

Memorandum



Date: April 7, 2009

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

Agenda Item No. 5(N)

From: George M. Burgess
County Manager

A handwritten signature in black ink, appearing to read "Burgess", written over the printed name of the sender.

Subject: Class I Permit Application by Miami-Dade County to Renourish and Stabilize Hobie Beach and Virginia Key Beach Through the Dredging of Rock and Sediment and the Removal of Concrete Debris, the Placement of 23,337 Cubic Yards of Riprap Boulders and Sand for Multiple Renourishment Events, and the Repair of Three (3) Stormwater Outfalls to Improve Drainage, and to Authorize the Time of Completion of Work of the Subject Permit for a Period of Ten (10) Years

Attached, please find for your consideration an application by Miami-Dade County 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.

A handwritten signature in black ink, appearing to read "Alex", written above a horizontal line.

Assistant County Manager

Memorandum



Date: March 31, 2009

To: George M. Burgess
County Manager

From: Carlos Espinosa, PE, Director
Environmental Resources Management

Subject: Class I Permit Application by Miami-Dade County to Renourish and Stabilize Hobie Beach and Virginia Key Beach Through the Dredging of Rock and Sediment and the Removal of Concrete Debris, the Placement of 23,337 Cubic Yards of Riprap Boulders and Sand for Multiple Renourishment Events, and the Repair of Three (3) Stormwater Outfalls to Improve Drainage, and to Authorize the Time of Completion of Work of the Subject Permit for a Period of Ten (10) Years

Recommendation

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

Scope

The project site is located along the southern shorelines of Hobie Island and Virginia Key along Rickenbacker Causeway in Miami-Dade County, in Commission District 7 (Commissioner Gimenez).

Fiscal Impact/Funding Source

Not applicable.

Track Record/Monitor

Not applicable.

Background

This project is intended to reduce the potential for continuing erosion and enhance Hobie Beach and Virginia Key Beach for recreational public use.

The subject Class I permit application involves the renourishment and stabilization of Hobie Beach and Virginia Key Beach through the dredging of rock and sediment and the removal of concrete debris, the placement of 23,337 cubic yards of riprap boulders and sand, and the repair of three (3) stormwater outfalls to improve drainage south of the Rickenbacker Causeway. The project area, including the submerged lands, is owned by the applicant, Miami-Dade County, and managed by the Miami-Dade County Public Works Department. The proposed project is required to be reviewed and approved by the BCC at a public hearing because the scope of work includes dredging and filling of tidal waters. Said work is not specifically referenced in Section 24-48.2 of the Code of Miami-Dade County (Code) as work that can be processed administratively with a short form application and requires a standard form application including a public hearing. Pursuant to Section 24-48.9 of the Code of Miami-Dade County, standard form Class I permit approvals are only valid for a period of three (3) years from the date of approval unless another time period is stated in the approving resolution. Due to the nature of this project, the applicant has requested that the permit for this project be valid for ten (10) years rather than the typical three (3) years to allow for multiple renourishment events as needed.

The project sites, known as Hobie Beach and Virginia Key Beach, are popular recreational areas that are utilized frequently by public beachgoers and water sports enthusiasts. The project sites consist of over 12,000 linear feet of partially vegetated, unconsolidated shorelines with rock and sand sediment. The vegetated areas along the shorelines are comprised of exotic tree species, including *Casuarina sp.* (Australian pine) and *Thespesia populnea* (seaside mahoe), and native tree species including *Rhizophora mangle* (red mangroves), *Laguncularia racemosa* (white mangroves), *Avicennia germinans* (black mangroves), and *Conocarpus erectus* (green buttonwood). The existing shorelines are experiencing varying degrees of erosion that reduce the width of the beaches and potentially undermine the adjacent upland roadways and parking facilities. As a result of current site conditions, the most significant source of erosion is stormwater runoff. Existing shoreline revetments, comprised of concrete slabs and debris, do not provide adequate stabilization of the shorelines adjacent to the existing bridges. In addition, parking sometimes occurs beyond the mean high water line (MHWL) due to the lack of physical barriers between the parking facilities and the shoreline, and presents an increased potential for beach erosion in the more heavily trafficked areas.

The applicant seeks authorization for the excavation of existing sediments and the placement of riprap boulders and sand waterward of the Mean High Water Line (MHWL) to stabilize and renourish eroded beach shorelines along Hobie Beach and Virginia Key Beach. To reduce the effects of stormwater runoff and minimize the potential for erosion, the applicant is also proposing to make improvements to the stormwater drainage system. These improvements consist of re-grading the existing upland parking facilities and roadways, creating upland swale areas to divert surface water runoff away from the shoreline, and improving existing outfall systems. A total of 23,337 cubic yards of riprap boulders and sand shall be incorporated into the proposed project for the proposed beach renourishment, riprap revetments, and the repair of the existing outfall systems. Specifically, the applicant shall excavate seven hundred fifty seven (757) cubic yards of rock and sediment and place 18,896 cubic yards of sand waterward of the existing MHWL to renourish the existing beaches. The sand will be obtained from inland quarries and trucked to the project site. The sand will then be graded to provide the recreational benefits associated with the project. To avoid impacts to existing mangroves on-site as a result of the proposed beach renourishment, the applicant has designed limerock riprap boulder revetments around the native trees; therefore, no impacts to existing mangroves are anticipated. The proposed revetments shall result in the placement of 2,538 cubic yards of riprap boulders waterward of the existing MHWL. The proposed project also involves the creation of numerous riprap revetments to further stabilize the subject shorelines. Specifically, existing concrete debris shall be removed and replaced with 1,544 cubic yards of riprap boulders waterward of the existing MHWL. Furthermore, the restoration of the three (3) existing outfall systems will result in the excavation of seventy eight (78) cubic yards of sediment and the placement of three hundred fifty nine (359) cubic yards of sand and riprap boulders waterward of the MHWL.

A seagrass survey report indicates that no adverse environmental impacts to benthic resources will occur as a result of this project, therefore no mitigation shall be required. The project has been designed to maintain a minimum fifteen (15) foot distance between the waterward limits of the project and all existing seagrass resources; therefore, no direct or indirect impacts to existing resources are anticipated. The applicant will utilize turbidity control devices to contain turbidity from construction operations. In addition, the applicant will be required to implement a seagrass monitoring program to evaluate offshore seagrass community health and vitality before and after construction activities.

The applicant is also requesting that the Class I permit be valid for a period of ten (10) years. Although standard form Class I permits are valid for three (3) years, staff noted that authorization for a ten (10) year period is consistent with the maximum timeframe allowed for extensions of standard form Class I permits in the Code of Miami-Dade County. DERM recommends approval of the requested ten (10) year permit which would allow for periodic renourishment of eroded segments of the beach as needed in order to maintain the storm protection functions of the beach for upland resources as well as appropriate recreational and environmental functions. The applicant will be required to notify DERM prior to performing any subsequent renourishment events.

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: Affidavit of Ownership and Hold Harmless Agreement
- Attachment C: Owner/Agent Letter, Engineer Certification Letter and Project Sketches
- Attachment D: Zoning Memorandum
- Attachment E: Names and Addresses of Owners of All Riparian or Wetland Property Within Three Hundred (300) Feet of the Proposed Work
- Attachment F: DERM Project Report

NOTICE OF PUBLIC HEARING ON AN APPLICATION BY MIAMI-DADE COUNTY FOR A CLASS I PERMIT TO RENOURISH AND STABILIZE HOBIE BEACH AND VIRGINIA KEY BEACH THROUGH THE DREDGING OF ROCK AND SEDIMENT AND THE REMOVAL OF CONCRETE DEBRIS, THE PLACEMENT OF 23,337 CUBIC YARDS OF RIPRAP BOULDERS AND SAND FOR MULTIPLE RENOURISHMENT EVENTS, AND THE REPAIR OF THREE (3) STORMWATER OUTFALLS TO IMPROVE DRAINAGE, AND TO AUTHORIZE THE TIME OF COMPLETION OF WORK OF THE SUBJECT PERMIT FOR A PERIOD OF TEN (10) YEARS

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 Miami-Dade County Board of County Commissioners will hold and conduct a Public Hearing on a request by Miami-Dade County for a Class I permit to renourish and stabilize Hobie Beach and Virginia Key Beach through the dredging of rock and sediment and the removal of concrete debris, the placement of 23,337 cubic yards of riprap boulders and sand for multiple renourishment events, and the repair of three (3) stormwater outfalls to improve drainage, and to authorize the time of completion of work of the subject permit for a period of ten (10) years. Such Public Hearing will be held on the 7th day of April 2009 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, 4th Floor, 701 NW 1st Court, Miami, Florida, 33136-3912.

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 (Kay Sullivan, 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, 4th Floor, 701 NW 1st Court, Miami, Florida, 33136-3912.

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

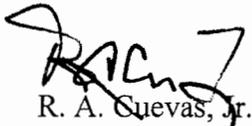
BY: _____
Kay Sullivan, Deputy Clerk



MEMORANDUM
(Revised)

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

DATE: April 7, 2009

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

SUBJECT: Agenda Item No. 5(N)

Please note any items checked.

- "4-Day Rule" ("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
- Bid waiver requiring County Mayor's written recommendation
- Ordinance creating a new board requires detailed County Manager's report for public hearing
- Housekeeping item (no policy decision required)
- No committee review

Approved _____ Mayor
Override _____
Veto _____

Agenda Item No. 5 (N)
4-7-09

RESOLUTION NO. _____

RESOLUTION RELATING TO AN APPLICATION BY MIAMI-DADE COUNTY FOR A CLASS I PERMIT TO RENOURISH AND STABILIZE HOBIE BEACH AND VIRGINIA KEY BEACH THROUGH THE DREDGING OF ROCK AND SEDIMENT AND THE REMOVAL OF CONCRETE DEBRIS, THE PLACEMENT OF 23,337 CUBIC YARDS OF RIPRAP BOULDERS AND SAND FOR MULTIPLE RENOURISHMENT EVENTS, AND THE REPAIR OF THREE (3) STORMWATER OUTFALLS TO IMPROVE DRAINAGE, AND TO AUTHORIZE THE TIME OF COMPLETION OF WORK OF THE SUBJECT PERMIT FOR A PERIOD OF TEN (10) YEARS

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 Miami-Dade County for a Class I permit to renourish and stabilize Hobie Beach and Virginia Key Beach through the dredging of rock and sediment and the removal of concrete debris, the placement of 23,337 cubic yards of riprap boulders and sand for multiple renourishment events, and the repair of three (3) stormwater outfalls to improve drainage, and to authorize the time of completion of work of the subject permit for a period of ten (10) years, 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 Class I permit granted hereby shall be valid for ten (10) years from the date of issuance of the permit.

The foregoing resolution was offered by Commissioner
who moved its adoption. The motion was seconded by Commissioner
and upon being put to a vote, 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
7th day of April, 2009. 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. 

Peter S. Tell

By: _____
Deputy Clerk

Attachment A
Class I Permit Application



Class I Permit Application RECEIVED

1. Application number
CC06-196

2. Date Day/Month/Year

3. For official use only
MAR 31 2009
DERM
ENVIRONMENTAL RESOURCES
REGULATION DIVISION

4. Applicant Information: Miami-Dade County,
Name: Ysela Llort, Assistant County Manager
Address: 111 NW 1st St. Suite 2910
Miami, FL Zip Code: 33128
Phone #: (305) 375-1451 Fax #: (305) 375-1501
e-mail yllort@miamidade.gov

5. Applicant's authorized permit agent
Name: Coastal Systems International, Inc.
Address: 464 South Dixie Highway
Coral Gables, FL Zip Code: 33146
Phone #: (305) 661-3655 Fax #: (305) 661-1914
e-mail pcutt@coastalsystemsint.com

6. Describe the proposed activity, its purpose and intended use, including a description of the type of structures, if any, to be erected on fills, or pipe or float-supported platforms, and the type, composition and quantity of materials to be discharged or dumped and means of conveyance.

Class I Permit Application by Miami-Dade County to Renourish and Stabilize Hobie Beach and Virginia Key Beach Through the Dredging of Rock and Sediment and the Removal of Concrete Debris, the Placement of 23,337 Cubic Yards of Riprap Boulders and Sand for Multiple Renourishment Events, and the Repair of Three (3) Stormwater Outfalls to Improve Drainage, and to Authorize the Time of Completion of Work of the Subject Permit for a Period of Ten (10) Years.

	Dredged/Excavated		Filled/Deposited
Volume of Material:	835 CY	23,337 CY	
	<small>Landward of O.H.W. or M.H.W.</small>	<small>Landward of O.H.W. or M.H.W.</small>	<small>Landward of O.H.W. or M.H.W.</small>

7. Proposed Use: (Check One)

Private Commercial
 Other Public

8. Names and addresses of adjoining property owners whose property also adjoins the waterway.

Name: <u>Miami Seaquarium</u> Address: <u>4400 Rickenbacker Causeway</u> <u>Miami, FL</u> Zip Code <u>33149</u>	Name: <u>City of Miami Dept. of P & D</u> Address: <u>3501 Rickenbacker Causeway</u> <u>Miami, FL</u> Zip Code <u>33130</u>
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9. Location where proposed activity exists or will occur. Folio # 01-4208-000-0020

Street Address: Project will occur along the shoreline of Hobie Beach and Virginia Key Beach on the South side of Rickenbacker Causeway
Latitude 25 44' 80" - 25 44' 40" 80 12' 20" - 80 10' 00"
Section 13, 17, 18, 20 Township 54 Range 41, 42
State FL County Miami-Dade In City or Town Miami Near City Or Town _____

10. Name of waterway at location of the activity.
Biscayne Bay

11. Date activity is proposed to:
 Commence TBD Be completed TBD

12. Is any portion of this activity for which authorization is sought now complete?
 Yes
 No
 If answer is "yes", give reasons in the remarks section. Indicate the existing work on the drawings.
 Month and Year the activity was completed _____

13. List all approvals or certifications required by other Federal, state or local agencies for any structures, construction, discharges, deposits or other activities described in this application, including whether the project is a Development of Regional Impacts.

Issuing Agency	Type of Approval	Identification Number	Date of Application	Date of Approval
SFWMD	ERP	13-03310-P	4/10/06	8/9/07
CORPS	IP	SAJ-2006-3273 (IP-MJW)	4/10/06	pending

14. Has any other agency denied approval for any activity directly related to the activity described herein?
 Yes
 No

15. Remarks

16. Estimated project cost = \$197,018.25

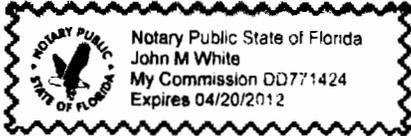
17. Contractor
 Name: TBD License #: _____
 Address: _____
 _____ Zip Code: _____
 Phone #: _____ Fax #: _____
 e-mail _____

19. To obtain proprietary authorization for work on state-owned submerged lands, please include an additional copy of the following:
 8½ x 11 Location Map
 8½ x 11 Project Drawing
 Copy of Application

18. Application is hereby made for a permit or permit(s) to authorize the activities described herein. I agree to provide any additional information/data that may be necessary to provide reasonable assurance or evidence to show that the proposed project will comply with the applicable State Water Quality Standards or other environmental protection standards both during construction and after the project is completed. I also agree to provide entry to the project site for inspectors from the environmental protection agencies for the purpose of making the preliminary analyses of the site and monitoring permitted works, if permit is granted. I certify that I am familiar with the information contained in this application and that to the best of my knowledge and belief, such information is true, complete and accurate. I further certify that I possess the authority to undertake the proposed activities.

Signature of owner *Ysela Llorca*
 Ysela Llorca, Assistant County Manager,
 Date Miami-Dade County 3/31/09

SUBSCRIBED AND SWORN TO ME THIS 31 DAY OF March, 2009 BY Ysela Llorca
 PERSONALLY KNOWN PRODUCED IDENTIFICATION (PLEASE CHECK ONE)
 TYPE OF ID PRODUCED _____ NOTARY PUBLIC *John M White*



Attachment B

Affidavit of Ownership and Hold Harmless Agreement

**Affidavit of Ownership
and Hold Harmless Agreement**

Ysela Llord, Assistant County Manager
Miami-Dade County

Personally Appeared Before Me, _____, that
(Property owner, lessee or Corporate Officer if owner is a corporation)
undersigned authority, and hereby swears and affirms under oath as follows:

1. That your affiant is the record owner or lessee of that certain property* more fully described as:

The shoreline and submerged lands adjacent to Hobie Beach and Virginia Key Beach on the south side of Rickenbacker Causeway.

* may attach legal description from public records or plat book or a copy of the warranty deed

2. That your affiant is also the riparian and/or littoral owner or lessee of that certain property that is the subject matter of Application No. CC06-196 for a Class I permit under and pursuant to Section 24-48 of the Code of Miami-Dade County to construct or engage in the following activity:

Class I Permit Application by Miami-Dade County to Renourish and Stabilize Hobie Beach and Virginia Key Beach Through the Dredging of Rock and Sediment and the Removal of Concrete Debris, the Placement of 23,337 Cubic Yards of Riprap Boulders and Sand for Multiple Renourishment Events, and the Repair of Three (3) Stormwater Outfalls to Improve Drainage, and to Authorize the Time of Completion of Work of the Subject Permit for a Period of Ten (10) Years.

3. That your affiant hereby swears and affirms its ownership or leasehold in the above noted property necessary for the work noted in Paragraph 2 above, and hereby agrees to: defend same and hold the County harmless from any and all liability, claims and damages of any nature whatsoever occurring, including or arising as a result of your affiant not having the proper title to all lands or proper leasehold to all lands that are the subject matter of this application.

STATE OF FLORIDA
COUNTY OF DADE


Owner/Applicant

Ysela Llord, Assistant County Manager, Miami-Dade County

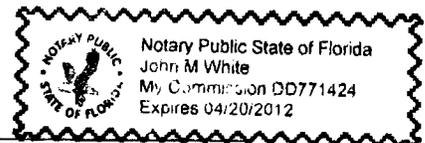
BEFORE ME, the undersigned authority, personally appeared Ysela Llord, who, after being duly sworn, deposes and says that he/she has read the foregoing, and that the statements contained therein are true and correct to the best of his/her knowledge and belief.

Sworn to and subscribed before me this 31 of March, 2008.
(day) (month) (year)

Notary Signature _____



Notary Seal _____



Attachment C

**Owner/Agent Letter, Engineer Certification Letter, and
Project Sketches**



Carlos Alvarez, Mayor

County Executive Office
County Manager
111 NW 1st Street • Suite 2910
Miami, Florida 33128-1994
T 305-375-5311 F 305-375-1262

miamidade.gov

PERMIT APPLICANT/AUTHORIZED AGENT STATEMENT

Note: Please insert applicable information

Date: March 23, 2009

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

Re: Class I Permit Application Number CC06-196 by Miami-Dade County to Renourish and Stabilize Hobie Beach and Virginia Key Beach Through the Dredging of Rock and Sediment and the Removal of Concrete Debris, the Placement of 23,337 Cubic Yards of Riprap Boulders and Sand for Multiple Renourishment Events, and the Repair of Three (3) Stormwater Outfalls to Improve Drainage, and to Authorize the Time of Completion of Work of the Subject Permit for a Period of Ten (10) Years.

By the attached Class I Standard Form Permit Application with supporting documents, I, Ysela Llort, Assistant County Manager, Miami-Dade County, am the permit applicant/applicant's authorized agent (circle one) and hereby request permission to perform the following: to Renourish and Stabilize Hobie Beach and Virginia Key Beach Through the Dredging of Rock and Sediment and the Removal of Concrete Debris, the Placement of 23,337 Cubic Yards of Riprap Boulders and Sand for Multiple Renourishment Events, and the Repair of Three (3) Stormwater Outfalls to Improve Drainage, and to Authorize the Time of Completion of Work of the Subject Permit for a Period of Ten (10) Years. 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,
[Signature]
Ysela Llort
Miami-Dade County, Assistant County Manager
or

(Authorized Agent's name), Authorized Agent





COASTAL SYSTEMS INTERNATIONAL, INC.
464 South Dixie Highway • Coral Gables, Florida 33146
Tel: 305-661-3655 • Fax: 305-661-1914
www.coastalsystemsint.com

March 20, 2009

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

RE: CLASS I STANDARD FORM PERMIT APPLICATION NUMBER CC06-196, CLASS I PERMIT APPLICATION BY MIAMI-DADE COUNTY TO RENOURISH AND STABILIZE HOBIE BEACH AND VIRGINIA KEY BEACH THROUGH THE DREDGING OF ROCK AND SEDIMENT AND THE REMOVAL OF CONCRETE DEBRIS, THE PLACEMENT OF 23,337 CUBIC YARDS OF RIPRAP BOULDERS AND SAND FOR MULTIPLE RENOURISHMENT EVENTS, AND THE REPAIR OF THREE (3) STORMWATER OUTFALLS TO IMPROVE DRAINAGE, AND TO AUTHORIZE THE TIME OF COMPLETION OF WORK OF THE SUBJECT PERMIT FOR A PERIOD OF TEN (10) YEARS.

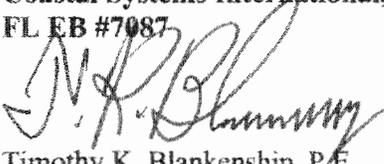
Ladies and Gentlemen:

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,
Coastal Systems International, Inc.
FL EB #7087

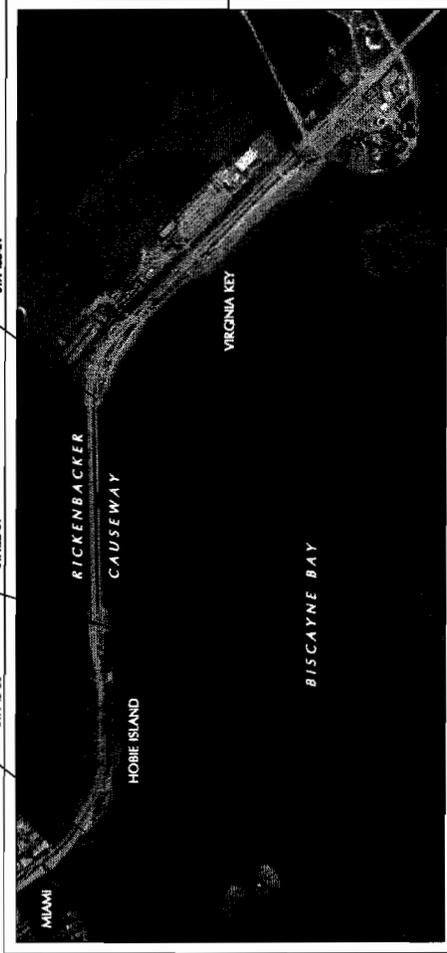
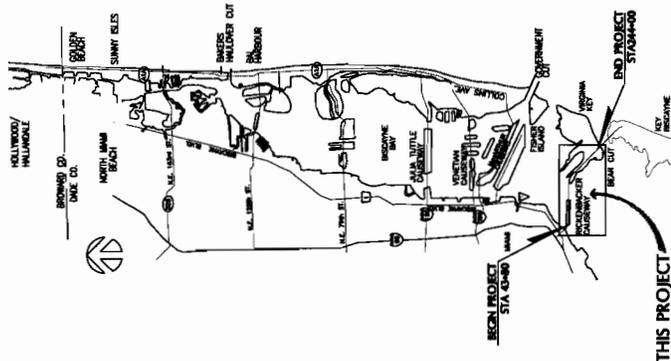


Timothy K. Blankenship, P.E.
FL Reg. 55910

Coastal, Environmental, Civil Engineering and Management

PLANS FOR PROPOSED IMPROVEMENTS OF RICKENBACKER CAUSEWAY SHORELINE AND ROADWAY PROTECTION (FORMERLY RICKENBACKER CAUSEWAY RECREATIONAL FACILITY) ON HOBE ISLAND AND VIRGINIA KEY MIAMI-DADE COUNTY PROJECT NO. 651014 FROM STA. 43+80 TO STA. 244+00

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



	LENGTH OF JOB	
	LIN. FT.	MILES
Roadway	9,163.23	1.74
Bridge	N/A	-
Net Length of Job	9163.23	1.74
Exceptions	0	-
Gross Length of Job	9163.23	1.74

PREPARED FOR



MIAMI-DADE COUNTY PUBLIC WORKS DEPARTMENT
HIGHWAY DIVISION

PREPARED BY

COASTAL SYSTEMS INTERNATIONAL
Coastal, Environmental
Civil Engineering,
Planning and Management
FL EB #1267
Tel: 305/663-3455
464 S. Dixie Hwy.
Coral Gables, FL 33146

Call 48 hours
before you dig
It's the Law!
1-800-432-4770
Sunshine State One Call of Florida, Inc.

THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH AND ARE COVERED BY THE MIAMI-DADE COUNTY PUBLIC WORKS DEPARTMENT STANDARD SPECIFICATIONS PARTS 1, 2 AND 3, THE MANUAL OF UNIFORM PRACTICE STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, AND THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, AS AMENDED BY CONTRACT DOCUMENT

APPROVED	_____ DIRECTOR OF PUBLIC WORKS
RECOMMENDED	_____ ASSISTANT DIRECTOR
SUBMITTED	_____ PROPERTY ENGINEER
PROPOSED	_____ CHECK
DESIGN	_____ DRAWN
DATE	_____ SHEET 1 OF 135

ENGINEER OF RECORD:

T.K. BLANKENSHIP
FLORIDA REGISTRATION P.E. No. 55910

RECEIVED

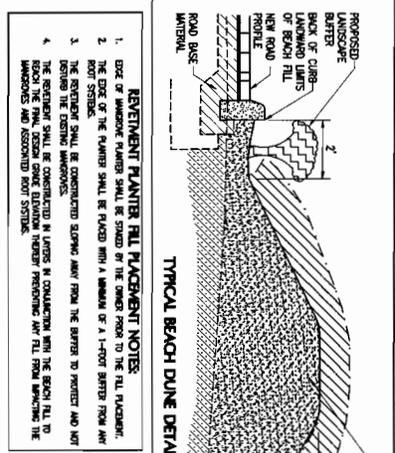
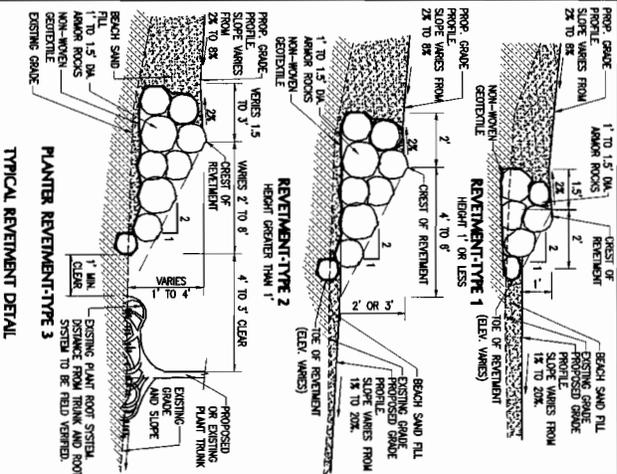
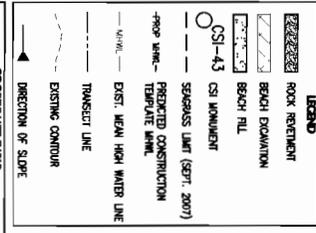
FEB 04 2009

DERM ENVIRONMENTAL RESOURCES REGULATION DIVISION

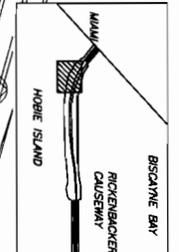
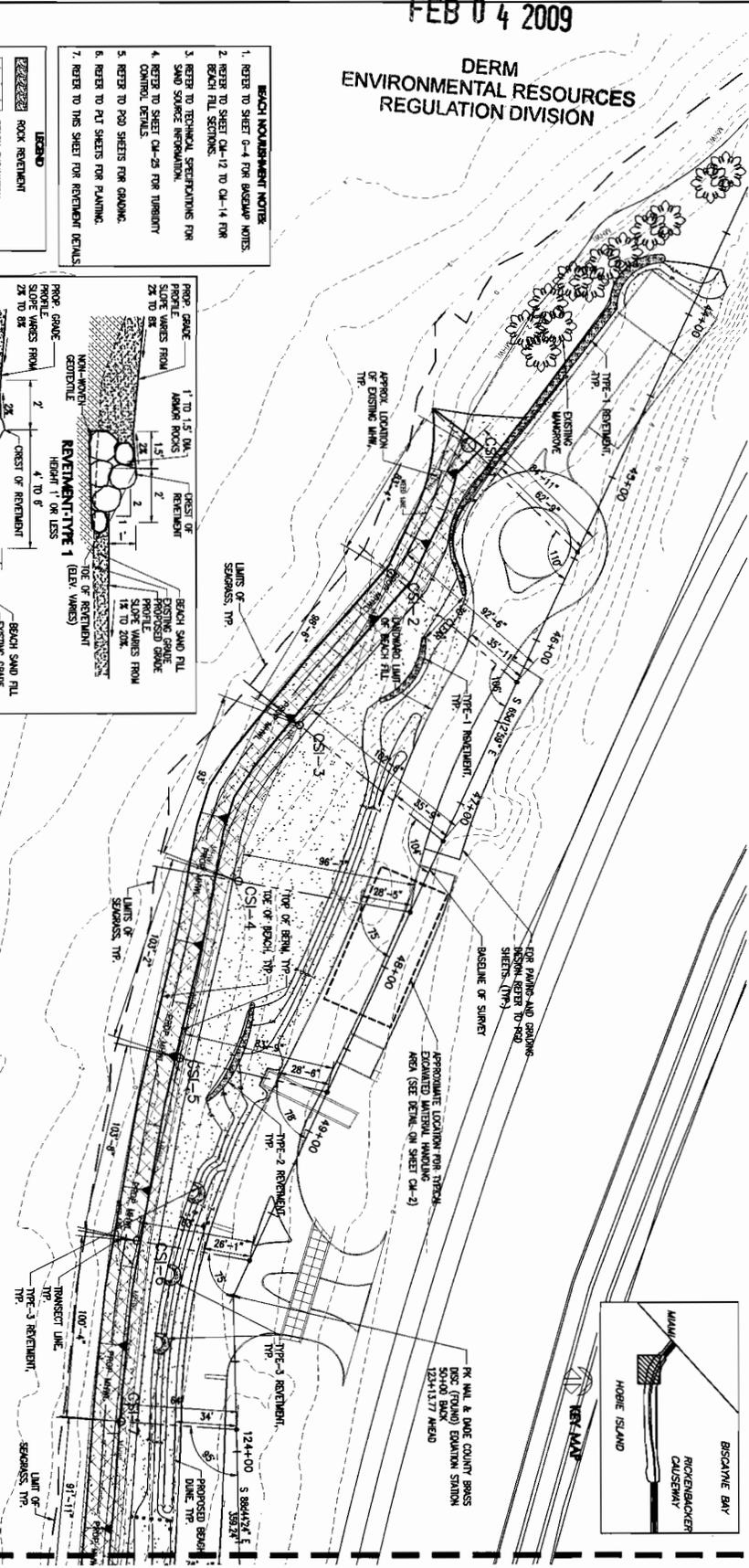
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- BEACH MONUMENT NOTES**
1. REFER TO SHEET CM-1-12 TO CM-1-14 FOR BEACH FILL SECTIONS.
 2. REFER TO SHEET CM-1-12 TO CM-1-14 FOR SAND SOURCE INFORMATION.
 3. REFER TO TECHNICAL SPECIFICATIONS FOR SAND SOURCE INFORMATION.
 4. REFER TO SHEET CM-25 FOR TURBIDITY CONTROL DETAILS.
 5. REFER TO PLOT SHEETS FOR GRADING.
 6. REFER TO PLOT SHEETS FOR PLANNING.
 7. REFER TO THIS SHEET FOR REINFORCEMENT DETAILS.

MONUMENT	EXISTING	NORTHING	STATION
CSI-1	919643.1	51427.8	45+45
CSI-2	919624.8	51421.4	44+28
CSI-3	919606.8	51413.9	47+23
CSI-4	919588.8	51406.7	47+46
CSI-5	919570.7	51400.1	44+78
CSI-6	919552.7	51393.5	44+78
CSI-7	919534.8	51386.8	123+89



- REINFORCEMENT PLANTER FILL PLACEMENT NOTES:**
1. EDGE OF REINFORCEMENT PLANTER SHALL BE STAGED TO THE DUNE FRONT TO THE FILL PLACEMENT.
 2. THE EDGE OF THE PLANTER SHALL BE STAGED WITH A MINIMUM OF A 1'-0" BEHIND FROM ANY NON-WOODS.
 3. THE REINFORCEMENT SHALL BE COMPRESSED SURFING AWAY FROM THE SANDERS TO PROTECT AND NOT INFRINGE THE EXISTING SANDERS.
 4. THE REINFORCEMENT SHALL BE COMPRESSED IN LAYERS IN CONJUNCTION WITH THE BEACH FILL TO IMPROVE THE FINAL DESIGN GRADE (HEIGHT) INDETERMINATELY FROM THE BEACH FILL TO SANDERS AND ASSOCIATED ROOF SYSTEMS.
- NOTE: ALL SCALES INDICATED PERFORM TO FULL SIZE DRAWINGS (22-CM-1)



DATE: 11/02/08
DRAWN BY: SW/C
CHECKED BY: SW/C
SCALE: AS SHOWN
SHEET: CM-1
OF 04 SHEETS

RICKENBACKER CAUSEWAY RECREATIONAL FACILITY

BEACH FILL PLAN - HOBIE BEACH MONUMENT CSI-1 - CSI-7

COASTAL SYSTEMS INTERNATIONAL, INC.
Civil Works, Inc.
Consulting Engineers
CA 07528
tel: 305-448-5955
10 NW 42nd Avenue
Suite 500
Miami, FL 33126

MIAMI-DADE
Landscape Architecture
Golf Course Design
Land Planning
Urban Design
LA 0000834
tel: (305) 551-2662
3001 SW 109 Court
Miami, FL 33165

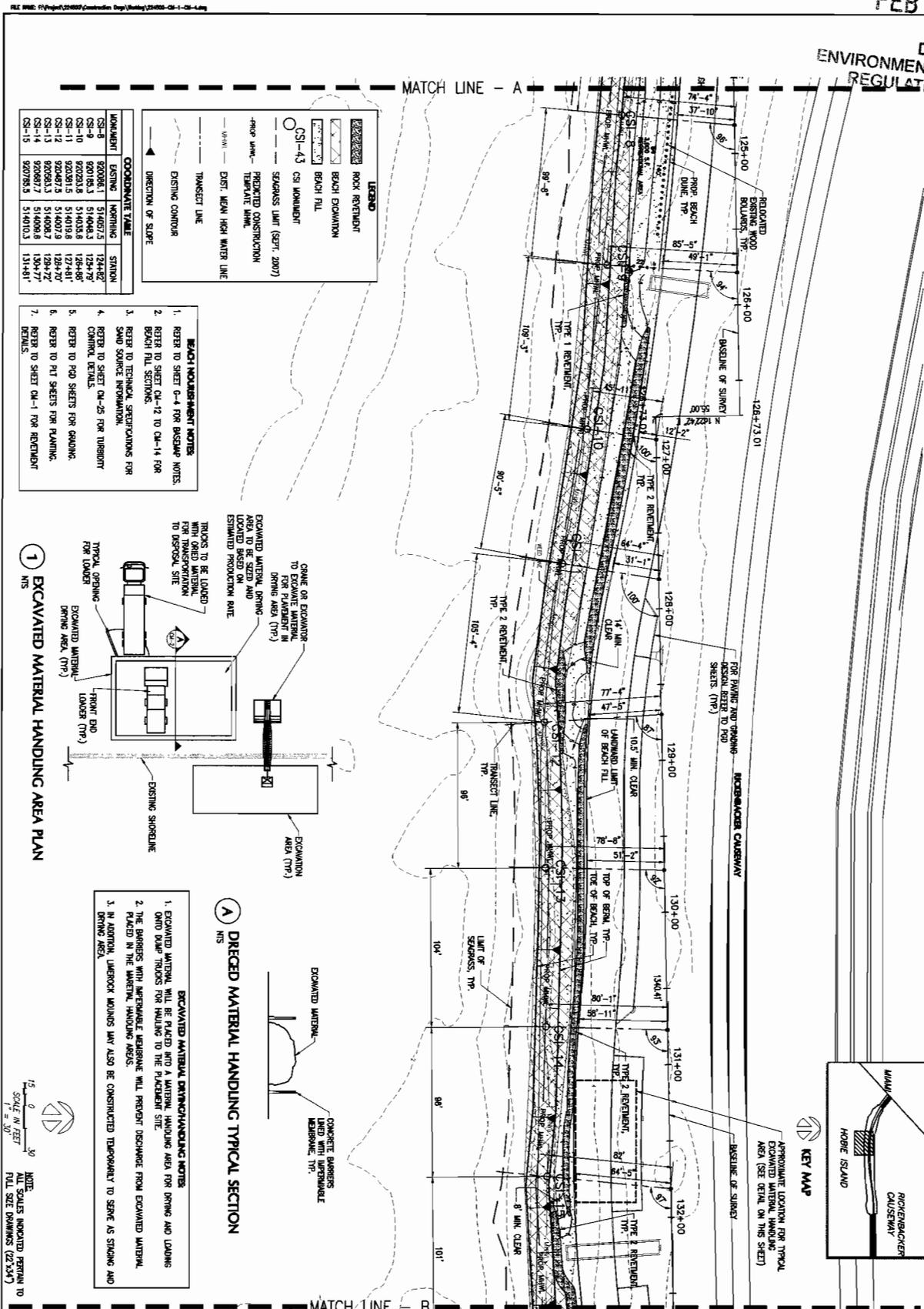
MIAMI-DADE
Miami-Dade County Public Works Dept.
Stephen P. Clark Center
111 NW 1 ST
Miami, FL 33128

DATE	REV	DESCRIPTION
02-02-08		DERM CLASS 1 PERMIT

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FEB 04 2009

DERM ENVIRONMENTAL RESOURCES REGULATION DIVISION

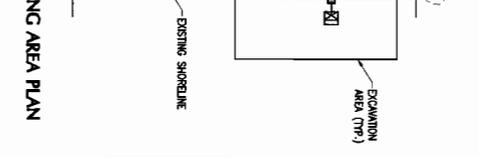
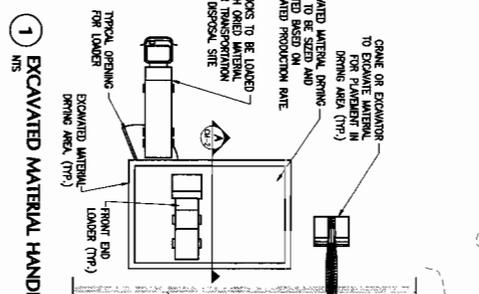


LEGEND

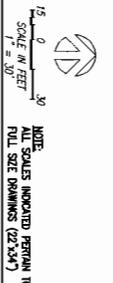
- ROCK REINFORCEMENT
- BEACH EXCAVATION
- BEACH FILL
- CSI-4.5 CSI MONUMENT
- SEAGRASS LIMIT (SEPT. 2007)
- PREDICTED CONSTRUCTION TEMPLATE LIMIT
- EXIST. MEAN HIGH WATER LINE
- TRANSVERSE LINE
- EXISTING CONTOUR
- DIRECTION OF SLOPE

MONUMENT	EASTING	NORTHING	STATION
CSI-8	920706.1	514057.5	124+82
CSI-9	920706.3	514068.3	124+78
CSI-10	920703.8	514035.8	124+68
CSI-11	920701.5	514019.8	124+61
CSI-12	920701.3	514009.2	124+57
CSI-13	920708.3	514008.6	124+72
CSI-14	920708.7	514008.6	124+77
CSI-15	920708.5	514010.3	131+81

- BEACH HOUSEHOLDING NOTES**
- REFER TO SHEET CA-4 FOR BEGRAD NOTES.
 - REFER TO SHEET CA-12 TO CA-14 FOR BEACH FILL SECTIONS.
 - REFER TO TECHNICAL SPECIFICATIONS FOR SAND SOURCE INFORMATION.
 - REFER TO PAD SHEETS FOR GRADING CONTROL DETAILS.
 - REFER TO PAD SHEETS FOR GRADING.
 - REFER TO PUT SHEETS FOR PLANNING.
 - REFER TO SHEET CA-1 FOR REINFORCEMENT DETAILS.



- EXCAVATED MATERIAL HANDLING NOTES**
- EXCAVATED MATERIAL WILL BE STAGED INTO A MATERIAL HANDLING AREA FOR DRIVING AND LOADING OND DUMP TRUCKS FOR TRAILING TO THE PLACEMENT SITE.
 - THE BARRIERS WITH IMPERMEABLE MEMBRANE WILL PREVENT DISCHARGE FROM EXCAVATED MATERIAL PLACED IN THE MATERIAL HANDLING AREAS.
 - IN ADDITION, UNDERCUT MONIES MAY ALSO BE CONSTRUCTED TEMPORARILY TO SERVE AS STAGING AND DRIVING AREA.



SCALE: 1" = 30'
DATE: 11/03/08
DRAWN BY: T.M. HARRIS
CHECKED BY: T.M. HARRIS
DATE: 03/20/09
PROJECT: CM-2
SHEET: 25 OF 24 SHEETS

RICKENBACKER CAUSEWAY RECREATIONAL FACILITY
BEACH FILL PLAN - HOME BEACH
MONUMENT CSI-8 - CSI-15

COASTAL SYSTEMS INTERNATIONAL, INC.
Civil Engineering and Management
FL EB #7067
Tel: 305/661-3655
464 S. Dade Hwy.
Coral Gables, FL 33146

OWI
Civil Works, Inc.
Consulting Engineers
CA 07528
tel: 305 - 448 - 5955
10 NW 42nd Avenue
Suite 200
Miami, FL 33126

MARIANO CORRAL
Landscape Architecture
Civil Planning
and Management
FL EB #7067
tel: (305) 551-1262
3007 SW 109 Court
Miami, FL 33165

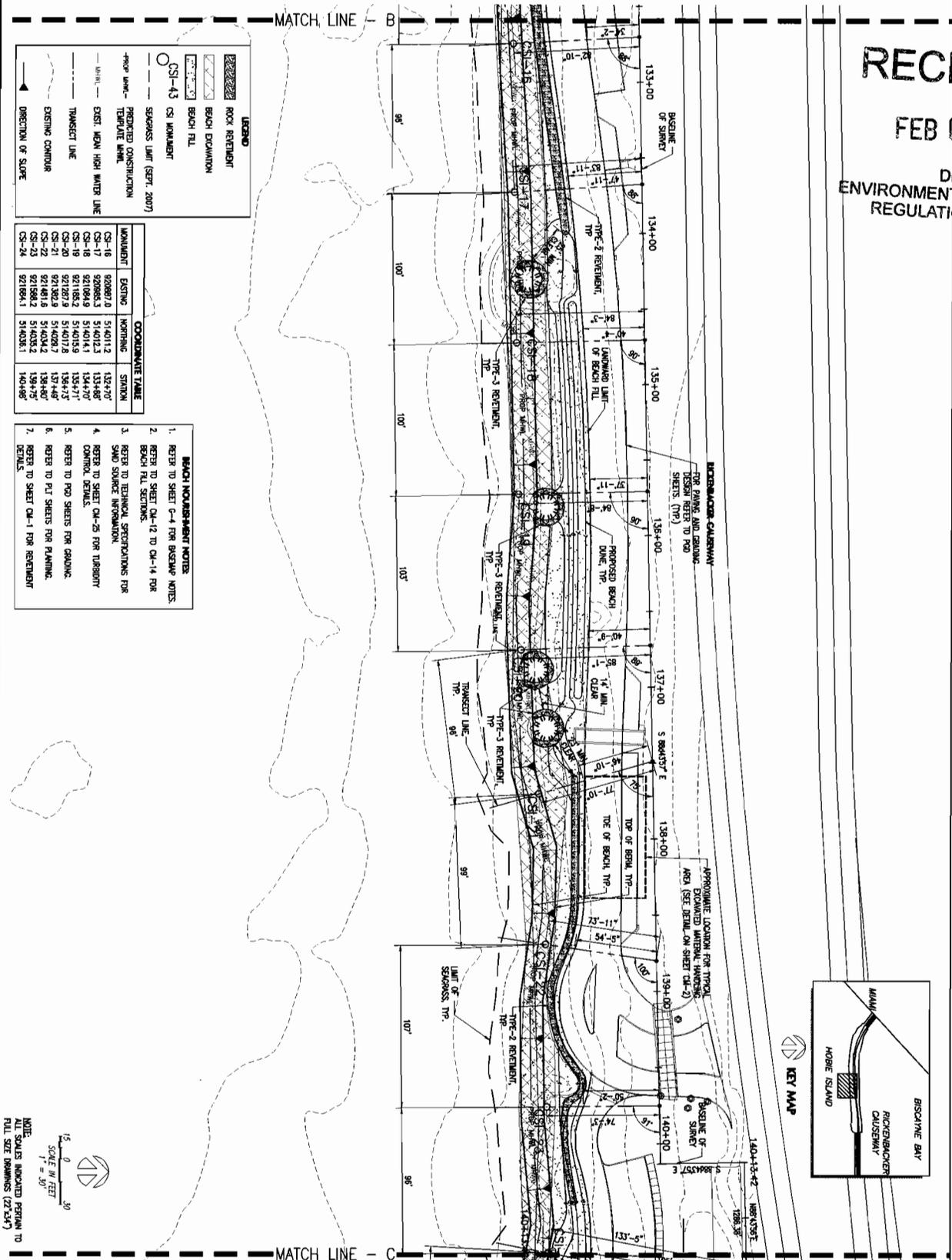
MIAMI-DADE
Miami-Dade County Public Works Dept.
Stephen P. Clark CENTER
111 NW 1 ST
Miami, FL 33128

DATE	REV	DESCRIPTION	BY
02-02-09		DERM CLASS 1 PERMIT	

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DERM
ENVIRONMENTAL RESOURCES
REGULATION DIVISION



LEGEND

- ROCK REINFORCEMENT
- BEACH FILL
- CS-43 MONUMENT
- SEAWALL LIMIT (SEPT. 2007)
- PROPOSED CONSTRUCTION TEMPORARY LIMIT
- EXIST. MEAN HIGH WATER LINE
- TRANSVERSE LINE
- EXISTING CONTOUR
- DIRECTION OF SLOPE

MONUMENT	EXISTING	NORTHING	EASTING
CSI-16	920867.0	514011.2	135+77'
CSI-17	920866.3	514012.3	133+48'
CSI-18	921084.9	514014.1	134+70'
CSI-19	921084.2	514015.9	135+71'
CSI-20	921287.9	514017.8	135+43'
CSI-21	921481.8	514019.2	135+48'
CSI-22	921586.2	514023.2	139+75'
CSI-23	921586.1	514028.1	140+98'
CSI-24	921584.1	514028.1	140+98'

- BEACH MONUMENT NOTES:**
1. REFER TO SHEET CM-4 FOR BEACH NOTES.
 2. REFER TO SHEET CM-12 TO CM-14 FOR BEACH FILL SECTIONS.
 3. REFER TO TECHNICAL SPECIFICATIONS FOR SAND SOURCE INFORMATION.
 4. REFER TO SHEET CM-25 FOR TURBIDITY CONTROL DETAILS.
 5. REFER TO PFD SHEETS FOR GROUNDS.
 6. REFER TO PFD SHEETS FOR PLANNING.
 7. REFER TO SHEET CM-1 FOR REINFORCEMENT DETAILS.



NOTE: SHADES INDICATED PERTAIN TO FILL SIZE RANGES (27'-34')

CM-3

SCALE: 1" = 50'

DATE: 11/03/08

BY: SW/MS

DATE: 11/03/08

BY: SW/MS

DATE: 11/03/08

BY: SW/MS

RICKENBACKER CAUSEWAY RECREATIONAL FACILITY

BEACH FILL PLAN - HOBE BEACH MONUMENT CSI-16 - CSI-23

COASTAL SYSTEMS INTERNATIONAL, INC.
Costal, Environmental
Civil Engineering
and Management
FL, PO #706
1365/1563-1655
464 S. Dixie Hwy.
Coral Gables, FL 33146

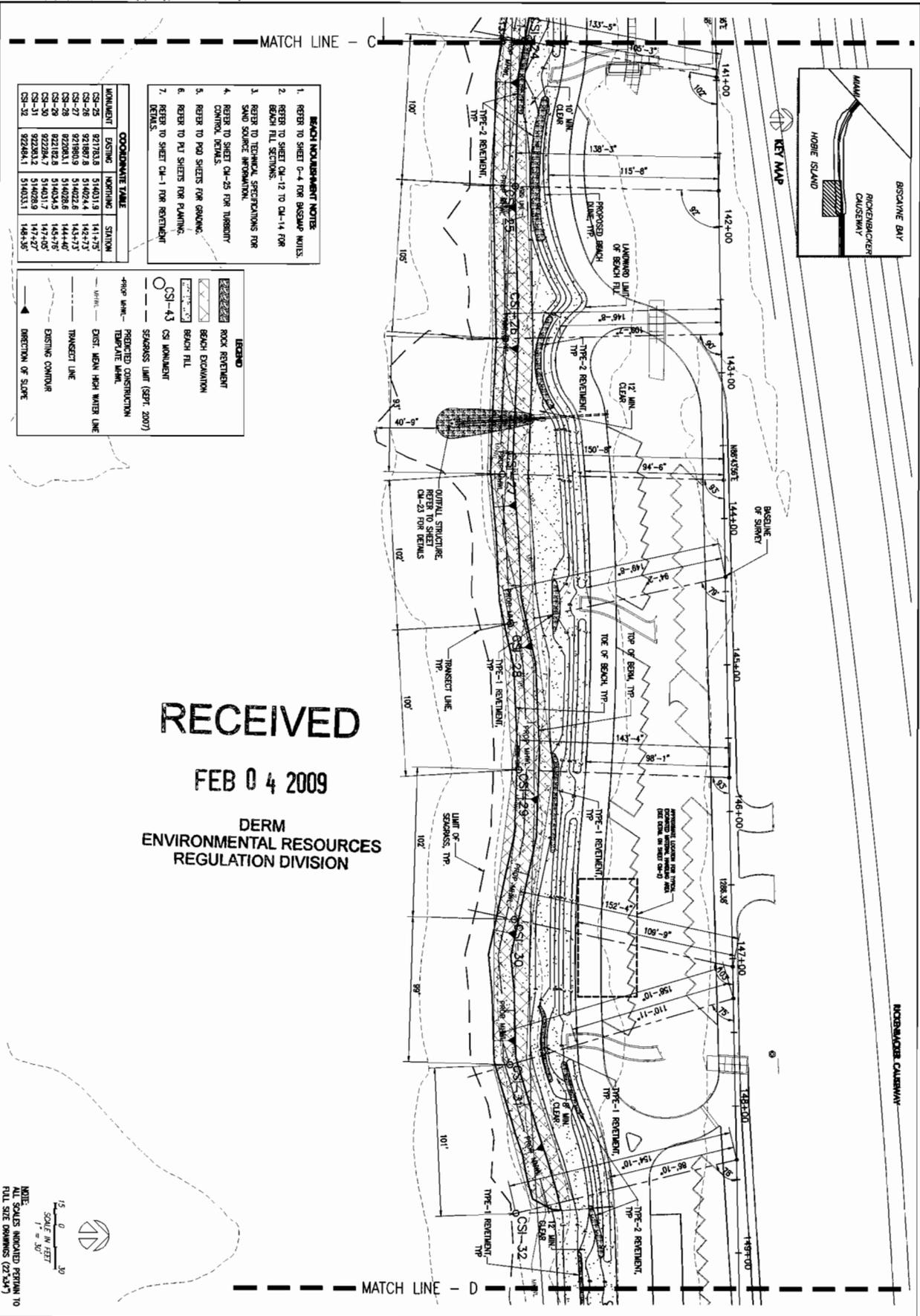
CMW
Civil Works, Inc.
Consulting Engineers
CA 07518
tel: 305-448-5955
70 NW 42nd Avenue
Suite 200
Miami, FL 33126

MARIANO CORRAL
Landscape Architecture
Golf Course Design
Urban Design
LA 0000834
tel: (505) 551-162
3001 SW 109 Court
Miami, FL 33165

MIAMI-DADE
Miami-Dade County Public
Works Dept.
Stephen P. Clark CENTER
111 NW 1 ST
Miami, FL 33128

DATE	REV	DESCRIPTION	BY
02-02-09	-	DERM CLASS 1 PERMIT	

20



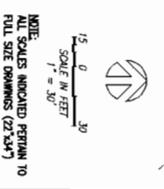
- BEACH MONUMENT NOTES:**
1. REFER TO SHEET C-4 FOR BEACH MONUMENTS.
 2. REFER TO SHEET CM-12 TO CM-14 FOR BEACH FILL SECTIONS.
 3. REFER TO TECHNICAL SPECIFICATIONS FOR SAND SOURCE INFORMATION.
 4. REFER TO SHEET CM-25 FOR TURBIDITY CONTROL DETAILS.
 5. REFER TO PAD SHEETS FOR GRADING.
 6. REFER TO PU SHEETS FOR PLUMBING.
 7. REFER TO SHEET CM-1 FOR REINFORCEMENT DETAILS.

MONUMENT	EXISTING	NO. OF SHEETS	STATION
CS-25	921792.8	514031.9	141+17.5
CS-26	921807.8	514024.4	142+27.5
CS-27	921822.8	514026.9	143+37.5
CS-28	921837.8	514029.4	144+47.5
CS-29	921852.8	514031.9	145+57.5
CS-30	921867.8	514034.4	146+67.5
CS-31	921882.8	514036.9	147+77.5
CS-32	921897.8	514039.4	148+87.5

LEGEND

- ROCK REINFORCEMENT
- BEACH EXCAVATION
- BEACH FILL
- CS-1-43 CS MONUMENT
- SEAWALL LIMIT (SEPT. 2007)
- PREDICTED CONSTRUCTION TEMPORARY MARK
- EXIST. MEAN HIGH WATER LINE
- TRANSIENT LINE
- EXISTING CONDUIT
- DIRECTION OF SLOPE

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 ENVIRONMENTAL RESOURCES
 REGULATION DIVISION



NOTE: MONUMENT STATIONS INDICATED REFER TO FULL SIZE DRAWINGS (22.5X7)

SCALE: 1" = 30'

DATE: 11/02/08

BY: [Signature]

CM-4

RICKENBACKER CAUSEWAY RECREATIONAL FACILITY

BEACH FILL PLAN - HOBE BEACH MONUMENT CSI-24 - CSI-32

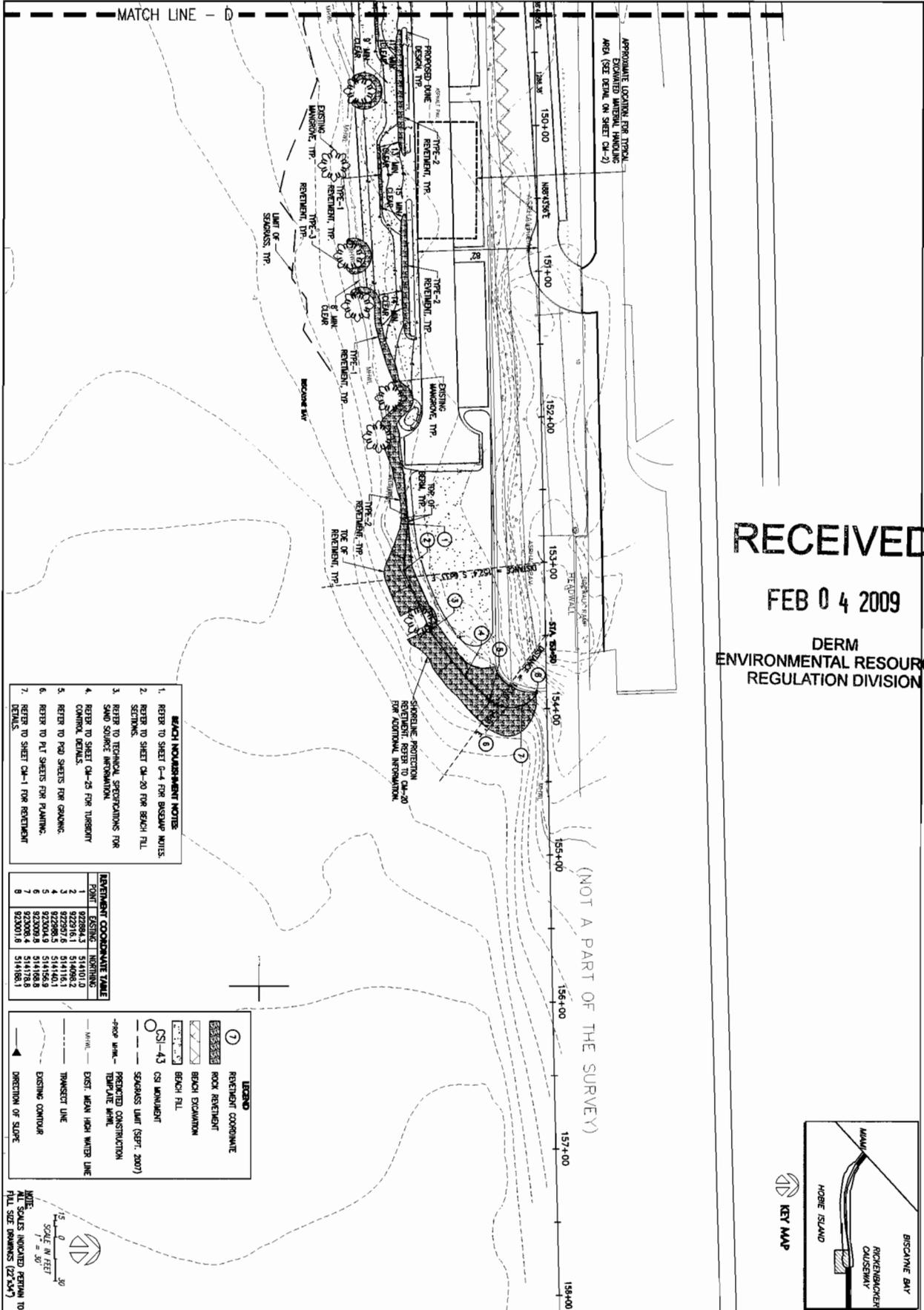
COASTAL SYSTEMS INTERNATIONAL, INC.
 Coastal, Environmental
 Civil Engineering
 and Management
 FL EB #7087
 Tel: 305/661-3655
 464 S. Dixie Hwy.
 Coral Gables, FL 33146

CW
 Civil Works, Inc.
 Consulting Engineers
 CA 07528
 tel: 305 - 448 - 5855
 10 NW 42nd Avenue
 Suite 200
 Miami, FL 33176

MARIANO CORRAL
 Landscape Architecture
 Golf Course Design
 Land Planning
 Urban Design
 LA 0000834
 tel: (305) 551-1262
 3001 SW 109 Court
 Miami, FL 33165

MIAMI-DADE
 Miami-Dade County Public Works Dept.
 Stephen P. Clark CENTER
 111 NW 1st ST
 Miami, FL 33128

DATE	REV	DESCRIPTION	BY
02-02-08		DERM CLASS 1 PERMIT	



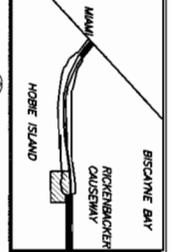
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 ENVIRONMENTAL RESOURCES
 REGULATION DIVISION

- BEACH NOURISHMENT NOTES**
1. REFER TO SHEET G-4 FOR BEACH NOTES.
 2. REFER TO SHEET CM-20 FOR BEACH FILL SECTIONS.
 3. REFER TO TECHNICAL SPECIFICATIONS FOR SAND SOURCE INFORMATION.
 4. REFER TO TECHNICAL SPECIFICATIONS FOR CONTROL DETAILS.
 5. REFER TO PAD SHEETS FOR GRADING.
 6. REFER TO PL SHEETS FOR PLANNING.
 7. REFER TO SHEET CM-1 FOR REINFORCEMENT DETAILS.

POINT	EXISTING	NORTHING
1	822316.1	514480.2
2	822316.1	514480.2
3	822316.1	514480.2
4	822316.1	514480.2
5	822316.1	514480.2
6	822316.1	514480.2
7	822316.1	514480.2
8	822316.1	514480.2

LEGEND

- ① REINFORCEMENT COMPONENT
- ROCK REINFORCEMENT
- BEACH EXCAVATION
- BEACH FILL
- CS-43 CS-43 MANHOLES
- SEAWALL LIMIT (SEPT. 2007)
- PENDING CONSTRUCTION
- TEMPERATE AHWL
- EXIST. MEAN HIGH WATER LINE
- THINNEST LINE
- EXISTING CONTOUR
- DIRECTION OF SLOPE



CM-5
 28 OF 28 SHEETS

**RICKENBACKER CAUSEWAY
 RECREATIONAL FACILITY**
 BEACH FILL PLAN - HOBE BEACH

COASTAL SYSTEMS INTERNATIONAL, INC.
 Coastal, Environmental
 Civil Engineering
 and Management
 Ft. St. #1067
 Tel: 305/969-3655
 464 S. Dole Hwy.
 Coral Gables, FL 33146

CWI
 Civil Works, Inc.
 Consulting Engineers
 CA 07528
 Tel: 305 - 448 - 5955
 10 NW 42nd Avenue
 Suite 200
 Miami, FL 33126

MARIANO CORRAL
 Landscape Architecture
 Civil Course Design
 Land Planning
 Urban Design
 LA 0000834
 Tel: (305) 551-1262
 3001 SW 109 Court
 Miami, FL 33165

MIAMI-DADE
 Miami-Dade County Public
 Works Dept.
 Stephen P. Clark CENTER
 111 NW 1 ST
 Miami, FL 33128

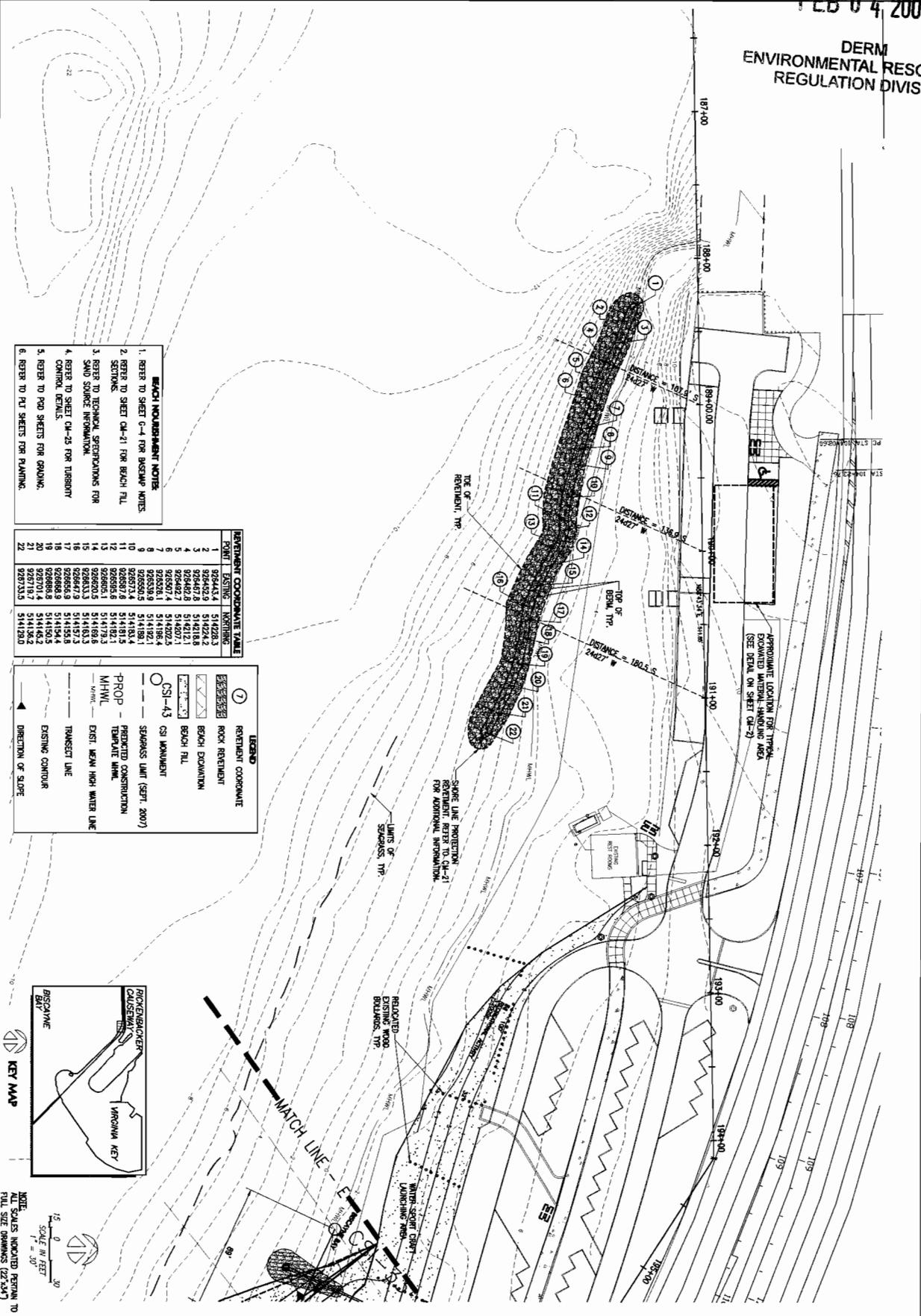
DATE	REV	DESCRIPTION	BY
02-02-09	-	DERM CLASS 1 PERMIT	

22

FEB 04 2009

DERM ENVIRONMENTAL RESOURCES REGULATION DIVISION

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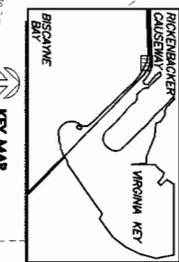


- BEACH NOURISHMENT NOTES**
1. REFER TO SHEET CM-4 FOR BEACH NOTES
 2. REFER TO SHEET CM-1 FOR BEACH FILL SETTINGS
 3. REFER TO TECHNICAL SPECIFICATIONS FOR SAND SOURCE INFORMATION
 4. REFER TO SHEET CM-25 FOR TURBIDITY CONTROL DETAILS
 5. REFER TO PAD SHEETS FOR GRADING
 6. REFER TO PAD SHEETS FOR PAVING

POINT	SETTING	MARKING	ELEVATION
1	BEACH	1	514228.3
2	BEACH	2	514228.3
3	BEACH	3	514218.5
4	BEACH	4	514212.1
5	BEACH	5	514207.1
6	BEACH	6	514192.1
7	BEACH	7	514182.5
8	BEACH	8	514182.1
9	BEACH	9	514182.1
10	BEACH	10	514182.1
11	BEACH	11	514182.1
12	BEACH	12	514182.1
13	BEACH	13	514182.1
14	BEACH	14	514182.1
15	BEACH	15	514182.1
16	BEACH	16	514182.1
17	BEACH	17	514182.1
18	BEACH	18	514182.1
19	BEACH	19	514182.1
20	BEACH	20	514182.1
21	BEACH	21	514182.1
22	BEACH	22	514182.1

LEGEND

- ① REINFORCEMENT COMPONENT
- ▨ ROCK REINFORCEMENT
- ▨ BEACH EXCAVATION
- ▨ BEACH FILL
- CSI-43 CSI MONUMENT
- SPRINGS LUMP (SEPT. 2007)
- P-PROP - PROPOSED CONSTRUCTION
- M-HWL - MEAN HIGH WATER LINE
- TRANSECT LINE
- EXISTING CONTOUR
- ▲ DIRECTION OF SLOPE



CM-6

SCALE: 1" = 30'

DATE: 11/03/08

PROJECT: 224500

NO. OF SHEETS: 25 OF 25 SHEETS

RICKENBACKER CAUSEWAY RECREATIONAL FACILITY

BEACH FILL PLAN - VIRGINIA BEACH

COASTAL SYSTEMS INTERNATIONAL, INC.

Coastal, Environmental, Civil Engineering and Management

FL: 888-355-3535
Tel: 305/663-3655
464 S. Dixie Hwy.
Coral Gables, FL 33146

OWI

Civil Works, Inc.
Consulting Engineers
CA 07528

tel: 305 - 448 - 5955
10 NW 42nd Avenue
Suite 200
Miami, FL 33126

MARIANO CORRAL

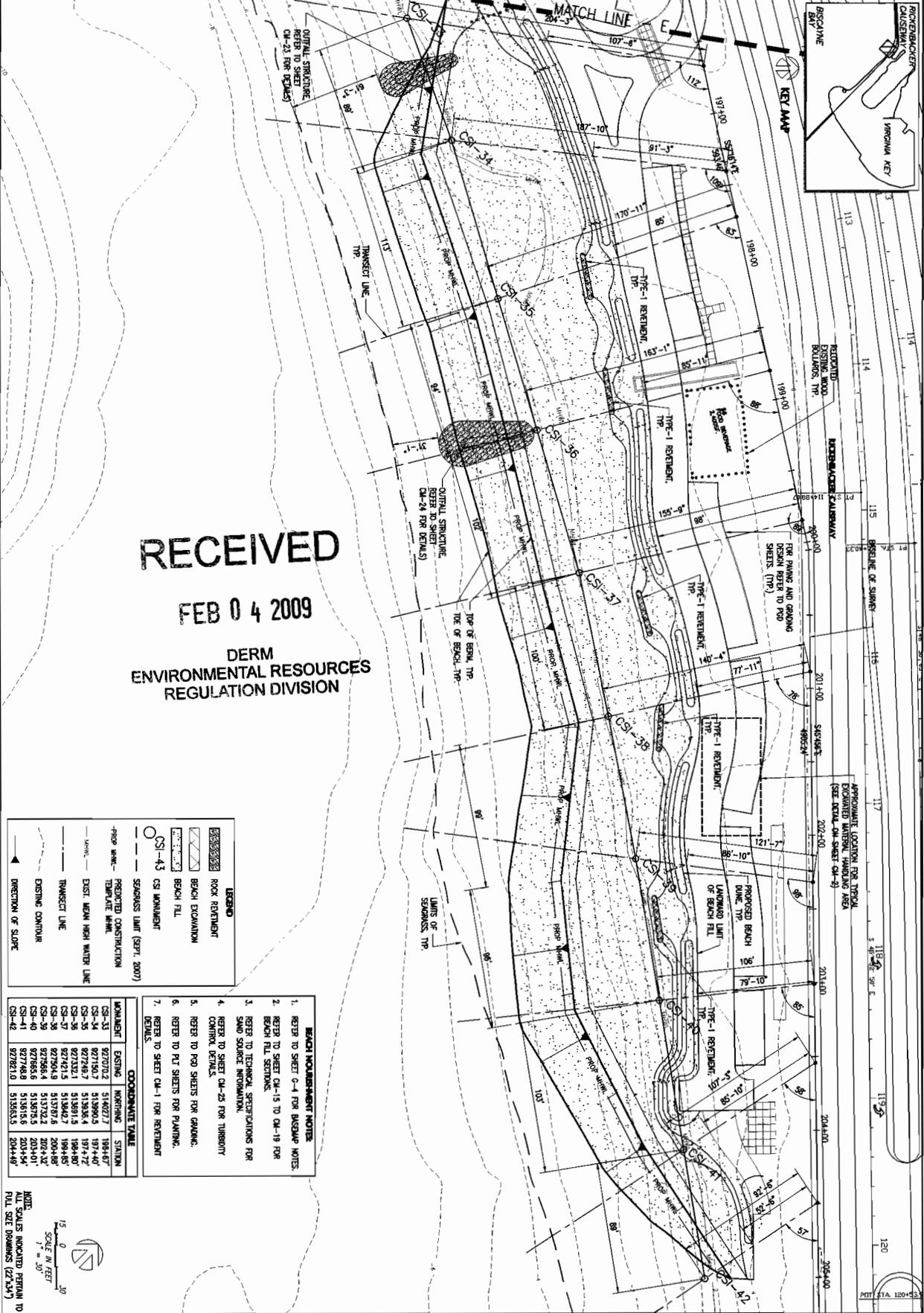
Landscape Architecture
Golf Course Design
Landscape Planning
Urban Design
LA 0000834

tel: (305) 551-1262
3001 SW 109 Court
Miami, FL 33165

MIAMI-DADE

Miami-Dade County Public Works Dept.
Stephen P. Clark CENTER
111 NW 1 ST
Miami, FL 33128

DATE	REV.	DESCRIPTION	BY
02-02-09	01	DERM CLASS 1 PERMIT	



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FEB 04 2009
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 REGULATION DIVISION

LEGEND

- ROCK REINFORCEMENT
- BEACH EXPANSION
- BEACH FILL
- CSI-43 CSI MONUMENT
- SEAWALL LIMIT (SEPT. 2007)
- PROPOSED CONSTRUCTION
- TEMPORARY WORK
- EXIST. MEAN HIGH WATER LINE
- TRANSECT LINE
- DESIGN CONTOUR
- DIRECTION OF SLOPE

BEACH MONUMENT NOTES

1. REFER TO SHEET C-4 FOR BESWAP NOTES.
2. REFER TO SHEET CH-15 TO CH-19 FOR BEACH FILL SECTIONS.
3. REFER TO TECHNICAL SPECIFICATIONS FOR SAND SOURCE INFORMATION.
4. REFER TO SHEET CH-25 FOR UMBRODY CONTROL DETAILS.
5. REFER TO PFD SHEETS FOR GRADING.
6. REFER TO PFD SHEETS FOR PAVING.
7. REFER TO SHEET CH-1 FOR REINFORCEMENT DETAILS.

MONUMENT	EXISTING	WORKING	STATION
CSI-33	927070.2	918027.7	198+43.7
CSI-34	927196.7	918983.4	197+40.7
CSI-35	927299.7	919584.4	197+42.2
CSI-36	927421.5	919968.7	198+48.7
CSI-37	927504.9	919797.6	200+48.7
CSI-38	927596.4	919792.2	202+32.1
CSI-39	927685.6	919875.5	203+14.4
CSI-40	927788.8	919815.6	204+14.4
CSI-41	927878.0	919853.5	204+14.9
CSI-42	927971.0		

NOTES
 ALL SCALES INDICATED PERTAIN TO FULL SIZE DRAWINGS (27.34')

15' = 0'
 1" = 30'

SCALE IN FEET

DATE: 11/02/08
 DRAWN BY: CM-7
 CHECKED BY: CM-7



RICKENBACKER CAUSEWAY RECREATIONAL FACILITY
 BEACH FILL PLAN - VIRGINIA BEACH MONUMEN CSI-33 - CSI-42

COASTAL SYSTEMS INTERNATIONAL, INC.
 Coastal, Environmental
 Civil Engineering
 and Management
 FL ER #7047
 Tel: 305/661-3655
 464 S. Dixie Hwy
 Coral Gables, FL 33146

CMI
 Civil Works, Inc.
 Consulting Engineers
 CA 07528
 tel: 305 - 448 - 5955
 10 N.W. 42nd Avenue
 Suite 200
 Miami, FL 33126

MARBANO CORRAL
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 Civil Course Design
 Land Planning
 Urban Design
 LA 0000834
 tel: (305) 551-1262
 3001 SW 109 Court
 Miami, FL 33165

MIAMI-DADE
 Miami-Dade County Public Works Dept.
 Stephen P. Clark CENTER
 T11 NW 1 ST
 Miami, FL 33128

DATE	REV	DESCRIPTION
02-02-09		DERM CLASS 1 PERMIT

COORDINATE TABLE			
COORDINATE	EASTING	NORTHING	STATION
CSI-44	922633.8	512284.1	218+07
CSI-43	922631.8	512274.5	218+32
CSI-42	922629.8	512264.9	218+57
CSI-41	922627.8	512255.3	219+12
CSI-40	922625.8	512245.7	219+37
CSI-39	922623.8	512236.1	219+62
CSI-38	922621.8	512226.5	220+17
CSI-37	922619.8	512216.9	220+42
CSI-36	922617.8	512207.3	220+67
CSI-35	922615.8	512197.7	221+12
CSI-34	922613.8	512188.1	221+37
CSI-33	922611.8	512178.5	222+05

- BEACH REINFORCEMENT NOTES**
1. REFER TO SHEET C-4 FOR BEACH NOTES
 2. REFER TO SHEET CM-15 TO CM-19 FOR BEACH FILL SECTIONS
 3. REFER TO TECHNICAL SPECIFICATIONS FOR SAND SOURCE INFORMATION
 4. REFER TO SHEET CM-25 FOR TURBIDITY CONTROL DETAILS
 5. REFER TO PFD SHEETS FOR GRADING
 6. REFER TO PFD SHEETS FOR PLANNING
 7. REFER TO SHEET CM-1 FOR REINFORCEMENT DETAILS

- LEGEND**
- ROCK REINFORCEMENT
 - BEACH FILL
 - CS-1-43 CS-1 MOVEMENT
 - SEAWALLS LIMIT (SEPT. 2007)
 - PROPOSED CONSTRUCTION
 - EXIST. MEAN HIGH WATER LINE
 - EXIST. MEAN HIGH WATER LINE
 - TRANSECT LINE
 - EXISTING CONTROL
 - DIRECTION OF SLOPE

COORDINATE TABLE

COORDINATE	EASTING	NORTHING	STATION
CSI-44	922633.8	512284.1	218+07
CSI-43	922631.8	512274.5	218+32
CSI-42	922629.8	512264.9	218+57
CSI-41	922627.8	512255.3	219+12
CSI-40	922625.8	512245.7	219+37
CSI-39	922623.8	512236.1	219+62
CSI-38	922621.8	512226.5	220+17
CSI-37	922619.8	512216.9	220+42
CSI-36	922617.8	512207.3	220+67
CSI-35	922615.8	512197.7	221+12
CSI-34	922613.8	512188.1	221+37
CSI-33	922611.8	512178.5	222+05

- LEGEND**
- ROCK REINFORCEMENT
 - BEACH FILL
 - CS-1-43 CS-1 MOVEMENT
 - SEAWALLS LIMIT (SEPT. 2007)
 - PROPOSED CONSTRUCTION
 - EXIST. MEAN HIGH WATER LINE
 - EXIST. MEAN HIGH WATER LINE
 - TRANSECT LINE
 - EXISTING CONTROL
 - DIRECTION OF SLOPE

COORDINATE TABLE

COORDINATE	EASTING	NORTHING	STATION
CSI-44	922633.8	512284.1	218+07
CSI-43	922631.8	512274.5	218+32
CSI-42	922629.8	512264.9	218+57
CSI-41	922627.8	512255.3	219+12
CSI-40	922625.8	512245.7	219+37
CSI-39	922623.8	512236.1	219+62
CSI-38	922621.8	512226.5	220+17
CSI-37	922619.8	512216.9	220+42
CSI-36	922617.8	512207.3	220+67
CSI-35	922615.8	512197.7	221+12
CSI-34	922613.8	512188.1	221+37
CSI-33	922611.8	512178.5	222+05

- LEGEND**
- ROCK REINFORCEMENT
 - BEACH FILL
 - CS-1-43 CS-1 MOVEMENT
 - SEAWALLS LIMIT (SEPT. 2007)
 - PROPOSED CONSTRUCTION
 - EXIST. MEAN HIGH WATER LINE
 - EXIST. MEAN HIGH WATER LINE
 - TRANSECT LINE
 - EXISTING CONTROL
 - DIRECTION OF SLOPE

COORDINATE TABLE

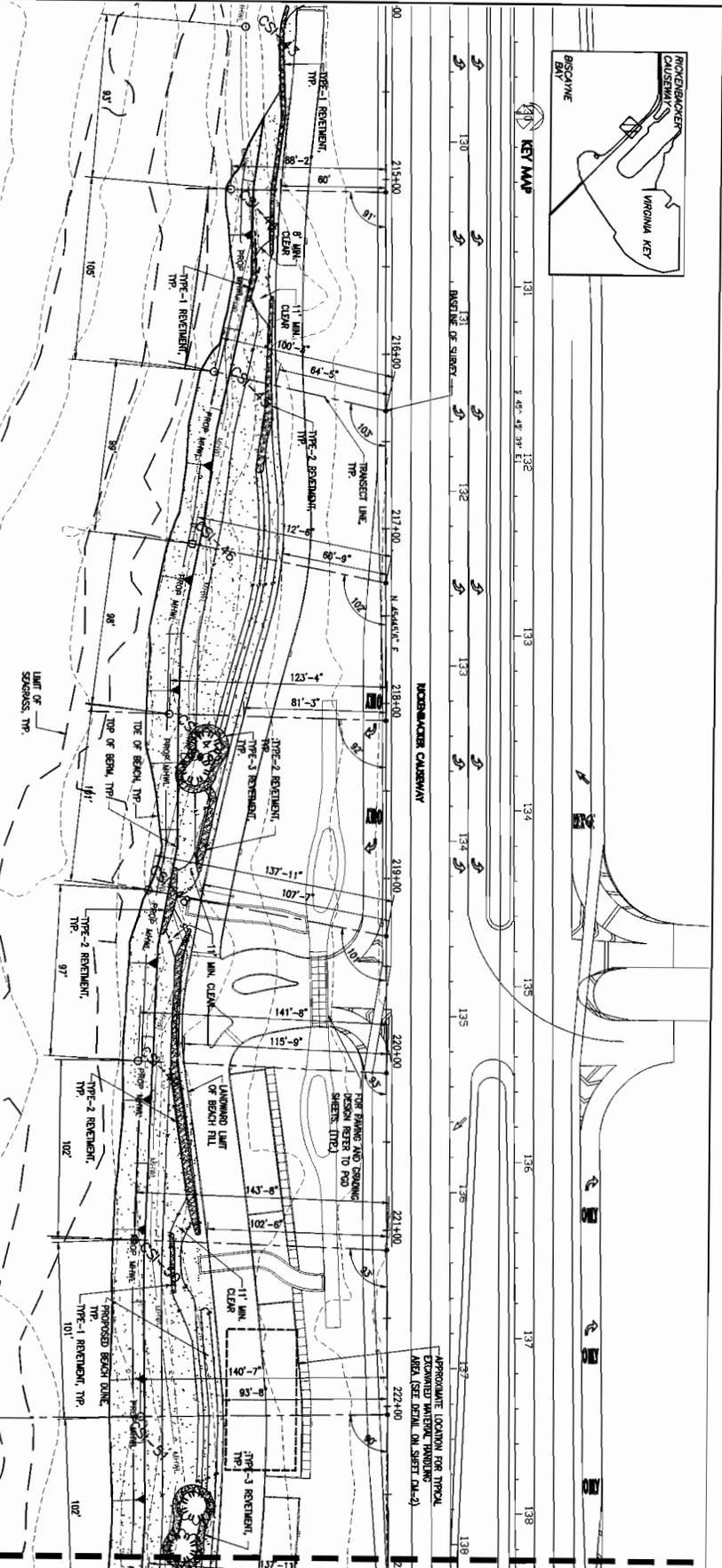
COORDINATE	EASTING	NORTHING	STATION
CSI-44	922633.8	512284.1	218+07
CSI-43	922631.8	512274.5	218+32
CSI-42	922629.8	512264.9	218+57
CSI-41	922627.8	512255.3	219+12
CSI-40	922625.8	512245.7	219+37
CSI-39	922623.8	512236.1	219+62
CSI-38	922621.8	512226.5	220+17
CSI-37	922619.8	512216.9	220+42
CSI-36	922617.8	512207.3	220+67
CSI-35	922615.8	512197.7	221+12
CSI-34	922613.8	512188.1	221+37
CSI-33	922611.8	512178.5	222+05

- LEGEND**
- ROCK REINFORCEMENT
 - BEACH FILL
 - CS-1-43 CS-1 MOVEMENT
 - SEAWALLS LIMIT (SEPT. 2007)
 - PROPOSED CONSTRUCTION
 - EXIST. MEAN HIGH WATER LINE
 - EXIST. MEAN HIGH WATER LINE
 - TRANSECT LINE
 - EXISTING CONTROL
 - DIRECTION OF SLOPE

COORDINATE TABLE

COORDINATE	EASTING	NORTHING	STATION
CSI-44	922633.8	512284.1	218+07
CSI-43	922631.8	512274.5	218+32
CSI-42	922629.8	512264.9	218+57
CSI-41	922627.8	512255.3	219+12
CSI-40	922625.8	512245.7	219+37
CSI-39	922623.8	512236.1	219+62
CSI-38	922621.8	512226.5	220+17
CSI-37	922619.8	512216.9	220+42
CSI-36	922617.8	512207.3	220+67
CSI-35	922615.8	512197.7	221+12
CSI-34	922613.8	512188.1	221+37
CSI-33	922611.8	512178.5	222+05

- LEGEND**
- ROCK REINFORCEMENT
 - BEACH FILL
 - CS-1-43 CS-1 MOVEMENT
 - SEAWALLS LIMIT (SEPT. 2007)
 - PROPOSED CONSTRUCTION
 - EXIST. MEAN HIGH WATER LINE
 - EXIST. MEAN HIGH WATER LINE
 - TRANSECT LINE
 - EXISTING CONTROL
 - DIRECTION OF SLOPE



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 BEACH FILL PLAN - VIRGINIA BEACH
 MONUMENT CSI-43 - CSI-51

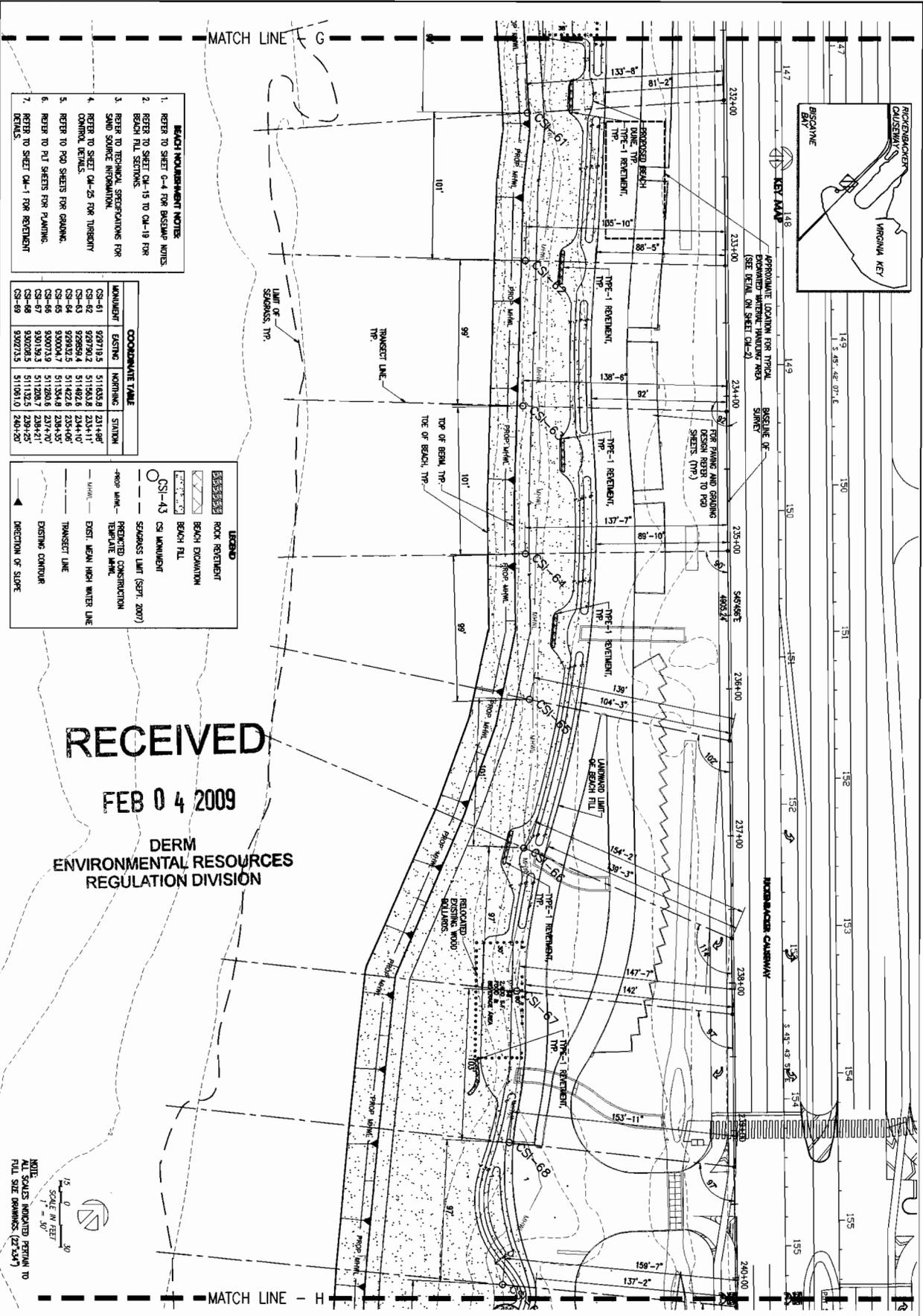
COASTAL SYSTEMS INTERNATIONAL, INC.
 Coastal, Environmental
 Civil Engineering
 and Management
 FL EB #7187
 Tel: 305-554-1365
 464 S. Dixie Hwy.
 Coral Gables, FL 33146

CM
 Civil Works, Inc.
 Consulting Engineers
 CA 07528
 tel: 305 - 448 - 5955
 1500 N.W. 42nd Avenue
 Suite 200
 Miami, FL 33126

MARIANO CORRAL
 Landscape Architecture
 Civil Course Design
 Land Planning
 Urban Design
 LA 0000834
 tel: (305) 551-1262
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 Miami, FL 33165

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 Miami-Dade County Public
 Works Dept.
 Stephen P. Clark Center
 711 NW 1 ST
 Miami, FL 33128

DATE	REV	DESCRIPTION
02-02-09	1	DERM CLASS 1 PERMIT



- BEACH NOUNSHMENT NOTE:**
1. REFER TO SHEET C-4 FOR BEESWAP NOTES.
 2. REFER TO SHEET CM-15 TO CM-19 FOR BEACH FILL SECTIONS.
 3. REFER TO TECHNICAL SPECIFICATIONS FOR SAND SOURCE INFORMATION.
 4. REFER TO SHEET CM-25 FOR THERMANT CONTROL DETAILS.
 5. REFER TO P&G SHEETS FOR GRADING.
 6. REFER TO P&G SHEETS FOR PLANNING.
 7. REFER TO SHEET CM-1 FOR REPLENISHMENT DETAILS.

MONUMENT	EXISTING	NORTHING	EASTING
CS-61	929719.5	511033.9	211+98'
CS-62	929719.5	511033.9	211+98'
CS-63	929899.4	511492.8	234+10'
CS-64	929832.5	511534.8	235+06'
CS-65	930004.7	511534.8	238+55'
CS-66	930013.9	511208.6	237+70'
CS-67	930139.3	511132.5	238+21'
CS-68	930208.3	511081.0	240+25'
CS-69	930273.3	511081.0	240+25'

LEGEND

- ROCK EXCAVATION
- BEACH EXCAVATION
- BEACH FILL
- CS-43 CS MONUMENT
- SPURGEES LIMIT (SEPT. 2007)
- PREDICTED CONSTRUCTION TEMPORARY BEACH
- EXIST. BEACH HIGH WATER LINE
- TRANSECT LINE
- EXISTING CONTOUR
- DIRECTION OF SLOPE

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 ALL SCALES INDICATED PERTAIN TO
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SCALE: 1" = 30'
 DATE: 11/02/08
 SHEET: 10
 OF 24 SHEETS

CM-10
 10 of 24 SHEETS

**RICKENBACKER CAUSEWAY
 RECREATIONAL FACILITY**
 BEACH FILL PLAN - VIRGINIA BEACH
 MONUMENT CSI-61 - CSI-69

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 INTERNATIONAL, INC.**
 Coastal, Environmental
 Civil Engineering
 and Management
 FL 087087
 Tel: 305/661-3655
 484 S. Dixie Hwy.
 Coral Gables, FL 33146

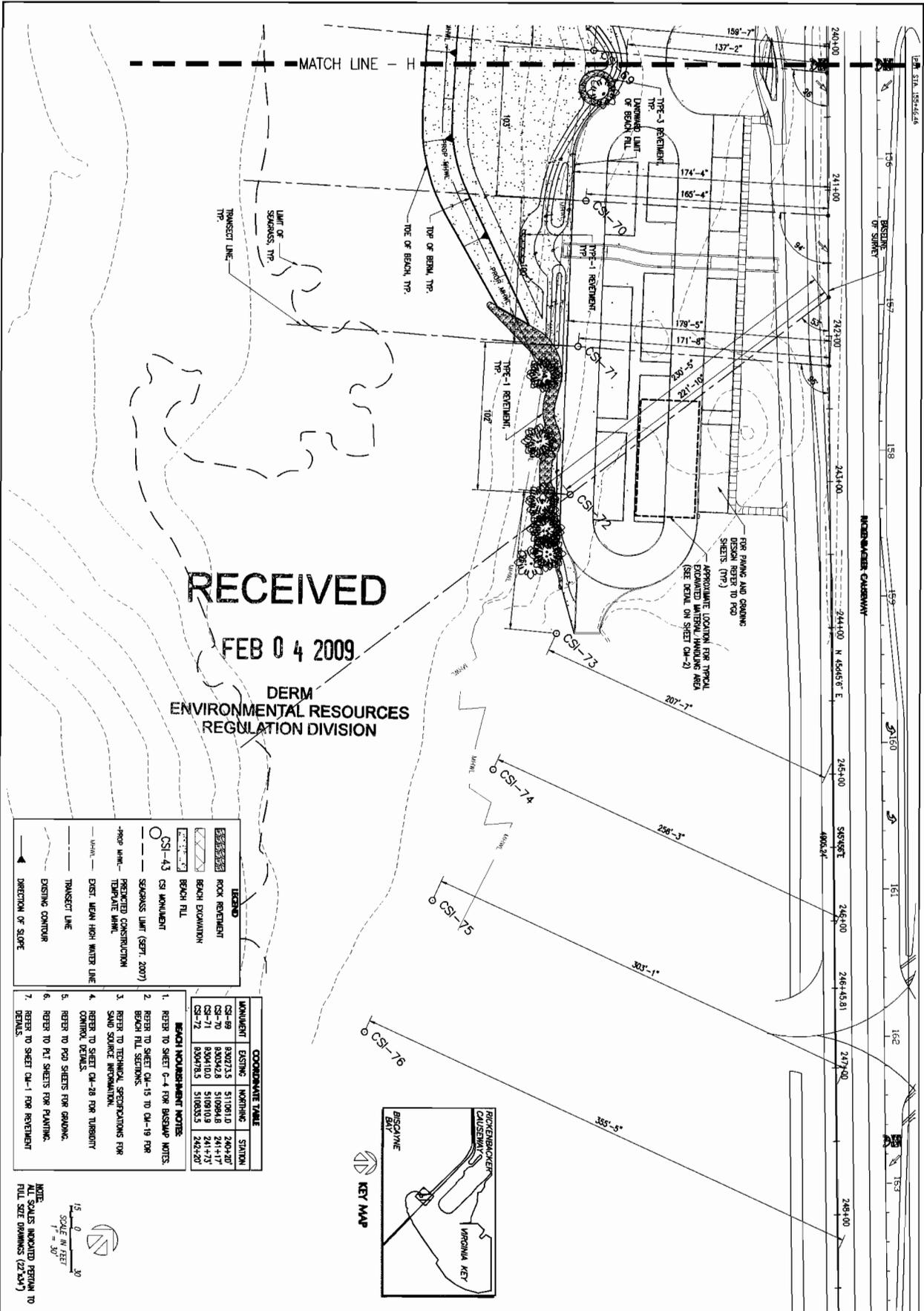
CMI
 Civil Works, Inc.
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 CA 07518
 tel: 305 - 448 - 5955
 10 NW 42nd Avenue
 Suite 200
 Miami, FL 33126

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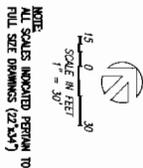
- ROCK RETENTION
- BEACH EXPANSION
- BEACH FILL
- MONUMENT
- SEASONAL LIMIT (SEPT. 2007)
- PROPOSED CONSTRUCTION
- TEMPORARY WORK
- EXIST. MEAN HIGH WATER LINE
- TRANSECT LINE
- DIRECTION OF SLOPE

COORDINATE TABLE

MONUMENT	EASTING	NORTHING	STATION
CSI-69	830273.5	511081.0	240+107
CSI-70	830262.5	510984.8	241+117
CSI-71	830478.5	510835.5	242+207
CSI-72	830478.5	510835.5	242+207

BEACH MONUMENT NOTES:

- REFER TO SHEET C-4 FOR BEACH NOTES.
- REFER TO SHEET C-4-15 TO C-4-19 FOR BEACH FILL SECTIONS.
- REFER TO TECHNICAL SPECIFICATIONS FOR SAND SOURCE INFORMATION.
- REFER TO SHEET C-4-28 FOR TURBOBOY CONTROL DETAILS.
- REFER TO PFD SHEETS FOR DRAWING.
- REFER TO PFD SHEETS FOR PLANNING.
- REFER TO SHEET C-4-1 FOR RETENTION DETAILS.



SCALE: 1" = 30'
DATE: 11/03/08
BY: [Signature]

**RICKENBACKER CAUSEWAY
RECREATIONAL FACILITY**

BEACH FILL PLAN - VIRGINIA BEACH
MONUMENT CSI-69 - CSI-76

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INTERNATIONAL, INC.**
Coastal, Environmental
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FL 08 87008
Tel: 305/961-2655
464 S. Dixie Hwy.
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80 N.W. 42nd Avenue
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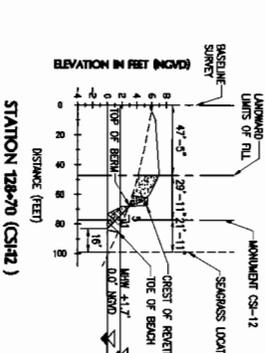
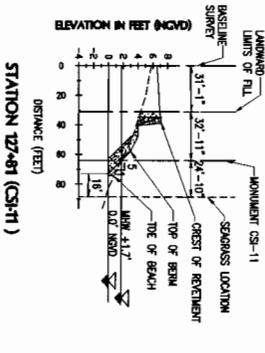
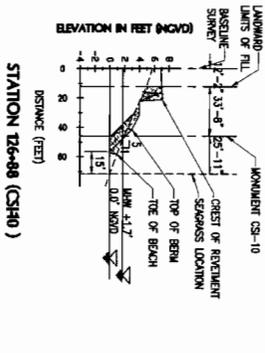
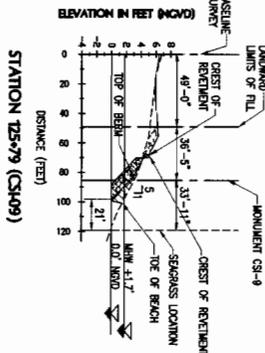
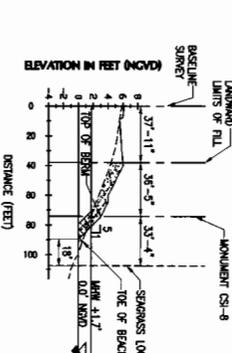
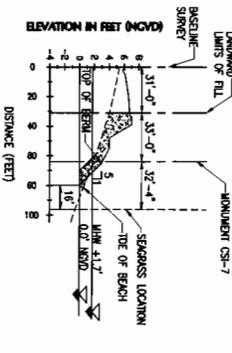
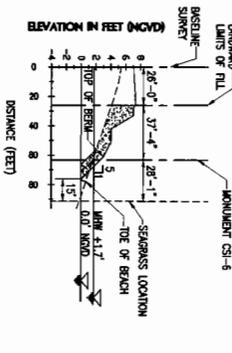
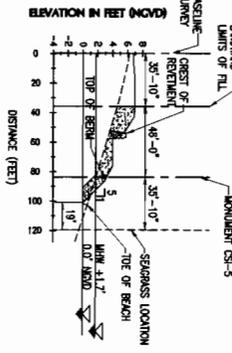
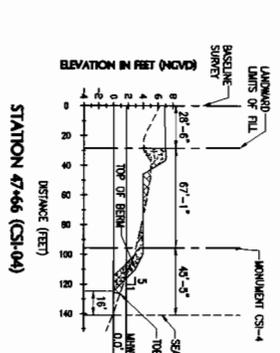
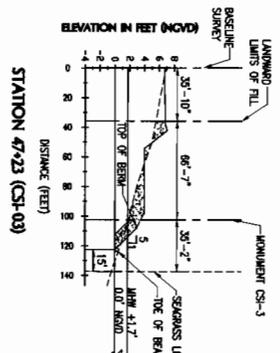
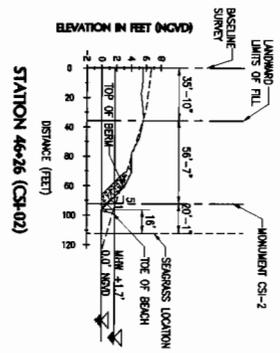
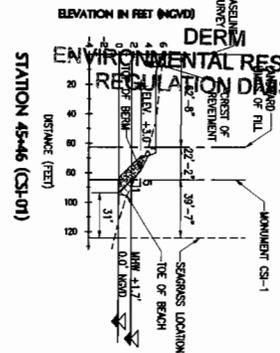
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82

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DERM
ENVIRONMENTAL RESOURCES
REGULATION DIVISION



FILE NAME: F:\Project\224500\Construction_Dem\Work\224500-04-12-04-14.dwg

LEGEND

 PROPOSED SAND FILL
 AREA TO BE EXCAVATED
 EXIST. GRADE SURVEYED ON 30.1-SEPTEMBER 2004

NOTE:
 ALL SCALES INDICATED PERTAIN TO FILL SIZE DIMENSIONS (27.5M)
 SCALE: N FEET
 1" = 8'
 SCALE: N FEET
 1" = 40'

SCALE: AS SHOWN
 DATE: 2/24/09
 DRAWN BY: 11/03/08
 CHECKED BY: [Signature]
CM-12
 30 OF 704 SHEETS

**RICKENBACKER CAUSEWAY
 RECREATIONAL FACILITY**
 FILL SECTIONS - HOBIE BEACH
 MONUMENT CSI-1 - CSI-12

COASTAL SYSTEMS
 INTERNATIONAL, INC.
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 464 S. Dixie Hwy.
 Coral Gables, FL 33146

OWI
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 CA 07528
 tel: 305-448-3955
 88 NW 42nd Avenue
 Suite 200
 Miami, FL 33126

MARIANO CORRAL
 Landscape Architecture
 Civil/Coarse Design
 Land Planning
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 LA 0000834
 tel: (504) 551-1262
 3001 SW 109 Court
 Miami, FL 33165

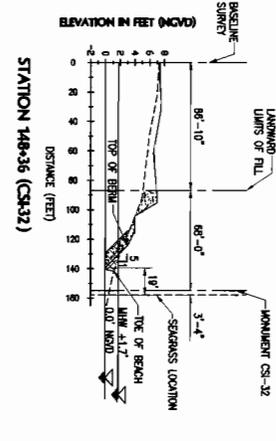
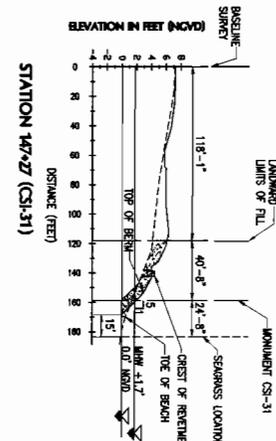
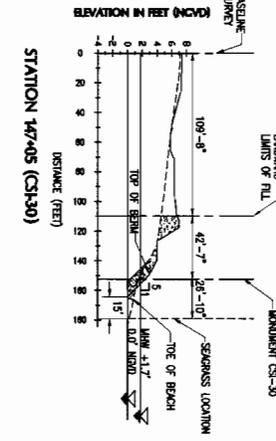
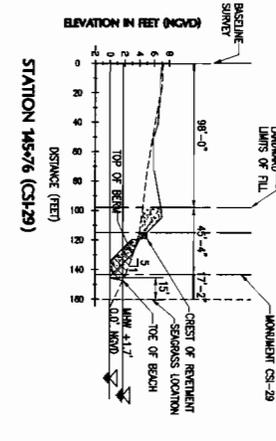
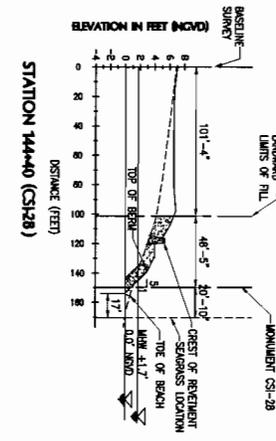
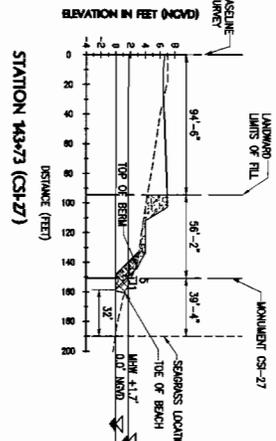
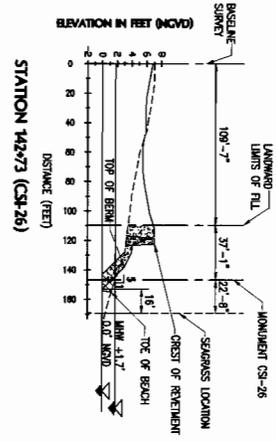
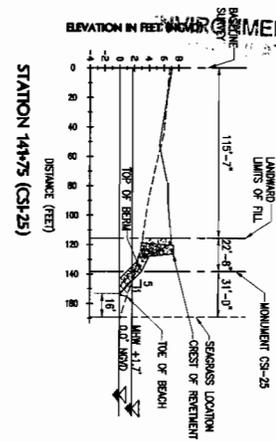
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02-02-09		DERM CLASS 1 PERMIT	

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DEPT. OF ENVIRONMENTAL RESOURCES
REGULATION DIVISION



LEGEND
 PROPOSED SAND FILL
 AREA TO BE EXPANDED
 EXIST. GRADE SURVEYED ON JULY-SEPTEMBER 2004.

NOTE: ALL DIMENSIONS INDICATED PERTAIN TO FULL SIZE DIMENSIONS (27.5x47)
 SCALE IN FEET
 1" = 8'
 SCALE IN FEET
 1" = 40'

SCALE AS SHOWN
 DATE 2/24/09
 DRAWN BY 11/02/08
 CHECKED BY 10
CM-14
 57 OF 74 SHEETS



**RICKENBACKER CAUSEWAY
 RECREATIONAL FACILITY**
 FILL SECTIONS - HOBIE BEACH
 MONUMENT CS1-25 - CS1-32

**COASTAL SYSTEMS
 INTERNATIONAL, INC.**
 Coastal, Environmental
 Civil Engineering
 and Management
 FL 017087
 Tel: 305/668-3655
 464 S. Dixie Hwy.
 Coral Gables, FL 33146

CWI
 Civil Works, Inc.
 Consulting Engineers
 CA 07528
 tel: 305-448-5955
 10 NW 42nd Avenue
 Suite 200
 Miami, FL 33126

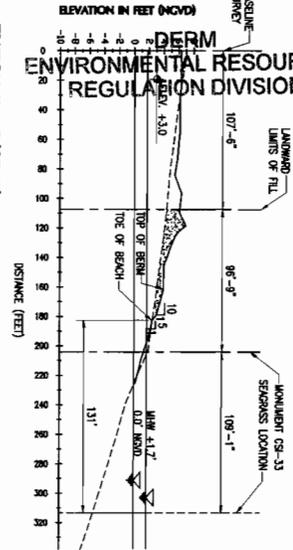
MARIANO CORRAL
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 Miami, FL 33165

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 Miami-Dade County Public
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 111 NW 1 ST
 Miami, FL 33128

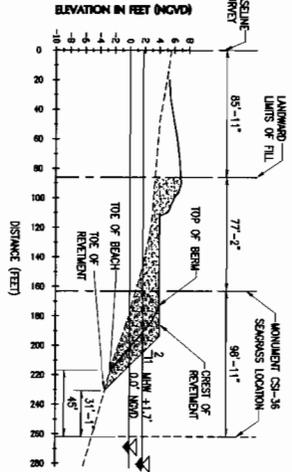
DATE	REV	DESCRIPTION	BY
02-02-09		DEPT. CLASS 1 PERMIT	

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 REGULATION DIVISION

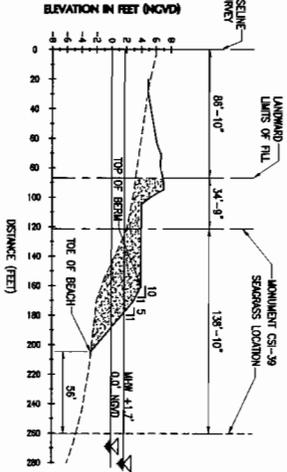
STATION 196+67 (CSI-33)



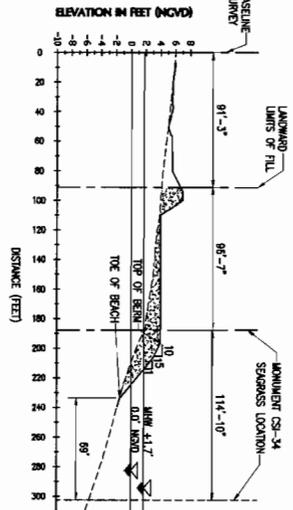
STATION 199+80 (CSI-36)



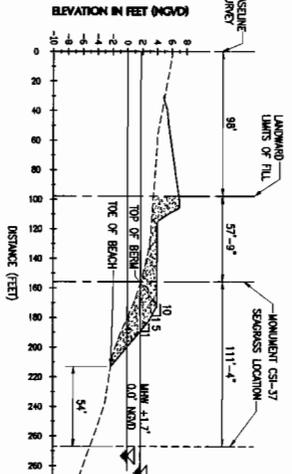
STATION 202+32 (CSI-39)



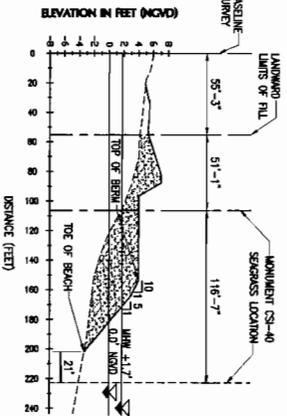
STATION 197+40 (CSI-34)



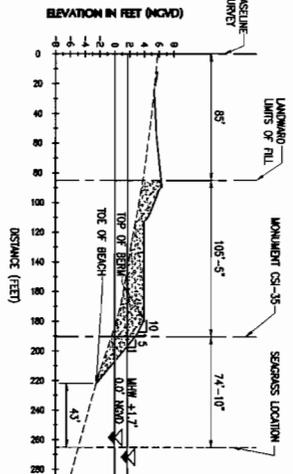
STATION 199+85 (CSI-37)



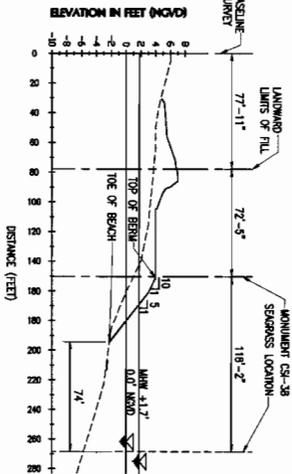
STATION 203+01 (CSI-40)



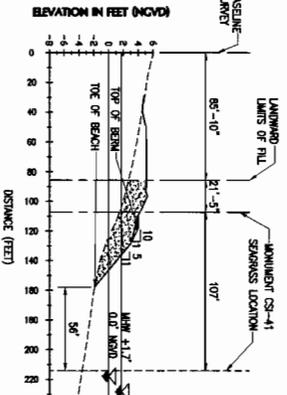
STATION 197+72 (CSI-35)



STATION 200+88 (CSI-38)



STATION 203+54 (CSI-41)



LEGEND
 PROPOSED SAND FILL
 EXISTING GRADE (SEPTEMBER 2004)
 ON JULY-SEPTEMBER 2004

NOTE:
 ALL SCALES INDICATED PERTAIN TO FILL SIZE DRAWINGS (27'x34')

CM-15
 AS SHOWN
 DATE: 2/24/09
 DRAWN BY: T.J. BROWNE
 CHECKED BY: T.J. BROWNE
 PROJECT NO: 11/03/09



**RICKENBACKER CAUSEWAY
 RECREATIONAL FACILITY**
 FILL SECTIONS - VIRGINIA BEACH
 MONUMENT CSI-33 - CSI-41

**COASTAL SYSTEMS
 INTERNATIONAL, INC.**
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 tel: (305) 551-0262
 3001 SW 109 Court
 Miami, FL 33165

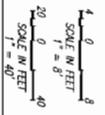
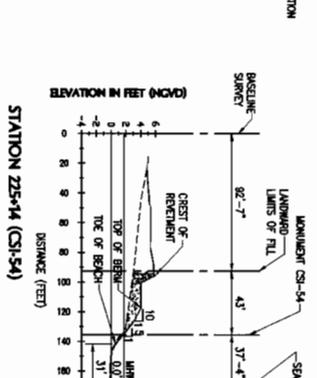
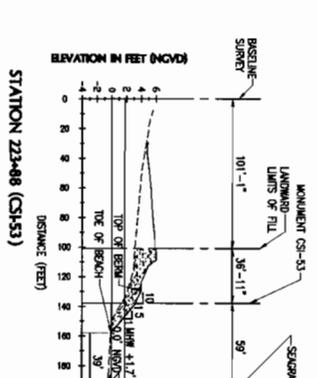
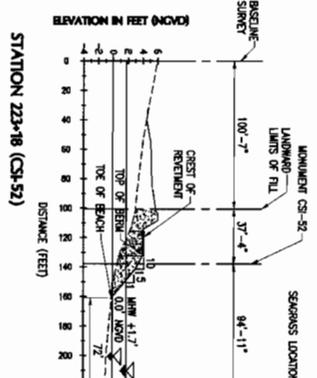
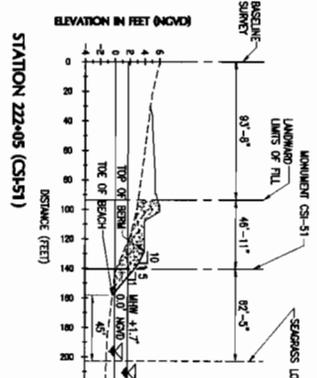
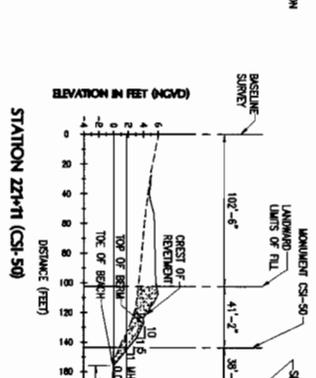
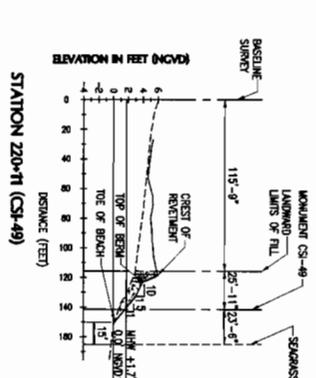
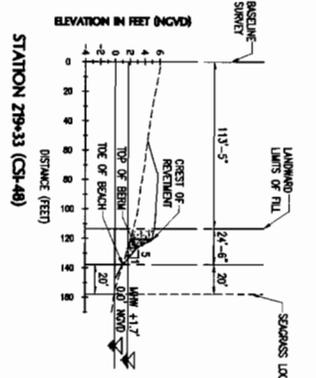
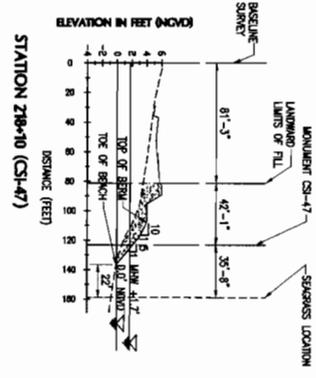
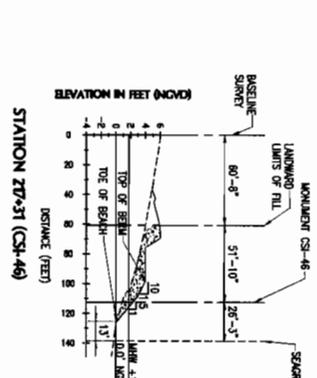
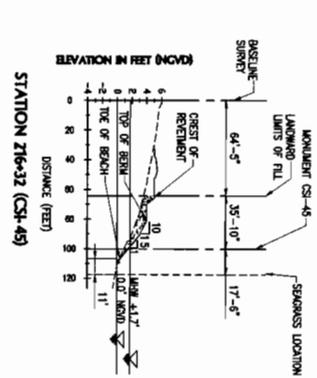
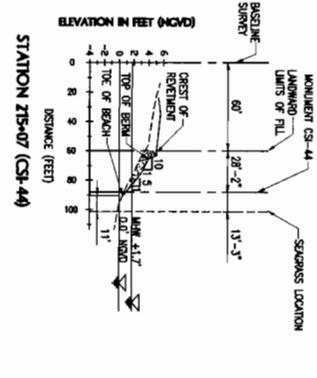
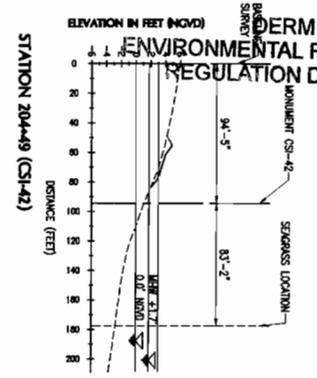
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02-09-09	BEAM CLASS 1 PERMIT

32

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LEGEND
 PROPOSED SAND FILL
 EXISTING SAND SURFACED ON ALL-SEASONAL BEACH

NOTE: SCALE INDICATED PERTAIN TO FILL SIZE DIMENSIONS (273547)

SCALE: AS SHOWN
 DATE: 2/24/09
 DRAWN BY: M/1/03/08
 CHECKED BY: M/1/03/08
CM-16
 20 OF 30 SHEETS



**RICKENBACKER CAUSEWAY
 RECREATIONAL FACILITY**
 FILL SECTIONS - VIRGINIA BEACH
 MONUMENT CSI-42 - CSI-54

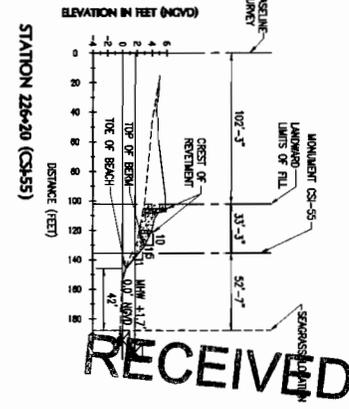
**COASTAL SYSTEMS
 INTERNATIONAL, INC.**
 Coastal, Environmental
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 and Management
 FL BR #7087
 Tel: 305/663-3655
 464 S. Dixie Hwy.
 Coral Gables, FL 33134

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MARIANO CORRAL
 Landscape Architecture
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 LA 0000834
 tel: (305) 559-1262
 3001 SW 100 Court
 Miami, FL 33165

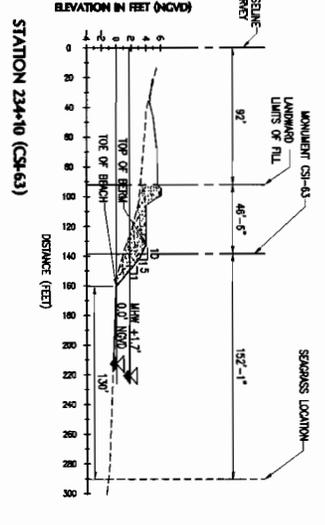
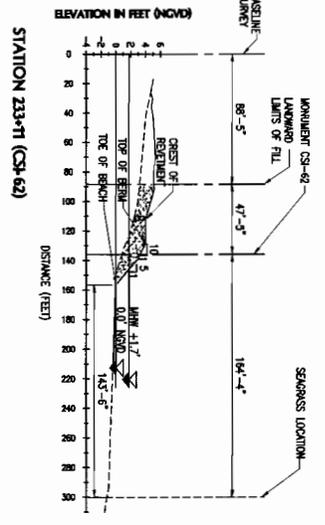
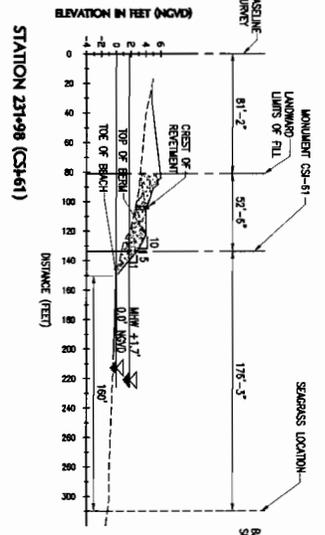
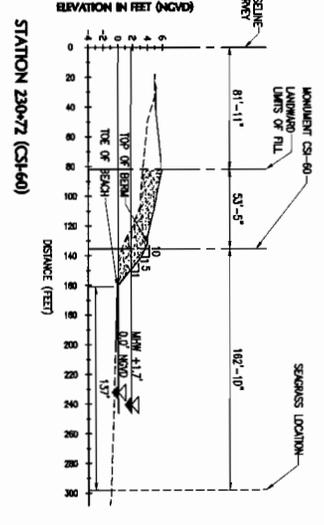
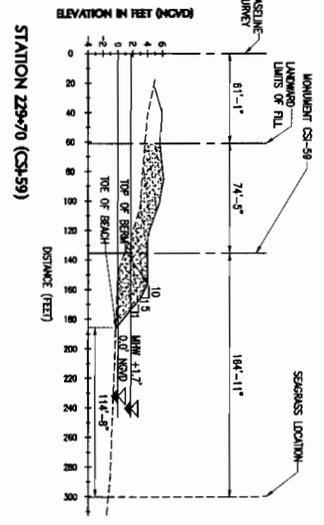
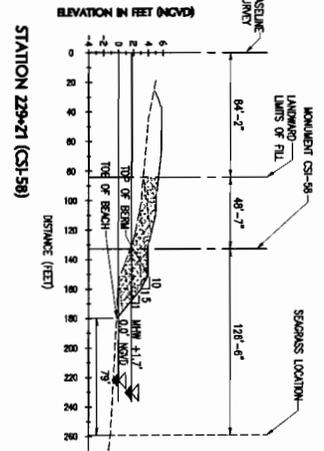
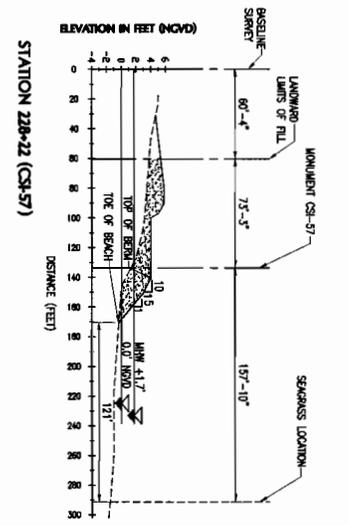
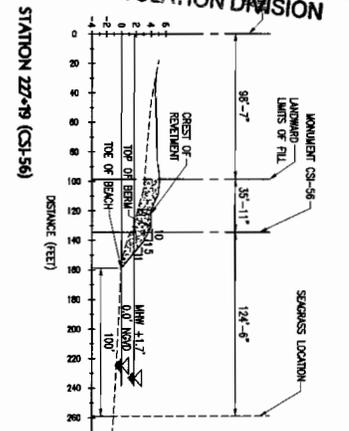
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LEGEND
 [Hatched Area] PROPOSED SAND FILL
 [Dashed Line] EXISTING GRADE SURVEYED ON JULY-SEPTEMBER 2004.

NOTE:
 ALL SCALES UNLESS NOTED OTHERWISE TO BE AS SHOWN.
 SCALE: HORIZONTAL = 1" = 40'
 SCALE: VERTICAL = 1" = 4'

CM-17
 40 OF 34 SHEETS



**RICKENBACKER CAUSEWAY
 RECREATIONAL FACILITY**
 FILL SECTIONS - VIRGINIA BEACH
 MONUMENT CSI-55 - CSI-63

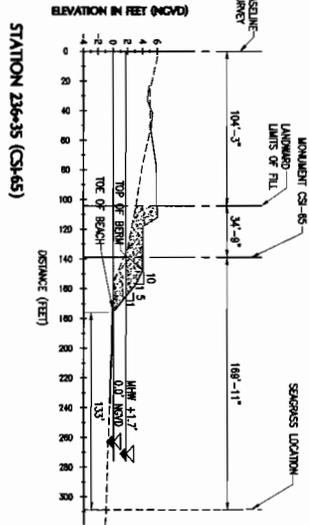
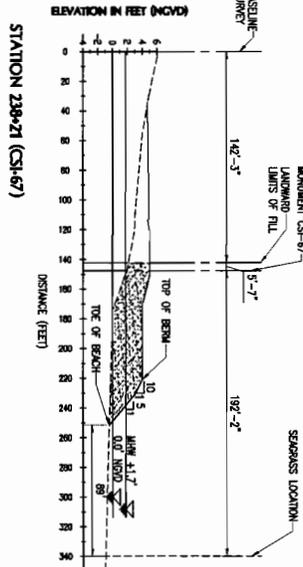
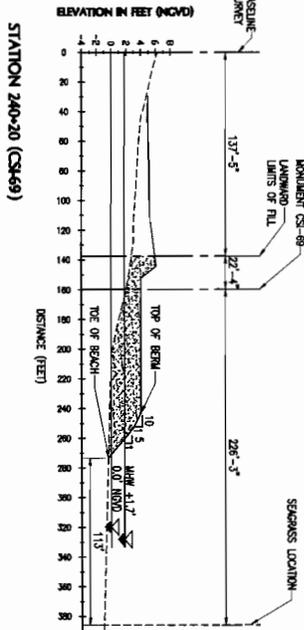
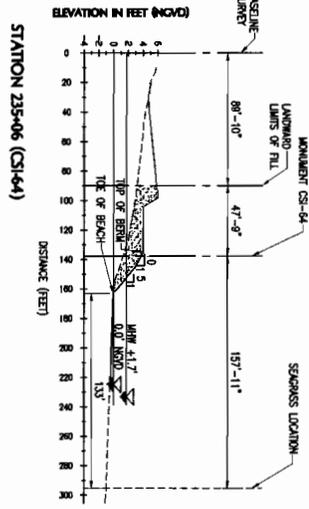
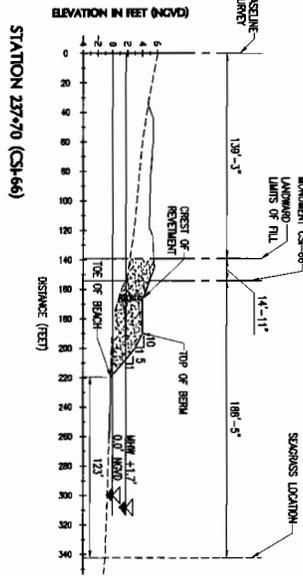
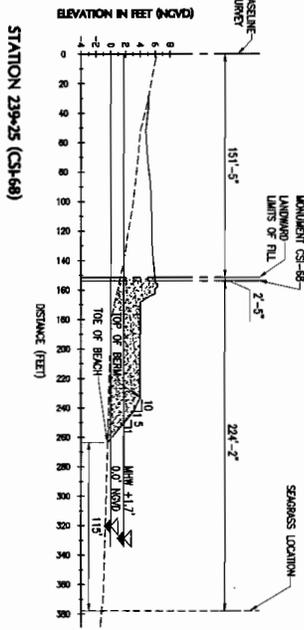
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 FL EB #7087
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 Coral Gables, FL 33146

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LEGEND
 PROPOSED SAND FILL
 EXISTING GRADE SURMISED ON JULY-SEPTEMBER 2004

NOTE
 ALL SCALES RENDERED PERMANENT TO FILL SIZE DIMENSIONS (27.5%)
 SCALE IN FEET: 1" = 40'
 SCALE IN FEET: 1" = 80'

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DATE: 11/02/08
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CM-18
 41 OF 104 SHEETS



RICKENBACKER CAUSEWAY RECREATIONAL FACILITY
 FILL SECTIONS - VIRGINIA BEACH
 MONUMENT CSI-64 - CSI-69

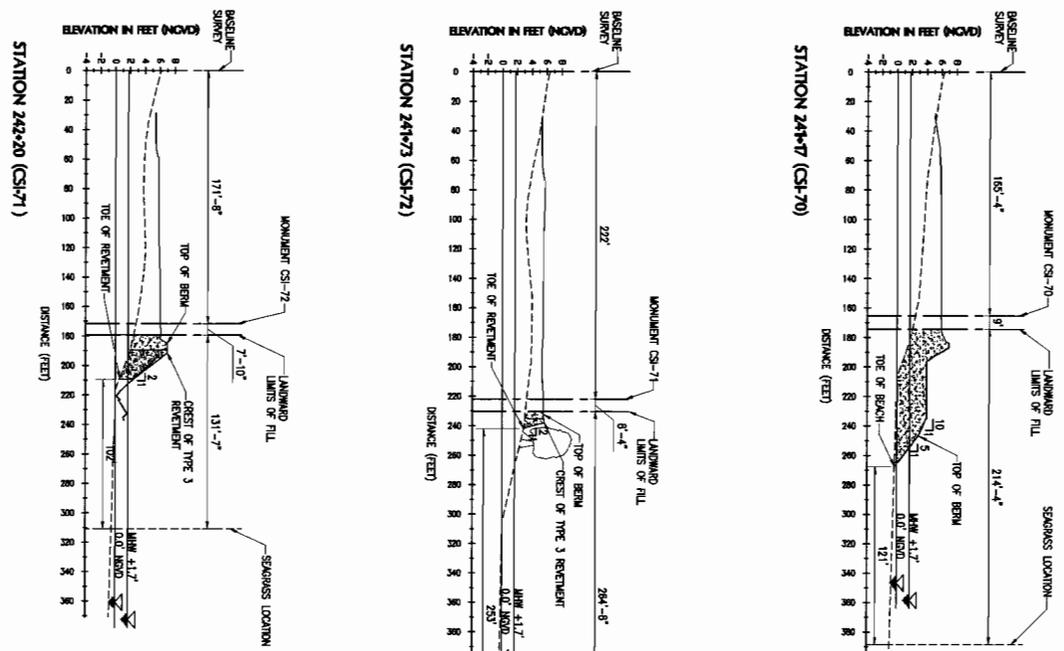
COASTAL SYSTEMS INTERNATIONAL, INC.
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 and Management
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 Coral Gables, FL 33146

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	This Section is generated for Environmental Beach Permits Only	
	Hobie Beach	Virginia Beach
Beach Excavation	689.33 cy	0.00 10%
Seaward MHWL	797 cy	
Total	689.33 10%	0.00 10%
Beach Fill	503.86 cy	
Seaward MHWL	50.40 10%	
Total	554 cy	18,342 cy
Outfall Excavation	37 cy	
Seaward MHWL		
Total	37 cy	0.3 cy
Outfall #1	3.67 10%	
Total	40 cy	3,48 10%
Outfall #2	59 cy	
Total	59 cy	210 cy
Outfall #3	19 cy	
Total	19 cy	38 cy
Includes:	78 cy	
Total Fill	78 cy	249 cy
Outfall Reinforcement		
of Gravel Bed	7.79 10%	
Total	86 cy	24.89 10%
Large Revetment		
Excavation	0 cy	
Total	0 cy	0 cy
Large Revetment Fill		
Shoreline Protection	282 cy	
No Gravel	26.19 10%	
Total	288 cy	1,142 cy
Small Revetment		
Excavation	0 cy	
Total	0 cy	1,298 cy
Small Revetment and Planter Fill		
Type 1	97 cy	
Type 2	781 cy	
Type 3	178 cy	
Total Fill	1,056 cy	1,251 cy
Contingency=	1,162 cy	1,23 10%
Total	1,162 cy	1,378 cy

LEGEND
 PROPOSED SAND FILL
 EXISTING GRAVE SAND FILL ON 10/11-SEPTEMBER 2004

NOTE: ALL SCALES INDICATED PERTAIN TO FULL SIZE DRAWINGS (27"x34")
 SCALE IN FEET
 1" = 40'
 SCALE IN FEET
 1" = 8'

SCALE: AS SHOWN
 DATE: 2/24/09
 DRAWN BY: 11/02/09
 CHECKED BY: 10
CM-19
 OF 24 SHEETS



RICKENBACKER CAUSEWAY RECREATIONAL FACILITY
 FILL SECTIONS - VIRGINIA BEACH
 MONUMENT CSI-70 - CSI-72

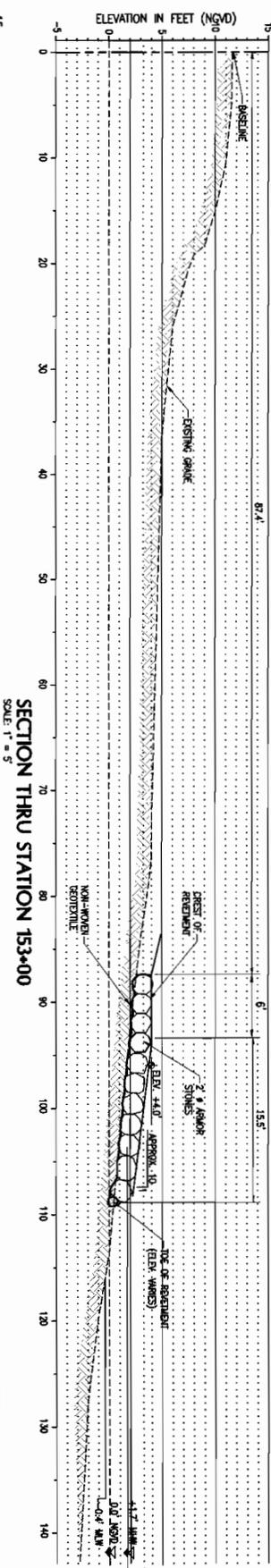
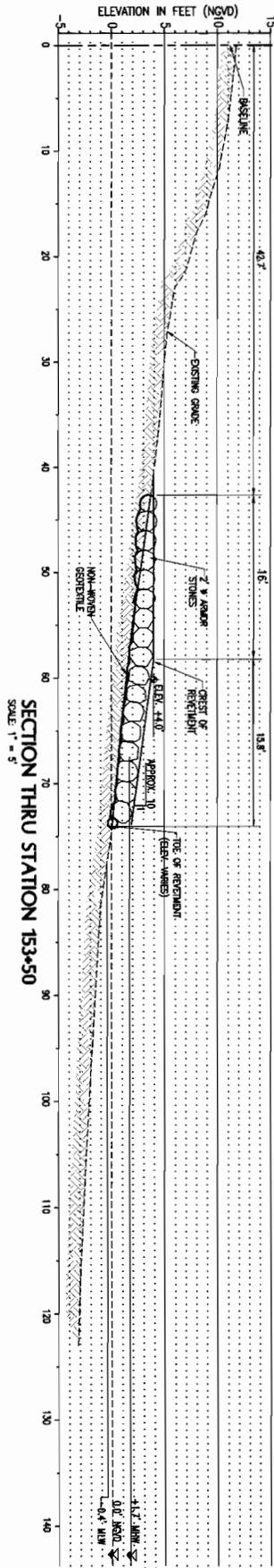
COASTAL SYSTEMS INTERNATIONAL, INC.
 Coastal, Environmental
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 800 N. Dixie Hwy.
 Suite 200
 Coral Gables, FL 33146

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NOTE:
ALL DIMENSIONS INDICATED PERTAIN TO
FULL SIZE DRAWINGS (25% C^A)

SCALE: 1" = 5'

DATE: 02-02-09
REV: 1
DESCRIPTION: DERM CLASS 1 PERMIT

DATE: 02-02-09
REV: 1
DESCRIPTION: DERM CLASS 1 PERMIT

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RECREATIONAL FACILITY**
HOBE BEACH - REVETMENT SECTIONS

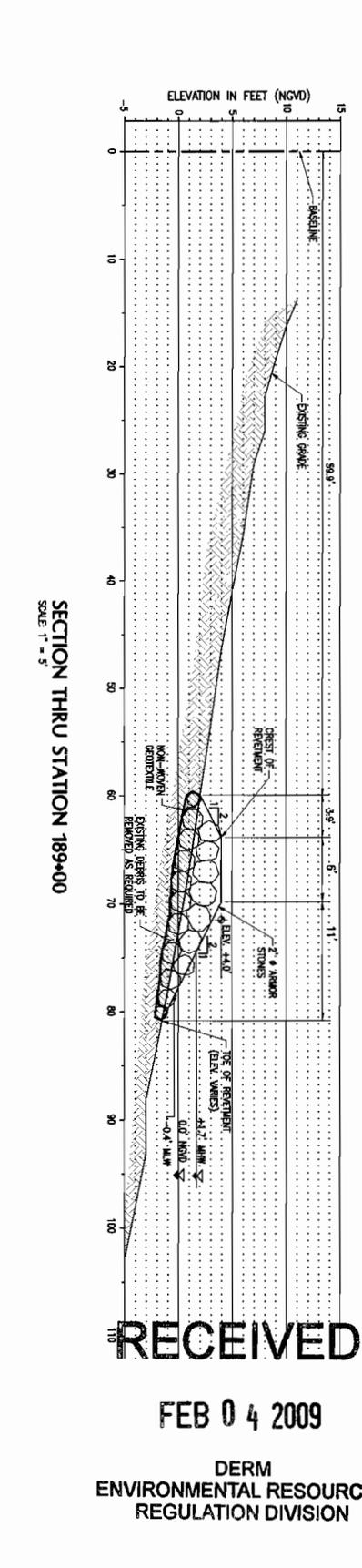
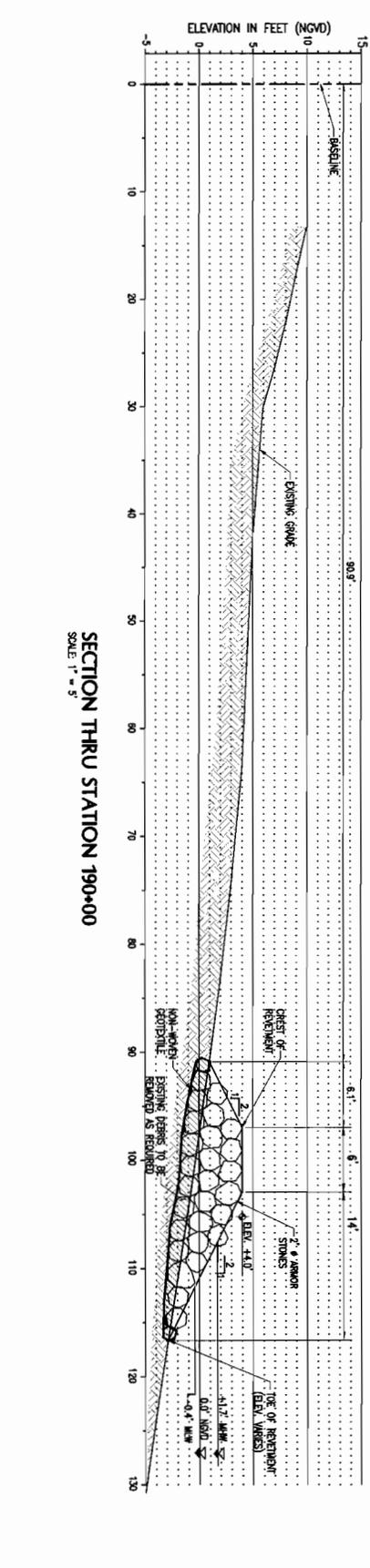
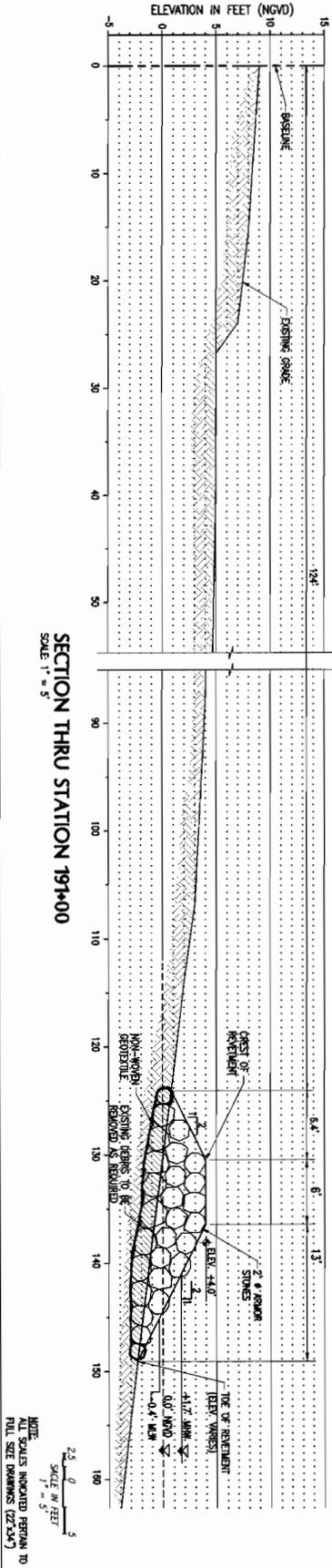
**COASTAL SYSTEMS
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3001 SW 109 Court
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DRAWN: 11/03/08
CHECKED: 11/03/08
SCALE: 1" = 5'
SHEET: 44 OF 94 SHEETS



**RICKENBACKER CAUSEWAY
RECREATIONAL FACILITY**
VIRGINIA KEY - REVETMENT SECTIONS

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and Management
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Tel: 305/663-3655
464 S. Dixie Hwy.
Coral Gables, FL 33146

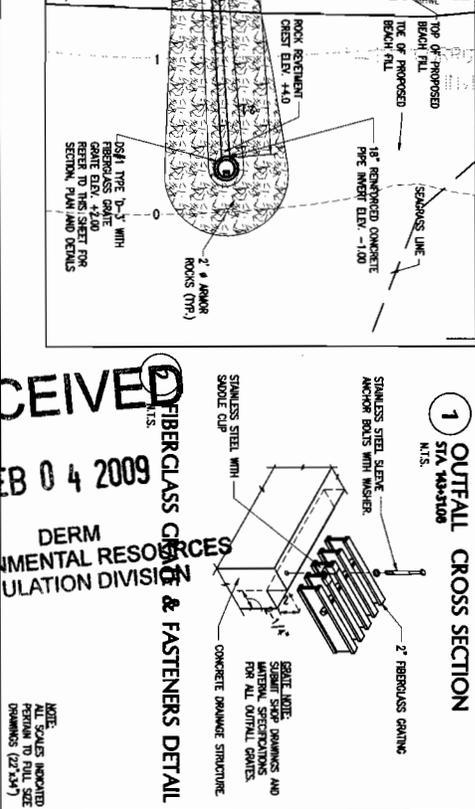
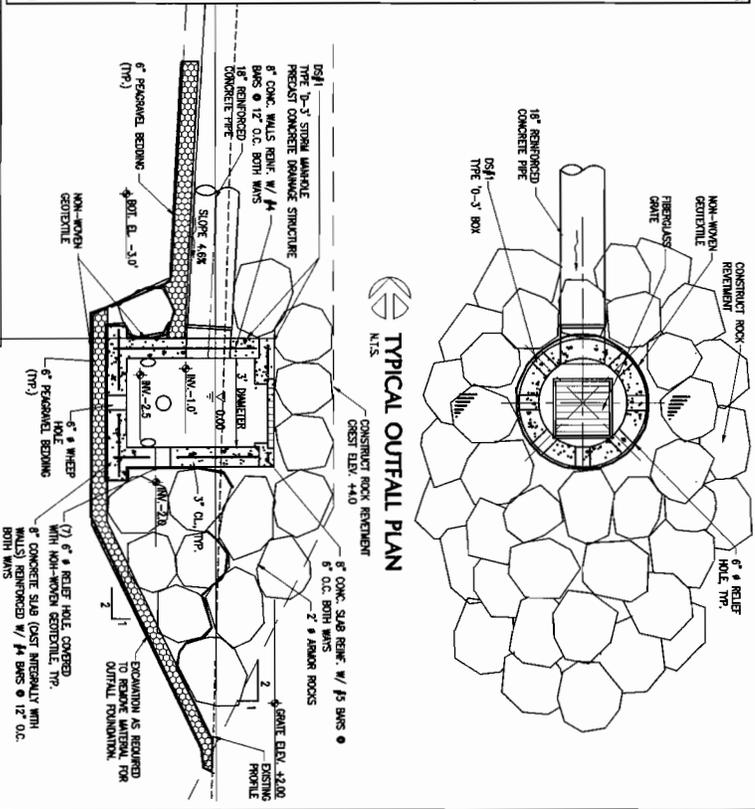
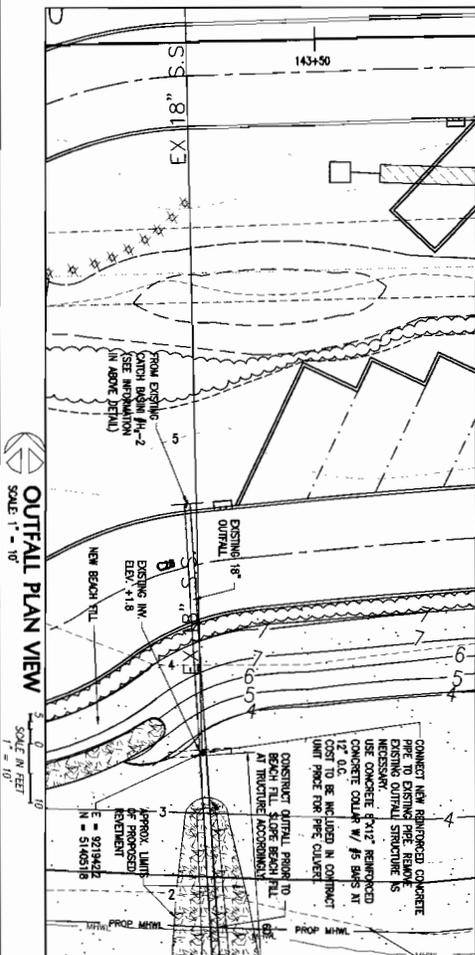
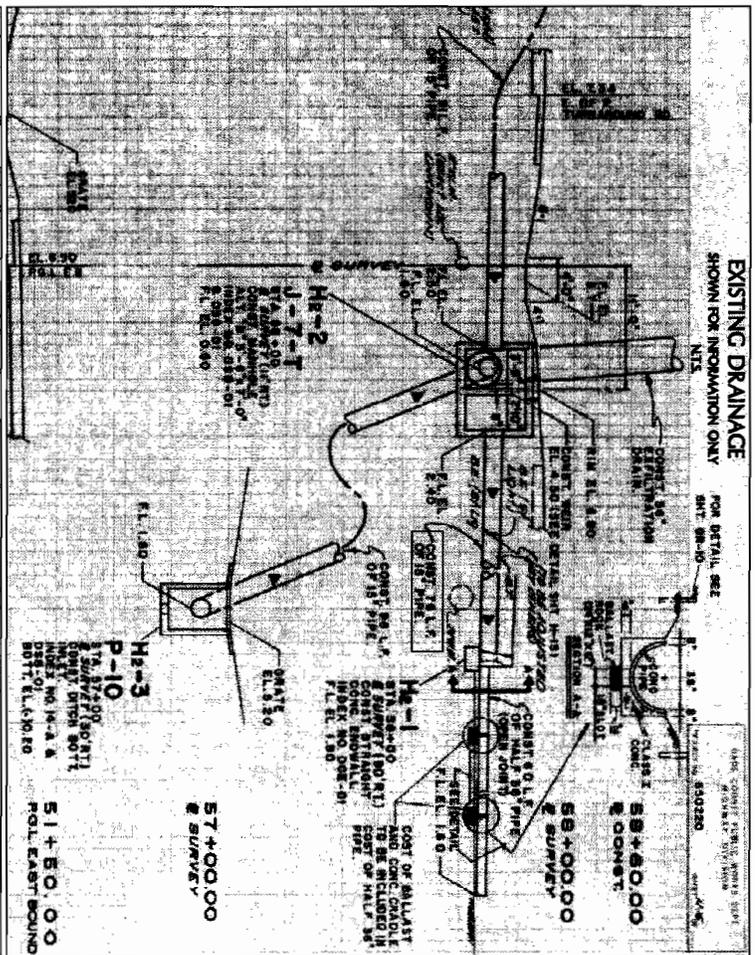
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tel: 305 - 448 - 5955
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Landscape Architecture
Golf Course Design
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Urban Design
LA 0000834
tel: (305) 551-1262
3001 SW 109 Court
Miami, FL 33165

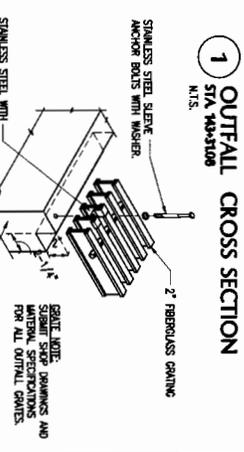
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Miami, FL 33128

DATE	REV	DESCRIPTION	BY
02-02-09		DERM CLASS 1 PERMIT	

88

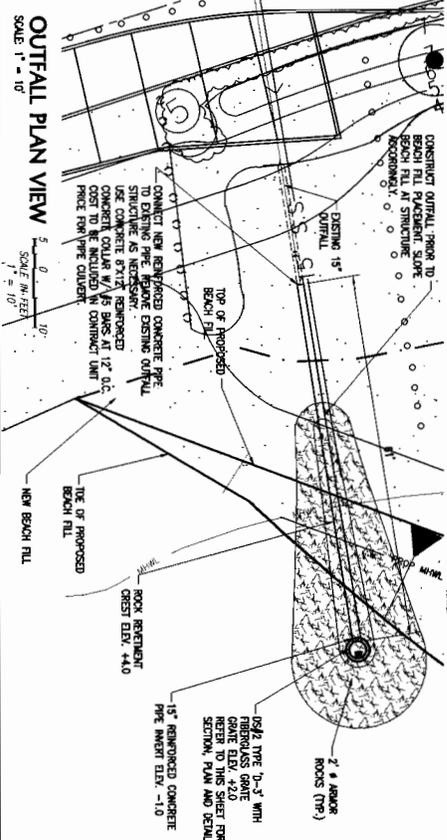
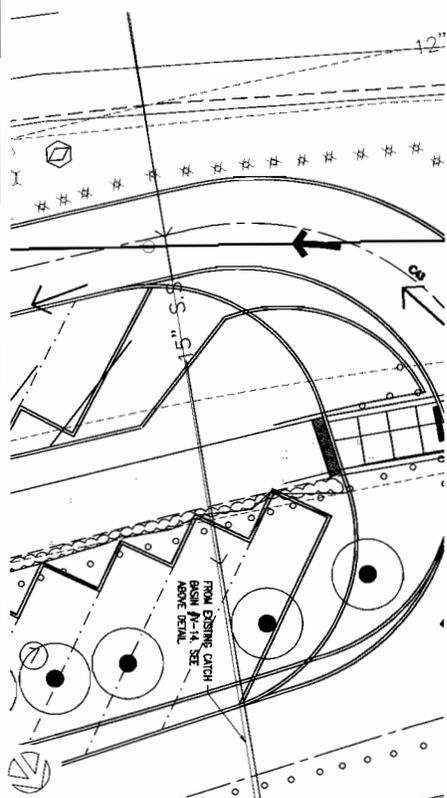


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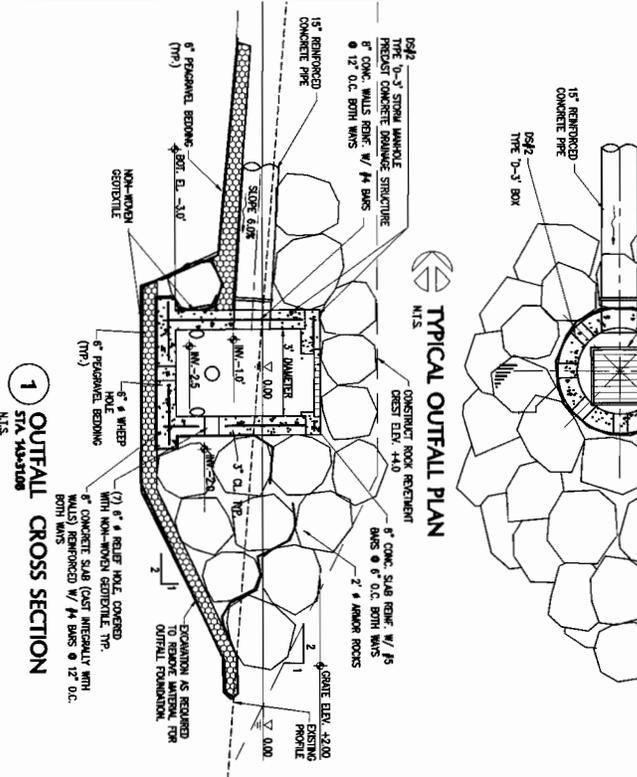
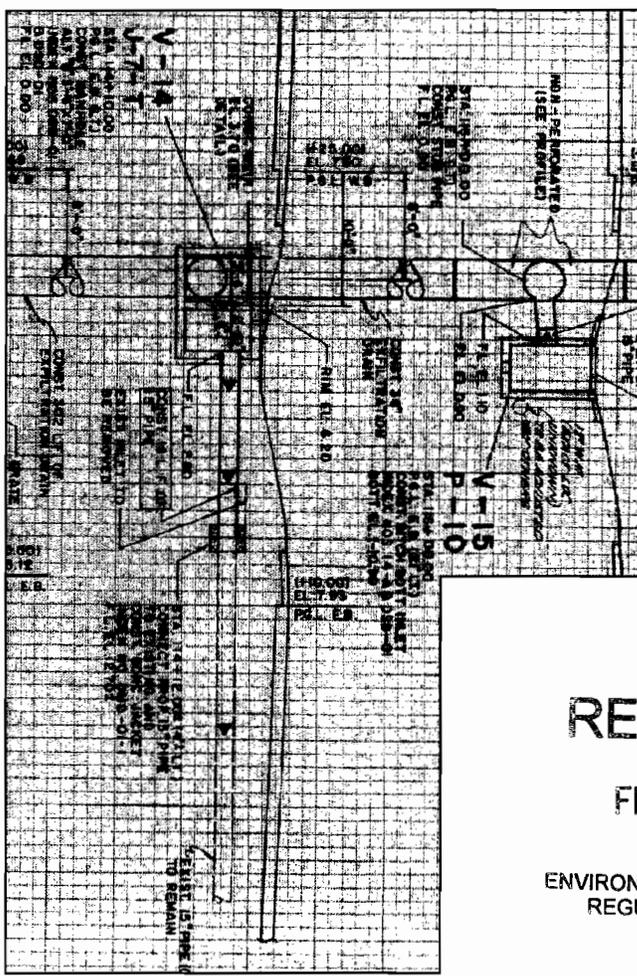


RICKENBACKER CAUSEWAY RECREATIONAL FACILITY MOBBE BEACH OUTFALL PLAN SECTION & DETAILS STA 143+00 OUTFALL		COASTAL SYSTEMS INTERNATIONAL, INC. Coastal, Environmental Civil Engineering Planning and Management FL 01 77087 Tel: 305/661-3655 464 S. Dixie Hwy. Coral Gables, FL 33146	CM Civil Works, Inc. Consulting Engineers CA 07520 tel: 305-446-5955 10 N.W. 42nd Avenue Suite 200 Miami, FL 33126	MARIANO CORRAL Landscape Architecture Golf Course Design Land Planning Urban Design LA 0000834 tel: (305) 551-1262 3001 SW 109 Court Miami, FL 33165	MIAMI-DADE Miami-Dade County Public Works Dept. Stephen P. Clark CENTER 111 NW 1st ST Miami, FL 33128	DATE: 02-02-09 REV: 1 DESCRIPTION: DEM CLASS 1 PERM
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SCALE: AS SHOWN
 DATE: 2/24/09
 DRAWN: WJ
 CHECKED: WJ
 DATE: 02/02/09
CM-22
 48 OF 304 SHEETS



NOTE: ALL SIZES INDICATED PERMANENT TO FULL SIZE DRAWINGS (22.5x1)



EXISTING DRAINAGE
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CHECKED BY: [Signature]
DATE: 2/23/09

**RICKENBACKER CAUSEWAY
RECREATIONAL FACILITY**
VIRGINIA KEY OUTFALL PLAN SECTION & DETAILS
STA 196+00 OUTFALL

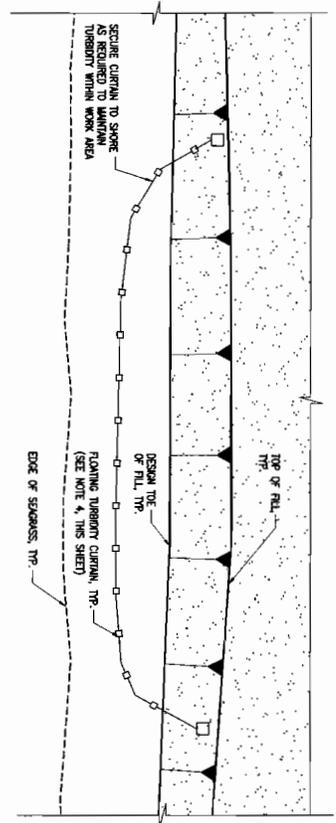
**COASTAL SYSTEMS
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Coral Gables, FL 33146

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Golf Course Design
Land Planning
Urban Design
LA 000838
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Miami, FL 33165

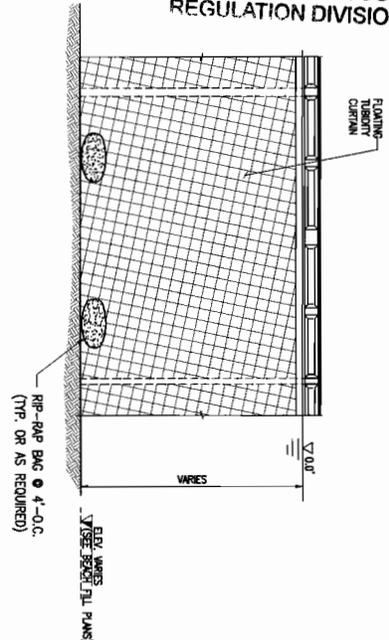
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02-05-09		DEWY CLASS 1 PERMIT



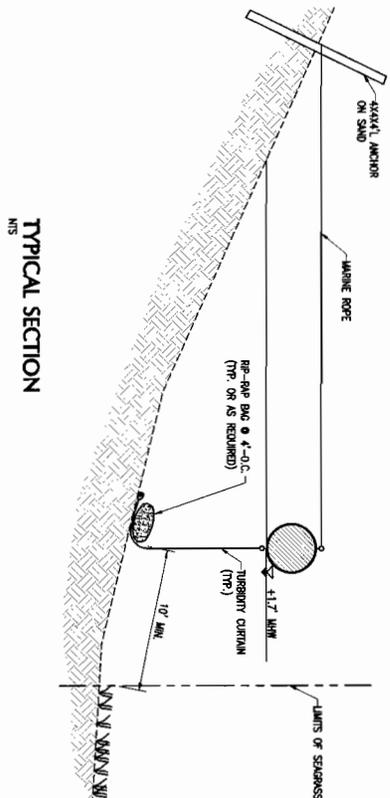
TYPICAL TURBIDITY CONTROL PLAN

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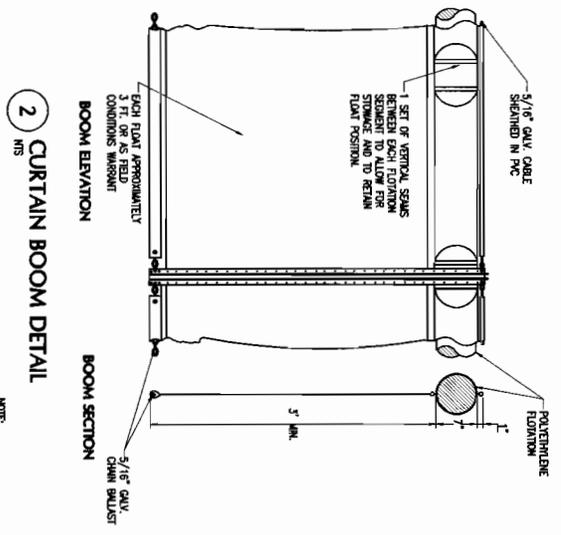


1 TURBIDITY CURTAIN DETAIL

- TURBIDITY CONTROL NOTES**
1. REFER TO ENVIRONMENTAL PERMITS FOR TURBIDITY CONTROL REQUIREMENTS.
 2. TURBIDITY CURTAINS SHALL BE OF SUFFICIENT LENGTH TO CONTROL TURBIDITY YET OF SUCH LENGTH TO PRECLUDE SCOURING OF MARINE RESOURCES, WHETHER WEIGHTED OR STAKED IN PLACE.
 3. CURTAINS SHALL BE MADE OF MATERIAL IN WHICH MARINERS CANNOT BECOME ENTAILED, ARE PROPERLY SECURED, AND ARE RESISTANT TO WIND MARINER ENTRAPMENT. CURTAINS SHALL BE OF SUCH MARINER EASY TO GET OUT FROM ESSENTIAL MARINER.
 4. CONTRACTOR SHALL NOTIFY SUPERVISOR SECTION LENGTH UP TO 10% SHORTER THAN PERMITTED TO ALLOW FOR STAKES CONSTRUCTION PROGRESS.
 5. SUPERVISOR SHALL MAINTAIN CURTAIN SO AS NOT TO IMPACT ANY ADJACENT STAKES.



TYPICAL SECTION



2 CURTAIN BOOM DETAIL

NOTES: DETAILS INDICATED REFER TO FULL SIZE DRAWINGS (27.3.3.4)

SCALE: AS SHOWN
 DATE: 224500
 DRAWN: 07/03/08
 CHECKED: CM-25
 48" x 36" SHEET



**RICKENBACKER CAUSEWAY
 RECREATIONAL FACILITY**
 TURBIDITY CONTROL DETAILS

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02-02-06		DERM CLASS 1 PERMIT

Attachment D
Zoning Memorandum

Memorandum



Date: March 26, 2009

To: Lisa Spadafina, Manager 
Coastal Resources Section
Environmental Resources Management

From: Lourdes Barrelli, Biologist II 
Coastal Resources Section
Environmental Resources Management

Subject: Class I Permit Application by Miami-Dade County to Renourish and Stabilize Hobie Beach and Virginia Key Beach Through the Dredging of Rock and Sediment and the Removal of Concrete Debris, the Placement of 23,337 Cubic Yards of Riprap Boulders and Sand for Multiple Renourishment Events, and the Repair of Three (3) Stormwater Outfalls to Improve Drainage, and to Authorize the Time of Completion of Work of the Subject Permit for a Period of Ten (10) Years

Pursuant to Section 24-48.2(II)(A)(7), of the 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 E

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



Miami-Dade County Parks & Recreation
275 NW 2nd Street 4th Floor
Miami, FL
33128-1794

BPI
1450 NE 2nd Avenue
Miami, FL
33132-1308

City of Miami-Rickenbacker Marina
Asset Management Division
444 SW 2nd Avenue Suite #325
Miami, FL 33130-1910

City of Miami Department of P & D
Asset Management Division
444 SW 2 Avenue Suite 325
Miami, FL 33130-1910

3301 Rickenbacker Marine
Attn: Ram Melwani
3301 Rickenbacker Causeway
Miami, FL 33149-1016

Attachment F
DERM Project Report

PROJECT REPORT

CLASS I PERMIT APPLICATION NO. CC06-196

MIAMI-DADE COUNTY TO RENOURISH AND STABILIZE HOBIE BEACH AND VIRGINIA KEY BEACH THROUGH THE DREDGING OF ROCK AND SEDIMENT AND THE REMOVAL OF CONCRETE DEBRIS, THE PLACEMENT OF 23,337 CUBIC YARDS OF RIPRAP BOULDERS AND SAND FOR MULTIPLE RENOURISHMENT EVENTS, AND THE REPAIR OF THREE (3) STORMWATER OUTFALLS TO IMPROVE DRAINAGE, AND TO AUTHORIZE THE TIME OF COMPLETION OF WORK OF THE SUBJECT PERMIT FOR A PERIOD OF TEN (10) YEARS

Date: March 26, 2009

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, Florida. The following is a summary of the proposed project with respect to each applicable evaluation factor:

1. **Potential Adverse Environmental Impact** – The proposed project is not reasonably expected to result in adverse environmental impacts.
2. **Potential Cumulative Adverse Environmental Impact** – The proposed project is not reasonably expected to result in cumulative adverse environmental impacts.
3. **Hydrology** - The proposed project is reasonably expected to improve surface water drainage and retention of stormwater on the upland areas adjacent to Hobie Beach and Virginia Key Beach (beaches). The proposed renovations to the existing upland parking facilities, roadways, and outfall systems have been designed to improve stormwater management and shall minimize the potential for continued erosion of the beaches. The proposed project is designed in accordance with DERM and the South Florida Water Management District (SFWMD) criteria and design standards.
4. **Water Quality** – The proposed project is reasonably expected to temporarily affect surface water quality. Minor increases in turbidity above background levels may occur within the project areas during the placement of sand and riprap directly waterward of the mean high water line. However, these impacts will be temporary in nature and will be minimized by the implementation of proper turbidity control devices. In addition, the proposed renovations to the existing upland parking facilities, roadways, and outfall systems have been designed to improve stormwater management, which shall minimize the potential for continued erosion of the beaches, and is reasonably expected to improve water quality within the vicinity of the project area.
5. **Wellfields** – Not applicable.
6. **Water Supply** – Not applicable.
7. **Aquifer Recharge** – Not applicable.
8. **Aesthetics** – The project is designed to be aesthetically compatible with the surrounding area. The proposed drainage improvements and placement of sand and riprap boulders shall enhance the existing public beach recreational areas by restoring sections of eroded beach and minimizing the potential for beach erosion.
9. **Navigation** – The proposed project is not reasonably expected to adversely affect navigation.
10. **Public Health** - The proposed project is not reasonably expected to adversely affect the 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. The proposed project has been designed to avoid impacts to existing *Conocarpus erectus* (green buttonwood) trees and mangroves, including *Rhizophora mangle* (red mangroves), *Laguncularia racemosa* (white mangroves), and *Avicennia germinans* (black mangroves). This will be accomplished through the installation of riprap boulder revetments, that will serve as a buffer between the placement of the sand used to restore the eroded beaches and said trees. The proposed project will temporarily disturb marine fauna. However, the impacts are temporary in nature and suitable marine habitat will be available for the re-establishment of marine fauna. To avoid impacts to offshore seagrass beds, the project has also been designed to maintain a minimum fifteen (15) foot distance between the waterward extent of the proposed work and any existing seagrass beds. In addition, the applicant shall be required to implement a seagrass monitoring program to evaluate offshore seagrass community health and vitality before and after construction activities. Furthermore, the proposed project is not reasonably expected to adversely affect any rare, threatened or endangered species. The proposed project areas are not located within essential habitat for *Trichechus manatus* (West Indian Manatee).
15. **Wetland Soils Suitable for Habitat** – The proposed project does not involve any work in wetland soils.
16. **Floral Values** – The proposed project is not reasonably expected to adversely affect marine or wetland flora. There are no seagrass resources located in the footprint of the proposed project. To avoid impacts to offshore seagrass beds, the project has been designed to maintain a minimum fifteen (15) foot distance between the waterward extent of the proposed work and any existing seagrass beds. In addition, the applicant shall be required to implement a seagrass monitoring program to evaluate offshore seagrass community health and vitality before and after construction activities. The proposed project has been designed to avoid impacts to existing *Conocarpus erectus* (green buttonwood) trees and mangroves, including *Rhizophora mangle* (red mangroves), *Laguncularia racemosa* (white mangroves), and *Avicennia germinans* (black mangroves). This will be accomplished through the installation of riprap boulder revetments, that will serve as a buffer between the placement of the sand used to restore the eroded beaches and said trees.
17. **Fauna Values** - The proposed project will temporarily disturb marine fauna. Specifically, marine epifauna (animals living on the sediment surface or on the surface of other plants or animals) and infauna (animals living within submerged sediments) will be temporarily impacted from the placement of the sand. However, these impacts are temporary in nature and suitable marine habitat will be available for the re-establishment of marine fauna. In addition, the proposed project areas are not located within essential habitat for *Trichechus manatus* (West Indian Manatee).
18. **Rare, Threatened and Endangered Species** – The project is not reasonably expected to adversely affect any rare, threatened or endangered species. The proposed project areas are not located within essential habitat of *Trichechus manatus* (West Indian Manatee) and no endangered seagrasses were found in these areas during the seagrass survey.
19. **Natural Flood Damage Protection** - The proposed project is not reasonably expected to affect natural flood damage protection.

20. **Wetland Values** – The proposed project is not reasonably expected to affect wetland values. The proposed project has been designed to avoid impacts to existing *Conocarpus erectus* (green buttonwood) trees and mangroves, including *Rhizophora mangle* (red mangroves), *Laguncularia racemosa* (white mangroves), and *Avicennia germinans* (black mangroves). This will be accomplished through the installation of riprap boulder revetments, that will serve as a buffer between the placement of the sand used to restore the eroded beaches and said trees.
21. **Land Use Classification** – 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 a Class I permit.
22. **Recreation** - The proposed project is not reasonably expected to adversely affect recreation. The proposed project does not conflict with the Miami-Dade County Comprehensive Development Master Plan and Biscayne Bay Management Plan recreation elements.
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 and is expected to enhance Hobie Beach and Virginia Key Beach recreational areas for public use through drainage improvements and the restoration of eroded beach segments.
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:
 - Miami-Dade County Public Works Manual
 - Biscayne Bay Management Plan (Sections 33D-1 through 33D-4 of the Code of Miami-Dade County)
 - Chapter 33B of the Code of Miami-Dade County
25. **Comprehensive Environmental Impact Statement (CEIS)** – In the opinion of the Director, the proposed project is not reasonably expected to result in either adverse environmental impacts or cumulative adverse environmental impacts. As such, a CEIS was not required by DERM to evaluate the proposed 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) Rules of the South Florida Water Management District (permit is required)
 - b) Chapter 24 of the Code of Miami-Dade County
 - c) Federal Endangered Species Act (US Fish and Wildlife Service)
 - d) United States Clean Water Act (US Army Corps of Engineers permit)
 - e) Biscayne Bay Aquatic Preserve Act
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 and will enhance protected natural resources and systems. The project is compatible with surrounding land uses in 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 and does not involve agricultural uses.

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 or aquifer recharge potential. The proposed renovations to the existing upland parking facilities, roadways, and outfall systems have been designed to improve stormwater management and shall improve natural surface water drainage.

Objective 5/Policies 5A, 5B, 5F - Flood protection and cut and fill criteria. – The proposed project will provide enhanced flood protection from storm events through the restoration of the beaches and stormwater management improvements.

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 any fill appropriate for the support of 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 high quality wetlands.

Objective 9/Policies 9A, 9B, 9C – Protection of habitat critical to federal, state, or County designated endangered, threatened, or rare species - The proposed project areas are not located within essential habitat of *Trichechus manatus* (West Indian Manatee) and no endangered seagrasses were found in these areas during the seagrass survey.

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 or coastal hammocks. The proposed project has been designed to avoid impacts to existing *Conocarpus erectus* (green buttonwood) trees and mangroves, including *Rhizophora mangle* (red mangroves), *Laguncularia racemosa* (white mangroves), and *Avicennia germinans* (black mangroves). This will be accomplished through the installation of riprap boulder revetments, that will serve as a buffer between the placement of the sand used to restore the eroded beaches and said trees.

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 or destruction of coastal wetlands. The proposed project has been designed to avoid impacts to existing *Conocarpus erectus* (green buttonwood) trees and mangroves, including *Rhizophora mangle* (red mangroves), *Laguncularia racemosa* (white mangroves), and *Avicennia germinans* (black mangroves). This will be accomplished through the installation of riprap boulder revetments, that will serve as a buffer between the placement of the sand used to restore the eroded beaches and said trees.

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 proposed project has been designed to minimize impacts to viable benthic communities. The placement of sand and riprap boulders associated with the renourishment and stabilization of the beaches is consistent with three (3) of the dredge and fill criteria listed in Section 24-48.3(2) of the Code of Miami-Dade County, Florida. In addition, the proposed project shall not result in the filling of grass/algal flats or hard bottom communities.

Objective 2/Policies 2A, 2B - Beach restoration and renourishment objectives. - The proposed project involves restoration of eroded beaches that do not contain any significant benthic communities. To avoid impacts to offshore seagrass beds, the project has been designed to maintain a minimum fifteen (15) foot distance between the waterward extent of the proposed work and any existing seagrass beds. In addition, the applicant shall be required to implement a seagrass monitoring program to evaluate offshore seagrass community health and vitality before and after construction activities. The proposed project has also been designed to avoid impacts to existing *Conocarpus erectus* (green buttonwood) trees and mangroves, including *Rhizophora mangle* (red mangroves),

Laguncularia racemosa (white mangroves), and *Avicennia germinans* (black mangroves). This will be accomplished through the installation of riprap revetments, that will serve as a buffer between the placement of the sand used to restore the eroded beaches and said trees. Furthermore, the proposed project is not reasonably expected to adversely affect any rare, threatened or endangered species. The proposed project areas are not located within essential habitat for *Trichechus manatus* (West Indian Manatee).

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 5/Policy 5B - Existing and new areas for water-dependent uses. - The proposed project will enhance existing water-dependent uses associated with a public beach.

Objective 5/Policy 5D - Consistency with Chapter 33D, Miami-Dade County Code (shoreline access, environmental compatibility of shoreline development) - The proposed project has been evaluated by the Shoreline Development Review Committee. 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 in conformance with the Biscayne Bay Management Plan.
30. **Conformance with the Miami-Dade County Manatee Protection Plan** - The proposed project area is not located within essential habitat for *Trichechus manatus* (West Indian Manatee).
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 Resources 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 owners 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:

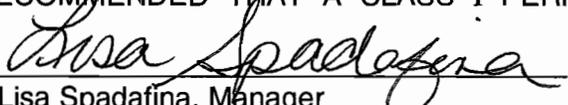
24-48.3 (2) Dredging and Filling for Class I Permit - The proposed project complies with the following criteria:

- Minimum dredging and spoiling for public navigation or public necessity.
- An alteration of physical conditions as may be necessary to enhance the quality or utility of adjacent waters.
- 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 construction of fixed or floating structures for mooring purposes.

24-48.3 (4) Clean Fill in Wetlands – The proposed project involves the placement of sand and riprap to restore sections of eroded beach. All the sand proposed for this project will meet the definition of clean fill as described in Section 24-5 of the Code of Miami-Dade County.

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


Lisa Spadafina, Manager
Environmental Resources Regulation Division


Lourdes Barrelli, Biologist II
Coastal Resources Section