



**US Army Corps  
of Engineers** ®  
New England District  
696 Virginia Road  
Concord, MA 01742-2751

# 10-Day PUBLIC NOTICE

**Comment Period Begins: July 27, 2010**  
**Comment Period Ends: August 5, 2010**  
**File Number: NAE-2010-1107**  
**In Reply Refer To: Michael Riccio**  
**Phone: (978) 318-8685**  
**E-mail: Michael.S.Riccio@usace.army.mil**

The District Engineer has received a permit application from the applicant below to **conduct work in waters of the United States** as described below.

**APPLICANT:** City of Cranston / Natural Resources Conservation Service

**ACTIVITY:** The City of Cranston in conjunction with the Natural Resources Conservation Services proposes to improve the water quality, and create riverine ecology in the 67.74 acre parcel of land known as the Lower Pawtuxet River Oxbows (LPRO). This is to be accomplished by removing selected dikes and associated fill, re-establishing two (2) existing channels, and creating two (2) new channels which will connect the oxbows to the Pawtuxet River.

## **WATERWAY AND LOCATION OF THE PROPOSED WORK**

This work is proposed in wetlands adjacent to the Pawtuxet River at 60 Rhodes Place in Cranston, Rhode Island. The proposed location on the USGS Providence quadrangle sheet is at coordinates 41.7685 N and 71.3999 W.

## **AUTHORITY**

Permits are required pursuant to:

- Section 10 of the Rivers and Harbors Act of 1899
- Section 404 of the Clean Water Act
- Section 103 of the Marine Protection, Research and Sanctuaries Act).

The decision whether to issue a permit will be based on an evaluation of the probable impact of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which may reasonably accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are: conservation, economics, aesthetics, general environmental concerns, wetlands, cultural value, fish and wildlife values, flood hazards, flood plain value, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people.

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.

Where the activity involves the discharge of dredged or fill material into waters of the United States or the transportation of dredged material for the purpose of disposing it in ocean waters, the evaluation of the impact of the activity in the public interest will also include application of the guidelines promulgated by the Administrator, U.S Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act, and/or Section 103 of the Marine Protection Research and Sanctuaries Act of 1972 as amended.

**SECTION 106 COORDINATION**

Based on his initial review, the District Engineer has determined that the proposed work may impact properties listed in, or eligible for listing in, the National Register of Historic Places. Additional review and consultation to fulfil requirements under Section 106 of the National Historic Preservation Act of 1966, as amended, will be ongoing as part of the permit review process.

**ENDANGERED SPECIES CONSULTATION**

The New England District, Army Corps of Engineers has reviewed the list of species protected under the Endangered Species Act of 1973, as amended, which might occur at the project site. It is our preliminary determination that the proposed activity for which authorization is being sought is designed, situated or will be operated/used in such a manner that it is not likely to adversely affect any Federally listed endangered or threatened species or their designated critical habitat. By this Public Notice, we are requesting that the appropriate Federal Agency concur with our determination.

The following authorizations have been applied for, or have been, or will be obtained:

- ( X ) Permit, License or Assent from State.
- ( ) Permit from Local Wetland Agency or Conservation Commission.
- ( X ) Water Quality Certification in accordance with Section 401 of the Clean Water Act.

In order to properly evaluate the proposal, we are seeking public comment. Anyone wishing to comment is encouraged to do so. **Comments should be submitted in writing by the above date.** If you have any questions, please contact Michael Riccio at (978) 318-8685.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for a public hearing shall specifically state the reasons for holding a public hearing. The Corps holds public hearings for the purpose of obtaining public comments when that is the best means for understanding a wide variety of concerns from a diverse segment of the public.

The initial determinations made herein will be reviewed in light of facts submitted in response to this notice. All comments will be considered a matter of public record. Copies of letters of objection will be forwarded to the applicant who will normally be requested to contact objectors directly in an effort to reach an understanding.

**CENAE-R**  
**FILE NO. NAE-2010-1107**

In accordance with 33 CFR 325.2(a)(8), we publish monthly a list of permits issued or denied during the previous month at [www.nae.usace.army.mil/reg](http://www.nae.usace.army.mil/reg), under the heading "Monthly General and Individual Permit Authorizations." Relevant environmental documents and the SOFs or RODs are available upon written request and, where applicable, upon the payment of administrative fees. Also visit [www.nae.usace.army.mil](http://www.nae.usace.army.mil) for more information on the New England District Corps of Engineers programs.

**THIS NOTICE IS NOT AN AUTHORIZATION TO DO ANY WORK.**



**Diane Ray**  
**Acting Chief, Permits and Enforcement Branch**  
**Regulatory Division**

If you would prefer not to continue receiving Public Notices, please contact Ms. Tina Chaisson at (978) 318-8058 or e-mail her at [bettina.m.chaisson@usace.army.mil](mailto:bettina.m.chaisson@usace.army.mil). You may also check here ( ) and return this portion of the Public Notice to: Bettina Chaisson, Regulatory Division, U.S. Army Corps of Engineers, 696 Virginia Road, Concord, MA 01742-2751.

NAME: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_

**PROPOSED WORK AND PURPOSE**

The work includes the discharge of fill material associated with the construction activities and the excavation of four (4) channels which will connect the LPRO with the Pawtuxet River.

A total of 0.83 acres of wetlands will be directly and permanently impacted under the Proposed Action. These permanent impacts are the result of the proposed improvements within wetland areas, including reconnection of the LRPO and Pawtuxet River, and include excavation and regrading activities. A total of 1.2 acres of temporary direct wetland impacts will occur as a result of construction activities. These impacts will be temporary in nature and the areas will be restored following construction.

Secondary impacts to wetlands include the conversion of approximately 57 acres of an existing lacustrine ecosystem into a riverine ecosystem system to achieve improved water quality and wildlife habitat.

The work is described on the enclosed plans entitled "Oxbows Floodplains Restoration Pawtuxet River" on eleven (11) sheets, and dated "April 2010."

**MITIGATION** – Currently the applicant has not submitted any plans for mitigation, as the project is being proposed as a wetland restoration project which will improve the overall wetland functions and values of the LPRO. Upon a full public interest review, the Corps will determine whether the proposed work should require mitigation.

# OXBOWS FLOODPLAINS RESTORATION PAWTUXET RIVER CRANSTON, RHODE ISLAND

## PREPARED FOR: NATURAL RESOURCES CONSERVATION SERVICE



2000 1000 0 1000 2000  
GRAPHIC SCALE IN FEET  
**VICINITY MAP**



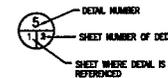
60 Quaker Lane, Suite 46  
Warwick, Rhode Island 02886  
(401) 828-1300



ABBREVIATIONS	
AGC	ALKALINE COPPER QUATERNARY
C	CONCRETE
CC	CONCRETE
CHW	DOWNSTREAM HIGH WATER
CLW	DOWNSTREAM LOW WATER
EA	EARTH
E	EASTING
EL	ELEVATION
EN	ENDING
FL	FLOOD LEVEL
FEMA	FEDERAL EMERGENCY MANAGEMENT AGENCY
H.W.L.	HIGH WATER LEVEL
HSE	HOLLOW STRUCTURAL SECTIONS
HORIZ.	HORIZONTAL
INCL.	INCLINE
LM	LIMIT OF WORK
L.W.L.	LOW WATER LEVEL
M	MILE
M&L	MATERIAL
NRCS	NATURAL RESOURCES CONSERVATION SERVICE
N	NORTHING
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
P	PLATE OR PROPERTY LINE
P.C.	POLYMER CONDUIT FOR PROFESSIONAL ENGINEER
PROJ.	PROJEC
R.I.	RHODE ISLAND
S	SALT FENCE
SS	STAINLESS STEEL
SS-T	STAINLESS STEEL THREADED
SRP	STATE HISTORIC PRESERVATION OFFICE
TYP.	TYPICAL
VERT.	VERTICAL
W	WETLAND
W.F.	WETLAND FLAG
Y	YEAR

LEGEND	
-----	EXISTING MINOR CONTOUR LINES
-----	EXISTING MAJOR CONTOUR LINES
-----	PROPOSED MINOR CONTOUR LINES
-----	PROPOSED MAJOR CONTOUR LINES
-----	EDGE OF WATER
FL	100 YEAR FLOODPLAIN
LDW	LIMIT OF WORK
CD	TEMPORARY CONTOUR
W	WETLAND LIMITS
	EXISTING TREE
	WETLAND FLAG
	PROPOSED COBBLES
	DETOURING PUMP
SF	SALT FENCE
OHV	OVERHEAD WIRE
RB	200' RIBBONBANK WETLAND SCIENCE
---	PROPERTY LINE
X	CHAIN LINK FENCE
	Temporary Cofferdam Phase I/A
	Temporary Cofferdam Phase I
	Temporary Cofferdam Phase II

### REFERENCE SYMBOLS



PREPARED BY

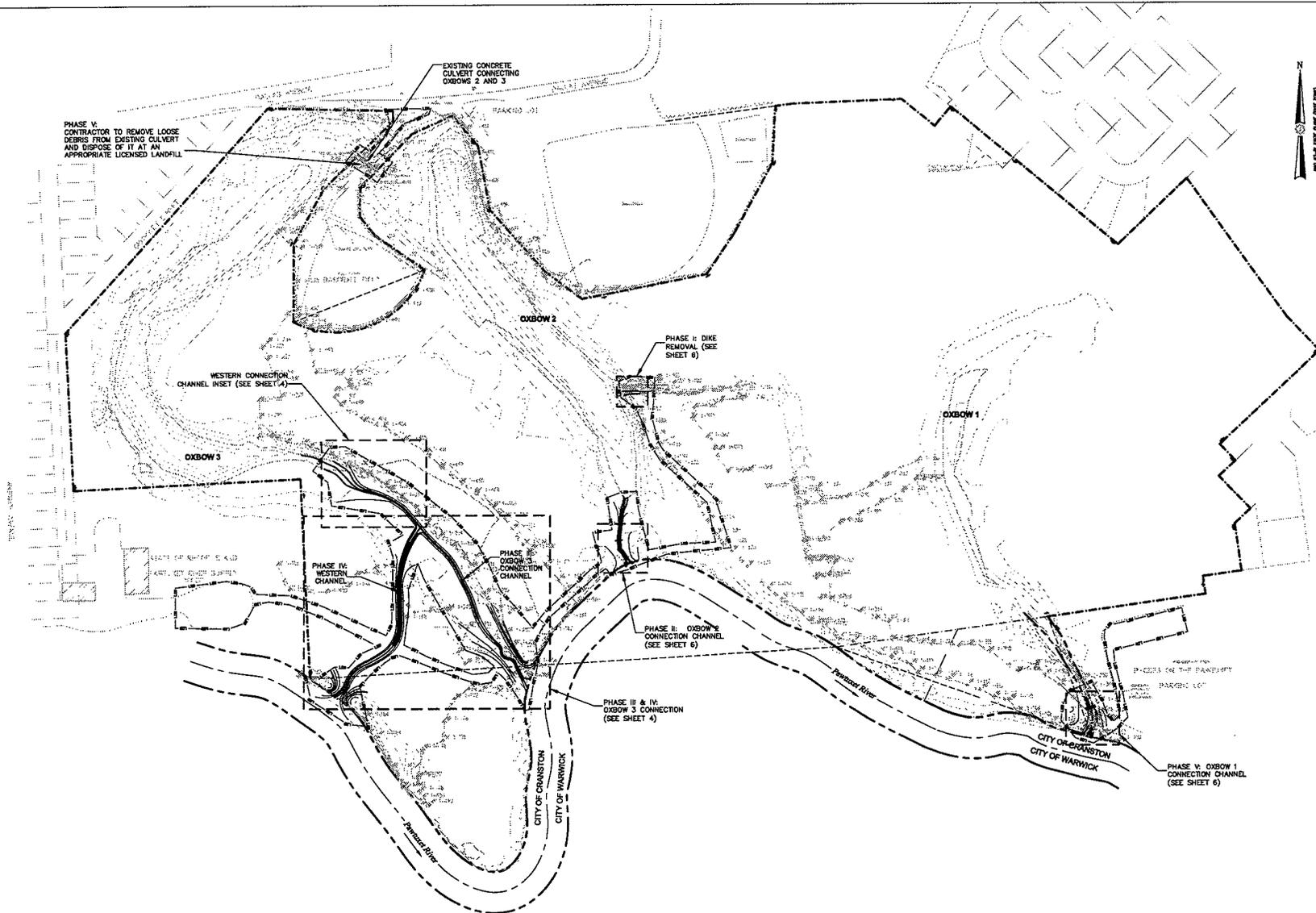
**EA** ENGINEERING,  
SCIENCE, AND  
TECHNOLOGY  
2350 Post Road  
Warwick, Rhode Island 02886  
(401) 736-3440

DRAWING NUMBER	SHEET NUMBER	DRAWING TITLE
T-1	1 OF 11	TITLE SHEET
C-1	2 OF 11	OVERALL EXISTING CONDITIONS PLAN
C-2	3 OF 11	OVERALL PROPOSED SITE PLAN
C-3	4 OF 11	PROPOSED PLAN - OXBOW 3
C-4	5 OF 11	OXBOW 3 CONNECTION PROFILE
C-5	6 OF 11	OXBOWS 1 AND 2 - PLANS AND PROFILES
C-6	7 OF 11	OXBOW CONNECTION DETAILS AND CROSS SECTIONS
C-7	8 OF 11	OVERALL CONSTRUCTION MANAGEMENT AND SITE ACCESS PLAN
C-8	9 OF 11	OXBOW 3 CONSTRUCTION MANAGEMENT PLAN
C-9	10 OF 11	OXBOWS 1 AND 2 CONSTRUCTION MANAGEMENT PLAN
C-10	11 OF 11	CONSTRUCTION MANAGEMENT DETAILS

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 10%;">NO.</td><td style="width: 10%;">DATE</td><td style="width: 80%;">DESCRIPTION</td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>	NO.	DATE	DESCRIPTION										<p>NATURAL RESOURCES CONSERVATION SERVICE OXBOWS FLOODPLAINS RESTORATION PROJECT CRANSTON, RHODE ISLAND</p> <p>TITLE SHEET</p>
NO.	DATE	DESCRIPTION											
<p>Natural Resources Conservation Service</p>													
<p>EA ENGINEERING, SCIENCE, AND TECHNOLOGY 2350 Post Road Warwick, Rhode Island 02886 (401) 736-3440</p>													
<p>DATE: JUNE 2010</p> <p>DESIGNED BY: SOM</p> <p>DRAWN BY: DVA</p> <p>CHECKED BY: TOC</p> <p>PROJECT MANAGER: SSW</p> <p>PROJECT NUMBER: 02130.05</p> <p>SCALE: NONE</p> <p>FILE NAME: TITLE SHEET</p> <p>DRAWING NUMBER: T-1</p> <p>SHEET NUMBER: 1 OF 11</p>													

100% DESIGN DRAWINGS  
FOR CONSTRUCTION





PROPOSED CONDITIONS PLAN



NO.	DATE	BY	REVISIONS	DESCRIPTION

NATURAL RESOURCES CONSERVATION SERVICE  
 OXBOWS FLOODPLAINS RESTORATION PROJECT  
 CRANSTON, RHODE ISLAND

OVERALL PROPOSED SITE PLAN



2350 Pease Road Warwick, Rhode Island 02806 (401) 738-3440
DATE: JUNE 2010
DESIGNED BY: SCM
DRAWN BY: DPA
CHECKED BY: TDC
PROJECT MANAGER: SWP
PROJECT NUMBER: 02130323
SCALE: 1"=100'
TITLE NAME: OXBOWS-CONNECTIONS
DRAWING NUMBER: C-2
SHEET NUMBER: 3 OF 11

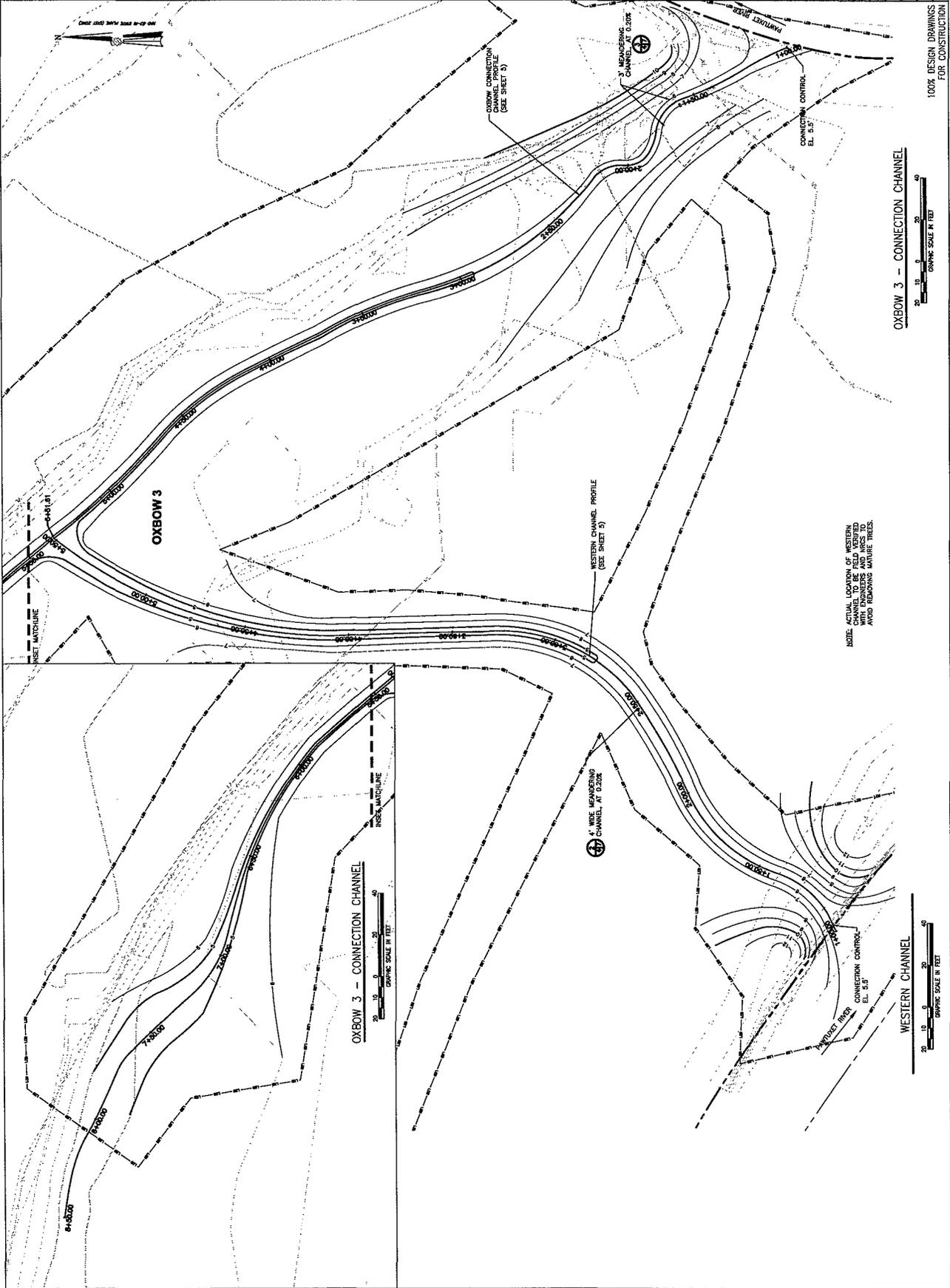
100% DESIGN DRAWINGS FOR CONSTRUCTION

NO.	DATE	BY	DESCRIPTION

NATURAL RESOURCES CONSERVATION SERVICE  
 OXBOWS FLOODPLAINS RESTORATION PROJECT  
 OXBOWS CRAWSTON, RHODE ISLAND  
 PROPOSED PLAN - OXBOW 3



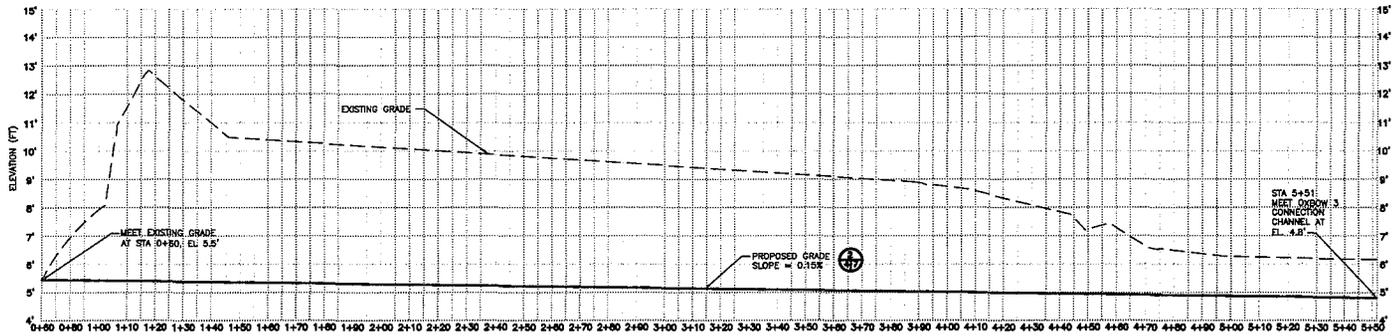
3340 Post Road, Westport, Rhode Island 02891  
 TEL: 401-873-5100  
 FAX: 401-873-5100  
 PROJECT NO: 03-010  
 SHEET NO: 3-3  
 DATE: JUNE 2010  
 DRAWN BY: SKM  
 CHECKED BY: DVA  
 PROJECT NUMBER: 03-010  
 PROJECT NAME: OXBOW 3  
 SCALE: AS SHOWN  
 TITLE: WESTERN CHANNEL - CONNECTION CHANNEL  
 SHEET NUMBER: C-3  
 DRAWING TOLERANCE: 4" @ 1"



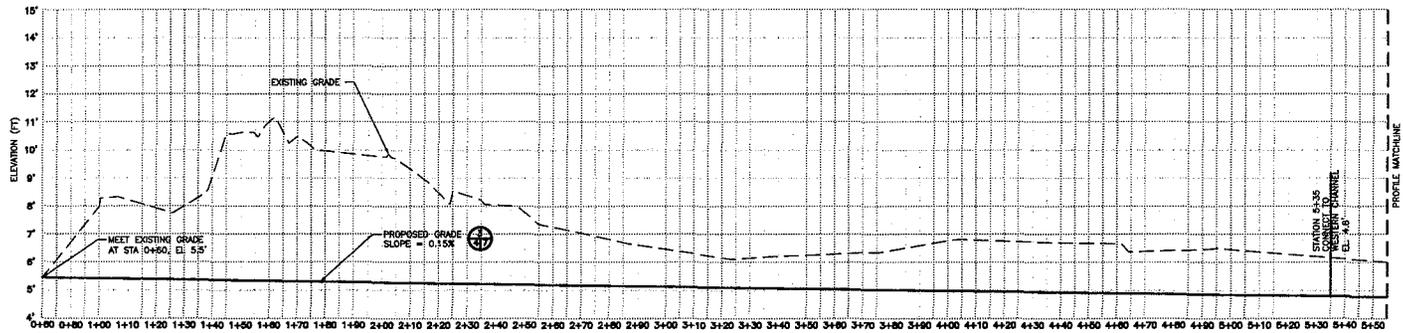
NOTE: ACTUAL LOCATION OF WESTERN CHANNEL SHOULD BE FIELD VERIFIED AND ADJUSTED TO AVOID REMOVING MATURE TREES.

OXBOW 3 - CONNECTION CHANNEL

100% DESIGN DRAWINGS  
 FOR CONSTRUCTION



WESTERN CHANNEL CENTERLINE PROFILE



OXBOW 3 - CONNECTION CHANNEL CENTERLINE PROFILE



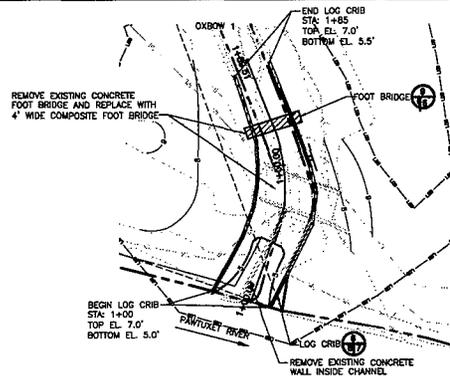
DESIGNED BY	CONSTRUCTION
CHECKED BY	
DATE	
SCALE	

NATURAL RESOURCES CONSERVATION SERVICE  
 OXBOWS FLOODPLAINS RESTORATION PROJECT  
 GRANSTON, RHODE ISLAND  
 OXBOW 3 CONNECTION PROFILE

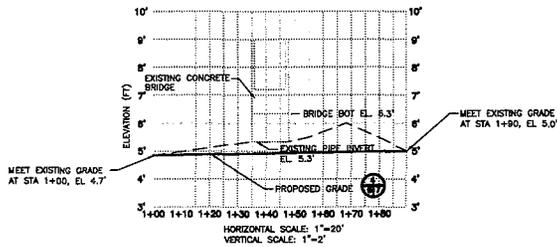


2350 Post Road Warwick, Rhode Island 02886 (401) 758-3440	
DATE	JUNE 2010
DESIGNED BY	SCM
DRAWN BY	DPA
CHECKED BY	TOC
PROJECT NUMBER	539
PROJECT NUMBER	02130.23
FILE NAME	AS SHOWN
DRAWING NUMBER	OXBOWS-CONNECTION
DRAWING NUMBER	0-4
SHEET NUMBER	5 OF 11

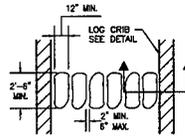
100% DESIGN DRAWINGS  
 FOR CONSTRUCTION



**OXBOW 1 - CONNECTION CHANNEL**

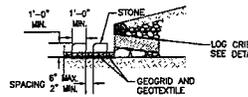


**OXBOW 1 - CONNECTION CHANNEL CENTERLINE PROFILE**



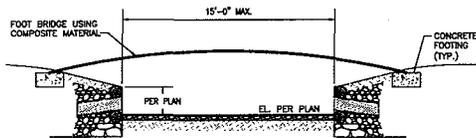
**STONE CROSSING 8**

SCALE 1/2" = 1'-0"



**STONE CROSSING SECTION A**

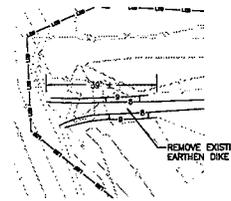
SCALE 1/2" = 1'-0"



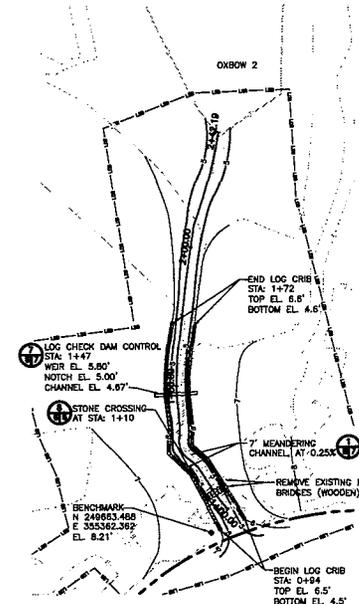
**FOOT BRIDGE 9**

SCALE 1/2" = 1'-0"

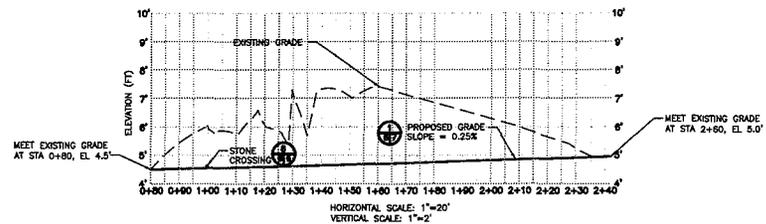
NOTE: BRIDGE PROVIDED BY CONTRACTOR, MUST BE APPROVED BY NRCS AND ENGINEER PRIOR TO CONSTRUCTION.



**OXBOW 2 - DIKE REMOVAL**



**OXBOW 2 - CONNECTION CHANNEL**



**OXBOW 2 - CONNECTION CHANNEL CENTERLINE PROFILE**



NO.	DATE	BY	DESCRIPTION

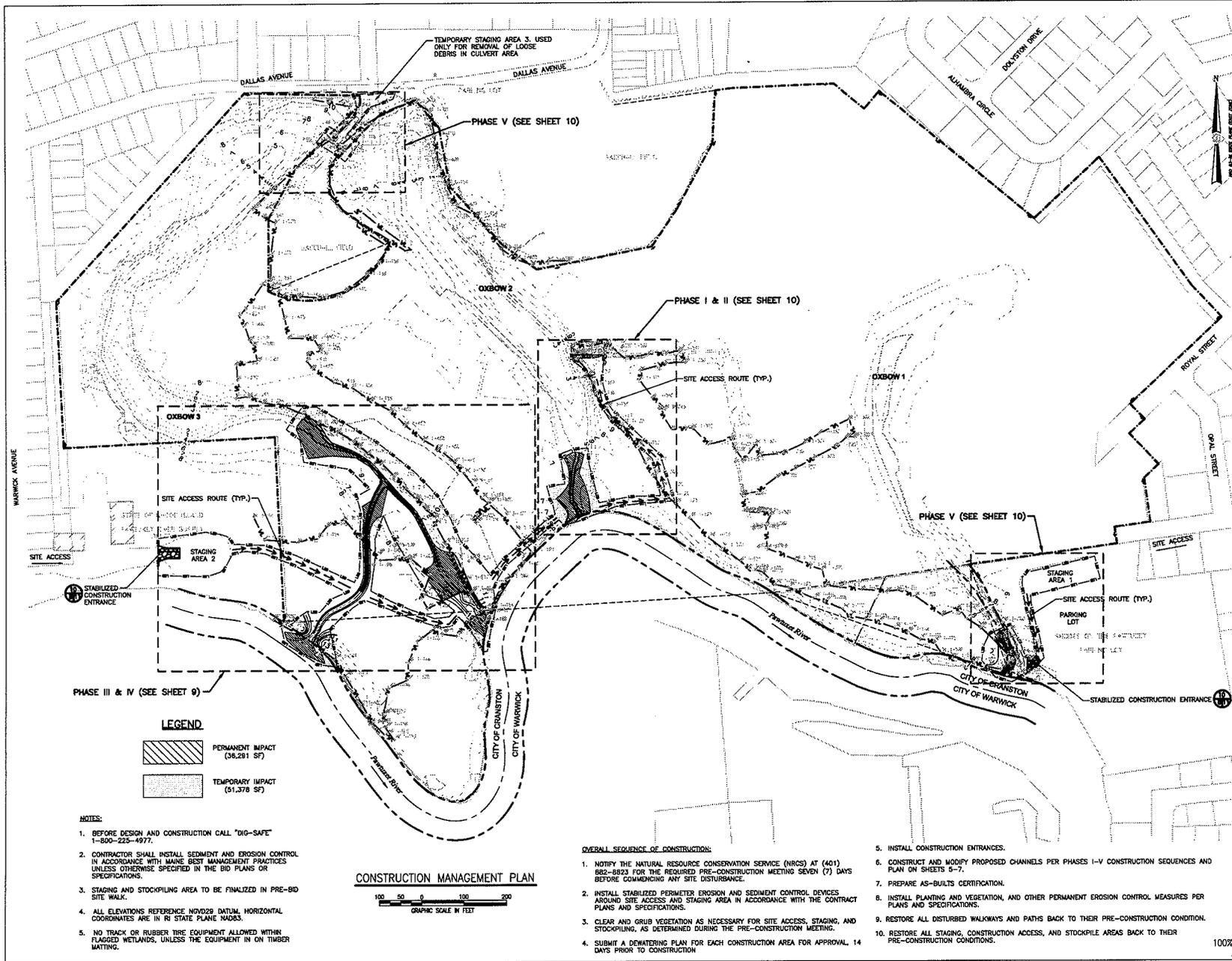
NATURAL RESOURCES CONSERVATION SERVICE OXBOWS FLOODPLAINS RESTORATION PROJECT CRANSTON, RHODE ISLAND	
OXBOWS 1 AND 2 PLANS AND PROFILES	

 Natural Resources Conservation Service	
 EA ENGINEERING, SCIENCE, AND TECHNOLOGY 2350 Post Road Warwick, Rhode Island 02886 (401) 738-3240	
DATE	JUNE 2010
DESIGNED BY	SCM
DRAWN BY	DPH
CHECKED BY	TCO
PROJECT NUMBER	6213023
SCALE	AS SHOWN
TITLE BLOCK	OXBOWS - OVERSIGHT
DRAWING NUMBER	C-3
SHEET NUMBER	6 OF 11

100% DESIGN DRAWINGS FOR CONSTRUCTION





**LEGEND**

	PERMANENT IMPACT (36,291 SF)
	TEMPORARY IMPACT (51,378 SF)

- NOTES:**
- BEFORE DESIGN AND CONSTRUCTION CALL "DIG-SAFE" 1-800-225-4977.
  - CONTRACTOR SHALL INSTALL SEDIMENT AND EROSION CONTROL IN ACCORDANCE WITH MAINE BEST MANAGEMENT PRACTICES UNLESS OTHERWISE SPECIFIED IN THE BID PLANS OR SPECIFICATIONS.
  - STAGING AND STOCKPILING AREA TO BE FINALIZED IN PRE-BID SITE WALK.
  - ALL ELEVATIONS REFERENCE NAVD83 DATUM. HORIZONTAL COORDINATES ARE IN RI STATE PLANE NAD83.
  - NO TRACK OR RUBBER TIRE EQUIPMENT ALLOWED WITHIN FLAGGED WETLANDS, UNLESS THE EQUIPMENT IS ON TIMBER MATTING.



- OVERALL SEQUENCE OF CONSTRUCTION:**
- NOTIFY THE NATURAL RESOURCE CONSERVATION SERVICE (NRCS) AT (401) 882-8823 FOR THE REQUIRED PRE-CONSTRUCTION MEETING SEVEN (7) DAYS BEFORE COMMENCING ANY SITE DISTURBANCE.
  - INSTALL STABILIZED PERIMETER EROSION AND SEDIMENT CONTROL DEVICES AROUND SITE ACCESS AND STAGING AREA IN ACCORDANCE WITH THE CONTRACT PLANS AND SPECIFICATIONS.
  - CLEAR AND GRUB VEGETATION AS NECESSARY FOR SITE ACCESS, STAGING, AND STOCKPILING, AS DETERMINED DURING THE PRE-CONSTRUCTION MEETING.
  - SUBMIT A DEWATERING PLAN FOR EACH CONSTRUCTION AREA FOR APPROVAL, 14 DAYS PRIOR TO CONSTRUCTION.

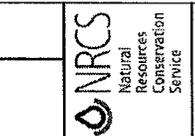
- INSTALL CONSTRUCTION ENTRANCES.
- CONSTRUCT AND MODIFY PROPOSED CHANNELS PER PHASES I-V CONSTRUCTION SEQUENCES AND PLAN ON SHEETS 5-7.
- PREPARE AS-BUILTS CERTIFICATION.
- INSTALL PLANTING AND VEGETATION, AND OTHER PERMANENT EROSION CONTROL MEASURES PER PLANS AND SPECIFICATIONS.
- RESTORE ALL DISTURBED WALKWAYS AND PATHS BACK TO THEIR PRE-CONSTRUCTION CONDITION.
- RESTORE ALL STAGING, CONSTRUCTION ACCESS, AND STOCKPILE AREAS BACK TO THEIR PRE-CONSTRUCTION CONDITIONS.

100% DESIGN DRAWINGS FOR CONSTRUCTION

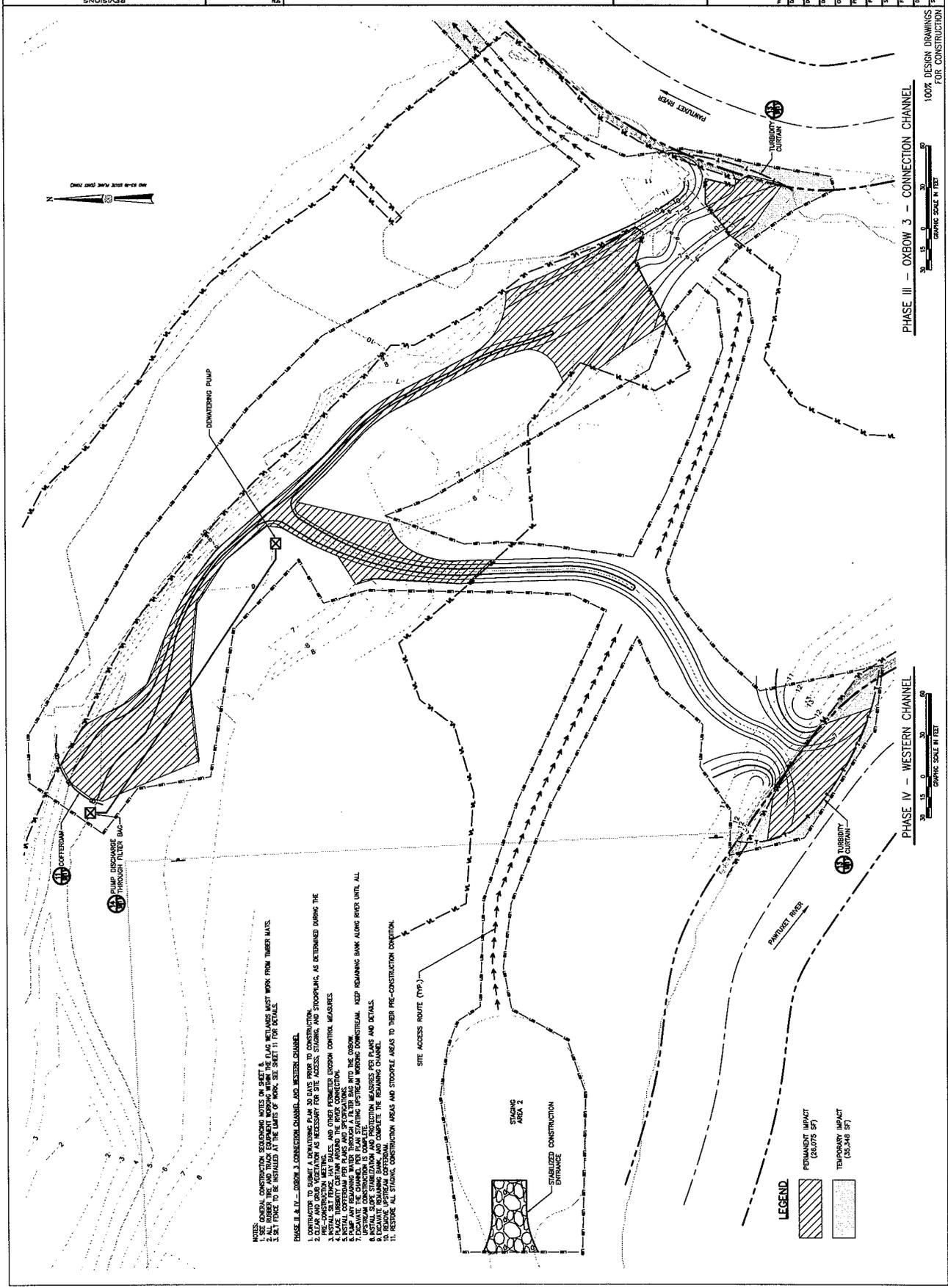
NO.	DATE	BY	REVISION/DESCRIPTION
NATURAL RESOURCES CONSERVATION SERVICE OXBOWS FLOODPLAINS RESTORATION PROJECT CRANSTON, RHODE ISLAND			
OVERALL CONSTRUCTION MANAGEMENT AND SITE ACCESS PLAN			
 Natural Resources Conservation Service			
 EA ENGINEERING, SCIENCE, AND TECHNOLOGY 2350 West Road Warwick, Rhode Island 02886 (401) 756-3440			
DATE	JUNE 2010		
DESIGNED BY	SCM		
DRAWN BY	DWA		
CHECKED BY	TDC		
PROJECT NUMBER	036		
DRAWING NUMBER	0210023		
SCALE	1"=100'		
FULL NAME	CRANSTON-DUMMICKET		
DRAWING NUMBER	0-7		
SHEET NUMBER	8 OF 11		

NO.	DATE	BY	DESCRIPTION

NATURAL RESOURCES CONSERVATION SERVICE  
 OXBOW FLOODPLAINS RESTORATION PROJECT  
 GRANSTON, RHODE ISLAND  
 OXBOW 3 - CONSTRUCTION  
 MANAGEMENT PLAN



DATE	JUNE 2011
DESIGNED BY	DCM
DRAWN BY	DAVA
CHECKED BY	TKC
PROJECT NUMBER	00M
PROJECT NAME	OXBOW 3
SCALE	AS SHOWN
FILE NAME	OXBOW3-CONSTRUCTION
SHEET NUMBER	C-3
TOTAL SHEETS	8 OF 11



- NOTES:**
- SEE GENERAL CONSTRUCTION SPECIFICATIONS NOTES ON SHEET 6. ALL AS NOTED UNLESS NOTED FROM THESE NOTES.
  - ALL FENCES TO BE INSTALLED AT THE LIMITS OF WORK. SEE SHEET 11 FOR DETAILS.
- PHASE III & IV - OXBOW 3 CONNECTION CHANNEL AND WESTERN CHANNEL.**
- CONTRACTOR TO SUBMIT A DETAILED PLAN 30 DAYS PRIOR TO CONSTRUCTION.
  - CLEAR AND GRUB VEGETATION AS NECESSARY FOR SITE ACCESS, STAGING, AND STOCKPILES, AS DETERMINED DURING THE PRE-CONSTRUCTION SURVEY.
  - INSTALL SIX FEET HIGH FENCE, SIX FEET TALL AND OTHER PERIMETER EROSION CONTROL MEASURES.
  - INSTALL EROSION CONTROL MEASURES AS NECESSARY TO PREVENT EROSION.
  - INSTALL EROSION CONTROL MEASURES AS NECESSARY TO PREVENT EROSION.
  - CONTRACTOR TO SUBMIT A DETAILED PLAN 30 DAYS PRIOR TO CONSTRUCTION. KEEP REMAINING BANK ALONG RIVER UNTIL ALL UPSTREAM CONSTRUCTION IS COMPLETE.
  - UPSTREAM CONSTRUCTION IS COMPLETE.
  - ERECT STAGING BANK AND COMPLETE THE REMAINING CHANNEL.
  - RESTORE ALL STAGING, CONSTRUCTION AREAS AND STOCKPILE AREAS TO THEIR PRE-CONSTRUCTION CONDITION.

**LEGEND**

	PERMANENT IMPACT (03.075 SF)
	TEMPORARY IMPACT (35.348 SF)

PHASE III - OXBOW 3 - CONNECTION CHANNEL

PHASE IV - WESTERN CHANNEL

100% DESIGN DRAWINGS FOR CONSTRUCTION



NO.	DATE	BY	REVISIONS DESCRIPTION

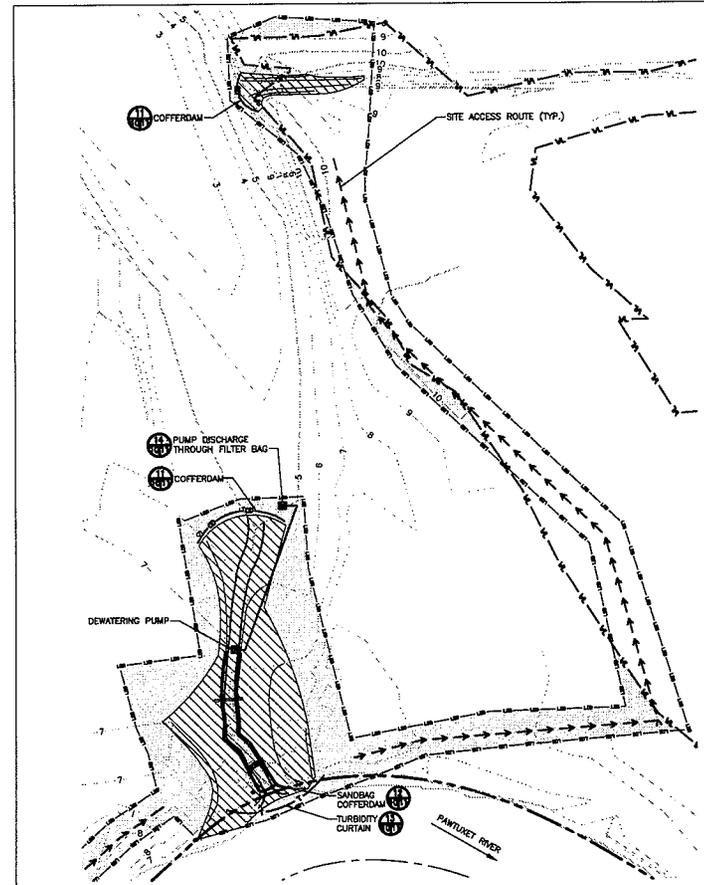
NATURAL RESOURCES CONSERVATION SERVICE  
 OXBOWS FLOODPLAINS RESTORATION PROJECT  
 GRANSTON, RHODE ISLAND

OXBOWS 1 AND 2 CONSTRUCTION MANAGEMENT PLAN



2350 Post Road  
 Warwick, Rhode Island 02886  
 (401) 738-3440

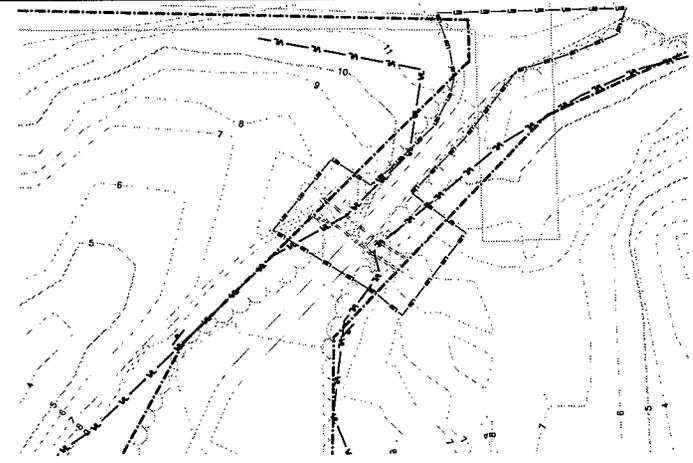
DATE	JUNE 2010
DESIGNED BY	SCM
DRAWN BY	DPH
CHECKED BY	TCO
PROJECT NUMBER	SWW
SCALE	AS SHOWN
FILE NAME	OXBOWS-CONSTRUCTION
DRAWING NUMBER	C-9
SHEET NUMBER	10 OF 11



**PHASE I & II - OXBOW 2 - CONNECTION CHANNEL AND DIKE REMOVAL**



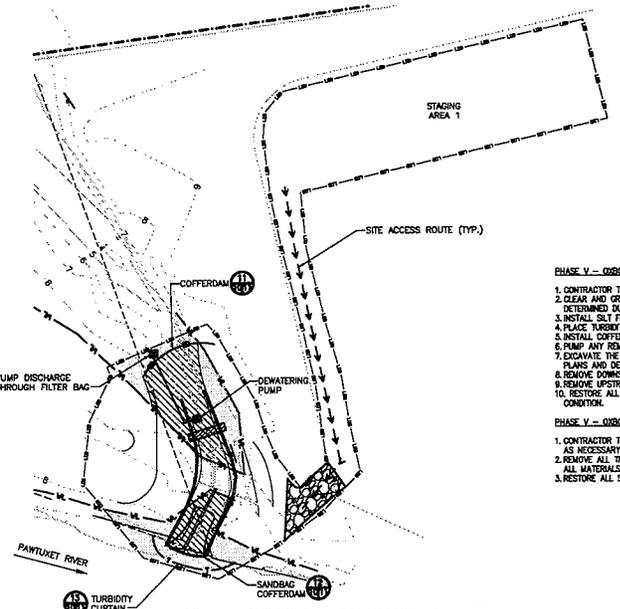
- NOTES**
- SEE GENERAL CONSTRUCTION SEQUENCING NOTES ON SHEET 8.
  - ALL RUBBER TIRE AND TRACK EQUIPMENT WORKING WITHIN THE FLAG METHUENS MUST WORK FROM TIMBER MATS.
  - SILT FENCE TO BE INSTALLED AT THE LIMITS OF WORK. SEE SHEET 11 FOR DETAILS.
- PHASE I - DIKE REMOVAL**
- CONTRACTOR TO SUBMIT A DEWATERING PLAN 30 DAYS PRIOR TO CONSTRUCTION.
  - CLEAR AND GRUB VEGETATION AS NECESSARY FOR SITE ACCESS, STAGING, AND STOCKPILING, AS DETERMINED DURING THE PRE-CONSTRUCTION MEETING.
  - INSTALL SILT FENCE, HAY BALES, AND OTHER PERIMETER EROSION CONTROL MEASURES.
  - INSTALL COFFERDAM PER PLANS AND SPECIFICATIONS.
  - PUMP ANY REMAINING WATER THROUGH A FILTER BAG INTO THE OXBOW.
  - EXCAVATE THE CHANNEL PER PLAN, AND INSTALL SLOPE STABILIZATION AND PROTECTION MEASURES PER PLANS AND DETAILS.
  - REMOVE UPSTREAM COFFERDAM.
  - RESTORE ALL STAGING, CONSTRUCTION AREAS AND STOCKPILE AREAS TO THEIR PRE-CONSTRUCTION CONDITION.
- PHASE II - OXBOW 2 CONNECTION CHANNEL**
- CONTRACTOR TO SUBMIT A DEWATERING PLAN 30 DAYS PRIOR TO CONSTRUCTION.
  - CLEAR AND GRUB VEGETATION AS NECESSARY FOR SITE ACCESS, STAGING, AND STOCKPILING, AS DETERMINED DURING THE PRE-CONSTRUCTION MEETING.
  - INSTALL SILT FENCE, HAY BALES, AND OTHER PERIMETER EROSION CONTROL MEASURES.
  - PLACE TURBIDITY CURTAIN AROUND THE RIVER CONNECTION.
  - INSTALL COFFERDAMS PER PLANS AND SPECIFICATIONS. DOWNSTREAM COFFERDAM FIRST.
  - PUMP ANY REMAINING WATER THROUGH A FILTER BAG INTO THE OXBOW.
  - EXCAVATE THE CHANNEL PER PLAN, AND INSTALL SLOPE STABILIZATION AND PROTECTION MEASURES PER PLANS AND DETAILS.
  - REMOVE DOWNSTREAM COFFERDAM, AND COMPLETE THE REMAINING CHANNEL.
  - REMOVE UPSTREAM COFFERDAM.
  - RESTORE ALL STAGING, CONSTRUCTION AREAS AND STOCKPILE AREAS TO THEIR PRE-CONSTRUCTION CONDITION.



**PHASE V - OXBOW 2 AND 3 CONNECTION CULVERT AREA**



- LEGEND**
- PERMANENT IMPACT (10,216 SF)
  - TEMPORARY IMPACT (16,030 SF)

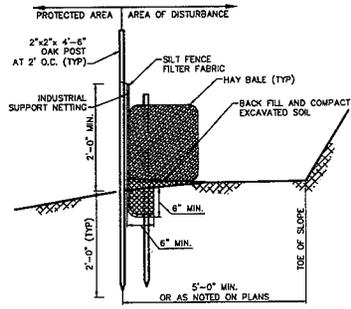


**PHASE V - OXBOW 1 - CONNECTION CHANNEL**



- PHASE V - OXBOW 1 CONNECTION**
- CONTRACTOR TO SUBMIT A DEWATERING PLAN 30 DAYS PRIOR TO CONSTRUCTION.
  - CLEAR AND GRUB VEGETATION AS NECESSARY FOR SITE ACCESS, STAGING, AND STOCKPILING, AS DETERMINED DURING THE PRE-CONSTRUCTION MEETING.
  - INSTALL SILT FENCE, HAY BALES, AND OTHER PERIMETER EROSION CONTROL MEASURES.
  - PLACE TURBIDITY CURTAIN AROUND THE RIVER CONNECTION.
  - INSTALL COFFERDAMS PER PLANS AND SPECIFICATIONS. DOWNSTREAM COFFERDAM FIRST.
  - PUMP ANY REMAINING WATER THROUGH A FILTER BAG INTO THE OXBOW.
  - EXCAVATE THE CHANNEL PER PLAN, AND INSTALL SLOPE STABILIZATION AND PROTECTION MEASURES PER PLANS AND DETAILS.
  - REMOVE DOWNSTREAM COFFERDAM, AND COMPLETE THE REMAINING CHANNEL.
  - REMOVE UPSTREAM COFFERDAM.
  - RESTORE ALL STAGING, CONSTRUCTION AREAS AND STOCKPILE AREAS TO THEIR PRE-CONSTRUCTION CONDITION.
- PHASE V - OXBOW 2 AND 3 CONNECTION CULVERT**
- CONTRACTOR TO INSTALL SILT FENCE, HAY BALES, AND OTHER PERIMETER EROSION CONTROL MEASURES, AS NECESSARY.
  - REMOVE ALL TRASH AND LOOSE DEBRIS INSIDE CULVERT AND IN AREA IMMEDIATELY ADJACENT TO IT. ALL MATERIALS REMOVED MUST BE DISPOSED OF IN AN APPROPRIATE LICENSED LANDFILL.
  - RESTORE ALL STAGING AND CONSTRUCTION AREAS TO THEIR PRE-CONSTRUCTION CONDITION.

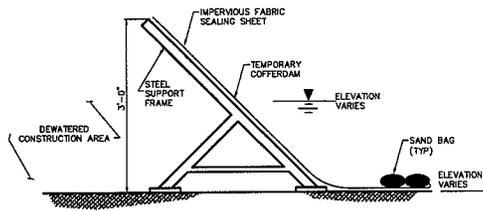
100% DESIGN DRAWINGS  
 FOR CONSTRUCTION



NOTE:  
SILT FENCE FABRIC SHALL NOT BE SLIT HAY BALE POST SHALL BE DRIVEN THROUGH SILT FENCE FABRIC

**STAKED HAYBALE DETAIL**

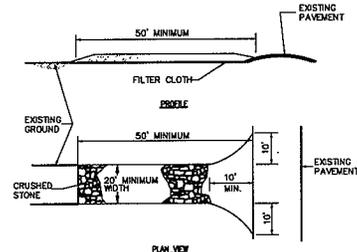
SCALE N.T.S.



**COFFERDAM SECTION**

SCALE N.T.S.

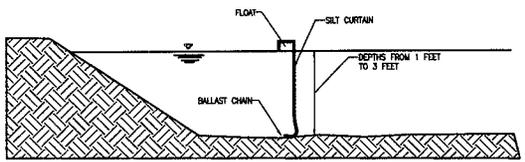
11  
9/11



**STABILIZED CONSTRUCTION ENTRANCE**

SCALE N.T.S.

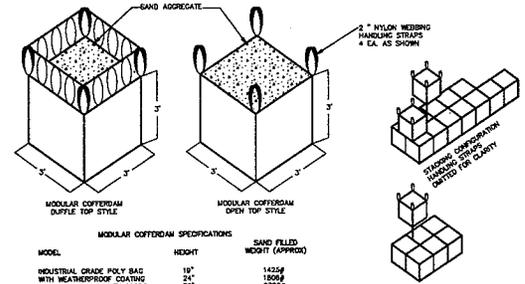
10  
8/11



**TURBIDITY CURTAIN**

SCALE N.T.S.

13  
9/11



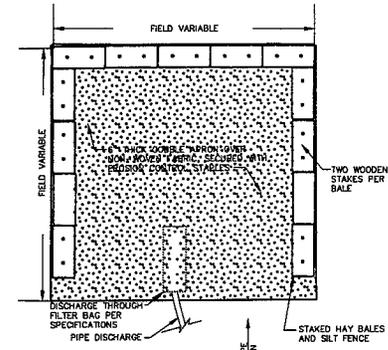
**MODULAR COFFERDAM SPECIFICATIONS**

MODEL	HEIGHT	SAND FILLED WIDTH (APPROX)
INDUSTRIAL GRADE POLY BAG WITH WEARPROOF COATING	18"	1425#
	24"	1800#
	30"	2700#
	48"	3420#

**SANDBAG COFFERDAM DETAIL**

SCALE N.T.S.

12  
10/11



**FILTER BAG DISCHARGE**

SCALE N.T.S.

12  
10/11

NO.	DATE	BY	DESCRIPTION
CONSTRUCTION MANAGEMENT DETAILS			
NATURAL RESOURCES CONSERVATION SERVICE OXBOW FLOODPLAINS RESTORATION PROJECT CRANSTON, RHODE ISLAND			
NRCS Natural Resources Conservation Service			
EA ENGINEERING, SCIENCE, AND TECHNOLOGY			
2550 Point Road Warrick, Rhode Island 02886 (401) 738-3440			
DATE	JUNE 2010		
DESIGNED BY	SCM		
DRAWN BY	DPA		
CHECKED BY	TOC		
PROJECT MANAGER	SSW		
PROJECT NUMBER	02130.23		
SCALE	AS SHOWN		
FILE NAME	OXBOW-DRAWINGSET		
DRAWING NUMBER	D-10		
SHEET NUMBER	11 OF 11		