TALBOT MILLS DAM REMOVAL/
CONCORD RIVER RESTORATION PROJECT

BILLERICA, MA

CRT DEVELOPMENT REALTY, LLC (DAM OWNER)

PRELIMINARY (75%) DESIGN PLANS

DRAWING NO.	TITLE
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2	GENERAL NOTES
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4	EXISTING DAM SECTION AND ELEVATION
5	PROPOSED STAGING AND INVASIVE SPECIES CONTROL PLAN
6	PROPOSED STAGING AND ACCESS PLAN (ALTERNATIVE 1)
7A	PROPOSED ACCESS, STAGING, WATER CONTROLS, & REMOVALS PLAN (ALTERNATIVE 1)
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8	PROPOSED ACCESS & WATER CONTROL DETAILS (ALTERNATIVE 2)
9	PROPOSED DAM BREACH SECTION AND ELEVATION
10	PROPOSED SITE PLAN
11	EROSION AND SEDIMENT CONTROL DETAILS

FUNDING PARTNERS:
MA DEPT. OF FISH & GAME, DIV. OF ECOLOGICAL RESTORATION
MA DEPT. OF FISH & GAME, DIV. OF MARINE FISHERIES
MA DEPT. OF ENVIRONMENTAL PROTECTION
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION RESTORATION CENTER
US FISH AND WILDLIFE SERVICE

SOURCE: GOOGLE *SCALE: 1" = 2000'*

PROJECT SITE

SOURCE: GOOGLE *SCALE: 1" = 1000'*

COMMONWEALTH OF MASSACHUSETTS
JILL W. GRIFFITHS
CIVIL
No. 51893
REGISTERED PROFESSIONAL ENGINEER

PRELIMINARY
NOT FOR
CONSTRUCTION

DATE	#	DESCRIPTIONS	BY	APP

DRAWN BY: MAO
CHECKED BY: JWG
APPROVED BY: JWG
PROJECT NO. 02450 DATE: 10/11/2024

TALBOT MILLS DAM REMOVAL /
CONCORD RIVER RESTORATION

COVER SHEET

OARS, INC.
23 Bradford Street
Concord, MA 01742

Gomez and Sullivan Engineers, D.P.C.
41 Liberty Hill Road
PO Box 2179
Henniker, NH 03242

SCALE: AS NOTED

DRAWING: 1

DATA SOURCES

1. HORIZONTAL DATUM IS NORTH AMERICAN DATUM (NAD) 1983, MASSACHUSETTS STATE PLANE COORDINATE SYSTEM, MAINLAND ZONE. VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM (NAVD) 1988 FEET.
2. CONTOUR INTERVAL SHOWN ON PLANS IS 1 FOOT.
3. TOPOGRAPHIC SURVEYS OF THE DAM AND DOWNSTREAM CHANNEL WERE CONDUCTED BY GOMEZ AND SULLIVAN ENGINEERS, DPC ON OCTOBER 6, 2014 AND AUGUST 9, 2022. PLANS WERE SUPPLEMENTED BY SURVEY DATA COLLECTED BY EAGLEBROOK ENGINEERING & SURVEY, LLC ON APRIL 14, 2009.
4. ALL OTHER TOPOGRAPHY OUTSIDE SURVEY AREAS DERIVED FROM LIDAR DATA WITH A VERTICAL ACCURACY OF 0.56 FEET COLLECTED IN WINTER/SPRING 2011 AND OBTAINED FROM MASSGIS.
5. BATHYMETRIC DATA WITHIN THE IMPOUNDMENT WAS COLLECTED BY GOMEZ AND SULLIVAN ENGINEERS, DPC ON JULY 28, 2021.
6. WETLAND BOUNDARIES IN THE VICINITY OF THE DAM AND MILL POND WERE DELINEATED BY LEC ENVIRONMENTAL CONSULTANTS, INC ON JUNE 29, 2022. WETLAND BOUNDARIES UPSTREAM OF THE MILL POND AND DOWNSTREAM OF FAULKNER STREET WERE DERIVED FROM 2005 MASSACHUSETTS DEPT. OF ENVIRONMENTAL PROTECTION (MASSDEP) WETLANDS DATA AND/OR AERIAL IMAGERY.
7. PROPERTY BOUNDARIES WERE OBTAINED FROM MASSGIS.
8. BORDERING LAND SUBJECT TO FLOODING (BLSF) DEPICTED ON THE PLANS IS BASED ON THE 100-YEAR FLOOD INUNDATION MAPPING DEVELOPED BY GOMEZ AND SULLIVAN ENGINEERS, DPC FOR EXISTING AND PROPOSED CONDITIONS. THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) 100-YEAR REGULATORY FLOODPLAIN (ZONE AE) IS ALSO SHOWN FOR REFERENCE BUT IS ASSUMED TO BE LESS ACCURATE THAN THE MODELED BLSF.

GENERAL NOTES

1. CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF EXCAVATION. CONTRACTOR SHALL NOTIFY DIG SAFE MASSACHUSETTS AT 811 OR 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION. SATURDAYS, SUNDAYS, AND LEGAL HOLIDAYS ARE NOT TO BE INCLUDED IN THE REQUIRED 72 HOUR NOTICE.
2. CONTRACTOR SHALL MAINTAIN CONTROL POINTS DURING CONSTRUCTION, INCLUDING BENCHMARKS AND ELEVATIONS AT CRITICAL AREAS. SITE LAYOUT SURVEY REQUIRED FOR CONSTRUCTION SHALL BE PROVIDED BY THE CONTRACTOR AND PERFORMED BY A MASSACHUSETTS' REGISTERED PROFESSIONAL LAND SURVEYOR. ALL GRADE STAKES SET BY SURVEYOR SHALL BE MAINTAINED BY CONTRACTOR UNTIL FINAL INSPECTION OF THE ITEM HAS BEEN COMPLETED BY ENGINEER.
3. EXCESSIVE IDLING DURING THE CONSTRUCTION PERIOD IS PROHIBITED. SIGNS SHALL BE POSTED AT THE SITE LIMITING IDLING TO 5 MINUTES OR LESS. PERIODIC INSPECTIONS SHALL BE CONDUCTED BY SITE SUPERVISORS TO ENSURE COMPLIANCE. STAGING AREAS SHALL BE LOCATED TO MINIMIZE EMISSION IMPACTS TO ABUTTING PROPERTIES.
4. ANY WOOD OR OTHER DEBRIS CAUGHT ON THE DAM OR IN THE SLUICEWAY SHALL BE REMOVED AND DISPOSED OF BY CONTRACTOR PRIOR TO CONSTRUCTION.
5. ALL OPTIONAL TASKS ARE TO BE COMPLETED AT THE CONTRACTOR'S DISCRETION AND SHALL BE ADDRESSED IN THE CONTRACTOR'S SUBMITTALS.
6. SUGGESTED DETAILS HAVE BEEN PROVIDED IN THE DRAWINGS FOR A TEMPORARY ACCESS BRIDGE TO BE USED BY THE CONTRACTOR. ALL COMPONENTS OF THE PROPOSED TEMPORARY BRIDGE SHALL BE DESIGNED AND DETAILED BY A LICENSED PROFESSIONAL ENGINEER REGISTERED TO PRACTICE IN THE COMMONWEALTH OF MASSACHUSETTS.
7. SUPPORTING SURFACE/CRANE FOUNDATION REQUIREMENTS:
   - 7.1. AN ENGINEERED CRITICAL LIFT PLAN SHALL BE DEVELOPED BY A QUALIFIED PROFESSIONAL ENGINEER TO DETAIL SUPPORTING SURFACE/CRANE FOUNDATION REQUIREMENTS FOR ANY PROPOSED CRANE USE.
   - 7.2. THE CRITICAL LIFT PLAN SHALL BE DEVELOPED IN ACCORDANCE WITH OSHA, THE COMMONWEALTH OF MASSACHUSETTS REQUIREMENTS, AND THE U.S. ARMY CORPS OF ENGINEERS EM 385-1-1, SECTION 16, LOAD HANDLING EQUIPMENT (LHE).
   - 7.3. THE CONTRACTOR SHALL SUBMIT A CRITICAL LIFT PLAN, INCLUDING ALL CALCULATIONS, STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE COMMONWEALTH OF MASSACHUSETTS.

CONSTRUCTION WASTE MANAGEMENT

1. SITE SHALL BE KEPT WELL ORGANIZED, SIGNED, AND FREE OF WASTE MATERIALS, DEBRIS, AND RUBBISH AT ALL TIMES. GOOD HOUSEKEEPING PRACTICES SHALL BE MAINTAINED ON A CONTINUOUS BASIS FROM WORK SITE TO WORK SITE. DISPOSAL OF ANY WASTE MATERIALS ON THE CONSTRUCTION SITE IS PROHIBITED.
2. SANITARY, WASTE DISPOSAL, AND EMPLOYEE FACILITIES SHALL BE PROVIDED BY CONTRACTOR.
3. ALL WATER RESOURCES (E.G., GROUND AND SURFACE WATERS), INCLUDING ALL DRAINS AND CATCH BASINS, SHALL BE PROTECTED FROM LEACHING AND/OR RUN-OFF OF CHEMICAL POLLUTANTS, SOLID WASTES, AND CONSTRUCTION SITE DEBRIS. ALL CATCH BASINS SHALL BE MAINTAINED FREE FLOWING.
4. ALL COMBUSTIBLE WASTE MATERIALS SHALL BE PLACED IN COVERED METAL CONTAINERS AND PROMPTLY DISPOSED OF IN AN APPROVED MANNER AT AN APPROVED WASTE DISPOSAL FACILITY.
5. STORAGE AND/OR USE OF CHEMICALS, FUELS, OILS, GREASES, BITUMINOUS MATERIALS, SOLIDS, WASTE WASHINGS, AND CEMENT SHALL BE HANDLED APPROPRIATELY AS TO PREVENT LEACHING OR SURFACE RUNOFF INTO PUBLIC WATERS OR DRAINS. ALL APPROVED STORAGE AREAS FOR THESE MATERIALS MUST BE DIKED.
6. ALL ROADWAYS SHALL BE MAINTAINED FREE OF DEBRIS. STABILIZED CONSTRUCTION ENTRANCES SHALL BE CONSTRUCTED TO CAPTURE DEBRIS FROM WHEELS OF CONSTRUCTION VEHICLES. VEHICLES SHALL BE INSPECTED AT ENTRANCES BEFORE TURNING ONTO THE ROADWAY AND EXCESS DEBRIS SHALL BE REMOVED.
7. ALL EXCESS DREDGED MATERIALS SHALL BE REMOVED FROM THE SITE AS SOON AS POSSIBLE AND IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS FOR REUSE AND DISPOSAL.

CARE AND DIVERSION OF WATER

1. CONTRACTOR SHALL PREPARE A WATER CONTROL PLAN STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN MASSACHUSETTS TO BE APPROVED BY ENGINEER INCLUDING 1) PROPOSED COFFERDAM/TEMPORARY BYPASS PLAN, DETAILS, AND CALCULATIONS 2) WATER CONTROL CONTINGENCY PLAN, AND 3) DEWATERING/SEDIMENT CONTROL METHODS. WATER CONTROL PLAN SHALL CONFORM TO ALL APPLICABLE ENVIRONMENTAL PERMIT REQUIREMENTS AND CONDITIONS.
2. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO WORK OR EQUIPMENT BY HIGH WATER OR STORMS.
3. ANY WATER PUMPED FROM THE EXCAVATION MUST FLOW THROUGH A SEDIMENT FILTER BAG (OR APPROVED EQUAL) PRIOR TO RELEASE INTO ANY WATER BODY.

TEMPORARY ACCESS ROUTE STABILIZATION

1. DEFINITION: THE STABILIZATION OF TEMPORARY CONSTRUCTION ACCESS ROUTES, ON-SITE VEHICLE TRANSPORTATION ROUTES, AND CONSTRUCTION PARKING AREAS.
2. PURPOSE: TO CONTROL EROSION ON TEMPORARY CONSTRUCTION ROUTES AND PARKING AREAS.
3. CONDITION WHERE PRACTICE APPLIES: ALL TRAFFIC ROUTES AND PARKING AREAS FOR TEMPORARY USE BY CONSTRUCTION TRAFFIC.
4. DESIGN CRITERIA: CONSTRUCTION ROADS SHOULD BE LOCATED TO REDUCE EROSION POTENTIAL, MINIMIZE IMPACT ON EXISTING SITE RESOURCES, AND MAINTAIN OPERATIONS IN A SAFE MANNER. HIGHLY EROSIVE SOILS, WET OR ROCKY AREAS, AND STEEP SLOPES SHOULD BE AVOIDED. ROADS SHOULD BE ROUTED WHERE SEASONAL WATER TABLES ARE DEEPER THAN 18 INCHES. SURFACE RUNOFF AND CONTROL SHOULD BE IN ACCORDANCE WITH OTHER STANDARDS.
5. ROAD GRADE: A MAXIMUM GRADE OF 12% IS RECOMMENDED, ALTHOUGH GRADES UP TO 20% ARE ACCEPTABLE FOR SHORT DISTANCES.
6. ROAD WIDTH: 14 FT (9 FT MINIMUM) FOR ONE-WAY TRAFFIC, OR 24 FT MINIMUM FOR TWO-WAY TRAFFIC.
7. SIDE SLOPE OF ROAD EMBANKMENT: 2:1 OR FLATTER.
8. COMPOSITION: USE AN 8-INCH LAYER OF STATE DOT APPROVED GRAVEL SUB-BASE OR EQUIVALENT, PLACED ON A GEOTEXTILE FABRIC.
9. MAINTENANCE: ACCESS ROUTES AND PARKING AREAS SHALL BE INSPECTED PERIODICALLY FOR CONDITION OF SURFACE AND TOPDRESSED WITH NEW GRAVEL AS NEEDED.
10. RESTORATION: UPON COMPLETION OF THE WORK, ALL TEMPORARY MATERIALS SHALL BE REMOVED AND THE SITE SHALL BE RESTORED TO PRE-PROJECT CONDITIONS.

CONSTRUCTION SEQUENCE

1. CONTRACTOR SHALL PREPARE A CONSTRUCTION SEQUENCE PLAN TO BE APPROVED BY OWNER AND ENGINEER. THE FOLLOWING GENERAL SEQUENCE SHALL BE ADAPTED FOR THE SITE-SPECIFIC REQUIREMENTS.
2. INSTALL TURBIDITY CURTAINS TO CONTAIN WATER CHESTNUT IN IMPOUNDMENT PRIOR TO DEWATERING.
3. REMOVE STLOPLOGS FROM SLUICE GATE TO LOWER IMPOUNDMENT.
4. INSTALL EROSION AND SEDIMENTATION CONTROLS.
5. INSTALL OIL BOOM ACROSS CHANNEL DOWNSTREAM OF DAM.
6. REMOVE EXISTING FENCE SECTIONS AS NEEDED TO FACILITATE ACCESS. REPLACE IN KIND FOLLOWING CONSTRUCTION.
7. INSTALL TEMPORARY FENCING AND SWING GATES AT ENTRANCE(S) TO STAGING AREA(S).
8. OPTIONAL – INSTALL TEMPORARY ACCESS ROAD FROM STAGING AREA AT 6 OLD ELM STREET TO LEFT DAM ABUTMENT.
9. OPTIONAL – INSTALL TEMPORARY COFFERDAM AT UPSTREAM END OF SLUICEWAY TO FACILITATE CONSTRUCTION OF TEMPORARY SLUICEWAY CROSSING AT CONTRACTOR'S DISCRETION.
10. OPTIONAL – REMOVE WOODEN PEDESTRIAN BRIDGE FROM SLUICEWAY, RETAINING STEEL BEAM SPANNING THE SLUICEWAY BELOW. REINSTALL OR REPLACE IN KIND FOLLOWING CONSTRUCTION.
11. OPTIONAL – INSTALL TEMPORARY STONE FILL CROSSING IN SLUICEWAY WITH 4' DIA. BYPASS PIPE EXTENDING THROUGH SLUICE GATE OPENING. REMOVE TEMPORARY COFFERDAM AT UPSTREAM END OF SLUICEWAY.
12. ANCHOR 1/2" STEEL PLATE TO INFRASTRUCTURE ADJACENT TO LEFT AND/OR RIGHT DAM ABUTMENTS TO PROTECT FROM FLOW AS REQUIRED BY WATER CONTROL PLAN.
13. REMOVE CONCRETE RIGHT ABUTMENT.
14. OPTIONAL – INSTALL TEMPORARY COFFERDAM UPSTREAM OF RIGHT ABUTMENT TO FACILITATE INSTALLATION OF TEMPORARY BRIDGE AT CONTRACTOR'S DISCRETION.
15. OPTIONAL – INSTALL TEMPORARY BRIDGE CROSSING AT RIGHT ABUTMENT.
16. OPTIONAL – INSTALL TEMPORARY STONE ACCESS ROAD ALONG SPILLWAY AT CONTRACTOR'S DISCRETION.
17. OPTIONAL – DREDGE SEDIMENT AND REMOVE ANY BLOCKAGES FOUND UPSTREAM OF LEFT ABUTMENT TO ALLOW FLOW THROUGH TWO EXISTING APPROX. 4' H X 3' W LOW-LEVEL OUTLETS.
18. BREACH 30-FOOT-WIDE SECTION OF GRANITE SPILLWAY AND FORMER TIMBER/ROCK DAM (IF FOUND) TO FACILITATE FLOW.
19. OPTIONAL – INSTALL COFFERDAM UPSTREAM OF SPILLWAY AT CONTRACTOR'S DISCRETION.
20. OPTIONAL – INSTALL TEMPORARY STONE RAMP FOR DOWNSTREAM ACCESS AT CONTRACTOR'S DISCRETION.
21. COMMENCE ARCHAEOLOGICAL RECORDATION (IF PRACTICABLE) AND REMOVAL OF FORMER DAM REMAINS (IF FOUND) FOLLOWED BY EXISTING GRANITE SPILLWAY. RETAIN STEPPED GRANITE BLOCKS ADJACENT TO LEFT ABUTMENT TO SUPPORT ABUTMENT (SEE ELEVATION SHEET 8). SALVAGE GRANITE BLOCKS AS REASONABLY PRACTICABLE FOR STOCKPILING AS DIRECTED BY OWNER. GRADE ANY SEDIMENT UPSTREAM OF DAM AT 3:1 SLOPE OR FLATTER.
22. REMOVE ANY TEMPORARY ACCESS RAMPS, ROADS, AND/OR COFFERDAMS WITHIN THE CHANNEL.
23. REMOVE TEMPORARY BRIDGE AND/OR SLUICEWAY CROSSING (IF UTILIZED).
24. REMOVE TEMPORARY FENCING AND SWING GATES.
25. REINSTALL OR REPLACE FENCE SECTIONS AND PEDESTRIAN BRIDGE IN KIND AS NEEDED.
26. RESTORE ACCESS AND STAGING AREAS TO FORMER CONDITIONS.
27. REMOVE EROSION AND POLLUTION CONTROL MEASURES ONLY AFTER ALL AREAS ARE STABILIZED TO THE SATISFACTION OF ENGINEER.

SOIL EROSION AND SEDIMENTATION CONTROL

1. ALL WORK SHALL BE CONDUCTED IN ACCORDANCE WITH MASSDEP EROSION AND SEDIMENTATION CONTROL GUIDELINES AND APPLICABLE NPDES STANDARDS.
2. ALL APPLICABLE SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO ANY SOIL OR STREAM DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
3. ALL DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN FOURTEEN (14) DAYS, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING WITH A NATIVE SEED MIXTURE. MULCH, WATER AND ANCHOR AS NECESSARY TO ESTABLISH GRASS AND PREVENT LOSS TO WIND OR EROSION. IF THE SEASON PREVENTS THE ESTABLISHMENT OF A TEMPORARY COVER, THE DISTURBED AREAS SHALL BE MULCHED WITH SMALL GRAIN STRAW AT A RATE OF TWO (2) TONS PER ACRE IN ACCORDANCE WITH STATE STANDARDS.
4. PERMANENT VEGETATION SHALL BE SEEDED WITH A NATIVE SEED MIXTURE ON ALL EXPOSED AREAS IMMEDIATELY AFTER FINAL GRADING. MULCH SHALL BE USED AS NECESSARY FOR PROTECTION UNTIL SEEDING IS ESTABLISHED.
5. ALL CRITICAL AREAS SUBJECT TO EROSION SHALL RECEIVE A TEMPORARY SEEDING WITH AN APPROVED NATIVE SEED MIXTURE IN COMBINATION WITH STRAW MULCH, AT A RATE OF TWO (2) TONS PER ACRE IN ACCORDANCE WITH STATE STANDARDS.
6. SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE SHALL BE SPRINKLED WITH WATER UNTIL THE SURFACE IS WET, TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED, OR MULCH SHALL BE APPLIED IN ACCORDANCE WITH STATE STANDARDS FOR EROSION CONTROL.
7. ALL SOIL WASHED, DROPPED, SPILLED, OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHTS-OF-WAY SHALL BE REMOVED IMMEDIATELY.
8. STOCKPILE AND STAGING LOCATIONS DETERMINED IN THE FIELD SHALL BE PLACED WITHIN THE LIMIT OF DISTURBANCE. ALL SOIL STOCKPILES SHALL BE TEMPORARILY STABILIZED IN ACCORDANCE WITH NOTE #3 AND PROTECTED BY COMPOST FILTER SOCKS ON DOWNHILL SIDES.
9. THE CONTRACTOR SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE, AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION AND THAT HAVE NOT BEEN FINALLY STABILIZED, STABILIZATION PRACTICES, STRUCTURAL PRACTICES, AND OTHER CONTROLS AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS AFTER THE END OF ANY STORM THAT PRODUCES AT LEAST 0.5 INCHES OF RAINFALL AT THE SITE. WHERE SITES HAVE BEEN FINALLY STABILIZED, SUCH INSPECTION SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH UNTIL FINAL COMPLETION. CRITICAL AREAS AND AREAS WHERE VEHICLES EXIT THE SITE SHALL BE INSPECTED DAILY.

PROPOSED DREDGE/FILL VOLUMES

TYPE	VOLUME (CY)	DESCRIPTION
DREDGE	440	GRANITE MASONRY SPILLWAY + ABUTMENT
	30	CONCRETE ABUTMENT
	350	WOOD/ROCK FILL FORMER DAM
	600	ROCK FILL BETWEEN DAMS
	220	ACTIVE SEDIMENT GRADING UPSTREAM OF DAMS
	1,640	**TOTAL DREDGE**
FILL	**0**	**TOTAL FILL**

PROPOSED DREDGING DIMENSIONS

LENGTH (FT)	150	SPILLWAY + ABUTMENT
WIDTH (FT)	30	BOTH DAMS + ACTIVE SEDIMENT GRADING
DEPTH (FT)	< 13	MAX HEIGHT OF SPILLWAY
AREA (SF)*	10,000	

**NOTE THAT THE VOLUME CALCULATED BY THESE DIMENSIONS IS LARGER THAN THE PROPOSED DREDGING VOLUME IN THE TABLE ABOVE BECAUSE IT IS CONSERVATIVE IN ALL DIMENSIONS.*

WETLAND RESOURCE AREA IMPACTS

WETLAND RESOURCE	AREA (SF)	
	TEMP. DISTURBANCE	PERMANENT CHANGE
BANK (LINEAR FEET)	1,200	-2,800
LAND UNDER WATER (LUW)	46,000	-436,000
BORDERING VEGETATED WETLANDS (BVW)	0	435,000
BORDERING LAND SUBJECT TO FLOODING (BLSF)	900	-441,000
BVW BUFFER ZONE	51,000	0
RIVERFRONT AREA (RFA)	61,000	-314,000

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TALBOT MILLS DAM REMOVAL / CONCORD RIVER RESTORATION

GENERAL NOTES

OARS, INC.
23 Bradford Street
Concord, MA 01742

Gomez and Sullivan Engineers, D.P.C.
41 Liberty Hill Road
PO Box 2179
Henniker, NH 03242

SCALE: NONE

DRAWING: 2

PARCEL 9–93–1
71 FAULKNER ST
FAULKNER MILLS AQUISITION CORP.

FAULKNER MIILLS COMPLEX

STILLING BASIN

CB R = 114.0

CB R = 113.4

2'W X 3'H SLUICE GATE OUTLET TO SLUICEWAY UNDER BUILDING

STONE WALL

SLUICEWAY

CONC. WEIR WITH SLUICE GATE

FOOTBRIDGE

PARCEL 10–39–4
0 FAULKNER ST
FAULKNER MILLS AQUISITION CORP.

EXISTING BANK/OHW/MAHW FOLLOWS STONE RETAINING WALLS (TYP)

CONC. SIDEWALK

STONE RETAINING WALL

GAZEBO

200' RIVERFRONT AREA (TYP)

100' BANK/BVW BUFFER (TYP)

PARCEL 10–39–3
0 FAULKNER ST
L. DOHERTY TR.

FLOODPLAIN LIMIT DELINEATED BY GREEN ENGINEERING AFFILIATES, INC. 1971

100' RIVERFRONT AREA (TYP.)

GRANITE MASONRY SPILLWAY APPROX. CREST EL. 108.2 FT

CONCRETE ABUTMENT

FORMER FISHWAY LOCATION

GRANITE ABUTMENT

TALBOT MILLS DAM, ADJACENT WALLS, SPILLWAYS, GATES, AND FLOWAGE RIGHTS OWNED BY CRT DEVELOPMENT CORP. (DEED BK. 2429, PG. 687)

PARKING LOT

CONCORD RIVER

FAULKNER STREET

BEDROCK OUTCROPS DOWNSTREAM OF DAM (ELEVATIONS VARY/UNKNOWN)

25' NO ALTERATION ZONE

ASSUMED SUBMERGED 1798 WOOD FRAME/ROCK FILL DAM (APPROX.)

1/4

2/4

ASSUMED SUBMERGED ROCK FILL BETWEEN DAMS

GRANITE ABUTMENT

EXISTING BANK/OHW/MAHW (TYP)

FEMA ZONE AE (TYP)

BVW (TYP)

ROCK OUTCROP

APPROX. LOCATION OF IRON BOLT BENCHMARK EL. 108.81 FT NAVD 88

TALBOT MIILLS COMPLEX

FORMER INTAKE STRUCTURE

PARCEL 9–94–0
1 OLD ELM ST
L&P ALUMINUM HOLDINGS LLC

PARCEL 10–231–2
2 OLD ELM ST
MIDDLESEX CANAL ASSOC. INC.

FORMER WAREHOUSE/FUTURE MUSEUM BLDG.

IMPOUNDMENT (MILL POND)

40' 0 40' 80'
SCALE:1"=40'

LEGEND

- MINOR CONTOUR
- MAJOR CONTOUR
- PROPERTY BOUNDARY
- OHE — OVERHEAD ELECTRIC LINE
- TREE LINE
- BANK/ORDINARY HIGH WATER(OHW)/MEAN ANNUAL HIGH WATER (MAHW)
- BORDERING VEGETATED WETLAND (BVW)
- 25' NO ALTERATION ZONE
- 100' BANK/BVW BUFFER
- 100' RIVERFRONT AREA (100' BANK BUFFER)
- 200' RIVERFRONT AREA (200' BANK BUFFER)
- AE — FEMA FLOOD ZONE AE
- 1971 FLOODPLAIN LIMIT

TALBOT MILLS DAM REMOVAL / CONCORD RIVER RESTORATION

EXISTING SITE PLAN

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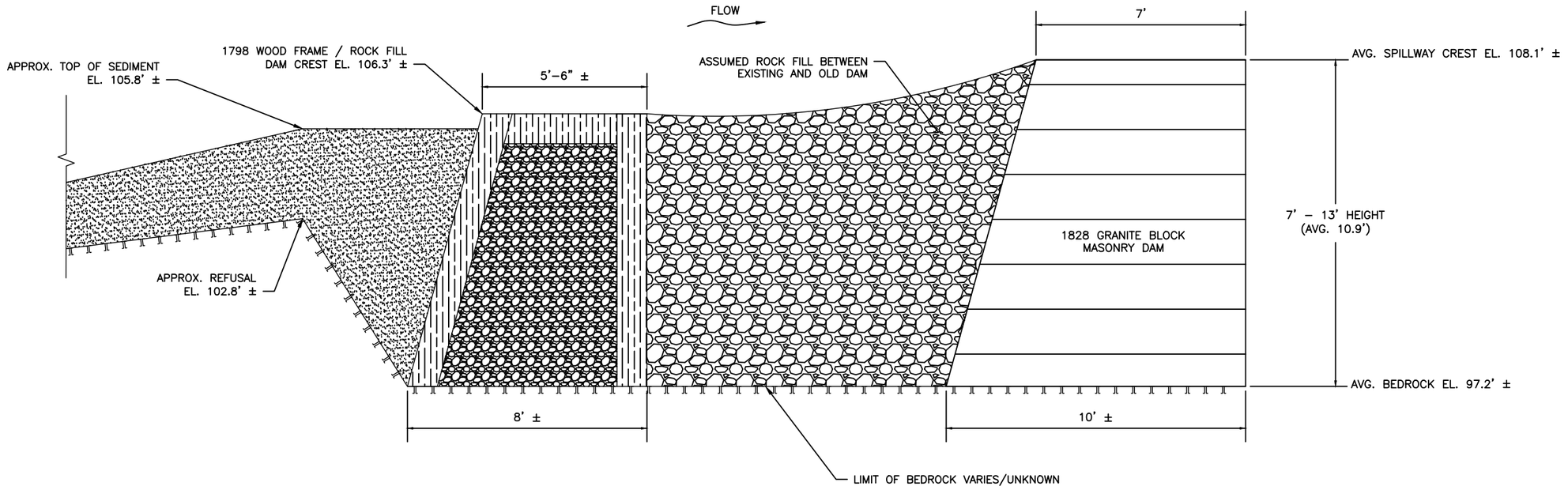
OARS, INC.
23 Bradford Street
Concord, MA 01742

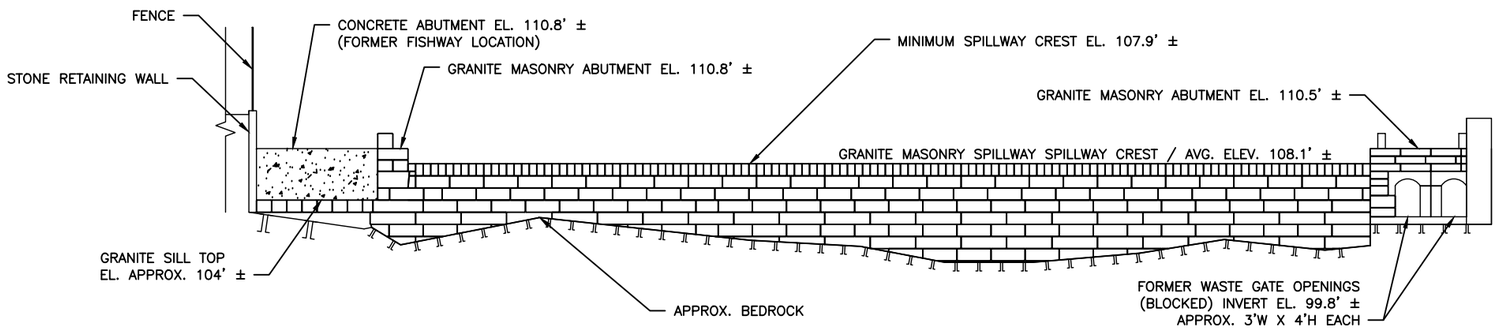
Gomez and Sullivan Engineers, D.P.C.
41 Liberty Hill Road
PO Box 2179
Henniker, NH 03242

SCALE: 1" = 40'

DRAWING: 3



1/4 EXISTING AND 1798 DAM SECTION
SCALE: 1"=4'



2/4 EXISTING DAM ELEVATION (LOOKING UPSTREAM)
SCALE: 1" = 20'

4' 0 4' 8'
SCALE:1"=4'

20' 0 20' 40'
SCALE:1"=20'

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Henniker, NH 03242

SCALE: AS NOTED

DRAWING: 4

FAULKNER MILLS COMPLEX

CONC. WEIR WITH SLUICE GATE

FOOTBRIDGE

TALBOT MILLS DAM

FAULKNER STREET

CONCORD RIVER

COMPOST FILTER TUBE ON PAVEMENT OR APPROVED EQUAL (SEE SHEET 10 FOR DETAIL)

ASSUMED SUBMERGED 1798 WOOD FRAME/ROCK FILL DAM (APPROX.)

ASSUMED SUBMERGED ROCK FILL BETWEEN DAMS

TALBOT MILLS COMPLEX

WATER CHESTNUT GROWTH AREA (TYP)

OLD ELM STREET

FORMER WAREHOUSE/FUTURE MUSEUM BLDG.

FORMER MIDDLESEX CANAL

POTENTIAL STAGING/SEDIMENT DEWATERING AREA

PROPOSED INVASIVE AQUATIC VEGETATION CONTAINMENT (TURBIDITY) CURTAIN (SEE SHEET 10 FOR DETAIL)

COMPOST FILTER SOCK OR APPROVED EQUAL (SEE SHEET 10 FOR DETAIL)

200' RFA

100' BANK/BVW BUFFER

FLOOD PLAIN LIMIT DELINEATED BY GREEN ENGINEERING AFFILIATES, INC. 1971

BVW (TYP)

100' RFA

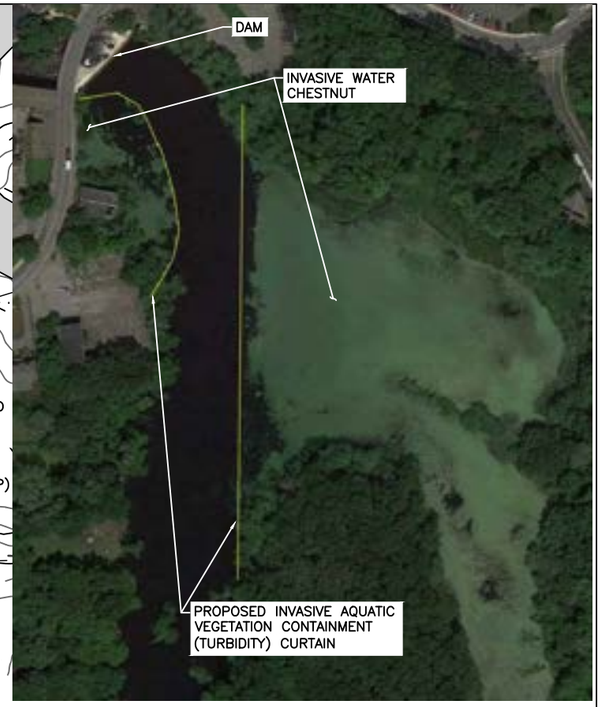
FEMA ZONE AE (TYP)

EXISTING BANK/OHW/MAHW (TYP)

WATER CHESTNUT GROWTH AREA (TYP)

60' 0 60' 120'

SCALE:1"=60'



EXTENTS OF AQUATIC VEGETATION CONTROL

SCALE: NOT TO SCALE

LEGEND

- MINOR CONTOUR
- MAJOR CONTOUR
- PROPERTY BOUNDARY
- OHE — OVERHEAD ELECTRIC LINE
- TREE LINE
- BANK/ORDINARY HIGH WATER (OHW)/MEAN ANNUAL HIGH WATER (MAHW)
- BORDERING VEGETATED WETLAND (BVW)
- 100' BANK/BVW BUFFER
- 100' RIVERFRONT AREA (100' BANK BUFFER)
- 200' RIVERFRONT AREA (200' BANK BUFFER)
- FEMA FLOOD ZONE AE
- 1971 FLOODPLAIN LIMIT
- AQUATIC VEGETATION CONTAINMENT CURTAIN
- COMPOST FILTER TUBE

NOTES:

1. PERMISSION TO USE POTENTIAL STAGING/LOADING AREAS TO BE CONFIRMED WITH LANDOWNER(S) AND TEMPORARY ACCESS EASEMENTS TO BE ESTABLISHED AS NEEDED.
2. PROPOSED AQUATIC VEGETATION CONTAINMENT CURTAIN TO BE INSTALLED ALONG EDGES OF EXISTING INVASIVE WATER CHESTNUT GROWTH AREAS TO PRIOR TO LOWERING OF THE IMPOUNDMENT TO MINIMIZE DOWNSTREAM TRANSPORT OF SEDIMENT CONTAINING NUTS. SEE SHEET 10 FOR DETAIL.

PRELIMINARY NOT FOR CONSTRUCTION

DATE	#	DESCRIPTIONS	BY	APP

DRAWN BY: MAO

CHECKED BY: JWG

APPROVED BY: JWG

PROJECT NO. 02450 DATE: 10/11/2024

TALBOT MILLS DAM REMOVAL / CONCORD RIVER RESTORATION

PROPOSED STAGING AND INVASIVE SPECIES CONTROL PLAN

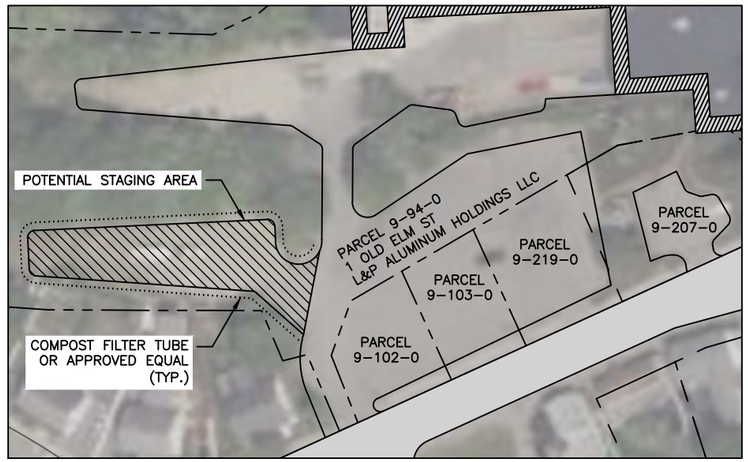
OARS, INC.
23 Bradford Street
Concord, MA 01742

Gomez and Sullivan Engineers, D.P.C.
41 Liberty Hill Road
PO Box 2179
Henniker, NH 03242

SCALE:1" = 60'

DRAWING: 5

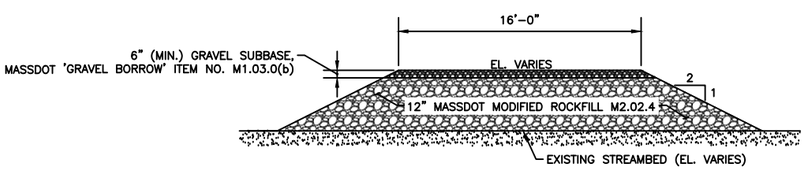
SITE PLAN
SCALE: 1" = 200'



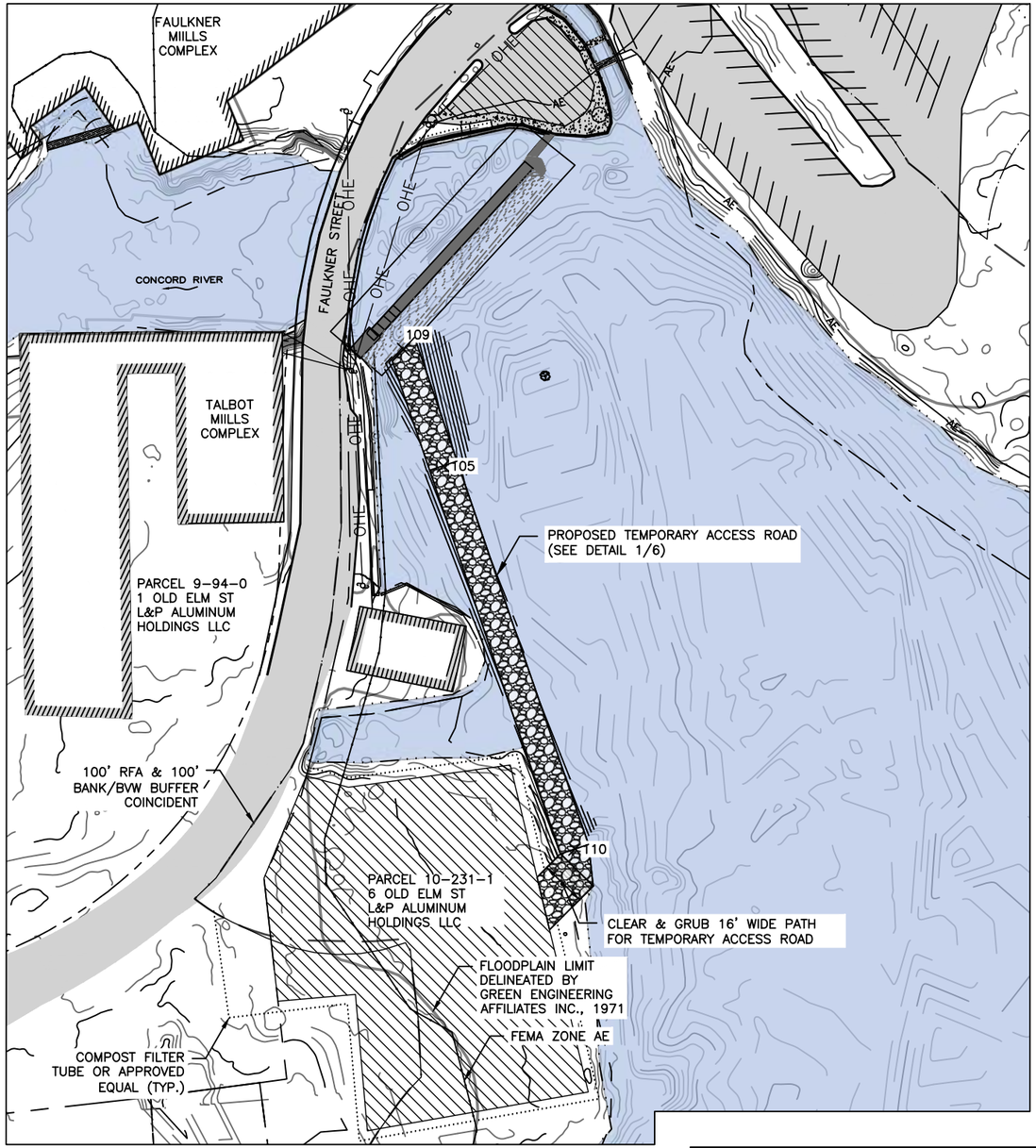
STAGING PLAN
SCALE: 1" = 100'

NOTES:

1. PARCELS 9-102-0, 9-103-0, 9-219-0, AND 9-207-0 ARE ADDRESS 0 OLD ELM STREET AND ARE OWNED BY L&P ALUMINUM HOLDINGS LLC.
2. PERMISSION TO USE POTENTIAL STAGING/LOADING AREAS TO BE CONFIRMED WITH LANDOWNER(S) AND TEMPORARY ACCESS EASEMENTS TO BE ESTABLISHED AS NEEDED.
3. TRAFFIC CONTROL PLAN, INCLUDING TEMPORARY FENCE AND GATE LOCATIONS SHALL BE SUBMITTED BY THE CONTRACTOR FOR APPROVAL BY THE ENGINEER AND OWNER.



1/6 TEMPORARY ACCESS ROAD DETAIL
SCALE: 1" = 10'



200' 0 200' 400'
SCALE:1"=200'

100' 0 100' 200'
SCALE:1"=100'

80' 0 80' 160'
SCALE:1"=80'

10' 0 10' 20'
SCALE:1"=10'

ACCESS PLAN
SCALE: 1" = 80'

PRELIMINARY
NOT FOR
CONSTRUCTION

DATE	#	DESCRIPTIONS	BY	APP

DRAWN BY: MAO
CHECKED BY: JWG
APPROVED BY: JWG
PROJECT NO. 02450 DATE: 10/11/2024

TALBOT MILLS DAM REMOVAL / CONCORD RIVER RESTORATION

PROPOSED STAGING AND ACCESS PLAN (ALTERNATIVE 1)

OARS, INC.
23 Bradford Street
Concord, MA 01742

Gomez and Sullivan Engineers, D.P.C.
41 Liberty Hill Road
PO Box 2179
Henniker, NH 03242

SCALE: AS NOTED

DRAWING: 6

IT IS A VIOLATION OF THE LAW FOR ANY PERSON TO ALTER THIS DRAWING IN ANYWAY UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER. ALTERATIONS MUST HAVE THE ENGINEER'S SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATION, THE SIGNATURE AND DATE.

FAULKNER MIILLS COMPLEX

2'W X 3'H SLUICE GATE OUTLET TO SLUICEWAY UNDER BUILDING

3. INSTALL TEMPORARY SECURITY FENCE (TYP).

2. REMOVE STOPLOGS FROM SLUICE GATE TO LOWER IMPOUNDMENT.

3. INSTALL TEMPORARY SWING GATES AT ENTRANCES TO STAGING AREA.

POTENTIAL STAGING AREA

POTENTIAL CRANE PAD FOR OPTIONAL DOWNSTREAM ACCESS IF NEEDED. AN ENGINEERED CRITICAL LIFT PLAN MUST BE SUBMITTED.

4. ANCHOR ½" STEEL PLATE TO STONE RETAINING WALL TO PROTECT FROM FLOW.

9. BREACH 30-FOOT-WIDE SECTION OF GRANITE SPILLWAY AND FORMER TIMBER/ROCK DAM (IF FOUND) TO FACILITATE FLOW.

OPTIONAL - REMOVE TREES AS NEEDED TO FACILITATE ACCESS. CONFIRM ANY TREE REMOVAL WITH LANDOWNER AND ENGINEER. REPLACE IN KIND FOLLOWING CONSTRUCTION.

6. REMOVE CONCRETE RIGHT ABUTMENT TO LOWER IMPOUNDMENT.

OPTIONAL - INSTALL TEMPORARY COFFERDAM TO SUPPORT ARCHAEOLOGICAL RECORDATION AND REMOVAL OF FORMER DAM REMAINS (IF NECESSARY).

5. INSTALL OIL BOOM ACROSS CHANNEL DOWNSTREAM OF DAM (SEE DETAIL SHEET 11).

CONCORD RIVER

STEPPED GRANITE BLOCKS TO REMAIN TO SUPPORT ABUTMENT (SEE ELEVATION SHEET 9).

8. INSTALL TEMPORARY STONE ACCESS ROAD ALONG SPILLWAY. TOP EL. 109 (SEE DETAIL SHEET 11).

5/9

6/9

109

10. COMMENCE ARCHAEOLOGICAL RECORDATION (IF PRACTICABLE) AND REMOVAL OF FORMER DAM REMAINS (IF FOUND) FOLLOWED BY EXISTING GRANITE SPILLWAY. SALVAGE GRANITE BLOCKS AS REASONABLY PRACTICABLE FOR STOCKPILING AS DIRECTED BY OWNER. GRADE ANY SEDIMENT UPSTREAM OF DAM AT 3H:1V SLOPE OR FLATTER.

TALBOT MIILLS COMPLEX

GRANITE ABUTMENT TO REMAIN

EXISITING BANK/OHW/MAHW (TYP)

1. INSTALL TURBIDITY CURTAIN PRIOR TO DEWATERING (SEE DETAIL SHEET 11).

7. INSTALL TEMPORARY ACCESS ROAD (SEE DETAIL SHEET 6).

105

100' BANK/BVW BUFFER

30' 0 30' 60'

SCALE:1"=30'

WATER CONTROL NOTES:

1. CONTRACTOR SHALL PREPARE A WATER CONTROL PLAN STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN MASSACHUSETTS TO BE APPROVED BY OWNER AND ENGINEER INCLUDING: 1) PROPOSED COFFERDAM/TEMPORARY BYPASS PLAN, DETAILS, AND CALCULATIONS; 2) WATER CONTROL CONTINGENCY PLAN; AND 3) DEWATERING/SEDIMENTATION CONTROL METHODS. WATER CONTROL PLAN SHALL CONFORM TO ALL APPLICABLE ENVIRONMENTAL PERMIT REQUIREMENTS AND CONDITIONS.
2. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO WORK OR EQUIPMENT BY HIGH WATER OR STORMS.
3. ANY PUMPED WATER MUST FLOW THROUGH AN APPROVED SEDIMENT FILTRATION BAG OR SETTLEMENT TANK PRIOR TO RELEASE INTO ANY WATERBODY.
4. BASED ON A FLOOD FREQUENCY ANALYSIS OF ANNUAL PEAK FLOW AT USGS GAGE NO. 01099500 (CONCORD RIVER AT LOWELL) THROUGH 2020 PRORATED BY RATIO OF DRAINAGE AREA TO THE PROJECT SITE (370/400 SQ MI), ESTIMATES FOR THE 2-, 10-, 50-, AND 100-YEAR FLOODS (50%, 10%, 2%, & 1% ANNUAL EXCEEDANCE PROBABILITY) ARE APPROX. 2400, 4000, 5500, AND 5700 CUBIC FEET PER SECOND (CFS), RESPECTIVELY.
5. BASED ON A DURATION ANALYSIS OF FLOW AT USGS GAGE NO. 01099500 THROUGH SEPT. 2021 PRORATED BY RATIO OF DRAINAGE AREAS TO THE PROJECT SITE, THE ANNUAL MEDIAN FLOW IS APPROX. 470 CFS, THE 95% EXCEEDANCE FLOW FOR SEPT. IS APPROX. 30 CFS, AND THE HIGHEST MONTHLY 5% EXCEEDANCE FLOW FOR FOR THE MONTHS OF AUG. THROUGH OCT. IS APPROX. 980 CFS.

LEGEND

- MINOR CONTOUR
- MAJOR CONTOUR
- OHE — OVERHEAD ELECTRIC LINE
- TREE LINE
- BANK/ORDINARY HIGH WATER (OHW)/MEAN ANNUAL HIGH WATER (MAHW)
- 100' BANK/BVW BUFFER
- AQUATIC VEGETATION CONTAINMENT CURTAIN
- COMPOST FILTER TUBE

PRELIMINARY NOT FOR CONSTRUCTION

DATE	#	DESCRIPTIONS	BY	APP

DRAWN BY: MAO
CHECKED BY: JWG
APPROVED BY: JWG
PROJECT NO. 02450 DATE: 10/11/2024

TALBOT MILLS DAM REMOVAL / CONCORD RIVER RESTORATION

PROPOSED ACCESS, STAGING, WATER CONTROLS, & REMOVALS PLAN (ALTERNATIVE 1)

OARS, INC.
23 Bradford Street
Concord, MA 01742

Gomez and Sullivan Engineers, D.P.C.
41 Liberty Hill Road
PO Box 2179
Henniker, NH 03242

SCALE: 1" = 30'

DRAWING: 7A

FAULKNER MIILLS COMPLEX

2'W X 3'H SLUICE GATE OUTLET TO SLUICEWAY UNDER BUILDING

4. INSTALL TEMPORARY SECURITY FENCE (TYP).

2. REMOVE STOPLOGS FROM SLUICE GATE TO LOWER IMPOUNDMENT.

3. INSTALL COMPOST FILTER TUBE (SEE DETAIL SHEET 11).

5. REMOVE EXISTING FENCE SECTIONS AS NEEDED TO FACILITATE ACCESS. REPLACE IN KIND FOLLOWING CONSTRUCTION.

6. INSTALL TEMPORARY SWING GATES AT ENTRANCES TO STAGING AREA.

POTENTIAL LOADING AREA

POTENTIAL STAGING AREA

ROAD PLATE

POTENTIAL CRANE PAD FOR OPTIONAL DOWNSTREAM ACCESS IF NEEDED. AN ENGINEERED CRITICAL LIFT PLAN MUST BE SUBMITTED.

8. REMOVE WOODEN PEDESTRIAN BRIDGE FROM SLUICEWAY, RETAINING STEEL BEAM SPANNING THE SLUICEWAY BELOW. REINSTALL OR REPLACE IN KIND FOLLOWING CONSTRUCTION.

9. INSTALL TEMPORARY STONE FILL CROSSING IN SLUICEWAY WITH 4' DIA. BYPASS PIPE EXTENDING THROUGH SLUICE GATE OPENING (SEE DETAIL SHEET 8).

7. OPTIONAL – INSTALL TEMPORARY COFFERDAM AT UPSTREAM END OF SLUICEWAY TO FACILITATE CONSTRUCTION OF TEMPORARY SLUICEWAY CROSSING (SEE DETAIL SHEET 11).

4. INSTALL OIL BOOM ACROSS CHANNEL DOWNSTREAM OF DAM (SEE DETAIL SHEET 11).

10. ANCHOR ½" STEEL PLATE TO STONE RETAINING WALL TO PROTECT FROM FLOW.

OPTIONAL – REMOVE TREES AS NEEDED TO FACILITATE ACCESS. CONFIRM ANY TREE REMOVAL WITH LANDOWNER AND ENGINEER. REPLACE IN KIND FOLLOWING CONSTRUCTION.

11. REMOVE CONCRETE RIGHT ABUTMENT TO LOWER IMPOUNDMENT.

12. OPTIONAL – INSTALL TEMPORARY COFFERDAM TO FACILITATE INSTALLATION OF TEMPORARY BRIDGE.

13. INSTALL TEMPORARY BRIDGE CROSSING (SEE DETAIL SHEET 8).

14. OPTIONAL – INSTALL TEMPORARY STONE ACCESS ROAD ALONG SPILLWAY.

17. OPTIONAL – INSTALL COFFERDAM UPSTREAM OF SPILLWAY.

18. OPTIONAL – INSTALL TEMPORARY STONE RAMP FOR DOWNSTREAM ACCESS.

CONCORD RIVER

FAULKNER STREET

TALBOT MIILLS COMPLEX

16. BREACH 30-FOOT-WIDE SECTION OF GRANITE SPILLWAY AND FORMER TIMBER/ROCK DAM (IF FOUND) TO FACILITATE FLOW. STEPPED GRANITE BLOCKS TO REMAIN TO SUPPORT ABUTMENT (SEE ELEVATION SHEET 9).

19. COMMENCE ARCHAEOLOGICAL RECORDATION (IF PRACTICABLE) AND REMOVAL OF FORMER DAM REMAINS (IF FOUND), FOLLOWED BY EXISTING GRANITE SPILLWAY. SALVAGE GRANITE BLOCKS AS REASONABLY PRACTICABLE FOR STOCKPILING AS DIRECTED BY OWNER. GRADE ANY SEDIMENT UPSTREAM OF DAM AT 3H:1V SLOPE OR FLATTER.

10. ANCHOR ½" STEEL PLATE TO CONCRETE BRIDGE ABUTMENT TO PROTECT FROM FLOW.

GRANITE ABUTMENT TO REMAIN

15. DREDGE AND REMOVE ANY BLOCKAGES FOUND UPSTREAM OF LEFT ABUTMENT TO ALLOW FLOW THROUGH TWO EXISTING APPROX. 4'Hx3'W LOW-LEVEL OUTLETS.

1. INSTALL TURBIDITY CURTAIN PRIOR TO DEWATERING (SEE DETAIL SHEET 11).

100' BANK/BVW BUFFER

POTENTIAL SEDIMENT DEWATERING AREA

POTENTIAL SEDIMENT DEWATERING AREA

3. INSTALL COMPOST FILTER TUBE OR APPROVED EQUAL (TYP) (SEE DETAIL SHEET 11)

EXISITING BANK/OHW/MAHW (TYP)

30' 0 30' 60'

SCALE:1"=30'

WATER CONTROL NOTES:

1. CONTRACTOR SHALL PREPARE A WATER CONTROL PLAN STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN MASSACHUSETTS TO BE APPROVED BY OWNER AND ENGINEER INCLUDING: 1) PROPOSED COFFERDAM/TEMPORARY BYPASS PLAN, DETAILS, AND CALCULATIONS; 2) WATER CONTROL CONTINGENCY PLAN; AND 3) DEWATERING/SEDIMENTATION CONTROL METHODS. WATER CONTROL PLAN SHALL CONFORM TO ALL APPLICABLE ENVIRONMENTAL PERMIT REQUIREMENTS AND CONDITIONS.
2. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO WORK OR EQUIPMENT BY HIGH WATER OR STORMS.
3. ANY PUMPED WATER MUST FLOW THROUGH AN APPROVED SEDIMENT FILTRATION BAG OR SETTLEMENT TANK PRIOR TO RELEASE INTO ANY WATERBODY.
4. BASED ON A FLOOD FREQUENCY ANALYSIS OF ANNUAL PEAK FLOW AT USGS GAGE NO. 01099500 (CONCORD RIVER AT LOWELL) THROUGH 2020 PRORATED BY RATIO OF DRAINAGE AREA TO THE PROJECT SITE (370/400 SQ MI), ESTIMATES FOR THE 2-, 10-, 50-, AND 100-YEAR FLOODS (50%, 10%, 2%, & 1% ANNUAL EXCEEDANCE PROBABILITY) ARE APPROX. 2400, 4000, 5500, AND 5700 CUBIC FEET PER SECOND (CFS), RESPECTIVELY.
5. BASED ON A DURATION ANALYSIS OF FLOW AT USGS GAGE NO. 01099500 THROUGH SEPT. 2021 PRORATED BY RATIO OF DRAINAGE AREAS TO THE PROJECT SITE, THE ANNUAL MEDIAN FLOW IS APPROX. 470 CFS, THE 95% EXCEEDANCE FLOW FOR SEPT. IS APPROX. 30 CFS, AND THE HIGHEST MONTHLY 5% EXCEEDANCE FLOW FOR FOR THE MONTHS OF AUG. THROUGH OCT. IS APPROX. 980 CFS.

LEGEND

- MINOR CONTOUR
- MAJOR CONTOUR
- OHE — OVERHEAD ELECTRIC LINE
- TREE LINE
- BANK/ORDINARY HIGH WATER (OHW)/MEAN ANNUAL HIGH WATER (MAHW)
- 100' BANK/BVW BUFFER
- AQUATIC VEGETATION CONTAINMENT CURTAIN
- COMPOST FILTER TUBE

PRELIMINARY NOT FOR CONSTRUCTION

DATE	#	DESCRIPTIONS	BY	APP

DRAWN BY: MAO
CHECKED BY: JWG
APPROVED BY: JWG
PROJECT NO. 02450 DATE: 10/11/2024

TALBOT MILLS DAM REMOVAL / CONCORD RIVER RESTORATION

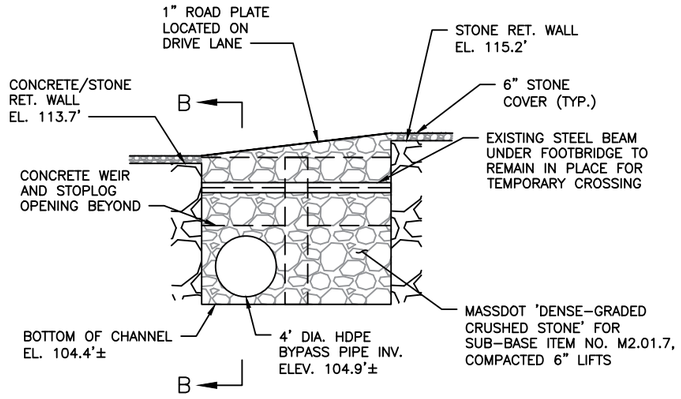
PROPOSED ACCESS, STAGING, WATER CONTROLS, & REMOVALS PLAN (ALTERNATIVE 2)

OARS, INC.
23 Bradford Street
Concord, MA 01742

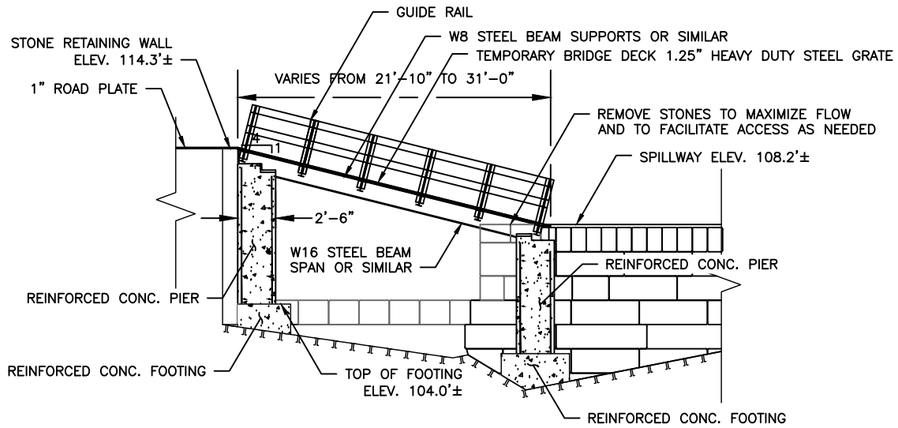
Gomez and Sullivan Engineers, D.P.C.
41 Liberty Hill Road
PO Box 2179
Henniker, NH 03242

SCALE: 1" = 30'

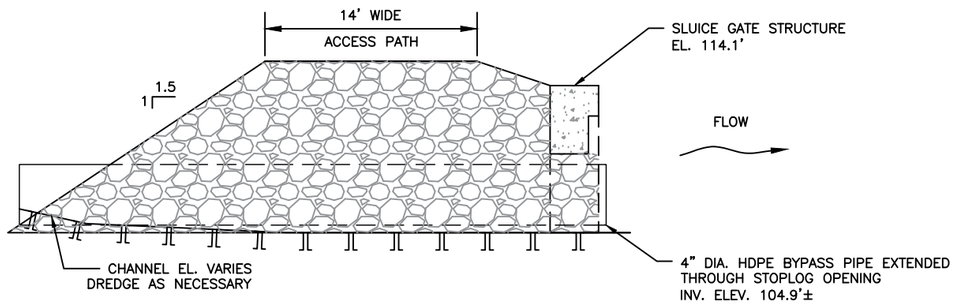
DRAWING: 7B



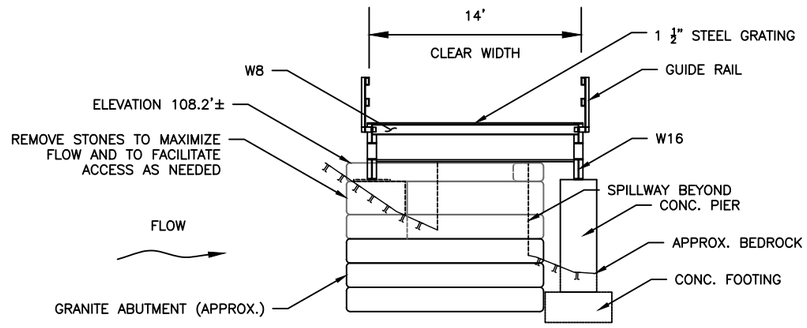
3/8 TEMPORARY CROSSING & BYPASS PIPE IN SLUICEWAY
(LOOKING DOWNSTREAM) SCALE: 1" = 10'



4/8 TEMPORARY ACCESS BRIDGE AT RIGHT ABUTMENT
(LOOKING UPSTREAM) SCALE: 1" = 10'



SECTION B-B
SCALE: 1" = 10'



5/8 TEMPORARY BRIDGE SECTION
SCALE: 1" = 10'

10' 0 10' 20'
SCALE:1"=10'

PRELIMINARY
NOT FOR
CONSTRUCTION

DATE	#	DESCRIPTIONS	BY	APP

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CHECKED BY: JWG
APPROVED BY: JWG
PROJECT NO. 02450 DATE: 10/11/2024

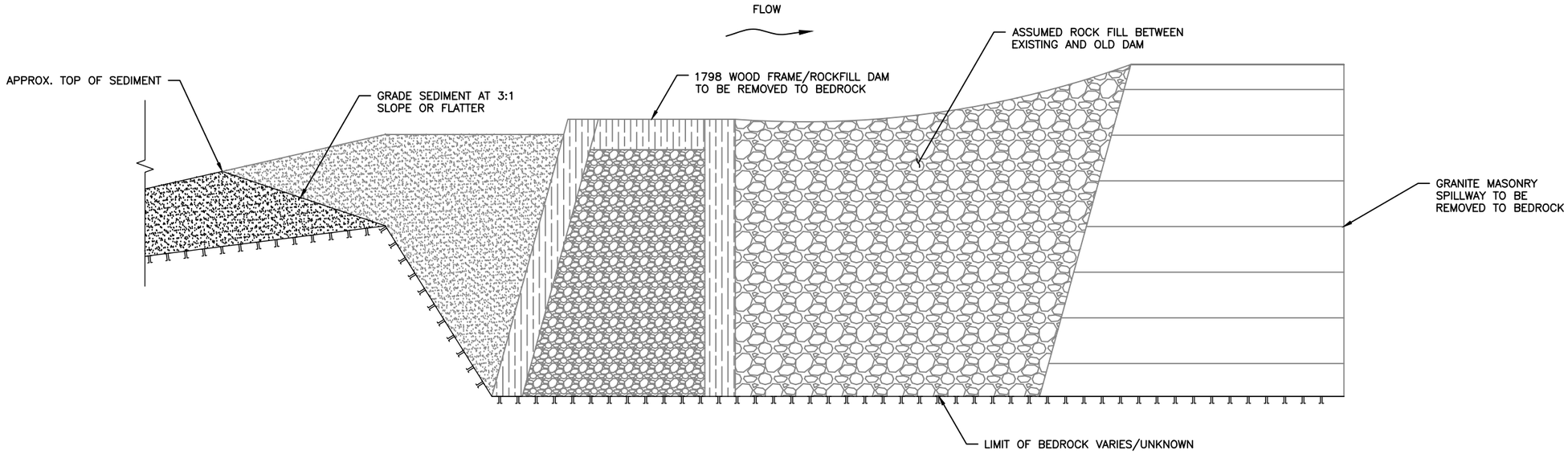
TALBOT MILLS DAM REMOVAL / CONCORD RIVER RESTORATION

PROPOSED ACCESS & WATER CONTROL DETAILS (ALTERNATIVE 2)

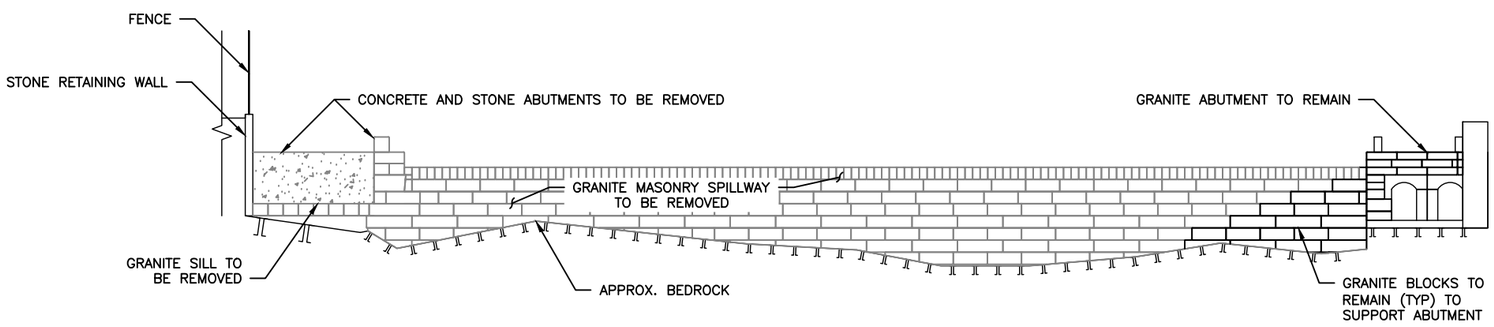
OARS, INC.
23 Bradford Street
Concord, MA 01742

Gomez and Sullivan Engineers, D.P.C.
41 Liberty Hill Road
PO Box 2179
Henniker, NH 03242

SCALE: AS NOTED
DRAWING: 8



5/9 PROPOSED DAM REMOVAL SECTION
SCALE: 1"=4'



6/9 PROPOSED DAM REMOVAL ELEVATION (LOOKING UPSTREAM)
SCALE: 1" = 20'

4' 0 4' 8'
SCALE:1"=4'

20' 0 20' 40'
SCALE:1"=20'

PRELIMINARY
NOT FOR
CONSTRUCTION

DATE	#	DESCRIPTIONS	BY	APP

DRAWN BY: MAO
CHECKED BY: JWG
APPROVED BY: JWG
PROJECT NO. 02450 DATE: 10/11/2024

TALBOT MILLS DAM REMOVAL / CONCORD RIVER RESTORATION

PROPOSED DAM BREACH SECTION AND ELEVATION

OARS, INC.
23 Bradford Street
Concord, MA 01742

Gomez and Sullivan Engineers, D.P.C.
41 Liberty Hill Road
PO Box 2179
Henniker, NH 03242

SCALE: AS NOTED
DRAWING: 9

FAULKNER MIILLS COMPLEX

ALL ACCESS/STAGING AREAS DISTURBED DURING CONSTRUCTION RESTORED TO PRE-CONSTRUCTION CONDITIONS

PROPOSED 100' RIVERFRONT AREA (TYP)

PROPOSED 100' BANK/BVW BUFFER (TYP)

PROPOSED 200' RIVERFRONT AREA

GRANITE SPILLWAY AND ADJACENT NORTHEAST ABUTMENTS REMOVED

103

104

105

PROPOSED GRADES ARE APPROXIMATE AND WILL FOLLOW BEDROCK UNDERLYING DAM STRUCTURES (VARIES/EXTENTS UNKNOWN)

PROPOSED BANK/OHW/MAHW (TYP)

CONCORD RIVER

FAULKNER STREET

STEPPED GRANITE BLOCKS TO REMAIN

GRANITE ABUTMENT TO REMAIN

TALBOT MIILLS COMPLEX

PROPOSED BLSF (TYP)

PROPOSED BVW (TYP)

OHE

30' 0 30' 60'

SCALE:1"=30'

LEGEND

- MINOR CONTOUR
- MAJOR CONTOUR
- PROPOSED CONTOUR
- OHE — OVERHEAD ELECTRIC LINE
- TREE LINE
- PROPOSED BANK/ORDINARY HIGH WATER (OHW)/MEAN ANNUAL HIGH WATER (MAHW)
- PROPOSED BORDERING VEGETATED WETLAND (BVW)
- PROPOSED 100' BVW/BANK BUFFER
- PROPOSED 100' RIVERFRONT AREA (100' BANK BUFFER)
- 200' PROPOSED RIVERFRONT AREA (200' BANK BUFFER)
- PROPOSED BORDERING LAND SUBJECT TO FLOODING (BLSF) (MODELED)

TALBOT MILLS DAM REMOVAL / CONCORD RIVER RESTORATION

PROPOSED SITE PLAN

PRELIMINARY NOT FOR CONSTRUCTION

DATE	#	DESCRIPTIONS	BY	APP

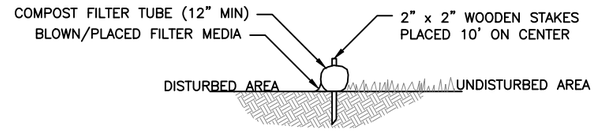
DRAWN BY: MAO
CHECKED BY: JWG
APPROVED BY: JWG
PROJECT NO. 02450 DATE: 10/11/2024

OARS, INC.
23 Bradford Street
Concord, MA 01742

Gomez and Sullivan Engineers, D.P.C.
41 Liberty Hill Road
PO Box 2179
Henniker, NH 03242

SCALE: 1" = 30'

DRAWING: 10



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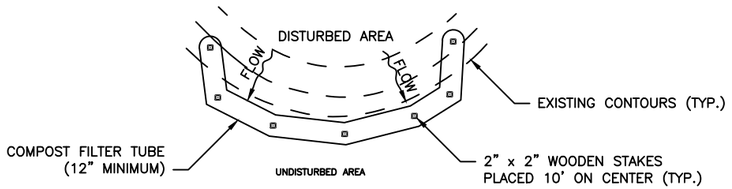
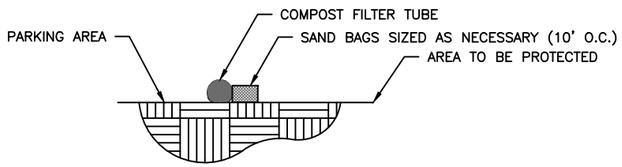


PLAN

COMPOST FILTER TUBE DETAIL

SCALE: NOT TO SCALE



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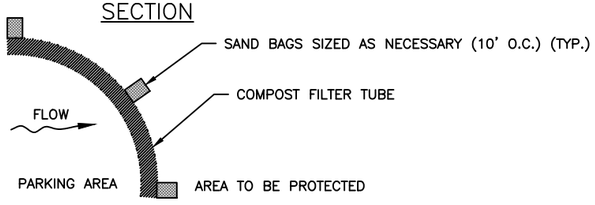
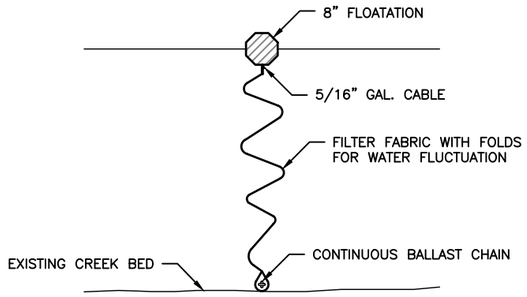


PLAN

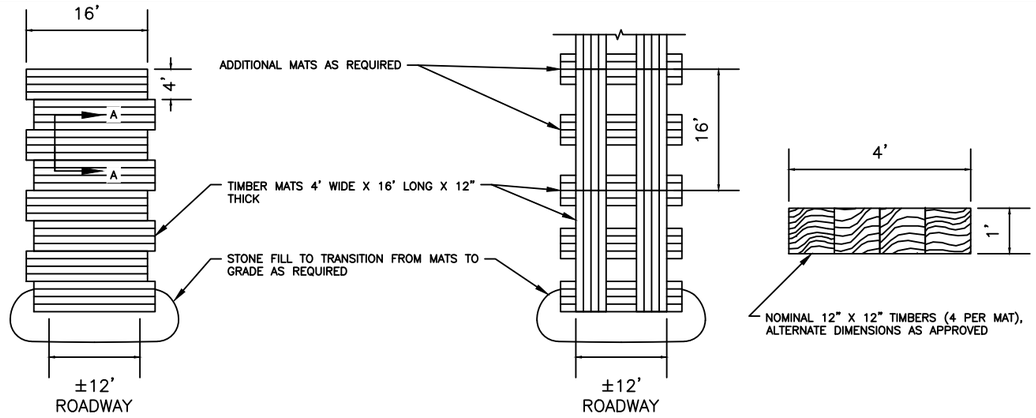
COMPOST FILTER TUBE ON PAVEMENT DETAIL

SCALE: NOT TO SCALE



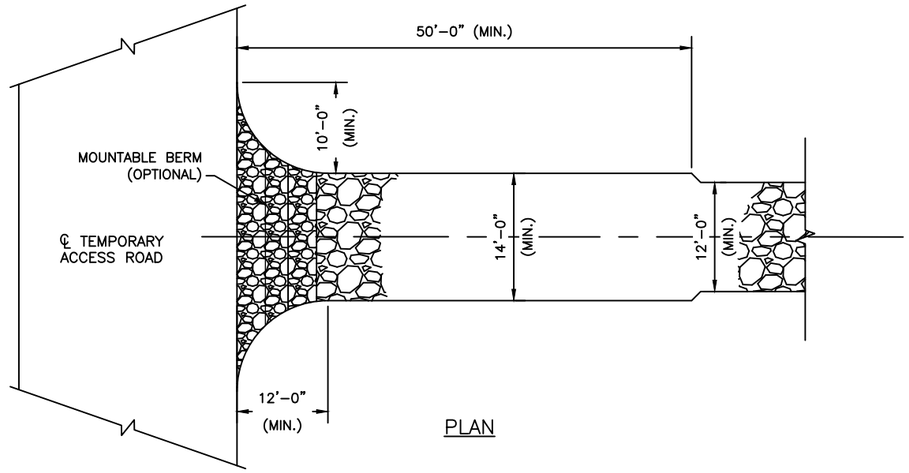
OIL BOOM SECTION DETAIL

SCALE: NOT TO SCALE

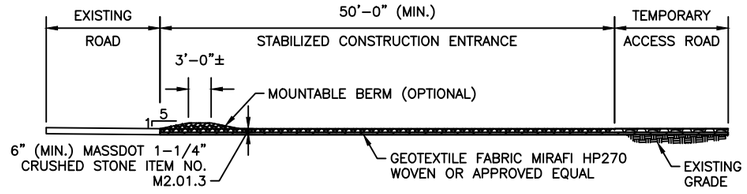


CONSTRUCTION MATTING DETAIL

SCALE: NOT TO SCALE

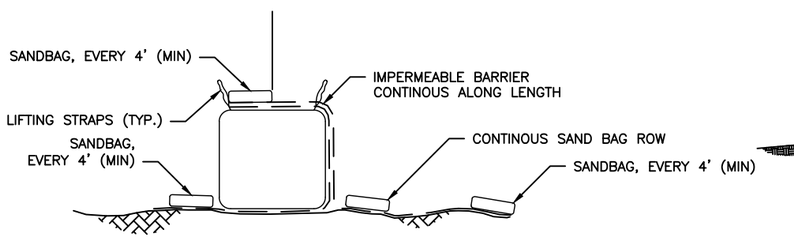


PLAN



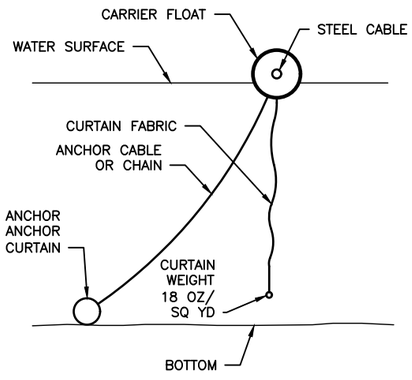
℄ SECTION
STABILIZED CONSTRUCTION ENTRANCE

SCALE: NOT TO SCALE



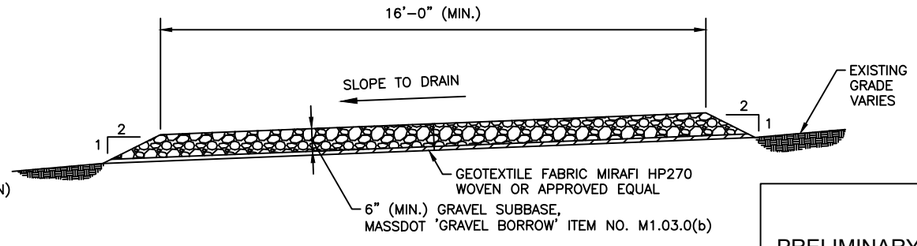
SUPER SACK DETAIL

SCALE: NOT TO SCALE



TURBIDITY CURTAIN DETAIL

SCALE: NOT TO SCALE



TEMPORARY CONSTRUCTION ROAD

SCALE: NOT TO SCALE

PRELIMINARY
NOT FOR
CONSTRUCTION

DATE	#	DESCRIPTIONS	BY	APP

DRAWN BY: MAO
CHECKED BY: JWG
APPROVED BY: JWG
PROJECT NO. 02450 DATE: 10/11/2024

TALBOT MILLS DAM REMOVAL / CONCORD RIVER RESTORATION

EROSION AND SEDIMENT CONTROL DETAILS

OARS, INC.
23 Bradford Street
Concord, MA 01742

Gomez and Sullivan Engineers, D.P.C.
41 Liberty Hill Road
PO Box 2179
Henniker, NH 03242

SCALE: NONE

DRAWING: 11