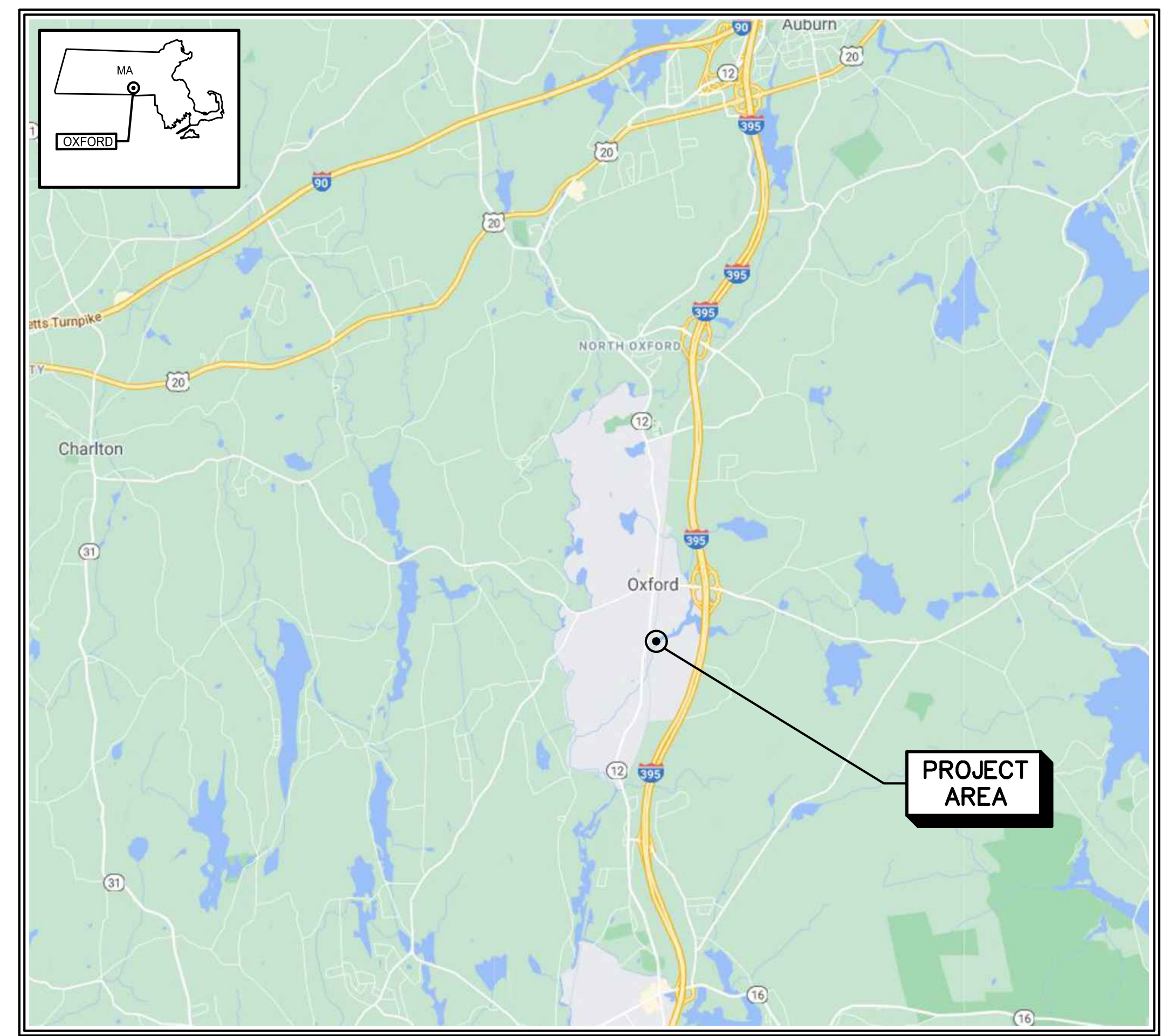


**MASSACHUSETTS DEPARTMENT OF
 CONSERVATION AND RECREATION**

**LOWES POND DAM REHABILITATION
 OXFORD, MA**

**DCR PROJECT NO. FOR CONSTRUCTION P24-3541-C1A
 MARCH 2024**



LOCATION PLAN
 APPROXIMATE SCALE: 1" = 1 Mile

SCALE: 1" = 1 MILE

INDEX OF DRAWINGS

DRAWING NO.	DRAWING TITLE
GENERAL	
00 G-001	COVER SHEET, LOCATION PLAN AND INDEX OF DRAWINGS
CIVIL	
00 C-001	LEGEND, ABBREVIATIONS AND GENERAL NOTES
10 C-101	EXISTING CONDITIONS AND EROSION PROTECTION PLAN
10 C-102	PROJECT HYDROLOGY AND HYDRAULIC DATA
10 C-103	SITE DEMOLITION PLAN I
10 C-104	SITE DEMOLITION PLAN II
10 C-105	SITE LAYOUT PLAN I
10 C-106	SITE LAYOUT PLAN II
10 C-107	SITE GRADING PLAN I
10 C-108	SITE GRADING PLAN II
10 C-109	LANDSCAPE PLAN I
10 C-110	LANDSCAPE PLAN II
99 C-501	DETAILS I
99 C-502	DETAILS II
99 C-503	DETAILS III
99 C-504	DETAILS IV
99 C-505	DETAILS V
STRUCTURAL	
00 S-001	STRUCTURAL NOTES AND STANDARD DETAILS
10 S-301	SECTIONS I
10 S-302	SECTIONS II
10 S-303	SECTIONS III
10 S-304	SECTIONS IV
99 S-501	STRUCTURAL STANDARD DETAILS I
PROCESS	
00 D-001	PROCESS SCHEDULES AND ABBREVIATIONS
10 D-101	PLAN AND SECTION

REGISTRATION

**100% SUBMITTAL
 PRELIMINARY COPY**

NOTE: This document is preliminary only and is not intended for any purpose except review and comment by the owner and its agents.

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:	MARCH 2024
Scale:	AS NOTED

DISCIPLINE

**GENERAL
 SHEET TITLE**

**LOWES POND
 COVER SHEET, LOC. PLAN
 AND INDEX OF DRAWINGS
 SHEET NUMBER**

00 G-001

PROJECT

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

CLIENT

**Massachusetts Department
of Conservation and
Recreation**

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
www.aecom.com

REGISTRATION

100% SUBMITTAL PRELIMINARY COPY

NOTE: This document is preliminary only and is not intended for any purpose except review and comment by the owner and its agents.

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: **MARCH 2024**

Scale: **AS NOTED**

DISCIPLINE

CIVIL

SHEET TITLE

**LOWES POND
LEGEND, ABBREVIATIONS
AND GENERAL NOTES**

SHEET NUMBER

00 C-001

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.
- 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
	WOOD GUARD RAIL WITH METAL POSTS		GUARD RAIL (ON PEDESTRIAN BRIDGE)
	TREE LINE		WOOD GUARD RAIL WITH METAL POSTS
	DRAIN		STOP LOG
	OVERHEAD WIRE		24" PIPE AND 24" SLIDE GATE
	100' RESOURCE BUFFER		MINOR CONTOUR
	WETLAND FLAG - BANK LIMIT		MAJOR CONTOUR
	RIGHT OF WAY		SPOT ELEVATION
	DIRECTIONAL FLOW ARROW		PEDESTRIAN BRIDGE
	BENCHMARK		NEW TREELINE
	SIGN		CHAIN LINK FENCE
	SPOT GRADE		SIGN
	RESOURCE AREA FLAG		PARKING SPACE WITH ACCESSIBLE AISLE
	BOULDER		GRAVEL PATH CENTERLINE
	BORING		COORDINATE LOCATION
	WATER GATE		EXISTING BOULDER RELOCATION
	FIRE HYDRANT		SEED MIX
	UTILITY POLE		GRAVEL PATHWAY AND PARKING AREA
	DRAIN MANHOLE		RIPRAP AREA
	CATCH BASIN		HYDRODYNAMIC SEPARATOR, DRAIN PIPE AND RIPRAP AT OUTLET, WITH FLOW DIRECTION
	TREE (SIZE IN INCHES)		UNDERDRAIN PIPE WITH CLEANOUT
	TRAVERSE (CONTROL) POINT		SECTION MARK AT BIOINFILTRATION BASINS
	CONCRETE		VERTICAL GRANITE CURB
	RIPRAP		DRAIN PIPE WITH FLOW DIRECTION
	LEDGE		DRAIN PIPE BEND
			LIMIT OF EMBANKMENT (IMPERVIOUS FILL AREA)

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

PATHFILENAME: L:\LEGACY\USCH\1\PROJECTS\WAKEFIELD\DATA_3\PROJ\66604936 - MASSDCR SIX ABANDONED DAMS\SHEETS\LOWES POND\00 C-001.DWG
 LAST UPDATE: Tuesday, March 26, 2024 9:43:56 AM
 PLOT DATE: Thursday, March 28, 2024 12:28:51 PM

PROJECT

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

CLIENT

Massachusetts Department
 of Conservation and
 Recreation
 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
 www.aecom.com

REGISTRATION

**100% SUBMITTAL
 PRELIMINARY COPY**

NOTE: This document is preliminary only and is not intended for any purpose except review and comment by the owner and its agents.

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: **MARCH 2024**

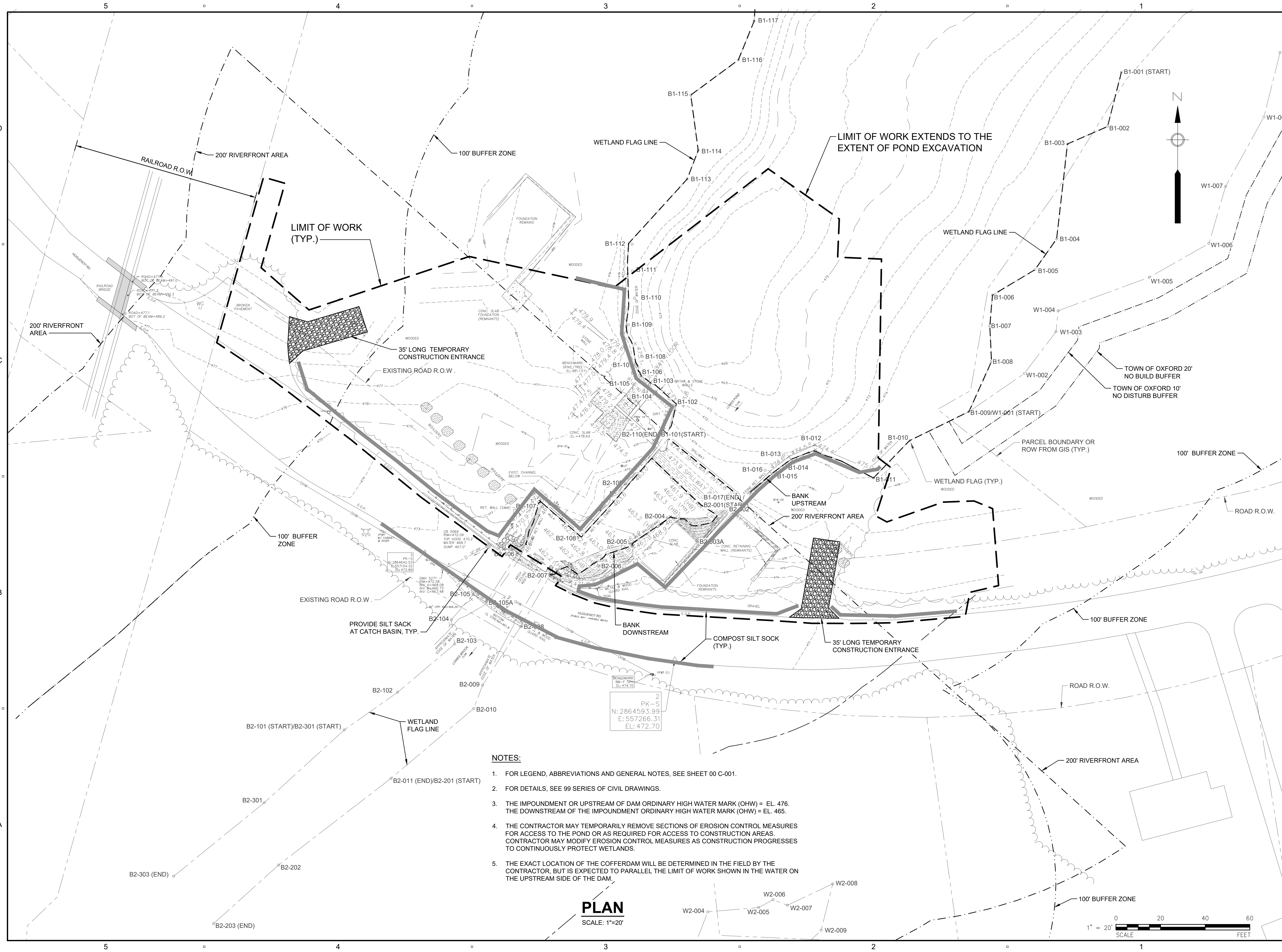
Scale: **AS NOTED**

DISCIPLINE

CIVIL

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'

PATH: L:\LEGACY\USCH\1\PROJECTS\WAKEFIELD\DATA_3\PROJ\66604936 - MASSDCR SIX ABANDONED DAMS\SHEETS\CLOWES POND\10 C-101.DWG
 LAST UPDATE: Friday, March 22, 2024 9:04:18 AM
 PLOT DATE: Tuesday, March 26, 2024 8:37:25 AM

PROJECT

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

CLIENT

Massachusetts Department
of Conservation and
Recreation
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
www.aecom.com

REGISTRATION

**100% SUBMITTAL
PRELIMINARY COPY**

NOTE: This document is preliminary only and is not intended for any purpose except review and comment by the owner and its agents.

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: **MARCH 2024**

Scale: **AS NOTED**

DISCIPLINE

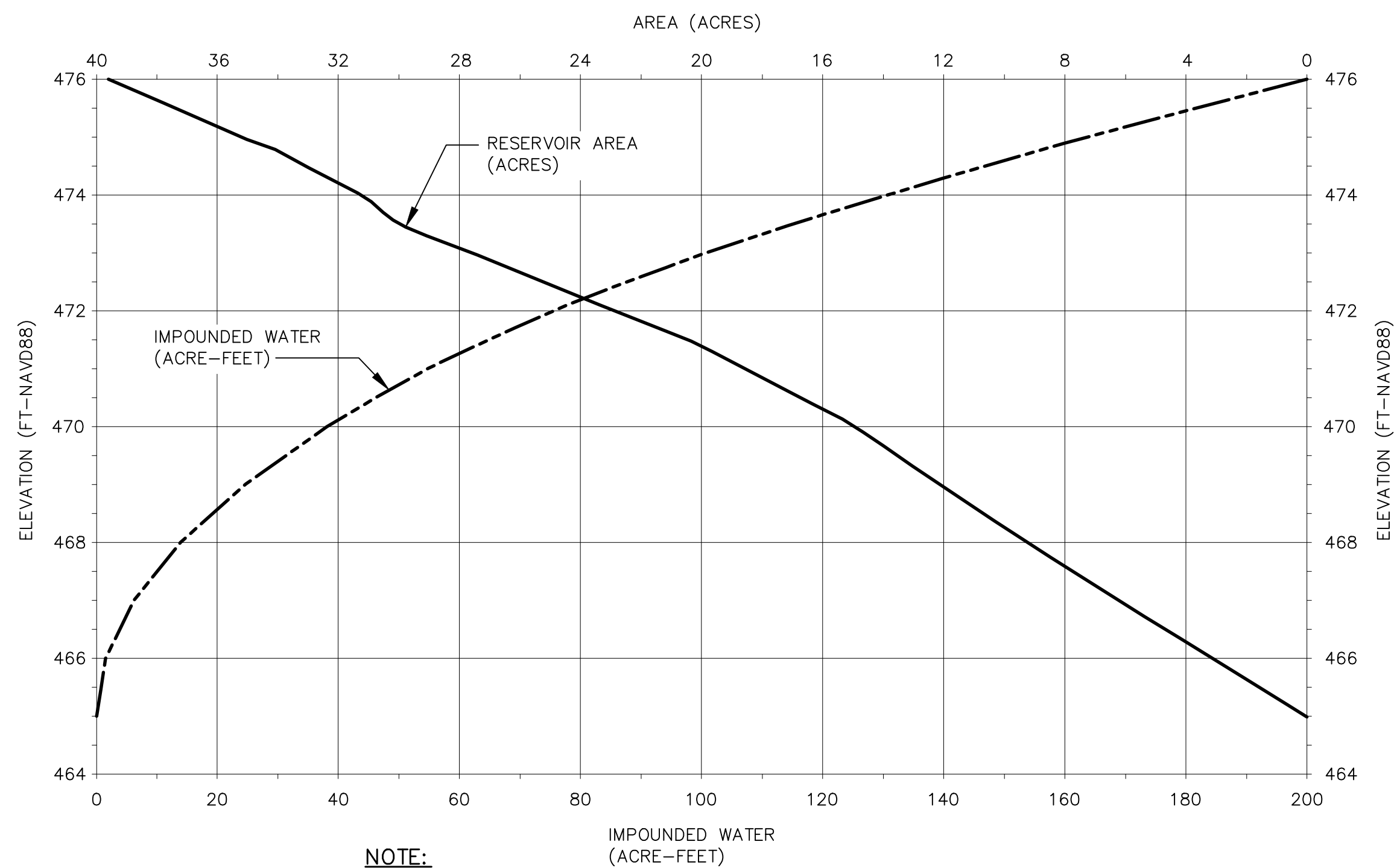
CIVIL

SHEET TITLE

LOWES POND
PROJECT HYDROLOGY AND
HYDRAULIC DATA

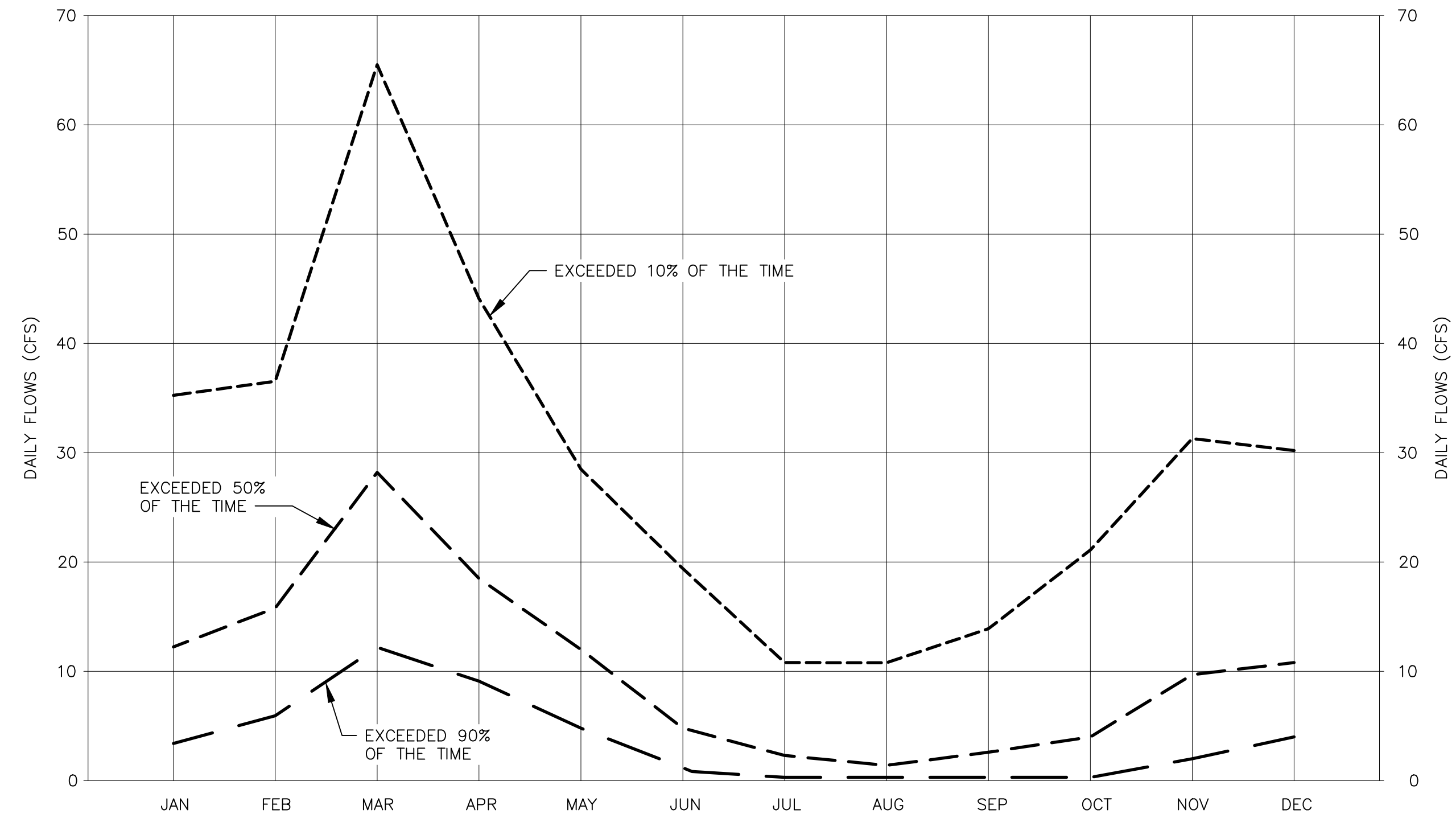
SHEET NUMBER

10 C-102



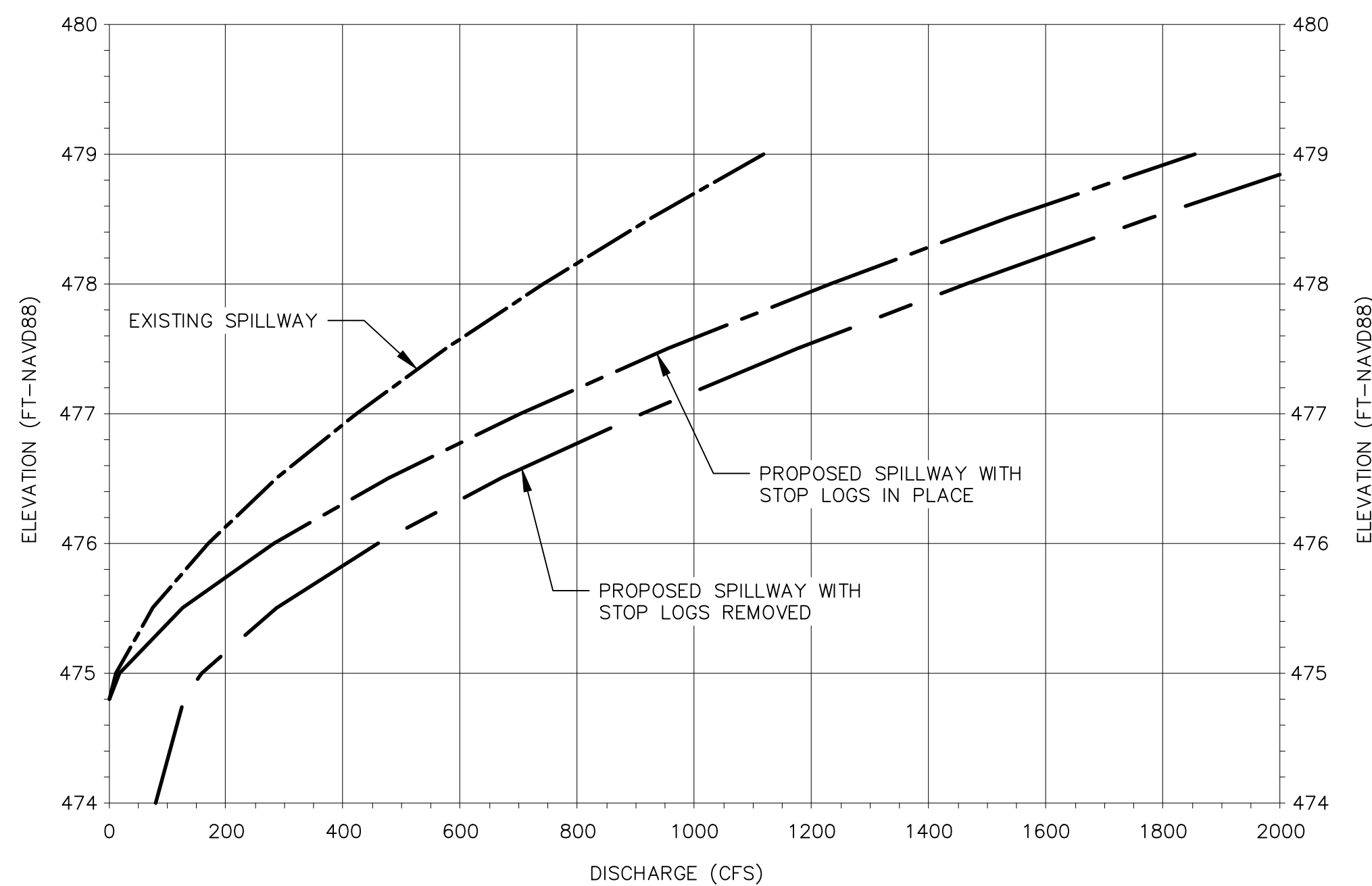
NOTE:
THE AREA - CAPACITY CURVES ARE BASED ON THE BATHYMETRIC SURVEY OF JULY 2019 PRESENTED IN THE PHASE II REPORT (APRIL 2020).

LOWES POND AREA - CAPACITY CURVES



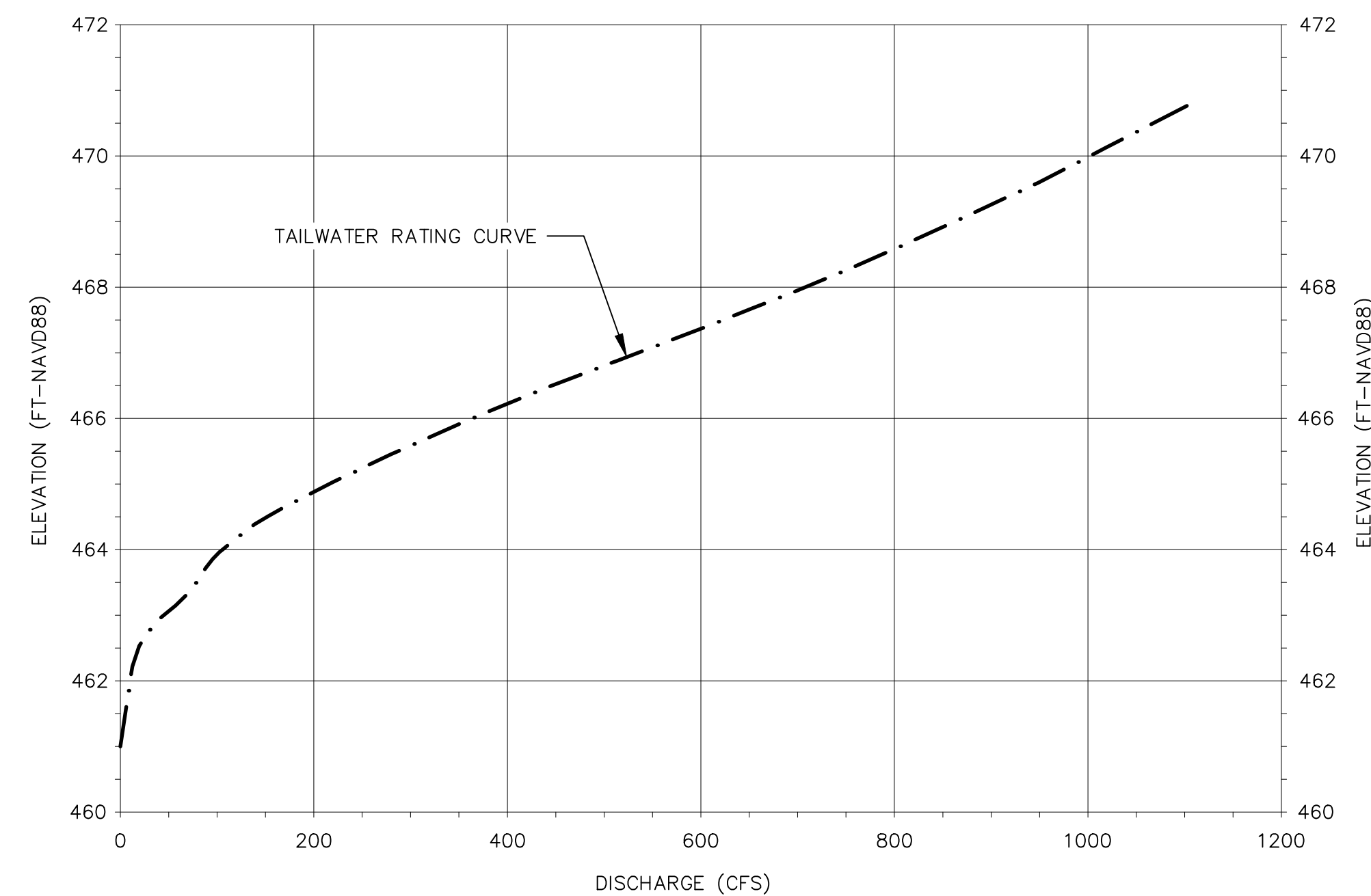
NOTE:
THE AVERAGE DAILY FLOW STATISTICS WERE ESTIMATED BASED ON THE FLOW RECORDS AT THE USGS GAGING STATION NO. 01124500 ON LITTLE RIVER NEAR OXFORD AND ADJUSTED FOR DRAINAGE AREA.

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).

PATH: L:\LEGACY\USCH\PROJECTS\WAKEFIELD\DATA_3\PROJ\6604936 - MASSDCR SIX ABANDONED DAMS\SHEETS\LOWES POND\10 C-102.DWG
 LAST UPDATE: Monday, March 11, 2024 9:12:17 AM
 PLOT DATE: Friday, March 22, 2024 8:17:28 AM

REGISTRATION

100% SUBMITTAL
PRELIMINARY COPY

NOTE: This document is preliminary only and is not intended for any purpose except review and comment by the owner and its agents.

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:	MARCH 2024
Scale:	AS NOTED

DISCIPLINE

CIVIL

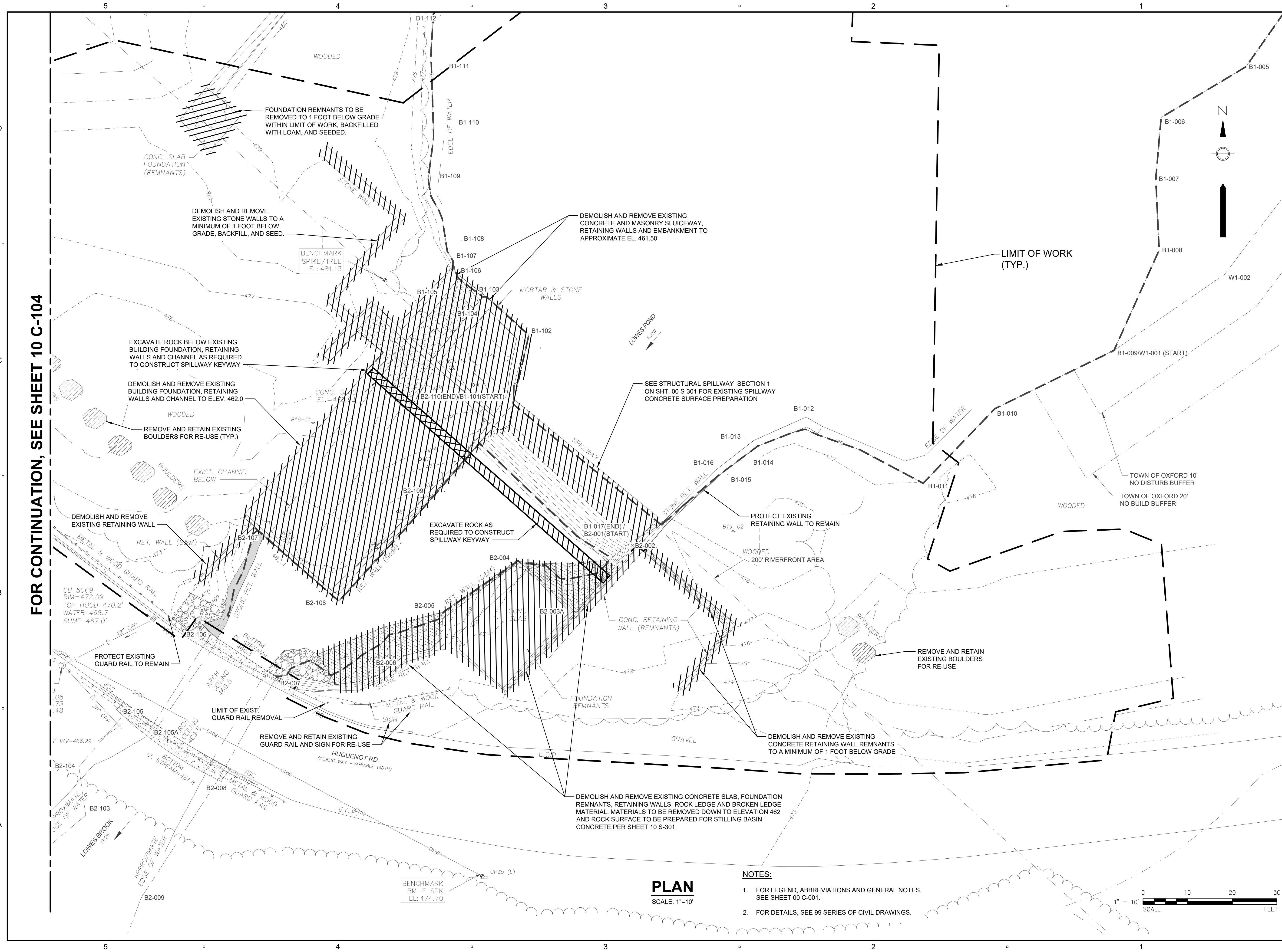
SHEET TITLE

LOWES POND
SITE DEMOLITION PLAN I

SHEET NUMBER

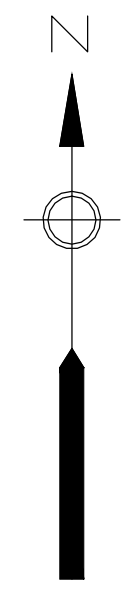
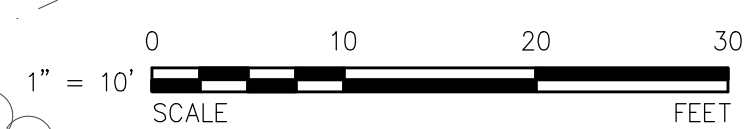
10 C-103

FOR CONTINUATION, SEE SHEET 10 C-104



PLAN
 SCALE: 1"=10'

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



PATH: L:\LEGACY\USCH\1\PROJECTS\WATER\DATA_3\PROJ\66604936 - MASSDCR SIX ABANDONED DAMS\SHEETS\LOWES POND\10 C-103.DWG
 LAST UPDATE: Tuesday, March 26, 2024 7:27:28 AM
 PLOT DATE: Tuesday, March 26, 2024 1:18:53 PM

PROJECT

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

CLIENT

Massachusetts Department
of Conservation and
Recreation
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
www.aecom.com

REGISTRATION

100% SUBMITTAL PRELIMINARY COPY

NOTE: This document is preliminary only and is not intended for any purpose except review and comment by the owner and its agents.

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: **MARCH 2024**

Scale: **AS NOTED**

DISCIPLINE

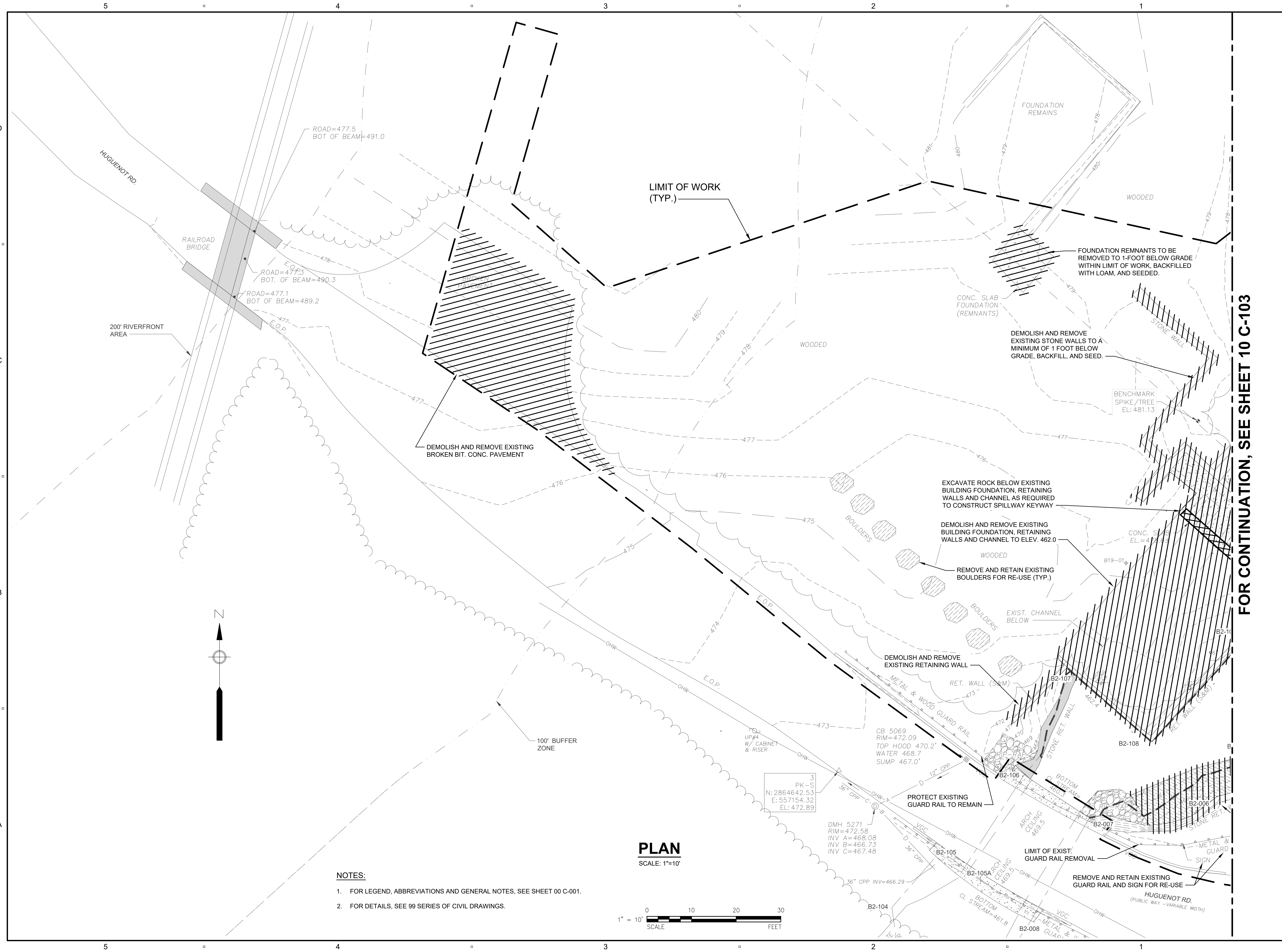
CIVIL

SHEET TITLE

LOWES POND
SITE DEMOLITION PLAN II

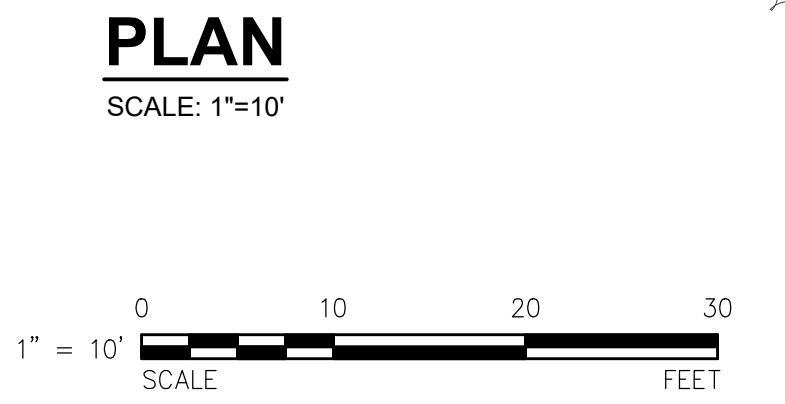
SHEET NUMBER

10 C-104



FOR CONTINUATION, SEE SHEET 10 C-103

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



PATH: L:\LEGACY\USCH\1\PROJECTS\WAKEFIELD\DATA_3\PROJ\6604936 - MASSDCR SIX ABANDONED DAMS\SHEETS\CLOWES POND\10 C-104.DWG
LAST UPDATE: Monday, March 25, 2024 3:32:01 PM
PLOT DATE: Tuesday, March 26, 2024 7:25:20 AM

PROJECT

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

CLIENT

Massachusetts Department
 of Conservation and
 Recreation
 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
 www.aecom.com

REGISTRATION

**100% SUBMITTAL
 PRELIMINARY COPY**

NOTE: This document is preliminary only and is not intended for any purpose except review and comment by the owner and its agents.

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: **MARCH 2024**

Scale: **AS NOTED**

DISCIPLINE

CIVIL

SHEET TITLE

LOWES POND
 SITE LAYOUT PLAN I

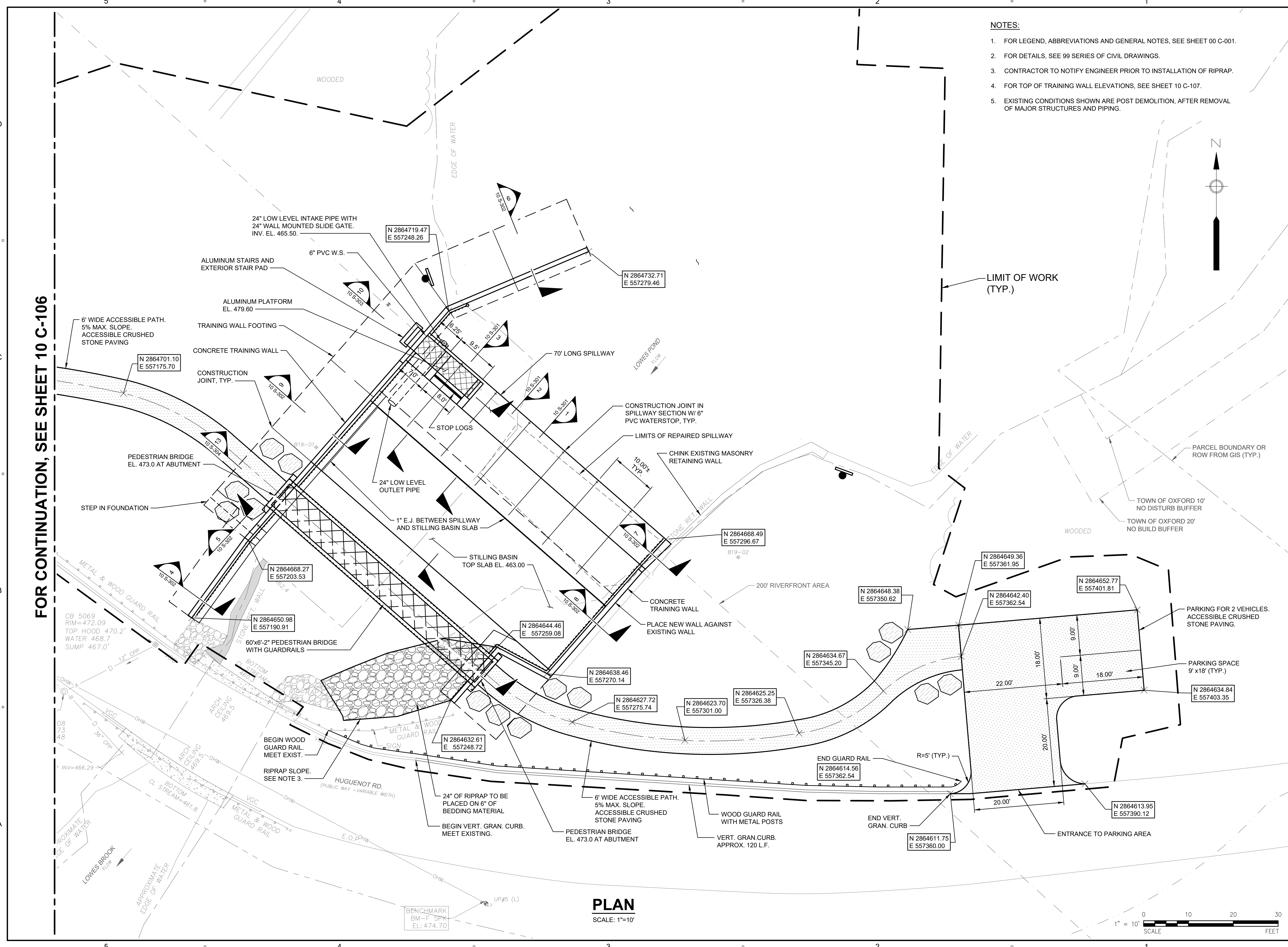
SHEET NUMBER

10 C-105

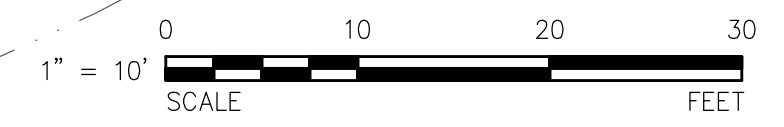
NOTES:

- 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 CONTINUATION, SEE SHEET 10 C-106



PLAN
 SCALE: 1"=10'



PATH: L:\LEGACY\USCH\1990\DATA\PROJECTS\WAKEFIELD\DATA_3\PROJ\66604936 - MASSDCR SIX ABANDONED DAMS\SHEETS\LOWES POND\10 C-105.DWG
 LAST UPDATE: Tuesday, March 26, 2024 1:36:10 PM
 PLOT DATE: Tuesday, April 2, 2024 9:21:52 AM

PROJECT

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

CLIENT

Massachusetts Department
of Conservation and
Recreation

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
www.aecom.com

REGISTRATION

100% SUBMITTAL PRELIMINARY COPY

NOTE: This document is preliminary only and is not intended for any purpose except review and comment by the owner and its agents.

ISSUE/REVISION

NO.	DATE	DESCRIPTION

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: MARCH 2024

Scale: AS NOTED

DISCIPLINE

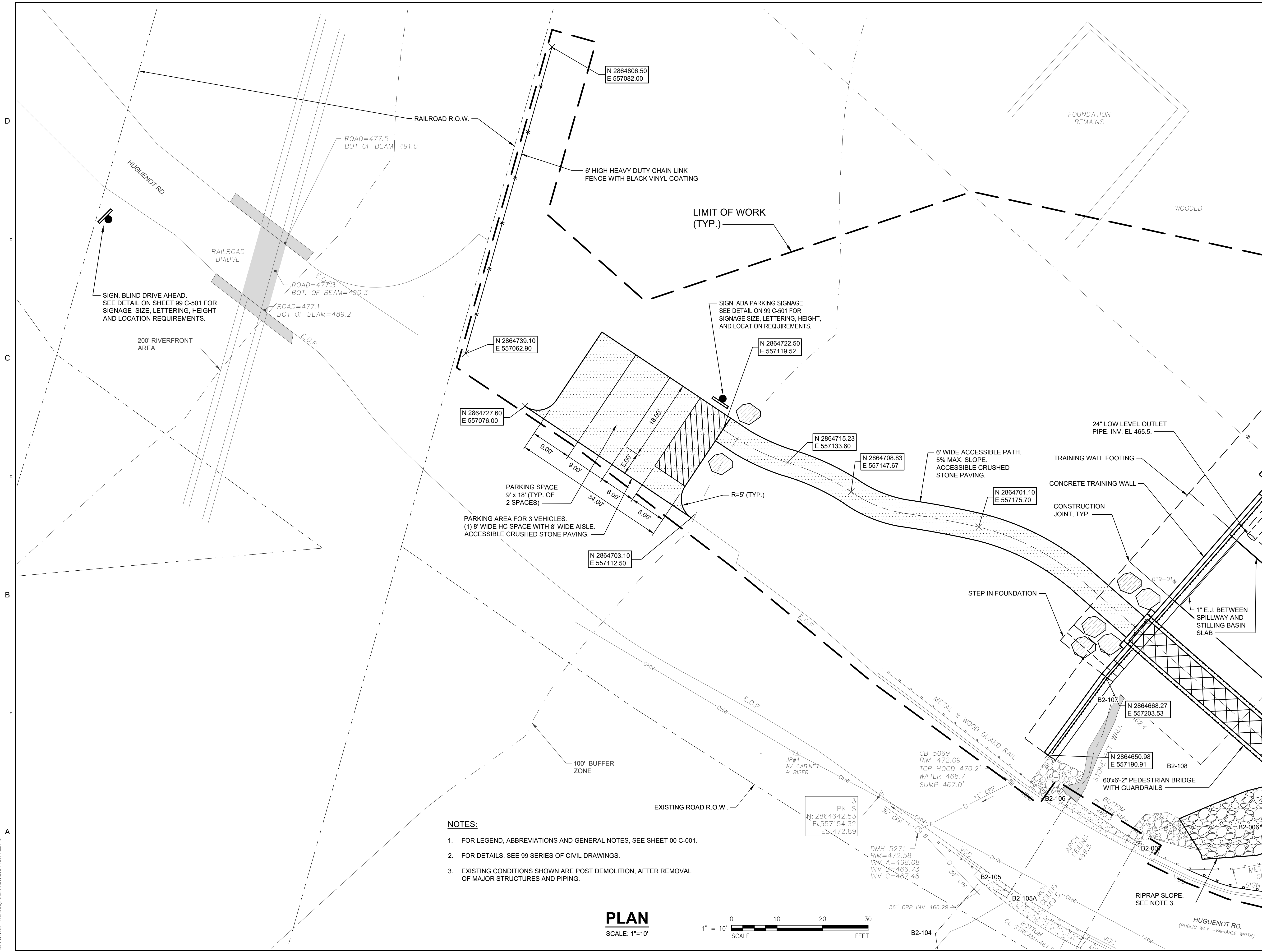
CIVIL

SHEET TITLE

LOWES POND
SITE LAYOUT PLAN II

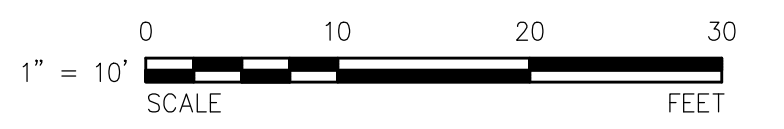
SHEET NUMBER

10 C-106



- 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.

PLAN
SCALE: 1"=10'



FOR CONTINUATION, SEE SHEET 10 C-105

PATH: I:\LEGACY\USCH\1\FP01\DATA\PROJECTS\WAKEFIELD\DATA_3\FP01\66604936 - MASS DCR SIX ABANDONED DAMS\SHEETS\CLOWES POND\10 C-106.DWG
LAST UPDATE: Tuesday, March 26, 2024 8:22:32 AM
PLOT DATE: Thursday, March 28, 2024 12:44:22 PM

I/R	DATE	DESCRIPTION

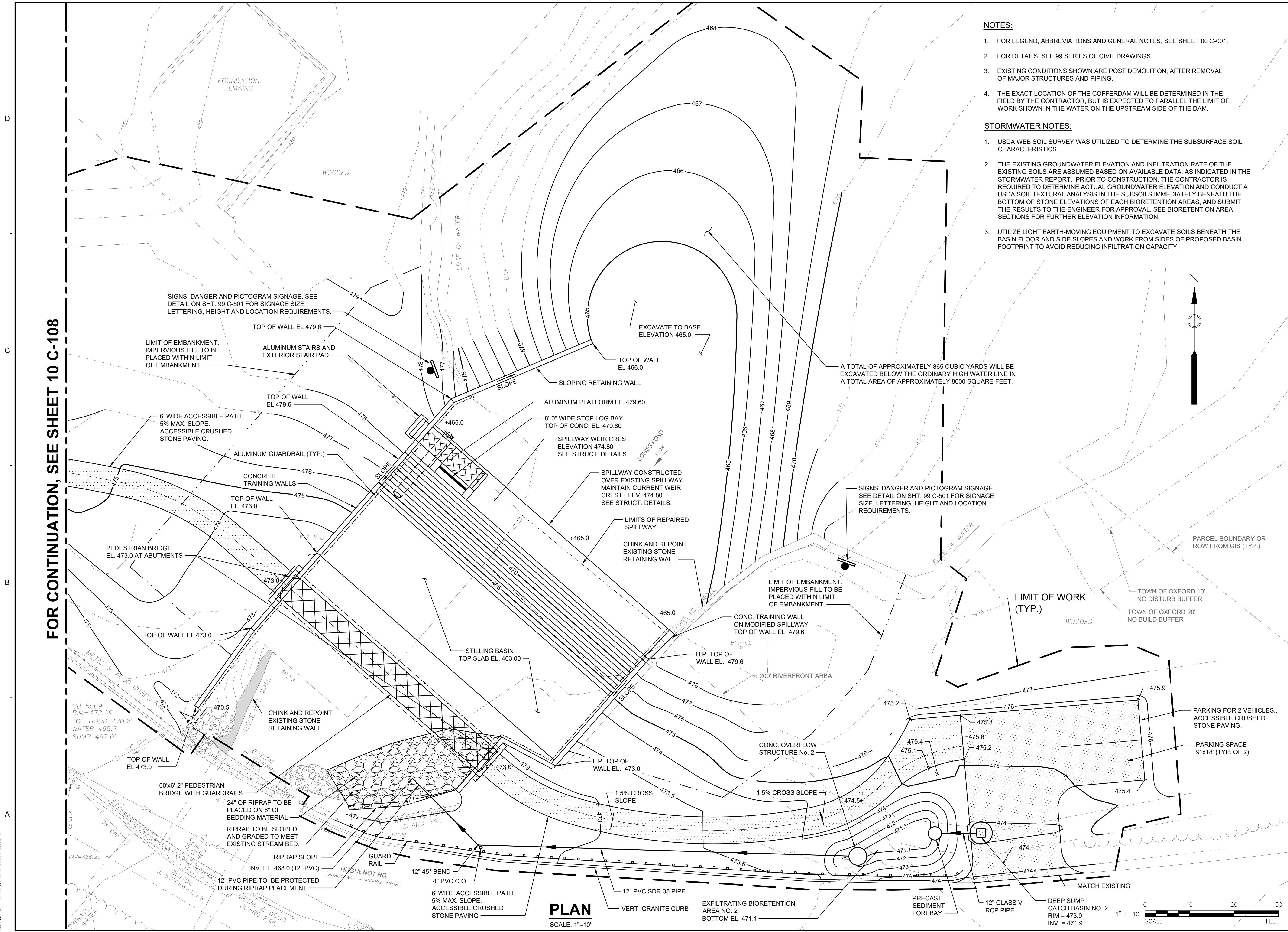
NOTES:

- 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.
- 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.

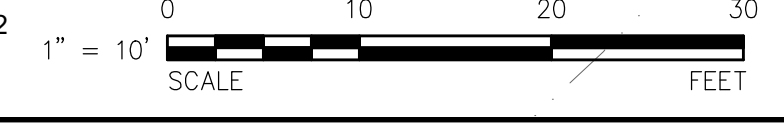
STORMWATER NOTES:

- USDA WEB SOIL SURVEY WAS UTILIZED TO DETERMINE THE SUBSURFACE SOIL CHARACTERISTICS.
- 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.

FOR CONTINUATION, SEE SHEET 10 C-108



PLAN
 SCALE: 1"=10'

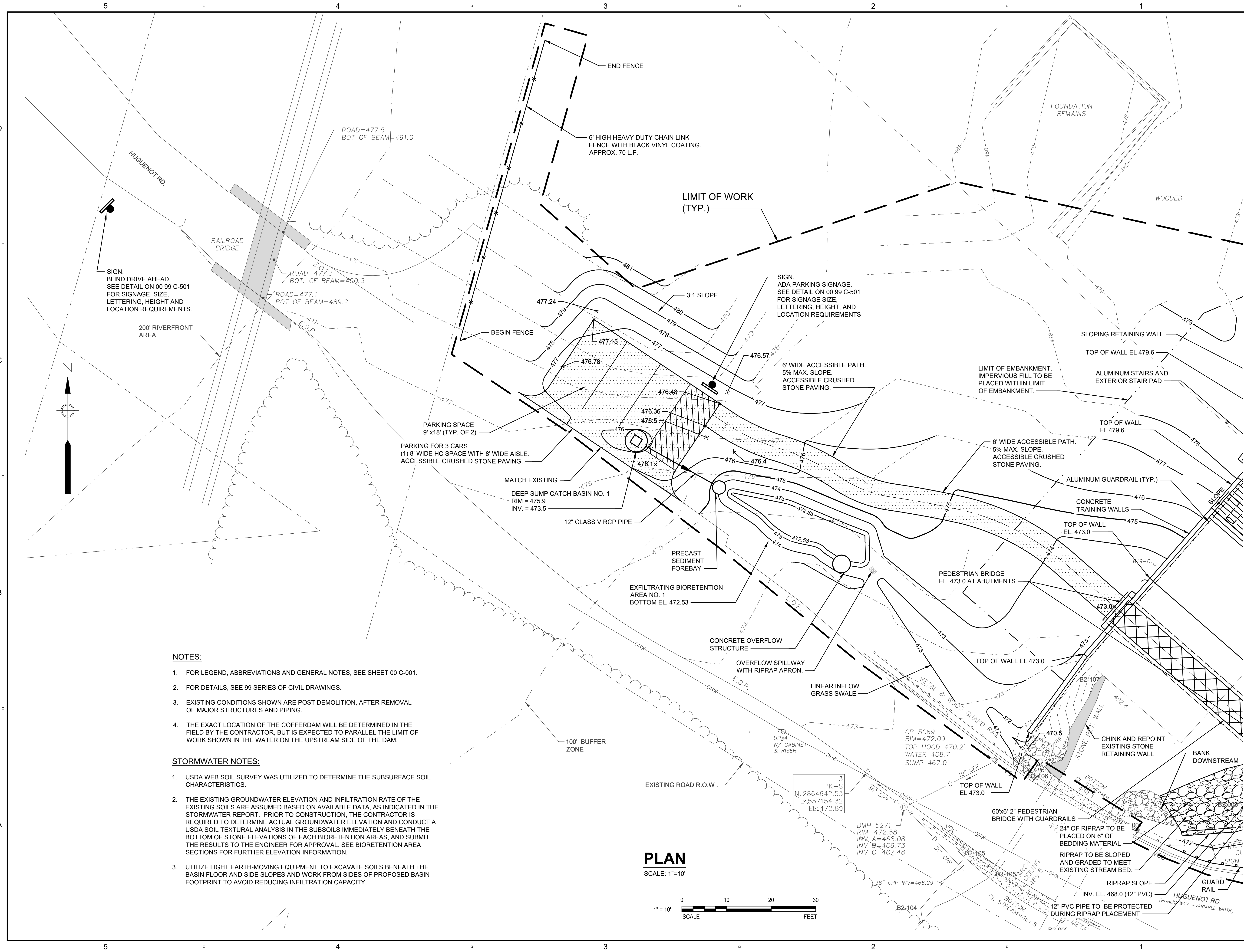


PATHFILENAME: L:\LEGACY\USCH\PROJECTS\WATERFIELD\DATA_3\PROJ\66604936 - MASSDCR SIX ABANDONED DAMS\SHEETS\CLOWES POND\10 C-107.DWG
 LAST UPDATE: Tuesday, April 2, 2024 7:33:32 AM
 PLOT DATE: Tuesday, April 2, 2024 9:50:55 AM

I/R	DATE	DESCRIPTION

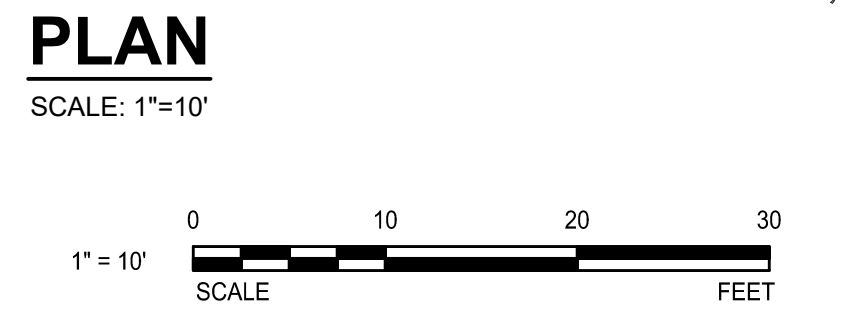
60604936

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



- 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.
 - 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.

- STORMWATER NOTES:**
- USDA WEB SOIL SURVEY WAS UTILIZED TO DETERMINE THE SUBSURFACE SOIL CHARACTERISTICS.
 - 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.

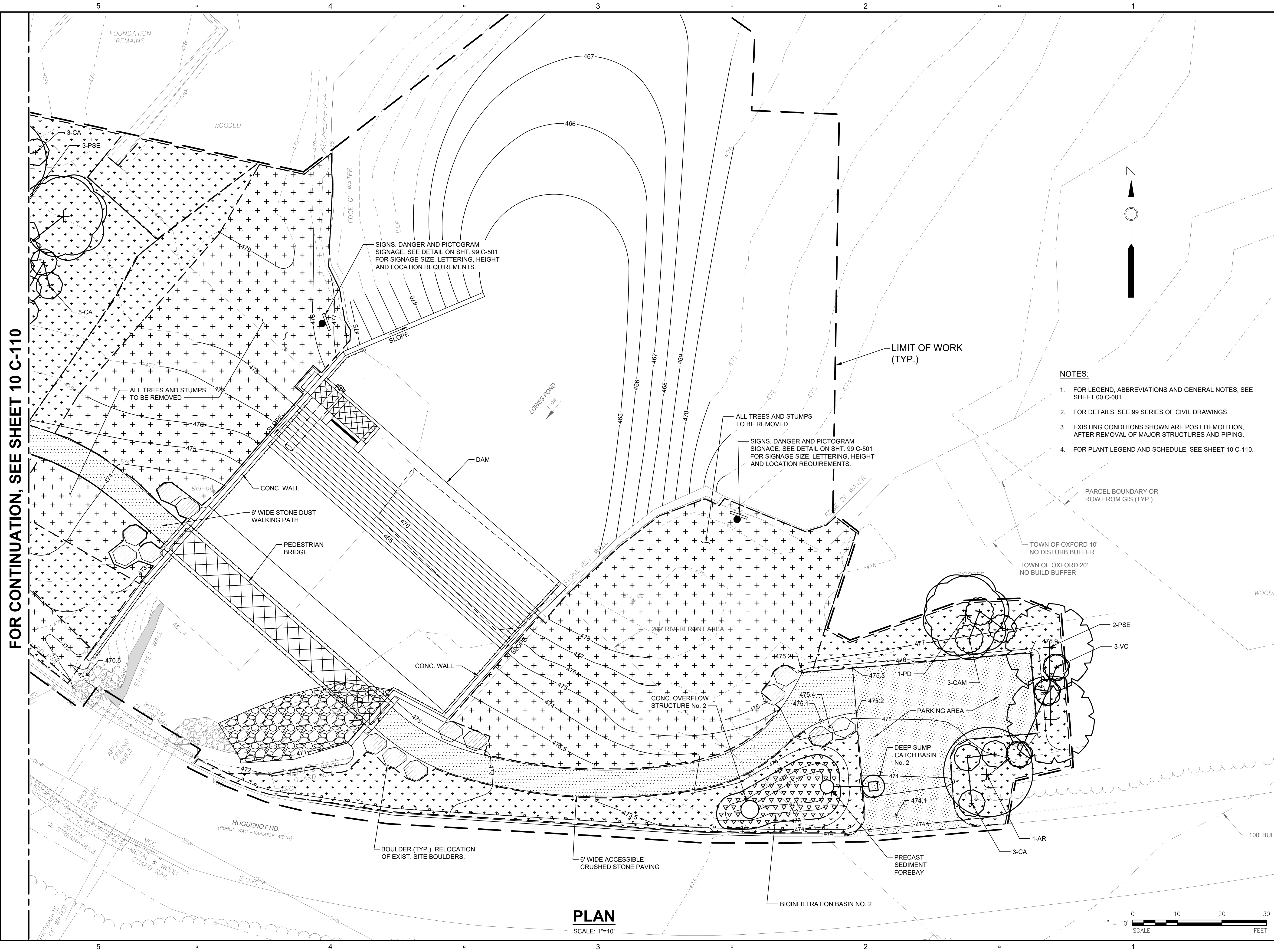


FOR CONTINUATION, SEE SHEET 10 C-107

PATH: I:\LEGACY\USCH\PROJECTS\MASSDCR\ABANDONED DAMS\PROJECTS\MASSDCR\ABANDONED DAMS\SHEETS\CLOWES POND\10 C-108.DWG
 LAST UPDATE: Tuesday, March 26, 2024 9:24:53 AM
 PLOT DATE: Thursday, March 28, 2024 12:56:08 PM

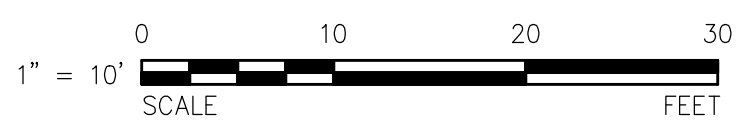
I/R	DATE	DESCRIPTION

Designed By:	L. DECKER
Drawn By:	M. THIBODEAU
Dept Check:	C. BENZIGER
Proj Check:	D. GOVE
Date:	MARCH 2024
Scale:	AS NOTED



FOR CONTINUATION, SEE SHEET 10 C-110

PLAN
 SCALE: 1"=10'



PATHFILENAME: L:\LEGACY\USCH\1P\01\DATA\PROJECTS\WAKEFIELD\DATA_3\PROJ\66604936 - MASSDCR SIX ABANDONED DAMS\SHEETS\CLOWES POND\10 C-108.DWG
 LAST UPDATE: Monday, April 1, 2024 12:20:13 PM
 PLOT DATE: Tuesday, April 2, 2024 9:45:17 AM

PROJECT

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

CLIENT

Massachusetts Department
 of Conservation and
 Recreation
 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
 www.aecom.com

REGISTRATION

**100% SUBMITTAL
 PRELIMINARY COPY**

NOTE: This document is preliminary only and is not intended for any purpose except review and comment by the owner and its agents.

ISSUE/REVISION

I/R	DATE	DESCRIPTION

PROJECT NUMBER

60604936

Designed By:	L. DECKER
Drawn By:	M. THIBODEAU
Dept Check:	C. BENZIGER
Proj Check:	D. GOVE
Date:	MARCH 2024
Scale:	AS NOTED

DISCIPLINE

CIVIL

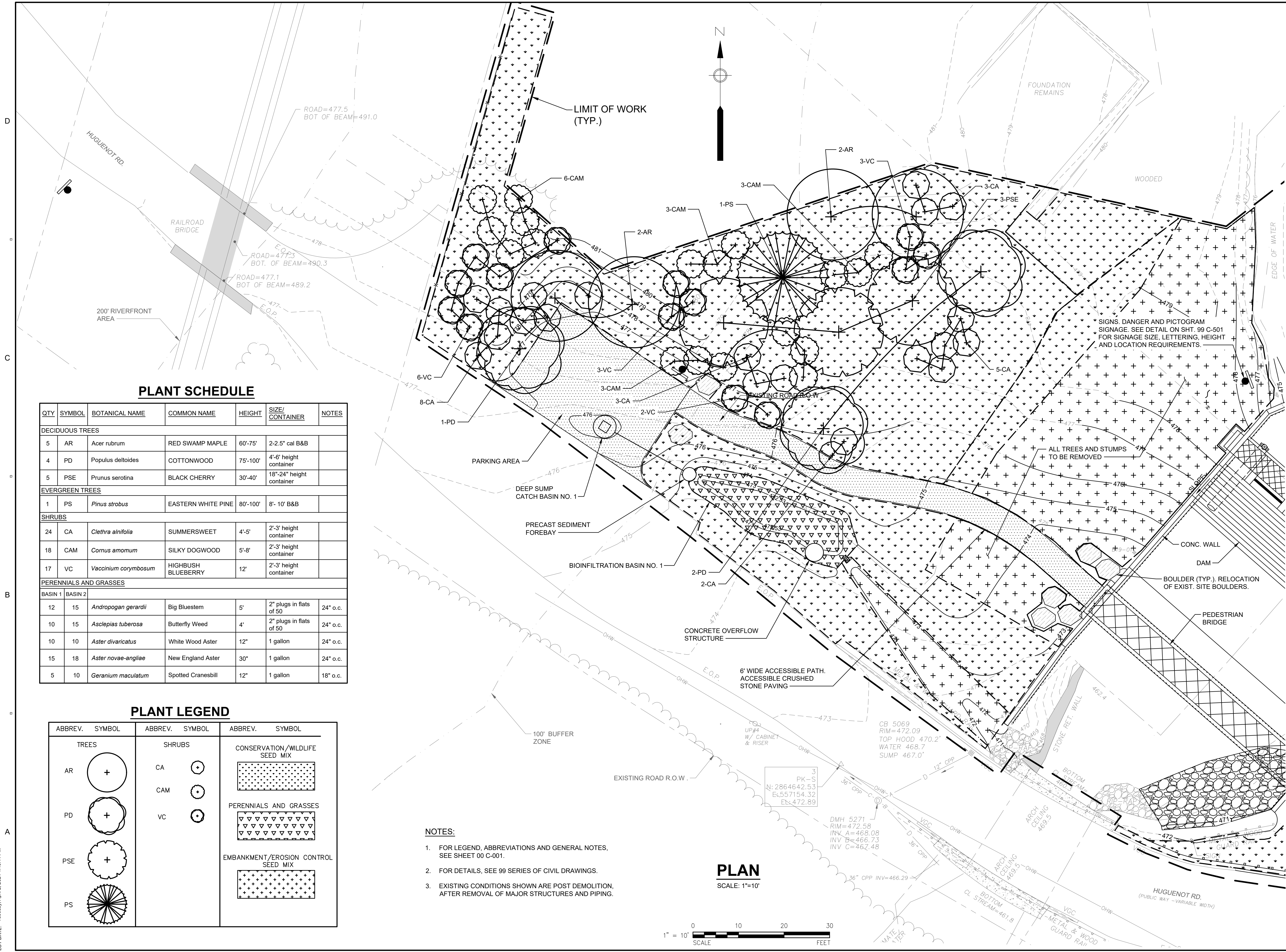
SHEET TITLE

LOWES POND
 LANDSCAPE PLAN II

SHEET NUMBER

10 C-110

FOR CONTINUATION, SEE SHEET 10 C-109



PLANT SCHEDULE

QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	HEIGHT	SIZE/CONTAINER	NOTES
DECIDUOUS TREES						
5	AR	<i>Acer rubrum</i>	RED SWAMP MAPLE	60'-75'	2-2.5" cal B&B	
4	PD	<i>Populus deltoides</i>	COTTONWOOD	75'-100'	4'-6" height container	
5	PSE	<i>Prunus serotina</i>	BLACK CHERRY	30'-40'	18"-24" height container	
EVERGREEN TREES						
1	PS	<i>Pinus strobus</i>	EASTERN WHITE PINE	80'-100'	8'-10' B&B	
SHRUBS						
24	CA	<i>Clethra alnifolia</i>	SUMMERSWEET	4'-5'	2'-3" height container	
18	CAM	<i>Cornus amomum</i>	SILKY DOGWOOD	5'-8'	2'-3" height container	
17	VC	<i>Vaccinium corymbosum</i>	HIGHBUSH BLUEBERRY	12'	2'-3" height container	
PERENNIALS AND GRASSES						
BASIN 1		BASIN 2				
12	15	<i>Andropogon gerardii</i>	Big Bluestem	5'	2" plugs in flats of 50	24" o.c.
10	15	<i>Asclepias tuberosa</i>	Butterfly Weed	4'	2" plugs in flats of 50	24" o.c.
10	10	<i>Aster divaricatus</i>	White Wood Aster	12"	1 gallon	24" o.c.
15	18	<i>Aster novae-angliae</i>	New England Aster	30"	1 gallon	24" o.c.
5	10	<i>Geranium maculatum</i>	Spotted Cranesbill	12"	1 gallon	18" o.c.

PLANT LEGEND

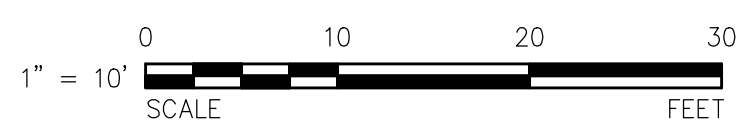
ABBREV.	SYMBOL	ABBREV.	SYMBOL	ABBREV.	SYMBOL
TREES					
AR					
PD					
PSE					
PS					
SHRUBS					
CA					
CAM					
VC					
CONSERVATION/WILDLIFE SEED MIX					
PERENNIALS AND GRASSES					
EMBANKMENT/EROSION CONTROL SEED MIX					

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.

PLAN

SCALE: 1"=10'



PATH: L:\LEGACY\USCH\1\PROJECTS\WAKEFIELD\DATA_3\PROJ\66604936 - MASSDCR SIX ABANDONED DAMS\SHEETS\CLOWES POND\10 C-110.DWG
 LAST UPDATE: Tuesday, April 2, 2024 12:24:52 PM
 PLOT DATE: Tuesday, April 2, 2024 1:40:41 PM

ISSUE/REVISION

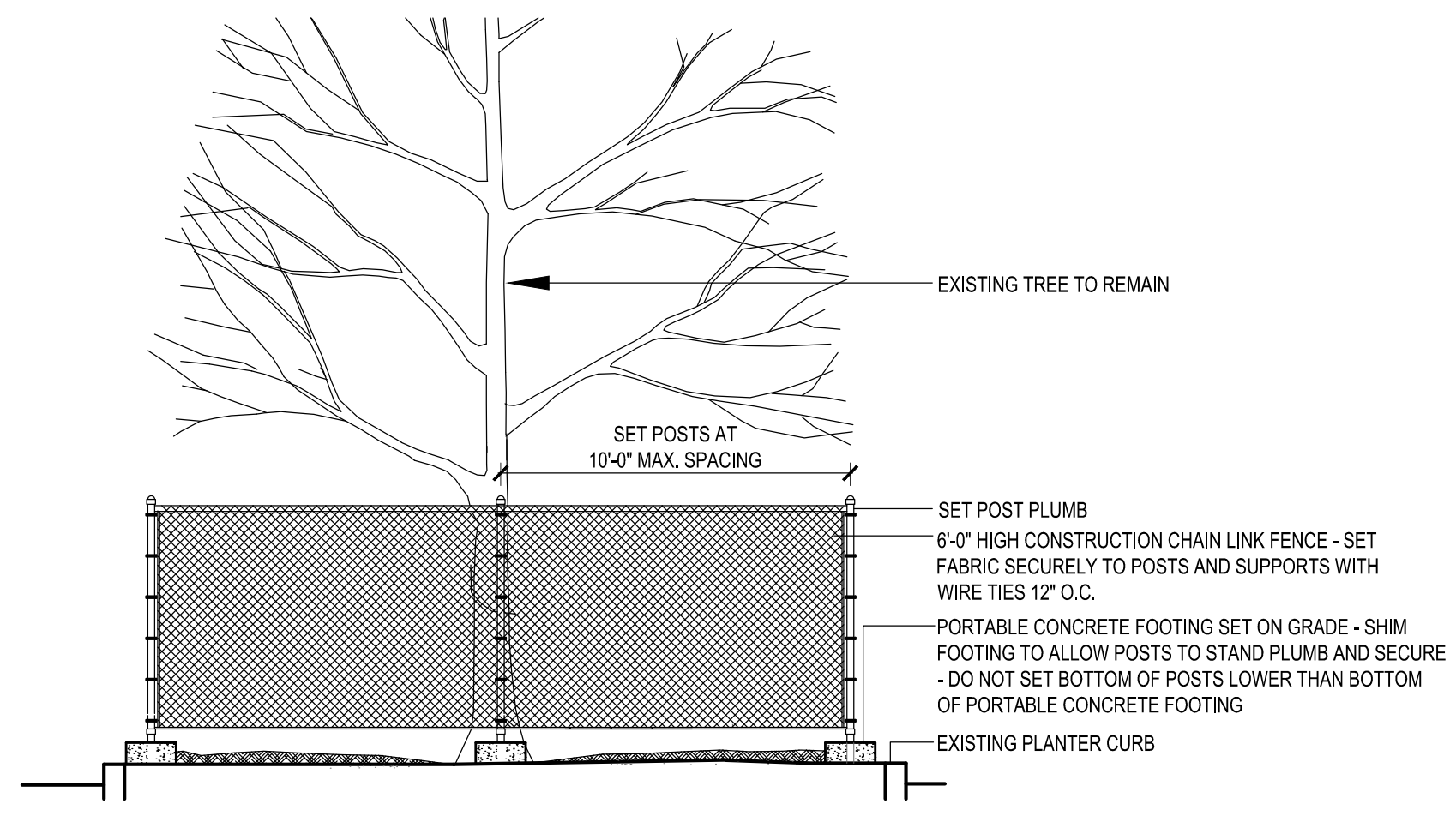
I/R	DATE	DESCRIPTION

PROJECT NUMBER
60604936

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

DISCIPLINE
CIVIL
SHEET TITLE
LOWES POND
DETAILS I

SHEET NUMBER
99 C-501



NOTE: CUT BRANCHES BELOW TOP OF FENCE PRIOR TO INSTALLING FENCE.

TREE PROTECTION FENCING

NOT TO SCALE

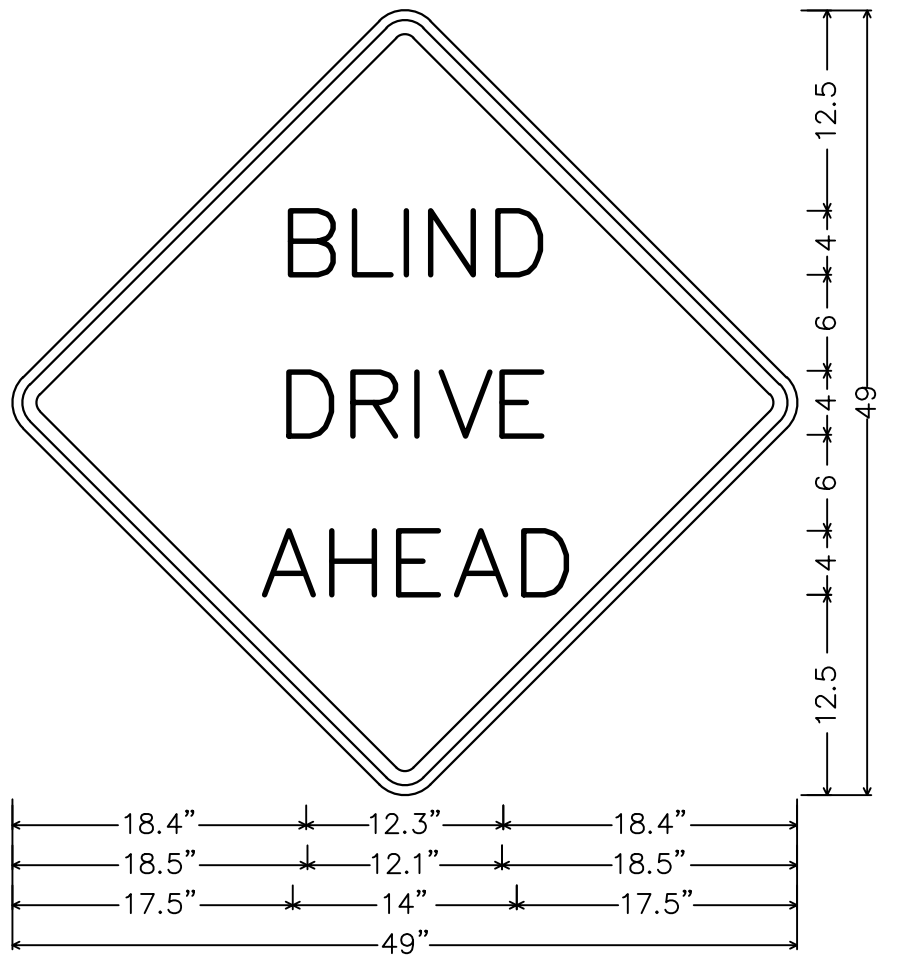
GENERAL NOTES FOR PIPE TRENCHES

- 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.

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)



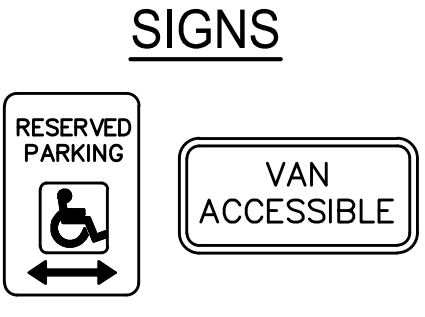
W42-5;
 Sign Type : Warning;
 36.0" across sides 2.3" Radius, 0.9" Border, 0.6" Indent, Black on, Yellow;
 "BLIND", C 2K; "DRIVE", C 2K; "AHEAD", C 2K;

NOTES:

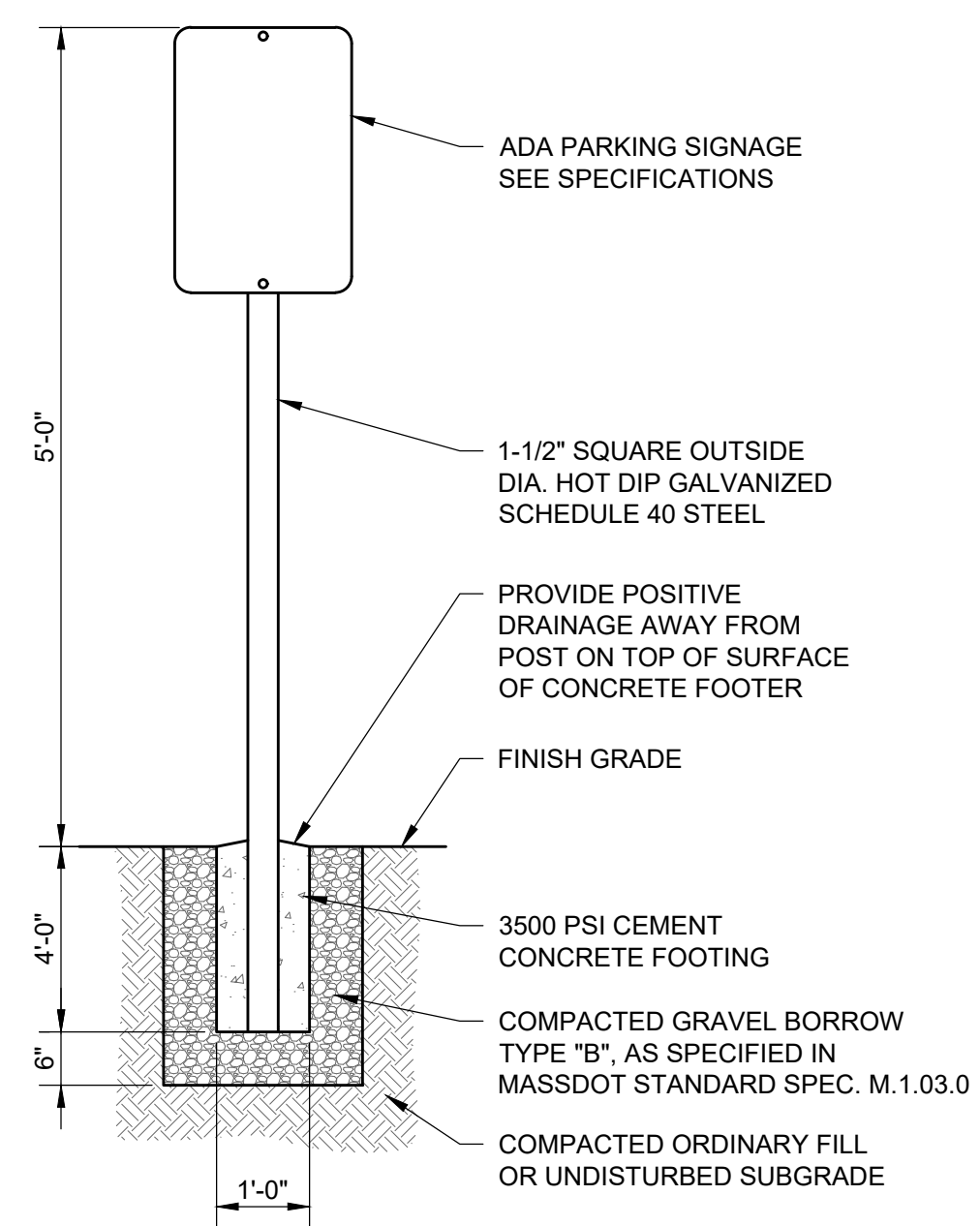
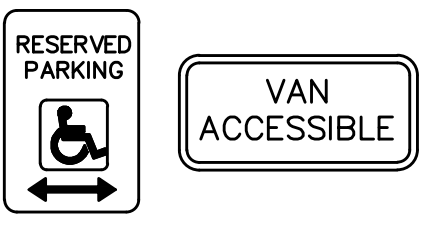
- SIGN MOUNTING HEIGHT SHALL BE 7'-0" MIN. FROM GRADE TO BOTTOM OF SIGN.
- SIGN TO BE INSTALLED APPROX. 200' FROM BEGINNING OF WEST SIDE PARKING AREA.

SIGNAGE

NOT TO SCALE

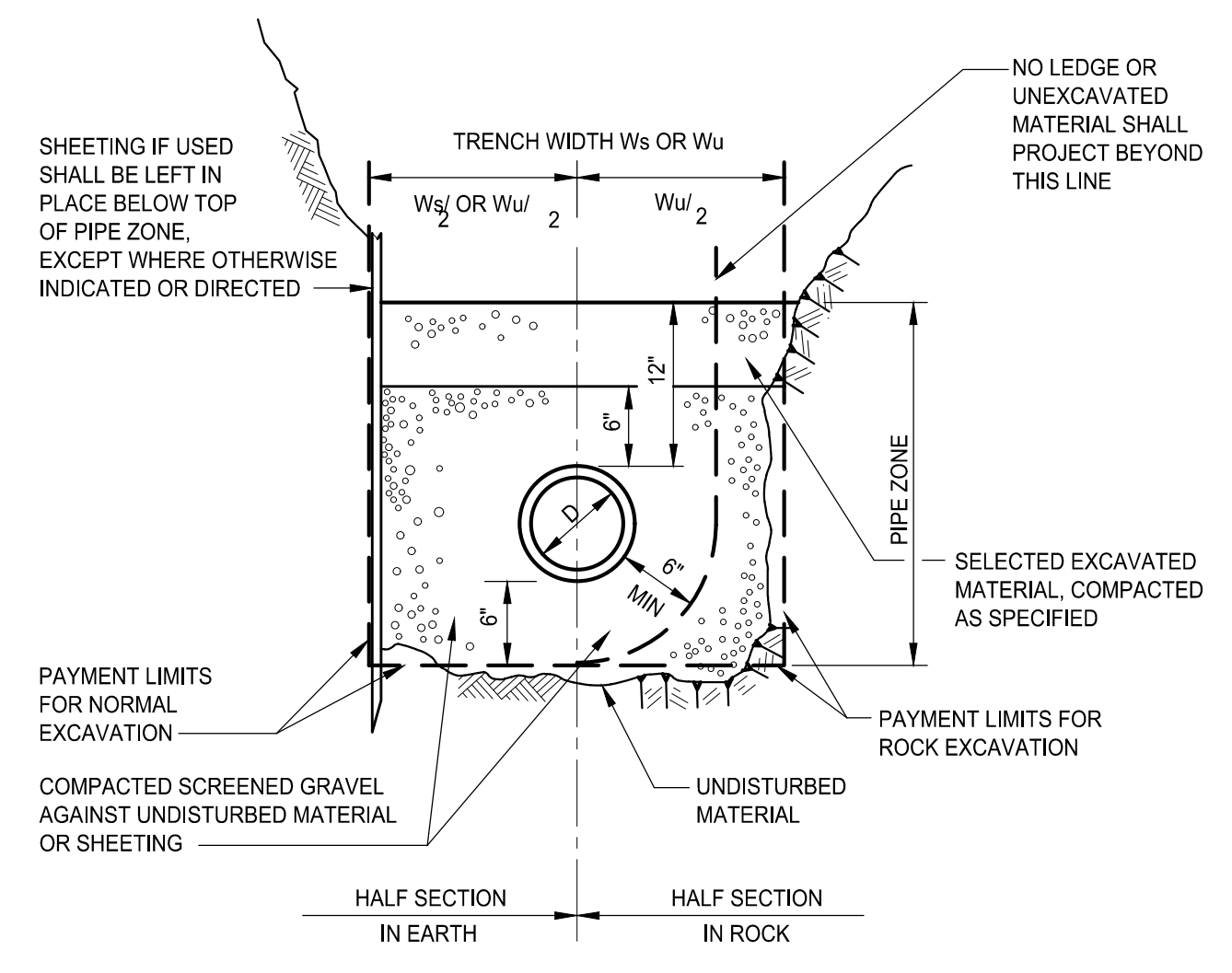


SIGNS



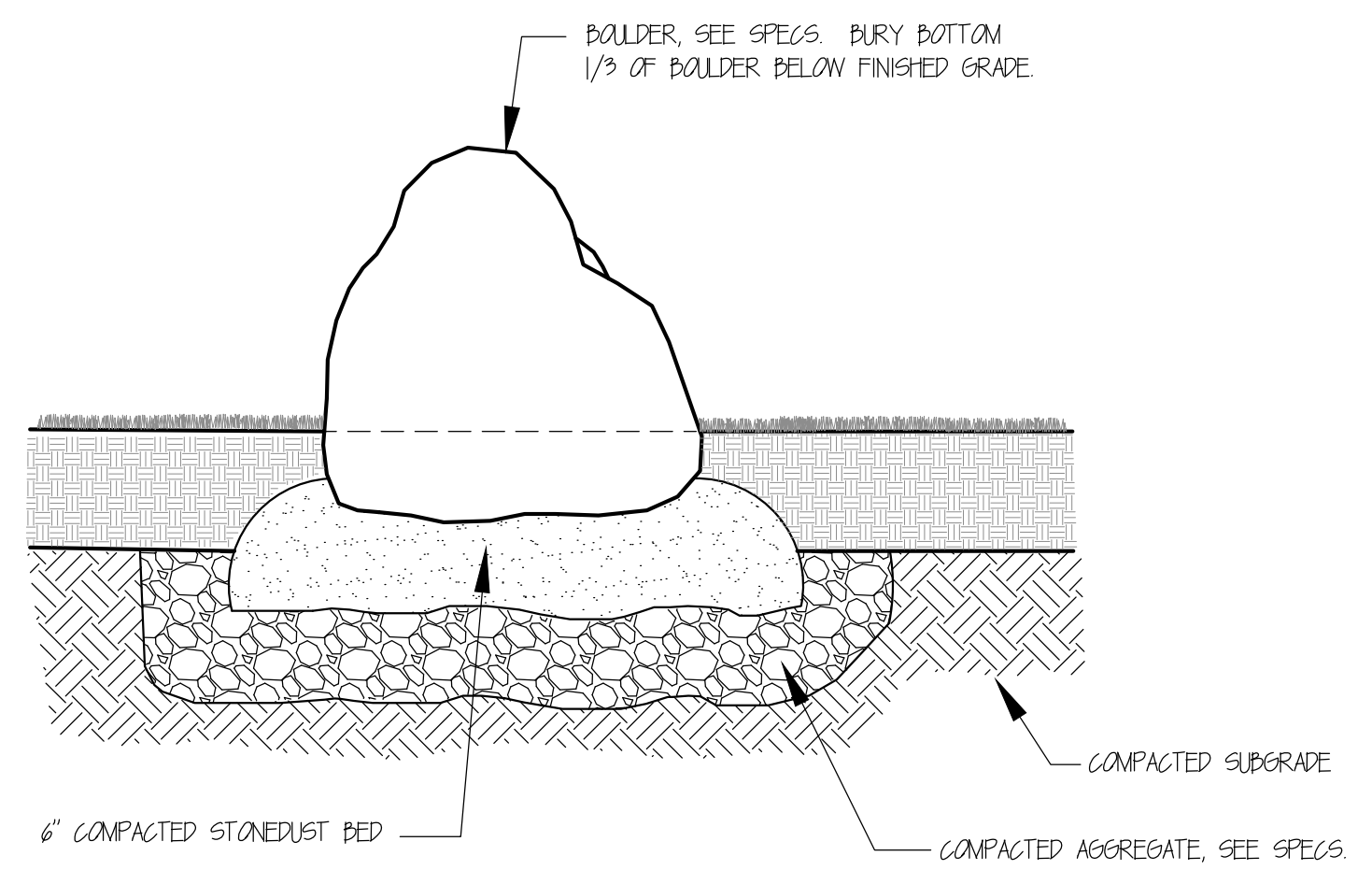
ADA PARKING SIGNAGE

NOT TO SCALE



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

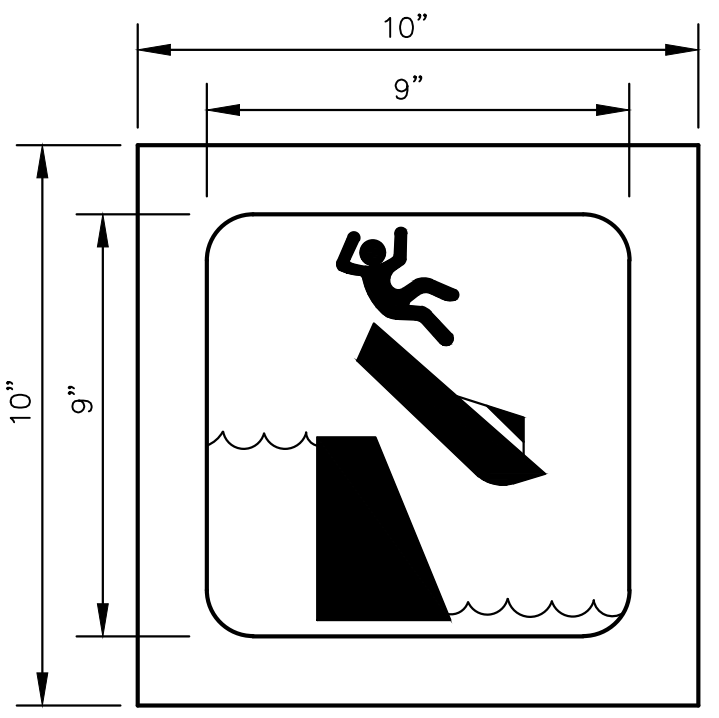
NOT TO SCALE
 2-1.1.1 (REV. 03-15-95)



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

BOULDER SETTING

NOT TO SCALE

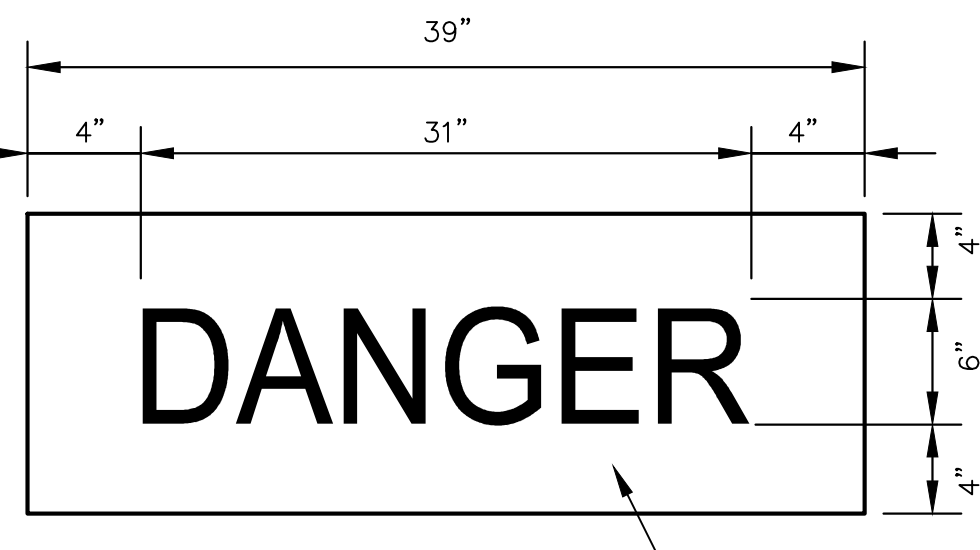


NOTES:

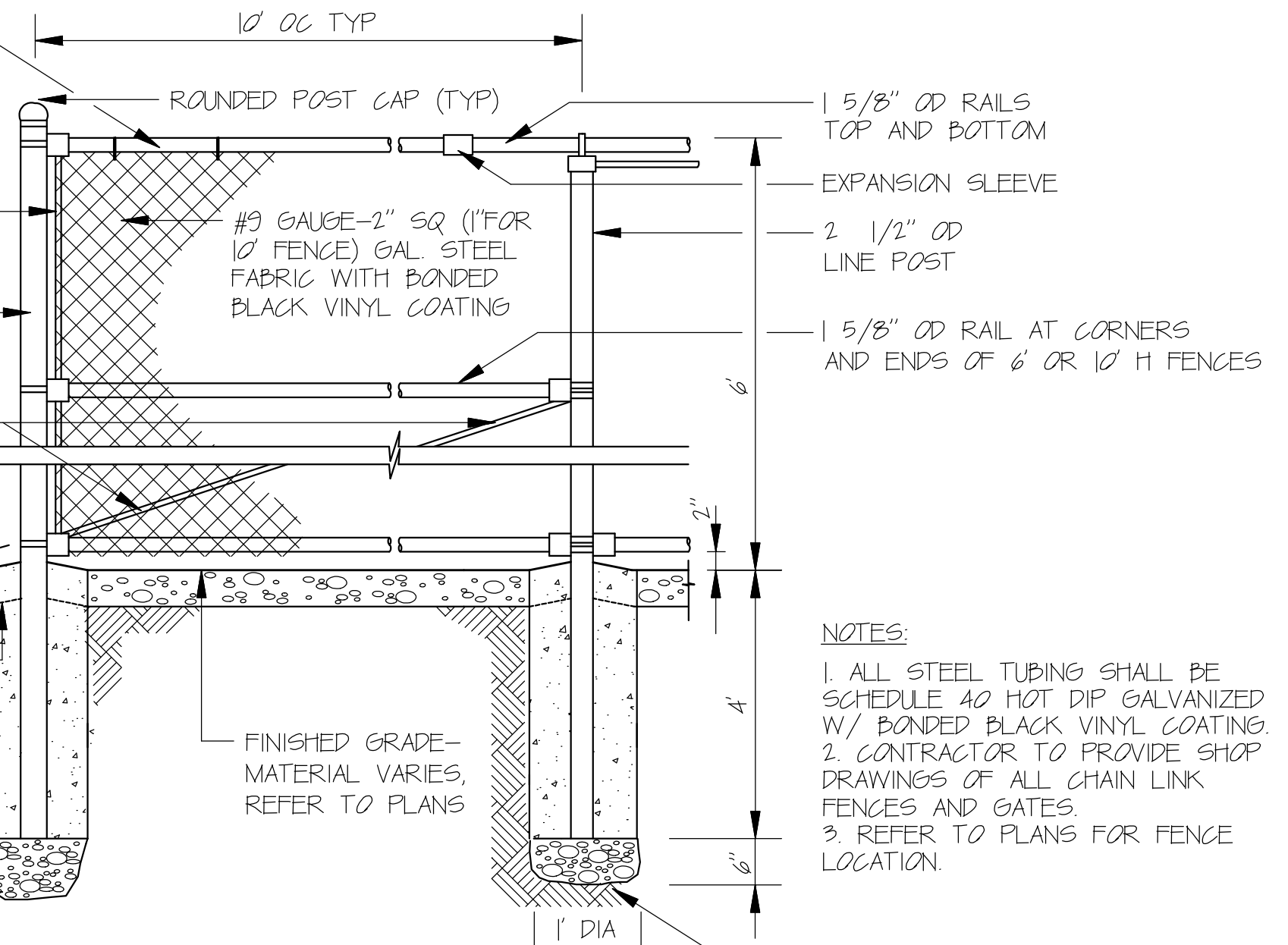
- SIGN MOUNTING HEIGHT SHALL BE A MINIMUM OF 4'-0" AND MAXIMUM OF 5'-0" FROM GRADE TO BOTTOM OF SIGN.
- DANGER SHALL BE IN HELVETICA BOLD FONT. ALL OTHER LETTERING SHALL BE IN HELVETICA FONT.
- SIGN MATERIAL SHALL BE HIGH DENSITY OVERLAY (HDO) PLYWOOD, MARINE QUALITY 3/4" THICKNESS.
- SIGNS (2 TOTAL) SHALL BE MOUNTED ON EAST AND WEST SIDES OF DAM AS SHOWN ON SHEET 00 C-107.

WARNING SIGN AT DAM

NOT TO SCALE



DANGER SIGN TO BE PAINTED RED WITH WHITE LETTERING



CHAIN LINK FENCE 6'

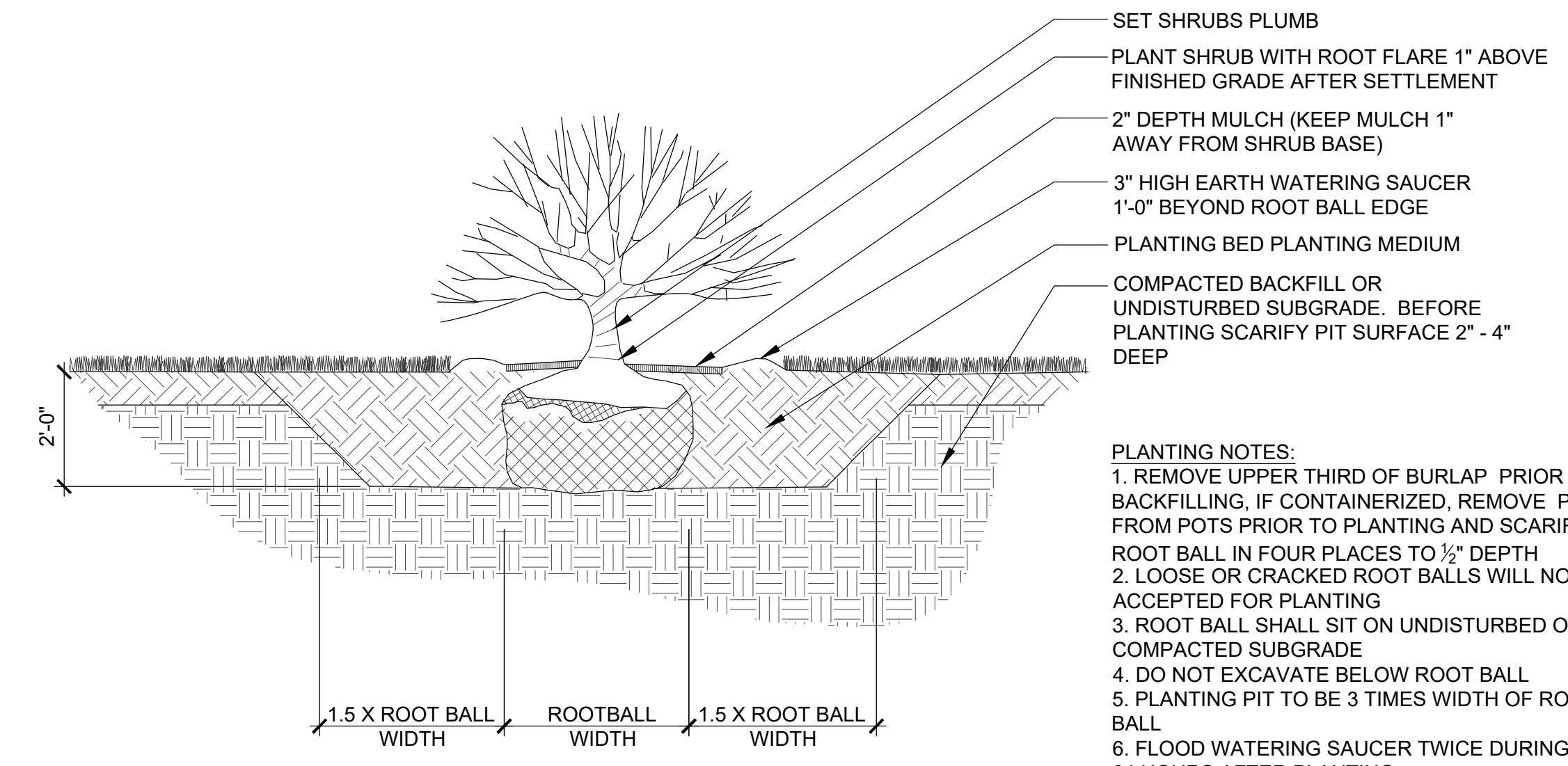
NOT TO SCALE

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.

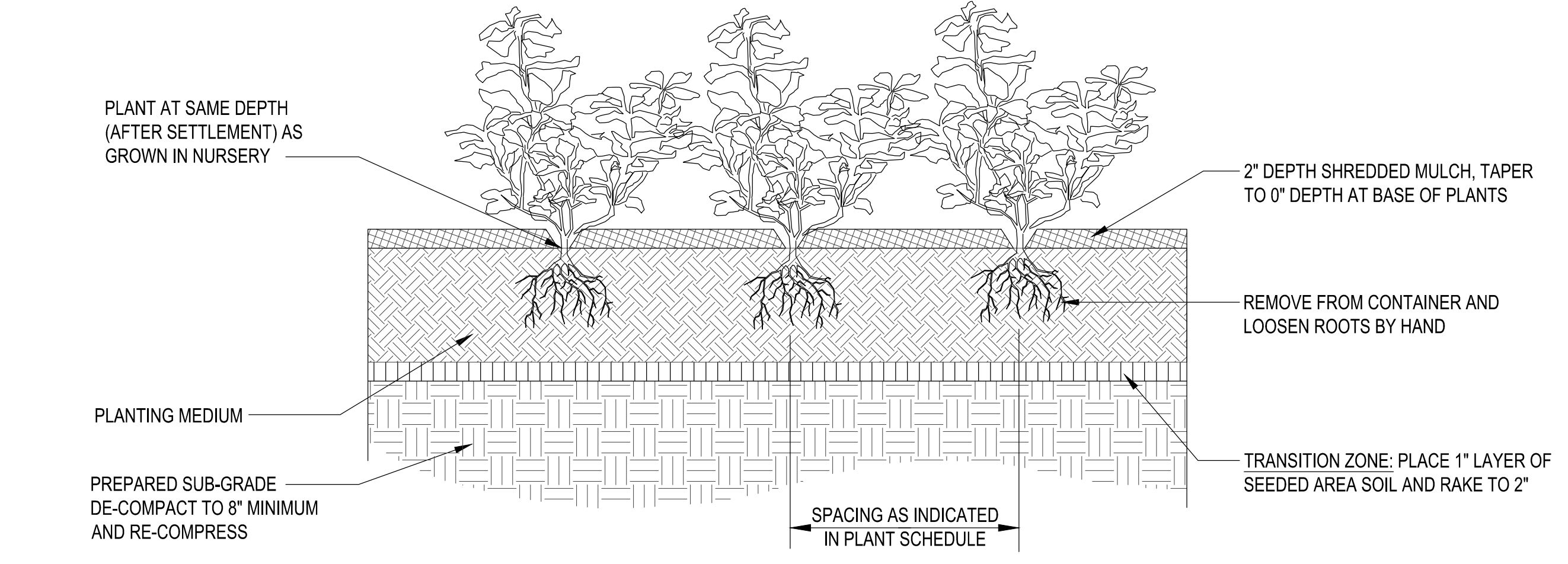
PATH: L:\LEGACY\USCH\PROJECTS\WAKEFIELD\DATA_3\PROJ\66604936 - MASSDCR SIX ABANDONED DAMS\SHEETS\COLORS POND086 C-501.DWG
 LAST UPDATE: Tuesday, April 2, 2024 9:03:13 AM
 PLOT DATE: Tuesday, April 2, 2024 9:13:45 AM

I/R	DATE	DESCRIPTION

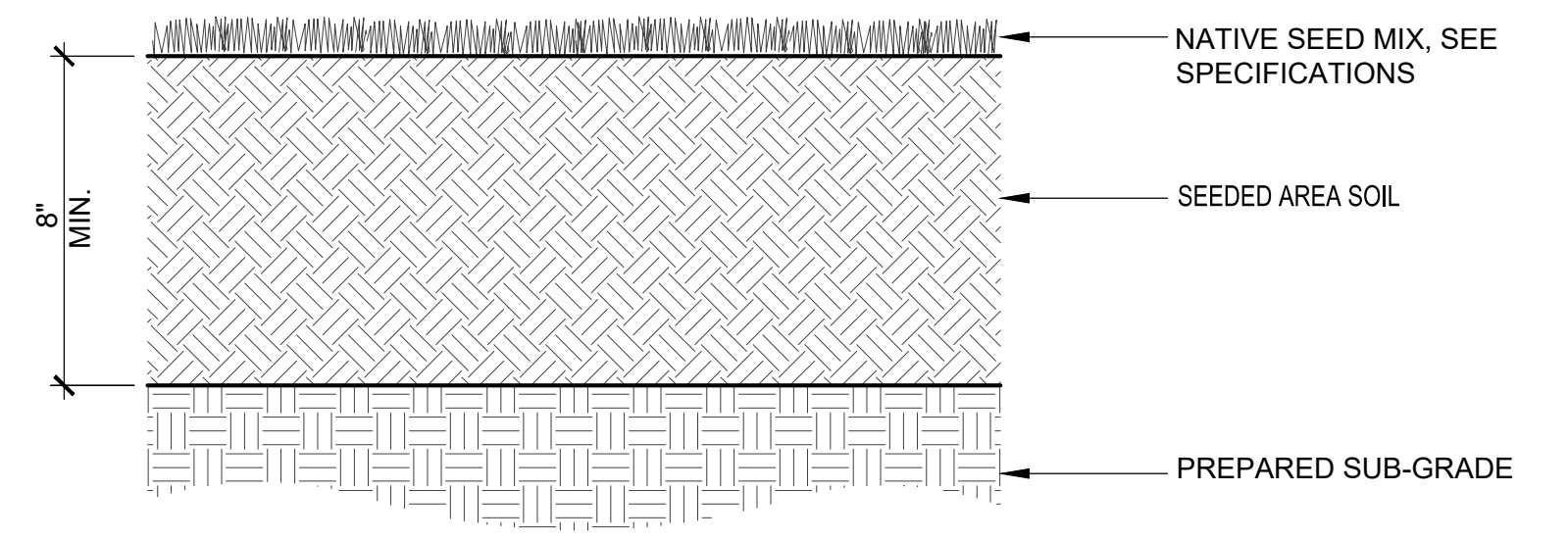


- PLANTING NOTES:**
1. REMOVE UPPER THIRD OF BURLAP PRIOR TO BACKFILLING, IF CONTAINERIZED, REMOVE PLANTS FROM POTS PRIOR TO PLANTING AND SCARIFY ROOT BALL IN FOUR PLACES TO 1/2" DEPTH
 2. LOOSE OR CRACKED ROOT BALLS WILL NOT BE ACCEPTED FOR PLANTING
 3. ROOT BALL SHALL SIT ON UNDISTURBED OR COMPACTED SUBGRADE
 4. DO NOT EXCAVATE BELOW ROOT BALL
 5. PLANTING PIT TO BE 3 TIMES WIDTH OF ROOT BALL
 6. FLOOD WATERING SAUCER TWICE DURING FIRST 24 HOURS AFTER PLANTING
 7. RAISE AND REPLANT SHRUBS THAT SETTLE AFTER PLANTING AND WATERING

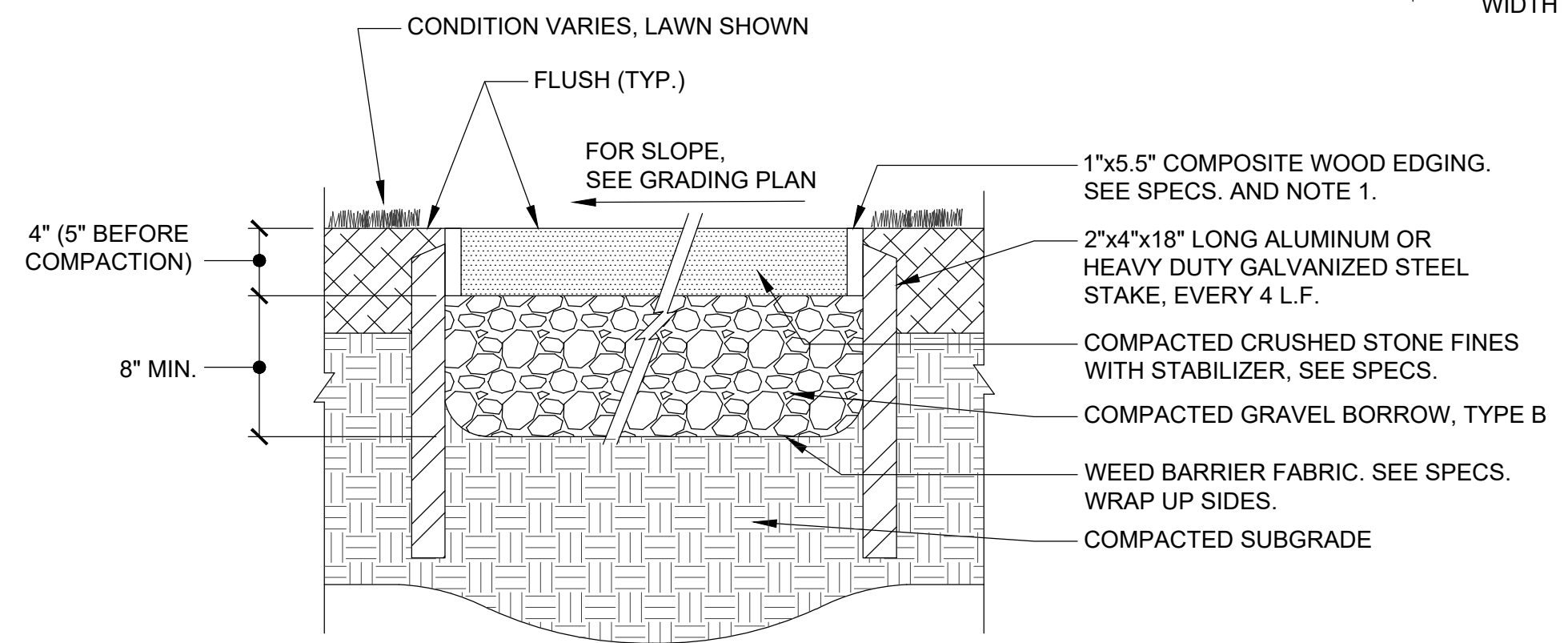
SHRUB PLANTING
 NOT TO SCALE



PERENNIAL PLANTING
 NOT TO SCALE

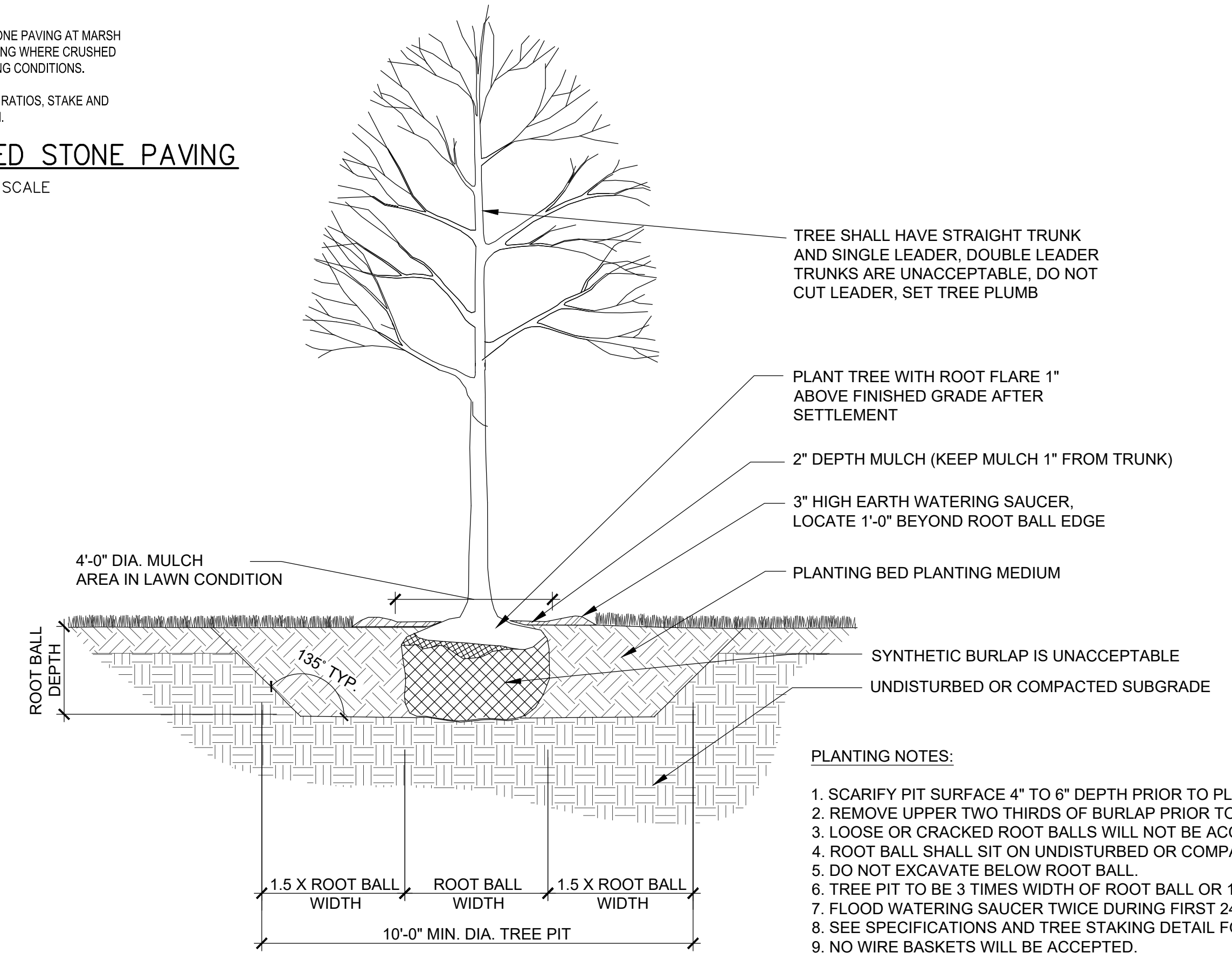


NATIVE SEED MIX INSTALLATION
 NOT TO SCALE



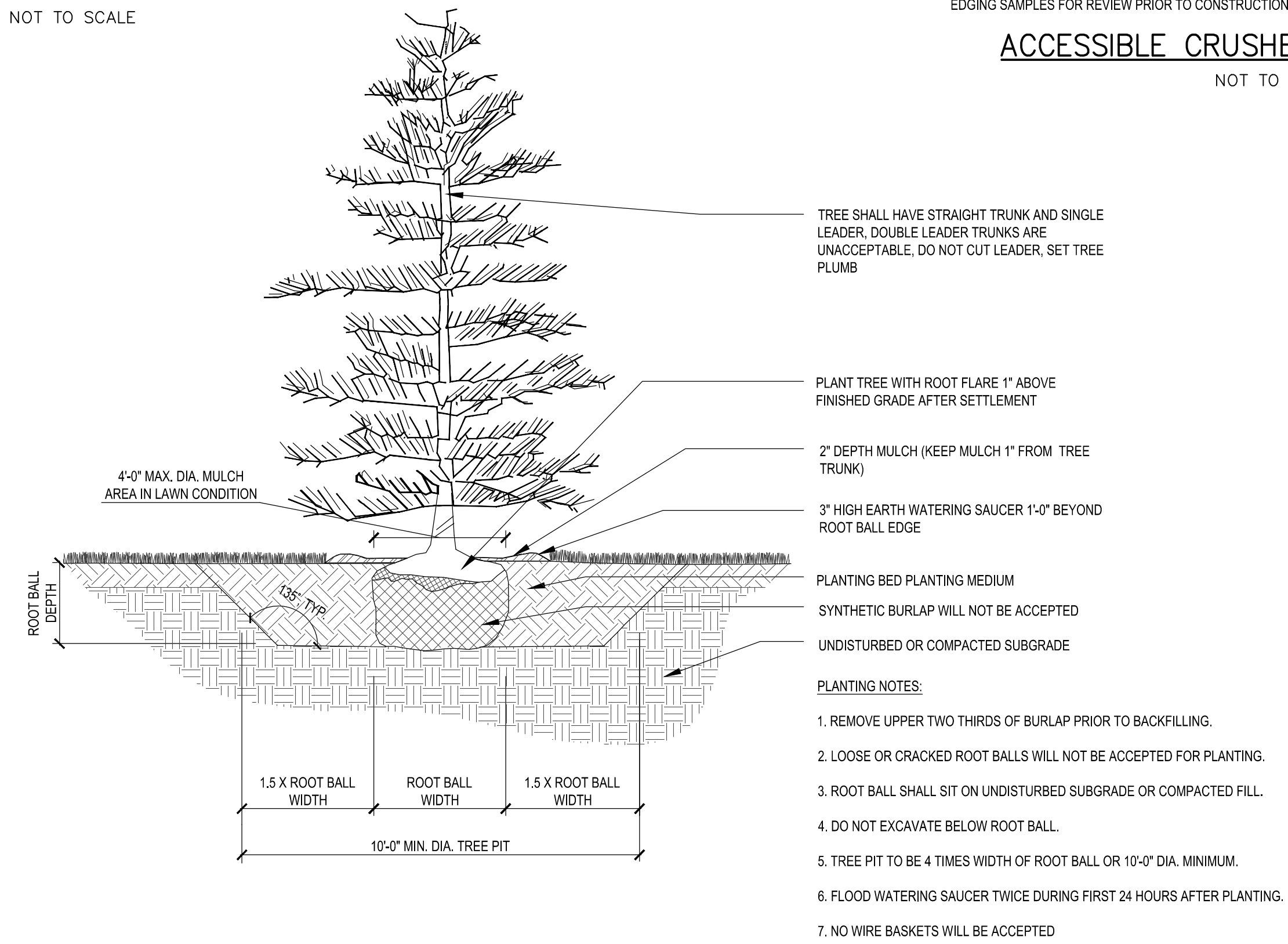
- NOTES:**
1. CURB EDGE CONDITION VARIES; EDGED WITH COBBLESTONE PAVING AT MARSH OVERLOOK SEATING AREAS AND COMPOSITE WOOD EDGING WHERE CRUSHED STONE MEETS LANDSCAPE. REFER TO PLANS FOR VARYING CONDITIONS.
 2. SUBMIT STONE, STABILIZER PRODUCT INFORMATION AND RATIOS, STAKE AND EDGING SAMPLES FOR REVIEW PRIOR TO CONSTRUCTION.

ACCESSIBLE CRUSHED STONE PAVING
 NOT TO SCALE



- PLANTING NOTES:**
1. SCARIFY PIT SURFACE 4" TO 6" DEPTH PRIOR TO PLANTING.
 2. REMOVE UPPER TWO THIRDS OF BURLAP PRIOR TO BACKFILLING.
 3. LOOSE OR CRACKED ROOT BALLS WILL NOT BE ACCEPTED FOR PLANTING.
 4. ROOT BALL SHALL SIT ON UNDISTURBED OR COMPACTED SUBGRADE.
 5. DO NOT EXCAVATE BELOW ROOT BALL.
 6. TREE PIT TO BE 3 TIMES WIDTH OF ROOT BALL OR 10'-0" DIA. MINIMUM.
 7. FLOOD WATERING SAUCER TWICE DURING FIRST 24 HOURS AFTER PLANTING.
 8. SEE SPECIFICATIONS AND TREE STAKING DETAIL FOR TREE STAKING.
 9. NO WIRE BASKETS WILL BE ACCEPTED.

DECIDUOUS TREE PLANTING IN BED OR LAWN
 NOT TO SCALE

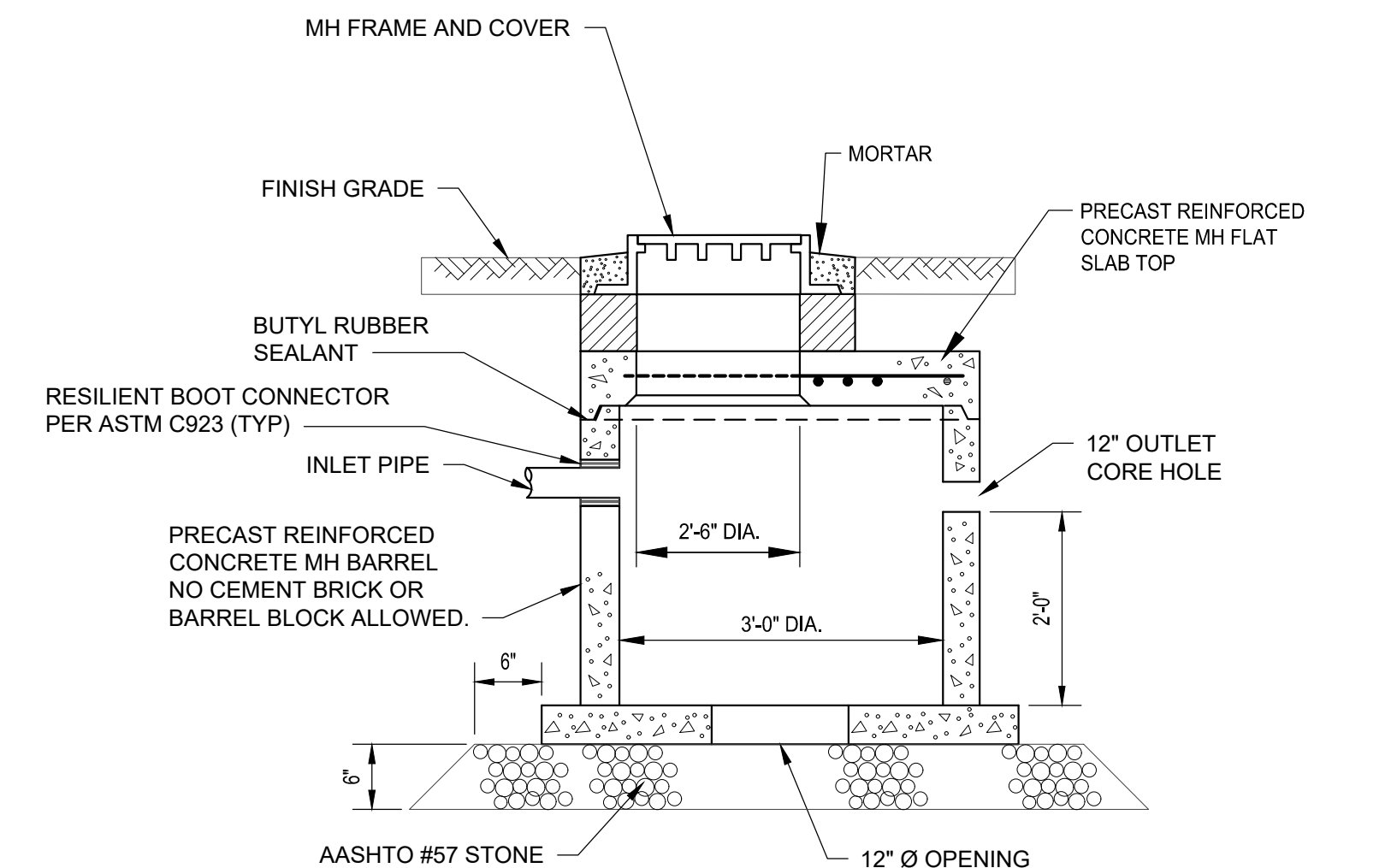


EVERGREEN TREE PLANTING
 NOT TO SCALE

PATH: I:\LEGACY\USCH\1\PROJ\DATA\PROJECTS\WAKEFIELD\DATA_3\PROJ\60604936 - MASSDCR SIX ABANDONED DAMS\SHEETS\CLOWES POND\08 C-502.DWG
 LAST UPDATE: Friday, March 8, 2024 12:52:34 PM
 PLOT DATE: Friday, March 22, 2024 9:10:34 AM

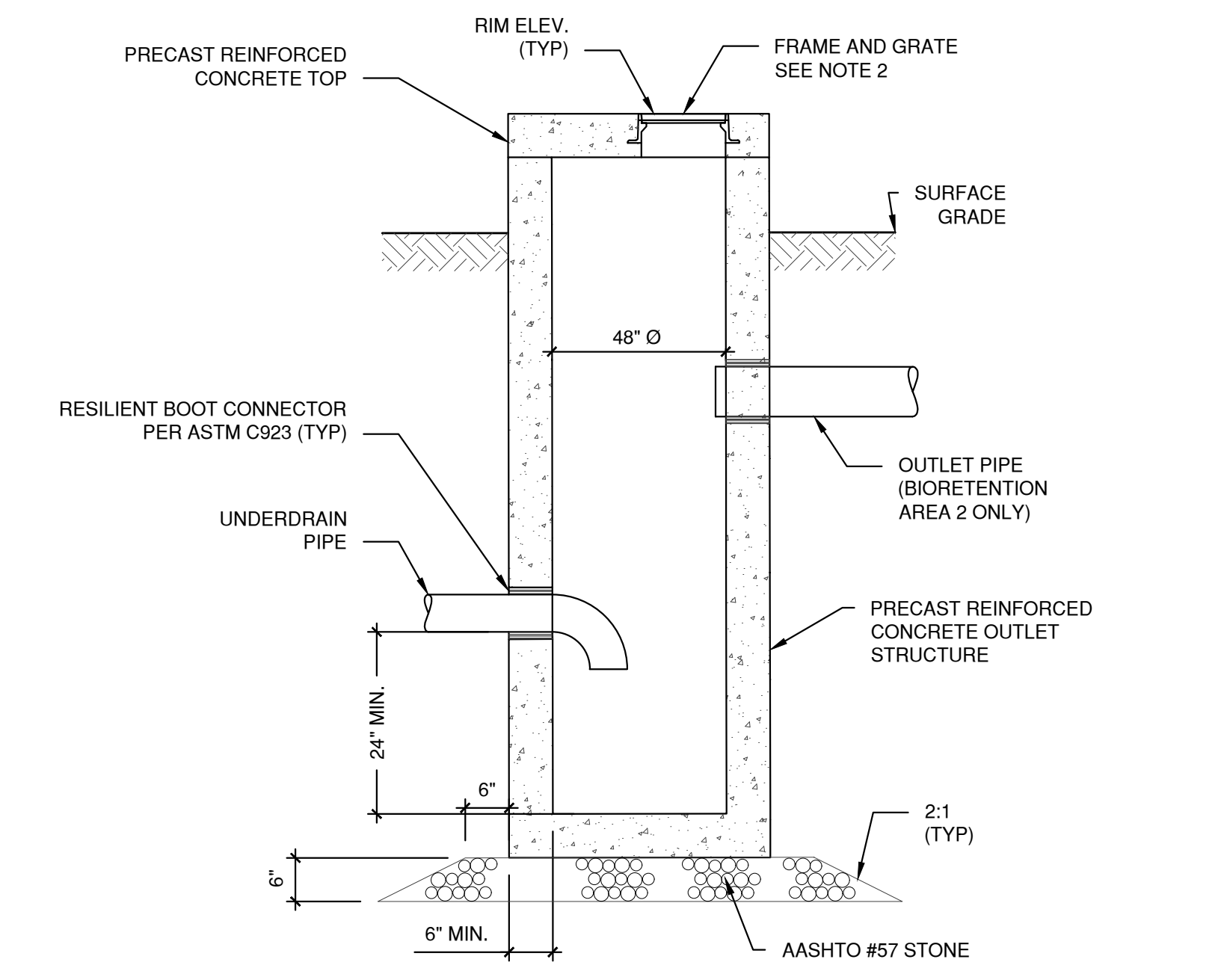
I/R	DATE	DESCRIPTION

Designed By:	S. HE
Drawn By:	S. NAPOLITANO
Dept Check:	C. BENZIGER
Proj Check:	D. GOVE
Date:	MARCH 2024
Scale:	AS NOTED



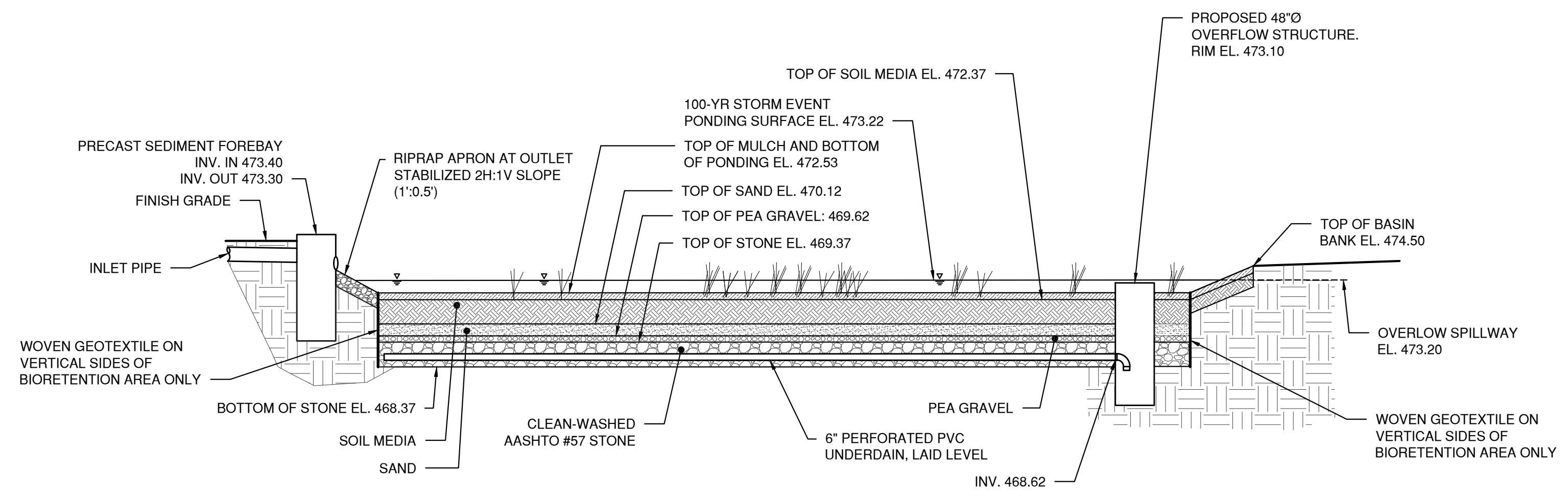
NOTE:
 1. PRECAST SEDIMENT FOREBAY, INCLUDING SLAB TOP AND MH FRAME AND COVER, TO BE DESIGNED FOR AASHTO H-20 LOADING.

SECTION
PRECAST SEDIMENT FOREBAY
 NOT TO SCALE

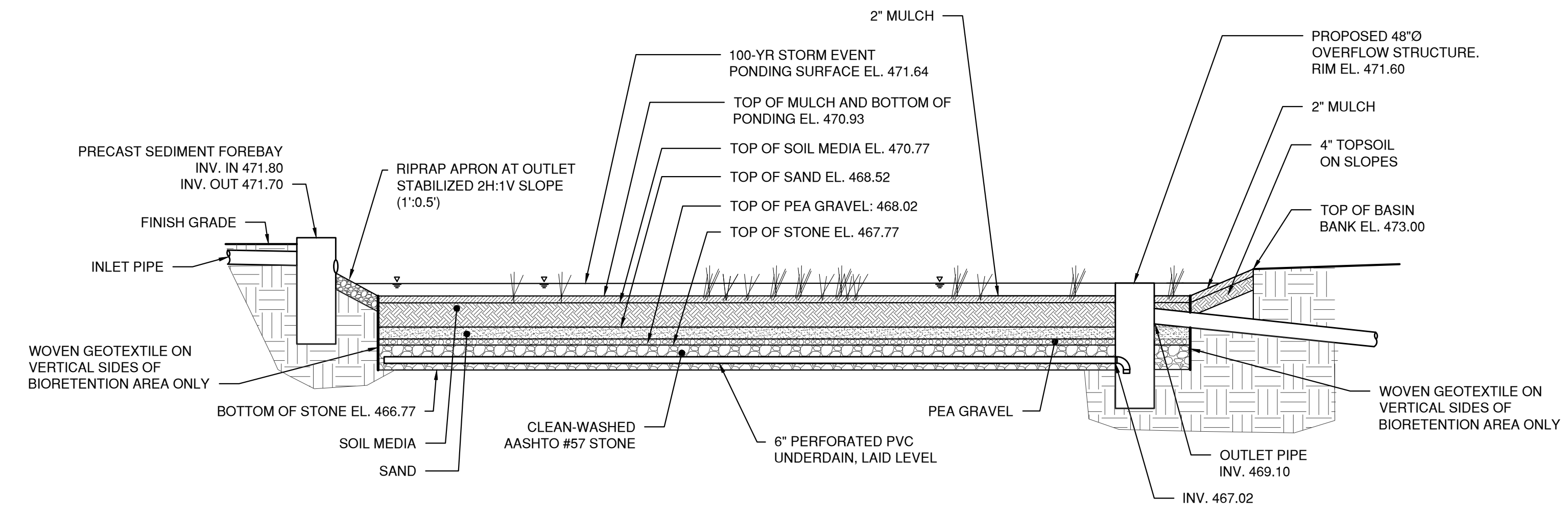


NOTES:
 1. PIPE SIZES, MATERIALS, INVERT ELEVATIONS AND ORIENTATION AS INDICATED ON PLANS AND DETAILS.
 2. H20 LOADING IS NOT REQUIRED. ALL JOINTS, ADJUSTMENTS, AND PIPE CONNECTIONS MUST BE WATERTIGHT.

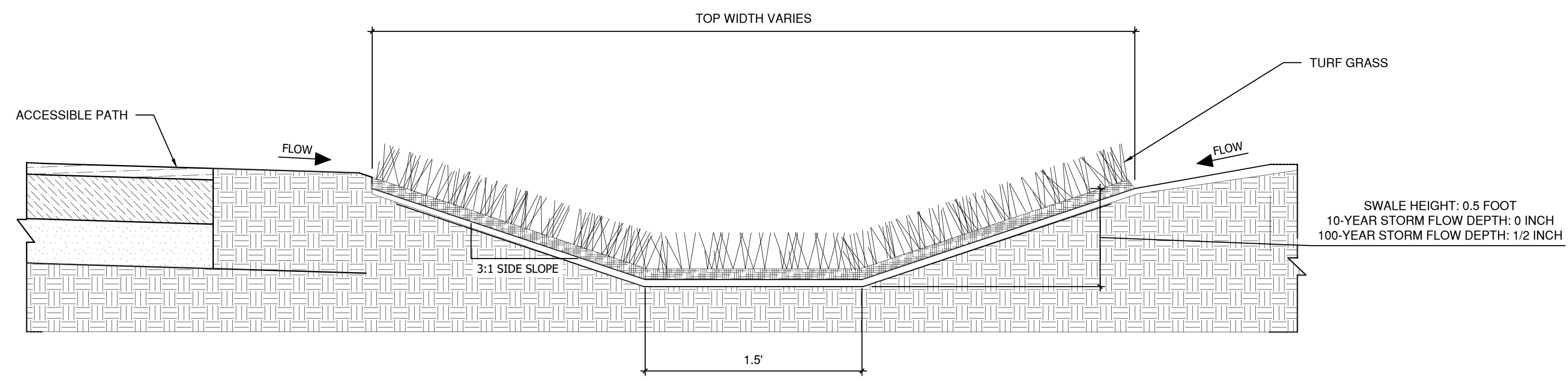
CONCRETE OVERFLOW STRUCTURE
 NOT TO SCALE



SCHEMATIC - EXFILTRATING BIORETENTION AREA NO. 1
 NOT TO SCALE



SCHEMATIC - EXFILTRATING BIORETENTION AREA NO. 2
 NOT TO SCALE



LINEAR INFLOW GRASS SWALE
 NOT TO SCALE

PATHFILENAME: L:\LEGACY\USCH\1P\01\DATA\PROJECTS\WAKEFIELD\DATA_3\PROJ\66604936 - MASSDCR SIX ABANDONED DAMS\SHEETS\CLOWES POND\08 C-503.DWG
 LAST UPDATE: Friday, March 8, 2024 12:45:54 PM
 PLOT DATE: Friday, March 22, 2024 9:18:18 AM

PROJECT

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

CLIENT

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

CONSULTANT

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

REGISTRATION

**100% SUBMITTAL
PRELIMINARY COPY**

NOTE: This document is preliminary only and is not intended for any purpose except review and comment by the owner and its agents.

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:	MARCH 2024
Scale:	AS NOTED

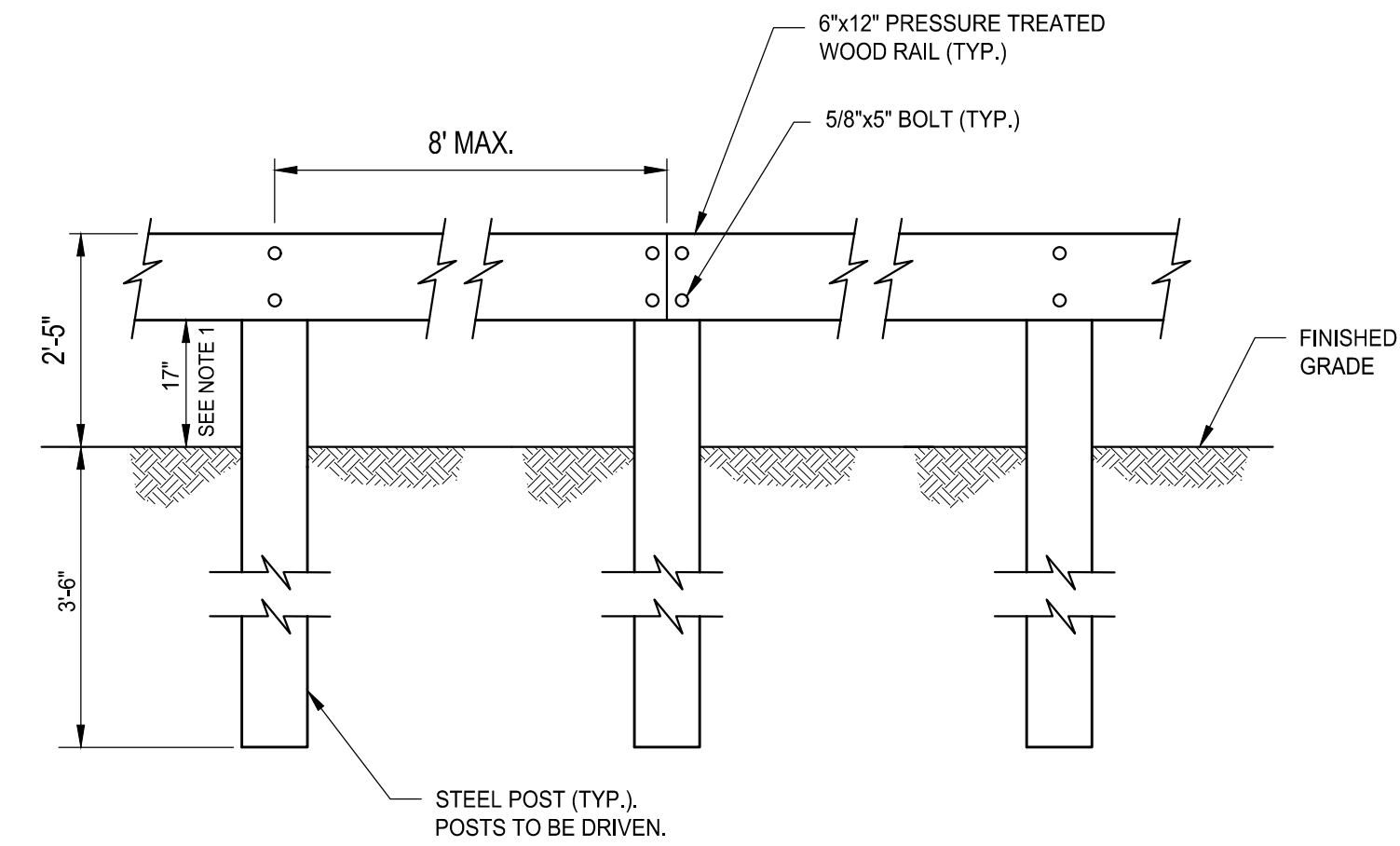
DISCIPLINE

CIVIL
SHEET TITLE

LOWES POND
DETAILS IV

SHEET NUMBER

99 C-504



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

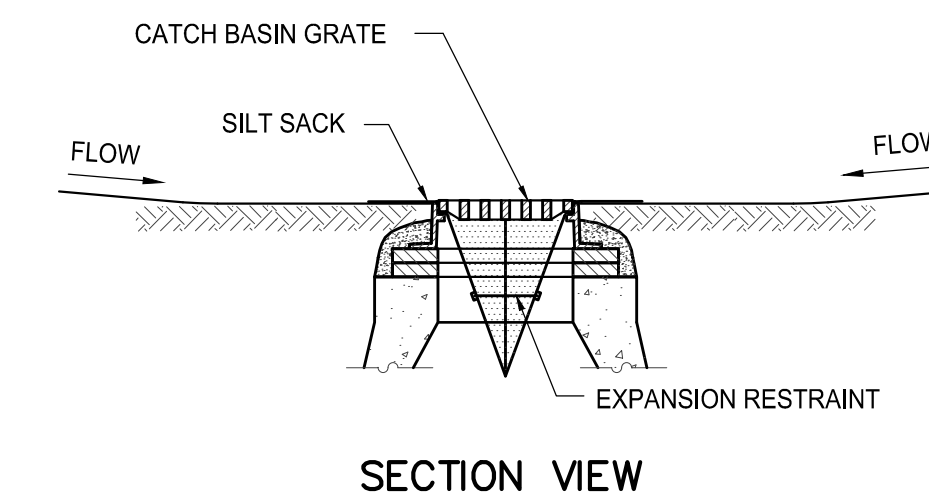
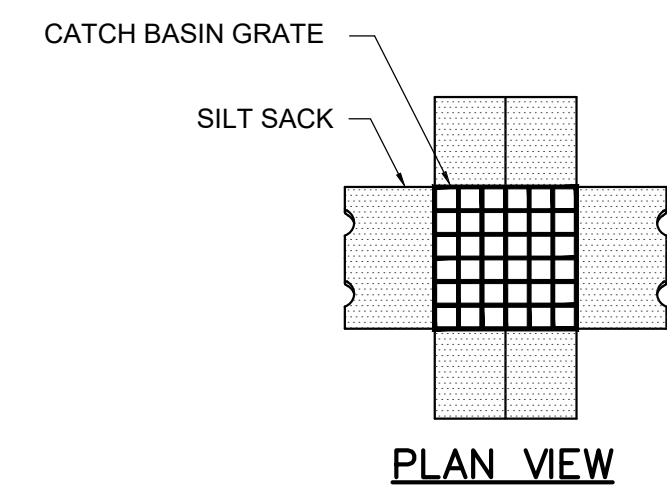
WOOD TREATMENT: .60 ACQ

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

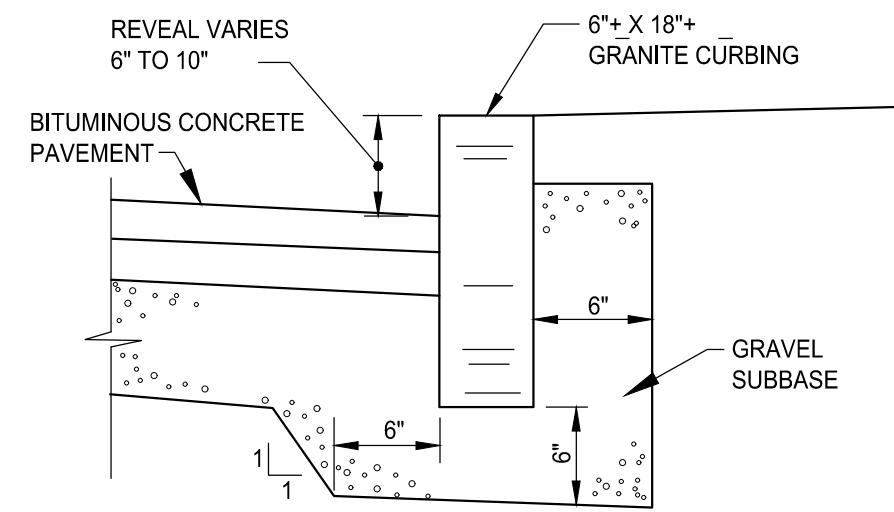


NOTES:

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.

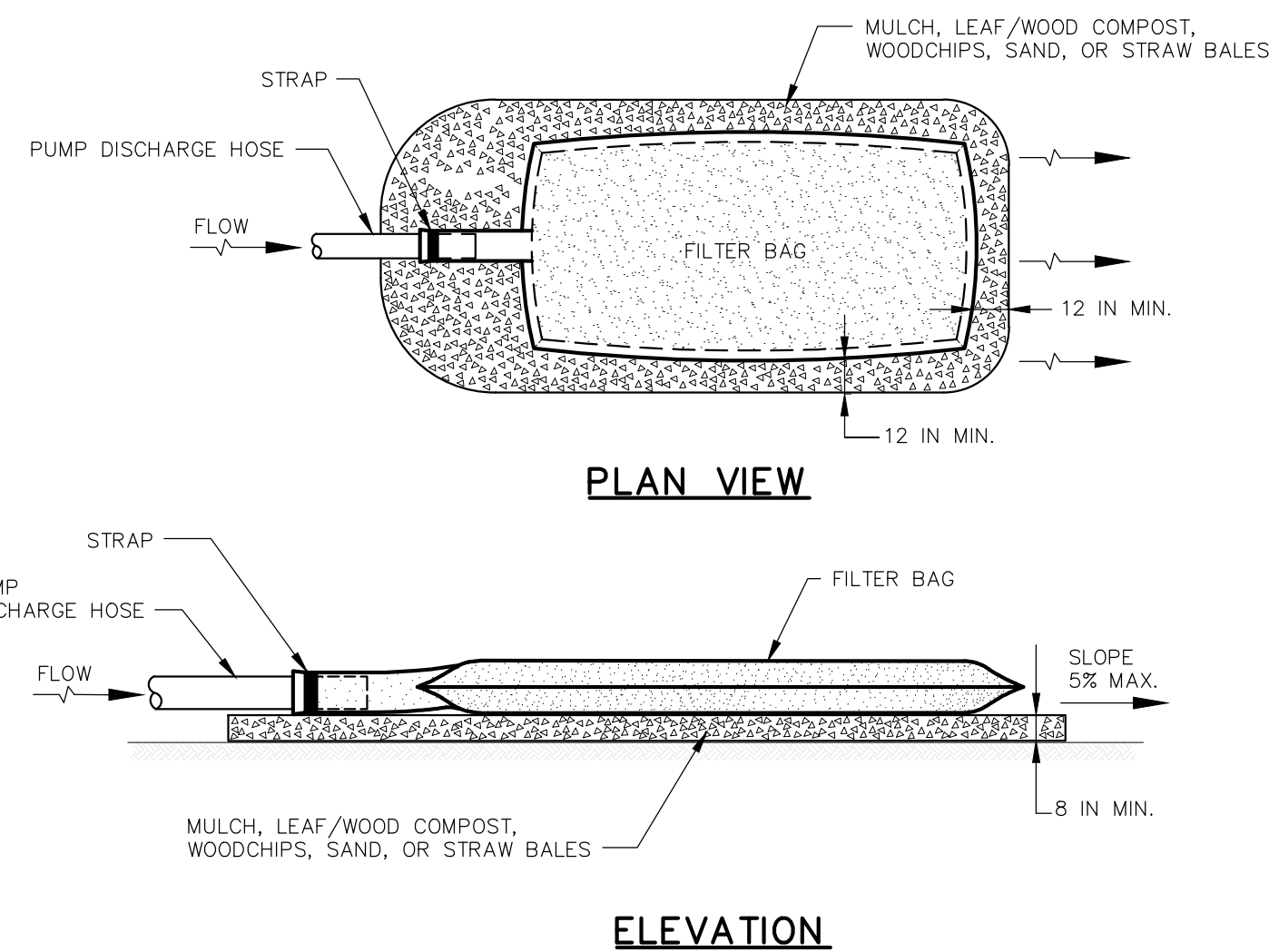
SILT SACK SEDIMENT TRAP

NOT TO SCALE



GRANITE CURB

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



CONSTRUCTION SPECIFICATIONS

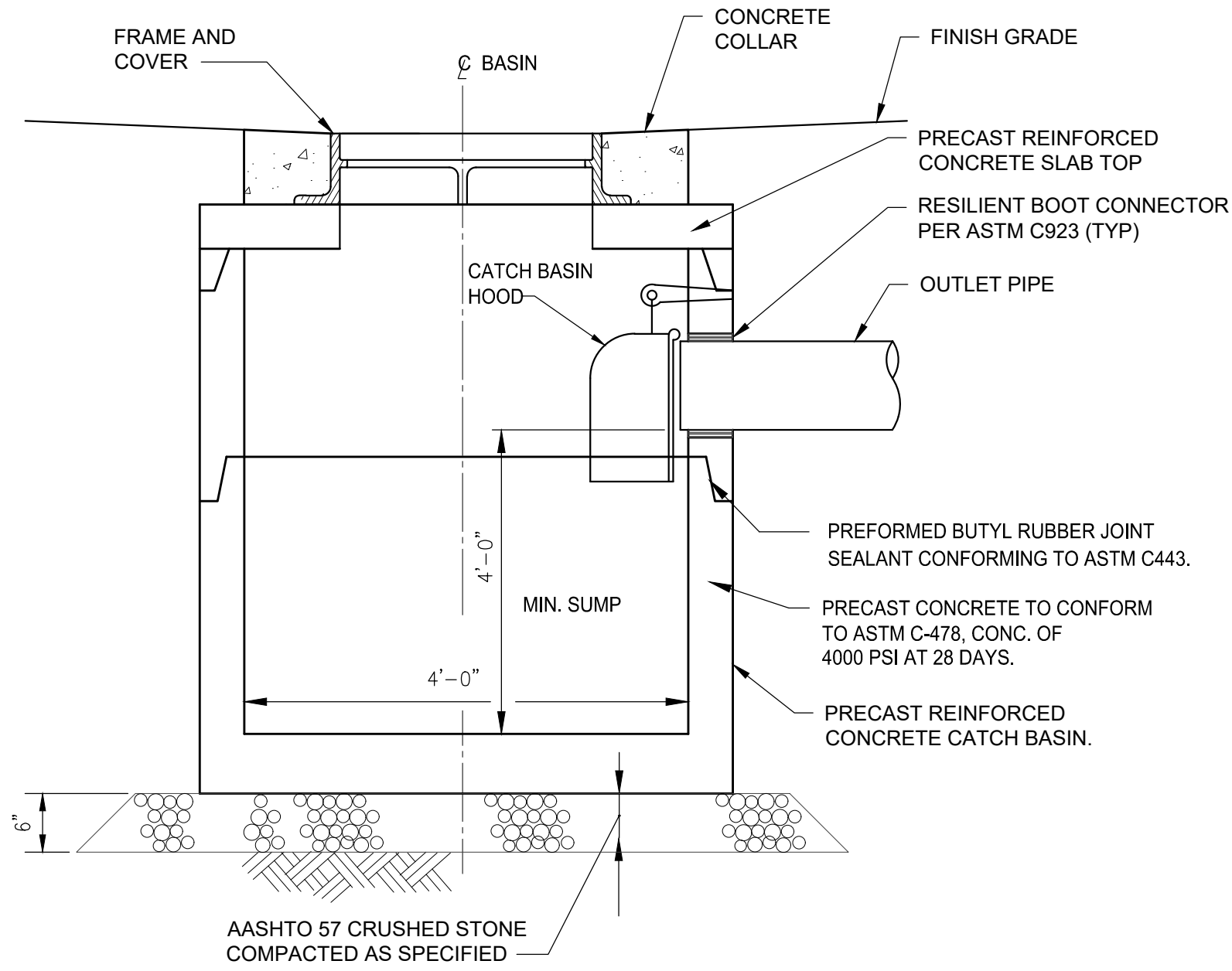
1. TIGHTLY SEAL SLEEVE AROUND THE PUMP DISCHARGE HOSE WITH A STRAP OR SIMILAR DEVICE.
2. PLACE FILTER BAG ON SUITABLE BASE (E.G., MULCH, LEAF/WOOD COMPOST, WOODCHIPS, SAND, OR STRAW BALES) LOCATED ON A LEVEL OR 5% MAXIMUM SLOPING SURFACE. DISCHARGE TO A STABILIZED AREA. EXTEND BASE A MINIMUM OF 12 INCHES 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-4833
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

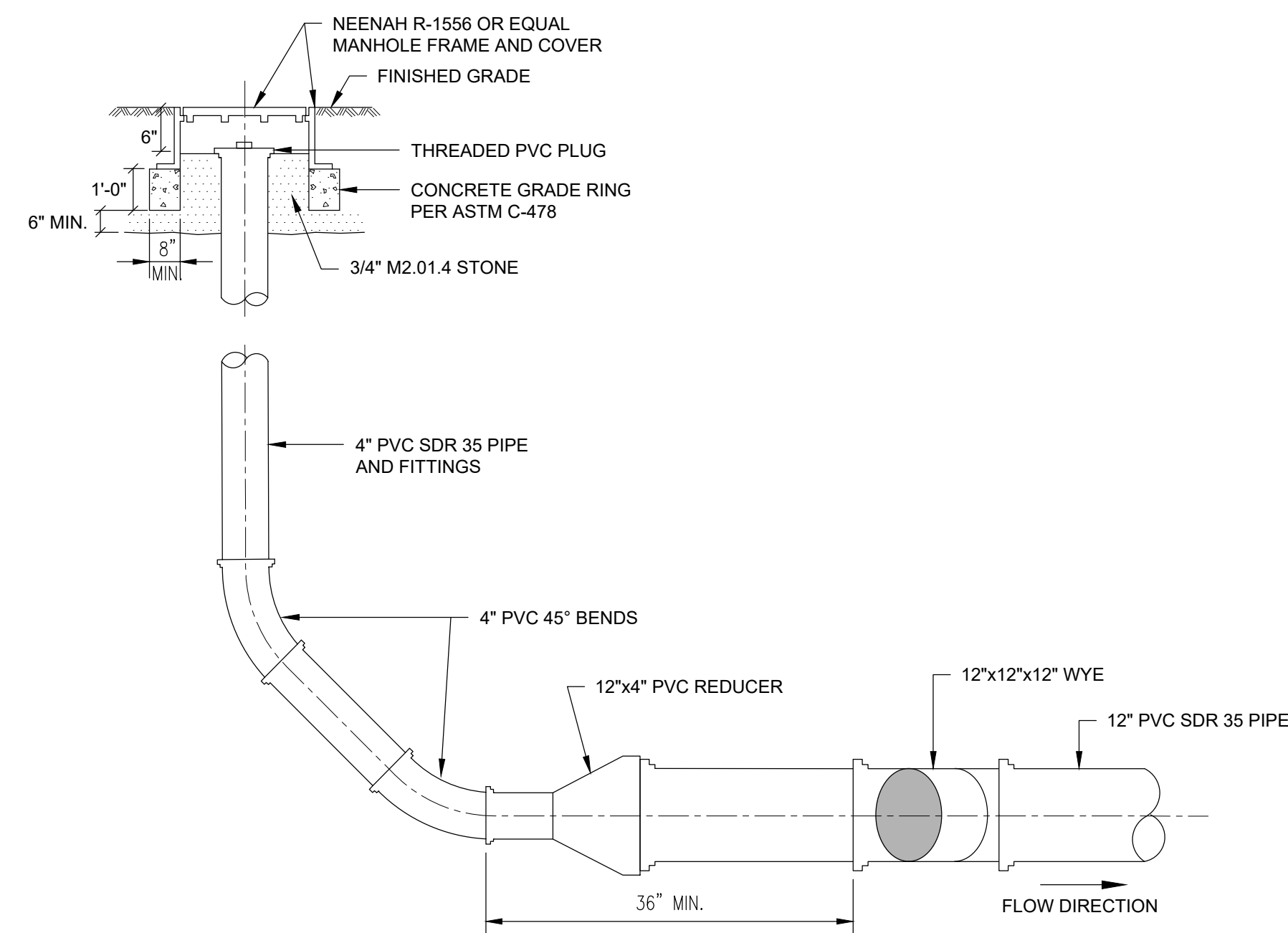


NOTE:

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



CLEANOUT

NOT TO SCALE

PATH: L:\LEGACY\USCH\1\PROJECTS\WAKEFIELD\DATA_3\PROJ\66604936 - MASSDCR SIX ABANDONED DAMS\SHEETS\CLOWES POND\98 C-504.DWG
 LAST UPDATE: Tuesday, March 26, 2024 7:40:00 AM
 PLOT DATE: Tuesday, March 26, 2024 12:41:30 PM

PROJECT

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

CLIENT

Massachusetts Department
of Conservation and
Recreation

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
www.aecom.com

REGISTRATION

**100% SUBMITTAL
PRELIMINARY COPY**

NOTE: This document is preliminary only and is not intended for any purpose except review and comment by the owner and its agents.

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:	MARCH 2024
Scale:	AS NOTED

DISCIPLINE

**CIVIL
SHEET TITLE**

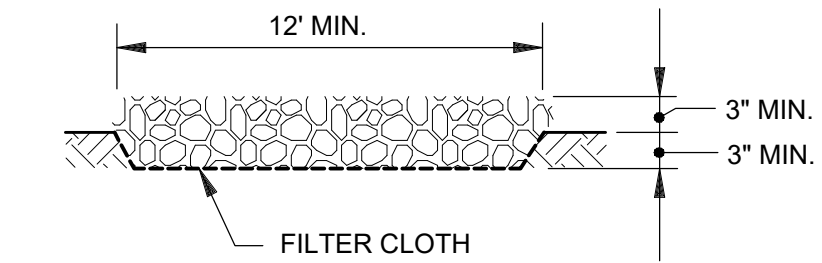
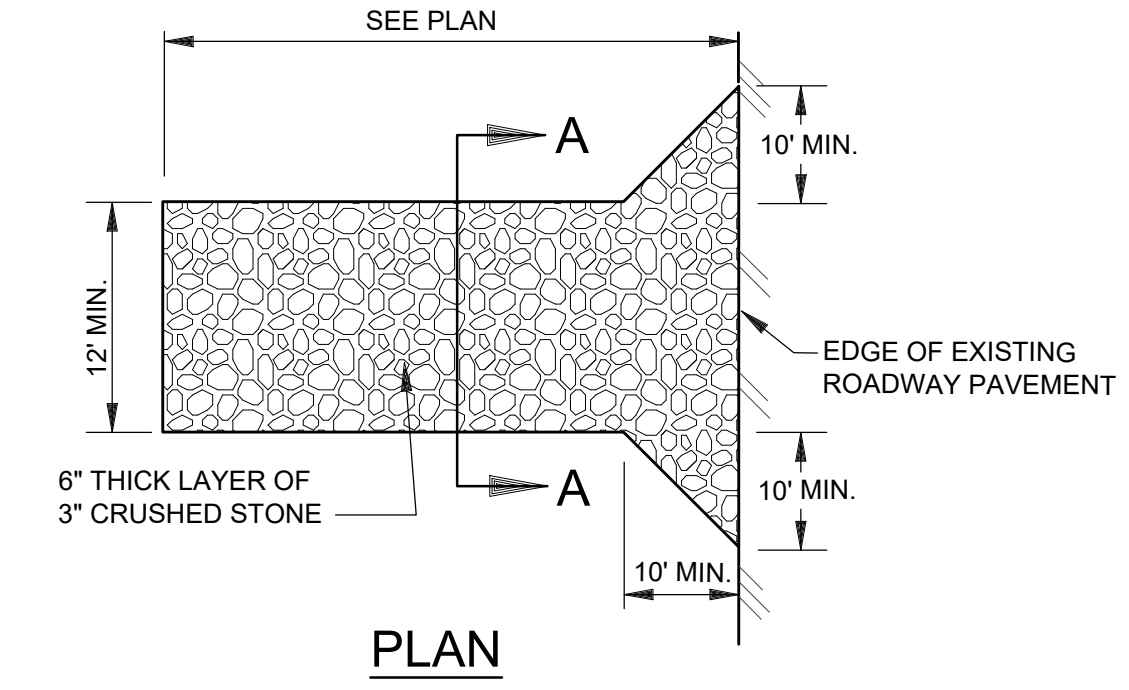
**LOWES POND
DETAILS V**

SHEET NUMBER

99 C-505

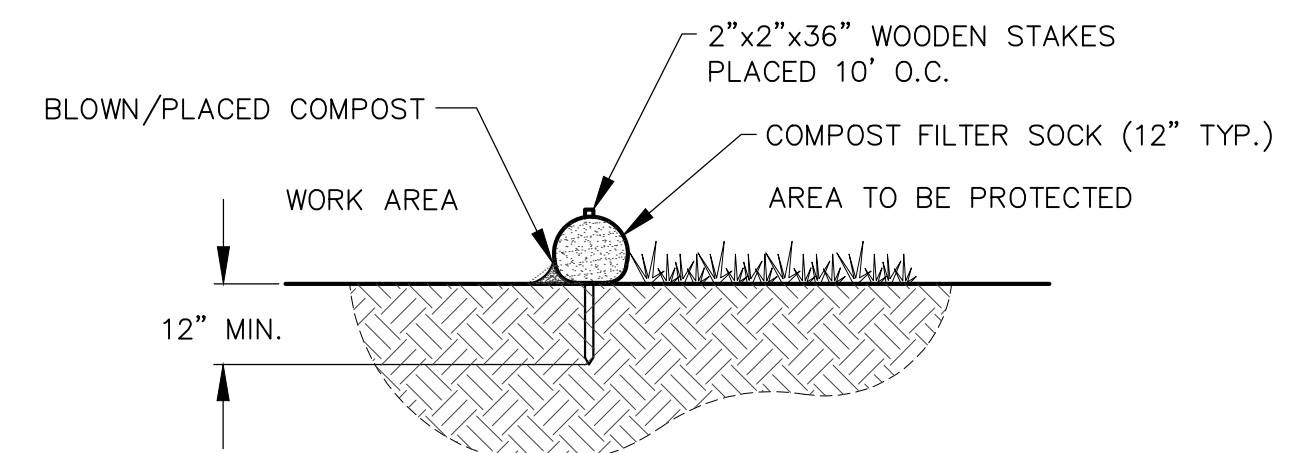
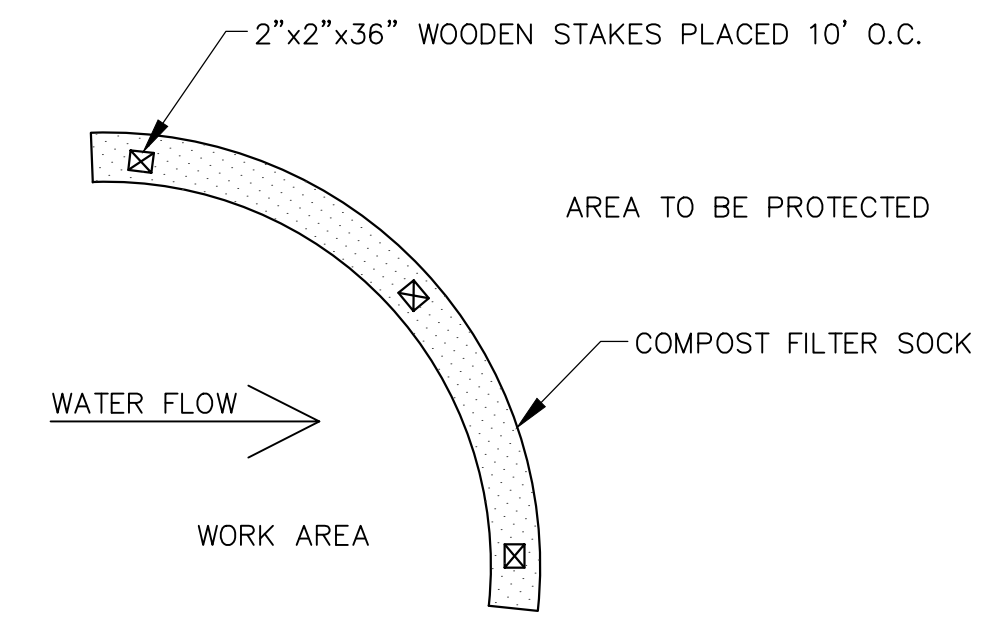
EROSION PROTECTION NOTES

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**



SECTION

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

CONSULTANT

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

REGISTRATION

**100% SUBMITTAL
PRELIMINARY COPY**

NOTE: This document is preliminary only and is not intended for any purpose except review and comment by the owner and its agents.

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: MARCH 2024

Scale: AS NOTED

DISCIPLINE

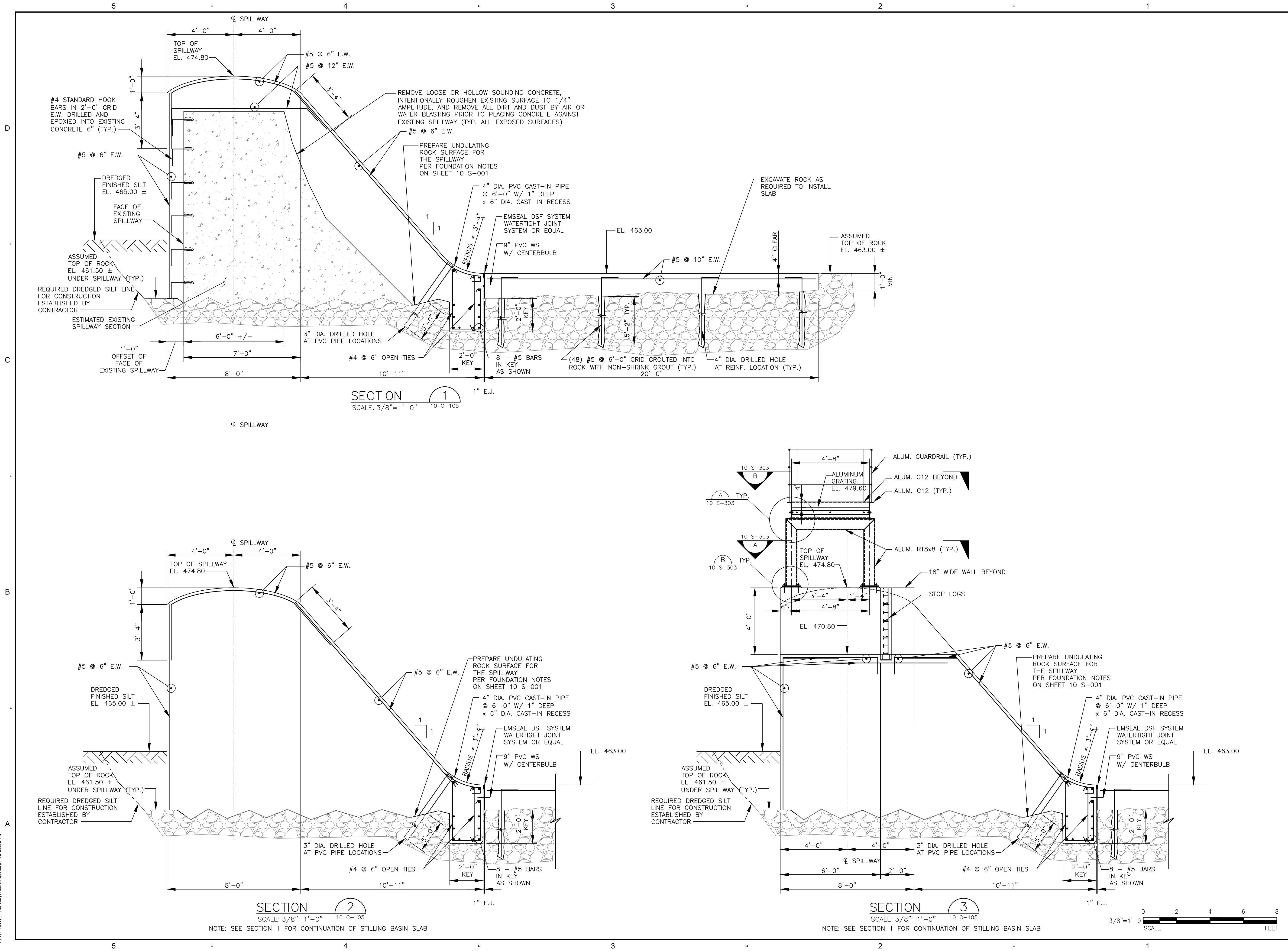
STRUCTURAL

SHEET TITLE

SECTIONS I

SHEET NUMBER

10 S-301



LAST UPDATE: Thursday, March 7, 2024 1:52:18 PM
 PLOT DATE: Monday, March 25, 2024 12:35:33 PM

PROJECT

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

CLIENT

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

CONSULTANT

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

REGISTRATION

**100% SUBMITTAL
 PRELIMINARY COPY**

NOTE: This document is preliminary only and is not intended for any purpose except review and comment by the owner and its agents.

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: MARCH 2024

Scale: AS NOTED

DISCIPLINE

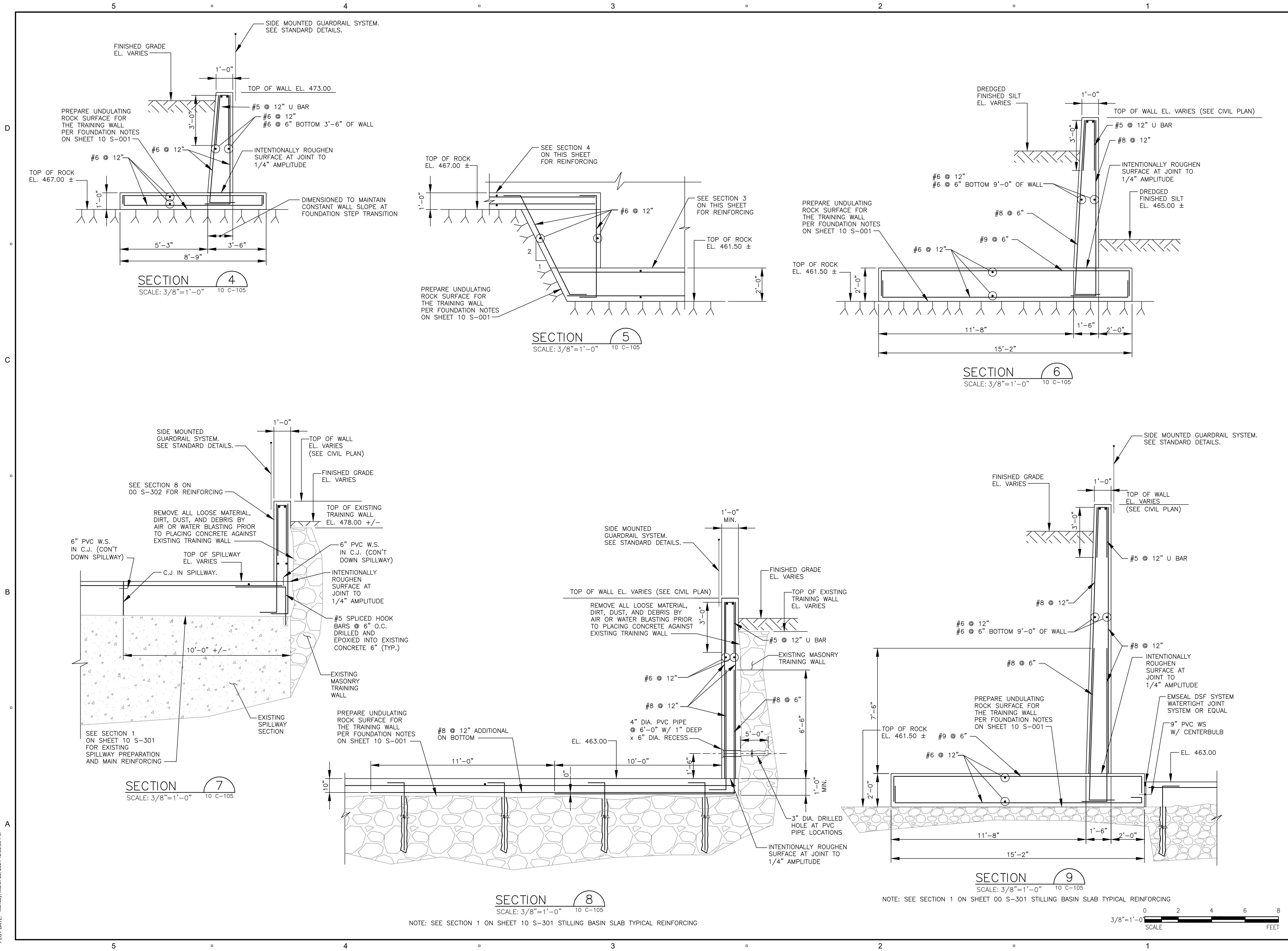
STRUCTURAL

SHEET TITLE

SECTIONS II

SHEET NUMBER

10 S-302



LAST UPDATE: Thursday, March 7, 2024 1:52:42 PM
 PLOT DATE: Monday, March 25, 2024 12:35:39 PM

PROJECT

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

CLIENT

**Massachusetts Department
of Conservation and
Recreation**

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

CONSULTANT

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

REGISTRATION

**100% SUBMITTAL
PRELIMINARY COPY**

NOTE: This document is preliminary only and is not intended for any purpose except review and comment by the owner and its agents.

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: MARCH 2024

Scale: AS NOTED

DISCIPLINE

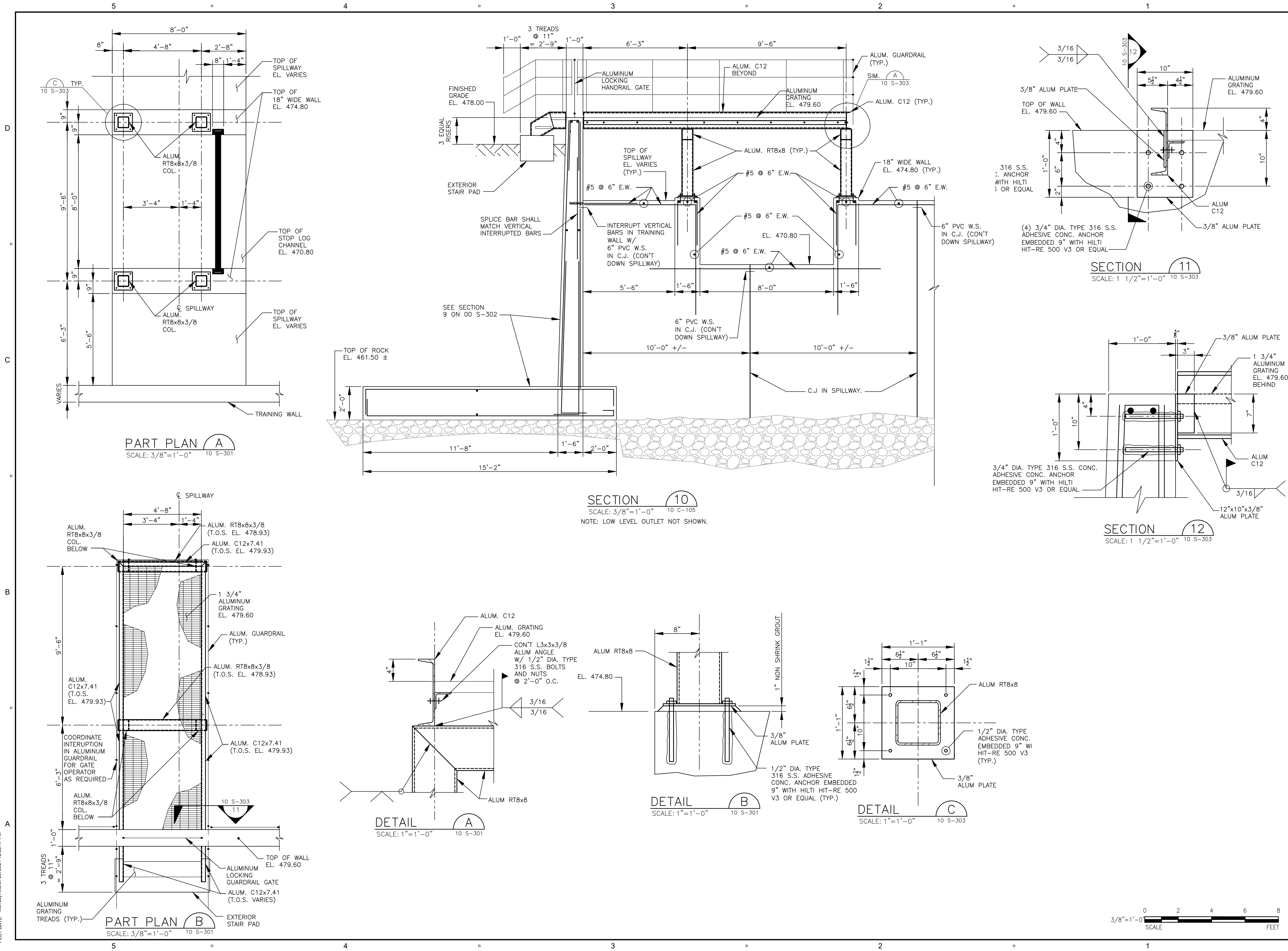
STRUCTURAL

SHEET TITLE

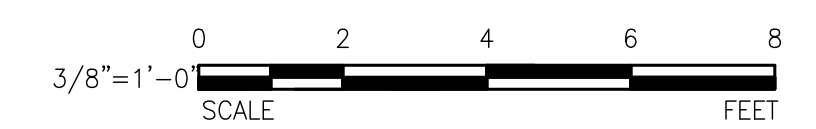
SECTIONS III

SHEET NUMBER

10 S-303



LAST UPDATE: Thursday, March 7, 2024 2:06:51 PM
 PLOT DATE: Monday, March 25, 2024 12:35:47 PM



PROJECT

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

CLIENT

Massachusetts Department
 of Conservation and
 Recreation

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
 www.aecom.com

REGISTRATION

**100% SUBMITTAL
 PRELIMINARY COPY**

NOTE: This document is preliminary only and is not intended for any purpose except review and comment by the owner and its agents.

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: MARCH 2024

Scale: AS NOTED

DISCIPLINE

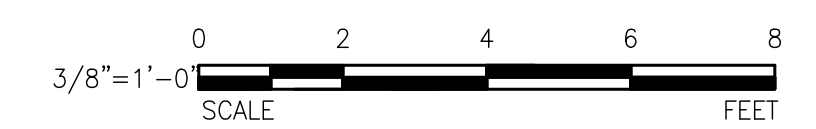
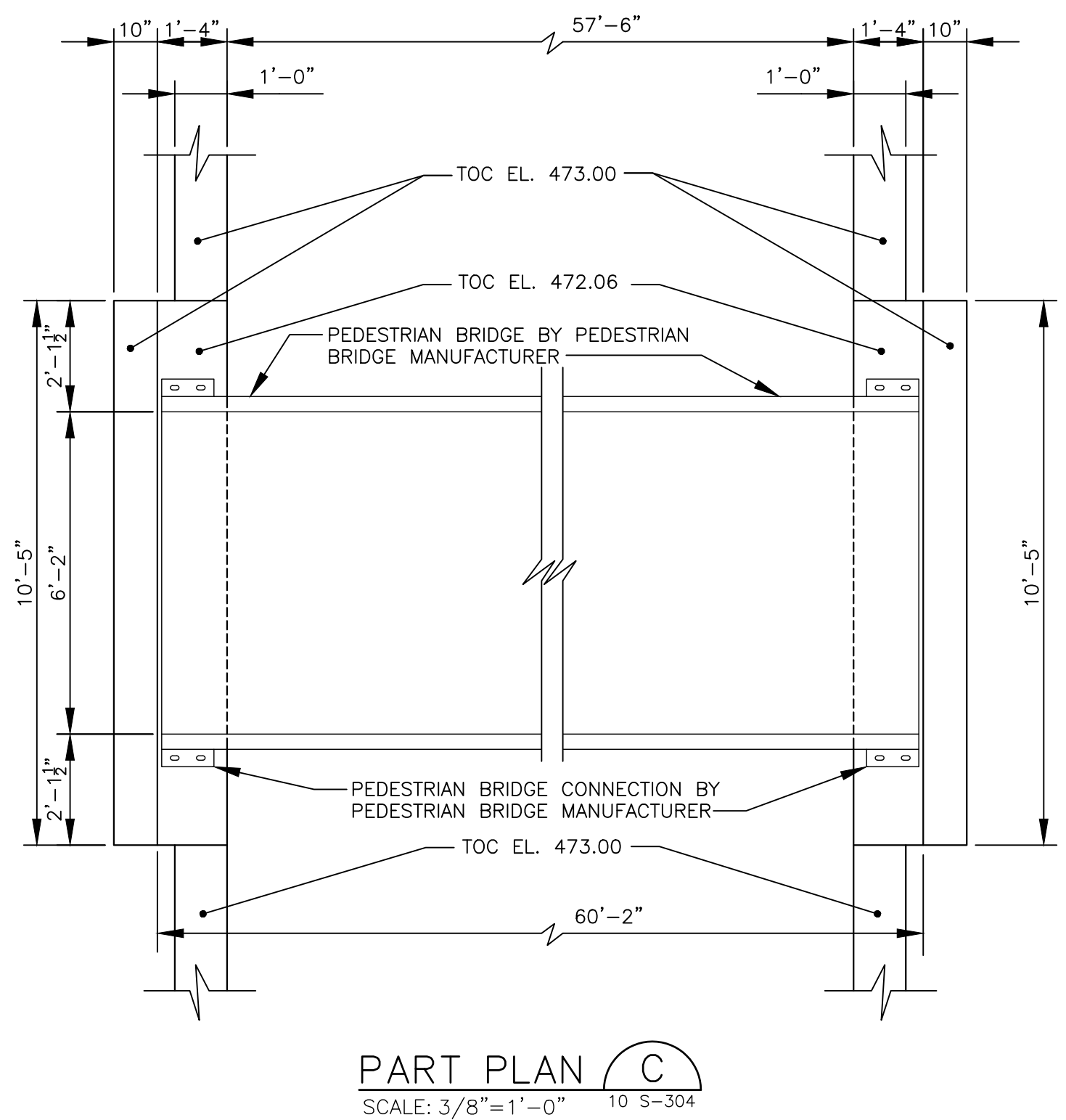
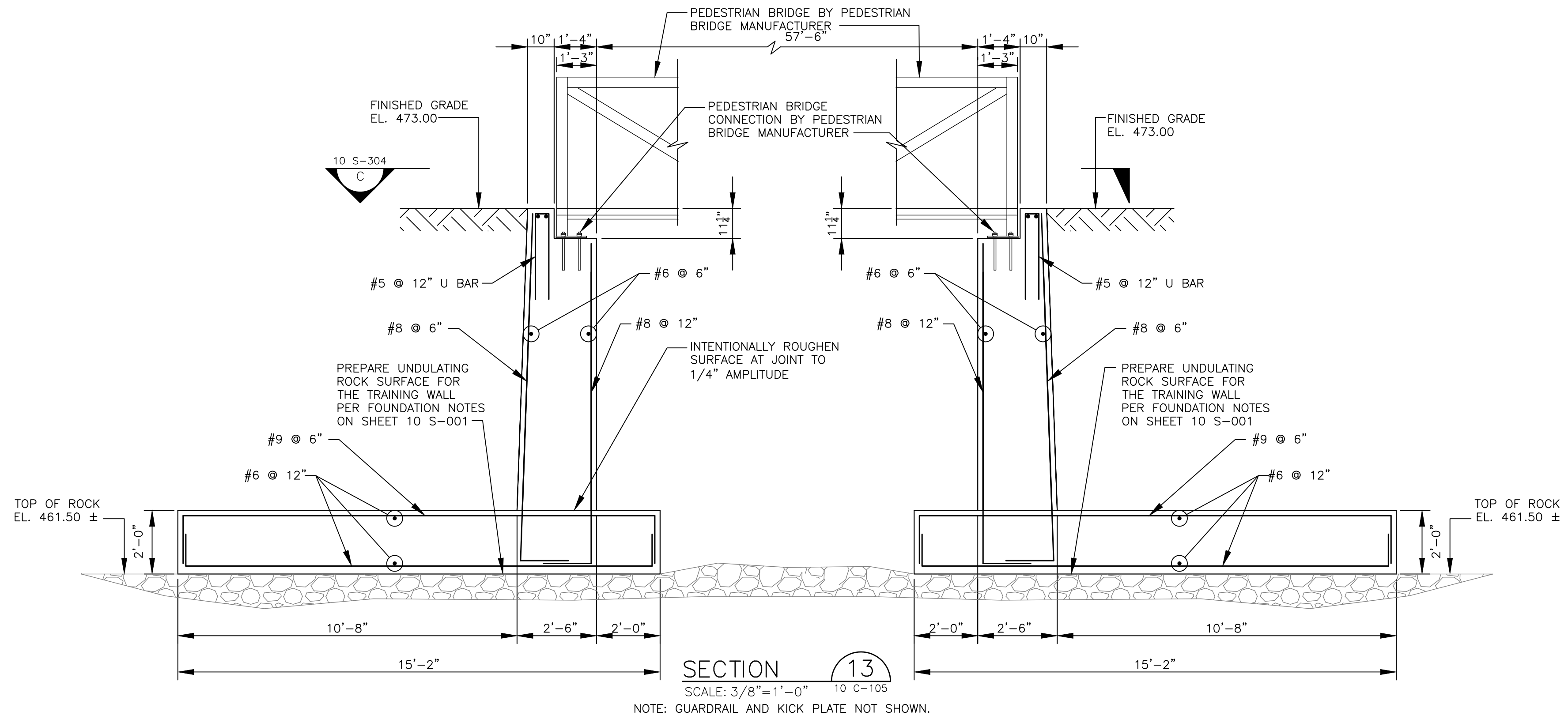
STRUCTURAL

SHEET TITLE

SECTIONS IV

SHEET NUMBER

10 S-304



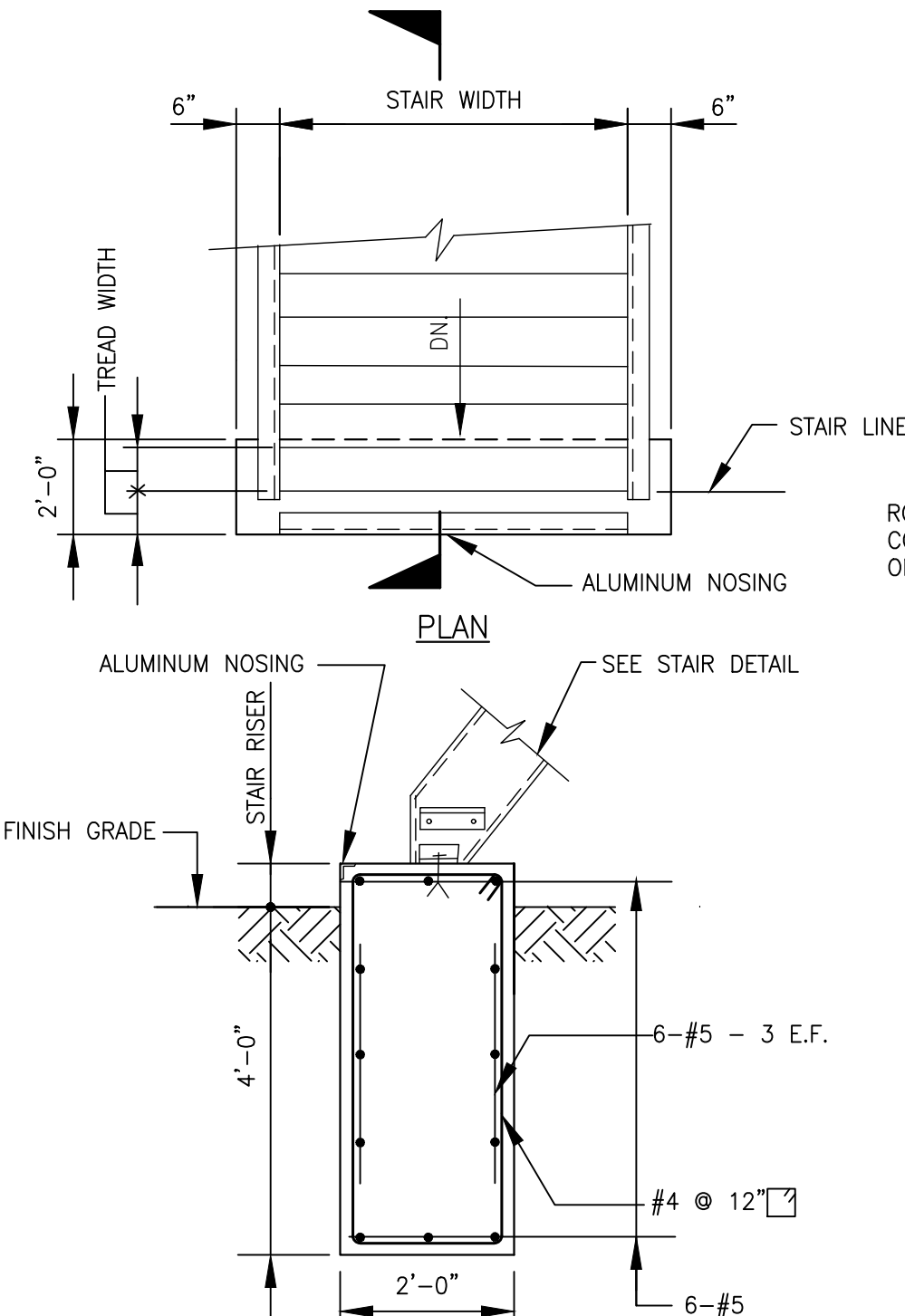
LAST UPDATE: Monday, March 25, 2024 12:34:24 PM
 PLOT DATE: Monday, March 25, 2024 12:35:54 PM

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

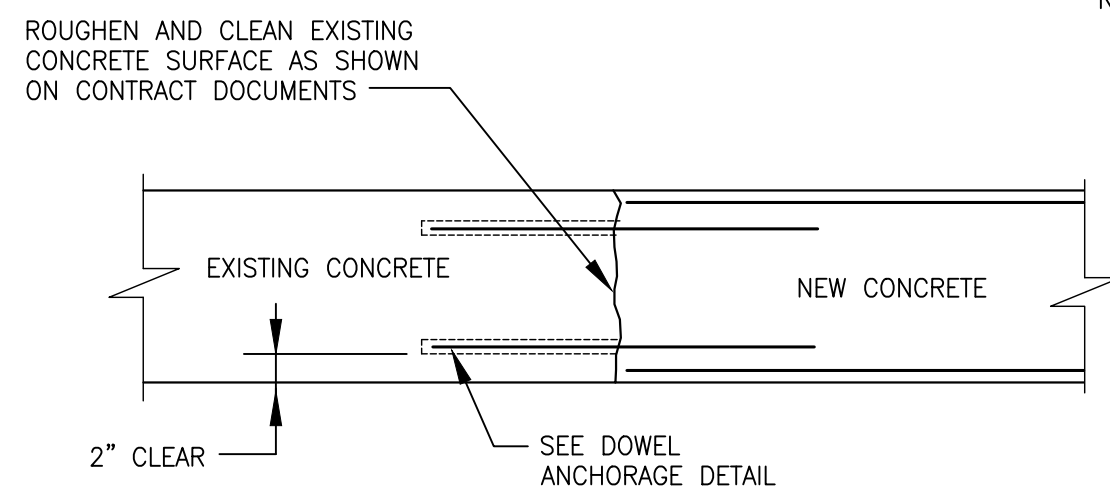
BAR SIZE	REINFORCING BAR DEVELOPMENT PER ACI 318			
	BASIC TENSION DEVELOPMENT	TOP BAR DEVELOPMENT	COMPRESSION DEVELOPMENT	STANDARD HOOK DEVELOPMENT
# 3 (10)	1'-2"	1'-6"	1'-0"	7"
# 4 (13)	1'-7"	2'-1"	1'-3"	9"
# 5 (16)	2'-0"	2'-7"	1'-7"	1'-0"
# 6 (19)	2'-4"	3'-1"	1'-11"	1'-2"
# 7 (22)	3'-5"	4'-6"	2'-2"	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 1/2" 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%.

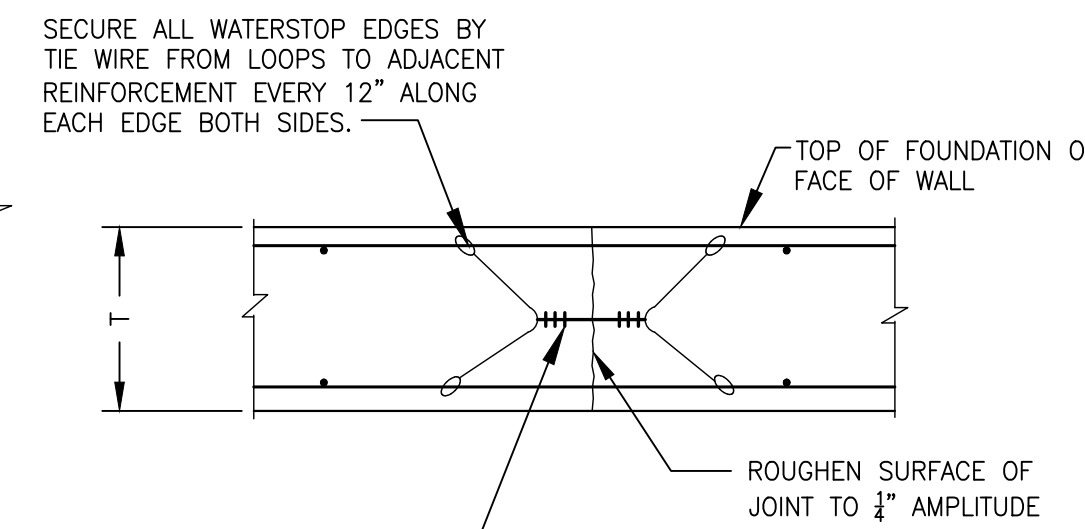
REINFORCING BAR DEVELOPMENT

NTS



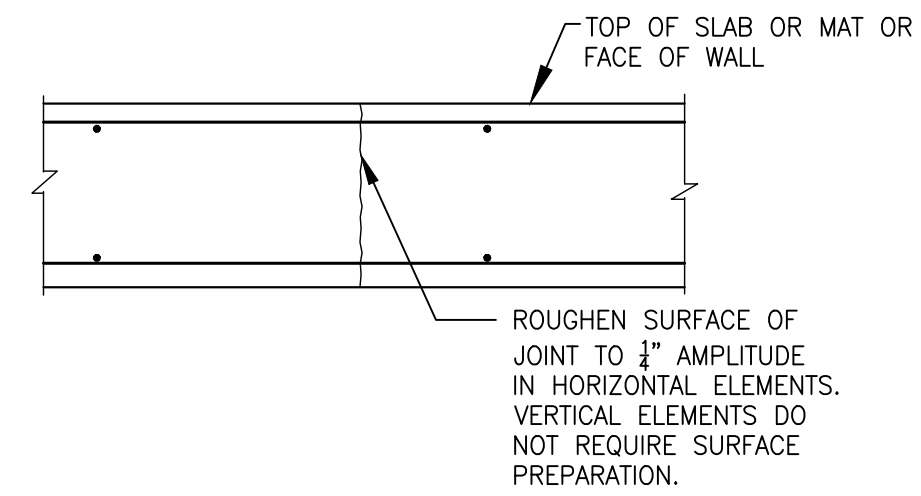
BONDING NEW CONCRETE TO EXISTING CONCRETE

NTS



CONSTRUCTION JOINT WITH WATERSTOP

NTS



CONSTRUCTION JOINT WITHOUT WATERSTOP

NTS (REV. 4-19-13)

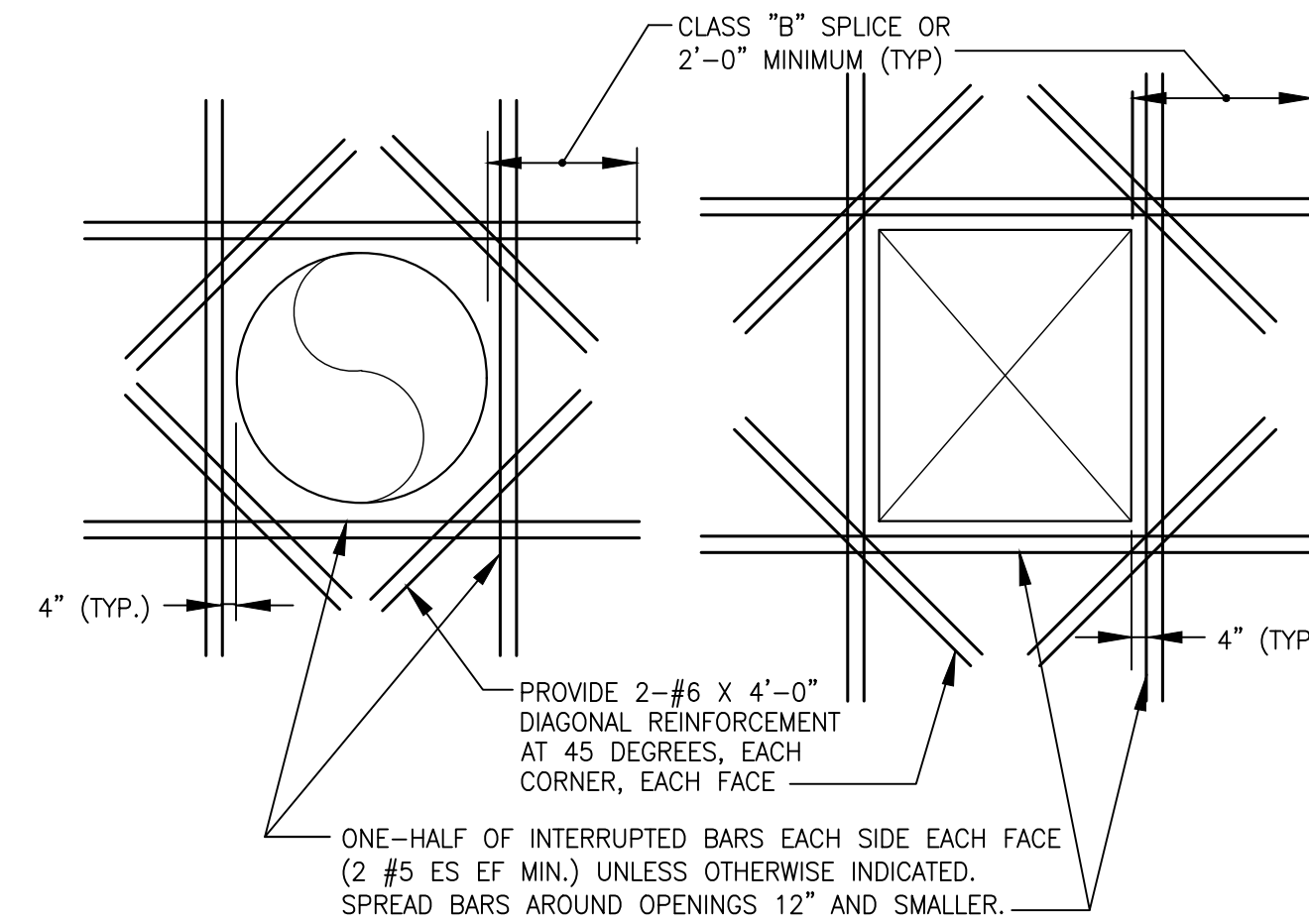
BAR SIZE (METRIC)	CLASS "B" SPLICE PER ACI 318		COMPRESSION SPLICE
	TOP BARS	OTHER BARS	
# 3 (10)	2'-0"	1'-6"	1'-0"
# 4 (13)	2'-8"	2'-1"	1'-3"
# 5 (16)	3'-4"	2'-7"	1'-7"
# 6 (19)	4'-0"	3'-1"	1'-11"
# 7 (22)	5'-10"	4'-6"	2'-2"
# 8 (25)	6'-8"	5'-2"	2'-6"
# 9 (29)	7'-7"	5'-10"	2'-10"

TABULATED VALUES ARE FOR NORMAL WEIGHT CONCRETE AND UNCOATED BARS THAT HAVE AT LEAST 1 1/2" 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.

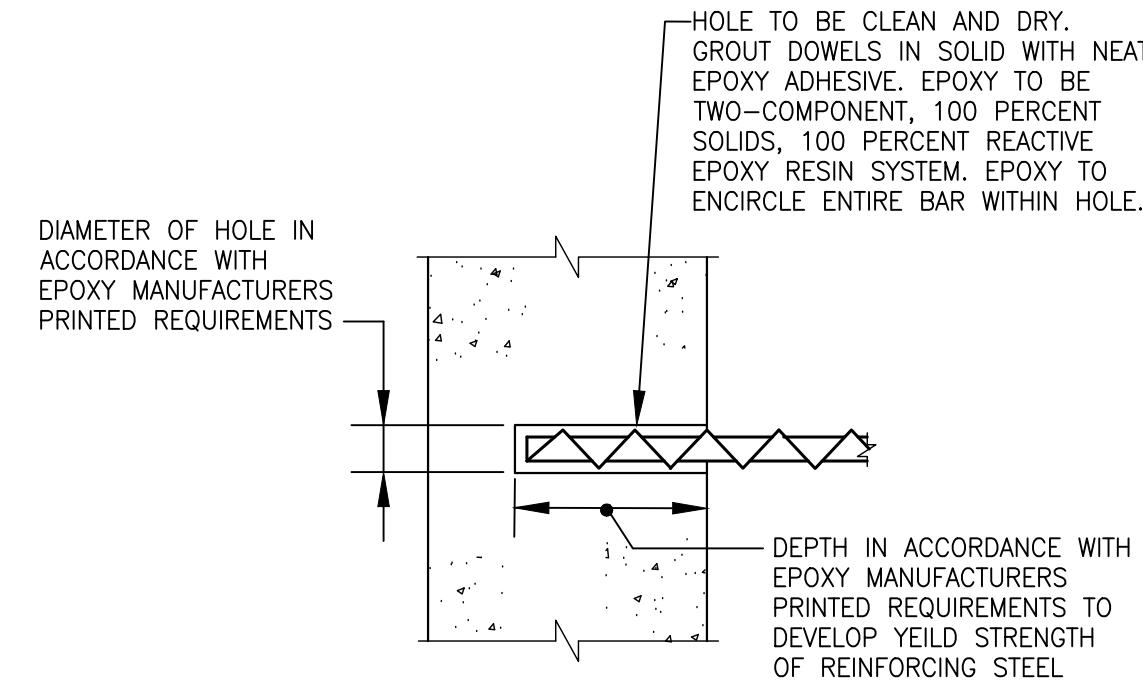
REINFORCING BAR SPLICES

NTS



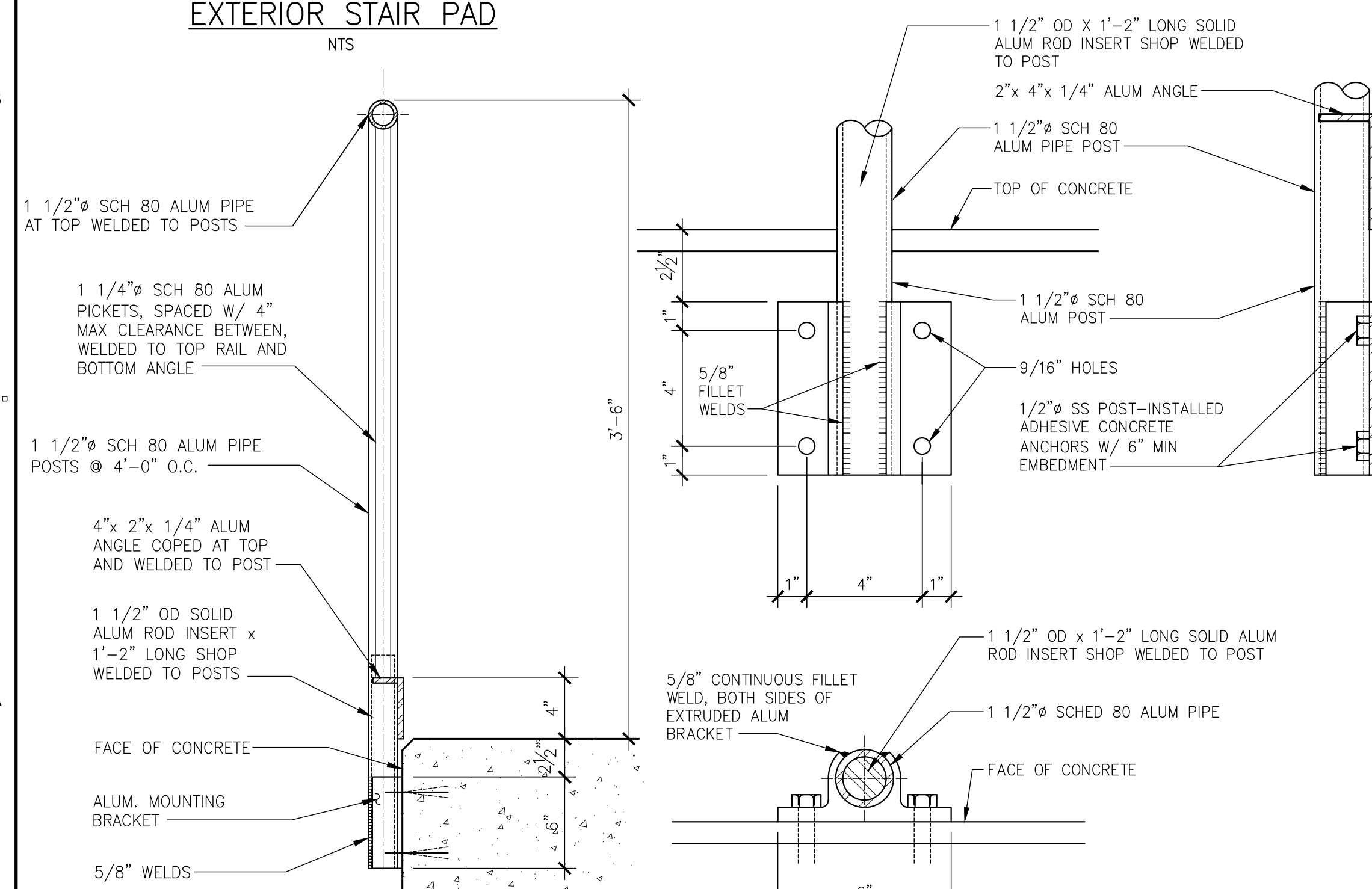
ADDITIONAL REINFORCEMENT FOR ROUND AND RECTANGULAR OPENINGS

NTS



DOWEL ANCHORAGE INTO EXISTING CONCRETE

NTS

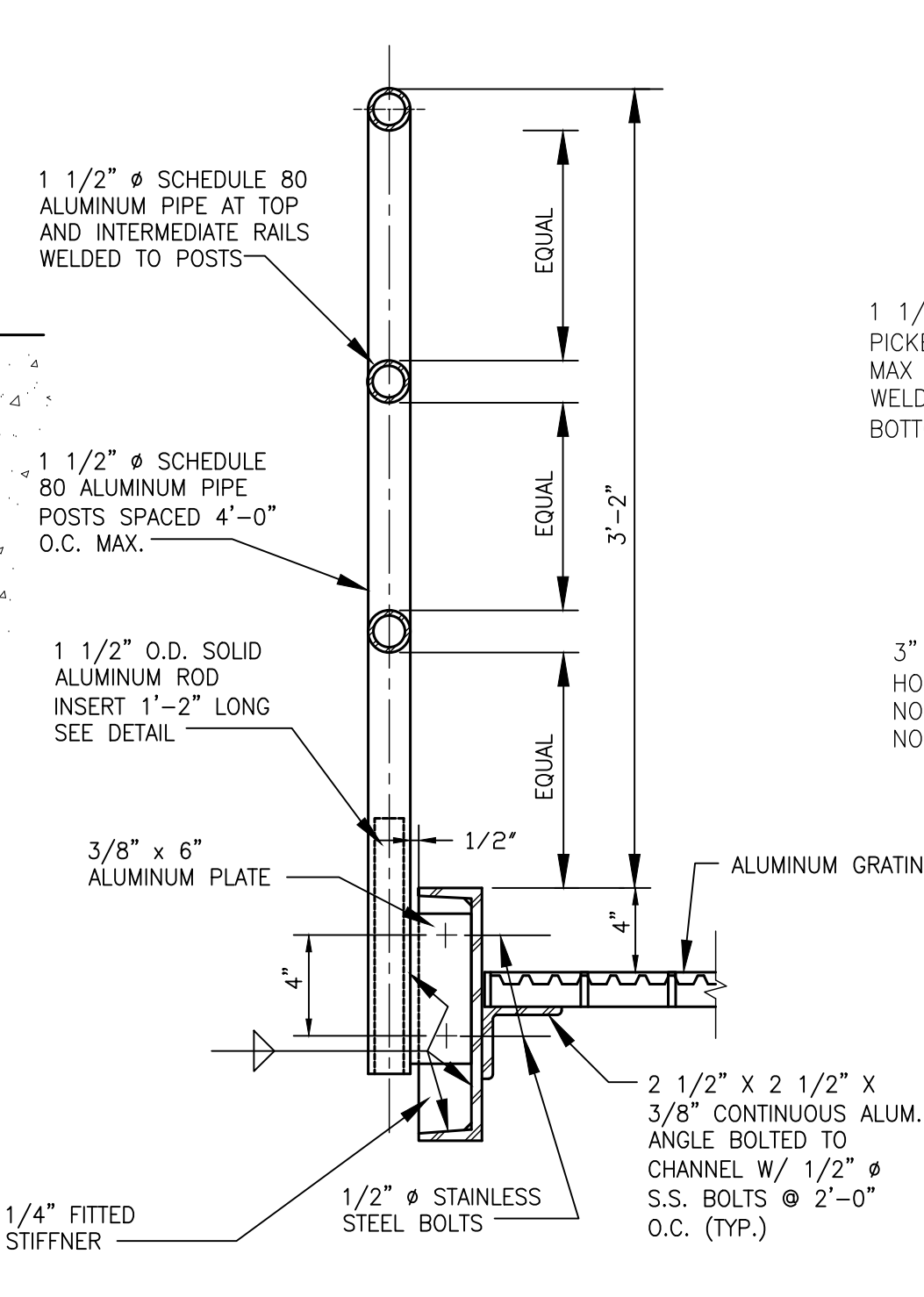


SIDE MOUNTED ALUMINUM GUARDRAIL

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

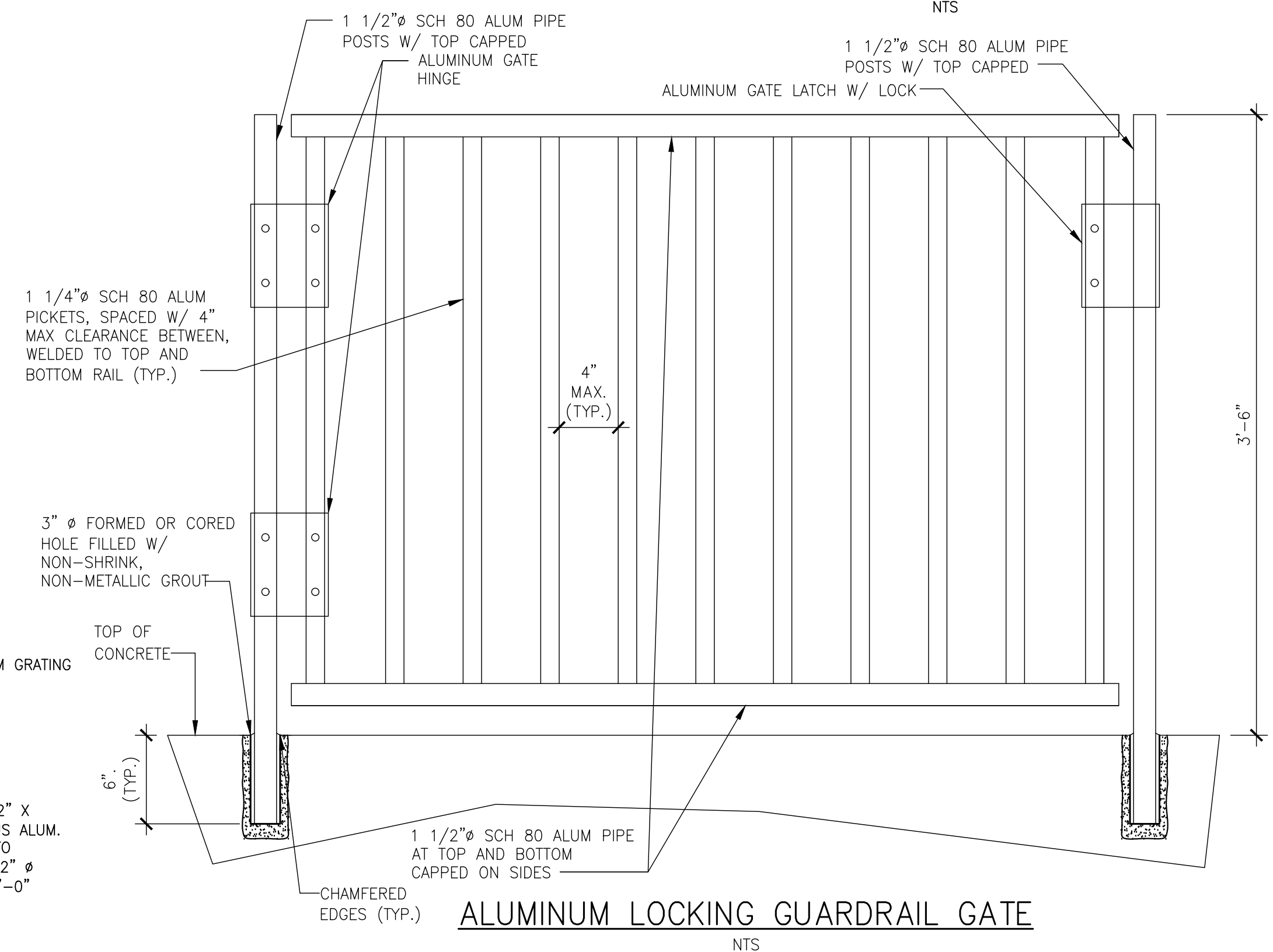
ALUMINUM GUARDRAIL MOUNTING BRACKET

SCALE: 3" = 1'-0"



3 RAIL ALUMINUM GUARDRAIL AT GRATING PLATFORM

NTS



ALUMINUM LOCKING GUARDRAIL GATE

NTS



PROJECT

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

CLIENT

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

CONSULTANT

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

REGISTRATION

100% SUBMITTAL PRELIMINARY COPY

NOTE: This document is preliminary only and is not intended for any purpose except review and comment by the owner and its agents.

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:	MARCH 2024
Scale:	AS NOTED

DISCIPLINE

STRUCTURAL SHEET TITLE

STRUCTURAL STANDARD DETAILS I

SHEET NUMBER

99 S-501

PROCESS PIPING SCHEDULE

LEGEND	SYSTEM DESIGN CONDITIONS					PIPING					INSULATION		VALVING			TEST REQUIREMENTS				SPEC SECTION	REMARKS
	SYSTEM	TEMP (DEG F)		PRESSURE (PSI)		MATERIAL	DIAMETER RANGE	SCH/ CLASS	LINING/ COATING	JOINT TYPE	TYPE	THICKNESS (IN)	BLOCK	CHECK	THROTTLING	PRESSURE (PSI)	MEDIUM	TEST DURATION (MIN)	LEAKAGE ALLOWANCE		
		OPER	MAX	WORK	MAX																
RW	RAW WATER	40	70	4	6	DUCTILE IRON	ALL	CLASS 52	CEMENT / SEE SPEC	RESTRAINED MECHANICAL JOINT	---	---	---	---	---	---	---	---	02615	---	

SLIDE GATE SCHEDULE

TAG NO	NUMBER OF UNITS	LOCATION	GATE SIZE (CLEAR OPENING) W(IN) x H(IN)	GATE TYPE	CONFIGURATION	HEAD TYPE	GATE DESIGN HEAD (FT)	INSTALLATION TYPE	THIMBLE TYPE	CLOSURE TYPE	OPERATOR TYPE	MOTOR DATA			SPEC SECTION	REMARKS
												HP	RPM (MAX)	ENCL TYPE		
10-RW.SG-1	1	LOWES POND DAM	24 x 24	FABRICATED	STANDARD	SEATING	13	WALL MOUNTED	N/A	FLUSH BOTTOM	MANUAL CRANK WITH SHAFT EXTENSION TO CLEAR RAILING	---	---	---	15103	DESIGN HEAD: MAX WATER SURFACE TO GATE INVERT.

STOP LOG SCHEDULE

TAG NO	NUMBER OF UNITS	LOCATION	STOP LOG SIZE (CLEAR OPENING) W(IN) x H(IN)	SECTION HEIGHT (IN)	HEAD TYPE	DESIGN HEAD (FT) (MAX WATER TO BOT LOG INV)	INSTALLATION TYPE	CLOSURE TYPE	NUMBER OF LOGS	SPEC SECTION	REMARKS
10-RW.SL-1	1	LOWES POND DAM	96 x 108	6	SEATING	8	EMBEDDED	FLUSH BOTTOM	8	15112	GROOVES EMBEDDED 4 FT

PROCESS EQUIPMENT ABBREVIATIONS

SG SLIDE GATE
SL STOP LOG

PROCESS GENERAL ABBREVIATIONS

ACFM	ACTUAL CUBIC FEET PER MINUTE	FE	(FIXED x FIXED)	NO	NORMALLY OPEN	STR	STRUCTURAL
AFF	ABOVE FINISHED FLOOR	FF	FLAT ELEMENT	NO	NUMBER	TEFC	TOTALLY ENCLOSED FAN COOLED
ANCH	ANCHOR	FF	FLAT FACE	NOM	NOMINAL	TEMP	TEMPERATURE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	FHMB	FLAT HEAD MACHINE BOLT	NPSH	NET POSITIVE SUCTION HEAD	TENV	TOTALLY ENCLOSED NON VENTILATED
APPROX	APPROXIMATE	FIN FL	FINISHED FLOOR	NPSHR	NET POSITIVE HEAD REQUIRED	THK	THICK
ARCH	ARCHITECTURAL	FIN GR	FINISHED GRADE	NPSH3	NPSH RESULTING IN 3% DROP IN HEAD	TOC	TOP OF CONCRETE
ARV	AIR RELEASE VALVE	FIT	FLOW INDICATING TRANSMITTER	NPT	NATIONAL PIPE THREAD	TOD	TOP OF DUCT
AVV	AIR VACUUM VALVE	FLEX	FLEXIBLE	NRS	NON-RISING STEM	TOS	TOP OF STEEL
BOD	BOTTOM OF DUCT	FLG	FLANGE	NTS	NOT TO SCALE	TSH	TEMPERATURE SWITCH HIGH
CFM	CUBIC FEET PER MINUTE	FCV	FLOW CONTROL VALVE	OC	ON CENTER	TYP	TYPICAL
CFS	CUBIC FEET PER SECOND	FOB	FLAT ON BOTTOM	OD	OUTSIDE DIAMETER	VD	VOLUME DAMPER
CHEM	CHEMICAL	FOS	FLAT ON SIDE	ODP	OPEN DRIP PROOF	W/	WITH
CI	CAST IRON	FOT	FLAT ON TOP	OPER	OPERATING	WxH	WIDTH x HEIGHT
€	CENTERLINE	FPD	FLOWER POT DISCHARGE	P	PRESSURE GAUGE	WC	WATER COLUMN
CL	CLASS	FT/MIN	FEET PER MINUTE	PE	PLAIN END	WORK	WORKING
CMU	CONCRETE MASONARY UNIT	FT/S	FEET PER SECOND	PI	PRESSURE INDICATOR	WP	WEATHER PROTECTED
CO	CLEANOUT	FS	FLOW SWITCH	PIT	PRESSURE INDICATOR TRANSMITTER	WPI	WEATHER PROTECTED TYPE I
CONC	CONCRETE	FSI	FORMED SUCTION INTAKE	PLMB	PLUMBING	WPII	WEATHER PROTECTED TYPE II
CONN	CONNECTION	FT	FEET	PO	PUSH-ON	WS	WATER SURFACE
CONT	CONTINUATION	FW	FLUSHING WATER	PRI	PRIMARY	XPROOF	EXPLOSION PROOF
CPVC	CHLORINATED POLYVINYLCHLORIDE	GAL	GALLONS	PS	PRESSURE SWITCH	YD	YARD
CS	CARBON STEEL	GALV	GALVANIZED	PSH	PRESSURE SWITCH HIGH	GPM	GALLONS PER MINUTE
DEG C	DEGREES CELSIUS	LG	LONG	PSI	POUNDS PER SQUARE INCH	GCIC	GRIT CONCENTRATOR INFLUENT CHANNEL
DEG F	DEGREES FAHRENHEIT	LP	LOW POINT	PSIA	POUNDS PER SQUARE INCH ABSOLUTE	HDPE	HIGH DENSITY POLYETHYLENE
DET	DETAIL	LR	LONG RADIUS	PSIG	POUNDS PER SQUARE INCH GAGE	HG	HOSE GATE
DI	DUCTILE IRON	L/S	LITERS PER SECOND	PSV	PRESSURE SAFETY SWITCH	HHMB	HEXAGONAL HEAD MACHINE BOLT
DIA	DIAMETER	LSH	LEVEL SWITCH LOW	PVC	POLYVINYLCHLORIDE	Hg	MERCURY
DISCH	DISCHARGE	LSP	LIQUID SAMPLE PORT	PVDF	POLYVINYLIDENE FLOURIDE	HP	HIGH POINT
DN	DOWN	LxW	LENGTH x WIDTH	R	RADIUS	HP	HORSE POWER
DWG'S	DRAWINGS	LWL	LOW WATER LEVEL	RED	REDUCER / REDUCING	HPT	HOSE PIPE THREAD
EXE	FLEXIBLE COUPLING	LLWL	LOW-LOW WATER LEVEL	RED FLG	REDUCING FLANGE	HVAC	HEATING VENTILATION
	(EXPANSION x EXPANSION)	M	METER	REF	REFERENCE	HWL	HIGH WATER LEVEL
ECC RED	ECCENTRIC REDUCER	MAX	MAXIMUM	REINF	REINFORCING	ID	INSIDE DIAMETER
EFF	EFFLUENT	MATL	MATERIAL	REQD	REQUIRED	IN	INCHES
EFF %	% EFFICIENCY	MCC	MOTOR CONTROL CENTER	RFG	RISING FLAP GATE	INSUL	INSULATION
ELEC	ELECTRICAL	MECH	MECHANICAL	RPM	REVOLUTIONS PER MINUTE	INV	INVERT
EL	ELEVATION	MGD	MILLION GALLONS PER DAY	SCH	SCHEDULE	IPT	IRON PIPE THREAD
ELL	ELBOW	MH	MANHOLE	SH	SHEET	KG	KILOGRAM
ENCL	ENCLOSURE	MIN	MINIMUM	SPD	SUMP PUMP DISCHARGE	KW	KILOWATT
EQUIP	EQUIPMENT	MJ	MECHANICAL JOINT	SPECS	SPECIFICATIONS	LB	POUND
EXIST	EXISTING	MM	MILLIMETERS	SQ	SQUARE	LG	LONG
FxE	EXPANSION COUPLING (FIXED x EXPANSION)	NAVD	NORTH AMERICAN VERTICAL DATUM	SR	SHORT RADIUS		
FxF	RESTRAINED COUPLING	NC	NORMALLY CLOSED	SS	STAINLESS STEEL		
		NGVD	NATIONAL GEODETIC VERTICAL DATUM	STD	STANDARD		



PROJECT

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

CLIENT

Massachusetts Department
of Conservation and
Recreation
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
www.aecom.com

REGISTRATION

**100% SUBMITTAL
PRELIMINARY COPY**

NOTE: This document is preliminary only and is not intended for any purpose except review and comment by the owner and its agents.

ISSUE/REVISION

I/R	DATE	DESCRIPTION

PROJECT NUMBER

60604936

Designed By:	D. YURK
Drawn By:	M. BENSON
Dept Check:	K. BETTENCOURT
Proj Check:	D. GOVE
Date:	MARCH 2024
Scale:	AS NOTED

DISCIPLINE

MECHANICAL PROCESS
SHEET TITLE

**PROCESS SCHEDULES
AND ABBREVIATIONS**

SHEET NUMBER

00 D-001

PROJECT

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

CLIENT

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

CONSULTANT

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

REGISTRATION

**100% SUBMITTAL
 PRELIMINARY COPY**

NOTE: This document is preliminary only and is not intended for any purpose except review and comment by the owner and its agents.

ISSUE/REVISION

I/R	DATE	DESCRIPTION

PROJECT NUMBER

60604936

Designed By:	D. YURK
Drawn By:	M. BENSON
Dept Check:	K. BETTENCOURT
Proj Check:	D. GOVE
Date:	MARCH 2024
Scale:	AS NOTED

DISCIPLINE

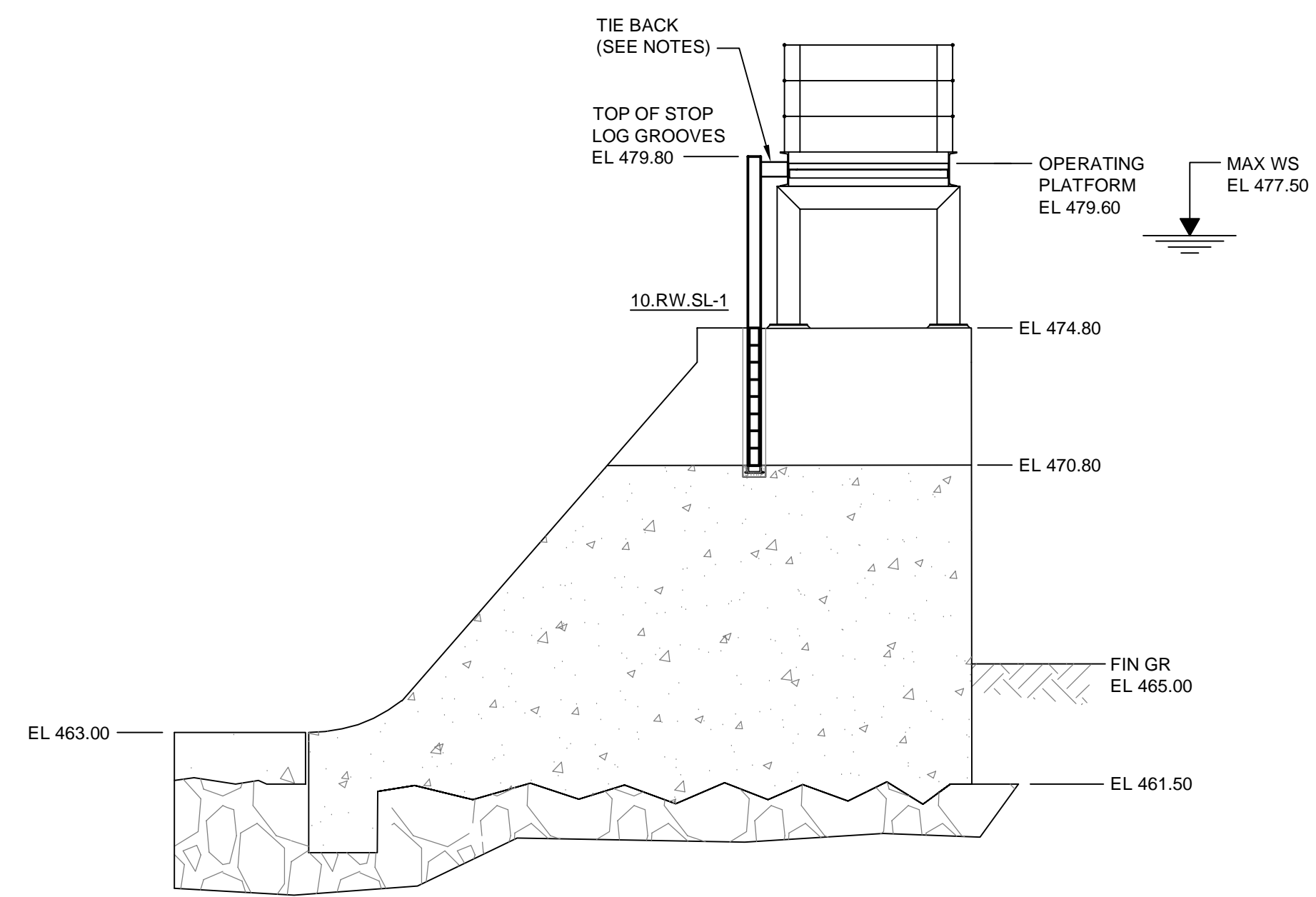
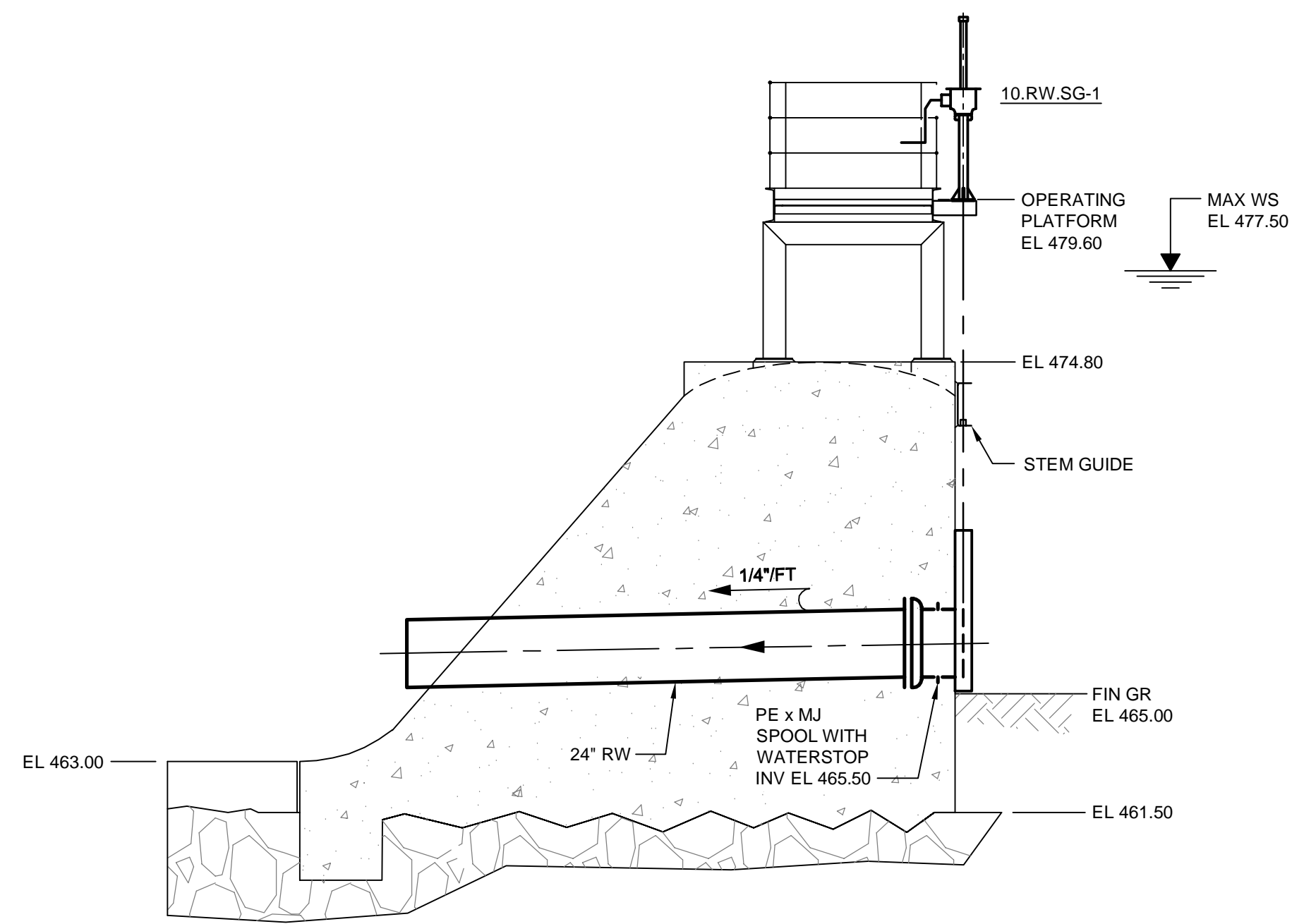
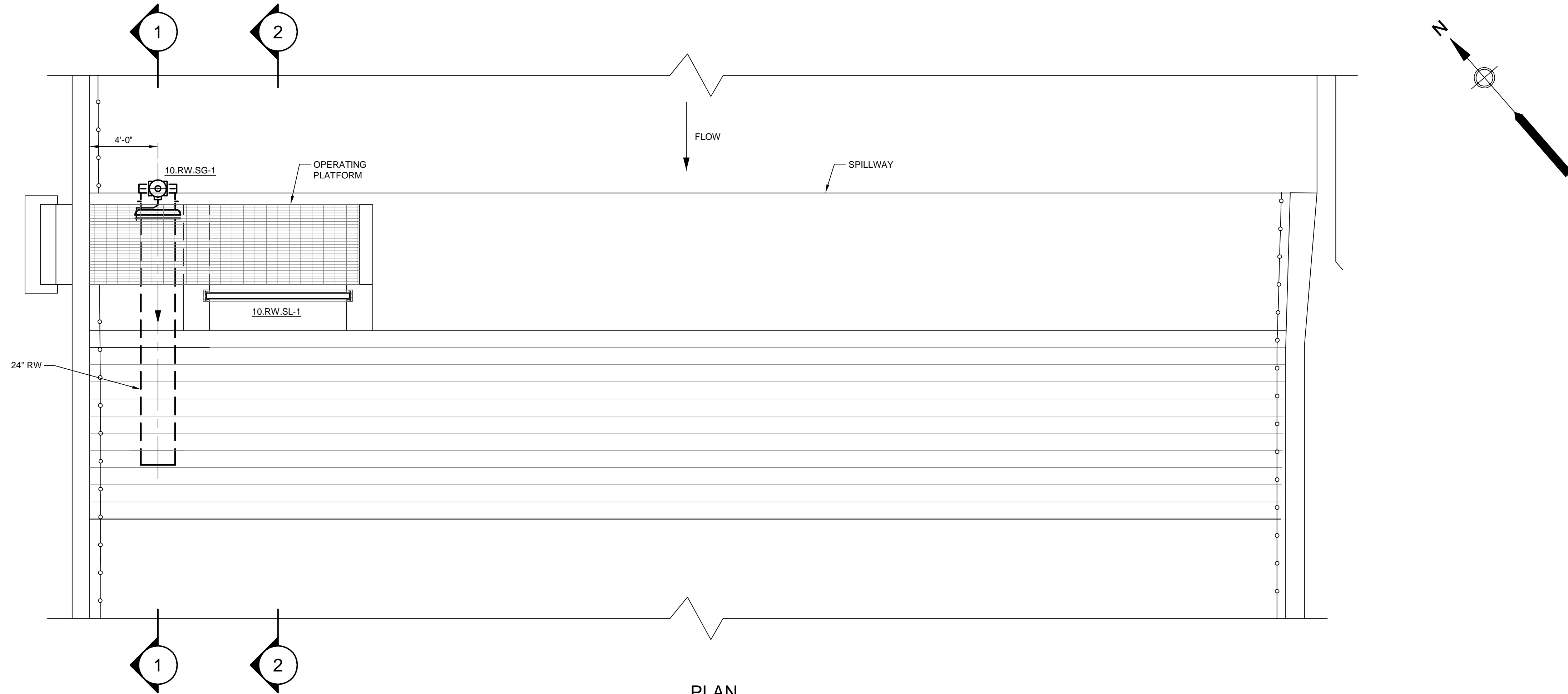
MECHANICAL PROCESS

SHEET TITLE

PLAN AND SECTION

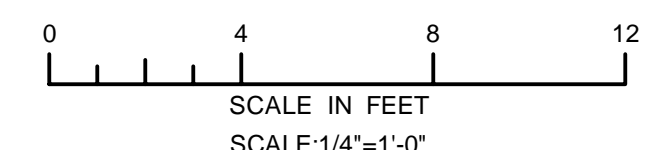
SHEET NUMBER

10 D-101



NOTES:

- STOP LOG MANUFACTURER TO PROVIDE TIE BACKS FROM FRAME TO OPERATING PLATFORM. CONTRACTOR TO COORDINATE.



PATH: P:\60604936 - MASSDCR SIX ABANDONED DAMS\SHEETS\10 D-101.DWG
 LAST UPDATE: Wednesday, May 11, 2022 11:04:34 AM
 PLOT DATE: Monday, March 25, 2024 2:30:35 PM