



US Army Corps  
of Engineers®  
New England District

696 Virginia Road  
Concord, MA 01742-2751

# PUBLIC NOTICE

Date: July 20, 2004

Comment Period Ends: August 20, 2004

File Number: NAE-2004-2143

In Reply Refer To: Paul Sneeringer @ 978 318-8491

Or by e-mail: paul.j.sneeringer @usace.army.mil

The City of Worcester DPW, 18 Worcester Street, Worcester, Massachusetts 01604; has requested a Corps of Engineers permit under Section 404 of the Clean Water Act to discharge dredged and/or fill material into Coes Reservoir and Tatnuck Brook as part of the Coes Reservoir Dam Rehabilitation Project. The purpose for this project is to bring the Coes Reservoir Dam into compliance with current dam safety regulations. This project site is located adjacent to Coes Street in Worcester, Massachusetts. The proposed rehabilitation project will involve installing a new low-level outlet for the dam, drawing down the water level in Coes Reservoir by approximately 5 feet in order to dewater the construction area, expanding the primary spillway structure, backfilling the existing tailrace structure, and providing additional riprap scour protection along the dam structure. All totaled, approximately 6,000 square feet of waters of the United States, including jurisdictional wetlands will be filled as part of the Coes Reservoir Dam Rehabilitation Project. In addition, approximately 15 acres of the Coes Reservoir will be temporarily dewatered during the construction phase of this project. The City of Worcester DPW will also be excavating and treating PCB-impacted soils at the Coes Reservoir Dam as part of this rehabilitation project. However, this work will be completed in upland areas outside of the Corps jurisdiction. The work is described on the enclosed plans entitled "COES RESERVOIR DAM REHABILITATION," on 13 sheets, and dated "APRIL 2004."

This project is located on the USGS Worcester North and Worcester South quadrangle sheets at 42° 15' 2.89" N, 71° 50' 15.18" W.

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 Mr. Paul Sneeringer at (978) 318-8491, (800) 343-4789 or (800) 362-4367, if calling from within Massachusetts.

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.

SEE NEXT PAGE FOR  
DETAILS OF EVALUATION  
FACTORS

*for Ted Lento*  
Crystal I. Gardner

Chief, Permits & Enforcement Branch  
Regulatory Division

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.

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.

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 fulfill requirements under Section 106 of the National Historic Preservation Act of 1966, as amended, will be ongoing as part of the permit review process.

Pursuant to the Endangered Species Act, the District Engineer is hereby requesting that the appropriate Federal Agency provide comments regarding the presence of and potential impacts to listed species or its critical habitat.

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

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

The States of Connecticut, Maine, Massachusetts, New Hampshire and Rhode Island have approved Coastal Zone Management Programs. Where applicable the applicant states that any proposed activity will comply with and will be conducted in a manner that is consistent with the approved Coastal Zone Management Program. By this Public Notice, we are requesting the State concurrence or objection to the applicant's consistency statement.

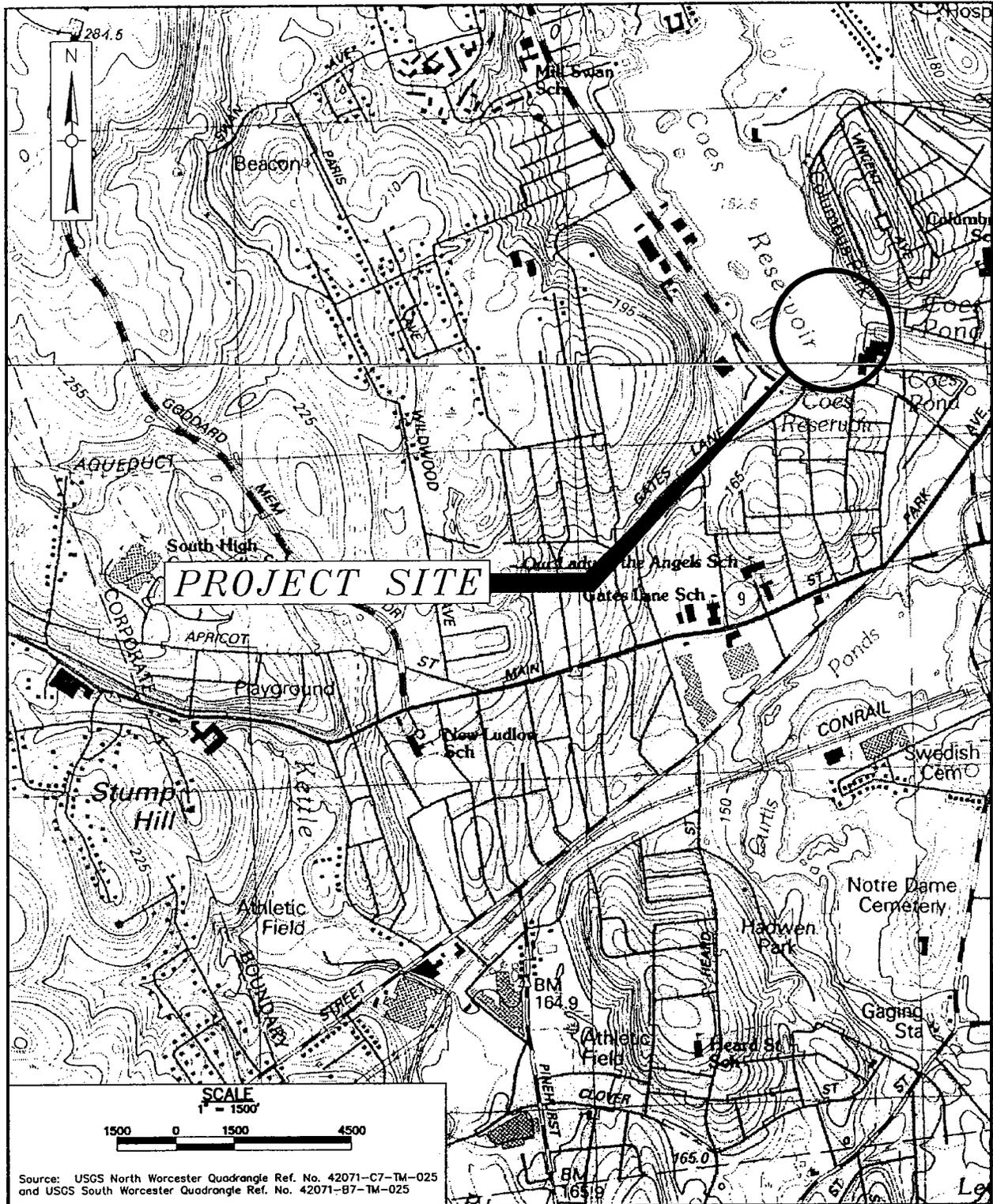
The initial determinations made herein will be reviewed in light of facts submitted in response to this notice. All comments will be considered a matter of public record. Copies of letters of objection will be forwarded to the applicant who will normally be requested to contact objectors directly in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

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

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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: \_\_\_\_\_

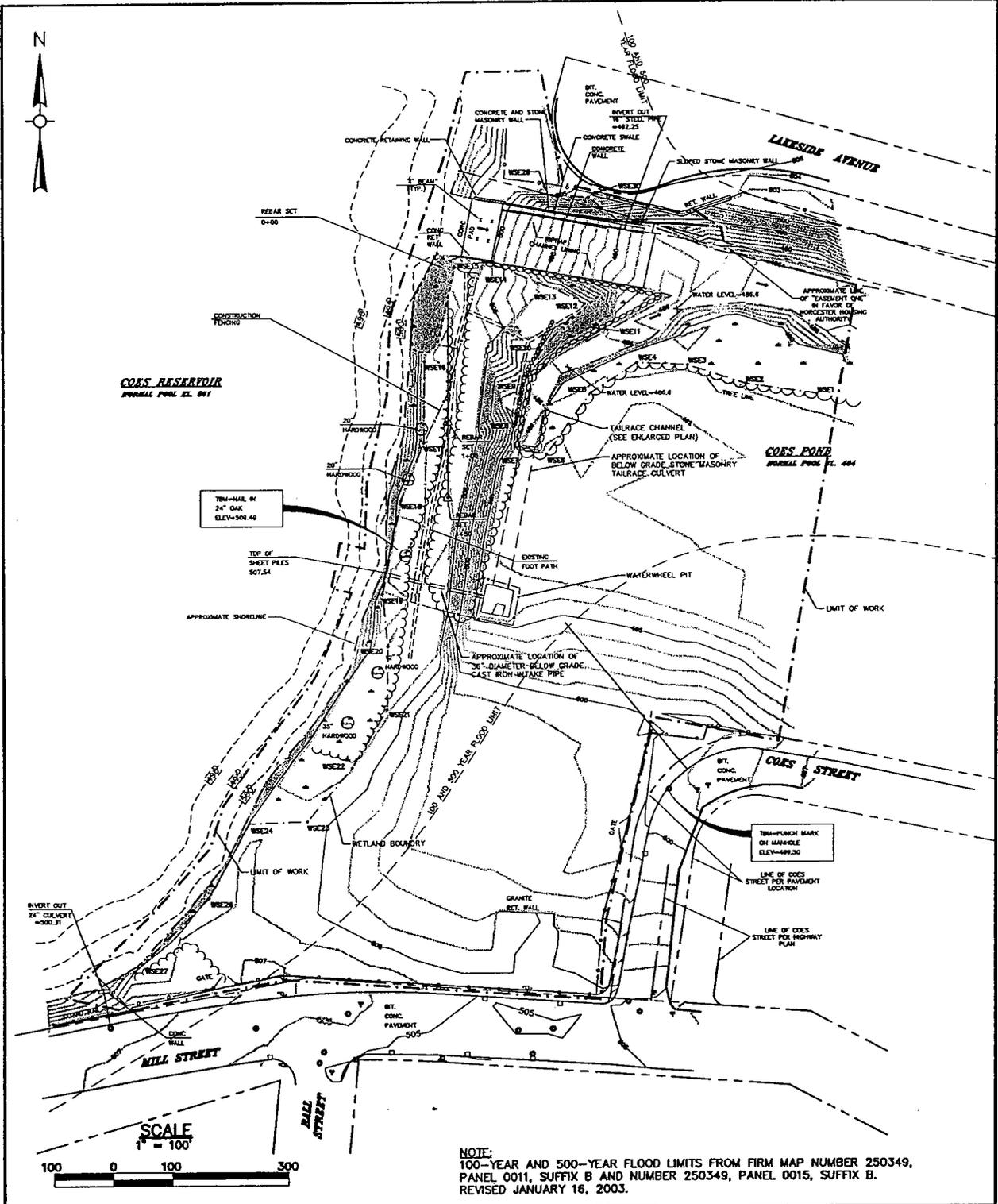


REHABILITATION  
OF COES  
RESERVOIR DAM  
DATUM: NGVD  
MEAN AVERAGE  
WS: EL. 501 (CHW)

**VICINITY MAP**  
**FIGURE 1**  
NAE-2004-2143

COES RESERVOIR DAM  
REHABILITATION  
WORCESTER, MASSACHUSETTS  
WORCESTER COUNTY  
APPLICANT: CITY OF WORCESTER  
DATE: APRIL 2004  
PAGE: 1 OF 12

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COES RESERVOIR

**EXISTING  
 CONDITIONS PLAN**

DATUM: NGVD  
 MEAN AVERAGE  
 WS: EL. 501(6HUC)

**FIGURE 2  
 NAE-2004-2143**

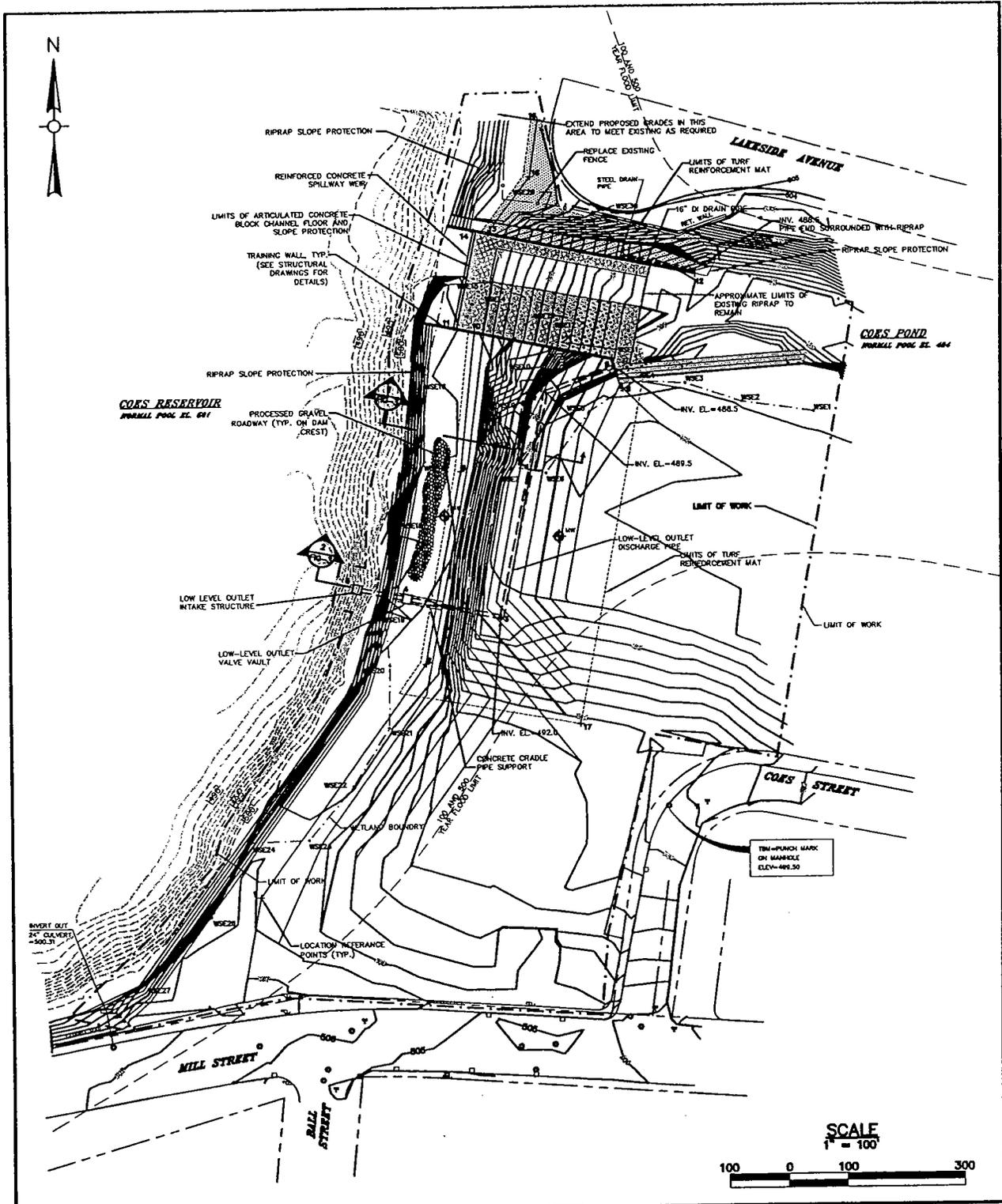
COES RESERVOIR DAM  
 REHABILITATION  
 WORCESTER, MASSACHUSETTS  
 WORCESTER COUNTY  
 APPLICANT: CITY OF WORCESTER  
 DATE: APRIL 2004  
 PAGE: 2 OF 12

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COES RESERVOIR  
 DATUM: NGVD  
 MEAN AVERAGE  
 WS: EL. 501 (OHU)

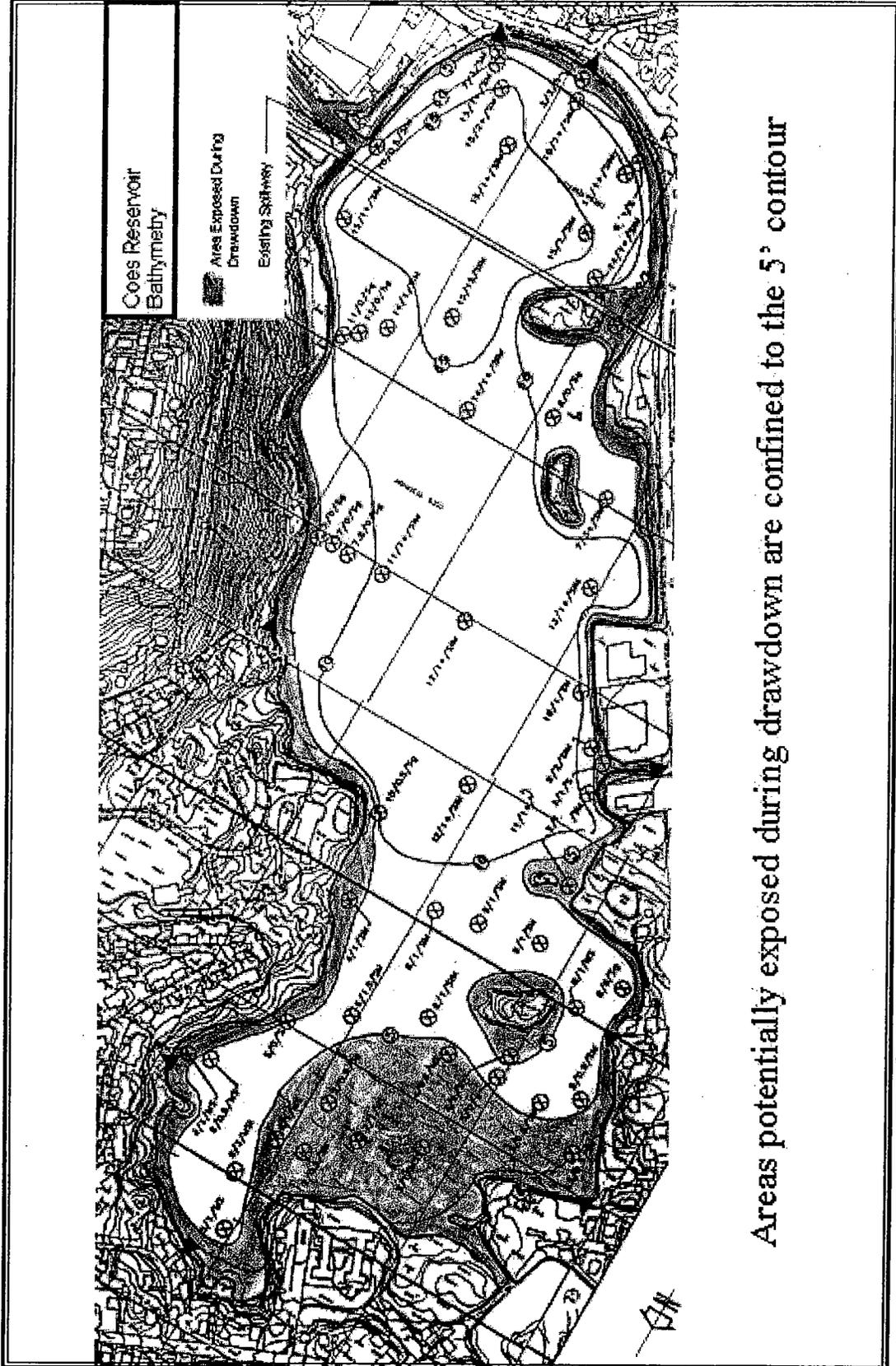
**FUTURE  
 CONDITIONS  
 PLAN**  
 NAE-2004-2143  
 FIGURE 3

COES RESERVOIR DAM  
 REHABILITATION  
 WORCESTER, MASSACHUSETTS  
 WORCESTER COUNTY  
 APPLICANT: CITY OF WORCESTER  
 DATE: APRIL 2004  
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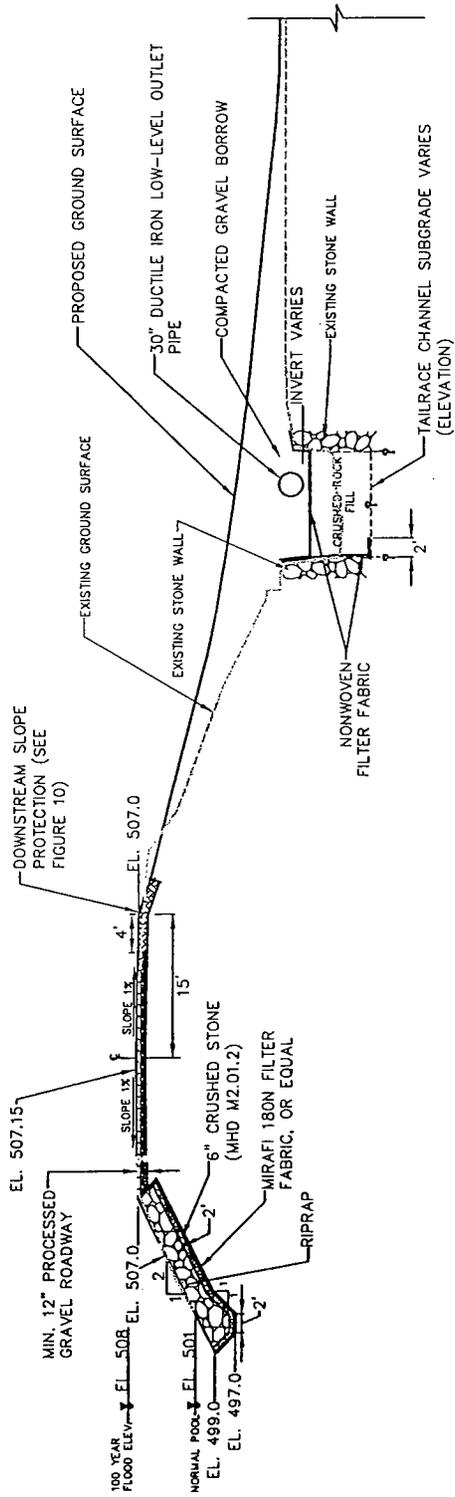


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Areas potentially exposed during drawdown are confined to the 5' contour

NAE - 2004 - 2143  
 COES RESERVOIR DAM REHABILITATION  
 PAGE 48 of 12  
 DATE: APRIL 2004



CROSS SECTION - UPSTREAM RIPRAP AND TAILRACE BACKFILL

NOTES:

1. FOLLOWING EXCAVATION OF PCB IMPACTED MATERIAL AND ACCEPTABLE CONFIRMATORY TESTING, INSTALL NONWOVEN FILTER FABRIC ALONG BOTTOM AND UPSTREAM WALL OF TAILRACE CHANNEL AND CULVERT AS INDICATED.
2. BACKFILL TAILRACE CHANNEL AND CULVERT WITH CRUSHED ROCK FILL TO 12" BELOW PIPE INVERT. CHOK OFF SURFACE OF CRUSHED ROCK FILL WITH 4" OF 1-1/2" CRUSHED STONE.
3. INSTALL NONWOVEN FILTER FABRIC OVER CRUSHED STONE SURFACE.
4. INSTALL LOW-LEVEL OUTLET PIPE AND BACKFILL TO TOPSOIL SUBGRADE WITH COMPACTED GRAVEL BORROW.
5. SEE FIGURE 5 AND FIGURE 7 FOR PIPE BACKFILL THROUGH DAM EMBANKMENT

SCALE 1" = 20'



EMBANKMENT SECTION

FIGURE 4

NAE0004-0143

COES RESERVOIR

DATUM: NGVD  
 MEAN AVERAGE  
 WS: EL. 501 (OHW)  
 100 YEAR FLOOD: EL. 508

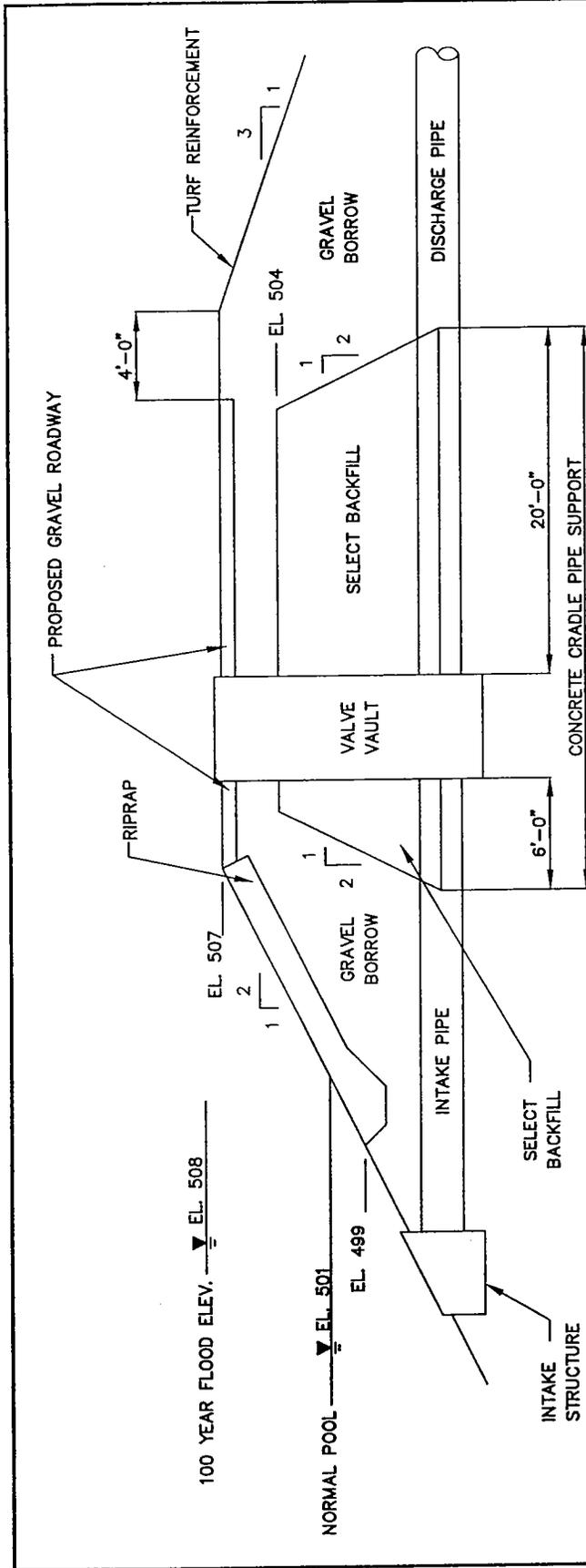
COES RESERVOIR DAM REHABILITATION  
 WORCESTER MASSACHUSETTS  
 WORCESTER COUNTY  
 APPLICANT: CITY OF WORCESTER

DATE: APRIL 2004  
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CROSS SECTION - LOW LEVEL OUTLET AND EMBANKMENT 2 FIG-3

**NOTES:**

1. DISCHARGE PIPE SHALL BE 30" ID DUCTILE IRON PIPE WITH RESTRAINED JOINTS FULL LENGTH.
2. FIRST LENGTH OF DISCHARGE PIPE AT VALVE VAULT INSTALLED LEVEL AT EL. 493.0'. REMAINING LENGTH SLOPED AS INDICATED.
3. INSTALL PIPE WITH JOINTS 3 FT. FROM ANY WALLS INCLUDING THE INTAKE STRUCTURE, VALVE VAULT AND DISCHARGE HEADWALL.
4. CONCRETE CRADLE CONSTRUCTION JOINTS SHOULD MATCH PIPE JOINTS FOR ENTIRE LENGTH OF PIPE IN CRADLE.
5. REFER TO SHEET D-1 FOR ADDITIONAL INFORMATION.

COES RESERVOIR

DATUM: NGVD  
 MEAN AVERAGE  
 WS: EL. 501 (OAW)  
 100 YEAR FLOOD: EL. 508

LOW LEVEL  
 OUTLET SECTION  
 NAE-3004-2143  
 FIGURE 5

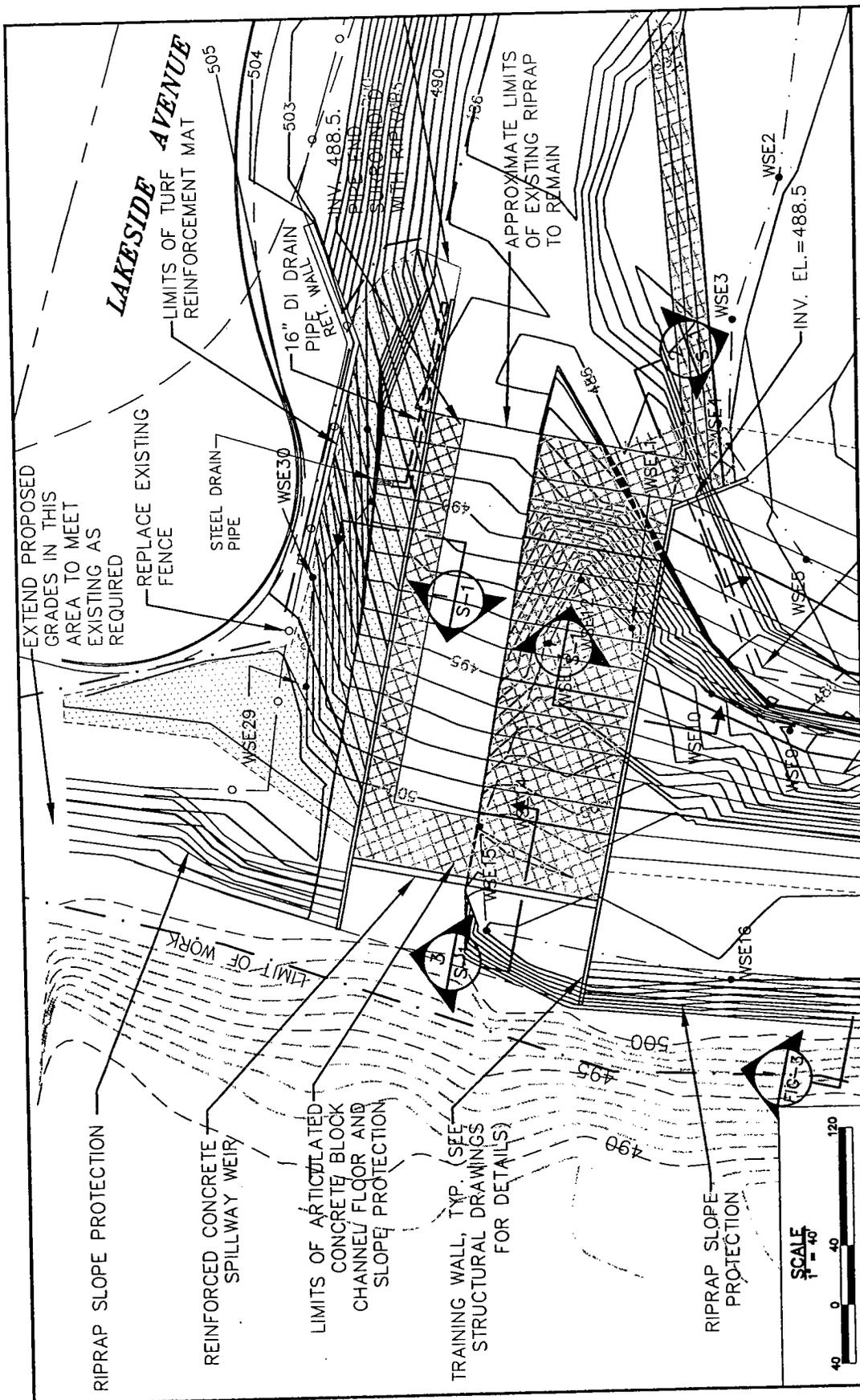
COES RESERVOIR DAM REHABILITATION  
 WORCESTER MASSACHUSETTS  
 WORCESTER COUNTY  
 APPLICANT: CITY OF WORCESTER

DATE: APRIL 2004  
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COES RESERVOIR DAM REHABILITATION  
 WORCESTER MASSACHUSETTS  
 WORCESTER COUNTY  
 APPLICANT: CITY OF WORCESTER

DATE: APRIL 2004  
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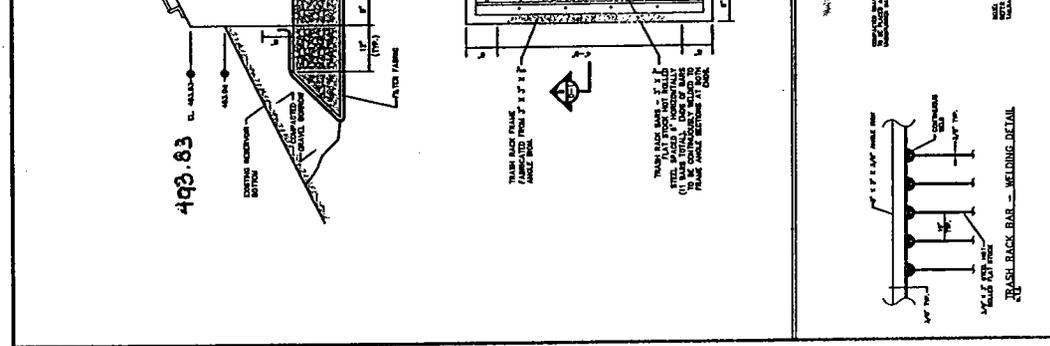
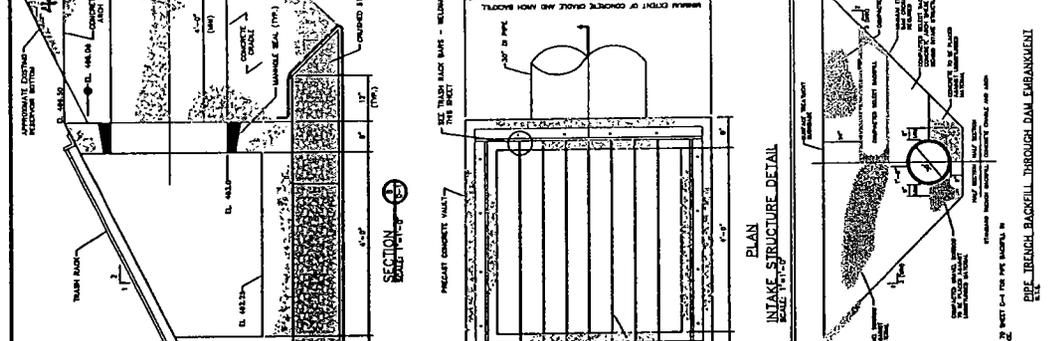
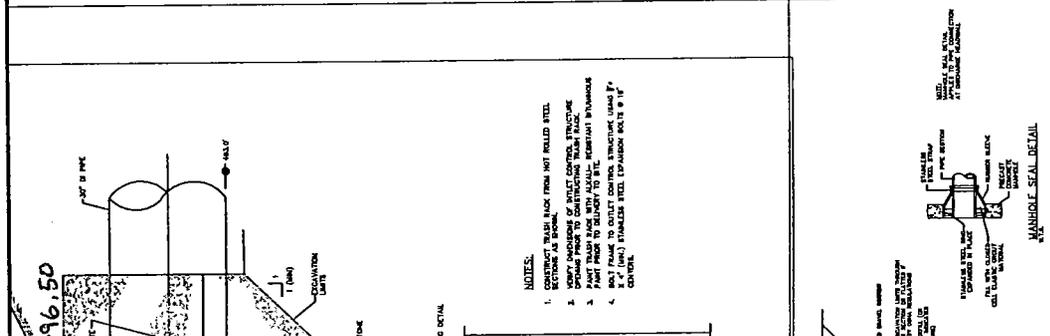
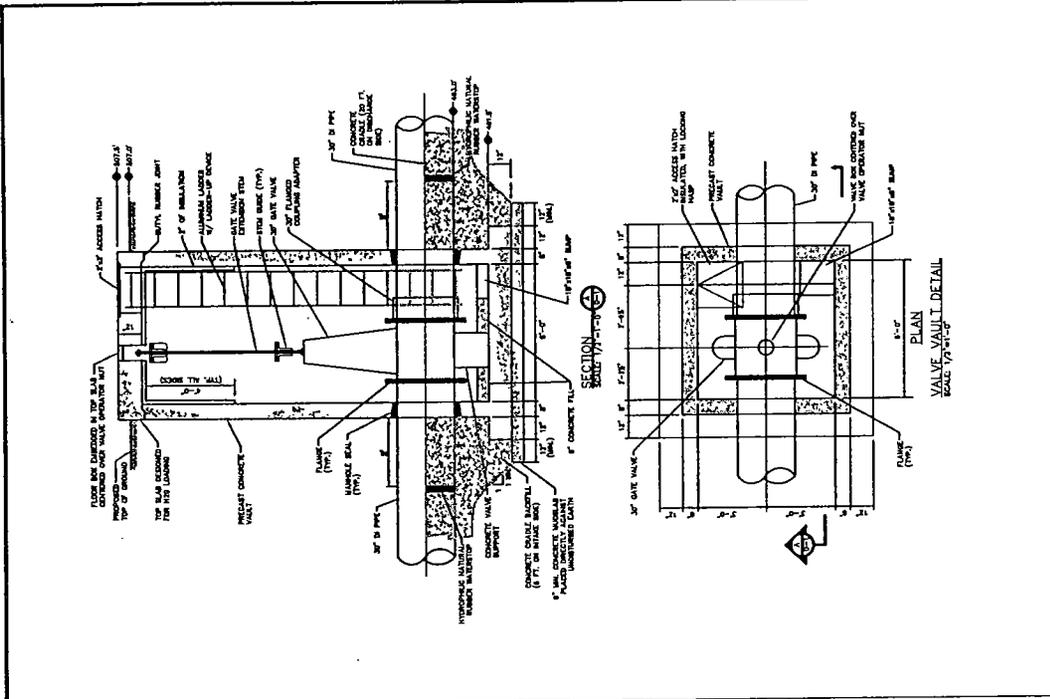
**PARTIAL PLAN**  
**SPILLWAY**  
 NAE - 2004 - 2143  
 FIGURE 6

COES RESERVOIR

DATUM: NGVD  
 MEAN AVERAGE  
 WS: EL. 501 (OHW)  
 100 YEAR FLOOD: EL. 508



SCALE  
 1" = 40'



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COES RESERVOIR DAM REHABILITATION  
WORCESTER MASSACHUSETTS  
WORCESTER COUNTY  
APPLICANT: CITY OF WORCESTER

**LOW LEVEL OUTLET**  
**SECTIONS AND DETAILS**  
NAS - 2004 - 2113  
FIGURE 7

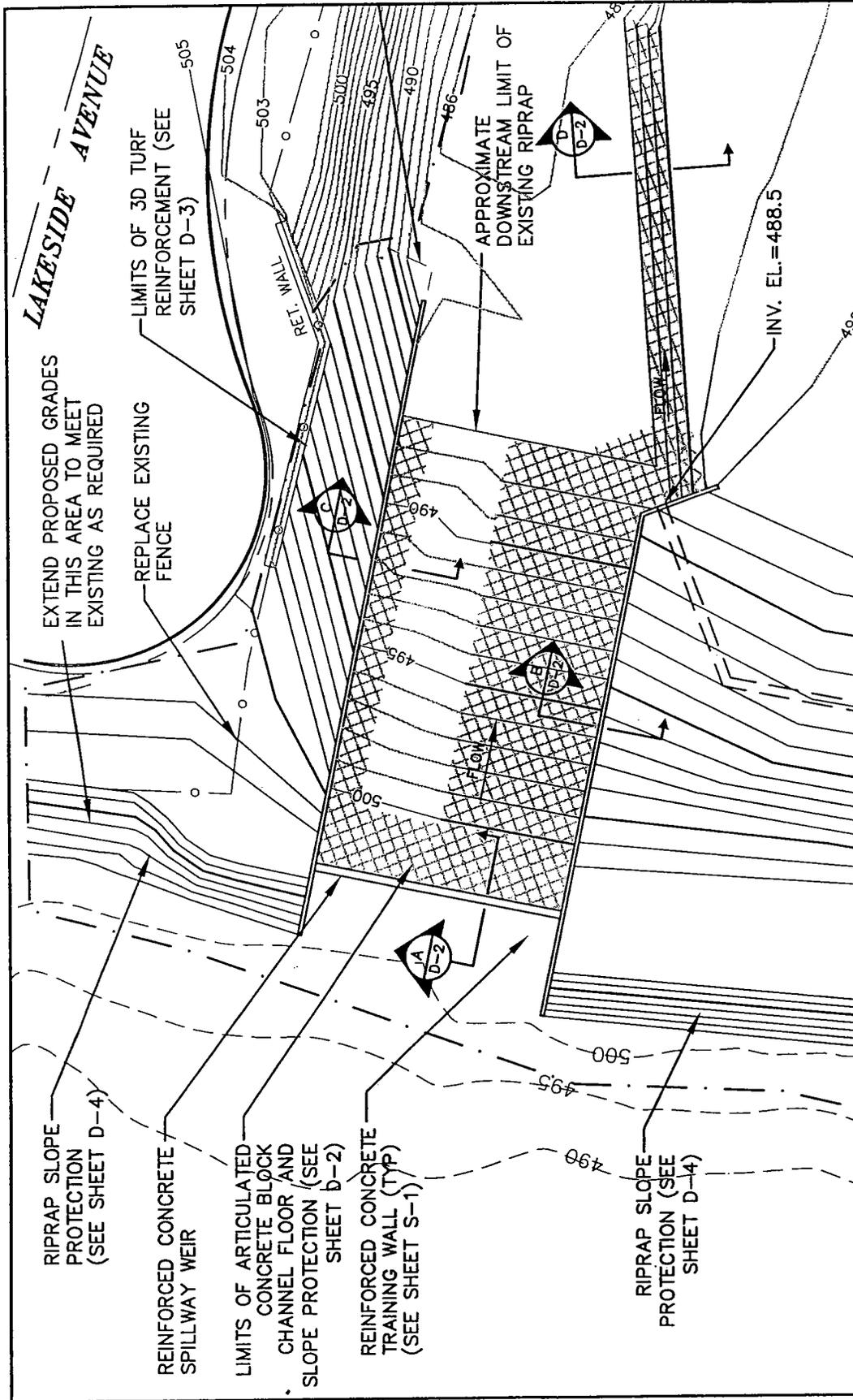
COES RESERVOIR  
DATUM: NGVD  
MEAN AVERAGE  
WS: EL. 501 (0410)  
100 YEAR FLOOD: EL. 508

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LAKESIDE AVENUE

EXTEND PROPOSED GRADES  
IN THIS AREA TO MEET  
EXISTING AS REQUIRED

RIPRAP SLOPE  
PROTECTION  
(SEE SHEET D-4)

REINFORCED CONCRETE  
SPILLWAY WEIR

LIMITS OF ARTICULATED  
CONCRETE BLOCK  
CHANNEL FLOOR AND  
SLOPE PROTECTION (SEE  
SHEET D-2)

REINFORCED CONCRETE  
TRAINING WALL (TYP)  
(SEE SHEET S-1)

RIPRAP SLOPE  
PROTECTION (SEE  
SHEET D-4)

LIMITS OF 3D TURF  
REINFORCEMENT (SEE  
SHEET D-3)

APPROXIMATE  
DOWNSTREAM LIMIT OF  
EXISTING RIPRAP

INV. EL. = 488.5

COES RESERVOIR

DATUM: NGVD  
MEAN AVERAGE  
WS: EL. 501  
100 YEAR FLOOD: EL. 508  
(OHW)

SPILLWAY CHANNEL  
ENLARGED PLAN

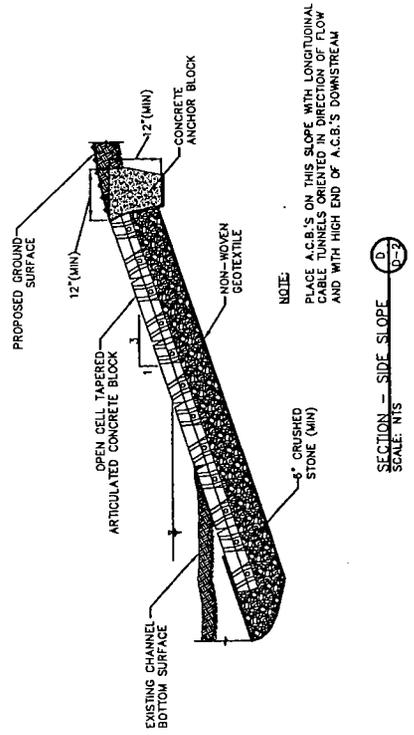
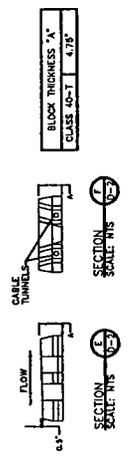
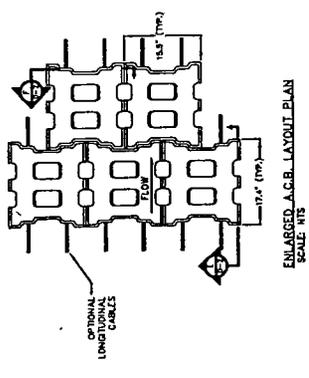
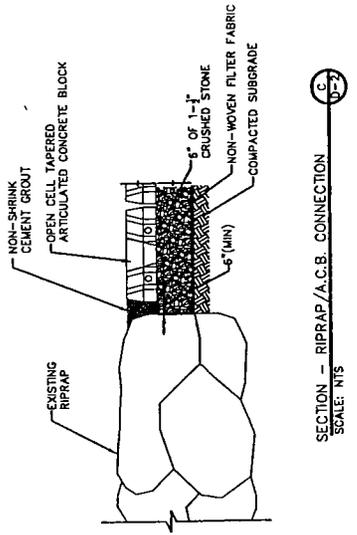
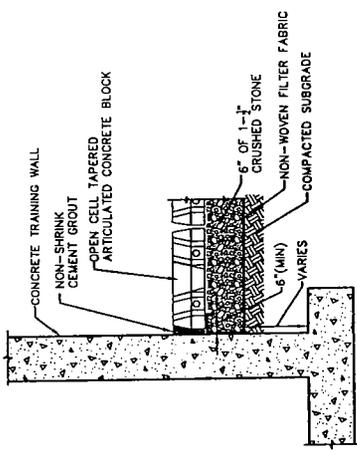
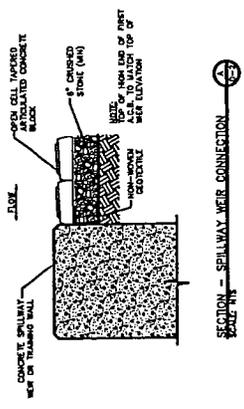
NAE-2004-2143  
FIGURE 8

COES RESERVOIR DAM REHABILITATION  
WORCESTER MASSACHUSETTS  
WORCESTER COUNTY  
APPLICANT: CITY OF WORCESTER

DATE: APRIL 2004  
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NOTE: A.C.B.'S SHALL BE APPROXIMATELY MODEL 40-T OPEN CELL TAPERED ARTICULATED CONCRETE BLOCKS, MANUFACTURED BY WESTON & SAMPSON ENGINEERS, INC., 100 CENTENNIAL DRIVE, PEABODY, MA 01960-7985. (603) 265-0023 OR APPROVED EQUAL.

**Weston & Sampson**  
ENGINEERS, INC.

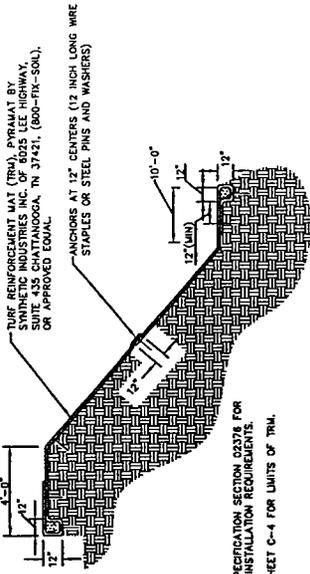
Five Centennial Drive, Peabody, MA 01960-7985

COES RESERVOIR DAM REHABILITATION  
WORCESTER MASSACHUSETTS  
WORCESTER COUNTY  
APPLICANT: CITY OF WORCESTER

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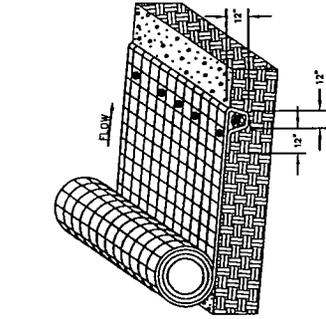
**SPILLWAY CHANNEL**  
**SECTIONS AND DETAILS**  
NAE-2004-2143  
FIGURE 9

COES RESERVOIR  
DATUM: NGVD  
MEAN AVERAGE (OHW)  
WS: EL. 501  
100 YEAR FLOOD: EL. 508



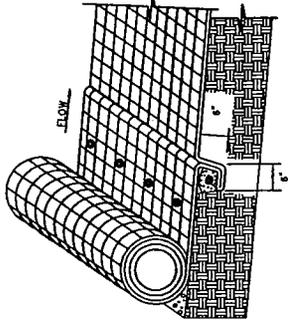
NOTES:  
 1. REFER TO SPECIFICATION SECTION 02376 FOR MATERIAL AND INSTALLATION REQUIREMENTS.  
 2. REFER TO SHEET C-4 FOR UNITS OF TRM.

TYPICAL SLOPE CROSS-SECTION  
 NIS



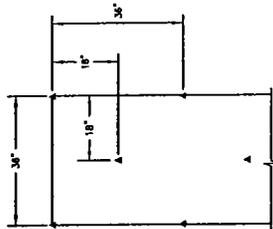
NOTES:  
 1. SECURE TRM IN TRENCH BOTTOM WITH ANCHORS AT 12 IN INTERVALS. BACKFILL SLOT WITH COMPACTED SOIL. SECURE ANCHORS AT 12 IN INTERVALS.

DOWNSTREAM ANCHOR TRENCH DETAIL  
 NIS

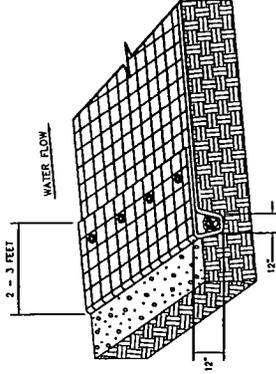


NOTES:  
 1. SECURE TRM EVERY 24 FEET DOWNSTREAM FROM DAM CREST IN TRENCH BOTTOM WITH ANCHORS AT 12 IN INTERVALS. BACKFILL SLOT WITH COMPACTED SOIL. SECURE ANCHORS AT 12 IN INTERVALS.

INTERMITTENT CHECK SLOT  
 NIS



ANCHOR PATTERN FOR SLOPE PROTECTION  
 NIS



NOTES:  
 1. SECURE TRM IN TRENCH AND AT OVERLAP WITH ANCHORS AT 12 IN INTERVALS. BACKFILL TRENCH WITH COMPACTED SOIL PRIOR TO DEWATER.

UPSTREAM ANCHOR TRENCH  
 NIS

COES RESERVOIR

DATUM: NGVD  
 MEAN AVERAGE  
 WS: EL. 501 (OHW)  
 100 YEAR FLOOD: EL. 508

SLOPE PROTECTION  
 SECTIONS AND DETAILS

NAE-2004-2143  
 FIGURE 10

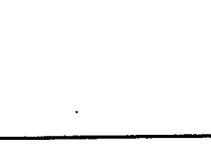
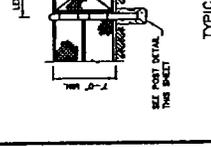
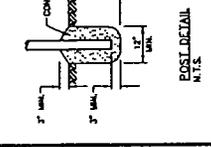
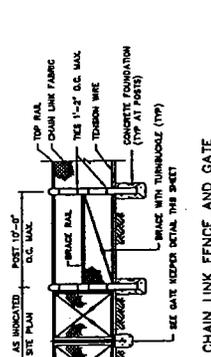
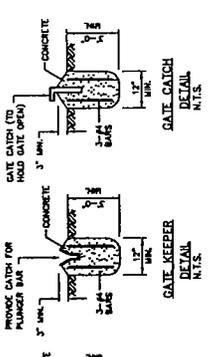
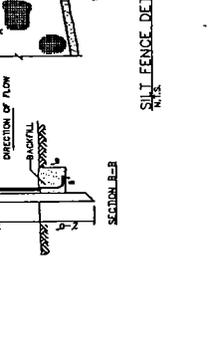
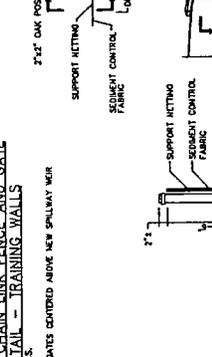
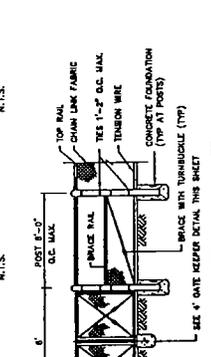
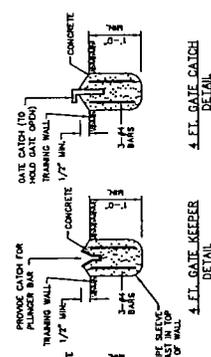
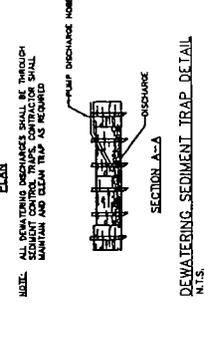
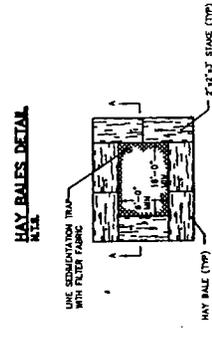
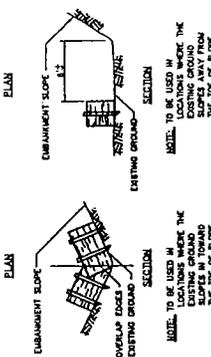
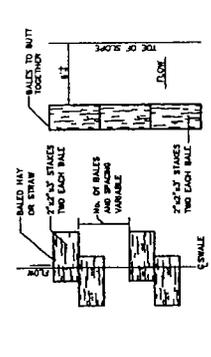
COES RESERVOIR DAM REHABILITATION  
 WORCESTER MASSACHUSETTS  
 WORCESTER COUNTY  
 APPLICANT: CITY OF WORCESTER

DATE: APRIL 2004  
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COES RESERVOIR DAM REHABILITATION  
WORCESTER MASSACHUSETTS  
WORCESTER COUNTY  
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MISCELLANEOUS  
SECTIONS AND DETAILS  
NAE-2004-2143  
FIGURE 11

COES RESERVOIR  
DATUM: NGVD  
MEAN AVERAGE (OHU)  
WS: EL. 501  
100 YEAR FLOOD: EL. 508