



PUBLIC NOTICE

Comment Period Begins: February 20, 2024

Comment Period Ends: March 21, 2024

File Number: NAE-2023-00811

In Reply Refer to: Andrea Williams, Regulatory Division

Phone: (978) 318-8494

Email: andrea.n.williams@usace.army.mil

The District Engineer, U.S. Army Corps of Engineers, New England District (USACE), has received a permit application, file number NAE-2023-00811, to conduct work in waters of the United States from **SOUTH CENTRAL CONNECTICUT REGIONAL WATER AUTHORITY C/O MARCIK LAWRENCE, JR., 90 SARGENT DRIVE, NEW HAVEN, CONNECTICUT**. This work is proposed in Prospect Reservoir at 14 Chatfield Road, Prospect, Connecticut. The site coordinates are Latitude 41.502943 North and Longitude -72.946986 West.

The work involves repairing the seepage issues of the Prospect Reservoir Dam by maintaining the current drawdown of the reservoir and installing temporary cofferdams to create dry work area, installing filters on the existing drains at the downstream toe of the spillway, excavating the existing sand and gravel layer and installing a geocomposite clay liner with 12-inches of structural fill, 6-inches of crushed stone, and 12-inches of modified rock fill over the liner on the upstream face of the dam embankment resulting in approximately 7,490 square feet (0.17 acres) of disturbance and approximately 700 cubic yards of fill within jurisdictional resource.

The work is shown on the enclosed plans titled "Prospect Reservoir Dam Improvements," on 11 sheets, and dated "February 2023."

The project does not propose compensatory mitigation for the work. To minimize the adverse effect of the proposed project, wetland resources will be protected by erosion and sedimentations controls installed along the limits of work. The restoration measures along the dam and embankment upland areas will consist of stabilizing all disturbed areas by loaming and seeding. Upon refilling of the reservoir, work areas within in Prospect Reservoir will be restored to open water.

AUTHORITY

Permits are required pursuant to:

Section 10 of the Rivers and Harbors Act of 1899

Section 404 of the Clean Water Act

Section 103 of the Marine Protection, Research and Sanctuaries Act.

The decision whether to issue a permit will be based on an evaluation of the probable impact of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which may reasonably accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are:

conservation, economics, aesthetics, general environmental concerns, wetlands, cultural value, fish and wildlife values, flood hazards, flood plain value, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people.

The USACE is soliciting comments from the public; federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. The USACE will consider all comments received to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an environmental assessment and/or an environmental impact statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Where the activity involves the discharge of dredged or fill material into waters of the United States or the transportation of dredged material for the purpose of disposing it in ocean waters, the evaluation of the impact of the activity in the public interest will also include application of the guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act, and/or Section 103 of the Marine Protection Research and Sanctuaries Act of 1972, as amended.

NATIONAL HISTORIC PRESERVATION ACT

Based on our initial review of the proposed project, it appears there is little likelihood that a historic property exists or may be affected due to the nature, scope, and magnitude of the work, and/or structures to be permitted. This is based upon the following:

- a. The permit area has been extensively modified by previous work.
- b. The permit area has been recently created in modern times.
- c. Review of the latest published version of the National Register shows that no presence of registered properties listed as being eligible for inclusion therein are in the permit area of general vicinity.
- d. Coordination with the State Historic Preservation Officer and/or Tribal Historic Preservation Officer(s).

ENDANGERED SPECIES CONSULTATION

The USACE is reviewing the application for the potential impact on federally-listed threatened or endangered species and their designated critical habitat pursuant to section 7 of the Endangered Species Act as amended. Our review will be concluded prior to the final decision.

OTHER GOVERNMENT AUTHORIZATIONS

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

- Permit, license or assent from State.
- Permit from local wetland agency or conservation commission.
- Water Quality Certification in accordance with Section 401 of the Clean Water Act.

COMMENTS

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity. People submitting comments are advised that all comments received will be available for public review in their entirety and will be considered a matter of public record.

Comments should be submitted in writing by the above date. If you have any questions, please contact Andrea Williams, Regulatory Division, at andrea.n.williams@usace.army.mil, (978) 318-8494, (800) 343-4789 or (800) 362-4367.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for a public hearing shall specifically state the reasons for holding a public hearing. The USACE holds public hearings for the purpose of obtaining public comments when that is the best means for understanding a wide variety of concerns from a diverse segment of the public.

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

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understanding.

THIS NOTICE IS NOT AN AUTHORIZATION TO DO ANY WORK.

Kevin R. Kotelly

Kevin R. Kotelly, P.E.
Chief, CT/RI Section
Regulatory Division

Please contact Ms. Tina Chaisson at bettina.m.chaisson@usace.army.mil or (978) 318-8058 if you would like to be removed from our public notice mailing list.

Latitude: 41.502943
Longitude: -72.946986

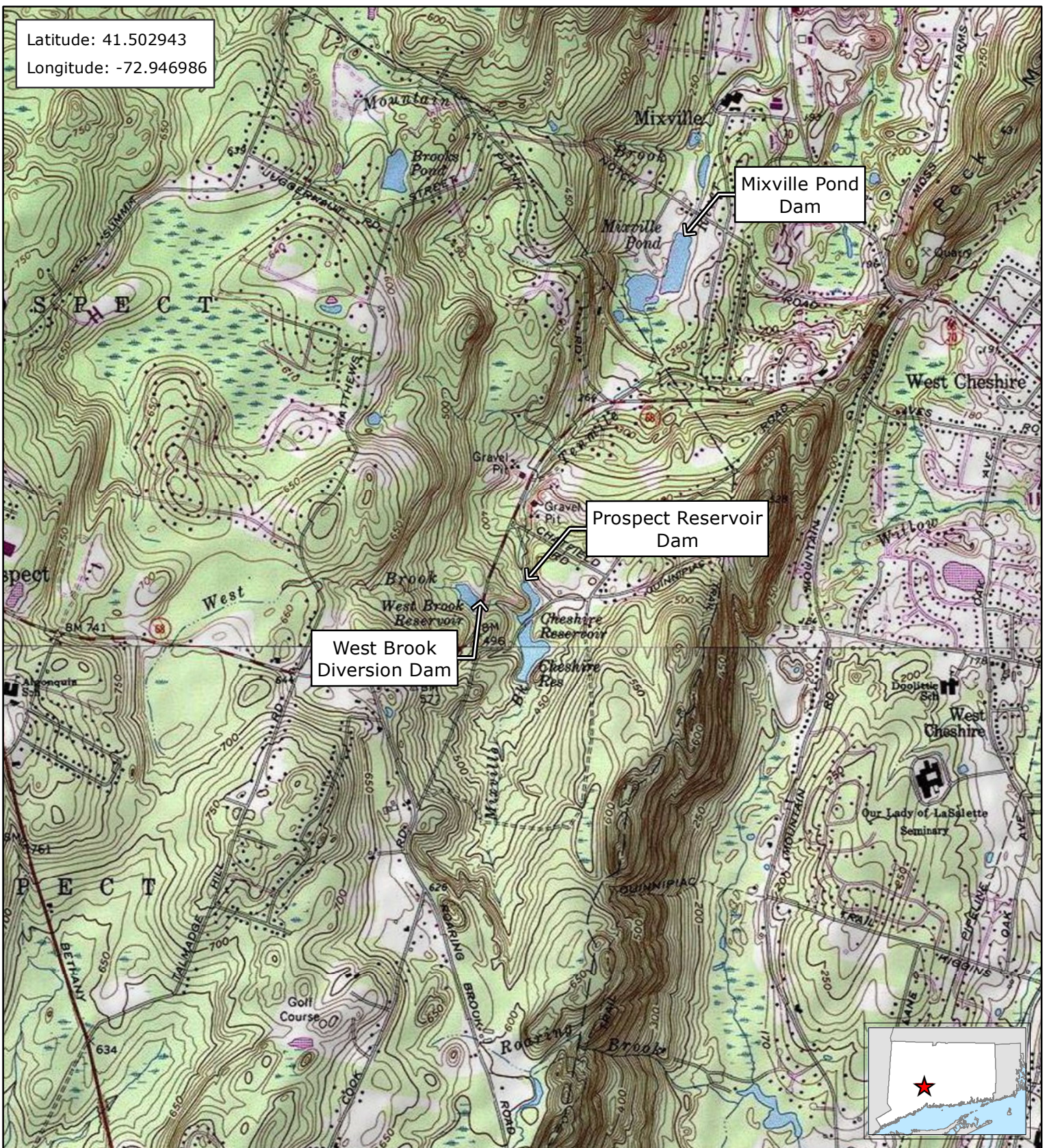


FIGURE 1
SITE LOCATION

Prospect Reservoir Dam Improvements
CT Dam ID# 11501
Prospect, Connecticut



Latitude: 41.502943
Longitude: -72.946986



Prospect Reservoir Dam

West Brook Diversion Dam

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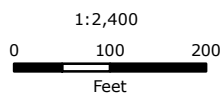
**FIGURE 2
ORTHOPHOTOGRAPH**

Prospect Reservoir Dam Improvements
CT Dam ID# 11501
Prospect, Connecticut

February 2023

Tighe & Bond

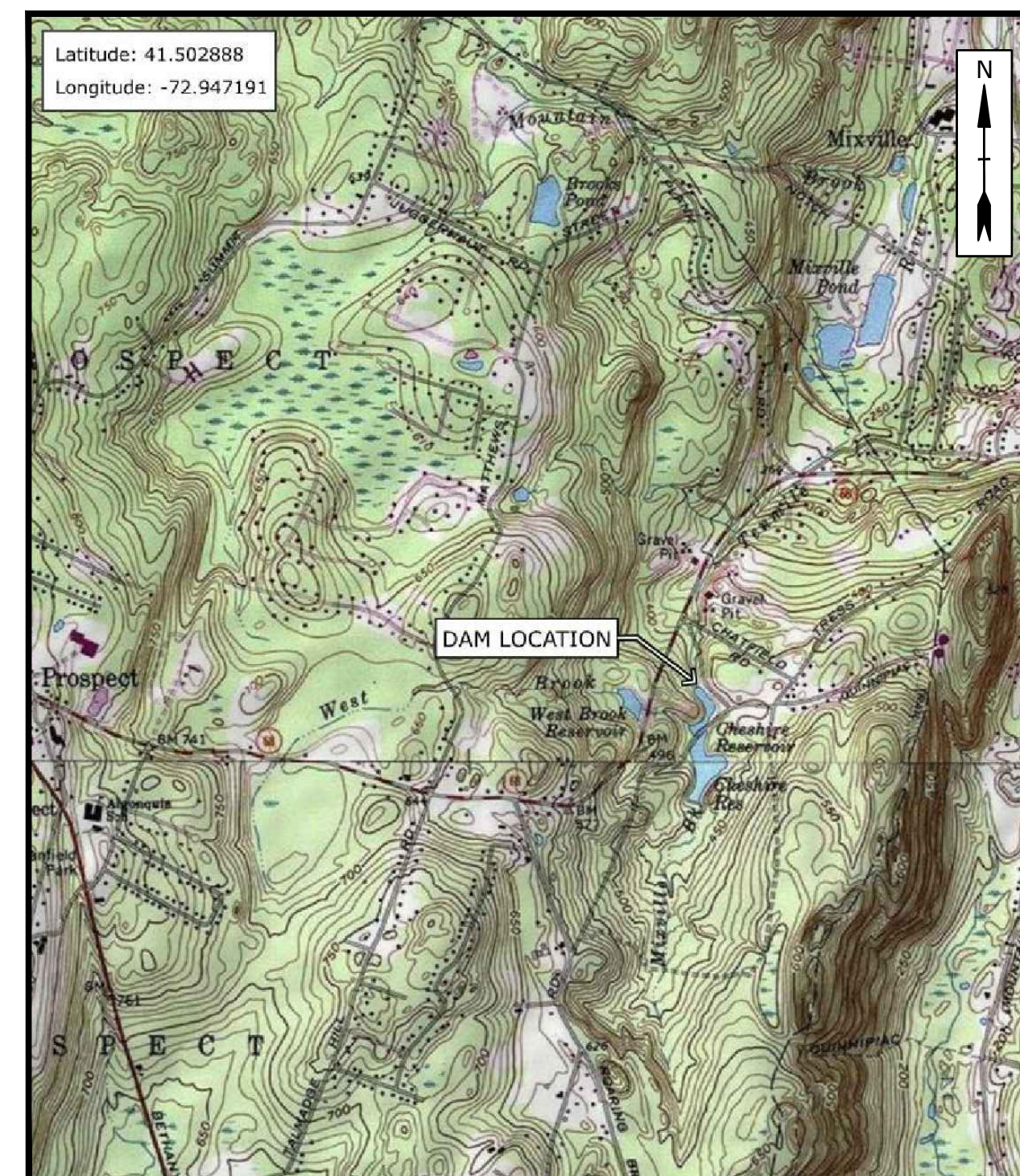
Based on 2019 Statewide Leaf-Off Orthophotography,
Courtesy of CTECO.



PROSPECT RESERVOIR DAM IMPROVEMENTS PROSPECT, CONNECTICUT

SOUTH CENTRAL CONNECTICUT REGIONAL WATER AUTHORITY
NEW HAVEN, CT
FEBRUARY 2023

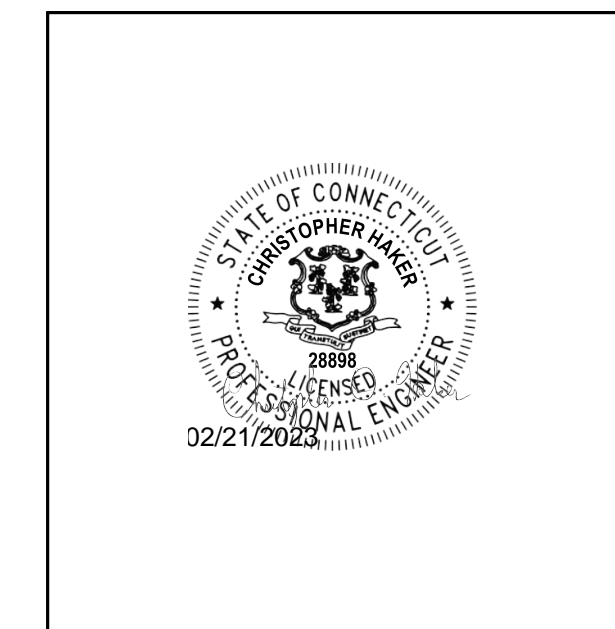
LIST OF DRAWINGS		
SHEET NO.	DRAWING NO.	DRAWING TITLE
GENERAL		
1	G-001	COVER SHEET
2	G-002	GENERAL NOTES, LEGEND, AND ABBREVIATIONS
CIVIL		
3	C-101	EXISTING CONDITIONS SITE PLAN
4	C-102	PROPOSED CONDITIONS SITE PLAN
5	C-103	PROPOSED CONDITIONS TEMPORARY STOCKPILE AREAS
6	C-104	SITE CROSS SECTIONS AND DETAILS
7	C-105	SITE DETAILS (SHEET 1 OF 2)
8	C-106	SITE DETAILS (SHEET 2 OF 2)
STRUCTURAL		
9	S-001	STRUCTURAL NOTES AND STANDARD DETAILS



LOCATION MAP
SCALE: 1" = 2000'

PREPARED BY:

Tighe&Bond



CHRISTOPHER D. HAKER, PE

PREPARED FOR:

SOUTH CENTRAL CONNECTICUT
REGIONAL WATER AUTHORITY
NEW HAVEN, CONNECTICUT

COMPLETE SET 9 SHEETS

REGIONAL WATER AUTHORITY (RWA) CONSTRUCTION GUIDELINES

- REFUELING SHALL BE CONDUCTED AT LEAST 50 FEET FROM WETLANDS AND WATERCOURSES. A SIGN WILL BE POSTED WITH SPILL PROCEDURES AND RWA AND DEEP PHONE NUMBERS.
- ALL FUEL, OIL, PAINT, OR OTHER HAZARDOUS MATERIALS SHALL BE STORED IN A SECONDARY CONTAINER AND REMOVED TO A LOCKED INDOOR AREA WITH AN IMPERVIOUS FLOOR DURING NON-WORK HOURS.
- ON-SITE VEHICLE AND EQUIPMENT SERVICING IS PROHIBITED. ALL SERVICING, INCLUDING BUT NOT LIMITED TO OIL CHANGES, TRANSMISSION WORK, RADIATOR FLUSHING AND REPAIRS, PARTS CLEANING, AND ENGINE CLEANING, SHALL BE CONDUCTED INDOORS ON AN IMPERVIOUS SURFACE. THERE SHALL BE ABSOLUTELY NO DISCHARGES OF MOTOR VEHICLE FLUIDS OR DETERGENT CHEMICALS TO THE ENVIRONMENT.
 - WASTE CHEMICALS INCLUDING BUT NOT LIMITED TO WASTE OIL, ANTIFREEZE, TRANSMISSION OIL, LEAD ACID BATTERIES AND SOLVENTS SHOULD BE STORED INDOORS OR OUTSIDE ON AN IMPERVIOUS SURFACE WITHIN A CONTAINMENT BERM OR OTHER MEANS OF SECONDARY CONTAINMENT. THESE MATERIALS SHOULD BE DISPOSED OF BY A LICENSED WASTE HAULER IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.
 - IF VEHICLE WASHINGS ARE DONE ON-SITE, WASH-WATER SHOULD NOT BE DISCHARGED TO THE ENVIRONMENT. THE FACILITY SHOULD BE OPERATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CT DEEP.
 - WASTE OIL TANKS SHOULD BE STORED ABOVE GROUND ON A BERMED IMPERVIOUS SURFACE CAPABLE OF CONTAINING AT LEAST 110% OF THE VOLUME OF THE TANK. THE TANK SHALL BE STORED INDOORS OR, IF OUTDOORS, WITH A ROOF TO PREVENT STORMWATER ACCUMULATION.
 - STORAGE OF HARMFUL CHEMICALS SHOULD BE INDOORS IN AN AREA WHERE SPILLAGE WILL NOT DISCHARGE TO THE ENVIRONMENT. USE OF HAZARDOUS CHEMICALS, ESPECIALLY SOLVENTS, SHALL BE MINIMIZED TO THE EXTENT POSSIBLE.
 - SCRAP METAL PARTS, OR OTHER PARTS IN CONTACT WITH LUBRICANT, SHALL BE STORED IN ENCLOSED CONTAINERS INDOORS OR IN AREAS SECURED FROM STORMWATER ACCUMULATION.
- A SUPPLY OF ABSORBENT SPILL RESPONSE MATERIAL (E.G. BOOMS, BLANKETS, ETC.) SHALL BE AVAILABLE AT CONSTRUCTION SITES AT ALL TIMES TO CLEAN UP POTENTIAL SPILLS OF HAZARDOUS MATERIALS, SUCH AS GASOLINE AND OIL.
- SPILLS OF HAZARDOUS MATERIALS SHALL BE REPORTED IMMEDIATELY TO THE FOLLOWING:
 - RWA CONTROL ROOM AT 401-2629. STATE LOCATION OF SPILL, ESTIMATED AMOUNT OF MATERIAL SPILLED, TYPE OF MATERIAL SPILLED, AND THE STATUS OF THE SPILL.
 - CT DEPARTMENT OF ENVIRONMENTAL PROTECTION OIL AND CHEMICAL SPILLS UNIT AT 860-424-3338.
 - CT DEPARTMENT OF PUBLIC HEALTH AT 860-509-7333.
- DUMPSTERS SHALL BE SET ON AN IMPERVIOUS SURFACE AND SHALL BE COVERED AND WATER-TIGHT.
- IN ACCORDANCE WITH SECTION 19-13-B102(B) OF THE CONNECTICUT PUBLIC HEALTH CODE, REGIONAL WATER AUTHORITY WATERSHED INSPECTORS ARE REQUIRED TO PERFORM ROUTINE INSPECTIONS OF PROPERTIES WITHIN PUBLIC WATER SUPPLY WATERSHEDS AND AQUIFERS. RWA INSPECTORS SHOULD BE GRANTED ACCESS TO THIS PROPERTY DURING THE ANNUAL INSPECTION PROGRAM.
- MEETING PRIOR TO ANY SITE ACTIVITIES BE HELD BETWEEN THE CONTRACTOR, PROJECT ENGINEER, TOWN ZONING ENFORCEMENT OFFICER AND REGIONAL WATER AUTHORITY PERSONNEL TO REVIEW EROSION AND SEDIMENTATION CONTROL PLANS, CONSTRUCTION ACTIVITIES, AND TO ESTABLISH LINES OF COMMUNICATION.
- AN INSPECTION AND MAINTENANCE SCHEDULE FOR THE STORMWATER MANAGEMENT SYSTEMS SHOULD BE DEVELOPED AND REFERENCED ON THE SITE PLAN AS WELL AS THE PARTY RESPONSIBLE FOR IMPLEMENTING IT
- EROSION AND SEDIMENTATION CONTROLS SHALL BE INSTALLED PRIOR TO ANY SITE WORK. CONTROLS SHALL BE INSPECTED WEEKLY AND AFTER EACH RAINFALL EVENT. ADDITIONAL CONTROLS SHALL BE STORED ON-SITE FOR ANY NECESSARY REPAIRS. EXCAVATED MATERIAL STORED ON-SITE FOR ANY LENGTH OF TIME SHALL BE STABILIZED.
- RWA ENVIRONMENTAL PLANNING DEPARTMENT SHALL BE CONSULTED PRIOR TO ANY DEWATERING ACTIVITIES.

EROSION AND SEDIMENTATION CONTROL NOTES

- TEMPORARY SEDIMENT AND EROSION CONTROL BY THE CONTRACTOR SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS LISTED BELOW.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES NECESSARY TO EXECUTE AND COMPLETE THE WORK OF THE CONTRACT, IN COMPLIANCE WITH THE TERMS AND CONDITIONS CONTAINED IN THE CONTRACT AND PROJECT PERMITS. CONTROLS SHOWN ON THE CONTRACT DRAWINGS AND MENTIONED IN THE TECHNICAL SPECIFICATIONS SHALL BE CONSIDERED MINIMUM REQUIREMENTS. THE CONTRACTOR SHALL EMPLOY WHATEVER SUPPLEMENTARY MEASURES NECESSARY TO PROTECT WETLANDS, WATERS, AND ADJACENT AREAS FROM DISTURBANCE OR DISCHARGE OF SEDIMENTS, AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SEDIMENT AND EROSION CONTROLS TO MEET THE CONDITIONS OF ALL APPLICABLE PERMITS AND REGULATIONS. SUCH CONTROLS SHALL BE INSTALLED WHEREVER THE POTENTIAL EXISTS FOR THE DISTURBANCE OF LAND OR THE TRANSPORT OF SEDIMENT.
- EROSION AND SEDIMENTATION CONTROLS SHALL CONSIST OF STRAW OR COMPOST WATTLES WITH 100% BIODEGRADABLE NETTING INSTALLED PER DETAILS PROVIDED ON SHEET C-102.
- EROSION CONTROL SEDIMENTATION CONTROLS SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF CLEARING AND GRUBBING ACTIVITIES. LOCATION OF EROSION AND SEDIMENTATION CONTROLS SHALL BE ADJUSTED UPON COMPLETION OF CLEARING AND GRUBBING RIPRAP PLACEMENT BUT PRIOR TO

COMMENCEMENT OF GRADING ACTIVITIES.

- ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE MAINTAINED IN GOOD CONDITION AND PROPER WORKING ORDER. NECESSARY REPAIRS SHALL BE MADE IMMEDIATELY.
- ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE PROPERLY DISPOSED OFF-SITE UPON COMPLETION OF WORK, SITE STABILIZATION AND/OR AUTHORIZATION FROM THE OWNER.
- COFFERDAMS SHALL BE INSTALLED AS INDICATED ON THE CONTRACT DRAWINGS. ALL COFFERDAMS SHALL CONSIST OF NON-ERODIBLE MATERIAL.

BEST MANAGEMENT PRACTICES

INSPECTION AND MAINTENANCE

- SEDIMENT AND EROSION CONTROLS AND BMPS SHALL BE INSTALLED PRIOR TO COMMENCING CONSTRUCTION AT THE SITE. NO WORK WHICH SHALL DISTURB THE SITE OR CREATE THE POTENTIAL FOR SEDIMENT RELEASE SHALL COMMENCE UNTIL THE SEDIMENT AND EROSION CONTROLS HAVE BEEN INSPECTED AND APPROVED BY THE OWNER, ENGINEER, AND REGULATORY AGENCIES. ALL CONTROLS AND BMPS SHALL BE SUBJECT TO INSPECTION BY THE OWNER, HIS REPRESENTATIVE, AND REGULATORY AGENCIES AT ANYTIME THEREAFTER.
- PERIODIC INSPECTION, MAINTENANCE, AND CLEANING OF TEMPORARY EROSION OF SEDIMENT CONTROL MEASURES AND BEST MANAGEMENT PRACTICES (BMPS) SHALL BE REQUIRED. ALL CONTROLS AND BMPS SHALL BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF RAINFALL EVENTS OF 0.5 INCHES OR GREATER. ROUTINE INSPECTION AND MAINTENANCE WILL REDUCE THE CHANCE OF POLLUTING STORMWATER BY FINDING AND CORRECTING PROBLEMS BEFORE THE NEXT RAIN EVENT. THE FOCUS OF THE INSPECTION SHALL BE TO DETERMINE:
 - WHETHER OR NOT THE MEASURE WAS INSTALLED / PERFORMED CORRECTLY;
 - WHETHER OR NOT THERE HAS BEEN ANY DAMAGE TO THE MEASURE SINCE IT WAS INSTALLED OR PERFORMED; AND
 - WHAT SHOULD BE DONE TO CORRECT ANY PROBLEMS WITH THE MEASURE. EACH MEASURE SHALL BE OBSERVED TO DETERMINE IF IT IS STILL EFFECTIVE. IN SOME CASES, SPECIFIC MEASUREMENTS SHALL BE TAKEN TO DETERMINE IF MAINTENANCE OF THE MEASURES IS REQUIRED.

SITE MANAGER

- PRIOR TO CONSTRUCTION, A SITE MANAGER SHALL BE DESIGNATED BY THE CONTRACTOR TO BE RESPONSIBLE FOR INSTALLATION, MONITORING, INSPECTION, AND CORRECTION OF EROSION AND SEDIMENT CONTROL MEASURES.

SITE CLEARING

- DURING SITE CLEARING, EXISTING VEGETATION WITHIN THE OVERALL LIMITS OF CLEARING AND GRUBBING SHALL BE CLEARED AND REMOVED, EXCEPT AS OTHERWISE DIRECTED. THIS INCLUDES ALL VEGETATION ON THE DIKE EMBANKMENT AND WITHIN 20 FEET OF THE DIKE EMBANKMENT AND ASSOCIATED STONE MASONRY WALLS. PRIOR TO ANY SITE CLEARING ACTIVITIES, ORANGE SAFETY FENCING SHALL BE PLACED ALONG THE OUTER LIMIT OF DISTURBANCE. CLEARING IS TO BE LIMITED TO THOSE AREAS OF PROPOSED WORK. DISTURBED AREAS ARE TO BE KEPT TO A MINIMUM. NO CLEARING OF AREAS OUTSIDE THE LIMITS OF CLEARING AND GRUBBING SHALL OCCUR WITHOUT PRIOR APPROVAL FROM THE OWNER.

EROSION CONTROL BARRIERS

- EROSION CONTROL BARRIERS SHALL BE PLACED TO TRAP SEDIMENT TRANSPORTED BY RUNOFF BEFORE IT REACHES THE DRAINAGE FEATURES, WATERBODIES, OR WETLANDS, IN ADDITION TO AREAS WHERE HIGH RUNOFF VELOCITIES OR HIGH SEDIMENT LOADS ARE EXPECTED. THE EROSION CONTROLS SHALL BE REPLACED AS DETERMINED BY PERIODIC FIELD INSPECTIONS.

DUST CONTROL

- STANDARD DUST CONTROL MEASURES, INCLUDING SPRAYING AND MISTING SHALL BE USED AS NECESSARY. CALCIUM CHLORIDE SHALL NOT BE ALLOWED ON THIS PROJECT.

STAGING AREAS

- THE CONTRACTOR SHALL COORDINATE LAYDOWN STAGING AREAS IN WHICH TO STORE EQUIPMENT AND MATERIALS WITH THE OWNER.
- STAGING AREAS SHALL BE SURROUNDED WITH EROSION CONTROL BARRIERS ON THE DOWN HILL SIDE.
- DURING AND AFTER CONSTRUCTION, ALL PAVED ROAD AND DRIVEWAY SURFACES ARE TO BE SCRAPED AND BROOMED FREE OF EXCAVATED MATERIALS ON A DAILY BASIS, UNLESS APPROVED BY THE OWNER.

STOCKPILED MATERIALS

- STOCKPILES OF SOIL CREATED DURING CONSTRUCTION ACTIVITIES ARE TO BE SURROUNDED WITH EROSION CONTROL BARRIERS WHERE POSSIBLE. OTHER ALTERNATIVES UTILIZED MAY INCLUDE GRAVEL FILTER BERMS OR SIMILAR MEASURES LAID AROUND THE PERIMETER OF THE STOCKPILE. STOCKPILES OF ERODIBLE MATERIAL SHALL BE COVERED PRIOR TO INCLEMENT WEATHER WITH A MINIMUM OF 20 MIL POLYETHYLENE SHEETING.

CONSTRUCTION DEWATERING

- CONSTRUCTION DEWATERING SHALL BE REQUIRED DURING PORTIONS OF CONSTRUCTION WHICH REQUIRE EXCAVATION OR OTHER ACTIVITIES WHERE GROUNDWATER MAY INTERFERE WITH THE WORK. CONSTRUCTION DEWATERING DISCHARGE TO A SURFACE WATER BODY SHALL BE PRE-TREATED FOR SEDIMENT REMOVAL BY PASSING THROUGH AN APPROPRIATELY SIZED FILTER SOCK OR FRACTIONATION / SEDIMENTATION TANK PRIOR TO DISCHARGE, AS NECESSARY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING DEWATERING TECHNIQUES AND MAINTAINING DEWATERING PROCEDURES THROUGHOUT THE DURATION OF THE PROJECT.

OUTLET PROTECTION

- APPROPRIATE OUTLET PROTECTION, CONSISTING OF RIPRAP CHANNEL LINING, A LEVEL SPREADER, OR OTHER SUCH MEASURE SHALL BE PROVIDED AT THE OUTLET OF ANY DEWATERING CONDUIT OR STORMWATER CULVERT OR CHANNEL OUTFALL TO REDUCE VELOCITIES AND ENHANCE SEDIMENTATION PRIOR TO DISCHARGE.

LIMITS OF WORK

- THE CONTRACTOR SHALL LINE THE BOUNDARY OF WORK AREAS THAT ARE NOT BOUNDED BY EROSION CONTROL BARRIERS WITH ORANGE SAFETY FENCING PLACED AT THE LIMITS OF WORK BEFORE THE START OF SITE CLEARING ACTIVITIES.

TEMPORARY STABILIZATION

- WHEN NECESSARY, TEMPORARY SLOPE PROTECTION SHALL BE PROVIDED BY INSTALLING SEDIMENT TRAP

BARRIERS AT THE TOE OF FILLS OR CUT SLOPES. IF ADDITIONAL STABILIZATION IS NEEDED, THEN THE CONTRACTOR SHALL INSTALL MULCH LOGS, MATTING, SUCH AS STRAW, JUTE, WOOD FIBER, OR BIODEGRADABLE EROSION CONTROL BLANKETS.

- IN THE EVENT THAT DISTURBED AREAS AT THE SITE ARE TO BE LEFT UN-WORKED FOR MORE THAN TWO WEEKS, THE AREAS SHALL BE MULCHED WITH STRAW AT A RATE OF 100 LBS. PER 1,000 S.F. TO HELP CONTROL EROSION. TWO INCHES OF WOOD CHIP MULCH MAY ALSO BE USED AS TEMPORARY COVER.
- IN THE EVENT THAT DISTURBED AREAS AT THE SITE ARE TO BE LEFT UN-WORKED FOR MORE THAN ONE MONTH, THE AREAS SHALL BE TOPSOILED AND SEEDED AS PER THE SPECIFICATIONS AND AT NO ADDITIONAL COST TO THE OWNER.
- LEAVE THE SURFACE OF ALL EXCAVATIONS AND FILLS IN A FIRM AND STABLE CONDITION AT THE END OF EACH DAY. ROLL OR OTHERWISE TREAT THE SURFACE AS NEEDED.

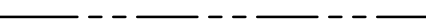
















SITE RESTORATION

- STABILIZATION OF DISTURBED AREAS OR NEW SOIL FILLS SHALL BE IMPLEMENTED WITHIN 14 DAYS AFTER GRADING OR CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. APPROPRIATE VEGETATIVE SOIL STABILIZATION SHALL BE USED TO MINIMIZE EROSION. TEMPORARY AND PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS, USING APPROVED APPLICATION TECHNIQUES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION OF PREVIOUSLY VEGETATED UPLAND AREAS DISTURBED BY CONSTRUCTION ACTIVITIES. RESTORATION OF UPLAND AREAS SHALL CONSIST OF REPLACEMENT OF TOPSOIL OR PLACEMENT OF IMPORTED LOAM AS NEEDED SUCH THAT A MINIMUM OF 4 INCHES OF SUITABLE MATERIAL IS PRESENT AND APPROPRIATELY, LIMED, FERTILIZED, GRADED, AND SCARIFIED. WHERE NOT OTHERWISE SPECIFIED, DISTURBED UPLAND AREAS WITHIN THE 100' WETLAND BUFFER ZONE SHALL THEN BE SEEDED WITH NEW ENGLAND EROSION CONTROL SEED MIX FOR DRY SITES AT A RATE OF 1 POUND OF LIVE SEED PER 1,000 S.F. SEEDING RATE SHALL BE DOUBLED FOR DORMANT SEEDING.
- RESTORED AREAS BEYOND THE LIMITS OF THE OVERTOPPING PROTECTION, SHALL BE ROLLED AND THEN APPROPRIATELY MULCHED WITH HAY, STRAW, WOOD CHIPS OR OTHER APPROVED WEED-FREE MATERIAL. BIO OR PHOTO-DEGRADABLE EROSION CONTROL FABRIC IS ALSO ACCEPTABLE FOR POST-RESTORATION STABILIZATION. ON FLAT SURFACES AND ON SLOPES OF 3:1 OR FLATTER, MULCH OR EROSION CONTROL MATTING SHALL TO BE USED AFTER PERMANENT SEEDING TO PROTECT SOIL FROM THE IMPACT OF FALLING RAIN AND TO INCREASE THE CAPACITY OF THE SOIL TO ABSORB WATER. FOR STEEPER SLOPES, EROSION CONTROL MATTING SHALL BE USED.
- FINAL STABILIZATION SHALL BE CONSIDERED COMPLETE WHEN ALL SOIL-DISTURBING ACTIVITIES HAVE BEEN COMPLETED AND A UNIFORM, PERENNIAL VEGETATIVE COVER WITH A DENSITY OF EIGHTY PERCENT HAS BEEN ESTABLISHED OR EQUIVALENT STABILIZATION MEASURES (SUCH AS THE USE OF MULCHES OR EROSION CONTROL MATTING) HAVE BEEN EMPLOYED ON ALL UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL VEGETATED SURFACES, INCLUDING WATERING, FERTILIZING, AND RE-SEEDING UNTIL ESTABLISHMENT CONDITIONS ARE MET AND UNTIL THE END OF THE CONTRACTUAL MAINTENANCE PERIOD.

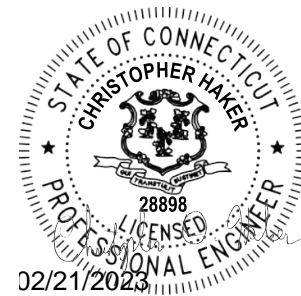
GENERAL NOTES

- BOLD TEXT AND LINES INDICATE PROPOSED WORK.
- LIGHT TEXT AND LINES INDICATE APPROXIMATE EXISTING CONDITIONS.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE REGULATIONS OF CONNECTICUT STATE AGENCIES, SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS.
- THIS PLAN CONFORMS TO HORIZONTAL ACCURACY CLASS A-2, AND TOPOGRAPHIC ACCURACY CLASS T-2.
- NORTH ARROW REFERS TO THE CONNECTICUT STATE PLANE COORDINATE SYSTEM (NAD83 EPOCH2011) AND ARE BASED ON GPS OBSERVATIONS PERFORMED BY WSP USA.
- ELEVATIONS REFER TO NAVD 88 AND ARE BASED ON GPS OBSERVATIONS.
- WETLANDS DELINEATED BY TIGHE & BOND AND LOCATED BY WSP SEPTEMBER 21, 2022.
- UNDERGROUND UTILITIES DEPICTED HAVE BEEN PLOTTED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES DEPICTED COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES DEPICTED ARE IN THE EXACT LOCATION INDICATED, THE SURVEYOR HAS NOT PHYSICALLY EXPOSED THE UNDERGROUND UTILITIES. PER CONNECTICUT STATE LAW THE CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF EXCAVATION.

LEGEND

	ORDINARY HIGH WATER		INTERMEDIATE CONTOUR
	INLAND WETLANDS LIMIT		INDEX CONTOUR
	WETLAND BOUNDARY FLAG		PROPOSED CONTOUR
	VEGETATED WETLAND AREA		TEMPORARY TURBIDITY CURTAIN
	EXISTING WOOD FENCE		TEMPORARY COFFER DAM
	EDGE OF GRAVEL PARKING LOT		LIMIT OF WORK
	TREELINE		EROSION CONTROL BARRIER
	LIMIT OF CLEARING AND GRUBBING		GCL WITH SOIL AND MODIFIED ROCKFILL COVER
	SOIL BORING/MONITORING WELL		

Tighe & Bond



Prospect Reservoir Dam Improvements

South Central Connecticut Regional Water Authority

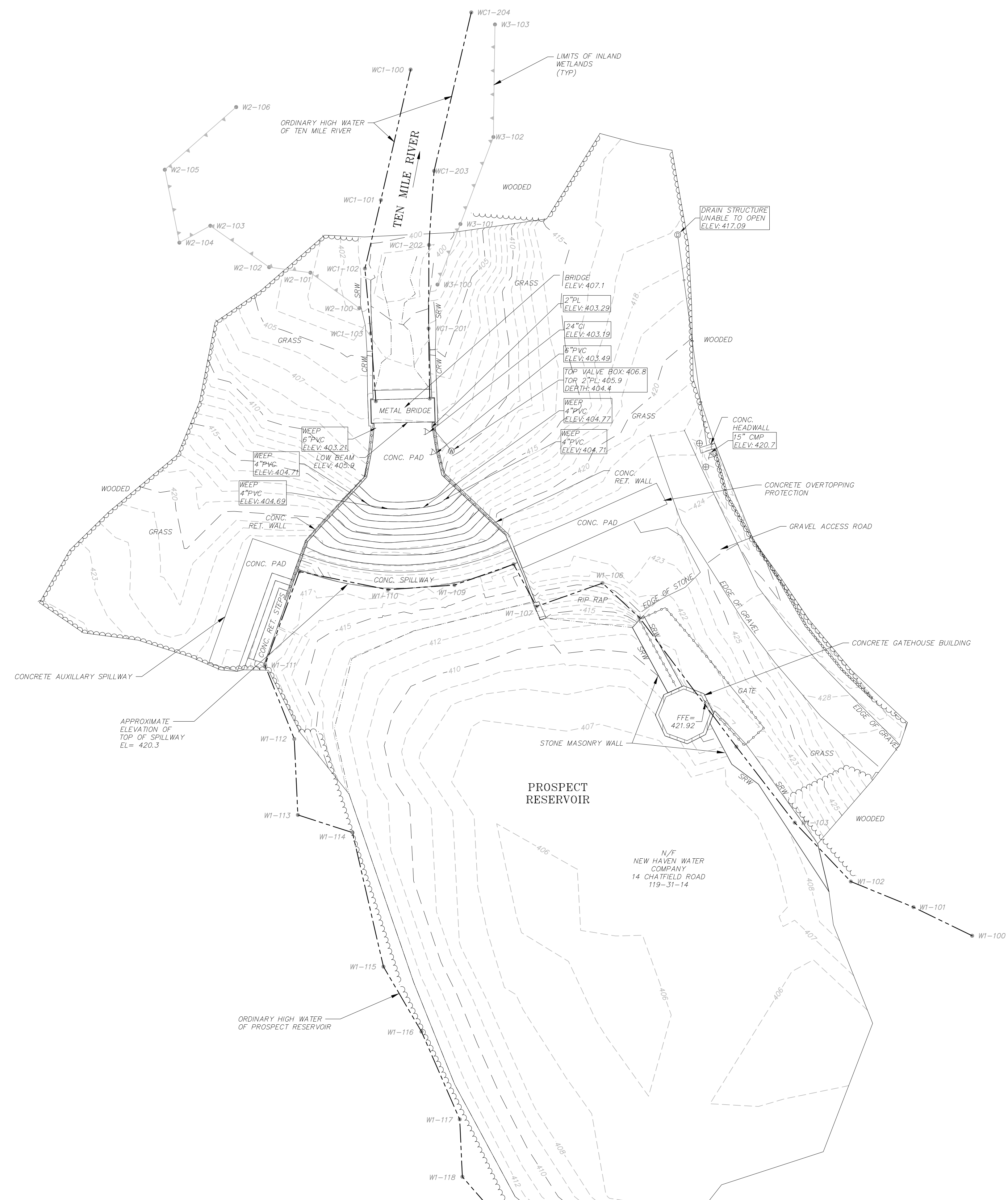
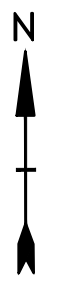
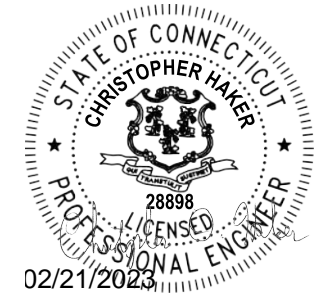
Prospect, Connecticut

MARK	DATE	DESCRIPTION
PROJECT NO:	S1889-A19	
DATE:	02/17/2023	
FILE:	S1889-A19_G-002.dwg	
DRAWN BY:	CFY	
CHECKED BY:	DEG	
APPROVED BY:	CDH	

GENERAL NOTES, ABBREVIATIONS, AND LEGEND

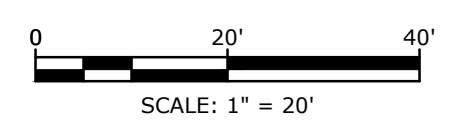
SCALE: NO SCALE

G-002



NOTES:

1. A) THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE REGULATIONS OF CONNECTICUT STATE AGENCIES, SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS.
B) THIS PLAN CONFORMS TO HORIZONTAL ACCURACY CLASS A-2, AND TOPOGRAPHIC ACCURACY CLASS T-2.
2. NORTH ARROW REFERS TO THE CONNECTICUT STATE PLANE COORDINATE SYSTEM (NAD83 EPOCH2011) AND ARE BASED ON GPS OBSERVATIONS PERFORMED BY WSP USA.
3. ELEVATIONS REFER TO NAVD 88 AND ARE BASED ON GPS OBSERVATIONS.
4. WETLANDS DELINEATED BY TIGHE & BOND AND LOCATED BY WSP SEPTEMBER 21, 2022.
5. UNDERGROUND UTILITIES DEPICTED HAVE BEEN PLOTTED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES DEPICTED COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES DEPICTED ARE IN THE EXACT LOCATION INDICATED, THE SURVEYOR HAS NOT PHYSICALLY EXPOSED THE UNDERGROUND UTILITIES. PER CONNECTICUT STATE LAW THE CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF EXCAVATION.



Prospect Reservoir Dam Improvements

South Central Connecticut Regional Water Authority

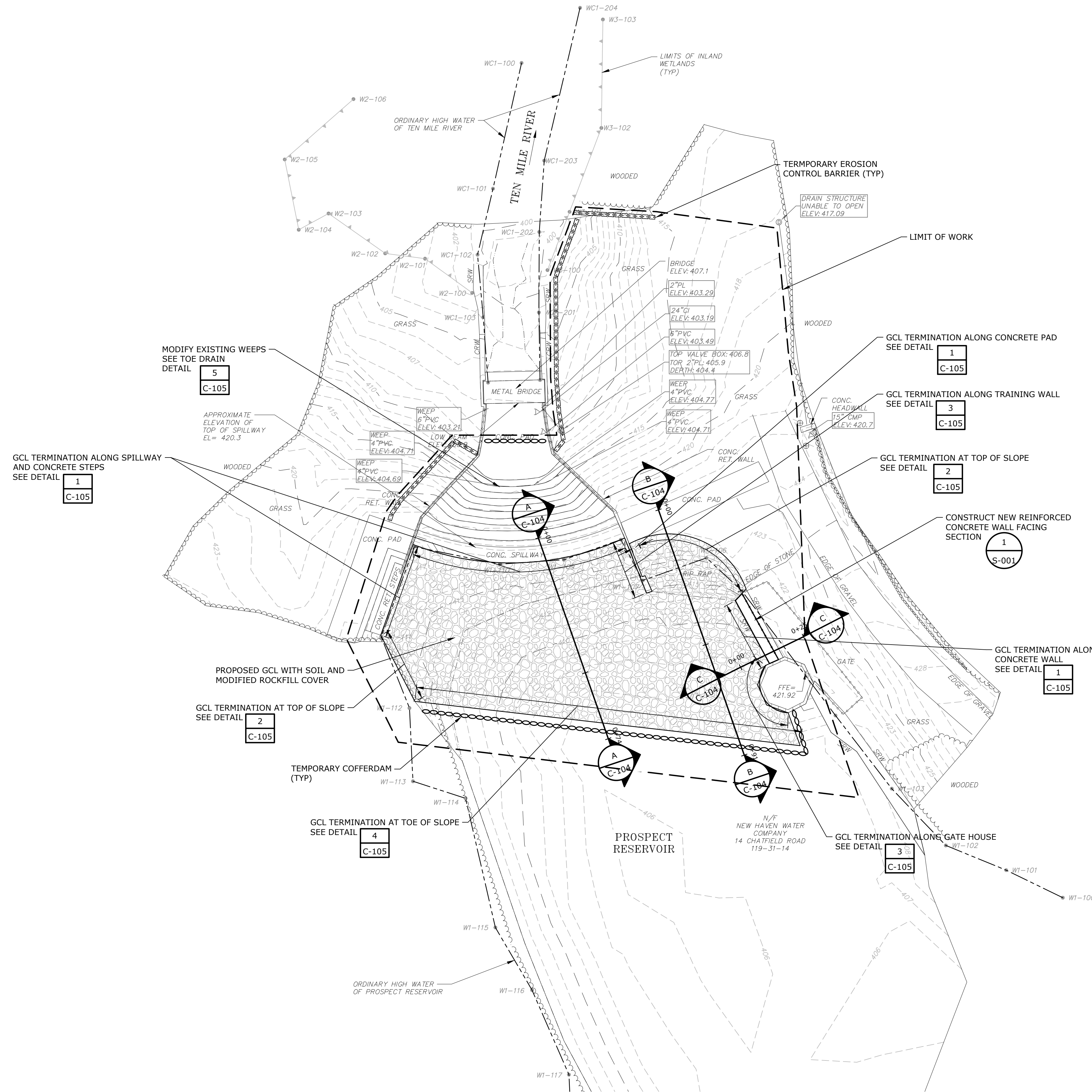
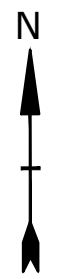
Prospect, Connecticut

MARK	DATE	DESCRIPTION
PROJECT NO:	S1889-A19	
DATE:	02/17/2023	
FILE:	S1889-A19_C-101.dwg	
DRAWN BY:	CFY	
CHECKED BY:	DEG	
APPROVED BY:	CDH	

EXISTING CONDITIONS
SITE PLAN

SCALE: 1" = 20'

Last Saved: 1/23/2023 10:36am By: DDonack
 Plotted On: Feb 17, 2023 11:59am By: DDonack
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NOTES:

1. EXCESS EXCAVATED MATERIAL TO BE DISPOSED OF IN VEGETATED UPLAND AREA ONSITE.
2. USE MODIFIED STRUCTURAL FILL TO SUPPLEMENT EXISTING LOW PERMEABILITY FILL AS NECESSARY PRIOR TO GCL INSTALLATION.
3. EXISTING CONDITIONS SHOWN PER TOPOGRAPHIC SURVEY PREPARED BY WSP USA INC., DATED SEPTEMBER 30, 2022.
4. ELEVATIONS SHOWN HEREIN REFERENCE THE NATIONAL GEODETIC VERTICAL DATUM OF 1988 (NAVD88).

LEGEND:

APPROX. EXTENTS OF GCL

Prospect Reservoir Dam Improvements

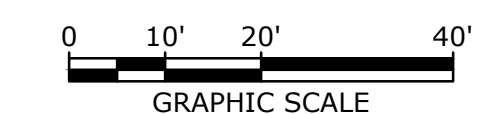
South Central Connecticut Regional Water Authority

Prospect, Connecticut

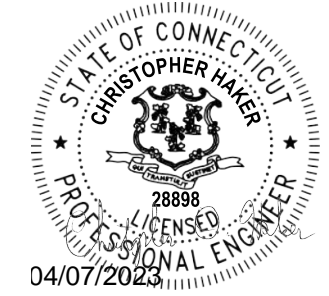
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PROJECT NO:	S1889-A19	
DATE:	02/17/2023	
FILE:	S1889-A19_C-102.dwg	
DRAWN BY:	CFY	
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APPROVED BY:	CDH	

PROPOSED CONDITIONS SITE PLAN

SCALE: 1" = 20'



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 Plotted On: Feb 17, 2023 10:28am By: DDonack
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INSTALL SILT FENCE AS TURTLE EXCLUSION FENCE AS DESCRIBED IN THE NDDB DETERMINATION #202300544 AND AT THE DIRECTION OF THE PROJECT HERPETOLOGIST

PROPOSED REUSE AREA AFTER DEWATERING IN TEMPORARY STOCKPILE AREA, SPREAD AND COMPACT SEDIMENTS 4 TO 6 INCHES THICK AND SEED WITH NATIVE PASTURE MIX. MAINTAIN TEMPORARY EROSION CONTROL MEASURES UNTIL VEGETATION IS ESTABLISHED.

NOTES:

- A) THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE REGULATIONS OF CONNECTICUT STATE AGENCIES, SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS.
- B) THIS PLAN CONFORMS TO HORIZONTAL ACCURACY CLASS A-2, AND TOPOGRAPHIC ACCURACY CLASS T-2.
- NORTH ARROW REFERS TO THE CONNECTICUT STATE PLANE COORDINATE SYSTEM (NAD83 EPOCH2011) AND ARE BASED ON GPS OBSERVATIONS PERFORMED BY WSP USA.

Prospect Reservoir Dam Improvements

South Central Connecticut Regional Water Authority

Prospect, Connecticut

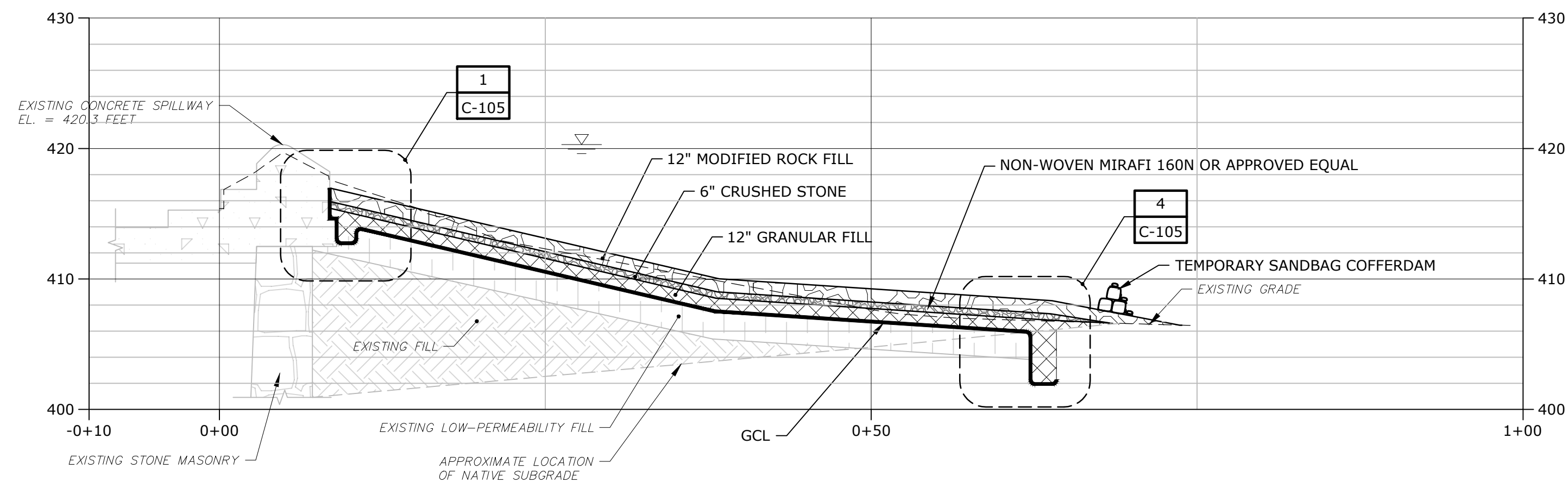
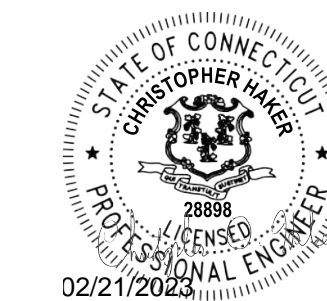
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CHECKED BY:	DEG
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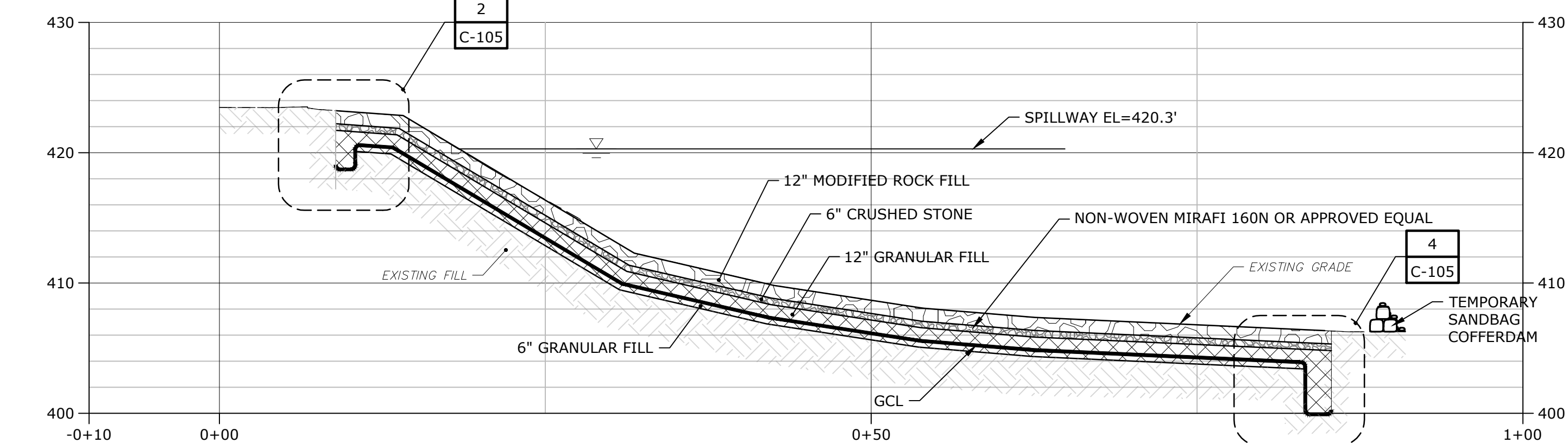
PROPOSED CONDITIONS
TEMPORARY STOCKPILE AREA

SCALE: 1" = 80'

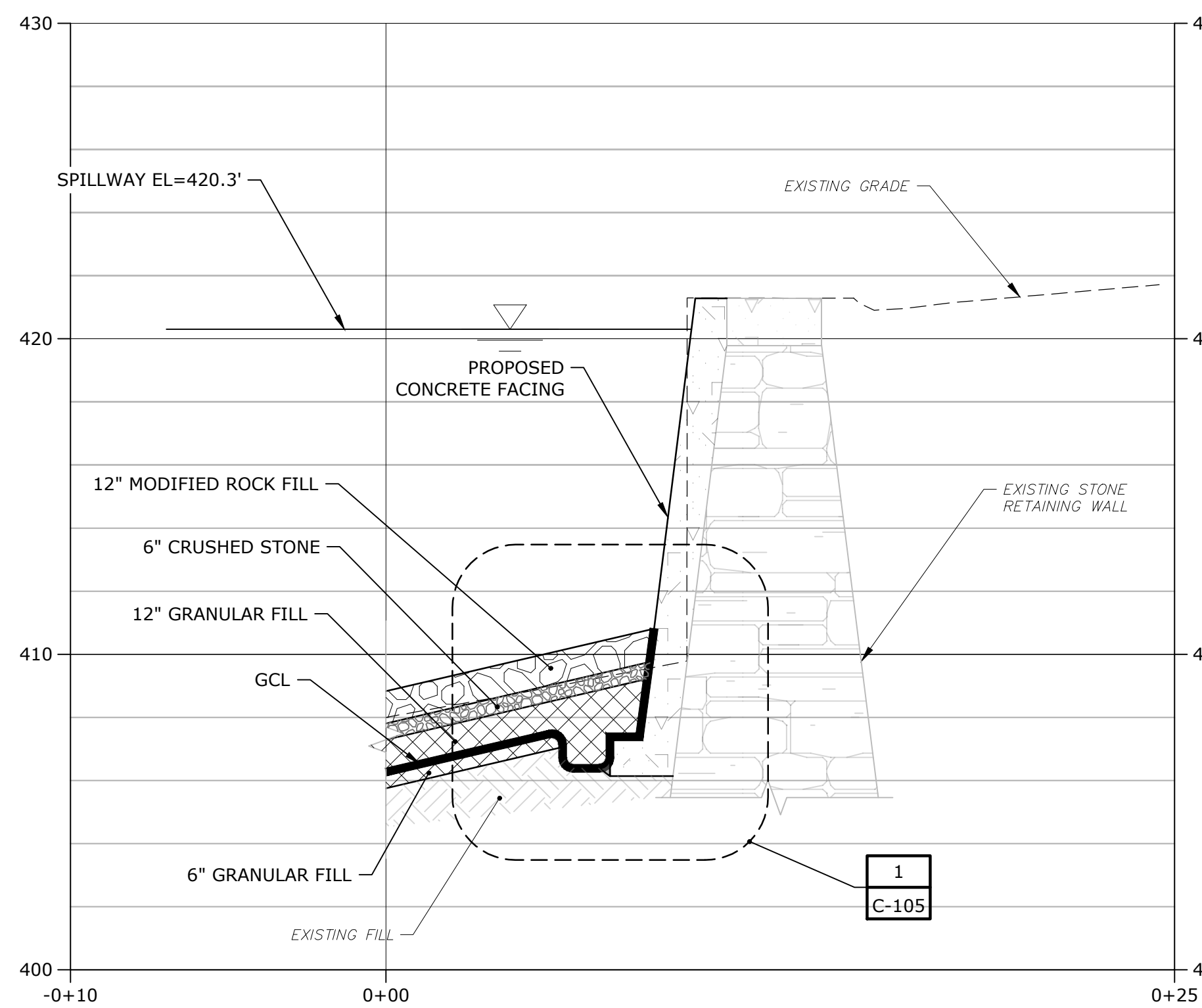
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SECTION A
1/8"=1'-0"



SECTION B
1/8"=1'-0"



SECTION C
1/4"=1'-0"

GENERAL NOTES

- EXISTING CONDITIONS SHOWN BASED ON THE FOLLOWING DRAWINGS:
 - THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE REGULATIONS OF CONNECTICUT STATE AGENCIES, SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS.
 - THIS PLAN CONFORMS TO HORIZONTAL ACCURACY CLASS A-2, AND TOPOGRAPHIC ACCURACY CLASS T-2.
 - NORTH ARROW REFERS TO THE CONNECTICUT STATE PLANE COORDINATE SYSTEM (NAD83 EPOCH2011) AND ARE BASED ON GPS OBSERVATIONS PERFORMED BY WSP USA.
 - ELEVATIONS REFER TO NAVD 88 AND ARE BASED ON GPS OBSERVATIONS.
 - WETLANDS DELINEATED BY TIGHE & BOND AND LOCATED BY WSP SEPTEMBER 21, 2022.
 - UNDERGROUND UTILITIES DEPICTED HAVE BEEN PLOTTED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES DEPICTED COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES DEPICTED ARE IN THE EXACT LOCATION INDICATED, THE SURVEYOR HAS NOT PHYSICALLY EXPOSED THE UNDERGROUND UTILITIES. PER CONNECTICUT STATE LAW THE CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF EXCAVATION.
 - "NEW HAVEN WATER CO. CHESHIRE WATER WORKS PLAN FOR DAM, PROSPECT CONN." PREPARED BY OFFICE OF ALBERT B. HILL CONSULTING ENGINEER, DATED OCTOBER 26, 1908
 - "SOUTH CENTRAL CONNECTICUT REGIONAL WATER AUTHORITY MODIFICATIONS TO PROSPECT RESERVOIR DAM PROSPECT, CONNECTICUT" PREPARED BY ROALD HAESTAD, INC. CONSULTING ENGINEERS, DATED JULY 2006.
- EXCESS EXCAVATED MATERIAL TO BE DISPOSED OF ONSITE.
- CONTRACTOR TO FIELD VERIFY THE PRESENCE OF LOW PERMEABILITY FILL. PREPARE SUBGRADE IN ACCORDANCE WITH GCL MANUFACTURER'S RECOMMENDATIONS. PLACE AND COMPACT 6 INCH LAYER OF GRANULAR FILL BENEATH GCL AS NECESSARY.

LEGEND

- GRANULAR FILL
- CRUSHED STONE
- MODIFIED ROCKFILL
- GEOCOMPOSITE CLAY LINER (GCL)
- NONWOVEN GEOTEXTILE

BORROW MATERIALS

GRANULAR FILL:

SIEVE	%PASSING (MIN)	%PASSING (MAX)
1"	100	-
NO. 10	30	95
NO. 40	10	70
NO. 200	0	15

1 1/2" CRUSHED STONE:

SIEVE	%PASSING (MIN)	%PASSING (MAX)
2"	100	-
1 1/2"	95	100
1"	35	70
3/4"	0	25

MODIFIED ROCKFILL:

STONE SIZE	%PASSING (MIN)	%PASSING (MAX)
8"	95	100
4"	0	25
2 1/2"	0	5

Prospect Reservoir Dam Improvements

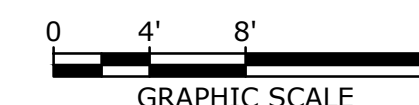
South Central Connecticut Regional Water Authority

Prospect, Connecticut

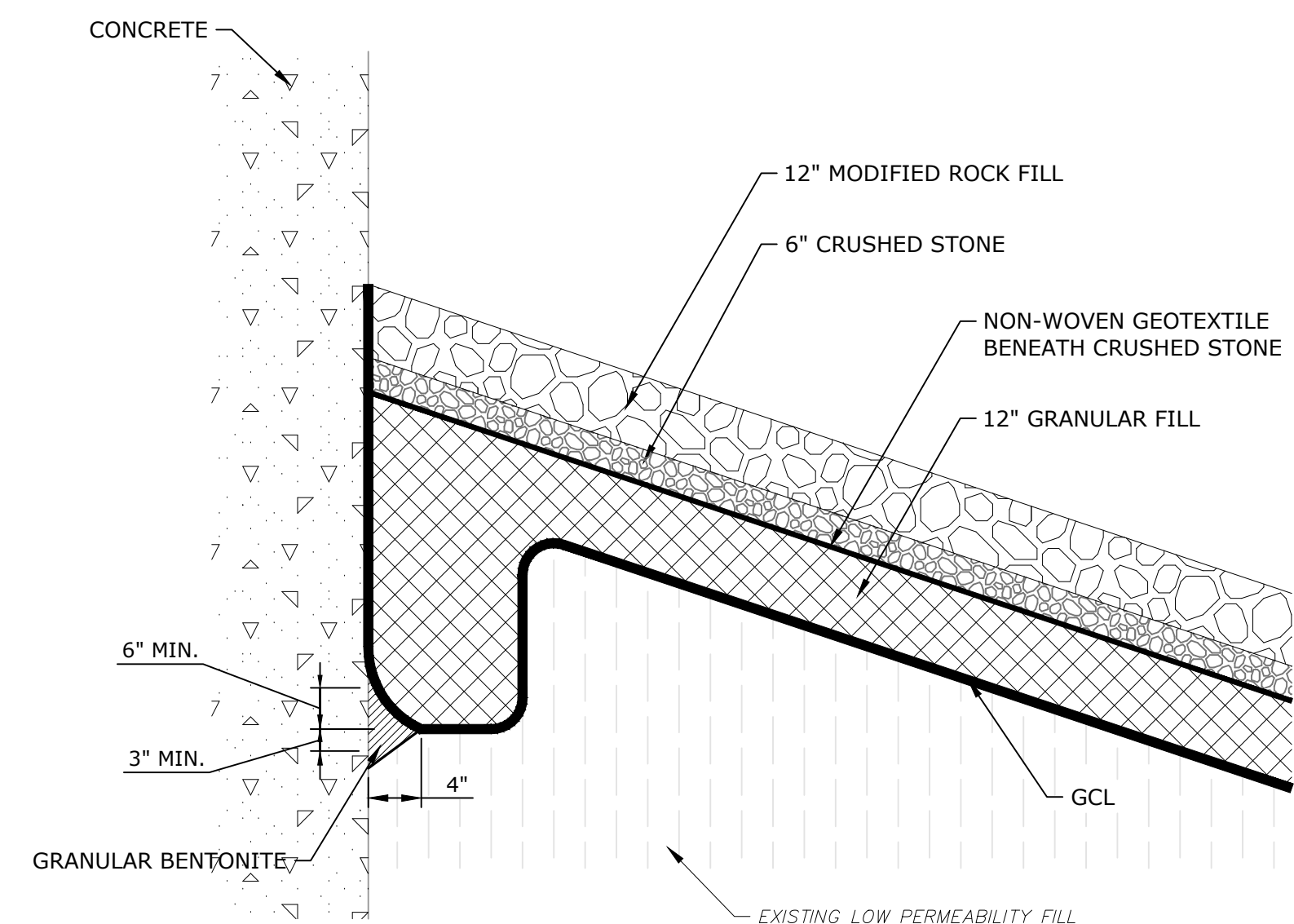
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DATE:	02/17/2023	
FILE:	S1889-A19_C-104.dwg	
DRAWN BY:	CFY	
CHECKED BY:	DEG	
APPROVED BY:	CDH	

SITE CROSS-SECTIONS

SCALE: AS SHOWN

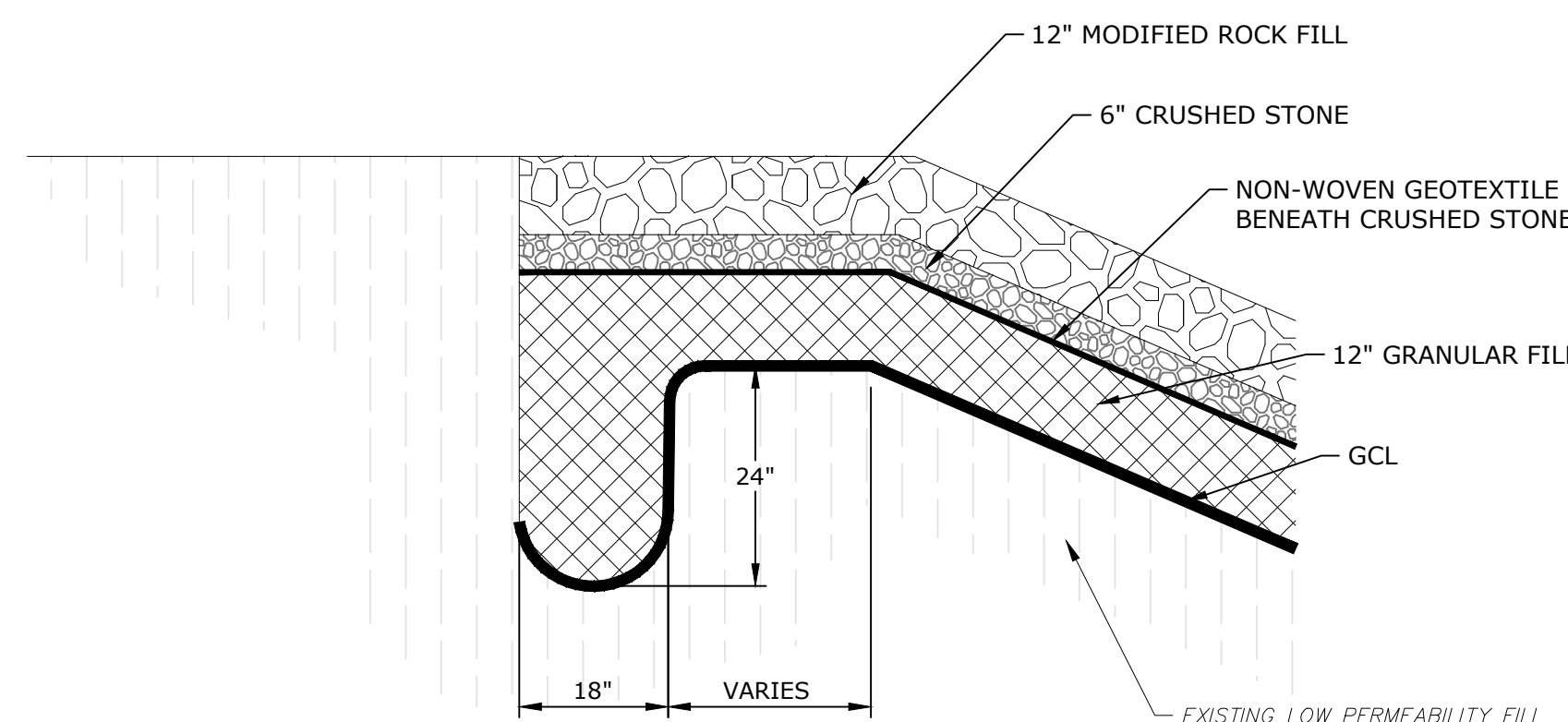


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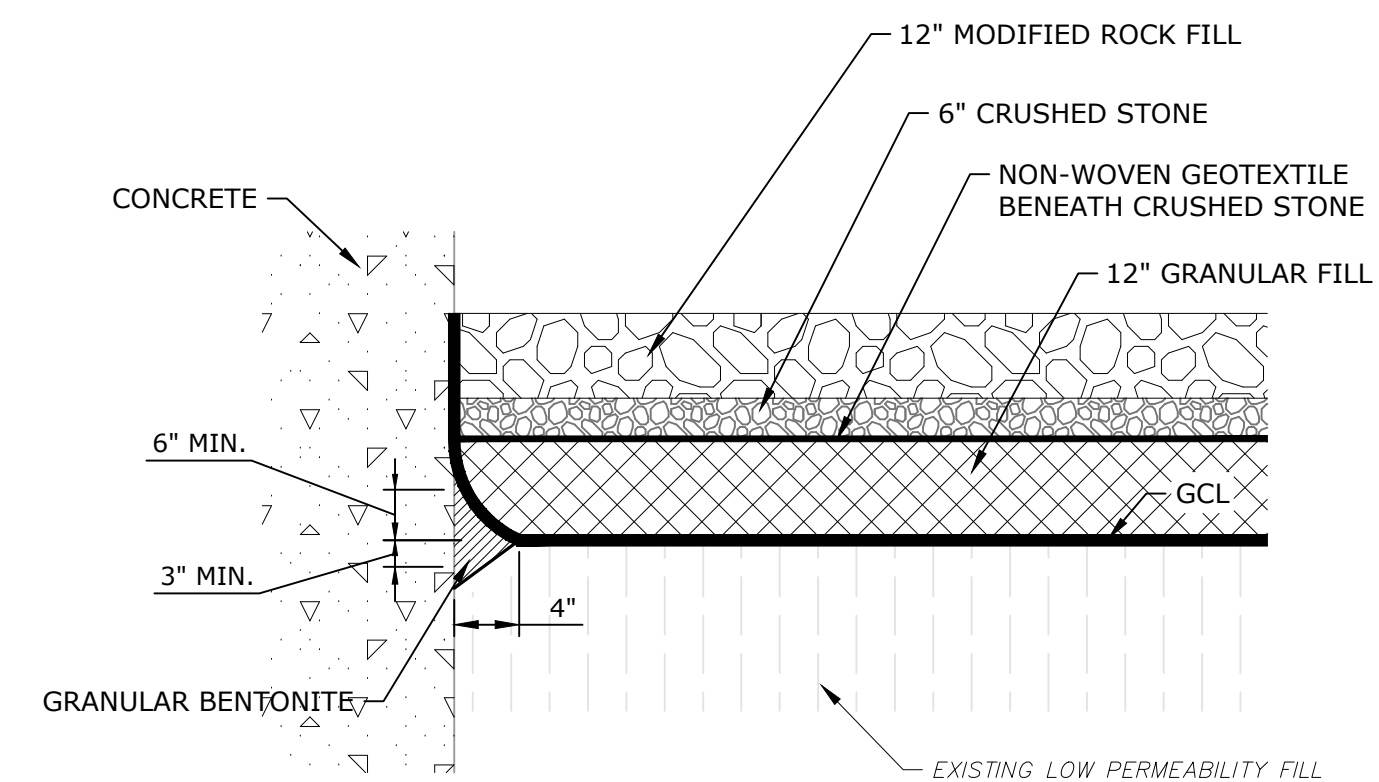
TYPICAL GCL TERMINATION DETAIL AGAINST STRUCTURE (TOP OF SLOPE)

DETAIL	1
NO SCALE	C-102



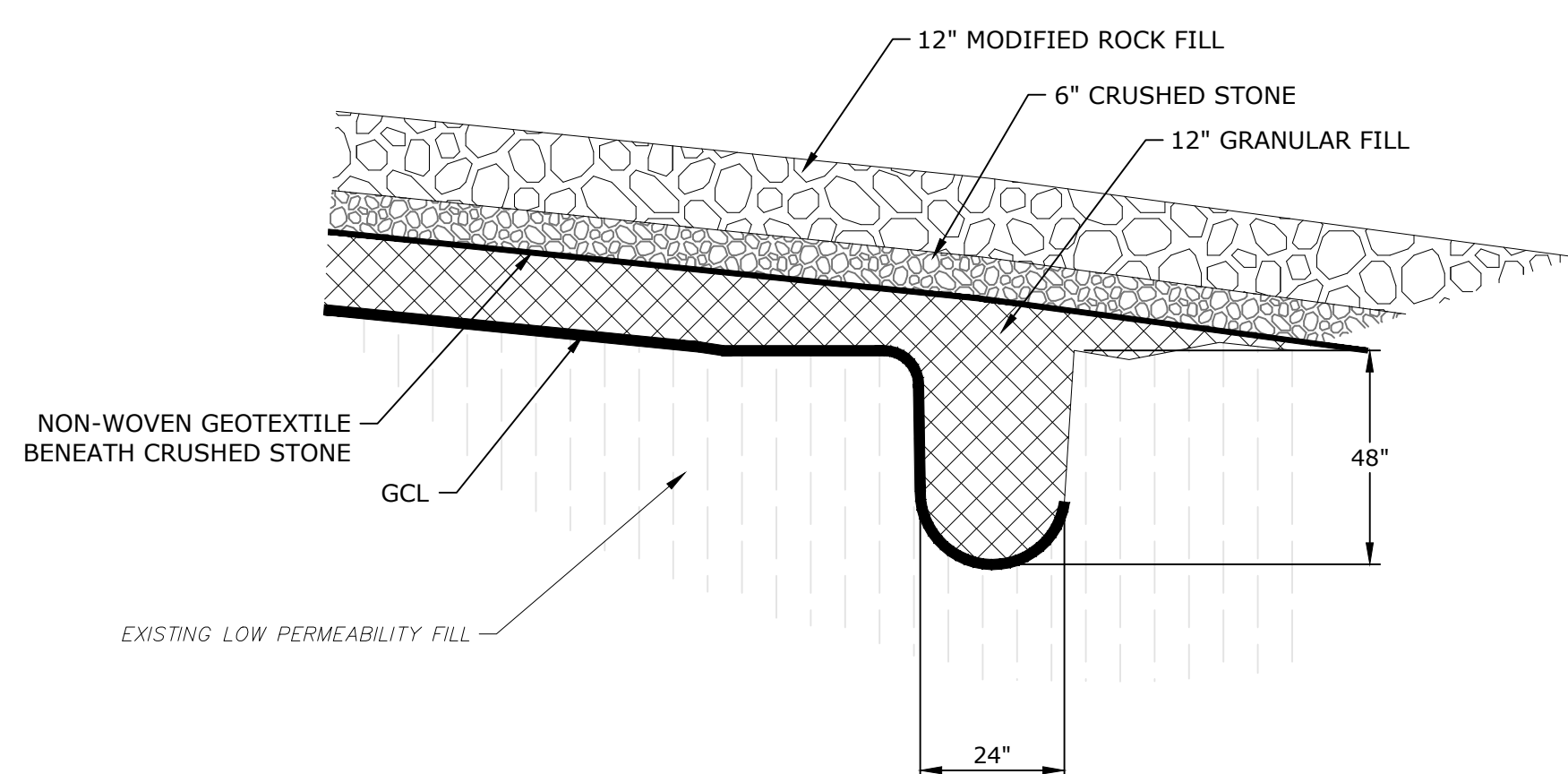
TYPICAL GCL TERMINATION DETAIL TOP OF SLOPE

DETAIL	2
NO SCALE	C-102



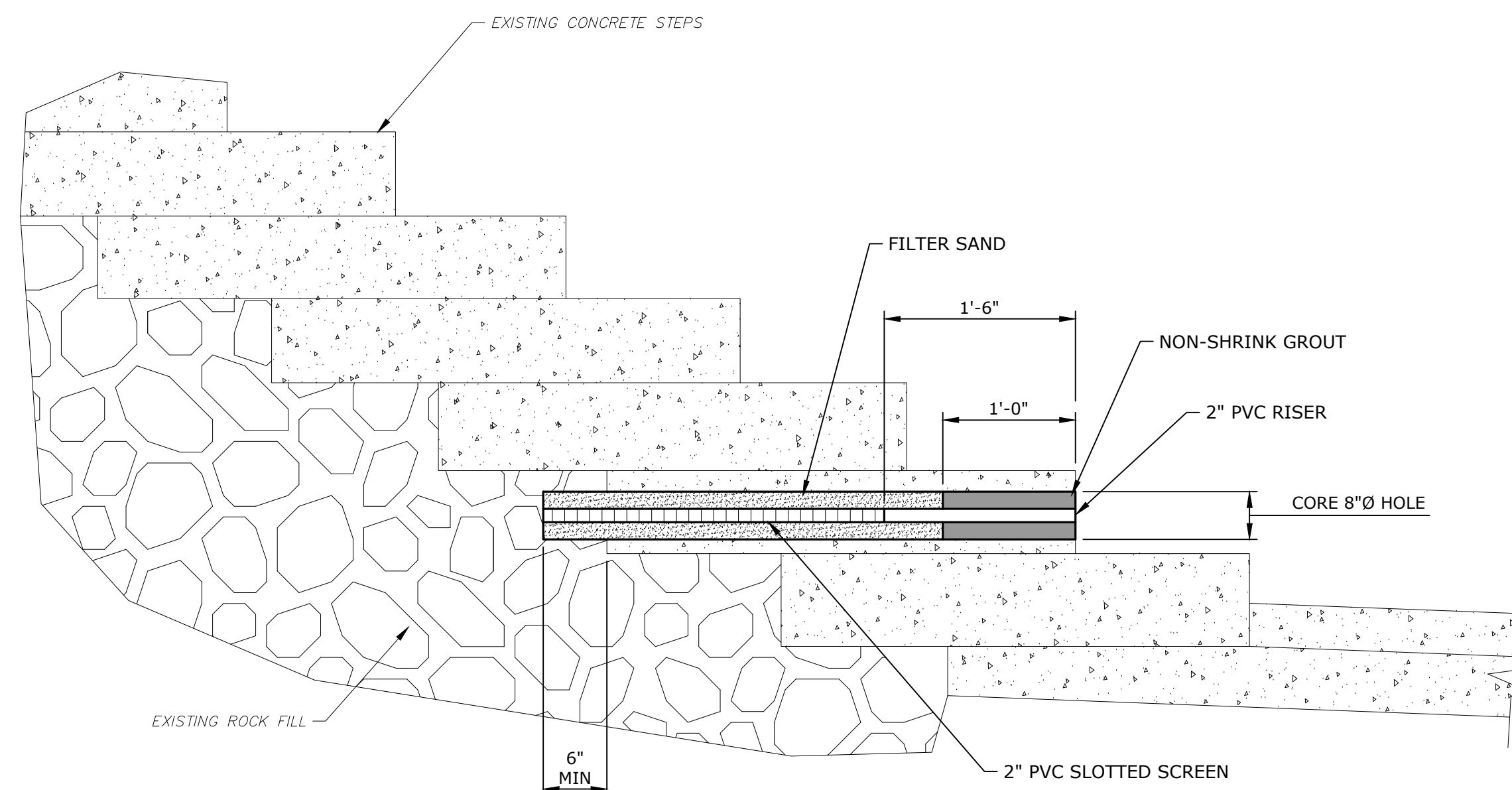
TYPICAL GCL TERMINATION DETAIL AGAINST AN EMBEDDED STRUCTURE OR WALL

DETAIL	3
NO SCALE	C-102



TYPICAL GCL TERMINATION DETAIL TOE OF SLOPE

DETAIL	4
NO SCALE	C-102



TOE DRAIN MODIFICATION DETAIL

DETAIL	5
NO SCALE	C-102

Prospect Reservoir Dam Improvements

South Central Connecticut Regional Water Authority

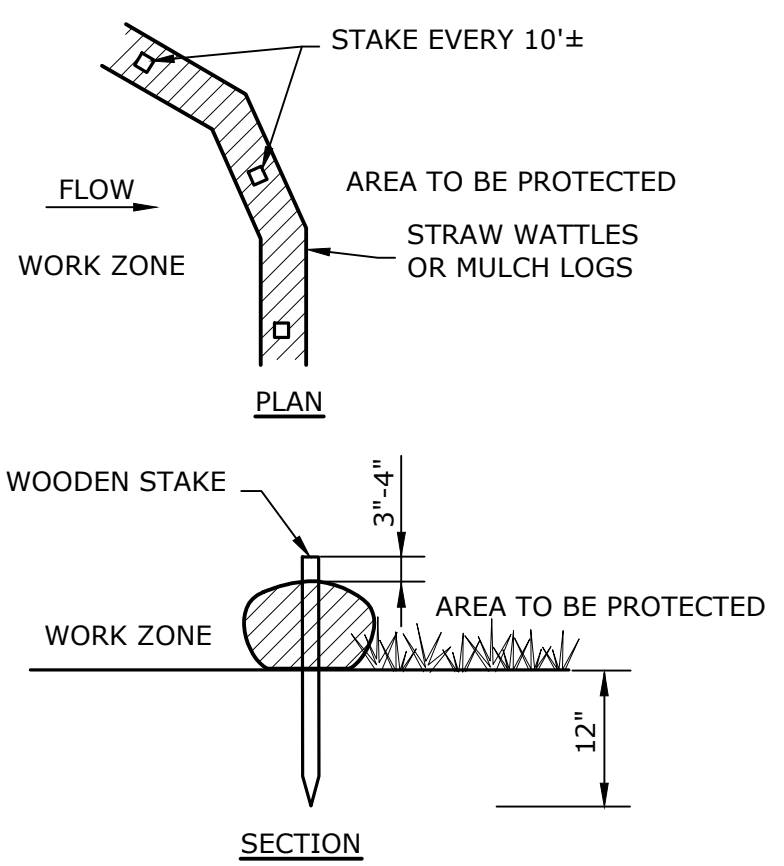
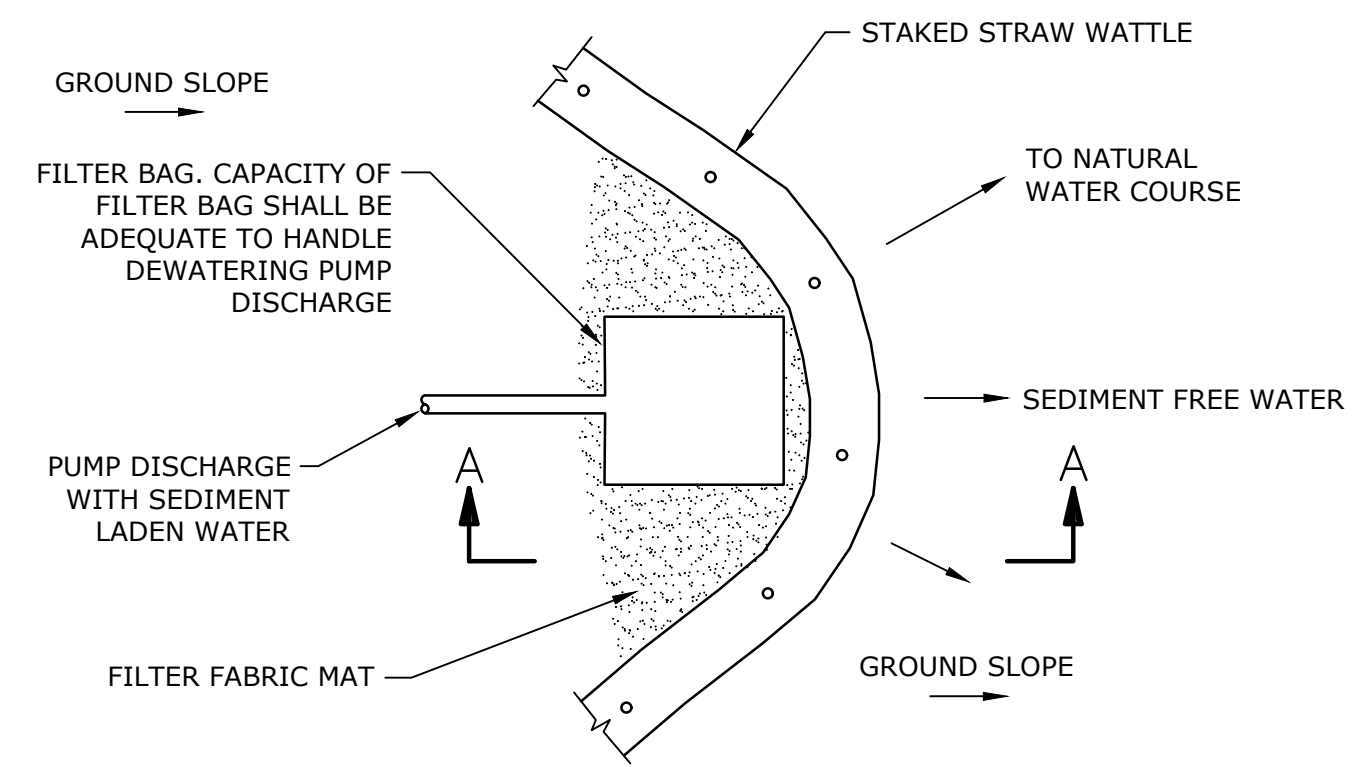
Prospect, Connecticut

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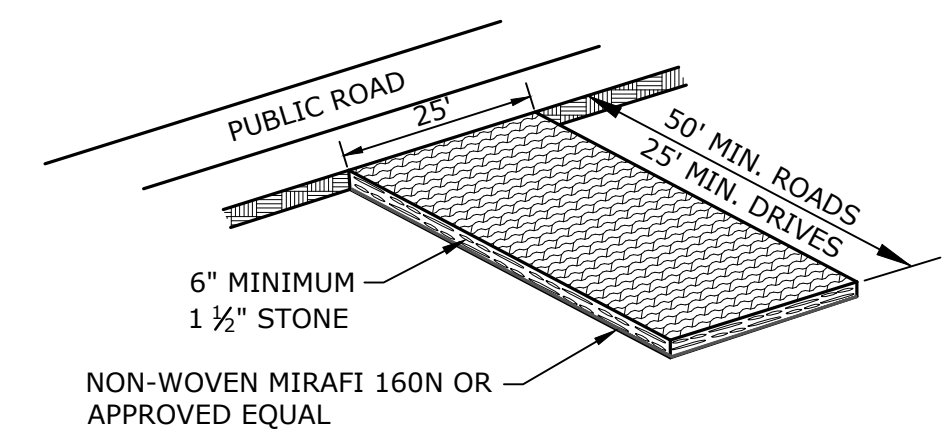
SITE DETAILS
1 OF 2

SCALE: AS SHOWN

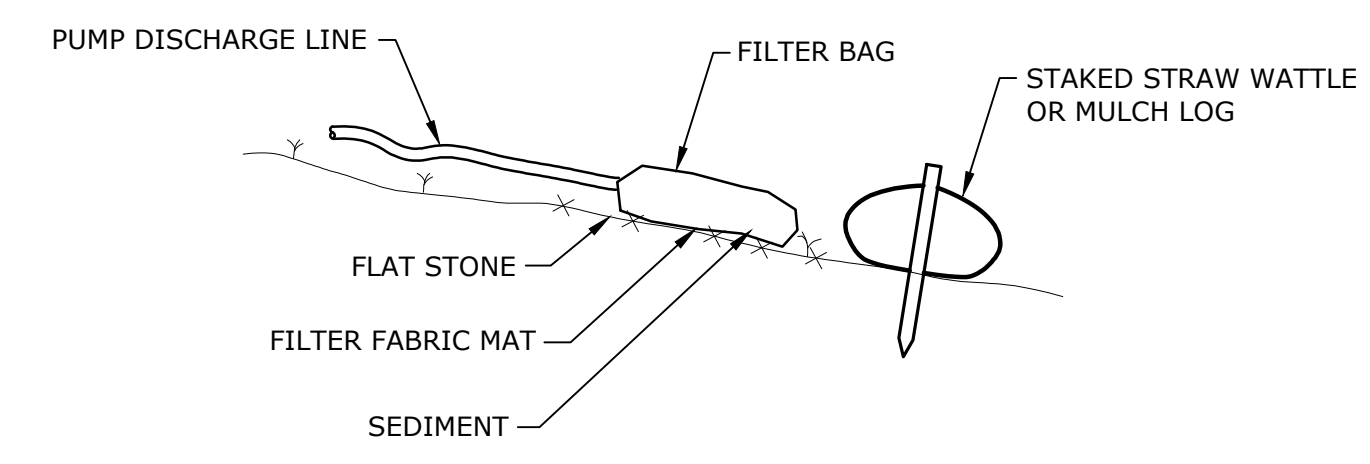
C-105



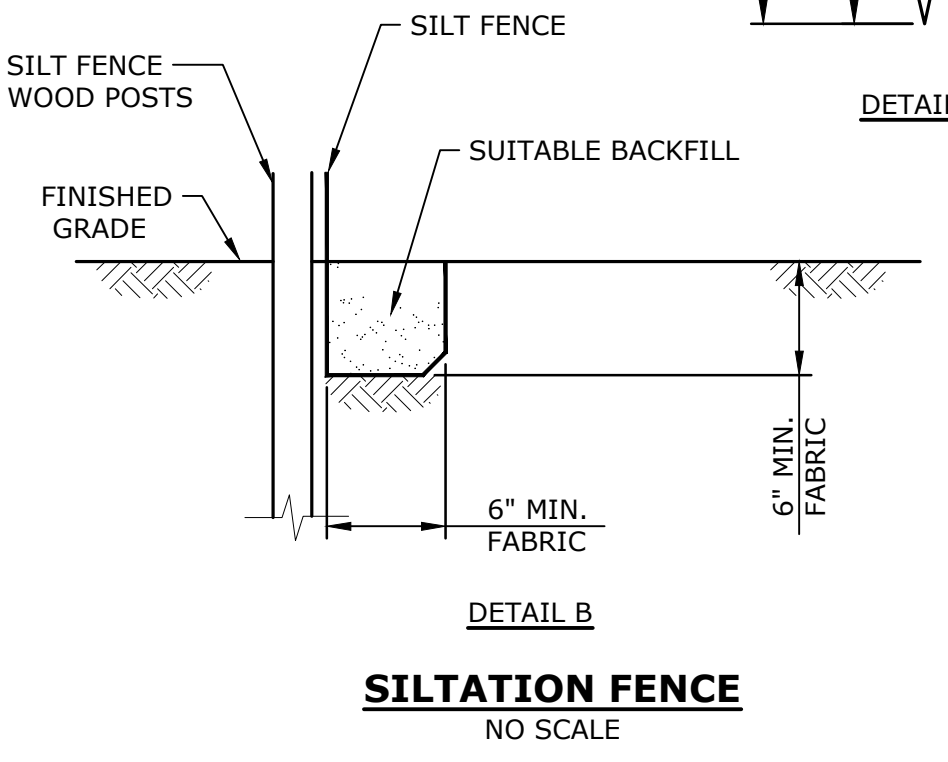
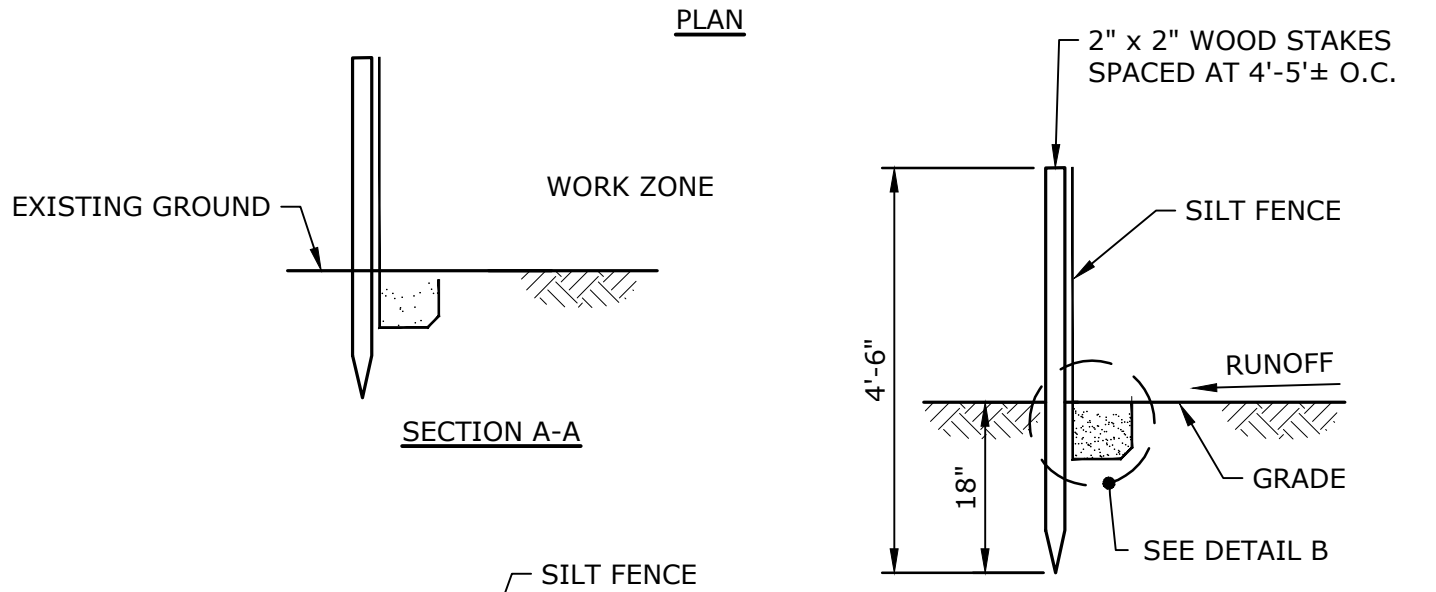
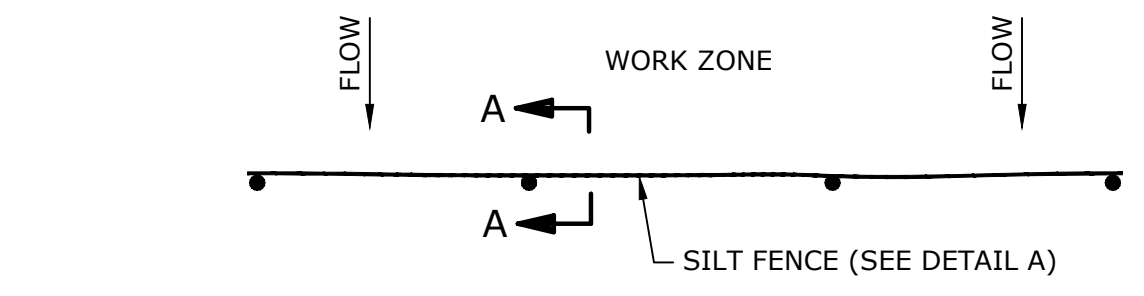
**STRAW WATTLE OR MULCH LOG
EROSION CONTROL BARRIER**
NO SCALE



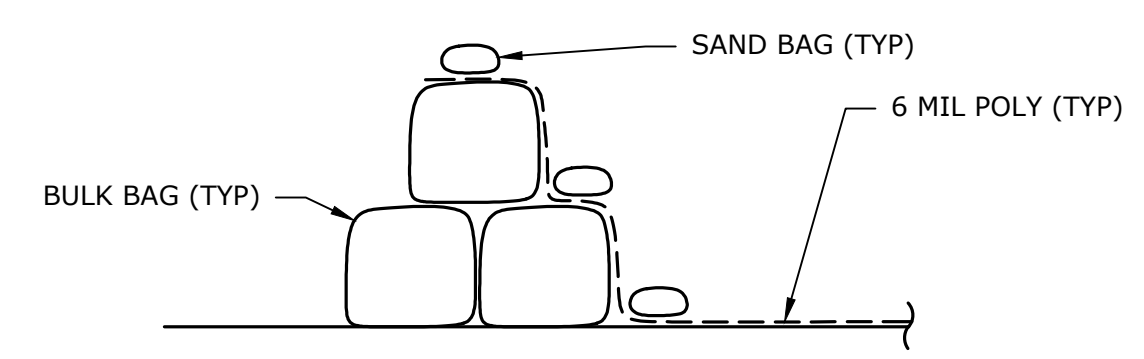
TYPICAL STABILIZED CONSTRUCTION ENTRANCE DETAIL
NO SCALE



SECTION A-A
SEDIMENT TRAP
NO SCALE

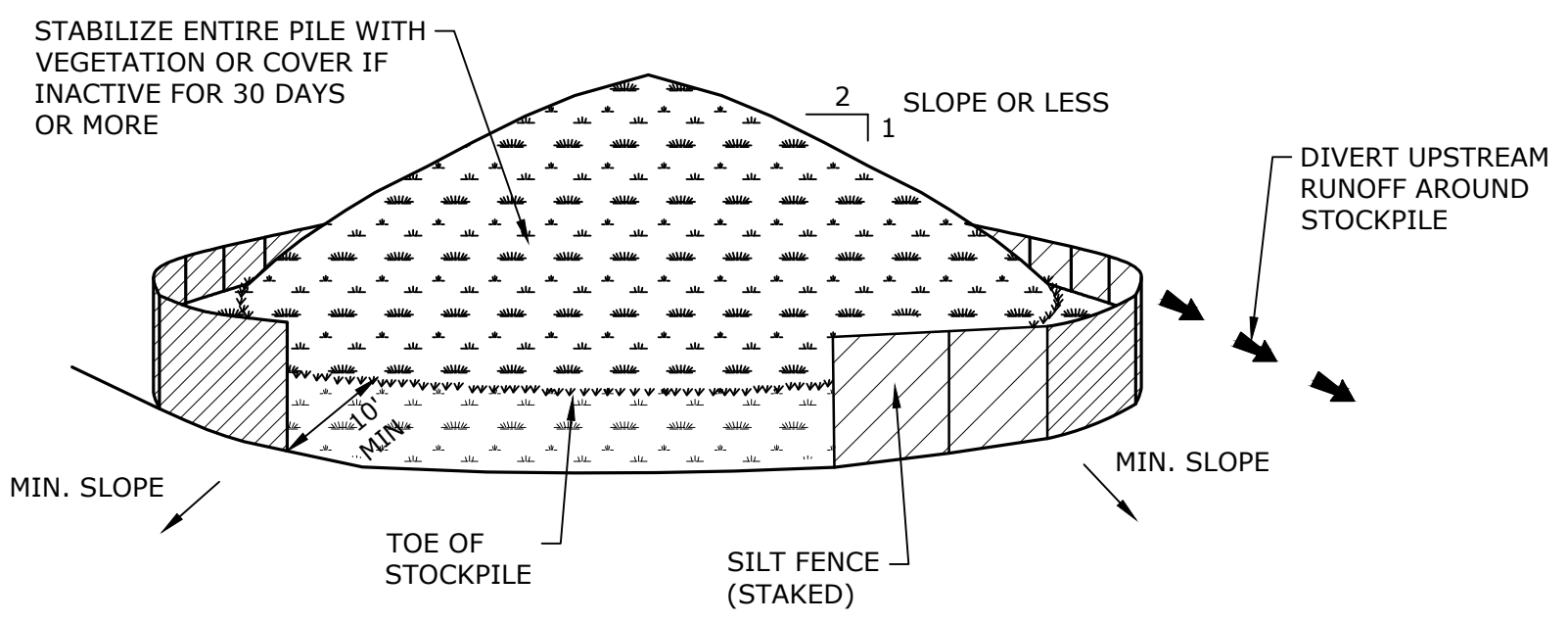


SILTATION FENCE
NO SCALE



TYPICAL SANDBAG COFFERDAM
NO SCALE

NOTE:
1. DETAIL PROVIDED AS AN EXAMPLE OF AN ACCEPTABLE COFFERDAM. DESIGN OF COFFERDAM IS THE RESPONSIBILITY OF THE CONTRACTOR.



INSTALLATION NOTES:

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2H:1V.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR HAYBALES, THEN STABILIZED WITH VEGETATION OR COVERED.

SOIL STOCKPILING
NO SCALE

Prospect Reservoir Dam Improvements

South Central Connecticut Regional Water Authority

Prospect, Connecticut

MARK	DATE	DESCRIPTION

SITE DETAILS
2 OF 2

SCALE: AS SHOWN

Last Saved: 1/23/2023 10:45:00 AM By: D. Onanick
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GENERAL

- STRUCTURAL WORK SHALL CONFORM TO STATE BUILDING CODE (IBC 2015), LATEST EDITION, INCLUDING MOST RECENT ADDENDA, AND CONTRACT DOCUMENTS. IN CASE OF CONFLICT, MOST STRINGENT REQUIREMENT SHALL GOVERN.
- CONTRACTOR SHALL VERIFY AND COORDINATE DIMENSIONS RELATED TO THIS PROJECT.
- THE CONTRACTOR SHALL RETAIN THE SERVICES OF AN INDEPENDENT TESTING LABORATORY FOR CONCRETE AND SOILS TESTING. ALL TESTING COSTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

REINFORCEMENT

- DETAILING, FABRICATION, AND ERECTION OF REINFORCEMENT, UNLESS OTHERWISE NOTED, SHALL CONFORM TO ACI "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318)" AND ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES (ACI 315)", LATEST EDITION.
- STEEL REINFORCEMENT UNLESS OTHERWISE SHOWN SHALL CONFORM TO ASTM A615 GRADE 60 MINIMUM (YIELD STRENGTH - 60,000 PSI).
- PROVIDE AND SCHEDULE ON SHOP DRAWINGS, ALL NECESSARY ACCESSORIES TO HOLD REINFORCEMENT SECURELY IN POSITION: MINIMUM REQUIREMENTS SHALL BE: HIGH CHAIRS, 4'-0" ON CENTER, #5 SUPPORT BAR FOR HIGH CHAIRS, SLAB BOLSTERS, 3'-6" ON CENTER, ALL WIRE CHAIRS AND BOLSTERS TO BE PLASTIC TIPPED.
- THE CONCRETE PROTECTIVE COVERING FOR REINFORCEMENT SHALL BE 3 INCHES FOR CAST-IN-PLACE CONCRETE CAST AGAINST EARTH, OR EXPOSED TO WATER OR WEATHER AND 2 INCHES IF CAST-IN-PLACE IS NOT CAST AGAINST EARTH, OR EXPOSED TO WATER OR WEATHER, UNLESS OTHERWISE SHOWN.
- WHERE CONTINUOUS BARS ARE CALLED FOR THEY SHALL BE RUN CONTINUOUSLY AROUND CORNERS AND LAPPED AT NECESSARY SPLICES OR HOOKED AT DISCONTINUOUS ENDS. REINFORCEMENT SHALL BE SPLICED IN ACCORDANCE WITH THE REBAR SPLICE LENGTH SCHEDULE.
- WHERE REINFORCEMENT IS NOT SHOWN ON DRAWINGS, PROVIDE REINFORCEMENT IN ACCORDANCE WITH APPLICABLE TYPICAL DETAILS OR SIMILAR TO THAT SHOWN FOR MOST NEARLY SIMILAR SITUATIONS, AS DETERMINED BY THE ENGINEER. IN NO CASE SHALL REINFORCEMENT BE LESS THAN MINIMUM REINFORCEMENT PERMITTED BY THE APPLICABLE CODES.
- WHERE REINFORCEMENT IS CALLED FOR IN SECTION, REINFORCEMENT IS CONSIDERED TYPICAL WHEREVER THE SECTION APPLIES.
- REINFORCEMENT SHALL BE CONTINUOUS THROUGH ALL CONSTRUCTION JOINTS UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
- INSTALLATION OF REINFORCEMENT SHALL BE COMPLETED AT LEAST 24 HOURS PRIOR TO SCHEDULED CONCRETE PLACEMENT. NOTIFY ENGINEER OF COMPLETION AT LEAST 24 HOURS PRIOR TO SCHEDULED COMPLETION OF REINFORCEMENT PLACEMENT.
- REINFORCEMENT SHALL BE SET BEFORE PLACING CONCRETE. SETTING ANY REINFORCEMENT INTO WET CONCRETE IS PROHIBITED.

FOUNDATIONS

- NO CONCRETE SHALL BE PLACED IN WATER OR ON FROZEN GROUND.
- BOTTOM OF FOUNDATION ELEVATIONS GIVEN ON DRAWINGS ARE TO BE CONSIDERED MINIMUM DEPTHS. CONTRACTOR SHALL HAVE FURTHER EXCAVATION AS REQUIRED TO REACH FIRM BEARING SURFACE AS DETERMINED BY ENGINEER.
- ALL EXCAVATIONS FOR FOOTINGS SHALL BE FINISHED BY HAND FOR THE LAST 6".
- ALL FINISHED EXCAVATIONS SHALL BE INSPECTED BY THE ENGINEER BEFORE ANY CONCRETE IS PLACED.
- ALL BACKFILL UNDER OR ADJACENT TO ANY PORTION OF THE STRUCTURES SHALL BE COMPACTED IN 6" LIFTS.
- REMOVE UNSUITABLE MATERIAL AND REPLACE WITH MATERIAL AS DIRECTED BY ENGINEER.
- FROZEN MATERIAL MAY NOT BE USED AS BACKFILL.
- ALL STOCKED MATERIALS SHALL BE PROTECTED FROM FREEZING.

CONCRETE

- CONCRETE WORK SHALL CONFORM TO THE LATEST EDITIONS OF THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318), AND SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDING (ACI 301).
- CONCRETE SHALL BE CONTROLLED CONCRETE, PROPORTIONED, MIXED, AND PLACED UNDER THE SUPERVISION OF AN APPROVED CONCRETE TESTING AGENCY OR THE ENGINEER.
- CONCRETE SHALL BE NORMAL WEIGHT CONCRETE AND SHALL HAVE A COMPRESSIVE STRENGTH OF 4,500 PSI AT 28 DAYS, SHALL BE AIR ENTRAINED BETWEEN 4.5 AND 7.5 PERCENT, SHALL HAVE A MAXIMUM WATER/CEMENT RATIO OF 0.45, AND SHALL HAVE A TOTAL CEMENTITIOUS MATERIAL IN THE MIX BETWEEN 635 LBS (MIN) AND 658 LBS (MAX) PER CUBIC YARD.
- CONCRETE MATERIALS:
 PORTLAND CEMENT: TYPE II, MEETING REQUIREMENTS OF ASTM C150
 FLY ASH: CLASS F CONFORMING TO ASTM C989
 GROUND GRANULATED BLAST SLAG: CONFORMING TO ASTM C989
 FINE AGGREGATE: NATURAL SAND CONFORMING TO ASTM C33 WITH A FINENESS MODULUS =2.75 (PLUS/MINUS 0.25)
 COARSE AGGREGATE: 3/4" PROCESSED STONE CONFORMING TO ASTM C33,
 WATER: SHALL BE CLEAN, POTABLE
 MID-RANGE WATER REDUCING AGENT: CONFORMING TO ASTM C494 TYPE A
 HIGH-RANGE WATER REDUCING AGENT: CONFORMING TO ASTM C494 TYPE F
 AIR-ENTRAINING AGENT: CONFORMING TO ASTM C260
- CONCRETE SLAB SHALL BE CAST SO THAT THE THICKNESS IS AT NO POINT LESS THAN THAT INDICATED ON THE DRAWINGS.
- CONCRETE SHALL BE PLACED WITHOUT HORIZONTAL CONSTRUCTION JOINTS EXCEPT WHERE SHOWN OR NOTED.
- EXPOSED EDGES OF CONCRETE ELEMENTS SHALL HAVE CHAMFERED CORNERS.
- CONCRETE SLUMP SHALL BE BETWEEN 3 INCHES AND 5 INCHES AFTER ADDITION OF HIGH RANGE WATER REDUCER.
- ACCELERATING ADMIXTURES WILL NOT BE ACCEPTED.
- GROUND GRANULATED BLAST FURNACE SLAG MAY BE SUBSTITUTED FOR UP TO 40 PERCENT BY WEIGHT OF THE TOTAL CEMENTITIOUS MATERIAL. FOR BELOW GRADE STRUCTURES, FLY ASH SHALL BE SUBSTITUTED FOR A MINIMUM OF 15 PERCENT AND A MAXIMUM OF 25 PERCENT OF THE TOTAL CEMENTITIOUS MATERIAL, OR GROUND GRANULATED BLAST FURNACE SLAG SHALL BE SUBSTITUTED FOR A MINIMUM OF 25 PERCENT AND A MAXIMUM OF 40 PERCENT OF THE TOTAL CEMENTITIOUS MATERIAL.
- FOR CONCRETE FLATWORK WITH A STEEL TROWEL FINISH, FLY ASH MAY BE SUBSTITUTED FOR UP TO 10 PERCENT BY WEIGHT AND GROUND GRANULATED IRON BLAST-FURNACE SLAG MAY BE SUBSTITUTED FOR UP TO 25 PERCENT BY WEIGHT OF THE TOTAL CEMENTITIOUS MATERIAL.
- ALL CONCRETE SHALL BE CURED IMMEDIATELY AFTER FINISHING IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS: CURING SHALL BE ACCOMPLISHED BY A CONTINUOUS SOAKING PROCESS SUCH AS THE USE OF SOAKER HOSE OR SPRINKLERS, OR BY USE OF PLASTIC ROLL MATERIALS TO COVER THE CONCRETE, WHICH SHALL BE THOROUGHLY WETTED AT LEAST ONCE A DAY OR MORE OFTEN AS REQUIRED IN VERY HOT WEATHER. SUCH PLASTIC SHALL BE PLACED AS SOON AS POSSIBLE AFTER FINISHING OF CONCRETE AS IS PROPER SO THAT SCARRING OF THE SURFACE WILL NOT OCCUR. PLASTIC SHALL BE HELD IN PLACE ON THE SURFACE OF THE CONCRETE IN SUCH A MANNER AND MEANS AS WILL NOT ALLOW IT TO BE BLOWN OFF OR OTHERWISE DISLODGED FROM THE CONCRETE SURFACE. CURING PROCEDURES SHALL BE MAINTAINED CONTINUOUSLY FOR A PERIOD OF AT LEAST 7 DAYS.
- CONCRETE SHALL NOT BE ALLOWED TO FLOW HORIZONTALLY OVER DISTANCES EXCEEDING 10 FEET OR DROPPED VERTICALLY OVER 6 FEET.
- THOROUGHLY CONSOLIDATE EACH LAYER OF CONCRETE BY RODDING AND VIBRATING USING INTERNAL TYPE MECHANICAL VIBRATOR.
- DO NOT USE VIBRATORS TO MOVE CONCRETE. VIBRATION SHALL BE SUPPLEMENTED BY SPADING TO REMOVE BUBBLES AND HONEYCOMBS ADJACENT TO VISIBLE SURFACES.
- IMMEDIATELY AFTER THE END OF THE WET CURE PERIOD, REMOVE FORM TIES AND PATCH ALL TIE-HOLES, RAT HOLES AND OTHER SURFACE VOIDS WITH A NON-METALLIC, NON-SHRINK GROUT, WHICH MOST NEARLY MATCHES THE COLOR AND TEXTURE OF THE CONCRETE SURFACE. ALL PROTRUSIONS SHALL BE GROUND SMOOTH WITH AN APPROVED MECHANICAL GRINDER.
- COLD WEATHER CONDITIONS SHALL BE IMPLEMENTED IN ACCORDANCE WITH ACI 306.1-90 WHEN FOR MORE THAN THREE SUCCESSIVE DAYS THE AVERAGE DAILY OUTDOOR TEMPERATURE DROPS BELOW 40°F.
- DURING COLD WEATHER CONCRETE PROCEDURES, THE CONCRETE TEMPERATURE AT THE TIME OF PLACEMENT SHALL BE AS SPECIFIED:
 A. TABLE - CONCRETE TEMPERATURE DURING COLD WEATHER CONDITIONS

LEAST DIMENSION OF SECTION (INCHES)	MINIMUM TEMPERATURE OF CONCRETE AS PLACED AND MAINTAINED DURING PROTECTION PERIOD, °F	MAXIMUM GRADUAL DECREASE IN SURFACE TEMPERATURE DURING HOURS AFTER END OF PROTECTION, °F
LESS THAN 12	55	50
12 TO LESS THAN 36	50	40
36 TO LESS THAN 72	45	30
GREATER THAN 72	40	20

- THE INDEPENDENT TESTING LABORATORY SHALL BE ON SITE FOR THE CONCRETE PLACEMENT. THE TESTING LABORATORY SHALL FABRICATE 4 CYLINDERS FOR THE CONCRETE PLACEMENT. MIXES WITH FLY ASH OR SLAG REQUIRE 6 CYLINDERS. BREAK CYLINDERS AT THE FOLLOWING INTERVALS:
 1 AT 3 DAYS
 1 AT 7 DAYS
 1 AT 28 DAYS
 1 AT 56 DAYS (REQUIRED IF 28 DAY BREAKS ARE LOW)

FORMWORK AND ACCESSORIES

- FORM TIES:
 A. FORMS AND FORM SHORING SHALL NOT BE REMOVED UNTIL CONCRETE HAS ACHIEVED COMPRESSIVE STRENGTH OF 4000PSI.
 B. TIES SHALL BE METAL AND DESIGNED WITH REMOVABLE SETBACK CONES SO THAT AFTER REMOVAL OF THE PROJECTING PART, NO METAL SHALL REMAIN WITHIN 1 1/2 INCHES OF THE FACE OF CONCRETE.
 C. SETBACK CONES SHALL BE WOOD OR PLASTIC TAPERED CONES 1 INCH DIAMETER AND 1 1/2 INCHES DEEP TO ALLOW FILLING AND PATCHING OF THE CONCRETE SURFACE AFTER REMOVAL.
 D. COMMON WIRE TIES SHALL NOT BE USED.
- FORM RELEASE AGENT:
 A. NON-STAINING AND NON-EMULSIFIABLE TYPE WHICH WILL NOT STAIN CONCRETE OR ABSORB MOISTURE NOR INTERFERE WITH ADHERENCE OF ANY MATERIAL TO BE APPLIED TO CONCRETE SURFACES. FORM RELEASE AGENT FOR POTABLE WATER TANKS AND STRUCTURES SHALL BE VEGETABLE OIL BASED AND NSF APPROVED.
- CORNERS:
 A. CHAMFERED NO. 1 POPLAR WOOD STRIPS; 3/4 INCH BY 3/4 INCH; MAXIMUM POSSIBLE LENGTHS.
- RIGID INSULATION:
 A. EXTRUDED POLYSTYRENE BOARD INSULATION SHALL BE RIGID CELLULAR THERMAL INSULATION WITH CLOSED CELLS AND INTEGRAL HIGH DENSITY SKIN AND SHALL COMPLY WITH ASTM C 578 IV. AGED 5-YEAR R VALUES OF 5.4 AND 5 AT 40°F AND 75°F, RESPECTIVELY, AND AS FOLLOWS:
 a. DENSITY: 1.6 POUNDS PER CUBIC FOOT MINIMUM
 b. COMPRESSIVE STRENGTH: 25 PSI MINIMUM

SUBMITTALS

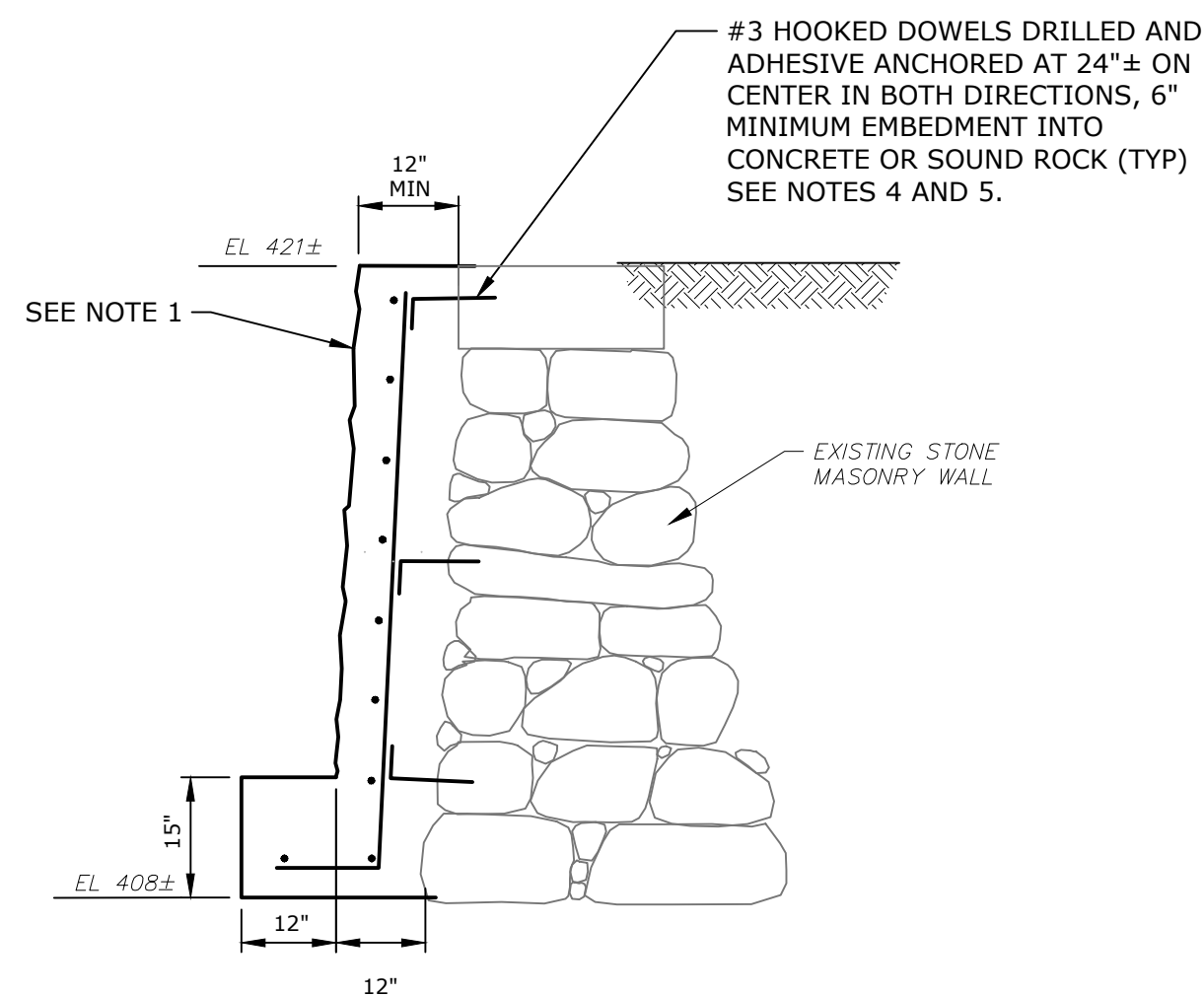
- SUBMIT A DETAILED LIST OF CONCRETE MATERIALS, AND CORRESPONDING SOURCES, PROPOSED FOR USE IN CONCRETE. IF CONVEYING CONCRETE BY PUMP IS REQUESTED, RELATED DATA REGARDING CONCRETE MATERIALS, PUMPING DEVICE AND METHODS SHALL BE SUBMITTED FOR APPROVAL THREE WEEKS PRIOR TO USE. TESTS FOR APPROVAL OF CONCRETE MIXTURES TO BE PUMPED SHALL BE PAID FOR BY CONTRACTOR. PROVIDE CERTIFIED MILL TEST REPORTS OF CEMENT, (INCLUDING NAMES AND LOCATIONS OF MILLS AND SHOPS, AND ANALYSES OF CHEMICAL AND PHYSICAL PROPERTIES), PROPERLY CORRELATED TO CONCRETE TO BE USED.
- SUBMIT METHODS OF CONSTRUCTION THREE WEEKS PRIOR TO STARTING WORK, DESCRIBING METHODS, SEQUENCE OF CONSTRUCTION, MANPOWER AND TYPE OF EQUIPMENT PROPOSED FOR USE FOR PERFORMING CAST-IN-PLACE CONCRETE WORK AND EARTHWORK THIS SUBMISSION SHALL NOT RELIEVE CONTRACTOR OF HIS RESPONSIBILITY FOR PROVIDING PROPER METHODS, EQUIPMENT, WORKMANSHIP, AND SAFETY PRECAUTIONS.
- SUBMIT DATA AND DESCRIPTIVE LITERATURE FOR CONCRETE CONSTITUENTS INCLUDING ADMIXTURES, AGGREGATE TESTS, FLOOR HARDENER, BOND BREAKER, BONDING AGENT, CHEMICAL GROUT FOAM, REPAIR GROUT, REPAIR MORTAR, JOINT SEALANT, CRACK SEALING MATERIAL, AND CONCRETE COATING.
- SUBMIT DETAILED METHODS PROPOSED FOR CURING AND PROTECTION OF CONCRETE PRIOR TO THE PLACEMENT OF ANY CONCRETE.
- SUBMIT A COLD WEATHER CONCRETE PLAN. COLD WEATHER CONCRETE PROCEDURES SHALL BE IN ACCORDANCE WITH ACI 306.1-90.
- SUBMIT A TRUCK LOAD TICKET FOR EVERY CONCRETE DELIVERY. TICKET INFORMATION SHALL INCLUDE BATCH TIME AND DATE, WEIGHTS OF ALL CONSTITUENTS, QUANTITY OF ADMIXTURES, WATER ADDED AT THE BATCH PLANT AND MOISTURE CONTENT OF COARSE AND FINE AGGREGATES.
- MAINTAIN AN ACCURATE DAILY RECORD OF THE LOCATIONS AND QUANTITY OF CONCRETE PLACED. SUBMIT A CERTIFIED COPY OF THIS RECORD WITH EACH PAY ESTIMATE.

BAR SIZE DESIGNATION		DEVELOPMENT LENGTH (INCHES)	SPLICE LENGTH (INCHES)	
ENGLISH	METRIC	Ld	CLASS B	CLASS B TOP BARS
#3	#10	14	18	23
#4	#13	18	24	31
#5	#16	23	30	38
#6	#19	27	35	46

REBAR SPLICE LENGTH SCHEDULE

NOTES:

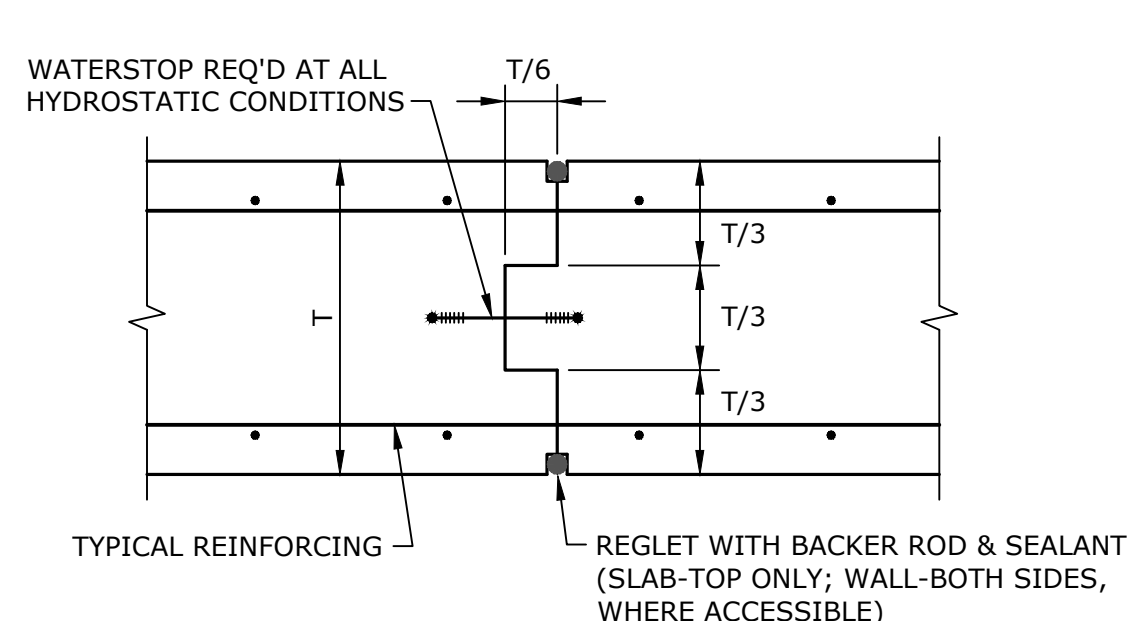
- IF CLEAR SPACING BETWEEN THE REBARS IS LESS THAN THREE BAR DIAMETERS, OR IF COVER IS LESS THAN TWO BAR DIAMETERS, INCREASE THE SPLICE LENGTH BY AN ADDITIONAL 50%.
- IF EPOXY COATED REBAR IS USED, INCREASE THE SPLICE LENGTH BY AN ADDITIONAL 50%.
- IF LIGHTWEIGHT CONCRETE IS USED, INCREASE THE SPLICE LENGTH BY AN ADDITIONAL 30%.
- THE MINIMUM REBAR SPLICE LENGTH SCHEDULE IS BASED ON F'c= 4,500 PSI AND Fy= 60,000 PSI. ADJUST FOR OTHER STRENGTHS USING ACI-318.
- FOR HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW, INCREASE THE DEVELOPMENT LENGTH BY AN ADDITIONAL 30%.
- WHEN BARS OF DIFFERENT SIZE ARE LAP SPLICED, THE SPLICE LENGTH SHALL BE THE LARGER OF EITHER THE DEVELOPMENT LENGTH OF THE LARGER BAR OR THE SPLICE LENGTH OF THE SMALLER BAR.



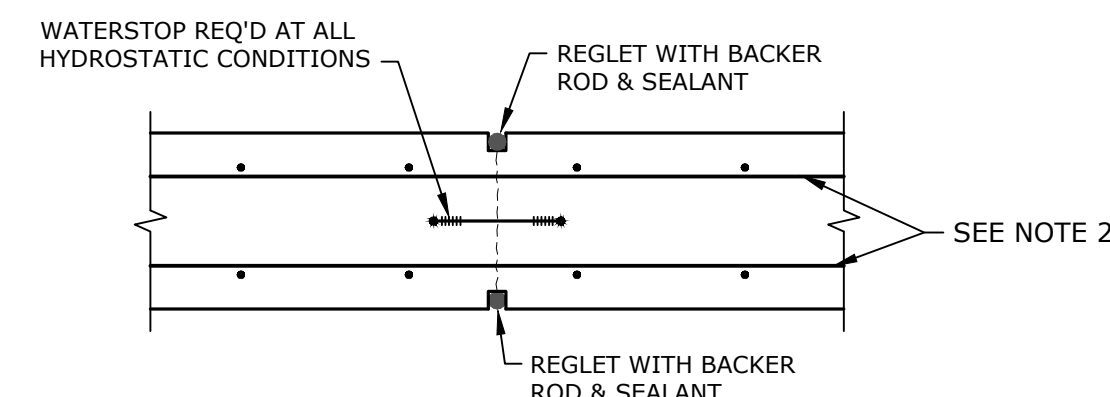
NOTES:

- ALL WALL FACING REINFORCING #4@12" O.C., UNLESS OTHERWISE NOTED.
- DRILLED AND ADHERED DOWELS TO BE LOCATED AT THE CENTER OF MASONRY STONES HAVING A MINIMUM 8" EQUIVALENT DIAMETER.
- PREPARATION OF DRILLED HOLES AND ADHESIVE APPLICATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- ADJUST SPACING OF DOWELS AS NECESSARY TO ANCHOR STONES INTO SOUND MASONRY.

EXISTING STONE MASONRY WALL CONCRETE FACING



WALL FACING CONSTRUCTION JOINT
NO SCALE



- NOTES:**
- CONCRETE IS PLACED MONOLITHICALLY ON BOTH SIDES OF ALL CONTRACTION JOINTS.
 - DISCONTINUE 50% OF THE HORIZONTAL REINFORCING AT CONTRACTION JOINTS.

CONCRETE WALL CONTRACTION JOINT
NO SCALE

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Prospect Reservoir Dam Improvements

South Central Connecticut Regional Water Authority

Prospect, Connecticut

MARK	DATE	DESCRIPTION
PROJECT NO:	S1889-A19	
DATE:	02/17/2023	
FILE:	S1889-A19_S-001.dwg	
DRAWN BY:	CFY	
CHECKED BY:	DEG	
APPROVED BY:	CDH	

STRUCTURAL NOTES AND STANDARD DETAILS

SCALE: NO SCALE