CHECKED:	RC
QC:	RC
CADD FILE:	00734-03

TOWN OF GOLDEN BEACH

NAVONA AVE BRIDGE REPLACEMENT

00734-03

SHEET NO. **E4**



NAVONA AVENUE PLAN LIST

KEY	COMMON NAME	BOTANICAL NAME	QUANTITIES	SIZE
	[illegible]	[illegible]	12 EA	[illegible]
	ROYAL PALM	ROYSTONEA REGIA	12 EA	[illegible]
	RELOCATED TREE	RELOCATED TREE	[illegible] EA	RELOCATED TREE

LANDSCAPE PLAN

REVISIONS		
DESCRIPTION	DATE	
1.		
2.		
3.		
4.		

APPROVED BY:

DATE:

CARLOS M. HERDOCIA, P.E.
FLORIDA REGISTRATION No. 47660

CORREO CASTILLA CARBALLO THOMPSON SALMAN, P.A.
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DRAWN:	RM
DESIGNED:	CH
CHECKED:	RC
QC	RC
CADD FILE:	00734-03

TOWN OF GOLDEN BEACH

NAVONA AVE BRIDGE REPLACEMENT

00734-03

SHEET NO **LA1**

41

GENERAL NOTES

GENERAL SPECIFICATIONS: Florida Department of Transportation Standard Specifications for Road and Bridge Construction (2007 edition), as amended by contract documents.

DESIGN SPECIFICATIONS: American Association of State Highway and Transportation Officials (AASHTO) LRFD Bridge Design Specifications (2007 edition) FDOT Structures Manual (January, 2009 edition).

DESIGN METHOD: Load and Resistance Factor Design (LRFD) Method

DESIGN LOADING: Live Load HL-93 with impact
Future wearing surface: Design includes allowance for 15 psf.

Thermal Forces
Temperature Range for Design:
Temp. Mean 70°F
Temp. High 105°F
Temp. Low 35°F

Thermal Coefficient:
0.000006 per F°

Wind Loads: Wind Loads are in accordance with AASHTO Section 3.8 and modified as per the FDOT Design Guidelines, Section 2.4

Earthquake: Forces are in accordance with Section 2.3 the FDOT Structures Design Guidelines and the applicable AASHTO Standard Specifications for Highway Bridges

CONCRETE: All concrete shall conform with Section 346.

	Min. 28-day Compressive Strength (psi)	Modulus of Elasticity Strength (ksi)	Location
Class II (Bridge Deck)	4500	3474	Approach Slabs
Class IV	5500	3841	Cast-in-place concrete structural topping, edge beams bridge sidewalk, pilasters
Class IV (Drilled Shaft)	4000	3278	Drilled Shafts
Class V	6500	4176	Prestressed slab units
Class V Special	5000	4012	Substructure

REINFORCING STEEL: All reinforcing steel shall be ASTM A615-96a, Grade 60.

ENVIRONMENT: Superstructure: Extremely Aggressive
Substructure: Extremely Aggressive
Resistivity = 25 OHM-CM, PH = 6.60,
Chlorides = 18,000 ppm, Sulfates = 3,800 ppm
Location: Coastal

CONCRETE COVER: Concrete cover shown in the plans does not include reinforcement placement and fabrication tolerances unless shown as "minimum cover". See FDOT Standard Specifications for allowable reinforcement placement tolerance. Unless otherwise shown on the plans the following concrete covers shall be used

LOCATION	COVER (in)	DESCRIPTION
Superstructure Approach Slabs Precast	2	All External Surfaces and Internal Surfaces (except top surfaces)
Superstructure Cast-In-Place	2	Top deck surfaces and all external and internal surfaces
Substructure Cast-In-Place	4 ½	External Surfaces cast against earth and surfaces in water
Substructure Cast-In-Place	4	External Formed Surfaces, and internal surfaces
Substructure	6	Drilled Shafts
Substructure Precast	4	Precast Bulkhead Panels

CHAMFER: All exposed edges and corners of concrete shall be chamfered ¾" unless otherwise noted

CONCRETE SURFACE FINISH: A Class 5 finish coating (see details on this sheet), shall be applied to the following exposed concrete surfaces:
* Outside faces and Concrete Pilasters.
* The vertical edge and all exposed surfaces of End Bents and Piers above ground line (except top of caps).

ELEVATIONS: All elevations are referred to the National Geodetic Vertical Datum (NGVD) of 1929

SCREEDING DECK SLABS: The riding surface of the bridge deck shall be screeded to the Finish Grade Elevations, which already include allowance for permanent camber.

BRIDGE FLOOR GROOVING: Deck slab shall be grooved according to the Standard Specifications, Section 400-15.2.5, Class 4 Deck Finish.

NEOPRENE BEARING PADS: Composite Neoprene Bearing Pads as designated in the plans shall be furnished and installed by the Contractor.

DISPOSAL OF DEBRIS: Construction debris shall be disposed of properly by the Contractor, outside of the Right of Way as approved by the Engineer

UTILITIES: The utilities shown in the Bridge Plans are at approximate locations. For additional information, refer to the Utilities Plan. The Contractor shall notify all utility companies and verify exact location of all utilities prior to performing any excavation, drilled shaft installation or construction and shall be responsible for making its own determination as may be necessary to avoid damages. Relocation of existing utilities shall be done by the Utility owner. Contractor shall assure that active utilities within the project limits are properly maintained during construction

ENVIRONMENTAL PROTECTION: See Roadway Pay Item Notes for details.

DRILLED SHAFTS: For shaft loads, size and additional notes, see Foundation Layout Drawing and Drilled Shaft Details Sheet. All drilled shafts shall be installed according to the Drilled Shaft Data Table in the Drilled Shaft Details Sheet.

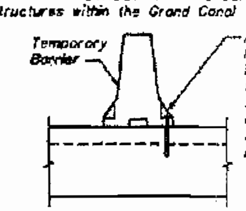
MAINTENANCE OF TRAFFIC: For additional maintenance of traffic details see Roadway plans.

NOISE RESTRICTIONS: The Contractor shall strictly adhere to all local noise ordinances. All construction operations shall be limited to the hours of 7:00 A.M. to 6:00 P.M., Monday thru Friday. Methods of maintaining construction noise levels may include but not be limited to enclosures for equipment, mufflers, etc. There will be no separate payment for any of these measures.

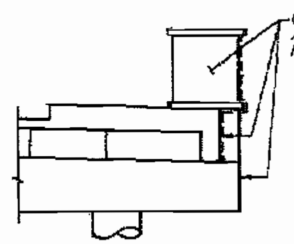
VIBRATION: The Contractor shall provide surveys of existing damage and settlement and vibration monitoring of existing structures adjacent to construction in all four quadrants in accordance with FDOT Standard Specifications. For the purposes of Section 455, the augercast pile diameter shall mean the same as the drilled shaft diameter. The maximum vibration speed velocity allowed shall be 0.25 in/sec. The cost of all existing structure survey and monitoring shall be paid for under Item No. 455-18, Protection of Existing Structures.

EXISTING STRUCTURE: The Contractor shall not use any part of the existing bridge for heavy equipment staging or to support falsework or trestles. Where necessary to move construction equipment over the existing bridge, the contractor shall submit computations indicating the existing structure capacity to support the proposed load to the Engineer for approval. Computations shall be signed and sealed by a Florida Registered Engineer

TEMPORARY STRUCTURES: The Contractor shall not construct temporary support structures within the Grand Canal



TEMPORARY BARRIER ANCHORAGE DETAIL
(To Existing & Proposed Deck)



SURFACE FINISH DETAIL

PROTECTION OF EXISTING STRUCTURES: In accordance with Section 455 of the FDOT Standard Specification for Roadway and Bridge Construction, the contractor shall provide settlement/vibration monitoring of the existing structure.

BID ITEM NOTES

1- Payment for incidental items, not specifically covered in the individual Bid items, shall be included in the Contractor Unit Price for Bid Items.

2- Bid Item No. 400-7, Bridge Floor Grooving, the total quantity includes Approach Slab grooving areas

3- The Contract Unit Price for Class IV Concrete shall includes the cost and installation of Premoulded Expansion Materials and joint sealants.

4- Item 110-3, Structures Removal of Existing, includes removal and disposal of existing Structures. This work shall include 2860 sf of bridge structure, removing the existing piles as specified in note 3 on sheet B-9 and portion of existing bulkhead indicated on plans. These quantities are for information only. Bidders shall visit the site prior to submitting bids to ascertain the full extent of the removal and disposal of the existing structure.

5- The Contractor shall be responsible for maintaining the stability of the End Bent embankment and the existing bulkhead during construction. This includes providing the Soil Stabilization System as shown. Associated cost shall be included with the cost of the substructure concrete, unless noted otherwise.

6- For Traffic Control Notes, see Roadway Plans.

7- The Approach Slab sheets are included with the Bridge Plans. All quantities, that are associated with the individual Approach Slabs are included with the quantities for their respective bridges, except for the asphalt overlay quantities. They are included in the Roadway quantities

INDEX OF SHEETS

B-1 GENERAL NOTES, INDEX OF BRIDGE SHEETS AND BID ITEM NOTES
B-2 STANDARD BAR BENDING DETAILS
B-3 PLAN AND ELEVATION
* B-4 BRIDGE HYDRAULIC RECOMMENDATIONS
B-5 CONSTRUCTION SEQUENCE
B-6 REPORT OF CORE BORINGS (1 OF 3)
B-7 REPORT OF CORE BORINGS (2 OF 3)
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B-9 FOUNDATION LAYOUT
B-10 DRILLED SHAFT DETAILS (1 OF 2)
B-11 DRILLED SHAFT DETAILS (2 OF 2)
B-12 END BENT NO. 1
B-13 END BENT NO 3
B-14 END BENT DETAILS (1 OF 2)
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B-28 REINFORCING BAR LIST (2 OF 5)
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B-30 REINFORCING BAR LIST (4 OF 5)
B-31 REINFORCING BAR LIST (5 OF 5)
B-32 LOAD RATING
EX-1 AND EX-2 EXISTING BRIDGE PLANS

* Reserved for future use

REVISIONS		APPROVED BY:				
DESCRIPTION	DATE	MANUEL A. SOLAUN, P.E. FLORIDA REGISTRATION No 434 8	CORZO CASTELLA CARBALLO THOMPSON SALMAN P.A. ENGINEERS ARCHITECTS PLANNERS	DATE: 10/ /2008; DRAWN: RM/RF; DESIGNED: MB; CHECKED: AV; QC: MAS; CADD FILE: 00734-03	TOWN OF GOLDEN BEACH	NAVONA AVE BRIDGE REPLACEMENT GENERAL NOTES, INDEX OF BRIDGE SHEETS & BID ITEM NOTES

00734-03

SHEET NO B-1

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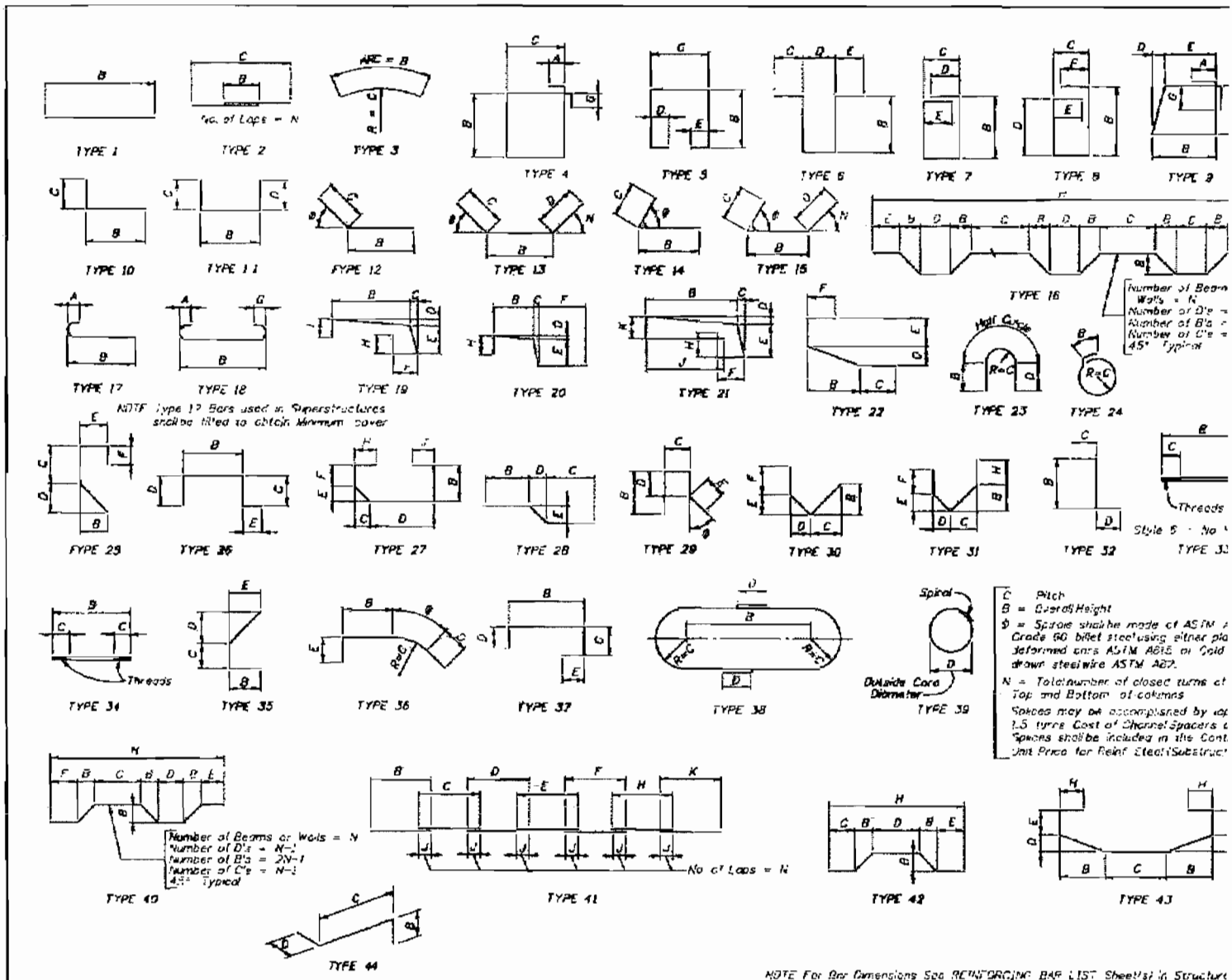
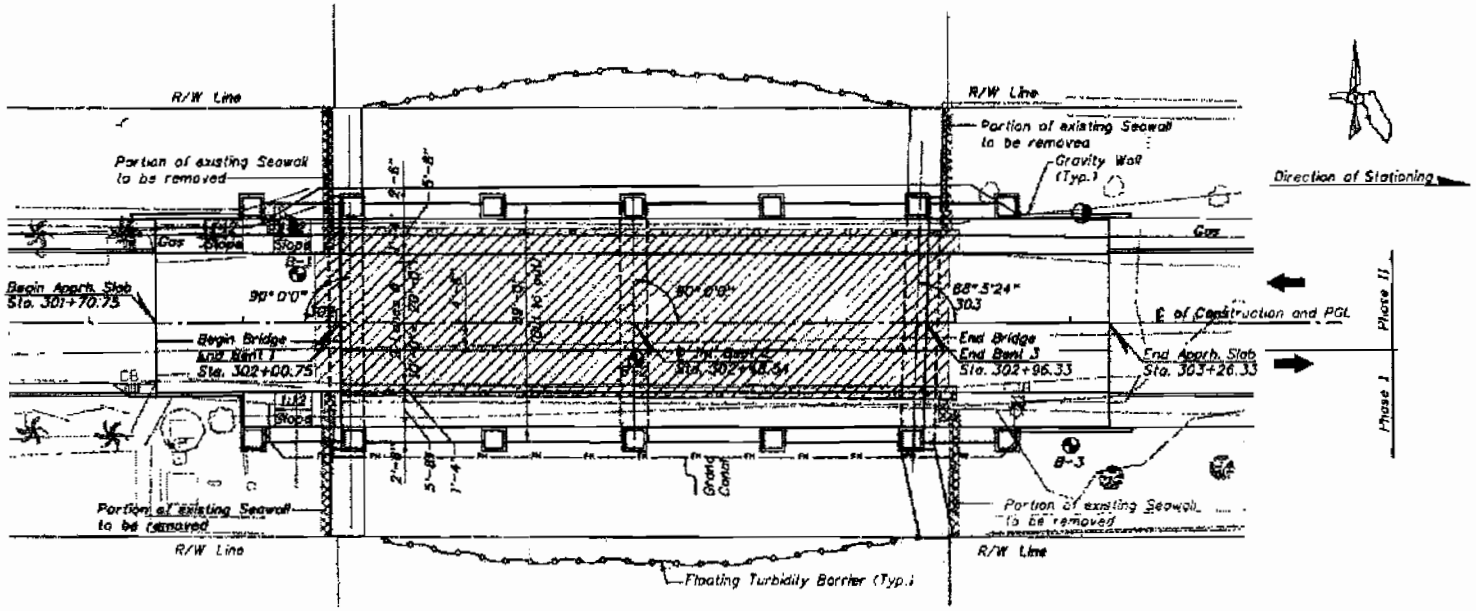
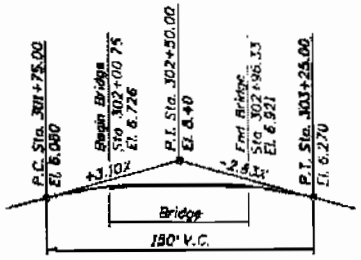

TYPE 1
No. of Laps = N
TYPE 2
ARC = B
TYPE 3
TYPE 4
TYPE 5
TYPE 6
TYPE 7
TYPE 8
TYPE 9
TYPE 10
TYPE 11
TYPE 12
TYPE 13
TYPE 14
TYPE 15
TYPE 16
Number of Beams or Walls = N
Number of D's = N-1
Number of B's = 2N-1
Number of C's = N-1
45° Typical
TYPE 17
TYPE 18
TYPE 19
TYPE 20
TYPE 21
TYPE 22
Half Circle
TYPE 23
TYPE 24
NOTE Type 17 Bars used in Superstructures shall be tilted to obtain Minimum cover
TYPE 25
TYPE 26
TYPE 27
TYPE 28
TYPE 29
TYPE 30
TYPE 31
TYPE 32
Threads
Style 5 - No
TYPE 33
TYPE 34
TYPE 35
TYPE 36
TYPE 37
TYPE 38
Spiral
Outside Core Diameter
TYPE 39
C = Pitch
B = Overall Height
Spirals shall be made of ASTM
Grade 60 billet steel using either pla
deformed bars ASTM A615 or Cold
drawn steel wire ASTM A82.
N = Total number of closed turns at
Top and Bottom of columns
Spirals may be accomplished by lap
1.5 turns. Cost of Channel Spacers
Spirals shall be included in the Cont
Unit Price for Reinf. Steel/Substruct
Number of Beams or Walls = N
Number of D's = N-1
Number of B's = 2N-1
Number of C's = N-1
45° Typical
TYPE 40
No. of Laps = N
TYPE 41
TYPE 42
TYPE 43
TYPE 44
NOTE For Bar Dimensions See REINFORCING BAR LIST Sheet(s) in Structure
REVISIONS
DESCRIPTION
DATE
APPROVED BY:
DATE:
MANUEL A. SOLANA, P.E.
FLORIDA REGISTRATION No. 23418
CONZC CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS ARCHITECTS PLANNERS
DATE:
DRAWN:
DESIGNED:
CHECKED:
DWG:
CADD FILE:
TOWN OF GOLDEN BEACH



PLAN



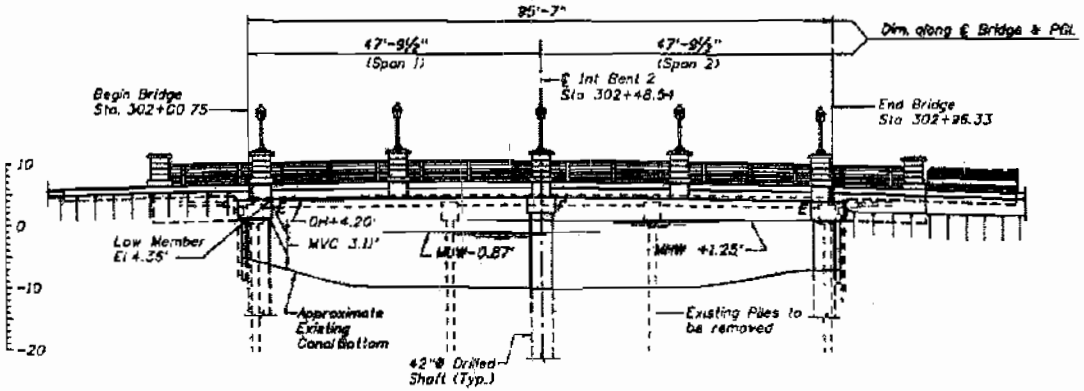
VERTICAL CURVE DATA

TRAFFIC DATA NAVONA AVENUE

Design Speed: 25 MPH

AGT 2001 = 500
2003 = 500
2023 = 500

K = 9.2% D = 50.8% T24 = 2.3%



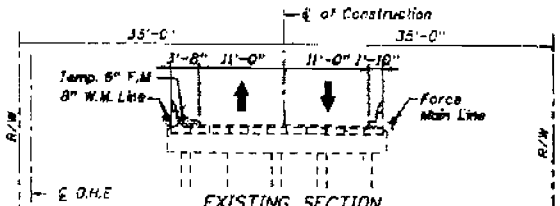
ELEVATION

LEGEND

DH	Design Flood Elevation
MHW	Mean High Water
MLW	Mean Low Water
MVC	Minimum Vertical Clearance
	Soil Boring
PGL	Profile Grade Line
E	Expansion Bearing
F	Fixed Bearing
	Exist Structure
	Proposed Structure
	Existing Bridge to be removed

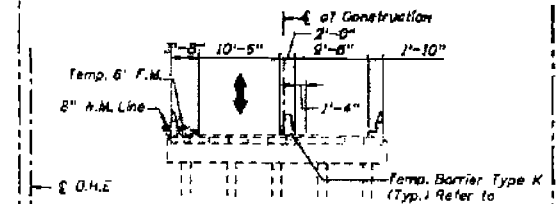
REVISIONS		APPROVED BY	CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A. ENGINEERS ARCHITECTS PLANNERS	DATE: 10/09/2001	TOWN OF GOLDEN BEACH	NAVONA AVE BRIDGE REPLACEMENT PLAN AND ELEVATION	SHEET NO. B-3
DESCRIPTION	DATE	DATE: 10/09/2001		DRAWN: RH/RF			0073403
1		MANUEL A. SOLAUN, P.E.		DESIGNED: MG			
2		FLORIDA REGISTRATION No 43418		CHECKED: AV			
3				QC: MAS			
4				CADD FILE: 00734-03			

44



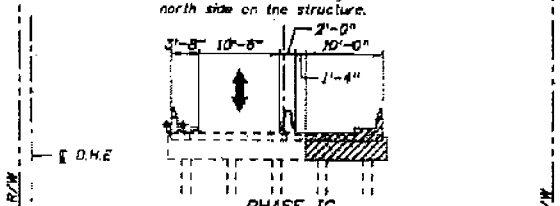
EXISTING SECTION
PHASE IA

Relocate existing 6" F.M. to temporary location shown



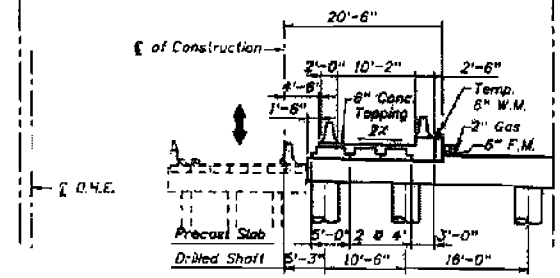
PHASE IB

Install temporary barrier and shift traffic to the one lane-two way scheme on the north side on the structure.



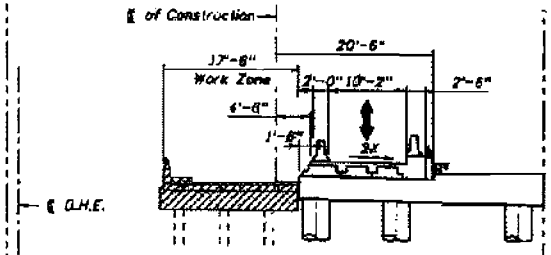
PHASE IC

Remove the south portion of existing bridge.



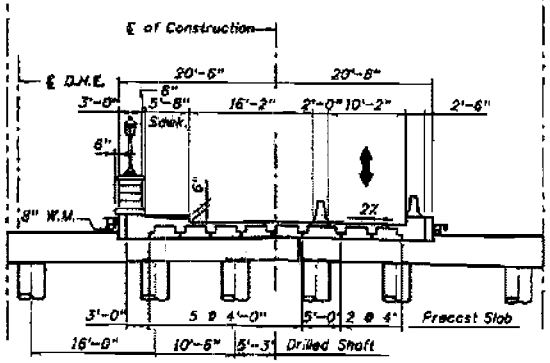
PHASE ID

Build the southern part of the proposed structure except the Sidewalk, Railings and Pilasters. Install temporary barriers on the newly built portion of the proposed bridge. Relocate 6" F.M. & 2" Gas to Permanent Location Relocate W.M. to temporary location shown.



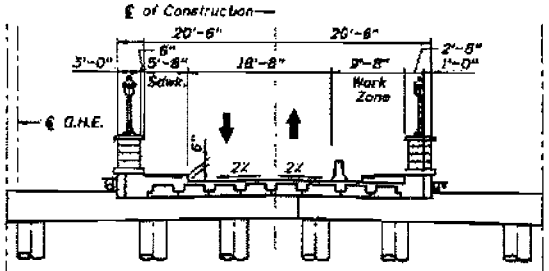
PHASE IIA

Relocate temporary barrier and shift traffic to one lane-two way scheme. Construct the south sidewalk railing and pilasters of the proposed structure.



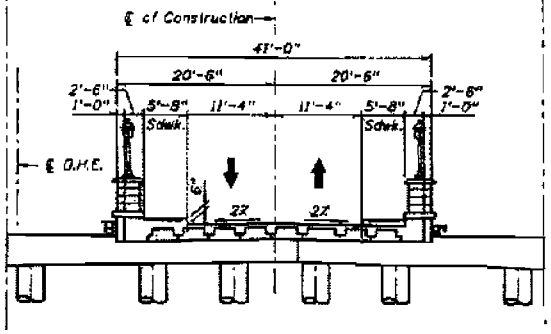
PHASE IIB

Remove the northern portion of existing structure and construct the remaining north section of proposed structure including Sidewalk, Railings and decorative Pilasters Relocate 8" W.M. to permanent location



PHASE IIIA

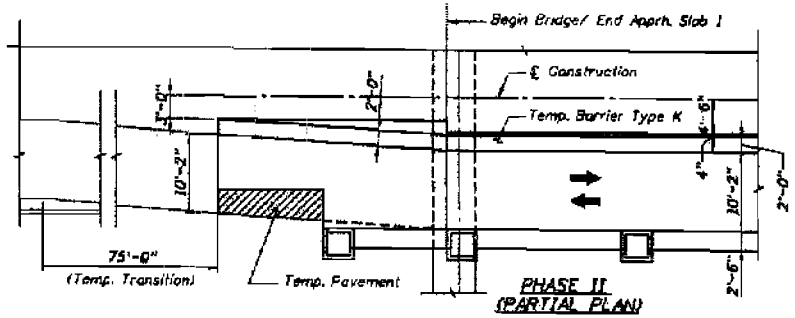
Relocate temporary barrier and shift traffic to two lane-two way scheme. Construct the south sidewalk railing and pilasters of the proposed structure.



PHASE IIIB

Remove Temporary Barrier. Open Bridge to Traffic

FINAL TYPICAL SECTION



PHASE II
(PARTIAL PLAN)

LEGEND:

- - - Existing Structure
—— Proposed Structure
▨ Existing Structure to be removed

NOTES:

1. Temporary Barrier shall be anchored to the bridge deck during all phases.
2. Coordinate this construction Staging Plan with maintenance of traffic in Roadway Plans.

REVISIONS		
	DESCRIPTION	DATE
1.		
2.		
3.		
4.		

APPROVED BY:
DATE:
MANUEL A. SOLAUN, P.E.
FLORIDA REGISTRATION No. 43418

CONZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
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MIAMI (305) 446-0900 FLORIDA (800) 446-0257
FLORIDA REGISTRATION: EB0000820 AA0003148

DATE:	10/09/2001
DRAWN:	RH/RP
DESIGNED:	NB
CHECKED:	AV
QC:	MAB
CADD FILE:	00754-03

TOWN OF GOLDEN BEACH

NAVONA AVE
BRIDGE REPLACEMENT
CONSTRUCTION SEQUENCE

DC/04-03

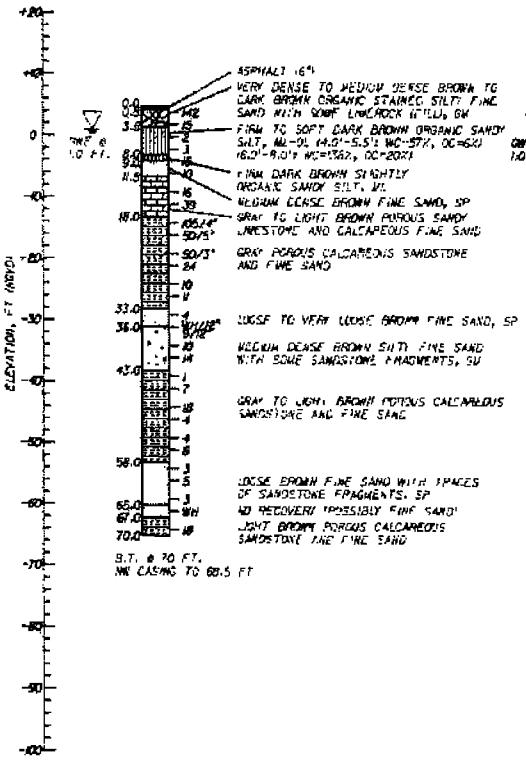
SHEET NO
B-5

45

B-1

NORTHING: 596602.855
EASTING: 944734.619
STATION: 304+95
OFFSET: 5.0 L
ELEVATION: 4.7 FT
DATE: 1/05/09

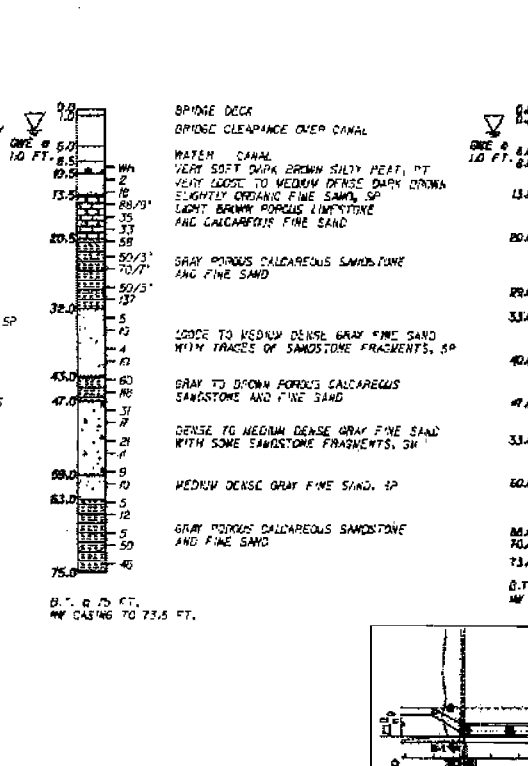
DEPTH, FT. N



B-2

NORTHING: 596592.359
EASTING: 944653.832
STATION: 302+50
OFFSET: 6.0 R
ELEVATION: 4.5 FT
DATE: 1/06/09

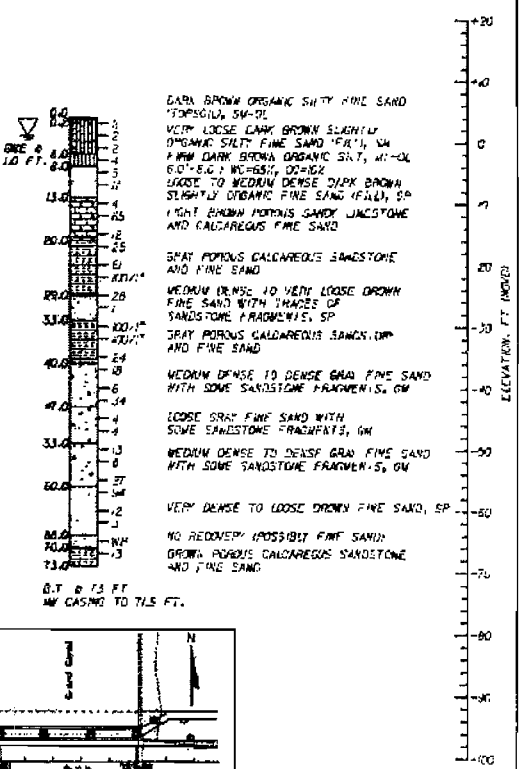
DEPTH, FT. N

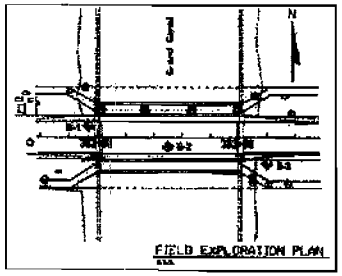


B-3

NORTHING: 596585.209
EASTING: 944996.137
STATION: 303+20
OFFSET: 20.0 R
ELEVATION: 4.5 FT
DATE: 1/05/09

DEPTH, FT. N





VERTICAL SCALE: 0 5 20
HORIZONTAL SCALE: N.T.S.

LEGEND:

- ASPHALT
- LIMEROCK FILL
- PEAT
- FINE SAND
- FINE SAND WITH SOME LIMESTONE FRAGMENTS
- SANDY SILT
- LIMESTONE WITH SOME FINE SAND OR AND FINE SAND
- SANDSTONE WITH SOME FINE SAND OR AND FINE SAND

▽ GROUND WATER LEVEL AT BORING COMPLETION

B.T. BORING TERMINATED

N: SPT VALUE FOR A 12-INCH PENETRATION (AUTOMATIC HAMMER)

WH: WEIGHT OF HAMMER

O.C. ORGANIC CONTENT

W.C. WATER CONTENT

HAMMER WEIGHT = 140 LB

DROP HEIGHT = 30 IN

THE TEST BORINGS WERE PERFORMED BY HPES USING A CME-55 TRUCK MOUNTED RIG

GRANULAR MATERIALS:

RELATIVE DENSITY	SPT N-VALUE (BLOWS/12 INCHES)
VERY LOOSE	<3
LOOSE	3-8
MEDIUM DENSE	8-24
DENSE	24-40
VERY DENSE	>40

SILTS AND CLAYS:

CONSISTENCY	SPT N-VALUE (BLOWS/12 INCHES)
VERY SOFT	<1
SOFT	1-3
FIRM	3-6
STIFF	6-12
VERY STIFF	12-24
HARD	>24

ENVIRONMENTAL CLASSIFICATION
SUBSTRUCTURE: EXTREMELY AGGRESSIVE
SUPERSTRUCTURE: EXTREMELY AGGRESSIVE

Resistivity Ohms-cm	pH	Sulfates ppm	Chlorides ppm
216 to 234	7.4 to 7.9	2,370 to 2,670	30,300 to 22,700

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Hernando R. Ramos
P.E. License No. 42348
HR ENGINEERING SERVICES, INC.
7845 NW 73rd Avenue
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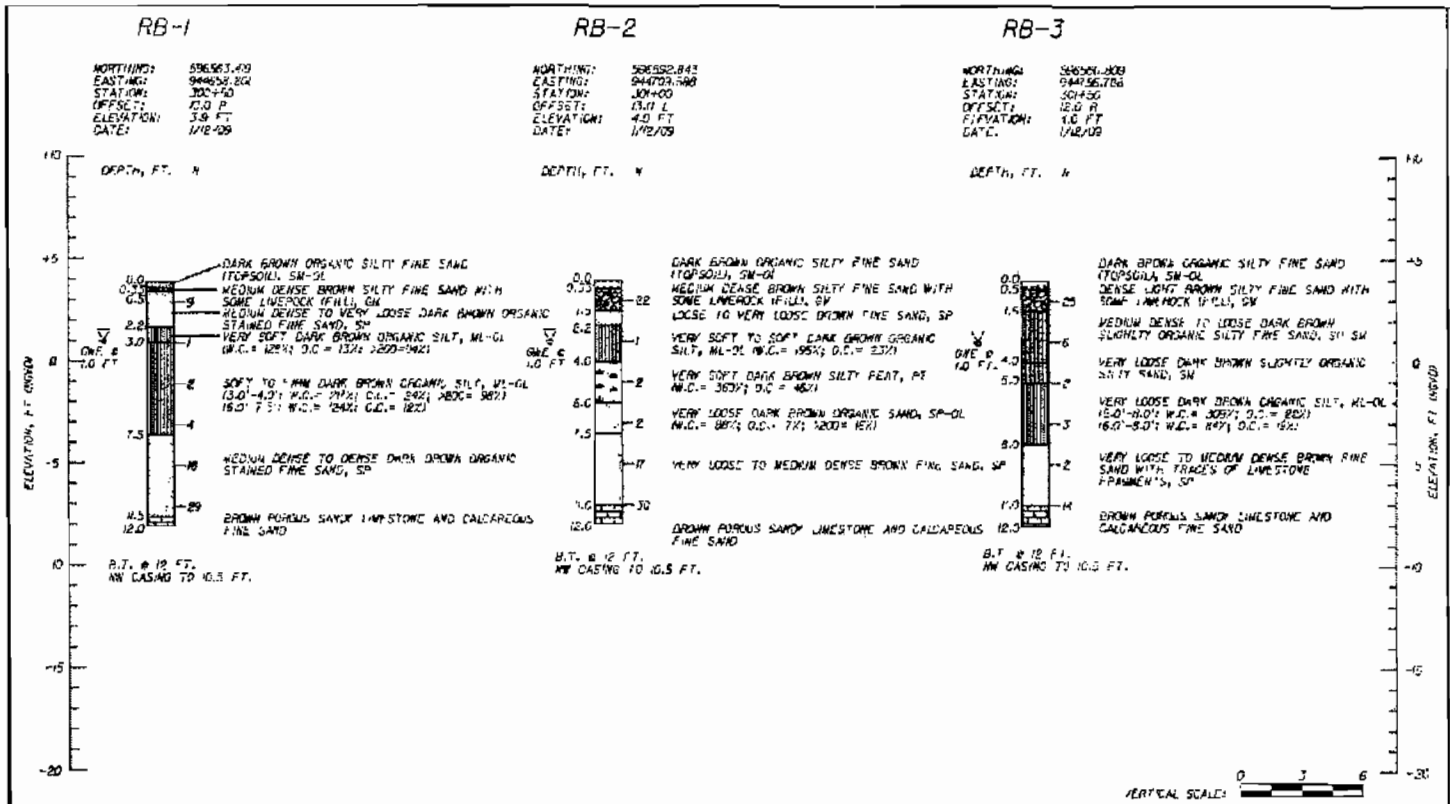
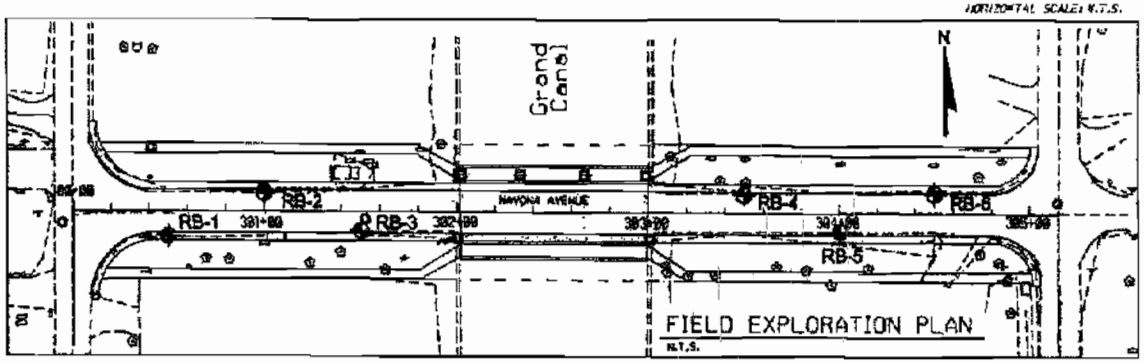
CITY OF GOLDEN BEACH		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
-	MIAMI-DADE	-

REPORT OF CORE BORINGS (1 OF 3)

SHEET NO. B-5





LEGEND:

- TOPSOIL
- SANDY SILT
- LIMEROCK FILL
- SILTY SAND
- FINE SAND
- LIMESTONE WITH SOME FINE SAND OR AND FINE SAND
- PEAT

GROUND WATER LEVEL AT BORING COMPLETION

B.T. BORING TERMINATED

N: SPT VALUE FOR A 12-INCH PENETRATION (AUTOMATIC HAMMER)

WH: WEIGHT OF HAMMER

>200: PERCENT PASSING #200 SIEVE

O.C. ORGANIC CONTENT

W.C. WATER CONTENT

HAMMER WEIGHT - 140 LB

DROP HEIGHT = 30 IN

THE TEST BORINGS WERE PERFORMED BY HRES USING A CME 55 TRUCK MOUNTED RIG

GRANULAR MATERIALS:

RELATIVE DENSITY	SPT N VALUE (BLOWS/FOOT)
VERY LOOSE	<3
LOOSE	3-8
MEDIUM DENSE	8-24
DENSE	24-40
VERY DENSE	>40

SILTS AND CLAYS:

CONSISTENCY	SPT N-VALUE (BLOWS/FOOT)
VERY SOFT	<1
SOFT	1-3
FIRM	3-6
STIFF	6-12
VERY STIFF	12-24
HARD	>24

ENVIRONMENTAL CLASSIFICATION

SUBSTRUCTURE: EXTREMELY AGGRESSIVE
SUPERSTRUCTURE: EXTREMELY AGGRESSIVE

Resistivity Ohms-cm	pH	Sulfate ppm	Chloride ppm
21.6 to 23.8	7.4 to 7.9	2,570 to 2,670	20,300 to 22,700

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Hernando R. Ramos
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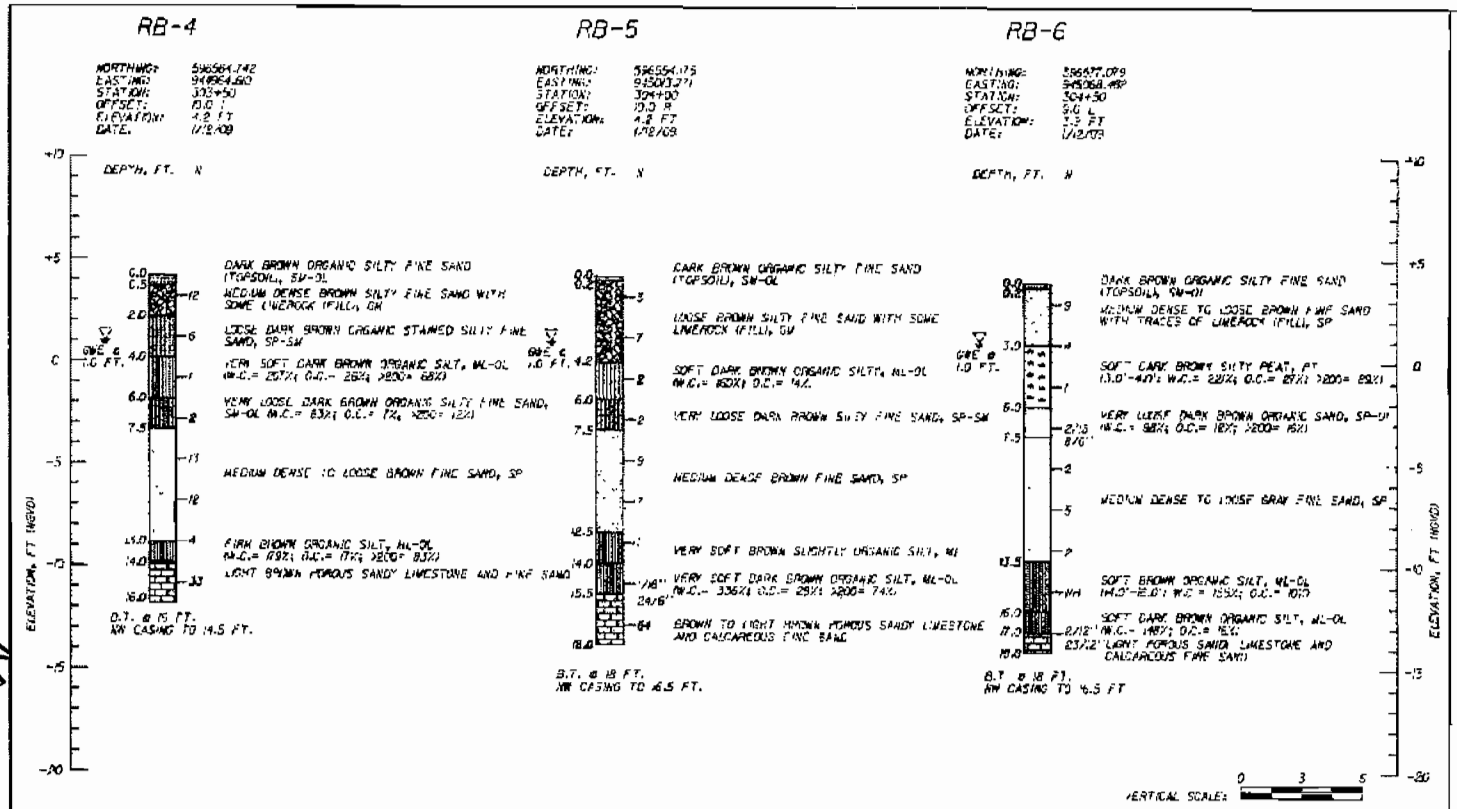
Phone: (305) 888-8880
Fax: (305) 888-8770
Certificate of Authorization No. 7981

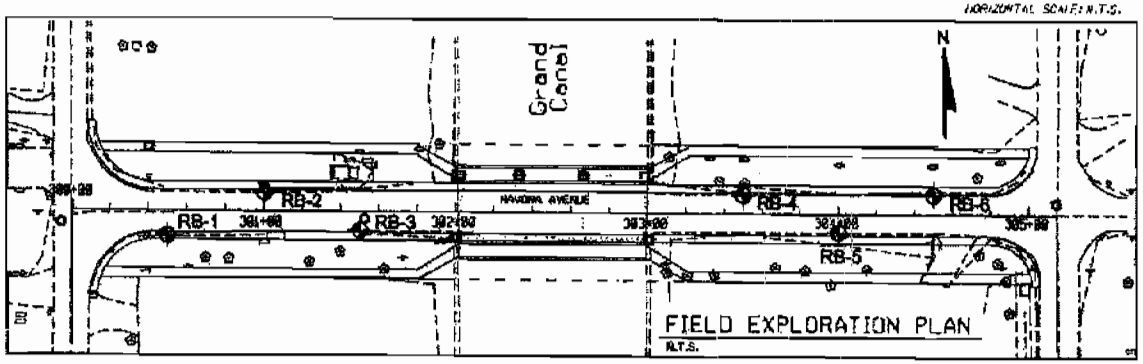
CITY OF GOLDEN BEACH

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
–	MIAMI-DADE	–

REPORT OF CORE BORINGS
(2 OF 3)

SHEET NO. B-7





LEGEND:

- TOPSOIL
- SANDY SILT
- LIMEROCK FILL
- SILTY SAND
- FINE SAND
- LIMESTONE WITH SOME FINE SAND OR AND FINE SAND
- PEAT

GWE @ GROUND WATER LEVEL AT BORING COMPLETION

B.T. BORING TERMINATED

N: SPT VALUE FOR A 12-INCH PENETRATION (AUTOMATIC HAMMER)

WH: WEIGHT OF HAMMER

>200: PERCENT PASSING #200 SIEVE

O.C. ORGANIC CONTENT

W.C. WATER CONTENT

HAMMER WEIGHT = 140 LB

DROP HEIGHT = 30 IN

THE TEST BORINGS WERE PERFORMED BY HPES USING A CME-55 TRUCK MOUNTED RIG

GRANULAR MATERIALS:

RELATIVE DENSITY	SPT N-VALUE (BLOWS/12 INCHES)
VERY LOOSE	<2
LOOSE	3-8
MEDIUM DENSE	8-24
DENSE	24-40
VERY DENSE	>40

SILTS AND CLAYS:

CONSISTENCY	SPT N-VALUE (BLOWS/12 INCHES)
VERY SOFT	<1
SOFT	1-3
FIRM	3-6
STIFF	6-12
VERY STIFF	12-24
HARD	>24

ENVIRONMENTAL CLASSIFICATION

SUBSTRUCTURE: EXTREMELY AGGRESSIVE
SUPERSTRUCTURE: EXTREMELY AGGRESSIVE

Resistivity Ohms-cm	pH	Sulfates ppm	Chlorides ppm
21.6 to 23.5	7.4 to 7.9	2,370 to 2,670	20,300 to 22,700

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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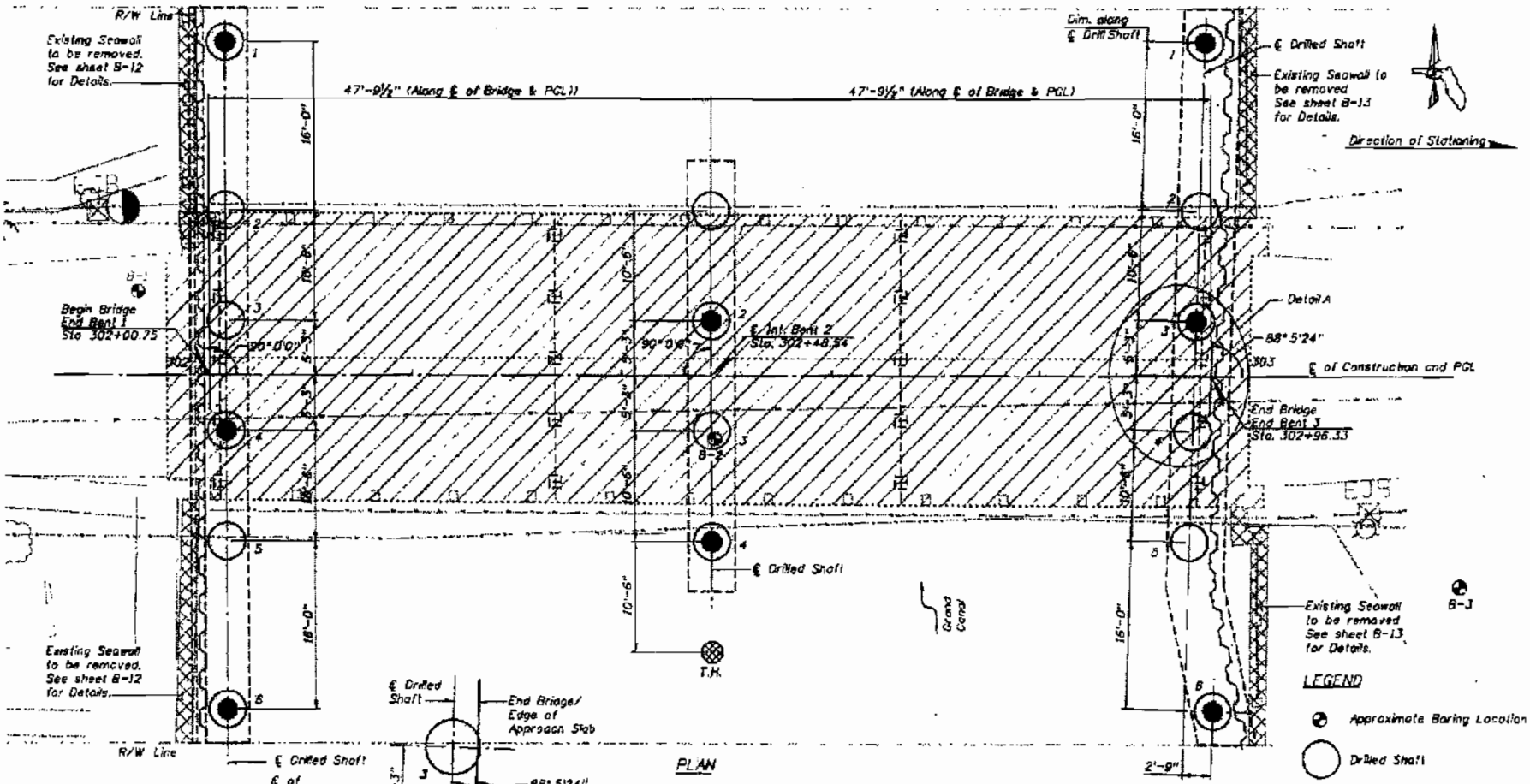
CITY OF GOLDEN BEACH		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
-	MIAMI-DADE	-

REPORT OF CORE BORINGS
(1 OF 2)

SHEET NO. B-8



NOTES:

1. For GENERAL NOTES, see sheet B-1.
2. For DRILLED SHAFT DETAILS AND NOTES, see sheets B-10 & B-11.
3. Existing piles in conflict with proposed drilled shafts shall be completely removed. All other existing piles shall be cut off 2'-0" below mudline (Total number of existing piles = 20).
4. Existing 6" WM, 2" GM and 8" FM to be relocated, refer to Utility Adjustment plan

LEGEND

- Approximate Boring Location
- Drilled Shaft
- Drilled Shaft Test Hole (T.H.)
- Existing Structure to be removed
- Existing Seawall to be removed
- Existing Pile to be removed
- Drilled Shaft with Standard penetration Test SPT)

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY:
DATE: 10/08/2008
MANUEL A. SOLAUN, P.E.
FLORIDA REGISTRATION NO. 43418

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MIAMI (305)-445-2900 FLORIDA (800)-342-0567
FL REGISTRATION: EB0026555 AA0000142

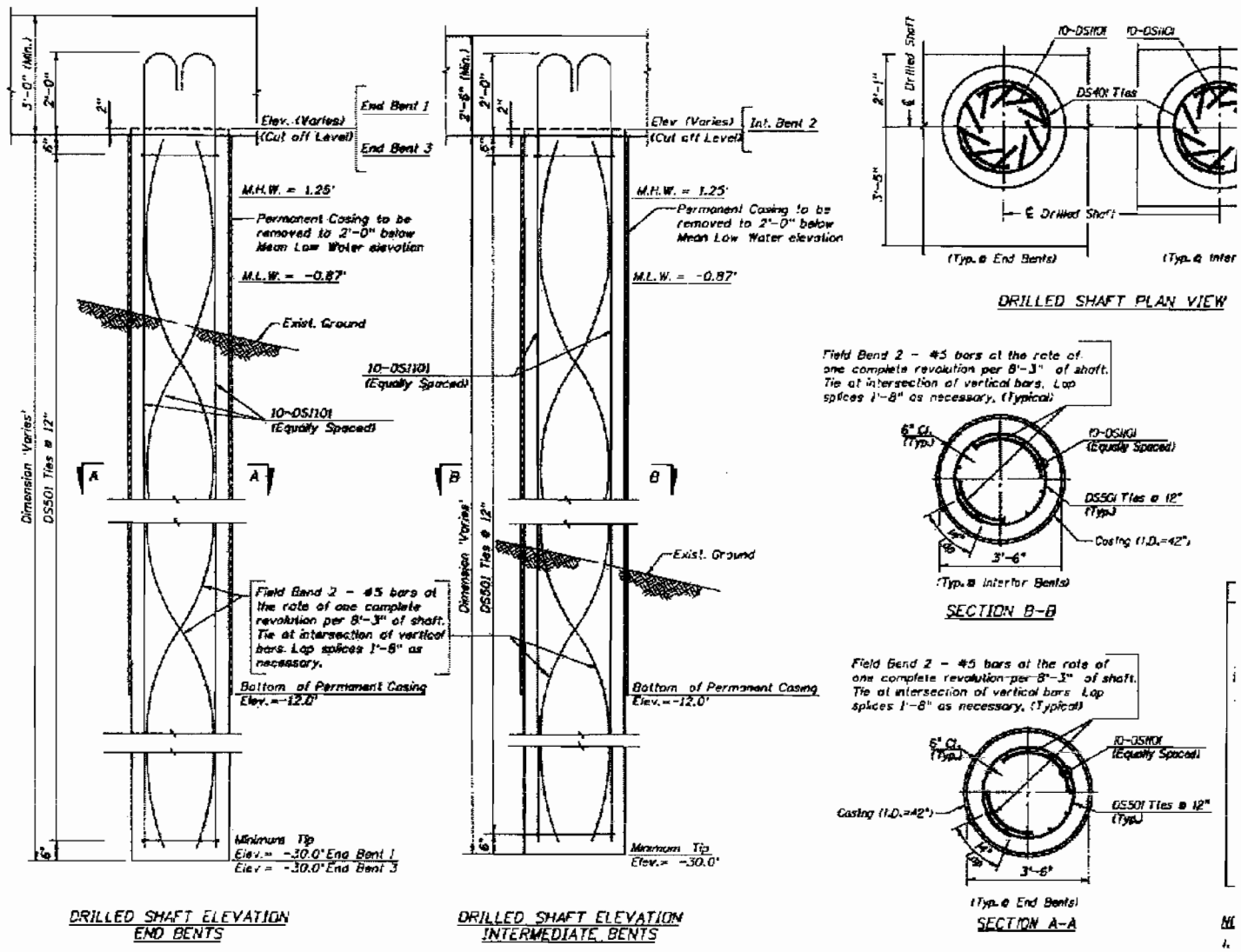
DATE:	10/08/2008
DRAWN:	RR/RF
DESIGNED:	MG
CHECKED:	AV
QC:	MAP
CADD FILE:	00734-03

TOWN OF GOLDEN BEACH

NAVONA AVE BRIDGE REPLACEMENT
FOUNDATION LAYOUT

00734-03

SHEET NO. B-9



DRILLED SHAFT ELEVATION
END BENTS

DRILLED SHAFT ELEVATION
INTERMEDIATE BENTS

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY

DATE: Typedoc

MANUEL A. SOLAUN, P.E.
FLORIDA REGISTRATION No. 43418

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS ARCHITECTS PLANNERS
201 PONCE DE LEON BLVD. SUITE 500
CORAL GABLES, FLORIDA 33134
MIAMI (305)-445-2800 FLORIDA (800)-[illegible]
F. REGISTRATION # [illegible]

DATE:	10/06/2006
DRAWN:	RR/RP
DESIGNED:	MG
CHECKED:	AV
QC:	MAS
CADD FILE:	00734-03

TOWN OF GOLDEN BEACH

DRILLED SHAFT DATA TABLE									
BENT	SHAFT SIZE (ft)	ULTIMATE CAPACITY (Kips)	TIP ELEV. (ft)	MINIMUM TIP ELEV. (ft)	MIN. ROCK SOCKET LENGTH (ft) *	FACTORED DESIGN LOAD (Kips)	DOWN DRAG (Kips)	100-YEAR SCOUR ELEV. (ft)	Φ
End Bent 1	3.5'	675	-30.0	-30.0	12.0	405	N/A	-12.0	0.60
Int Bent 2	3.5'	900	-30.0	-30.0	16.0	540	N/A	-12.0	0.60
End Bent 3	3.5'	675	-30.0	-30.0	12.0	405	N/A	-12.0	0.60

* Only rock with a standard penetration resistance equal or greater than 15 shall be counted when measuring the rock socket length

ESTIMATED QUANTITIES (42" Φ)					
PAY ITEM NO.	ITEM	UNIT	QUANTITY		
			PHASE I	PHASE II	TOTAL
455-88-4	Drilled Shaft (42" Φ)	L.F.	291	258	549
455-107-4	Drilled Shaft Casing (42" Φ)	L.F.	129	114	243
455-111	Core (Shaft Excavation)	L.F.	45	40	85
455-122-4	Excavation Unclassified Shaft (42" Φ)	L.F.	425	377	802

NOTES:

1. Min. Tip Elevation is the h
2. Drilled Shaft Sidewall over-
3. Perform "Standard Pene plans to a depth of 20 f Split spoon samples and S ASTMD-1586 procedures, sample and SPT test eve included in Pay Item 455
4. Design Tip Elevation will be reviewing results of SPT weeks prior to fabricating Tip Elevation will be deter
5. Unclassified Shaft Excava shown in the plans, and in Excavation.
6. Perform one 42" Φ Drille location indicated on the shaft construction items Drilled Shaft (42" Φ)
7. All Drilled Shafts shall be c permanent casing shall be
8. In each Drilled Shaft prov Section 455-16.4 of the with Section 455-17.6 of Shafts selected by the E Record may increase the

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY:

DATE: 10/09/2009

MANUEL A. SOLAUN, P.E.
FLORIDA REGISTRATION No. 43418

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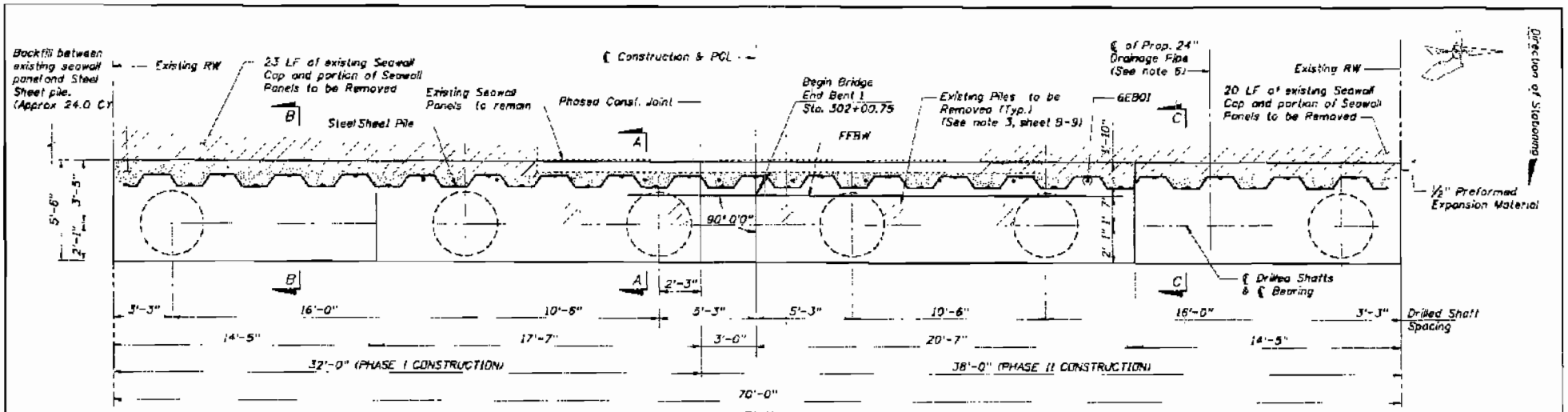
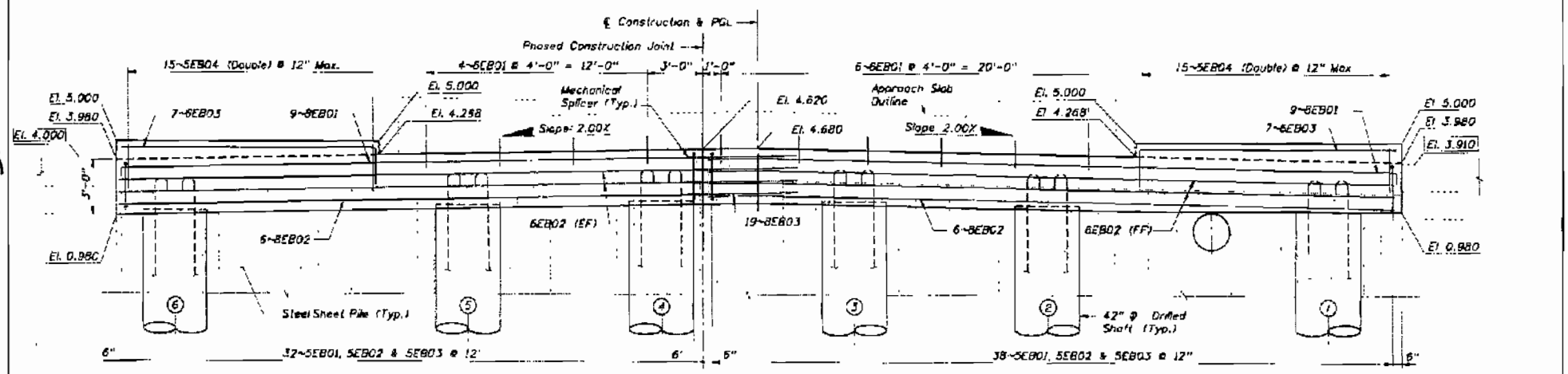
MIAMI (305)-445-2600 FLORIDA (800)-445-0337
FL REGISTRATIONS EB0008493 AAC002142

DATE:	10/09/2009
DRAWN:	RN/RP
DESIGNED:	MG
CHECKED:	AV
QC:	MAS
CADD FILE:	00734-03

TOWN OF GOLDEN BEACH



PLAN



ELEVATION

TOP OF SHAFT ELEVATIONS						
SHAFT NO.	1	2	3	4	5	6
ELEVATION	1.247	1.567	1.777	1.777	1.567	1.247

NOTES:

1. For General Notes see sheet B-1.
2. For sections and details refer to sheets B-14 and B-15
3. For Drilled Shafts, see FOUNDATION LAYOUT, sheet B-9 and Drilled Shaft Details, sheets B-10 & B-11.
4. For Construction Sequence see TRAFFIC CONTROL PLAN, sheet B-5
5. Mechanical Splicers shall provide 125% of the specified reinforcement yield strength.
6. Refer to Civil Drawings for exact location of Drainage Pipe.

LEGEND:

FFBW	Front Face of Back Wall
FF	Far Face
NF	Near Face
EF	Each Face
El X.XXX	Existing Elevation to be Field Verified
	Existing to be Removed
	Backfill

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY:

DATE: 10/01/2006

MANUEL A. SOLAUN, P.E.
FLORIDA REGISTRATION No. 43416

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
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801 PONCE DE LEON BLVD., SUITE 900
CORAL GABLES, FLORIDA 33134
MIAMI (305)-443-2800 FLORIDA (305)-443-0827
FL REGISTRATIONS: [illegible]

DATE:	10/01/2006
DRAWN:	RN/RF
DESIGNED:	MG
CHECKED:	AV
QC:	MAS
CADD FILE:	DDF24-03

TOWN OF GOLDEN BEACH

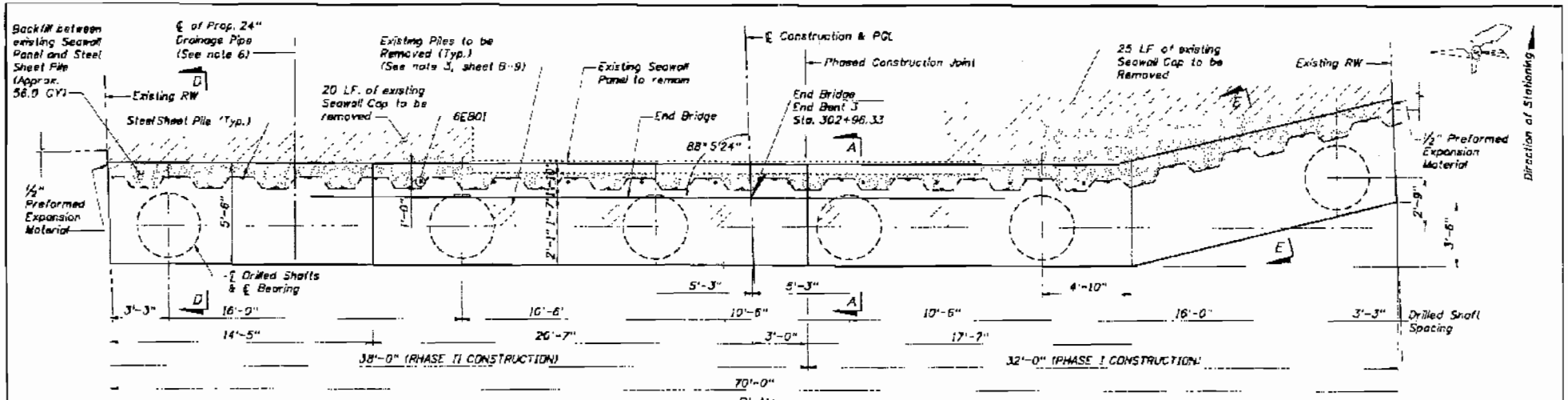
NAVONA AVE
BRIDGE REPLACEMENT
END BENT NO.1

00734-03

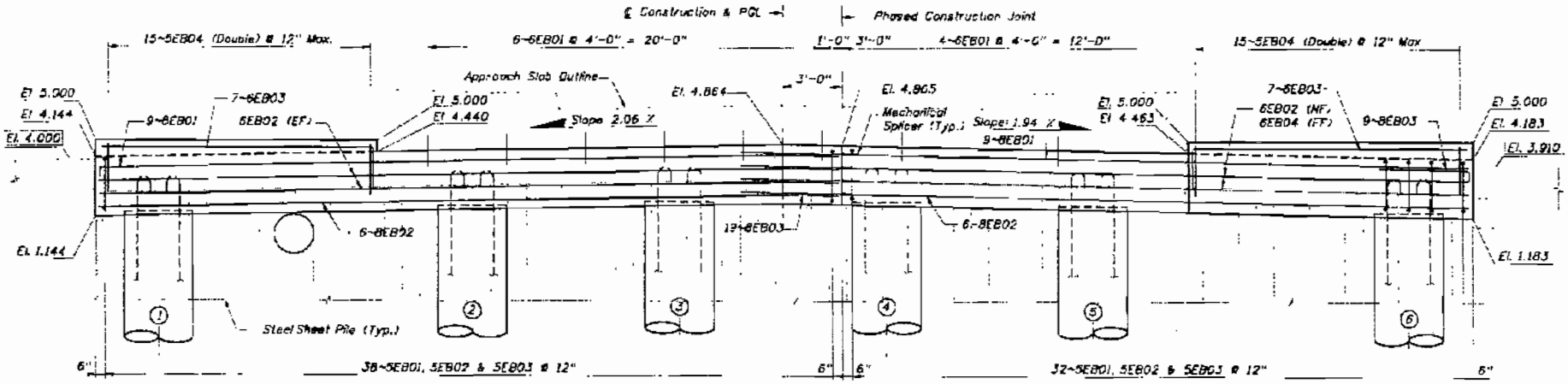
SHEET NO
B-12

52

E



PLAN



ELEVATION

TOP OF SHAFT ELEVATIONS						
SHAFT NO.	1	2	3	4	5	6
ELEVATION	1.414	1.743	1.955	1.962	1.758	1.447

NOTES:

1. For General Notes see sheet B-1.
2. For sections and details refer to sheets B-14 & B-15.
3. For Drilled Shafts, see FOUNDATION LAYOUT, sheet B-9 and Drilled Shaft Details, sheets B-10 & B-11.
4. For Construction Sequence see TRAFFIC CONTROL PLAN, sheet B-5
5. Mechanical Splicers shall provide 125% of the specified reinforcement yield strength.
6. Refer to Civil Drawings for exact location of Drainage Pipe.

LEGEND:

FFBW	Front Face of Back Wall
FF	Far Face
NF	Near Face
EF	Each Face
El. X.XXX	Existing Elevation to be Field Verified
	Existing to be Removed
	Backfill

REVISIONS	
DESCRIPTION	DATE
1	
2	
3	
4	

APPROVED BY:

DATE:

MANUEL A. SOLAUN, P.E.
FLORIDA REGISTRATION No. 43416

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
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801 PONCE DE LEON BLVD., SUITE 800
CORAL GABLES FLORIDA 33134
MIAMI (305) 445-2580 FLORIDA (800) 446-3337
FL REGISTRATION ER0008028 AA0002548

DATE:	10/08/2008
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DESIGNED:	MG
CHECKED:	AY
QC:	MAS
CADD FILE:	60734-03

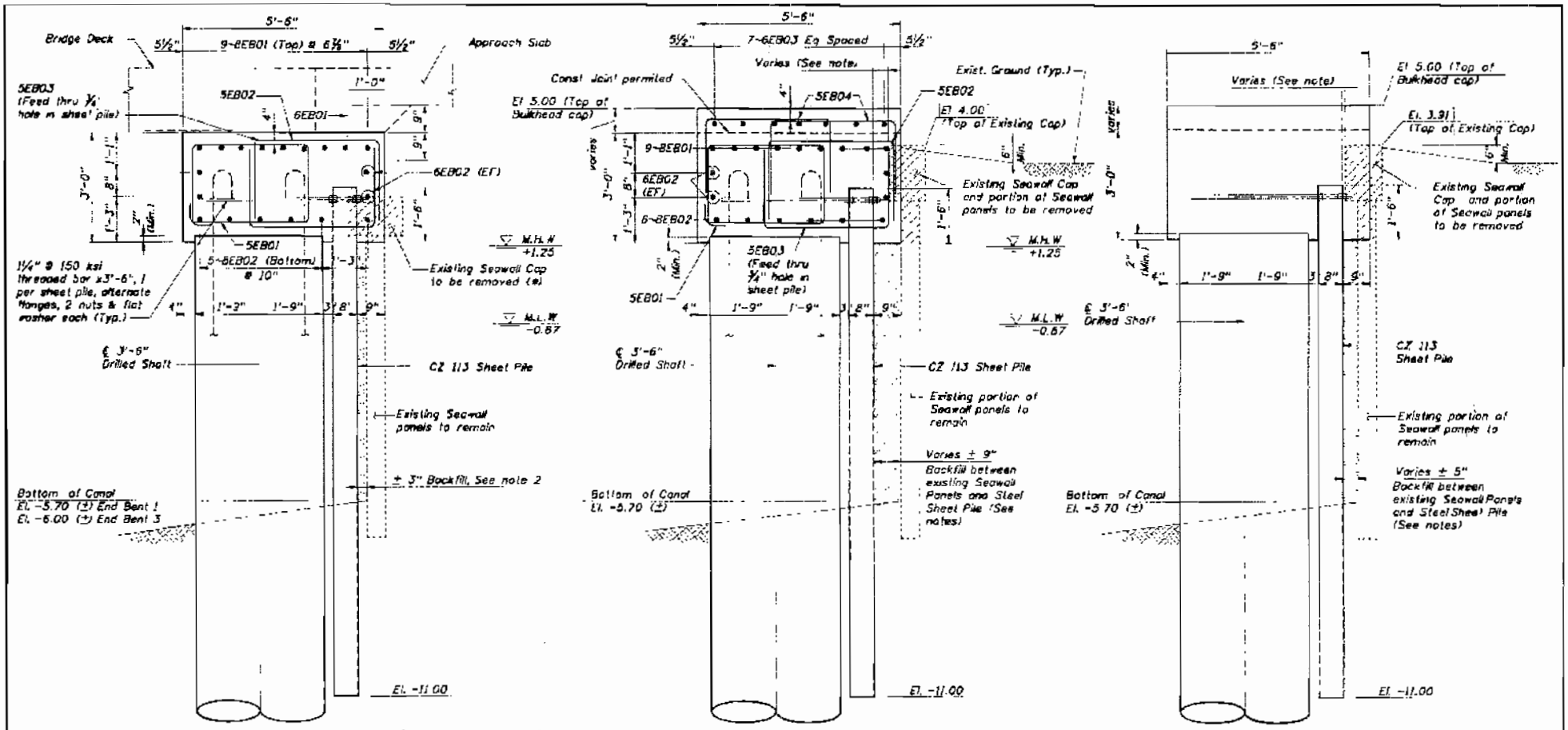
TOWN OF GOLDEN BEACH

NAVONA AVE
BRIDGE REPLACEMENT
END BENT NO 3

60734.03

SHEET NO
B-13

53



54

ESTIMATED QUANTITIES (END BENTS)

ITEM	UNIT	END BENT 1 PHASE I	END BENT 1 PHASE II	END BENT 3 PHASE I	END BENT 3 PHASE II	TOTAL QUANTITY
Class V Concrete (Substructure)	CY	22.2	25.8	21.5	25.3	94.9
Reinforcing Steel (Substructure)	LB	2804	3473	2909	3473	12559
Steel Sheet Piling (Permanent)	SF	432	513	432	513	1890

LEGEND:

- EF Each Face
- FF For Face
- NF Near Face
- El X.XX Existing elevation to be field verified
- Existing structure to be removed (See note)
- Backfill

NOTES:

1. Remove existing Seawall Cap and portion of Seawall Panels in conflict with the proposed Cap. The panels in conflict with the proposed Cap shall be cut 2" minimum below the bottom of the proposed Cap.
2. Location of existing seawall are based on existing plans. The Contractor shall field verify the location and elevation of existing Seawalls.

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY
MANUEL A. SOLAUN, P.E.
FLORIDA REGISTRATION No. 43416
DATE: 10/08/2009

CORZO CASTELLA CARBALLO THOMPSON SALMON, P.A.
ENGINEERS ARCHITECTS PLANNERS
801 PONCE DE LEON BLVD. SUITE 600
CORAL GABLES, FLORIDA 33134
FL REGISTRATIONS

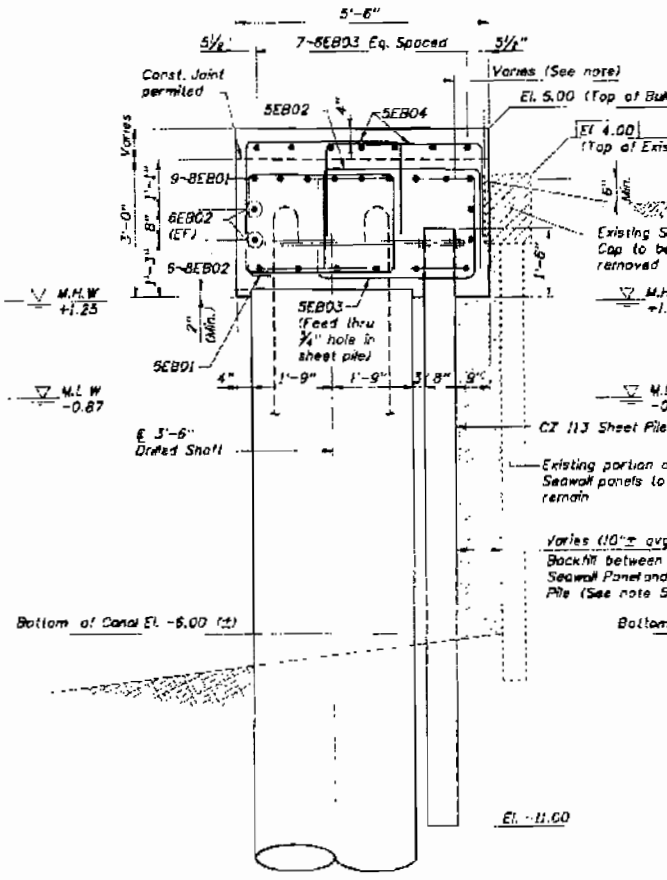
DATE:	10/ 08/ 2009
DRAWN:	RH/ RF
DESIGNED:	MS
CHECKED:	AV
QC:	MAS
CADD FILE:	00734-03

TOWN OF GOLDEN BEACH

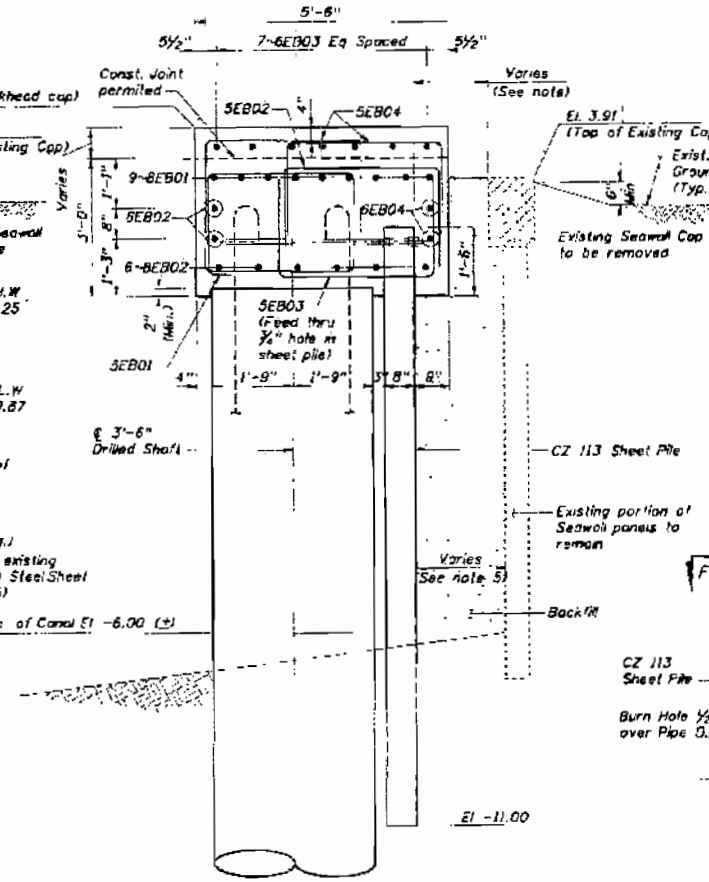
NAVONA AVE
BRIDGE REPLACEMENT
END BENT DETAILS (1 OF 2)

00734-03

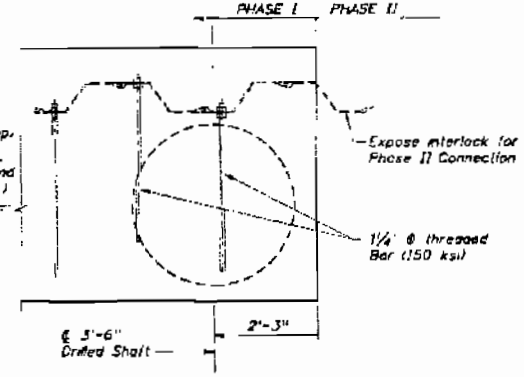
SHEET NO. B-14



SECTION D-D

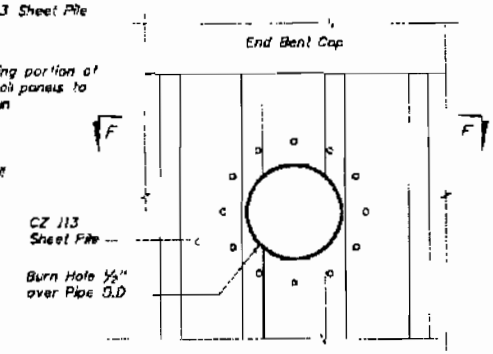


SECTION E-E

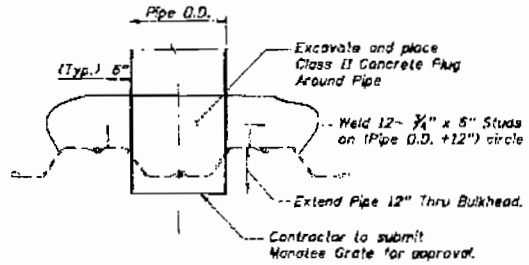


PARTIAL PLAN AT PHASE LINE

(End Bent I shown)



DETAIL AT END BENT OUTFALL



SECTION F-F

NOTES:

1. Steel Sheet Piling shall be CZ 113 Grade 50 in accordance with ASTM A572 with S=18.79 cu/ft and thickness=0.375 in. Coat both sides full length with one coat of inorganic zinc and two coats of coal tar epoxy. Final thickness of epoxy shall be 16 mils. Surface preparation in accordance with Manufacturer's Specifications
2. Permanent Sheet Piling shall be paid for under Pay Item 455-133-3. This pay item includes all cost associated with sheet pile installation operations: any necessary sheet piling extractions or cutting; and mobilization of preforming equipment or other special equipment required to facilitate installation. Also includes the surface preparation as describe in note 1, 1¼" dia. threaded bars on all other incidentals to complete the work.
3. Contractor to use extreme care in working next to private property at R/W line. Limits of the End Bent/Bulkhead cap shall be verified in the field.
4. Remove existing Seawall Cap and portion of Seawall Panels in conflict with the proposed Cap. The panels in conflict with the proposed Cap shall be cut 2" minimum below the bottom of the proposed Cap.
5. Location of existing seawall are based on existing plans. The Contractor shall field verify the location and elevation of existing Seawalls.

LEGEND:

EF	Each Face
FF	For Face
NF	Near Face
avg	Average
El. X.XX	Existing Elevation to be Field Verified
	Existing structure to be removed (See note 4)
	Backfill

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY:

DATE 10/08/2009

MANUEL A. BOLAUN, P.E.
FLORIDA REGISTRATION No. 43416

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS ARCHITECTS PLANNERS
851 PONCE DE LEON BLVD., SUITE 500
CORAL GABLES, FLORIDA 33134
MIAMI (305) 445-8900 FLORIDA (800) 445-8937
FL REGISTRATION: E-[illegible] AA0002148

DATE	10/08/2009
DRAWN	RN/RF
DESIGNED	MG
CHECKED	AV
QC	MAB
CADD FILE	00794-03

TOWN OF GOLDEN BEACH

NAVONA AVE BRIDGE REPLACEMENT

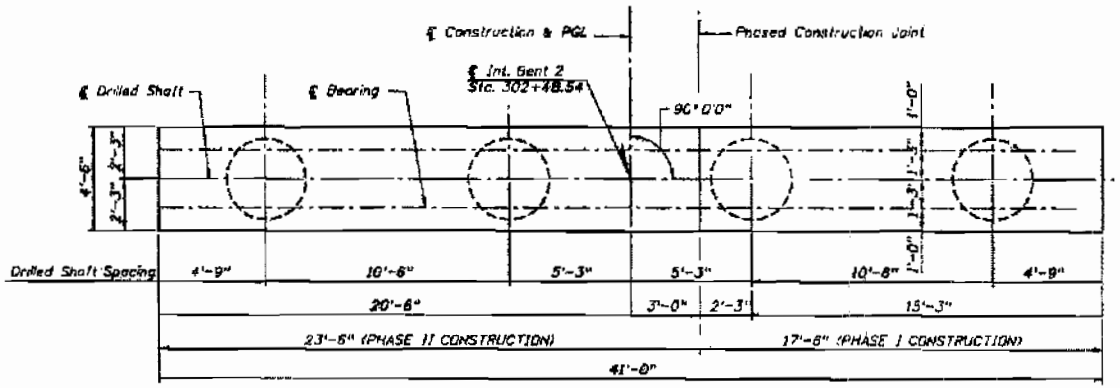
END BENT DETAILS (2 OF 2)

00734-03

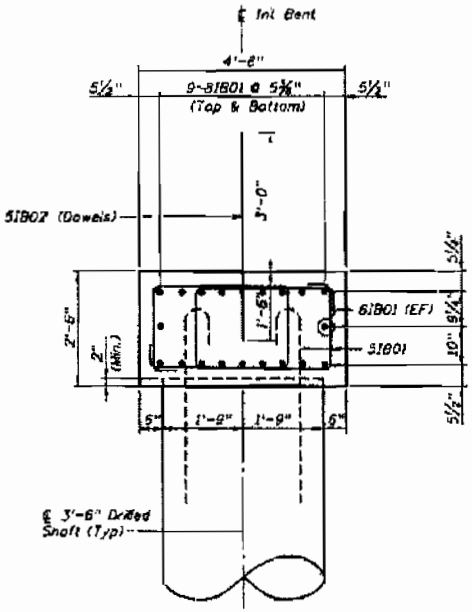
SHEET NO

B-15

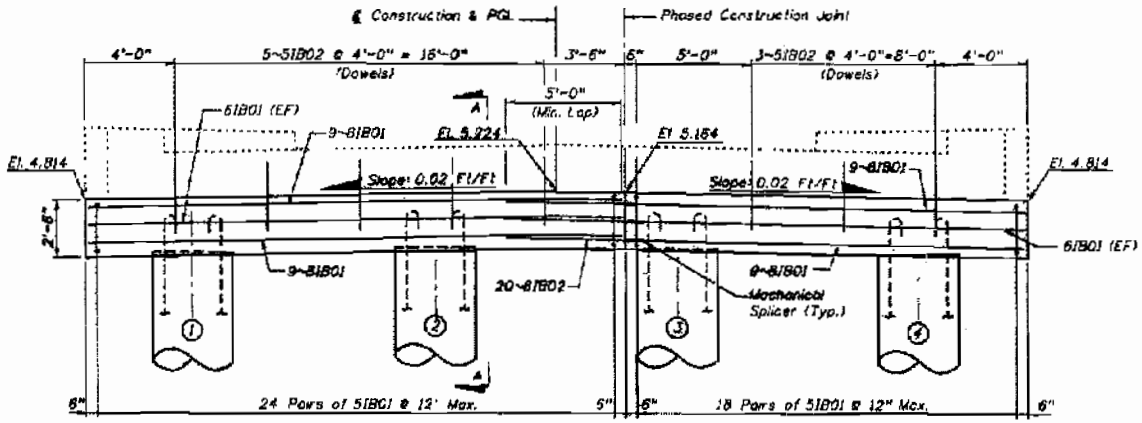
55



PLAN



SECTION A-A
AT INT. BENT



ELEVATION

ESTIMATED QUANTITIES				
ITEM	UNIT	INT. BENT 2		
		PHASE I	PHASE II	TOTAL QUANTITIES
Class V Concrete (Substructure)	CY	7.3	9.8	17.1
Reinforcing Steel (Substructure)	LB	1293	1964	32.57

TOP OF SHAFT ELEVATIONS				
SHAFT NO.	1	2	3	4
ELEVATION	2.611	2.821	2.921	2.611

NOTES:

1. For General Notes see sheet B-1
2. For Standard Bar Bending Details see sheet B-2.
3. For Finish Grade Elevations see sheet B-17.
4. For Drilled Shafts, see FOUNDATION LAYOUT, sheet B-9 and Drilled Shaft Details, sheets B-10 & B-11
5. For Construction Sequence see TRAFFIC CONTROL PLAN, sheet B-5.
6. Mechanical Splicer shall provide 125% of the specified reinforcement yield strength.

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY:
DATE:
MANUEL A. SOLAUN, P.E.
FLORIDA REGISTRATION NO. 43418

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS ARCHITECTS PLANNERS
801 PONCE DE LEON BLVD., SUITE 600
CORAL GABLES, FLORIDA 33134
MIAMI (305)443-3366 FLORIDA (800)342-3727
FL REGISTRATIONS: EB0000033 AA0000142

DATE: 06/09/2009
DRAWN: RM/BP
DESIGNED: MAS
CHECKED: AV
QC: MAS
CADD FILE: 00734-03

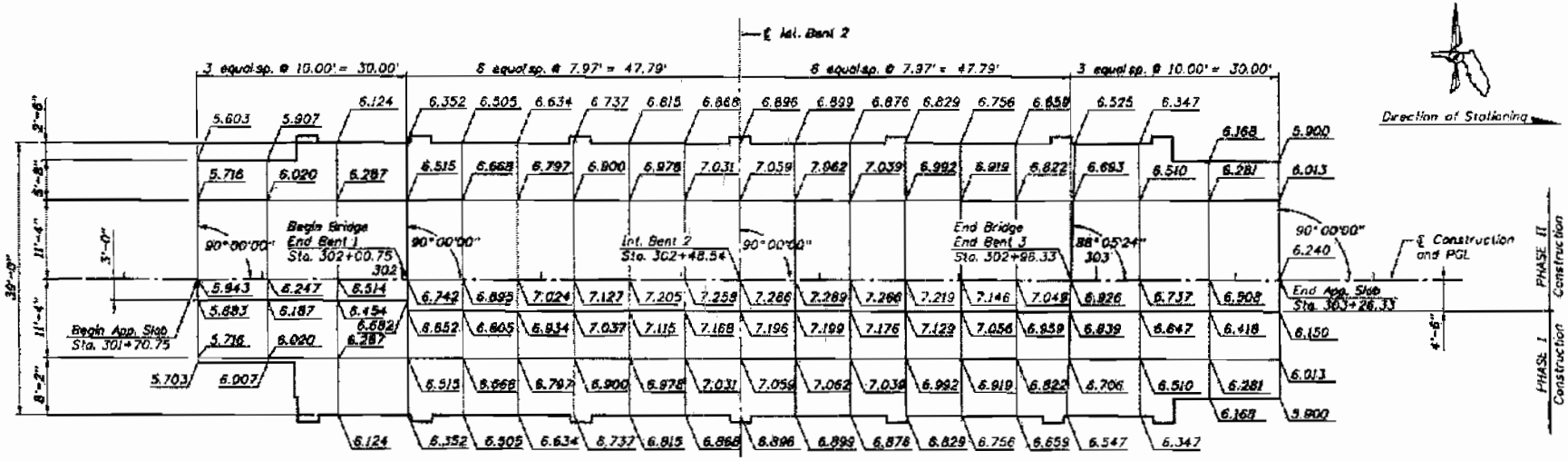
TOWN OF GOLDEN BEACH

NAVONA AVE
BRIDGE REPLACEMENT
INTERMEDIATE BENT NO. 2

00734-03

SHEET NO.
B-16

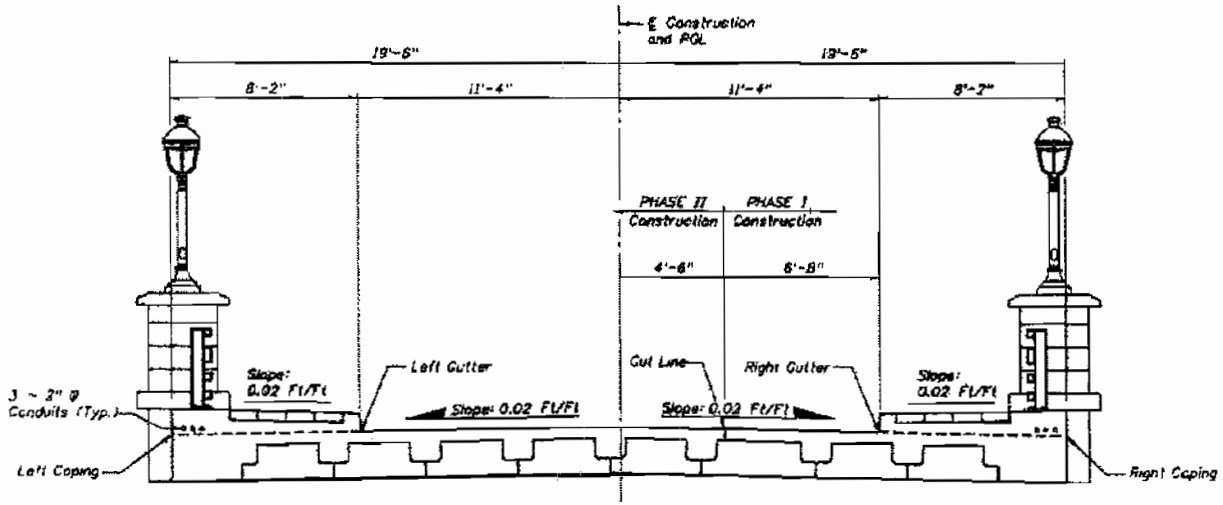
56



PLAN

LEGEND-

X.XXX Finish Grade Elevation

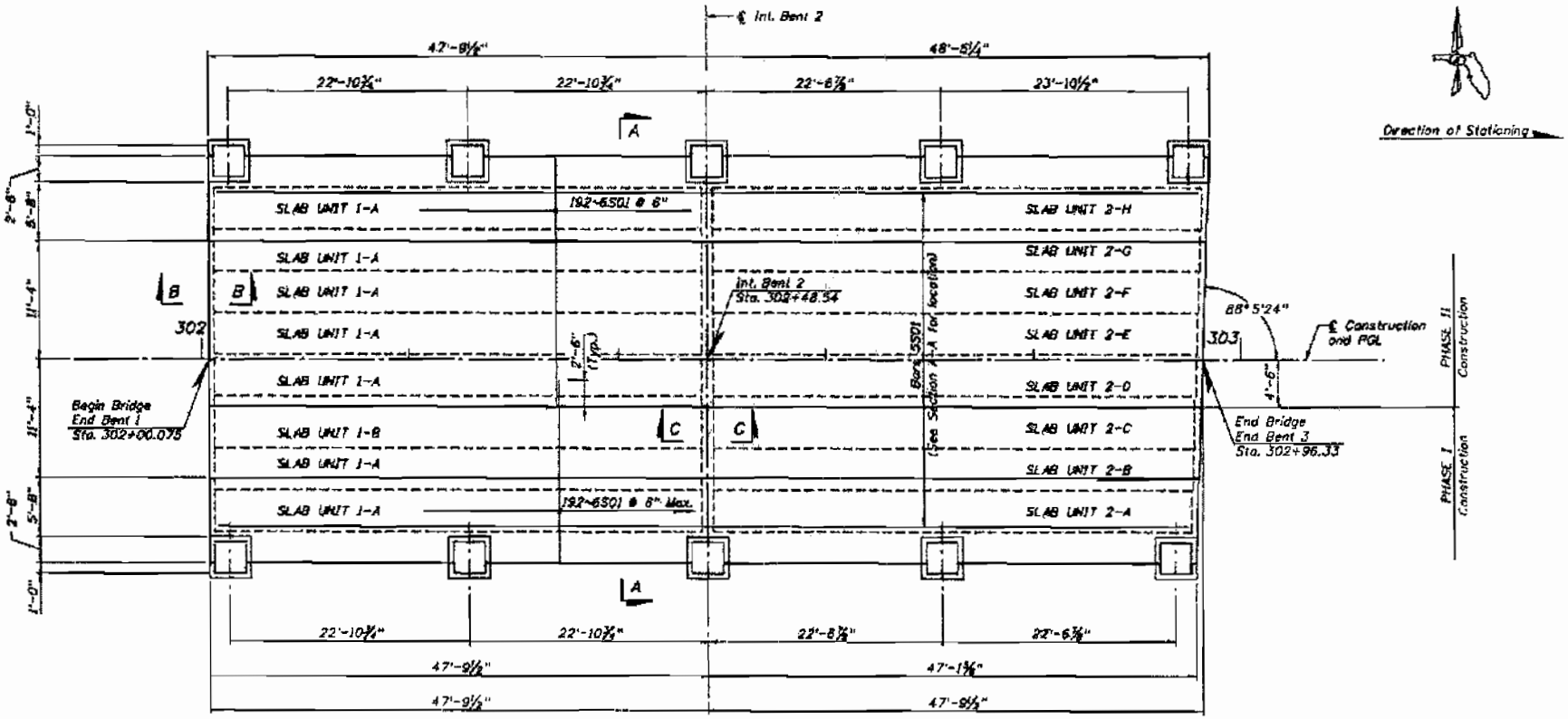


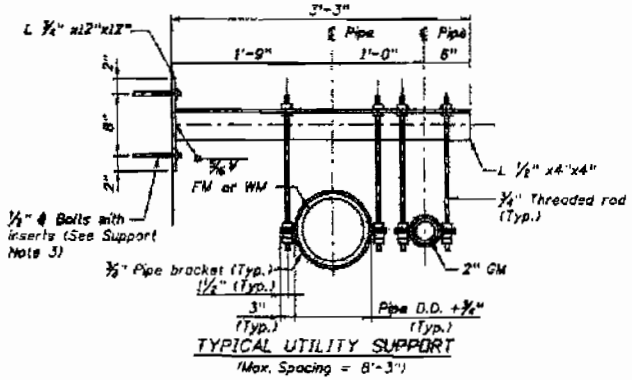
SECTION SHOWING ELEVATIONS POINTS

REVISIONS		APPROVED BY:	CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A. ENGINEERS ARCHITECTS PLANNERS	DATE: 10/05/2006	TOWN OF GOLDEN BEACH	NAVONA AVE BRIDGE REPLACEMENT FINISH GRADE ELEVATIONS	SHEET NO.
DESCRIPTION	DATE	DATE:	601 PONCE DE LEON BLVD., SUITE 900 CORAL GABLES, FLORIDA 33134	DRAWN: RH/RF			B-17
1.		MANUEL A. SOLAJIN P.E.	MIAMI (305) 448-8286 FLORIDA (800) 448-8287	DESIGNED: MS			
2.		FLORIDA REGISTRATION No. 42416	E. MAIL ADDRESS: 88000888 AA0002145	CHECKED: AV			
3.				QC: MAS			
4.				CADD FILE: 00734-03			

00734-03

57





TYPICAL UTILITY SUPPORT

(Max. Spacing = 8'-3")

PLAN

SUPPORT NOTES:

1. Detail of 6" FM w/2" GM shown, 8" WM similar, without GM support.
2. All Steel shall be ASTM A709 Grade 36 and shall be hot deep galvanized following ASTM A123, in accordance with Standard Specification 962-7
3. Attachement bolts and threaded inserts shall have a minimum tensile capacity of 2400 lbs.
4. Insert embedment into edge beam shall be as required to develop required capacity.
5. All cost for utility support shall be included in Pay Item 460-98-1, Pipe Hanger (Carbon).

NOTES:

1. For Section A-A refer to sheet B-19.
2. For Section B-B and C-C refer to sheets B-20.
3. For Prestressed Slab Units refer to sheets B-23 and B-24.

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY:

DATE: 10/08/2008

MANUEL A. SOLAUN, P.E.
FLORIDA REGISTRATION No 43416

CO-ZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS ARCHITECTS PLANNERS

DATE:	10/08/2008
DRAWN:	RR/RF
DESIGNED:	MG
CHECKED:	AY
QC:	MAS
CADD FILE:	00734-09

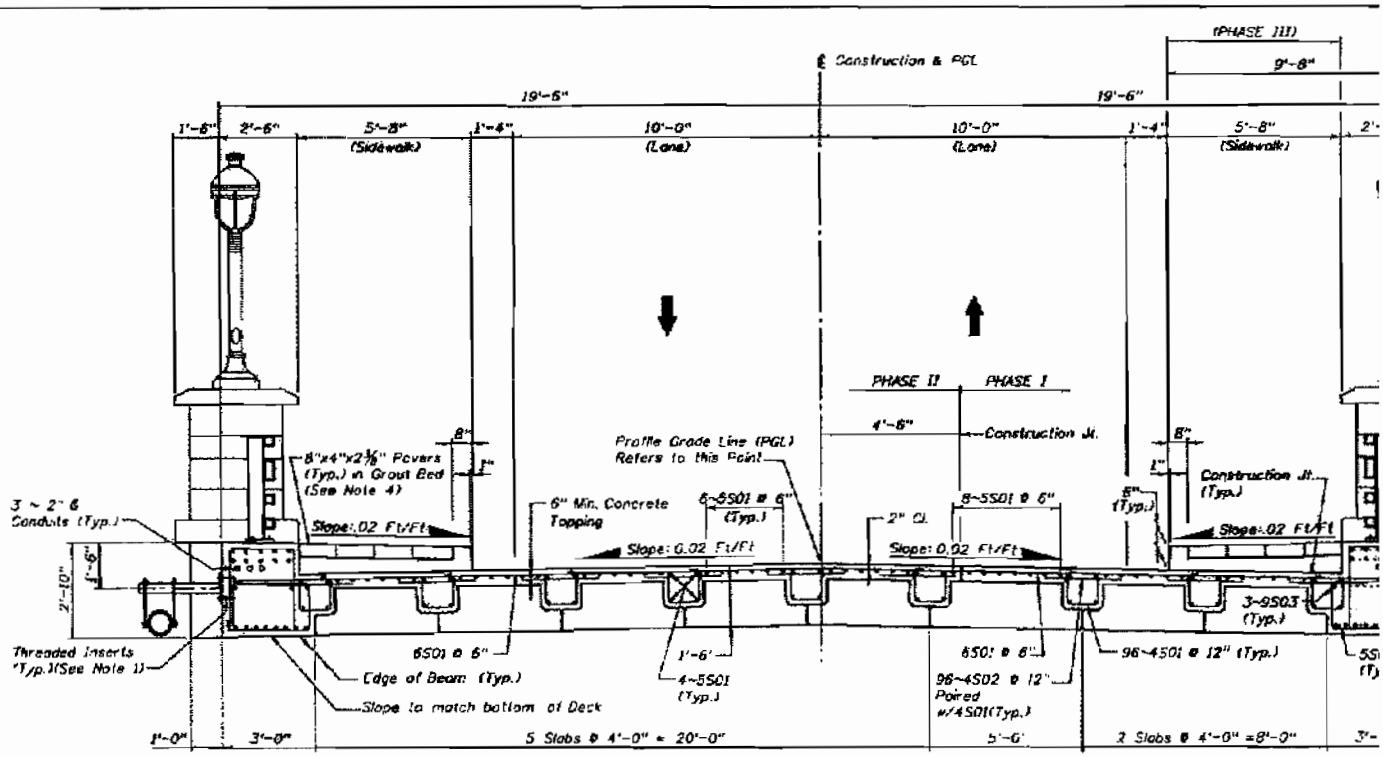
TOWN OF GOLDEN BEACH

NAVONA AVE
BRIDGE REPLACEMENT
SUPERSTRUCTURE

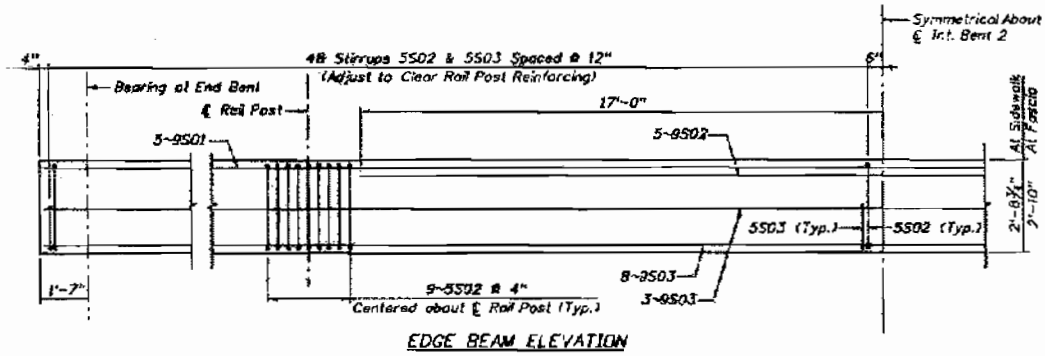
00734-09

SHEET NO.
B-18

58



SECTION A-A



EDGE BEAM ELEVATION

NOTES:

1. For Superstructure
2. For Superstructure
3. For Sidewalk Reinfo
4. Sidewalk pavers on (Sidewalk)

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY:

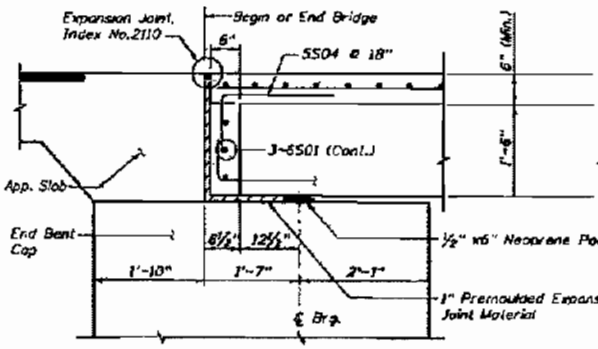
DATE:

MANUEL A. SOLANI, P.E.
FLORIDA REGISTRATION No. 434 8

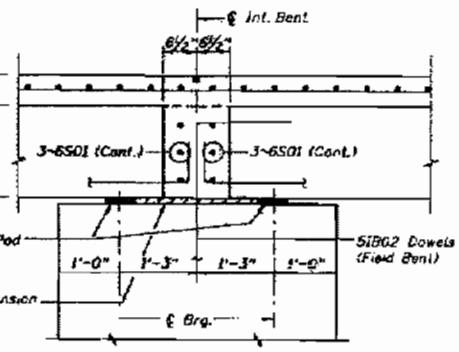
CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS ARCHITECTS PLANNERS
901 PONCE DE LEON BLVD. SUITE 900
CORAL GABLES, FLORIDA 33134
MIAMI (305)-445-2900 FLORIDA (305)-445-2937
FL REGISTRATIONS: EB0000023 AA0000143

DATE:	10/08/2008
DRAWN:	RH / RF
DESIGNED:	MG
CHECKED:	AY
QC:	MAS
CADD FILE:	00734-03

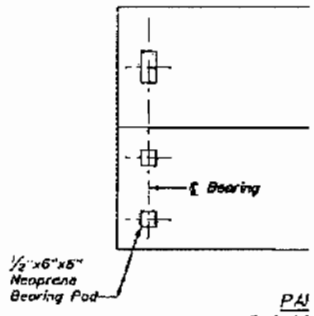
TOWN OF GOLDEN BEACH



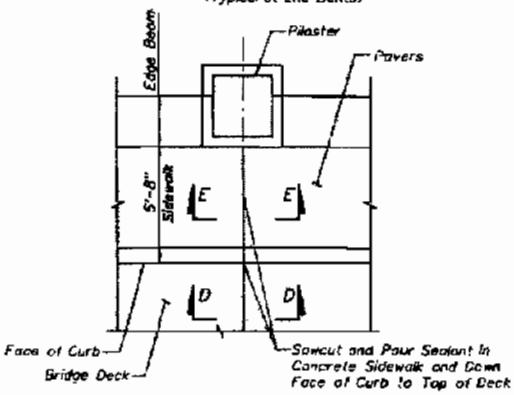
SECTION B-B
(Typical at End Bents)



SECTION C-C
(Typical at Int. Bent)



PA
Typical E



SIDEWALK PLAN AT INT. BENT

BUILD-UP & DEFLECTION DATA TABLE FOR PRESTRESSED SLAB UNITS							
LOCATION		REQUIRED THEORETICAL BUILD-UP OVER ℄ SLAB UNIT			NET BEAM CAMBER (PRESTRESS - DEAD LOAD OF SLAB UNIT) @ 120 DAYS	DEAD LOAD DEFLECTION DURING OVERLAY POUR @ 120 DAYS DIM "A"	BUILD-UP CASE NO.
SPAN NO.	SLAB UNIT NO	AT BEGIN SPAN DIM "B"	AT ℄ SPAN DIM "C"	AT END SPAN DIM "D"			
1	1-A	¼"	½"	¼"	1⅝"	⅝"	4
1	1-B	¼"	¼"	¼"	1⅜"	½"	3
2	2-A, 2-B, 2-D 2-E, 2-F, 2-G 2-H	¼"	½"	¼"	1⅝"	⅝"	4
2	2-C	¼"	¼"	¼"	1⅜"	½"	3

POURE	
LOCATION	DI ℄
End Bents	

NOTE:
Dim. "A" adjustn
Expansion Joint.

NOTES-

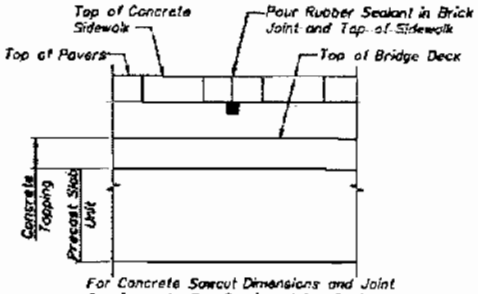
1. The Contractor shall subr joint manufacturer, joint m method of installation

2. The joint manufacturer representative from the n personnel to proper inst

3. The cost of all labor and expansion joint shall be poi

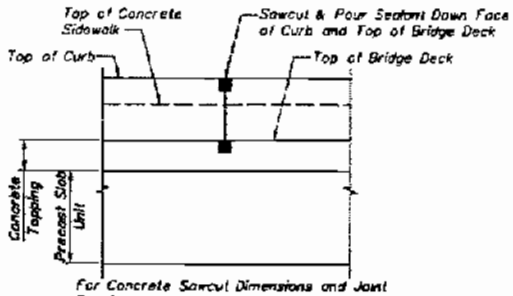
4. Estimated length. Phas Phas

5. The cost of all labor an Neoprene Bearing Pads sh Concrete (Superstructure)



For Concrete Sawcut Dimensions and Joint Requirements, See Section at Int. Bent

SECTION E-E



For Concrete Sawcut Dimensions and Joint Requirements, See Section at Int. Bent

SECTION D-D

ES	
ITEM	
Class IV Concrete (Superstructure)	
Reinforcing Steel (Superstructure)	
Prestressed Slab Units (48"x18")	
Prestressed Slab Units (60"x18")	
Bridge Fiber Grooving	

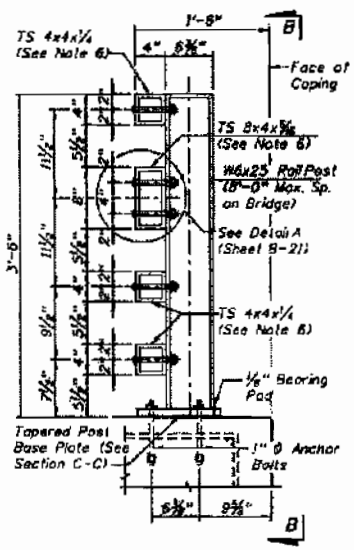
REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY:
DATE:
MANUEL A. SOLAUN, P.E.
FLORIDA REGISTRATION No. 43418

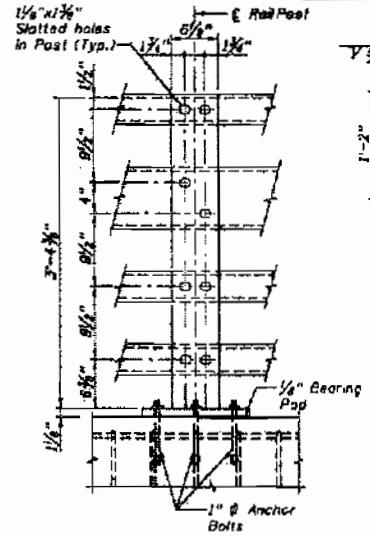
CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS/ARCHITECTS/PLANNERS
801 PONCE DE LEON BLVD., SUITE 300
CORAL GABLES, FLORIDA
PL REGISTRATIONS

DATE	10/08/2004
DRAWN	RH/RF
DESIGNED	MO
CHECKED	AV
QC	MAS
CADD FILE	00734-03

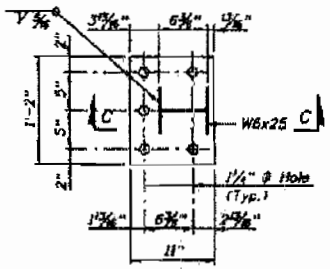
TOWN OF GOLDEN BEACH



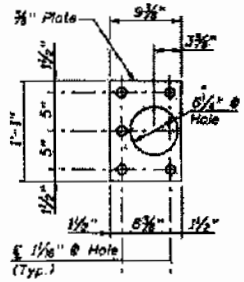
SECTION A-A



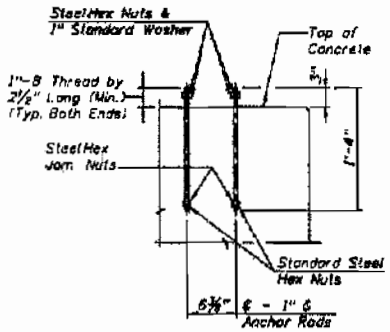
VIEW B-B



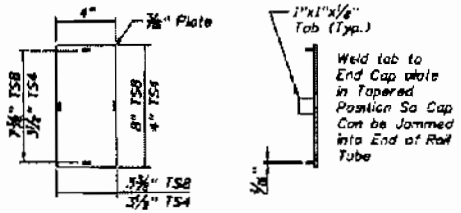
POST BASE PLATE



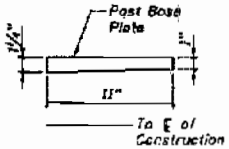
ANCHOR PLATE



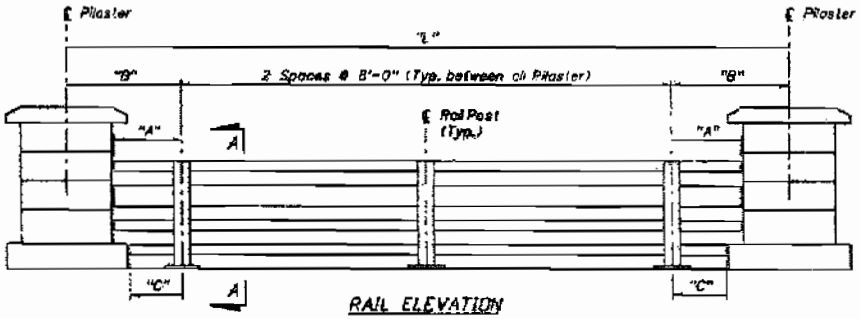
POST ANCHOR ASSEMBLY



END CAP DETAIL



SECTION C-C



RAIL ELEVATION

RAIL DIMENSIONS		"L"	"A"	"B"	"C"
Bridge		22'-10¾"	1'-10⅜"	3'-5⅜"	1'-6⅜"
Bridge		22'-6⅞"	1'-8⅜"	3'-3⅜"	1'-2⅜"
Apprh. Slab 1	Rt.	16'-3"	1'-10⅜"	2'-6½"	2'-½"
	Lt.	16'-3"	1'-10⅜"	2'-6½"	2'-½"
Apprh Slab 3	Rt.	15'-11"	1'-9½"	3'-4⅛"	1'-3⅛"
	Lt.	14'-7⅜"	2'-4⅞"	3'-11⅞"	1'-10⅞"

NOTES:

1. Item 515-1-1, Pipe Handrail (steel), shall include posts, base plates, anchor rods, preformed pads, rail assembly bolts, nuts, washers, studs, structural tubing, splice bars, pipe spacers, all appurtenances, galvanizing and painting. The total quantity is 208 LF of handrail.
2. Bridge rail posts shall be set normal (90 degrees) to the profile grade, except on grades over 5% where posts shall be set vertical.
3. Ends of rail tube sections shall be sawed or milled and shall be true and smooth. All cut edges of all material shall be ground smooth.
4. Bolt holes shall be drilled or punched. Flame cutting may be used to finish slotted holes if mechanically guided.
5. Minor shop transverse welds shall not be permitted on any rail element. Rail elements used on curves shall be ⅜" wall tubes and shall be shop formed to the required curvature.
6. No punching, drilling, cutting or welding shall be permitted after galvanizing, except Detail A or B. Damaged areas of galvanizing shall be thoroughly cleaned, pretreated and painted with two coats of organic zinc-rich galvanizing repair paint, having min. 65% zinc by weight, to a thickness equal to the original coating according to the standard specifications and ASTM A780.
7. Nuts for 1" ϕ threaded anchor rods connecting the base plate to the concrete shall be tightened to a snug fit and given an additional ⅛ turn.
8. Threads for anchor rods may be rolled or cut. If cut threads are used bolt diameter shall not be less than nominal diameter. If rolled threads are used, rod diameter shall not be less than root diameter of threads.
9. All bridge rail components shall be painted black to match lighting fixtures.

MATERIAL NOTES:

1. Structural tubing shall conform to the requirements of ASTM A500, Grade B, structural steel tubing. Rail tubing shall meet the longitudinal charpy v-notch requirements of 15 lbs. at 0°F. For ASTM A500, Grade B, the test samples shall be taken after forming the tubes. Charpy v-notch is not required for splices tubes.
2. Rail posts and base plates shall conform to the requirements of ASTM A572 Grade 50, except anchor plates may be ASTM A36.
3. Threaded studs and matching nuts for rail-to-post attachment (Detail A) shall conform to ASTM A276 Type 304, stainless steel, and shall be torque tested per AWS D1.5, 7.7.1. All other bolts and nuts shall conform to ASTM A307 and ASTM 563 Grade A respectively or better. Anchor rods shall conform to ASTM A449 except that ASTM A307 nuts may be used on the bottom of anchor assembly. Washers shall be hardened steel commercial type a plain wide washers and shall meet the dimensional requirements of A.N.S.I B18.22.
4. All steel components (except stainless) shall be galvanized after fabrication in conformance to AASHTO M232 (ASTM A153) and AASHTO M111 (ASTM A123). The galvanizing kettle shall have 0.05 to 0.09 percent nickel. Galvanized surfaces shall have a uniform appearance and galvanized material shall be properly stored. Painting shall be applied in the shop within 14 days of galvanizing and 8 hours of pretreatment (see special provision for paint requirements).
5. Detail A studs shall be welded on after tubes are galvanized by (1) spot grinding off galvanizing, (2) welding on studs, then (3) touch up galvanizing per note 7 above. (See sheet B-22 for Detail A).
6. Preformed bearing pads (⅛" thick) shall conform to AASHTO M251

REVISIONS	
DESCRIPTION	DATE
1.	
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APPROVED BY:

DATE: [illegible]

MANUEL A. SOLAUN, P.E.
FLORIDA REGISTRATION No 43418

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS ARCHITECTS PLANNERS
901 PONCE DE LEON BLVD. SUITE 900
CORAL GABLES, FLORIDA 33134
MIAMI (305)-445-2900 FLORIDA (800)-445-5977
FL REGISTRATION: EB0002293 AA0003148

DATE:	10/01/2009
DRAWN:	RN/RF
DESIGNED:	BG
CHECKED:	AS
QC:	MAS
CADD FILE:	00734-03

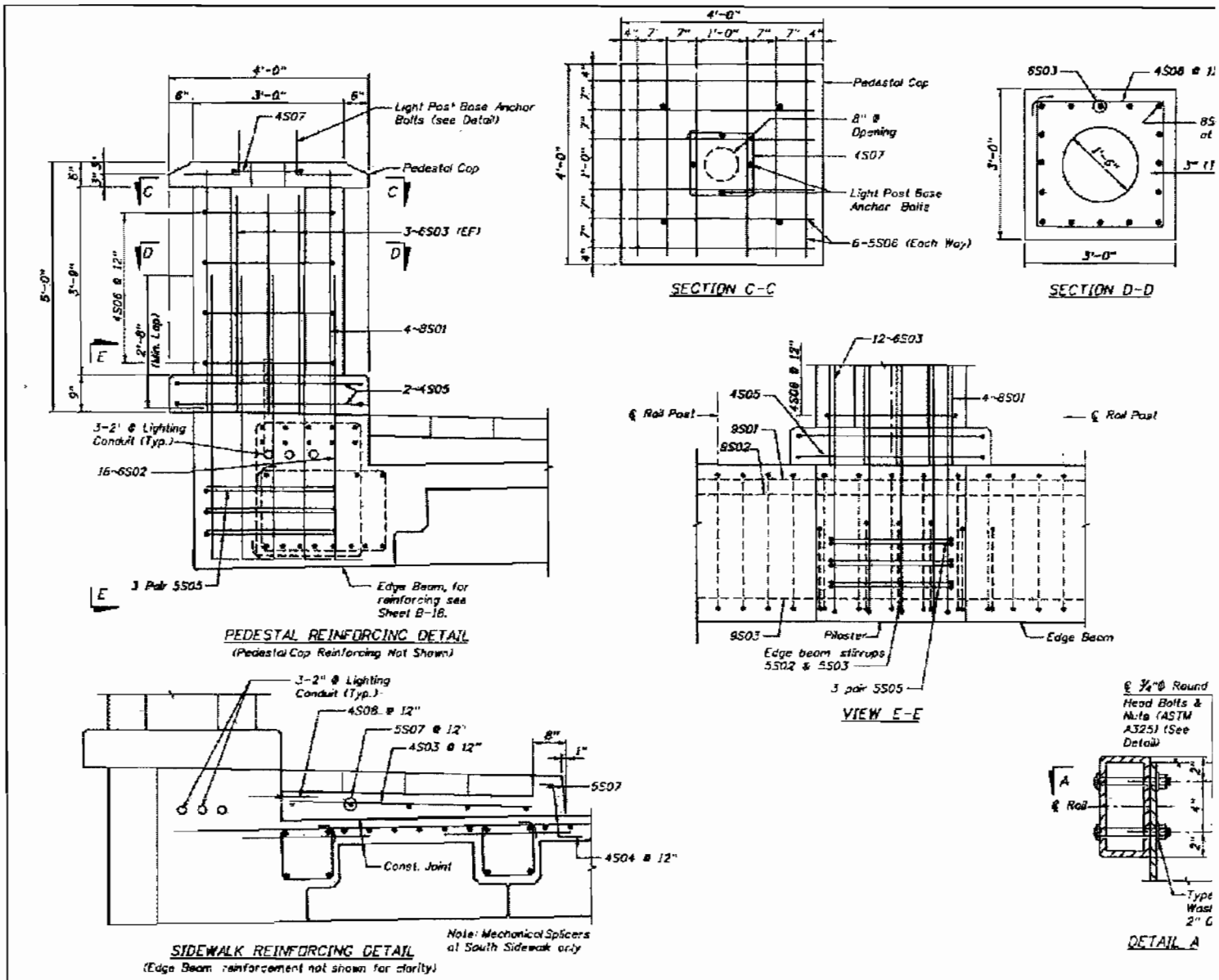
TOWN OF GOLDEN BEACH

NAVONA AVE
BRIDGE REPLACEMENT
SUPERSTRUCTURE DETAILS (3 OF 4)

00734.03

SHEET NO
B-21

61



REVISIONS	
DESCRIPTION	DATE
1.	
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APPROVED BY:

DATE: 10/08/2009

MANUEL A. SOLAUN, P.E.
FLORIDA REGISTRATION No. 42415

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
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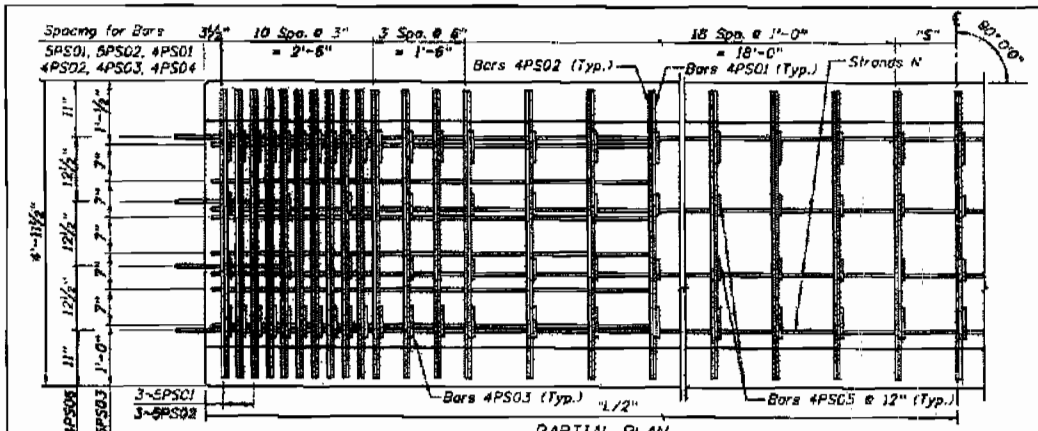
901 PONCE DE LEON BLVD., SUITE 900
CORAL GABLES, FLORIDA 33134
MIAMI (305)-446-2900 FLORIDA (305)-446-0127
FL REGISTRATIONS ES0000022 AA0000141

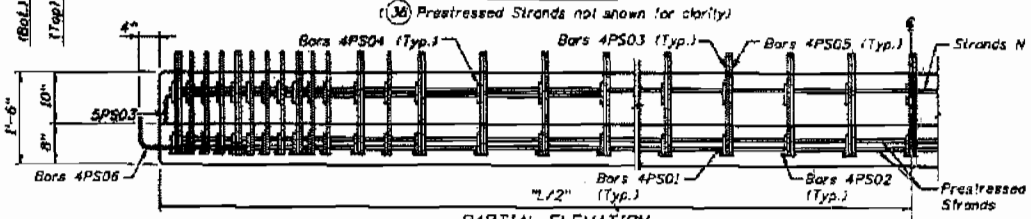
DATE	10/08/2009
DRAWN	MB/RF
DESIGNED	MG
CHECKED	AV
QC	MAS
CADD FILE	00734-03

TOWN OF GOLDEN BEACH

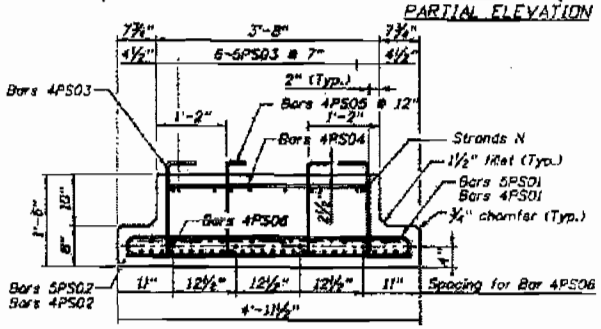


PARTIAL PLAN

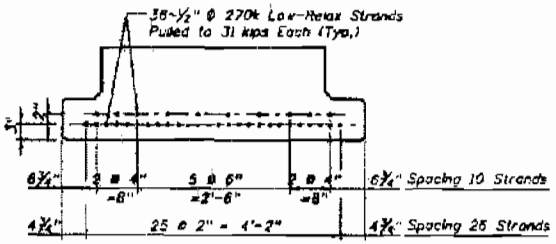
(36) Prestressed Strands not shown for clarity)



PARTIAL ELEVATION

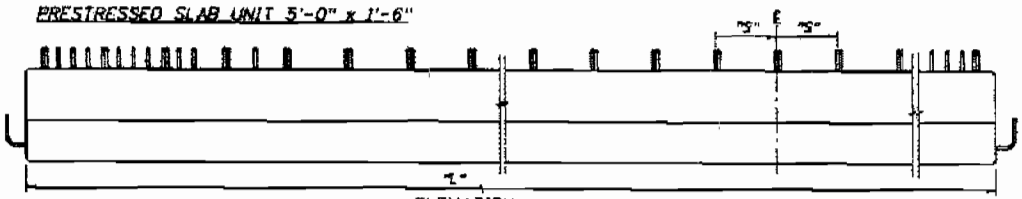


PRESTRESSED SLAB UNIT 5'-0" x 1'-6"



(36) PRESTRESSED STRANDS

(- Fully Bonded Strands



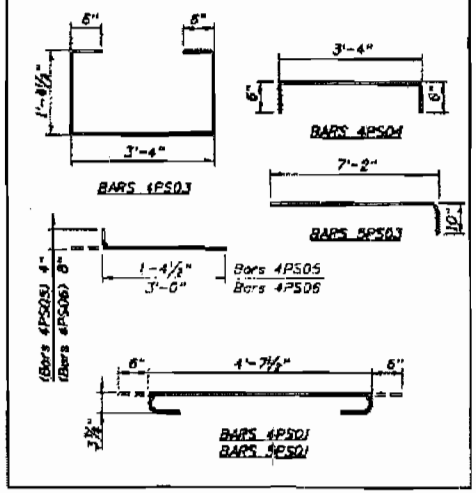
ELEVATION

PRESTRESSED SLAB 5'-0"x 1'-6"			
UNIT	"L"	"S"	QUANTITY
1-B	46'-8½"	1'-0¾"	1
2-C	46'-5⅛"	11"	1

BILL OF REINFORCING STEEL FOR ONE SLAB UNIT ONLY

MARK	SIZE	NUMBER REQUIRED	LENGTH (NOTE 1)
5PS01	5	6	5'-7½"
5PS02	5	6	4'-7½" (Straight)
5PS03	5	12	8'-0"
4PS01	4	59	5'-7½"
4PS02	4	59	4'-7½" (Straight)
4PS03	4	65	7'-1"
4PS04	4	65	4'-4"
4PS05	4	94	1'-8½"
4PS06	4	8	3'-8"

BENDING DIAGRAMS (SEE NOTE 1)



PRESTRESSED SLAB NOTES:

1. All bar dimensions are out-to-out.
2. Bars C shall be bent prior to the beam leaving the prestressing yard.
3. Unless otherwise noted, the minimum concrete cover for reinforcing steel shall be 2".
4. Use ½" Ø 270k Low-Relax strands pulled to 31.0 kips each. Area per strand equals 0.153 sq. in.
5. Concrete Class V minimum release strength 4500 psi minimum 28 day compression strength 6500 psi, with calcium nitrate.
6. Bars may be adjusted to accommodate for prestressed strands.
7. Strands N shall be ASTM A416, Grade 250 or 270, ⅜" Ø or longer, stressed to 10,000 lbs. each.
8. Top surface of the slab units shall be raked transversely to provide a roughened surface with ¼" amplitude. For proper bonding of the deck overlay, clean the top surface of the Prestressed Slab Units and thoroughly soak with potable water for a minimum of 4 hrs, then remove all excess surface water immediately prior to placement of the overlay

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY:

DATE: 10/08/2008

MANUEL A. SOLAUN, P.E.
FLORIDA REGISTRATION No. 43416

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
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CORAL GABLES, FLORIDA 33134
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FL REG OFFICES AA0002047

DATE	10/08/2008
DRAWN	RRL/RF
DESIGNED	MG
CHECKED	AV
QC	MAS
CADD FILE	04734-08

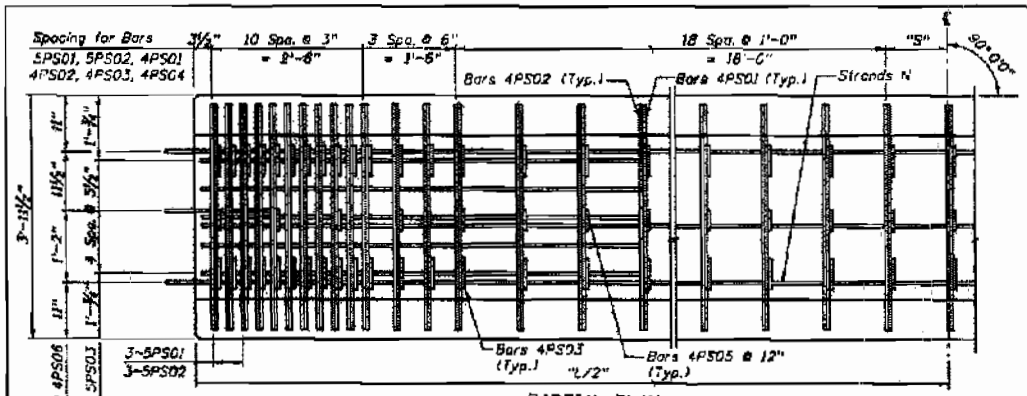
TOWN OF GOLDEN BEACH

NAVONA AVE
BRIDGE REPLACEMENT
PRESTRESSED SLAB UNIT (5'-0"x1'-6")

08/24/03

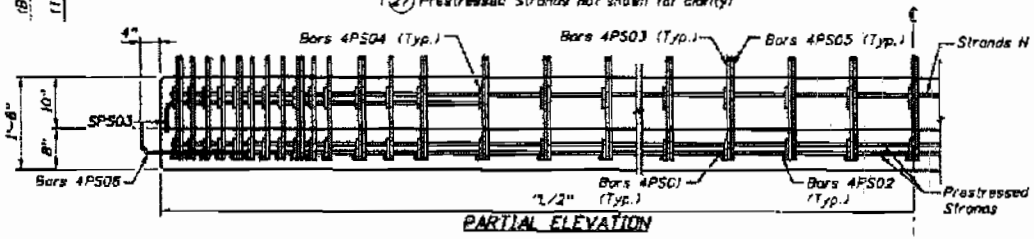
SHEET NO
B-23

63

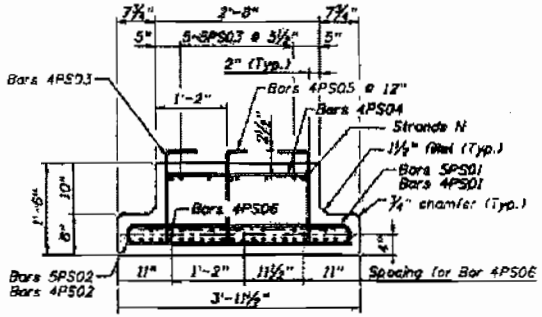


PARTIAL PLAN

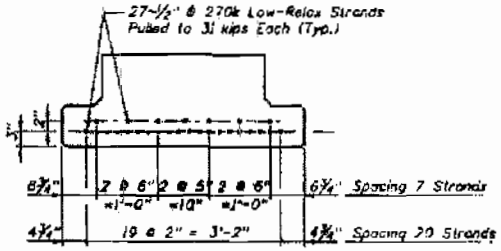
(27) Prestressed Strands not shown for clarity)



PARTIAL ELEVATION

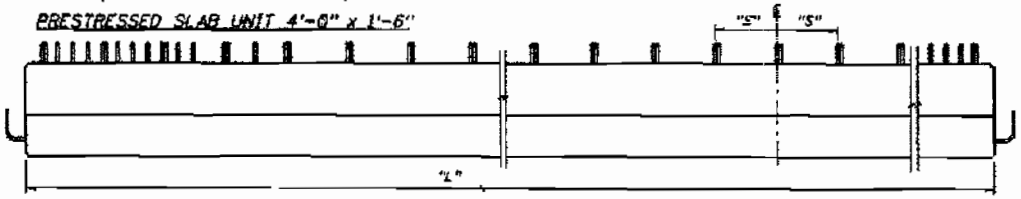


PRESTRESSED SLAB UNIT 4'-0" x 1'-6"



(27) PRESTRESSED STRANDS

• - Fully Bonded Strands

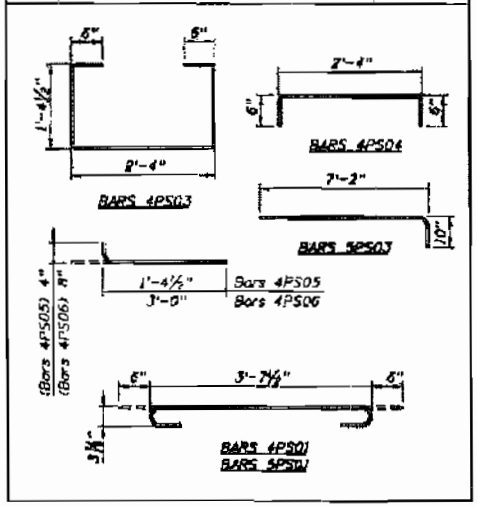


ELEVATION

PRESTRESSED SLAB 4'-0"x 1'-6"			
UNIT	"L"	"S"	QUANTITY
1-A	46'-8½"	1'-0¾"	7
2-A	46'-1⅞"	9½"	1
2-B	46'-3½"	10¼"	1
2-D	46'-7⅛"	1'-0"	1
2-E	46'-8¾"	1'-0⅞"	1
2-F	46'-10⅜"	1'-1⅞"	1
2-G	47'-0"	1'-2½"	1
2-H	47'-1⅝"	1'-3¼"	1

BILL OF REINFORCING STEEL FOR ONE SLAB UNIT ONLY			
MARK	SIZE	NUMBER REQUIRED	LENGTH (NOTE 1)
5PS01	5	6	4'-7½"
5PS02	5	6	3'-7½" (Straight)
5PS03	5	10	8'-0"
4PS01	4	59	4'-7½"
4PS02	4	59	3'-7½" (Straight)
4PS03	4	65	6'-1"
4PS04	4	65	3'-4"
4PS05	4	47	1'-8½"
4PS06	4	6	3'-8"

BENDING DIAGRAMS (SEE NOTE 1)



PRESTRESSED SLAB NOTES:

1. All bar dimensions are out-to-out.
2. Bars G shall be bent prior to the beam leaving the prestressing yard.
3. Unless otherwise noted, the minimum concrete cover for reinforcing steel shall be 2".
4. Use ½" ϕ 270k Low-Relax strands pulled to 31.0 kips each. Area per strand equals 0.153 sq. in
5. Concrete Class V minimum release strength 4500 psi minimum 28 day compression strength 6500 psi, with calcium nitrate.
6. Bars may be adjusted to accommodate for prestressed strands.
7. Strands N shall be ASTM A416, Grade 250 or 270, ⅜" ϕ or longer, stressed to 10,000 lbs. each.
8. Top surface of the slab units shall be raked transversely to provide a roughened surface with ¼" amplitude. For proper bonding of the deck overlay, clean the top surface of the Prestressed Slab Units and thoroughly soak with potable water for a minimum of 4 hrs. then remove all excess surface water immediately prior to placement of the overlay.

REVISIONS	
DESCRIPTION	DATE
1.	
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APPROVED BY

DATE: 10/09/2008

MANUEL A. SOLAUN, P.E.
FLORIDA REGISTRATION No. 45418

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
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801 PONCE DE LEON BLVD., SUITE 800
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MIAMI (305)-445-8900 FLORIDA (800)446-8637
FL REGISTRATION# 2800026037 AA0002143

DATE	10/09/2008
DRAWN	RM/RF
DESIGNED	MG
CHECKED	AV
QC	MAS
CADD FILE	00734-08

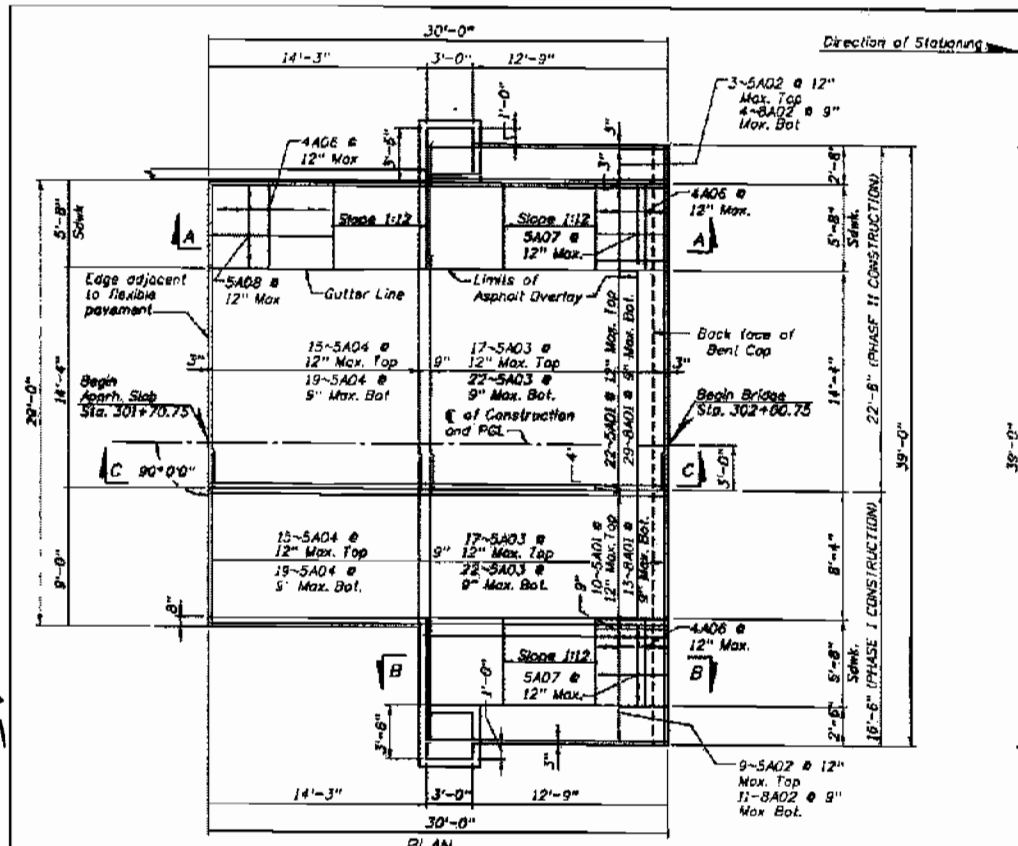
TOWN OF GOLDEN BEACH

NAVONA AVE
BRIDGE REPLACEMENT
PRESTRESSED SLAB UNIT (4'-0"x1'-6")

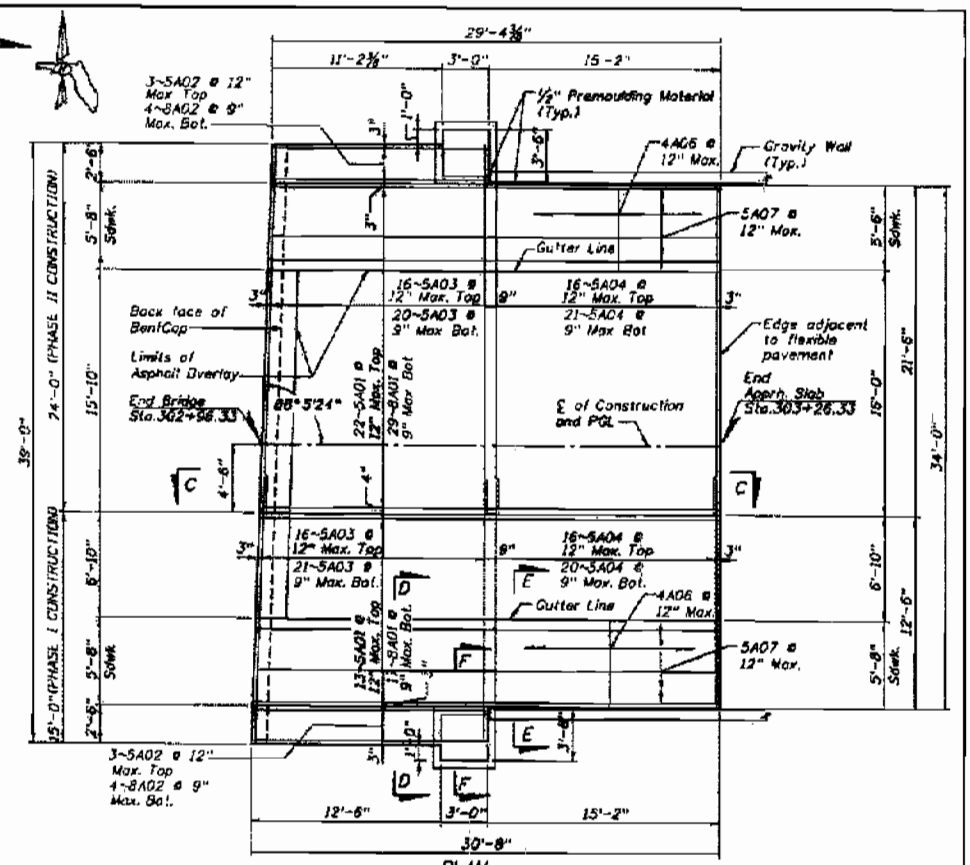
00734-03

SHEET NO
B-24

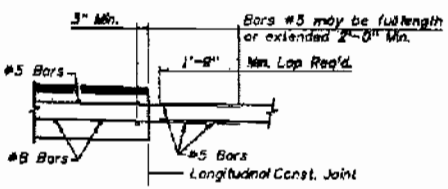
67



PLAN
(APPROACH SLAB 1)



PLAN
(APPROACH SLAB 3)



LONGITUDINAL CONSTRUCTION JOINT DETAIL

GENERAL NOTES:

1. SURFACE TREATMENT:
   As an option to Bridge Floor Grooving per Section 400 a hand tined or heavy broomed finish may be permitted on the concrete portion of the riding surface. Sidewalk areas shall receive a broomed finish. The top surface of the concrete beneath the asphalt overlay shall be raked
2. UTILITIES:
   If required, see Utility Conduit Detail Sheets for details.
3. When a longitudinal construction joint is necessary or allowed by the Engineer, the transverse steel shall be extended as shown in the Longitudinal Construction Joint Detail.
4. Raised sidewalks shall be provided as shown in the plans. Payment shall be included in the pay items for approach slab concrete and reinforcement.
5. ASPHALT OVERLAY: Payment for asphalt overlay items are to be included in Roadway Pay Items. Friction course shall be carried over the approach slab and match the friction course type used on the roadway. If FC-6 is used, it shall be placed 1.5" thick. If FC-5 is used, the final structural course shall be tapered to a uniform 0.75" thickness and the FC-5 placed 0.75" thick over the structural layer

NOTE:
For Sections A-A, B-B, C-C, D-D, E-E and F-F see APPROACH SLAB DETAILS Sheet.

ESTIMATED QUANTITIES

ITEM	UNIT	APPRH SLAB 1		APPRH SLAB 3	
		PHASE I & III	PHASE II	PHASE I & III	PHASE II
Class II Concrete	LB	20.1	34.2	25.8	35.2
Reinf Steel (Apprh. Slab)	CY	3855	5646	4258	5896

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY
DATE:
MANUEL A. SOLAUN, P.E.
FLORIDA REGISTRATION No. 43418

CORZO CASTELLA CARBALLO THOMPSON SALMAN P.A.
ENGINEERS ARCHITECTS PLANNERS
901 PONCE DE LEON BLVD. SUITE 500
CORAL GABLES, FLORIDA 33134
MIAMI (305)-445-2900 FLORIDA (305)-445-5027
FL REGISTRATION: 2500005022 AAC005142

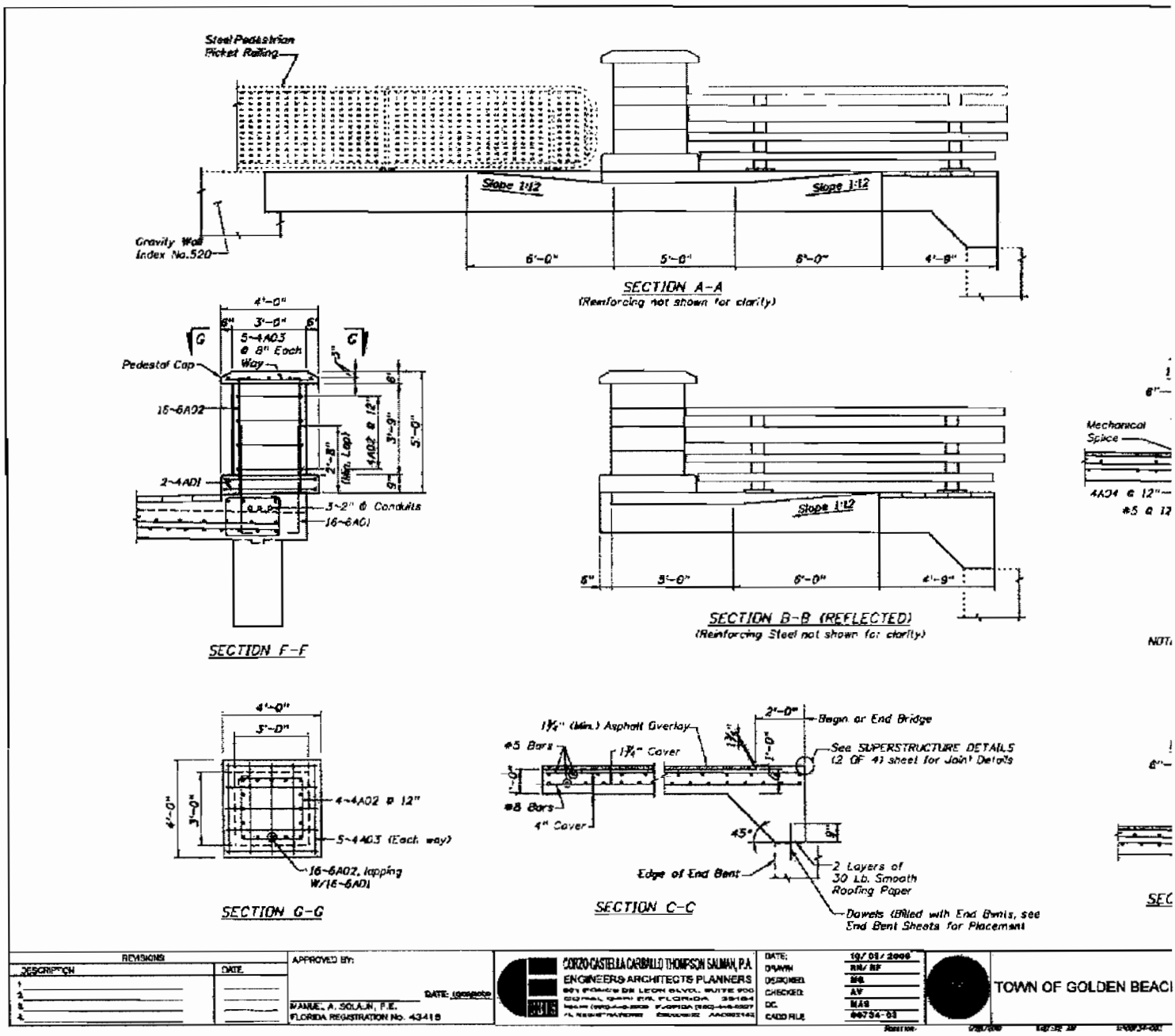
DATE:	10/08/2009
DRAWN:	MM/RF
DESIGNED:	MG
CHECKED:	AV
QC:	MAS
CADD FILE:	06734-03

TOWN OF GOLDEN BEACH

NAVONA AVE
BRIDGE REPLACEMENT
APPROACH SLABS

0073403

SHEET NO
B-25


Steel Pedestrian Picket Railing
Gravity Wall Index No.520
Slope 1:12
Slope 1:12
6'-0"
5'-0"
6'-0"
4'-9"
SECTION A-A
(Reinforcing not shown for clarity)
4'-0"
3'-0"
5~4A03 @ 8" Each Way
Pedestal Cap
16~6A02
2~4A01
3~2" ø Conduits
16~6A01
4A02 @ 12"
3'-9"
5'-0"
2'-8" (Min. Lap)
SECTION F-F
Slope 1:12
6"
5'-0"
6'-0"
4'-9"
SECTION B-B (REFLECTED)
(Reinforcing Steel not shown for clarity)
Mechanical Splice
4A04 @ 12"
#5 @ 12
4'-0"
3'-0"
4~4A02 @ 12"
5~4A03 (Each way)
16~6A02, lapping W/16~6A01
SECTION G-G
1¾" (Min.) Asphalt Overlay
#5 Bars
1¾" Cover
#8 Bars
4" Cover
2'-0"
Begin or End Bridge
See SUPERSTRUCTURE DETAILS (2 OF 4) sheet for Joint Details
45°
Edge of End Bent
2 Layers of 30 Lb. Smooth Roofing Paper
Dowels (Billed with End Bents, see End Bent Sheets for Placement
SECTION C-C
REVISIONS
DESCRIPTION
DATE
APPROVED BY:
DATE:
MANUEL A. SOLAJIN, P.E.
FLORIDA REGISTRATION No. 43418
CORZO-CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS ARCHITECTS PLANNERS
DATE:
DRAWN
DESIGNED
CHECKED
DC
CADD FILE
TOWN OF GOLDEN BEACH

	MARK SIZE	DES	LENGTH FT IN	NO BARS	TYP BAR	STY A	STY G	B FT IN FR	C FT IN FR	D FT IN FR	E FT IN FR	F FT IN FR	H FT IN FR	J FT IN FR	K FT IN FR	N NO	ø ANG
	LOCATION END BENT 1 PHASE I											NO. REQUIRED = 1					
	5	EB01	11-11	32	4	4	4	2- 3 1/2	3- 2								
	5	EB02	7- 9	32	11			3- 2	2- 3 1/2	2- 3 1/2							
	5	EB03	7- 9	32	11			3- 2	2- 3 1/2	2- 3 1/2							
	5	EB04	7- 2	30	11			3- 2	2- 0	2- 0							
	6	EB01	1- 6	4	1			1- 6									
Mechanical Splice	6	EB02	31- 8	4	1			31- 8									
	6	EB03	15- 8	7	10			13- 8	2- 0								
Mechanical Splice	8	EB01	33- 0	9	17	3		31- 8									
Mechanical Splice	8	EB02	31- 8	6	1			31- 8									
	LOCATION END BENT 1 PHASE II											NO. REQUIRED = 1					
	5	EB01	11-11	38	4	4	4	2- 3 1/2	3- 2								
	5	EB02	7- 9	38	11			3- 2	2- 3 1/2	2- 3 1/2							
	5	EB03	7- 9	38	11			3- 2	2- 3 1/2	2- 3 1/2							
	5	EB04	7- 2	30	11			3- 2	2- 0	2- 0							
	6	EB01	1- 6	6	1			1- 6									
	6	EB02	37- 6	4	1			37- 6									
	6	EB03	15- 8	7	10			13- 8	2- 0								
	8	EB01	38- 9	9	15			34- 8	1- 4	2- 9						2	91
	8	EB02	37- 5	6	12			34- 8	2- 9								2
	8	EB03	4- 6	19	33	6		4- 6	0- 6								
	LOCATION END BENT 3 PHASE I											NO. REQUIRED = 1					
	5	EB01	11-11	32	4	4	4	2- 3 1/2	3- 2								
	5	EB02	7- 9	32	11			3- 2	2- 3 1/2	2- 3 1/2							
	5	EB03	7- 9	32	11			3- 2	2- 3 1/2	2- 3 1/2							
	5	EB04	7- 2	30	11			3- 2	2- 0	2- 0							
	6	EB01	1- 6	4	1			1- 6									
Mechanical Splice	6	EB02	31-11	2	12			17- 5	14- 6								13
	6	EB03	15- 8	7	10			13- 8	2- 0								
	6	EB04	31-10	2	12			16- 7	15- 3								13
Mechanical Splice	8	EB01	VARY	9	12			17- 5	14- 6								13
			31-11	0	12			16- 7	15- 3								
Mechanical Splice	8	EB02	VARY	6	12			17- 5	14- 6								13
			31-11	0	12			16- 7	15- 3								13
	8	EB03	5- 4	9	17	3		4- 0									
	LOCATION END BENT 3 PHASE II											NO. REQUIRED = 1					
	5	EB01	11-11	38	4	4	4	2- 3 1/2	3- 2								
	5	EB02	7- 9	38	11			3- 2	2- 3 1/2	2- 3 1/2							
	5	EB03	7- 9	38	11			3- 2	2- 3 1/2	2- 3 1/2							
	5	EB04	7- 2	30	11			3- 2	2- 0	2- 0							
	6	EB01	1- 6	8	1			1- 6									
	6	EB02	37- 6	4	1			37- 6									
	6	EB03	15- 8	7	10			13- 8	2- 0								
	8	EB01	38- 9	9	15			34- 8	1- 4	2- 9						2	91
	8	EB02	37- 5	6	12			34- 8	2- 9								2
	8	EB03	4- 6	19	33	6		4- 6	0- 6								

REVISIONS DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY:

DATE: 10/08/2008

MANUEL A. SOLAUN P.E.
FLORIDA REGISTRATION No. 43415

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
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PHONE (305)446-8866 FLORIDA (800)446-0327
FL REGISTRATION: E8003833 AA0001043

DATE	10/08/2008
DRAWN	RN/MF
DESIGNED	RG
CHECKED	AV
QC	MAS
CADD FILE	00724-01

TOWN OF GOLDEN BEACH

NAVONA AVE
BRIDGE REPLACEMENT
REINFORCING BAR LIST (1 OF 5)

00724-03

SHEET NO.
B-27

	MARK SIZE	DES	LENGTH FT IN	NO BARS	TYP BAR	STY A	STY G	B FT IN FR	C FT IN FR	D FT IN FR	E FT IN FR	F FT IN FR	H FT IN FR	J FT IN FR	K FT IN FR	N NO	Ø ANG
	LOCATION		INT. BENT 2 PHASE I									NO REQUIRED = 1					
	5	EB01	10- 7	36	4	4	4	1- 9 1/2	3- 0								
	5	EB02	4- 6	4	1			4- 6									
Mechanical Splice	6	EB01	17- 2	2	1			17- 2									
Mechanical Splice	8	EB01	17- 2	18	1			17- 2									
	LOCATION		INT. BENT 2 PHASE II									NO. REQUIRED = 1					
	5	EB01	10- 7	48	4	4	4	1- 9 1/2	3- 0								
	5	EB02	4- 6	5	1			4- 6									
	6	EB01	22-11	2	12			20- 2	2- 9								2
	8	EB01	22-11	18	12			20- 2	2- 9								2
	8	EB02	4- 6	20	33	6		4- 6	0- 8								
	LOCATION		SUPERSTRUCTURE PHASE I									NO. REQUIRED = 1					
	4	S01	4- 9	288	4	4	4	1- 0	1- 0								
	4	S02	2- 6	288	1			2- 6									
Mechanical Splice	4	S04	1- 8	96	28			0- 4	0- 9	0- 1	0- 7						
Mechanical Splice	4	S08	2- 6	96	1			2- 6									
	5	S01	97- 9	31	2			3- 4	94- 5							1	
	5	S02	10- 0	168	4	4	4	2- 4	2- 2								
	5	S03	9- 2	96	4	4	4	1- 5	2- 8								
	5	S04	4- 0	18	10			2- 6	1- 6								
	5	S05	7- 6	30	11			2- 6	2- 6	2- 6							
	6	S01	17- 2	204	1			17- 2									
	6	S02	6- 8	80	10			5- 8	1- 0								
	9	S01	99- 6	5	41			60- 0	39- 6					5- 0		1	
	9	S02	34- 0	5	1			34- 0									
	9	S03	49- 3	22	1			49- 3									
	LOCATION		SUPERSTRUCTURE PHASE II									NO. REQUIRED = 1					
	4	S01	4- 9	576	4	4	4	1- 0	1- 0								
	4	S02	2- 6	576	1			2- 6									
	5	S01	97- 9	55	2			3- 4	94- 5								
	5	S02	10- 0	168	4	4	4	2- 4	2- 2							1	
	5	S03	9- 2	96	4	4	4	1- 5	2- 8								
	5	S04	4- 0	30	10			2- 6	1- 6								
	6	S01	23- 7	204	12			19- 3	4- 4								2
	9	S01	99- 6	5	41			60- 0	39- 6					5- 0		1	
	9	S02	34- 0	5	1			34- 0									
	9	S03	49- 3	22	1			49- 3									
	SIDEWALK & CONCRETE PILASTERS																
	4	S03	5- 4	96	1			5- 4									
	4	S04	1- 8	96	28			0- 4	0- 9	0- 1	0- 7						
	4	S05	14- 9	10	4	4	4	3- 6	3- 6								
	4	S06	10- 9	20	4	4	4	2- 6	2- 6								
	4	S07	5- 9	5	4	4	4	1- 3	1- 3								
	4	S08	2- 6	96	1			2- 6									

89

REVISIONS	
DESCRIPTION	DATE
1.	
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APPROVED BY:

DATE: 10/06/2006

MANUEL A. SOLAGIN P.E.
FLORIDA REGISTRATION No. 43418

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
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FL REGISTRATIONS: EB0000033 AA0002142

DATE	10/06/2006
DRAWN	BN/RF
DESIGNED	MG
CHECKED	AV
QC	MAS
CADD FILE	60734-03

TOWN OF GOLDEN BEACH

NAVONA AVE
BRIDGE REPLACEMENT
REINFORCING BAR LIST (2 OF 5)

60734-03

SHEET NO.
B-28

MARK SIZE	MARK DES	LENGTH FT IN	NO BARS	TYP BAR	STY A	STY C	B FT IN FR	C FT IN FR	D FT IN FR	E FT IN FR	F FT IN FR	H FT IN FR	J FT IN FR	K FT IN FR	N NO	Ø ANG
5	S05	7- 6	30	11			2- 6	2- 6	2- 6							
5	S06	3- 6	60	1			3- 6									
5	S07	99- 0	6	2			1- 9	94- 6							2	
6	S02	6- 8	80	10			5- 8	1- 0								
6	S03	4- 3	60	1			4- 3									
8	S01	4- 9	20	1			4- 9									
LOCATION SUPERSTRUCTURE PHASE III											NO REQUIRED = 1					
SIDEWALK & CONCRETE PILASTERS																
4	S03	5- 4	98	1			5- 4									
4	S05	14- 9	10	4	4	4	3- 6	3- 6								
4	S06	10- 9	20	4	4	4	2- 6	2- 6								
4	S07	5- 9	5	4	4	4	1- 3	1- 3								
5	S06	3- 6	60	1			3- 6									
5	S07	98- 0	6	2			1- 9	94- 6							2	
6	S03	4- 3	50	1			4- 3									
8	S01	4- 9	20	1			4- 9									
LOCATION APPROACH SLAB I PHASE I											NO. REQUIRED = 1					
Mechanical Splice	4	A04	1- 8	5	28		0- 4	0- 9	0- 1	0- 7						
Mechanical Splice	4	A05	2- 6	5	1		2- 6									
5	A01	29- 6	10	1			29- 6									
5	A02	15- 3	14	1			15- 3									
5	A03	18- 3	39	1			18- 3									
5	A04	10- 9	34	1			10- 9									
5	A05	13- 6	16	4	4	4	4-11	1- 4								
5	A06	7- 0	16	4	4	4	1- 2	1-10								
6	A01	5- 3	16	10			4- 3	1- 0								
8	A01	29- 6	13	1			29- 6									
8	A02	15- 3	11	1			15- 3									
LOCATION APPROACH SLAB I PHASE II											NO. REQUIRED = 1					
5	A01	29- 6	27	1			29- 6									
5	A02	15- 3	8	1			15- 3									
5	A03	22- 0	39	1			22- 0									
5	A04	19- 6	34	1			19- 6									
5	A05	13- 6	15	4	4	4	4-11	1- 4								
5	A06	7- 0	15	4	4	4	1- 2	1-10								
8	A01	29- 6	29	1			29- 6									
8	A02	15- 3	4	1			15- 3									
SIDEWALK & CONCRETE PILASTER																
4	A01	14- 9	2	4	4	4	3- 6	3- 6								
4	A02	10- 9	4	4	4	4	2- 6	2- 6								
4	A03	3- 6	10	1			3- 6									
4	A04	1- 8	13	28			0- 4	0- 9	0- 1	0- 7						
4	A05	2- 6	13	1			2- 6									
4	A06	5- 4	13	1			5- 4									

REVISIONS DESCRIPTION	DATE
1.	
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APPROVED BY:

DATE: 02/07/2002

MANUEL A. SOLAUN, P.E.
FLORIDA REGISTRATION No. 43419

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CORAL GABLES, FLORIDA 33134
MIAMI 305-443-3380 FLORIDA (800)-342-3557
FL REGISTRATIONS: 2999 8052 AA0003145

DATE	02/07/2002
DRAWN	RN/RF
DESIGNED	MG
CHECKED	AV
QC	MAS
CADD FILE	00784-03

TOWN OF GOLDEN BEACH

NAVONA AVE
BRIDGE REPLACEMENT
REINFORCING BAR LIST (3 OF 5)

00784-03

SHEET NO.
B-29

69

MARK SIZE	MARK DES	LENGTH FT IN	NO BARS	TYP BAR	STY A	STY G	B FT IN FR	C FT IN FR	D FT IN FR	E FT IN FR	F FT IN FR	H FT IN FR	J FT IN FR	K FT IN FR	N NO	θ ANG
5	A07	4- 5	6	1			4- 5									
5	A08	7-11	6	1			7-11									
6	A01	5- 3	16	10			4- 3	1- 0								
6	A02	5- 5	16	10			4- 9	0- 8								
LOCATION APPROACH SLAB 1 PHASE III											NO. REQUIRED = 1					
SIDEWALK & CONCRETE PILASTER																
4	A01	14- 9	2	4	4	4	3- 6	3- 6								
4	A02	10- 9	4	4	4	4	2- 6	2- 6								
4	A03	3- 6	10	1			3- 6									
4	A06	5- 4	5	1			5- 4									
5	A07	4- 5	6	1			4- 5									
6	A02	5- 5	16	10			4- 9	0- 8								
LOCATION APPROACH SLAB 3 PHASE I											NO. REQUIRED = 1					
Mechanical Splice	4	A04	1- 8	30	28		0- 4	0- 9	0- 1	0- 7						
Mechanical Splice	4	A05	2- 6	30	1		2- 6									
5	A01	VARY	13	1			30- 1									
		29-11	0	1			29- 8									
5	A02	14-11	8	1			14-11									
5	A03	16- 6	37	1			16- 6									
5	A04	14- 0	36	1			14- 0									
5	A05	13- 6	16	4	4	4	4-11	1- 4								
5	A06	7- 0	16	4	4	4	1- 2	1-10								
6	A01	5- 3	16	10			4- 3	1- 0								
8	A01	VARY	17	1			30- 1									
		29-11	0	1			29- 8									
8	A02	14-11	4	1			14-11									
LOCATION APPROACH SLAB 3 PHASE II											NO REQUIRED = 1					
5	A01	VARY	22	1			28- 9									
		29- 3	0	1			29- 8									
5	A02	13- 8	8	1			13- 8									
5	A03	23- 6	36	1			23- 6									
5	A04	21- 0	37	1			21- 0									
5	A05	13- 6	15	4	4	4	4-11	1- 4								
5	A06	7- 0	15	4	4	4	1- 2	1-10								
8	A01	VARY	29	1			28- 9									
		29- 3	0	1			29- 8									
8	A02	13- 8	4	1			13- 8									
SIDEWALK & CONCRETE PILASTER																
4	A01	14- 9	2	4	4	4	3- 6	3- 6								
4	A02	10- 9	4	4	4	4	2- 6	2- 6								
4	A03	3- 6	10	1			3- 6									
4	A04	1- 8	29	28			0- 4	0- 9	0- 1	0- 7						
4	A05	2- 6	29	1			2- 6									
4	A06	5- 2	29	1			5- 2									
5	A07	29- 0	6	1			29- 0									

REVISIONS

DESCRIPTION	DATE
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APPROVED BY:

DATE: 10/09/2006

MANUEL A. SOLAUN, P.E.
FLORIDA REGISTRATION No. 434.8

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CORAL GABLES, FLORIDA 33134
MIAMI (305)-446-9901 FLORIDA (800)-446-0801
FL REGISTRATION # EB0000663 AA0002148

DATE:	10/09/2006
DRAWN:	RR/RF
DESIGNED	MG
CHECKED	AV
QC	MAS
CADD FILE	08Y34-03

TOWN OF GOLDEN BEACH

NAVONA AVE
BRIDGE REPLACEMENT
REINFORCING BAR LIST (4 OF 5)

SHEET NO.
B-30

70

MARK		LENGTH	NO	TYP	STY		B	C	D	E	F	H	J	K	N	#
SIZE	GES	FT IN	BARS	BAR	A	C	FT IN FR	FT IN FR	FT IN FR	FT IN FR	FT IN FR	FT IN FR	FT IN FR	FT IN FR	NO	ANG
6	A01	5- 3	16	10			4- 3	1- 0								
6	A02	5- 5	16	10			4- 9	0- 8								
LOCATION APPROACH SLAB 3 PHASE III											NO REQUIRED = 1					
SIDEWALK & CONCRETE PILASTER																
4	A01	14- 9	2	4	4	4	3- 6	3- 6								
4	A02	10- 9	4	4	4	4	2- 6	2- 6								
4	A03	3- 5	10	1			3- 6									
4	A06	5- 2	31	1			5- 2									
5	A07	30- 4	6	1			30- 4									
6	A02	5- 5	16	10			4- 3	0- 8								

END OF LIST

REVISIONS	
DESCRIPTION	DATE
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APPROVED BY:

DATE: 10/08/2008

MANUEL A. GOLAIN P.E.
FLORIDA REGISTRATION No. 43418

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601 PONCE DE LEON BLVD., SUITE 500
CORAL GABLES, FLORIDA 33134
MIAMI (305) 445-8008 FLORIDA (800) 448-0037
AL REGISTRATION: EC0000800 AA0002142

DATE:	10/08/2008
DRAWN:	AK/RF
DESIGNED:	MG
CHECKED:	KY
QC:	MAS
CADD FILE:	00734-03

TOWN OF GOLDEN BEACH

Load Rating Summary Details for Prestressed Concrete Bridges (Prestressed Concrete Slab Units with Concrete Topping)

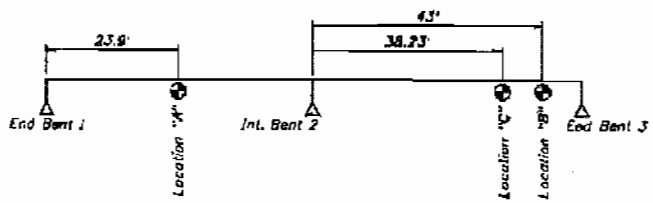
Table Date 01-01-07

Table 2 - LRFR w/o Appendix D.5 (LFD)

Level	Limit State	Vehicle	Weight (tons)	Load Factors: LL	Load Factors: DC	Load Factors: DW	Moment (Strength) or Stress (Service): Distribution Factor (DF)	Moment (Strength) or Stress (Service): Rating Factor	Moment (Strength) or Stress (Service): Tons	Moment (Strength) or Stress (Service): Location	Moment (Strength) or Stress (Service): Dimension	Shear (Strength): Distribution Factor (DF)	Shear (Strength): Rating Factor	Shear (Strength): Tons	Shear (Strength): Location	Shear (Strength): Dimension	Comments: Interior/exterior beam DF method if other than LRFD. Other appropriate comments
Design Load Rating	Strength I (Inv)	HL-93	N/A	1.75	1.25	1.50	0.60	1.57	N/A	A	23.9'	0.60	5.57	N/A	B	43'	Interior Prestressed Concrete Slab Unit C (5' Wide).
	Strength I (Op)	HL-93	N/A	1.35	1.25	1.50	0.60	2.04	N/A	A	23.9'	0.60	7.22	N/A	B	43'	
	Service III (Inv)	HL-93	N/A	0.80	1.00	1.00	0.60	1.27	N/A	A	23.9'	N/A	N/A	N/A	N/A	N/A	
	Service III (Op)	HL-93	N/A	0.80	1.00	1.00	0.60	1.67	N/A	A	23.9'	N/A	N/A	N/A	N/A	N/A	
Legal Load Rating	Strength I	SU4	35.0	1.35	1.25	1.50											
	Strength I	C5	40.0	1.35	1.25	1.50											
	Strength I	ST5	40.0	1.35	1.25	1.50											
	Service III	SU4	35.0	0.80	1.00	1.00						N/A	N/A	N/A	N/A	N/A	
	Service III	C5	40.0	0.80	1.00	1.00						N/A	N/A	N/A	N/A	N/A	
	Service III	ST5	40.0	0.80	1.00	1.00						N/A	N/A	N/A	N/A	N/A	
Permit Load Rating	Strength II	FL120	60.0	1.35	1.25	1.50	0.60	1.50	90.15	A	23.9'	0.60	4.97	298.27	C	38.23'	
	Service III	FL120	60.0	0.70	1.00	1.00	0.60	1.41	84.69	A	23.9'	N/A	N/A	N/A	N/A	N/A	

General Notes:
1. This table is based on the requirements established in the January 2008 "Structures Manual".

Table 2 Notes:
1. Permit capacity is determined by using the permit vehicle in chlomes.
2. If the Design Operating Load Rating is greater than 1, Load Rating using Legal Vehicles SU4, C5, and ST5 is not required.
3. Service III Design Inventory tensile stress limits = 3#f'c or 6#f'c Service III Design Operating, Legal, and Permit tensile stress limits = 7.5#f'c
4. Has the AASHTO LRFD Specifications Article 5.8.3.5 longitudinal reinforcement been satisfied? ☒ Yes ☐ No



RATING LOCATIONS

Abbreviations:

Inv - Inventory

Op - Operating

Controlling Load Rating			
Limit State	Vehicle	Weight (Tons)	Rating Factor
Service III (Inv.)	HL-93	72	1.27

REVISIONS	
DESCRIPTION	DATE
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APPROVED BY: DATE:

MANUEL A. SOLAUN, P.E.
FLORIDA REGISTRATION No. 43418

DORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
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FL REGISTRATIONS EB0000063 AA0000149

DATE:	10/01/2008
DRAWN:	RH/RF
DESIGNED:	MG
CHECKED:	AV
QC:	MAS
CADD FILE:	00734-03

TOWN OF GOLDEN BEACH

NAVONA AVE
BRIDGE REPLACEMENT
LOAD RATING

00734-03

SHEET NO B-32

Attachment C

Zoning Memorandum

Memorandum

MIAMI-DADE COUNTY

Date: August 24, 2010

To: Lisa Spadafina, Manager
Coastal Resources
Environmental Resources Management

From: Nicole Fresard, Biologist II
Coastal Resources
Environmental Resources Management

Subject: Class I Permit Application by the Town of Golden Beach for the Replacement of the Navona Avenue Two-Lane Bridge Spanning the Grand Canal in the Town of Golden Beach

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Pursuant to Section 24-48.2(II)(A)(7), Code of Miami-Dade County, Florida, a substantiating letter shall be submitted by the applicant stating that the proposed project does not violate any zoning laws. Said letter will be submitted after approval by the Miami-Dade County Board of County Commissioners and prior to issuance of the Class I permit.

Attachment D

Names and Addresses of Owners of All Riparian or Wetland Property within Three Hundred (300) Feet of the Proposed Work

Benny & Marta Rub
698 North Island Drive
Golden Beach, FL 33160

Paul Groll
615 Golden Beach Dr
Golden Beach, FL 33160

Carlos Fernandez &W Odalis
599 Golden Beach Dr
Golden Beach, FL 33160

Corina Abadi
600 North Island Drive
Golden Beach, FL 33160

Alexander Zelony
500 North Island Drive
Golden Beach, FL 33160

Brian Willinger &W Gloria
585 Golden Beach Dr
Golden Beach, FL 33160

Jerome S Hollo &W Bettina C
668 N Island Dr
Golden Beach, FL 33160

Frank Kriger & W. Rebecca
508 North Island Drive
Golden Beach, FL 33160

WATONA

Delio Medina &W Rosario
600 N Island Dr
Golden Beach, FL 33160

Richard D Parrillo &W Michaela
520 N Island Dr Pb10-11
Golden Beach, FL 33160

Julyus Corp
c/o Charles S Serfaty Esq
4340 Sheridan St 2nd Flr
Hollywood, FL 33021

Alberto Peisach &W Gay
588 N Island Dr
Golden Beach, FL 33160

Antonio & Amy Rojas
600 Golden Beach Drive
Golden Beach, Fl 33160

Neal Rose &W Laura Lazarovie
580 N Island Dr
Golden Beach, FL 33160

Paul J. Battista & w. Camille
264 South Parkway
Golden Beach, FL 33160

William & Amy Wildstein
598 Golden Beach Drive
Golden Beach, FL 33160

Edward Wiener &W Nettie
622 Golden Beach Dr
Golden Beach, FL 33160

Gilbert Drozdow & W. Linda
590 Golden Beach Drive
Golden Beach, FL 33160

Margaret Guarino &
Catherine Guarino Szabo
650 Golden Beach Dr
Golden Beach, FL 33160

Sandy S Segall &W Robin
584 Golden Beach Dr
Golden Beach, FL 33160

Ishac Hardoon &W Mindy
605 Golden Beach Dr
Golden Beach, FL 33160

Roberto Olemberg
580 Golden Beach Dr
Golden Beach, FL 33160

76

Attachment E

DERM Project Report

PROJECT REPORT
CLASS I PERMIT APPLICATION NO. 2009-CLI -PER-00058

Class I Permit Application by the Town of Golden Beach for the Replacement of the Navona Avenue Two-Lane Bridge Spanning the Grand Canal in the Town of Golden Beach

Date: August 12, 2010

Staff's recommendation of approval for the above-referenced permit application is based on the applicable evaluation factors under Section 24-48.3 of the Code of Miami-Dade County (Code), Florida. The following is a summary of the proposed project with respect to each applicable evaluation factor:

1. **Potential Adverse Environmental Impact** – The potential adverse environmental impacts from the removal of the existing bridge and installation of the proposed bridge are minimal. A benthic survey conducted by biologists from the Department of Environmental Resources Management (DERM) revealed that no significant benthic resources were located within the project footprint; therefore, the work associated with the bridge and seawall replacement and the filling of tidal waters is not expected to result in impacts to benthic resources. However, the project will result in minor temporary water quality impacts associated with the demolition and construction of the two-lane bridge and associated seawalls, to the surrounding area. To mitigate for these impacts, the applicant has agreed to provide a contribution to the Biscayne Bay Environmental Enhancement Trust Fund (BBEETF) in the amount of $7,992.00 that will be used for the creation of marine habitat.

   The proposed project is located within an area identified by the Miami-Dade County Manatee Protection Plan (MDCMPP) as essential manatee habitat for the West Indian Manatee (*Trichechus manatus*). Therefore, the Class I permit will require that all standard manatee construction permit conditions shall be followed during all in-water construction operations.

2. **Potential Cumulative Adverse Environmental Impact** – The proposed project is not reasonably expected to result in potential cumulative adverse environmental impacts.

3. **Hydrology** - The proposed project is not reasonably expected to adversely affect surface water drainage or retention of stormwater. The project as designed will provide adequate surface water drainage, flood damage protection, water storage and surface flow. The proposed project, including the alignment of the new seawalls will not adversely affect the existing patterns or volumes of flow in the Grand Canal or the surrounding area.

4. **Water Quality** – The proposed project may temporarily affect surface water quality during construction operations. However, impacts will be minimized by the implementation of proper turbidity control devices. To mitigate for these impacts, the applicant has agreed to provide a contribution to the Biscayne Bay Environmental Enhancement Trust Fund (BBEETF) in the amount of $7,992.00 that will be used for the creation of marine habitat.

5. **Wellfields** – Not applicable.

6. **Water Supply** – Not applicable.

7. **Aquifer Recharge** – Not applicable.

8. **Aesthetics** – The proposed project is not reasonably expected to have negative aesthetic impacts. The proposed project is designed to be aesthetically compatible with the surrounding area, and will be aesthetically similar to the existing bridge. However, during the construction process there may be temporary aesthetic impacts related to the presence of machinery and equipment associated with the construction activities.

9. **Navigation** – The proposed project is not reasonably expected to adversely affect navigation of the Grand Canal. The Intracoastal Waterway can be accessed from both the north and south sides of the bridge; therefore, access to said waterway will not be impacted by the new bridge. Additionally, in order to provide navigational access and maintain sufficient clearance, the proposed bridge has been designed to yield a minimum of 5 feet over water clearance, which is the same over water clearance provided by the existing bridge.

10. **Public Health** - The proposed project is not reasonably expected to adversely affect public health.

11. **Historic Values** - The proposed project is not reasonably expected to adversely affect historic values.

12. **Archaeological Values** - The proposed project is not reasonably expected to adversely affect archaeological values.

13. **Air Quality** – The proposed project is not reasonably expected to adversely affect air quality.

14. **Marine and Wildlife Habitats** – The proposed project is not reasonably expected to adversely affect marine and wildlife habitats. A benthic survey conducted by biologists from the Department of Environmental Resources Management (DERM) revealed that no significant benthic resources were located within the project footprint; therefore, the work associated with the bridge and seawall replacement and the filling of tidal waters is not expected to result in impacts to benthic resources. However, the project will result in minor temporary water quality impacts associated with the demolition and construction of the two-lane bridge and associated seawalls, to the surrounding area. To mitigate for these impacts, the applicant has agreed to provide a contribution to the BBEETF in the amount of $7,992.00 that will be used for the creation of marine habitat.

    The proposed project is located within an area identified by the MDCMPP as essential manatee habitat for the West Indian Manatee (*Trichechus manatus*). Therefore, the Class I permit will require that all standard manatee construction permit conditions shall be followed during all in-water construction operations.

15. **Wetland Soils Suitable for Habitat** – The proposed project is not reasonably expected to adversely affect wetland soils suitable for habitat since there are no wetland soils in the footprint of the proposed work.

16. **Floral Values** – A benthic survey conducted by biologists from DERM revealed that the area within the project site does not currently support benthic resources. Therefore, the proposed project is not reasonably expected to adversely affect marine flora.

17. **Fauna Values** – The proposed project is not reasonably expected to adversely affect faunal values. Although the soils may support limited numbers of marine infauna (e.g. benthic fauna living within the substrate), the soils do not support any significant marine resources. In addition, the proposed project is located within an area identified by the MDCMPP as essential manatee habitat for the West Indian Manatee (*Trichechus manatus*). Therefore, the Class I permit will require that all standard manatee construction permit conditions shall be followed during all in-water construction operations.

18. **Rare, Threatened and Endangered Species** – The proposed project is not reasonably expected to adversely affect any endangered species. The proposed project is located within an area identified by the MDCMPP as essential manatee habitat for the West Indian Manatee (*Trichechus manatus*). Therefore, the Class I permit will require that all standard manatee construction permit conditions shall be followed during all in-water construction operations.

19. **Natural Flood Damage Protection** - The proposed project is not reasonably expected to adversely affect surface water drainage or retention of stormwater.

20. **Wetland Values** – The proposed project does not involve dredging or filling of wetlands.

21. **Land Use Classification** – The proposed project will occur in the Town of Golden Beach, Florida. Pursuant to Section 24-48.2(II)(A)(7), of the Code of Miami-Dade County, Florida, a substantiating letter shall be submitted stating that the proposed project does not violate any zoning laws. Said letter will be submitted after the approval by the Board of County Commissioners and prior to the issuance of the Class I permit.

22. **Recreation** - The proposed project does not conflict with the recreation element of the Miami-Dade County Comprehensive Development Master Plan.

23. **Other Environmental Values Affecting the Public Interest** - The proposed project is not reasonably expected to adversely affect other environmental values affecting the public interest. The proposed project will occur on lands owned entirely by the applicant.

24. **Conformance with Standard Construction Procedures and Practices and Design and Performance Standards** – The proposed project complies with the standard construction procedures and practices and design and performance standards of the following:

    a) Miami-Dade County Public Works Manual
    b) Chapter 33B of the Code of Miami-Dade County

25. **Comprehensive Environmental Impact Statement (CEIS)** – In the opinion of the Director, the proposed project will result in only minimal adverse environmental impacts and is not reasonably expected to result in cumulative adverse environmental impacts. Therefore, a CEIS was not required by DERM to evaluate the project.

26. **Conformance with All Applicable Federal, State and Local Laws and Regulations** - The proposed project is in conformance with the following applicable State, Federal and local laws and regulations:

    a) Chapter 24 of the Code of Miami-Dade County
    b) Rules of the South Florida Water Management District (SFWMD permit has been obtained)
    c) United States Clean Water Act (US Army Corps of Engineers Permit is required)

27. **Conformance with the Miami-Dade County Comprehensive Development Master Plan (CDMP)** - In the opinion of DERM, the proposed project is in conformance with the CDMP. The following is a summary of the proposed project as it relates to the CDMP:

LAND USE ELEMENT I:

Objective 2/Policy 2A - Level of Service. The proposed project does not involve new or significant expansion of existing urban land uses.

Objective 3/Policies 3A, 3B, 3C - Protection of natural resources and systems. – The proposed project is consistent with the Conservation and Coastal Management Elements of the CDMP. The project is not located within Biscayne Bay and does not involve development in the Big Cypress area of Critical State concern or the East Everglades.

TRANSPORTATION ELEMENT II

Aviation Subelement/Objective 9 - Aviation System Expansion - There is no aviation element to the proposed project.

Port of Miami River Subelement/Objective 3 - Minimization of impacts to estuarine water quality and marine resources. The proposed project will not take place within the tidal waters of the Miami River.

CONSERVATION, AQUIFER RECHARGES AND DRAINAGE ELEMENT IV:

Objective 3/Policies 3A, 3B, 3D - Wellfield protection area protection. - The proposed project is not located within a wellfield protection area.

Objective 3/Policy 3E - Limestone mining within the area bounded by the Florida Turnpike, the Miami-Dade/Broward Levee, N.W. 12 Street and Okeechobee Road. - The proposed project is not located within this area.

Objective 4/Policies 4A, 4B, 4C - Water storage, aquifer recharge potential and maintenance of natural surface water drainage. - The proposed project is not reasonably expected to adversely affect water storage, aquifer recharge potential or natural surface water drainage.

Objective 5/Policies 5A, 5B, 5F - Flood protection and cut and fill criteria. – The proposed project does not compromise flood protection, and is consistent with all relevant criteria related to cut and fill activities.

Objective 6/Policy 6A - Areas of highest suitability for mineral extraction. - The proposed project is not located in an area proposed or suitable for mineral extraction.

Objective 6/Policy 6B - Guidelines for rock quarries for the re-establishment of native flora and fauna. - The proposed project is not located in a rock quarry.

Objective 6/Policy 6D - Suitable fill material for the support of development. – The proposed project does not involve the removal of suitable fill to support development.

Objective 7/Policy 7A - No net loss of high quality, relatively unstressed wetlands. - The proposed project will not result in a net loss of any such wetlands.

Objective 9/Policies 9A, 9B, 9C – Protection of habitat critical to Federal or State-designated endangered, threatened, or rare species – The proposed project is located within an area identified by the MDCMPP as essential manatee habitat for the West Indian Manatee (*Trichechus manatus*). Therefore, the Class I permit will require that all standard manatee construction permit conditions shall be followed during all in-water construction operations.

COASTAL MANAGEMENT ELEMENT VII:

Objective 1/Policy 1A - Tidally connected mangroves in mangrove protection areas. – The project is not located within a designated "Mangrove Protection Area."

Objective 1/ Policy 1B - Natural surface flow into and through coastal wetlands. – The project will not affect natural surface flow into and through coastal wetlands.

Objective 1/ Policy 1C - Elevated boardwalk access through mangroves. – The proposed project does not involve the installation of an elevated boardwalk to provide access through mangroves.

Objective 1/Policy 1D - Protection and maintenance of mangrove forests and related natural vegetational communities. - The proposed project does not involve work in mangrove forests, coastal hammock, or other natural vegetational communities.

Objective 1/Policy 1E - Mitigation for the degradation and destruction of coastal wetlands. Monitoring and maintenance of mitigation areas. – The proposed project does not involve the degradation and destruction of coastal wetlands and therefore does not involve monitoring of mitigation for impacts to coastal wetlands.

Objective 1/Policy 1G - Prohibition on dredging or filling of grass/algal flats, hard bottom or other viable benthic communities, except as provided for in Chapter 24 of the Code of Miami-Dade County, Florida. – The project does not involve the dredging or filling of grass/algal flats, hard bottom or other viable benthic communities.

Objective 2/Policies 2A, 2B - Beach restoration and renourishment objectives. - The proposed project does not involve beach restoration or renourishment.

Objective 3/Policy 3E, 3F - Location of new cut and spoil areas for proper stabilization and minimization of damages. - The proposed project does not involve the development or identification of new cut or spoil areas.

Objective 4/Policy 4A, 4C, 4E, 4F – Protection of endangered or threatened animal species. - The proposed project is located within an area identified by the MDCMPP as essential manatee habitat for the West Indian Manatee (*Trichechus manatus*). Therefore, the Class I permit will require that all standard manatee construction permit conditions shall be followed during all in-water construction operations.

Objective 5/Policy 5B - Existing and new areas for water-dependent uses. - The proposed project does not involve the use of new areas for water-dependent uses.

Objective 5/Policy 5D - Consistency with Chapter 33D, Miami-Dade County Code (shoreline access, environmental compatibility of shoreline development) – The Shoreline Development Review Committee has evaluated the proposed project and determined that the thresholds for review under the Shoreline Ordinance do not apply and the proposed project is not subject to shoreline development review.

Objective 5/Policy 5F - The siting of water dependent facilities. - The proposed project does not involve the creation of any new water dependent facilities.

28. **Conformance with Chapter 33B, Code of Miami-Dade County** (East Everglades Zoning Overlay Ordinance) – The proposed project is not located within the East Everglades Area.

29. **Conformance with Miami-Dade County Ordinance 81-19** (Biscayne Bay Management Plan Sections 33D-1 through 33D-4 of the Code of Miami-Dade County) - The proposed project is not located within Biscayne Bay.

30. **Conformance with the Miami-Dade County Manatee Protection Plan – Protection of endangered or threatened animal species.** - The proposed project is located within an area identified by the MDCMPP as essential manatee habitat for the West Indian Manatee (*Trichechus manatus*). Therefore, the Class I permit will require that all standard manatee construction permit conditions shall be followed during all in-water construction operations.

31. **Consistency with Miami-Dade County Criteria for Lake Excavation** – The proposed project does not involve lake excavation.

32. **Municipality Recommendation** – Pursuant to Section 24-48.2(II)(A)(7), Code of Miami-Dade County, Florida, a substantiating letter shall be submitted stating that the proposed project does not violate any zoning laws. Said letter will be submitted after the approval by the Board of County Commissioners and prior to the issuance of the Class I permit.

33. **Coastal Reaources Management Line** - A coastal resources management line was not required for the proposed project, pursuant to Section 24-48.2(II)(A)(10)(b) of the Code of Miami-Dade County, Florida.

34. **Maximum Protection of a Wetland's Hydrological and Biological Functions** – The proposed project is not reasonably expected to impact wetland hydrological and biological functions.

35. **Class I Permit Applications Proposing to Exceed the Boundaries Described in Section D-5.03(2)(a) of the Miami-Dade County Public Works Manual** – DERM has considered the following factors:

    i. **Whether the proposed exceedance is the minimum necessary to avoid seagrasses or other valuable environmental resources** – Not applicable.
    ii. **Whether the proposed exceedance is the minimum necessary to achieve adequate water depth for mooring of a vessel** – Not applicable
    iii. **Whether the applicant has provided notarized letters of consent to DERM from adjoining riparian property owners** – Not applicable.
    iv. **Whether any letters of objection from adjoining riparian property ownera were received by DERM** – Not applicable.

The proposed project was also evaluated for compliance with the standards contained in Section 24-48.3(2), (3), and (4) of the Code of Miami-Dade County, Florida. The following is a summary of how the standards relate to the proposed project:

24-48.3 (2) Dredging and Filling for Class I Permit - The proposed project complies with the following criteria listed in Section 24-48.3(2) of the Code of Miami-Dade County:

(a) Minimum dredging and spoiling for public navigation or public necessity.
(f) A physical modification necessary to protect public or private property.

24-48.3 (3) Minimum Water Depth Required for Boat Slips Created by the Construction or Placement of Fixed or Floating Docks and Piers, Piles and Other Structures Requiring a Permit Under Article IV, Division 1 of Chapter 24 of the Code of Miami-Dade County – The proposed project does not involve the creation of a boat slip.

24-48.3 (4) Clean Fill in Wetlands – The proposed project does not involve placing clean fill in wetlands.

BASED ON THE FOREGOING, IT IS RECOMMENDED THAT A CLASS I PERMIT BE APPROVED.

Lisa Spadafina, Manager
Coastal Resources Section

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Coastal Resources Section