

Wetlands and Coastal Dune Board

Public Hearing and Regular Meeting Agenda

November 14, 2016

Cape Charles Town Hall Conference Room – 2 Plum Street

4:00 P.M.

- 1. Call to Order; Roll Call**
- 2. Consent Agenda**
 - a. Approval of Agenda Format**
 - b. Approval of Minutes**
- 3. Hearings on the matter of:**
 - a. JPA 16-1674 Cape Charles beachfront, corner of Bay Avenue and Mason Avenue – installation of stormwater outfall protection over approximately 300 square feet of riprap stone**
 - Overview of application**
 - Applicant's presentation**
 - Public comments**
 - Board discussion\deliberation**
 - Decision**
- 4. Adjourn**



DRAFT
Wetlands/Coastal Dune Board
Public Hearing and Regular Meeting
Civic Center
July 27, 2016
6:00 p.m.

At approximately 6:00 p.m., Chairwoman Ann Hayward Walker, having established a quorum, called to order the Wetlands/Coastal Dune Board Meeting. Board members Russ Dunton, Bob Roche, Joe Fehrer and Bill Prickett were in attendance. Also present were Councilwoman Joan Natali, Town Planner Larry DiRe, Assistant Town Clerk Tracy Outten, Hank Badger, Virginia Marine Resources Commission (VMRC), the applicants and three members of the United States Coast Guard (USCG). There were two members of the public in attendance.

Chairwoman Ann Hayward Walker welcomed the Board and all others in attendance which was followed by the Pledge of Allegiance.

CONSENT AGENDA

Motion made by Joe Fehrer, seconded by Bob Roche, to accept the agenda as written. The motion was unanimously approved.

The Board reviewed the minutes from the June 15, 2016 Regular Meeting and Public Information Meeting.

Motion made by Russ Dutton, seconded by Bob Roche, to accept the minutes of the June 15, 2016 Regular Meeting and Public Information Meeting as presented. The motion was approved by majority vote. Bill Prickett abstained from voting.

The Board reviewed the minutes from the July 20, 2016 Work Session.

Motion made by Joe Fehrer, seconded by Russ Dunton, to accept the minutes of the July 20, 2016 Work Session as presented. The motion was approved by majority vote. Bill Prickett abstained from voting.

HEARINGS

- A. *JPA 16-0860 3 Bay Vistas Way – 184 linear feet of revetment stone and beach access steps*
Town Planner Larry DiRe read his staff report which included background, application and recommendations. The following was discussed. (i) Applicants John and Beth Calder's Engineer, Wayne McCoy, President of Mid Atlantic Environmental LLC explained the project and presented the board with a few handouts (Please see attached.); (ii) Ann Hayward Walker read the VIMS Tidal Shoreline Management Recommendation for VMRC #16-0860 (Please see attached). Wayne McCoy stated he had spoken to the VIMS since the initial report but did not have another report; (iii) Joe Fehrer asked about the missing Adjacent Property Owner's letter; which was then provided by Mr. McCoy. (iv) Wayne McCoy recommended to the Board that the application be deferred for 30 days to allow the Virginia Institute of Marine Science (VIMS) time for an on-site visit and provide a report. Hank Badger suggested the board request the report from VIMS; (v) Joe Fehrer and Russ Dunton expressed concerns of future ripraps being built if this one was approved.

Motion made by Russ Dunton and Bill Prickett, seconded by Bob Roche, to continue the JPA 16-0860 3 Bay Vistas Way application pending the VIMS report. The motion was unanimously approved.

B. JPA 16-0882 Tax map # 83A-A-19 (1011 Bayshore Road) Construct five finger piers and ten mooring pilings

Town Planner Larry DiRe read his staff report which included background, application and recommendations. Discussion was as follows: (i) Eyre Baldwin, South Port Investors, LLC, gave the board an overview of what was being proposed; (ii) Ann Hayward Walker asked if there were any public comments. A member of the USCG approached the board and explained that no comments were ready to be presented at this time. The USCG was working with the Army Corps of Engineers to get a formal comment. Russ Dutton and Ann Hayward Walker both agreed since no objections were printed, the Wetlands and Coastal Dune Board would vote.

Motion made by Bill Prickett, seconded by Bob Roche, to approve the application for JPA 16-0882 Tax map # 83A-A-19 as presented. The motion was approved by majority vote. Russ Dunton and Joe Fehrer abstained from voting.

Motion made by Joe Fehrer, seconded by Bill Prickett, and unanimously approved to adjourn the Wetlands/Coastal Dune Board Meeting.

Chairwoman Ann Hayward Walker

Assistant Town Clerk



DRAFT
Wetlands/Coastal Dune Board
Regular Meeting
Civic Center
September 26, 2016
4:00 p.m.

At approximately 4:00 p.m., Chairwoman Ann Hayward Walker, having established a quorum, called to order the Wetlands/Coastal Dune Board Meeting. Board members Russ Dunton, Joe Fehrer, Bill Prickett and Bob Roche were in attendance. Also present were Town Planner Larry DiRe and Town Clerk Libby Hume. There were no members of the public in attendance.

The Pledge of Allegiance was recited by all in attendance.

CONSENT AGENDA

Motion made by Russ Dunton, seconded by Bob Roche, to approve the agenda as presented. The motion was approved by unanimous vote.

The Board reviewed the minutes for the August 25, 2016 Reconvened Meeting and the August 31, 2016 Work Session.

Motion made by Bill Prickett, seconded by Russ Dunton, to approve the minutes from the August 25, 2016 Reconvened Meeting and the August 31, 2016 Work Session as presented. The motion was approved by unanimous vote.

NEW BUSINESS

There was no New Business to review.

OLD BUSINESS

A. *Approval of Final Public Beach Recommendations to Send to Town Council:*

Ann Hayward Walker informed the Board that she made the following modifications to the recommendations presentation that was included in the agenda packet: i) She added the names of the board members to the cover slide; and ii) She added the cost estimates for routine monitoring by the Virginia Institute of Marine Science (VIMS) and aerial photography. There was much discussion regarding the presentation. (Please see attached.)

Motion made by Joe Fehrer, seconded by Russ Dunton, to change the cover slide to include the names of the board members and item 29 to include the information received from Scott Hardaway and the VIMS. The motion was approved by unanimous vote.

Motion made by Bill Prickett, seconded by Bob Roche, to submit the report, with the two changes, to the town. The motion was approved by unanimous vote.

Ann Hayward Walker stated that she would follow-up with the U.S. Army Corps of Engineers (USACE) and ask that they contact her if it was decided to plant earlier than November 15, 2016. There was much discussion regarding the following: i) The entire north end needed vegetation from the sand fence to the boardwalk; ii) The large area to the south needed vegetation as well and it was hopeful that there would be enough plants to close the large area; iii) The USACE would fill in the landward side. If the fence was moved to the recommended location prior to planting, it should be fine. Ann Hayward

Walker would send an email to the town manager with items needing to be done by town staff urging him to make it a priority for the Public Works crew. The list did not include anything that had not previously been discussed and the costs to the town to move the fence posts would be minimal; iv) Board members would be available to answer any questions from staff; v) The costs to keep the sand off the walkways and sidewalk were also minimal, but the costs would be higher to reconstruct the walkways and for beach nourishment when needed. Per FEMA, the town must include funding in the annual budget for beach maintenance/replenishment in order to remain eligible for FEMA assistance. Inclusion of funding for beach replenishment was also included in the recommendations to Council; vi) The beach project had the attention of the Town Council and staff mostly due to the work of the Wetlands Board and the beach maintenance plan needed to remain a high priority; and vii) The Board would follow-up periodically to ensure that the critical items were being done. If they weren't done in a timely manner, it would be a waste of money and resources.

The Board agreed to reconvene after the USACE completed the beach grass planting.

There was some discussion regarding the Board's request to update its charter. Russ Dunton stated that the Wetlands Board was created under state code and it would be more practical to have the Town Council designate the Wetlands Board as the Beach Management Advisory Board.

The Board members expressed their appreciation to Ann Hayward Walker for all her hard work in putting the presentation together. It was noted that having Mr. Lee Perkins, with his 30 years of experience, come to town to provide his assistance was a huge help.

Motion made by Joe Fehrer, seconded by Bob Roche, to adjourn the Wetlands/Coastal Dune Board Meeting. The motion was approved by unanimous vote.

The meeting adjourned at 4:33 p.m.

Chairwoman Ann Hayward Walker

Town Clerk

Public Beach Recommendations

Cape Charles Wetlands – Coastal Dune Board

September 26, 2016

Ann Hayward Walker, Chair; Russ Dunton; Joe Fehrer; Bill Prickett; Bob Roche

Final Recommendations

1

Immediate Recommendations – page 1

(Prior to USACE planting of ABG, which will be “no earlier than Nov. 15” per the contractor Planting Plan)

1. Town – To protect pier from drifting sand, make permanent access for people and equipment next to the pier. To do this, adjust the new sand fence to the new permanent access opening (away from the pier and against the toe of the dune) **NO LATER THAN NOV 1st**.
2. Town - Close the existing access between Mason and Randolph by adjusting the new sand fence to be in front of it **NO LATER THAN NOV 1st** (optional – fill in the gap in the middle of the dune with sand). Leave the large flat area in front for gathering/picnic tables on the boardwalk side.
3. Town – Adjust new sand fence at Jefferson to open access pathway there **NO LATER THAN NOV. 1st**.
4. Town - Close access at Neptune statue (adjust new sand fence and fill in); also widen access for pedestrians and equipment at the foot of Washington Ave. (near where the stones protect the outfall) **NO LATER NOV. 1st**
5. Town - Move volleyball courts away from the base of the dunes to the south and higher areas with more sand **NO LATER NOV. 1st**
6. Town – At Madison Ave., extend sand fences and angle access walkway away from the north winds **NO LATER NOV. 1st**

9/20/2016

Final Recommendations

2

Immediate Recommendations – page 2

(Prior to USACE planting of ABG, which will be “no earlier than Nov. 15” per ERM Planting Plan)

7. Board to request for clarification from USACE **NLT Oct. 7th**. Paragraph 2 of “Installation Summary early to mid winter” - there is no dune per se, therefore suggest to clarify to contractor to vegetate from boardwalk to fence for the area from Stations 0+00 to 6+00
8. Town - Remove temporary silt fence at north end **when the USACE begins planting** so area can be completely planted
9. Town - **Purchase now** /order ABG to be planted later – need to order in advance so grass can be grown! (about \$70 for 1000 scrapes/plants; Norfolk source: Peter McClintock, Emerald Forest in Norfolk for ABG and other plants <http://www.emeraldforestnursery.com/>) ; also see suppliers in USACE Planting Plan. Larry DiRe and John Lockwood to calculate number of plants needed.
10. Town – Spray to kill the sedge grass **ASAP** before it goes dormant. Use Round up with dye. See photos of sedge on the next page; don’t spray other plants. Joe Fehrer has the dye and will accompany Public Works Superintendent, John Lockwood.

9/20/2016

Final Recommendations

3

Recommendations to implement fall 2016, **prior to Jan. 15, 2017**

11. Town – To prevent sand from blowing into the pier and harbor, install 3-4 rows of sand fencing running east-west mid-beach (not all the way to the water) between Randolph Ave. and the jetty, just for the winter months. Remove this fence before beach season.
12. Town – Monitor the sand at the north end. If it starts to blow and move, install silt fencing to mitigate sand blowing during the winter, in layout to be discussed with Board
13. Town – Identify volunteers to plant ABG in Jan.-Feb. Possibilities – The Nature Conservancy, schools, New Roots, others
14. Town – Public Works Superintendent to develop a winter sand maintenance plan, with Board review, to keep sand out of street, clear sidewalks, and install winter fencing

9/20/2016

Final Recommendations

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Recommendations for Jan. - Mar. 2017

page 1

15. Town – Plant ABG where thick grass growth is needed to create lower /wider dunes in the broad parts of the beach (photos on slide 12). Board will provide recommendations on locations needing more ABG.
16. Town – According to the plan (Rec. #14), stay on top of keeping boardwalk, street/curbs, and all sidewalks clear of sand for pedestrian safety, e.g., Bay Ave. sidewalk in front of 1 Madison Ave. Deposit sand back on the north end of the beach.
 - This is not the responsibility of property owners!
17. Board/Town – Review City of Norfolk slides 46-48 at <http://www.norfolk.gov/DocumentCenter/View/20818> for details on plant cost (and other slides for related issues, benefits, access)

9/20/2016

Final Recommendations

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Recommendations for Jan.- Mar. 2017

page 2

18. Town – Purchase 1000 *Spartina patens* springs to catch sand and build up beach in low area between Monroe and Madison Aves. (which is prone to over wash, e.g., storm on 9/3). Board (Dunton lead) to assist with planting a 4' strip of *Spartina patens* seaward about 35' dune.

- This grass will tolerate salt water which ABG will not.
- This will give ABG space and time to extend seaward and build lower, wider dune.

One small patch of *Spartina patens* is on beach in that area now. Photo 9/10/16



9/20/2016

Final Recommendations

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Recommendations for Spring and Summer 2017

19. Town – Stop grooming/any mechanical activity in the upper beach near dunes; grooming lower beach by the water is OK during the summer season
20. Town - For any newly forming dunes at the north end on boardwalk side, leave/clear at least 5' buffer between toe of dune and the boardwalk
21. Town - Refine/replant street side of dunes (in 5' minimum path next to boardwalk). Town planner, Board to develop a vegetation plan for the length of the boardwalk. Example plant considerations:
 - Panicum amarum 'Dewey Blue' Switchgrass or beach grass is good on the street/back side of the dune (doesn't like salt and wind as much as ABG)
 - Remove trumpet vine that is encroaching on boardwalk to simplify maintenance, plant other suitable plants
 - Review Norfolk guide, visit 27th St. demo site for ideas about plants (next slide) <http://www.norfolk.gov/DocumentCenter/View/3830> .

9/20/2016

Final Recommendations

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Additional Recommendations Going Forward – page 1

22. Town – When any excess sand is recovered, deposit on the north end
23. Town and board - Develop good practice guidance about using mechanical equipment on the beach for equipment operators and train, e.g., avoid emerging vegetation on beach
24. Plan and budget (equipment and labor) for ongoing maintenance - routine, preventative and proactive before storms, e.g.,
 - Keep boardwalk, streets/curbs, and sidewalks clear of sand (not the responsibility of property owners); perhaps rent Dan Dabinet's small front end loader
 - Annual planting of ABG as needed
 - After the tourist season, let beach naturalize over the winter (don't remove seaweed)
 - Budget for regular sand nourishment (regularly groom USACE spoil area to sustain as viable sand supply source, or sell and designate those funds for sand renourishment)
25. Town and board to develop new signage with positive wording (e.g., respect the dunes) and roped paths to protect dunes from foot traffic and mechanical equipment

9/20/2016

Final Recommendations

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Additional Recommendations – page 2

26. Update the Cape Charles Wetlands and Coastal Dune Board charter
 - Board to suggest wording in response to Councilwoman Natali's request; we suggest that the town establish Beach Advisory Board and ask this board to serve in that capacity, and to provide beach status report at the end of the tourist season (September) and at the end of the winter season (March) to advise before the summer season.
27. Town should develop a beach/sand/dune management plan
 - Board is willing to develop an initial suggested outline
 - Include recommendations for ongoing beach nourishment
 - Review gathered references and plans from other areas (provided by Board)
28. Ask USACE for their dune survey data; share with VIMS
29. Ask VIMS for a cost estimate to routinely monitor (and recommend frequency) the beach and dunes using their established GPS stations, the timing should mesh with the beach status report (Rec. #26)
 - VIMS rough estimate (9/26/16) to routinely survey (~ \$7,000) and monitor (aerial photographic monitoring ~ \$1500); twice a year and after major storms has been the general methodology for public beaches
30. Plan for/budget to construct dune-appropriate (open pile) walkways across the dunes (going forward the town should not cut thru the dunes to provide access but use fencing to direct people over the dune)

9/20/2016

Final Recommendations

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Background (Staff report 6/1/16)

- Over the past several years the Town has taken various steps as part of an overall beach sand management practices strategy. These include gathering data on dune height and using the public works department to perform regular cleaning and maintenance of the beach.
- Since March 2015 the Town beach has been the deposit site for approximately 80,000 cubic yards of dredge material as part of the US Army Corps of Engineers' federal harbor dredging project. The final phase in the current dredging cycle was carried out and an additional 30,000 cubic yards of dredge material was deposited at the north end of the beach.
 - USACE will install both fencing and sprigging as sand management practices following the deposition of dredge material (sand).
- The town asked the Board to review past and currently employed beach sand management practices and to make appropriate recommendations to Town Council:
 - Provide an opportunity for residents' input into the scale of the sand wind erosion problem,
 - Identify potential practices to mitigate future wind erosion events, and
 - Consider/identify possible synergies with the USACE sand deposition, fencing and sprigging.

9/10/2016

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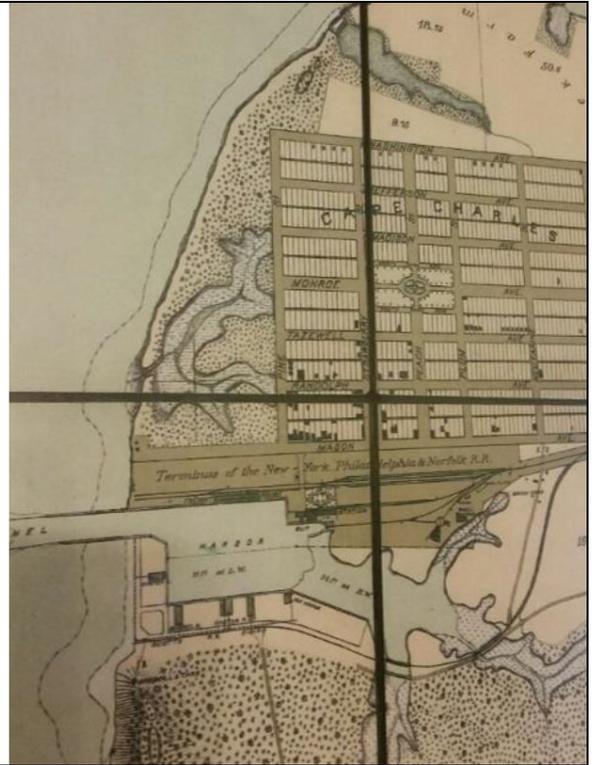
VIMS Report (Hardaway, 2004)

*Shoreline Evolution Chesapeake Bay Shoreline
Northampton County, Virginia*

- The Chesapeake Bay coast of Northampton County is very dynamic in terms of shoreline change and sediment transport processes.
- The overall net movement of sands along the coast is to the south. Long term trend for the county is about -1.0ft/year. Shoreline recession is the overall trend.
- Cape Charles = Reach II. Conventional thinking would indicate that the addition of large amount of sand from 1940s harbor dredging would enhance and provide large volumes of sand to the southern, "downdrift" shorelines, possibly even causing more infilling to Old Plantation Creek. It appears, however, that the opposite has happened. The dredge material has moved mostly offshore to form a large shoal which, in turn, may have impacted the local wave climate. The sand fill has been reduced but remains a significant headland.

9/10/2016

Part of survey map of Scott Estate, 1887



Additional Activities

- Public input
 - Information Meeting – June 15, 2016
 - Questionnaire
- City of Norfolk Rep Visit – July 26, 2016 (with Board)
 - Pre-sand deposition
- Board working sessions – June 1, July 20, August 31
- Board beach walks – 10, 19 Sept. 2016
 - Post-sand deposition and post-fence installation

9/20/2016

(Town logo)

Wetlands and Coastal Dune Board—Public Comment—Sand Management
June 15, 2016

Please take this opportunity to express your thoughts, interests, and/or concerns regarding the management of the sand and dunes along the public beach in our town of Cape Charles, VA. We look forward to reviewing your comments and thank you for your interest in our community!

Name: _____ (you can choose to remain anonymous)
Address: _____
How long have you lived in/visited Cape Charles? _____

- 1) How is the beach important to you?
- 2) Has the blowing sand and/or dunes affected your property or business? If so, how?
- 3) What questions or concerns do you have regarding the sand dunes, given the dynamic nature of sand movement by high winds and storm surge?
- 4) Do you have any historical observations about the beach, sand, and/or dunes that you believe are important to future planning?
- 5) Other comments, suggestions:

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Relevant Language from the CC Comp Plan

(no particular order)

- Protect public beach from degradation (continue with beach nourishment) for present and future generations
- Preserve the integrity of and accessibility to the water's edge
- Control dune, beach and shoreline erosion
- Enhance the beach as an amenity for residents and visitors
- Protect amenity - views of beach (and harbor)
- Natural erosion of the shoreline must be abated to maintain the safety of the residents' homes, welfare and recreational opportunities
- Protect and preserve the coastal dunes
- Establish a plan for funding continual maintenance and sand replenishment of the beach

9/10/2016

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Multiple Town Goals and Priorities

(some competing priorities)

- Make the best of the USACE beach nourishment opportunity
- Town beach is known for sunset views – especially at north end
- Beach is vital town asset (both resident recreation and tourism-based economy)
- Sand management - Maximize sand retention on beach, prevent sand migration landward to Bay Ave.
- Dune management - Stabilize dunes for wave attenuation and protection of public property by low, wide dune profile going forward
- Implement actions to avoid jeopardizing FEMA funding when needed after storms

9/10/2016

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Noteworthy Points from Review

(Public questionnaires scanned & attached)

- Highlights of public questionnaires (7 returned)
 - Importance of view; dunes block view; need to keep sand off streets, sidewalks, and property; sand has caused property damage and blocked beach and fishing pier access; diminished view; preferred height of dunes (some suggested NTE 3' above boardwalk); disbelief of dunes preventing danger from storms; also some recognized value of dunes and to keep people off them
- City of Norfolk, Manager of Environmental Services (30+ years beach and dune mgmt.)
 - Bay front shore; similar beach/sand/dune management issues, including dunes blocking view by adjacent traditional houses
 - Difference – public boardwalk and street is next to dunes, then houses
 - Provided specific guidance points for managing the sand, beach, and dunes
 - **The essential value of dunes is to attenuate waves and mitigate damage.**
 - In case of Cape Charles – protect public property of boardwalk and street

9/10/2016

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About Dune Height

- The Board has given serious consideration to citizens requests for establishing a set dune height, e. g, 3' above boardwalk which is 8.5' above sea level, to be maintained
- After reviewing the many gathered plans, guidelines, and studies, as well as speaking with both scientific (Scott Hardaway at VIMS) and practitioner experts (Lee Perkins, City of Norfolk), this board is unable to justify the lowering of existing dunes to a specific height
 - Leave existing dunes, extend them seaward AND PLANT with American Beach Grass (ABG) to trap sand on beach and prevent the dunes from becoming taller

9/10/2016

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Beach and sand movement is dynamic, therefore

- Beach sand needs continuing management and nourishment
- Dunes with plants help stabilize sand migration landward

8/9/2015



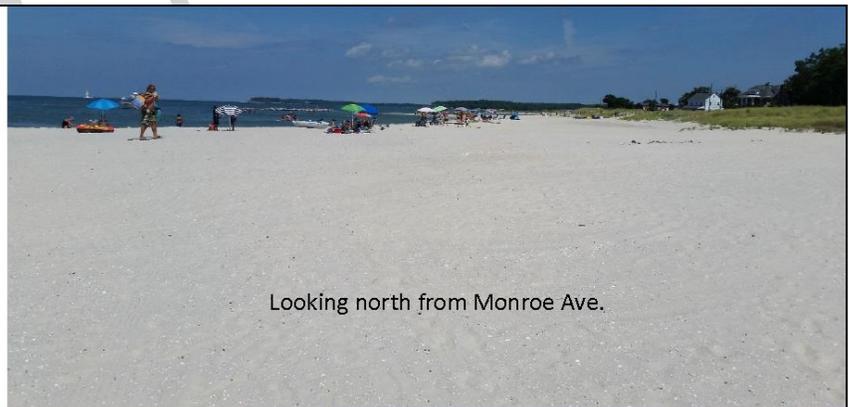
8/30/2016



19

Considerations and Observations

- Public uses beach at water's edge, not the entire beach face
- There is adequate space to extend low dunes to mid-beach to help retain sand and prevent sand migration (as Norfolk has done successfully)



Looking north from Monroe Ave.



Looking south from Monroe Ave.

20

Norfolk has extended dunes seaward, lower and wider, to attenuate wave damage and stabilize sand



East Ocean View

East Beach dunes 2004



21

City of Norfolk – Approach and Results



22

About Dune Plants

- American Beach Grass (ABG) is best for seaward side of dune
 - Cost is about \$70 for 1,000 plants
 - Planting density – Plant 9" deep, and 3 cols minimum per hole (they compete to take hold) – promotes thicker growth faster
 - Best time to plant – Jan-Feb; they should hit their peak growth by the end of June. Takes about 3-5 years for ABG planting to mature.
- Other plants for the landward side
 - Panicum amarum 'Dewey Blue' Switchgrass or beach grass is good on the street/back side of the dune (doesn't like salt and wind as much as ABG)
 - 3-leaf vine is dune bean



9/10/2016

Invasive Plant at South End

Japanese Sedge –photo below from town beach (7/26/16)

Root secretion kills ABG



Spike grows, hardens, is a safety hazard



24

Eradicate Japanese Sedge by Round-up (See Norfolk slides 111-119)

Photos on CC beach 9/10/11



DRAFT

Wetlands and Dune Board Staff Report

From: Larry DiRe 
Date: November 14, 2016
Item: 3A- JPA 16-1674 Cape Charles beachfront Bay Avenue\Mason Avenue
Attachments: Application, photos, project area map, VMRC report

Background

The Cape Charles Wetlands and Dune Board received this permit application submitted by the Town's public works department. This application is to install stormwater outfall protection over approximately 300 square feet bed of riprap stone. The project is proposed to be constructed from the land side and does not involve state-owned waters or bottomlands. Letters were mailed to relevant state and federal agencies and to date November 7th no comments or objections have been posted.

Item Specifics

According to the applicant, the reason for this request is to extend the stormwater outfall into the harbor to the point where it will not be covered by sand. The applicant states that access to the work area will be by the uplands and any traffic in the wetlands will be kept to a minimum. The Virginia Department of Transportation will be assisting with this project and their Senior Natural Resources Specialist did a site visit and found no issues of concern. The following are features of the proposed work plan:

- There are no vegetated wetlands to be impacted by the project.
- Equipment access will be by way of the uplands.
- Primary purpose is to elevate the outfall on the bed of riprap stone.
- No stock piling of materials will be done on the beach or any wetlands.
- Proposed outfall concrete pipe will be above mean low water.
- Proposed riprap bed is composed of VDOT number 1 course aggregate stone (2 -3 inches).

The Virginia Marine Resources Commission (VMRC) is not requiring a permit.

Recommendation

Review the application materials, photos and public comment. After discussion, determine whether issuance of the permit would be appropriate. It should be noted that approval by this Board is valid only for the local Wetlands Board, and authorization from all other necessary agencies is required prior to any work being done.

Howell, Beth (MRC)

From: Badger, Hank (MRC)
Sent: Wednesday, October 12, 2016 12:59 PM
To: Howell, Beth (MRC)
Cc: Dave Fauber
Subject: FW: Cape Charles
Attachments: Application.pdf; Site Map.pdf; 04-6-24 Army Corps Inspection.pdf; Cape Charles 5 Top View.pdf; Cape Charles 5 Section.pdf; Cape Charles 4 East Elevation.pdf; Cape Charles 3 East Elevation with Water Line.pdf; Cape Charles 2 Site Topo with Water Line.pdf; Cape Charles 1 Section with Water Line.pdf

Beth,
Attached is a JPA from the Town of Cape Charles.
Hank

-----Original Message-----

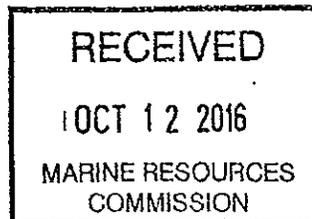
From: Dave Fauber [<mailto:dave.fauber@capecharles.org>]
Sent: Friday, October 07, 2016 2:36 PM
To: Badger, Hank (MRC)
Subject: Cape Charles

Hank,

We want to extend a storm water outfall into the harbor to a point where it will not continue to get covered over with sand. VDOT will be assisting us in the effort. Their Senior Natural Resource Specialist, Mike Mussomelli has visited the site and doesn't see any issues.

Thanks

David Fauber
Director of Public Works
Cape Charles, VA
(757) 331-2176, Ext. 17
Fax (757) 331-4820



Part 1-General Information

PLEASE PRINT OR TYPE ALL RESPONSES: If a question does not apply to your project, please print *N/A* (not applicable) in the block or space provided. If additional space is needed, attach 8-1/2" x 11" sheets of paper.

County or City in which the project is located: <u>Cape Charles</u>
Waterway at project site: <u>Chesapeake Bay</u>

1. Applicant's name* and complete mailing address: Contact Information:
 David Fauber Home () _____
 Director of Public Works Work 331'2176 x17
 2 Plum Street Fax 331-4820
 Cape Charles, VA 23310 Cell/ Pager 695-1025
e-mail dave.fauber@capecharles.org
State Corporation Commission ID Number (if applicable) 54-6001186

2. Property owner(s) name* and complete address, Contact Information:
 if different from applicant Home () _____
Work () _____
Fax () _____
Cell/ Pager () _____
e-mail _____
 State Corporation Commission ID Number (if applicable) _____

3. Authorized agent name* and complete mailing Contact Information:
 address (if applicable): Home () _____
Wrk () _____
Fax () _____
Cell/ Pager () _____
e-mail _____
 State Corporation Commission ID Number (if applicable) _____

* If multiple applicants, property owners, and/or agents, each must be listed and each must sign the applicant signature page. If for a company, use the SCC registered name.

4. Provide a detailed description of the project in the space below. If additional space is needed, provide a separate sheet of paper with the project description. Be sure to include how the construction site will be accessed, especially if clearing and/or grading will be required.

This application is for the construction of storm drain outfall protection. The existing storm drain empties collection from the street of Cape Charles into the Cape Charles Harbor near the intersection of Bay Avenue and Mason Avenue (see attached survey). The outfall has been constricted due to a build up of sand. We would like to install a concrete ~~pipe~~ over a bed of rip rap to allow flow to pass through the area with higher grades to an area of lower grades approximately 30 feet from the outfall. This project will affect an area of approximately 300 SF.

PIPE

FOR AGENCY USE ONLY	
<div style="border: 2px solid black; padding: 10px; text-align: center;"> <p style="font-size: 1.5em; margin: 0;">RECEIVED</p> <p style="font-size: 1.2em; margin: 5px 0 0 0;">OCT 12 2016</p> <p style="font-size: 0.8em; margin: 0;">MARINE RESOURCES COMMISSION</p> </div>	Notes: <hr/> JPA # <u>16-1674</u>

Revised: July 2012
 Revised: November 30, 2013

Part 1 - General Information (continued)

5. Have you obtained a contractor for the project? Yes* >> No. *If your answer is "Yes" complete the remainder of this question and submit the Applicant's and Contractor's Acknowledgment Form (enclosed)

Contractor's name* and complete mailing address:

Contact Information:

Home (J) _____

Work (J) _____

Fax (J) _____

Cell / Pager (J) _____
email _____

State Corporation Commission ID Number (if applicable) _____

*** If multiple contractors, each must be listed and each must sign the applicant signature page. If for a company, use the SCC registered name.**

6. List the name, address and telephone number of the newspaper having general circulation in the area of the project. Failure to complete this question may delay local and State processing.

Name and complete mailing address:

Telephone number

Eastern Shore News
PO Box 288
Tasley, VA 23441-0288

(757) 787-1200

7. Give the following project location information:

Street Address (911 address if available) Intersection of Bay and Mason Avenues
Lot/Block/Parcel# _____

Subdivision Downtown Cape Charles

City / County Cape Charles, VA

Zipcode 23310

Latitude and Longitude at Center of Project Site (Decimal Degrees): Lat. 37.266851; Lon. -76.024720

If the project is located in a rural area, please provide driving directions.

Note: if the project is in an undeveloped subdivision or property, clearly stake and identify property lines and location of the proposed project. A supplemental map showing how the property is to be subdivided should also be provided.

Part 1 - General Information (continued)

8. What is the primary and secondary purpose of the project? For example, the primary purpose may be "to protect properly from erosion due to boat wakes" and the secondary purpose may be "to provide safer access to a pier."

The primary concern is eliminating the potential of flooding properties upstream. The secondary concern is to mitigate future damages to the Army Corp Shoreline erosion installation located at this site.

9. Proposed use (check one):

Single user (private, non-commercial, residential)

Multi-user (community, commercial, industrial, government)

10. Describe the measures that will be taken to avoid and minimize impacts, to the maximum extent practicable, to wetlands, surface waters, submerged lands, and buffer areas associated with any disturbance (clearing, grading, excavating) during and after project construction. Please be advised that unavoidable losses of tidal wetlands and/or aquatic resources may require compensatory mitigation.

Access to the work area will be by way of uplands. Traffic in the wetlands will be kept to a minimum.

11. Have you previously had a site visit, applied to, or obtained a permit from any agency (Federal, State, or Local) for any portion of the project described in this application or any other project at the site?

Yes* No * If you answered "Yes", provide the following information:

<u>Agency/Representative</u>	<u>Activity</u>	<u>Permit/Project No.</u>	<u>Action** & Date</u>
Army Corp	Shoreline Protection	Unknown	Last Inspected 24 June 2004

(**Issued, Denied, Withdrawn, or Site Visit)

Part 1 - General Information (continued)

12. Is this application being submitted for after-the-fact authorization for work which has already begun or been completed? No. If yes, be sure to clearly depict the portions of the project which are already complete in the project drawings.
13. Approximate cost of the entire project (materials, labor, etc.) \$25,000.00
14. Approximate cost of that portion of the project which is below mean low water: \$ 10,000.00
15. Completion date of the proposed work: September 2017
16. Adjacent Property Owner Information: List the name and complete mailing address, including zip code, of each adjacent property owner to the project. (NOTE: a property owner/applicant cannot be their own adjacent property owner. You must give the next owner down the river, creek, etc).

N/A

Part 2 - Signatures

I. Applicants and property owners (if different from applicant).

NOTE: REQUIRED FOR ALL PROJECTS

PRIVACY ACT STATEMENT: The Department of the Army permit program is authorized by Section 10 of the Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act, and Section 103 of the Marine Protection Research and Sanctuaries Act of 1972. These laws require that individuals obtain permits that authorize structures and work in or affecting navigable waters of the United States, the discharge of dredged or fill material into waters of the United States, and the transportation of dredged material for the purpose of dumping it into ocean waters prior to undertaking the activity. Information provided in the Joint Permit Application will be used in the permit review process and is a matter of public record once the application is filed. Disclosure of the requested information is voluntary, but it may not be possible to evaluate the permit application or to issue a permit if the information requested is not provided.

CERTIFICATION: I am hereby applying for all permits typically issued by the DEQ, VMRC, U.S. Army Corps of Engineers, and/or Local Wetlands Boards for the activities I have described herein. I agree to allow the duly authorized representatives of any regulatory or advisory agency to enter upon the premises of the project site at reasonable times to inspect and photograph site conditions, both in reviewing a proposal to issue a permit and after permit issuance to determine compliance with the permit.

In addition, I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

David Fauber

Applicant's Name (printed/typed)

(Use if more than one applicant)

Applicant's Signature

(Use if more than one applicant)

8/9/2016

Date

Property Owner's Name (printed/typed)
(If different from Applicant)

(Use if more than one owner)

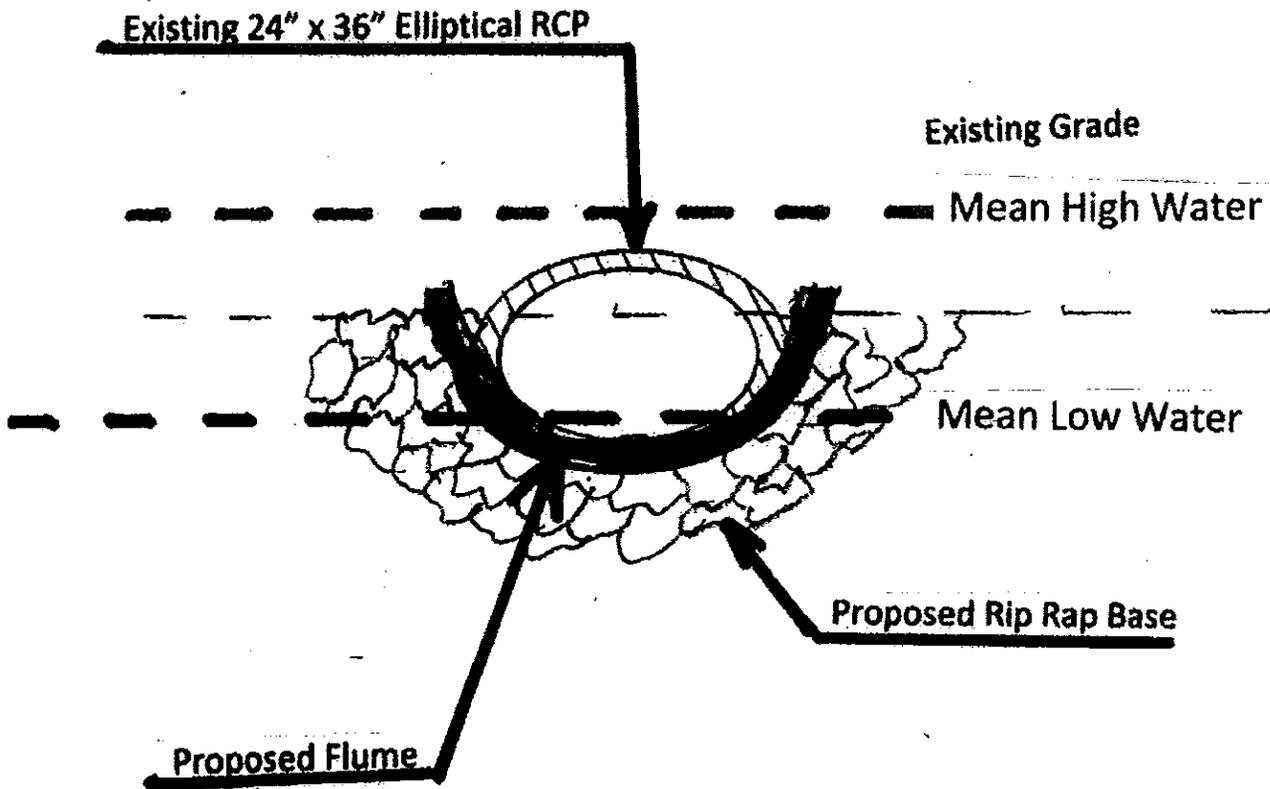
Property Owner's Signature

(Use if more than one owner)

Date

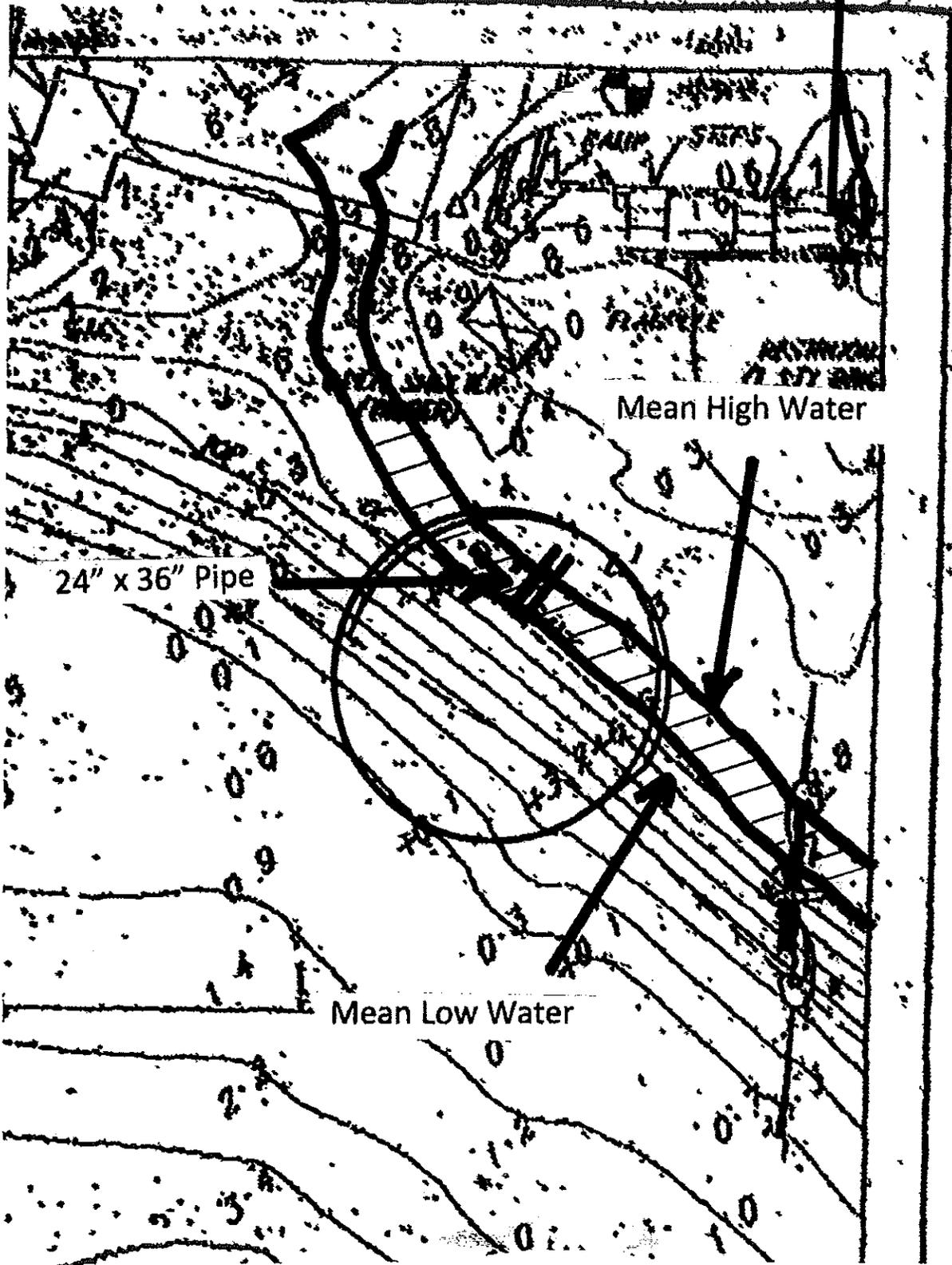
Cape Charles Outlet Protection

Section/End View



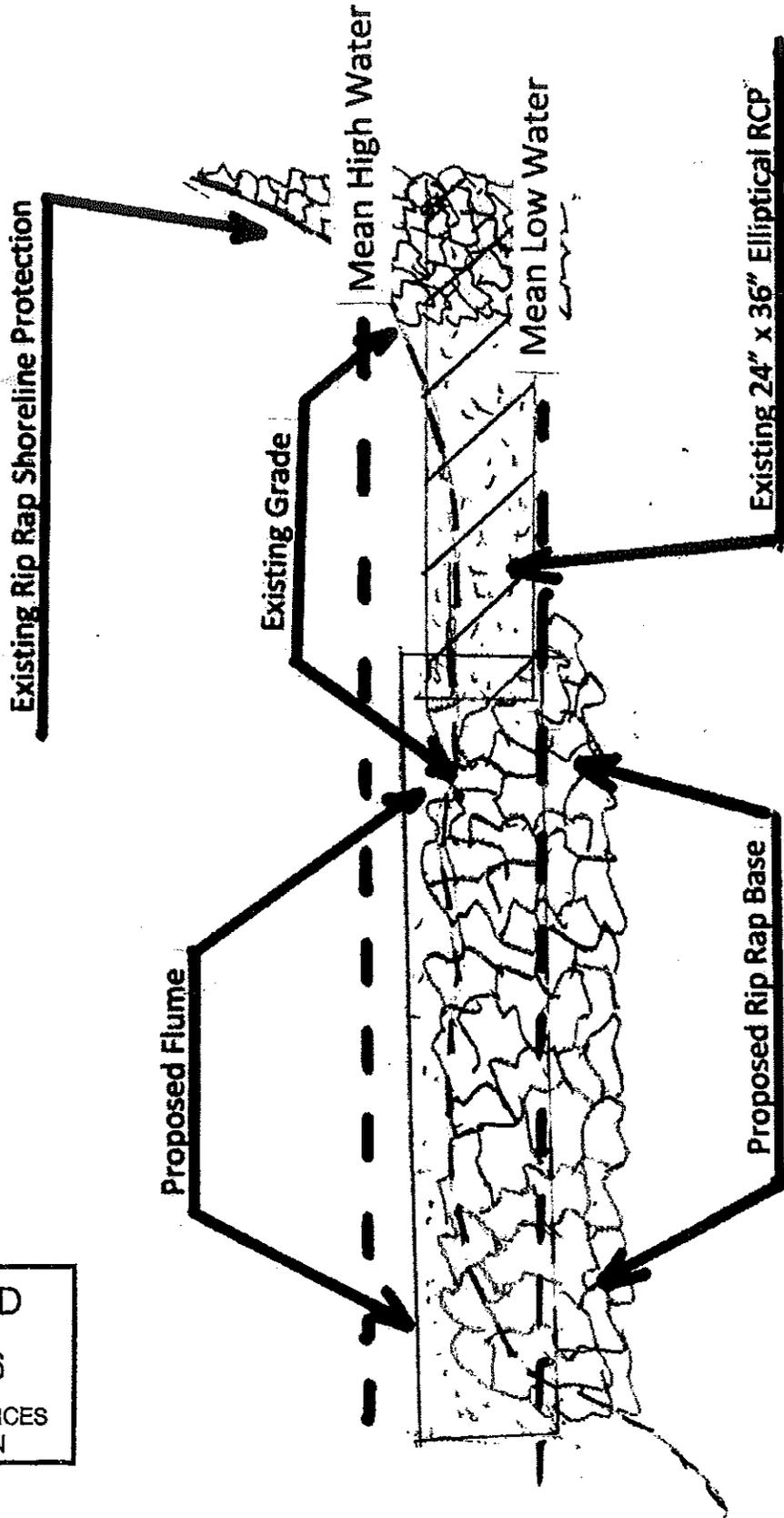
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OCT 12 2016
MARINE RESOURCES
COMMISSION

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COMMISSION



Cape Charles Outlet Protection

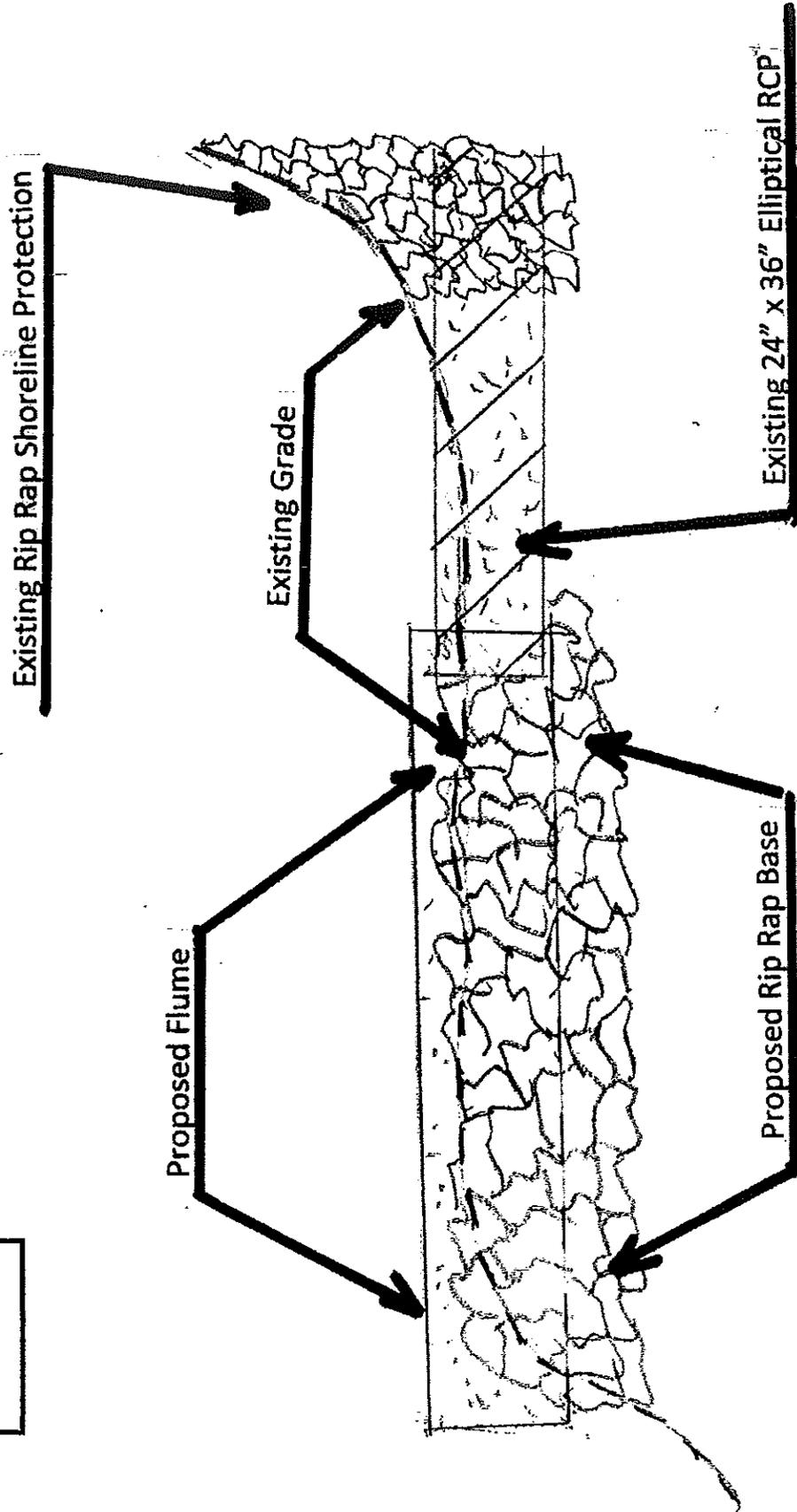
East Elevation



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COMMISSION

Cape Charles Outlet Protection

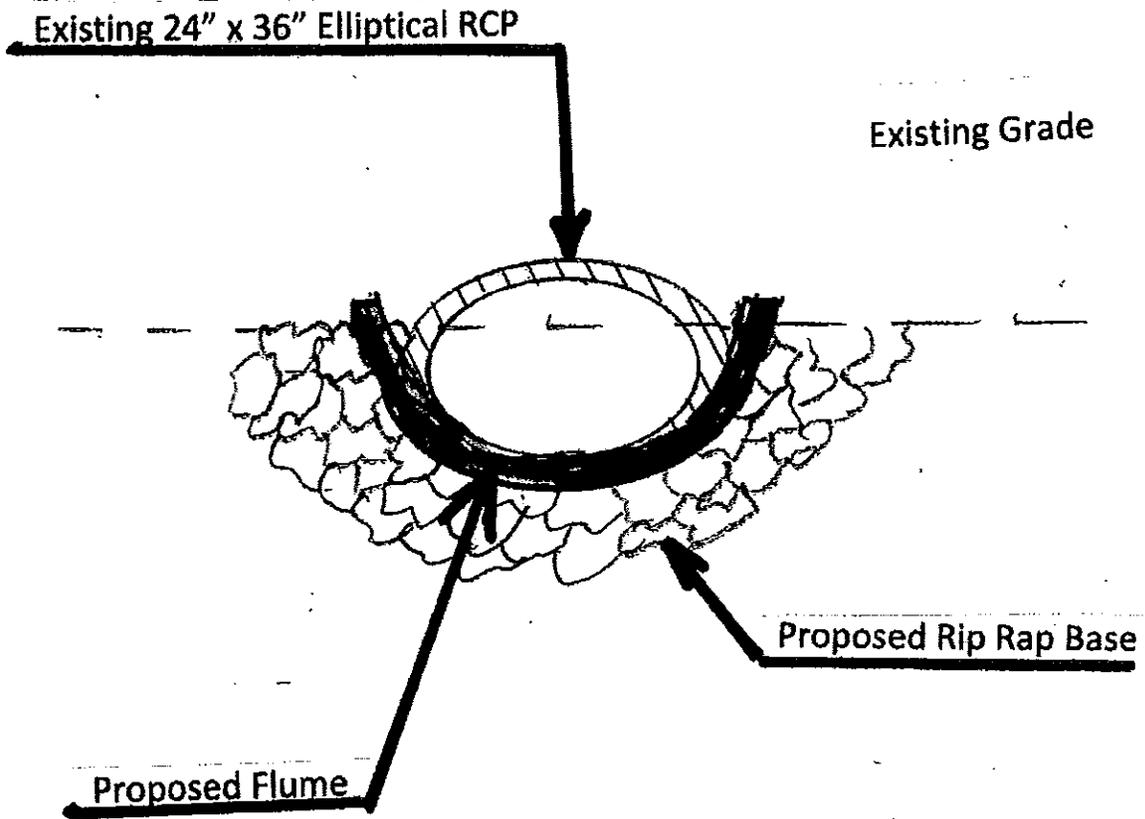
East Elevation



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MARINE RESOURCES
COMMISSION

Cape Charles Outlet Protection

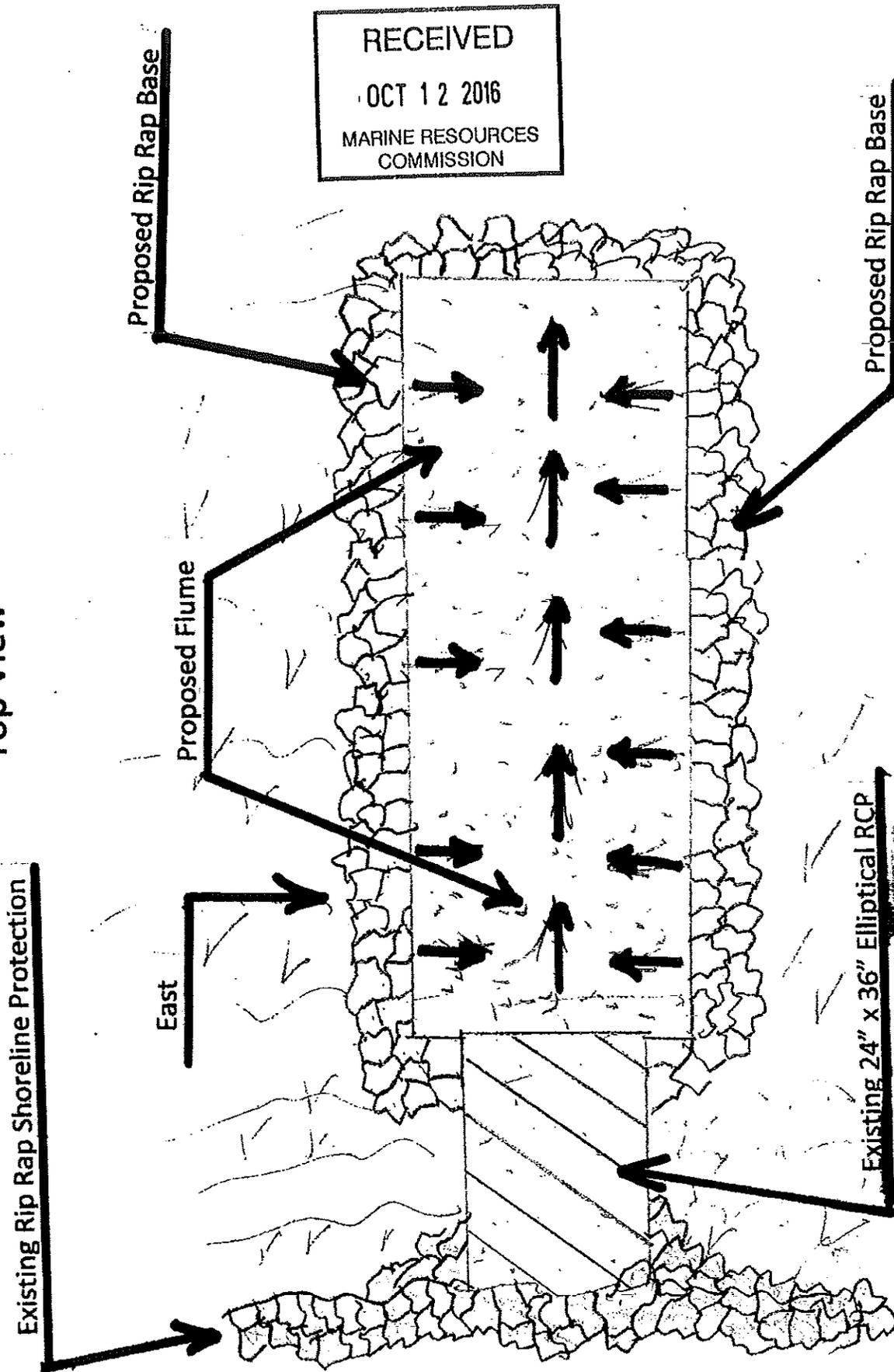
Section/End View



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OCT 12 2016
MARINE RESOURCES
COMMISSION

Cape Charles Outlet Protection

Top View



PERIODIC INSPECTION OF CAPE CHARLES SHORE PROTECTION
Cape Charles, Virginia
24 June 2004



By
U.S. Army Corps of Engineers
Norfolk District
Norfolk, Virginia



DEPARTMENT OF THE ARMY
NORFOLK DISTRICT, CORPS OF ENGINEERS
803 FRONT STREET
NORFOLK, VIRGINIA 23510-1096

REPLY TO
ATTENTION OF

CENAO-DC-E

19 OCT 2004

Town Manager of Cape Charles
2 Plum Street
Cape Charles, VA 23310

Mr. Cela Burge,

Enclosed are three (3) copies of the Cape Charles Shore Protection inspection report that was performed by the Corps of Engineers on 24 June 2004.

The report provides observations, recommendations and photographs of the inspection. Overall the inspection revealed most items are satisfactory and the project is considered *minimally acceptable*. Please note that deficiencies were identified to be corrected in this report and should be made in a timely manner. If these deficiencies are not corrected and the project is damaged, it will be considered ineligible for rehabilitation under PL 84-99.

If there are any questions regarding this report, you may contact the responsible technical Program Manager, Jerry Swean at 757-441-7101. Otherwise, if this flood control works project requires rehabilitation assistance under Public Law 84-99, please contact Mrs. Deborah Massenburg at ~~757-441-7595~~. Thank you.

Not In Service
10/7/2016 JF

Deborah Massenburg
DEBORAH L. MASSENBURG
Chief, Emergency Management Office

CF:

SWEAN, Jerry
DRIDGE, Raymond

FOREWORD

The following is the report for the FY04 Inspection of Cape Charles riprap rock revetment protection, Cape Charles, Virginia. The inspection was conducted on 24 June 2004.

The inspection was performed to help ensure the project non-Federal sponsors continually maintain the project in accordance with the existing agreement, in order to maximize the flood protection benefits and preserve the value of the Federal investment.

The project was inspected in accordance with the requirements identified in the Project Operations and Maintenance Manual, Engineering Pamphlet (EP) 500-1-1, "Civil Emergency Management Program – Procedures" and Engineering Regulation (ER) 1130-2-530 "Food Control Operations and Maintenance Policies"¹ (30 Oct 1996). Rankings based on the above two documents are summarized below.

Per the project Operations and Maintenance Manual, the City of Cape Charles is responsible for the operations and maintenance of the completed project. In order to maximize the project's flood protection benefits and to maintain its eligibility for emergency rehabilitation under Public Law (PL) 84-99, the project must be satisfactorily maintained in accordance with the requirements established in the referenced Operations and Maintenance Manual.

The attached report provides observations, recommendations and photographs of the inspection.

From the Inspection Guide for Flood Control Works and criteria established in EP 500-1-1 the project is given a rating. Individual items for each component of a project are rated initially. The rating (Satisfactory, Marginally Satisfactory or Unsatisfactory) is determined for each component as described in the attached Inspection Guide. The lowest single rating given for a rated item will determine the overall condition of the project. Projects are rated with the following Project Condition Codes: Acceptable; Minimally Acceptable; and Unacceptable. The project condition determines the project's status in the Rehabilitation and Inspection Program. Acceptable and Minimally Acceptable projects are in Active Status. Unacceptable projects are in Inactive status. Projects in Inactive status are not eligible for consideration for Rehabilitation Assistance from the US Army Corps of Engineers in the event of damage from a flood or coastal storm. Note that any single Marginally Satisfactory item causes the project to be Minimally Unacceptable. One or more rated items with a rating of Unsatisfactory will result in a project condition of Unacceptable.

¹ Supercedes ER 1130-2-339 "INSPECTION OF LOCAL FLOOD PROTECTION PROJECTS" (29 Oct 1973)

As a result of the inspection the project is rated "Minimally Acceptable", and therefore considered to be in active status. See attached worksheet "Inspection Guide for Flood Control Works" for details.

In addition to the ratings system in EP 500-1-1, a rating for the project is established based on criteria established in ER 1130-2-530. The ER rating will likely give way to the EP rating in future inspections. In accordance with the ER the project is defined as a CATEGORY 2 project with an overall rating of C-3 GOOD. CATEGORY 2 is defined as *'Some maintenance deficiencies exist, but the project would probably provide design level protection (in some instances it may be presumed that continued neglect will result in a category (3) situation.'* C-2 GOOD project rating is defined as *'Few or no new major deficiencies. Numerous new minor deficiencies and/or several old minor deficiencies noted in the last inspection have not been corrected. Annual maintenance performed, but additional effort is needed.'*

All the deficiencies noted in the reports should be repaired as soon as possible. Failure to satisfactorily address the noted deficiencies will likely lead to the defects becoming worse with time. Current policy does not allow for Federal expenditures to correct problems caused by lack of adequate local maintenance, therefore, if the project deficiencies are not corrected in a timely manner and the project is damaged, the project will be ineligible for emergency rehabilitation under PL 84-99.

The inspection schedule for this project is on a five-year cycle.

The above referenced ER and EP documents can be found electronically at <http://www.hnd.usace.army.mil/techinfo/index.asp>.

**CAPE CHARLES, VIRGINIA
CAPE CHARLES SHORE PROTECTION
PERIODIC INSPECTION - CIVIL WORKS PROJECT
24 JUNE 2004**

- 1. Project Description:** The subject structure is a rubble-mound revetment, approximately 250 feet in length, constructed for the protection of the shorelines adjacent to the Cape Charles sewage lift station. The construction consists of sand fill overlain with geotextile filter fabric and VDOT Class 11 stone.
- 2. Field Inspection:** A field inspection was conducted on 24 June 2004 by Jerry Swean of the Civil Works Section. The inspection entailed a visual inspection of the revetment. Photographic documentation was taken.
- 3. Result of Inspection:** Overall, the shore protection is in good condition. Deficiencies with vegetation, geotextile, debris, erosion, settlement and displaced stone do not immediately effect the structural integrity but are as follows:
 - a) Vegetation:** There is no vegetation on the revetment, except for sparse amounts of grass between the rocks on the crest, landside of the structure. The quantity is negligible and will not cause displacement of stone in the near future. There is considerable growth of grass on the grade behind the riprap. The growth has reached the backside of the revetment. The quantity of the grass is moderate in most areas.
 - b) Geotextile:** There are various locations throughout the length of the structure where the geotextile is exposed. Degradation of the geotextile due to exposure to sunlight is evident in some areas.
 - c) Debris:** Light amounts of debris (pieces of wood) appeared to be tossed up from the waves. Some amount of trash was observed throughout the length of the structure. The overall appearance of the structure is relatively clean.
 - d) Erosion:** There is no indication of any erosion, which may require immediate action.
 - e) Settlement:** The settlement observed is no more than $\frac{1}{2}$ the diameter of an armor stone. The crest is intact however; some armor stones have been displaced due to settlement.
 - f) Displaced Stone:** There is moderate displacement of armor stones throughout the length of the structure on the seaside slope.
- 4. Remarks and Recommendations:** The seawall appears to be structurally stable and standing up to its functional expectations. There are no causes for any immediate corrective action. However, the looser stones show signs of being

easily rocked or shifted by normal storm waves. It is recommended that repairs to the structure be considered for the future. Most repairs might be made by adding and repositioning armor units. The next inspection is scheduled for 2009.

Prepared by:
Jerry Swean
Civil Works Section
Design Branch
U. S. Army Corps of Engineering
Norfolk District, Norfolk
803 Front Street
Norfolk, Virginia 23510-1096
24 June 2004

APPENDIX B- INSPECTION GUIDE FOR FLOOD CONTROL WORKS

INSPECTION GUIDE FOR FLOOD CONTROL WORKS	
Name of Project: <u>LAKE CHARLES SHORE PROT.</u>	Date <u>JUNE 2004</u>
Public Sponsor: <u>LAKE CHARLES</u>	
SUMMARY OF INSPECTION: THE PROJECT CONDITION AS A RESULT OF THIS (INITIAL) <u>CONTINUING</u> (circle one) ELIGIBILITY INSPECTION IS: <input type="checkbox"/> ACCEPTABLE <input checked="" type="checkbox"/> MINIMALLY ACCEPTABLE <input type="checkbox"/> UNACCEPTABLE	
[NOTE: Refer to Page 10 of the Inspection Guide for Rating Codes for Individual Rated Items, and Project Condition Codes used in this Inspection.]	
CORPS OF ENGINEERS INSPECTORS:	<u>JERRY SWEAN</u> <u>CIVIL WORKS - TSD</u>
PUBLIC SPONSOR REPRESENTATIVES	
COMMENTS: <u>REF. PERIODIC INSPECTION REPORT JUNE 2004</u>	
<input type="checkbox"/> Check if additional comments are attached.	
PAGE 1 OF 10	

Figure B-1. Inspection Guide for Flood Control Works

EP 500-1-1
30 Sep 01

RATED ITEM		EVALUATION	
SECURE		FOR ENGINEERING - DESIGN PURPOSES UNDER SUPERVISORY INSPECTION BY A LICENSED PROFESSIONAL ENGINEER	
1. Level of Protection <i>N/A</i>			The designed section is for an exceedance frequency greater than 10% chance (10 yr.) with minimum freeboard of 2 feet/60 cm (urban levee) or the designed section is for an exceedance frequency between 20% to 10% chance (5-10 yr.) with minimum freeboard of 1 foot/30cm (agricultural levee).
2. Erosion Control <i>N/A</i>		S	Erosion protection in active areas is capable of handling the designed flow velocity for the level of protection for the entire FCW.
		M	Erosion protection is capable of handling the designed flow velocity for the level of protection for 75% or more of the FCW.
		U	Erosion protection measures protect less than 75% of the FCW; or if erosion protection was not present and there is evidence indicating a need for erosion protection.
3. Embankment <i>N/A</i>		S	Fill material for embankment is suitable to prevent slides and seepage for the existing side slopes. Fill material is uniform and adequately compacted through the entire FCW.
		M	Material is adequate and suitable to prevent major slides and capable of handling localized seepage for the existing side slopes. Fill material is uniform and adequately compacted in 75% or more of the FCW.
		U	Material is unsuitable and likely to cause numerous slides and allow excessive uncontrolled seepage. Fill material is not uniform, or there is no compaction and evidence indicates a need for compaction.
4. Foundation <i>N/A</i>		S	Foundation materials will not cause piping, sand boils, seepage, or settlements that reduce the level of protection.
		M	Foundation materials may show signs of excessive seepage, minor sand boils, and localized settlements.
		U	Foundation materials are unsuitable and likely to cause excessive uncontrolled seepage, sand boils, and/or piping.
5. Structures <i>N/A</i>		S	Structures are capable of performing their design functions and show no signs of failure.
		M	Structures are performing their design functions but show signs of overtopping and bypassing flows.
		U	Structures are not performing their design functions or show signs of structural failure.

PAGE 2 OF 10

FIELD		NO. OF		EVALUATION	
SECTION		CHECKS		CONDITIONS	
6. Depressions	✓			S	Minimal depressions or potholes; proper drainage.
				M	Some depressions that will not pond water.
				U	Depressions 15 cm (6") vertical or greater which endangers the integrity of the levee.
7. Erosion				S	No erosion observed.
N/A				M	LEVEE: Erosion of levee crown or slopes that will not interrupt inspection or maintenance access. OTHER FCW: Erosion gullies less than 15 cm (6 inches) deep or deviation of 30 cm (1 foot) from designed grade or section.
				U	LEVEE: Erosion of levee crown or slopes that has interrupted inspection or maintenance access. OTHER FCW: Erosion gullies greater than 15 cm (6 inches) or deviation of 30 cm (1 foot) or more from designed grade or section.
8. Slope Stability				S	No slides present. Erosion of slopes less than 10 cm (4") deep.
N/A				M	Minor superficial sliding that with deferred repair does not pose an immediate threat to FCW integrity. No displacement or bulges.
				U	Evidence of deep seated sliding (60 cm (2 ft.) vertical or greater) requiring repairs to re-establish FCW integrity.
9. Cracking				S	No cracks in transverse or longitudinal direction observed in the FCW.
N/A				M	Longitudinal cracks are no longer than the levee height. No displacement and bulging. No transverse cracks.
				U	Longitudinal cracks are greater than levee height, with or without some bulging observed. Transverse cracks are evident
10. Animal Control				S	Continuous animal burrow control program that eliminates any active burrowing in a short period of time. Program includes filling in of existing burrows.
N/A				M	Animal burrows present that will not result in seepage or slope stability problems.
				U	Animal burrows present that would result in possible seepage or slope stability problems.

INSPECTION ITEM	STATUS	EVALUATION
RECORDED	COMPLETED	FCW MAINTENANCE FORECAST DURING ALL OPERATIONS
11. Unwanted Vegetation Growth	✓	S A- No large brush or trees exist in the FCW. Grass cover well maintained. CHANNELS: Channel capacity for designed flows is not affected.
		M Minimal tree (5 cm (2") diameter or smaller) and brush cover present that will not threaten FCW integrity. (NOTE: Trees that have been cut and removed from levees should have their roots excavated and the cavity filled and compacted with impervious material). CHANNELS: Channel capacity for designed flows is not adversely affected.
		U Tree, weed, and brush cover exists in the FCW requiring removal to re-establish or ascertain FCW integrity. (NOTE: If significant growth on levees exists, prohibiting rating of other levee inspection items, then the inspection should be ended until this item is corrected.) CHANNELS: Channel obstructions have impaired the floodway capacity and hydraulic effectiveness.
12. Encroachments		S No trash, debris, excavations, structures, or other obstructions present.
	✓	M Trash, debris, excavations, structures, or other obstructions present, or inappropriate activities occurring that will not inhibit operations and maintenance performance.
		U Trash, debris, excavations, structures or other obstructions present, or inappropriate activities that would inhibit operations and maintenance performance.
13. Riprap/Revetments/Banks		S Existing protection works are being properly maintained and are undamaged.
	✓	M No scouring activity that could undercut banks/riprap, erode embankments, or restrict desired channel flow.
		U Meandering and/or scour activity that is undercutting banks, eroding embankments, or impairing channel flows by causing turbulence, meandering, or shoaling.
14. Stability of Concrete Structures		S Any tilting, sliding, or settling of structures, if present, has been secured, preserving the integrity or performance.
	✓	M Uncorrected sliding or settlement of structures of a magnitude that does not affect performance.
		U Tilting or settlement of structures that has resulted with a threat to the structure's integrity and performance.

STRUCTURE		INTEGRITY		FUNCTION	
NO.	DESCRIPTION	NO.	DESCRIPTION	NO.	DESCRIPTION
15.	Concrete Surfaces <i>N/A</i>			S	Negligible spalling or scaling. No cracks present that are not controlled by reinforcing steel or that cause integrity deterioration or result in inadequate structure performance.
				M	Spalling, scaling and cracking present but immediate integrity or performance of structure not threatened.
				U	Surface deterioration or deep, controlled cracks present that result in an unreliable structure.
16.	Structural Foundations	✓		S	No scouring or undermining near the structures.
				M	Scouring near the footing of the structure but not close enough to affect structure stability during the next flood event.
				U	Scouring or undermining at the foundation that has affected structure integrity.
17.	Culverts <i>N/A</i>			S	[a] No breaks, holes, cracks in the culvert that would result in any significant water leakage. No surface distress that could result in permanent damage. [b] Negligible debris or silt blocking culvert section. No or minimal debris or sediment present which has negligible effect on operations of the culvert.
				M	[a] Integrity not threatened by spalls, scales, or surface rusting. Cracks present but resulting leakage not affecting the structure. [b] Debris or sediment present, which is proposed to be removed prior to the next flood event, that minimally affects the operations of the culvert.
				U	[a] Culvert has deterioration such as surface distress and/or has significant leakage in quantity or degree to threaten integrity. [b] Accumulated debris or settlement which has not been annually removed and severely affects the operations of the culvert.
18.	Gates <i>N/A</i>			S	Gates open easily and close to a tight seal. Materials do not have permanent corrosion damage and appear to have historically been maintained adequately.
				M	Gates operate but leak when closed; however, leakage quantity is not a threat to performance. All appurtenances of the facility are in working condition.
				U	Gates leak significantly when closed or do not operate. Gates and appurtenances have damages that threaten integrity and/or appear not to have been maintained adequately.
19.	Closure Structures <i>N/A</i>			S	Closure structure in good repair. Placing equipment readily available at all times.
				U	Closure structure in poor condition. Parts missing. Placing equipment may not be available within normal warning time.

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SECTION		STATUS		DEFINITION	
SECTION		STATUS		DEFINITION	
20. Motors N/A				S	All motors, if present, are operational. Preventive maintenance is occurring and system is performance tested periodically.
				M	All motors are operational and minor discrepancies are such that motors could be expected to perform through the next projected period of usage.
				U	Motors are not operational, or noted discrepancies have not been corrected.
21. Power N/A				S	Adequate, reliable, and enough capacity to meet demands.
				U	Power source not considered reliable to sustain operations during flood condition.
22. Metallic Items N/A				S	All metal parts in a plant/building protected from permanent damage from corrosion. Gates operable.
				M	Corrosion on metal parts appears maintainable. Gates operable.
				U	Metal parts need replacement, may fail, or will not function.
REMARKS FOR SECTIONS I AND II.					
PAGE 6 OF 10					

PARAMETER		EVALUATION	
SECTION			FOR USE OF RATER ONLY (DO NOT CONTINUE FOR BIDDING INSPECTIONS)
23. Pump Station Size <i>NIA</i>			Pump station has adequate capacity (considering pumping capacity, ponding areas, etc.) to handle expected inflow volumes.
24. Operations and Maintenance Manual <i>NIA</i>			Operations and Maintenance (O&M) Manual is present and adequately covers all pertinent areas. All necessary updates to the Manual have been done.
25. Operating Log <i>NIA</i>			Pump Station Operating Log is present and being used. Operators are trained on proper usage.
26. Annual Inspection			Annual inspection is being performed by the public sponsor.
27. Plant Building <i>NIA</i>		S	Plant building is in good structural condition. No apparent major cracks in concrete, no subsidence, roof is not leaking, etc. Intake louvers clean, clear of debris. Exhaust fans operational and maintained. Safe working environment.
		M	Spalling and cracking are present, or minimal subsidence is evident, or the roof leaks, or other conditions are present that need repair but do not threaten the structural integrity or stability of the building.
		U	Any condition that does not meet Minimally Acceptable standard.
28. Pumps <i>NIA</i>		S	All pumps are operational. Preventive maintenance and lubrication are being performed. System is periodically subjected to performance testing. No evidence of unusual sounds, cavitation, or vibration.
		M	All pumps are operational and deficiencies/minor discrepancies are such that pumps could be expected to perform through the next expected period of usage.
		U	One or more primary pumps are not operational, or noted discrepancies have not been corrected.
29. Motors, Engines, and Gear Reducers <i>NIA</i>		S	All items are operational. Preventive maintenance and lubrication being performed. System is periodically subjected to performance testing. Instrumentation, alarms, and auto shutdowns are operational.
		M	All systems are operational and deficiencies/minor discrepancies are such that pumps could be expected to perform through the next expected period of usage.
		U	One or more primary motors are not operational, or noted deficiencies/discrepancies have not been corrected.

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DATE: 09/30/01		EVALUATION	
SECTION 11 Collection		FOR USE DURING ALL PUMP STATION INSPECTIONS	
30. Trash Rakes N/A			S Drives chain, bearings, gear reducers, and other components are in good operating condition and properly maintained.
			M Drive chain, bearings, gear reducers, and other components are capable of performing as designed through the next flood event.
			U Proper operation would be inhibited during the next flood event.
31. Other Metallic Items N/A			S All metal parts in plant/building are protected from permanent damage by corrosion. Equipment anchors show no rust or deterioration.
			M Corrosion on metallic parts (except equipment anchors) appears maintainable.
			U Any condition that does not meet at least Minimum Acceptable standards.
32. Insulation Megger Testing N/A			S Results of megger test show that insulation meets manufacturer's or industry standard. Test not more than 24 months old.
			M Results of megger test show that insulation resistance is lower than manufacturer's or industry standard, but can be corrected with proper application of heat.
			U Insulation resistance is low enough to cause the equipment to not be able to meet its design standard of operation.
33. Power N/A			S Adequate, reliable, and enough capacity to meet demands. Backup generators are on hand and deemed reliable, or feasible plan exists to obtain backup power. Backup units are properly sized, operational, periodically exercised, and properly maintained.
			U Power source not considered reliable to sustain operations during flood condition.
34. Pump Control System N/A			S Operational and maintained free of damage, corrosion, or other debris.
			M Operational with minor discrepancies. Will function adequately in the next flood event.
			U Not operational; uncorrected discrepancies noted from previous inspections; capability to adequately function in the next flood-event is suspect.
35. Sumps N/A			S Clear of debris and obstructions. Mechanisms are in place to maintain this condition during operations.
			M Clear of large debris, minor obstructions present. Mechanisms are in place to deter any further accumulation during operation. Sump will function as intended.
			U Large debris or major obstructions present, or no mechanism exists to prevent debris accumulation during operation.

SECTION		EVALUATION	
FUNCTION		FUNCTIONALITY AND PUMP STATION OPERATIONS	
36.	Intake/Discharge Gates. <i>N/A</i>		Functional. Electric operators maintained. (S or U only.)
37.	Cranes <i>N/A</i>		Operational. Inspected and load tested in accordance with OSHA requirements. (S or U only.)
38.	Telephone Communications <i>N/A</i>		Telephone communication is available in the pump station. Alternatively, two-way radio, cellular telephone, or similar device is available, or, access to a telephone is within a reasonable driving distance. (S or U only.)
39.	Safety <i>N/A</i>		No exhaust leaks in building. Fuel storage/distribution meets state/local requirement. Fire extinguishers on hand, of sufficient quantity, and properly charged. Safety hardware installed. Required safety items (e.g., aural protectors) used. (S or U only.)
Remarks for Pump Station - Sections III and IV of Inspection Guide.			
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EP 500-1-1

30 Sep 01

<p>RATINGS: The following terms and definitions are used in the conduct of this inspection for rating items and components of this project:</p> <p>S - Satisfactory: The rated item is in satisfactory condition, and will function as designed and intended during the next flood event.</p> <p>M - Marginally Satisfactory: The rated item has a minor deficiency that needs to be corrected. The minor deficiency will not seriously impair the functioning of the item during the next flood event. The overall reliability of the project will be lowered because of the minor deficiency.</p> <p>U - Unsatisfactory: The rated item is unsatisfactory. The deficiency is so serious that the item will not adequately function in the next flood event, compromising the project's ability to provide reliable flood protection.</p> <p>DETERMINATION OF PROJECT CONDITION CODE: The lowest single rating given for a rated item will determine the overall condition of the project. If all rated items are rated as Satisfactory, the project condition will be Acceptable. If one or more rated items are evaluated as Marginally Satisfactory, with no rated items evaluated as Unsatisfactory, then the project condition will be Minimally Acceptable. One or more rated items with a rating of Unsatisfactory will result in a project condition of Unacceptable.</p> <p>STATUS: Acceptable and Minimally Acceptable projects are in Active status. Unacceptable projects are in Inactive status. Projects in Inactive status are not eligible for consideration for Rehabilitation Assistance from the US Army Corps of Engineers in the event of damage from a flood or coastal storm.</p>
<p>GENERAL INSTRUCTIONS.</p> <ol style="list-style-type: none">1. Section I will be used on all IEI's.2. Section II will be used on all CEI's.3. All rated items in Sections I and II must have a rating given.4. Additional areas for inspection will be incorporated by the Inspector into this guide if the layout or physical characteristics of the project warrant this. Appropriate entries will be made in the REMARKS block. <p>FOR PROJECTS WITH PUMP STATIONS:</p> <ol style="list-style-type: none">5. Section III and IV will be used on all IEI's and CEI's for projects with pump stations. A pump station must have the primary purpose of flood control, not interior drainage. The district will determine, based on appropriate study, if adequate capacity exists. Lack of adequate capacity mandates a rating of Unsatisfactory and a condition of Unacceptable.6. The lowest rating for a rated item on either the levee inspection (Sections I and II) or the pump station (Sections III and IV) determines the overall project condition.7. A non-Federal pump station located behind a Federal levee will be treated as a separate FCW, will not be incorporated into the Federal levee project, and will be inspected as a separate entity. The lowest rated item on the pump station inspection determines the project condition code for the pump station. This is independent of the Federal project inspection.8. Additional areas for inspection will be incorporated by the Inspector into this guide if the layout or physical characteristics of the pump station warrant this. Appropriate entries will be made in the REMARKS block.
<p>PAGE 10 OF 10</p>



FIGURE 1. Looking east along the toe alignment.



FIGURE 2. Looking southeast from the toe to crest. Note the misplaced stones.

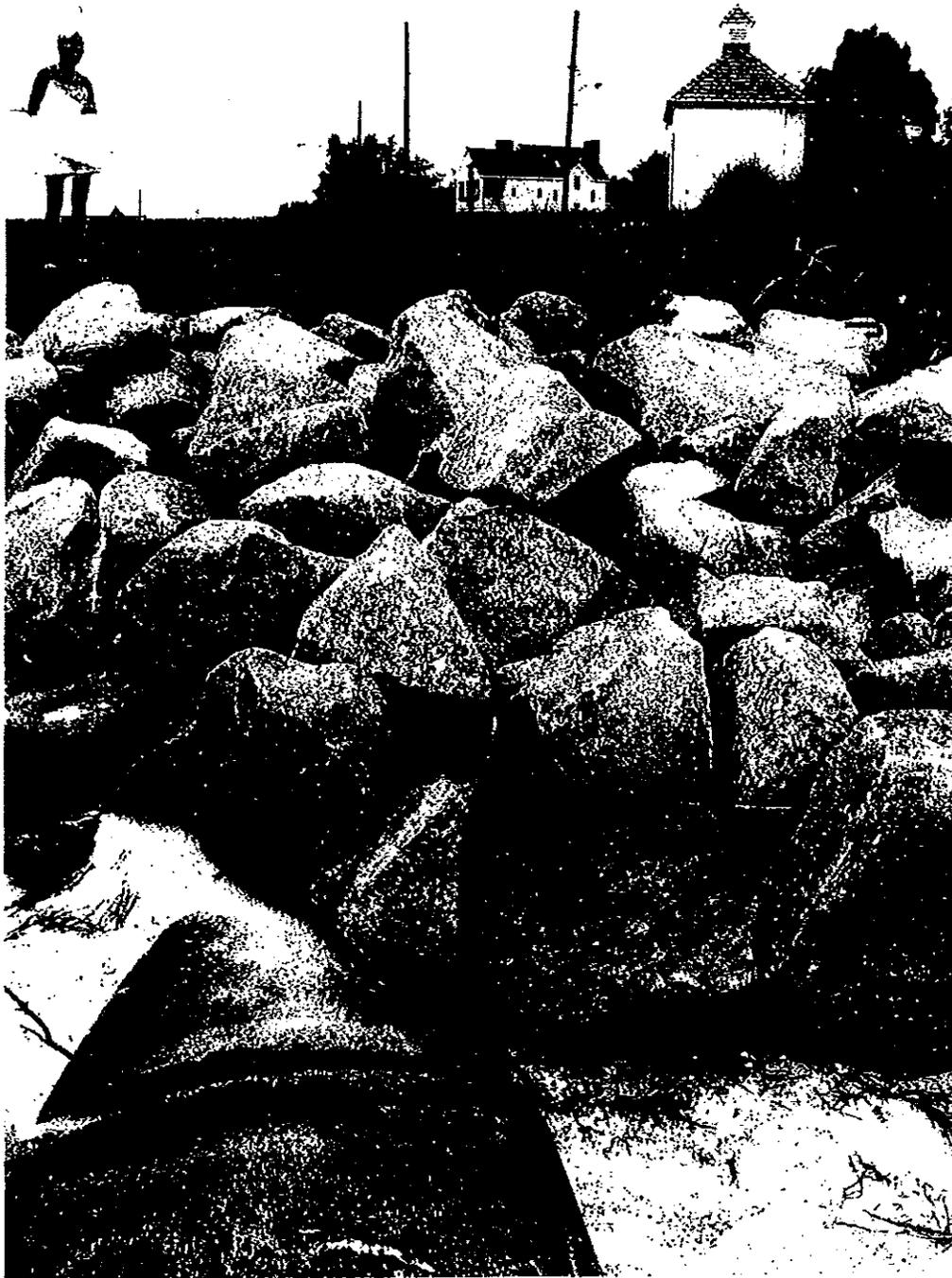


FIGURE 3. Looking at storm water discharge pipe running underneath structure.



FIGURE 4. Looking at storm water discharge pipe from the crest of the structure.



FIGURE 5. Looking east along the structure. Note the misplaced stones along the crest also note the small scarp along the fence line. Recommend additional stone or concrete chunks be placed from the exposed crest of the existing structure back to the fence line.



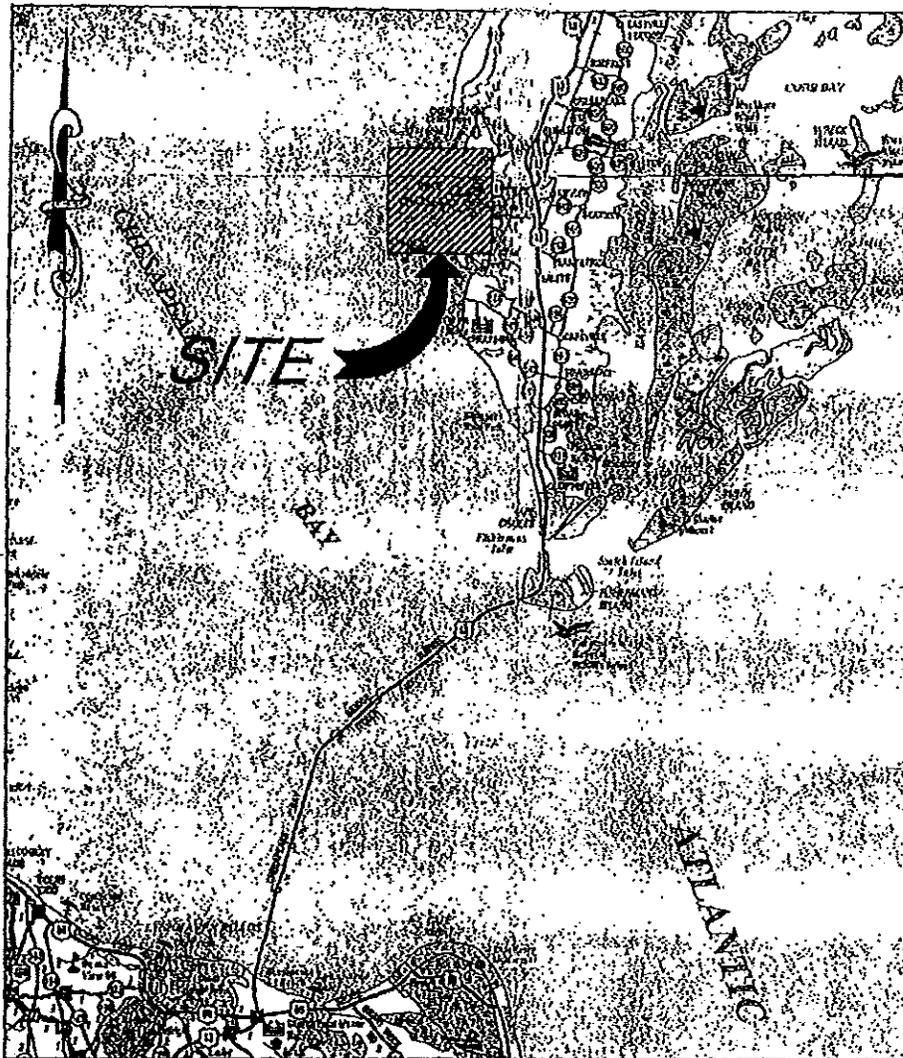
FIGURE 6. Note the exposed filter cloth.



FIGURE 7. Looking at the east end of the structure where it ties into the wooden bulkhead.



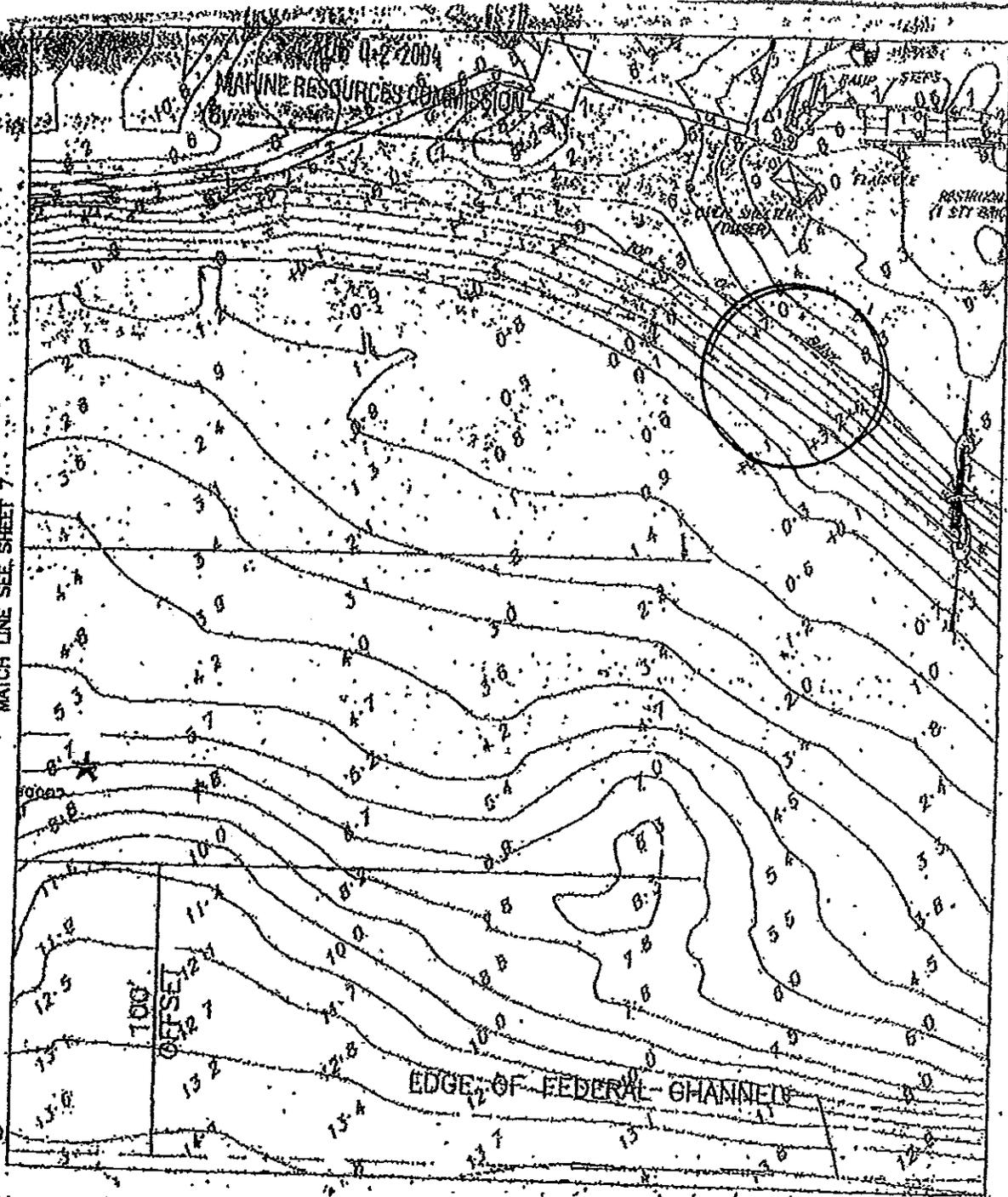
FIGURE 8. Looking west along the crest alignment.



VICINITY MAP

NOT TO SCALE

MATCH LINE SEE SHEET 7



PURPOSE:

~~CONSTRUCTION~~
OFFSHORE TOWER

DATUM:

ADJACENT PROPERTY OWNERS:

SEE SHEET 2 OF 12 FOR APO'S

PERMIT APPLICATION

SITE PLAN

LANDMARK
DESIGN GROUP

IN: Cape Charles
AT: Cape Charles Harbor

CITY/COUNTY:
Northampton Co., VA

APPLICATION BY:
City of Cape Charles

SCALE: 1"=50'

DATE: 07/09/04 SHEET 8 OF 12

0-7

Virginia Marine Resources Commission
Permit Application 20161674

Printed: Tuesday November 1, 2016 10:17 AM

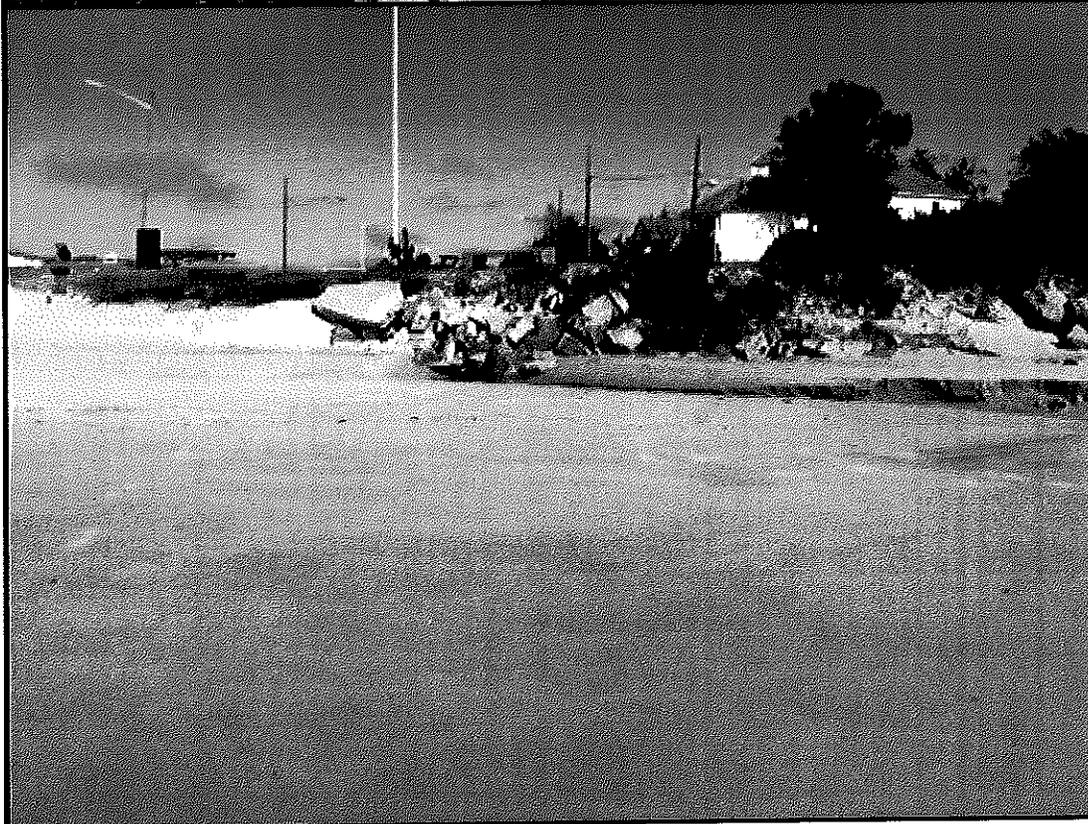


Applicant: Cape Charles, Town of
2 Plum Street
Cape Charles, VA 23310

Application Number:	20161674	Engineer:	Hank Badger
Application Date:	October 12, 2016	Locality:	Cape Charles
Permit Type:	No VMRC Permit Nec.	Waterway:	Cape Charles Harbor
Permit Status:	No Permit Nec	Expiration Date:	
Wetlands Board Action:		Public Hearing Date:	November 14, 2016
Project Description:	Outfall Protection		

Virginia Marine Resources Commission
Photos for Permit Application 20161674

Printed: Tuesday November 1, 2016 10:17 AM



Virginia Marine Resources Commission
Photos for Permit Application 20161674

Printed: Tuesday November 1, 2016 10:17 AM





Municipal Corp. of Cape Charles

#16-1674

October 24, 2016

Agency\Property Owner:

The Cape Charles Wetlands and Coastal Dune Board will hold a public hearing on Monday, November 14, 2016 at 4:00pm at the Town Hall Conference Room at 2 Plum Street, second floor, Cape Charles to receive comment on an application for the construction of storm drain outfall protection over riprap at Town-owned, beach-front property at the corner of Mason Avenue and Bay Avenue (tax map # 83A3-A-4). The project area is approximately three-hundred (300) square feet. The Wetlands and Coastal Dunes Board will have a meeting to vote on the application immediately following the public hearing.

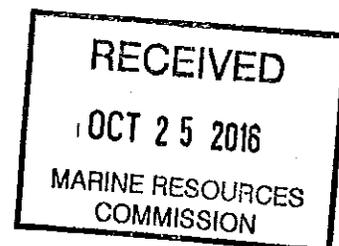
Information on the applications can be viewed in the Planner's Office at 2 Plum Street or obtained by phone at 757-331-3259 x15, or email to planner@capecharles.org

For handicap assistance, please call the number above at least 48 hours in advance.

Sincerely,

Lawrence DiRe
Town Planner\Zoning Administrator

Enc: public hearing notice



Notice of Public Hearing

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