

GORHAM'S POND DAM EMERGENCY REPAIRS

CT DAM NO. 3504 · DARIEN · CONNECTICUT

CONTRACT DRAWINGS

TOWN OF DARIEN BID NUMBER 2024-24

MARCH 26, 2024

PREPARED FOR

TOWN OF DARIEN
2 RENSLOW ROAD
DARIEN, CT 06820

FIRST SELECTMAN:
JON E. ZAGRODZKY

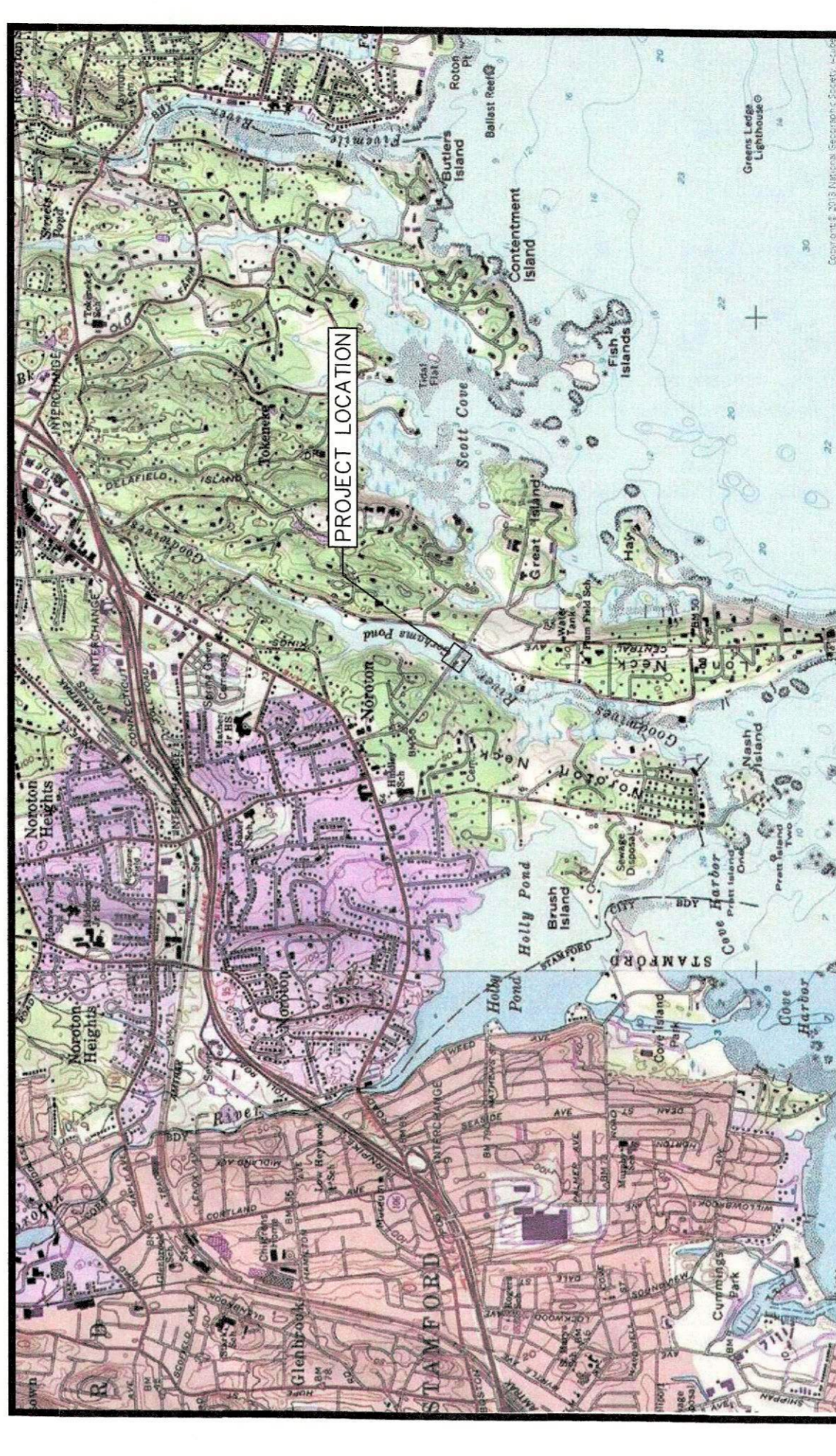
DIRECTOR OF PUBLIC WORKS:
EDWARD L. GENTILE JR., P.E.

PREPARED BY



FUSS & O'NEILL

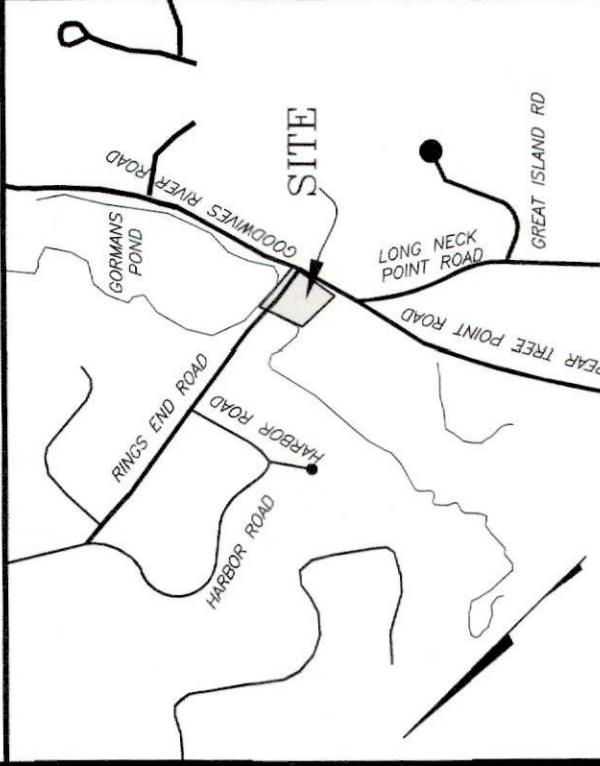
146 HARTFORD ROAD
MANCHESTER, CONNECTICUT 06040
860.646.2469
www.fando.com



LOCATION MAP
SCALE: 1" = 1000'

SHEET INDEX

SHEET No.	SHEET TITLE
GI-001	COVER SHEET
GI-002	GENERAL NOTES & INFORMATION
LTS	LIMITED TOPOGRAPHIC SURVEY
CP-101	SITE PREPARATION AND DEMOLITION PLAN
CE-101	EROSION, SEDIMENTATION, AND WATER CONTROL PLAN
CS-101	PROPOSED SITE PLAN
STR-101	STRUCTURE PLAN & ELEVATION
STR-102	STRUCTURE SECTIONS & DETAILS
CD-501	DETAILS

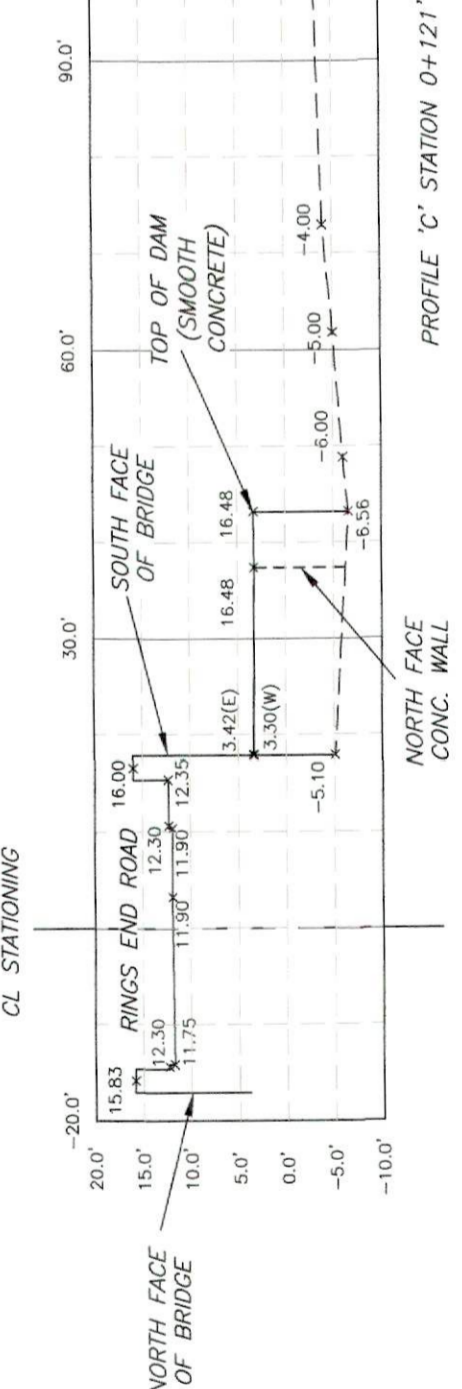
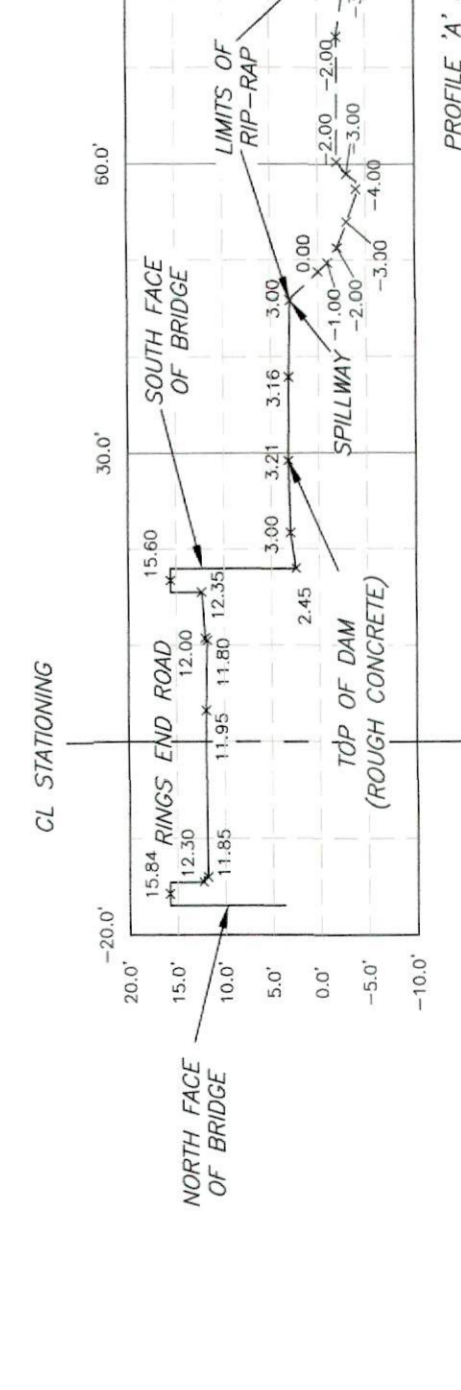
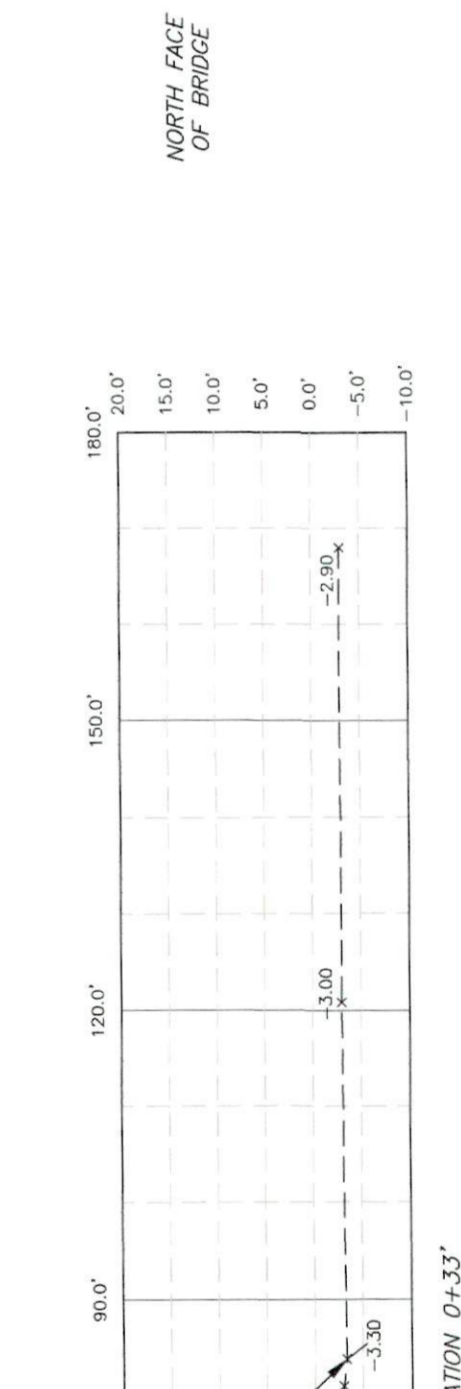
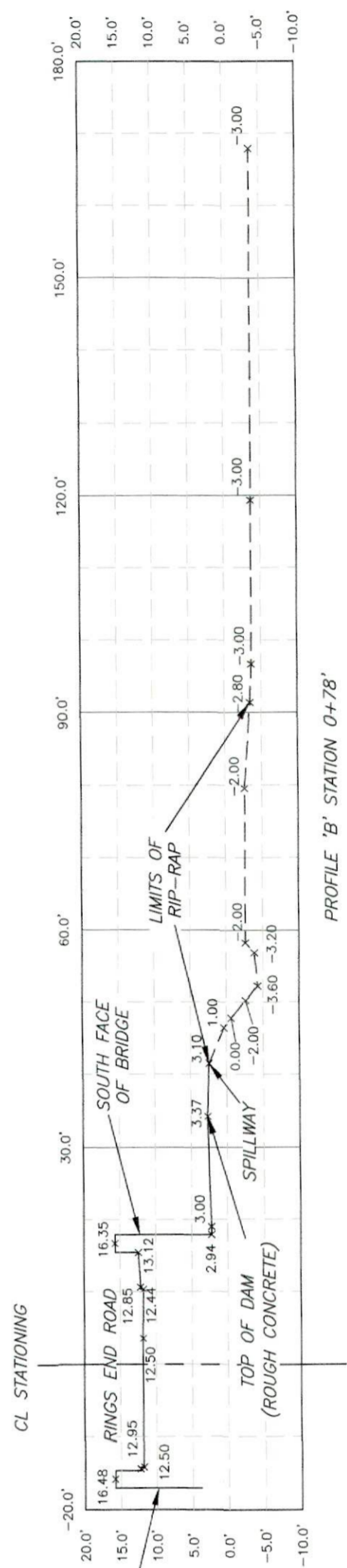
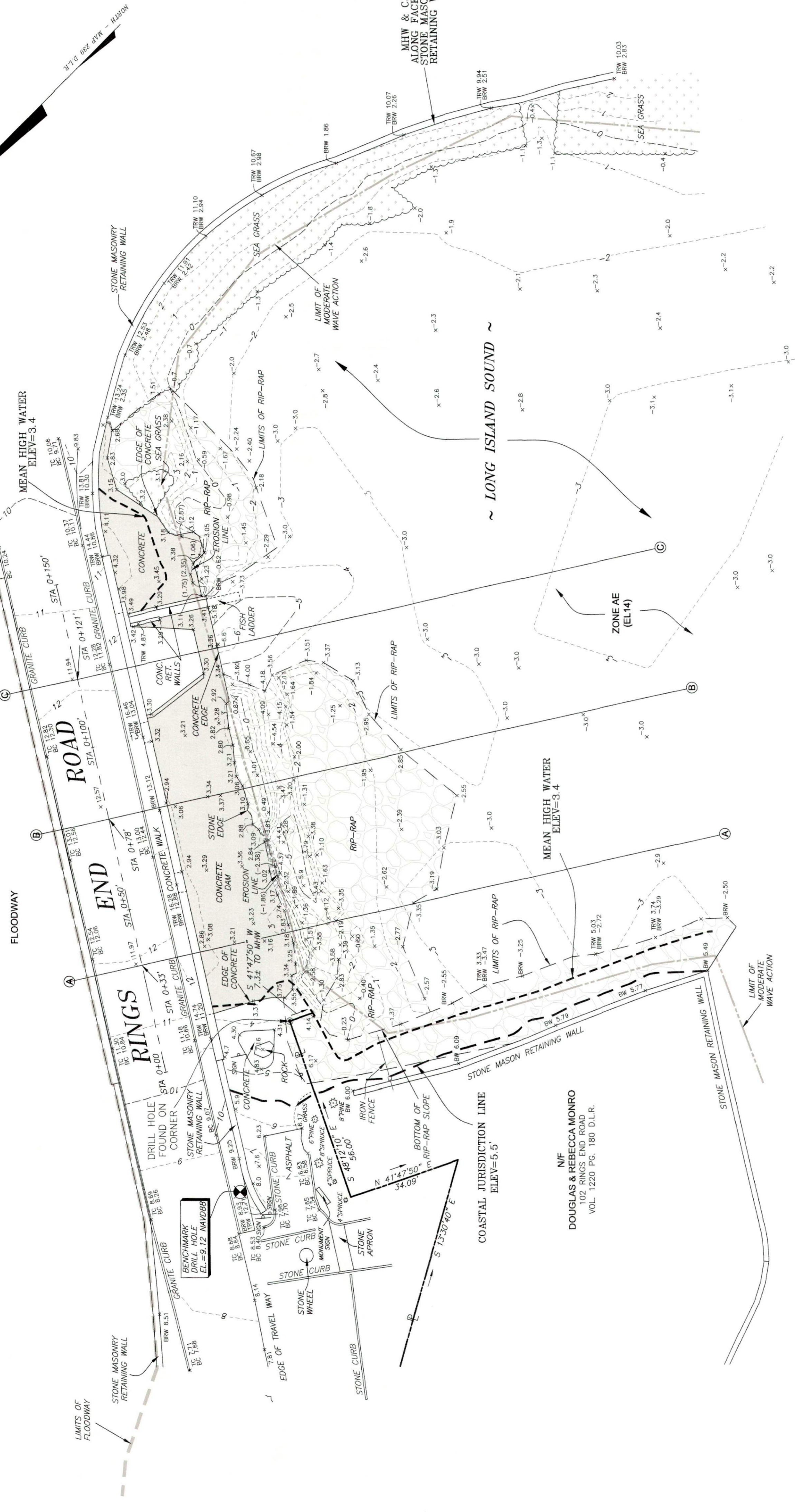


DARIEN, CT SCALE: 1" = 1000'

ORIENTATION

- NOTES:**
- This survey has been prepared in accordance with Sections 20-300b-1 thru 20-300b-20 of the Regulations of Connecticut State Agencies and the Standards for Surveys and Maps in the State of Connecticut as adopted by the Connecticut Association of Land Surveyors, Inc. as a Limited Topographic Survey conforming with Topographic Accuracy Class T-2 and is intended to depict with elevations the locations of improvements and topographic features shown on the plan. The survey is subject to such change as a Property/Boundary opinion and or Limited Property/Boundary Survey may disclose.
 - Reference is made to instruments of record labeled hereon.
 - Reference is made to Maps 4616 and 4688 of the Darien Land Records (D.L.R.).
 - Reference is made to FEMA Flood Insurance Rate Map No. 0901C0346S, effective date July 8, 2013. Project area lies entirely within Special Flood Zone AE (EL14).
 - Elevations depicted hereon are based on North American Vertical Datum of 1988 (NAVD88). Elevations within () represent elevations below the surface in areas of erosion.

GORHAMS POND



LIMITED TOPOGRAPHIC SURVEY
DEPICTING
RING'S END ROAD DAM
DARIEN, CONNECTICUT
PREPARED FOR
THE TOWN OF DARIEN

REDNISS & MEAD
LAND SURVEYING
ENGINEERING
PLANNING & ZONING CONSULTING
PERMITTING

22 First Street, Stamford, CT 06905
Tel: 203.372.0500 | Fax: 203.372.1118
www.redniss.com

Scale: 1" = 20'

Drawn By: TRM Checked By: Date: 8/14/2022

To my knowledge and belief this map is substantially correct as stated herein.

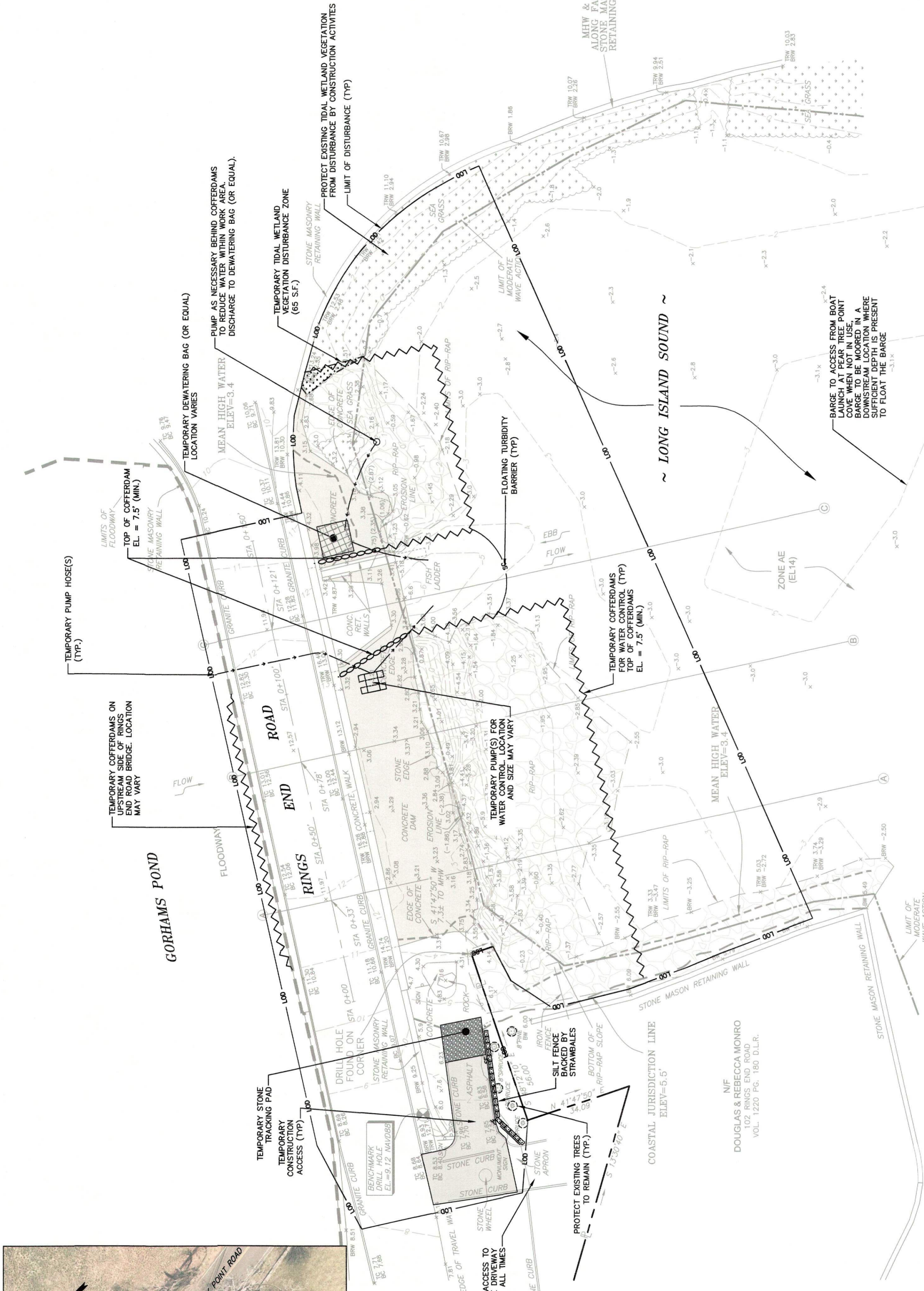
George P. Perera
GEORGE P. PERERA, CT. L.S. #70179
DATE: 8/14/2022

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Sheet No. **LTS**
Comm. No.: 10241A-1



TEMPORARY STORAGE AND STOCKPILE AREA INSET VIEW
 SCALE: 1" = 40'



WATER CONTROL NOTES

- CONTRACTOR TO PROVIDE A WATER CONTROL PLAN DEVELOPED BY A PROFESSIONAL ENGINEER FOR SUBMISSION TO THE ENGINEER FOR APPROVAL PRIOR TO INITIATION OF CONSTRUCTION AS INDICATED IN THE CONTRACT DOCUMENTS.
- THE CONTRACTOR MAY ELECT TO PERFORM THE WORK USING ADDITIONAL STAGES OF WATER CONTROL THAT VARY FROM THOSE DEPICTED HEREIN. WATER CONTROL MEETING THE REQUIREMENTS OF THESE PLANS, THE CONTRACT MANUAL, AND ASSOCIATED PERMITS OR LICENSES SHALL BE MAINTAINED DURING ALL STAGES OF CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND PROVIDING FULLY ADEQUATE PASSAGE OF BASE STREAM FLOWS AT ALL TIMES DURING CONSTRUCTION, AND SHALL IMPLEMENT PROVISIONS, AS REQUIRED, TO PROVIDE FULLY ADEQUATE PASSAGE OF THE TEMPORARY DESIGN FLOW.
- ONE BRIDGE BAY SHALL BE LEFT FULLY UNOBTSTRUCTED AT ALL TIMES.
- CONTRACTOR IS RESPONSIBLE FOR OBSERVING TIDAL ELEVATIONS AND ADJUSTING THE WATER CONTROL MEASURES ACCORDINGLY TO KEEP THE WORK AREA DRY (TO THE EXTENT POSSIBLE).
- THE WATER LEVEL IN THE UPSTREAM IMPOUNDMENT WILL BE LOWERED NO LOWER THAN APPROXIMATELY 3' BELOW THE SPILLWAY CREST.
- PROTECT AND MAINTAIN FLOW THROUGH EXISTING TIDE GATE STRUCTURE AND FISH LADDER AT ALL TIMES DURING CONSTRUCTION.

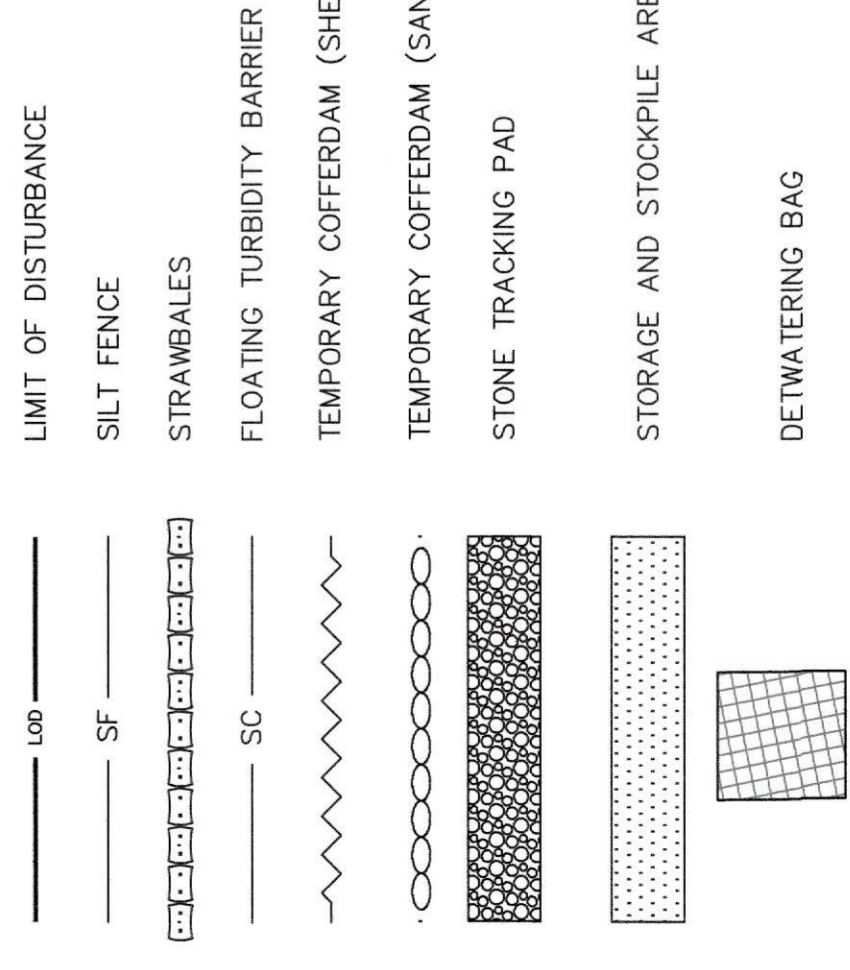
EROSION & SEDIMENTATION CONTROL NOTES

- CONSTRUCTION STANDARDS** - CONSTRUCT ALL EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE MOST RECENT EDITION OF THE CONNECTICUT GUIDELINES FOR SOIL EROSION CONTROL, SEDIMENT CONTROL, AND BEST MANAGEMENT PRACTICES FOR CONSTRUCTION TO ACHIEVE PROPER SEDIMENT CONTROL DURING CONSTRUCTION.
- PLAN IMPLEMENTATION** - IMPLEMENT THIS EROSION AND SEDIMENT CONTROL PLAN. THIS IMPLEMENTATION INCLUDES THE INSTALLATION AND MAINTENANCE OF CONTROL MEASURES UNTIL PERMANENT EROSION CONTROL MEASURES ARE IN PLACE. THE OWNER OF THE PROPERTY IS RESPONSIBLE FOR OBTAINING THE NECESSARY PERMITS AND NOTICING THE PROPER MUNICIPAL AGENCY OF ANY TRANSFER OF THIS RESPONSIBILITY. THE OWNER SHALL BE RESPONSIBLE FOR CONVEYING A COPY OF THE EROSION AND SEDIMENT CONTROL PLAN TO THE NEW OWNER IF THE TITLE OF THE LAND IS TRANSFERRED PRIOR TO ACHIEVING PERMANENT STABILIZATION.
- INSTALLATION SCHEDULE** - INSTALL THE CONSTRUCTION ENTRANCES, TRACKING PADS, AND ACCESS ROUTES BEFORE CONSTRUCTION TRAFFIC INTO AND OUT OF THE PROJECT AREA BEGINS. INSTALL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO CONSTRUCTION. INSTALL ADDITIONAL CONTROL MEASURES DURING THE CONSTRUCTION PERIOD, IF NECESSARY BY THE OWNER, HIS AGENTS OR AGENTS OF THE MUNICIPALITY.
- FUGITIVE DUST** - CONTROL FUGITIVE DUST USING WATER SPRAYS OR CALCIUM CHLORIDE ON SOIL SURFACES; SWEEPING PAVED AREAS. TEMPORARY WINDBREAKS OR NON-ASPHALTIC SOIL TACKIFIERS.
- STRAW BALE LIFE SPAN** - INSTALL STRAW BALES WHERE PROTECTION AND EFFECTIVENESS IS REQUIRED FOR LESS THAN 90 DAYS. OTHERWISE, INSTALL SILT FENCE.
- CATCH BASINS** - IF APPLICABLE, PROTECT CATCH BASINS WITH PROPER CONTROLS THROUGHOUT THE CONSTRUCTION PERIOD UNTIL ALL DISTURBED AREAS ARE PERMANENTLY STABILIZED.
- STOCKPILES** - ENIRCLE STOCKPILES OF ERODIBLE SOIL WITH A STRAW BALE OR SILT FENCE BARRIER. THE SIDE SLOPES OF ERODIBLE STOCKPILED MATERIAL SHALL BE NO STEEPER THAN 2:1.
- SEDIMENT REMOVAL** - SEDIMENT REACHING 1/2 THE HEIGHT OF THE EROSION CONTROL BARRIER SHALL BE REMOVED. REMOVE AND DISPOSE OF SEDIMENT IN A MANNER CONSISTENT WITH THE CONTRACT DOCUMENTS.
- SOIL STABILIZATION SCHEDULE** - APPLY PERMANENT SOIL STABILIZATION MEASURES TO ALL GRADED AREAS WITHIN 7 DAYS OF ESTABLISHING FINAL GRADE.
- PERMANENT SEEDING** - SEED PERMANENT LAWN AREAS IN ACCORDANCE WITH THE SPECIFICATIONS.
- INSPECTION** - THE OWNER SHALL SECURE THE SERVICES OF A SOIL SCIENTIST OR PROFESSIONAL ENGINEER TO VERIFY IN THE FIELD THAT THE CONTROLS REQUIRED BY THIS PLAN ARE PROPERLY INSTALLED AND MAINTAINED DURING CONSTRUCTION OR FOLLOWING A STORM EVENT.

EROSION & SEDIMENTATION CONTROL NOTES

- CONSTRUCTION STANDARDS** - CONSTRUCT ALL EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE MOST RECENT EDITION OF THE CONNECTICUT GUIDELINES FOR SOIL EROSION CONTROL, SEDIMENT CONTROL, AND BEST MANAGEMENT PRACTICES FOR CONSTRUCTION TO ACHIEVE PROPER SEDIMENT CONTROL DURING CONSTRUCTION.
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- INSTALLATION SCHEDULE** - INSTALL THE CONSTRUCTION ENTRANCES, TRACKING PADS, AND ACCESS ROUTES BEFORE CONSTRUCTION TRAFFIC INTO AND OUT OF THE PROJECT AREA BEGINS. INSTALL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO CONSTRUCTION. INSTALL ADDITIONAL CONTROL MEASURES DURING THE CONSTRUCTION PERIOD, IF NECESSARY BY THE OWNER, HIS AGENTS OR AGENTS OF THE MUNICIPALITY.
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- CATCH BASINS** - IF APPLICABLE, PROTECT CATCH BASINS WITH PROPER CONTROLS THROUGHOUT THE CONSTRUCTION PERIOD UNTIL ALL

LEGEND



HYDRAULIC DATA	
GOODWIVES RIVER & STONY BROOK DRAINAGE AREA	6 SQ. MI
DESIGN STORM FREQUENCY	2 YR
DESIGN DISCHARGE	490 CFS

TIDAL DATA *	
CUL (NAVD88)	5.5 FT
MHW (NAVD88)	3.4 FT
MLW (NAVD88)	-3.7 FT
HTL (NAVD88)	5.2 FT

*TIDAL INFORMATION OBTAINED FROM THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS "RESOURCES FOR TIDAL AND NAVIGABLE WATERS IN CONNECTICUT" DATED OCTOBER 15, 2012

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

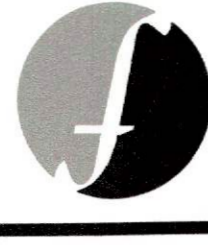
GRAPHIC SCALE
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 SCALE: 1" = 20'
 HORIZ.: 1" = 20'
 VERT.: 1" = 20'
 DATUM: NAVD88
 HORIZ.: NAVD88
 VERT.: NAVD88
 www.fussandoneill.com
 860.646.2699
 146 HARTFORD ROAD
 MANCHESTER, CONNECTICUT 06040

FUSS & O'NEILL

TOWN OF DARIEN
 EROSION, SEDIMENTATION, AND
 WATER CONTROL PLAN
 GORHAMS POND DAM EMERGENCY REPAIRS
 DARIEN, CONNECTICUT
 RINGS END ROAD

PROJ. No.: 20200921.B11
 DATE: MARCH 26, 2024
CE-101

TOWN OF DAREN
DEMOLITION & SITE PREPARATION
PLAN
GORHAM'S POND DAM EMERGENCY REPAIRS
DAREN, CONNECTICUT
RINGS END ROAD



FUSS & O'NEILL
146 HARTFORD ROAD
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www.fandoo.com

SCALE: 1" = 20'

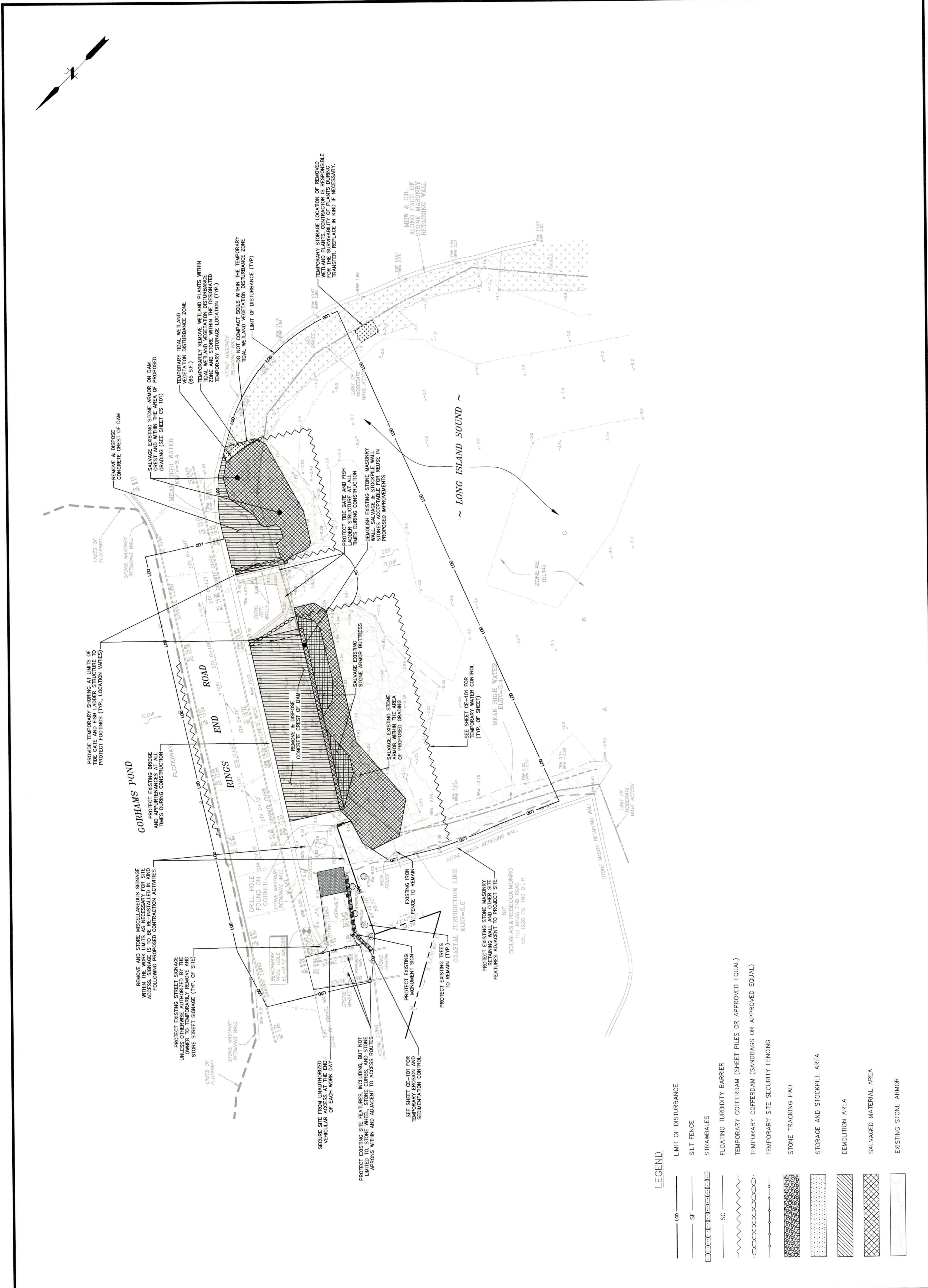
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VERT.: 1" = 20'

DATUM:
VERT.: NAVD83
HORIZ.: NAVD83

GRAPHIC SCALE
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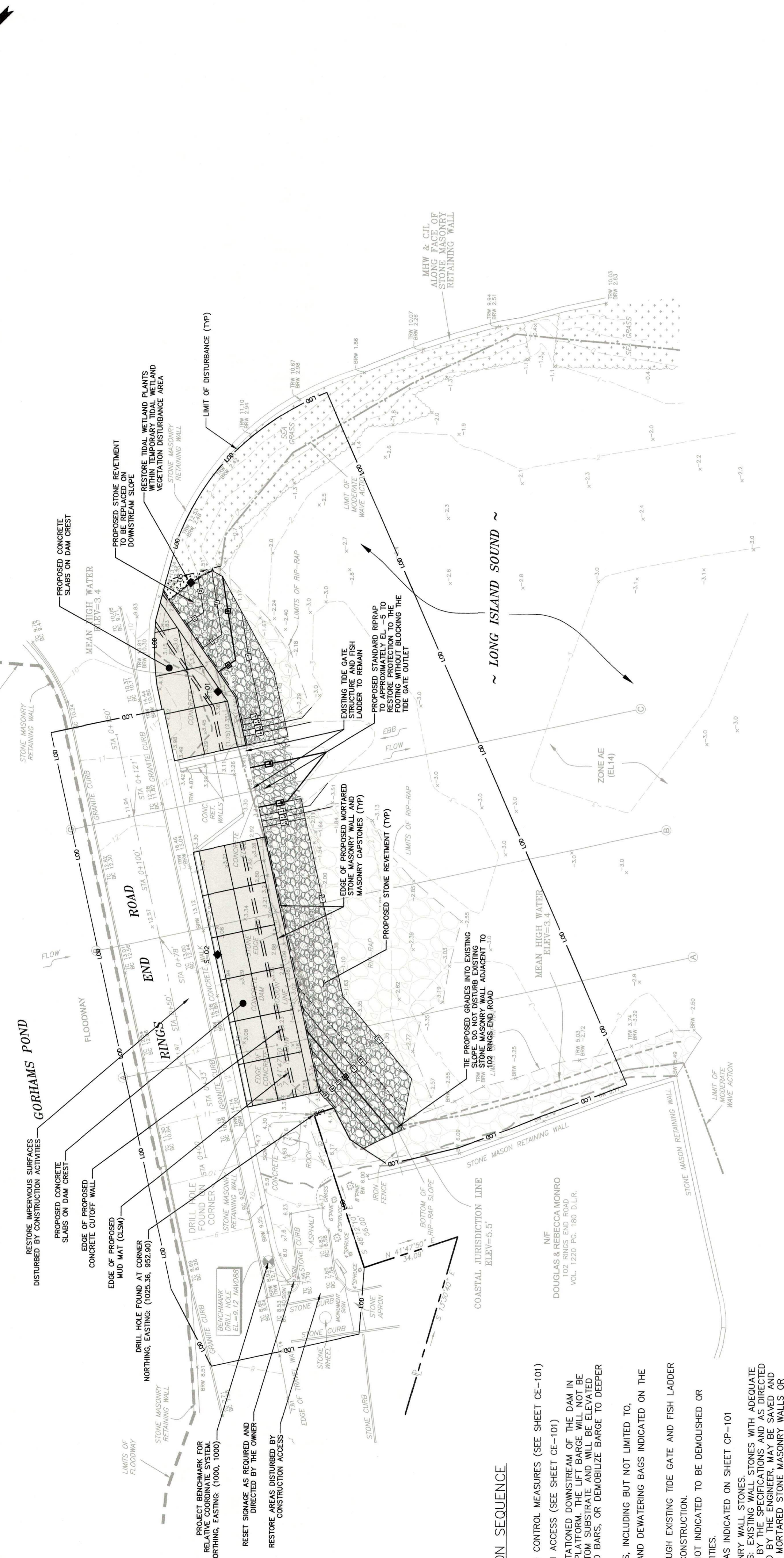
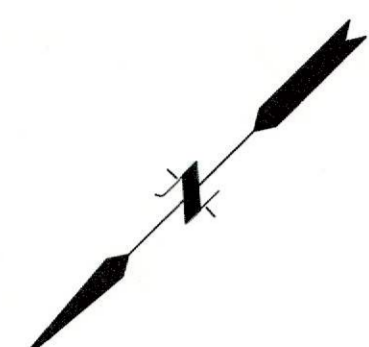


LEGEND

— 100'	LIMIT OF DISTURBANCE
— SF	SILT FENCE
— SC	STRAMBLES
—	FLOATING TURBIDITY BARRIER
—	TEMPORARY COFFERDAM (SHEET PILES OR APPROVED EQUAL)
—	TEMPORARY COFFERDAM (SANDBAGS OR APPROVED EQUAL)
—	TEMPORARY SITE SECURITY FENCING
—	STONE TRACKING PAD
—	STORAGE AND STOCKPILE AREA
—	DEMOLITION AREA
—	SALVAGED MATERIAL AREA
—	EXISTING STONE ARMOR



No.	DATE	DESCRIPTION	DESIGNER	REVIEWER



NOTES:

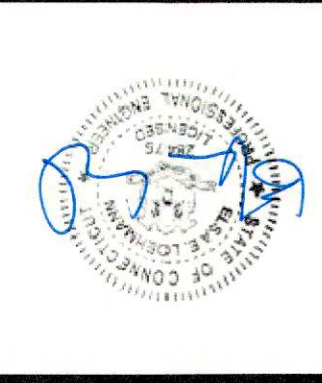
1. THE CONSTRUCTION SEQUENCE SHOWN IS A SUGGESTED CONCEPT THAT IS CONSIDERED FEASIBLE FOR PERFORMING THE WORK. THIS SHEET IS INTENDED TO PROVIDE INFORMATION PERTINENT FOR THE DEVELOPMENT OF THE CONTRACTOR'S DETAILED CONSTRUCTION SEQUENCE.
2. THE CONTRACTOR SHALL EVALUATE SITE CONDITIONS AND SUBMIT A DETAILED CONSTRUCTION SEQUENCE, CONSISTING OF PLANS AND NARRATIVE, IN CONFORMANCE WITH THE CONTRACT REQUIREMENTS, FOR THE ENGINEER'S REVIEW. NO WORK SHALL BE PERFORMED PRIOR TO THE ENGINEER'S REVIEW AND ACCEPTANCE OF THE CONTRACTOR'S DETAILED CONSTRUCTION SEQUENCE.
3. WORKING POINT COORDINATES SHOWN ARE BASED ON THE RELATIVE COORDINATE SYSTEM ESTABLISHED WITH THE PROJECT BENCHMARK SET AT (1000, 1000). CONTRACTOR SHALL VERIFY THE WORKING POINTS ON SHEET STR-101 AT THE EDGES OF THE TIDAL GATE AND FISH LADDER STRUCTURE, AND ADJUST AS REQUIRED.

LEGEND:

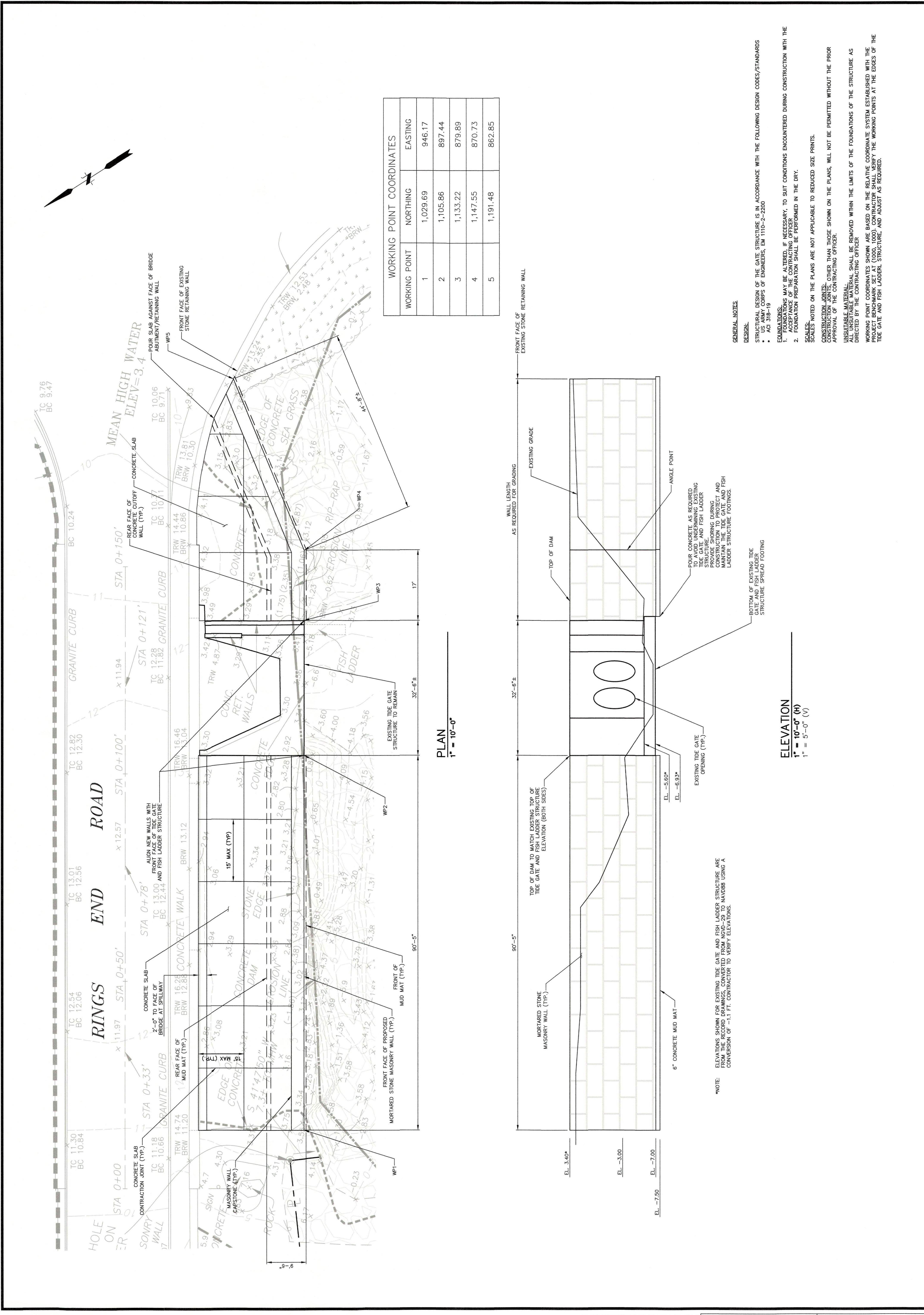
- 100 — LIMIT OF DISTURBANCE
- — — — — EDGE OF PROPOSED STRUCTURE (BEYOND)
- — — — — EDGE OF PROPOSED STRUCTURE
- 100 — PROPOSED CONTOUR
- 5-01 — PROPOSED STONE REVETMENT
- ◆ SOIL SAMPLE LOCATION

SUGGESTED CONSTRUCTION SEQUENCE

1. MOBILIZE TO SITE
2. PROVIDE EROSION & SEDIMENTATION CONTROL MEASURES (SEE SHEET CE-101)
3. PROVIDE TEMPORARY CONSTRUCTION ACCESS (SEE SHEET CE-101)
 - 3.1. NOTE: A LIFT BARGE MAY BE STATIONED DOWNSTREAM OF THE DAM IN ORDER TO CREATE A WORKING PLATFORM. THE LIFT BARGE WILL NOT BE ALLOWED TO REST ON THE BOTTOM SUBSTRATE AND WILL BE ELEVATED ABOVE THE BOTTOM USING SPUD BARS, OR DEMOBILIZE BARGE TO DEEPER WATER AS THE TIDE RECEDES.
4. PROVIDE WATER CONTROL MEASURES, INCLUDING BUT NOT LIMITED TO, TEMPORARY COFFERDAMS, PUMPS, AND DEWATERING BAGS INDICATED ON THE PLANS.
5. PROTECT AND MAINTAIN FLOW THROUGH EXISTING TIDE GATE AND FISH LADDER STRUCTURE AT ALL TIMES DURING CONSTRUCTION.
6. PROTECT EXISTING SITE FEATURES NOT INDICATED TO BE DEMOLISHED OR DISTURBED BY CONSTRUCTION ACTIVITIES.
7. DEMOLISH EXISTING SITE FEATURES AS INDICATED ON SHEET OP-101
 - 7.1. SALVAGE EXISTING STONE MASONRY WALL STONES.
 - 7.1.1. REUSE OF SALVAGED STONES: EXISTING WALL STONES WITH ADEQUATE PROPERTIES AS DETERMINED BY THE SPECIFICATIONS AND AS DIRECTED IN THE FIELD AND APPROVED BY THE ENGINEER, MAY BE SAVED AND REUSED IN THE PROPOSED MORTARED STONE MASONRY WALLS OR PROPOSED STONE MASONRY WALLS. STONES SMALLER THAN ADEQUATE SIZE MAY BE REUSED ON SITE AT THE DISCRETION OF THE ENGINEER OR RELOCATED TO ANOTHER LOCATION WITHIN THE TOWN FOR STORAGE AT THE REQUEST OF THE TOWN.
 - 7.1.3. DISPOSE OF UNSUITABLE MATERIALS TO AN OFFSITE FACILITY AUTHORIZED TO ACCEPT THE MATERIAL.
8. EXCAVATE AS SHOWN WITHIN THE GRADING LIMITS FOR INSTALLATION OF PROPOSED SITE IMPROVEMENTS.
9. PROVIDE PROPOSED STRUCTURES (SEE SHEETS STR-101 & STR-102):
 - 9.1. PROVIDE TEMPORARY SHORING AS NECESSARY FOR CONSTRUCTION OF PROPOSED SITE IMPROVEMENTS
 - 9.2. PROVIDE TEMPORARY SHORING AT THE LIMITS OF THE TIDE GATE AND FISH LADDER
 - 9.3. INSTALL MUD MAT (CLSM) AND CONCRETE FOOTINGS FOR PROPOSED WALLS
 - 9.4. INSTALL PROPOSED MORTARED STONE MASONRY WALLS AND CAPSTONES
 - 9.6. BACKFILL STRUCTURES
 - 9.7. INSTALL PROPOSED UPSTREAM CONCRETE KEY AND CONCRETE SLAB WITH WATERPROOFING MEMBRANE ON THE DAM CREST
10. INSTALL PROPOSED STONE REVETMENT.
11. PERFORM SITE GRADING TO PROPOSED GRADES.
12. REMOVE WATER CONTROL MEASURES.
13. REMOVE EROSION & SEDIMENTATION CONTROL MEASURES.
14. RESTORE ALL OTHER AREAS DISTURBED BY CONSTRUCTION ACTIVITIES TO ORIGINAL OR IMPROVED CONDITION
15. DEMOBILIZE FROM SITE



No.	DATE	DESCRIPTION	DESIGNER	REVIEWER



WORKING POINT COORDINATES

WORKING POINT	NORTHING	EASTING
1	1,029.69	946.17
2	1,105.86	897.44
3	1,133.22	879.89
4	1,147.55	870.73
5	1,191.48	862.85

GENERAL NOTES:

DESIGN:
STRUCTURAL DESIGN OF THE GATE STRUCTURE IS IN ACCORDANCE WITH THE FOLLOWING DESIGN CODES/STANDARDS
 • US ARMY CORPS OF ENGINEERS, EM 1110-2-2200
 • ACI 318-19

FOUNDATIONS:
 1. FOUNDATIONS MAY BE ALTERED, IF NECESSARY, TO SUIT CONDITIONS ENCOUNTERED DURING CONSTRUCTION WITH THE APPROVAL OF THE CONTRACTING OFFICER.
 2. FOUNDATION PREPARATION SHALL BE PERFORMED IN THE DRY.

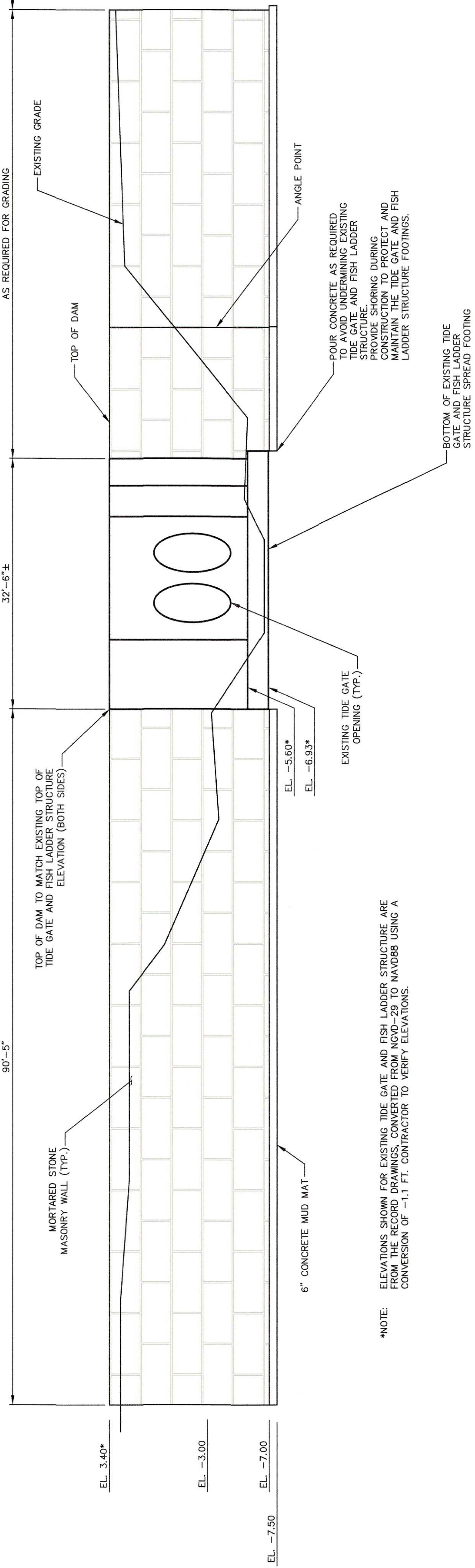
SCALES:
 SCALES NOTED ON THE PLANS ARE NOT APPLICABLE TO REDUCED SIZE PRINTS.

CONSTRUCTION JOINTS:
 CONSTRUCTION JOINTS OTHER THAN THOSE SHOWN ON THE PLANS, WILL NOT BE PERMITTED WITHOUT THE PRIOR APPROVAL OF THE CONTRACTING OFFICER.

UNUSABLE MATERIAL:
 ALL UNUSABLE MATERIAL SHALL BE REMOVED WITHIN THE LIMITS OF THE FOUNDATIONS OF THE STRUCTURE AS DIRECTED BY THE CONTRACTING OFFICER.

WORKING POINT COORDINATES:
 WORKING POINT COORDINATES SHOWN ARE BASED ON THE RELATIVE COORDINATE SYSTEM ESTABLISHED WITH THE PROJECT BENCHMARK SET AT (1000, 1000). CONTRACTOR SHALL VERIFY THE WORKING POINTS AT THE EDGES OF THE TIDE GATE AND FISH LADDER STRUCTURE, AND ADJUST AS REQUIRED.

*NOTE: ELEVATIONS SHOWN FOR EXISTING TIDE GATE AND FISH LADDER STRUCTURE ARE FROM THE RECORD DRAWINGS, CONVERTED FROM NGVD-29 TO NAVD88 USING A CONVERSION OF -1.1 FT. CONTRACTOR TO VERIFY ELEVATIONS.



ELEVATION
1" = 10'-0" (H)
1" = 5'-0" (V)

PLAN
1" = 10'-0"

TOWN OF DARIEN
GORHAMS POND DAM EMERGENCY REPAIRS
STRUCTURE PLAN & ELEVATION
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SCALE: 1" = 20'

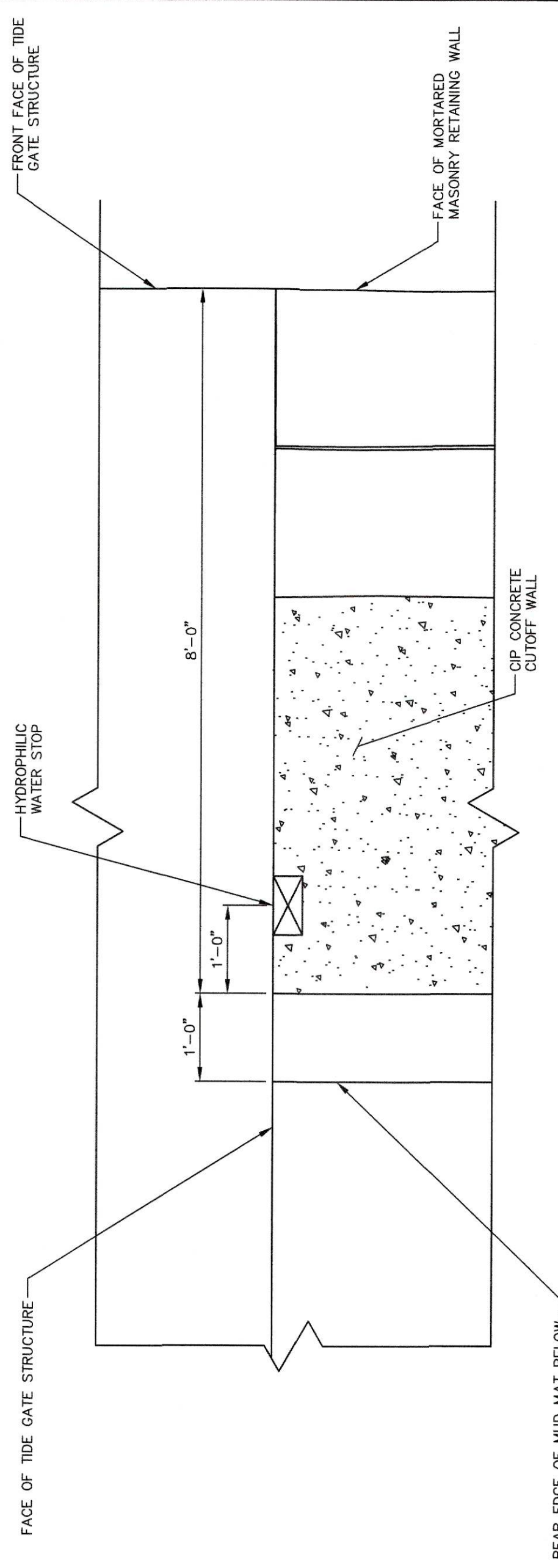
DATUM:	HORIZ.:	VERT.:
NAD83	NAVDS88	

GRAPHIC SCALE
20 10 0 10 20

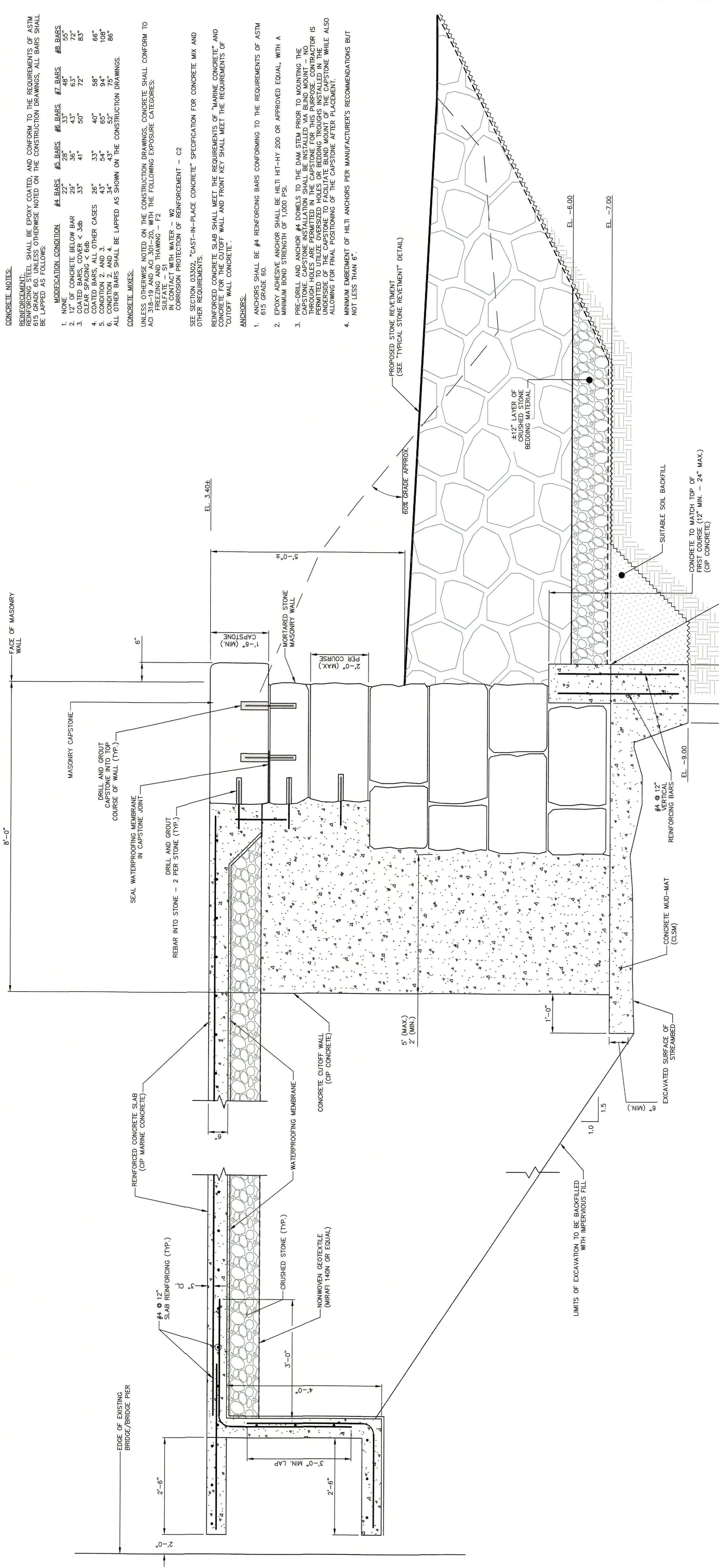


No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

HORIZONTAL WALL SECTION AT TIDAL STRUCTURE
3/4" = 1'-0"



TYPICAL DAM SECTION
3/4" = 1'-0"



- MUD MAT NOTES:**
- MUD MAT SHALL BE COMPRISED OF NON-EXCAVATABLE CONTROLLED LOW STRENGTH MATERIAL (CLSM), AND SHALL CONFORM TO THE REQUIREMENTS OF CT DOT STANDARD SPECIFICATIONS FOR 818 ARTICLE M.03.01 WITH MIXTURE OF PORTLAND CEMENT, FLY ASH (OPTIONAL), FINE AGGREGATES, AIR ENTRAINING AGENT, AND WATER.
 - CLSM MIX DESIGN SHALL BE SUBMITTED FOR REVIEW AND APPROVAL.
 - CLSM SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 100 PSI.
 - THE PRESENCE OF WATER SHALL BE MINIMIZED TO THE EXTENT POSSIBLE. ALL WATER FLOW SHALL BE DIVERTED AWAY FROM THE AREA OF THE PIER, AND THE LOCATION DEWATERED TO REMOVE PONDING.
 - THE MUD MAT IS TO BE FOUND ON FIRM AND EVEN SURFACE OF STREAMBED. IF FOUNDATION MATERIALS OR RUBBLE ARE PRESENT AT THE LOCATION OF THE MUD MAT, THE MUD MAT SHALL BE EXCAVATED TO A DEPTH OF ONE FOOT BELOW GRADE, AND ADDITIONAL CLSM SHALL BE USED TO ACHIEVE THE PROPOSED DIMENSIONS. THE MUD MAT SHALL BE EXCAVATED TO A DEPTH OF ONE FOOT BELOW GRADE, AND ADDITIONAL CLSM EMBANMENT. ADDITIONAL CLSM MATERIAL TO BE PAID FOR UNDER PAYMENT ITEM #13 CONTROLLED LOW STRENGTH MATERIAL (CLSM) MUD MAT.

- CONCRETE NOTES:**
- REINFORCEMENT SHALL BE EPOXY COATED, AND CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60, UNLESS OTHERWISE NOTED ON THE CONSTRUCTION DRAWINGS. ALL BARS SHALL BE LAPPED AS FOLLOWS:
- | MODIFICATION CONDITION | #4 BARS | #5 BARS | #6 BARS | #7 BARS | #8 BARS |
|--|---------|---------|---------|---------|---------|
| 1. NONE | 22" | 28" | 33" | 48" | 55" |
| 2. 12" OF CONCRETE BELOW BAR COVER | 29" | 36" | 43" | 63" | 72" |
| 3. CLEAR SPACING | 33" | 41" | 50" | 72" | 85" |
| 4. COATED BARS, ALL OTHER CASES | 26" | 33" | 40" | 58" | 66" |
| 5. CONDITION 2 AND 3 | 43" | 54" | 65" | 94" | 108" |
| 6. CONDITION 2 AND 4 | 54" | 65" | 81" | 114" | 132" |
| 7. CONDITION 2 AND 5 | 65" | 81" | 102" | 144" | 168" |
| 8. ALL OTHER BARS SHALL BE LAPPED AS SHOWN ON THE CONSTRUCTION DRAWINGS. | | | | | |
- CONCRETE MIXES:**
- UNLESS OTHERWISE NOTED ON THE CONSTRUCTION DRAWINGS, CONCRETE SHALL CONFORM TO ACI 318-19 AND ACI 301-20, WITH THE FOLLOWING EXPOSURE CATEGORIES:
- SEAWALL - F2
 - SLAB AND HAWMING - F2
 - IN CONTACT WITH WATER - W2
 - CORROSION PROTECTION OF REINFORCEMENT - C2
- SEE SECTION 03302, "CAST-IN-PLACE CONCRETE" SPECIFICATION FOR CONCRETE MIX AND OTHER REQUIREMENTS.
- REINFORCED CONCRETE SLAB SHALL MEET THE REQUIREMENTS OF "MARINE CONCRETE" AND CONCRETE FOR THE CUTOFF WALL AND FRONT KEY SHALL MEET THE REQUIREMENTS OF "CUTOFF WALL CONCRETE".
- ANCHORS:**
- ANCHORS SHALL BE #4 REINFORCING BARS CONFORMING TO THE REQUIREMENTS OF ASTM A615 GRADE 60.
 - EPOXY ADHESIVE ANCHOR SHALL BE HILTI HIT-HY 200 OR APPROVED EQUAL, WITH A MINIMUM BOND STRENGTH OF 1,000 PSI.
 - PRE-DRILL AND ANCHOR #4 DOWELS TO THE DAM STEM PRIOR TO MOUNTING THE CAPSTONE. CAPSTONE INSTALLATION SHALL BE INSTALLED VIA BLIND MOUNT AND SHALL BE PERMITTED TO UTILIZE OVERSIZED HOLES OR BEDDING TROUGHS INSTALLED IN THE UNDERSIDE OF THE CAPSTONE TO FACILITATE BIND MOUNT OF THE CAPSTONE WHILE ALSO ALLOWING FOR FINAL POSITIONING OF THE CAPSTONE AFTER PLACEMENT.
 - MINIMUM EMBEDMENT OF HILTI ANCHORS PER MANUFACTURER'S RECOMMENDATIONS BUT NOT LESS THAN 6".

DESIGNER	REVIEWER

DESCRIPTION	DATE	No.

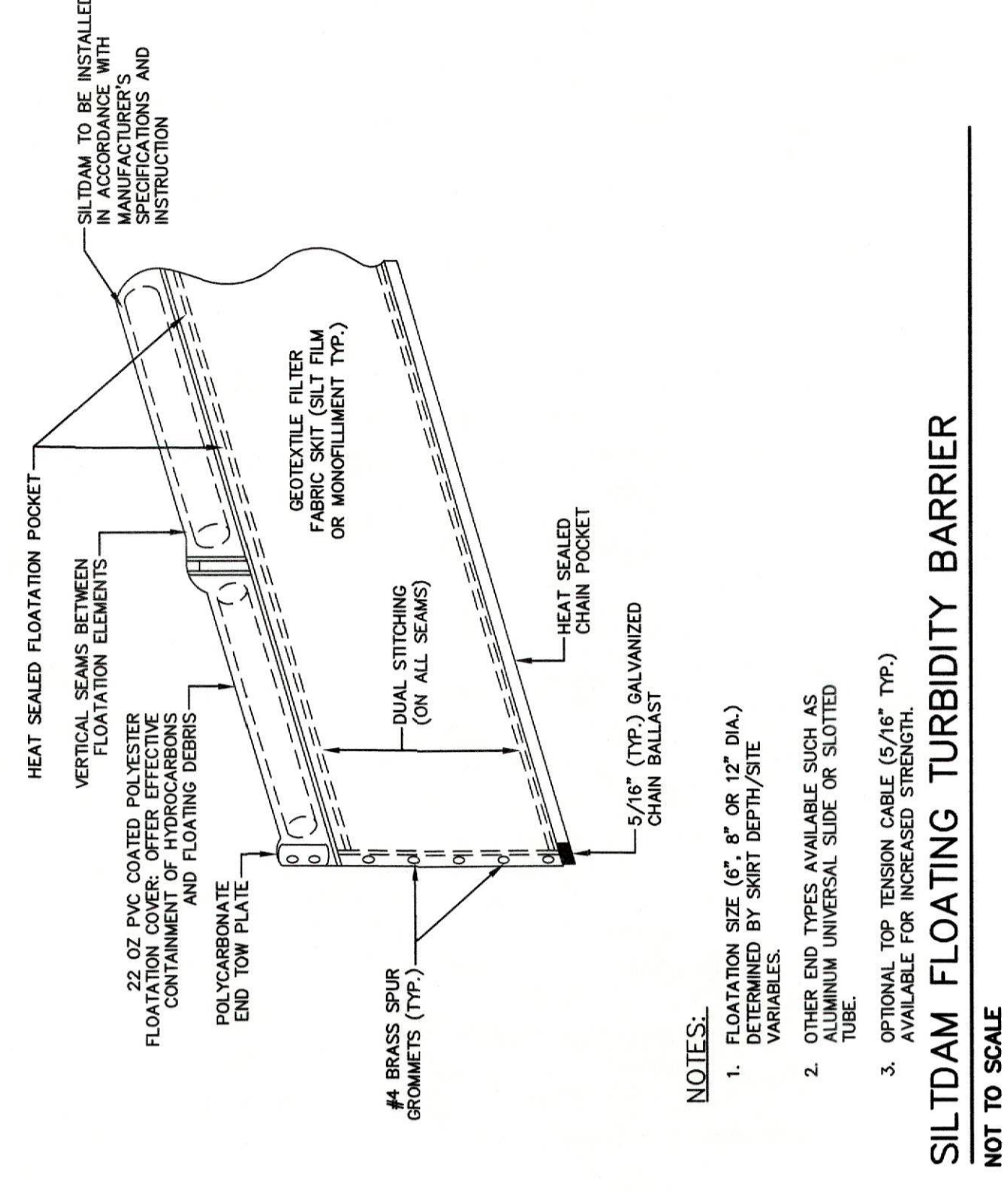


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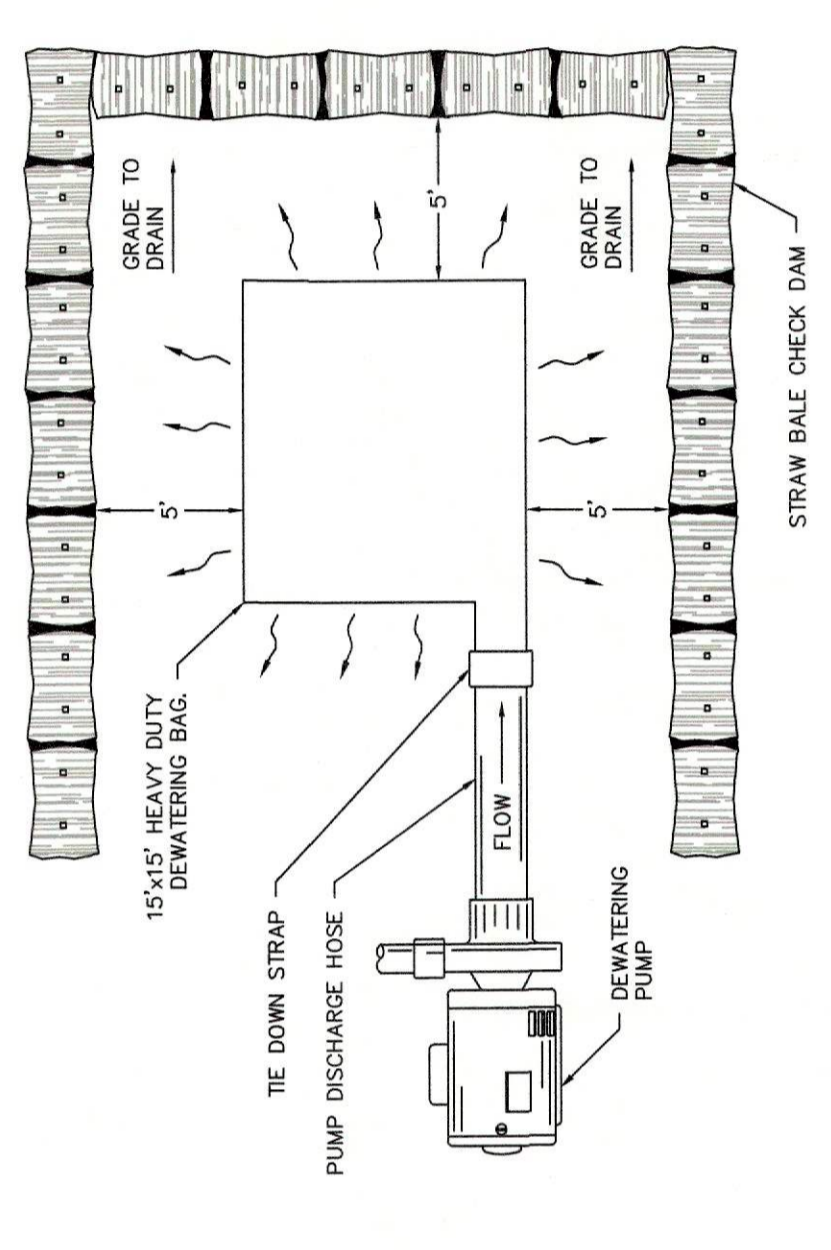
FUSS & O'NEILL
 146 HARTFORD ROAD
 MANCHESTER, CONNECTICUT 06040
 www.fandoc.com
 860.946.2469

TOWN OF DARIEN
 DETAILS
 GORHAMS POND DAM EMERGENCY REPAIRS
 DARIEN, CONNECTICUT
 RINGS END ROAD

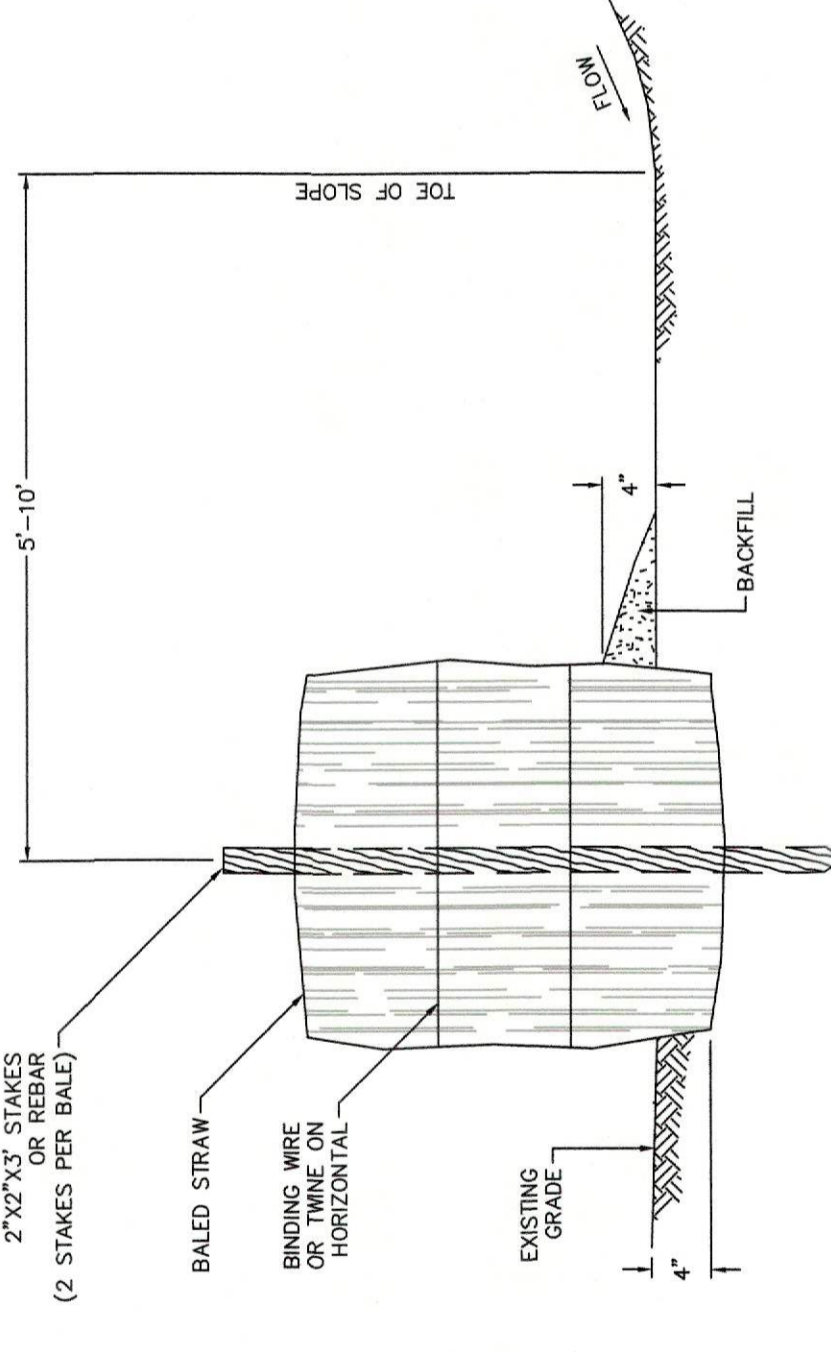
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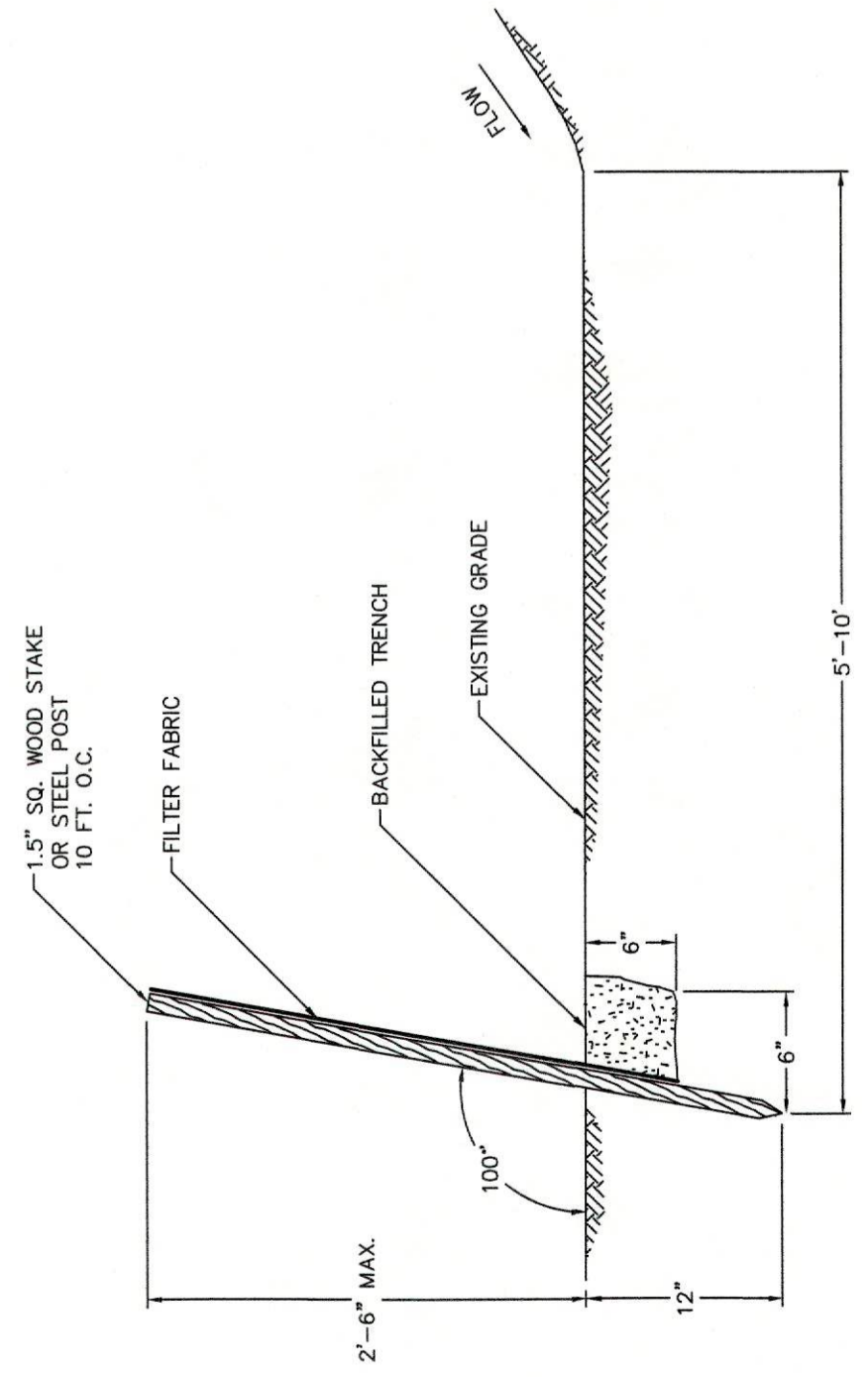
SILT DAM FLOATING TURBIDITY BARRIER
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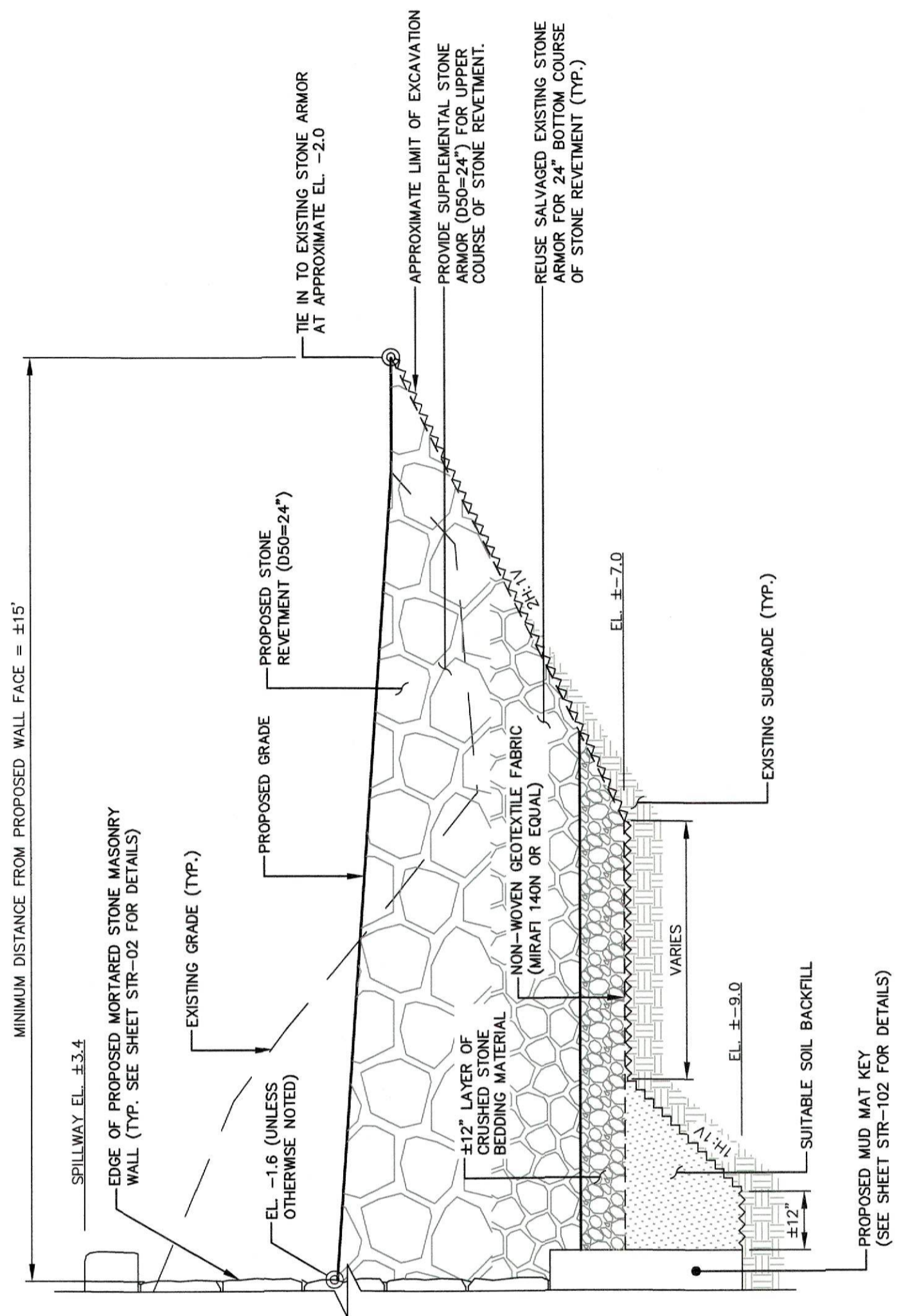
DEWATERING BAG
NOT TO SCALE



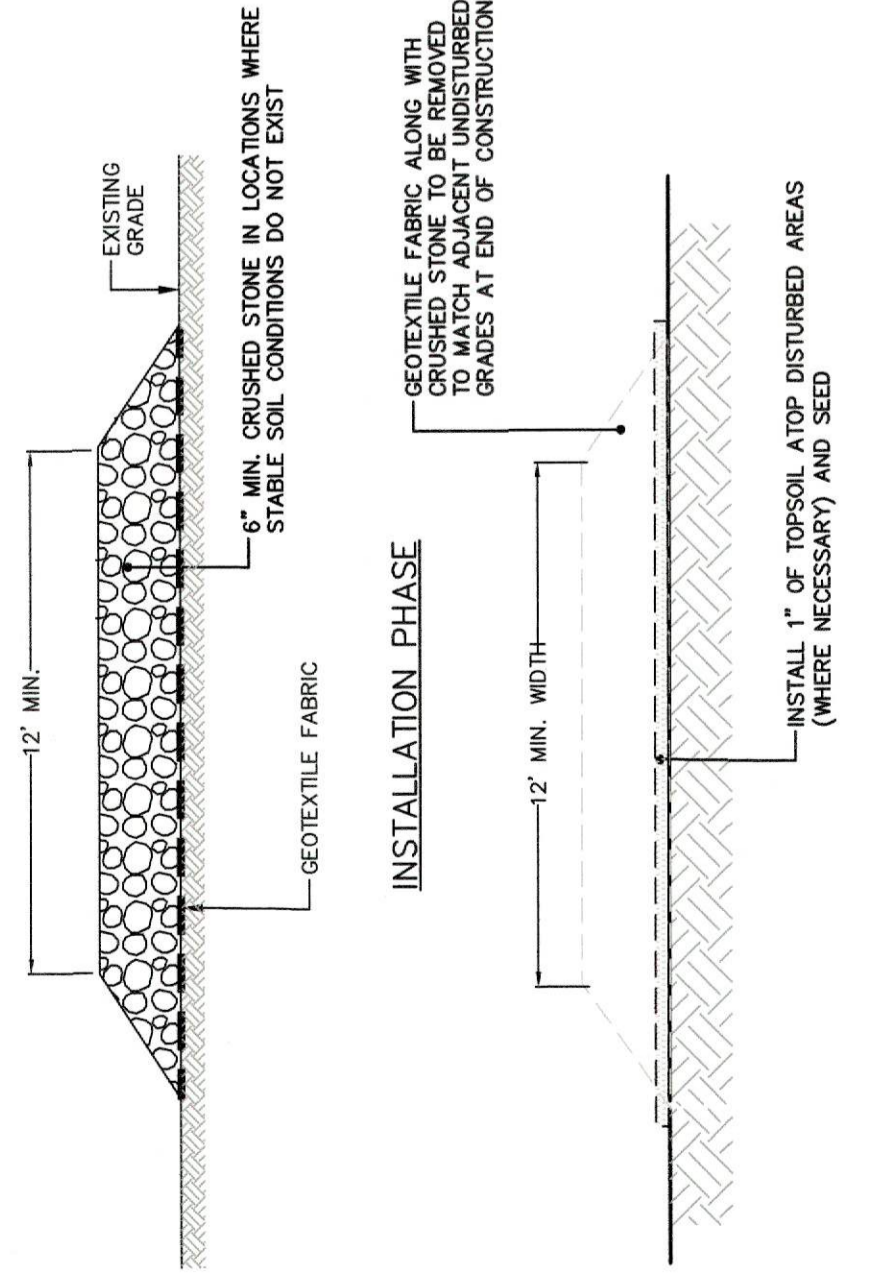
TOE OF SLOPE STRAW BALE BARRIER
NOT TO SCALE



SILT FENCE
NOT TO SCALE



TYPICAL STONE REVETMENT
NOT TO SCALE



- NOTES:**
1. PLACE ADDITIONAL CRUSHED STONE AS REQUIRED THROUGHOUT CONSTRUCTION TO MAINTAIN CONSTRUCTION ACCESS AND TO MAINTAIN STABLE ACCESS THROUGHOUT CONSTRUCTION. LOCATIONS WHERE ADDITIONAL MEASURES MUST BE TAKEN TO PROTECT EXISTING FEATURES DURING CONSTRUCTION.
 2. FOR MAT AREAS, CONTRACTOR SHALL FURNISH AND PLACE ADDITIONAL MEASURES (E.G. SWAMP MATS, GEORRID, GEOTEXTILE FABRIC, TRAP ROCK/RIPRAP, ADDITIONAL STONE, ETC.) AS REQUIRED TO MAINTAIN STABLE ACCESS FOR CONSTRUCTION EQUIPMENT AND VEHICLES THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL MEET THE REQUIREMENTS OF THE CONTRACT MANUAL AND ASSOCIATED PERMITS.
 3. IN SUCH LOCATIONS WHERE ADDITIONAL CRUSHED STONE, TRAP ROCK/RIPRAP, ETC., IS REQUIRED, INSTALL MATERIALS AT TOP OF GEOTEXTILE FILTER FABRIC TO FACILITATE THE REMOVAL OF THIS MATERIAL PRIOR TO RESTORATION ACTIVITIES.
 4. AT END OF CONSTRUCTION AND PRIOR TO RESTORATION, REMOVE ALL GEOTEXTILE FILTER FABRIC AND STONE (I.E. THAT ABOVE ADJACENT EXISTING GROUND ELEVATION). RESTORE DISTURBED AREAS TO ORIGINAL OR IMPROVED CONDITION.
 5. CONTRACTOR SHALL PREPARE AND SUBMIT A DETAILED CONSTRUCTION ACCESS AND MAINTAIN STABLE ACCESS PLAN. THIS PLAN SHALL SHOW THE LOCATION AND TYPES OF MATERIALS TO BE EMPLOYED TO CREATE AND MAINTAIN STABLE ACCESS THROUGHOUT CONSTRUCTION WHILE MAINTAINING BURIED UTILITIES AND ASSURING CONTINUED ACCESS BY OWNER TO ALL SITE FACILITIES.

TEMPORARY CONSTRUCTION ACCESS ROUTE
NOT TO SCALE