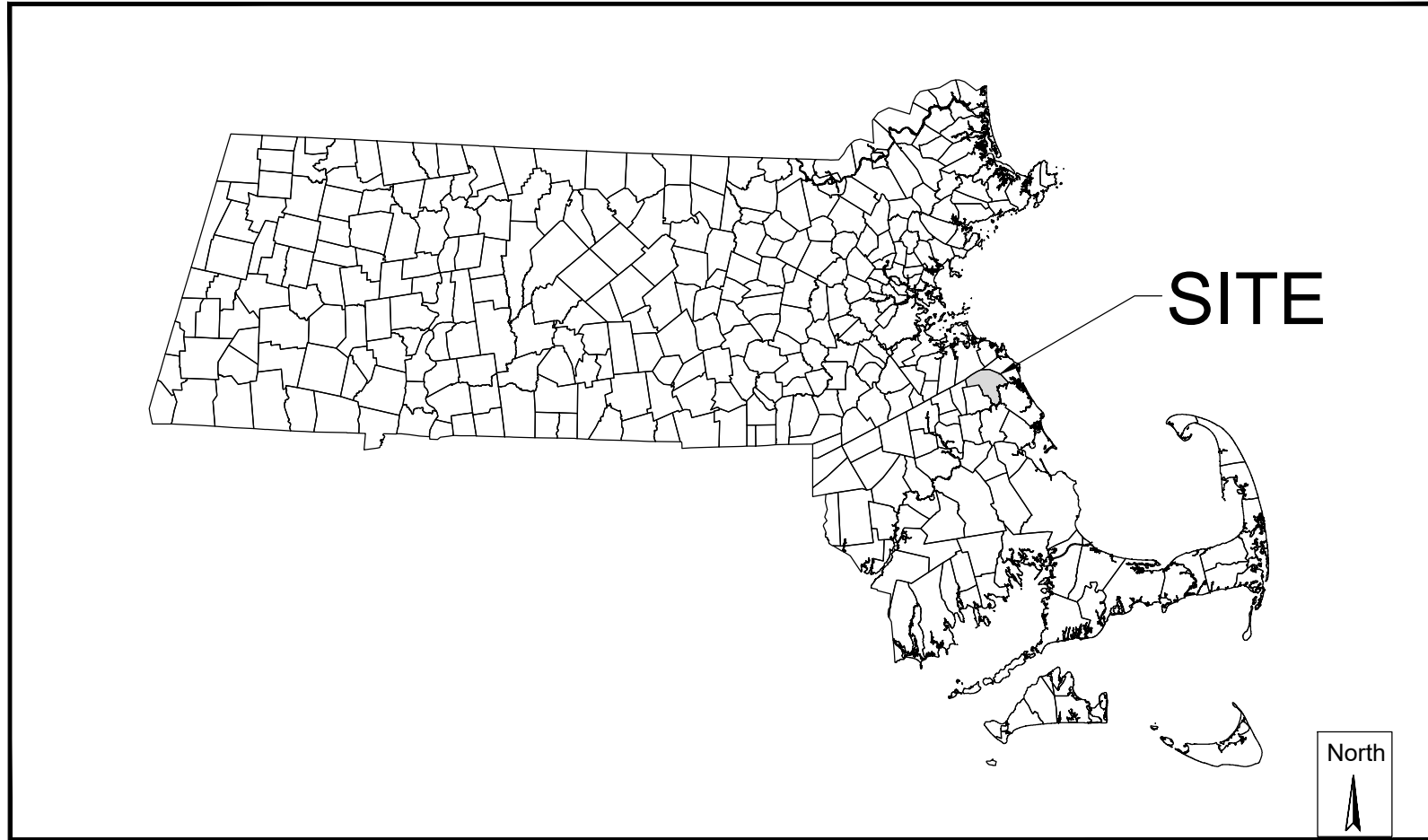
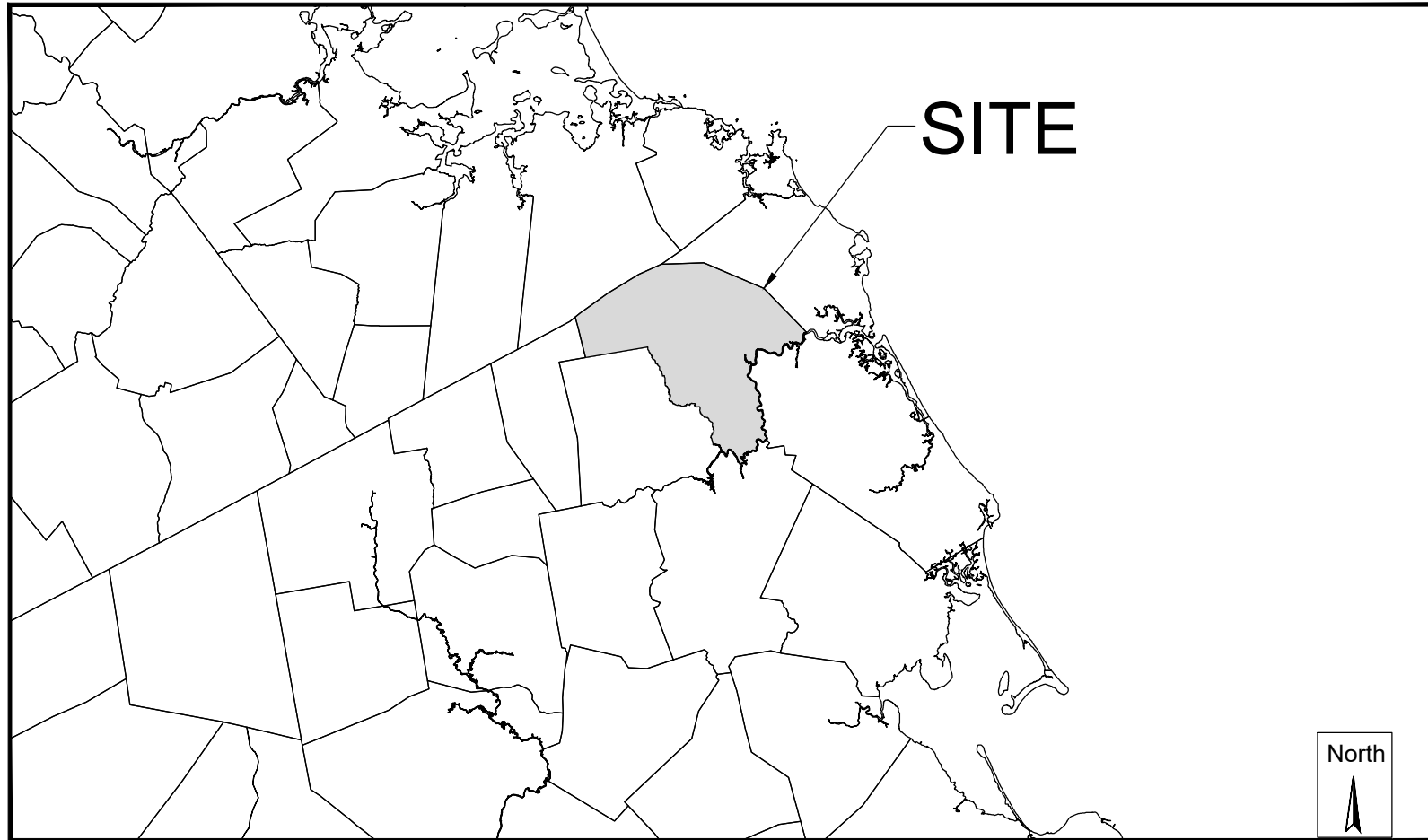
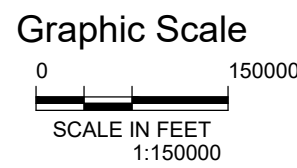


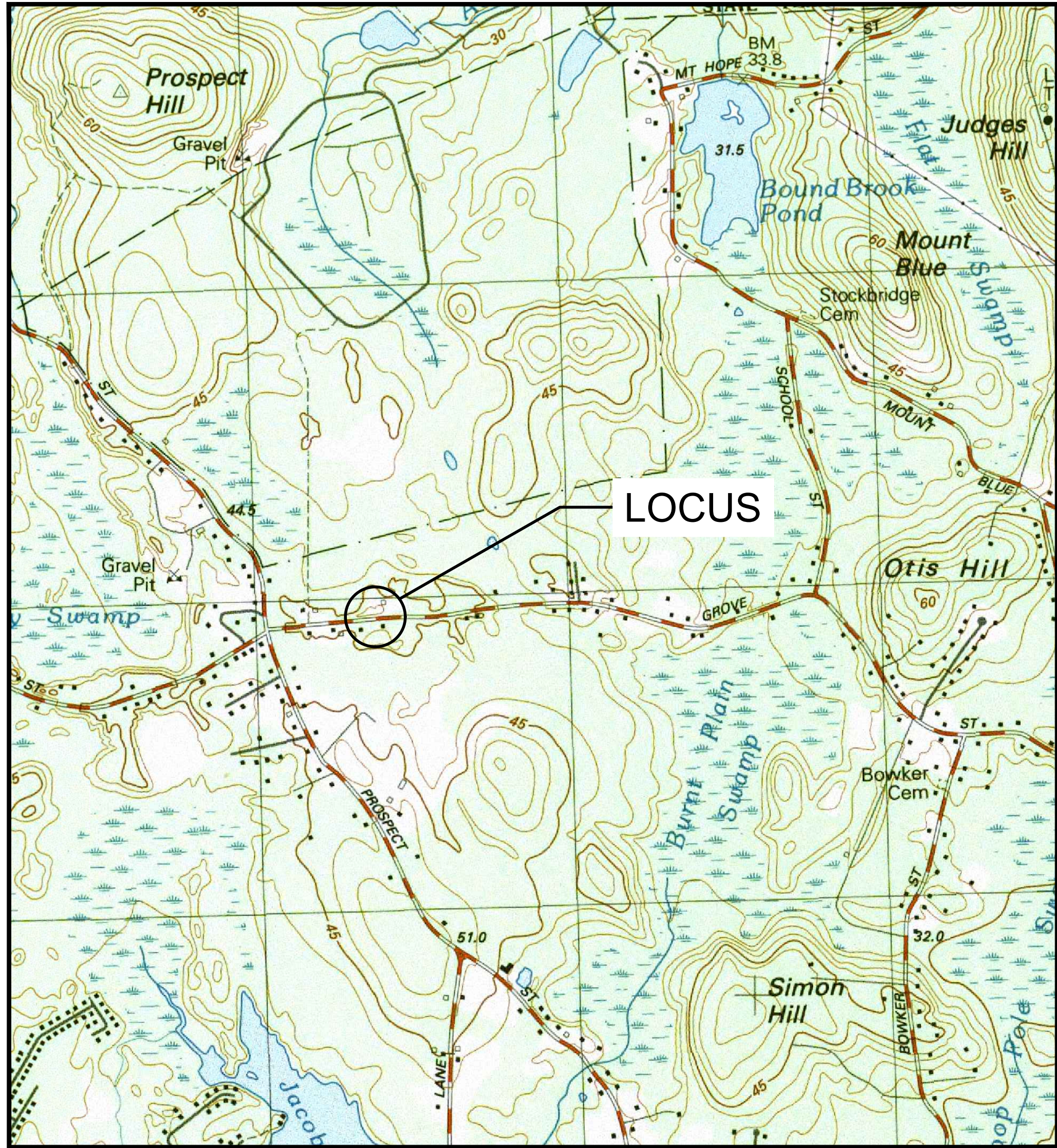
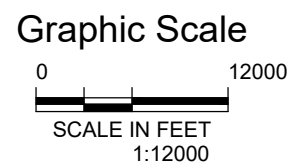
WOMPATUCK STATE PARK PARKING LOT & TRAIL ACCESS NORWELL, MASSACHUSETTS CONSTRUCTION DRAWINGS FEBRUARY 2021



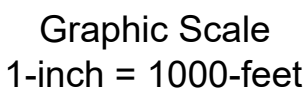
MASSACHUSETTS



TOWN OF NORWELL



VICINITY MAP



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Plan Set:			
WOMPATUCK STATE PARK PARKING LOT & TRAIL ACCESS NORWELL, MASSACHUSETTS			
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Date Issued: FEBRUARY 2021	Registration: 	Revisions	Project Number: 17150
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			Drawing Number: C-1

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GENERAL CONSTRUCTION NOTES

- 1. ALL SITE PREPARATION NECESSARY TO COMPLETE THIS PROJECT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
2. ALL NECESSARY POLICE DETAIL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL COORDINATE WITH THE LOCAL POLICE DEPARTMENT.
3. THE CONTRACTOR SHALL MAKE ALL NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN ALL NECESSARY CONSTRUCTION PERMITS, PAY ALL FEES INCLUDING POLICE DETAILS AND POST ALL BONDS, IF NECESSARY, ASSOCIATED WITH THE SAME, AND COORDINATE WITH THE OWNER AND THE ENGINEER.
4. ALL EXISTING CONDITIONS SHOWN SHALL BE CONSIDERED APPROXIMATE AND ARE BASED ON THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF ANY CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER PRIOR TO INSTALLING ANY PORTION OF THE SITE WORK WHICH WOULD BE AFFECTED.
5. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF VARIOUS UTILITY COMPANIES, AND WHEREVER POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY IN THE TOWN, AND "DIGSAFE" (1-800-344-7233) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK IN PREVIOUSLY UNALTERED AREAS TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RESOLVE CONFLICTS BETWEEN THE PROPOSED UTILITIES AND FIELD-LOCATED UTILITIES AND SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED, INCOMPLETELY OR INACCURATELY SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ACCURATE RECORDS OF THE LOCATION AND DEPTH OF ALL WORK INSTALLED AND EXISTING UTILITIES FOUND DURING CONSTRUCTION FOR THE PREPARATION OF THE AS-BUILT PLAN.
6. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL EXISTING UTILITIES IN WORKING ORDER AND FREE FROM DAMAGE DURING THE ENTIRE DURATION OF THE PROJECT. ALL COST RELATED TO THE REPAIR OF UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. EXCAVATION REQUIRED WITHIN THE PROXIMITY OF EXISTING UTILITY LINES SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT NO COST TO THE OWNER.
7. THE CONTRACTOR SHALL UTILIZE ALL PRECAUTIONS AND MEASURES TO ENSURE THE SAFETY OF THE PUBLIC. ALL PERSONNEL AND PROPERTY DURING CONSTRUCTION IN ACCORDANCE WITH OSHA STANDARDS, INCLUDING BARRICADES, SAFETY LIGHTING, CONES, POLICE DETAIL AND/OR FLAGMEN AS DETERMINED NECESSARY BY THE ENGINEER AND/OR TOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF POLICE DETAIL AND FOR COORDINATING WITH THE LOCAL OR STATE POLICE DEPARTMENT FOR ALL REQUIRED POLICE DETAIL.
8. ALL TRENCHING WORK WITHIN A ROADWAY SHALL BE COORDINATED WITH THE PROPER LOCAL & STATE AGENCY. TRENCH SAFETY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR INCLUDING ANY LOCAL AND/OR STATE PERMITS REQUIRED FOR THE TRENCHWORK. THIS WORK MAY BE REQUIRED TO TAKE PLACE OUTSIDE OF NORMAL HOURS OF OPERATION FOR THE FACILITY. THE CONTRACTOR SHALL PLAN ACCORDINGLY.
9. ALL TRENCH WORK WITHIN EXISTING PAVEMENT SHALL BE SAWCUT PER THE APPLICABLE DETAILS. TRENCHWORK BACKFILL AND COMPACTION SHALL HAVE MAX 8-INCH LIFTS. CONTRACTOR SHALL BE REQUIRED TO REMOVE PATCH AND REPAIR AFTER ONE COMPLETE 12-MONTH CYCLE IF SETTLEMENT OCCURS DUE TO INADEQUATE COMPACTION AS DETERMINED BY THE ENGINEER WITHIN THE WARRANTY PERIOD.
10. THE CONTRACTOR SHALL MAKE ALL CONNECTION ARRANGEMENTS WITH UTILITY COMPANIES, AS REQUIRED.
11. ALL IMPORTED MATERIAL SHALL BE CLEAN. NO MATERIAL WILL BE ACCEPTED FROM AN EXISTING OR FORMER 21E SITE AS DEFINED BY THE MASSACHUSETTS CONTINGENCY PLAN 310 CMR 40.0000.
12. ALL LAYOUT AND CONTROL SETTING TO BE PERFORMED BY A MASSACHUSETTS REGISTERED PROFESSIONAL LAND SURVEYOR. SURVEY WORK SHALL BE COMPLETED IN CONFORMANCE WITH THE PROJECT SPECIFICATIONS.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL CONTROL POINTS AND BENCHMARKS DURING CONSTRUCTION INCLUDING BENCHMARK LOCATIONS AND ELEVATIONS AT CRITICAL AREAS. THE LOCATION OF ALL CONTROL POINTS AND BENCHMARKS SHALL BE COORDINATED WITH THE ENGINEER.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL GRADE STAKES SET BY THE SURVEYOR. GRADE STAKES SHALL REMAIN UNTIL A FINAL INSPECTION OF THE ITEM HAS BEEN COMPLETED BY THE ENGINEER. ANY RE-STAKING OF PREVIOUSLY SURVEYED SITE FEATURES SHALL BE THE RESPONSIBILITY (INCLUDING COST) OF THE CONTRACTOR.
15. UNLESS OTHERWISE SPECIFIED ON THE PLANS AND DETAILS/SPECIFICATIONS, ALL SITE CONSTRUCTION MATERIALS AND METHODOLOGIES ARE TO CONFORM TO THE MOST RECENT VERSION OF THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS (THE MASSACHUSETTS HIGHWAY DEPARTMENT 1988 STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, THE 2002 SUPPLEMENTAL SPECIFICATIONS, AND THE 2005 STANDARD SPECIAL REGULATIONS).
16. CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE LAWS AND REGULATIONS REGARDING NOISE, VIBRATION, DUST, SEDIMENTATION CONTAINMENT, AND TRENCH WORK.
17. SOLID WASTES SHALL BE COLLECTED AND STORED IN A SECURED DUMPSTER. THE DUMPSTER SHALL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS.
18. THE CONTRACTOR SHALL RESTORE ALL SURFACES EQUAL TO THEIR ORIGINAL CONDITION AFTER CONSTRUCTION IS COMPLETE. AREAS NOT DISTURBED BY CONSTRUCTION SHALL BE LEFT NATURAL. THE CONTRACTOR SHALL TAKE CARE TO PREVENT DAMAGE TO SHRUBS, TREES, OTHER LANDSCAPING AND/OR NATURAL FEATURES. WHEREAS THE PLANS DO NOT SHOW ALL LANDSCAPE FEATURES, EXISTING CONDITIONS MUST BE VERIFIED BY THE CONTRACTOR IN ADVANCE OF THE WORK.
19. ALL UNPAVED AREAS DISTURBED BY THE WORK SHALL HAVE A MINIMUM OF 4-INCHES OF LOAM INSTALLED AND BE SEEDED WITH GRASS SEED AS SHOWN ON THE PLAN AND/OR DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING ANY LOAM AND SEEDS UNTIL LAWN GROWTH IS ESTABLISHED AND APPROVED BY THE ENGINEER AND/OR OWNER.
20. ALL PROPOSED STRUCTURES SHALL BE DESIGNED BY THEIR MANUFACTURERS FOR AASHTO H-20 LOADING. PRECAST CONCRETE SHALL HAVE A MINIMUM 28-DAY STRENGTH OF 4000 PSI UNLESS OTHERWISE NOTED HEREIN.
21. ALL WHEELCHAIR RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS AND CONSTRUCTION AND TRAFFIC STANDARD DETAILS (1996) DRAWING NUMBER 107.1.0 AND 107.2.0. RAMPS SHALL HAVE AN 8.3% MAX. SLOPE AND 2% CROSS SLOPE.
22. A HIGH WATER TABLE IS ANTICIPATED. IF THE WATER TABLE IS ENCOUNTERED DURING EXCAVATION, THE WATER TABLE SHALL BE TEMPORARILY LOWERED BY PUMPING. THE CONTRACTOR SHALL INSTALL A DEWATERING BASIN AS SHOWN IN THE DEWATERING BASIN DETAIL AND PROVIDE A DEWATERING PLAN DEPICTING PROPOSED DEWATERING LOCATION. THE PUMP DISCHARGE SHALL BE DIRECTED TO THIS BASIN TO PREVENT SEDIMENTS FROM LEAVING THE CONSTRUCTION AREA. THE CONTRACTOR SHALL INSTALL ADDITIONAL BASINS IF REQUIRED. INSTALL THE BASIN AS SHOWN ON THE SITE PLAN IF SO NOTED, OTHERWISE INSTALL THE BASIN(S) WITHIN THE LIMIT OF DISTURBANCE AS SHOWN BY THE SEDIMENTATION (SILT) SOCK OR STABWALS.
23. LEDGE OR BOLDER EXCAVATION IS NOT ANTICIPATED FOR THIS SITE. HOWEVER, THE CONTRACTOR SHALL PROVIDE A UNIT PRICE COST IN CUBIC YARD MEASURE FOR LEDGE AND/OR BOLDER REMOVAL. LEDGE AND/OR BOLDERS LESS THAN 1 CUBIC YARD IN SIZE BASED ON THE AVERAGE DIMENSIONS WILL NOT BE CONSIDERED PAYABLE ROCK. UNIT PRICE SHALL BE GIVEN FOR BOTH ON AND OFF SITE DISPOSAL. COST OF REPLACEMENT MATERIAL SHALL BE INCLUDED IF ADDITIONAL FILL MATERIAL IS REQUIRED.
24. THE CONTRACTOR SHALL REGULARLY INSPECT THE PERIMETER OF THE PROPERTY TO CLEAN UP AND REMOVE LOOSE CONSTRUCTION DEBRIS BEFORE IT LEAVES THE SITE. ALL DEMOLITION DEBRIS SHALL BE PROMPTLY REMOVED FROM THE SITE TO AN APPROVED DUMP SITE. ALL TRUCKS LEAVING THE SITE SHALL BE COVERED.
25. CONCRETE TRUCKS SHALL NOT BE WASHED ON-SITE. ANY CEMENT OR CONCRETE DEBRIS LEFT IN THE DISTURBED AREA SHALL BE REMOVED BY HAND AT THE CONTRACTOR'S EXPENSE.
26. BURIAL OF ANY STUMPS, SOLID DEBRIS, AND/OR STONES/BOLDERS ON-SITE IS PROHIBITED. NO ROAD SALT OR OTHER DE-ICING CHEMICALS SHALL BE USED ON THE ACCESS ROADWAY.
27. IF ANY DEVIATION OR ALTERATION OF THE WORK PROPOSED ON THESE DRAWINGS IS REQUIRED, THE CONTRACTOR IS TO IMMEDIATELY CONTACT AND COORDINATE WITH THE ENGINEER AND OWNER.
28. AT THE END OF CONSTRUCTION, THE CONTRACTOR SHALL REMOVE ALL CONSTRUCTION DEBRIS AND SURPLUS MATERIALS FROM THE SITE. A THOROUGH INSPECTION OF THE WORK PERMITTER IS TO BE MADE AND ALL DISCARDED MATERIALS, BLOWN OR WATER CARRIED DEBRIS, SHALL BE COLLECTED, AND REMOVED FROM THE SITE.

GENERAL GRADING AND DRAINAGE NOTES

- 1. ALL CUT AND FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.
2. CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
3. PROPOSED ELEVATIONS ARE SHOWN TO FINISH PAVEMENT OR GRADE UNLESS NOTED OTHERWISE.
4. ALL EARTHWORK AND SITE PREPARATION SHALL BE DONE IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS OF ANY SUBSURFACE INVESTIGATION OR GEOTECHNICAL REPORTS PREPARED FOR THIS SITE.
5. DRAINAGE PIPING SHALL BE HIGH DENSITY POLYETHYLENE PIPE AND CONFORM TO AASHTO M294 CORRUGATED POLYETHYLENE PIPE. PIPE SHALL BE INSTALLED AT THE LOCATIONS INDICATED ON THE PLAN. MINIMUM CLEARANCE BETWEEN PROPOSED DRAINAGE PIPING AND OTHER UTILITIES/STRUCTURES SHALL BE 18" VERTICALLY AND 4'-0" HORIZONTALLY. CPP SHALL BE CAREFULLY BACKFILLED IN ACCORDANCE WITH THE LATEST MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS.
6. BACKFILL ADJACENT TO PIPES AND STRUCTURES SHALL BE OF THE TYPE AND QUALITY CONFORMING TO THAT SPECIFIED FOR THE ADJOINING FILL MATERIAL. BACKFILL SHALL BE PLACED IN HORIZONTAL LAYERS NOT TO EXCEED SIX INCHES IN THICKNESS AND COMPACTED TO A DENSITY OF 95% OF MAXIMUM DRY DENSITY WITH A MOISTURE CONTENT WITHIN +/- 2% OF OPTIMUM. ALL COMPACTION IS TO BE DETERMINED BY AASHTO METHOD T-99. TESTING OF BACKFILL MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. ALL DRAINAGE STRUCTURES AND PIPES MUST BE CONNECTED TO THE DRAINAGE SYSTEM PRIOR TO THE INSTALLATION OF ANY PAVEMENT. PAVEMENT WILL NOT BE OVER THE DRAINAGE SYSTEM FOR THE PROPOSED PAVED AREA IS NOT COMPLETELY AND PROPERLY INSTALLED. THIS INCLUDES THE STABILIZATION OF ALL DISTURBED AREAS CONTRIBUTING TO THE DRAINAGE SYSTEMS AND ANY STORMWATER BASIN FLOORS AND SIDE SLOPES.

BASIC CONSTRUCTION SEQUENCE

- 1. SURVEY AND STAKE THE PROPOSED LIMIT OF DISTURBANCE AND LIMIT OF SEDIMENTATION BARRIERS.
2. PLACE SEDIMENTATION BARRIERS (SILT SOCK OR EQUAL) AS SHOWN ON THE PLANS AND STAKED OUT IN THE FIELD. IN NO CASE IS THE LIMIT OF WORK TO EXTEND BEYOND THE SEDIMENTATION BARRIERS/LIMIT OF DISTURBANCE AS SHOWN ON THE PROJECT PLANS AS APPROVED BY THE LOCAL CONSERVATION COMMISSION AND THE DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP).
3. BEGIN CLEARING THE SITE AS REQUIRED.
4. SURVEY AND STAKE CENTERLINE OF THE PROPOSED ACCESS WAYS.
5. EXCAVATE AND ROUGH GRADE THE PROPOSED TEMPORARY BASINS NECESSARY TO CONTROL SITE RUNOFF AND SEDIMENTS.
6. BEGIN CLEARING AND GRUBBING IN AREA OF WORK. TOPSOIL IS TO BE STRIPPED FROM THE AREA OF THE PROPOSED WORK AND STOCKPILED IN APPROVED LOCATIONS OR REMOVED FROM THE SITE. TOPSOIL STOCKPILES ARE TO BE PROTECTED BY A SEDIMENT BARRIER.
7. INSTALL TEMPORARY CONVEYANCE DEVICES (SWALES, CHECK DAMS, PIPES, ETC.) AS NECESSARY TO CONVEY RUNOFF TO TREATMENT AREAS.
8. BEGIN ROUGH GRADING AS NECESSARY FOR PAVED AREAS. BRING ROUGH GRADING TO PROPER ELEVATIONS AS SOON AS PRACTICABLE. WORK SHALL PROGRESS DILIGENTLY TO MINIMIZE TIME SOILS ARE UN-STABILIZED.
9. INSTALL DRAINAGE PIPES, DRAINAGE INLETS, WORK SHALL BEGIN AT THE DRAINAGE BASIN AND PROGRESS UP-GRADE. PROTECT DISCHARGE OUTLETS WITH RIP-RAP APRONS. THE DRAINAGE BASIN(S) AND DRAINAGE NETWORK ARE TO BE PROTECTED FROM SEDIMENTATION WITH SILT SOCK UNTIL ALL UN-STABILIZED AREAS ARE STABILIZED WITH STONE SUB-BASE OR VEGETATION. INSTALL SEDIMENT BARRIERS AT ALL POINTS OF ENTRY INTO THE DRAINAGE NETWORK. PARTICULAR CARE SHALL BE TAKEN TO PROTECT THE UNDERGROUND DRAINAGE BASINS FROM SEDIMENT.
10. PERMANENTLY SEED ALL DISTURBED AREAS OUTSIDE OF THE AREA TO BE PAVED.
11. ONCE ALL UNDERGROUND UTILITIES HAVE BEEN CONSTRUCTED, PLACE COMPACTED GRAVEL FOUNDATION AND FINE GRADE THE TRAVEL AREAS IN ACCORDANCE WITH THE SITE PLANS AND IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL REGULATIONS AS SOON AS POSSIBLE. CONSTRUCTION SHALL BE PER SITE PLANS AND IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL REGULATIONS.
12. FINISH PERMANENT STABILIZATION. SWEEP THE PAVED SURFACES TO REMOVE ALL SEDIMENTS. REPAIR DRAINAGE OUTLETS AND BASINS AS REQUIRED. THE CONTRACTOR SHALL CLEAN AND FLUSH THE DRAINAGE STRUCTURES AND PIPES AT THE END OF CONSTRUCTION AND ALL ACCUMULATED SEDIMENTS IN THE DRAINAGE BASINS SHALL BE REMOVED. CONTRACTOR SHALL INSPECT THE DRAINAGE NETWORK AND REPAIR ANY DAMAGE IMMEDIATELY.
13. COMPLETE ALL REMAINING PLANTING AND SEEDING.
14. REMOVAL OF ALL TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES FOLLOWING VEGETATIVE ESTABLISHMENT OF ALL DISTURBED AREAS. ESTABLISHMENT TO BE APPROVED BY THE ENGINEER WHEN THE CONTRIBUTING AREA HAS REACHED A MINIMUM OF 80% STABILIZATION.

EROSION & SEDIMENT CONTROL NOTES

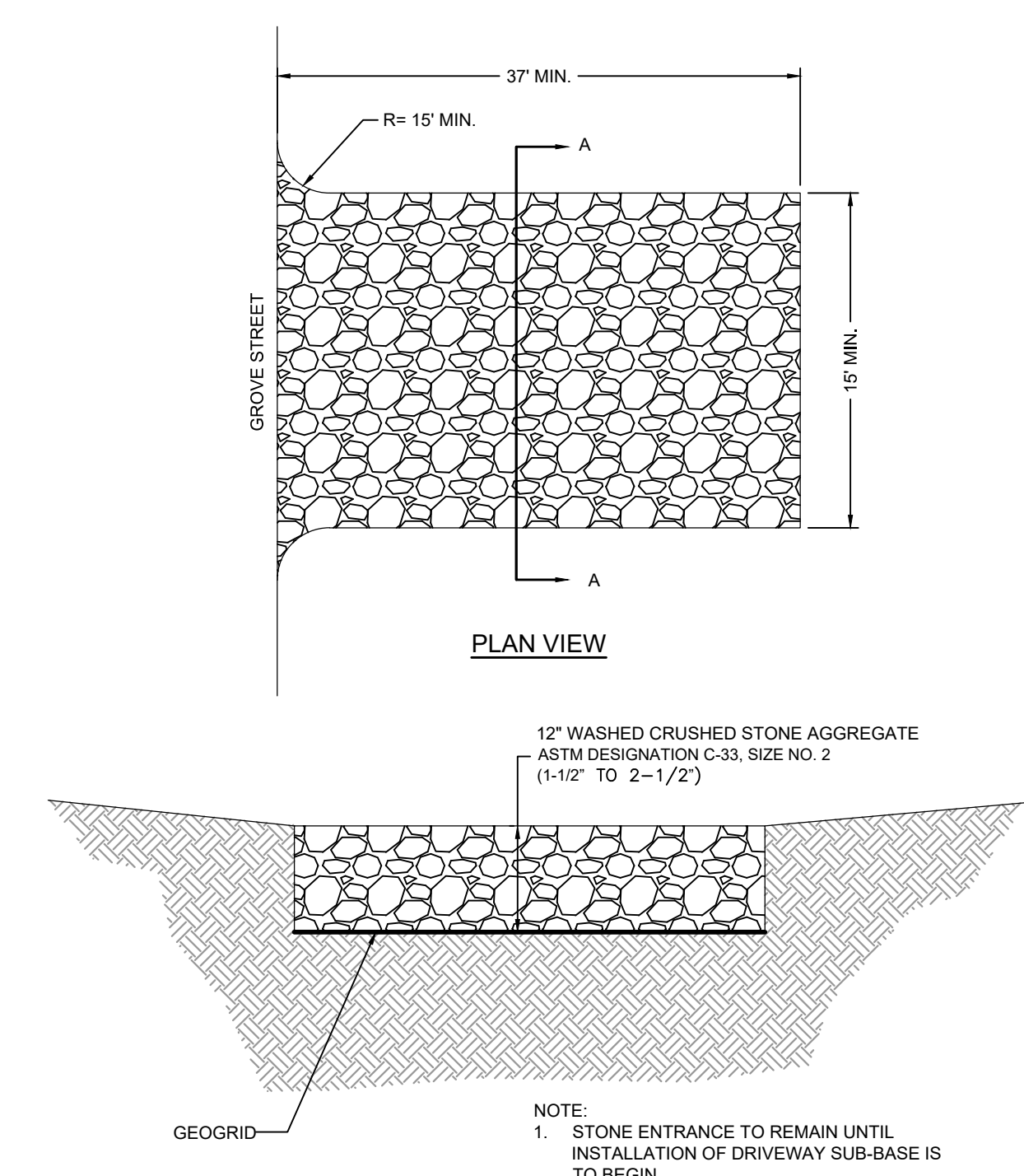
- 1. PRIOR TO THE START OF CONSTRUCTION A NOTICE OF INTENT (NOI) MUST BE FILED FOR A CONSTRUCTION SITE GENERAL PERMIT WITH THE U.S. EPA. THE CONTRACTOR SHOULD REFER TO THE STORMWATER AND POLLUTION PREVENTION PLAN (SWPPP) REGARDING ALL EROSION CONTROL MATTERS AND SHALL MAINTAIN A WORKING COPY ON-SITE AT ALL TIMES. THE CONTRACTOR SHALL FOLLOW THE SWPPP PROTOCOL FOR SITE MAINTENANCE, INSPECTIONS AND PROPER DOCUMENTATION UNTIL THE SITE HAS BEEN ACCEPTED BY THE OWNER. AT THE COMPLETION OF THE PROJECT A NOTICE OF TERMINATION WILL NEED TO BE FILED BY THE CONTRACTOR OR OWNER. IN ACCORDANCE WITH THE COMPLETED SWPPP, WHICH SHALL INCLUDE ALL OF THE SITE EROSION CONTROL DOCUMENTATION, WEEKLY EROSION INSPECTION REPORTS COMPLETED BY THE DESIGNATED SITE PERSONNEL, AND ANY OTHER PERTINENT SITE DOCUMENTATION MUST BE RETAINED FOR A MINIMUM OF 3 YEARS FROM THE DATE OF TERMINATION.
2. THE SITE CONSTRUCTION FOREMAN SHALL BE DESIGNATED AS THE ON-SITE PERSONNEL RESPONSIBLE FOR THE DAILY INSPECTION AND MAINTENANCE OF ALL SEDIMENT AND EROSION CONTROLS AND SHALL IMPLEMENT ALL NECESSARY MEASURES TO CONTROL EROSION AND PREVENT SEDIMENT FROM LEAVING THE SITE.
3. THE CONTRACTOR SHALL INSTALL ALL SEDIMENT AND EROSION CONTROL MEASURES AS SHOWN ON THE DESIGN PLANS IN CONSULTATION WITH THE CONSERVATION AGENT, AND AS DETERMINED NECESSARY IN THE FIELD BY THE ENGINEER BEFORE ANY CONSTRUCTION ACTIVITIES ARE TO BEGIN. THESE MEASURES SHALL BE CHECKED, MAINTAINED/REPLACED AS NECESSARY DURING THE ENTIRE CONSTRUCTION PERIOD OF THE PROJECT. SUCH MEASURES SHALL REPRESENT THE LIMIT OF WORK. WORKERS SHALL BE INFORMED THAT NO CONSTRUCTION ACTIVITY IS TO OCCUR BEYOND THE LIMIT OF WORK AT ANY TIME THROUGH THE CONSTRUCTION PERIOD.
4. A MINIMUM SURPLUS OF 50-FEET OF EROSION CONTROL BARRIER (SILT SOCK OR EQUAL) SHALL BE STOCKPILED ON-SITE AT ALL TIMES.
5. THE CONTRACTOR SHALL PROTECT THE ADJACENT RESOURCE AREA FROM SEDIMENTATION DURING PROJECT CONSTRUCTION UNTIL ACCEPTANCE BY THE OWNER & IN CONFORMANCE WITH THE ORDER OF CONDITIONS.
6. THE LIMIT OF ALL CLEARING, GRADING AND DISTURBANCES SHALL BE KEPT TO A MINIMUM WITHIN THE PROPOSED AREA OF CONSTRUCTION. THE CONTRACTOR SHALL PHASE THE SITE WORK IN A MANNER TO MINIMIZE AREAS OF EXPOSED SOIL. IF TREES ARE TO BE CUT ON THE ENTIRE SITE, ONLY THOSE AREAS WHICH ARE ACTIVELY UNDER CONSTRUCTION SHALL BE GRUBBED. THE REQUIRED SEDIMENTATION CONTROL FACILITIES MUST BE PROPERLY ESTABLISHED, CLEARLY VISIBLE AND IN OPERATION PRIOR TO INITIATING ANY LAND CLEARING ACTIVITY AND/OR OTHER CONSTRUCTION RELATED WORK.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MONITOR LOCAL WEATHER REPORTS DURING CONSTRUCTION AND PRIOR TO SCHEDULING EARTHMOVING OR OTHER CONSTRUCTION ACTIVITIES WHICH WILL LEAVE LARGE DISTURBED AREAS UNSTABILIZED. IF INCLEMENT WEATHER IS PREDICTED, THE CONTRACTOR SHALL USE THEIR BEST PROFESSIONAL JUDGEMENT WHEN SCHEDULING CONSTRUCTION ACTIVITIES AND SHALL BE RESPONSIBLE FOR ENSURING THE NECESSARY EROSION CONTROL DEVICES ARE INSTALLED AND FUNCTIONING PROPERLY TO MINIMIZE EROSION FROM ANY IMPENDING WEATHER EVENTS.
8. SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED ON A WEEKLY BASIS AND AFTER EACH RAINFALL EVENT OF 0.25 INCH OR GREATER DURING CONSTRUCTION TO ENSURE THAT THE EROSION AND SEDIMENTATION CONTROL MEASURES ARE INTACT AND FUNCTIONING PROPERLY. IDENTIFIED DEFICIENCIES SHALL BE CORRECTED IMMEDIATELY NO LATER THAN 24 HOURS AFTER IDENTIFICATION.
9. SOIL STOCKPILES LEFT OVERNIGHT SHALL BE SURROUNDED ON THEIR PERIMETERS WITH EROSION CONTROL BARRIER, AS DETERMINED NECESSARY.
10. DISTURBED AREAS AND SLOPES SHALL NOT BE LEFT UNATTENDED OR EXPOSED FOR EXCESSIVE PERIODS OF TIME SUCH AS THE INACTIVE WINTER SEASON. THE CONTRACTOR SHOULD PROVIDE APPROPRIATE STABILIZATION PRACTICES ON ALL DISTURBED AREAS AS SOON AS POSSIBLE BUT NOT MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY AREAS HAVING A SLOPE GREATER THAN 4:1 SHALL BE REINFORCED WITH EROSION BLANKETS (AS APPROVED BY THE ENGINEER) UNTIL THE SITE IS PROPERLY STABILIZED. TEMPORARY SWALES MAY ALSO BE REQUIRED IF DETERMINED NECESSARY IN THE FIELD BY THE ENGINEER.
11. THE CONTRACTOR SHALL INSTALL A SILT SACK OR APPROVED EQUIVALENT IN EACH EXISTING CATCH-BASIN RECEIVING RUNOFF FROM THE PROJECT WORK SITE. UPON THE INSTALLATION OF ANY PROPOSED CATCH BASINS, THE CONTRACTOR SHALL INSTALL A SILT SACK OR APPROVED EQUIVALENT. THESE ARE TO BE INSPECTED AFTER EACH SIGNIFICANT STORM EVENT AND REMOVED AND EMPLOYED AS NEEEDED DURING THE ENTIRE CONSTRUCTION PERIOD.
12. THE CONTRACTOR SHALL CONTAIN ALL SEDIMENT ON-SITE. CONSTRUCTION ENTRANCES SHALL BE INSTALLED IN THE LOCATIONS SHOWN IN THE DRAWINGS. ALL EXITS FROM THE SITE WILL BE SWEEP AS NECESSARY INCLUDING ANY SEDIMENT TRACKING. PAVED AREAS SHALL BE SWEEP AS NEEDED TO REMOVE SEDIMENT AND POTENTIAL POLLUTANTS WHICH MAY ACCUMULATE DURING SITE WORK.
13. ACCUMULATED SEDIMENT SHALL BE REMOVED FROM ALL TEMPORARY PRACTICES AND DISPOSED OF IN A PRE-APPROVED LOCATION BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.
14. THE CONTRACTOR SHALL PROVIDE ON-SITE OR MAKE READILY AVAILABLE THE NECESSARY EQUIPMENT AND SITE PERSONNEL DURING CONSTRUCTION HOURS FOR THE DURATION OF THE PROJECT TO ENSURE ALL EROSION AND SEDIMENTATION CONTROL DEVICES ARE PROPERLY MAINTAINED AND REPAIRED IN A TIMELY AND RESPONSIBLE MANNER. IF SITE WORK IS SUSPENDED DURING THE WINTER MONTHS THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE PERSONNEL AND EQUIPMENT EITHER ON-SITE OR MAKE READILY AVAILABLE TO ENSURE ALL EROSION AND SEDIMENTATION CONTROL DEVICES ARE PROPERLY MAINTAINED AND REPAIRED IN A TIMELY AND RESPONSIBLE MANNER.
15. PROPER MEASURES SHALL BE IMPLEMENTED BY THE CONTRACTOR DURING DEWATERING OPERATIONS. THESE MEASURES SHALL INCLUDE DEWATERING BAGS, TEMPORARY STRAWBALES, SILT FENCES, SILT SOCKS AND/OR OTHER APPROVED DEVICES. THE DEWATERING SETUP SHALL BE APPROVED BY THE ENGINEER.
16. DUST SHALL BE CONTROLLED BY WATERING OR OTHER APPROVED METHODS AS NECESSARY, OR AS DIRECTED BY THE ENGINEER AT NO EXTRA COST TO THE OWNER.
17. THE CONTRACTOR IS RESPONSIBLE FOR THE INSPECTION AND MAINTENANCE DURING CONSTRUCTION OF ALL STORMWATER FACILITIES INSTALLED OR AFFECTED BY THE PROJECT. ANY SEDIMENT OR DEBRIS COLLECTED WITHIN THESE FACILITIES FROM THE PROJECT WORK SHALL BE REMOVED PRIOR TO THE OWNER'S ACCEPTANCE.

STORMWATER FACILITY OPERATION & MAINTENANCE:

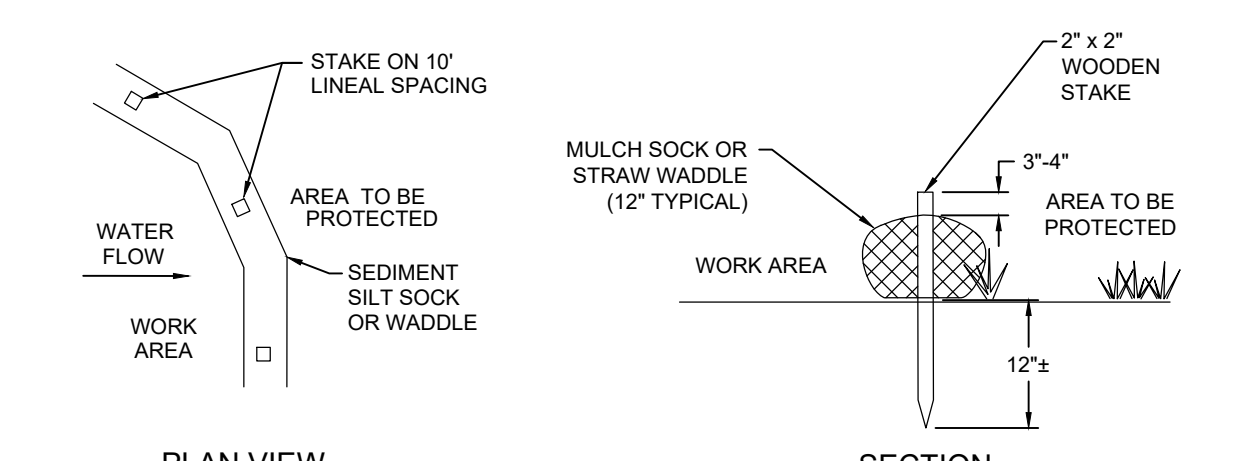
- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSPECTION AND MAINTENANCE OF ALL STORMWATER MANAGEMENT FACILITIES UNTIL SUCH TIME THAT THE PROJECT WORK AND ASSOCIATED UTILITIES ARE ACCEPTED BY THE OWNER AND THE ENGINEER.
2. THE CONTRACTOR SHALL INSPECT AND RESTORE/CLEAN ALL FACILITIES (INLETS, MANHOLES, BASINS, ETC.) OF SEDIMENT AND DEBRIS PRIOR TO THE OWNER'S ACCEPTANCE.
3. ALL SEDIMENT AND DEBRIS SHALL BE DISPOSED OF PROPERLY IN A PRE-APPROVED LOCATION AS APPROVED BY THE TOWN.
4. THE CONTRACTOR SHALL REFER TO OPERATION AND MAINTENANCE (O&M) PLAN FOR ADDITIONAL INFORMATION PERTAINING TO STORMWATER FACILITY OPERATION AND MAINTENANCE REQUIREMENTS.
5. ALL STORMWATER FACILITIES SHALL BE INSPECTED BY THE CONTRACTOR AFTER EVERY MAJOR RAINFALL EVENT FOR THE ENTIRE DURATION OF THE CONSTRUCTION PROJECT AND THE FIRST 3 MONTHS AFTER CONSTRUCTION TO ENSURE PROPER STABILIZATION AND CONSTRUCTION.
6. SPECIFIC ANNUAL MAINTENANCE SHALL BE AS FOLLOWS:
A. DRAINAGE STRUCTURES (INLETS, MANHOLES & CATCHBASINS): ALL DRAINAGE STRUCTURES WILL BE INSPECTED ANNUALLY TO MONITOR FOR PROPER OPERATION, COLLECTION OF LITTER OR TRASH, AND STRUCTURAL DETERIORATION. THE BASINS WILL BE CLEANED OF SEDIMENT (INCLUDING SUMP) AS NECESSARY, AND REPAIRED WHEN REQUIRED.
B. RIP-RAP SLOPE PROTECTION: RIP RAP AT THE OUTFALLS WILL BE INSPECTED ANNUALLY AND REPAIRED AS NECESSARY.
C. SEDIMENT FOREBAY: THE SEDIMENT FOREBAY(S) WILL BE INSPECTED ANNUALLY TO ENSURE PROPER FUNCTIONING. THE SEDIMENT BUILD-UP ON THE FLOOR OF THE FOREBAY WILL BE REMOVED AND PROPERLY DISPOSED OF APPROXIMATELY ONCE EVERY FIVE TO SEVEN YEARS, OR MORE OFTEN AS NECESSARY TO LIMIT SEDIMENT BUILDUP TO LESS THAN 50 PERCENT OF THE DESIGN VOLUME.
D. BIORETENTIONS AND INFILTRATION BASINS: MONITOR AND REGULARLY INSPECT TO ENSURE PROPER FUNCTION. PRIOR TO THE COMPLETION OF CONSTRUCTION REMOVE AND REPLACE IL-ESTABLISHED, DEAD, OR SEVERELY DISEASED PLANTS, REMOVE SEDIMENT BUILD-UP AS NEEDED, AND REPLACE SOIL WHEN NECESSARY.
E. ROUTINE MAINTENANCE: OTHER ROUTINE MAINTENANCE WILL INCLUDE REMOVAL OF TRASH AND LITTER FROM PAVED AND PERIMETER AREAS, AND ANNUAL STREET AND PARKING LOT SWEEPING AFTER THE SPRING THAW TO AVOID EXCESSIVE ACCUMULATION OF SEDIMENT IN THE DRAINAGE SYSTEM. THE PIPES DRAINING THE PROJECT WILL BE INSPECTED ANNUALLY FOR PROPER FLOW.

LEGEND:

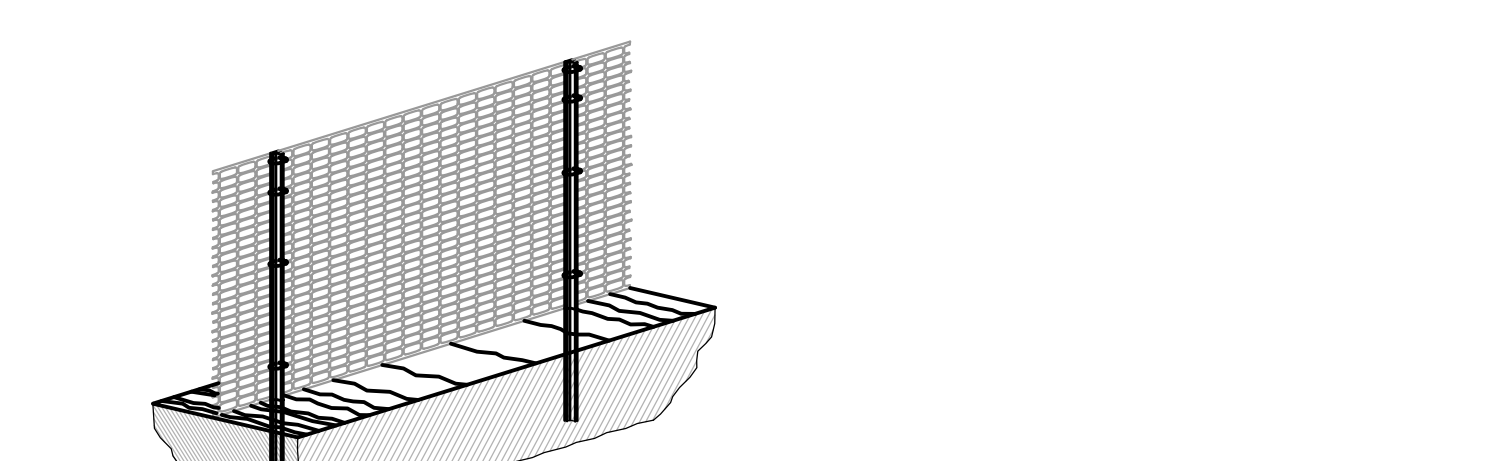
Table with 2 columns: GENERAL and SYMBOLS. Lists various symbols and their corresponding descriptions for construction elements like BERM, BENCHMARK, BUILDING, CENTERLINE, etc.



SECTION A-A
STONE CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE



SILT SOCK DETAIL
NOT TO SCALE



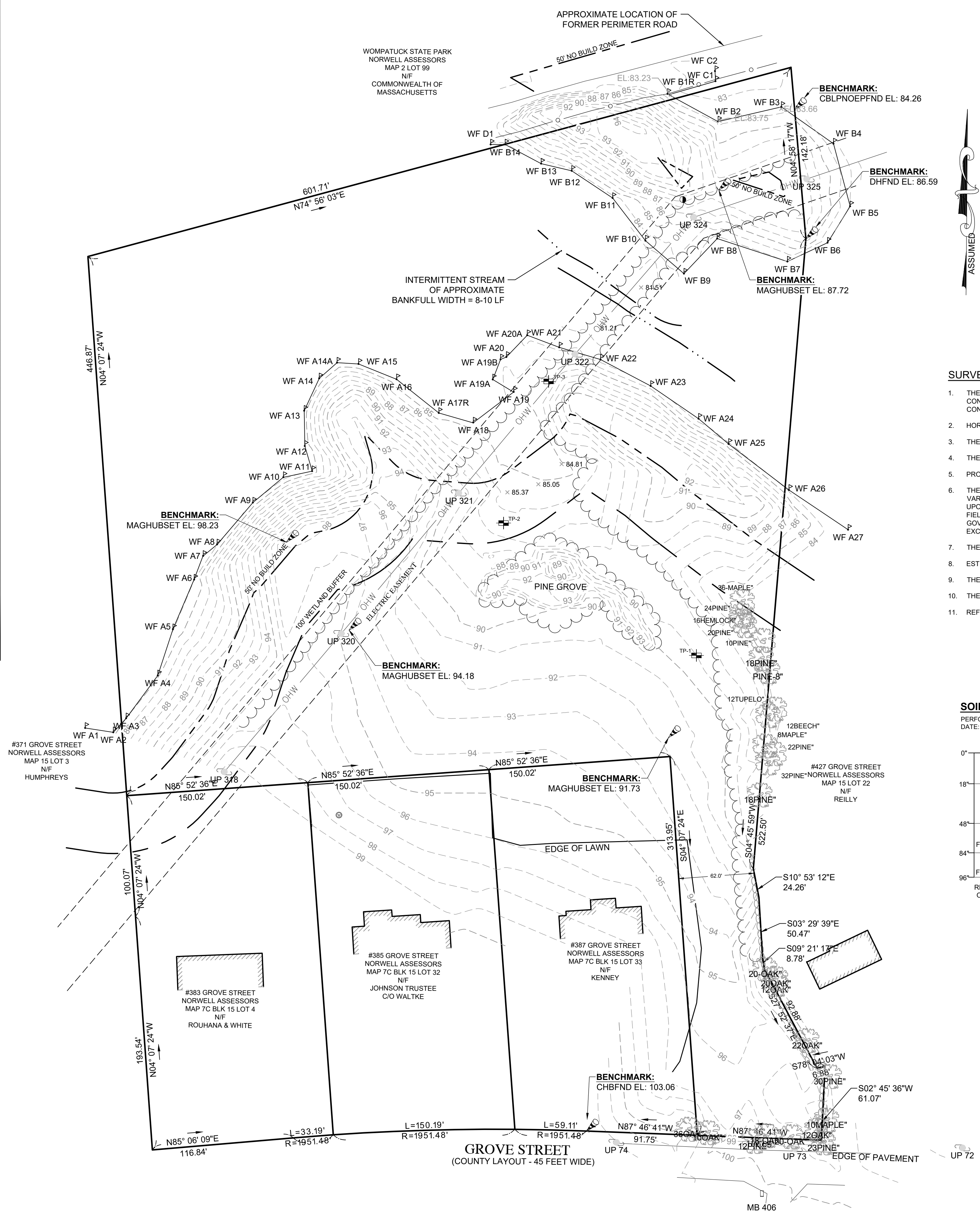
TEMPORARY CONSTRUCTION FENCE
NOT TO SCALE

Project information block including: Revisions table, Horsley Witten Group, Inc. logo and contact info, Wompatuck State Park Parking Lot & Trail Access Norwell, Massachusetts, Town of Norwell Planning Department contact info, Survey provided by Horsley Witten Group, Inc., Registration stamp, and Project/Sheet numbers (17150, 2 of 10) and Sheet number (C-2).

last modified: 02/15/21 by gg H:\Projects\2017\17150 Norwell Wompatuck Park\Drawings\17150 EX.dwg

EXISTING LEGEND:	
GENERAL	SYMBOLS
	BUILDING
	CONTOUR - MINOR
	CONTOUR - MAJOR
	EDGE OF PAVEMENT
	TREE LINE
	ABUTTING LOT
	EASEMENT LINE
	PROPERTY, LOT, OR ROW
ENVIRONMENTAL	
	WETLAND BOUNDARY
	WETLAND 50 BUFFER
	WETLAND 100 BUFFER
	RIVERFRONT BOUNDARY

PROPOSED LEGEND:	
GENERAL	SYMBOLS
	CONTOUR - MINOR
	CONTOUR - MAJOR
	CROSSWALK/PAVEMENT STRIPING
	EDGE OF GRAVEL
	FENCE - CHAIN LINK
	FENCE - WOOD
	LIMIT OF WORK
	PATHWAY
	PARKING BARRIER
	STORMWATER AREA
	TREE LINE
	VEGETATED SWALE
UTILITIES	
	DRAIN PIPE
EROSION & SEDIMENT CONTROL	
	SILT SOCK



SURVEY NOTES

- THE TOPOGRAPHY AND EXISTING SITE CONDITIONS DEPICTED HEREON ARE THE RESULT OF AN ON THE GROUND FIELD SURVEY CONDUCTED BY THE HORSLEY WITTEN GROUP, INC. DECEMBER 1, 2017 & JANUARY 22, 2020 AND SHOWN ON THE PLAN ENTITLED "EXISTING CONDITIONS", STAMPED BY DAN MACKENZIE, P.L.S. ON JULY 6TH, 2020.
- HORIZONTAL DATUM IS ASSUMED.
- THE ELEVATIONS DEPICTED HEREON WERE BASED ON AN ASSUMED DATUM.
- THE PROPERTY LINES AND RIGHTS OF WAYS DEPICTED HAVE BEEN ESTABLISHED BY FIELD SURVEY AND DEEDS AND PLANS OF RECORD.
- PROPERTY LINES FOR ABUTTING PROPERTY OWNERS ARE APPROXIMATE ONLY.
- THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF VARIOUS UTILITY COMPANIES, AND WHEREVER POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD PRIOR TO THE START OF ANY CONSTRUCTION. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY IN THE TOWN OF NORWELL AND "DIGSAFE" (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK IN PREVIOUSLY UNALTERED AREAS TO REQUEST EXACT FIELD LOCATION OF UTILITIES.
- THE PROPERTY IS LOCATED WITHIN F.I.R.M ZONE X AS SHOWN ON COMMUNITY PANEL NO. 250230C0111J DATED JULY 17, 2012.
- ESTIMATED RARE WILDLIFE/PRIORITY RARE SPECIES HABITAT LINE TAKEN FROM THE LATEST MASS GIS INFORMATION.
- THE PROPERTY IS LOCATED IN A WATER RESOURCES PROTECTION DISTRICT, A WATER SUPPLY DISTRICT AND A PUBLIC WATERSHED.
- THE WETLAND DELINEATION SHOWN HEREON WAS CONDUCTED BY THE HORSLEY WITTEN GROUP, INC. ON NOVEMBER 16, 2017.
- REFERENCE PLANS: PLYMOUTH COUNTY REGISTRY OF DEEDS
 - COUNTY COMMISSIONERS LAYOUT OF GROVE STREET BOOK 35 PAGE 2711
 - PLAN BOOK 23 PAGE 945
 - PLAN BOOK 19 PAGE 216
 - PLAN BOOK 58 PAGE 90

SOIL TEST PIT DATA

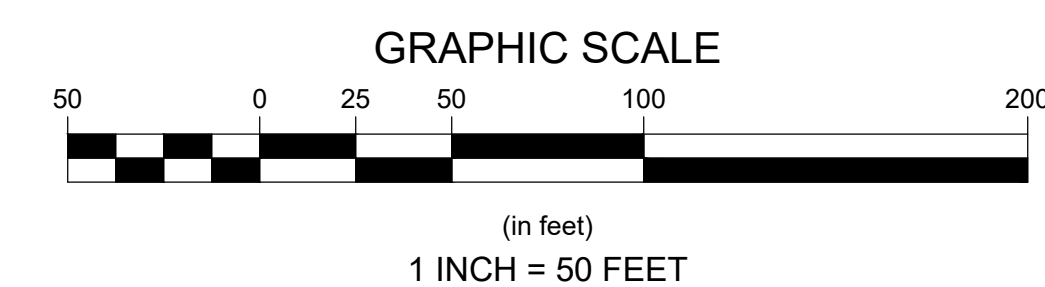
PERFORMED BY: M. LEHMAN, HORSLEY WITTEN GROUP, INC.
DATE: MAY 4, 2018.

TP-1		TP-2		TP-3	
0"	BW1	0"	A	0"	BC
18"	10YR 3/3 SANDY LOAM	8"	10YR 3/3 FINE LOAMY SAND	40"	10YR 6/3 FINE SAND
36"	BW2	16"	B		
54"	10 YR 4/3 SANDY LOAM	24"	10 YR 3/4 FINE LOAMY SAND		
72"	BC	32"	C1		
90"	10 YR 3/2 FINE SANDY LOAM	40"	5 YR 5/3 SILT LOAM		
		48"	C2		
		56"	10 YR 4/2 LAOMY SAND		
		64"	10 YR 5/1 FINE SANDY LOAM		
		72"			
		80"			
		88"			
		96"			

RE-DOX FEATURES OBSERVED AT 50" ESHGW EL: 84.8

RE-DOX FEATURES OBSERVED AT 24" ESHGW EL: 84.5

STANDING GROUNDWATER @ 40"



Revisions

No.	Date	By	Appr.	Description
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Horsley Witten Group, Inc.
Sustainable Environmental Solutions
90 Route 6A
Sandwich, MA 02563
508-833-6600 voice
508-833-3150 fax

Checked By: DWM
Designed By: DWM
Date: FEBRUARY 2021

**WOMPATUCK STATE PARK
PARKING LOT & TRAIL ACCESS
NORWELL, MASSACHUSETTS**

Plan Title: EXISTING CONDITIONS

Prepared For:
**Town of Norwell
Planning Department**
345 Main Street
Norwell, MA 02061
Phone: (781) 659-8021
Fax: ---

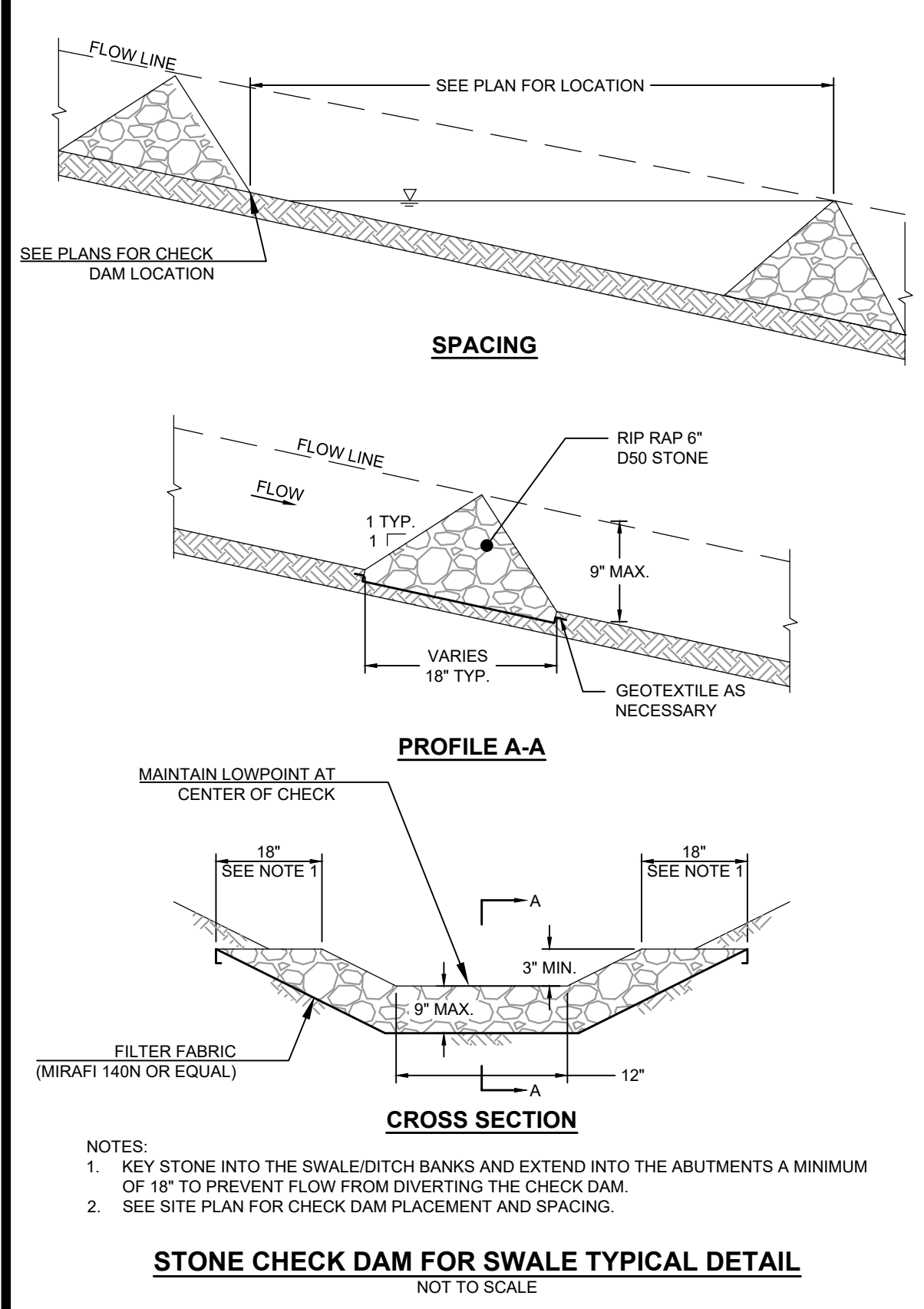
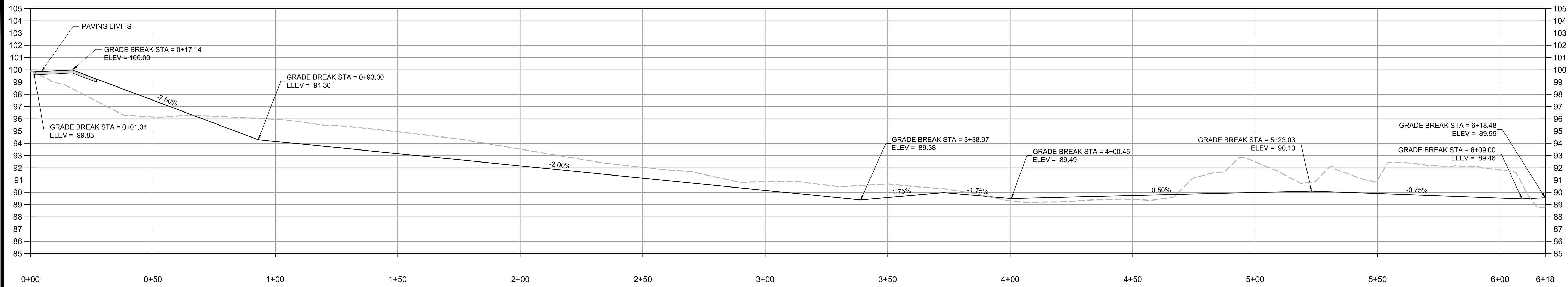
Survey Provided By:
Horsley Witten Group, Inc.
90 Route 6A
Sandwich, MA 02563
Phone: (508) 833-6600
Fax: (508) 833-3150
Dated: December 1, 2017

Registration:
RICHARD A. CLAYTOR
CIVIL
NO. 45116
PROFESSIONAL ENGINEER

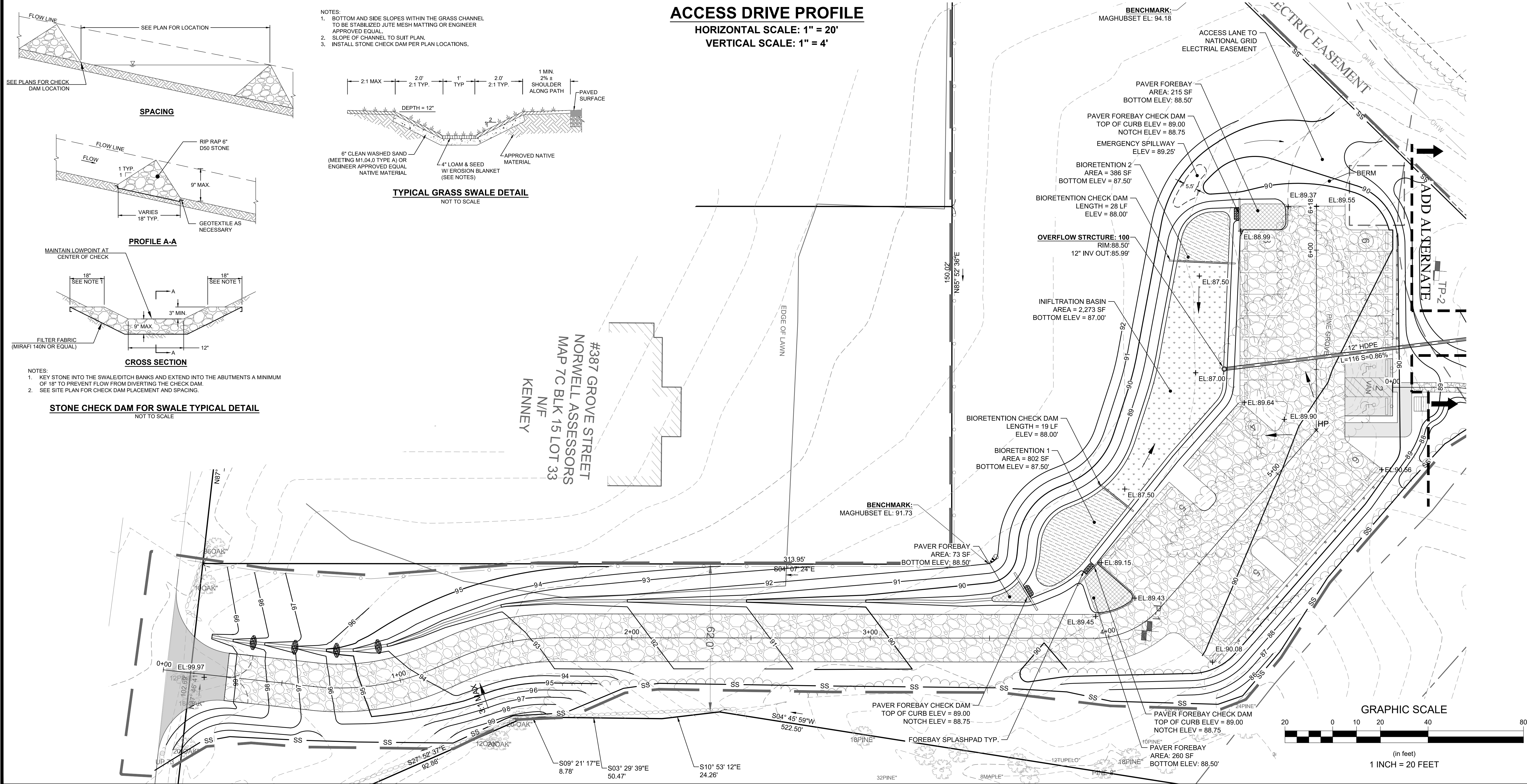
2-10-2021

Project Number: 17150
Sheet: 3 of 10
Sheet Number: C-3

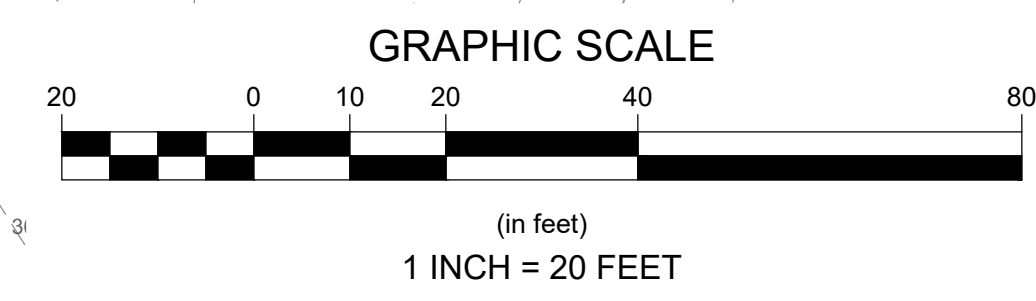
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ACCESS DRIVE PROFILE
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 4'

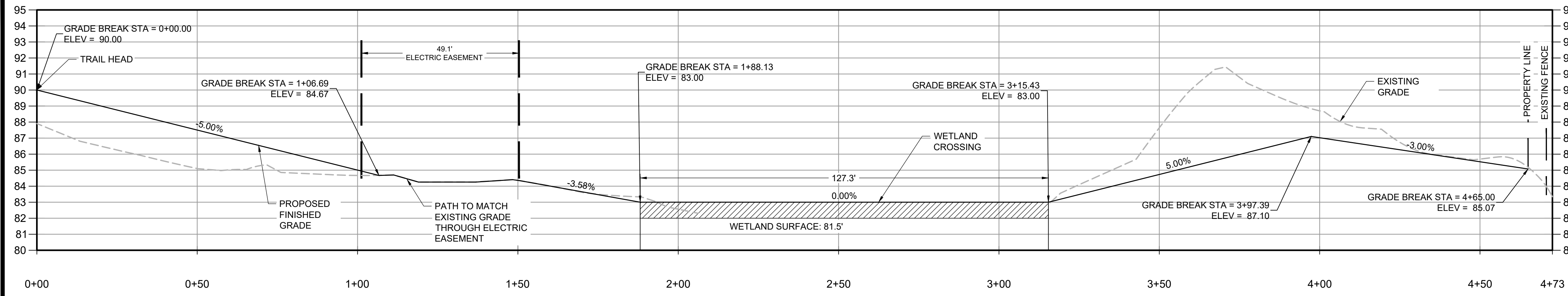


#387 GROVE STREET
NORWELL ASSESSORS
MAP 7C BLK 15 LOT 33
N/F
KENNEY

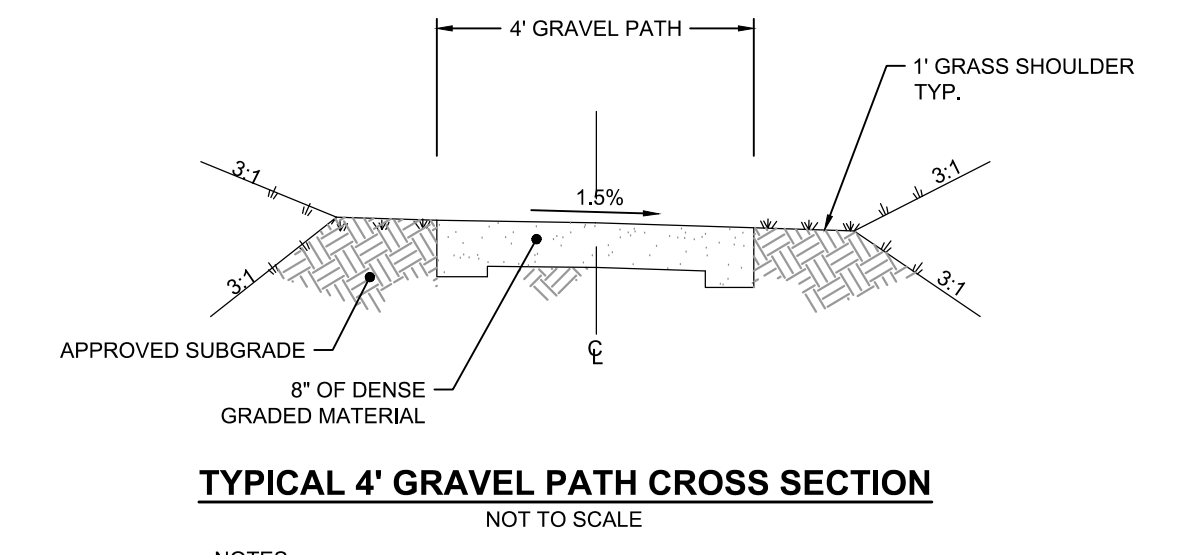
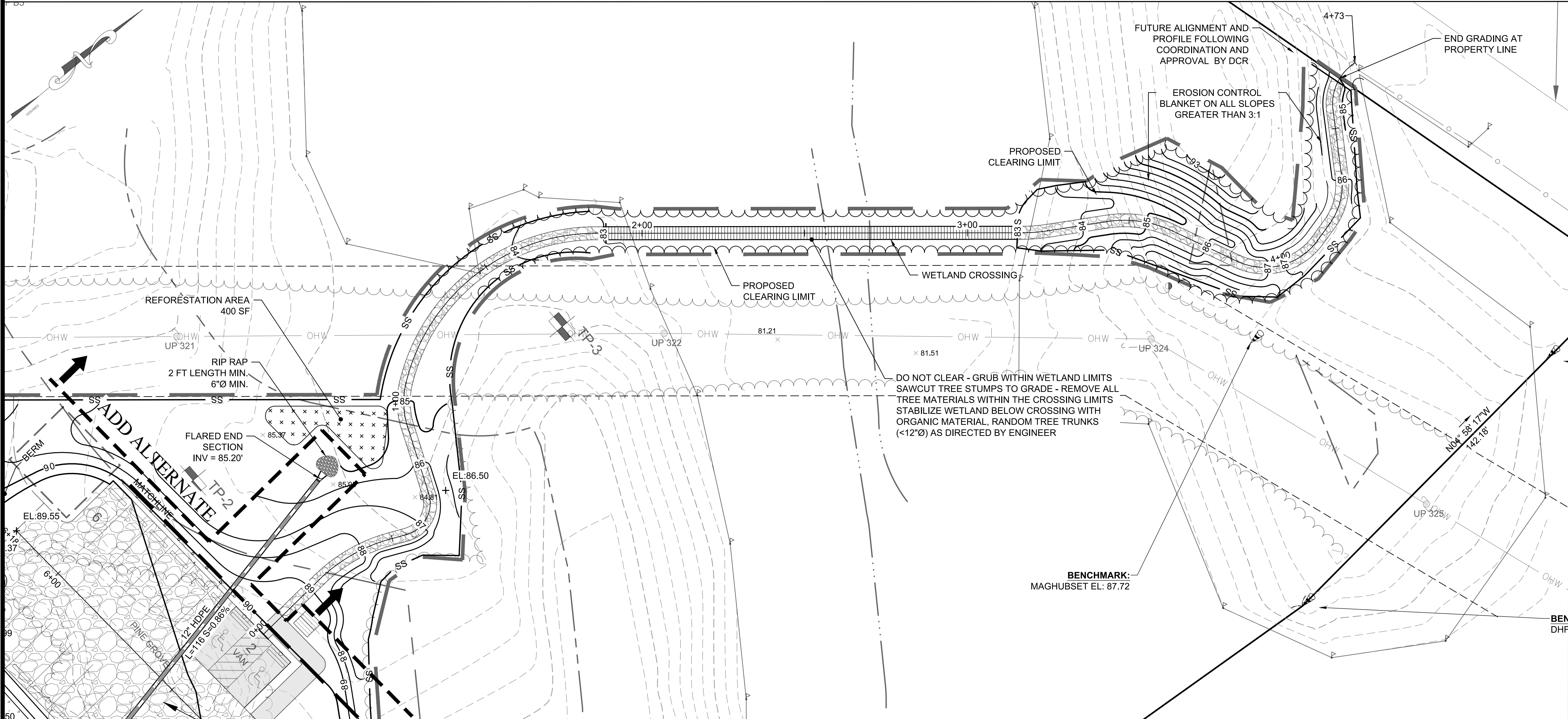


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Rev	Date	By	Appr	Description																						
<p>Horsley Witten Group, Inc. Sustainable Environmental Solutions 90 Route 6A Sandwich, MA 02563 508-833-6600 voice 508-833-3150 fax</p>																										
<p>Drawn By: JWP/GSG Checked By: RAC</p>	<p>Design By: GSG Checked By: JWP/GSG</p>																									
<p>DATE: FEBRUARY 2021</p>																										
<p>WOMPATUCK STATE PARK PARKING LOT & TRAIL ACCESS NORWELL, MASSACHUSETTS</p>																										
<p>ACCESS ROAD - PLAN & PROFILE</p>																										
<p>Prepared For: Town of Norwell Planning Department 345 Main Street Norwell, MA 02061 Phone: (781) 659-8021 Fax: ---</p>																										
<p>Survey Provided By: Horsley Witten Group, Inc. 90 Route 6A Sandwich, MA 02563 Phone: (508) 833-6600 Fax: (508) 833-3150 Date: December 1, 2017</p>																										
<p>Registration: RICHARD A. CLAYTON CIVIL NO. 45116 REGISTERED PROFESSIONAL ENGINEER</p>																										
<p>Project Number: 17150</p>	<p>Sheet: 5 of 10</p>																									
<p>Sheet Number: C-5</p>																										

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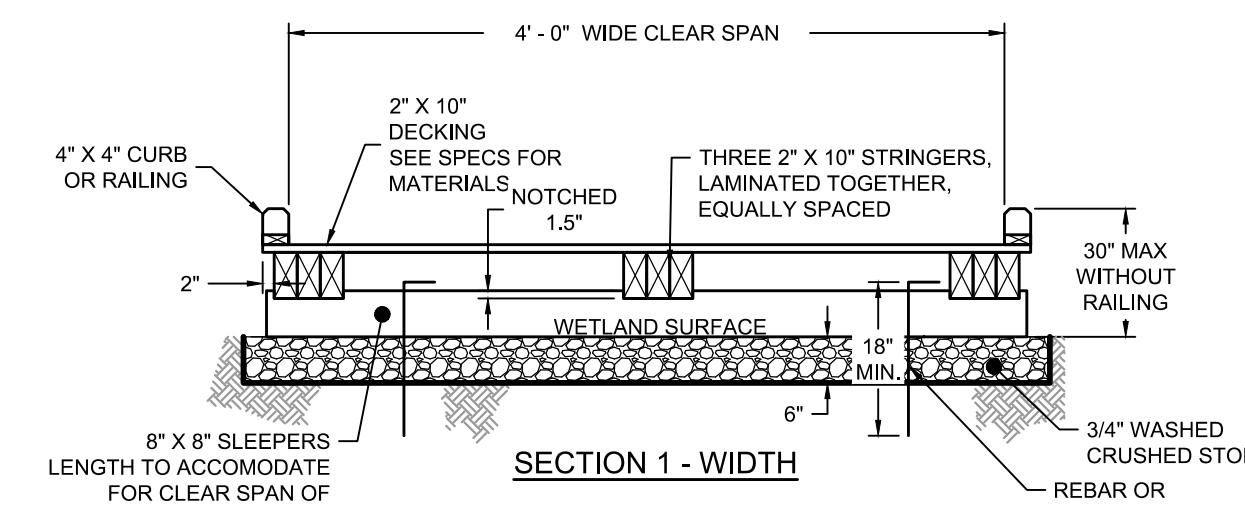
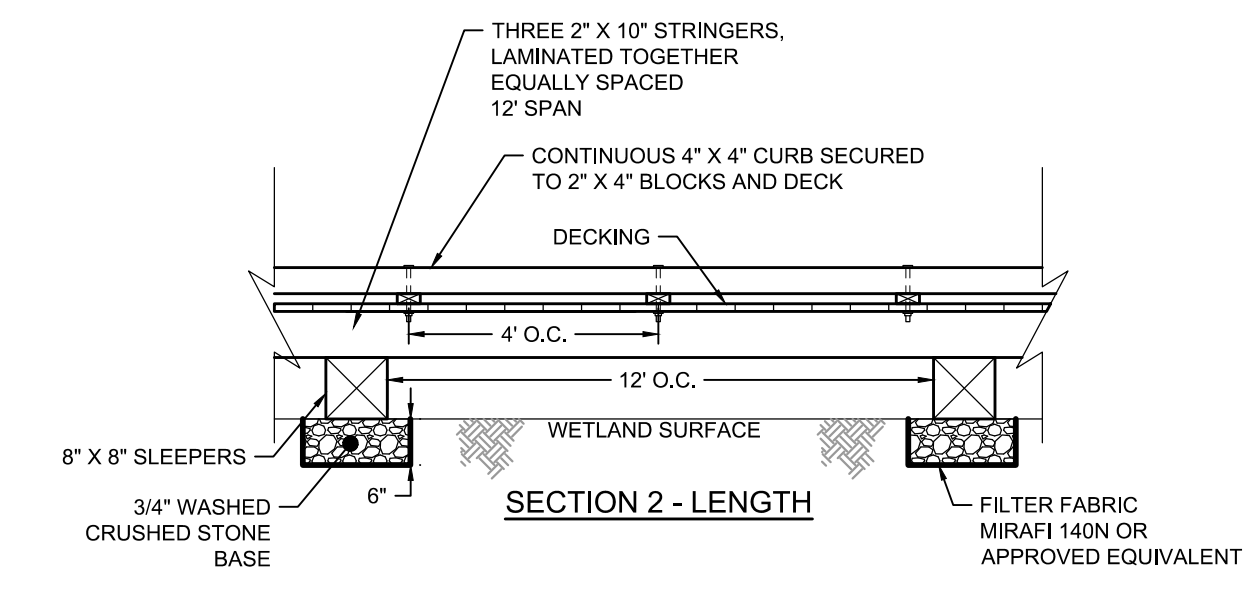


4' WIDE GRAVEL PATH & WETLAND CROSSING PROFILE
 HORIZONTAL SCALE: 1" = 20'
 VERTICAL SCALE: 1" = 4'



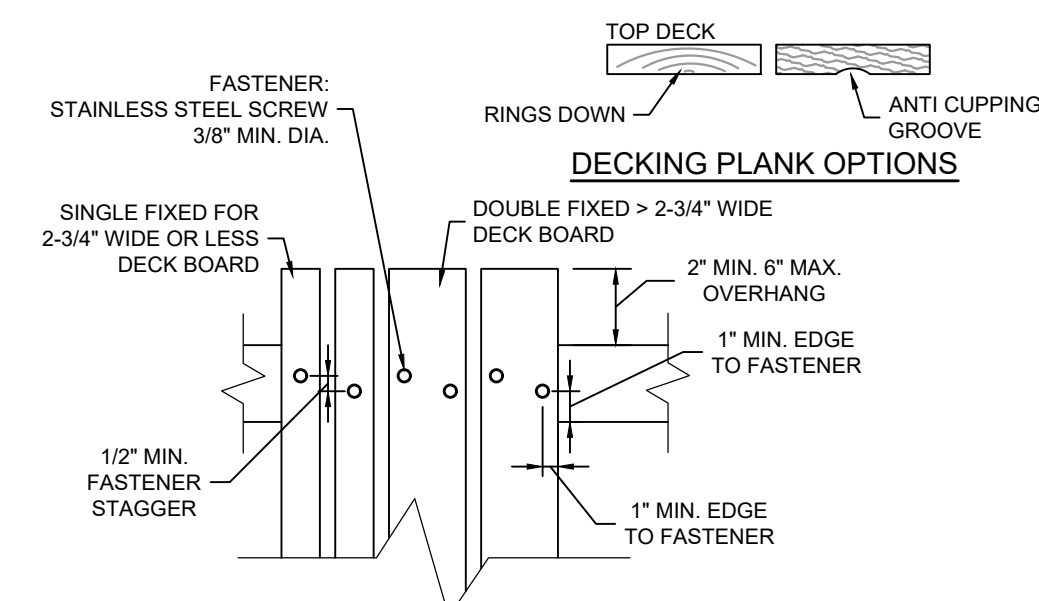
TYPICAL 4' GRAVEL PATH CROSS SECTION
 NOT TO SCALE

NOTES:
 1. GRAVEL BASE COURSE SHALL CONSIST OF INERT MATERIAL THAT IS HARD, DURABLE STONE AND COARSE SAND, FREE FROM LOAM AND CLAY.



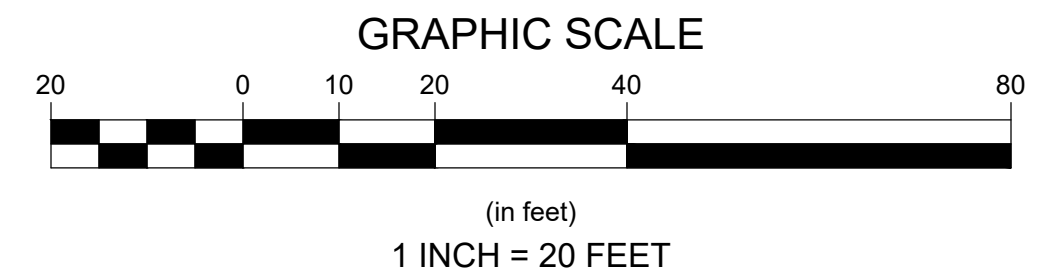
NOTES:
 1. ALL HARDWARE IS TO BE STAINLESS STEEL UNLESS OTHERWISE NOTED.
 2. ALL WOOD TO BE PRESSURE TREATED LUMBER OR APPROVED EQUIVALENT.
 3. WETLAND CROSSING FOOTBRIDGE DETAILS ARE PRELIMINARY. CONTRACTOR TO SUBMIT SHOP DRAWING OF PROPOSED CROSSING STAMPED BY A QUALIFIED PROFESSIONAL ENGINEER.
 4. FINISHED STRUCTURE TO MEET OR EXCEED INTERNATIONAL BUILDING CODE REQUIREMENTS FOR THE LOADING CAPACITIES BELOW
WOOD DECKING AND FRAMING
 LIVE LOAD: PER DETAILS PROVIDED WITH MINIMUM 85 POUNDS PER SQUARE FOOT

TYPICAL BOARDWALK FRAMING SECTIONS
 NOT TO SCALE



NOTES:
 1. FASTENER STAGGERING AND DECK OVERHANG TO BE CONSISTENT FOR LENGTH OF BOARDWALK.
 2. DECK GAPS - 3/8" TYP. 1/4" MIN. 1/2" MAX.
 3. DECK FASTENERS (SCREWS) TO BE STAINLESS STEEL PER SPECIFICATIONS.

BOARDWALK DECKING DETAIL
 NOT TO SCALE



Revisions	Date	By	Appr.	Description

Horsley Witten Group, Inc.
 Sustainable Environmental Solutions
 90 Route 6A
 Sandwich, MA 02563
 508-833-6600 voice
 508-833-3150 fax

Checked By: JWP/GSG
 Drawn By: JWP/GSG
 Designated By: GSG
 Date: FEBRUARY 2021

**WOMPATUCK STATE PARK
 PARKING LOT & TRAIL ACCESS
 NORWELL, MASSACHUSETTS**

WETLAND CROSSING - PLAN & PROFILE

Prepared For:
Town of Norwell Planning Department
 345 Main Street
 Norwell, MA 02061
 Phone: (781) 659-8021
 Fax: ---

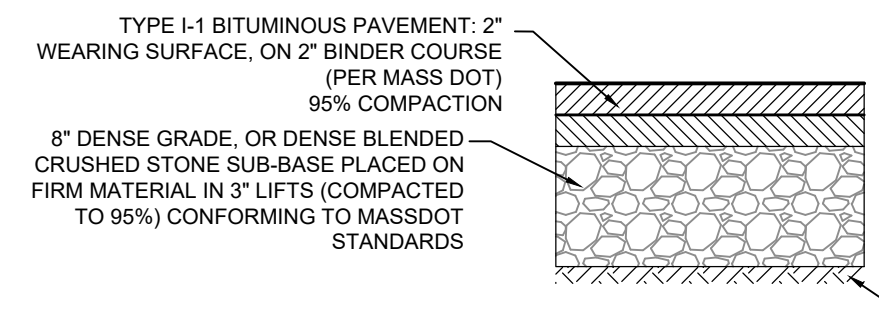
Survey Provided By:
Horsley Witten Group, Inc.
 90 Route 6A
 Sandwich, MA 02563
 Phone: (508) 833-6600
 Fax: (508) 833-3150
 Dated: December 1, 2017

Registration:

 RICHARD A. CLAYTON
 CIVIL
 NO. 45116
 REGISTERED PROFESSIONAL ENGINEER

Project Number: 17150
 Sheet: 6 of 10
 Sheet Number: C-6

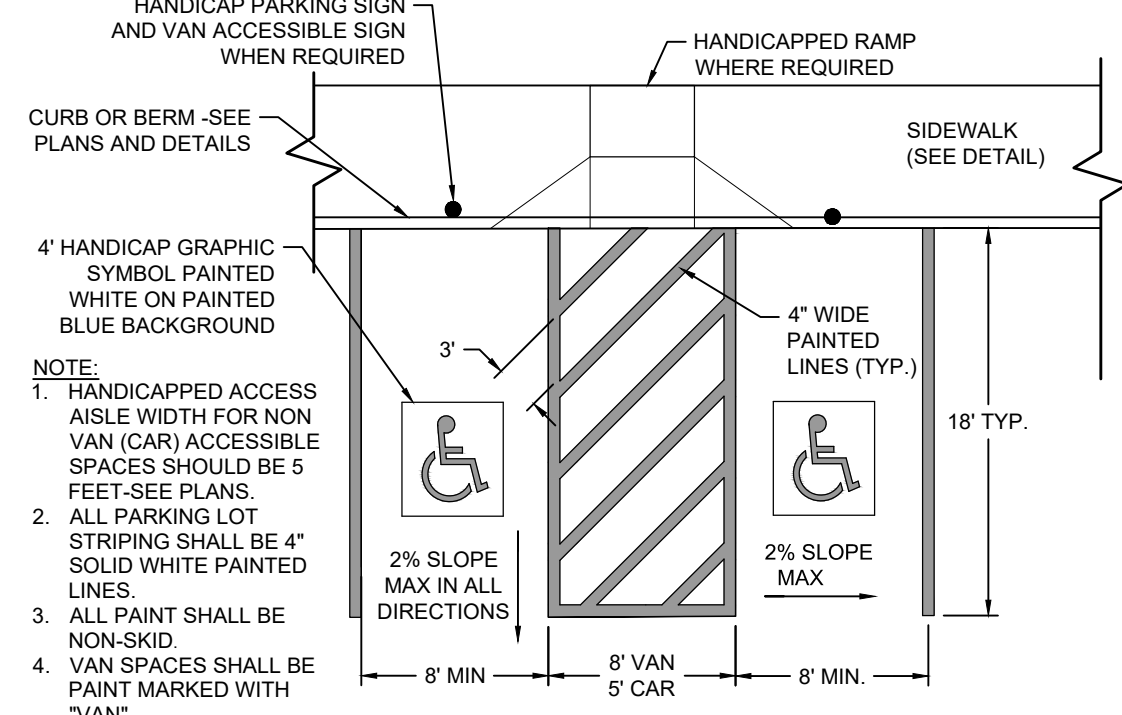
last modified: 02/12/21 by gg H:\Projects\2017\17150 Norwell Wompatuck Park\Drawings\17150 DE.dwg



TYPICAL BITUMINOUS PAVEMENT

NOT TO SCALE

- GENERAL NOTES:
1. SANDY LOAM AND/OR LOAMY SAND TOPSOIL MATERIAL TO BE EXCAVATED FROM ALL PAVED AREAS PRIOR TO SUB-BASE INSTALLATION.
 2. SUB-GRADE (EXISTING MATERIAL) TO CONSIST OF INERT MATERIAL THAT IS HARD, DURABLE STONE AND/OR COURSE SAND, FREE FROM LOAM AND CLAY TO A DEPTH NOT LESS THAN 4-FT BELOW THE FINISH PAVEMENT SURFACE.
 3. SUBGRADE FILL WHERE NECESSARY TO BE COMPACTED TO 92% COMPACTION UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
 4. SEE SITE LAYOUT PLAN FOR PAVEMENT WIDTH AND LOCATION.
 5. SEE GRADING PLANS FOR PAVEMENT SLOPE AND CROSS SLOPE.
 6. PRIOR TO INSTALLING THE WEARING COURSE THE EXISTING BINDER COURSE SURFACE TO BE SWEEPED COMPLETELY CLEAN BY A STREET SWEEPING MACHINE AND A TACK COAT TO BE INSTALLED PER THE SPECIFICATIONS.

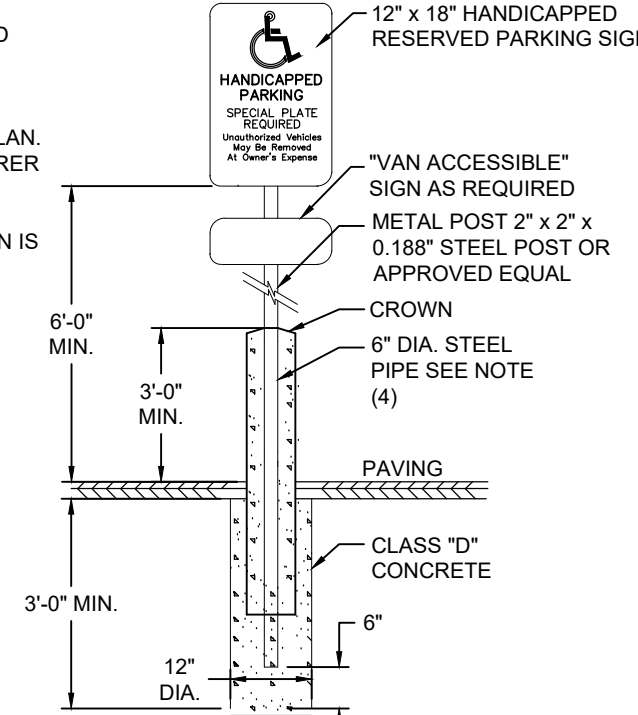


HANDICAPPED PARKING SPACES DETAIL

NOT TO SCALE

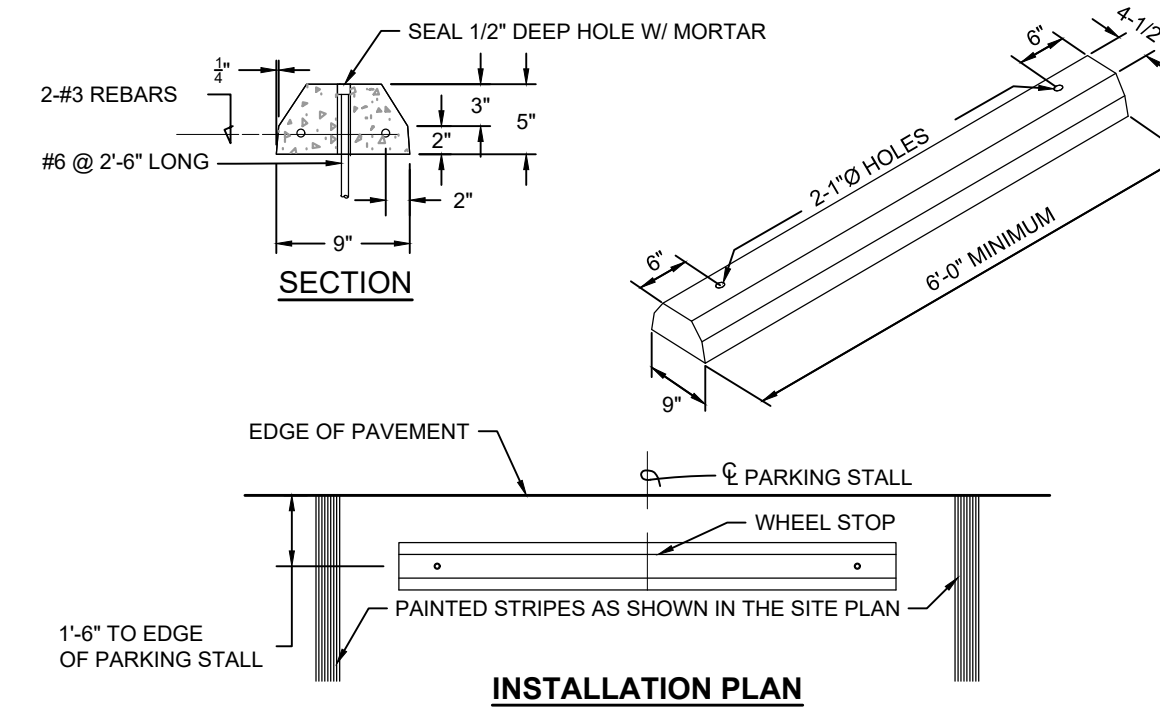
- NOTE:
1. HANDICAPPED ACCESS AISLE WIDTH FOR NON VAN (CAR) ACCESSIBLE SPACES SHOULD BE 5 FEET - SEE PLANS.
 2. ALL PARKING LOT STRIPING SHALL BE 4" SOLID WHITE PAINTED LINES.
 3. ALL PAINT SHALL BE NON-SKID.
 4. VAN SPACES SHALL BE PAINT MARKED WITH "VAN".

- NOTES:
1. SIGN LAYOUT, COLORS, SYMBOL AND LETTERING SHALL BE ASHTO STANDARD.
 2. TO BE LOCATED ON SITE AT ALL HANDICAP SPACES AS SHOWN ON PLAN.
 3. METAL POST SHALL BE MANUFACTURER PAINTED WITH EXTERIOR BLACK ENAMEL OR APPROVED EQUAL.
 4. STEEL PIPE TO BE USED WHERE SIGN IS INSTALLED IN PAVED AREA.



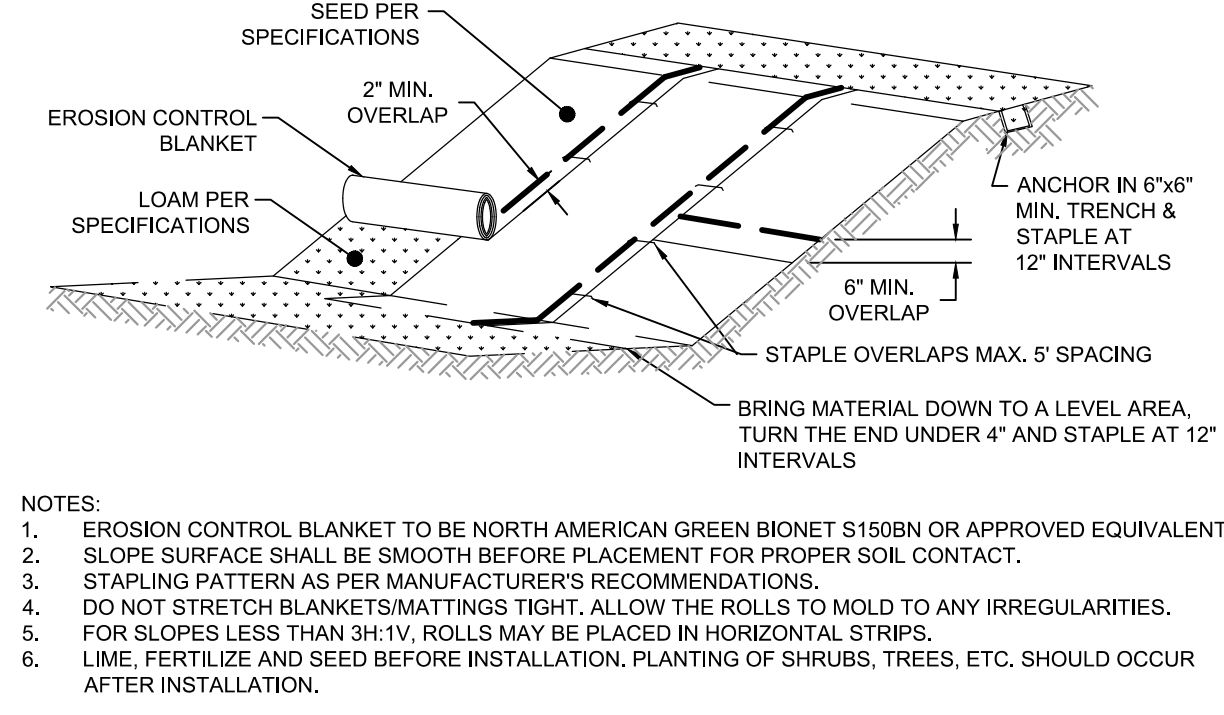
TYPICAL HANDICAP SIGN DETAIL

NOT TO SCALE



PRECAST CONCRETE CURB STOPS (BUMPER) DETAIL

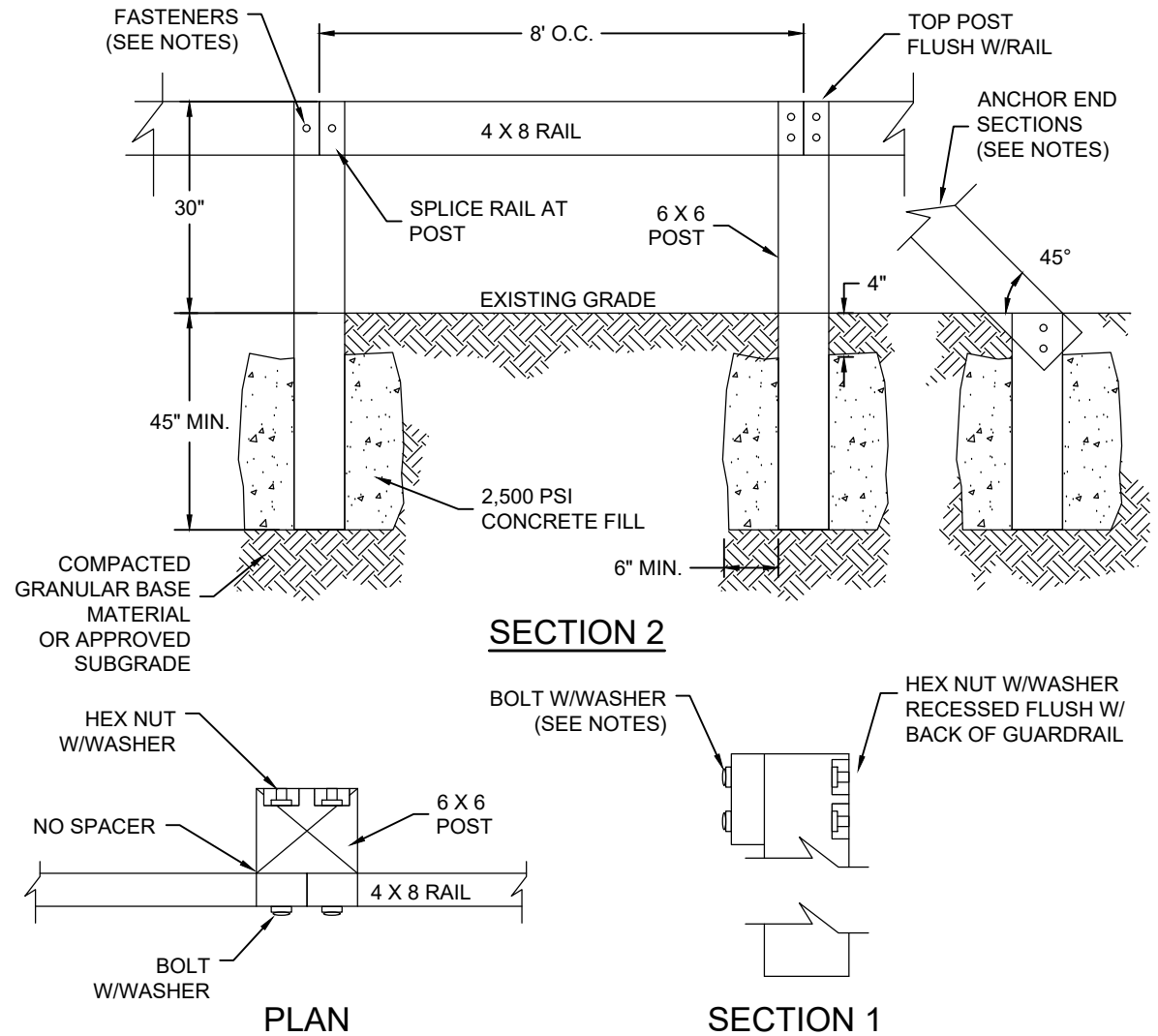
NOT TO SCALE



EROSION CONTROL BLANKET DETAIL

NOT TO SCALE

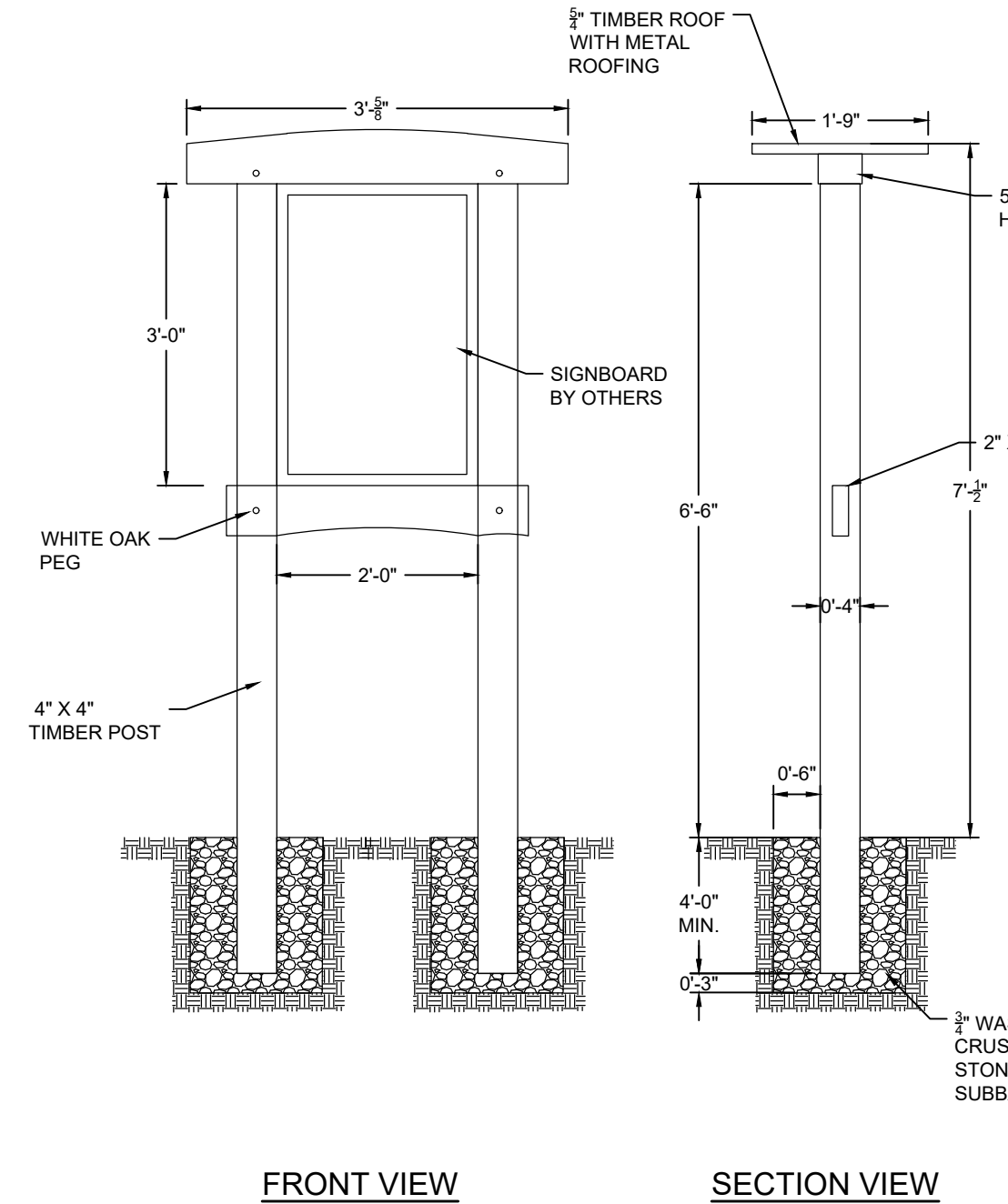
- NOTES:
1. EROSION CONTROL BLANKET TO BE NORTH AMERICAN GREEN BIONET S150BN OR APPROVED EQUIVALENT.
 2. SLOPE SURFACE SHALL BE SMOOTH BEFORE PLACEMENT FOR PROPER SOIL CONTACT.
 3. STAPLING PATTERN AS PER MANUFACTURER'S RECOMMENDATIONS.
 4. DO NOT STRETCH BLANKETS/TIGHTENING TIGHT. ALLOW THE ROLLS TO MOLD TO ANY IRREGULARITIES.
 5. FOR SLOPES LESS THAN 3H:1V, ROLLS MAY BE PLACED IN HORIZONTAL STRIPS.
 6. LIME, FERTILIZE AND SEED BEFORE INSTALLATION. PLANTING OF SHRUBS, TREES, ETC. SHOULD OCCUR AFTER INSTALLATION.



WOOD PARKING BARRIER

NOT TO SCALE

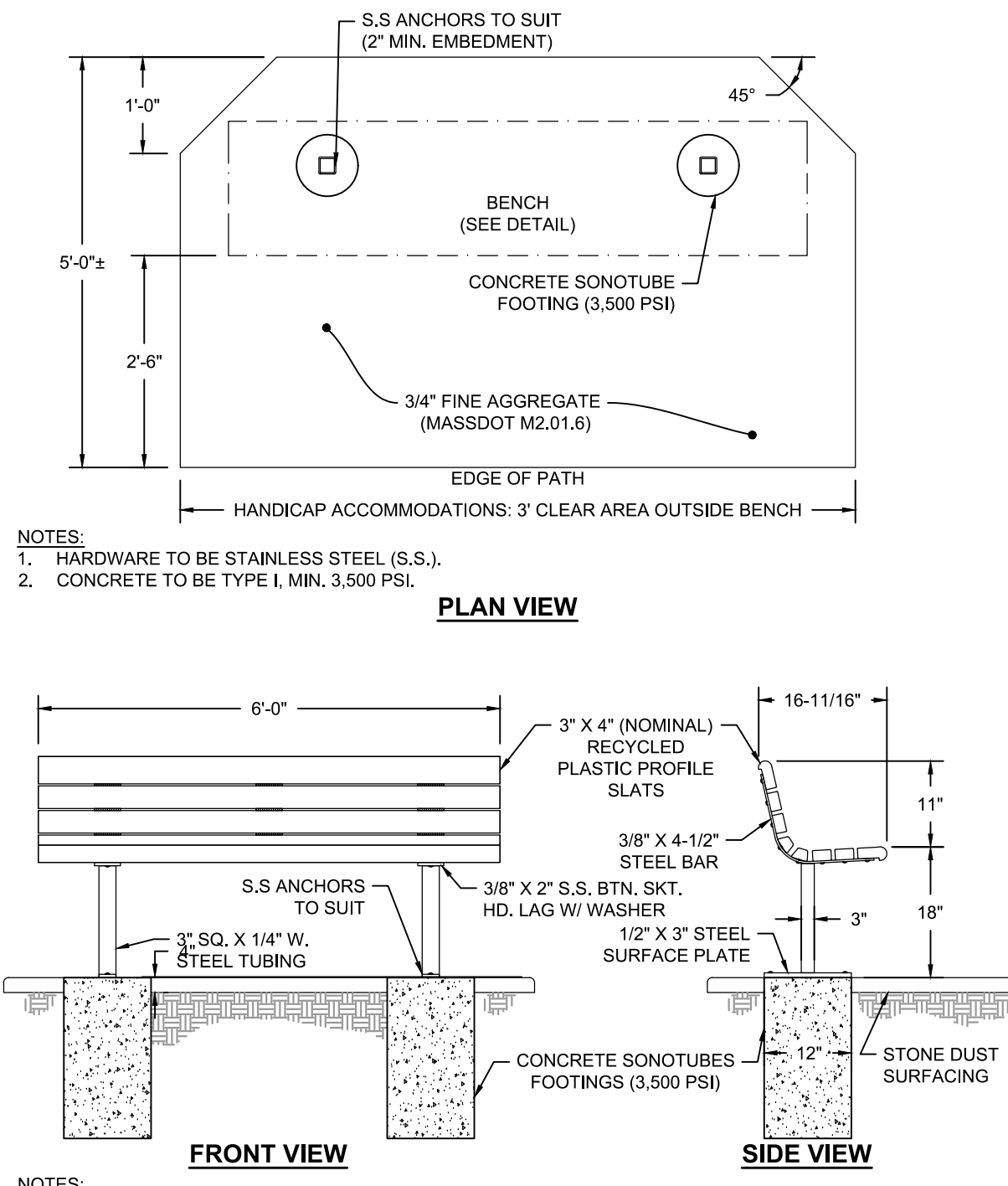
- NOTES:
1. POST AND RAILS TO BE PRESSURE TREATED LUMBER.
 2. ALL SPLICES ARE TO BE MADE AT POSTS.
 3. BUMPER ANCHORS SHALL BE RAIL BOLTS WITH NUTS AND WASHER CONNECTION. FASTENERS SHALL BE HOT DIPPED GALVANIZED OR STAINLESS STEEL MATCHING ASTM A153 AND ASTM A653.
 4. THE CONTRACTOR SHALL INSTALL TWO 3/8" BOLTS AT EACH RAIL TO POST CONNECTION.
 5. COMPACTED GRAVEL BELOW POST AND EXTEND POST TO THE BASE OF THE GRAVEL FOR DRAINAGE PRIOR TO SETTING IN CONCRETE.
 6. WOOD POSTS SHALL BE NOTCHED AS NECESSARY TO FACILITATE CURVES AND CHANGES IN DIRECTION.
 7. RAIL SHALL BE CUT TO CREATE A RAIL TO RAIL FLUSH FACE JOINT AS NECESSARY.



WAYFINDING KIOSK DETAIL

NOT TO SCALE

- NOTES:
1. ALL POSTS TO BE WHITE OAK. ALL OTHER TIMBERS TO BE WHITE PINE WITH 1/4" CHAMFER.
 2. TIMBER JOINTS TO BE SECURED WITH WHITE OAK PEGS.



BENCH DETAIL

NOT TO SCALE

- NOTES:
1. HARDWARE TO BE STAINLESS STEEL (S.S.).
 2. CONCRETE TO BE TYPE I, MIN. 3,500 PSI.

- NOTES:
1. ALL STEEL TO BE COATED W/ ZINC RICH EPOXY THEN FINISHED WITH BLACK POLYESTER POWDER COATING.
 2. HARDWARE TO BE STAINLESS STEEL (S.S.).

Revisions	Date	By	Appr.	Description

Horsley Witten Group, Inc.
 Sustainable Environmental Solutions
 80 Route 6A
 Sandwich, MA 02563
 508-833-6600 voice
 508-833-3150 fax

Designed By: GSJ
 Drawn By: EWH/JMP/GSG
 Checked By: PAC
 Date: FEBRUARY 2021

**WOMPATUCK STATE PARK
 PARKING LOT & TRAIL ACCESS
 NORWELL, MASSACHUSETTS**

Plan Set: (1)
 Plan Title:

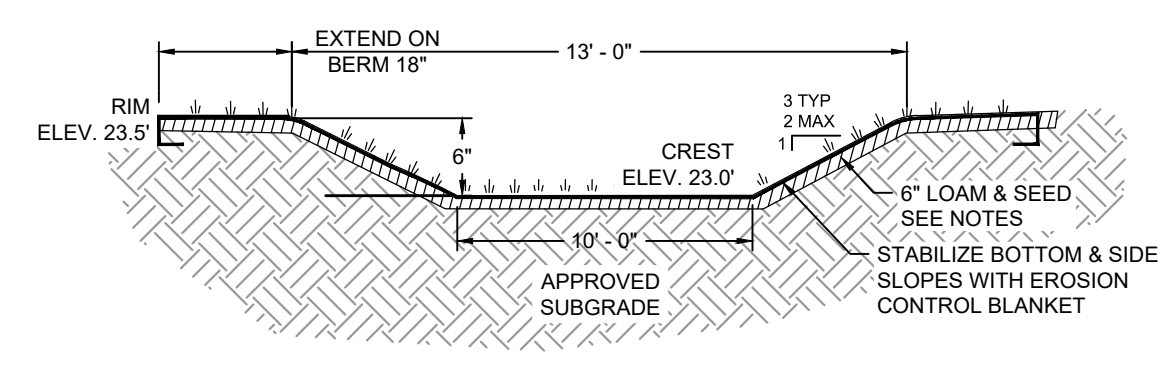
Prepared For:
Town of Norwell Planning Department
 345 Main Street
 Norwell, MA 02061
 Phone: (781) 659-8021
 Fax: ---

Survey Provided By:
Horsley Witten Group, Inc.
 80 Route 6A
 Sandwich, MA 02563
 Phone: (508) 833-6600
 Fax: (508) 833-3150
 Dated: December 1, 2017

Registration:

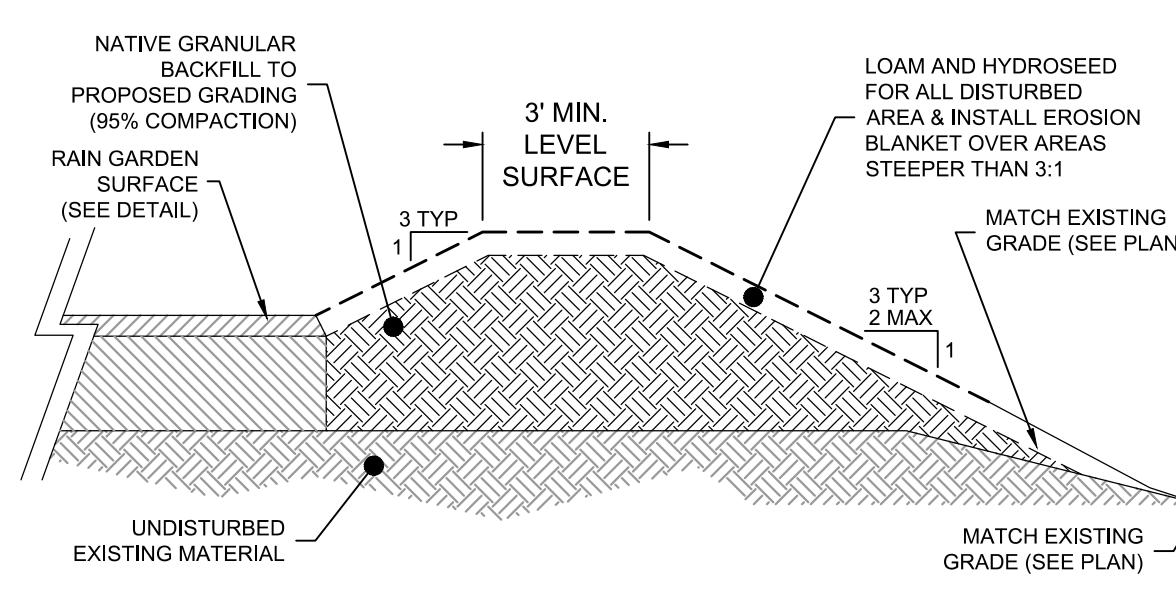
 Project Number: 17150
 Sheet: 7 of 10
 Sheet Number: C-7

last modified: 02/11/21 by gg H:\Projects\2017\17150 Norwell Wompatuck Park\Drawings\17150 DE.dwg

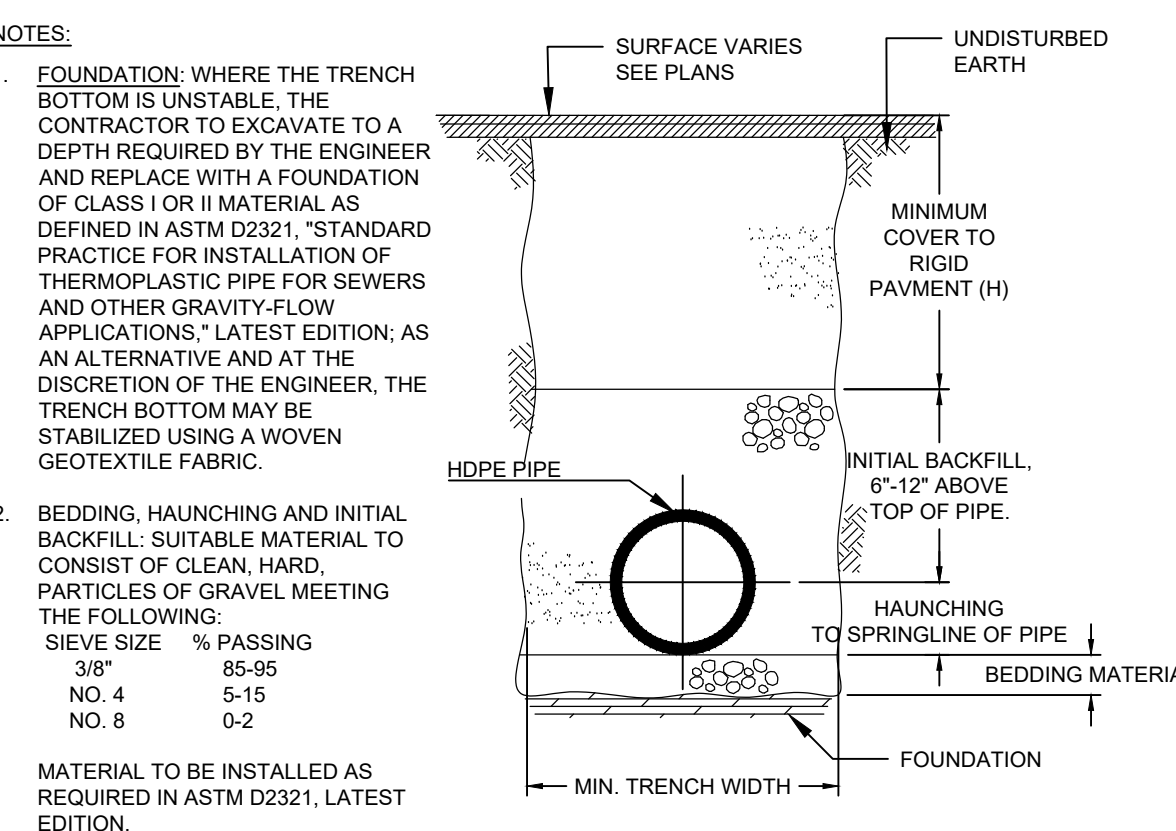


- NOTES:**
- SUBGRADE SHALL BE UNIFORM AND SMOOTH. REMOVE ALL ROCKS, CLODS, VEGETATION OR OTHER OBJECTS.
 - LOAM & HAND SEED PRIOR TO MAT INSTALLATION.
 - BOTTOM AND SIDE SLOPES WITHIN THE OVERFLOW SHALL BE STABILIZED WITH EROSION CONTROL BLANKET OR ENGINEER APPROVED EQUAL.
 - SPREAD ONE-HALF INCH OF TOPSOIL EVENLY OVER MATTING. MAT SHALL HAVE DIRECT CONTACT WITH THE SOIL SURFACE.
 - APPLY SEE MATERIAL SPECIFICATIONS

EMERGENCY SPILLWAY DETAIL
NOT TO SCALE



BERM DETAIL
NOT TO SCALE



HDPE DRAINAGE PIPE TRENCH
NOT TO SCALE

MINIMUM BEDDING THICKNESS TO BE 4" (100mm) FOR 4"-24" (100-600mm) AND 42"-48" (1050-1200mm) CORRUGATED POLYETHYLENE PIPE (CPEP); 6" (150mm) FOR 30"-36" (750-900mm) CPEP.

MINIMUM TRENCH WIDTHS TO BE AS FOLLOWS:

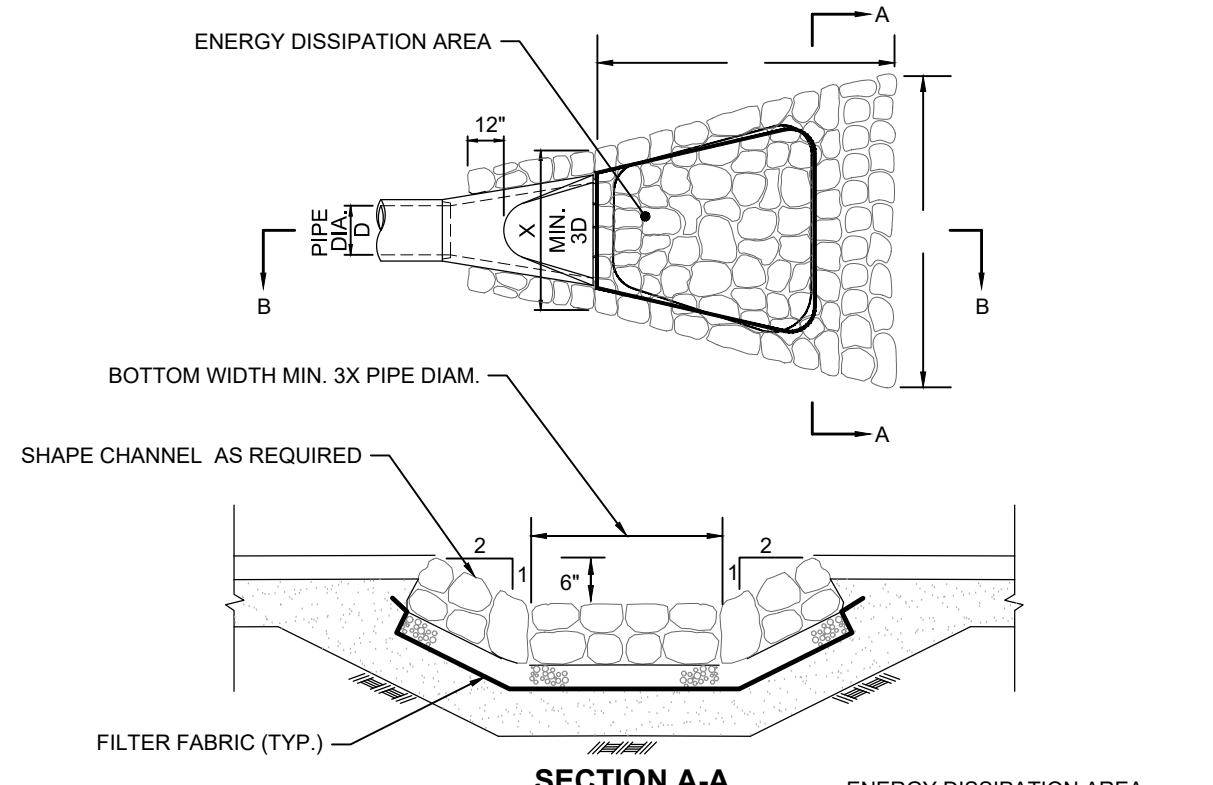
NOMINAL Ø in (mm)	MIN. TRENCH WIDTH, in (mm)	MIN. RECOMMENDED TRENCH WIDTH, in (mm)
8 (200)	25 (630)	25 (630)
10 (250)	28 (710)	28 (710)
12 (300)	31 (790)	31 (790)
15 (375)	34 (860)	34 (860)
18 (450)	39 (990)	39 (990)

MINIMUM COVER: MINIMUM RECOMMENDED DEPTHS OF COVER FOR VARIOUS LIVE LOADING CONDITIONS ARE SUMMARIZED IN THE FOLLOWING TABLE. UNLESS OTHERWISE NOTED, ALL DIMENSIONS ARE TAKEN FROM THE TOP OF PIPE TO THE GROUND SURFACE.

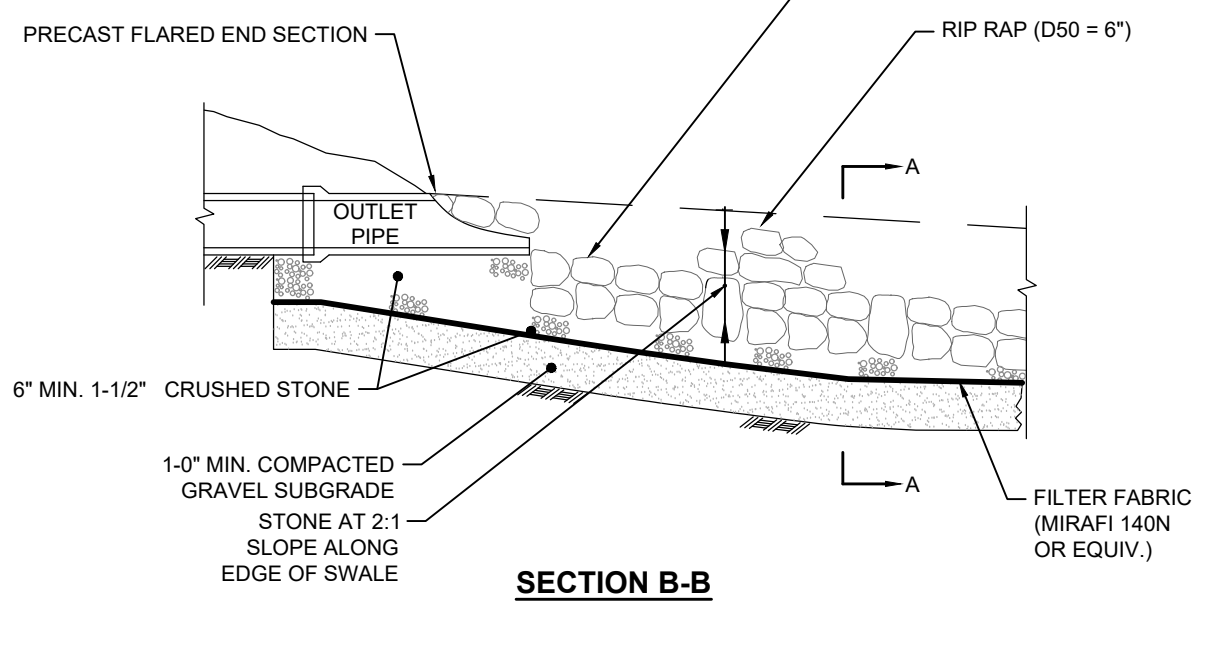
SURFACE LIVE LOADING CONDITION	MINIMUM RECOMMENDED * COVER, in (mm)
H25 (FLEXIBLE PAVEMENT)	12 (300)
H25 (RIGID PAVEMENT) E80	12 (300)
RAILWAY HEAVY CONSTRUCTION	24 (610)
	48 (1220)

* TOP OF PIPE TO BOTTOM OF BITUMINOUS PAVEMENT

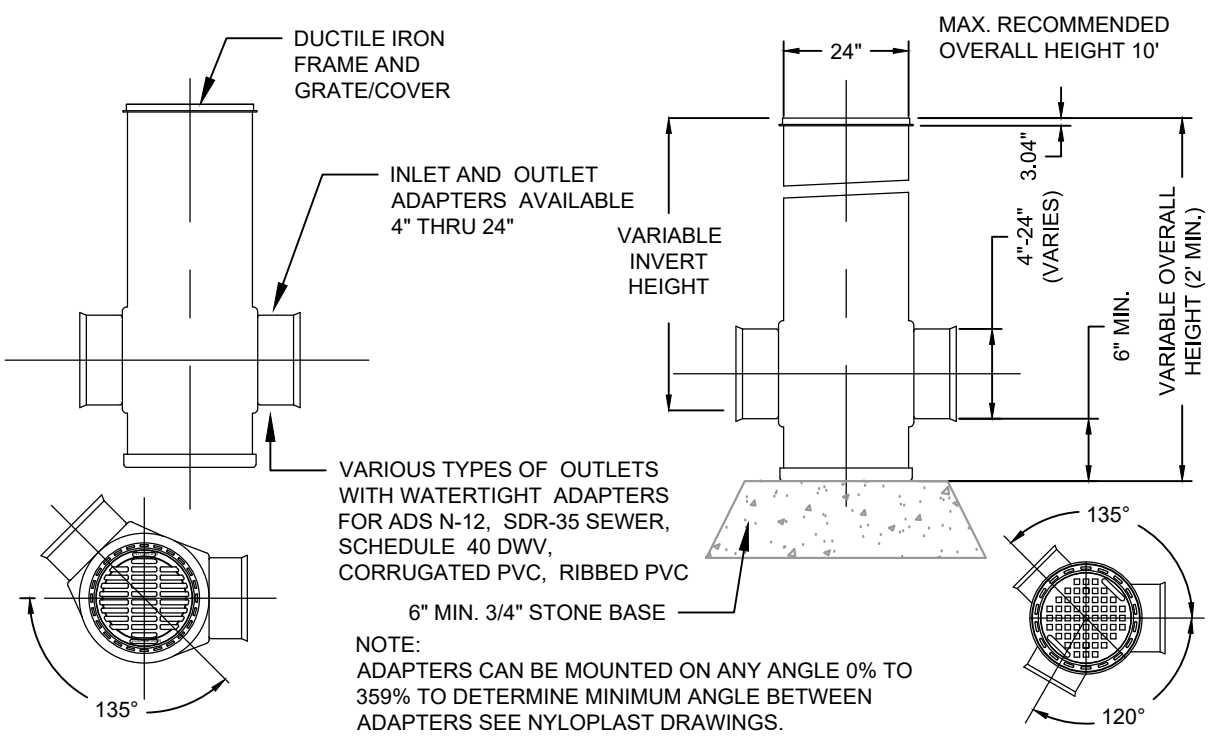
THE MINIMUM COVER FOR A HDPE PIPE IS 1'-0" FOR H-20 TRAFFIC LOADS IF INSTALLED IN ACCORDANCE WITH AASHTO SECTION 30. THIS IS BASED ON EMPIRICAL CALCULATION OF LOAD RESPONSE, MANUFACTURER'S TESTING AND FIELD EXPERIENCE WITH THE PIPE. AASHTO SPECIFICATIONS SECTION 18.4.1.5 DEFINES THE MINIMUM COVER AS "1/8 BUT NOT LESS THAN 12 INCHES". THIS COVER IS MEASURED FROM THE PIPE OD TO THE TOP OF A RIGID (CONCRETE) PAVEMENT OR THE BOTTOM OF A FLEXIBLE (BITUMINOUS) PAVEMENT. BOTH AASHTO AND ASTM, AS WELL AS MOST MANUFACTURERS, REQUIRE ADDITIONAL (TEMPORARY COVER, MOUNDED OVER THE PIPE AND REMOVED FOR FINAL GRADING AND PAVING, IS SUFFICIENT FOR LARGE CONSTRUCTION VEHICLE LOADS.



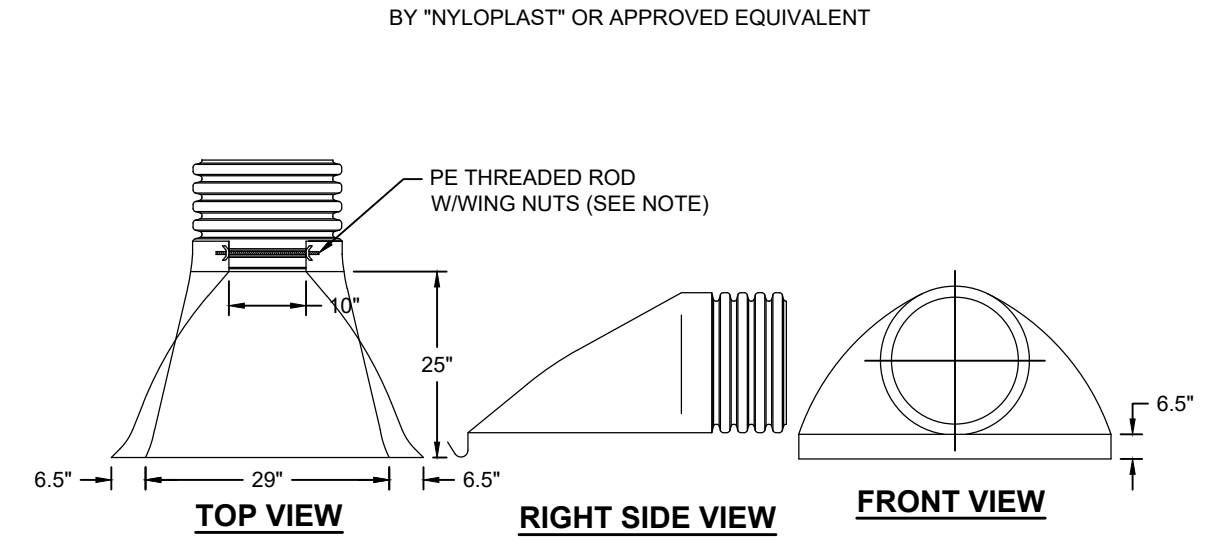
TYPICAL RIP RAP OUTFALL DETAIL
NOT TO SCALE



SECTION A-A

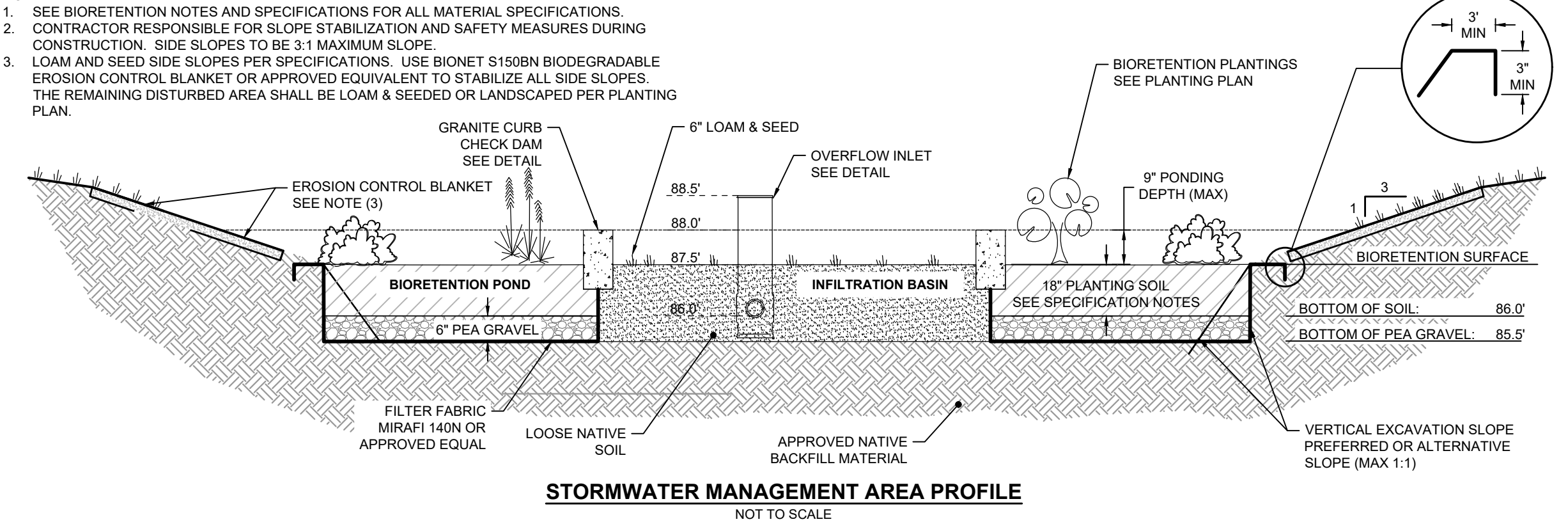


OVERFLOW STRUCTURE DETAIL
NOT TO SCALE

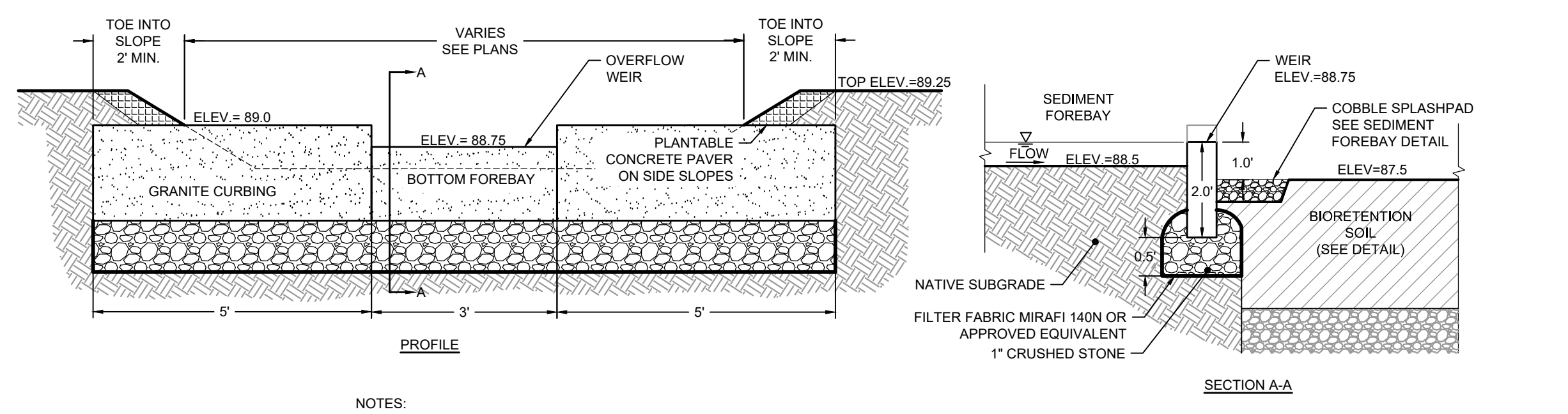


12" HDPE FLARED END SECTION
NOT TO SCALE

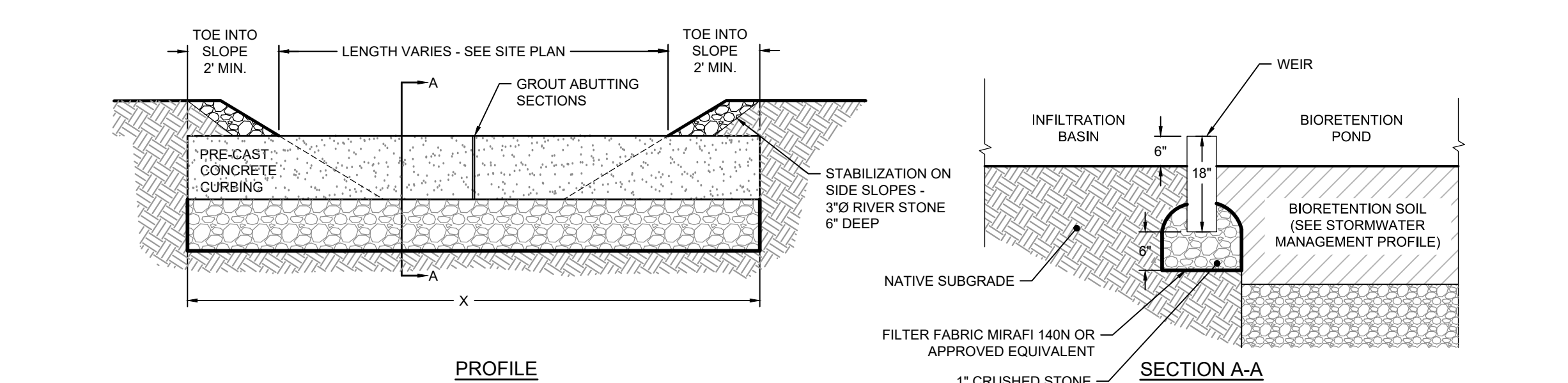
- NOTES:**
- PE THREADED ROD W/ WING NUTS PROVIDED FOR END SECTIONS 12"-24", 30" & 36" END SECTIONS TO BE WELDED TO PIPE PER MANUFACTURER'S RECOMMENDATIONS.
 - USE 10" TO 8" REDUCER FOR 8" PIPE SIZE.
 - ALL DIMENSIONS ARE NOMINAL.
 - DETAIL PROVIDED BY ADVANCED DRAINAGE SYSTEMS, INC.



STORMWATER MANAGEMENT AREA PROFILE
NOT TO SCALE

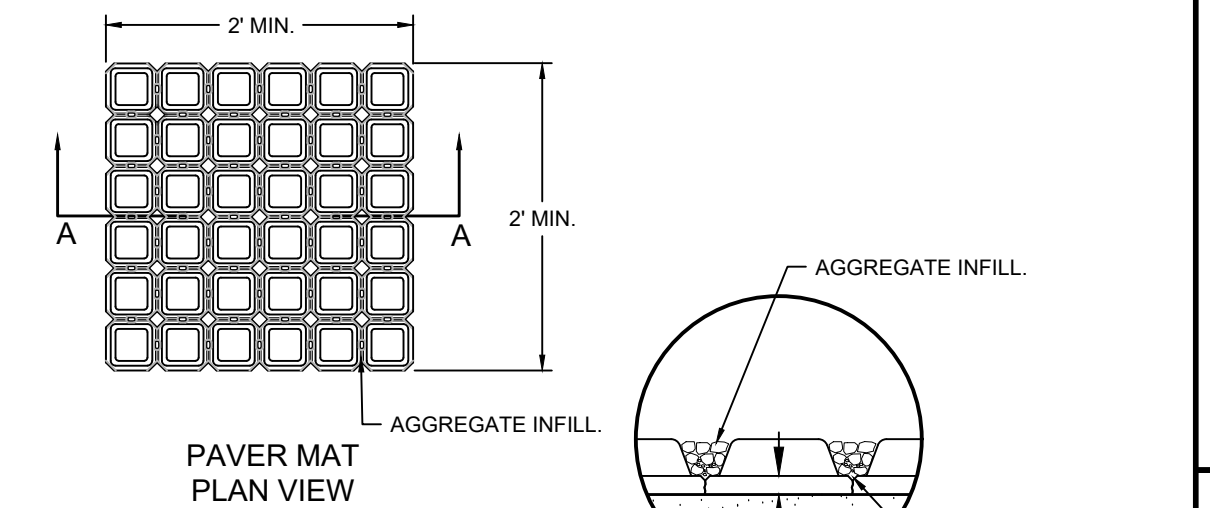


PAVER FOREBAY CHECK DAM TYPICAL DETAIL
NOT TO SCALE

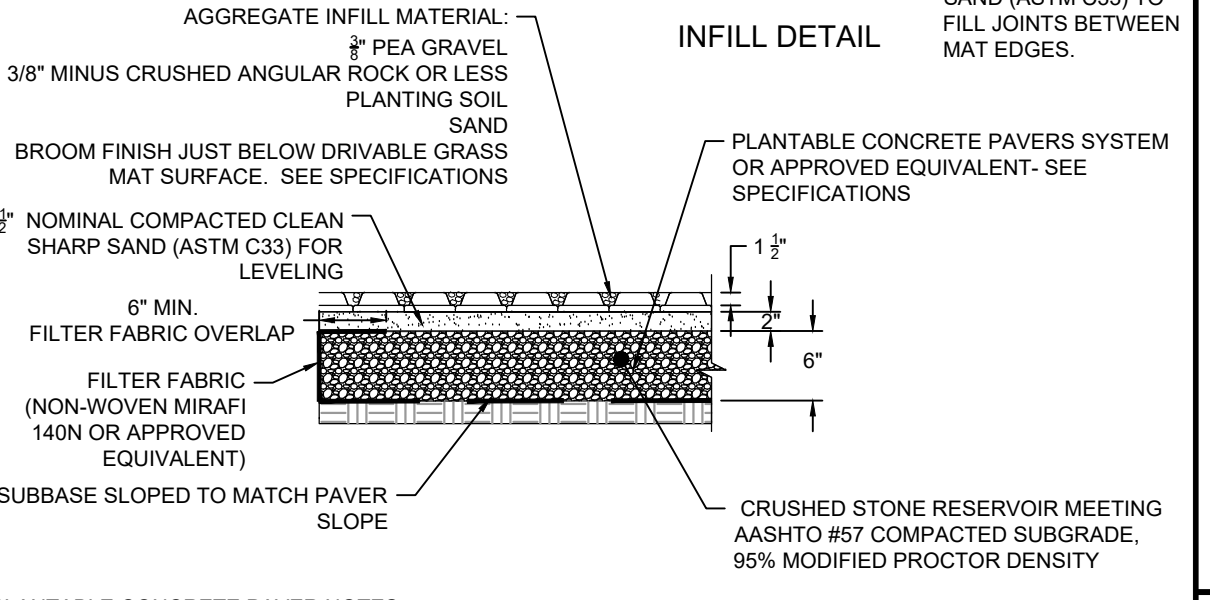


BIORETENTION GRANITE CURB CHECK DAM
NOT TO SCALE

- NOTES:**
- KEY CURBING INTO THE FOREBAY BANKS AND EXTEND INTO THE ABUTMENTS A MINIMUM OF 2' TO PREVENT FLOW FROM DIVERTING THE CHECK DAM.
 - GROUT ABUTTING SECTIONS OF CURBING AS NECESSARY.



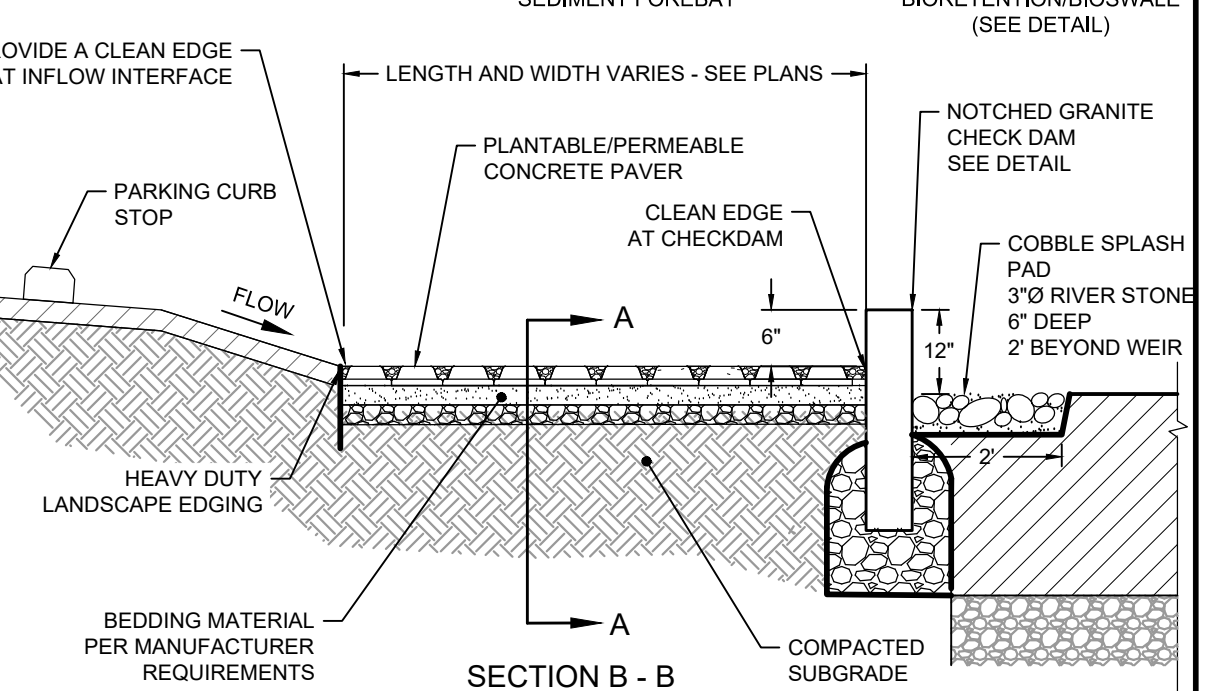
PAVER MAT PLAN VIEW



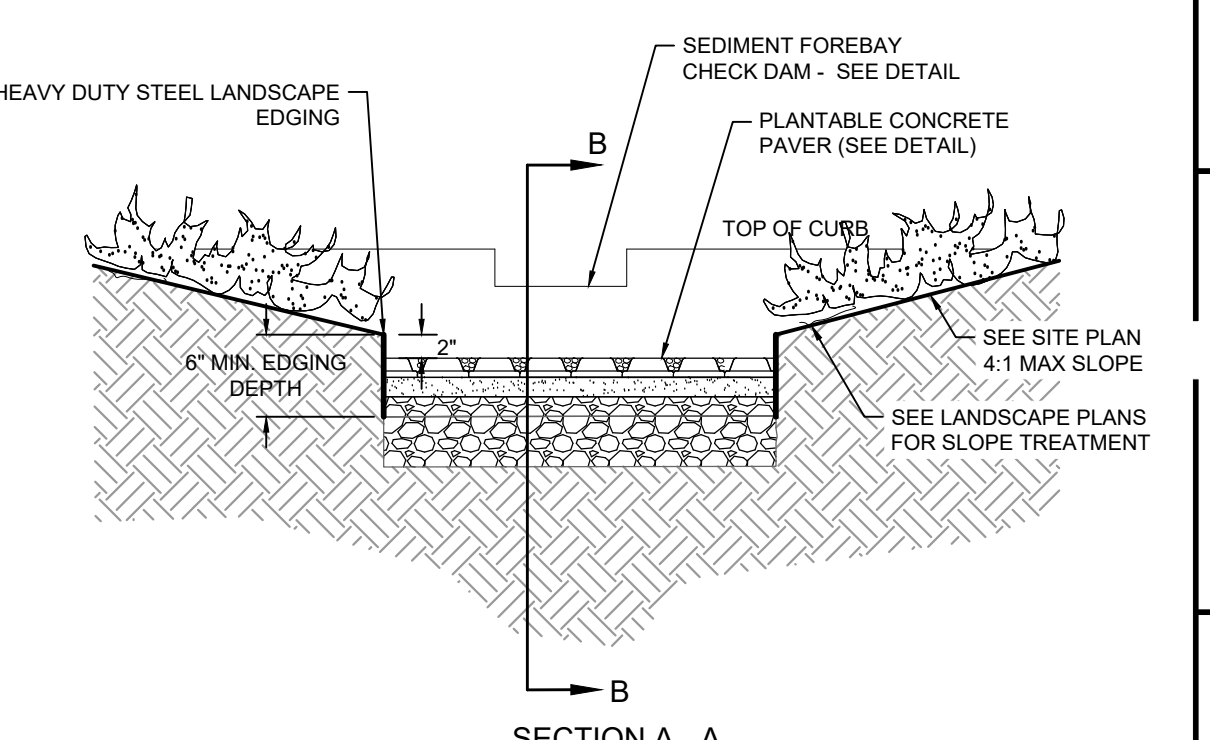
INFILL DETAIL

- AGGREGATE INFILL MATERIAL:**
- 3/8" MINUS CRUSHED ANGULAR ROCK OR LESS PLANTING SOIL
 - 3/8" NOMINAL COMPACTED CLEAN SHARP SAND (ASTM C33) FOR LEVELING
 - 6" MIN. FILTER FABRIC OVERLAP (NON-WOVEN MIRAFI 140N OR APPROVED EQUIVALENT)
 - CRUSHED STONE RESERVOIR MEETING AASHTO #57 COMPACTED SUBGRADE, 95% MODIFIED PROCTOR DENSITY
- PLANTABLE CONCRETE PAVER NOTES:**
- REFER TO MANUFACTURER'S REQUIREMENTS FOR ADDITIONAL INSTALLATION REQUIREMENTS
 - FILTER FABRIC AROUND PERIMETER AND BOTTOM OF STONE BASE. KEY IN MINIMUM 6".

PLANTABLE CONCRETE PAVER



SECTION B-B



SECTION A-A

- NOTES:**
- SEE SPECIFICATIONS FOR PLANTABLE/PERMEABLE PAVER REQUIREMENTS.
 - INSTALL PLANTABLE/PERMEABLE PAVER SYSTEM PER MANUFACTURER'S REQUIREMENTS.
 - SHAPE FOREBAY AS REQUIRED WITH MIN. 6" SIDE SLOPE DEPTH.
 - LANDSCAPE EDGING: HEAVY DUTY STEEL LANDSCAPE EDGING (1/2" THICKNESS) WITH NATURAL FINISH
 - SEE PLANS FOR DIMENSIONS GRADING AND ELEVATIONS FOR SEDIMENT FOREBAY

PAVER FOREBAY
NOT TO SCALE

Revisions

Rev.	Date	By	Appr.	Description
1				
2				
3				
4				
5				

Horsley Witten Group, Inc.
Sustainable Environmental Solutions
40 Route 6A
Sandwich, MA 02563
508-833-6600 voice
508-833-3150 fax

Checked By: EWH/JP/GSG
Drawn By: GSG
Designed By: GSG
Date: FEBRUARY 2021

**WOMPATUCK STATE PARK
PARKING LOT & TRAIL ACCESS
NORWELL, MASSACHUSETTS**

Plan Set:
Town of Norwell Planning Department
345 Main Street
Norwell, MA 02061
Phone: (781) 659-8021
Fax: _____

Plan Title:
DETAILS (2)

Survey Provided By:
Horsley Witten Group, Inc.
90 Route 6A
Sandwich, MA 02563
Phone: (508) 833-6600
Fax: (508) 833-3150
Date: December 1, 2017

Registration:
RICHARD A. CLAYTON
CIVIL
NO. 45116
REGISTERED PROFESSIONAL ENGINEER

2-10-2021

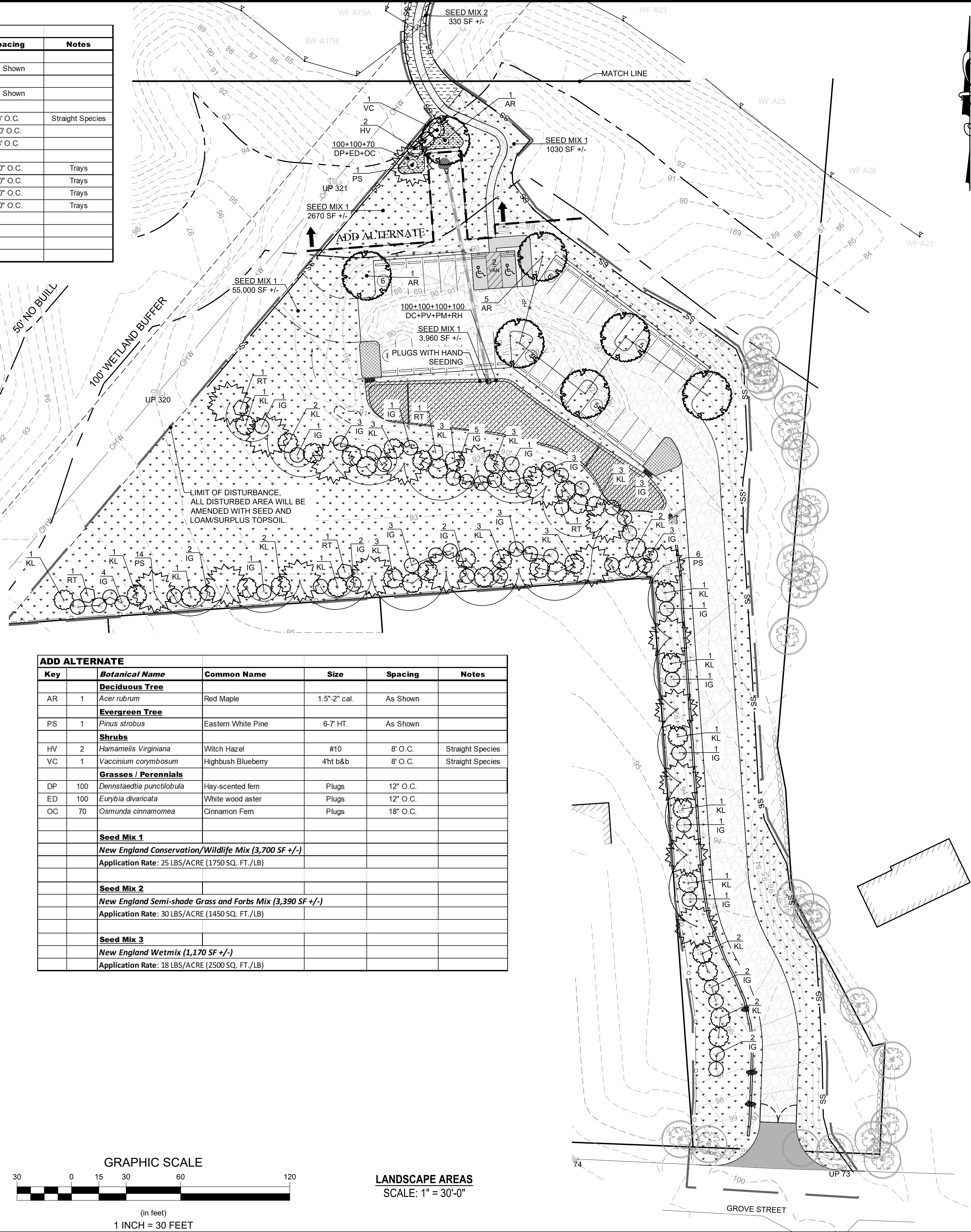
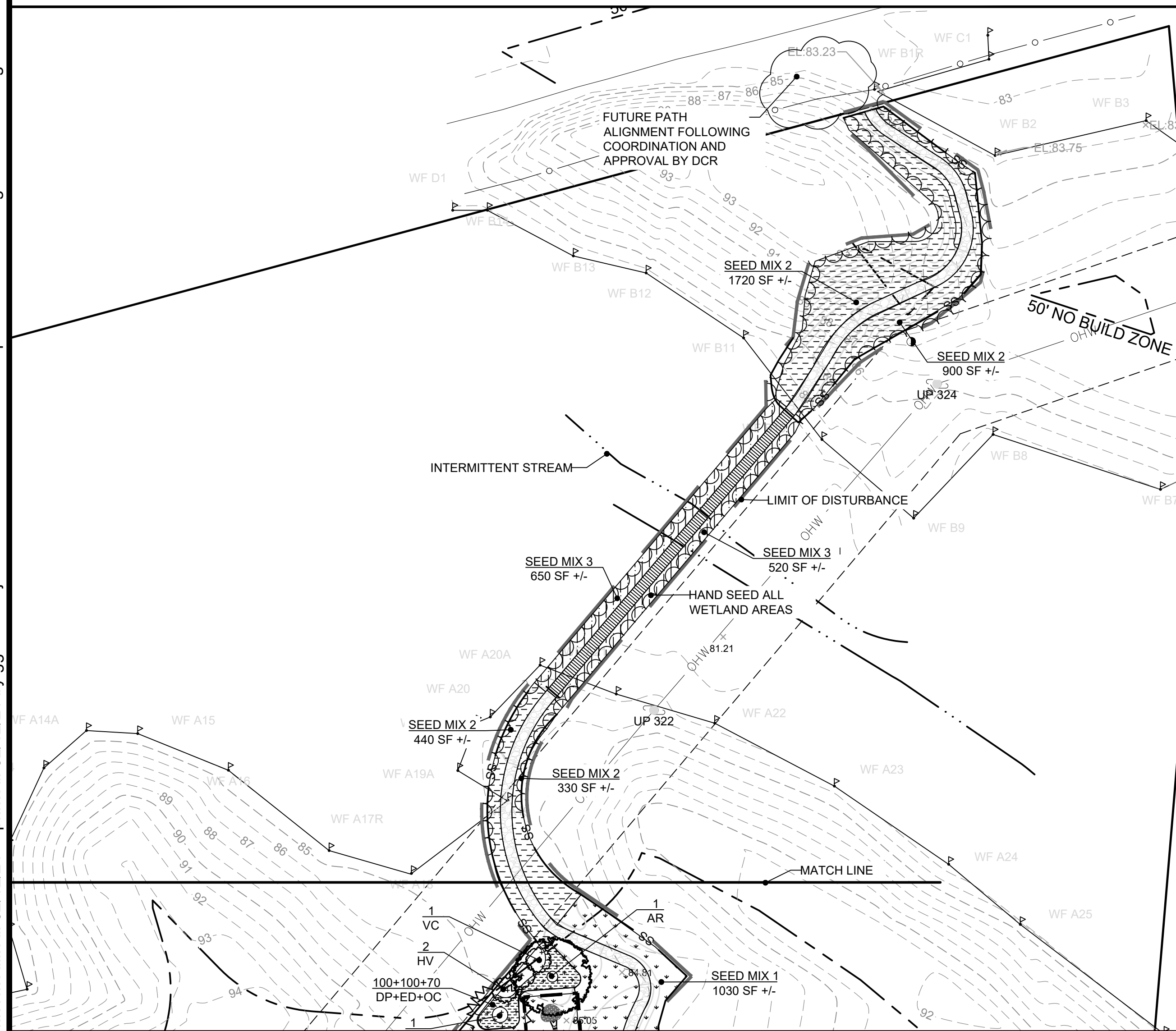
Project Number: 17150
Sheet: 8 of 10
Sheet Number: C-8

last modified: 02/12/21 by gg H:\Projects\2017\17150 Norwell Wompatuck Park\Drawings\17150 LA.dwg

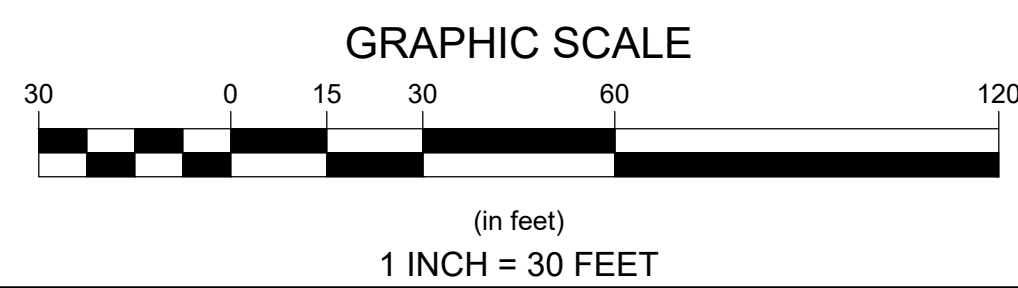
SYMBOL LEGEND

- EXISTING CANOPY TREE
- PROPOSED SHADE TREE
- PROPOSED EVERGREEN TREE
- PROPOSED LARGE SHRUB
- PROPOSED MEDIUM SHRUB
- SEED MIX 1 - WITH PLUGS, HAND SEED**
NEW ENGLAND CONSERVATION/WILDLIFE MIX (3,960 SF +/-)
- SEED MIX 1 - MOW AS NEEDED**
NEW ENGLAND CONSERVATION/WILDLIFE MIX
- SEED MIX 2 - NO MOW**
NEW ENGLAND SEMI-SHADE GRASS AND FORBS
- SEED MIX 3 - NO MOW, HAND SEED**
NEW ENGLAND WETMIX

PLANT SCHEDULE					
Key	Botanical Name	Common Name	Size	Spacing	Notes
Deciduous Tree					
AR	<i>Acer rubrum</i>	Red Maple	2-2.5" cal.	As Shown	
Evergreen Tree					
PS	<i>Pinus strobus</i>	Eastern White Pine	6-7" B&B	As Shown	
Shrubs					
IG	<i>Ilex glabra</i>	Inkberry	#3	8' O.C.	Straight Species
KL	<i>Kalmia latifolia</i>	Mountain Laurel	12-15" B&B	10' O.C.	
RT	<i>Rhus typhina</i>	Staghorn Sumac	#3	8' O.C.	
Grasses / Perennials					
DC	<i>Deschampsia cespitosa</i>	Tufted Hair Grass	Plugs	40" O.C.	Trays
PV	<i>Panicum virgatum</i>	Switch Grass	Plugs	40" O.C.	Trays
PM	<i>Pycnanthemum muticum</i>	Big Leaf Mountain Mint	Plugs	40" O.C.	Trays
RH	<i>Rudbeckia hirta</i>	Black-Eyed Susan	Plugs	40" O.C.	Trays
Seed Mix 1					
New England Conservation/Wildlife Mix (58,960 SF +/-)					
Application Rate: 25 LBS/ACRE (1750 SQ. FT./LB)					



ADD ALTERNATE					
Key	Botanical Name	Common Name	Size	Spacing	Notes
Deciduous Tree					
AR	<i>Acer rubrum</i>	Red Maple	1.5"-2" cal.	As Shown	
Evergreen Tree					
PS	<i>Pinus strobus</i>	Eastern White Pine	6-7 HT.	As Shown	
Shrubs					
HV	<i>Hamamelis virginiana</i>	Witch Hazel	#10	8' O.C.	Straight Species
VC	<i>Vaccinium corymbosum</i>	Highbush Blueberry	4ht b&b	8' O.C.	Straight Species
Grasses / Perennials					
DP	<i>Dennstaedtia punctilobula</i>	Hay-scented fern	Plugs	12" O.C.	
ED	<i>Eurybia divaricata</i>	White wood aster	Plugs	12" O.C.	
OC	<i>Osmunda cinnamomea</i>	Cinnamon Fern	Plugs	18" O.C.	
Seed Mix 1					
New England Conservation/Wildlife Mix (3,700 SF +/-)					
Application Rate: 25 LBS/ACRE (1750 SQ. FT./LB)					
Seed Mix 2					
New England Semi-shade Grass and Forbs Mix (3,390 SF +/-)					
Application Rate: 30 LBS/ACRE (1450 SQ. FT./LB)					
Seed Mix 3					
New England Wetmix (1,170 SF +/-)					
Application Rate: 18 LBS/ACRE (2500 SQ. FT./LB)					



Revisions

Rev	Date	By	Asst	Description

Checked By: _____
 Designated By: _____
 Drawn By: _____
 Created By: _____

Horsley Witten Group, Inc.
 Sustainable Environmental Solutions
 90 Route 6A
 Norwell, MA 02063
 508-833-6600 voice
 508-833-3150 fax

Town: FEBRUARY 2021

WOMPATUCK STATE PARK
 PARKING LOT & TRAIL ACCESS
 NORWELL, MASSACHUSETTS

LANDSCAPE PLAN

Prepared For:
Town of Norwell Planning Department
 345 Main Street
 Norwell, MA 02061
 Phone: (781) 659-8021
 Fax: _____

Survey Provided By:
Horsley Witten Group, Inc.
 90 Route 6A
 Norwell, MA 02063
 Phone: (508) 833-6600
 Fax: (508) 833-3150
 Date: December 1, 2017

Project Number: 17150 Sheet: 9 of 10
 Sheet Number: LA-9

GENERAL PLANTING NOTES:

- THE FOLLOWING NOTES ARE PROVIDED AS GENERAL PLANTING GUIDELINES ONLY. THOROUGHLY REVIEW THE PROJECT SPECIFICATIONS FOR ALL LANDSCAPE REQUIREMENTS PRIOR TO THE COMMENCEMENT OF ANY LANDSCAPE WORK. SUBMIT IN WRITING TO THE LANDSCAPE ARCHITECT ANY QUESTIONS OR CLARIFICATIONS REQUIRED AT A MINIMUM OF 30 DAYS PRIOR TO ORDERING ANY MATERIALS OR BEGINNING ANY LANDSCAPE CONSTRUCTION.
- SUBMIT TO THE LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL ALL REQUIRED LANDSCAPE SUBMITTALS AS DESCRIBED IN THE SPECIFICATIONS INCLUDING A PLANT LIST WITH PLANT SIZE AND QUANTITIES TO BE ORDERED PRIOR TO DELIVERY TO THE PROJECT SITE.
- FURNISH AND INSTALL ALL PLANTS AS SHOWN ON THE DRAWINGS AND IN THE SIZE AND QUANTITIES SPECIFIED ON THE PLANTING SCHEDULE. PLANT SUBSTITUTION SELECTION MUST BE APPROVED BY BIOLOGIST OR LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- ALL PLANTS TO COMPLY WITH APPLICABLE REQUIREMENTS OF ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK," LATEST EDITION, PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION INC.
- PLANTS TO BE GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT FOR AT LEAST TWO (2) YEARS. USE HEALTHY NURSERY GROWN PLANTS, FREE OF DISEASE, INSECTS, AND PESTS. EGGS OR LARVAE, AND HAVE A WELL DEVELOPED ROOT SYSTEM.
- INSTALL PLANTS WITHIN ONE (1) WEEK OF PURCHASE. IF PLANTS ARE TO BE STORED AT THE SITE PRIOR TO PLANTING, IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THEY ARE PROPERLY MAINTAINED, WATERED, AND REMAIN HEALTHY.
- PROCEED WITH PLANTING ONLY WHEN EXISTING AND FORECASTED WEATHER CONDITIONS PERMIT. SUBMIT TO THE LANDSCAPE ARCHITECT IN WRITING THE PROPOSED PLANTING SCHEDULE. OBTAIN APPROVAL OF PLANTING SCHEDULE FROM THE LANDSCAPE ARCHITECT PRIOR TO PERFORMING ANY WORK.
- SEASONS FOR PLANTING:

SPRING:	DECIDUOUS:	APRIL 1 TO JUNE 15
	EVERGREEN:	APRIL 1 TO JUNE 15
	PERENNIALS:	APRIL 15 TO JUNE 1
	GROUNDCOVERS:	APRIL 15 TO JUNE 1
FALL:	DECIDUOUS:	SEPTEMBER 15 TO NOVEMBER 15
	EVERGREEN:	SEPTEMBER 15 TO NOVEMBER 15
	PERENNIALS:	SEPTEMBER 15 TO NOVEMBER 15
	GROUNDCOVERS:	SEPTEMBER 15 TO NOVEMBER 15

GENERAL SEEDING NOTES:

- SEND A REPRESENTATIVE SAMPLE OF THE TOPSOIL TO A TESTING LABORATORY FOR STANDARD SOIL ANALYSIS AS DESCRIBED IN THE SPECIFICATIONS. SUBMIT TO THE LANDSCAPE ARCHITECT AND ENGINEER TEST RESULTS WITH RECOMMENDED SOIL TREATMENTS TO PROMOTE PLANT AND GRASS GROWTH. CORRECT DEFICIENCIES IN THE LOAM AND STOCKPILED TOPSOIL AS DIRECTED BY THE TESTING AGENCY.
- ALL AREAS THAT ARE DISTURBED AND/OR GRADED DURING CONSTRUCTION ARE TO BE BROUGHT TO FINISHED GRADE WITH AT LEAST 4" MINIMUM DEPTH OF GOOD QUALITY LOAM AND SEEDED WITH A QUICK GERMINATING GRASS SEED SUCH AS NEW ENGLAND EROSION CONTROL RESTORATION MIX OR AS SPECIFIED ON THE PLANS.
- PRIOR TO THE PLACEMENT OF TOP SOIL, LOOSEN THE SUBGRADE OF ALL PROPOSED SEEDING AREAS TO A DEPTH OF 6" AND RAKE TO REMOVE STONES LARGER THAN 1 INCH, STICKS, ROOTS, RUBBISH AND OTHER EXTRANEOUS MATTER AND LEGALLY DISPOSE TO AN OFF SITE LOCATION.
- DO NOT SPREAD TOPSOIL IF THE SUBGRADE IS FROZEN, EXCESSIVELY WET, COMPACTED OR NOT PROPERLY PREPARED PER THE NOTES AND SPECIFICATIONS.

WATERING NOTES:

- PROVIDE PROPER PLANT CARE, MAINTENANCE AND WATERING ON SITE UNTIL SUCH TIME AS THE LANDSCAPING IS ACCEPTED BY THE PROPERTY OWNER AS SATISFACTORY PER THE SPECIFICATIONS OR AS DETERMINED BY ANY WRITTEN AGREEMENTS BETWEEN THE CONTRACTOR AND PROPERTY OWNER.
- ESTABLISH AN APPROPRIATE WATERING SCHEDULE FOR ALL PLANT MATERIAL BASED UPON PLANT SPECIES REQUIREMENTS AND PROVIDE IN WRITING TO THE LANDSCAPE ARCHITECT AND OWNER FOR REVIEW AND APPROVAL. ADHERE TO THE APPROVED SCHEDULE UNTIL PLANTS ARE FULLY ESTABLISHED.
- AT A MINIMUM THE NEWLY SEEDED AND/OR HYDROSEEDING AREAS SHOULD BE WATERED DAILY DURING ESTABLISHMENT. SPECIAL CARE SHOULD BE TAKEN TO ENSURE THAT THE AREA IS NOT SATURATED DURING WATERING. IF AN IRRIGATION SYSTEM IS NOT PROVIDED, A TEMPORARY IRRIGATION SYSTEM OR HANDHELD GARDEN HOSE SHALL BE USED FOR WATERING SEEDING AREAS. THE AREA MUST BE MAINTAINED CONSISTENTLY MOIST FOR THE BEST GERMINATION RESULTS. ADDITIONAL WATERING WILL BE REQUIRED IF PLANTING AND SEEDING OCCUR OUTSIDE OF THE RECOMMENDED PLANTING SEASONS.

PLANTING LAYOUT NOTES:

- HATCHED AREAS - DO NOT PLANT LARGE AREAS OF THE SAME SPECIES. RANDOMLY PLANT AS INDICATED ON THE PLANTING PLANS INTO SMALL GROUPINGS OF THE SAME SPECIES TO CREATE A MORE NATURALISTIC APPEARANCE. PLANT THE SAME PLANT SPECIES IN GROUPS OF 3-7 AND NOT LARGER THAN 7, DEPENDING ON THE OVERALL NUMBER OF PLANTINGS.

9. PLANTING UNDER FROZEN CONDITIONS IN EITHER THE SPRING OR FALL WILL NOT BE PERMITTED. PLANTING BEFORE OR AFTER THE ABOVE REFERENCED PLANTING DATES WILL INCREASE THE LIKELIHOOD OF PLANT OR SEED ESTABLISHMENT FAILURE. ANY DEVIATION FROM THE ABOVE REFERENCED PLANTING DATES IS UNDERTAKEN AT SOLE RISK OF THE CONTRACTOR AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ANY ADDITIONAL MAINTENANCE AND WATERING WHICH MAY BE REQUIRED TO ENSURE SATISFACTORY PLANT AND SEED ESTABLISHMENT.

10. FURNISH ONE YEAR MANUFACTURER WARRANTY FOR TREES, PLANTS, AND GROUND COVER AGAINST DEFECTS INCLUDING DEATH AND UNSATISFACTORY GROWTH EXCEPT FOR DEFECTS RESULTING FROM LACK OF ADEQUATE MAINTENANCE, NEGLIGENCE, OR ABUSE BY OWNER, OR ABNORMAL WEATHER CONDITIONS UNUSUAL FOR WARRANTY PERIOD. THE DATE OF FINAL ACCEPTANCE OF ALL COMPLETED PLANTING WORK ESTABLISHES THE END OF INSTALLATION AND INITIAL MAINTENANCE PERIOD AND THE COMMENCEMENT OF THE GUARANTEE PERIOD.

11. ALL TREES WITHIN 5'-0" OF WALKWAYS AND SIDEWALKS TO HAVE A 6'-8" STANDARD BRANCHING HEIGHT.

12. INSPECT ALL AREAS TO BE PLANTED OR SEEDED PRIOR TO STARTING ANY LANDSCAPE WORK. REPORT ANY DEFECTS SUCH AS INCORRECT GRADING, INCORRECT SUBGRADE ELEVATIONS OR DRAINAGE PROBLEMS, ETC. TO THE LANDSCAPE ARCHITECT AND ENGINEER PRIOR TO BEGINNING WORK. COMMENCEMENT OF WORK INDICATES ACCEPTANCE OF SUBGRADE AREAS TO BE PLANTED, AND THE LANDSCAPE CONTRACTOR ASSUMES RESPONSIBILITY FOR ALL LANDSCAPE WORK.

13. PROVIDE PROPER PREPARATION OF ALL PROPOSED PLANTED AND SEEDED AREAS PER THE NOTES AND SPECIFICATIONS.

14. ALL PLANT LAYOUT AND ACTUAL PLANTING LOCATIONS ARE TO BE FIELD VERIFIED BY LANDSCAPE ARCHITECT PRIOR TO PLANTING. NOTIFY THE LANDSCAPE ARCHITECT AT A MINIMUM OF 48 HOURS IN ADVANCE PRIOR TO SCHEDULING ANY FIELD INSPECTIONS.

15. BALL AND BURLAP: REMOVE BURLAP AND WIRE BASKETS FROM TOPS OF BALLS AND FROM TOP HALF OF ROOTBALL AS INDICATED ON DRAWINGS. REMOVE PALLET, IF ANY, BEFORE SETTING.

16. POTTED PLANTS: REMOVE THE PLANT FROM THE POT AND LOOSEN OR SCORE THE ROOTS BEFORE PLANTING TO PROMOTE OUTWARDS ROOT GROWTH INTO THE SOIL.

17. PLUGS: PLANT UPRIGHT AND NOT AT AN ANGLE. DIG PLANTING HOLES LARGE ENOUGH AND DEEP ENOUGH TO ACCOMMODATE THE ENTIRE ROOT MASS. PLANT PLUGS WITH NO TWISTED OR BALLED ROOTS AND WITH NO ROOTS EXPOSED ABOVE THE GRADE LINE. HAND PACK THE SOIL AROUND THE ENTIRE PLUG ROOT MASS.

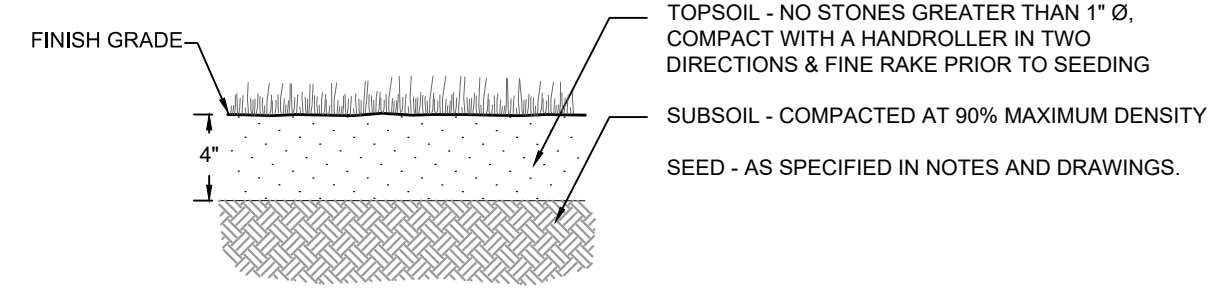
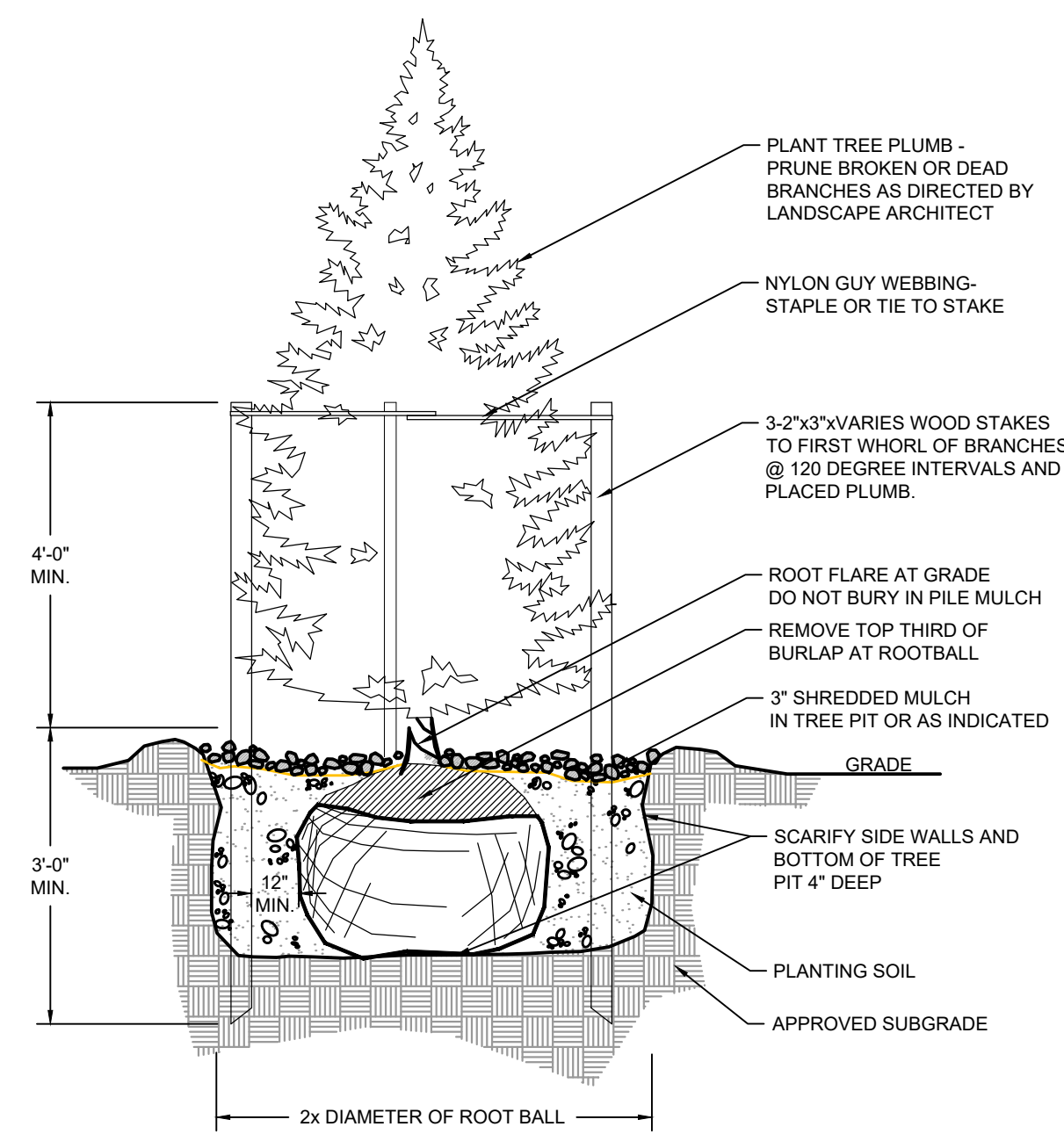
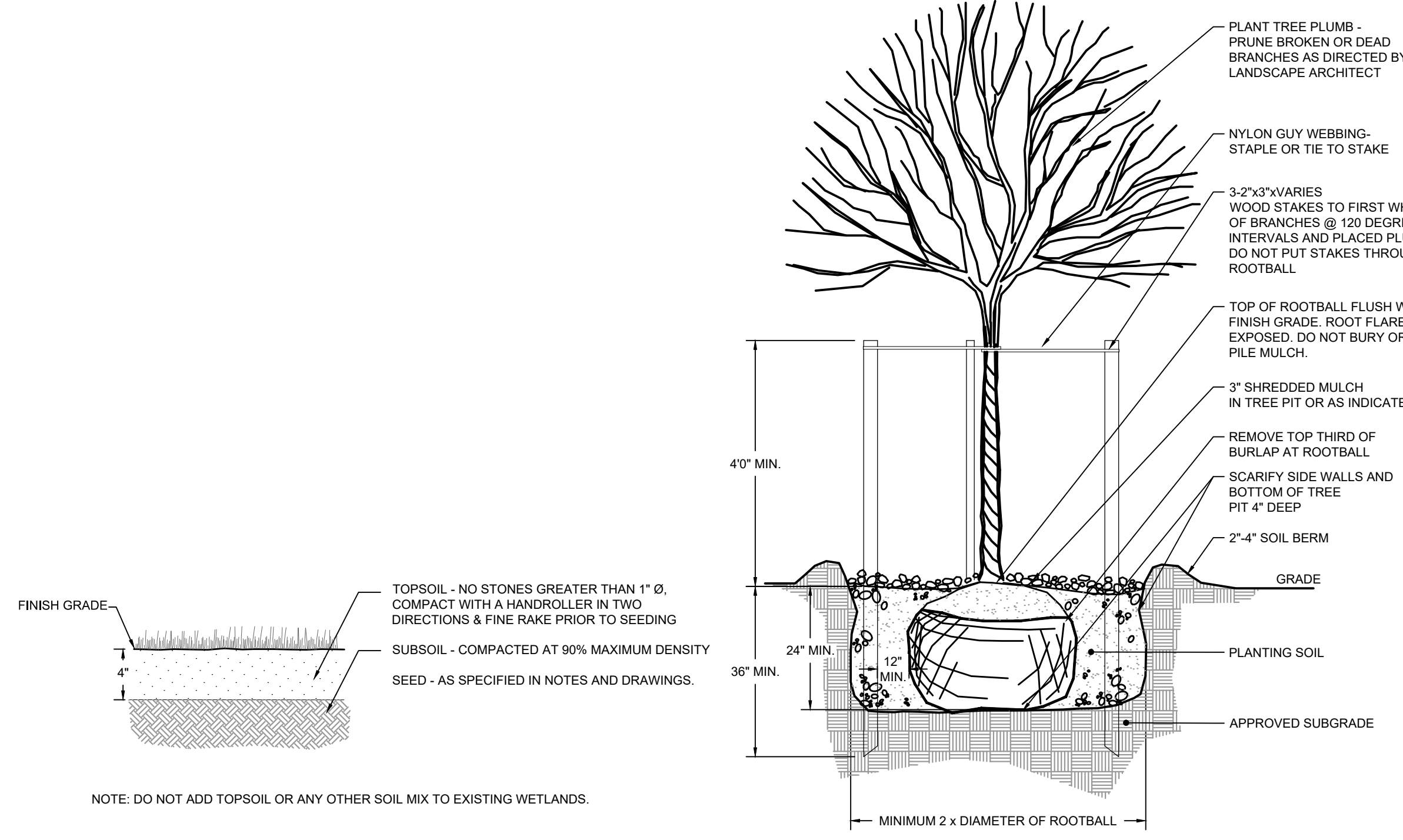
18. DIG THE THE PLANTING HOLE TO THE SAME DEPTH AS THE ROOT BALL AND TWO TO THREE TIMES WIDER. SCORE ALL SIDES OF THE HOLE, PLACE THE PLANT IN THE HOLE SO THE TOP OF ROOT BALL IS EVEN WITH SOIL SURFACE. FILL THE HOLE HALFWAY AND THEN ADD WATER ALLOWING IT TO SEEP INTO BACK FILLED MATERIAL. BE SURE TO REMOVE ALL AIR POCKETS FROM BACK FILLED SOIL. DO NOT SPREAD SOIL ON TOP OF THE ROOTBALL. IF SOIL IS EXTREMELY POOR, REPLACE BACK FILL WITH GOOD QUALITY TOP SOIL. AMEND THE SOIL, AS NECESSARY.

19. CREATE A 2" TO 4" BERM AROUND THE EDGE OF PLANTING HOLE WITH REMAINING SOIL TO RETAIN WATER.

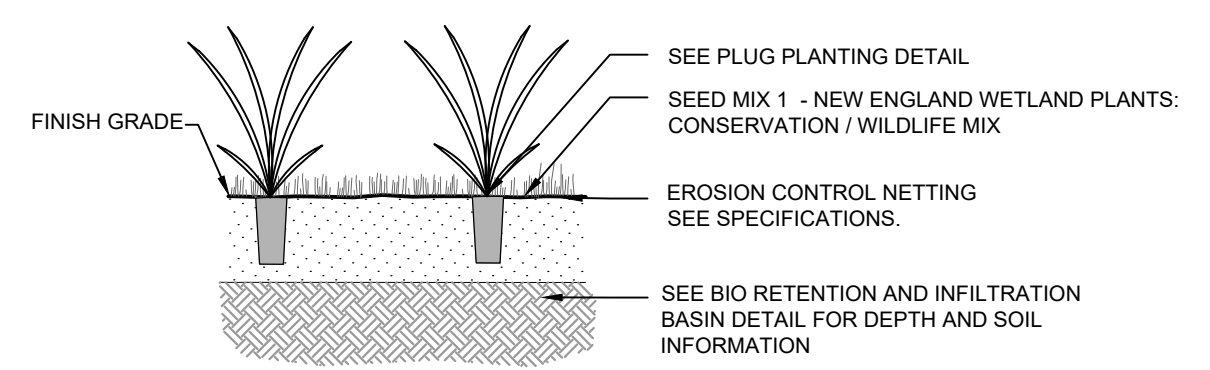
20. REMOVE ALL PLANT TAGS AND FLAGS FROM THE PLANTS.

21. MULCH ALL PLANTING BEDS AS INDICATED ON DRAWINGS. UNLESS NOTED OTHERWISE, ALL PLANTS TO RECEIVE 2-3 INCHES OF MULCH. DO NOT PILE OR MOUND MULCH AROUND THE PLANT STEMS OR TRUNK.

22. TRIM BROKEN AND DEAD BRANCHES FROM TREES AND SHRUBS AFTER PLANTING. NEVER CUT A LEADER.



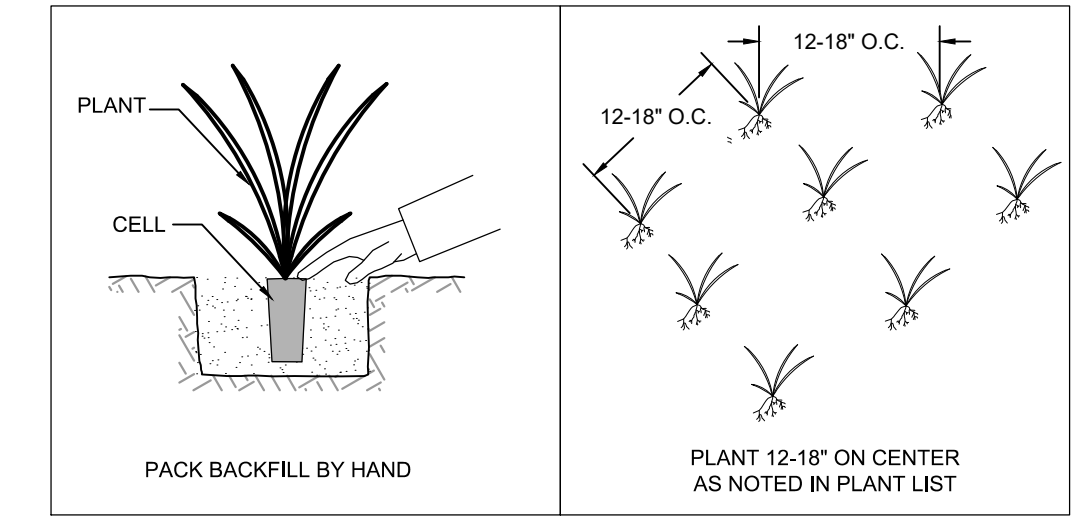
LOAM AND SEED
NOT TO SCALE



NOTES:
1. USE MANUFACTURER RECOMMENDED ANCHORS TO SECURE NETTING TO GROUND.
2. DO NOT USE PLASTIC.

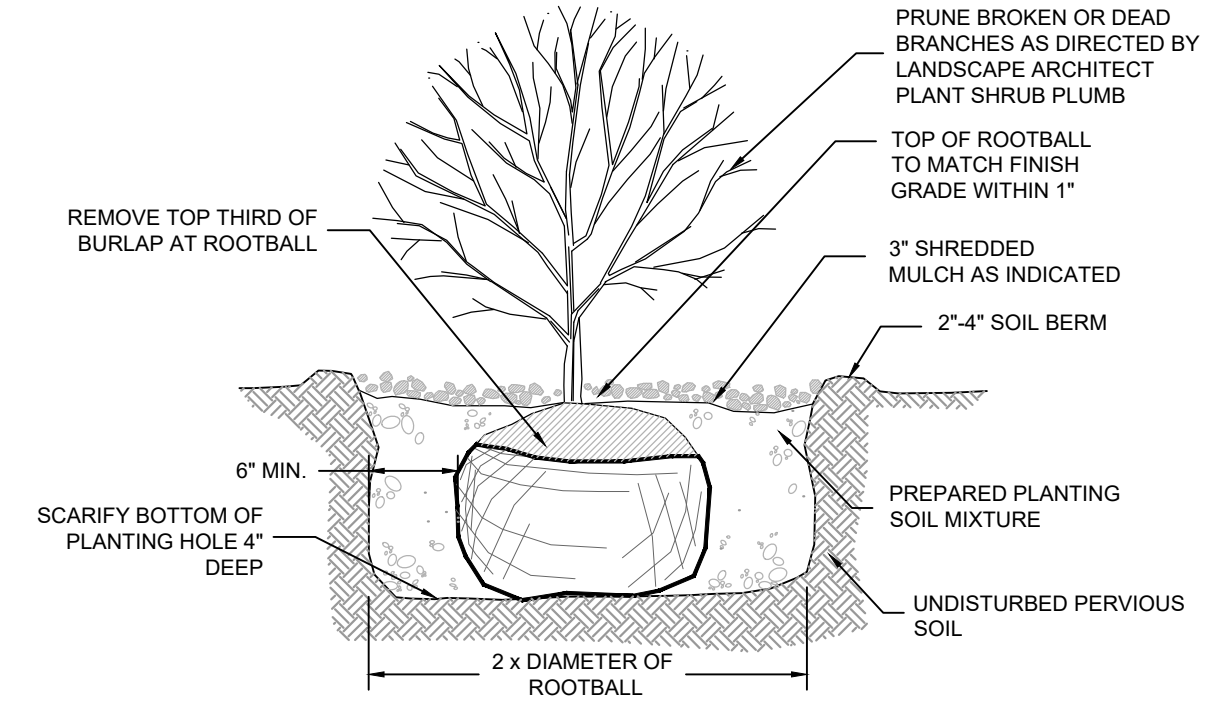
PLUG AND HAND SEEDING
NOT TO SCALE

TREE PLANTING DETAIL
NOT TO SCALE



PLUG PLANTING DETAIL
NOT TO SCALE

EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE



SHRUB PLANTING
NOT TO SCALE

Revisions

Rev	Date	By	Asst	Description
1				
2				
3				
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8				
9				
10				

Horsley Witten Group, Inc.
Sustainable Environmental Solutions
80 Route 6A
Sandwich, MA 02563
508-833-6600 voice
508-833-3150 fax

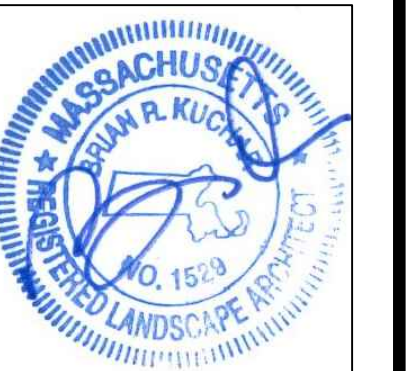
Checked By: EB
Designed By: EB
Drawn By: EB
Date: FEBRUARY 2021

**WOMPATUCK STATE PARK
PARKING LOT & TRAIL ACCESS
NORWELL, MASSACHUSETTS**

Plan Title: LANDSCAPE DETAILS

Prepared For:
Town of Norwell Planning Department
345 Main Street
Norwell, MA 02061
Phone: (781) 659-8021
Fax: _____

Survey Provided By:
Horsley Witten Group, Inc.
80 Route 6A
Sandwich, MA 02563
Phone: (508) 833-6600
Fax: (508) 833-3150
Date: December 1, 2017



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