



## PUBLIC NOTICE

**Comment Period Begins:** March 5, 2024

**Comment Period Ends:** April 5, 2024

**File Number:** NAE-2022-00691

**In Reply Refer to:** Ms. Cori M. Rose, Regulatory Division

**Phone:** (978) 831-3673

**Email:** [cori.m.rose@usace.army.mil](mailto:cori.m.rose@usace.army.mil)

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The District Engineer, U.S. Army Corps of Engineers, New England District (USACE), has received a permit application, file number NAE-2022-00691 to conduct work in waters of the United States (WOTUS) from William Hurley at the Town of Fairfield Engineering Department, Sullivan Independence Hall, 725 Old Post Road, Fairfield, Connecticut 06824. This work is proposed in waters that are a tributary of the Rooster River in Tunxis Hill Park at 225 Melville Avenue, Fairfield Connecticut 06824. The site coordinates are Latitude 41.17997° North and Longitude -73.22738° West.

The work proposed will involve the discharge of approximately 250 cubic yards of fill material consisting of soil, crushed stone, and interlocking concrete blocks underlain by a layer of geosynthetic polypropylene mesh grid, into waters and wetlands for the construction of an earthen berm. The berm will be approximately 8-feet high and 60-feet wide and will extend for approximately 400 linear feet. Incorporated into the detention area is an approximately 5-foot-wide concrete outlet control structure connected to a 42-inch diameter reinforced concrete pipe (RCP) to regulate flow. The berm will create a flood storage detention with a capacity of 10.06 acre-feet.

Flow from the site will be conveyed through the installed outlet control structure and RCP under the existing baseball field for approximately 260-feet before connecting to a new 36-inch diameter RCP that will convey flow from the park to a stream outlet north of Villa Place, east of its intersection with Nordstrand Avenue. This RCP conveyance is not subject to USACE Regulatory Review as its installation will not occur in waters or wetlands that may be subject to regulation as WOTUS.

In total the proposed project will result in the permanent loss of 1,170 sq. ft. of wetlands and 595 sq. ft. (117 linear feet) of watercourse. Temporary impact from construction will impact 70 sq. ft (10 linear feet) of watercourse and 340 sq. ft. of wetland. In the long-term, indirect wetland impacts will be incurred through the temporary inundation of a 45,000 sq. ft. (1.03 acre) area of the southern, on-site wetland during high-flow events. The zone of inundation will include portions of the unnamed stream channel and forested wetlands bordering the watercourse within the eastern portion of the wetland.

The purpose of the project is to install flood water detention that will be capable of attenuating flows downstream and will be able to reduce the frequency and severity of flooding to properties and public infrastructure along the Rooster River.

The work is shown on the enclosed plans prepared by SLR Consulting entitled "TUNXIS HILL PARK (SITE 1)" on 7 sheets dated "JUNE 10, 2022."

The applicant proposes to minimize adverse impact of the work with a temporary water bypass to maintain instream flow during instream construction and through the installation and maintenance of water quality best management practices. To offset the unavoidable adverse impacts to WOTUS, mitigation may include on-site wetland rehabilitation or compensation through the Audubon Connecticut In-Lieu Fee Program.

#### **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 WOTUS 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: the permit area has been extensively modified by previous work and the permit area has been recently created in modern times. Additional review and consultation to fulfill requirements under Section 106 of the National Historic Preservation Act of 1966, as amended, will be undertaken as part of the permit review process and these consultations will be completed prior to a making a final decision on the application.

### **ENDANGERED SPECIES CONSULTATION**

The USACE has reviewed 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 (ESA) as amended. It is our preliminary determination that the proposed activity for which authorization is being sought is designed, situated or will be operated/used in such a manner that it is not likely to adversely affect a listed species or their critical habitat. We are coordinating with the National Marine Fisheries Service and/or U.S. Fish and Wildlife Service on listed species under their jurisdiction and the ESA consultation 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 USACE is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties so that we may evaluate the impacts of this proposed activity. Any comments received will be considered by USACE 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

CENAE-R-CT  
File No. NAE-2022-00691-TREC

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 Ms. Cori M. Rose, Regulatory Division Technical Regional Execution Center by email at [cori.m.rose@usace.army.mil](mailto:cori.m.rose@usace.army.mil) or by phone at (978) 831-3673.

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 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

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

# TUNXIS HILL PARK (SITE 1)

225 MELVILLE AVENUE  
FAIRFIELD, CONNECTICUT

1342-28  
FLOODING MITIGATION ASSESSMENT  
JUNE 10, 2022

## GENERAL NOTES

- BOUNDARY AND TOPOGRAPHIC INFORMATION IS BASED UPON TOWN PROVIDED GIS.
- INFORMATION REGARDING THE LOCATION OF EXISTING UTILITIES HAS BEEN BASED UPON AVAILABLE INFORMATION AND MAY BE INCOMPLETE, AND WHERE SHOWN SHOULD BE CONSIDERED APPROXIMATE. THE LOCATION OF ALL EXISTING UTILITIES SHOULD BE CONFIRMED PRIOR TO BEGINNING CONSTRUCTION. CALL "CALL BEFORE YOU DIG", 1-800-922-4455. ALL UTILITY LOCATIONS THAT DO NOT MATCH THE VERTICAL OR HORIZONTAL CONTROL SHOWN ON THE PLANS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION.
- SLR INTERNATIONAL CORPORATION ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF MAPS AND DATA WHICH HAVE BEEN SUPPLIED BY OTHERS.
- INLAND WETLANDS AND WATERCOURSES ON SITE WERE FLAGGED BY MEGAN B. RAYMOND, CERTIFIED SOIL SCIENTIST FROM SLR CONSULTING ON MARCH 15, 2021.
- ALL DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
- SEDIMENT AND EROSION CONTROL MEASURES AS DEPICTED ON THESE PLANS AND DESCRIBED WITHIN THE SEDIMENT AND EROSION CONTROL NARRATIVE SHALL BE IMPLEMENTED AND MAINTAINED UNTIL PERMANENT COVER AND STABILIZATION IS ESTABLISHED. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL CONFORM TO THE "GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, CONNECTICUT - 2002, AND IN ALL CASES BEST MANAGEMENT PRACTICES SHALL PREVAIL.
- ALL DISTURBED AREAS SHALL RECEIVE A MINIMUM OF 6" TOPSOIL AND BE SEEDED WITH GROUND COVER SEED MIX, AS SHOWN ON THE PLANS. ALL VEGETATIVE ESTABLISHMENT SHALL CONFORM TO THE "STANDARDS FOR ORGANIC LAND CARE, NORA CONNECTICUT 2011," AND IN ALL CASES BEST MANAGEMENT PRACTICES SHALL PREVAIL.
- IN ALL CASES, TOPSOIL AND OTHER CONSTRUCTION MATERIALS SHALL BE DRAWN FROM THE ON-SITE STOCKPILES OF EXISTING MATERIAL. ONLY WHEN ON-SITE STOCKPILES HAVE BEEN USED SHALL MATERIAL BE IMPORTED TO THE SITE.
- ALL STORM DRAIN PIPE HOPE UNLESS OTHERWISE INDICATED.
- ALL PROPOSED CONTOURS AND SPOT ELEVATIONS INDICATE FINISHED GRADE.
- ALL CONSTRUCTION MATERIALS AND METHODS SHALL CONFORM TO THE TOWN OF FAIRFIELD REQUIREMENTS AND TO THE APPLICABLE SECTIONS OF THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, FACILITIES AND INCIDENTAL CONSTRUCTION, FORM 818 AND ADDENDUMS.
- THE PLANS REQUIRE A CONTRACTOR'S WORKING KNOWLEDGE OF LOCAL, MUNICIPAL, WATER AUTHORITY, AND STATE CODES FOR UTILITY SYSTEMS. ANY CONFLICTS BETWEEN MATERIALS AND LOCATIONS SHOWN, AND LOCAL REQUIREMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE EXECUTION OF WORK. THE ENGINEER WILL NOT BE HELD LIABLE FOR COSTS INCURRED TO IMPLEMENT OR CORRECT WORK WHICH DOES NOT CONFORM TO LOCAL CODE.
- COMPLIANCE WITH THE PERMIT CONDITIONS IS THE RESPONSIBILITY OF BOTH THE CONTRACTOR AND THE PERMITTEE.
- THE PROPERTY OWNER MUST MAINTAIN (REPAIR/REPLACE WHEN NECESSARY) THE SEDIMENT AND EROSION CONTROLS UNTIL ALL DEVELOPMENT ACTIVITY IS COMPLETED AND ALL DISTURBED AREAS ARE PERMANENTLY STABILIZED.

## CONSTRUCTION SEQUENCE

- PRIOR TO COMMENCEMENT OF WORK A PRECONSTRUCTION MEETING SHALL BE HELD WITH TOWN STAFF AND REPRESENTATIVES OF THE CONTRACTOR AND OWNER. AT THIS MEETING, ONE PERSON WILL BE PLACED IN CHARGE OF SEDIMENT AND EROSION CONTROL FOR THE ENTIRE SITE.
- CONTRACTOR TO STAKE OUT LIMIT OF DISTURBANCE AND VEGETATION TO BE RETAINED. NO DISTURBANCE IS TO TAKE PLACE BEYOND THE LIMITS OF WORK SHOWN.
- CONTRACTOR TO INSTALL SEDIMENT AND EROSION CONTROLS ALONG THE PERIMETER, AND STABILIZED CONSTRUCTION ENTRANCES.
- CLEAR AND GRUB SITE AND STOCKPILE TOPSOIL. PLACE SEDIMENT FILTER FENCE AND HAYBALES AROUND STOCKPILES.
- INSTALL STORMWATER PIPE AND STRUCTURES.
- INITIATE MASS EARTHWORK OPERATIONS AFTER ALL SILT FENCE & HAYBALES ARE INSTALLED.
- SLOPES ARE TO BE ESTABLISHED AS SOON AS PRACTICAL BEFORE UTILITY INSTALLATION. STABILIZE ALL SLOPES IMMEDIATELY AFTER THEIR ESTABLISHMENT.
- THE SEDIMENT AND EROSION CONTROL PLAN SHALL BE MODIFIED BY THE CONTRACTOR AT THE DIRECTION OF THE ENGINEER AND DESIGNATED TOWN REPRESENTATIVE AS NECESSITATED BY CHANGING SITE CONDITIONS.

## GENERAL CONSTRUCTION NOTES

- SEDIMENT AND EROSION CONTROLS SHALL BE INSPECTED AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.5 INCH OR GREATER.
- INSPECTION OF THE SITE FOR EROSION SHALL CONTINUE FOR A PERSON OF THREE MONTHS AFTER COMPETITION WHEN RAINFALLS OF ONE INCH OR MORE OCCUR.
- THE SITE SHOULD BE KEPT CLEAN OF LOOSE DEBRIS, LITTER AND BUILDING MATERIALS SUCH THAT NONE OF THE ABOVE ENTER WATERS OR WETLANDS.
- A COPY OF ALL PLANS AND REVISIONS, AND THE SEDIMENT AND EROSION CONTROL PLAN SHALL BE MAINTAINED ON-SITE AT ALL TIMES DURING CONSTRUCTION.

## OPERATION AND MAINTENANCE PLAN (POST-CONSTRUCTION)

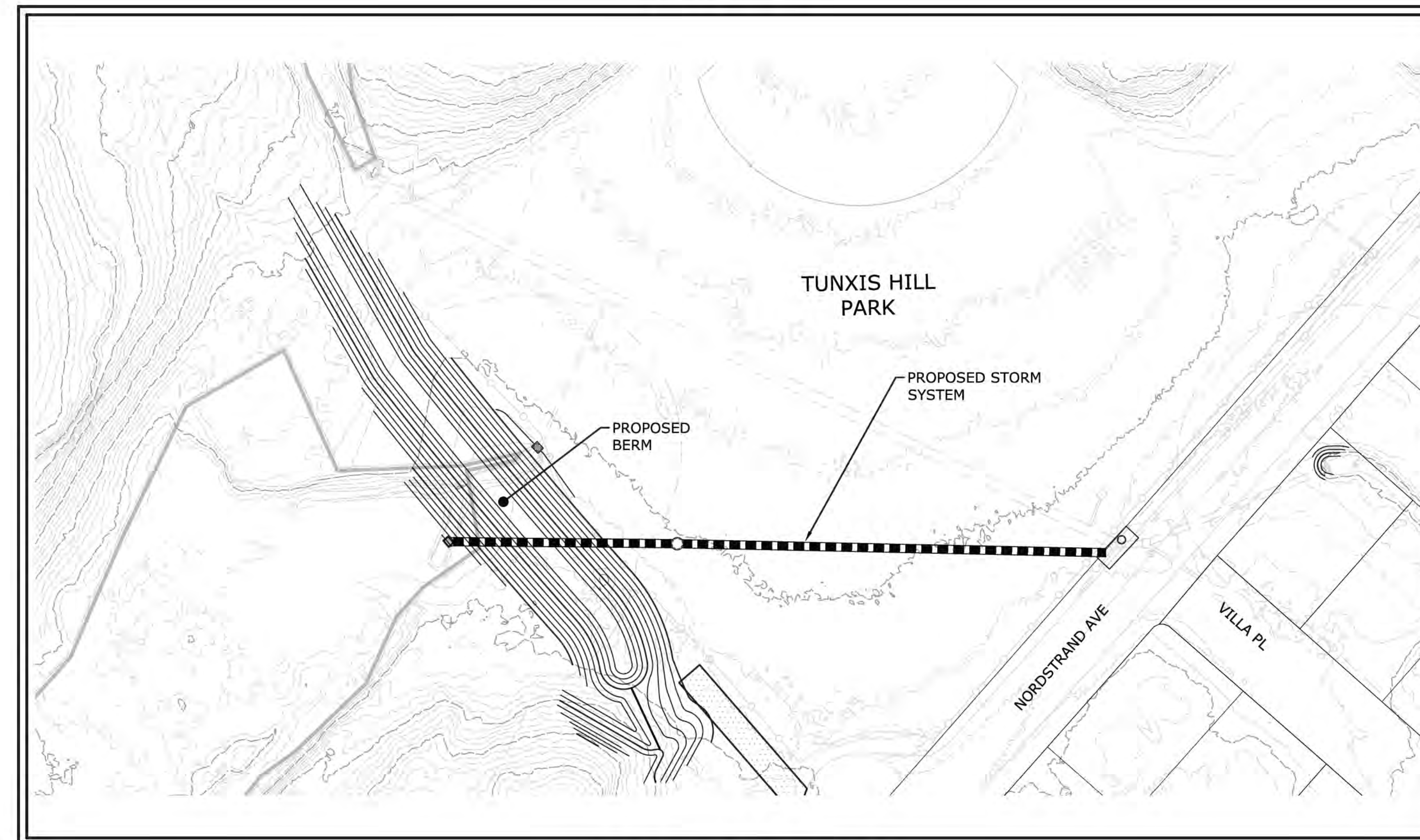
- THE STORMWATER SYSTEM SHALL BE INSPECTED TWICE ANNUALLY AND AFTER ANY SPILLAGE OF OIL, GAS, OR OTHER CONTAMINANT SPILLS. SUBSEQUENT TO CONTAMINANT SPILLS, THE STORMWATER SYSTEM SHALL BE CLEANED IMMEDIATELY AND THE CONTENTS DISPOSED OF AT AN APPROVED OFF-SITE LOCATION.
- A VEGETATIVE OR IMPROVED COVER SHALL BE MAINTAINED ON ALL EARTH SURFACES TO MINIMIZE SOIL EROSION. USE OF FERTILIZER SHOULD BE MINIMIZED AND APPLIED USING PRUDENT APPLICATION PROCEDURES.
- A LOG OF ALL INSPECTION AND CLEANING SHALL BE MAINTAINED BY THE OWNER AND BE AVAILABLE FOR INSPECTION.
- DURING CONSTRUCTION AND FOR SIX MONTHS AFTER PROJECT COMPLETION INSPECTION OF SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MADE ON A WEEKLY BASIS AND AFTER RAINFALL EVENTS OF 1" OR GREATER. A LOG OF SUCH INSPECTIONS SHALL BE MAINTAINED AT THE SITE.

## EARTHWORK SUMMARY:

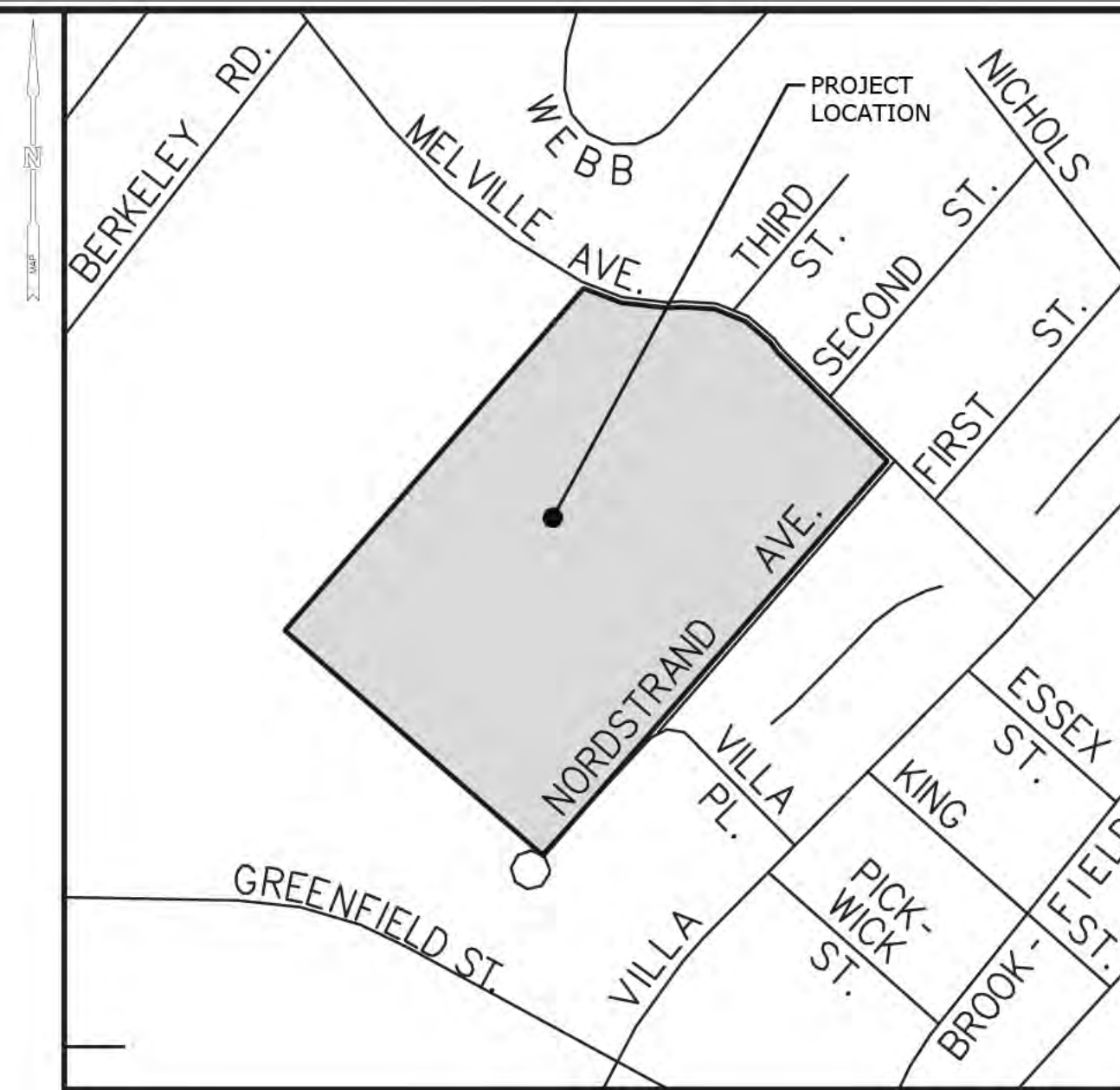
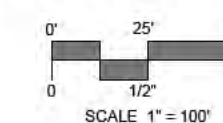
LOCATION	CUT	FILL	NET
TOTAL SITE	70 C.Y.	3610 C.Y.	3540 C.Y. <FILL>



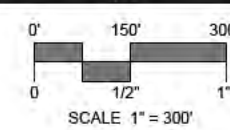
Know what's below.  
Call before you dig.  
www.cbyd.com



PROJECT SITE VICINITY MAP:



LOCATION MAP:



## LEGEND

EXISTING		PROPOSED
—	STREET LINE	—
—	PROPERTY LINE	—
---	EASEMENT	---
---	SETRACK LINE	---
---70---	MAJOR CONTOUR	---70---
---88---	MINOR CONTOUR	---88---
× 70.5	SPOT GRADE	+70.5
WETLANDS		WETLANDS
HYDRANT		HYDRANT
WATER METER		WATER METER
WATER VALVE		WATER VALVE
GAS VALVE		GAS VALVE
CATCH BASIN		CATCH BASIN
MANHOLE/YARD DRAIN		MANHOLE/YARD DRAIN
SANITARY SEWER SERVICE/MAIN		SANITARY SEWER SERVICE/MAIN
STORM DRAIN W/CATCH BASIN		STORM DRAIN W/CATCH BASIN
WATER MAIN		WATER MAIN
ELECTRICAL CONDUIT		ELECTRICAL CONDUIT
UTILITY POLE		UTILITY POLE
TRAFFIC SIGN		TRAFFIC SIGN
MONUMENT		MONUMENT
EDGE OF PAVEMENT W/CURB		EDGE OF PAVEMENT W/CURB

## PREPARED FOR:

TOWN OF FAIRFIELD  
611 OLD POST ROAD  
FAIRFIELD, CT 06824

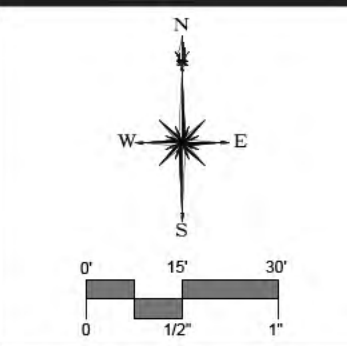
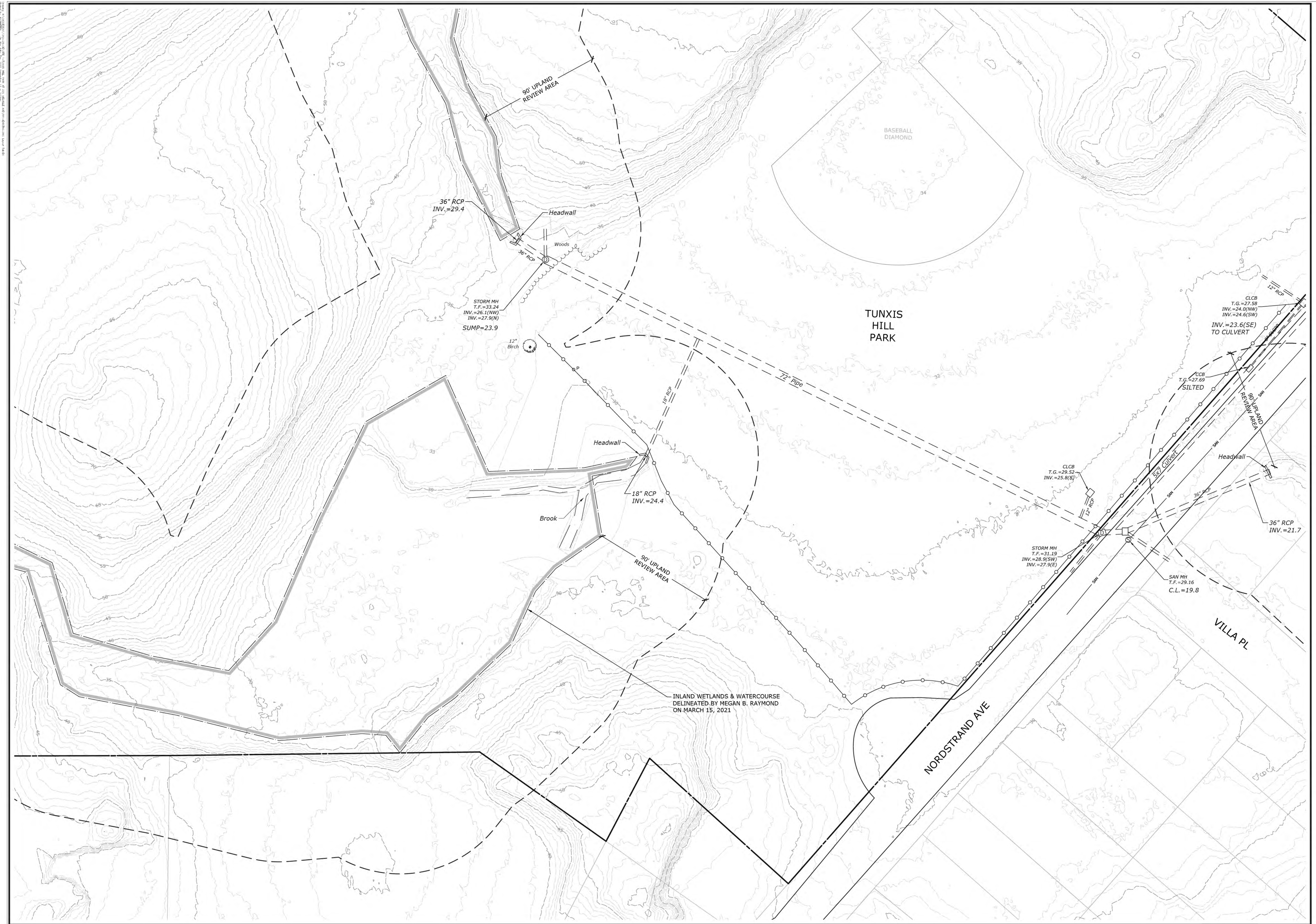
## PREPARED BY:



99 REALTY DRIVE  
CHESHIRE, CT 06410  
203.271.1773  
SLRCONSULTING.COM

## LIST OF DRAWINGS

NO.	NAME	TITLE
01	--	TITLE SHEET
02	EX	EXISTING CONDITIONS
03	SM	SITE MAP
04	SP	SITE PLAN
05	SE	SEDIMENT & EROSION CONTROLS
06	SE-1	SEDIMENT & EROSION CONTROL NOTES & DETAILS
07	SD-1	SITE DETAILS



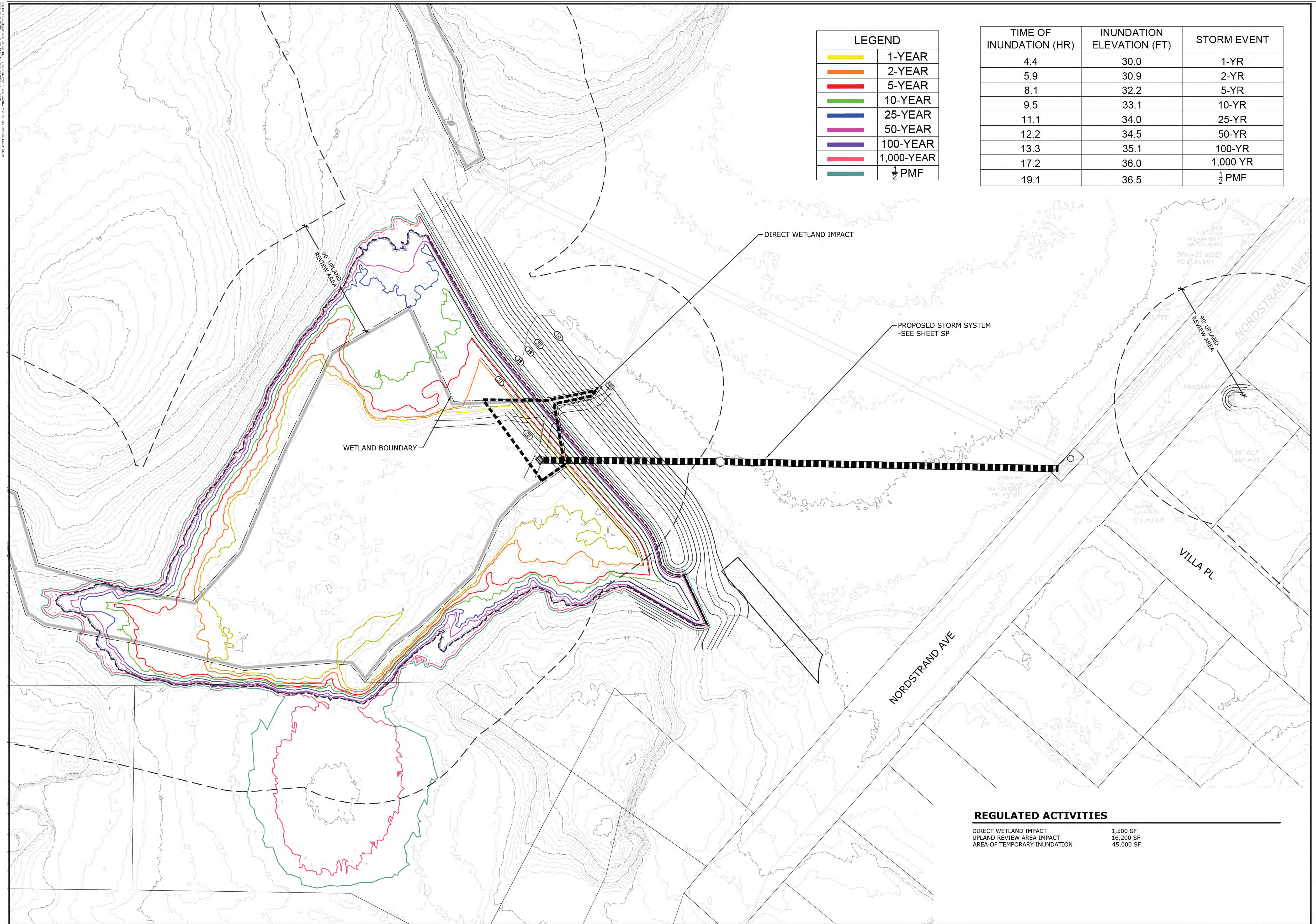
**SLR**  
 99 REALTY DRIVE  
 SUITE 100  
 203271773  
 SLRCONSULTING.COM

DESCRIPTION	DATE	BY

**SITE PLAN - EXISTING CONDITIONS**  
**TUNXIS HILL PARK**  
 225 MELVILLE AVENUE  
 FAIRFIELD, CONNECTICUT

TDR DESIGNED	SWM DRAWN	JCM CHECKED
SCALE 1"=30'		
DATE JUNE 10, 2022		
PROJECT NO. 1342-28		
SHEET NO. 2 OF 7		

**EX**



LEGEND	
<span style="color: yellow;">█</span>	1-YEAR
<span style="color: orange;">█</span>	2-YEAR
<span style="color: red;">█</span>	5-YEAR
<span style="color: green;">█</span>	10-YEAR
<span style="color: blue;">█</span>	25-YEAR
<span style="color: purple;">█</span>	50-YEAR
<span style="color: darkblue;">█</span>	100-YEAR
<span style="color: pink;">█</span>	1,000-YEAR
<span style="color: teal;">█</span>	1/2 PMF

TIME OF INUNDATION (HR)	INUNDATION ELEVATION (FT)	STORM EVENT
4.4	30.0	1-YR
5.9	30.9	2-YR
8.1	32.2	5-YR
9.5	33.1	10-YR
11.1	34.0	25-YR
12.2	34.5	50-YR
13.3	35.1	100-YR
17.2	36.0	1,000 YR
19.1	36.5	1/2 PMF



DESCRIPTION	DATE	BY

**SITE MAP**  
**TUNXIS HILL PARK**  
 225 MELVILLE AVENUE  
 FAIRFIELD, CONNECTICUT

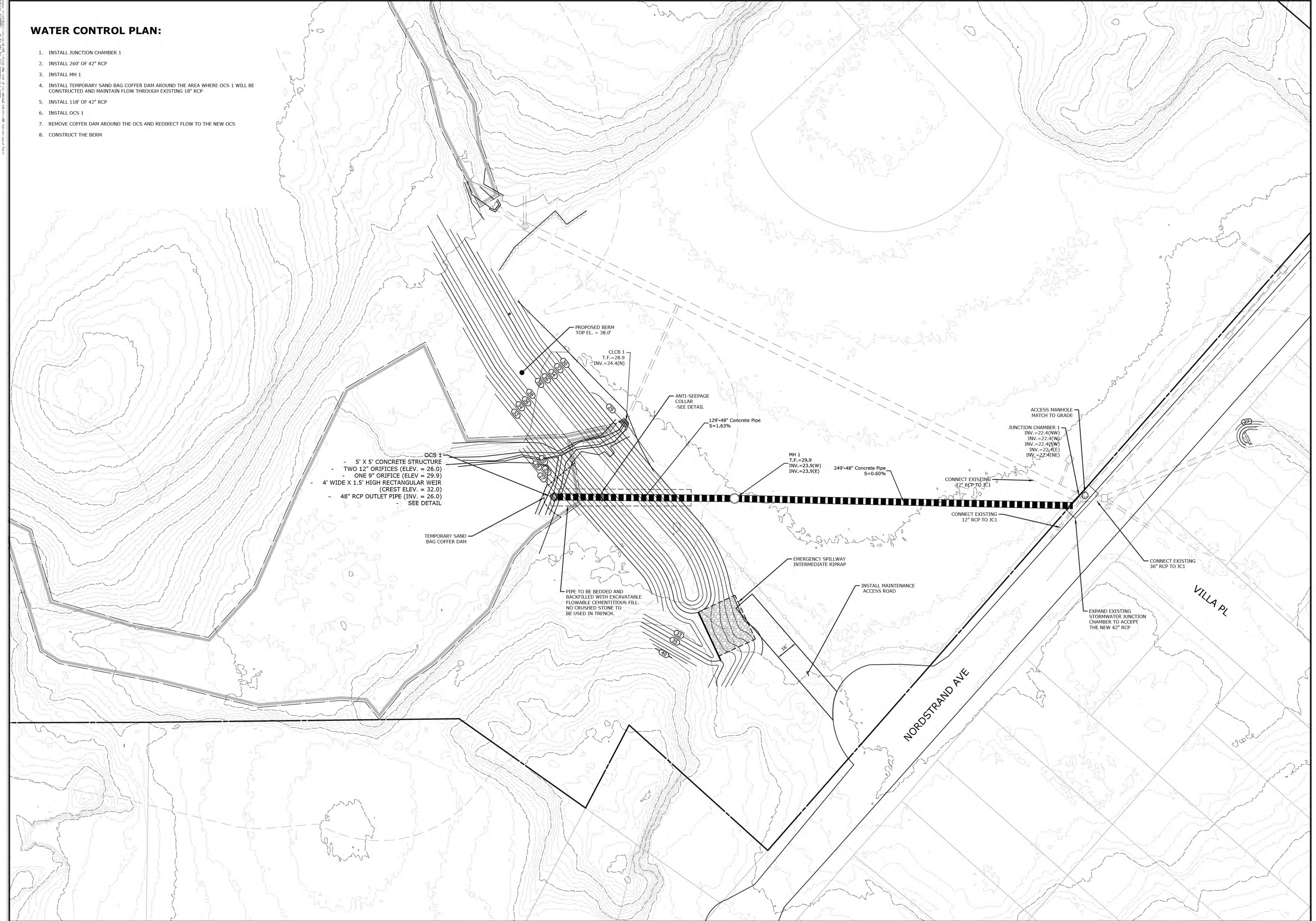
SMM	AES	EAH
DESIGNED	DRAWN	CHECKED
SCALE: 1"=30'		
DATE: JUNE 10, 2022		
PROJECT NO: 1342-28		
SHEET NO: 3 OF 7		

**SM**

REGULATED ACTIVITIES	
DIRECT WETLAND IMPACT	1,500 SF
UPLAND REVIEW AREA IMPACT	16,200 SF
AREA OF TEMPORARY INUNDATION	45,000 SF

**WATER CONTROL PLAN:**

1. INSTALL JUNCTION CHAMBER 1
2. INSTALL 260' OF 42" RCP
3. INSTALL MH 1
4. INSTALL TEMPORARY SAND BAG COFFER DAM AROUND THE AREA WHERE OCS 1 WILL BE CONSTRUCTED AND MAINTAIN FLOW THROUGH EXISTING 18" RCP
5. INSTALL 118' OF 42" RCP
6. INSTALL OCS 1
7. REMOVE COFFER DAM AROUND THE OCS AND REDIRECT FLOW TO THE NEW OCS
8. CONSTRUCT THE BERM



DESCRIPTION	DATE	BY

**SITE PLAN**  
 TUNXIS HILL PARK  
 FLOODING MITIGATION ASSESSMENT  
 225 MELVILLE AVENUE  
 FAIRFIELD, CONNECTICUT

SMM DESIGNED	SMM DRAWN	EAH CHECKED
SCALE 1"=30'		
DATE JUNE 10, 2022		
PROJECT NO. 1342-28		
SHEET NO. 4 OF 7		
SHEET NAME <b>SP</b>		





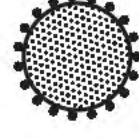



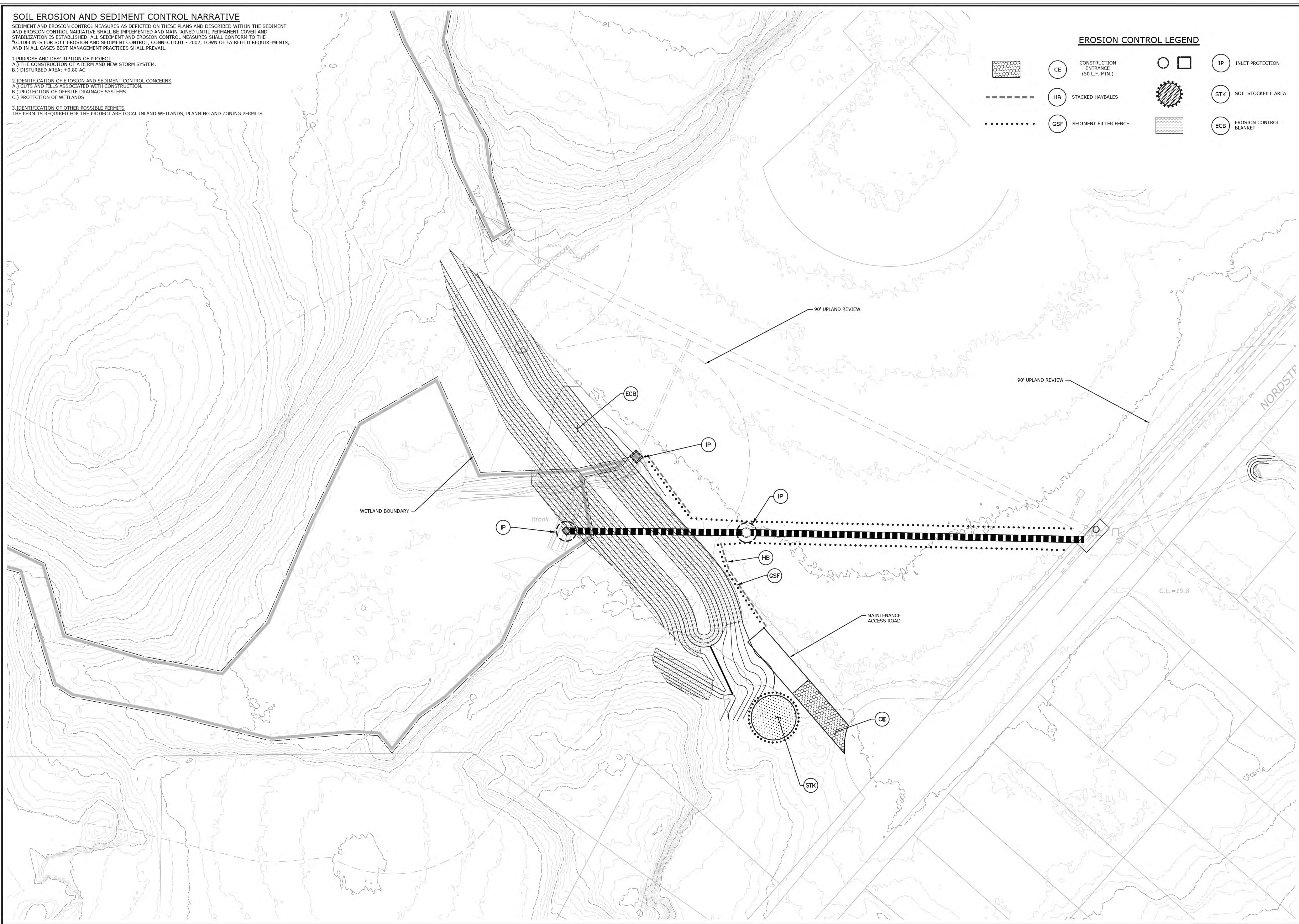
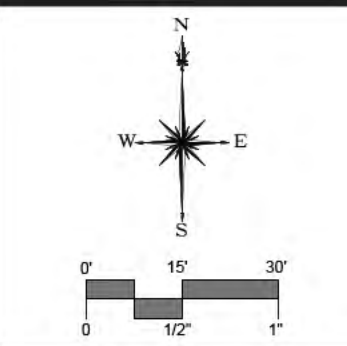
### SOIL EROSION AND SEDIMENT CONTROL NARRATIVE

SEDIMENT AND EROSION CONTROL MEASURES AS DEPICTED ON THESE PLANS AND DESCRIBED WITHIN THE SEDIMENT AND EROSION CONTROL NARRATIVE SHALL BE IMPLEMENTED AND MAINTAINED UNTIL PERMANENT COVER AND STABILIZATION IS ESTABLISHED. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL CONFORM TO THE "GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, CONNECTICUT - 2002, TOWN OF FAIRFIELD REQUIREMENTS, AND IN ALL CASES BEST MANAGEMENT PRACTICES SHALL PREVAIL.

- PURPOSE AND DESCRIPTION OF PROJECT
  - A.) THE CONSTRUCTION OF A BERM AND NEW STORM SYSTEM.
  - B.) DISTURBED AREA: ±0.80 AC
- IDENTIFICATION OF EROSION AND SEDIMENT CONTROL CONCERNS
  - A.) CUTS AND FILLS ASSOCIATED WITH CONSTRUCTION.
  - B.) PROTECTION OF OFFSITE DRAINAGE SYSTEMS.
  - C.) PROTECTION OF WETLANDS
- IDENTIFICATION OF OTHER POSSIBLE PERMITS
  - THE PERMITS REQUIRED FOR THE PROJECT ARE LOCAL INLAND WETLANDS, PLANNING AND ZONING PERMITS.

### EROSION CONTROL LEGEND

-  CE CONSTRUCTION ENTRANCE (50 L.F. MIN.)
-  HB STACKED HAYBALES
-  GSF SEDIMENT FILTER FENCE
-  IP INLET PROTECTION
-  STK SOIL STOCKPILE AREA
-  ECB EROSION CONTROL BLANKET



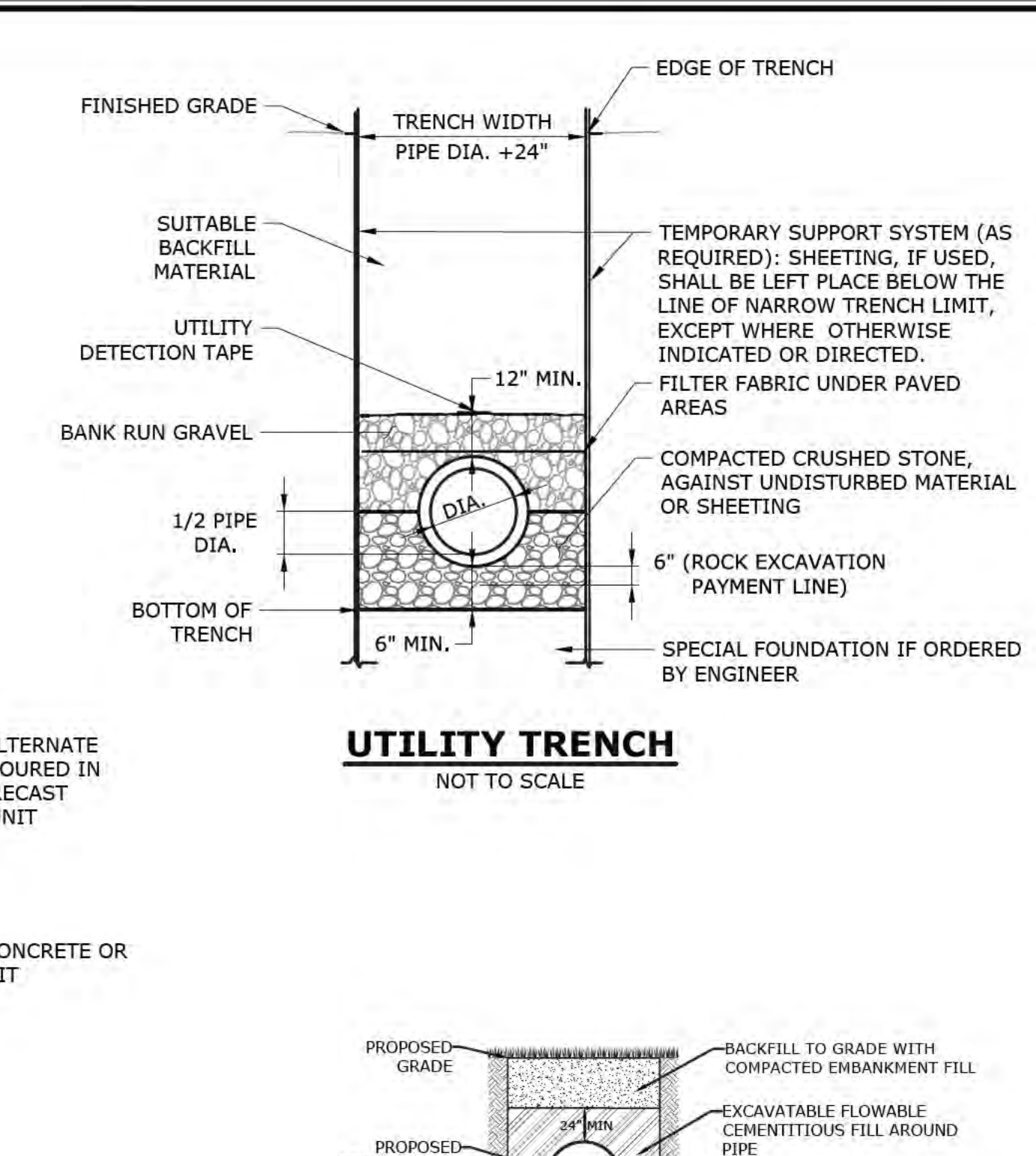
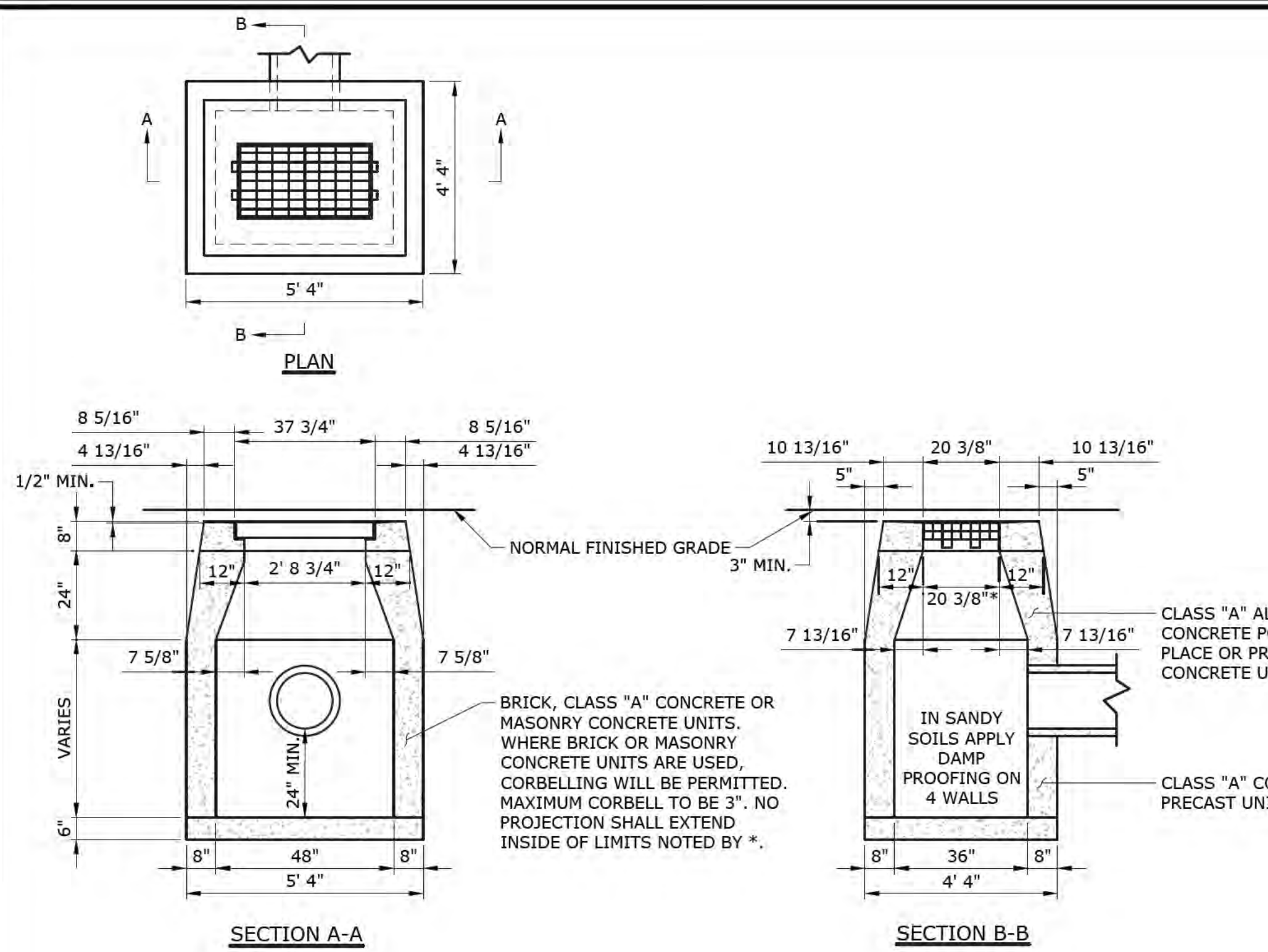
DESCRIPTION	DATE	BY

**SEDIMENT & EROSION CONTROLS**  
**TUNXIS HILL PARK**  
 225 MELVILLE AVENUE  
 FAIRFIELD, CONNECTICUT

SMM DESIGNED	KJG DRAWN	EAH CHECKED
SCALE 1"=30'		
DATE JUNE 10, 2022		
PROJECT NO. 1342-28		
SHEET NO. 5 OF 7		

**SE-1**





### FORMATION OF EMBANKMENTS FOR STORMWATER BASINS

**1. MATERIALS**

ALL FILL MATERIALS SHALL BE OBTAINED FROM REQUIRED EXCAVATIONS OR DESIGNATED BORROW AREAS. FILL MATERIAL SHALL CONTAIN NO FROZEN MATERIAL, SOD, BRUSH, ROOTS, OR OTHER ORGANIC MATERIAL. EARTH EMBANKMENTS SHALL CONTAIN NO STONES OR ROCK PARTICLES OVER THREE INCHES IN DIAMETER.

THE MATERIAL USED IN THE CENTER PORTION OF THE EMBANKMENT SHALL BE THE MOST IMPERVIOUS MATERIAL OBTAINED FROM THE BORROW AREAS IF REQUIRED. THE MORE PERVIOUS MATERIALS SHALL BE USED IN THE OUTER PORTION OF THE EMBANKMENT AS SHOWN ON THE PLANS.

**A. IMPERVIOUS FILL MATERIALS**

IMPERVIOUS FILL SHALL BE A GLACIAL TILL, AND TO BE PROVIDED FROM AN OFFSITE SOURCE IN THE QUANTITIES REQUIRED FOR COMPLETION. FILL TO BE APPROVED BY THE ENGINEER. GLACIAL TILL SHALL CONSIST OF HARD AND DURABLE PARTICLES OR FRAGMENTS AND SHALL BE FREE FROM ORGANIC MATTER AND OTHER OBJECTIONABLE MATERIALS. GLACIAL TILL SHALL GENERALLY CONFORM TO THE FOLLOWING GRADATION LIMITS:

U.S. STANDARD SIEVE SIZE	PERCENTAGE PASSING BY WEIGHT	THE MIN. U.S. NO. 200 FRACTION SHALL HAVE A LIQUID LIMIT (PER ASTM D4318) OF NOT MORE THAN 40, A PLASTICITY INDEX OF NOT MORE THAN 25 (PER ASTM D4318) AND SHALL NOT PLOT BELOW THE "A-LINE" ON THE PLASTICITY CHART IN EM-110-2-1906.
NO. 4	60-95	
3 INCH	100	
NO. 10	50-95	
NO. 40	30-75	
NO. 100	20-65	
NO. 200	10-40	

**2. EMBANKMENT FOUNDATION PREPARATION**

AREAS WHERE EMBANKMENTS ARE TO BE FORMED SHALL BE CLEARED AND GRUBBED OF ALL TOPSOIL AND OTHER ORGANIC MATERIALS TO A DEPTH OF AT LEAST 24 INCHES. UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS, FOUNDATION AREAS SHALL BE SCARIFIED TO A DEPTH OF THREE INCHES PRIOR TO PLACEMENT OF FILL MATERIAL.

**3. PLACEMENT**

NO FILL SHALL BE PLACED UNTIL THE FOUNDATION PREPARATION AND EXCAVATIONS IN THE FOUNDATION HAVE BEEN COMPLETED. NO FILL SHALL BE PLACED ON A FROZEN SURFACE NOR SHALL FROZEN MATERIAL BE INCORPORATED.

**A. EMBANKMENT**

MATERIAL SHALL BE PLACED IN HORIZONTAL LAYERS. THE THICKNESS OF LAYERS SHALL BE SIX INCHES. DURING CONSTRUCTION, THE SURFACE OF THE FILL SHALL HAVE A CROWN OR CROSS-SLOPE OF NOT LESS THAN TWO PERCENT. EACH LAYER OR LIFT SHALL EXTEND OVER THE ENTIRE AREA OF THE FILL.

THE FILL SHALL BE FREE FROM LENSES, POCKETS, STREAKS, OR LAYERS OF MATERIAL DIFFERING SUBSTANTIALLY IN TEXTURE OR GRADATION FROM THE SURROUNDING MATERIAL. THE MORE PERVIOUS MATERIAL SHALL BE PLACED IN THE OUTSIDE PORTION OF THE EMBANKMENT OR AS INDICATED ON THE DRAWINGS. THE FINISHED FILL SHALL BE SHAPED AND GRADED TO THE LINES AND GRADE SHOWN ON THE DRAWINGS.

**B. BACKFILL AT THE PIPE OUTLET**

BACKFILL SHALL BE PLACED IN HORIZONTAL LAYERS NOT TO EXCEED THREE INCHES IN THICKNESS AND SHALL BE BROUGHT UP UNIFORMLY AROUND THE OUTLET PIPE AND FLARED END SECTION

**4. MOISTURE CONTROL**

THE MOISTURE CONTENT OF MATERIALS IN THE EMBANKMENT SHALL BE CONTROLLED TO MEET THE REQUIREMENTS OF SECTION 5, "COMPACTION OF EMBANKMENT." WHEN NECESSARY, MOISTURE SHALL BE ADDED BY USE OF APPROVED SPRINKLING EQUIPMENT. WATER SHALL BE ADDED UNIFORMLY AND EACH LAYER SHALL BE THOROUGHLY DISKED OR HARROWED TO PROVIDE ROPE MIXING. ANY LAYER FOUND TOO WET FOR PROPER COMPACTION SHALL BE ALLOWED TO DRY BEFORE ROLLING. PLACING OR ROLLING OF MATERIAL ON EARTH FILLS WILL NOT BE PERMITTED DURING OR IMMEDIATELY AFTER RAINFALLS WHICH INCREASE THE MOISTURE CONTENT BEYOND THE LIMIT OF SATISFACTORY COMPACTION. THE EARTH FILL SHALL BE BROUGHT UP UNIFORMLY AND ITS TOP SHALL BE KEPT GRADED AND SLOPED SO THAT A MINIMUM OF RAINWATER WILL BE RETAINED THEREON. COMPACTED EARTH FILL DAMAGED BY WASHING SHALL BE ACCEPTABLY REPLACED BY THE CONTRACTOR.

**5. COMPACTION**

**A. EMBANKMENT**

EMBANKMENT MATERIAL SHALL BE COMPACTED TO 95% OF THE STANDARD PROCTOR DENSITY AT NEAR OPTIMUM MOISTURE CONTENT AND BY THE COMPACTION EQUIPMENT SPECIFIED HEREIN. THE COMPACTION EQUIPMENT SHALL TRAVERSE THE ENTIRE SURFACE OF EACH LAYER OF FILL MATERIAL.

APPROVED TAMPING ROLLERS SHALL BE USED FOR COMPACTING ALL PARTS OF THE EMBANKMENTS WHICH THEY CAN EFFECTIVELY REACH. THE CONTRACTOR SHALL DEMONSTRATE THE EFFECTIVENESS OF THE ROLLER BY ACTUAL SOIL COMPACTION RESULTS OF THE SOIL TO BE USED IN THE EMBANKMENT WITH LABORATORY WORK PERFORMED BY AN APPROVED SOIL TESTING LABORATORY.

**B. BACKFILL AT OUTLET CONDUIT**

BACKFILL SHALL BE COMPACTED BY HAND TAMPING WITH MECHANICAL TAMPERS. HEAVY EQUIPMENT SHALL NOT BE OPERATED WITHIN TWO FEET OF ANY STRUCTURE. EQUIPMENT SHALL NOT BE ALLOWED TO OPERATE OVER THE OUTLET CONDUITS UNTIL THERE IS 24 INCHES OF FILL OVER THE PIPE CONDUITS.

**6. FINISHING EMBANKMENTS**

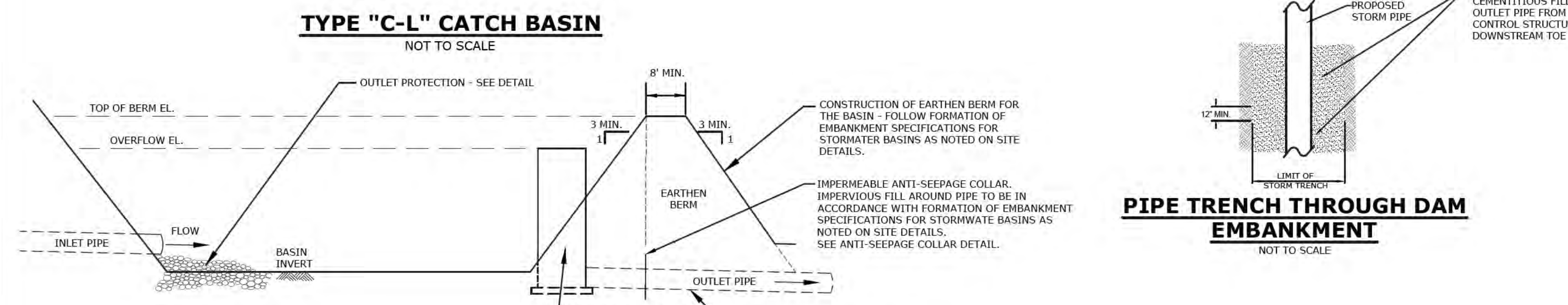
THE EMBANKMENTS SHALL BE CONSTRUCTED TO THE ELEVATIONS, LINES, GRADES AND CROSS-SECTIONS AS SHOWN ON THE DRAWINGS. THE EMBANKMENTS SHALL BE MAINTAINED IN A MANNER SATISFACTORY TO THE ENGINEER AND SURFACES SHALL BE COMPACT AND ACCURATELY GRADED BEFORE TOPSOIL IS PLACED ON THEM. THE CONTRACTOR SHALL CHECK THE EMBANKMENT SLOPES WITH STRING LINES TO INSURE THAT THEY CONFORM TO THE SLOPES GIVEN ON THE PLANS AND ARE UNIFORM FOR THE ENTIRE LENGTH OF THE SLOPE.

**7. CONTROL OF WATER**

THE PROJECT SITE IS SUBJECT TO HIGH WATER TABLE. THE CONTRACTOR SHALL USE TEMPORARY PIPES OR PUMPS TO ASSURE PLACEMENT OF SELECT FILL IN DRY CONDITIONS.

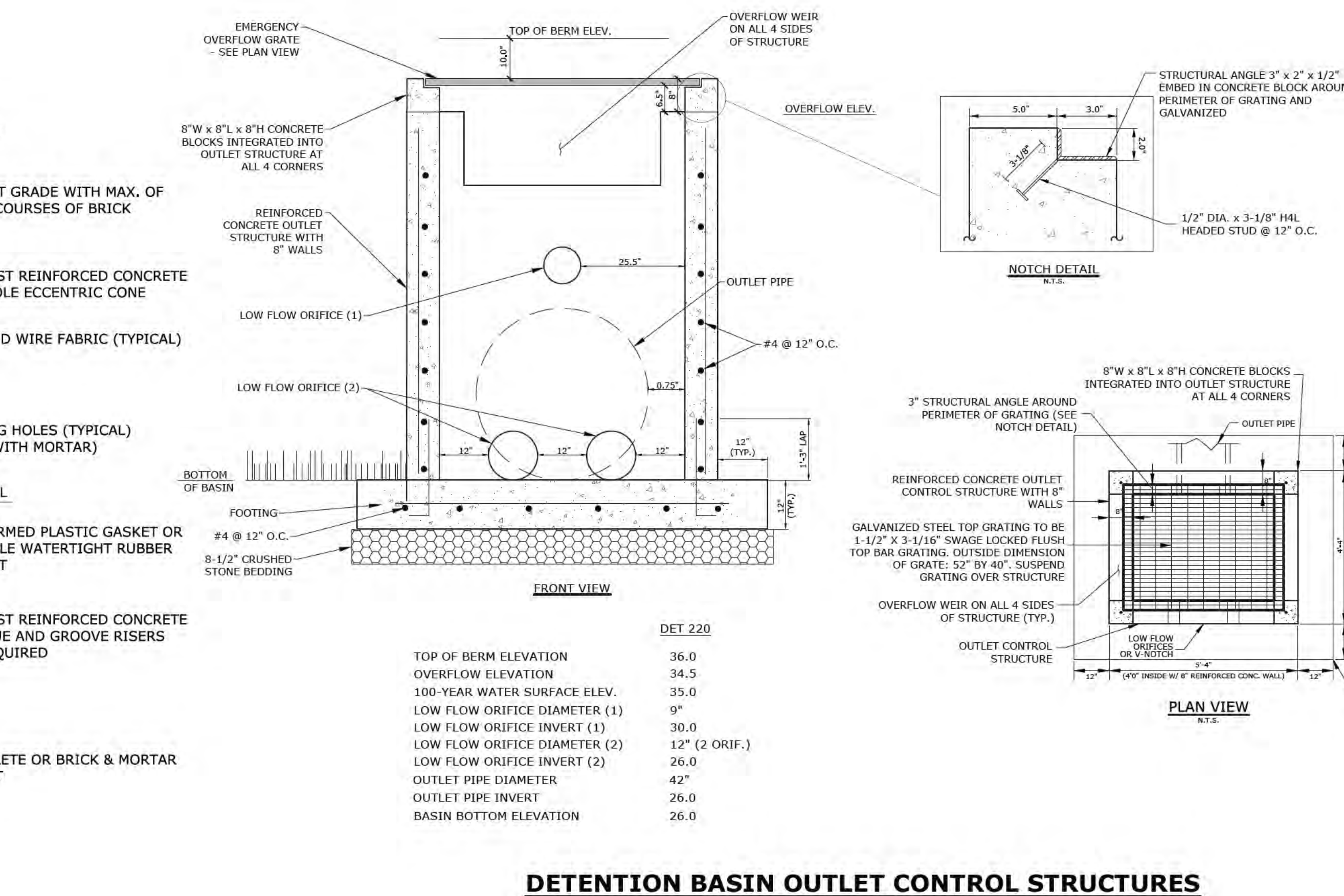
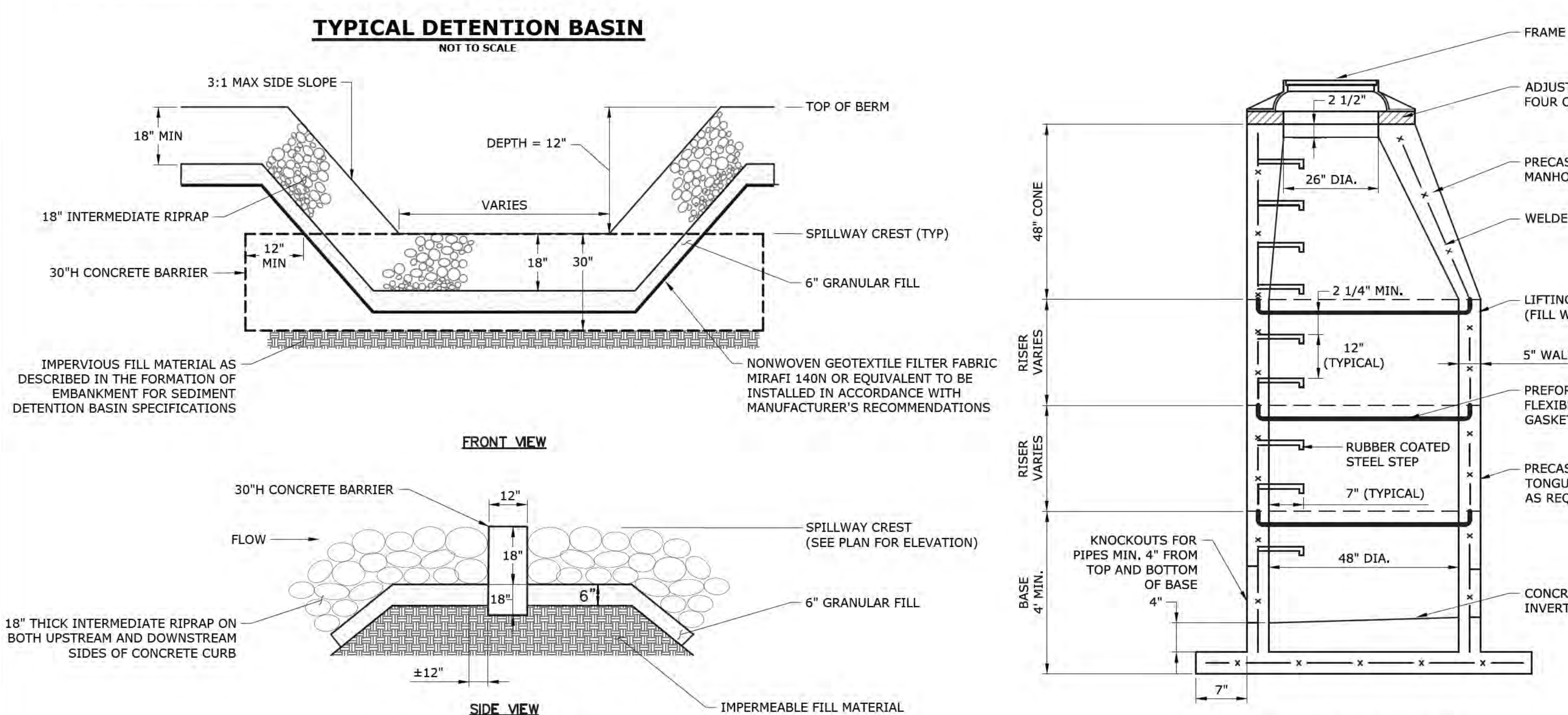
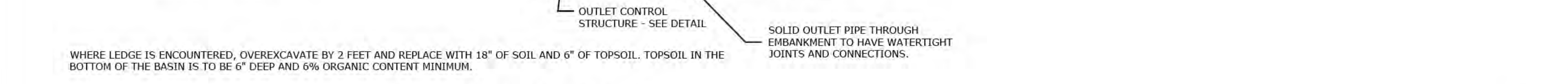
**8. TESTING REQUIREMENTS**

SEE TABLE 1 BELOW.



### TABLE 1: FIELD AND LABORATORY TESTING PROTOCOLS

MATERIAL	TEST DESCRIPTION/FREQUENCY								
	LABORATORY GRADATION (ASTM D422)	ATTENBERG LIMITS (ASTM D4318)	LABORATORY MOISTURE-DENSITY (ASTM D5195)	FIELD DENSITY TESTING (ASTM D5195)	MAX LOOSE LIFT THICKNESS	MIN. COMPACTION REQUIREMENT	CONCRETE SLUMP (ASTM C143)	CONCRETE AIR CONTENT (ASTM C231)	TEST CYLINDERS (ASTM C31)
EMBANKMENT FILL	1 TEST/5,000 YD <sup>3</sup>	1 TEST/5,000 YD <sup>3</sup>	1 TEST/5,000 YD <sup>3</sup>	1 TEST/1,000 YD <sup>2</sup> /LIFT	1'-0"	95%	N/A	N/A	N/A
TOPSOIL	1 TEST/5,000 YD <sup>3</sup>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CONCRETE	N/A	N/A	N/A	N/A	N/A	N/A	EVERY LOAD	EVERY LOAD	1 SET OF 50 YD <sup>3</sup>



### EMERGENCY RIPRAP SPILLWAY

NOT TO SCALE

FRONT VIEW

SIDE VIEW

3:1 MAX SIDE SLOPE

18" MIN

18" INTERMEDIATE RIPRAP

30" H CONCRETE BARRIER

IMPERVIOUS FILL MATERIAL AS DESCRIBED IN THE FORMATION OF EMBANKMENT FOR SEDIMENT DETENTION BASIN SPECIFICATIONS

NONWOVEN GEOTEXTILE FILTER FABRIC MIRAFI 140N OR EQUIVALENT TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS

TOP OF BERM

DEPTH = 12"

VARIES

SPILLWAY CREST (TYP)

6" GRANULAR FILL

30" H CONCRETE BARRIER

SPILLWAY CREST (SEE PLAN FOR ELEVATION)

6" GRANULAR FILL

IMPERMEABLE FILL MATERIAL

### STORM MANHOLE

NOT TO SCALE

FRONT VIEW

PLAN VIEW

DET 220

TOP OF BERM ELEVATION 36.0

OVERFLOW ELEVATION 34.5

100-YEAR WATER SURFACE ELEV. 35.0

LOW FLOW ORIFICE DIAMETER (1) 9"

LOW FLOW ORIFICE INVERT (1) 30.0

LOW FLOW ORIFICE DIAMETER (2) 12" (2 ORIF.)

LOW FLOW ORIFICE INVERT (2) 26.0

OUTLET PIPE DIAMETER 42"

OUTLET PIPE INVERT 26.0

BASIN BOTTOM ELEVATION 26.0

SCALE: 1"=2'