



**US Army Corps
of Engineers**
Philadelphia District

Wanamaker Building
100 Penn Square East
Philadelphia, PA 19107-3390
ATTN: CENAP-OP-R

Public Notice

Public Notice No.
CENAP-OP-R-2016-0732

Date

Application No.

File No.

In Reply Refer to:
REGULATORY BRANCH

This District has received an application for a Department of the Army permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) and Section 404 of the Clean Water Act (33 U.S.C. 1344).

The purpose of this notice is to solicit comments and recommendations from the public concerning issuance of a Department of the Army permit for the work described below.

APPLICANT: Raymond E. Bivens
DDNREC Division of Parks and Recreation
89 Kings Highway
Dover, Delaware 19901

AGENT: Charles E. Williams II
DDNREC Division of Watershed Stewardship
89 Kings Highway
Dover, Delaware 19901

WATERWAY: Assawoman Canal

LOCATION: Along the entire 3.94 miles of the canal, near Bethany Beach Ocean View, and South Bethany Sussex County, Delaware; the confined disposal site (known as CDF # 2) would be located at a site adjacent to Jefferson Creek, near Frankford, Sussex County, Delaware.

ACTIVITY: The applicant proposes to perform maintenance dredging within Assawoman Canal. This office previously issued a permit for dredging the entire length of the canal in 2004 (file number CENAP-OP-R-2003-1151-39). The canal was last dredged under the Corps of Engineers permit in 2010. In the section of the canal north of State Route 26, and a one thousand seven hundred fifty (1750) square foot section of the Bethany Loop Canal, the material would be removed using mechanical excavation equipment. The work would be staged from roads that were constructed for the dredging that occurred previously or on roads that have been incorporated into the adjacent state park. The dredged material would be excavated from the waterway and be temporarily stored on the road before being transferred into a standard dump truck. The material would be placed on the road in such a way that any remaining water in the sediment will flow away from the canal. The truck would then dispose the dewatered material at the above referenced disposal site. A maximum of ten thousand (10,000) cubic yards of material would be

removed from the canal any dredging cycle North of State Route 26. The maximum area of the northern part of the canal to be dredged would be approximately thirty (30) acres.

In the portions of the canal south of State Route 26, the material would be removed using a hydraulic cutterhead dredge. The material would be transported to the above referenced disposal site via a ten (10) inch pipeline. The equipment would be staged on a barge with a booster pump being placed in uplands to ensure the dredged material would get to the disposal site. The pipeline would be placed within emergent vegetative wetlands and within Jefferson Creek as shown on the adjoining plan. The total area of wetlands and the watercourse to be impacted by the placement of the pipeline would be twenty four hundred (2400) square feet. A maximum of twenty four thousand (24,000) cubic yards of material would be removed during any dredging cycle South of State Route 26. Total area of the canal that would be impacted in the southern portion of the canal would be seventy (70) acres.

The proposed dredged material is composed primarily of sand, with a small amount of silt. An approximately thirty five (35) foot wide box cut would be made in the waterway, to a depth of three (3) feet below mean low water. Siltation curtains would be installed both upstream and downstream of the work zone to minimize the spread of sediment within the canal and adjoining waters. Any vegetation extending over mean high water, that is impacting navigation would be removed using hand held equipment. Vessels with a maximum length of twenty four (24) feet with a two (2) foot draft typically navigate in the waterway. The applicant has requested that any permit issued by this office include a provision to allow for 10 years of maintenance dredging. No placement of fill material is proposed within the canal.

PURPOSE: The applicant's stated purpose is to improve navigation for small vessels that navigate within the canal.

A preliminary review of this application indicates that the proposed work would not affect listed species or their critical habitat pursuant to Section 7 of the Endangered Species Act as amended. As the evaluation of this application continues, additional information may become available which could modify this preliminary determination.

The decision whether to issue a permit will be based on an evaluation of the activity's probable impact including its cumulative impacts on the public interest. The decision will reflect the national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the work must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the work will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs and welfare of the people. A Department of the Army permit will be granted unless the District Engineer determines that it would be contrary to the public interest.

The Corps of Engineers is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this

proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Comments on the proposed work should be submitted, in writing, within 15 days to the District Engineer, U.S. Army Corps of Engineers, Philadelphia District, Wanamaker Building, 100 Penn Square East, Philadelphia, Pennsylvania 19107-3390.

Review of the National Register of Historic Places indicates that no registered properties or properties listed as eligible for inclusion therein are located within the permit area of the work. This office has made a determination that the proposed work is of such limited nature and scope that little likelihood exists for the proposed project to impact a historic property.

The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act 1996 (Public Law 104-267), requires all Federal agencies to consult with the National Marine Fisheries Service on all actions, or proposed actions, permitted, funded, or undertaken by the agency that may adversely effect Essential Fish Habitat (EFH). A preliminary assessment of the species listed in the "Guide to Essential Fish Habitat Designations in the Northeastern United States, Volume IV: New Jersey and Delaware", dated March 1999, specifically page 90, indicates that the project would have an adverse effect on EFH and the species of concern, but that this impact would not be substantial. No mitigative measure are warranted for this matter. This office will coordinate with the National Marine Fisheries Service to ensure impacts on aquatic resources will be minimal.

In accordance with Section 307(c) of the Coastal Zone Management Act of 1972, applicants for Federal Licenses or Permits to conduct an activity affecting land or water uses in a State's coastal zone must provide certification that the activity complies with the State's Coastal Zone Management Program. The applicant has stated that the proposed activity complies with and will be conducted in a manner that is consistent with the approved State Coastal Zone Management (CZM) Program. No permit will be issued until the State has concurred with the applicant's certification or has waived its right to do so. Comments concerning the impact of the proposed and/or existing activity on the State's coastal zone should be sent to this office, with a copy to the State's Office of Coastal Zone Management.

Compensatory Mitigation: There is no proposed placement of dredged or fill material in waters or wetlands. As such, compensatory mitigation has not been proposed and is not anticipated.

Any person may request, in writing, to the District Engineer, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for a public hearing shall state in writing, with particularity, the reasons for holding a public hearing.

Additional information concerning this permit application may be obtained by calling Lawrence Slavitter at 215-656-6734, via email at lawrence.m.slavitter@usace.army.mil, or writing this office at the above address.

Edward E. Bonner
Chief, Regulatory Branch



PROJECT VICINITY MAP

SCALE IN FEET: 1" = 2,000'

0 1,000 2,000 4,000



ASSAWOMAN CANAL MAINTENANCE DREDGING PROJECT
SUSSEX COUNTY, DELAWARE

APPLICATION BY DNREC- DIVISION OF
WATERSHED STEWARDSHIP

DATE: SEPTEMBER 2016

SHEET: 1 OF 10

F:\SURVEY CREW\ACAD Files (previously acad12 or acad14)\CEW\PERMITS\ASSCAN PERMIT 2016 modification.dwg

SHEET 2 OF 10

PROJECT PLAN VIEW

ATLANTIC
OCEAN

BETHANY BEACH

HTL = +1.8
MHW = +1.3
MLW = 0.0

CONFINED DISPOSAL
FACILITIES = CDF#

CHANNEL DIMENSIONS

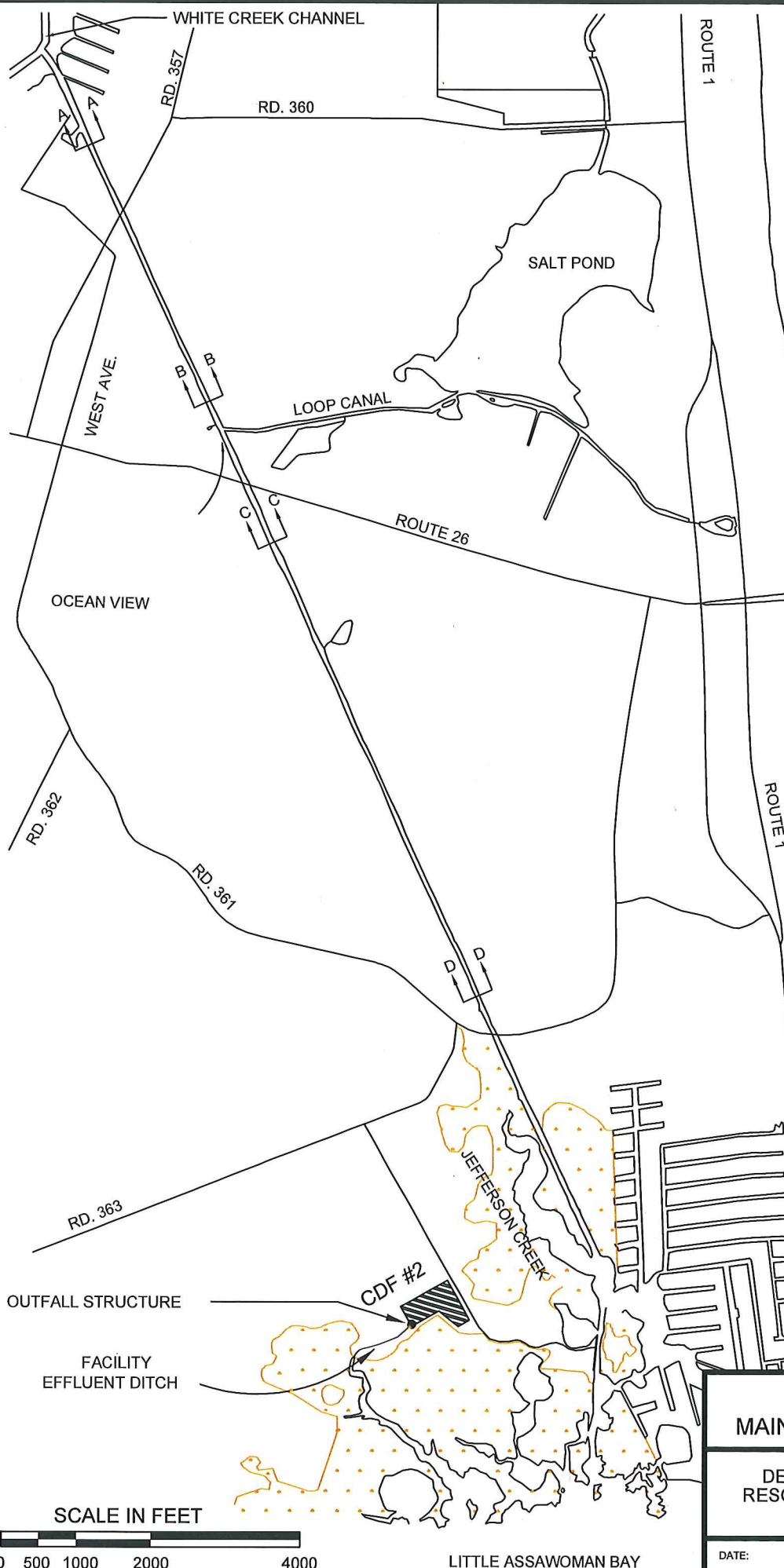
(A) - (B)
35' WIDE
3.0' DEEP

PURPOSE - MAINTENANCE
DREDGING TO FACILITATE
NAVIGATION

DATUM = M.L.W.

↑ = CROSS-SECTIONS

⬢ = WETLANDS

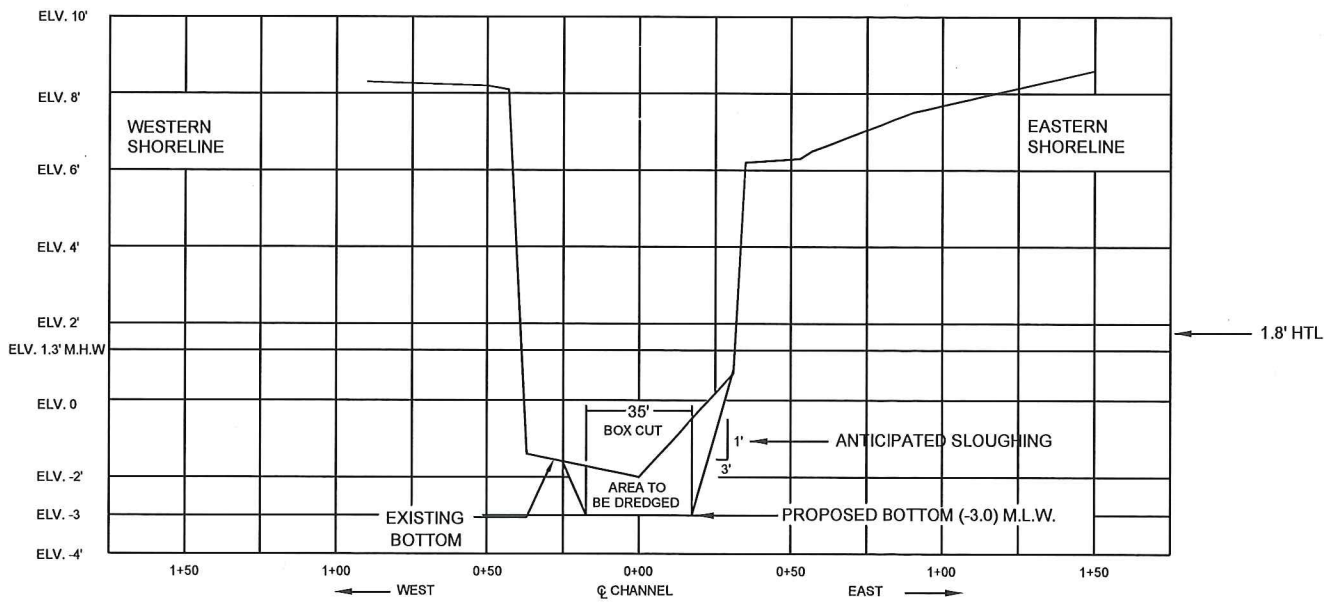


ASSAWOMAN CANAL MAINTENANCE DREDGING PROJECT

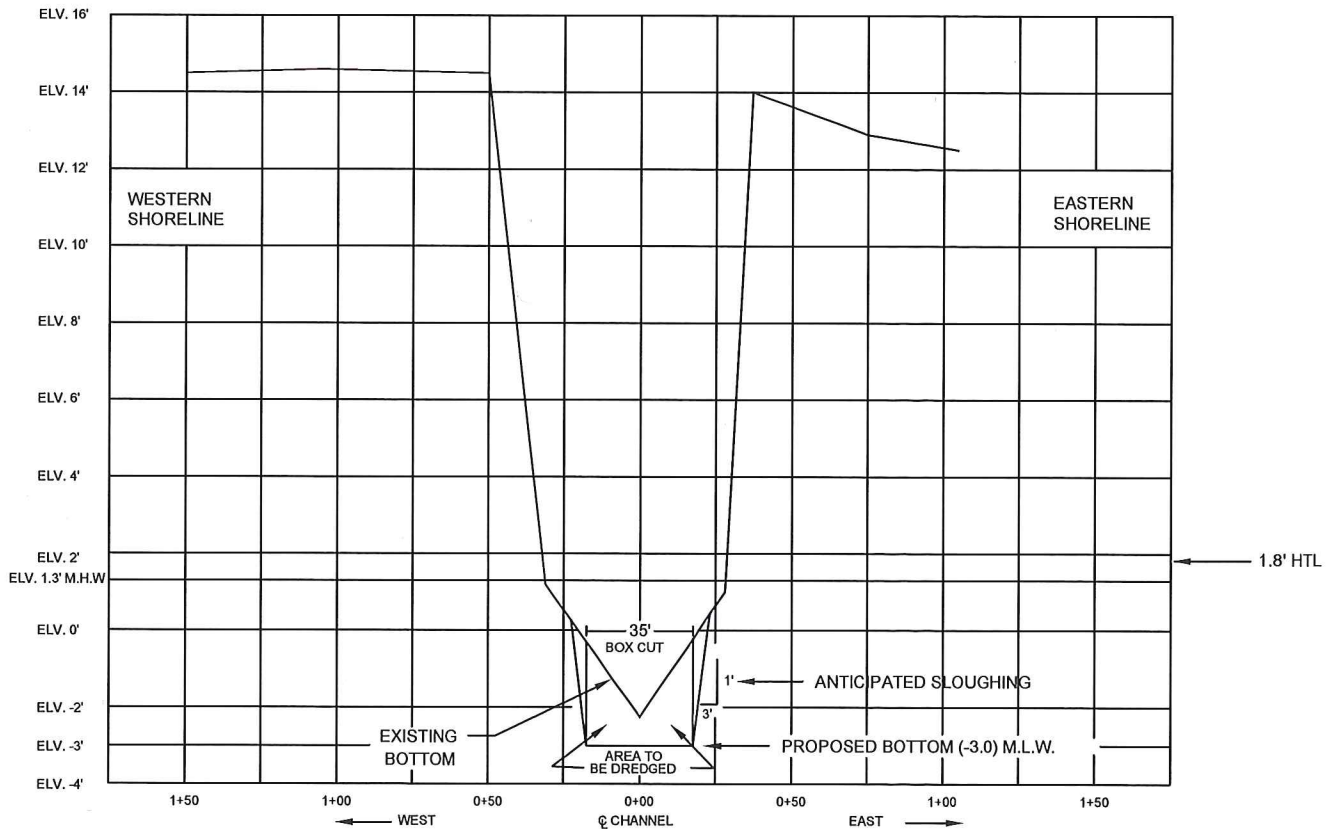
DELAWARE DEPARTMENT OF NATURAL
RESOURCES & ENVIRONMENTAL CONTROL
DIVISION OF WATERSHED STEWARDSHIP

DATE: SEPTEMBER, 2016
SCALE: AS SHOWN

DRAWN BY: A. MACDONALD
CHECKED BY: C. WILLIAMS



CROSS-SECTION "A-A"
MECHANICAL DREDGING



CROSS-SECTION "B-B"
MECHANICAL DREDGING

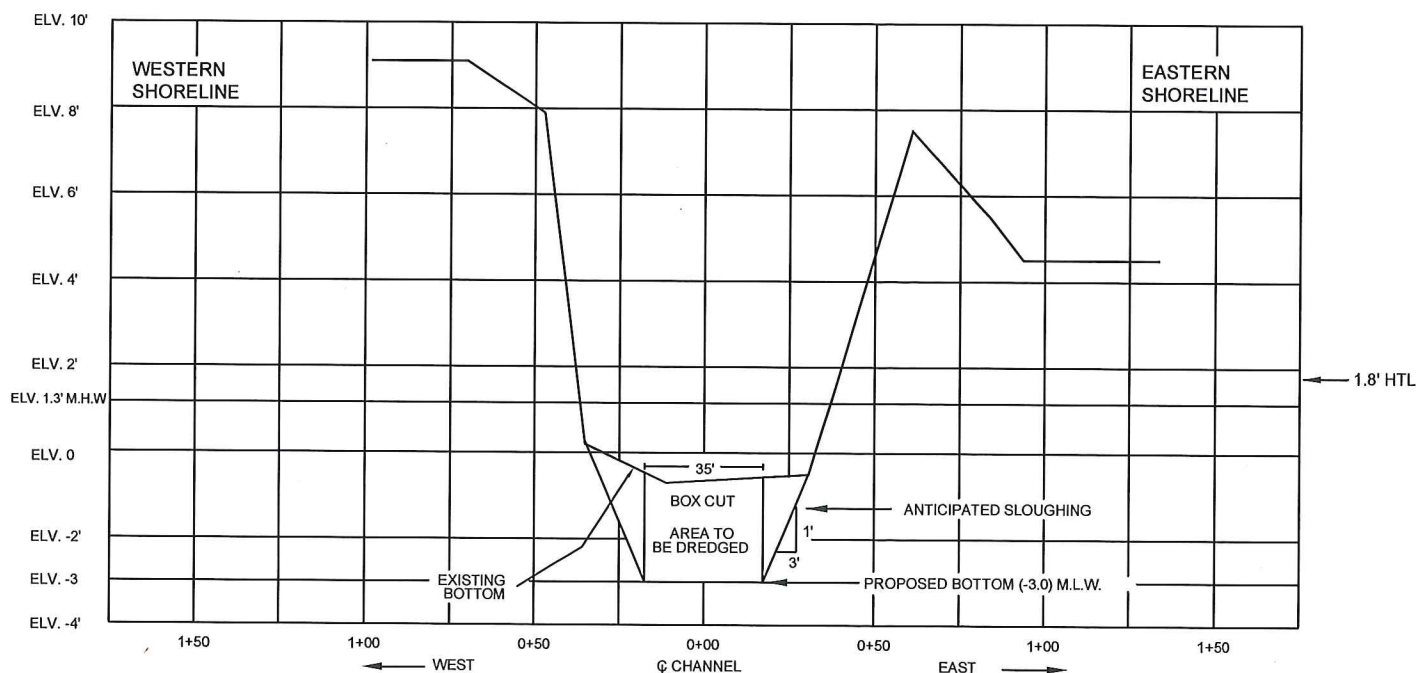
CROSS SECTIONS
SHEET 3 OF 10

ASSAWOMAN CANAL
MAINTENANCE DREDGING PROJECT

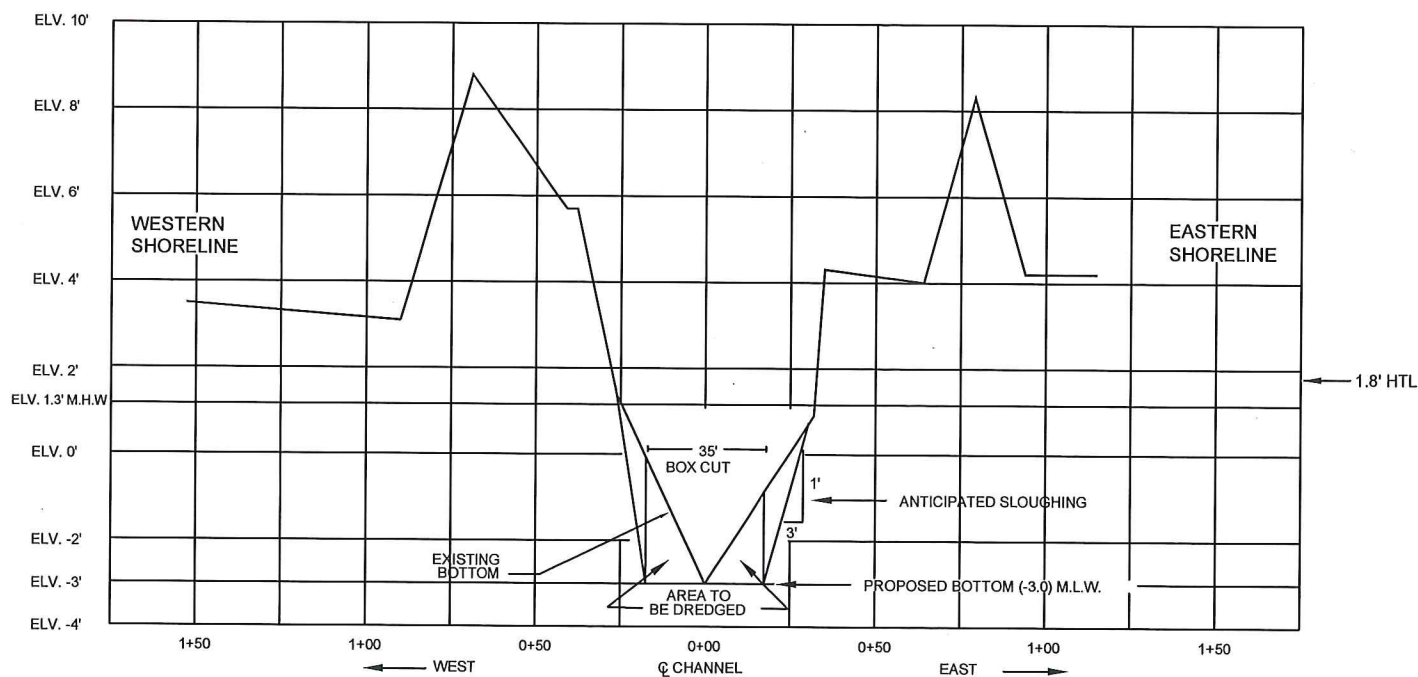
DELAWARE DEPARTMENT OF NATURAL
RESOURCES & ENVIRONMENTAL CONTROL
DIVISION OF WATERSHED STEWARDSHIP

DATE: SEPTEMBER, 2016
SCALE: AS SHOWN

DRAWN BY: A. MACDONALD
CHECKED BY: C. WILLIAMS



CROSS-SECTION "C - C"
HYDRAULIC DREDGING



CROSS-SECTION "D - D"
HYDRAULIC DREDGING

CROSS SECTIONS
SHEET 4 OF 10

ASSAWOMAN CANAL
MAINTENANCE DREDGING PROJECT

DELAWARE DEPARTMENT OF NATURAL
RESOURCES & ENVIRONMENTAL CONTROL
DIVISION OF WATERSHED STEWARDSHIP

DATE: SEPTEMBER, 2016
SCALE: AS SHOWN

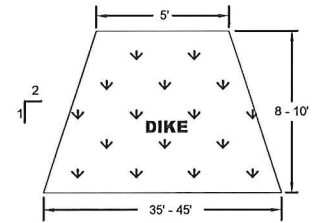
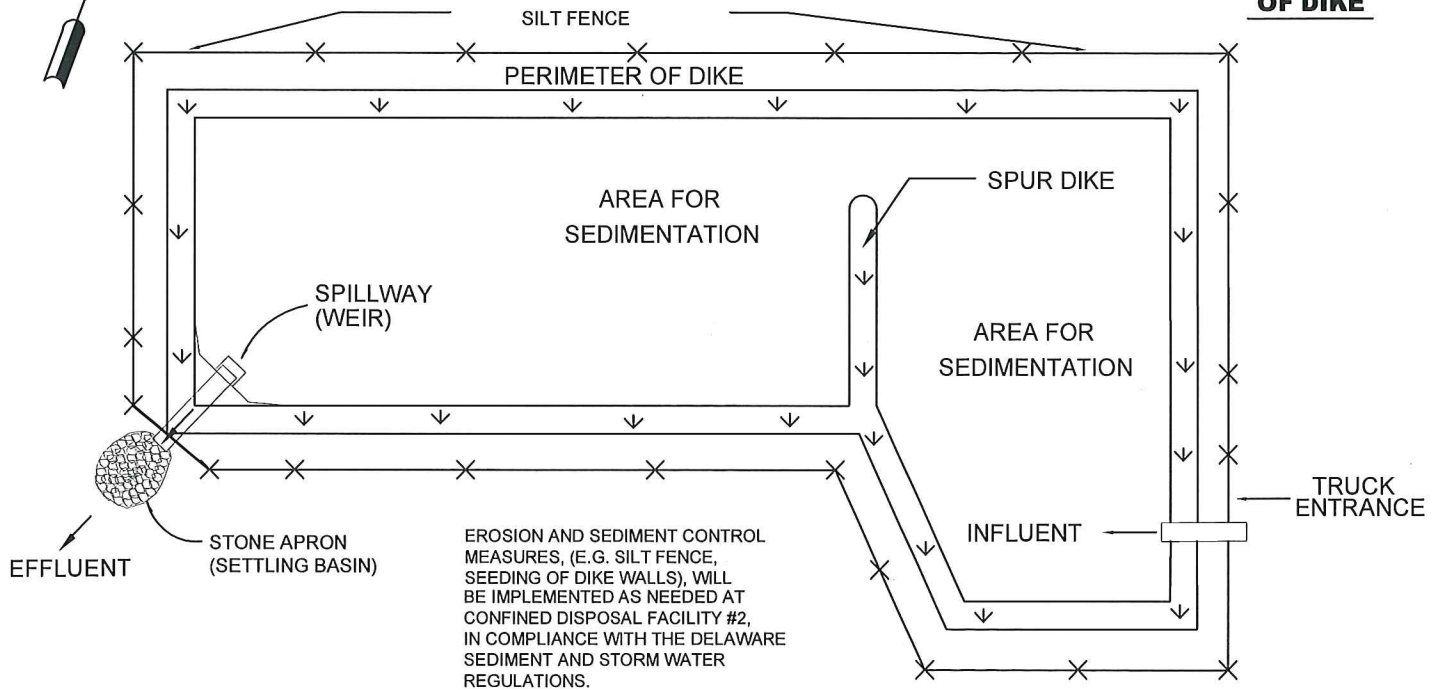
DRAWN BY: A. MACDONALD
CHECKED BY: C. WILLIAMS

CONFINED DISPOSAL FACILITY DESIGN

(NO SCALE)

PLAN VIEW

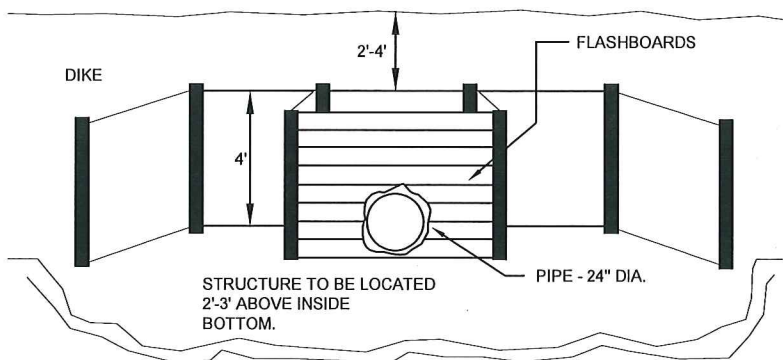
7 ACRE SITE



CROSS SECTION OF DIKE

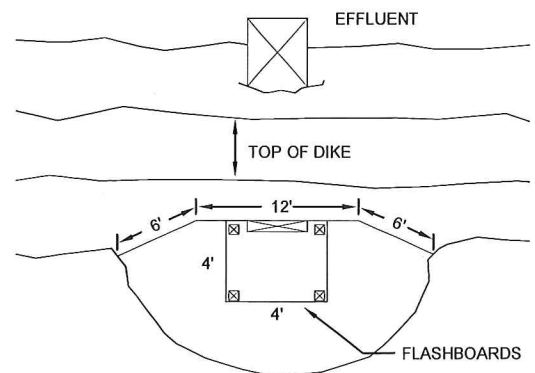
SPILLWAY (WEIR) DESIGN

PLAN VIEW



FLASHBOARDS WILL BE ADDED AS WATER LEVEL RISES.

TOP VIEW



**CONFINED DISPOSAL FACILITY DESIGN
FOR HYDRAULIC DREDGING ACTIVITIES
SHEET 5 OF 10**

**ASSAWOMAN CANAL
MAINTENANCE DREDGING PROJECT**

DELAWARE DEPARTMENT OF NATURAL
RESOURCES & ENVIRONMENTAL CONTROL
DIVISION OF WATERSHED STEWARDSHIP

DATE: SEPTEMBER, 2016
SCALE: AS SHOWN

DRAWN BY: A. MACDONALD
CHECKED BY: C. WILLIAMS

ASSAWOMAN CANAL
MAINTENANCE DREDGING PROJECT

DELAWARE DEPARTMENT OF NATURAL
RESOURCES & ENVIRONMENTAL CONTROL
DIVISION OF SOIL AND WATER CONSERVATION

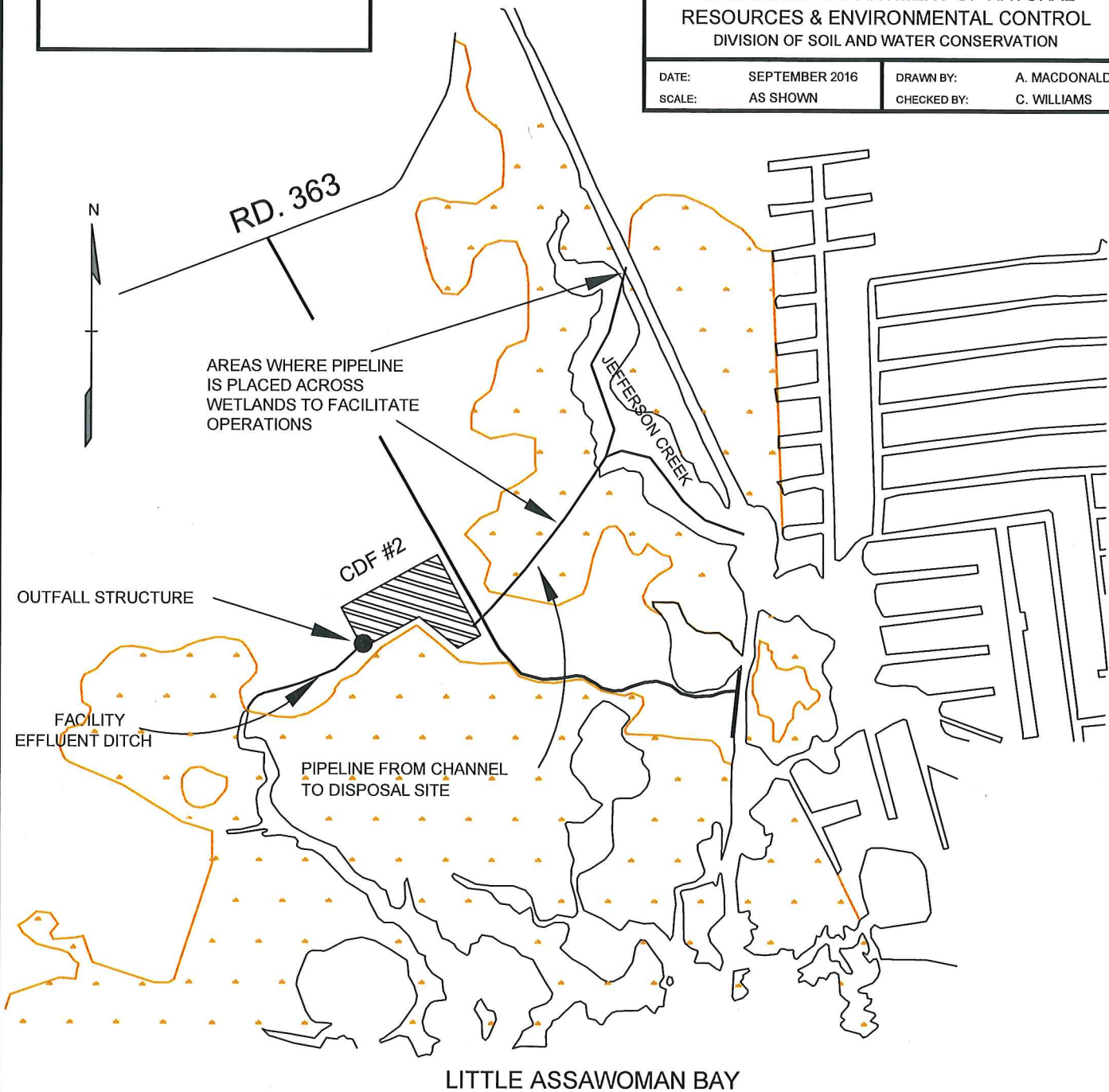
DATE: SEPTEMBER 2016

DRAWN BY: A. MACDONALD

SCALE: AS SHOWN

CHECKED BY: C. WILLIAMS

 = WETLANDS

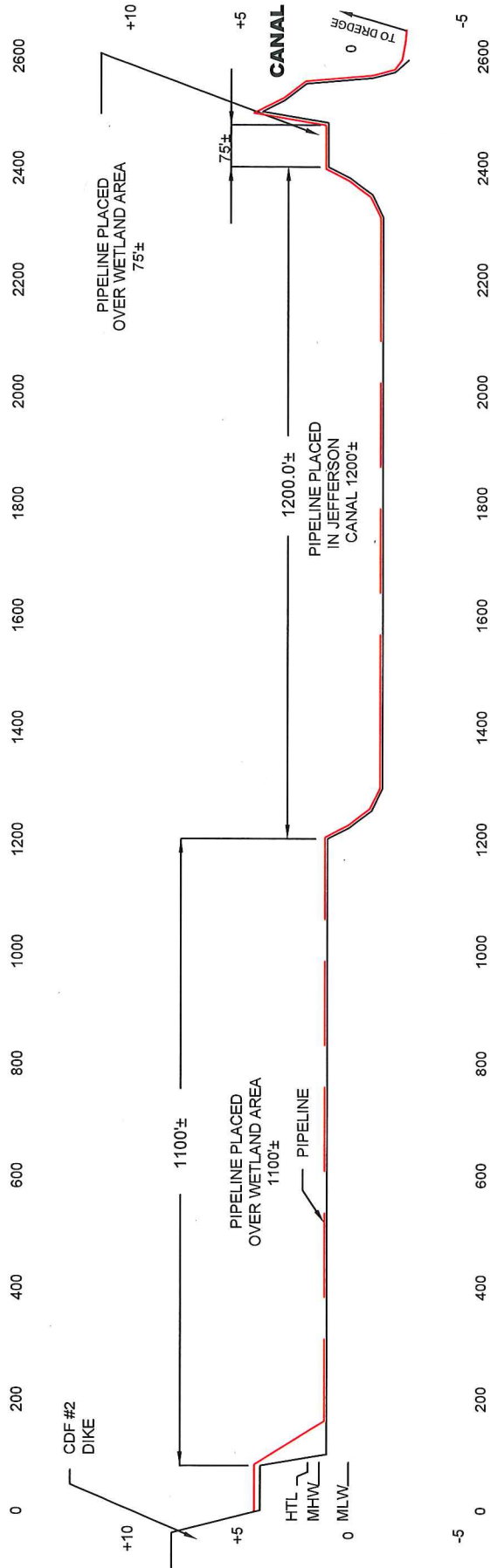


HTL = +1.8
MHW = +1.3
MLW = 0.0

SCALE



SHEET 6 OF 10
PIPELINE
PLAN VIEW



DREDGE PIPELINE ROUTE FROM CANAL TO CDF #2
(WHEN DREDGING IN A NORTHWESTERLY DIRECTION)

(SCALE AS SHOWN)

HTL = +1.8

MHW = +1.3

MLW = 0.0

SHEET 7 OF 10

DATUM = M.L.W.

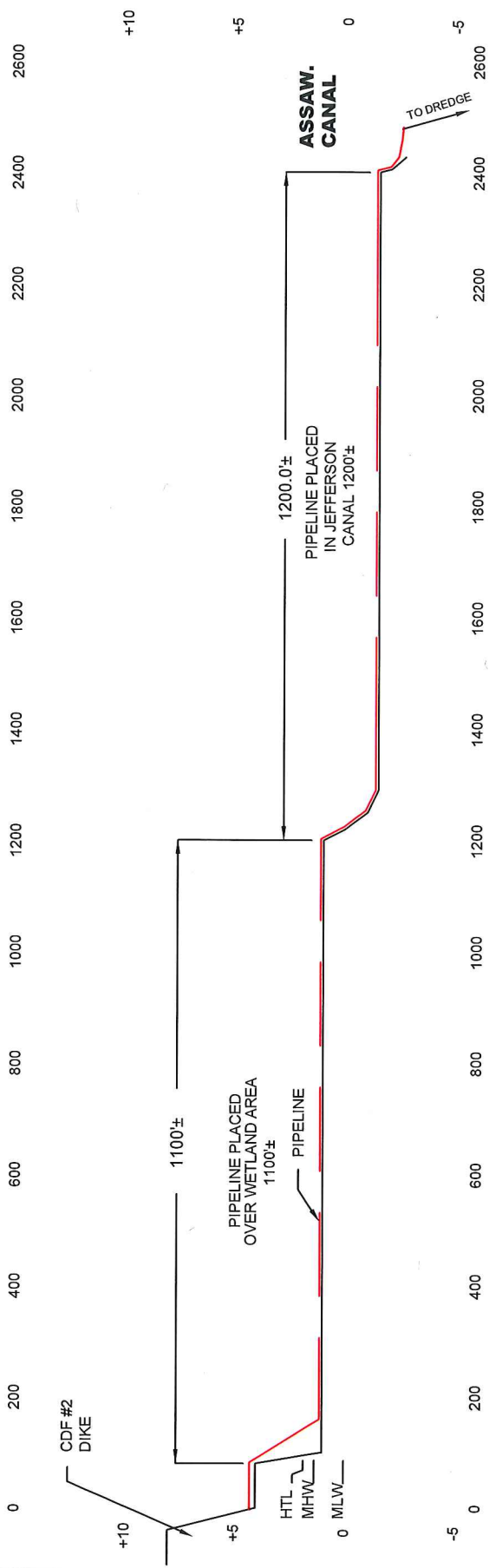
ASSAWOMAN CANAL

MAINTENANCE DREDGING PROJECT

DELAWARE DEPARTMENT OF NATURAL
RESOURCES & ENVIRONMENTAL CONTROL
DIVISION OF WATERSHED STEWARDSHIP

DATE: SEPTEMBER 2016
SCALE: AS SHOWN

DRAWN BY: A. MACDONALD
CHECKED BY: C. WILLIAMS



DREDGE PIPELINE ROUTE FROM CANAL TO CDF #2
(WHEN DREDGING IN A SOUTHERLY DIRECTION)

(SCALE AS SHOWN)

HTL = +1.8
MHW = +1.3
MLW = 0.0


ASSAWOMAN CANAL	
MAINTENANCE DREDGING PROJECT	
DELAWARE DEPARTMENT OF NATURAL RESOURCES & ENVIRONMENTAL CONTROL DIVISION OF WATERSHED STEWARDSHIP	
DATE: SEPTEMBER 2016	DRAWN BY: A. MACDONALD
SCALE: AS SHOWN	CHECKED BY: C. WILLIAMS

SHEET 8 OF 10

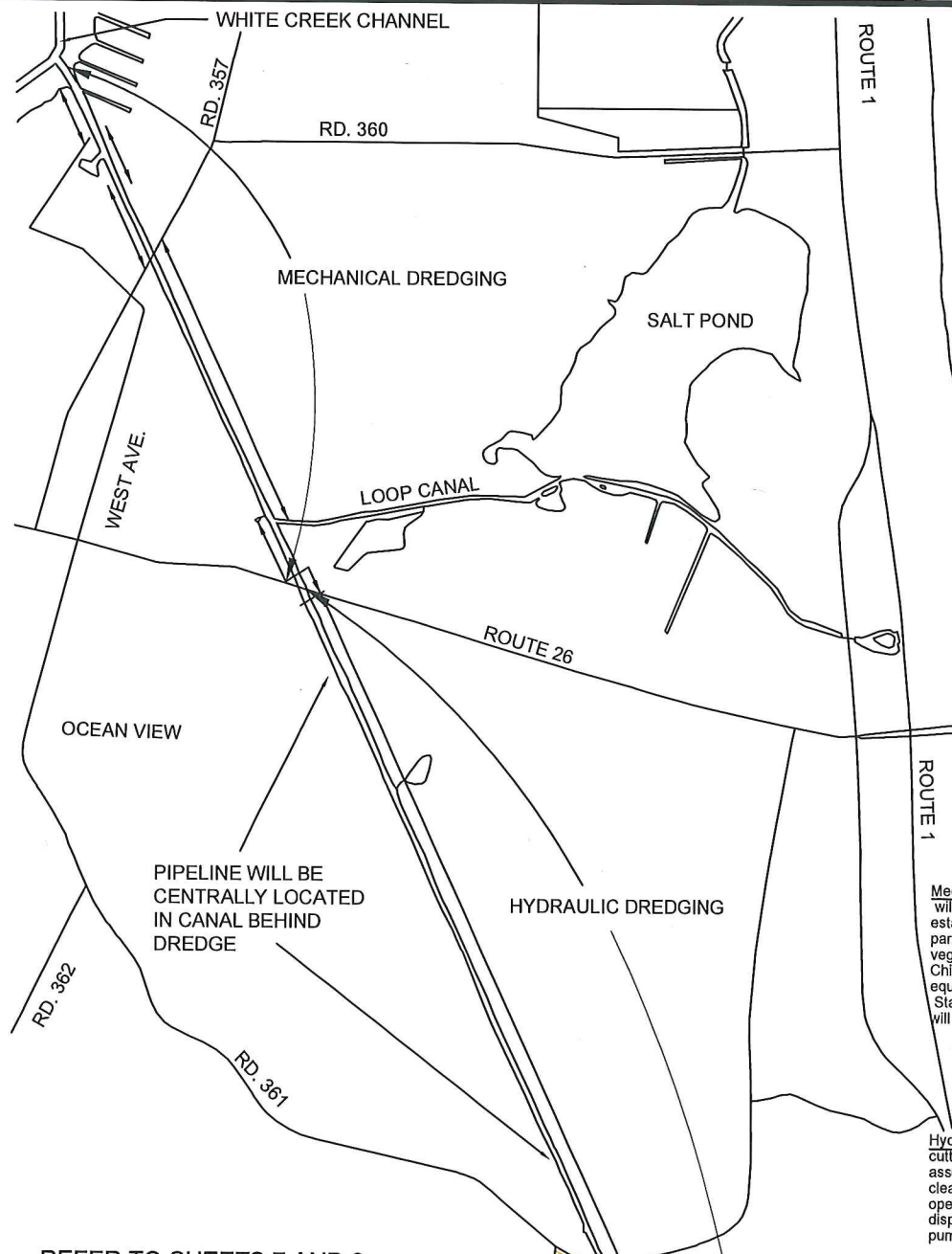
DATUM = M.L.W.

SHEET 9 OF 10 CONSTRUCTION METHODOLOGY

 = MECHANICAL DREDGING
WORK AREAS

 = WETLANDS

ATLANTIC
OCEAN
BETHANY BEACH

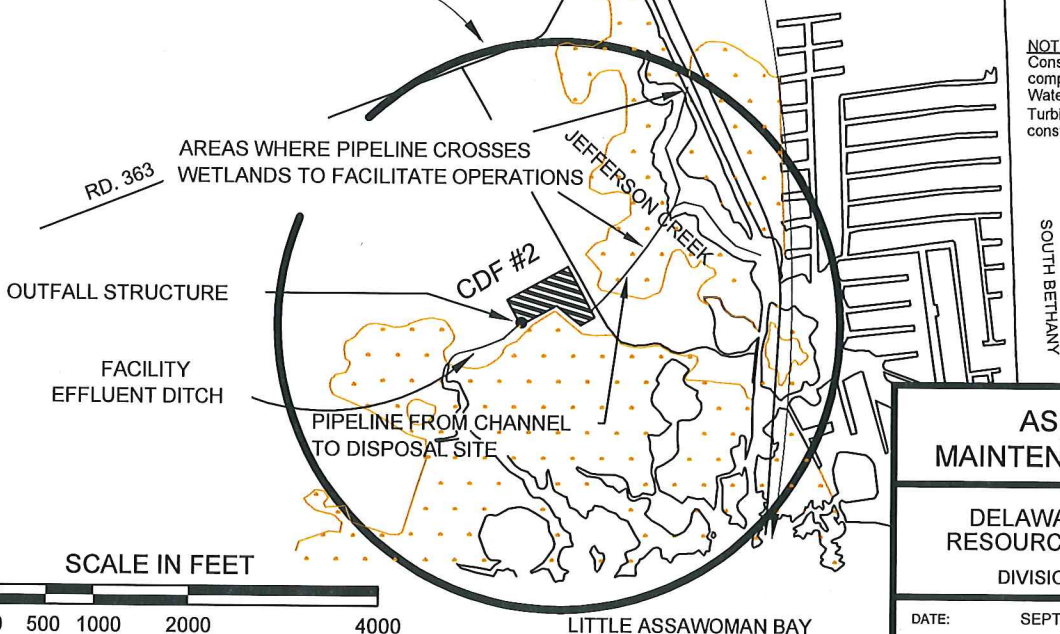


Mechanical Dredging: White Creek to State Road 26 Bridge. Excavator will work from both sides of canal as shown on drawing in previously established haul roads, in areas where it previously worked and on the State park trail. Stockpiling will occur within these areas. Minimal clearing of vegetation (e. g. branches, shrubs) to facilitate equipment operation. Chipping will be done on site. Minor fill will be placed in areas affected by equipment operation. Crushed stone will be used to repair sections of the State park trail affected by construction activities. All excavated material will be truck hauled to CDF #2 for final disposal.

Hydraulic Dredging: State Road 26 to Little Assawoman Bay. Hydraulic cutter-head dredge to be used working in the canal along with booster assistance. Small barge and work boats to accompany dredge. Side slope clearing and snagging along with tree removal to facilitate equipment operation. Branches chipped on site. Trees to be taken to CDF #2 for disposal or used to stabilize eroding banks along canal. All material to be pumped via plastic dredge pipeline to CDF #2.

REFER TO SHEETS 7 AND 8
FOR OVERHEAD VIEW

NOTES:
Construction activities will be carried out in compliance with the Delaware Sediment and Storm Water Regulations.
Turbidity curtains will be used periodically during construction to control turbidity.



HTL = +1.8
MHW = +1.3
MLW = 0.0

ASSAWOMAN CANAL MAINTENANCE DREDGING PROJECT

DELAWARE DEPARTMENT OF NATURAL
RESOURCES & ENVIRONMENTAL CONTROL

DIVISION OF WATERSHED STEWARDSHIP

DATE: SEPTEMBER, 2016
SCALE: AS SHOWN

DRAWN BY: A. MACDONALD
CHECKED BY: C. WILLIAMS

ASSAWOMAN CANAL MAINTENANCE DREDGING PROJECT

DELAWARE DEPARTMENT OF NATURAL
RESOURCES & ENVIRONMENTAL CONTROL
DIVISION OF WATERSHED STEWARDSHIP

DATE: SEPTEMBER 2016

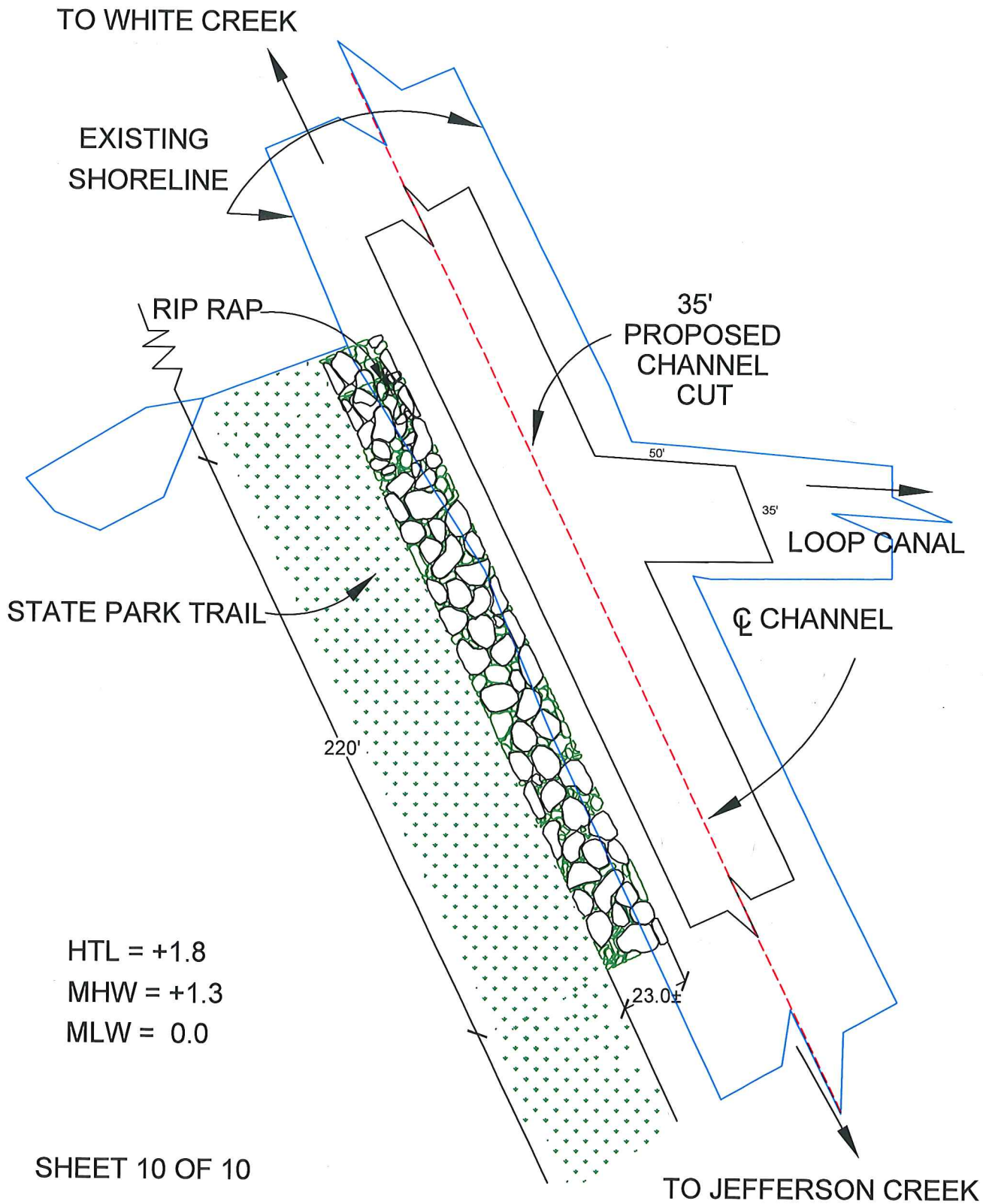
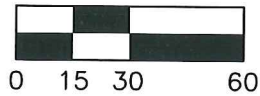
DRAWN BY: A. MACDONALD

SCALE: AS SHOWN

CHECKED BY: C. WILLIAMS

SCALE IN FEET:

1" = 30'





ASSAWOMAN CANAL MAINTENANCE DREDGING PROJECT
AERIAL LOCATION MAP

SCALE: 1" = 1000'



ASSAWOMAN CANAL MAINTENANCE DREDGING PROJECT
AERIAL LOCATION MAP

SCALE: 1" = 1000'



ASSAWOMAN CANAL MAINTENANCE DREDGING PROJECT
AERIAL LOCATION MAP

SCALE: 1" = 1000'



ASSAWOMAN CANAL MAINTENANCE DREDGING PROJECT
AERIAL LOCATION MAP

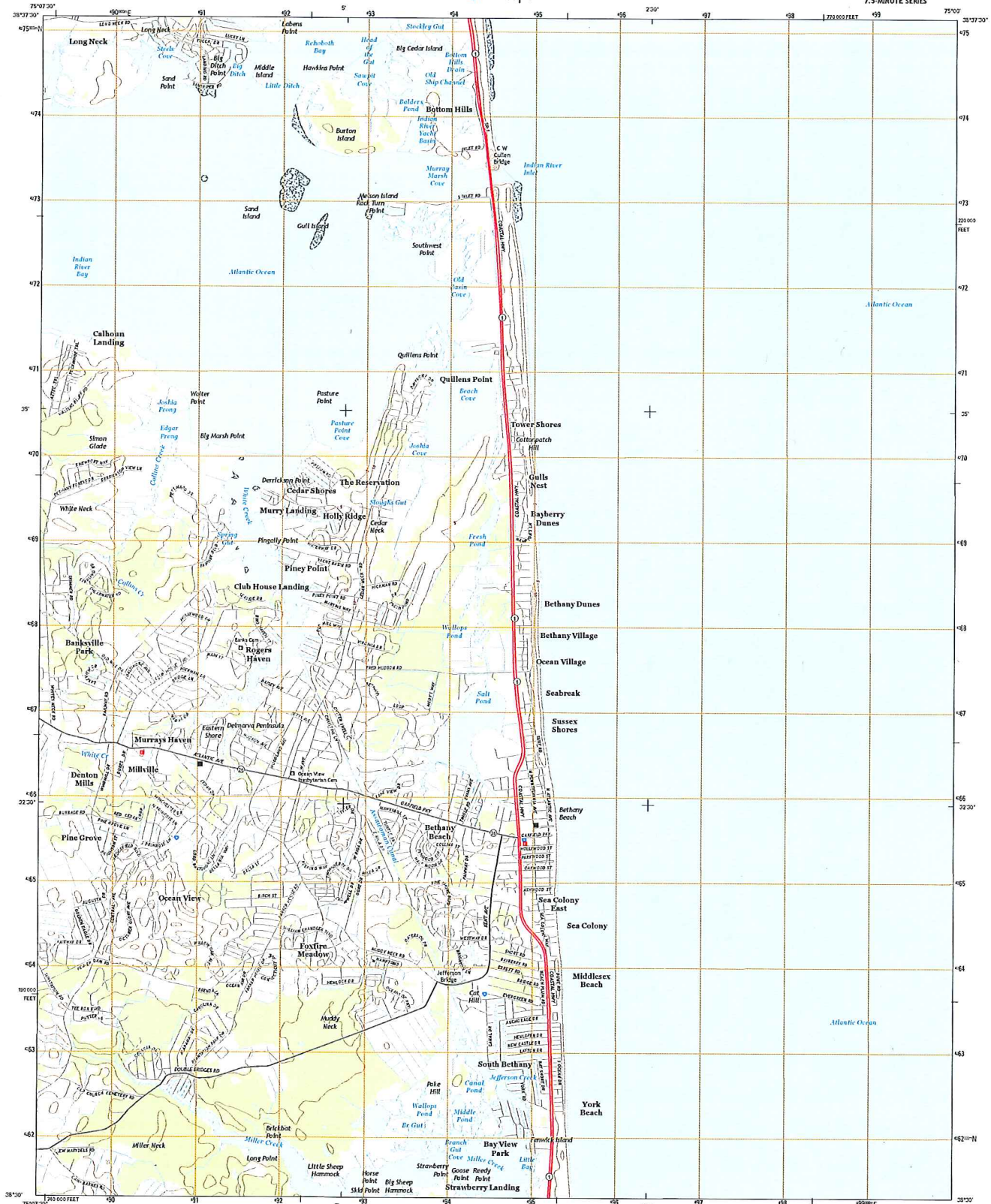
SCALE: 1" = 600'



U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

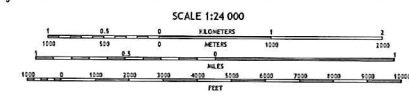
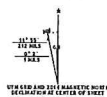


BETHANY BEACH QUADRANGLE
DELAWARE-SUSSEX CO.
7.5-MINUTE SERIES



Produced by the United States Geological Survey
Map is a work of the U.S. Government
World Geodetic System of 1984 (WGS84). Projection and
1:250,000 scale are used. Data are from the 1984
1:250,000 Scale Digital Data Base of the U.S. Geological Survey.

This map is not a legal document. Some details may be
omitted for this map scale. Private land within government
reservations may not be shown. Obtain permission before
entering private lands.



ROAD CLASSIFICATION			
Expressway	Local Connector	Local Road	State Road
Secondary Hwy	Local Road	Local Road	State Road
Interstate Route	US Route	State Road	State Road

BETHANY BEACH, DE
2014