

## **Attachment F**

### **Naples Bay Oyster Reef Restoration RFP 18-063**

#### **July 2018**

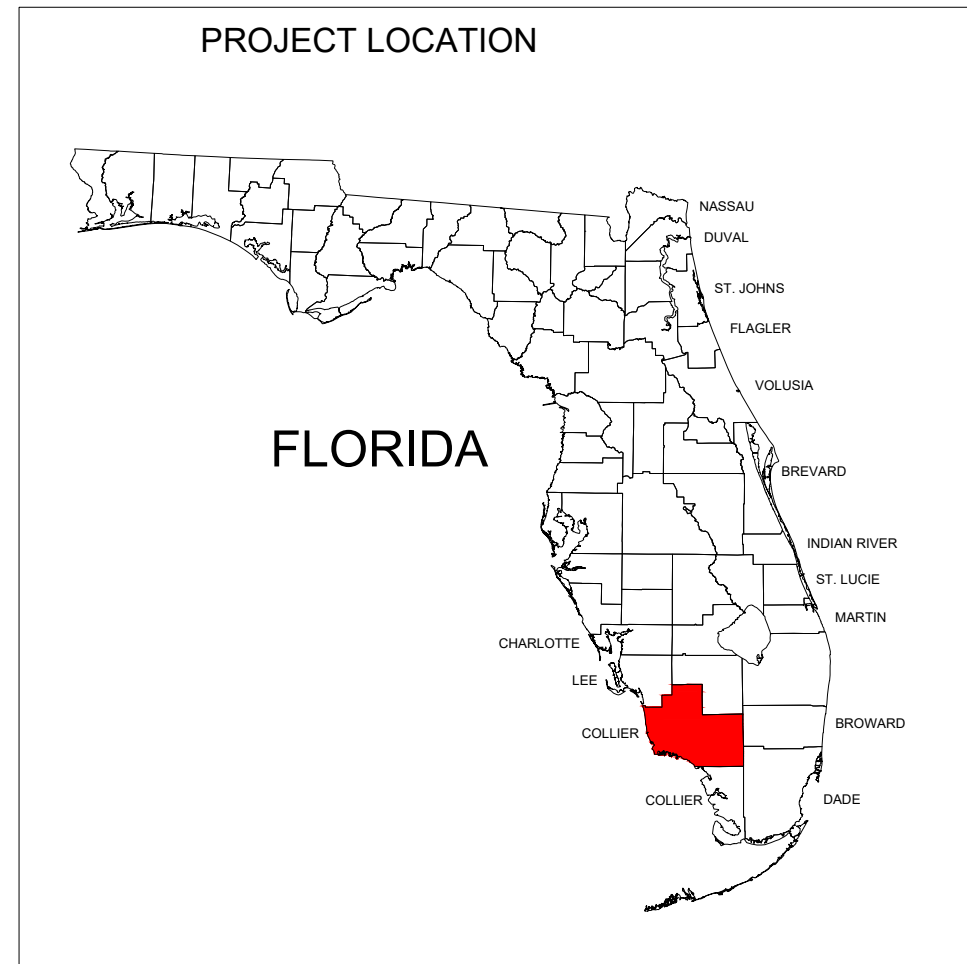
The following designs are currently fully permitted; however, the reef layout and materials have been redesigned. The new USACE Permit (Attachment H) reflects the new design. A permit modification for the FDEP permit has been applied for and is expected to be issued within the RFP period – new permit will be posted as an addendum to the RFP. We expect the permit conditions to remain the same as currently permitted.

**Wave attenuation structures:** The design for the chevron-shaped wave attenuation reef ball structures will remain the same. Wave attenuation structures shall be constructed on Option 1 (marine mattress).

**Reef materials and layout:** The reef materials and layout within the footprints has changed. These are shown in Attachments B-E (Sites 1-3 Oyster Reef Design; Typical Reef Cross Section).

**Signage:** The signage for Sites 1 and 2 will remain the same as the currently permitted plans, with the exception of an additional single piling educational sign to be constructed within the reef area at Site 1 (Attachment B). There will be no signage at Site 3.

# NAPLES BAY OYSTER RESTORATION CONSTRUCTION DRAWINGS CITY OF NAPLES, COLLIER COUNTY, FLORIDA

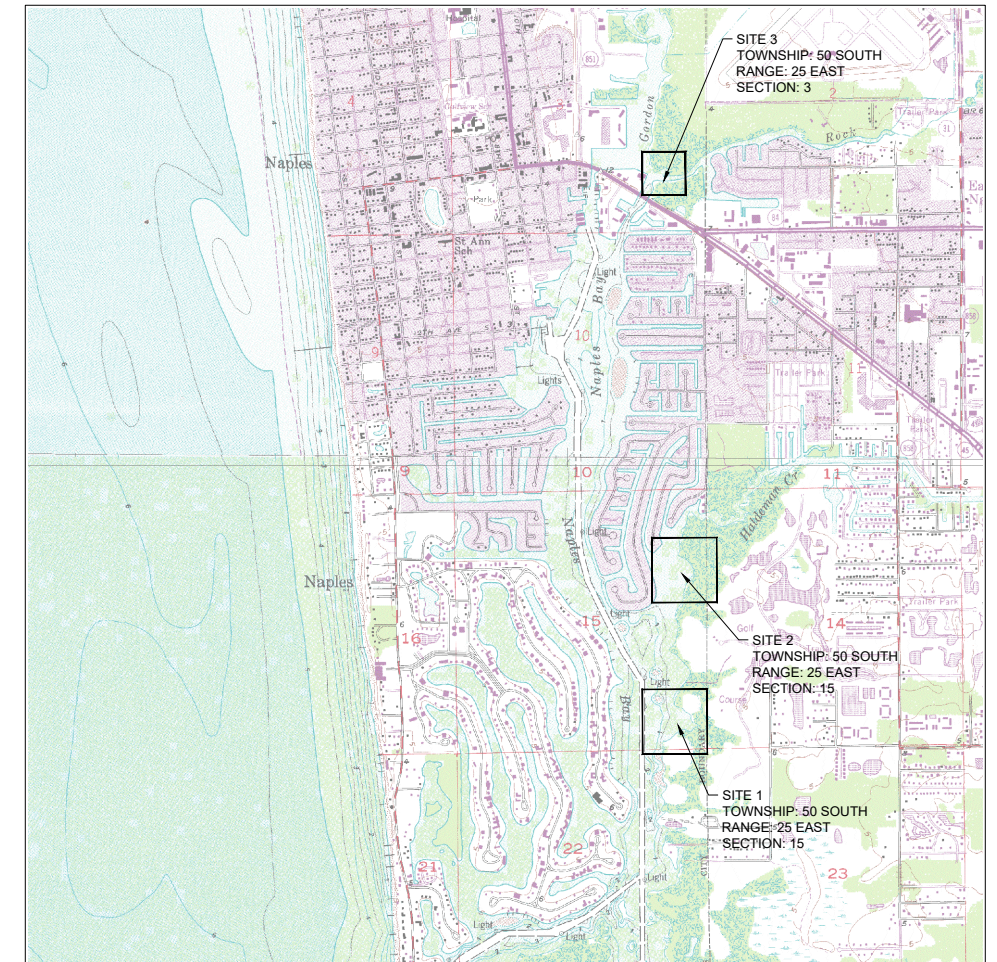


**LOCATION MAP**  
N.T.S.



## DRAWING INDEX

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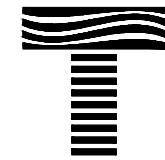


**VICINITY MAP**  
1" = 2,000' (22x34)  
1" = 4,000' (11x17)

REFERENCE:  
USGS 7.5' QUADRANGLE MAPS  
NAPLES NORTH, FLORIDA 1991  
NAPLES SOUTH, FLORIDA 1991

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 <b>TAYLOR ENGINEERING INC.</b> 10151 DEERWOOD PARK BLVD. BLDG. 300, SUITE 300 JACKSONVILLE, FLORIDA 32256 (904)-731-7040 1800 2nd STREET, SUITE 881 SARASOTA, FLORIDA 34236 (941) 702-5871 CERTIFICATE OF AUTHORIZATION # 4815	PROJECT TITLE <p style="text-align: center;"><b>NAPLES BAY OYSTER RESTORATION CONSTRUCTION DRAWINGS</b></p> CITY OF NAPLES, COLLIER COUNTY, FLORIDA	SEAL CLIFFORD L. TRUITT P.E. # 21194
	PROJECT NO C2015-037	DATE JUNE 2017







REBECCA JOHNSON, 02/20/2017 12:24:37 PM, X:\projects\Naples Bay Oyster Reef\Construction\2016-037-C-Over-Notes.dwg

- APPROPRIATE FOR THE CONTRACTED WORK;
- v. ACQUIRING AND INSTALLING ANY AND ALL SUCH BMPs AS MAY BE NECESSARY AT ALL STAGING AND LAYDOWN AREAS TO ENSURE THAT THERE IS NO RUNOFF, SILTATION, TURBIDITY, OR OTHER NEGATIVE IMPACTS FROM THOSE AREAS ONTO ADJACENT PROPERTY OR WATERBODIES. ALL COSTS FOR ANY REQUIRED BMPs SHALL BE INCLUDED BY THE CONTRACTOR AS PART OF HIS LUMP SUM PRICE FOR MOBILIZATION;
  - b. DEMOBILIZATION: THE CONTRACTOR MAY SUBMIT A REQUEST FOR PAYMENT OF THE REMAINING 35% OF THE TOTAL LUMP SUM PRICE FOR LINE ITEM 3.0 AFTER SUCCESSFUL DEMOBILIZATION FOLLOWING COMPLETION OF THE CONTRACTED WORK. "SUCCESSFUL DEMOBILIZATION" IS DEFINED AS COMPLETING AND/OR PROVIDING ALL THE FOLLOWING:
    - i. SUBMITTING FOR REVIEW AND SUBSEQUENT ACCEPTANCE BY OWNER OF FINAL 'AS BUILT' SURVEY OF THE COMPLETED WORK. THE COST OF THE SURVEY WILL BE PAID AS A SEPARATE LINE ITEM; HOWEVER, SUBMITTING THE SURVEY IS A REQUIREMENT OF DEMOBILIZATION;
    - ii. REMOVAL OF ALL ENVIRONMENTAL PROTECTION MEASURES FOR THE REEF SITE(S) AND ANY STAGING AREAS;
    - iii. REMOVAL OF ALL CONTRACTOR EQUIPMENT, UNUSED MATERIALS AND SUPPLIES FOR THE REEF SITES AND ANY STAGING AREAS;
    - iv. RESTORATION TO PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF OWNER OF ANY/ALL STAGING AND ACCESS AREAS, INCLUDING REMOVAL OF ALL BMPs PROVIDED;
4. LINE ITEM NO. 4.0 A OR 4.0 B: "WAVE ATTENUATION STRUCTURE - FULLY COMPLETED CROSS-SECTION, INCLUDING END ROCK, ALL FOUNDED UPON OPTION 1 OR OPTION 2. RATHER THAN MEASURE, ACCOUNT FOR USE IN THE DESIGN AND PAY FOR EACH COMPONENT OF THE WAVE ATTENUATION STRUCTURE SEPARATELY, IT IS THE OWNER'S DESIRE TO PAY THE CONTRACTOR FOR LENGTHS OF FULLY INSTALLED AND COMPLETED STRUCTURE MEETING ALL REQUIREMENTS OF THE DESIGN AS SHOWN ON THE CONSTRUCTION DRAWINGS.
- a. PAYMENT SHALL BE MADE AT THE CONTRACTOR'S BID AND CONTRACT PRICE PER LINEAR FOOT OF FULLY CONSTRUCTED WAVE ATTENUATION STRUCTURE CROSS-SECTION, HAVING ALL ELEMENTS AND FEATURES IN ACCORDANCE WITH THE DESIGN AS SHOWN ON THE DRAWINGS. THE LENGTH OF STRUCTURE COMPLETED SHALL BE MEASURED ALONG THE CENTERLINE OF THE STRUCTURES ON THE LONG AXES.
  - b. CONTRACTOR'S REQUESTS FOR PAYMENT SHALL BE BY ACCEPTANCE SECTION. AN ACCEPTANCE SECTION FOR THIS ITEM IS DEFINED AS A MINIMUM STRUCTURE CENTERLINE LENGTH OF SEVENTY (70) FEET. IT IS UNDERSTOOD THAT BECAUSE OF THE INHERENT IRREGULARITY OF THE STRUCTURE AND ITS COMPONENTS (INCLUDING PRESENCE OF SCOUR ROCK IN SOME LOCATIONS, BUT NOT AT ALL CROSS-SECTIONS), NOT EVERY 70-FOOT ACCEPTANCE SECTION WILL BE IDENTICAL IN COMPOSITION.
  - c. AFTER FULLY COMPLETING THE REQUIRED CROSS-SECTIONS WITHIN AN ACCEPTANCE SECTION, CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER THAT HE IS READY FOR OBSERVATION AND ACCEPTANCE OF THE WORK. A SITE VISIT WILL BE CONDUCTED BY OWNER AND/OR ENGINEER AS EXPEDITIOUSLY AS POSSIBLE AND THE CONTRACTOR WILL BE INFORMED AS TO WHETHER A FORMAL PAYMENT REQUEST CAN BE SUBMITTED, OR IF ANY DEFICIENCIES WERE NOTED WHICH REQUIRE CORRECTION BY THE CONTRACTOR. MORE THAN ONE SECTION MAY BE COMPLETED AND SCHEDULED FOR REVIEW AT A TIME; HOWEVER, NO STRUCTURE LENGTHS SHORTER THAN 70 FEET WILL BE REVIEWED AND PROCESSED FOR PAYMENT.
5. LINE ITEM NOS. 5.0, 7.0 AND 8.0: "MESH OYSTER HABITAT BAGS WITH SHELL FILL." RATHER THAN MEASURE, ACCOUNT FOR USE IN THE DESIGN AND PAY FOR EACH COMPONENT OF THE OYSTER HABITAT SEPARATELY, IT IS THE OWNER'S DESIRE TO PAY THE CONTRACTOR FOR GROUPS OF FULLY FABRICATED, FILLED AND INSTALLED MESH OYSTER BAG HABITAT MEETING ALL REQUIREMENTS OF THE DESIGN AS SHOWN ON THE CONSTRUCTION DRAWINGS. PAYMENT FOR LINE ITEMS 5.0, 7.0 AND 8.0 SHALL BE MADE AS FOLLOWS:
- a. AS SHOWN ON THE DRAWINGS, BAGS FABRICATED FROM THE POLYETHYLENE MESH AND FILLED WITH SHELL/CULTCH, SHALL BE PLACED IN GROUPS OR MODULES USING AN ALTERNATING, STACKED CONFIGURATION. EACH SUCH GROUP OF STACKED BAGS IS DEFINED FOR PAYMENT AS A "POD." PAYMENT WILL BE MADE AT THE UNIT PRICE IN THE CONTRACTOR'S BID AND CONTRACT FOR EACH POD COMPLETED, INSTALLED IN ACCORDANCE WITH THE DESIGN SHOWN ON THE DRAWINGS
  - b. CONTRACTOR'S REQUESTS FOR PAYMENT SHALL BE BY ACCEPTANCE SECTION. AN ACCEPTANCE SECTION FOR THIS ITEM IS DEFINED AS A MINIMUM OF TEN (10) PODS FULLY COMPLETED AND INSTALLED AT THE SITE AS REQUIRED BY THE DRAWINGS. IT IS UNDERSTOOD THAT BECAUSE OF THE INHERENT IRREGULARITY IN THE BAGS, STACKING AND VARIATIONS IN WATER DEPTH, NOT EVERY POD WILL BE IDENTICAL IN FINAL SHAPE OR SIZE. THE GOAL IS TO PROVIDE HABITAT MEETING THE PROJECT INTENT BASED ON AVERAGE OR TYPICAL INSTALLED PODS.
  - c. AFTER FULLY AND SUCCESSFULLY COMPLETING AND INSTALLING AS SHOWN ON THE DRAWINGS A MINIMUM OF 10 PODS, THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER THAT HE IS READY FOR OBSERVATION AND ACCEPTANCE. A SITE VISIT WILL BE CONDUCTED BY OWNER AND/OR ENGINEER AS EXPEDITIOUSLY AS POSSIBLE AND THE CONTRACTOR WILL BE INFORMED AS TO WHETHER A FORMAL PAYMENT REQUEST CAN BE SUBMITTED, OR IF ANY DEFICIENCIES WERE NOTED WHICH REQUIRE CORRECTION BY THE CONTRACTOR. MORE THAN ONE 10-POD SECTION MAY BE COMPLETED AND SCHEDULED FOR REVIEW AT A TIME; HOWEVER, NO GROUPS OF FEWER THAN 10 PODS WILL BE REVIEWED AND PROCESSED FOR PAYMENT;
  - d. NOTWITHSTANDING THE OWNER'S DESIRE TO PAY FOR BID ITEMS 5.0, 7.0 AND 8.0 BASED ON COMPLETED UNITS/PODS, CONTRACTOR SHALL MAINTAIN ALL RECEIPTS, WEIGHT TICKETS AND OTHER SUCH DOCUMENTATION RELATED TO HIS PURCHASE AND DELIVERY OF THE MESH MATERIAL AND SHELL/CULTCH FILL. ENGINEER MAY REQUEST THAT THIS INFORMATION BE SUBMITTED BY THE CONTRACTOR FOR ENGINEER'S REVIEW AS SUPPORTING DOCUMENTATION THAT THE INSTALLED PODS MEET THE DESIGN INTENT.
6. BID ITEM NO. 6.0: "FLOATING TURBIDITY BARRIERS." CONTRACTOR IS REQUIRED TO FURNISH AND INSTALL FLOATING TURBIDITY BARRIERS MEETING THE TYPE AND ANCHORING REQUIREMENTS SHOWN ON THE DRAWINGS. PAYMENT WILL BE MADE PER LINEAR FOOT OF BARRIER AT THE UNIT PRICE SHOWN IN THE CONTRACTOR'S BID AND CONTRACT. ENGINEER MAY REQUEST VERIFICATION IN THE FORM OF RECEIPTS, FIELD MEASUREMENTS AND/OR SITE PHOTOS FROM THE CONTRACTOR OF THE LENGTH OF BARRIER PROVIDED AND INSTALLED.
- C. GENERAL PAYMENT PROCEDURES.
1. MONTHLY PROGRESS PAYMENT. THE CONTRACTOR SHALL SUBMIT TO THE OWNER AND ENGINEER FOR REVIEW, NOT MORE OFTEN THAN MONTHLY, AN APPLICATION FOR PROGRESS PAYMENT FILLED OUT AND SIGNED BY THE CONTRACTOR. THE APPLICATION SHALL DESCRIBE THE WORK COMPLETED AND BE ACCOMPANIED BY VERIFIED QUANTITY MEASUREMENTS, THE PLACEMENT VERIFICATION REPORT, AND ADDITIONAL SUPPORTING DOCUMENTATION AS IS REQUIRED BY THE CONTRACT DOCUMENTS AND ALSO AS MAY REASONABLY BE REQUIRED BY THE OWNER AND ENGINEER. PAYMENT APPLICATIONS SHALL BE PROCESSED AND PAYMENTS MADE AS PROVIDED FOR IN THE OWNER'S GENERAL CONDITIONS.
  2. FINAL PAYMENT.
    - a. FOLLOWING WRITTEN NOTICE FROM CONTRACTOR THAT THE WORK IS COMPLETE, THE OWNER AND ENGINEER WILL OBSERVE THE WORK WITHIN FIVE (5) DAYS OF THE RECEIPT OF THE WRITTEN NOTICE FROM THE CONTRACTOR AND, IF REQUIRED, WILL NOTIFY THE CONTRACTOR IN WRITING OF ALL PARTICULARS IN WHICH THE FINAL INSPECTION REVEALS THAT THE WORK IS INCOMPLETE OR DEFECTIVE.
    - b. THE CONTRACTOR SHALL IMMEDIATELY TAKE SUCH MEASURES AS ARE NECESSARY TO REMEDY SUCH DEFICIENCIES. AFTER THE CONTRACTOR HAS COMPLETED ALL SUCH CORRECTIONS TO THE SATISFACTION OF THE OWNER AND ENGINEER AND PROVIDED ANY REQUIRED QUALITY CONTROL REPORTS, POST-CONSTRUCTION VERIFICATION REPORTS, DATA REQUESTED BY THE ENGINEER, GUARANTEES, BONDS, CERTIFICATES OF INSPECTION, AS-BUILT OR RECORD DOCUMENTS, AND ALL OTHER DOCUMENTS AS REQUIRED BY THE CONTRACT DOCUMENTS OR OWNER, AND AFTER THE ENGINEER HAS INDICATED THAT THE WORK IS ACCEPTABLE TO THE OWNER, THE CONTRACTOR MAY MAKE APPLICATION FOR FINAL PAYMENT. THE FINAL APPLICATION FOR PAYMENT SHALL BE ACCOMPANIED BY ALL DOCUMENTATION CALLED FOR IN THE CONTRACT DOCUMENTS AND OTHER DATA AND SCHEDULES AS THE OWNER MAY REASONABLY REQUIRE, TOGETHER WITH COMPLETE AND LEGALLY EFFECTIVE RELEASES OR WAIVERS (SATISFACTORY TO OWNER) OF ALL LIENS ARISING OUT OF, OR FILED IN CONNECTION WITH THE WORK.
    - c. FOLLOWING RECEIPT OF THE FINAL APPLICATION FOR PAYMENT AS DESCRIBED ABOVE, THE ENGINEER WILL REVIEW THE SUBMITTED INFORMATION AND, IF ACCEPTABLE, SUBMIT TO THE OWNER A RECOMMENDATION FOR PAYMENT WITHIN SEVEN DAYS AFTER RECEIPT OF THE FINAL APPLICATION FOR PAYMENT. IF THE ENGINEER IS NOT SATISFIED THAT THE WORK IS COMPLETED, THE ENGINEER WILL RETURN THE APPLICATION TO THE CONTRACTOR, INDICATING IN WRITING THE REASONS FOR REFUSING TO RECOMMEND FINAL PAYMENT, IN WHICH CASE THE CONTRACTOR SHALL MAKE THE NECESSARY CORRECTIONS AND RESUBMIT THE APPLICATION.



**PROJECT OVERVIEW**  
 22X34: 1" = 800'  
 11X17: 1" = 1,600'

**TAYLOR ENGINEERING INC.**  
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 CERTIFICATE OF AUTHORIZATION # 4815

SEAL

CLIFFORD L. TRUITT P.E. # 21194

PROJECT TITLE  
**NAPLES BAY  
 OYSTER RESTORATION  
 CONSTRUCTION DRAWINGS**  
 CITY OF NAPLES, COLLIER COUNTY,  
 FLORIDA

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NO.	ZONE	REVISIONS / SUBMISSIONS	DATE

PROJECT NO.	C2015-037
DATE	JUNE 2017
DESIGNED	JP
DRAWN	RLJ
CHECKED	CAS
REVIEWED	CLT
SCALE	AS SHOWN

DRAWING TITLE  
**PROJECT NOTES,  
 PROJECT OVERVIEW &  
 STAGING AREAS**



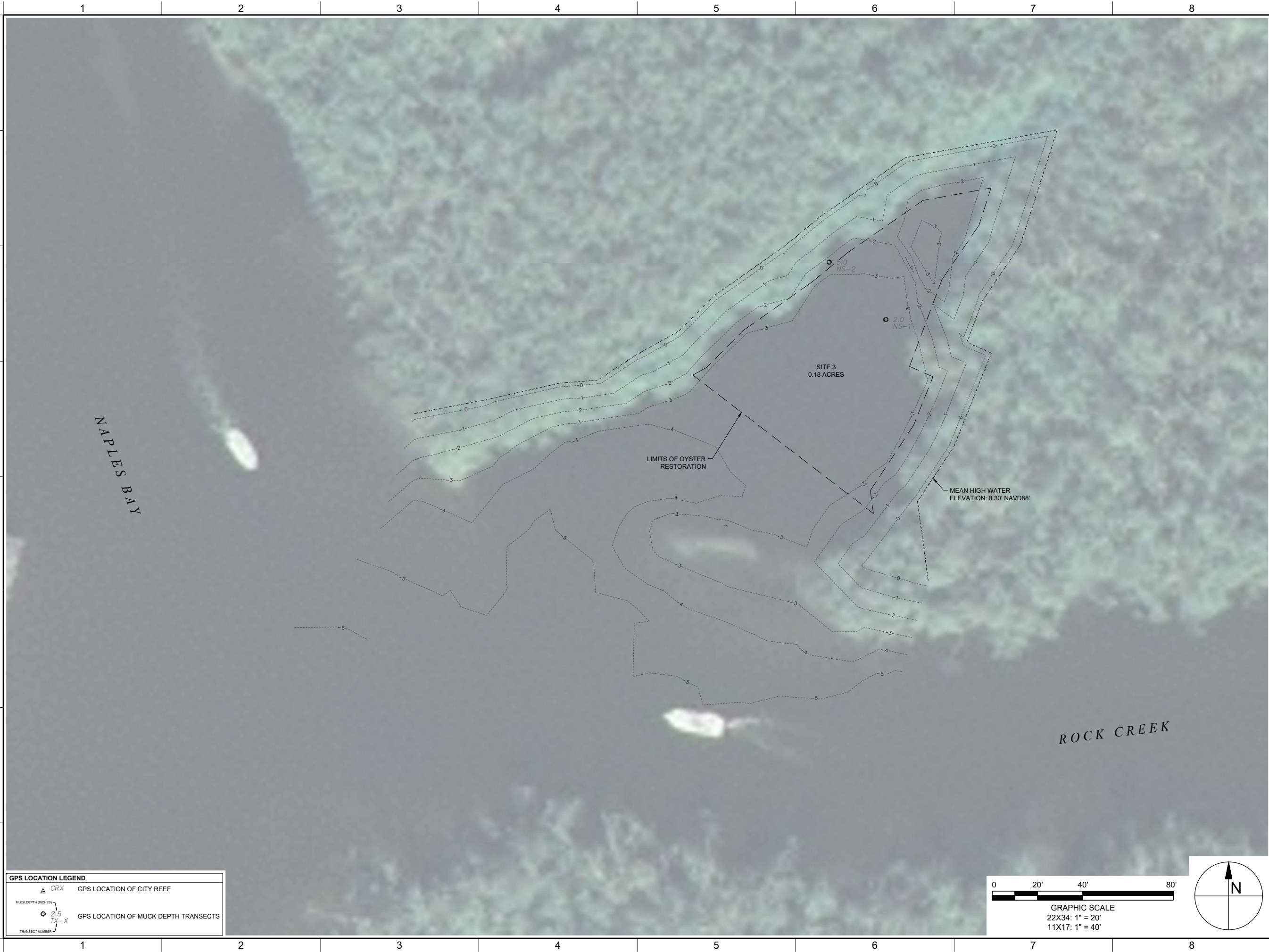






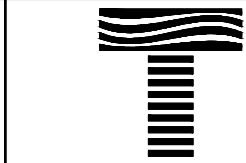
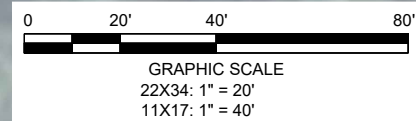


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**GPS LOCATION LEGEND**

	CRX	GPS LOCATION OF CITY REEF
	2.5 TX-X	GPS LOCATION OF MUCK DEPTH TRANSECTS



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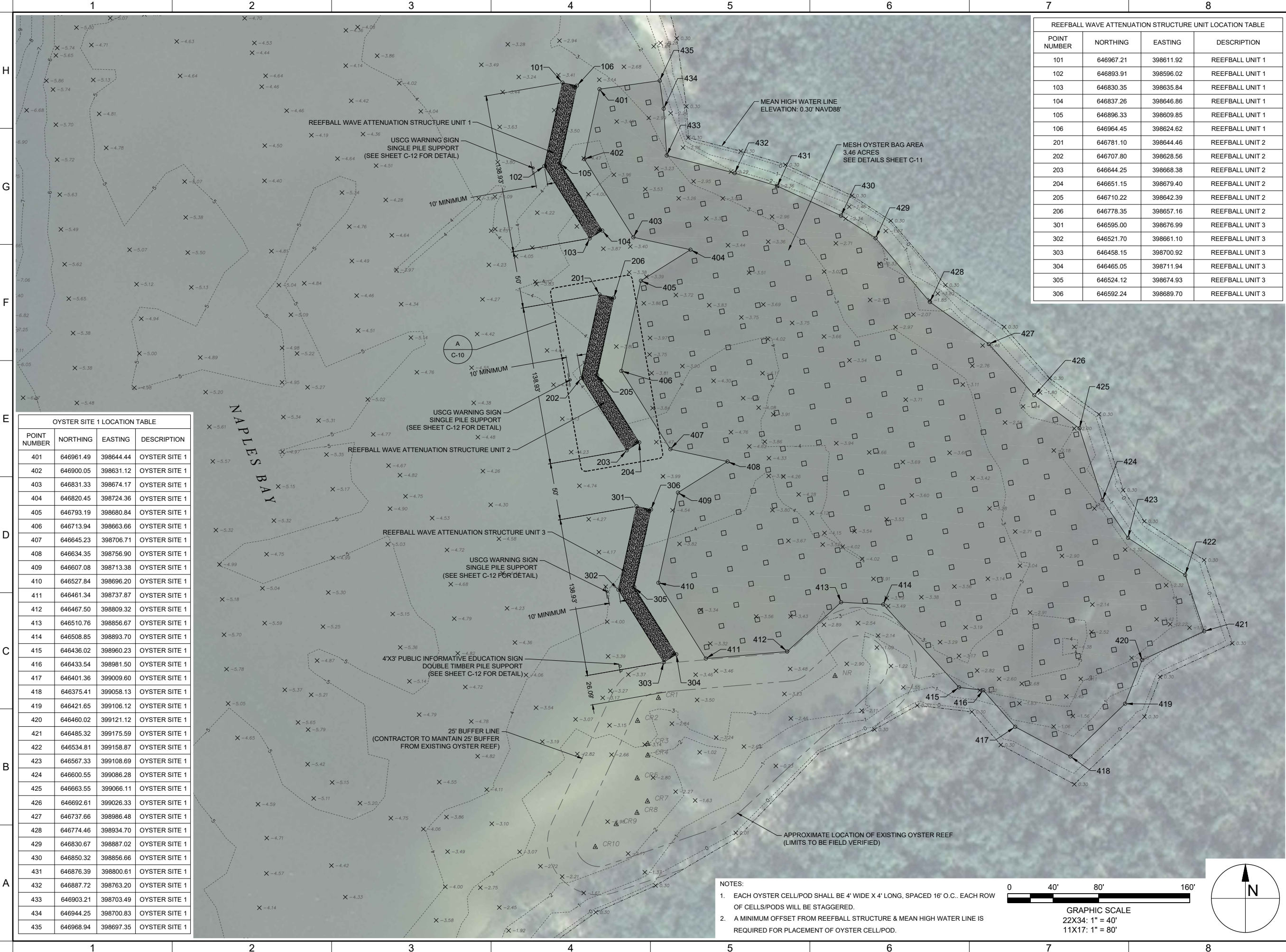
NO	ZONE	REVISIONS / SUBMISSIONS	DATE

PROJECT NO	C2015-037
DATE	JUNE 2017
DESIGNED	JP
DRAWN	RLJ
CHECKED	CAS
REVIEWED	CLT
SCALE	AS SHOWN

DRAWING TITLE  
**APPROXIMATE  
 MUCK DEPTHS  
 SITE 3**




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POINT NUMBER	NORTHING	EASTING	DESCRIPTION
101	646967.21	398611.92	REEFBALL UNIT 1
102	646893.91	398596.02	REEFBALL UNIT 1
103	646830.35	398635.84	REEFBALL UNIT 1
104	646837.26	398646.86	REEFBALL UNIT 1
105	646896.33	398609.85	REEFBALL UNIT 1
106	646964.45	398624.62	REEFBALL UNIT 1
201	646781.10	398644.46	REEFBALL UNIT 2
202	646707.80	398628.56	REEFBALL UNIT 2
203	646644.25	398668.38	REEFBALL UNIT 2
204	646651.15	398679.40	REEFBALL UNIT 2
205	646710.22	398642.39	REEFBALL UNIT 2
206	646778.35	398657.16	REEFBALL UNIT 2
301	646595.00	398676.99	REEFBALL UNIT 3
302	646521.70	398661.10	REEFBALL UNIT 3
303	646458.15	398700.92	REEFBALL UNIT 3
304	646465.05	398711.94	REEFBALL UNIT 3
305	646524.12	398674.93	REEFBALL UNIT 3
306	646592.24	398689.70	REEFBALL UNIT 3

POINT NUMBER	NORTHING	EASTING	DESCRIPTION
401	646961.49	398644.44	OYSTER SITE 1
402	646900.05	398631.12	OYSTER SITE 1
403	646831.33	398674.17	OYSTER SITE 1
404	646820.45	398724.36	OYSTER SITE 1
405	646793.19	398680.84	OYSTER SITE 1
406	646713.94	398663.66	OYSTER SITE 1
407	646645.23	398706.71	OYSTER SITE 1
408	646634.35	398756.90	OYSTER SITE 1
409	646607.08	398713.38	OYSTER SITE 1
410	646527.84	398696.20	OYSTER SITE 1
411	646461.34	398737.87	OYSTER SITE 1
412	646467.50	398809.32	OYSTER SITE 1
413	646510.76	398856.67	OYSTER SITE 1
414	646508.85	398893.70	OYSTER SITE 1
415	646436.02	398960.23	OYSTER SITE 1
416	646433.54	398981.50	OYSTER SITE 1
417	646401.36	399009.60	OYSTER SITE 1
418	646375.41	399058.13	OYSTER SITE 1
419	646421.65	399106.12	OYSTER SITE 1
420	646460.02	399121.12	OYSTER SITE 1
421	646485.32	399175.59	OYSTER SITE 1
422	646534.81	399158.87	OYSTER SITE 1
423	646567.33	399108.69	OYSTER SITE 1
424	646600.55	399086.28	OYSTER SITE 1
425	646663.55	399066.11	OYSTER SITE 1
426	646692.61	399026.33	OYSTER SITE 1
427	646737.66	398986.48	OYSTER SITE 1
428	646774.46	398934.70	OYSTER SITE 1
429	646830.67	398887.02	OYSTER SITE 1
430	646850.32	398856.66	OYSTER SITE 1
431	646876.39	398800.61	OYSTER SITE 1
432	646887.72	398763.20	OYSTER SITE 1
433	646903.21	398703.49	OYSTER SITE 1
434	646944.25	398700.83	OYSTER SITE 1
435	646968.94	398697.35	OYSTER SITE 1



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REVIEWED	CLT
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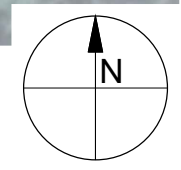
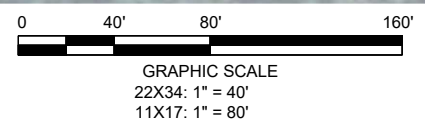
**DRAWING TITLE**  
**SITE PLAN SITE 1**

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**C-7**

SHEET 7 OF 13

- NOTES:**
- EACH OYSTER CELL/POD SHALL BE 4' WIDE X 4' LONG, SPACED 16' O.C.. EACH ROW OF CELLS/PODS WILL BE STAGGERED.
  - A MINIMUM OFFSET FROM REEFBALL STRUCTURE & MEAN HIGH WATER LINE IS REQUIRED FOR PLACEMENT OF OYSTER CELL/POD.







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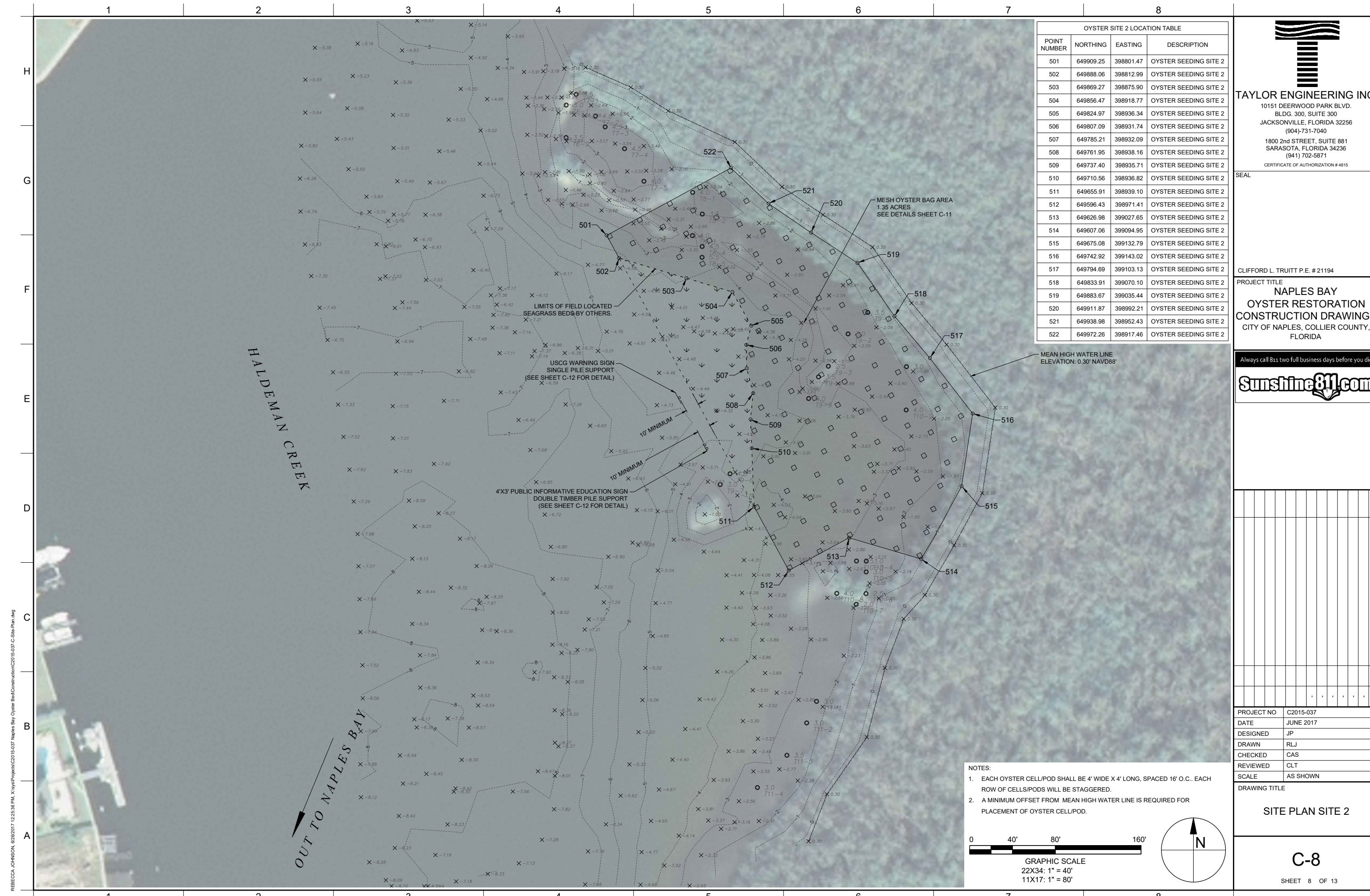
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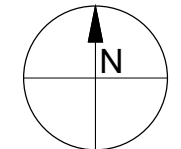
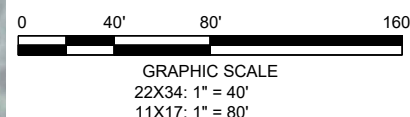
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OYSTER SITE 2 LOCATION TABLE			
POINT NUMBER	NORTHING	EASTING	DESCRIPTION
501	649909.25	398801.47	OYSTER SEEDING SITE 2
502	649888.06	398812.99	OYSTER SEEDING SITE 2
503	649869.27	398875.90	OYSTER SEEDING SITE 2
504	649856.47	398918.77	OYSTER SEEDING SITE 2
505	649824.97	398936.34	OYSTER SEEDING SITE 2
506	649807.09	398931.74	OYSTER SEEDING SITE 2
507	649785.21	398932.09	OYSTER SEEDING SITE 2
508	649761.95	398938.16	OYSTER SEEDING SITE 2
509	649737.40	398935.71	OYSTER SEEDING SITE 2
510	649710.56	398936.82	OYSTER SEEDING SITE 2
511	649655.91	398939.10	OYSTER SEEDING SITE 2
512	649596.43	398971.41	OYSTER SEEDING SITE 2
513	649626.98	399027.65	OYSTER SEEDING SITE 2
514	649607.06	399094.95	OYSTER SEEDING SITE 2
515	649675.08	399132.79	OYSTER SEEDING SITE 2
516	649742.92	399143.02	OYSTER SEEDING SITE 2
517	649794.69	399103.13	OYSTER SEEDING SITE 2
518	649833.91	399070.10	OYSTER SEEDING SITE 2
519	649883.67	399035.44	OYSTER SEEDING SITE 2
520	649911.87	398992.21	OYSTER SEEDING SITE 2
521	649938.98	398952.43	OYSTER SEEDING SITE 2
522	649972.26	398917.46	OYSTER SEEDING SITE 2



NOTES:  
 1. EACH OYSTER CELL/POD SHALL BE 4' WIDE X 4' LONG, SPACED 16' O.C.. EACH ROW OF CELLS/PODS WILL BE STAGGERED.  
 2. A MINIMUM OFFSET FROM MEAN HIGH WATER LINE IS REQUIRED FOR PLACEMENT OF OYSTER CELL/POD.



REBECCA JOHNSON: 6/26/2017 12:26:36 PM: X:\projects\Naples Bay Oyster Bed Construction\2015-037-C-8-Site Plan.dwg

DATE	REVISIONS / SUBMISSIONS	NO	ZONE

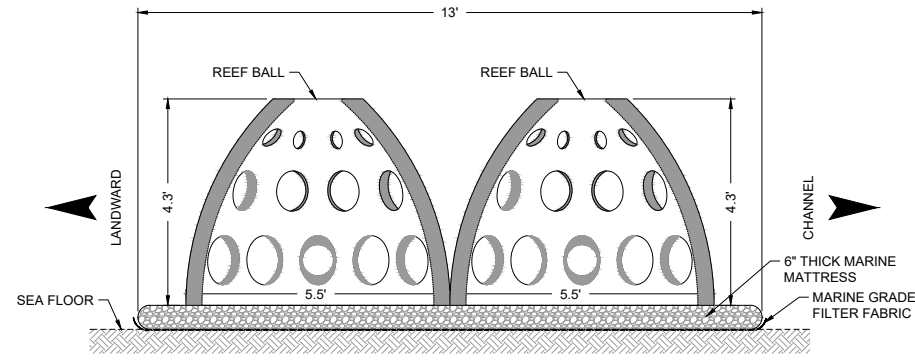
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DATE	JUNE 2017
DESIGNED	JP
DRAWN	RLJ
CHECKED	CAS
REVIEWED	CLT
SCALE	AS SHOWN

DRAWING TITLE  
**SITE PLAN SITE 2**





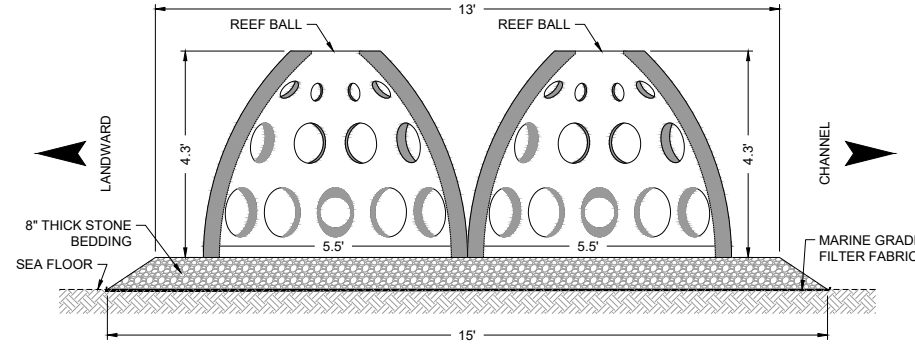




REEF BALL WAVE ATTENUATION STRUCTURE CONFIGURATION CROSS SECTION  
OPTION 1 - 6" THICK MARINE MATTRESS

B-B  
C-10

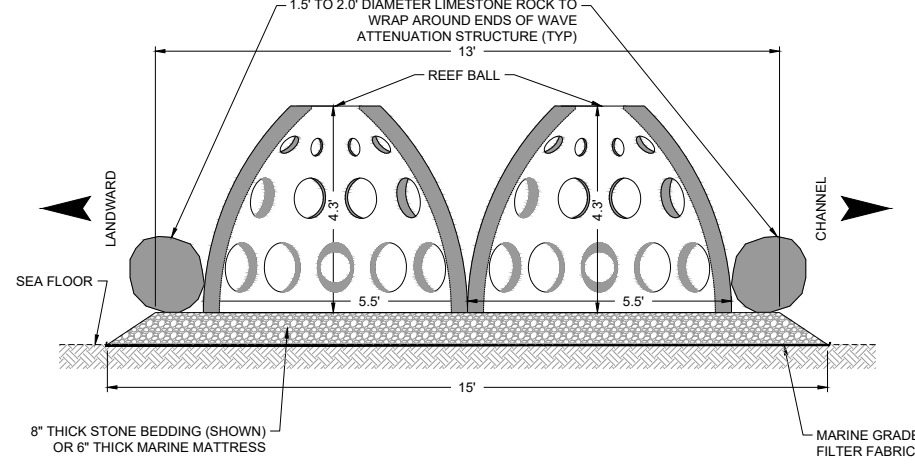
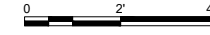
22X34: 1" = 2'  
11X17: 1" = 4'



REEF BALL WAVE ATTENUATION STRUCTURE CONFIGURATION CROSS SECTION  
OPTION 2 - 8" THICK BEDDING STONE

B-B  
C-10

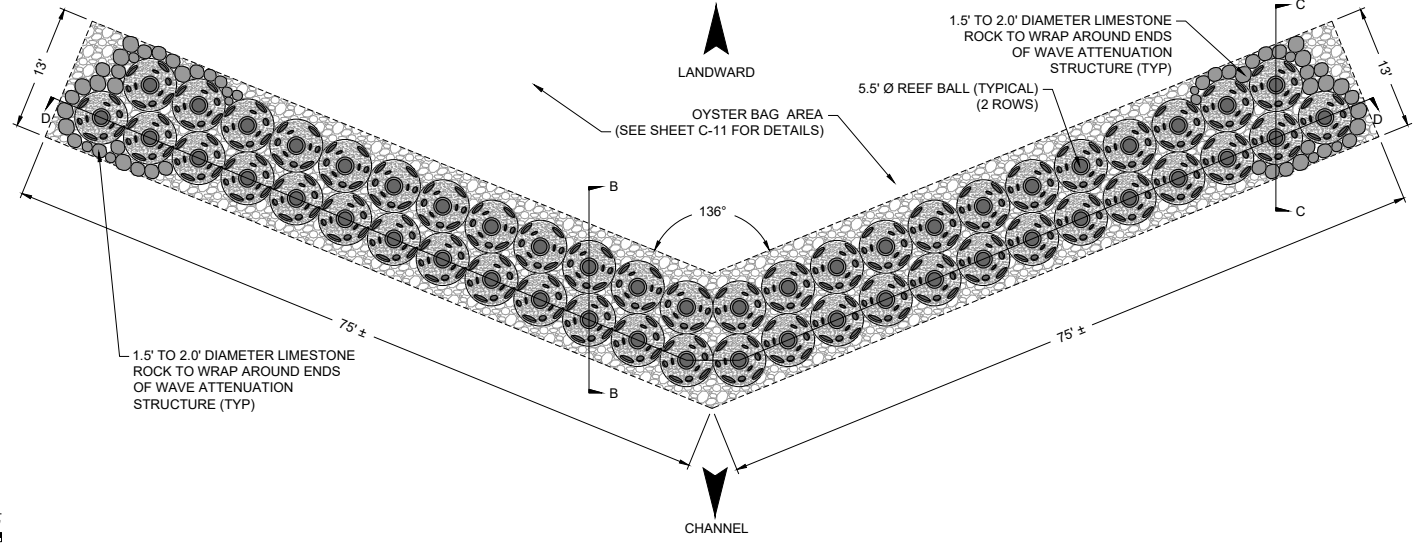
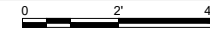
22X34: 1" = 2'  
11X17: 1" = 4'



REEF BALL WAVE ATTENUATION STRUCTURE CONFIGURATION CROSS SECTION  
AT ENDS OF UNIT WITH STONE WRAP AROUND

C-C  
C-10

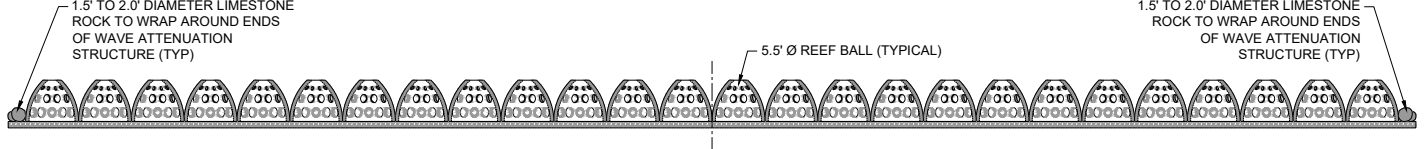
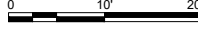
22X34: 1" = 2'  
11X17: 1" = 4'



REEF BALL WAVE ATTENUATION STRUCTURE CONFIGURATION PLAN VIEW TYPICAL DETAIL

A  
C-7

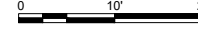
22X34: 1" = 10'  
11X17: 1" = 20'



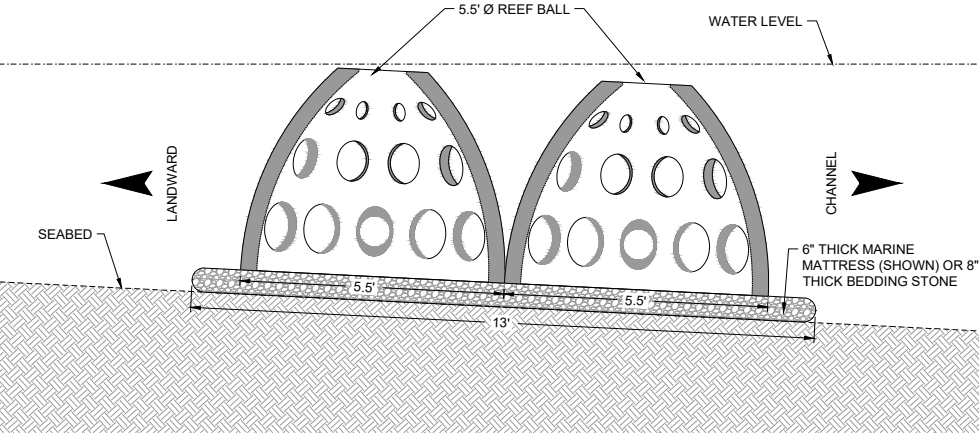
REEF BALL WAVE ATTENUATION STRUCTURE CONFIGURATION PROFILE SECTION DETAIL

D-D  
C-10

22X34: 1" = 10'  
11X17: 1" = 20'

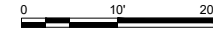


NOTE: OYSTER BAGS TO BE PLACED IN LEE OF WAVE ATTENUATION STRUCTURE STRUCTURES, ALONG SHORELINES, AND WITHIN EXISTING NATURAL OYSTER REEF AREAS.



REEF BALL WAVE ATTENUATION STRUCTURE CONFIGURATION SECTION VIEW TYPICAL DETAIL

22X34: 1" = 10'  
11X17: 1" = 20'



TAYLOR ENGINEERING INC.  
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(941) 702-5871  
CERTIFICATE OF AUTHORIZATION # 4815

CLIFFORD L. TRUITT P.E. # 21194  
PROJECT TITLE  
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**OYSTER RESTORATION**  
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CITY OF NAPLES, COLlier COUNTY,  
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NO.	DATE	REVISIONS / SUBMISSIONS	ZONE

PROJECT NO	C2015-037
DATE	JUNE 2017
DESIGNED	JP
DRAWN	RLJ
CHECKED	CAS
REVIEWED	CLT
SCALE	AS SHOWN

DRAWING TITLE  
**WAVE ATTENUATION**  
**STRUCTURE**  
**TYPICAL DETAILS**

REBECCA JOHNSON, 6/26/2017 12:26:53 PM, X:\sys\Projects\C2015-037 Naples Bay Oyster Reef Construction\C2015-037-C-Details.dwg











