



DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
696 VIRGINIA ROAD
CONCORD MA 01742-2751

June 16, 2025

Regulatory Division
File Number: NAE-2021-02497

William Salomaa
Massachusetts Department of Conservation & Recreation – Office of Dam Safety
10 Park Plaza Suite 6620
Boston, Massachusetts 02116
Sent by email: william.salomaa@mass.gov

Dear Mr. Salomaa:

The U.S. Army Corps of Engineers (USACE) has reviewed your application to remove accumulated sediment and perform dam repairs for the purpose of bringing the dam into compliance with Massachusetts DCR's Office of Dam Safety regulations. Associated work will include the removal of 865 cubic yards of accumulated sediment from within an 8,000 square foot area, placing about 3,770 square feet of coffer dams, and 980 square feet of impacts from dewatering within the spillway structure and cofferdam. About 60 cubic yards of sediment will be excavated from the 980 square foot area, which will be separated from the channel by 150 square feet of turbidity curtains. Cofferdams will be located along the limit of work upstream of the existing spillway. Approximately 133 cubic yards of temporary stone fill will be placed in a 1,200 square foot area to raise the elevation of the temporary coffer dams. Additional sandbag coffer dams will be placed downstream. There will also be 1,200 square feet of permanent impacts from the installation of fill for the new stilling basin, retaining wall, and bridge support. Approximately 330 square feet (24 cubic yards) of riprap will be placed for bank stabilization purposes. The dam rehabilitation will dewater about 15.6 acres due to the lowering of the water level in Lowe's Pond upstream of the temporary cofferdam. This project is located in Lowe's Pond at 3 Huguenot Road, Oxford, Massachusetts. The work is shown on the enclosed plans titled "Lowes Pond Dam Rehabilitation," on 24 sheets, and dated "September, 2023" with amendments made in "August, 2024."

Based on the information that you have provided, we verify that the activity is authorized under General Permit # 2 and 24 of the June 2, 2023, federal permit known as the Massachusetts General Permits (GPs). The GPs are available at <https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Massachusetts-General-Permit>.

Please review the enclosed GPs carefully, in particular the general conditions beginning on page 35, and ensure that you and all personnel performing work authorized by the GPs are fully aware of and comply with its terms and conditions. A copy of the

GPs and this verification letter shall be available at the work site as required by General Condition 17. You must perform this work in compliance with the following special condition:

You must complete and return the enclosed Certificate of Compliance within one month following the completion of the authorized work.

This authorization expires on June 1, 2028. You must commence or have under contract to commence the work authorized herein by June 1, 2028, and complete the work by June 1, 2029. If not, you must contact this office to determine the need for further authorization and we recommend you contact us *before* the work authorized herein expires. Please contact us immediately if you change the plans or construction methods for work within our jurisdiction as we must approve any changes before you undertake them. Performing work within our jurisdiction that is not specifically authorized by this determination or failing to comply with the special condition(s) provided above or all the terms and conditions of the GPs may subject you to the enforcement provisions of our regulations.

This authorization does not obviate the need to obtain other federal, state, or local authorizations required by law. Applicants are responsible for applying for and obtaining any other approvals.

We continually strive to improve our customer service. To better serve you, we would appreciate your completing our Customer Service Survey located at <https://regulatory.ops.usace.army.mil/customer-service-survey>.

Please contact Abigail Thrall of my staff at abigail.e.thrall@usace.army.mil or (978) 318-8029 if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Kara Hellige". The script is cursive and fluid.

Kara Hellige
Chief, Massachusetts Branch
Regulatory Division

cc:

Jennifer Doyle-Breen, AECOM; jennifer.doyle-bree@aecom.com

Ed Reiner, U.S. EPA, Region 1, Boston, MA, reiner.ed@epa.gov

DEP CERO, Wetlands and Waterways, Worcester, MA; cero_noi@mass.gov

David Wong, MassDEP, david.w.wong@mass.gov

David Robinson, MA Board of Underwater Archaeological Resources (BUAR);

david.s.robinson@mass.gov

Oxford Conservation Commission, jlochner@town.oxford.ma.us



**US Army Corps
of Engineers®**
New England District

COMPLIANCE CERTIFICATION FORM

(Minimum Notice: Permittee must sign and return notification
within one month of the completion of work.)

Permit Number: _____

Project Manager: _____

Name of Permittee: _____

Permit Issuance Date: _____

Note: Choose one of the following. Choose the 2nd when mitigation required.

Please sign this certification and return it to our office upon completion of the activity.

Please sign this certification and return it to our office upon completion of the activity and any mitigation required by the permit. You must submit this after the mitigation is complete, but not after the mitigation monitoring, which requires separate submittals.

```
*****
* E-MAIL TO: cenae-r-ma@usace.army.mil; or *
* * *
* MAIL TO: Massachusetts Section *
* Regulatory Division *
* U.S. Army Corps of Engineers, New England District *
* 696 Virginia Road *
* Concord, MA 01742-2751 *
*****
```

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above referenced permit was completed in accordance with the terms and conditions of the above referenced permit, and any required mitigation was completed in accordance with the permit conditions.

Signature of Permittee

Date

Printed Name

Date of Work Completion

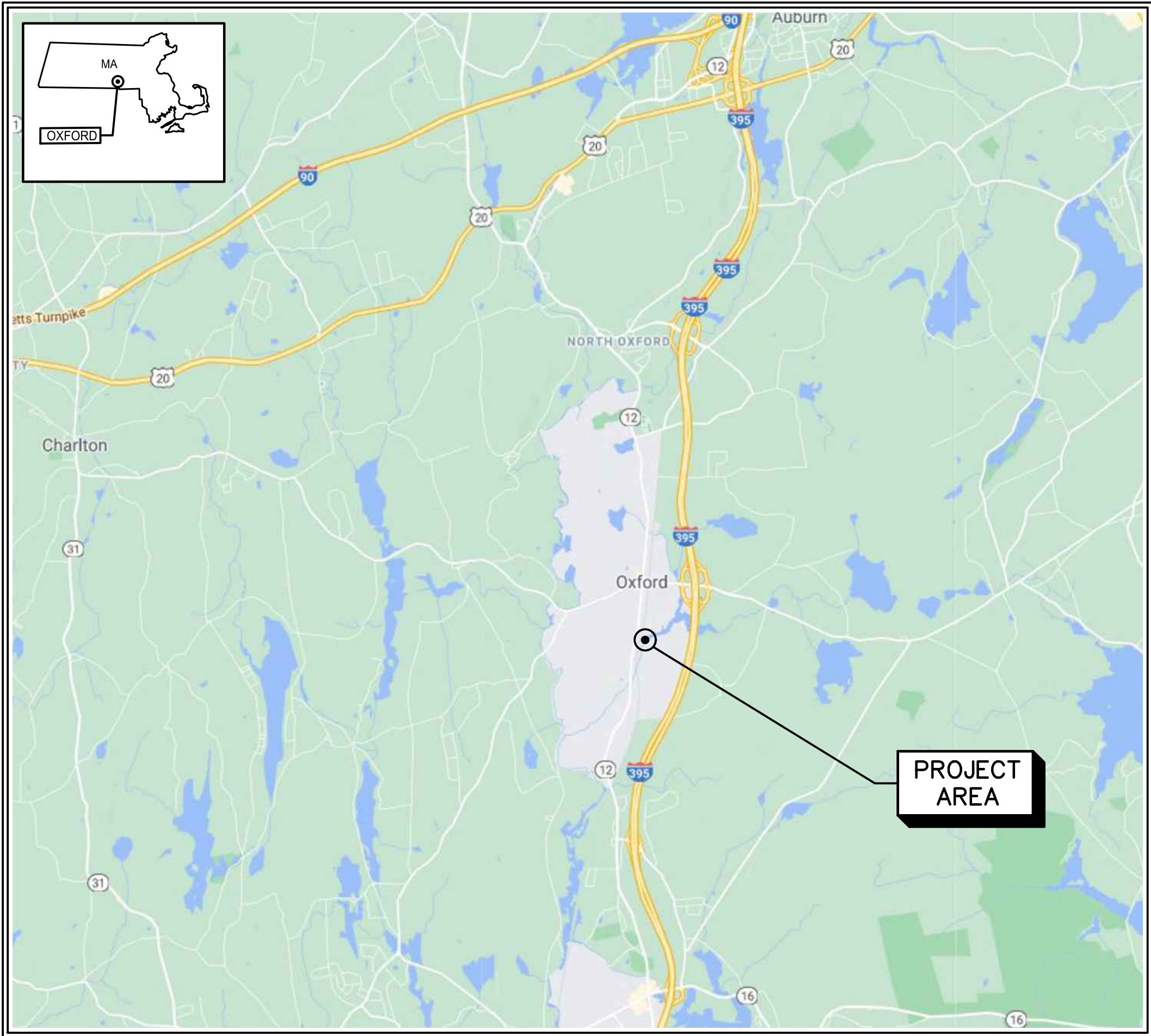
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Telephone Number

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Telephone Number

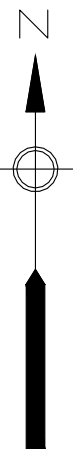
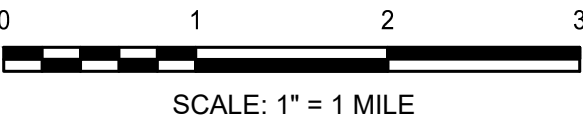
MASSACHUSETTS DEPARTMENT OF
CONSERVATION AND RECREATION

LOWES POND DAM REHABILITATION
OXFORD, MA

SEPTEMBER 2023



LOCATION PLAN
APPROXIMATE SCALE: 1" = 1 Mile



INDEX OF DRAWINGS

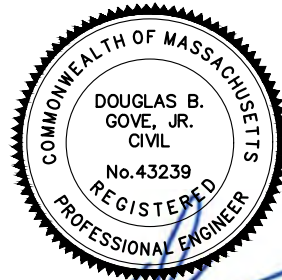
DRAWING NO.	DRAWING TITLE
GENERAL	
00 G-001	COVER SHEET, LOCATION PLAN AND INDEX OF DRAWINGS
CIVIL	
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PROJECT
MASS DCR
ABANDONED DAMS
LOWES POND DAM
CONTRACT NO.
P19-3264-D4A

CLIENT
Massachusetts Department
of Conservation and
Recreation
251 Causeway Street, Suite 600
Boston, MA 02114-2119
617.626.1250 tel 617.626.1351 fax
www.mass.gov/orgs/departement-of-conservation-recreation

CONSULTANT
AECOM TECHNICAL SERVICES, INC.
250 APOLLO DRIVE
CHELMSFORD, MA 01824
PHONE: (978) 905-2100
www.aecom.com



REGISTRATION

PRELIMINARY PERMIT
APPLICATION COPY

NOT INTENDED FOR
CONSTRUCTION

ISSUE/REVISION		
I/R	DATE	DESCRIPTION

PROJECT NUMBER	
60604936	
Designed By:	J.P. MINOIS
Drawn By:	M. THIBODEAU
Dept Check:	C. BENZIGER
Proj Check:	D. GOVE
Date:	SEPTEMBER 2023
Scale:	AS NOTED

DISCIPLINE
PERMITTING
SHEET TITLE
LOWES POND
COVER SHEET, LOC. PLAN
AND INDEX OF DRAWINGS
SHEET NUMBER
00 G-001

PATH: P:\WORK\PROJECTS\MASSDCR SIX ABANDONED DAMS\PROJECTS\LOWES POND\00 C-001.DWG
LAST UPDATE: Wednesday, August 30, 2023 9:43:45 AM
PLOT DATE: Monday, September 18, 2023 12:24:07 PM

GENERAL PLAN NOTES

- TOPOGRAPHIC SURVEY IS BASED ON AN ON-THE-GROUND SURVEY PERFORMED ON JUNE 4TH AND 5TH, 2019, BY ALPHA SURVEY GROUP, LLC.
- THE HORIZONTAL DATUM FOR THIS PROJECT IS THE MASSACHUSETTS STATE PLANE COORDINATE SYSTEM REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD83), CORS ADJUSTMENT (NA2011/GEOID 12a) AS DETERMINED BY REDUNDANT GPS OBSERVATIONS MADE ON MAY 20TH, 2019 UTILIZING KEYSTONE PRECISION INSTRUMENTS' KEYNET GPS VIRTUAL REFERENCE SYSTEM (VRS) NETWORK.
- THE VERTICAL DATUM FOR THIS PROJECT IS REFERENCED TO THE RECOVERED SITE BENCHMARKS (AS SHOWN ON PLAN ENTITLED "PLAN OF LAND IN, OXFORD, MA, PREPARED FOR, FUSS & O'NEILL" PREPARED BY SHERMAN & FRYDRYCK, INC., DATED 7/22/2014) PROVIDED BY THE CLIENT.
- RESOURCE AREA DELINEATION WAS PERFORMED BY AECOM ON MARCH 18, 2021.
- NO UTILITY INVESTIGATION WAS PERFORMED FOR THIS PROJECT. UTILITY LOCATION SHALL BE PERFORMED IN THE FIELD PRIOR TO THE COMMENCEMENT OF ANY WORK. CALL "DIG SAFE" AT 811.
- THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO APPROXIMATE EXISTING GRADES UPON COMPLETION OF THE CONSTRUCTION, EXCEPT WHERE PERMANENT GRADE CHANGES ARE SPECIFICALLY NOTED OR ORDERED.
- THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF THE EXISTING FEATURES AND STRUCTURES WITHIN AND ADJACENT TO THE WORK. IN THE EVENT OF DAMAGE, THE REPAIRS OR REPLACEMENT SHALL BE COMPLETED AT THE CONTRACTOR'S EXPENSE AS APPROVED BY THE ENGINEER.
- ALL PIPES OR OTHER UTILITIES DAMAGED DURING THE CONTRACTOR'S OPERATIONS SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR OR REPLACE AT NO COST TO THE OWNER.
- EXISTING CONDITIONS ARE SHOWN ON THE PLANS IN A SCREENED (LIGHTER) PENWEIGHT. PROPOSED WORK IS SHOWN IN BOLDER PENWEIGHT.
- THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ALL WORK AS INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER IN CONFORMANCE WITH ALL APPLICABLE CODES AND IN A PROPER AND WORKMANLIKE MANNER.
- THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL WASTE BUILDING MATERIAL, CONCRETE, MASONRY, TREES, SHRUBS, DEBRIS AND OTHER MATERIALS NECESSARY FOR THE SATISFACTORY COMPLETION OF THE WORK AND AS REQUIRED BY THE OWNER. CONSTRUCTION DEBRIS SHALL BE DISPOSED OF IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL LAWS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY LOCAL STREET OPENING OR BUILDING PERMITS AND FOR COORDINATING INSPECTIONS AS REQUIRED. PERMIT FEES SHALL BE PAID DIRECTLY BY THE CONTRACTOR AND SHALL BE INCLUDED IN THE APPROPRIATE ITEM OF THE BID. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH THE PERMITS OBTAINED BY THE OWNER AND REFERENCED IN SPECIFICATION 0110.
- MAINTAIN GRAVEL ROADS AT ALL TIMES DURING CONSTRUCTION. GRAVEL ROADS SHALL BE GRADED AND SHALL BE IN GOOD TRAFFICABLE CONDITIONS WITHOUT RUTS OR WASHOUTS AT THE COMPLETION OF THE PROJECT.
- TREE CLEARING MAY OCCUR UP TO THE LIMIT OF WORK LINE TO FACILITATE EQUIPMENT STAGING AND VEHICULAR MOVEMENT.

DEMOLITION NOTES

- TAKE MEASURES TO PREVENT DAMAGE TO EXISTING STRUCTURES TO REMAIN DURING DEMOLITION. DAMAGE THAT DOES OCCUR SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER.
- SHORE EXISTING STRUCTURES TO UNLOAD MEMBERS BEFORE REMOVING STRUCTURAL ELEMENTS.
- DAMAGE DUE TO DEMOLITION OPERATIONS SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- PATCH AND FINISH EXPOSED SURFACES TO MATCH THE ADJACENT AREA UNLESS OTHERWISE INDICATED OR SPECIFIED.

TRAFFIC MANAGEMENT

- CONTRACTOR SHALL COORDINATE A TRAFFIC MANAGEMENT PLAN WITH LOCAL AUTHORITIES PRIOR TO THE START OF THE PROJECT PER SPECIFICATION 01063.
- CONTRACTOR TO PROVIDE ALL REQUIRED SIGNAGE, FLAGGING, AND TRAFFIC CONTROL DEVICES AS PART OF THE TRAFFIC MANAGEMENT PLAN.
- ACCESS FOR LOCAL RESIDENTS MUST BE MAINTAINED THROUGHOUT THE PROJECT.
- MAINTAIN ONE LANE PASSABLE AT ALL TIMES.

LEGEND

EXISTING	PROPOSED
MINOR CONTOUR	LIMIT OF WORK
MAJOR CONTOUR	TEMPORARY CONSTRUCTION ENTRANCE
EDGE OF PAVEMENT	COMPOST SILT SOCK EROSION CONTROL BARRIER
EDGE OF GRAVEL	DEMOLITION
EDGE OF WATER	STRUCTURE
ORDINARY HIGH WATER	EXTENT OF STRUCTURAL FOOTING
100-FOOT BUFFER ZONE	STRUCTURAL EXPANSION JOINT
200-FOOT RIVERFRONT AREA	PLATFORM
GUARD RAIL	GUARD RAIL
TREE LINE	WOOD GUARD RAIL
	STOP LOG
DRAIN	24" PIPE AND 24" SLIDE GATE
OVERHEAD WIRE	SECTION MARK (SEE STRUCTURAL SHEETS FOR SECTIONS)
100' RESOURCE BUFFER	
WETLAND FLAG - BANK LIMIT	PEDESTRIAN BRIDGE
RIGHT OF WAY	NEW TREELINE
DIRECTIONAL FLOW ARROW	CHAIN LINK FENCE
BENCHMARK	SIGN
SIGN	PARKING SPACE WITH ACCESSIBLE AISLE
SPOT GRADE	GRAVEL PATH CENTERLINE
RESOURCE AREA FLAG	COORDINATE LOCATION
BOULDER	EXISTING BOULDER RELOCATION
BORING	SEED MIX
WATER GATE	GRAVEL PATHWAY AND PARKING AREA
FIRE HYDRANT	RIPRAP AREA
UTILITY POLE	HYDRODYNAMIC SEPARATOR, DRAIN PIPE AND RIPRAP AT OUTLET, WITH FLOW DIRECTION
DRAIN MANHOLE	UNDERDRAIN PIPE WITH CLEANOUT
CATCH BASIN	SECTION MARK AT BIOINFILTRATION BASINS
TREE (SIZE IN INCHES)	VERTICAL GRANITE CURB
TRAVERSE (CONTROL) POINT	DRAIN PIPE WITH FLOW DIRECTION
CONCRETE	DRAIN PIPE BEND
RIPRAP	
LEDGE	

ABBREVIATIONS

BIT.	BITUMINOUS
CONC.	CONCRETE
DH	DRILL HOLE
E.J.	EXPANSION JOINT
HB	HARD BOTTOM
MAG	MAG NAIL
RET.	RETAINING
R.O.W.	RIGHT-OF-WAY
RR	RAILROAD
S&M	STONE AND MORTAR
SPK	SPIKE
VGC	VERTICAL GRANITE CURB
W.S.	WATER STOP

AECOM

PROJECT

MASS DCR
ABANDONED DAMS
LOWES POND DAM
CONTRACT NO.
P19-3264-D4A

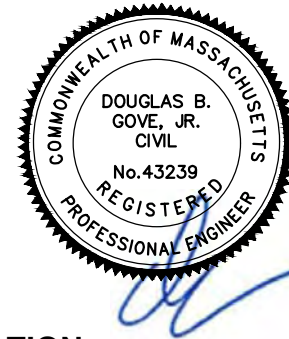
CLIENT

Massachusetts Department
of Conservation and
Recreation

251 Causeway Street, Suite 600
Boston, MA 02114-2119
617.626.1250 tel 617.626.1351 fax
www.mass.gov/orgs/departement-of-conservation-recreation

CONSULTANT

AECOM TECHNICAL SERVICES, INC.
250 APOLLO DRIVE
CHELMSFORD, MA 01824
PHONE: (978) 905-2100
www.aecom.com



REGISTRATION

PRELIMINARY PERMIT
APPLICATION COPY

NOT INTENDED FOR
CONSTRUCTION

ISSUE/REVISION

I/R	DATE	DESCRIPTION

PROJECT NUMBER

60604936

Designed By:	J.P. MINOIS
Drawn By:	S. NAPOLITANO
Dept Check:	C. BENZIGER
Proj Check:	D. GOVE
Date:	SEPTEMBER 2023
Scale:	AS NOTED

DISCIPLINE

PERMITTING
SHEET TITLE

LOWES POND
LEGEND, ABBREVIATIONS
AND GENERAL NOTES
SHEET NUMBER

00 C-001

PROJECT

MASS DCR
ABANDONED DAMS
LOWES POND DAM
CONTRACT NO.
P19-3264-D4A

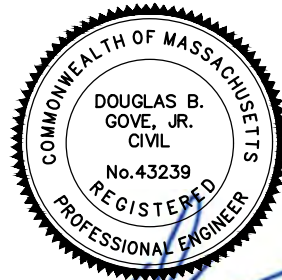
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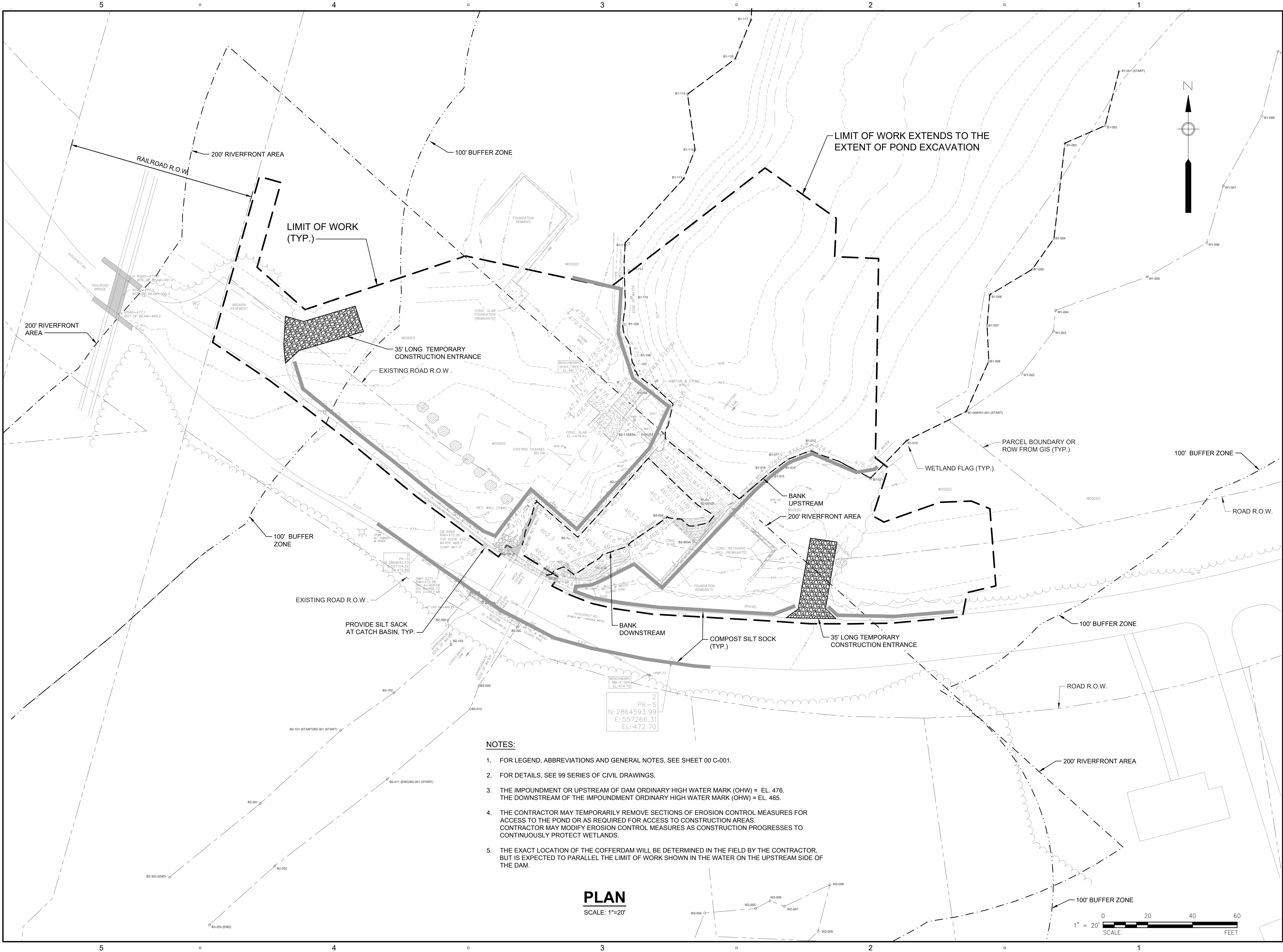
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SHEET TITLE

LOWES POND
EXISTING CONDITIONS AND
EROSION PROTECTION PLAN
SHEET NUMBER

10 C-101

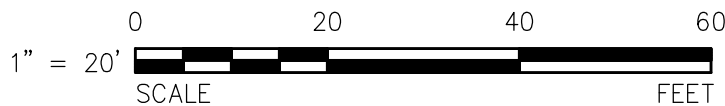


NOTES:

- FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES, SEE SHEET 00 C-001.
- FOR DETAILS, SEE 99 SERIES OF CIVIL DRAWINGS.
- THE IMPOUNDMENT OR UPSTREAM OF DAM ORDINARY HIGH WATER MARK (OHW) = EL. 476. THE DOWNSTREAM OF THE IMPOUNDMENT ORDINARY HIGH WATER MARK (OHW) = EL. 465.
- THE CONTRACTOR MAY TEMPORARILY REMOVE SECTIONS OF EROSION CONTROL MEASURES FOR ACCESS TO THE POND OR AS REQUIRED FOR ACCESS TO CONSTRUCTION AREAS. CONTRACTOR MAY MODIFY EROSION CONTROL MEASURES AS CONSTRUCTION PROGRESSES TO CONTINUOUSLY PROTECT WETLANDS.
- THE EXACT LOCATION OF THE COFFERDAM WILL BE DETERMINED IN THE FIELD BY THE CONTRACTOR, BUT IS EXPECTED TO PARALLEL THE LIMIT OF WORK SHOWN IN THE WATER ON THE UPSTREAM SIDE OF THE DAM.

PLAN

SCALE: 1"=20'



PROJECT

MASS DCR
ABANDONED DAMS
LOWES POND DAM
CONTRACT NO.
P19-3264-D4A

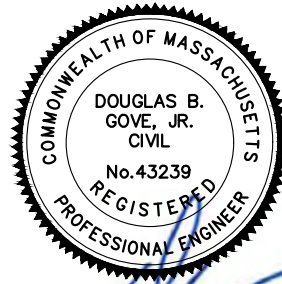
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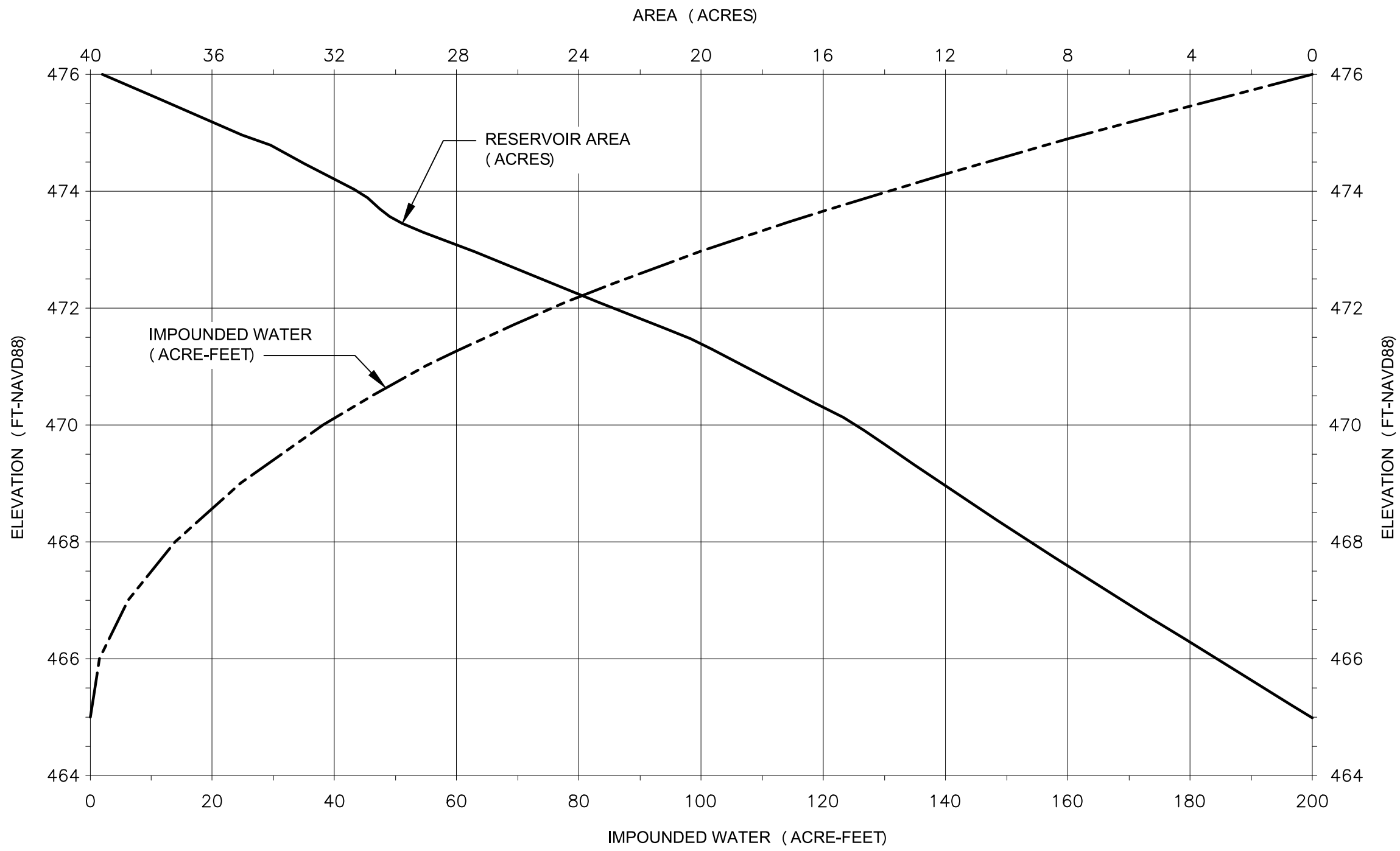
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DISCIPLINE

PERMITTING
SHEET TITLE

LOWES POND
PROJECT HYDROLOGY AND
HYDRAULIC DATA
SHEET NUMBER

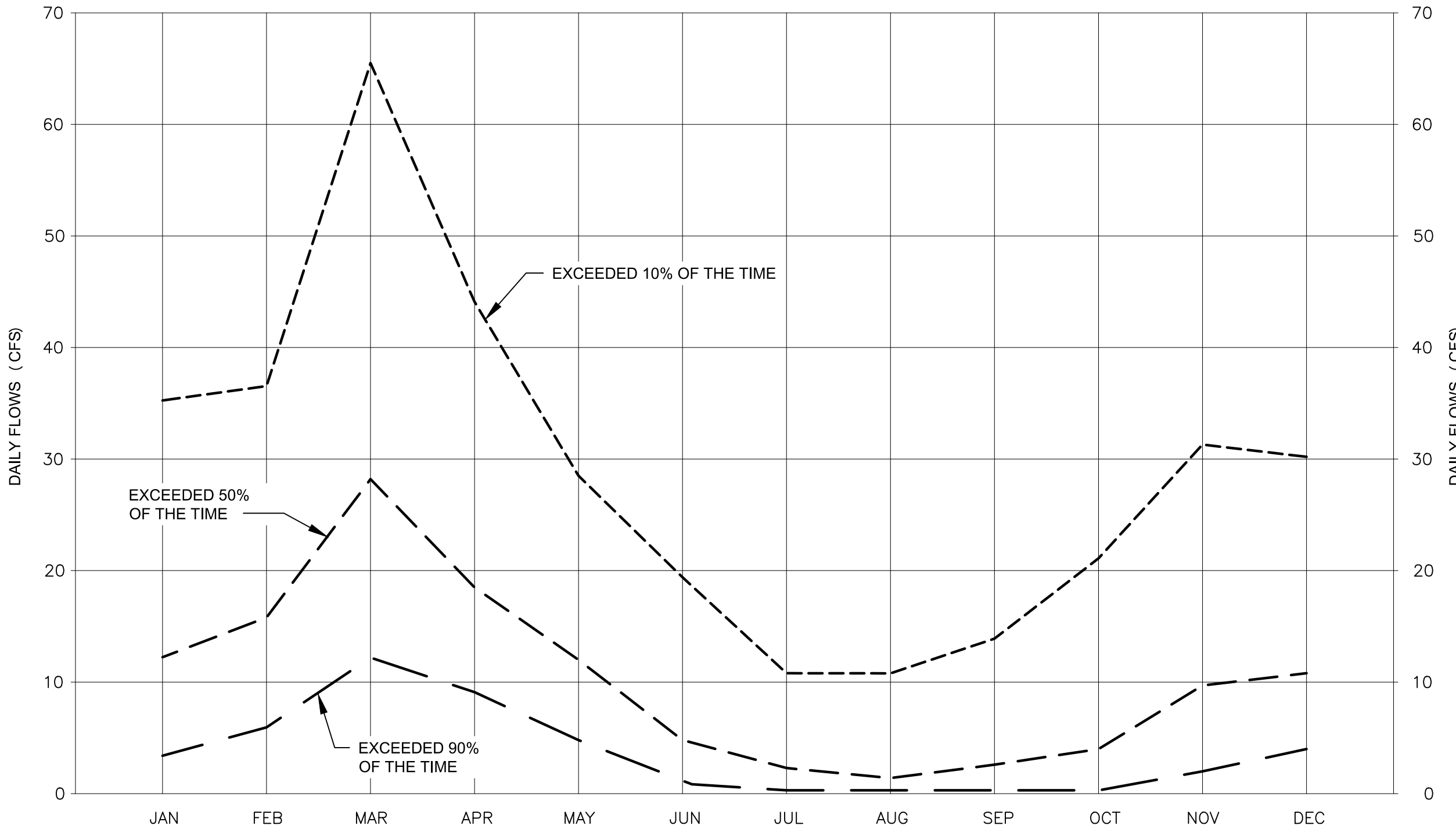
10 C-102



NOTE:

THE AREA - CAPACITY CURVES ARE BASED ON THE BATHYMETRIC SURVEY
OF JULY 2019 PRESENTED IN THE PHASE II REPORT (APRIL 2020).

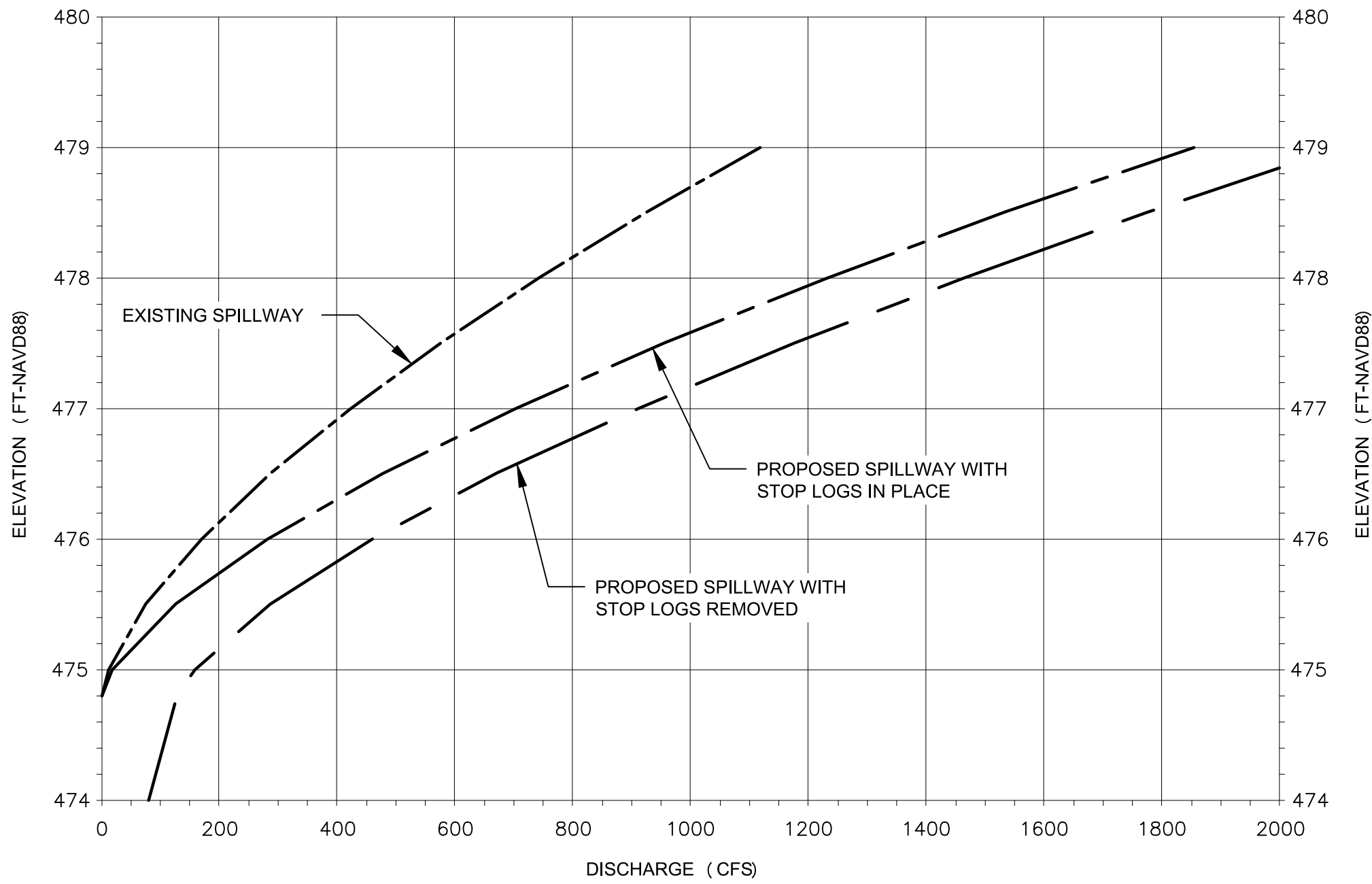
LOWES POND AREA - CAPACITY CURVES



NOTE:

THE AVERAGE DAILY FLOW STATISTICS WERE ESTIMATED BASED ON THE FLOW
RECORDS AT THE USGS GAGING STATION NO. 01124500 ON LITTLE RIVER
NEAR OXFORD AND ADJUSTED FOR DRAINAGE AREA.

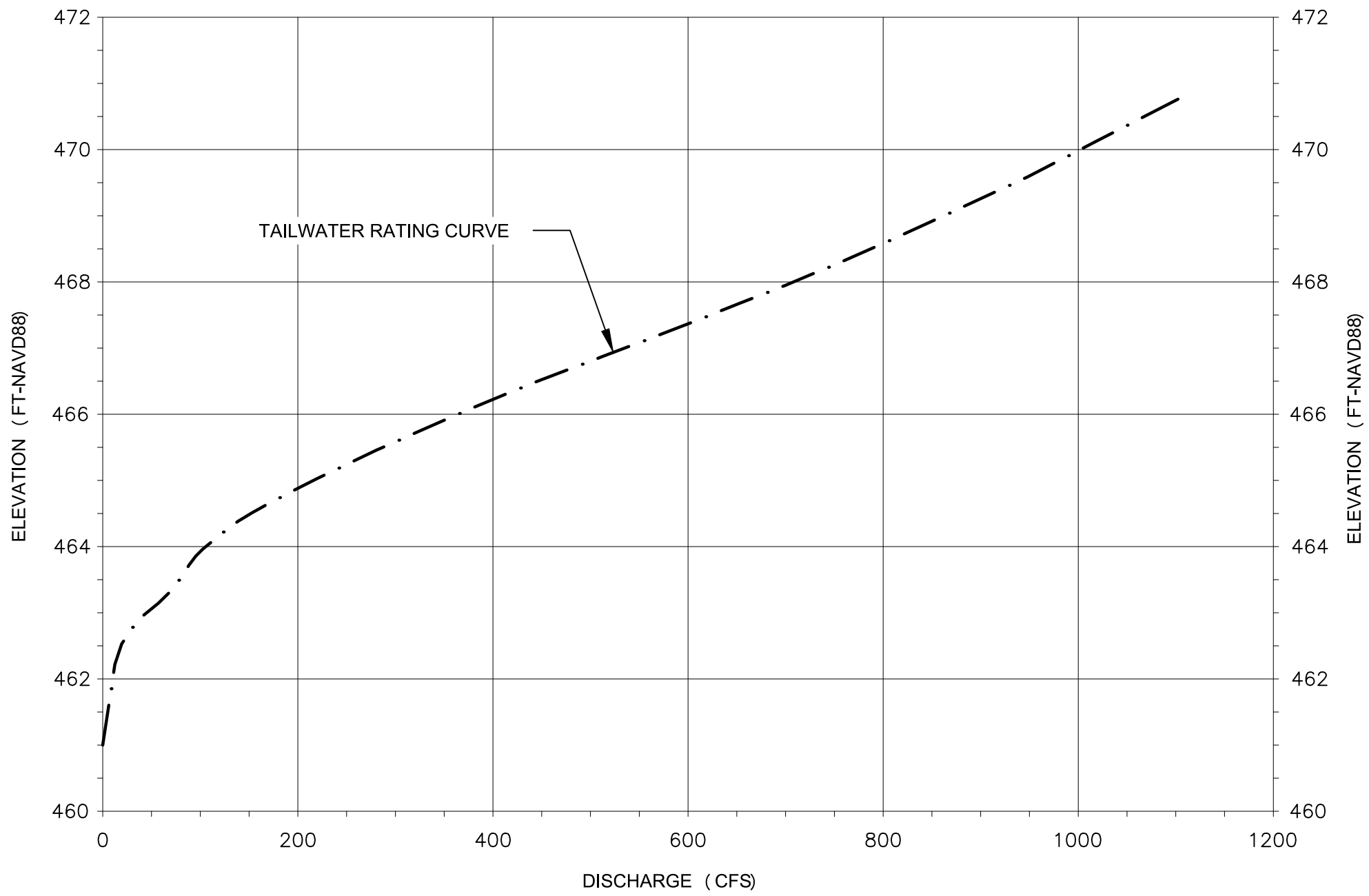
AVERAGE DAILY FLOWS



NOTE:

THE SPILLWAY DISCHARGE RATING CURVES WERE DEVELOPED FOR THE PURPOSE OF THE
LOWES POND DAM REHABILITATION DESIGN, AND ARE BASED ON A SPILLWAY CREST
ELEVATION AT 474.8 FT-NAVD88, AND A STOP LOG INVERT ELEVATION AT 471.8 FT-NAVD88.

SPILLWAY DISCHARGE RATING CURVES



NOTE:

THE TAILWATER RATING CURVE WAS DEVELOPED FOR THE PURPOSE OF
PHASE 2 REPORT (APRIL 2020) AND IS DERIVED FROM THE FEMA
FLOOD PROFILE FOR LOWES BROOK PRESENTED IN FEMA FLOOD
INSURANCE STUDY FOR WORCESTER COUNTY, MA DATED JULY 16, 2014.

TAILWATER RATING CURVE UPSTREAM OF HUGUENOT ROAD

FLOOD DISCHARGE PROBABILITIES

	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)
2-YEAR FLOOD	107	128
10-YEAR FLOOD	374	490
50-YEAR FLOOD	753	1030
100-YEAR FLOOD	947	1307

NOTE:

THE FLOOD DISCHARGE PROBABILITIES WERE DEVELOPED
DURING THE HYDROLOGY AND HYDRAULICS STUDY
COMPLETED FOR THE PHASE II REPORT (APRIL 2020).

PROJECT

MASS DCR
ABANDONED DAMS
LOWES POND DAM
CONTRACT NO.
P19-3264-D4A

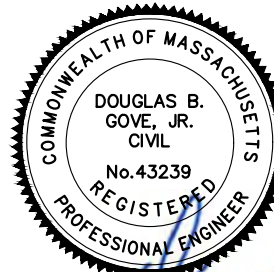
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Designed By: **J.P. MINOIS**

Drawn By: **M. THIBODEAU**

Dept Check: **C. BENZIGER**

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Date: **SEPTEMBER 2023**

Scale: **AS NOTED**

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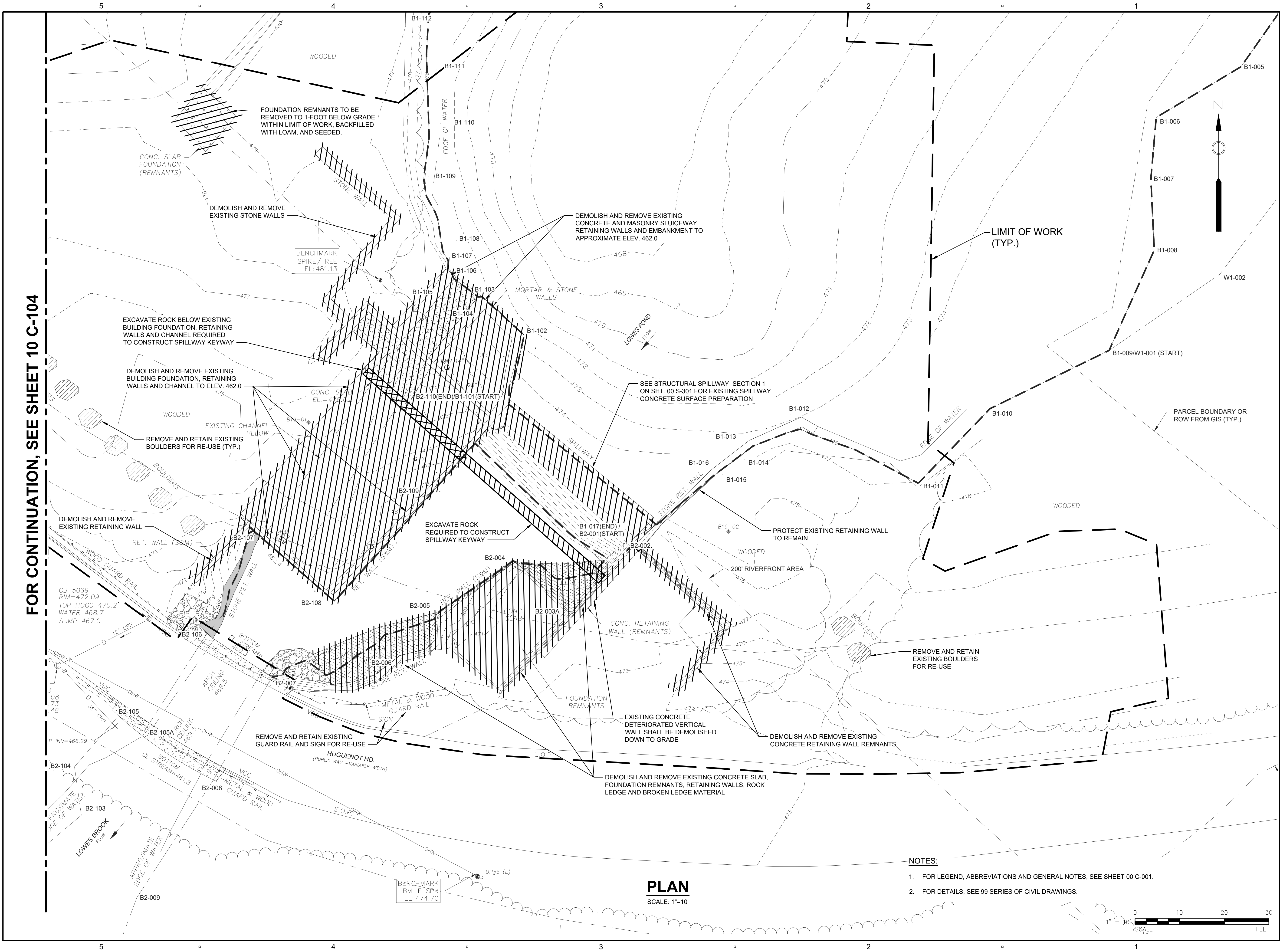
SHEET TITLE

LOWES POND
SITE DEMOLITION PLAN I

SHEET NUMBER

10 C-103

FOR CONTINUATION, SEE SHEET 10 C-104

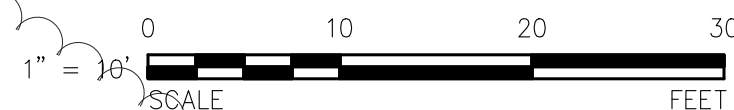


PLAN

SCALE: 1"=10'

NOTES:

1. FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES, SEE SHEET 00 C-001.
2. FOR DETAILS, SEE 99 SERIES OF CIVIL DRAWINGS.



PROJECT

MASS DCR
ABANDONED DAMS
LOWES POND DAM
CONTRACT NO.
P19-3264-D4A

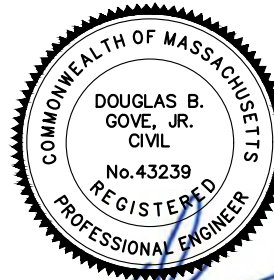
CLIENT

Massachusetts Department
of Conservation and
Recreation

251 Causeway Street, Suite 600
Boston, MA 02114-2119
617.626.1250 tel. 617.626.1351 fax
www.mass.gov/orgs/departement-of-conservation-recreation

CONSULTANT

AECOM TECHNICAL SERVICES, INC.
250 APOLLO DRIVE
CHELMSFORD, MA 01824
PHONE: (978) 905-2100
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REGISTRATION

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ISSUE/REVISION

I/R	DATE	DESCRIPTION

I/R	DATE	DESCRIPTION
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PROJECT NUMBER

60604936

Designed By:	J.P. MINOIS
Drawn By:	M. THIBODEAU
Dept Check:	C. BENZIGER
Proj Check:	D. GOVE
Date:	SEPTEMBER 2023
Scale:	AS NOTED

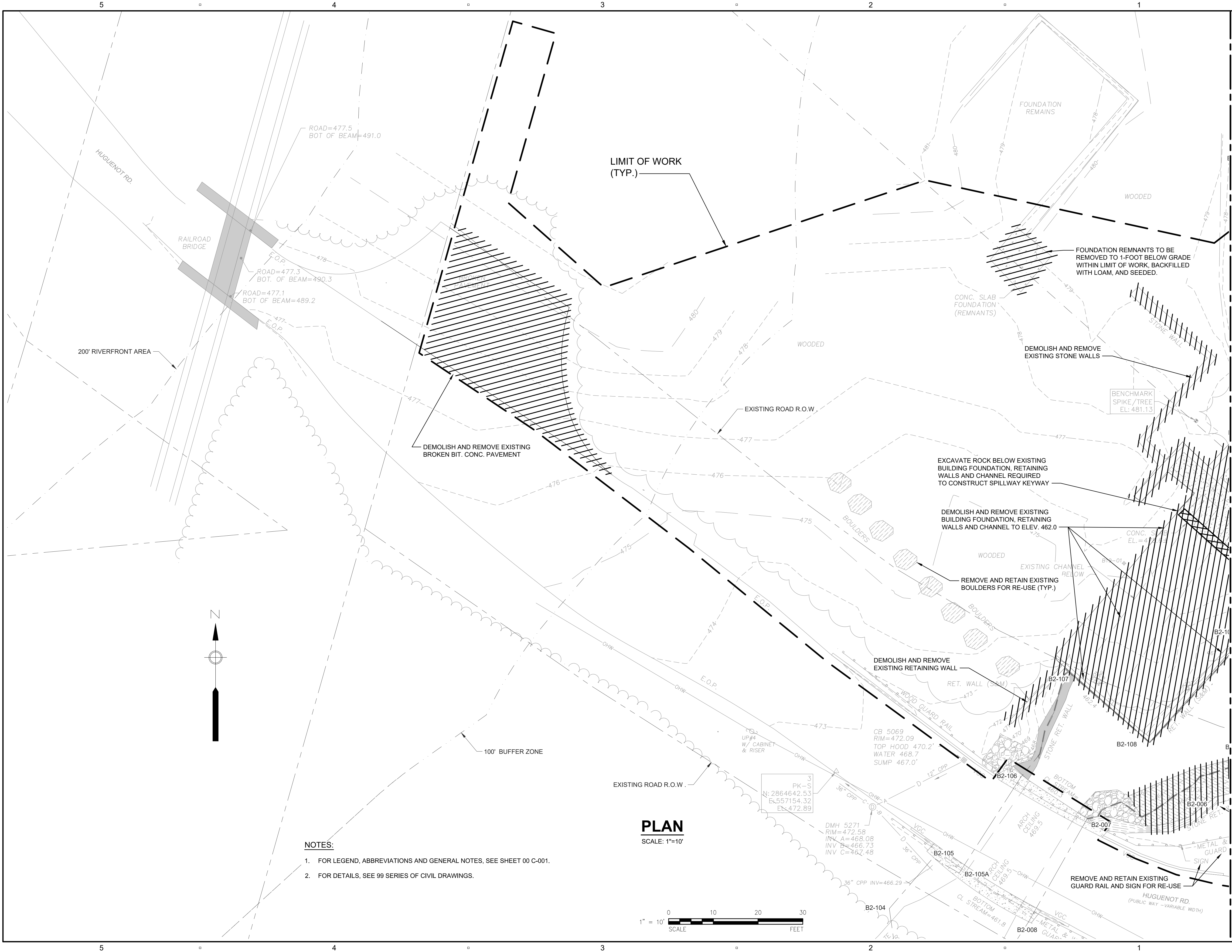
DISCIPLINE

PERMITTING
SHEET TITLE

LOWES POND
SITE DEMOLITION PLAN II

SHEET NUMBER

10 C-104



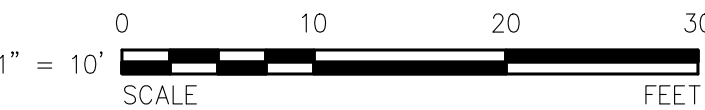
FOR CONTINUATION, SEE SHEET 10 C-103

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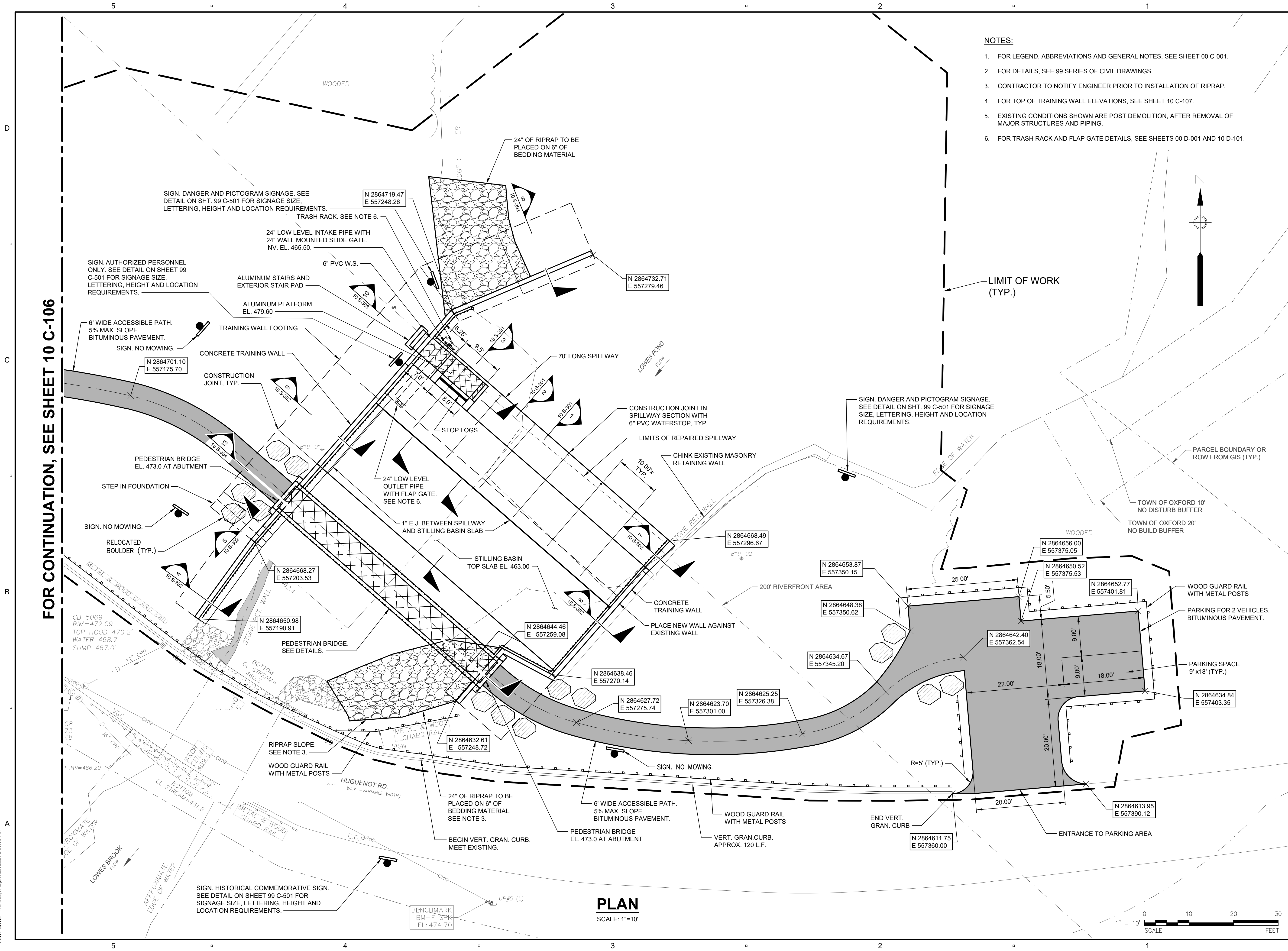
- FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES. SEE SHEET 00 C-001.
- FOR DETAILS, SEE 99 SERIES OF CIVIL DRAWINGS.

PLAN

SCALE: 1"=10'



PATH: \\C:\Users\THIBODEAU\OneDrive\Documents\PROJECTS\MASSDCR\MASSDCR SIX ABANDONED DAMS\PROJECTS\LOWES POND\10 C-105.DWG
LAST UPDATE: Wednesday, August 28, 2024 1:01:55 PM
PLOT DATE: Thursday, August 29, 2024 2:36:08 PM



- NOTES:**
- FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES, SEE SHEET 00 C-001.
 - FOR DETAILS, SEE 99 SERIES OF CIVIL DRAWINGS.
 - CONTRACTOR TO NOTIFY ENGINEER PRIOR TO INSTALLATION OF RIPRAP.
 - FOR TOP OF TRAINING WALL ELEVATIONS, SEE SHEET 10 C-107.
 - EXISTING CONDITIONS SHOWN ARE POST DEMOLITION, AFTER REMOVAL OF MAJOR STRUCTURES AND PIPING.
 - FOR TRASH RACK AND FLAP GATE DETAILS, SEE SHEETS 00 D-001 AND 10 D-101.



PROJECT

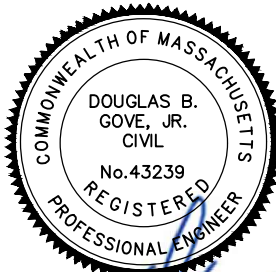
MASS DCR
ABANDONED DAMS
LOWES POND DAM
CONTRACT NO.
P19-3264-D4A

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Massachusetts Department
of Conservation and
Recreation
10 Park Plaza, Suite 6620
Boston, MA 02116
617.626.1250 tel 617.626.1351 fax
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NO.	DATE	DESCRIPTION

I/R	DATE	DESCRIPTION
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PROJECT NUMBER

60604936

Designed By:	J.P. MINOIS
Drawn By:	M. THIBODEAU
Dept Check:	C. BENZIGER
Proj Check:	D. GOVE
Date:	AUGUST 2024
Scale:	AS NOTED

DISCIPLINE

**CIVIL
SHEET TITLE**

**LOWES POND
SITE LAYOUT PLAN I**

SHEET NUMBER

10 C-105

PROJECT

MASS DCR
ABANDONED DAMS
LOWES POND DAM
CONTRACT NO.
P19-3264-D4A

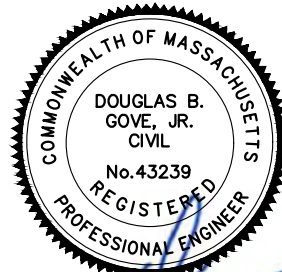
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Boston, MA 02114-2119
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PROJECT NUMBER

60604936

Designed By: J.P. MINOIS

Drawn By: M. THIBODEAU

Dept Check: C. BENZIGER

Proj Check: D. GOVE

Date: SEPTEMBER 2023

Scale: AS NOTED

DISCIPLINE

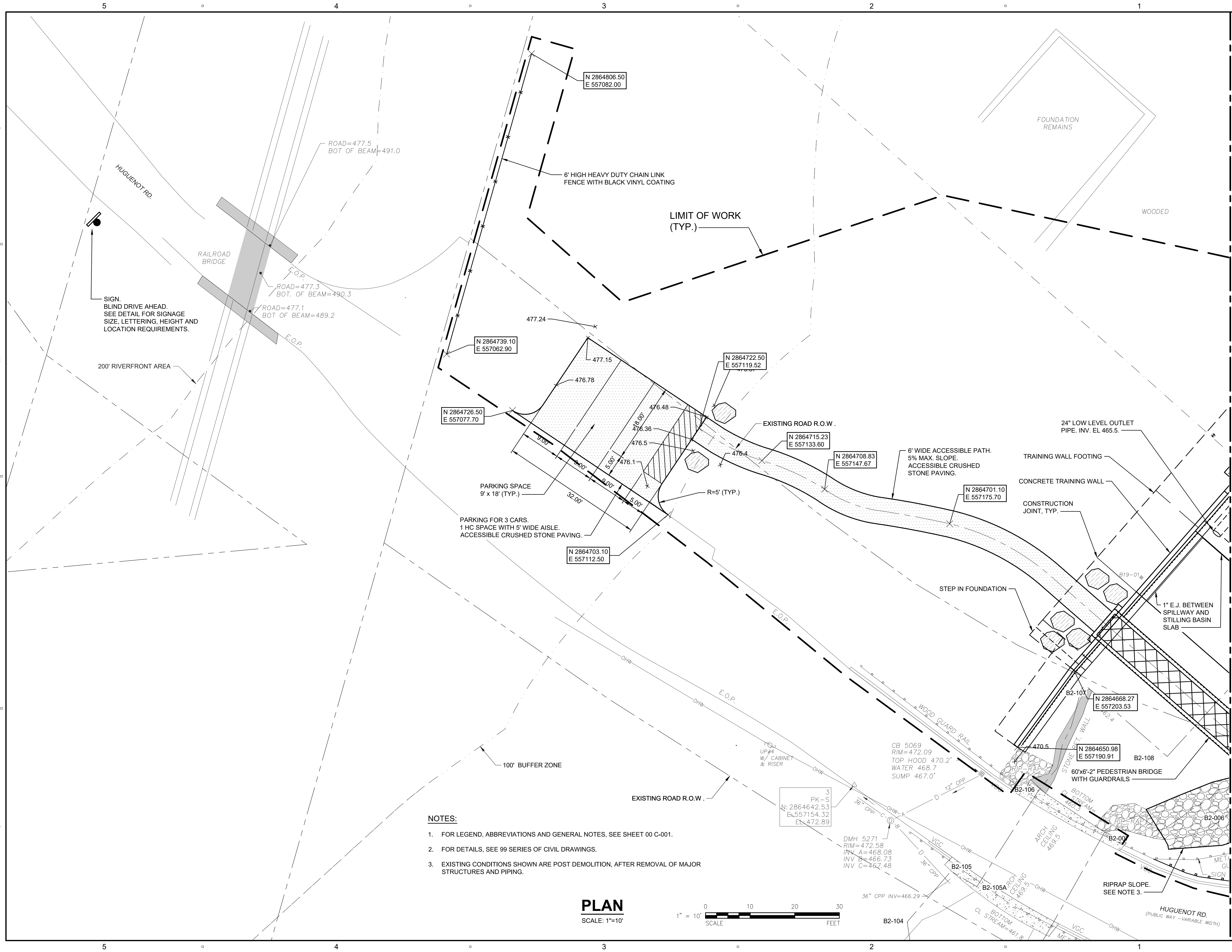
PERMITTING

SHEET TITLE

LOWES POND
SITE LAYOUT PLAN II

SHEET NUMBER

10 C-106

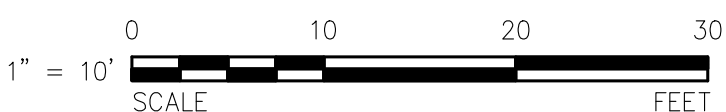


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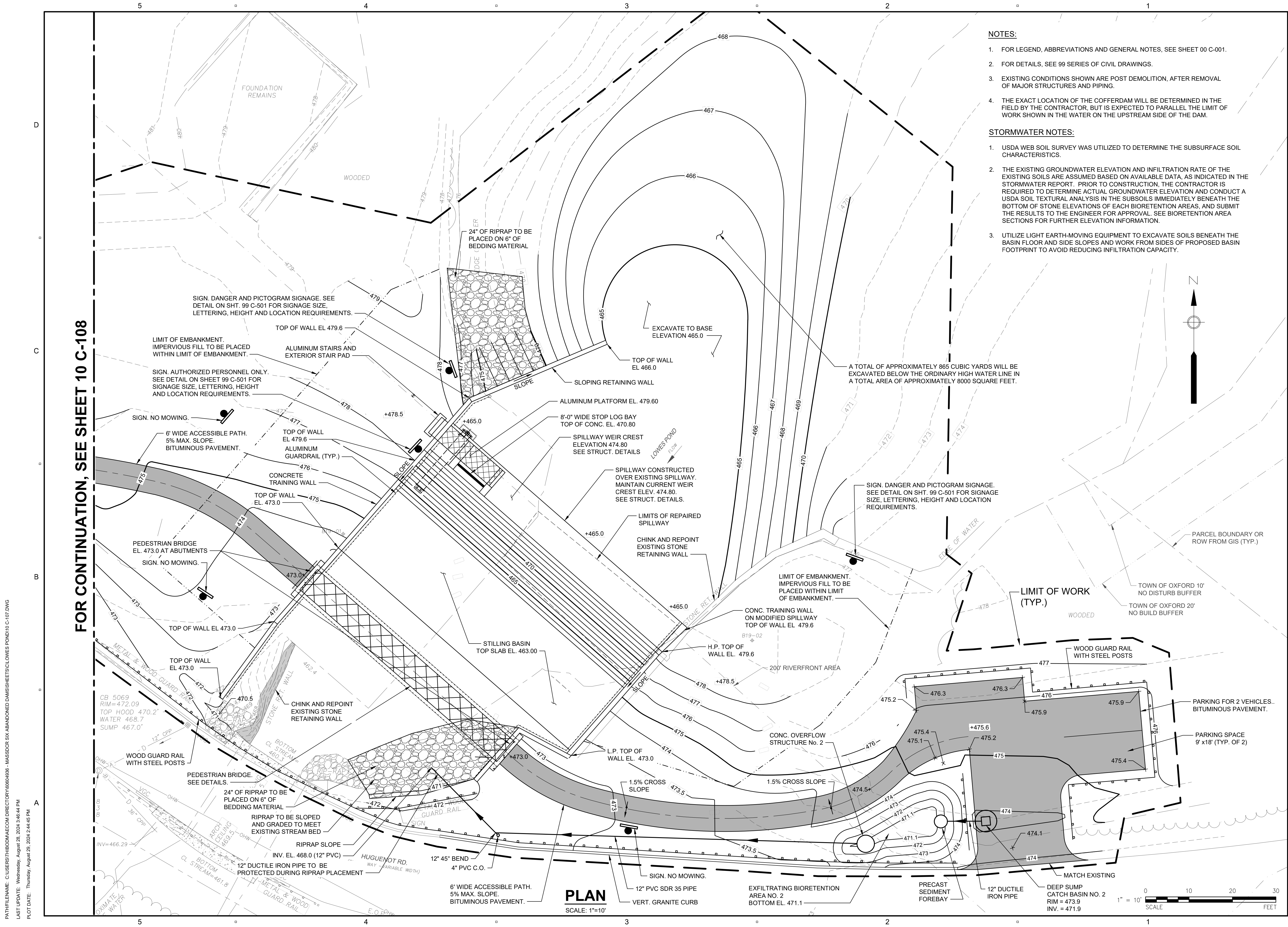
- FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES, SEE SHEET 00 C-001.
- FOR DETAILS, SEE 99 SERIES OF CIVIL DRAWINGS.
- EXISTING CONDITIONS SHOWN ARE POST DEMOLITION, AFTER REMOVAL OF MAJOR STRUCTURES AND PIPING.

PLAN

SCALE: 1"=10'



FOR CONTINUATION, SEE SHEET 10 C-105



AECOM

PROJECT

MASS DCR
ABANDONED DAMS
LOWES POND DAM
CONTRACT NO.
P19-3264-D4A

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Designed By:	J.P. MINOIS
Drawn By:	M. THIBODEAU
Dept Check:	C. BENZIGER
Proj Check:	D. GOVE
Date:	AUGUST 2024
Scale:	AS NOTED

DISCIPLINE

CIVIL

SHEET TITLE

LOWES POND
SITE GRADING PLAN I

SHEET NUMBER

10 C-107



PROJECT

MASS DCR
ABANDONED DAMS
LOWES POND DAM
CONTRACT NO.
P19-3264-D4A

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Designed By:	L. DECKER
Drawn By:	M. THIBODEAU
Dept Check:	C. BENZIGER
Proj Check:	D. GOVE
Date:	SEPTEMBER 2023
Scale:	AS NOTED

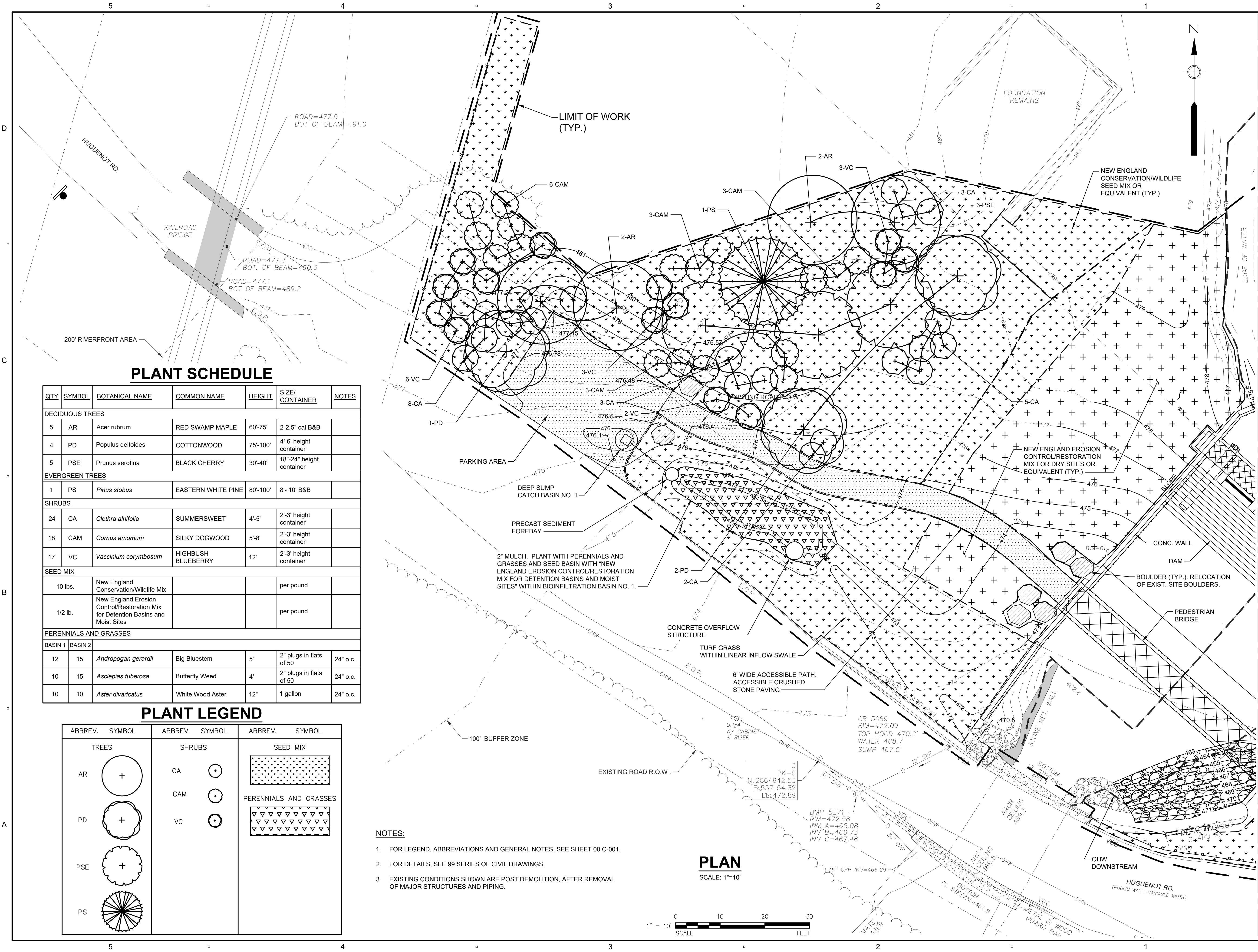
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PERMITTING
SHEET TITLE

LOWES POND
LANDSCAPE PLAN II

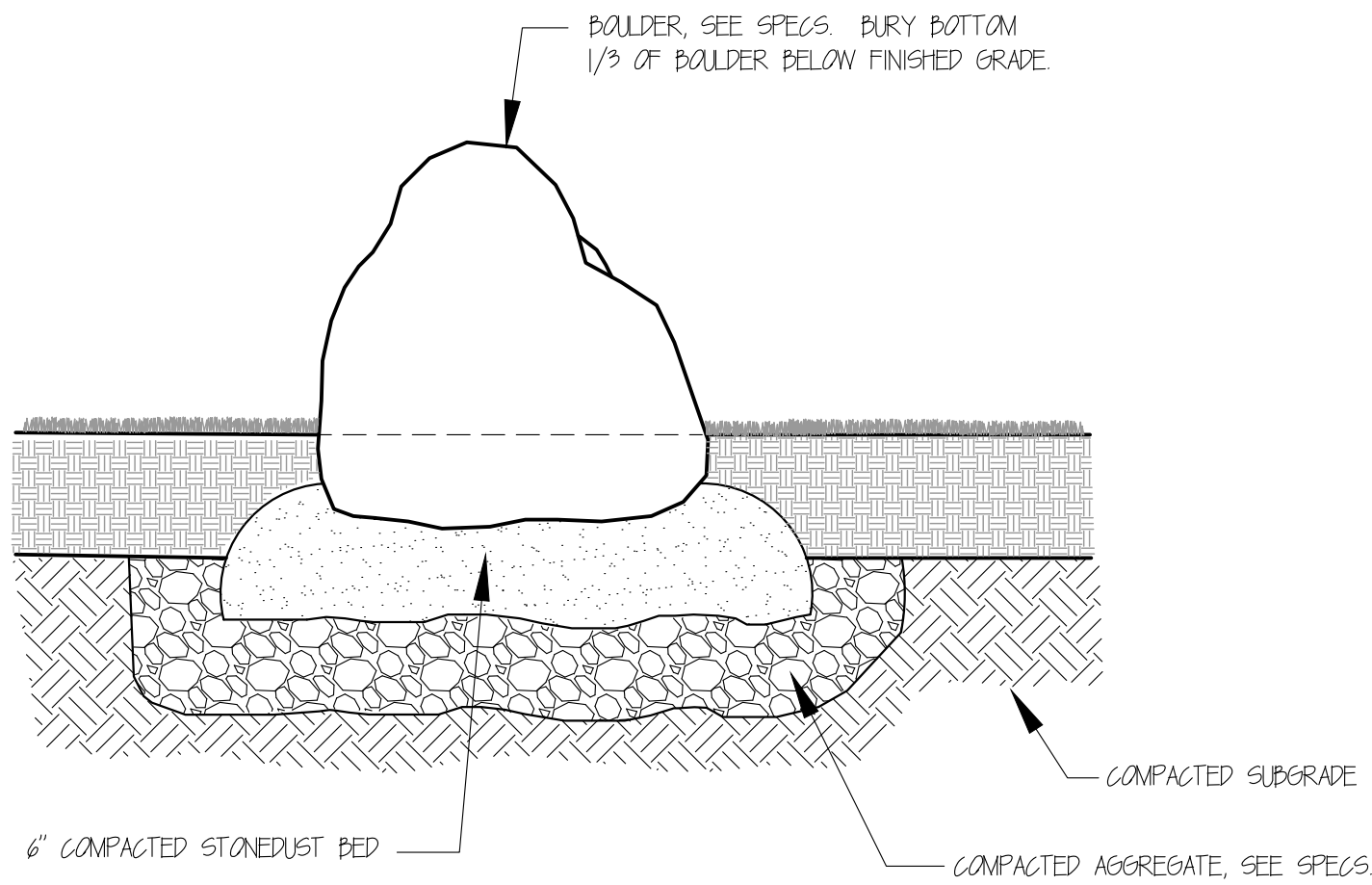
SHEET NUMBER

10 C-110



FOR CONTINUATION, SEE SHEET 10 C-109

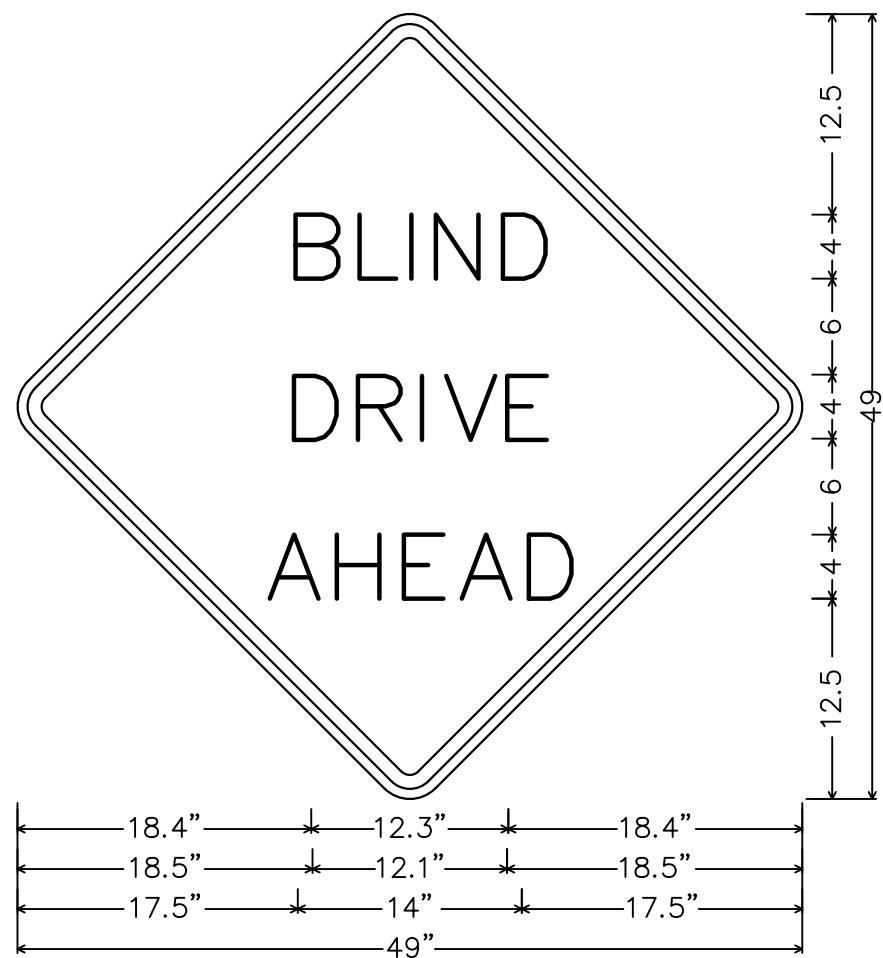
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LAST UPDATE: Monday, September 18, 2023 10:10:05 AM
PLOT DATE: Monday, September 18, 2023 11:55:45 AM



NOTE: DETAIL APPLIES TO THE RELOCATION OF EXISTING SITE BOULDERS.

BOULDER SETTING

NOT TO SCALE



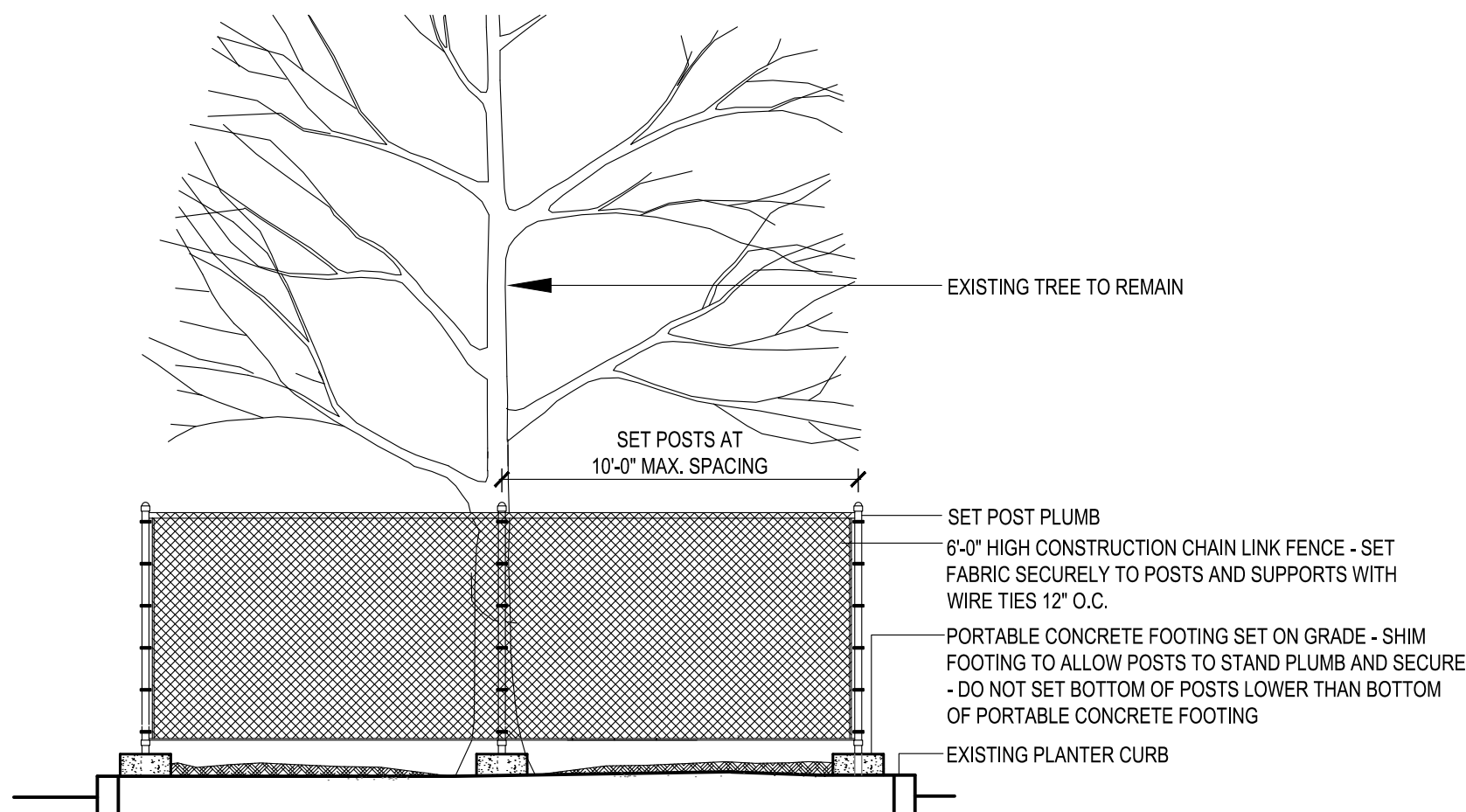
W42-5;
Sign Type : Warning;
36.0" across sides 2.3" Radius, 0.9" Border, 0.6" Indent, Black on, Yellow;
"BLIND", C 2K; "DRIVE", C 2K; "AHEAD", C 2K;

NOTES:

- SIGN MOUNTING HEIGHT SHALL BE 7'-0" MIN. FROM GRADE TO BOTTOM OF SIGN.
- SIGN TO BE INSTALLED APPROX. 200' FROM BEGINNING OF WEST SIDE PARKING AREA.

SIGNAGE

NOT TO SCALE



TREE PROTECTION FENCING

NOT TO SCALE

GENERAL NOTES

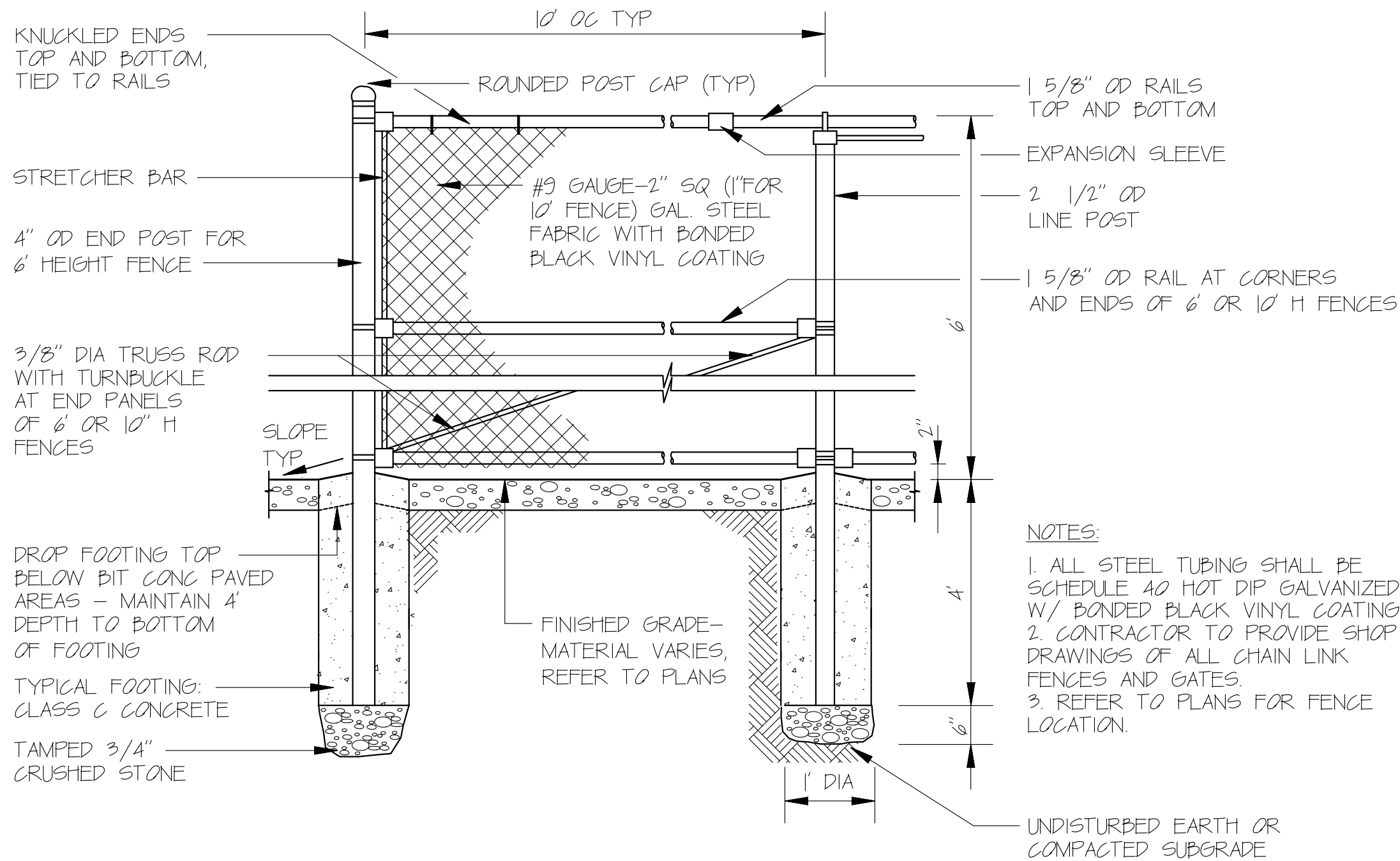
FOR PIPE TRENCHES

- PIPE TRENCHES MAY BE EXCAVATED WIDER THAN TRENCH WIDTH W_s (SHEETED) OR W_u (UNSHEETED) ABOVE THE TOP OF PIPE ZONE.
- TRENCHES SHALL NOT BE EXCAVATED BEYOND THE TRENCH WIDTH W_u BELOW THE TOP OF PIPE ZONE.
- SHEETING MUST BE USED IF EXCAVATION AND BACKFILL, BELOW NORMAL DEPTH, IS REQUIRED. SHEETING SHALL BE LEFT IN PLACE BELOW A LINE 1'-0" ABOVE THE TOP OF PIPE.
- ALL ROCK WITHIN 3'-0" HORIZONTALLY OF THE ENDS OF BUILDING CONNECTIONS, BRANCHES OR STUBS AND DOWN TO A HORIZONTAL PLANE 6" BELOW THE BOTTOMS OF SUCH CONNECTIONS, BRANCHES OR STUBS, SHALL BE EXCAVATED.

TRENCH WIDTH W_s OR W_u		
NOMINAL PIPE DIAMETER D	DEPTH OF PIPE INVERT BELOW GROUND SURFACE	
	0 TO 12'	12' TO 20'
24" AND SMALLER	5'-0"	7'-0"
OVER 24"	D + 3'-0"	D + 5'-0"

GENERAL NOTES FOR PIPE TRENCHES

NOT TO SCALE
2-1.1.11 (REV. 10-23-95)

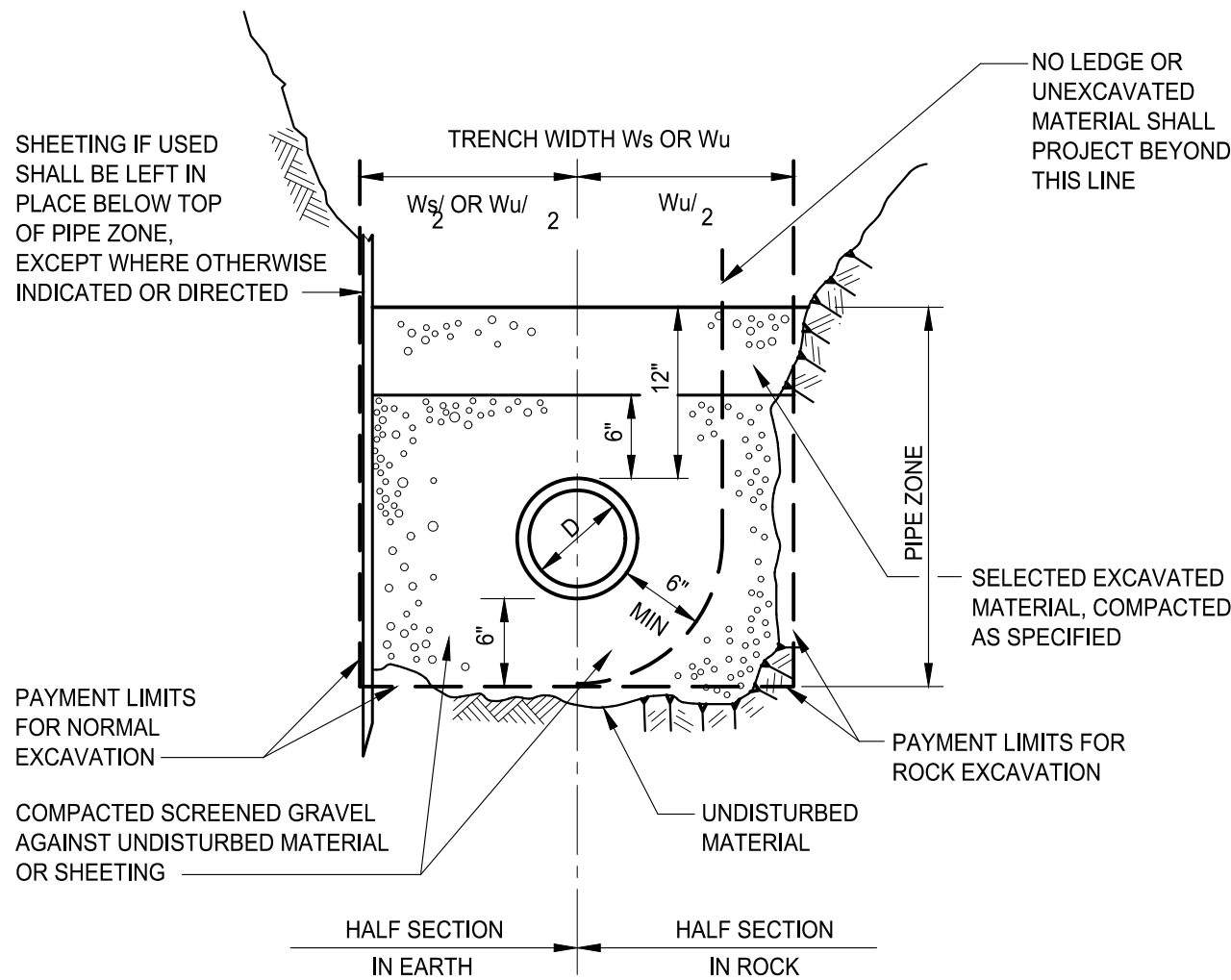


NOTES:

- ALL STEEL TUBING SHALL BE SCHEDULE 40 HOT DIP GALVANIZED W/ BONDED BLACK VINYL COATING.
- CONTRACTOR TO PROVIDE SHOP DRAWINGS OF ALL CHAIN LINK FENCES AND GATES.
- REFER TO PLANS FOR FENCE LOCATION.

CHAIN LINK FENCE 6'

NOT TO SCALE



TRENCH SECTION FOR DI OR PVC PIPE 18 INCH DIAMETER AND SMALLER

NOT TO SCALE
2-1.1.1 (REV. 03-15-95)

AECOM

PROJECT

MASS DCR
ABANDONED DAMS
LOWES POND DAM
CONTRACT NO.
P19-3264-D4A

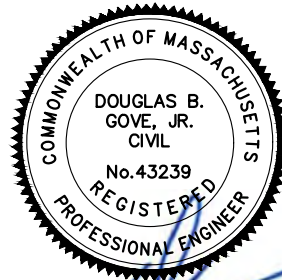
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Boston, MA 02114-2119
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CONSULTANT

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I/R	DATE	DESCRIPTION

PROJECT NUMBER

60604936

Designed By:	J.P. MINOIS
Drawn By:	M. THIBODEAU
Dept Check:	C. BENZIGER
Proj Check:	D. GOVE
Date:	SEPTEMBER 2023
Scale:	AS NOTED

DISCIPLINE

PERMITTING
SHEET TITLE

LOWES POND
DETAILS I

SHEET NUMBER

99 C-501

PROJECT

MASS DCR
ABANDONED DAMS
LOWES POND DAM
CONTRACT NO.
P19-3264-D4A

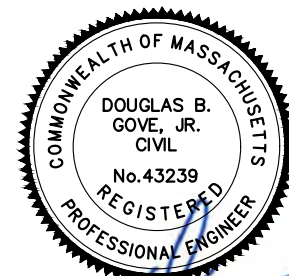
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Designed By:	L. DECKER
Drawn By:	M. THIBODEAU
Dept Check:	C. BENZIGER
Proj Check:	D. GOVE
Date:	SEPTEMBER 2023
Scale:	AS NOTED

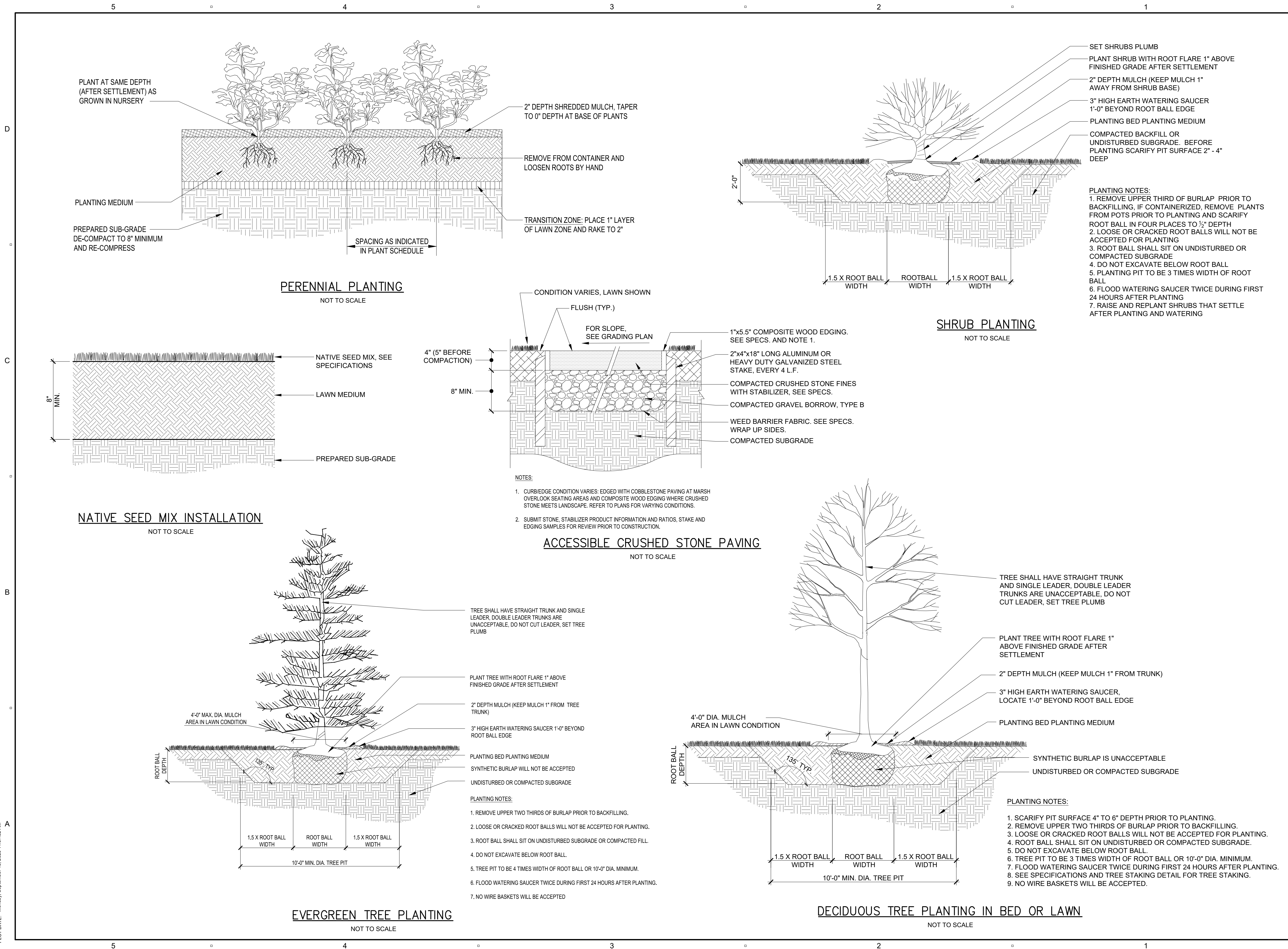
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PERMITTING
SHEET TITLE

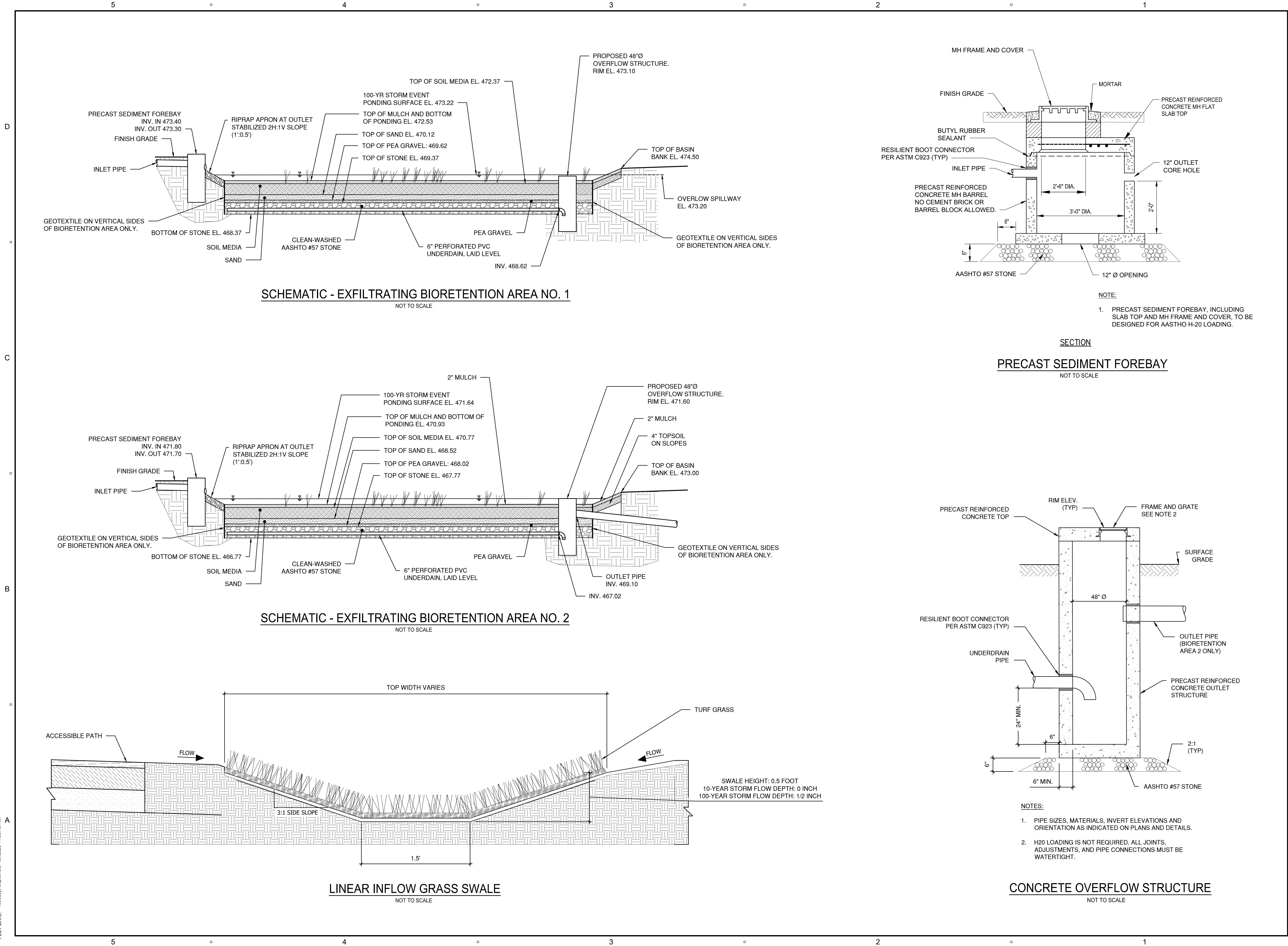
LOWES POND
DETAILS II

SHEET NUMBER

99 C-502



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LAST UPDATE: Friday, September 15, 2023 10:49:00 AM
PLOT DATE: Tuesday, September 19, 2023 11:09:40 AM



PROJECT

MASS DCR
ABANDONED DAMS
LOWES POND DAM
CONTRACT NO.
P19-3264-D4A

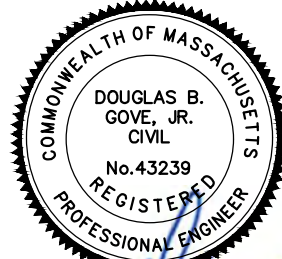
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I/R	DATE	DESCRIPTION

PROJECT NUMBER

60604936

Designed By:	S. HE
Drawn By:	S. NAPOLITANO
Dept Check:	C. BENZIGER
Proj Check:	D. GOVE
Date:	SEPTEMBER 2023
Scale:	AS NOTED

DISCIPLINE

PERMITTING
SHEET TITLE

LOWES POND
DETAILS III

SHEET NUMBER

99 C-503

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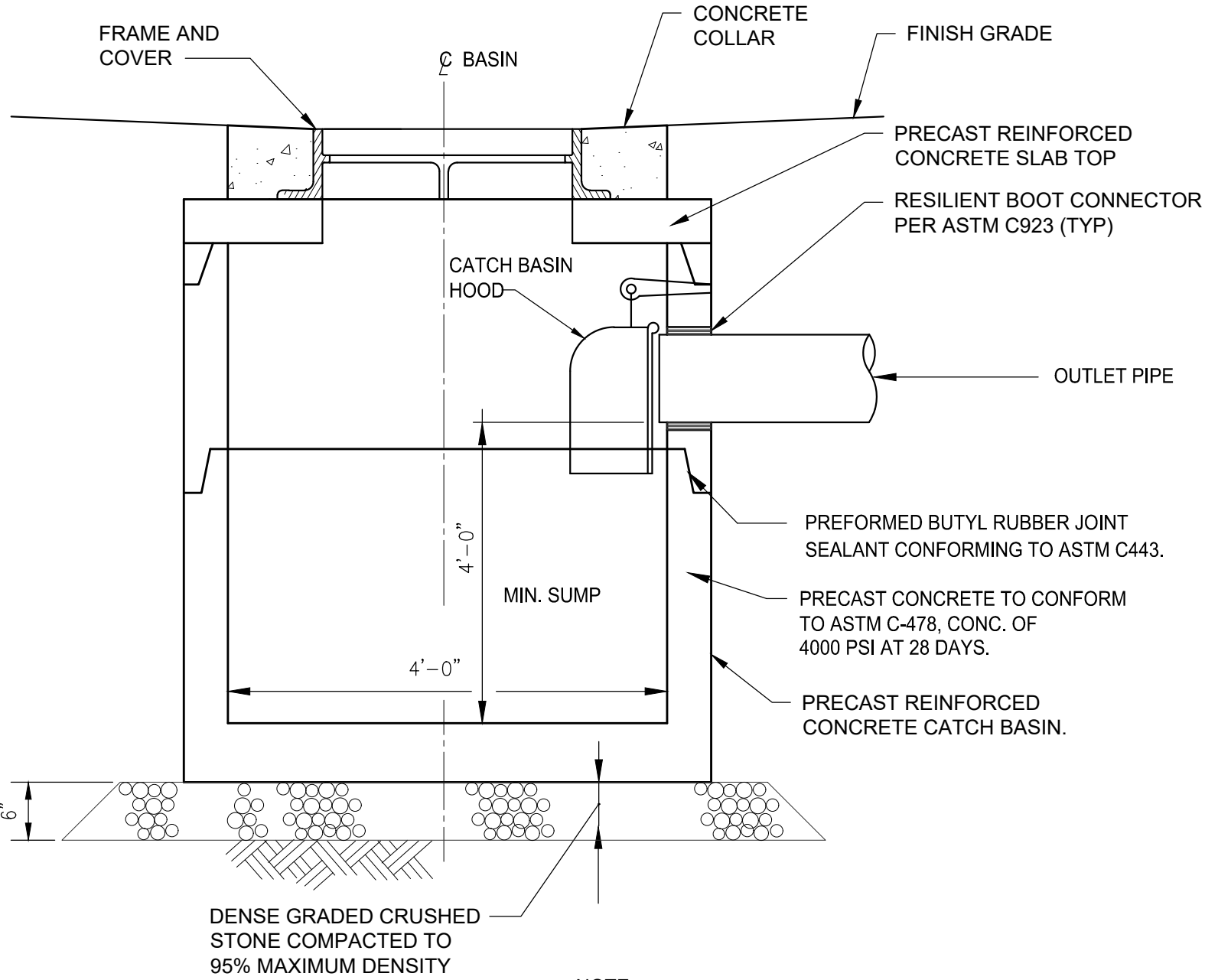
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2

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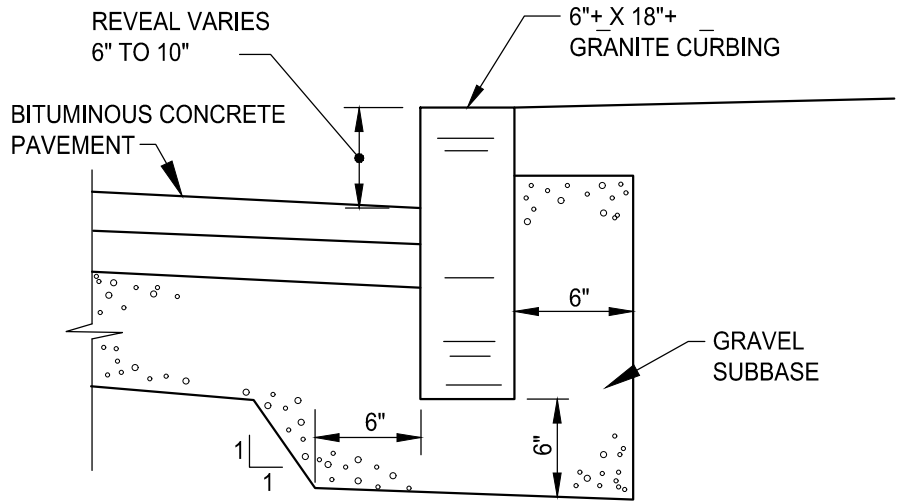


NOTE:

1. PRECAST CONCRETE DEEP SUMP CATCH BASIN, INCLUDING SLAB TOP AND FRAME & GRATE, MUST BE DESIGNED FOR AASHTO H-20 LOADING

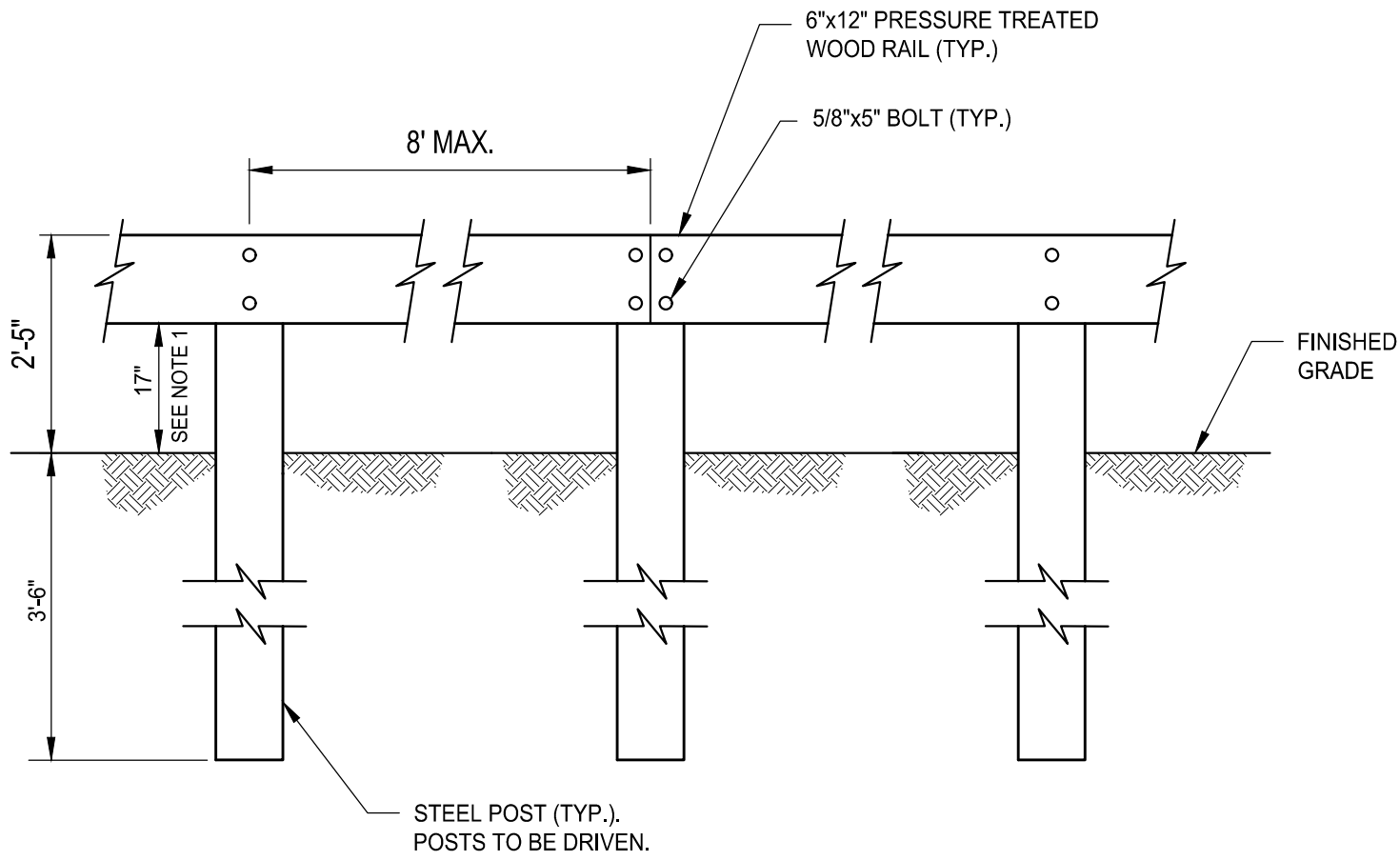
DEEP SUMP CATCH BASIN

NOT TO SCALE



GRANITE CURB

NOT TO SCALE
2-1.42.1 (REV. 12-15-94)



WOOD GUARD RAIL MATERIAL SPECIFICATIONS:

POSTS: 6"x4"x8.5 STEEL "H" POST, GALVANIZED

RAILS: 6"x12" PRESSURE TREATED SOUTHERN YELLOW PINE

BOLTS: 5/8"x5" GALVANIZED CARRIAGE BOLT WITH NUT AND WASHER

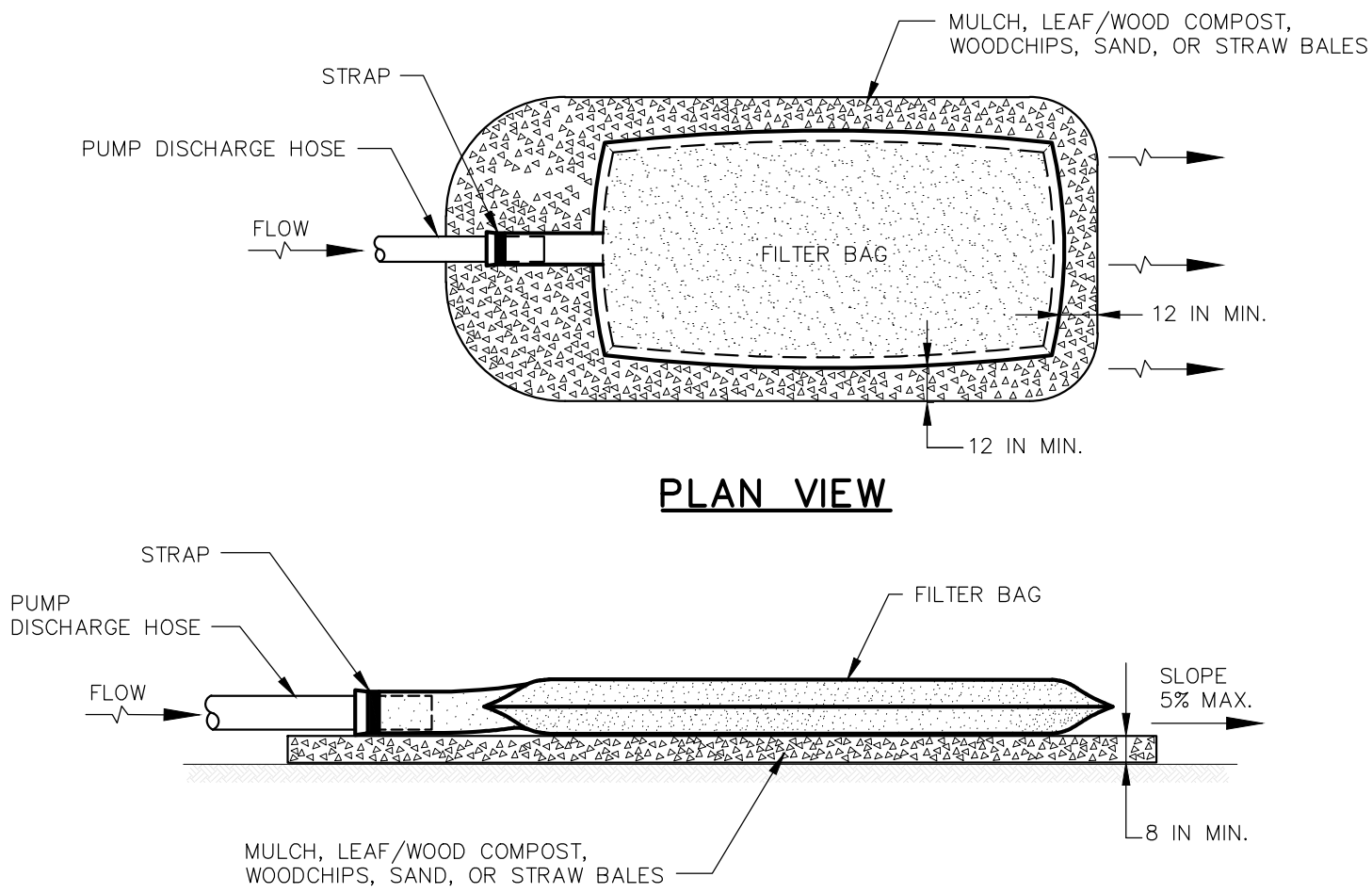
WOOD TREATMENT: .60 ACQ

WOOD GUARD RAIL NOTE:

1. MATCH EXISTING GUARDRAIL HEIGHT.
2. GUARD RAIL TO BE LOCATED AT SAME OFFSET AS EXISTING GUARD RAIL.

WOOD GUARD RAIL WITH STEEL POSTS

NOT TO SCALE



PLAN VIEW

ELEVATION

CONSTRUCTION SPECIFICATIONS

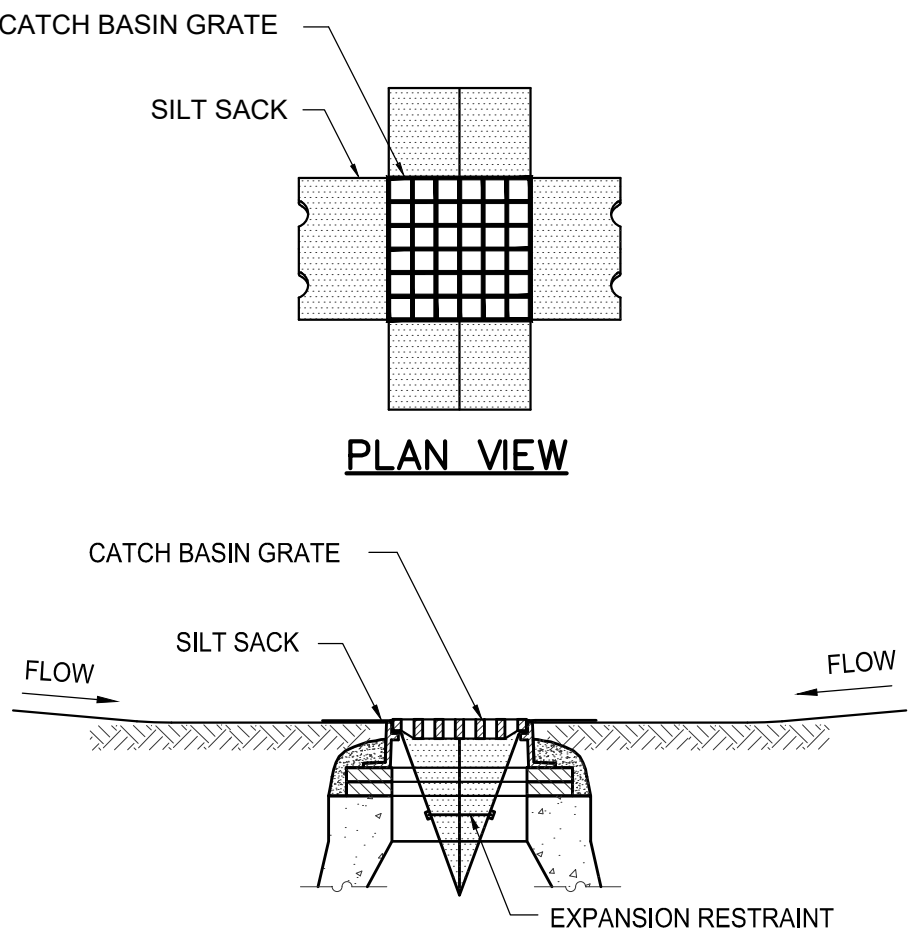
1. TIGHTLY SEAL SLEEVE AROUND THE PUMP DISCHARGE HOSE WITH A STRAP OR SIMILAR DEVICE.
2. PLACE FILTER BAG ON SUITABLE BASE (E.G., MULCH, LEAF/WOOD COMPOST, WOODCHIPS, SAND, OR STRAW BALES) LOCATED ON A LEVEL OR 5% MAXIMUM SLOPING SURFACE. DISCHARGE TO A STABILIZED AREA. EXTEND BASE A MINIMUM OF 12 INCHES FROM EDGES OF BAG.
3. CONTROL PUMPING RATE TO PREVENT EXCESSIVE PRESSURE WITHIN THE FILTER BAG IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. AS THE BAG FILLS WITH SEDIMENT, REDUCE PUMPING RATE.
4. REMOVE AND PROPERLY DISPOSE OF FILTER BAG UPON COMPLETION OF PUMPING OPERATIONS OR AFTER BAG HAS REACHED CAPACITY, WHICHEVER OCCURS FIRST. SPREAD THE DEWATERED SEDIMENT FROM THE BAG IN AN APPROVED UPLAND AREA AND STABILIZE WITH SEED AND MULCH BY THE END OF THE WORK DAY. RESTORE THE SURFACE AREA BENEATH THE BAG TO ORIGINAL CONDITION UPON REMOVAL OF THE DEVICE.
5. USE NONWOVEN GEOTEXTILE WITH DOUBLE STITCHED SEAMS USING HIGH STRENGTH THREAD. SIZE SLEEVE TO ACCOMMODATE A MAXIMUM 4 INCH DIAMETER PUMP DISCHARGE HOSE. THE BAG MUST BE MANUFACTURED FROM A NONWOVEN GEOTEXTILE THAT MEETS OR EXCEEDS MINIMUM AVERAGE ROLL VALUES (MARV) FOR THE FOLLOWING:

GRAB TENSILE	250 LB	ASTM D-4632
PUNCTURE	150 LB	ASTM D-4633
FLOW RATE	70 GAL/MIN/FT ²	ASTM D-4491
PERMITTIVITY (SEC ⁻¹)	1.2 SEC ⁻¹	ASTM D-4491
UV RESISTANCE	70% STRENGTH @ 500 HOURS	ASTM D-4355
APPARENT OPENING SIZE (AOS)	0.15-0.18 MM	ASTM D-4751
SEAM STRENGTH	90%	ASTM D-4632

6. REPLACE FILTER BAG IF BAG CLOGS OR HAS RIPS, TEARS, OR PUNCTURES. DURING OPERATION KEEP CONNECTION BETWEEN PUMP HOSE AND FILTER BAG WATER TIGHT. REPLACE BEDDING IF IT BECOMES DISPLACED.

SEDIMENTATION FILTER BAG

NOT TO SCALE



PLAN VIEW

SECTION VIEW

NOTES:

1. INSTALL SILT SACK IN ALL CATCH BASINS BEFORE COMMENCING WORK OR IN PAVED AREAS AFTER BINDER COURSE IS PLACED AND STRAW BALES HAVE BEEN REMOVED. GRATE TO BE PLACED OVER SILT SACK.
2. SILT SACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORMS.
3. EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED.

SILT SACK SEDIMENT TRAP

NOT TO SCALE

AECOM

PROJECT

MASS DCR
ABANDONED DAMS
LOWES POND DAM
CONTRACT NO.
P19-3264-D4A

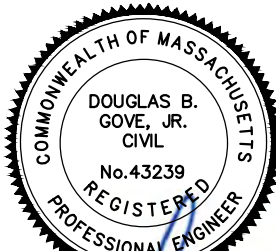
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I/R	DATE	DESCRIPTION

PROJECT NUMBER

60604936

Designed By:	S. HE
Drawn By:	S. NAPOLITANO
Dept Check:	C. BENZIGER
Proj Check:	D. GOVE
Date:	SEPTEMBER 2023
Scale:	AS NOTED

DISCIPLINE

PERMITTING
SHEET TITLE

LOWES POND
DETAILS IV

SHEET NUMBER

99 C-504

5

4

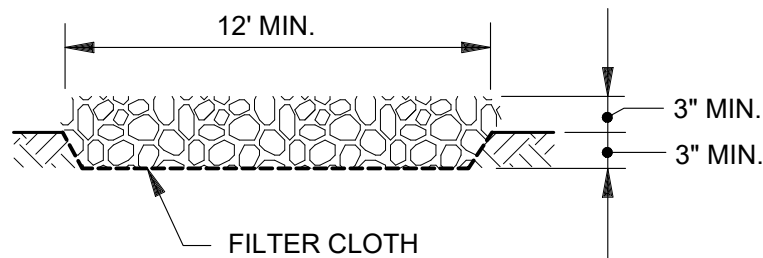
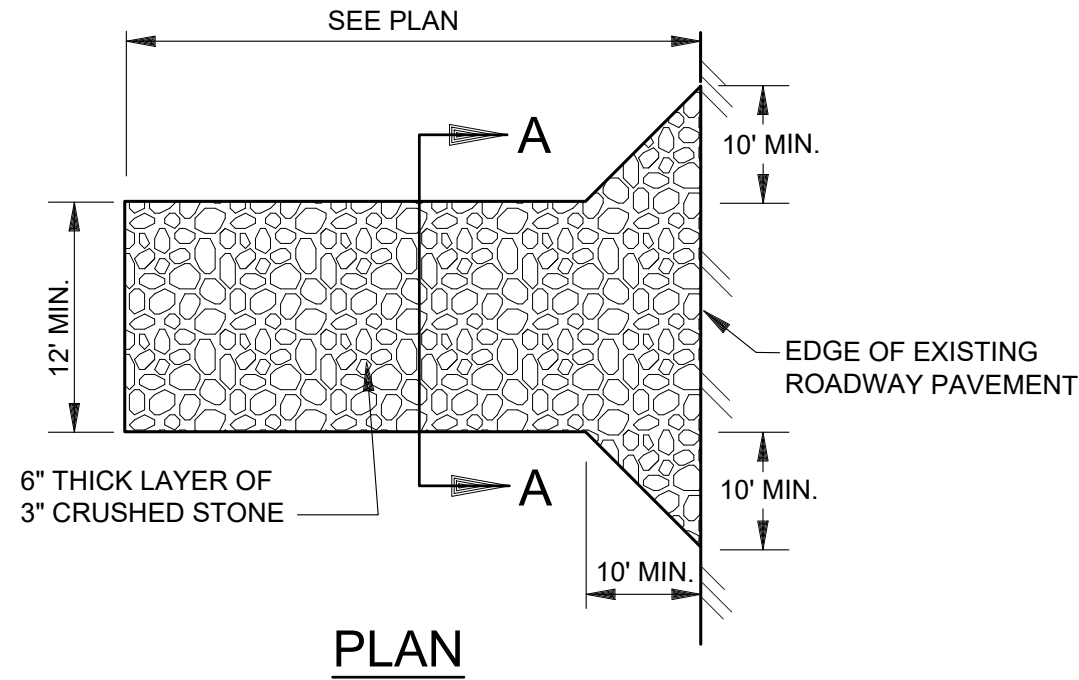
3

2

1

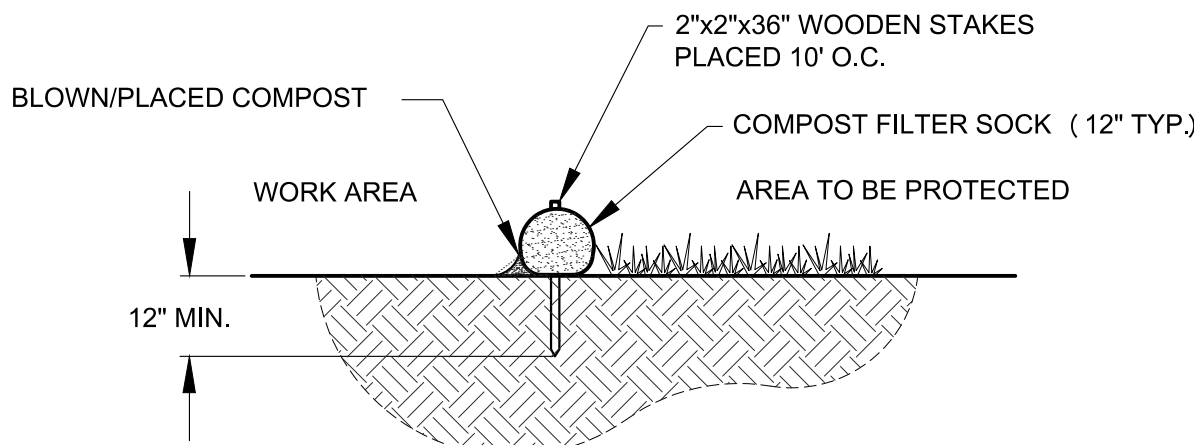
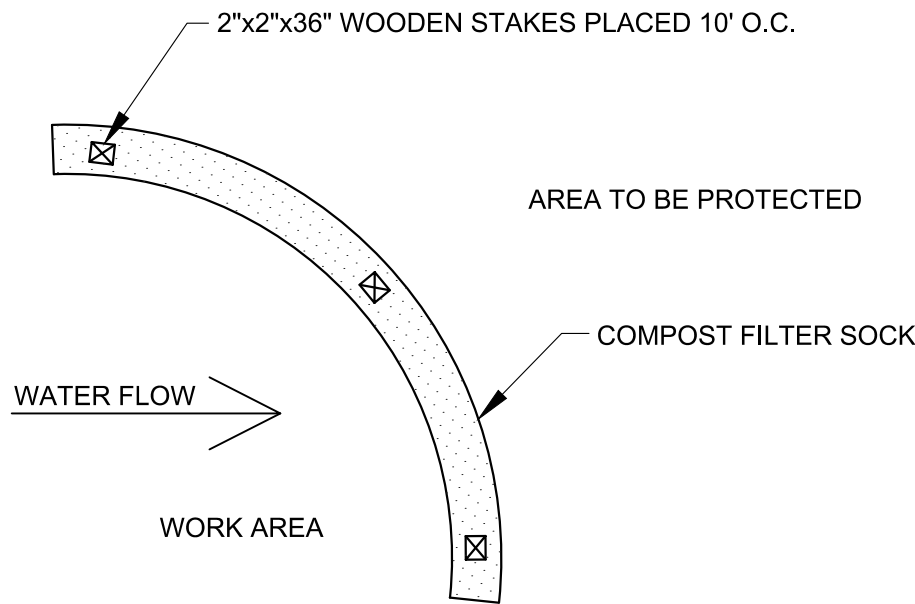
EROSION PROTECTION NOTES

1. SEDIMENT CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF AND DURING ALL PHASES OF CONSTRUCTION AND BE CONSTRUCTED PRIOR TO AND IMMEDIATELY AFTER ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON THE SITE.
2. WEEKLY INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL STRUCTURES SHALL BE PROVIDED TO ENSURE THAT THE INTENDED PURPOSE IS ACCOMPLISHED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT NO SEDIMENT LEAVES THE LIMIT OF WORK. SEDIMENT CONTROL MEASURES SHALL BE IN WORKING CONDITION AT THE END OF EACH DAY.
3. THE CONTRACTOR SHALL PREVENT MUD/MATERIAL FROM BEING TRACKED ONTO HUGUENOT ROAD OR ONTO ANY AREAS OUTSIDE THE LIMIT OF WORK. IF DETECTED, DEBRIS MUST BE CLEANED UP IMMEDIATELY AND THE CAUSE MUST BE DETERMINED AND RECTIFIED.
4. ALL CONSTRUCTION INGRESS AND EGRESS POINTS SHALL BE PROTECTED WITH A STABILIZED CONSTRUCTION ENTRANCE/EXIT WITH WASH DOWN FACILITIES TO PREVENT TRACKING OF SEDIMENT ONTO THE ROAD.
5. ALL SEDIMENT MUST BE PREVENTED FROM ENTERING ANY STORMWATER COLLECTION SYSTEM, EXCEPT THOSE SYSTEMS SPECIFICALLY DESIGNED AS CONSTRUCTION-PERIOD SEDIMENT REMOVAL DEVICES.
6. CONTRACTOR SHALL PROVIDE COMPOST SILT SOCKS, AS NECESSARY, TO PREVENT SEDIMENT RUNOFF FROM ALL IMPACTED AREAS ASSOCIATED WITH CONSTRUCTION ACTIVITIES. THE SILT FENCE SHALL BE INSPECTED DAILY. THE CONTRACTOR SHALL REMOVE ACCUMULATED SEDIMENT AND REPAIR THE SILT FENCE AS DETERMINED DURING THE INSPECTION TO ORIGINAL CONDITION WITHIN THREE (3) DAYS OF INSPECTION.
7. ONLY DISTURB, CLEAR, OR GRADE AREAS NECESSARY FOR CONSTRUCTION. FLAG OR OTHERWISE DELINEATE AREAS NOT TO BE DISTURBED. EXCLUDE VEHICLES AND CONSTRUCTION EQUIPMENT FROM AREAS NOT NECESSARY FOR CONSTRUCTION.
8. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ALL EROSION AND SEDIMENT CONTROLS AT THE COMPLETION OF CONSTRUCTION AND WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED. REMOVE TEMPORARY EROSION CONTROL MEASURES WITHIN 30 DAYS AFTER THE TRIBUTARY AREA HAS BEEN PERMANENTLY STABILIZED. REMOVE ANY ACCUMULATED SEDIMENTS AND STABILIZE ALL DISTURBED AREAS.
9. CONTRACTOR SHALL PROTECT AND MAINTAIN EXISTING DRAINAGE INLETS, DITCHES, SWALES, CULVERTS, AND DETENTION PONDS WITHIN THE LIMITS OF CONSTRUCTION AS WELL AS ANY OTHER AREAS IMPACTED BY CONSTRUCTION OPERATIONS. IF A DRAINAGE DITCH OR SWALE IS TO BE RELOCATED, THE RELOCATED DITCH SHALL BE IN PLACE PRIOR TO DISTURBANCE OF THE EXISTING DITCH.
10. PROVIDE AND STABILIZE STORMWATER TREATMENT AREAS, DITCHES AND SWALES AS EARLY AS PRACTICAL DURING CONSTRUCTION BUT PRIOR TO DISTURBING THE TRIBUTARY AREA AND PRIOR TO DIRECTING RUNOFF TO THE TREATMENT AREAS, DITCHES AND SWALES.
11. STABILIZE ACCESS DRIVES AND PARKING AREAS WITHIN 72 HOURS OF ACHIEVING FINISH GRADE.
12. INSPECT DISTURBED AREAS, STORAGE AREAS, AND EROSION CONTROL MEASURES WEEKLY UNLESS OTHERWISE INDICATED AND AFTER EVERY STORM EVENT OF 1/4 INCH OF RAINFALL OR MORE. ALL INSPECTIONS SHALL BE PERFORMED BY PERSONS FAMILIAR WITH EROSION AND SEDIMENT CONTROL PRACTICES.
13. AFTER ANY SIGNIFICANT RAINFALL (1/4 INCH OR GREATER), SEDIMENT CONTROL STRUCTURES SHALL BE INSPECTED FOR INTEGRITY. ANY DAMAGED DEVICES SHALL BE CORRECTED IMMEDIATELY.
14. DOCUMENT EACH INSPECTION IN A REPORT AND LOG, INCLUDING THE FOLLOWING: DATE, NAME (S) AND TITLE OF THE PERSONNEL MAKING THE INSPECTION, WEATHER AND DESCRIPTION OF ANY DISCHARGE OCCURRING AT THE TIME OF INSPECTION, LOCATION OF ANY DISCHARGE OF SEDIMENT OR POLLUTANTS, BEST MANAGEMENT PRACTICES THAT NEED TO BE MAINTAINED, BEST MANAGEMENT PRACTICES THAT FAILED OR OTHERWISE PROVED INADEQUATE, LOCATION WHERE ADDITIONAL BEST MANAGEMENT PRACTICES ARE NEEDED, AND CORRECTIVE ACTION REQUIRED. ALSO NOTE WHAT ACTION WAS TAKEN TO CORRECT DEFICIENCIES OR ENHANCE CONTROLS, INCLUDING THE DATE THE CORRECTIVE ACTION WAS TAKEN. PERFORM CORRECTIVE ACTION OF EROSION CONTROL MEASURES IMMEDIATELY.
15. ANY SEDIMENT TRACKED ONTO PAVED AREAS SHALL BE SWEEPED UP AND REMOVED AT THE END OF EACH WORKING DAY AND THE CAUSE OF THE INCIDENT DETERMINED AND CORRECTED.
16. STABILIZED PORTIONS OF A SITE SHALL BE INSPECTED AT LEAST ONCE PER MONTH.
17. MAINTAIN EROSION CONTROL MEASURES FOR THE DURATION OF THE PROJECT AND UNTIL PERMANENT STABILIZATION OF THE ENTIRE SITE IS ESTABLISHED.
18. PROTECT STABILIZED AREAS FROM EROSION AND IMMEDIATELY REPAIR AND RE-VEGETATE ERODED AREAS.



SECTION A-A

TEMPORARY
CONSTRUCTION ENTRANCE
NOT TO SCALE



- NOTES:
1. SEE SPECIFICATION FOR COMPOST FILTER SOCK AND COMPOST FILL MATERIAL REQUIREMENTS.

COMPOST SILT SOCK
NOT TO SCALE



PROJECT

MASS DCR
ABANDONED DAMS
LOWES POND DAM
CONTRACT NO.
P19-3264-D4A

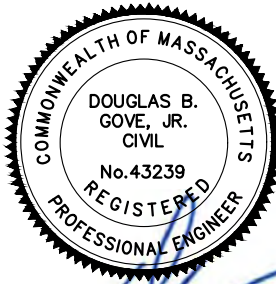
CLIENT

Massachusetts Department
of Conservation and
Recreation

251 Causeway Street, Suite 600
Boston, MA 02114-2119
617.626.1250 tel 617.626.1351 fax
www.mass.gov/orgs/departement-of-conservation-recreation

CONSULTANT

AECOM TECHNICAL SERVICES, INC.
250 APOLLO DRIVE
CHELMSFORD, MA 01824
PHONE: (978) 905-2100
www.aecom.com



REGISTRATION

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CONSTRUCTION

ISSUE/REVISION

I/R	DATE	DESCRIPTION

PROJECT NUMBER

60604936

Designed By:	S. HE
Drawn By:	S. NAPOLITANO
Dept Check:	C. BENZIGER
Proj Check:	D. GOVE
Date:	SEPTEMBER 2023
Scale:	AS NOTED

DISCIPLINE

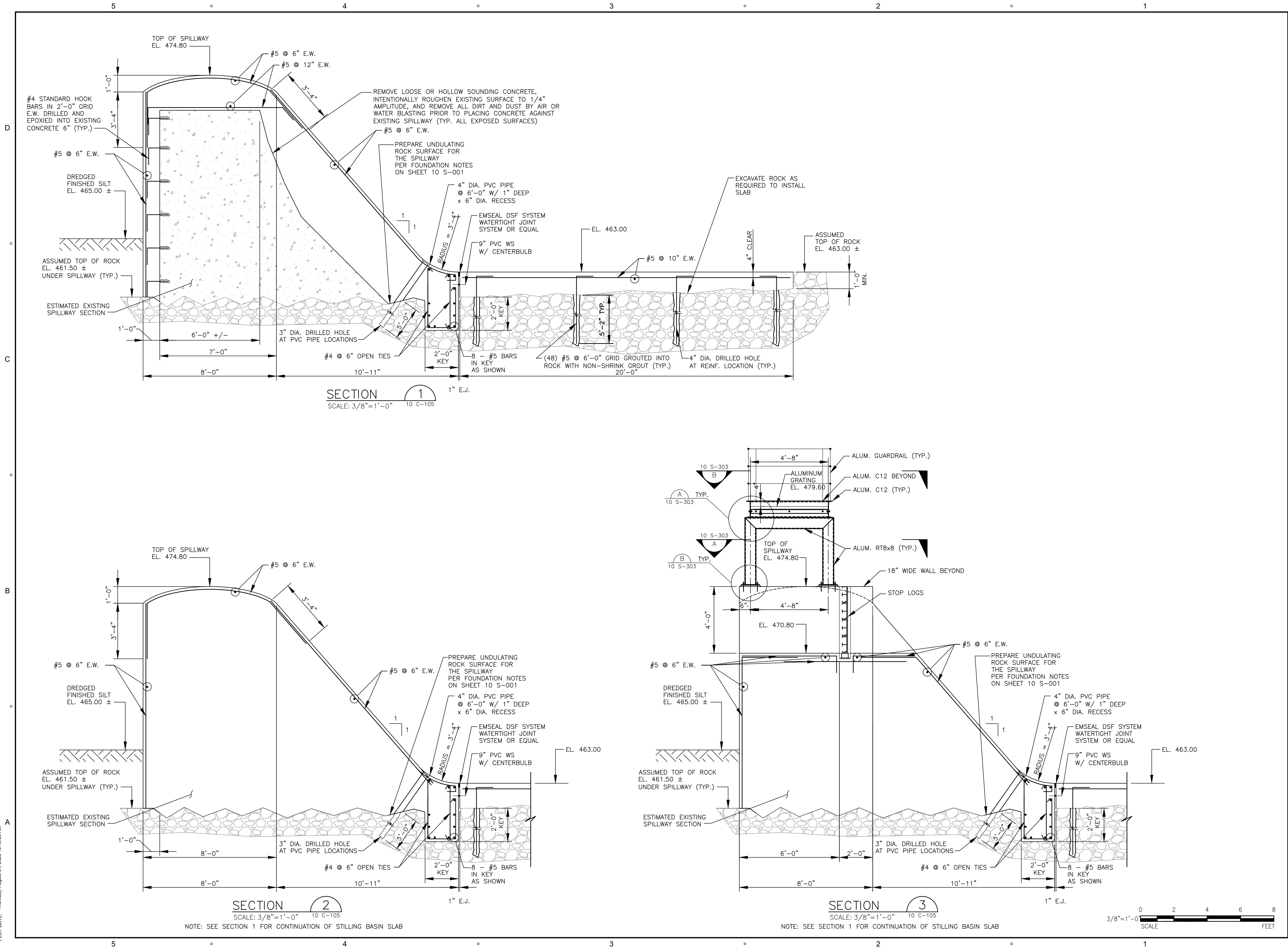
PERMITTING
SHEET TITLE

LOWES POND
DETAILS V

SHEET NUMBER

99 C-505

LAST UPDATE: Thursday, August 31, 2023 10:31:57 AM
PLOT DATE: Thursday, August 31, 2023 10:48:36 AM



AECOM

PROJECT

MASS DCR
ABANDONED DAMS
LOWES POND DAM
CONTRACT NO.
P19-3264-D4A

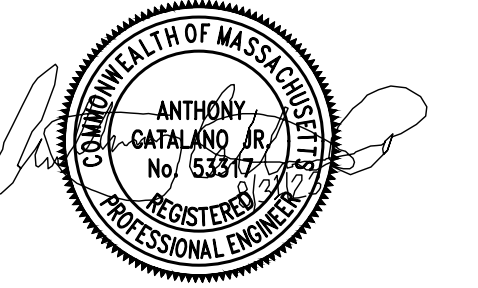
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Boston, MA 02114-2119
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CHELMSFORD, MA 01824
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ISSUE/REVISION

I/R	DATE	DESCRIPTION

PROJECT NUMBER

60604936

Designed By: J. PRIVITERA

Drawn By: A. CATALANO

Dept Check: M. MALENFANT

Proj Check: D. GOVE

Date: JUNE 2022

Scale: AS NOTED

DISCIPLINE

STRUCTURAL

SHEET TITLE

SECTIONS I

SHEET NUMBER

10 S-301

LAST UPDATE: Thursday, August 31, 2023 10:38:29 AM
PLOT DATE: Thursday, August 31, 2023 10:52:50 AM

D

C

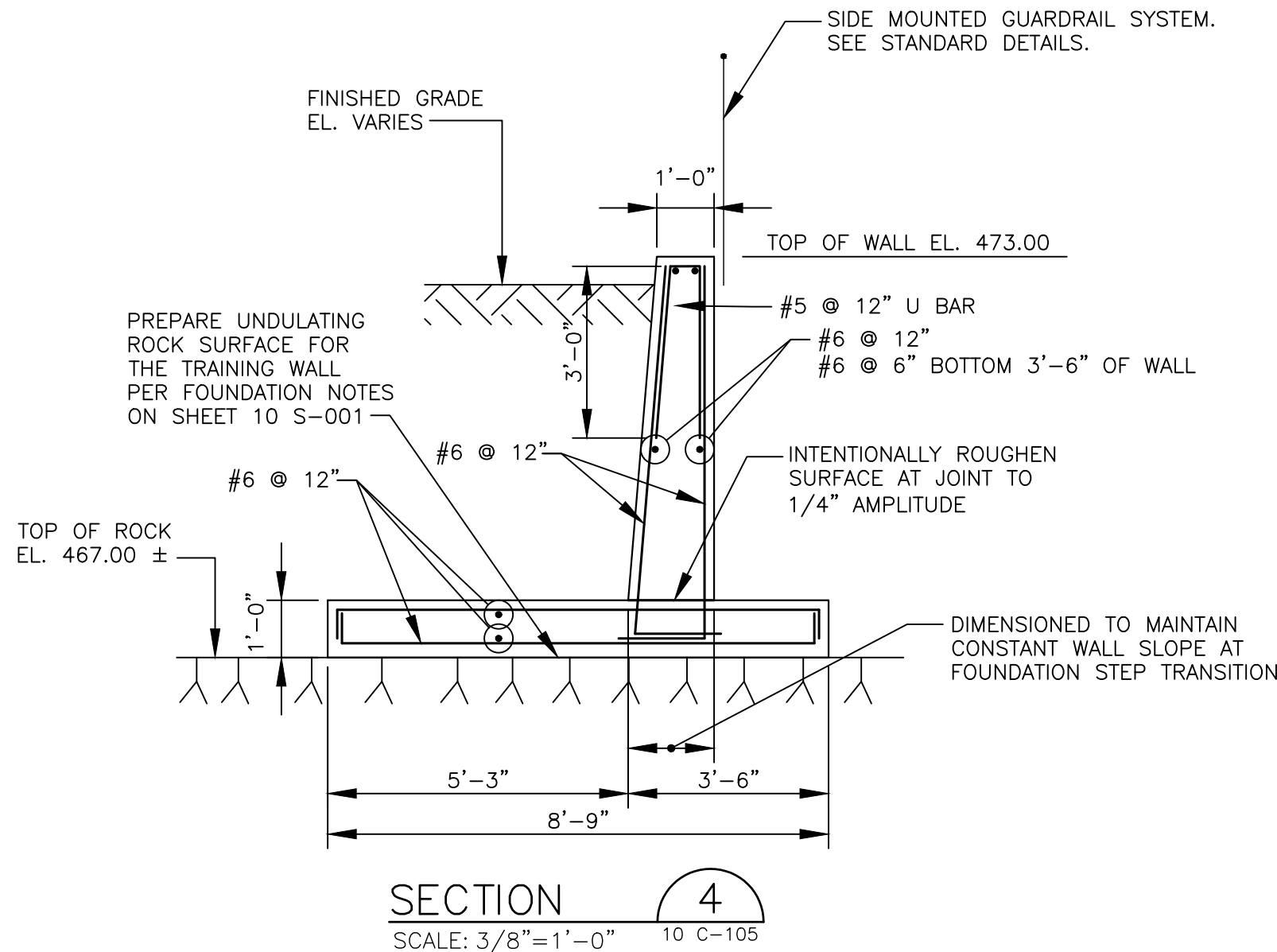
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C

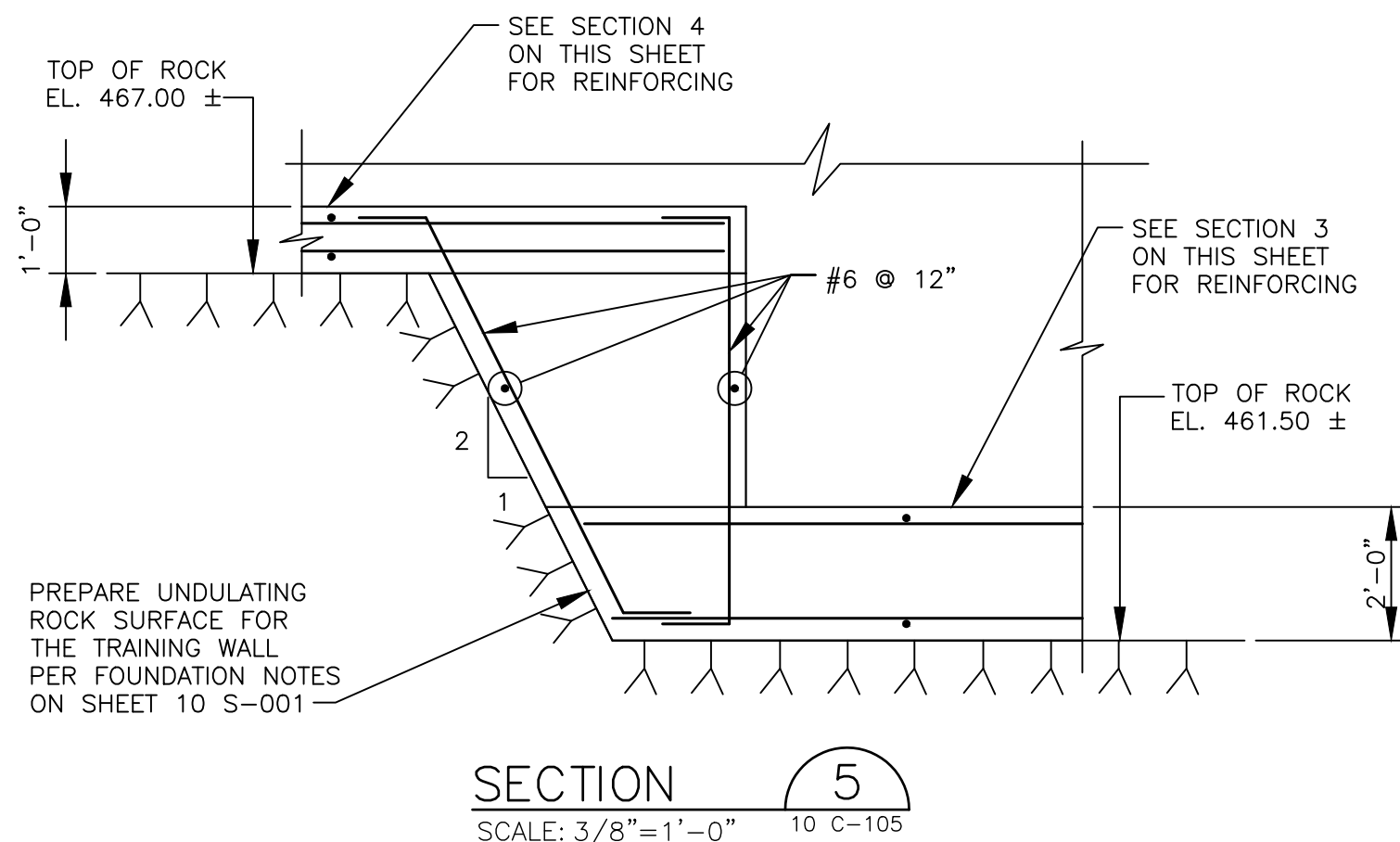
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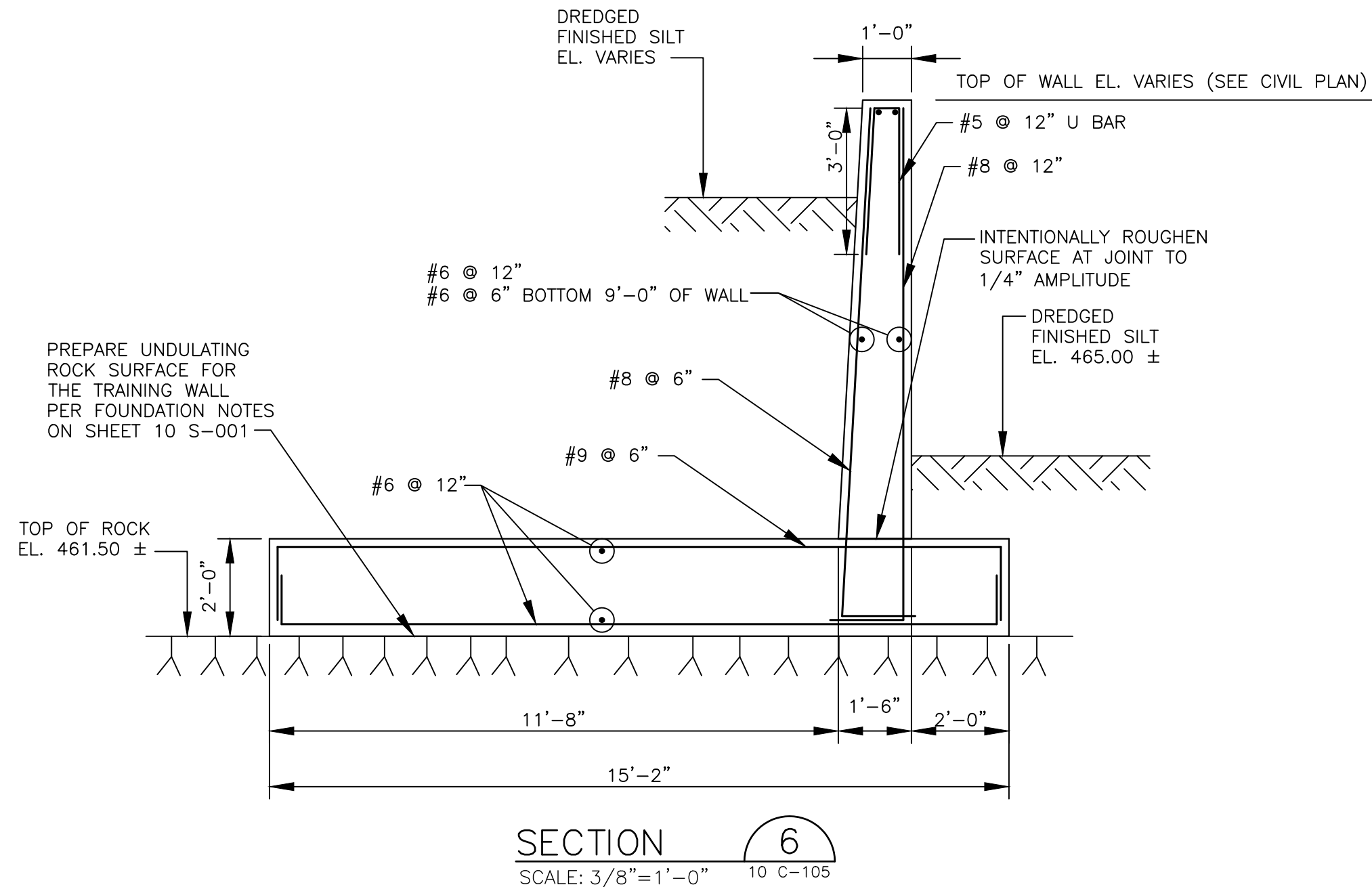
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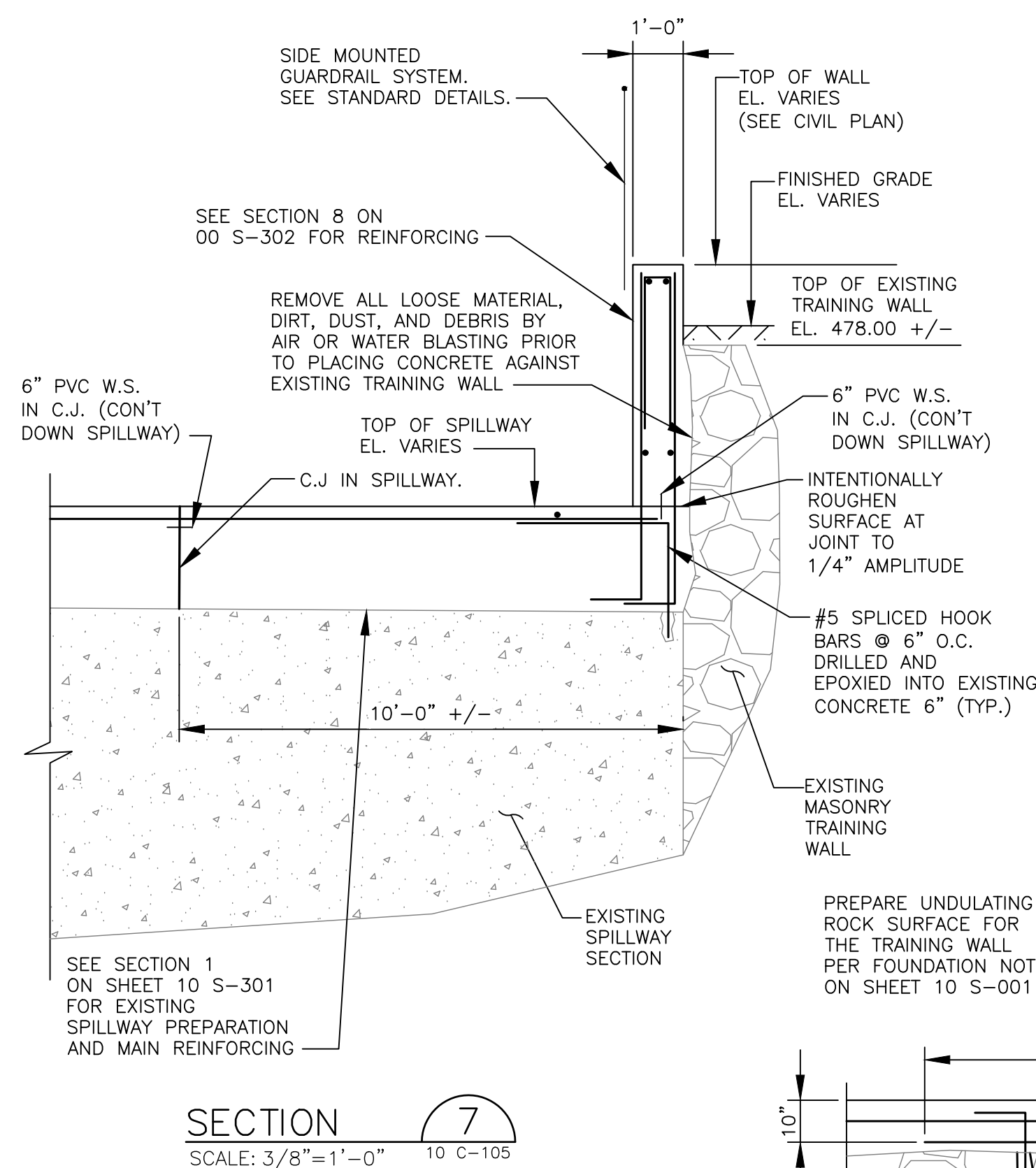
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SCALE: 3/8"=1'-0"
10 C-105



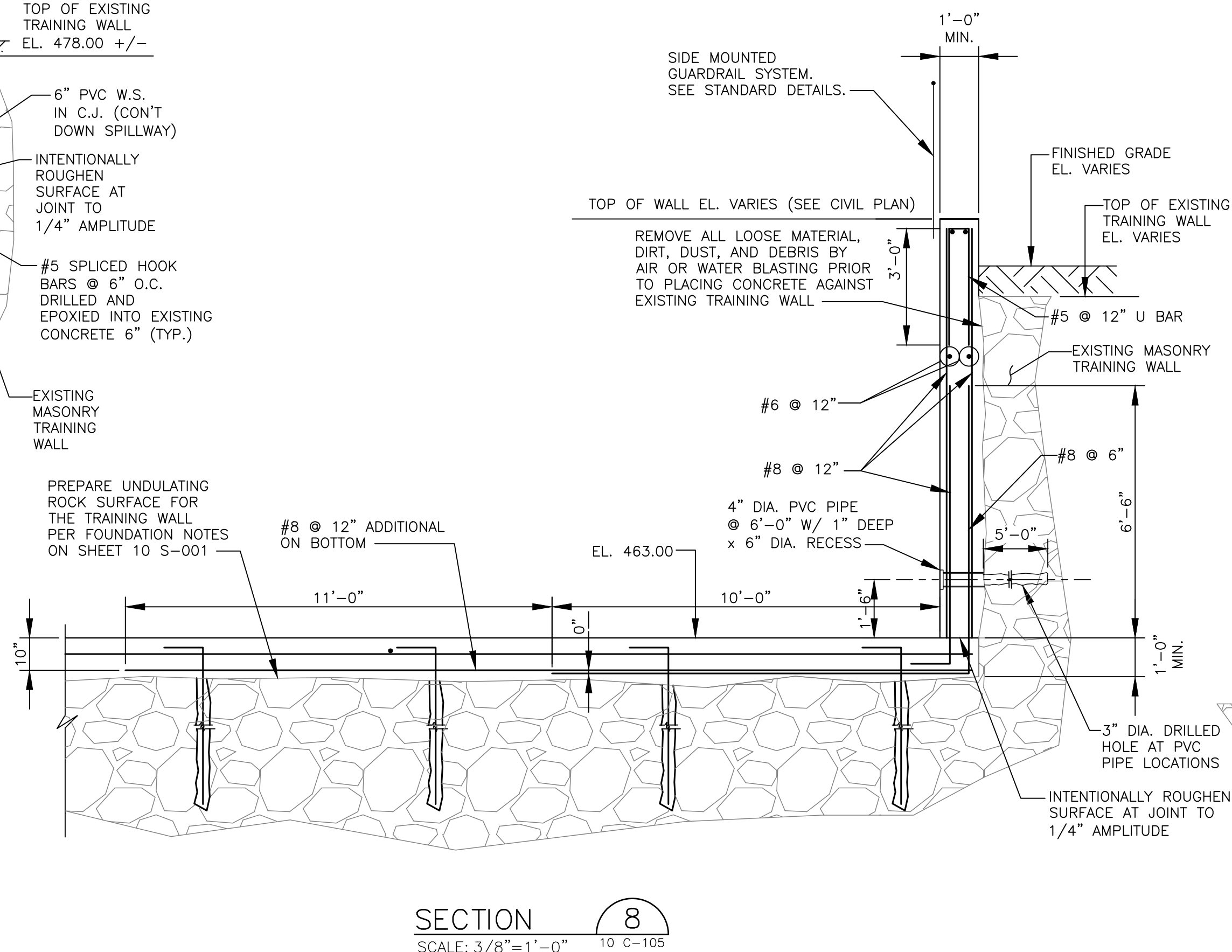
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SCALE: 3/8"=1'-0"
10 C-105



SECTION 6
SCALE: 3/8"=1'-0"
10 C-105

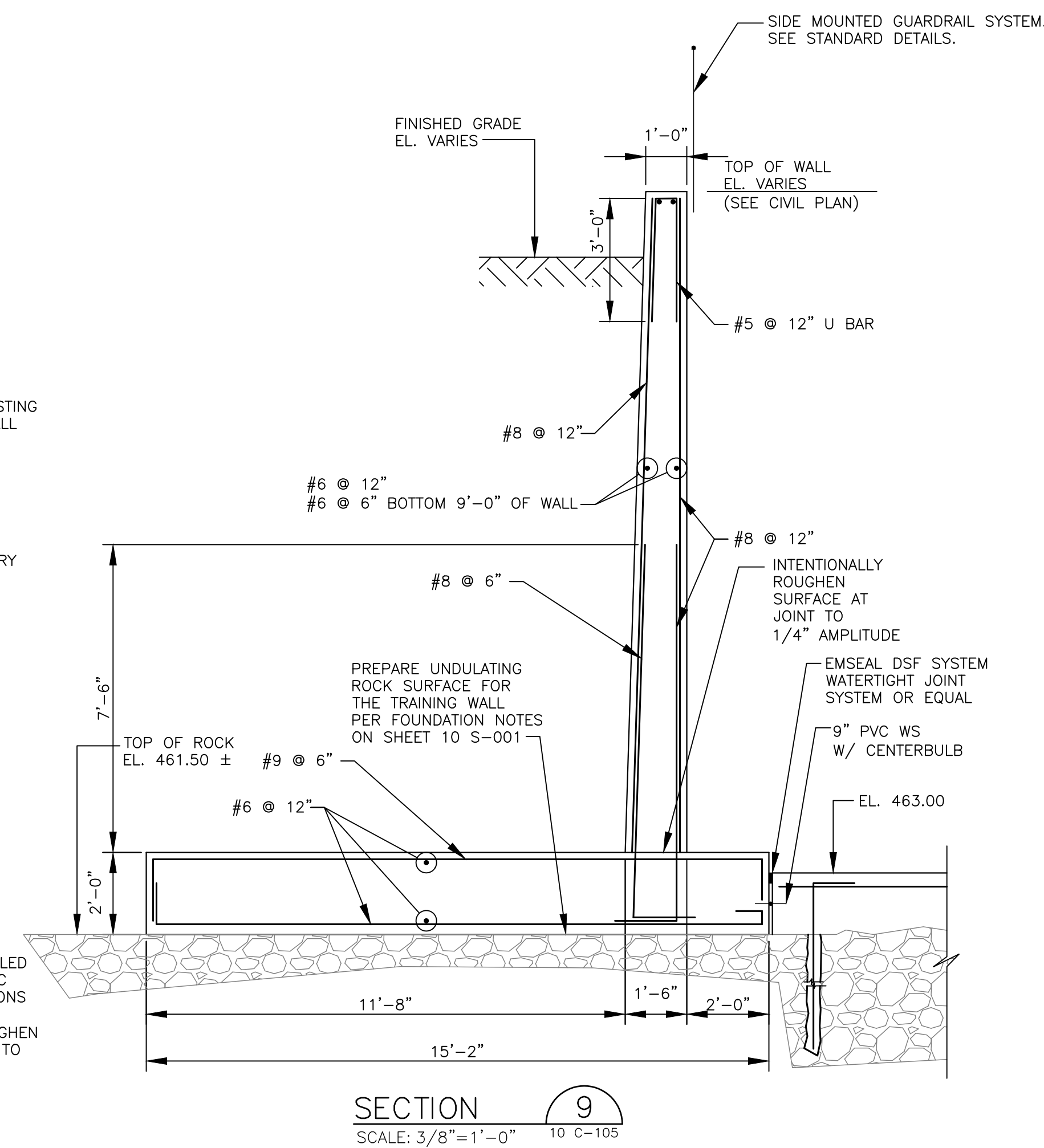


SECTION 7
SCALE: 3/8"=1'-0"
10 C-105



SECTION 8
SCALE: 3/8"=1'-0"
10 C-105

NOTE: SEE SECTION 1 ON SHEET 10 S-301 STILLING BASIN SLAB TYPICAL REINFORCING



SECTION 9
SCALE: 3/8"=1'-0"
10 C-105

NOTE: SEE SECTION 1 ON SHEET 00 S-301 STILLING BASIN SLAB TYPICAL REINFORCING



AECOM

PROJECT

MASS DCR
ABANDONED DAMS
LOWES POND DAM
CONTRACT NO.
P19-3264-D4A

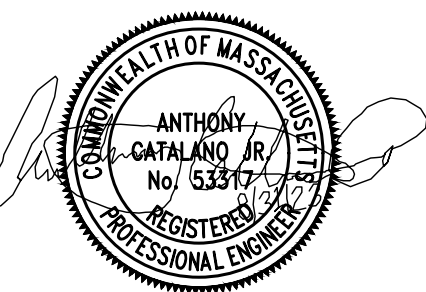
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Boston, MA 02114-2119
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CONSULTANT

AECOM TECHNICAL SERVICES, INC.
250 APOLLO DRIVE
CHELMSFORD, MA 01824
PHONE: (978) 905-2100
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I/R	DATE	DESCRIPTION

PROJECT NUMBER

60604936

Designed By: J. PRIVITERA

Drawn By: A. CATALANO

Dept Check: M. MALENFANT

Proj Check: D. GOVE

Date: JUNE 2022

Scale: AS NOTED

DISCIPLINE

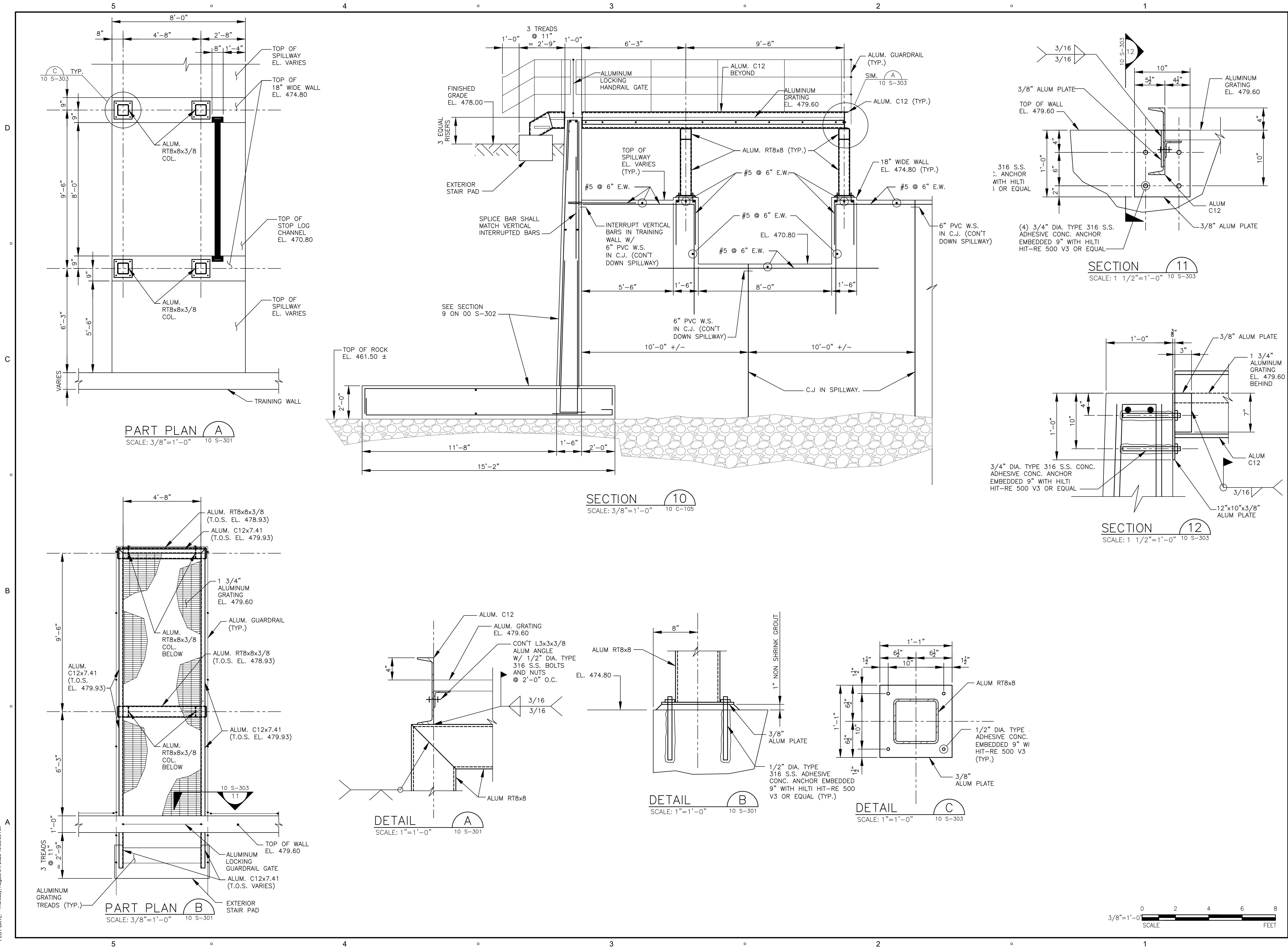
STRUCTURAL

SHEET TITLE

SECTIONS II

SHEET NUMBER

10 S-302



AECOM

PROJECT

**MASS DCR
ABANDONED DAMS
LOWES POND DAM
CONTRACT NO.
P19-3264-D4A**

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PROJECT NUMBER

60604936

Designed By: J. PRIVITERA

Drawn By: A. CATALANO

Dept Check: M. MALENFANT

Proj Check: D. GOVE

Date: JUNE 2022

Scale: AS NOTED

DISCIPLINE

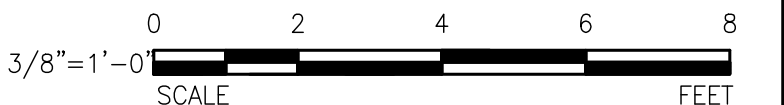
STRUCTURAL

SHEET TITLE

SECTIONS III

SHEET NUMBER

10 S-303



LAST UPDATE: Thursday, August 31, 2023 10:37:24 AM
PLOT DATE: Thursday, August 31, 2023 10:57:06 AM

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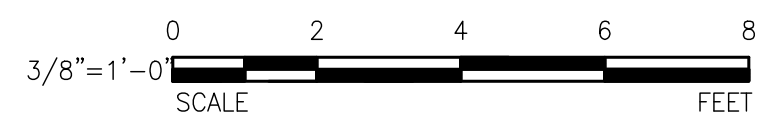
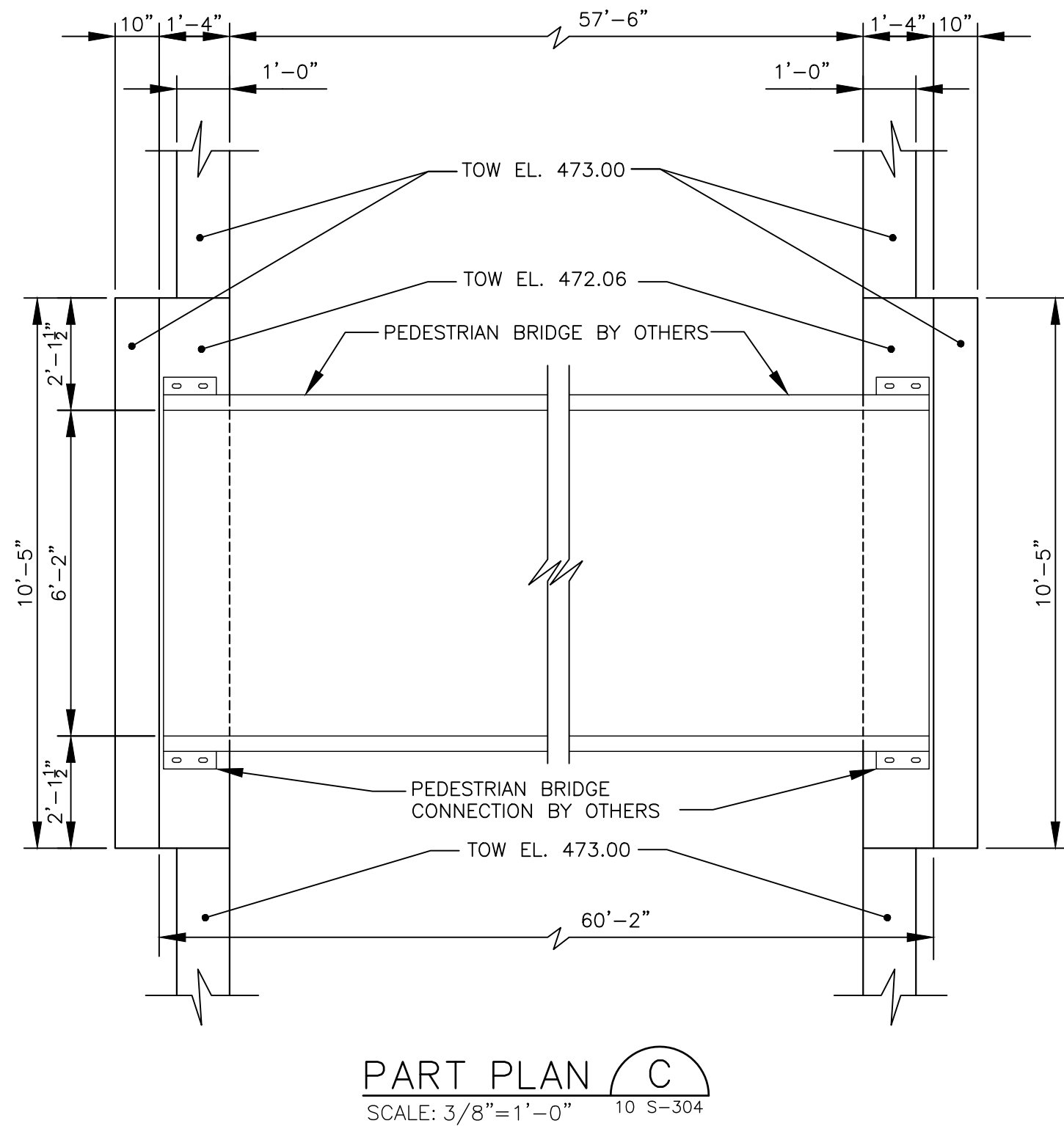
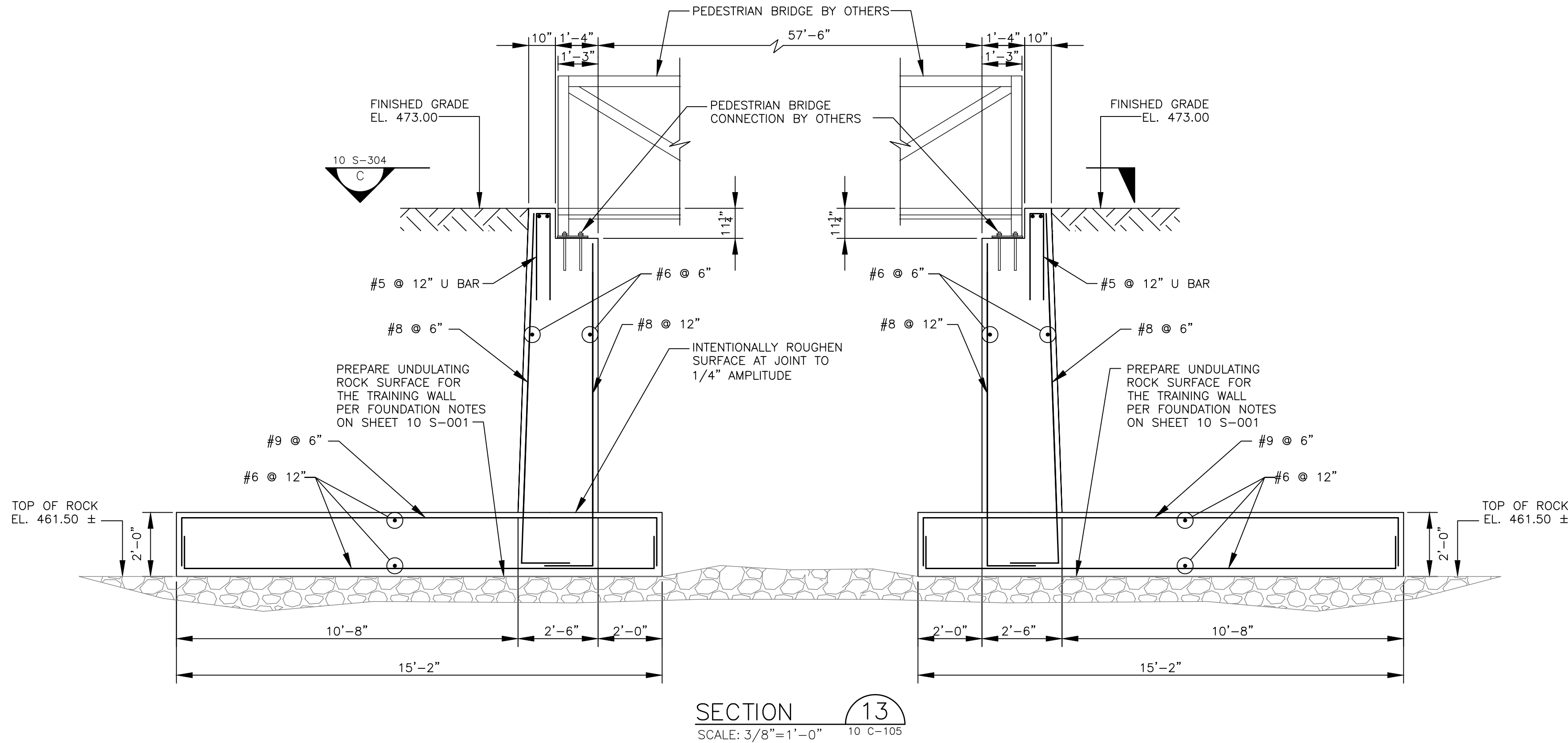
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AECOM

PROJECT

MASS DCR
ABANDONED DAMS
LOWES POND DAM
CONTRACT NO.
P19-3264-D4A

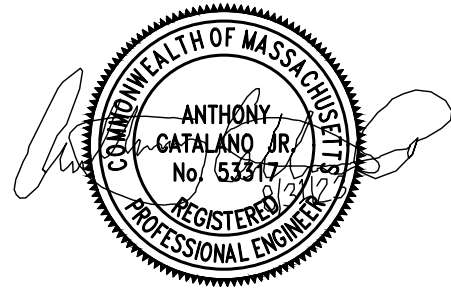
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250 APOLLO DRIVE
CHELMSFORD, MA 01824
PHONE: (978) 905-2100
www.aecom.com



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I/R	DATE	DESCRIPTION

PROJECT NUMBER

60604936

Designed By:	J. PRIVITERA
Drawn By:	A. CATALANO
Dept Check:	M. MALENFANT
Proj Check:	D. GOVE
Date:	JUNE 2022
Scale:	AS NOTED

DISCIPLINE

STRUCTURAL
SHEET TITLE

SECTIONS IV

SHEET NUMBER

10 S-304

D

C

B

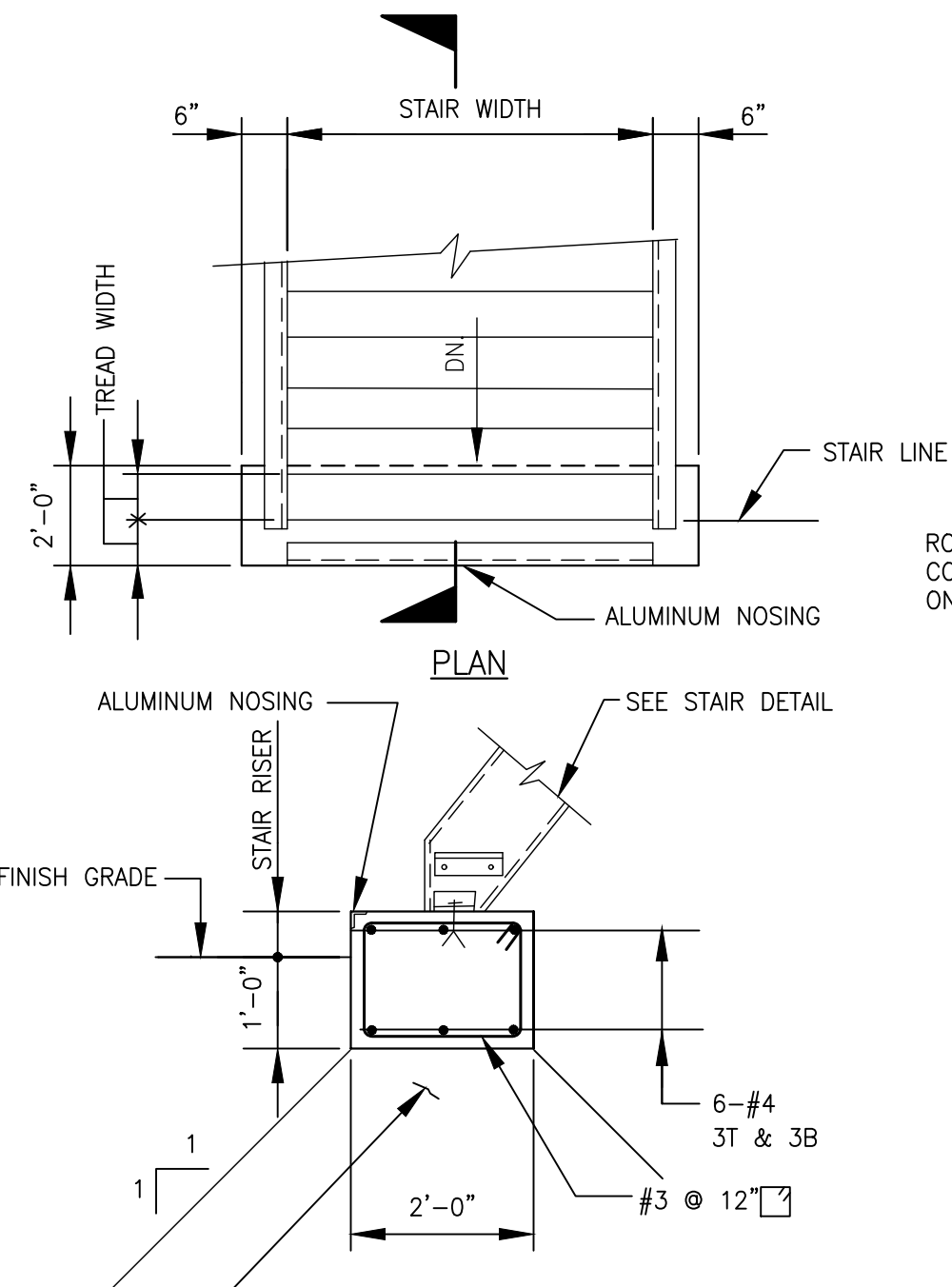
A

CLEAR CONCRETE COVER FOR CAST-IN-PLACE CONCRETE OVER REINFORCEMENT (INCHES)					
MEMBER	EXPOSURE CONDITIONS				
	AIR	WEATHER	AIR OVER LIQUID	EARTH OR STONE	LIQUIDS
FOOTINGS AND FOUNDATION MATS	2"	2"	—	2" * 3" •	2"
WALLS	2"	2"	2"	2"	2"

- * TOP FACE AND SIDES
- BOTTOM FACE

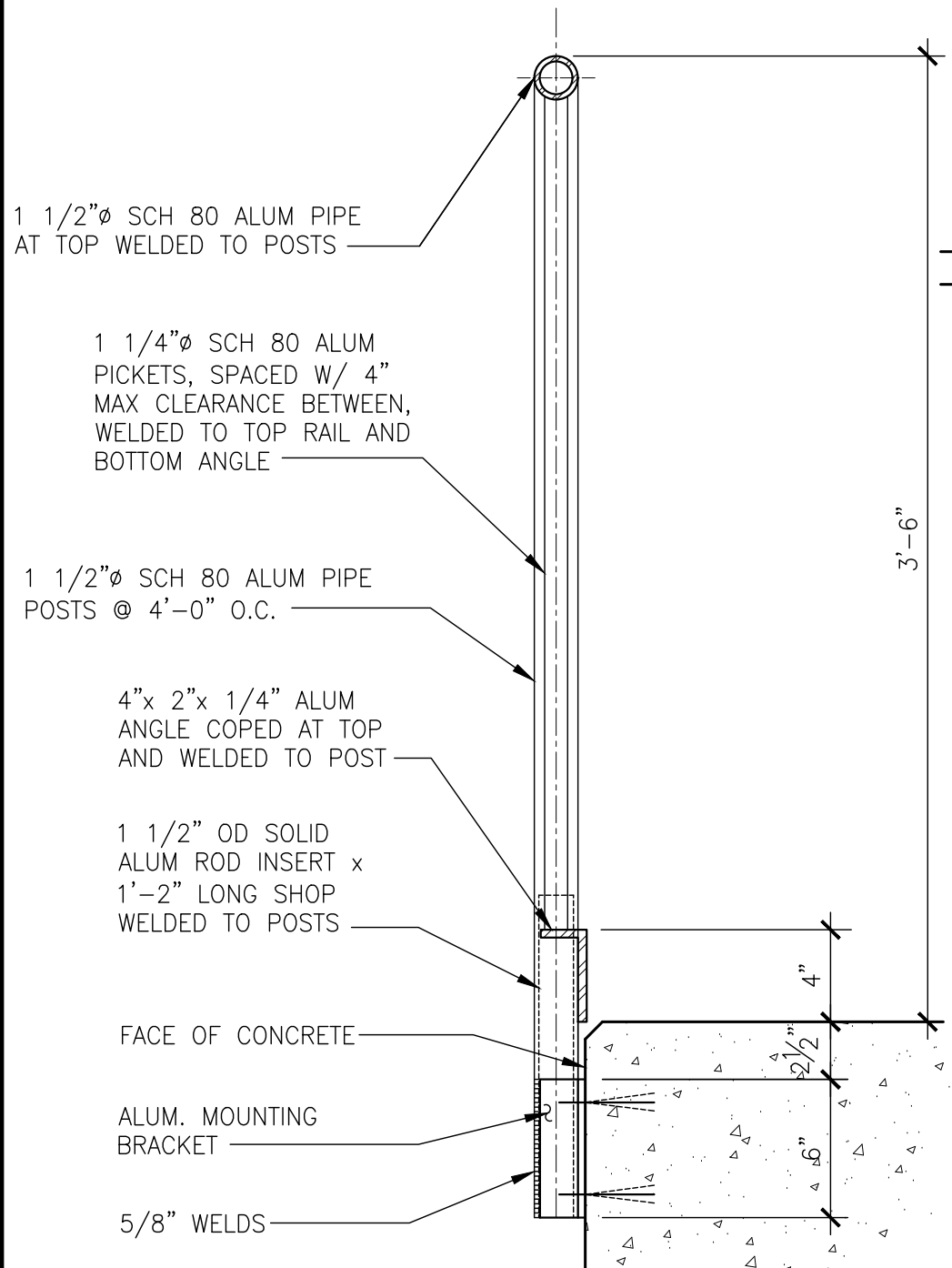
CONCRETE COVER FOR CAST-IN-PLACE CONCRETE OVER REINFORCEMENT

NTS



EXTERIOR STAIR PAD

NTS



SIDE MOUNTED ALUMINUM GUARDRAIL

SCALE: 1 1/2" = 1'-0"

REINFORCING BAR DEVELOPMENT PER ACI 318				
$f'_c = 4,500 \text{ psi}$		$f_y = 60,000 \text{ psi}$		
BAR SIZE	BASIC TENSION DEVELOPMENT	TOP BAR DEVELOPMENT	COMPRESSION DEVELOPMENT	STANDARD HOOK DEVELOPMENT
# 3 (10)	1'-2"	1'-6"	1'-0"	7"
# 4 (13)	1'-7"	2'-1"	1'-3"	9"
# 5 (16)	2'-0"	2'-7"	1'-7"	1'-0"
# 6 (19)	2'-4"	3'-1"	1'-11"	1'-2"
# 7 (22)	3'-5"	4'-6"	2'-2"	1'-5"
# 8 (25)	3'-11"	5'-2"	2'-6"	1'-7"
# 9 (29)	4'-5"	5'-10"	2'-10"	1'-9"

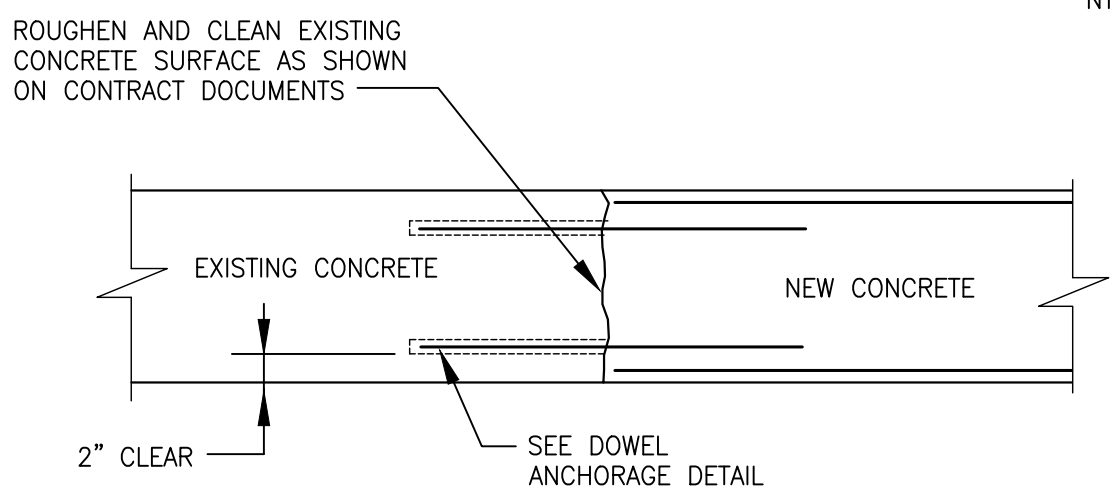
TABULATED VALUES ARE FOR UNCOATED BARS AND NORMAL WEIGHT CONCRETE.

TOP BARS ARE HORIZONTAL REINFORCEMENT PLACED SUCH THAT MORE THAN 12" OF CONCRETE IS PLACED BELOW THE BAR.

TABULATED VALUES ARE FOR BARS WHICH HAVE AT LEAST 1 1/4" OF CLEAR CONCRETE COVER AND ARE SPACED AT LEAST 3" ON CENTER. SPLICE LENGTHS FOR BARS NOT CONFORMING TO EITHER OF THESE CONDITIONS SHALL BE INCREASED 50%.

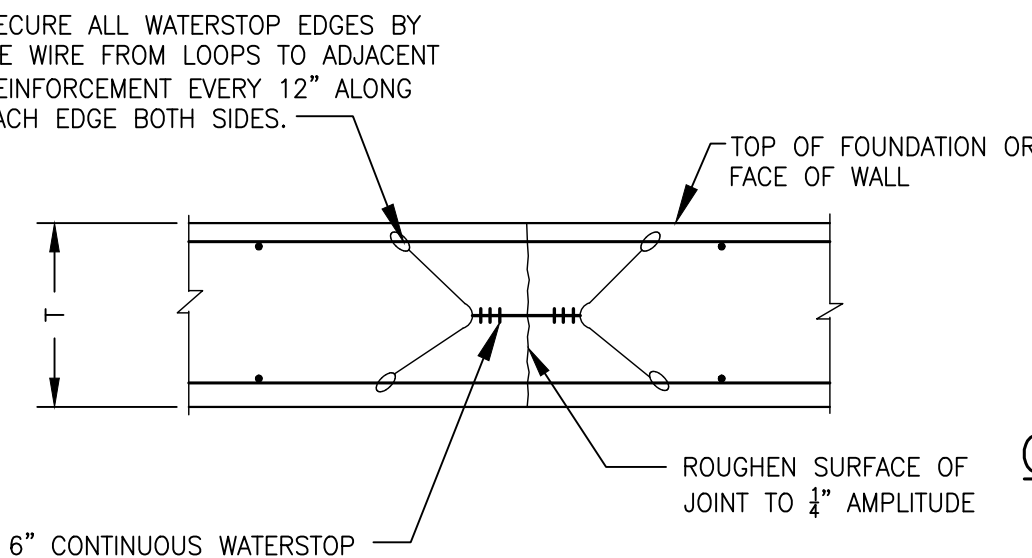
REINFORCING BAR DEVELOPMENT

NTS



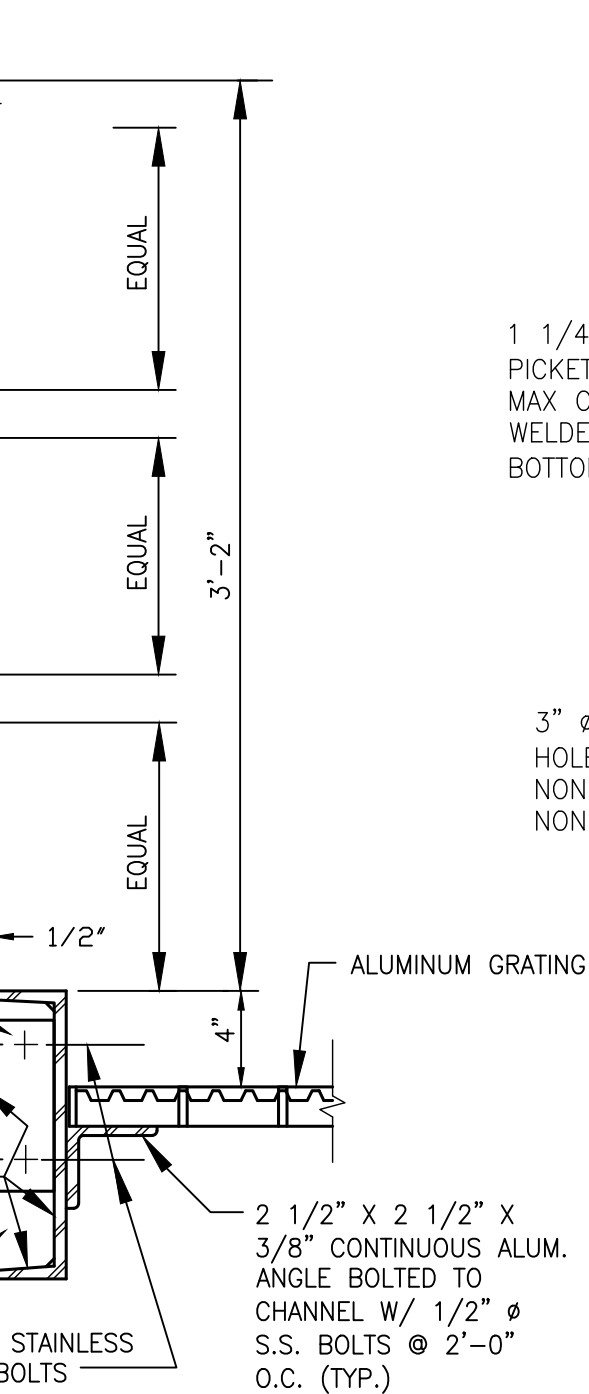
BONDING NEW CONCRETE TO EXISTING CONCRETE

NTS



CONSTRUCTION JOINT WITH WATERSTOP

NTS



3 RAIL ALUMINUM GUARDRAIL AT GRATING PLATFORM

NTS

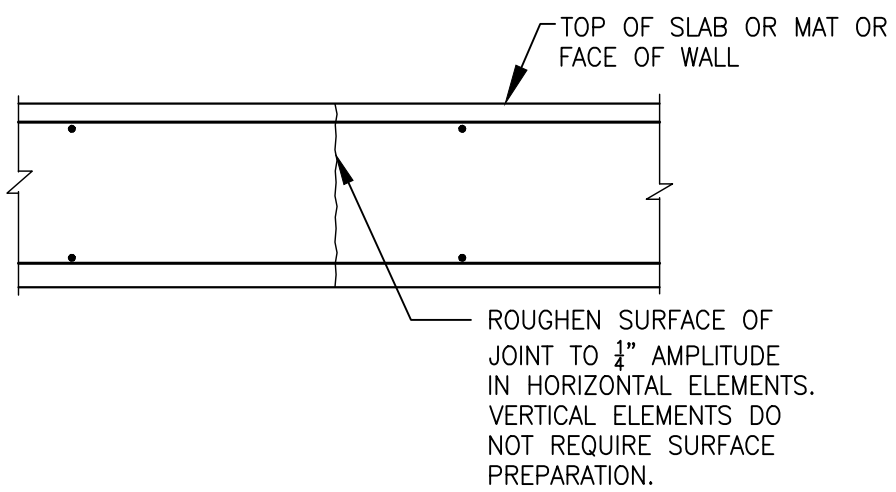
REINFORCING BAR SPLICES PER ACI 318			
$f'_c = 4,500 \text{ psi}$		$f_y = 60,000 \text{ psi}$	
BAR SIZE (METRIC)	CLASS "B" SPLICE		COMPRESSION SPLICE
	TOP BARS	OTHER BARS	
# 3 (10)	2'-0"	1'-6"	1'-0"
# 4 (13)	2'-8"	2'-1"	1'-3"
# 5 (16)	3'-4"	2'-7"	1'-7"
# 6 (19)	4'-0"	3'-1"	1'-11"
# 7 (22)	5'-10"	4'-6"	2'-2"
# 8 (25)	6'-8"	5'-2"	2'-6"
# 9 (29)	7'-7"	5'-10"	2'-10"

TABULATED VALUES ARE FOR NORMAL WEIGHT CONCRETE AND UNCOATED BARS THAT HAVE AT LEAST 1 1/4" OF CLEAR CONCRETE COVER AND ARE SPACED AT LEAST 3" ON CENTER.

TOP BARS ARE HORIZONTAL REINFORCEMENT PLACED SUCH THAT MORE THAN 12" OF CONCRETE IS PLACED BELOW THE BAR.

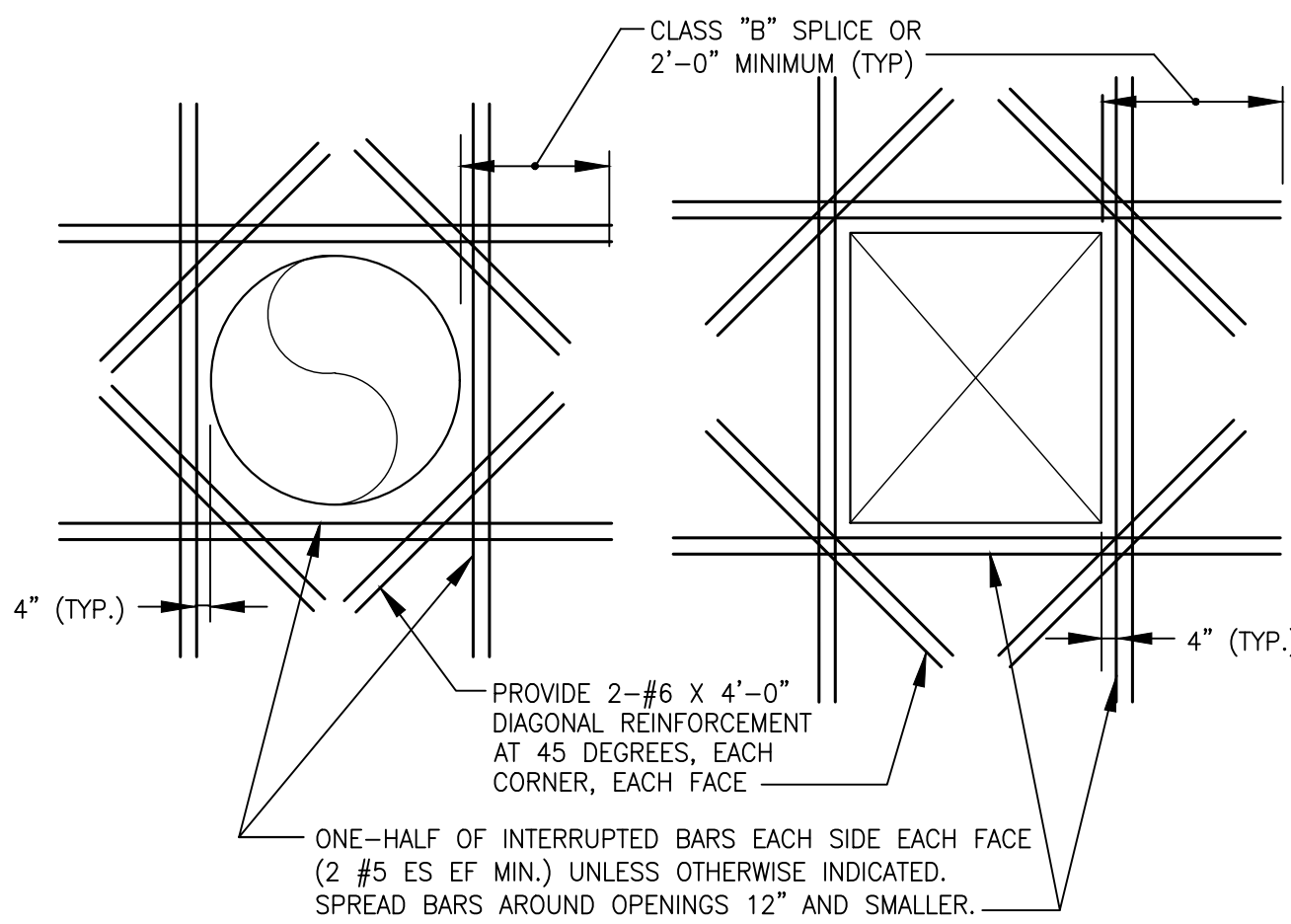
REINFORCING BAR SPLICES

NTS



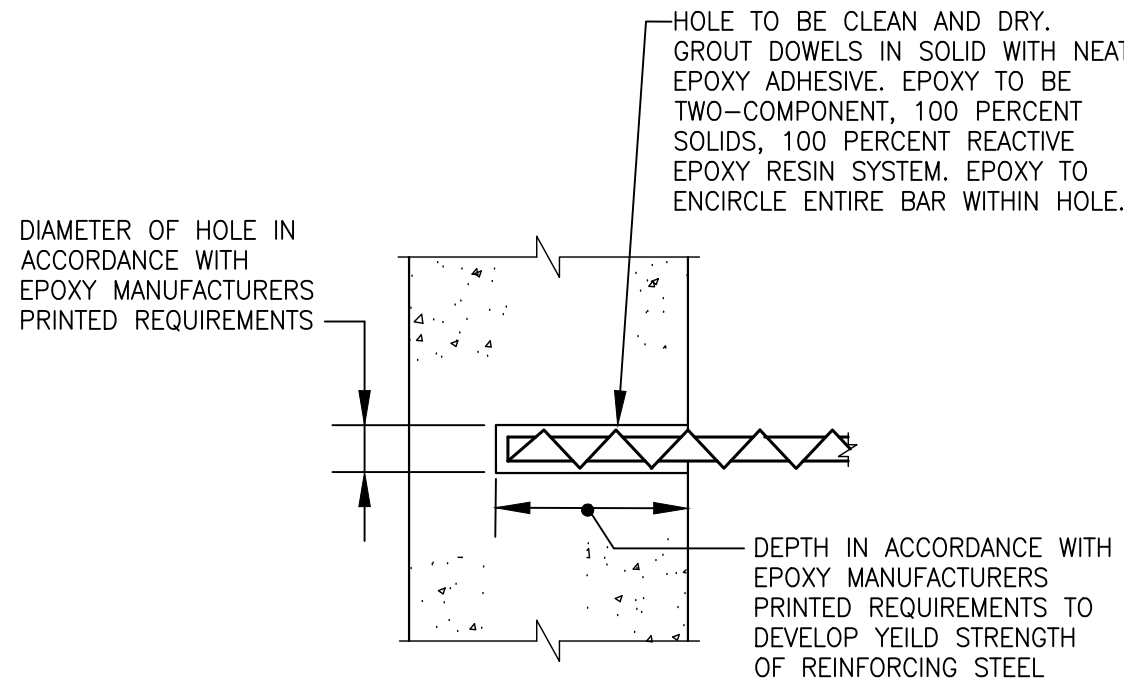
CONSTRUCTION JOINT WITHOUT WATERSTOP

NTS (REV. 4-19-13)



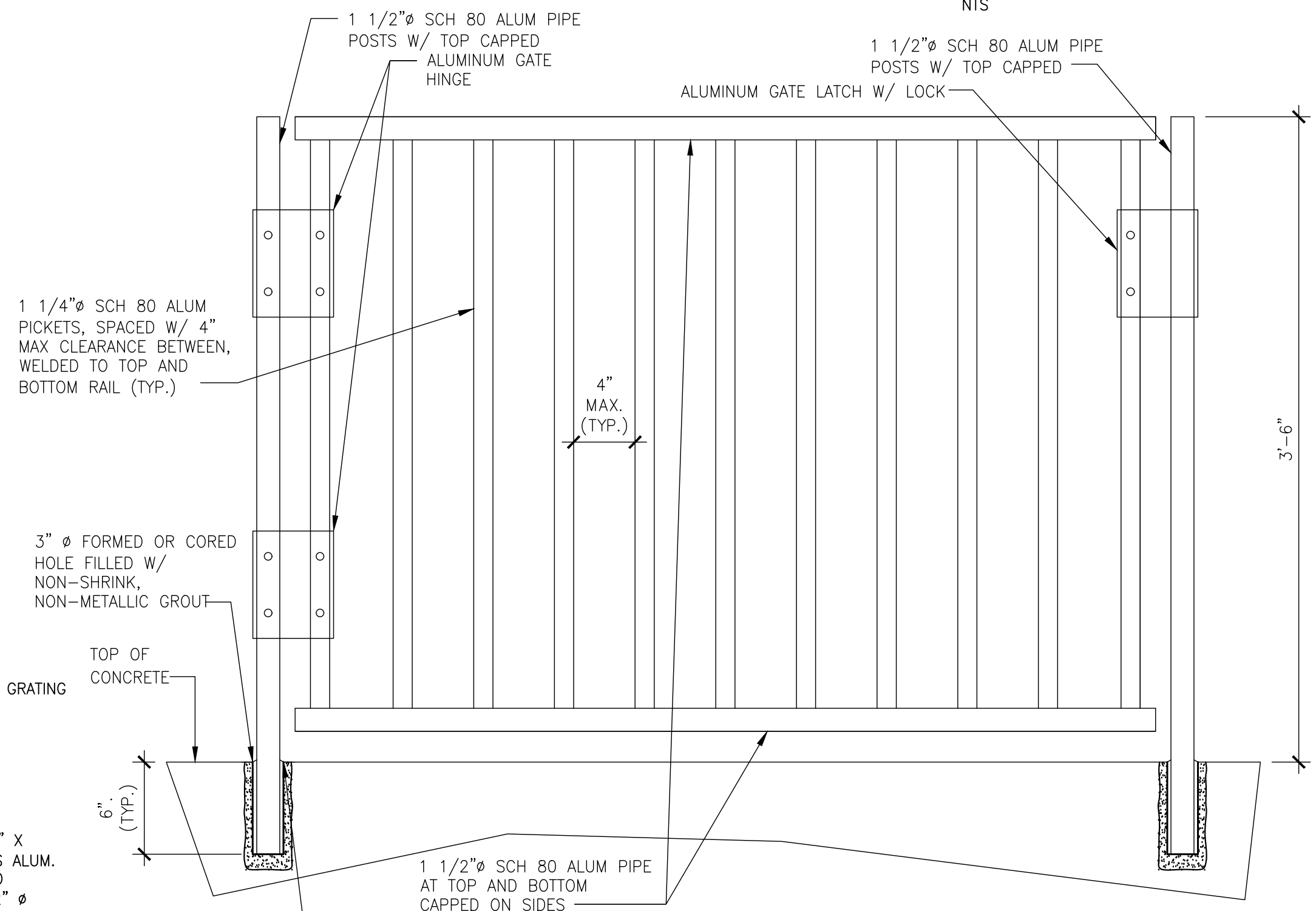
ADDITIONAL REINFORCEMENT FOR ROUND AND RECTANGULAR OPENINGS

NTS



DOWEL ANCHORAGE INTO EXISTING CONCRETE

NTS



ALUMINUM LOCKING GUARDRAIL GATE

NTS

AECOM

PROJECT

MASS DCR
ABANDONED DAMS
LOWES POND DAM
CONTRACT NO.
P19-3264-D4A

CLIENT

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CONSULTANT

AECOM TECHNICAL SERVICES, INC.
250 APOLLO DRIVE
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PHONE: (978) 905-2100
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REGISTRATION

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CONSTRUCTION

ISSUE/REVISION

I/R	DATE	DESCRIPTION

PROJECT NUMBER

60604936

Designed By:	J. PRIVITERA
Drawn By:	A. CATALANO
Dept Check:	M. MALENFANT
Proj Check:	D. GOVE
Date:	JUNE 2022
Scale:	AS NOTED

DISCIPLINE

STRUCTURAL
SHEET TITLE

STRUCTURAL STANDARD
DETAILS I

SHEET NUMBER

99 S-501

PROJECT

MASS DCR
ABANDONED DAMS
LOWES POND DAM
CONTRACT NO.
P19-3264-D4A

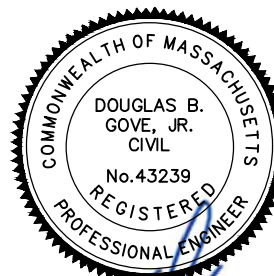
CLIENT

Massachusetts Department
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10 Park Plaza, Suite 6620
Boston, MA 02116
617.626.1250 tel 617.626.1351 fax
www.mass.gov/orgs/departement-of-conservation-recreation

CONSULTANT

AECOM TECHNICAL SERVICES, INC.
250 APOLLO DRIVE
CHELMSFORD, MA 01824
PHONE: (978) 905-2100
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REGISTRATION

ISSUE/REVISION

I/R	DATE	DESCRIPTION

PROJECT NUMBER

60604936

Designed By: J.P. MINOIS

Drawn By: M. THIBODEAU

Dept Check: C. BENZIGER

Proj Check: D. GOVE

Date: AUGUST 2024

Scale: AS NOTED

DISCIPLINE

CIVIL

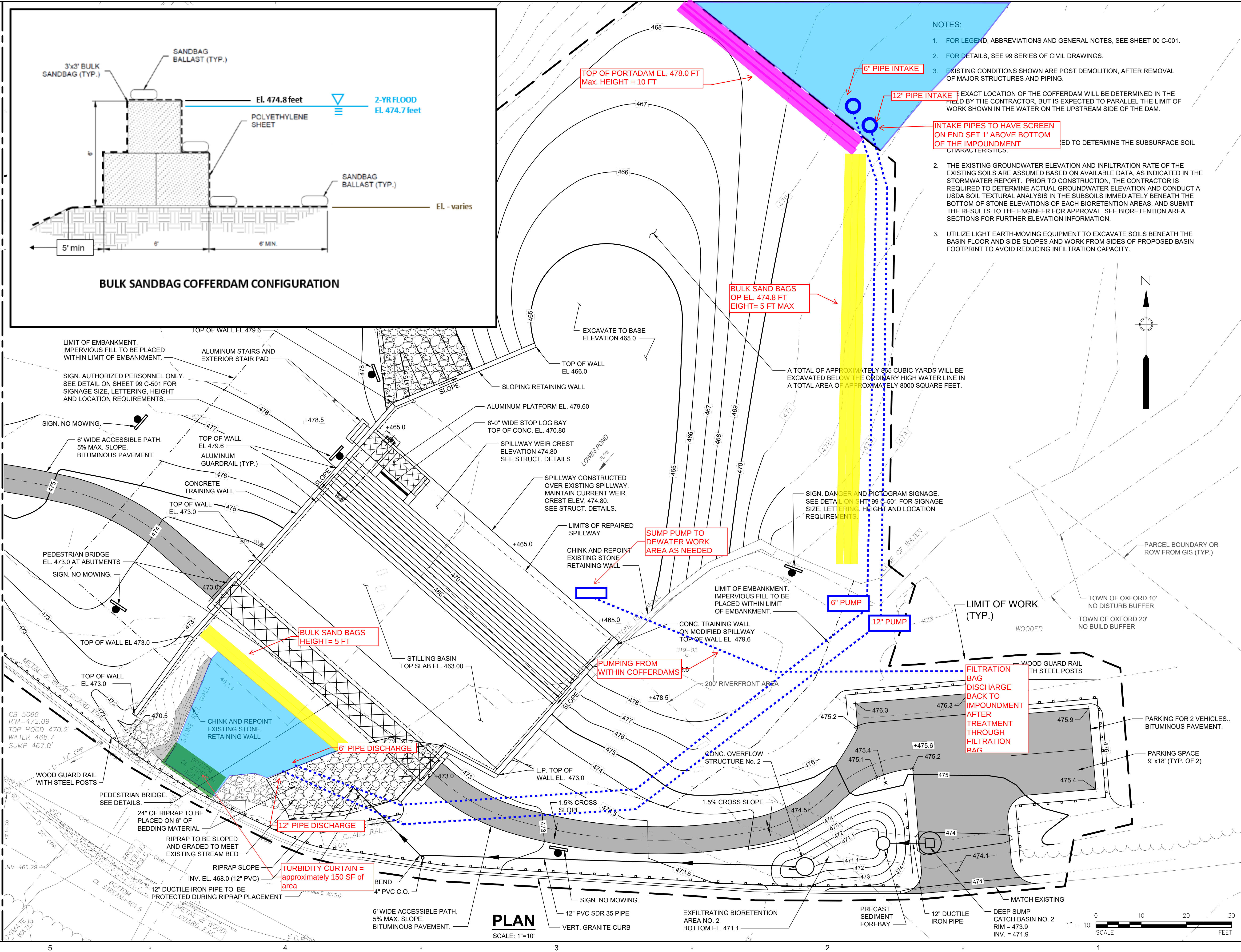
SHEET TITLE

LOWES POND
SITE GRADING PLAN I

SHEET NUMBER

10 C-107

FOR CONTINUATION, SEE SHEET 10 C-108



NOTES:

- FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES, SEE SHEET 00 C-001.
- FOR DETAILS, SEE 99 SERIES OF CIVIL DRAWINGS.
- EXISTING CONDITIONS SHOWN ARE POST DEMOLITION, AFTER REMOVAL OF MAJOR STRUCTURES AND PIPING.

EXACT LOCATION OF THE COFFERDAM WILL BE DETERMINED IN THE FIELD BY THE CONTRACTOR, BUT IS EXPECTED TO PARALLEL THE LIMIT OF WORK SHOWN IN THE WATER ON THE UPSTREAM SIDE OF THE DAM.

INTAKE PIPES TO HAVE SCREEN ON END SET 1' ABOVE BOTTOM OF THE IMPOUNDMENT

- THE EXISTING GROUNDWATER ELEVATION AND INFILTRATION RATE OF THE EXISTING SOILS ARE ASSUMED BASED ON AVAILABLE DATA, AS INDICATED IN THE STORMWATER REPORT. PRIOR TO CONSTRUCTION, THE CONTRACTOR IS REQUIRED TO DETERMINE ACTUAL GROUNDWATER ELEVATION AND CONDUCT A USDA SOIL TEXTURAL ANALYSIS IN THE SUBSOILS IMMEDIATELY BENEATH THE BOTTOM OF STONE ELEVATIONS OF EACH BIORETENTION AREAS, AND SUBMIT THE RESULTS TO THE ENGINEER FOR APPROVAL. SEE BIORETENTION AREA SECTIONS FOR FURTHER ELEVATION INFORMATION.

- UTILIZE LIGHT EARTH-MOVING EQUIPMENT TO EXCAVATE SOILS BENEATH THE BASIN FLOOR AND SIDE SLOPES AND WORK FROM SIDES OF PROPOSED BASIN FOOTPRINT TO AVOID REDUCING INFILTRATION CAPACITY.

BULK SAND BAGS
OP EL. 474.8 FT
HEIGHT= 5 FT MAX

A TOTAL OF APPROXIMATELY 865 CUBIC YARDS WILL BE EXCAVATED BELOW THE ORDINARY HIGH WATER LINE IN A TOTAL AREA OF APPROXIMATELY 8000 SQUARE FEET.

SIGN, DANGER AND PICTOGRAM SIGNAGE.
SEE DETAIL ON SHEET 99 C-501 FOR SIGNAGE
SIZE, LETTERING, HEIGHT AND LOCATION
REQUIREMENTS.

LIMIT OF WORK
(TYP.)

FILTRATION
BAG
DISCHARGE
BACK TO
IMPOUNDMENT
AFTER
TREATMENT
THROUGH
FILTRATION
BAG

PARCEL BOUNDARY OR
ROW FROM GIS (TYP.)

TOWN OF OXFORD 10'
NO DISTURB BUFFER

TOWN OF OXFORD 20'
NO BUILD BUFFER

PARKING FOR 2 VEHICLES.
BITUMINOUS PAVEMENT.

PARKING SPACE
9' x 18' (TYP. OF 2)

MATCH EXISTING

DEEP SUMP
CATCH BASIN NO. 2
RIM = 473.9
INV. = 471.9

PRECAST
SEDIMENT
FOREBAY

EXFILTRATING BIORETENTION
AREA NO. 2
BOTTOM EL. 471.1

12" PVC SDR 35 PIPE
VERT. GRANITE CURB

PLAN
SCALE: 1"=10"

6" WIDE ACCESSIBLE PATH.
5% MAX. SLOPE.
BITUMINOUS PAVEMENT.

TURBIDITY CURTAIN =
approximately 150 SF of
area

RIPRAP TO BE SLOPED
AND GRADED TO MEET
EXISTING STREAM BED

24" OF RIPRAP TO BE
PLACED ON 6" OF
BEDDING MATERIAL

PEDESTRIAN BRIDGE.
SEE DETAILS.

WOOD GUARD RAIL
WITH STEEL POSTS

SUMP 467.0'

WATER 468.7

TOP HOOD 470.2'

RIM=472.09

CB 5069

WOOD GUARD RAIL

12" C.P.P.

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