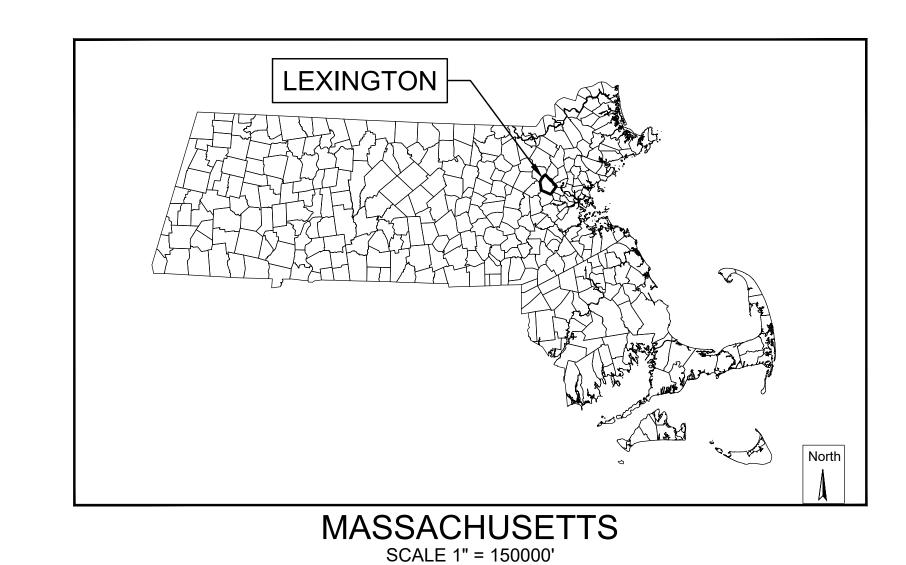
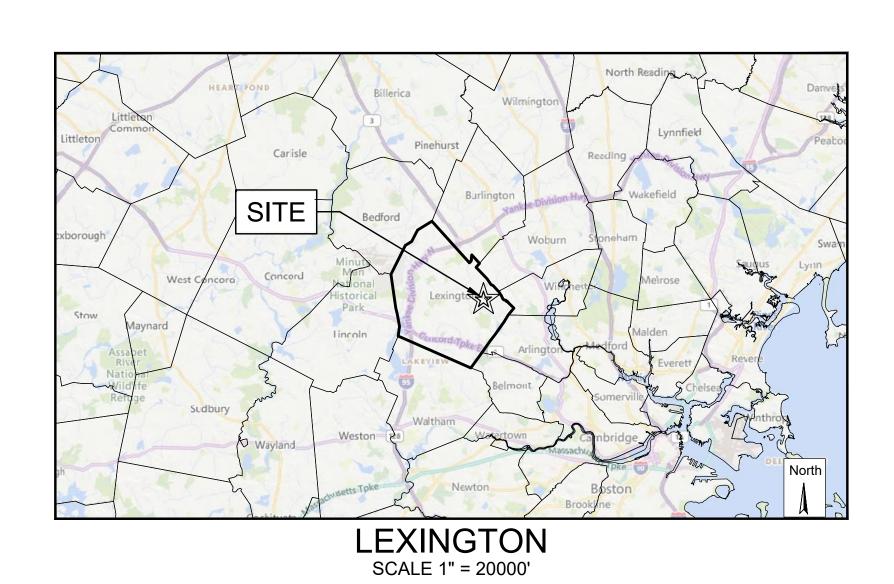
MYSTIC RIVER WATERSHED 0 LOWELL STREET & 0 MAPLE STREET LEXINGTON, MASSACHUSETTS MAY 2021







SITE SCALE 1" =1000'

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GENERAL NOTES:

1. THIS PLAN SET IS FOR PERMITTING ONLY AND NOT FOR CONSTRUCTION. 2. SITE INFORMATION:

LOT ADDRESS: 328 LOWELL ST ZONING DISTRICT: GOVERNMENT CIVIC

MYSTIC RIVER WATERSHED 0 LOWELL STREET & 0 MAPLE STREET LEXINGTON, MASSACHUSETTS

Town of Lexington 201 Bedford Street Lexington, MA 02420 (781) 274-8300

Mystic River
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(508) 833-3150 fax 21008 1 of 12 C - 1

> PERMITTING SET ONLY NOT FOR CONSTRUCTION

GENERAL CONSTRUCTION NOTES:

- . ALL SITE WORK TO COMPLETE THIS PROJECT AS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATIONS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 2. IMMEDIATELY CONTACT AND COORDINATE WITH THE ENGINEER AND OWNER IF ANY DEVIATION OR ALTERATION OF THE WORK PROPOSED ON THESE DRAWINGS IS REQUIRED.
- UTILIZE ALL PRECAUTIONS AND MEASURES TO ENSURE THE SAFETY OF THE PUBLIC, ALL PERSONNEL AND PROPERTY DURING CONSTRUCTION IN ACCORDANCE WITH OSHA STANDARDS, INCLUDING THE INSTALLATION OF TEMPORARY FENCING BARRICADES, SAFETY LIGHTING, CONES, POLICE DETAIL AND/OR FLAGMEN AS DETERMINED NECESSARY BY THE TOWN. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF POLICE DETAIL AND FOR COORDINATING WITH THE LOCAL OR STATE POLICE DEPARTMENT FOR ALL
- 4. 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.
- 5. ALL EXISTING CONDITIONS SHOWN ARE APPROXIMATE AND ARE BASED ON THE BEST INFORMATION AVAILABLE. PRIOR TO THE START OF CONSTRUCTION VERIFY THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF ANY CONFLICTS ARE DISCOVERED, NOTIFY THE OWNER AND THE ENGINEER PRIOR TO INSTALLING ANY PORTION OF THE SITE WORK WHICH WOULD BE AFFECTED.
- 6. THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS INDICATED ON THE DRAWINGS 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. VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY IN THE CITY, AND "DIGSAFE" (1-888-344-7233) AT LEAST THREE BUSINESS DAYS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES. THE CONTRACTOR MUST RESOLVE CONFLICTS BETWEEN THE PROPOSED UTILITIES AND FIELD-LOCATED UTILITIES AND 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 MUST MAINTAIN ACCURATE RECORDS OF THE LOCATION AND ELEVATION OF ALL WORK INSTALLED AND EXISTING UTILITIES FOUND DURING CONSTRUCTION FOR THE PREPARATION OF THE AS-BUILT PLAN.
- THE CONTRACTOR MUST MAINTAIN ALL EXISTING UTILITIES IN WORKING ORDER AND FREE FROM DAMAGE DURING THE ENTIRE DURATION OF THE PROJECT. REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT NO COST TO THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ALL COST RELATED TO THE REPAIR OF UTILITIES. EXCAVATION REQUIRED WITHIN THE PROXIMITY OF EXISTING UTILITY LINES MUST BE DONE BY HAND.
- 8. COORDINATE ALL TRENCHING WORK WITHIN ROADWAYS WITH THE PROPER LOCAL & STATE AGENCY. THE CONTRACTOR IS RESPONSIBLE FOR ALL TRENCH SAFETY INCLUDING ANY LOCAL AND/OR STATE PERMITS REQUIRED FOR THE TRENCH WORK. IF THIS WORK IS REQUIRED TO OCCUR OUTSIDE THE AGREED UPON HOURS OF OPERATION FOR THE FACILITY, THE CONTRACTOR MUST PLAN ACCORDINGLY.
- 9. SAWCUT ALL TRENCH WORK WITHIN EXISTING PAVEMENT AS INDICATED ON THE DRAWINGS. BACKFILL AND COMPACT TRENCH WORK AS INDICATED ON THE DRAWING AND IN THE SPECIFICATIONS. IF SETTLEMENT OCCURS DUE TO INADEQUATE COMPACTION, AS DETERMINED BY THE ENGINEER, WITHIN THE WARRANTY PERIOD, CONTRACTOR IS REQUIRED TO REMOVE, PATCH AND REPAVE AFTER ONE COMPLETE 12-MONTH CYCLE.
- 10. IMPORT ONLY CLEAN MATERIAL. MATERIAL FROM AN EXISTING OR FORMER 21E SITE AS DEFINED BY THE MASSACHUSETTS CONTINGENCY PLAN 310 CMR 40 0000 WILL NOT BE ACCEPTED.
- 11. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH AND MAINTAIN ALL CONTROL POINTS AND BENCHMARKS DURING CONSTRUCTION INCLUDING BENCHMARK LOCATIONS AND ELEVATIONS AT CRITICAL AREAS. COORDINATE WITH THE ENGINEER THE LOCATION OF ALL CONTROL POINTS AND BENCHMARKS.
- 12. SITE LAYOUT SURVEY REQUIRED FOR CONSTRUCTION MUST BE PROVIDED BY THE CONTRACTOR AND PERFORMED BY A MASSACHUSETTS' REGISTERED PROFESSIONAL LAND SURVEYOR. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE SURVEYOR FOR ALL SITE SURVEY WORK.
- 13. MAINTAIN ALL GRADE STAKES SET BY THE SURVEYOR. GRADE STAKES ARE TO REMAIN UNTIL A FINAL INSPECTION OF THE ITEM HAS BEEN COMPLETED BY THE ENGINEER. RE-STAKING OF PREVIOUSLY SURVEYED SITE FEATURES IS THE RESPONSIBILITY (INCLUDING COST) OF THE CONTRACTOR.
- 14. UNLESS OTHERWISE INDICATED ON THE DRAWINGS AND/OR IN THE SPECIFICATIONS, ALL SITE CONSTRUCTION MATERIALS AND METHODOLOGIES ARE TO CONFORM TO THE MOST RECENT VERSION OF THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS (THE COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR HIGHWAY AND BRIDGES 2021 EDITION.
- PROVIDE ALL CONSTRUCTION SERVICE IN ACCORDANCE WITH APPLICABLE LAWS AND REGULATIONS REGARDING NOISE, VIBRATION, DUST. SEDIMENTATION CONTAINMENT. AND TRENCH WORK.
- 16. COLLECT SOLID WASTES AND STORE IN A SECURED DUMPSTER. THE DUMPSTER MUST MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS.
- 17. RESTORE ALL SURFACES EQUAL TO THEIR ORIGINAL CONDITION AFTER CONSTRUCTION IS COMPLETE PER SPECIFICATIONS. LEAVE ALL AREAS NOT DISTURBED BY CONSTRUCTION IN THEIR NATURAL STATE. 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.
- 18. REGULARLY INSPECT THE PERIMETER OF THE PROPERTY TO CLEAN UP AND REMOVE LOOSE CONSTRUCTION DEBRIS BEFORE IT LEAVES THE SITE. PROMPTLY REMOVE ALL DEMOLITION DEBRIS FROM THE SITE TO AN APPROVED DUMP SITE.
- 19. ALL TRUCKS LEAVING THE SITE MUST BE COVERED.
- 20. DO NOT WASH ANY CONCRETE TRUCKS ONSITE. REMOVE BY HAND ANY CEMENT OR CONCRETE DEBRIS LEFT IN THE DISTURBED
- 21. BURIAL OF ANY STUMPS, SOLID DEBRIS, AND/OR STONES/BOULDERS ONSITE IS PROHIBITED. DO NOT USE ROAD SALT OR OTHER DE-ICING CHEMICALS ON THE ACCESS ROADWAY.
- 22. AT THE END OF CONSTRUCTION, REMOVE ALL CONSTRUCTION DEBRIS AND SURPLUS MATERIALS FROM THE SITE. PERFORM A THOROUGH INSPECTION OF THE WORK PERIMETER. COLLECT AND REMOVE ALL MATERIALS AND BLOWN OR WATER CARRIED DEBRIS FROM THE SITE.

GENERAL DEMOLITION NOTES:

THIS PLAN SET DOES NOT INCLUDE DETAILS & SPECIFICATIONS FOR ALL DEMOLITION WORK REQUIRED WITHIN THE PROPOSED CONSTRUCTION LIMITS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE OWNER AND PROJECT ENGINEERS INVOLVED WITH THE PROPOSED NEW CONSTRUCTION TO DEVELOP A SUITABLE DEMOLITION PLAN, WHICH WILL ALLOW THE FACILITIES TO REMAIN IN OPERATION DURING THE ENTIRETY OF CONSTRUCTION.

- 1. UNLESS OTHERWISE NOTED, THE CONTRACTOR IS RESPONSIBLE FOR THE RELOCATION, DEMOLITION, REMOVAL AND DISPOSAL, IN A LOCATION APPROVED BY ALL GOVERNING AUTHORITIES, OF ALL EXISTING SITE ELEMENTS AND STRUCTURES INCLUDING, BUT NOT LIMITED TO, ROADWAYS, PARKING AREAS, PARKING ISLANDS, BITUMINOUS CONCRETE, CEMENT CONCRETE, GRAVEL, CURBS, WALKWAYS, SIDEWALKS, BERMS, FENCES, BOLLARDS, POSTS, PLANTING BEDS, TREES, SHRUBS, UTILITIES, DRAINAGE STRUCTURES AND ALL OTHER STRUCTURES SHOWN AND NOT SHOWN WITHIN CONSTRUCTION LIMITS, AND WHERE NEEDED, TO ALLOW FOR NEW CONSTRUCTION. ALL FACILITIES TO BE REMOVED ARE TO BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER SPECIFICATIONS.
- 2. REMOVE ALL DEBRIS FROM THE SITE AND DISPOSE OF THE DEBRIS IN A PROPER AND LEGAL MANNER.
- 3. OBTAIN ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL.
- COORDINATE WITH RESPECTIVE UTILITY COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF UTILITIES. COORDINATE WITH THE UTILITY COMPANIES CONCERNING PORTIONS OF THE WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANY AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR PAYING ALL FEES AND CHARGES.
- 5. REFER TO UTILITY PLANS AND SPECIFICATIONS FOR ALL WORK WHICH REQUIRES UTILITIES TO BE REMOVED, RELOCATE OR ABANDONED AND LEFT IN PLACE.
- 6. MAINTAIN CONTINUOUS ACCESS AND OPERATION FOR SURROUNDING FACILITIES, AS DEEMED BY THE OWNER, AT ALL TIMES DURING DEMOLITION OF THE EXISTING FACILITIES.
- 7. PRIOR TO DEMOLITION OCCURRING, ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED.

ROOT PRUNING

- ALL ROOTS ABOVE 1" IN DIAMETER ENCOUNTERED DURING DEMOLITION OR CONSTRUCTION SHALL BE ROOT PRUNED.
- CUT ROOT CLEAN WITH A SAW ON THE SURFACE OF THE ROOT, WHICH IS STILL ATTACHED TO THE TREE. DO NOT PAINT THE CUT ROOT END.
- ROOT PRUNING WORK WILL NOT BE DONE WHEN MORE THAN THE TOP 1 INCH OF SOIL IS FROZEN. ROOT PRUNING WILL NOT BE UNDERTAKEN WHEN THE SOIL IS WET AND CONDITIONS ARE MUDDY.
- ONCE CUT, BACK FILL SOIL OVER ROOT. DO NOT LEAVE ROOT EXPOSED OVER NIGHT. AFTER ROOT HAS BEEN CUT, AND COVERED WITH SOIL, THOROUGHLY WATER .
- 4. PRUNE TREE BRANCHES IF ANY DIE AS A RESULT OF ROOT PRUNING.
- IF MORE THAN 40% OF A TREES DRIP LINE IS DISTURBED, AND IT'S ROOTS DESTROYED OR REMOVED, NOTIFY PROJECT ENGINEER TO DETERMINE IF TREE SHOULD BE REMOVED.

BASIC CONSTRUCTION SEQUENCE:

THE FOLLOWING CONSTRUCTION SEQUENCE IS TO BE USED AS A GENERAL GUIDELINE. COORDINATE WITH THE OWNER, ENGINEERS, AND LANDSCAPE ARCHITECT AND SUBMIT A PROPOSED CONSTRUCTION SEQUENCE FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

- 1. SURVEY AND STAKE THE PROPOSED LIMIT OF DISTURBANCE AND LIMIT OF SEDIMENTATION BARRIERS.
- PLACE SEDIMENTATION BARRIERS AS INDICATED ON DRAWINGS AND STAKED OUT IN THE FIELD. UNDER NO CIRCUMSTANCES IS THE LIMIT OF WORK TO EXTEND BEYOND THE SEDIMENTATION BARRIERS/LIMIT OF DISTURBANCE AS INDICATED ON DRAWINGS AS APPROVED BY THE LOCAL CONSERVATION COMMISSION AND MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION (MassDEP).
- INSTALL TEMPORARY CONSTRUCTION ENTRANCES IN LOCATIONS INDICATED ON DRAWINGS. NO OTHER ENTRANCES ARE TO BE USED TO GAIN ACCESS TO THE SITE BY ANY CONSTRUCTION OR DELIVERY VEHICLES.

BEGIN CLEARING THE SITE AS REQUIRED.

- 5. SURVEY AND STAKE CENTERLINE OF THE STORMWATER MANAGEMENT AREAS, AND DRAINAGE LINES.
- 6. EXCAVATE AND ROUGH GRADE THE PROPOSED STORMWATER MANAGEMENT AREAS AND ANY ADDITIONAL TEMPORARY BASINS NECESSARY TO CONTROL SITE RUNOFF AND SEDIMENTS. TEMPORARILY STABILIZE/SEED PERMANENT STORMWATER MANAGEMENT AREAS AS NECESSARY TO REDUCE SIDE SLOPE EROSION AND SEDIMENT ACCUMULATION.
- 7. BEGIN CLEARING AND GRUBBING THE AREAS OF TRAILS AND STORMWATER MANAGEMENT AREAS. TOPSOIL IS TO BE STRIPPED FROM THE AREA OF THE PROPOSED ROADWAYS AND STORMWATER MANAGEMENT AREAS AND STOCKPILED IN APPROVED LOCATIONS. TOPSOIL STOCKPILES MUST BE PROTECTED BY A SEDIMENT BARRIER.
- INSTALL TEMPORARY CONVEYANCE DEVICES (SWALES, CHECK DAMS, PIPES, ETC.) AS NECESSARY TO CONVEY RUNOFF TO ANY TEMPORARY SEDIMENT CONTROL BASINS OR TREATMENT AREAS.
- 9. BRING ROUGH GRADING TO PROPER ELEVATIONS AS SOON AS PRACTICABLE. COORDINATE WORK TO MINIMIZE TIME SOILS ARE UN-STABILIZED.
- 10. INSTALL DRAINAGE PIPES, DRAINAGE MANHOLES, CATCH BASINS, AND UNDERGROUND DRAINAGE STRUCTURES. BEGIN WORK AT THE STORMWATER MANAGEMENT AREAS AND PROGRESS UP-GRADIENT. PROTECT DISCHARGE OUTLETS WITH RIP-RAP APRONS. THE STORMWATER MANAGEMENT AREA(S) AND DRAINAGE NETWORK ARE TO BE PROTECTED FROM SEDIMENTATION 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. TAKE PARTICULAR CARE TO PROTECT THE UNDERGROUND STRUCTURES FROM SEDIMENT AND KEEP UPGRADIENT DRAINAGE OFF-LINE UNTIL CONSTRUCTED STORMWATER WETLAND IS STABILIZED.
- 11. PERMANENTLY SEED ALL DISTURBED AREAS OUTSIDE OF THE AREA TO BE PAVED.
- 12. BEGIN TRATIL CONSTRUCTION PER SITE PLANS AND IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL REGULATIONS.
- 13. FINISH PERMANENT STABILIZATION. COMPLETE PERMANENT STORMWATER MANAGEMENT AREA SEEDING AND PLANTING AFTER THE CONTRIBUTING AREA TO THE BASIN HAS REACHED A MINIMUM OF 80% STABILIZATION AND IS NO LONGER REQUIRED AS A CONSTRUCTION SEDIMENTATION BASIN
- 14. COMPLETE ALL REMAINING PLANTING AND SEEDING.
- 15. SWEEP PAVEMENT TO REMOVE ALL SEDIMENTS FROM ADJACENT ROADS AND PARKING LOTS. REPAIR DRAINAGE OUTLETS AND BASINS AS REQUIRED. CLEAN AND FLUSH THE DRAINAGE STRUCTURES AND PIPES AT THE END OF CONSTRUCTION AND REMOVE ALL ACCUMULATED SEDIMENTS IN THE STORMWATER MANAGEMENT AREAS. CONTRACTOR MUST INSPECT THE DRAINAGE NETWORK AND REPAIR ANY DAMAGE IMMEDIATELY.
- 16. ENGINEER TO APPROVE THE REMOVAL OF ALL TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES FOLLOWING VEGETATIVE ESTABLISHMENT OF ALL DISTURBED AREAS AND DETERMINE WHEN THE CONTRIBUTING AREA HAS REACHED A MINIMUM OF 80% STABILIZATION.

GENERAL GRADING AND DRAINAGE NOTES:

- I. ALL CUT AND FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.
- 2. EXISTING GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT.
- 3. PROPOSED GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT.
- 4. ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE WITH NEW PAVEMENT
- 5. PROPOSED ELEVATIONS ARE SHOWN TO FINISH PAVEMENT OR GRADE UNLESS NOTED OTHERWISE.
- ALL EARTHWORK AND SITE PREPARATION MUST BE DONE IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS OF ANY SUBSURFACE INVESTIGATION OR GEOTECHNICAL REPORTS PREPARED FOR THIS SITE.
- 7. ALL DRAINAGE STRUCTURES AND PIPES MUST BE CONNECTED TO THE DRAINAGE SYSTEM PRIOR TO THE INSTALLATION OF ANY PAVEMENT. PAVING WILL <u>NOT BE ALLOWED</u> IF 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.

DEWATERING

- 1. A HIGH WATER TABLE IS ANTICIPATED. IF DEWATERING IS REQUIRED DURING EXCAVATION, TEMPORARILY LOWER THE WATER TABLE [PER SPECIFICATIONS OR] BY PUMPING. INSTALL A DEWATERING BASIN AS INDICATED IN THE DEWATERING BASIN DETAIL AND PROVIDE A DEWATERING PLAN DEPICTING PROPOSED DEWATERING LOCATION FOR REVIEW AND APPROVAL. DIRECT THE PUMP DISCHARGE TO BASIN TO PREVENT SEDIMENTS FROM LEAVING THE CONSTRUCTION AREA. INSTALL ADDITIONAL BASINS IF REQUIRED. INSTALL THE BASIN AS INDICATED ON DRAWINGS IF SO NOTED, OTHERWISE INSTALL THE BASIN(S) WITHIN THE LIMIT OF DISTURBANCE INDICATED BY THE SILT FENCE OR STRAWBALES.
- 2. PRIOR TO ANY DEWATERING, THE DEWATERING PLAN MUST BE APPROVED BY THE ENGINEER.
- 3. IF DEWATERING IS NECESSARY DURING CONSTRUCTION, IMPLEMENT THE PROPER ESC MEASURES ON SITE TO PREVENT EROSION OR SEDIMENT RUNOFF. THESE MEASURES CAN INCLUDE DEWATERING BAGS, TEMPORARY STRAWBALES, SILT FENCES, SILT SOCKS AND/OR OTHER APPROVED DEVICES AS INDICATED IN THE D ETAILS.

 STORMWATER FACILITY OPERATION & MAINTENANCE:

THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER INSPECTION AND MAINTENANCE OF ALL STORMWATER MANAGEMENT FACILITIES AS OUTLINED BELOW DURING CONSTRUCTION AND UNTIL SUCH TIME THAT THE ROADWAYS AND ASSOCIATED UTILITIES ARE ACCEPTED BY THE OWNER AND THE ENGINEER.

- 1. INSPECT AND RESTORE/CLEAN ALL FACILITIES (INLETS, MANHOLES, INFILTRATION BASINS, STORMWATER MANAGEMENT AREAS AS
- 2. REMOVE AND DISPOSE ALL SEDIMENT AND DEBRIS TO A PRE-APPROVED LOCATION.

DESCRIBED BELOW OF SEDIMENT AND DEBRIS PRIOR TO THE OWNER'S ACCEPTANCE.

- 3. REFER TO THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR ADDITIONAL INFORMATION PERTAINING TO STORMWATER FACILITY OPERATION AND MAINTENANCE REQUIREMENTS. MAINTAIN A WORKING COPY OF THE SWPPP ON SITE AT ALL TIMES.
- 4. AT A MINIMUM INSPECT MONTHLY AND AFTER STORM EVENTS GREATER THAN OR EQUAL TO 1" OF RAINFALL AS NECESSARY FOR THE ENTIRE DURATION OF THE CONSTRUCTION PROJECT AND THE FIRST 3 MONTHS AFTER CONSTRUCTION TO ENSURE PROPER STABILIZATION.
- 5. SPECIFIC MAINTENANCE REQUIRED DURING CONSTRUCTION:
 - A. DRAINAGE STRUCTURES (INLETS, MANHOLES, CATCH BASINS, DIVERSION STRUCTURE, WATER QUALITY UNITS): MONITOR AND REGULARLY INSPECT ALL EXISTING AND PROPOSED DRAINAGE STRUCTURES FOR PROPER OPERATION, COLLECTION OF LITTER OR TRASH, AND STRUCTURAL DETERIORATION. CLEAN AND REMOVE SEDIMENT FROM THE STRUCTURES (INCLUDING SUMPS) AS NECESSARY, AND REPAIR WHEN REQUIRED.
 - B. <u>RIP-RAP SLOPE PROTECTION</u>: MONITOR, REGULARLY INSPECT AND REPAIR AS NECESSARY
 - C. CONSTRUCTED WETLAND SYSTEM: MONITOR AND INSPECT STRUCTURAL COMPONENTS OF THE SYSTEM, INCLUDING ORIFICE STRUCTURES, WEIR WALLS, DRAINAGE INLETS, TRASH CHECK RACKS, VALVES, PIPES, AND SPILLWAY STRUCTURES, FOR PROPER FUNCTION. CLEAN AND REPAIR ANY CLOGGED OPENINGS IDENTIFIED DURING INSPECTIONS. FOR PROPER OPERATION. REMOVE SEDIMENT OR ORGANIC BUILD-UP FROM THE CONSTRUCTED WETLAND AS NEEDED FOR PROPER OPERATION. REMOVE AND REPLACE ILL-ESTABLISHED, DEAD OR SEVERELY DISEASED PLANTS. PRUNE AND REMOVE FROM THE SITE ANY INVASIVE VEGETATION ENCROACHING UPON THE PERIMETER OF THE FACILITY. CHECK EMBANKMENTS FOR STABILITY AND REMOVE ANY BURROWING ANIMALS. RE-VEGETATE PER THE PLANTING DESIGN ALL BARREN AREAS WITHIN THE EXTENTS OF THE FACILITY.
 - D. ROUTINE MAINTENANCE: OTHER ROUTINE MAINTENANCE INCLUDES THE REMOVAL OF TRASH AND LITTER FROM PAVED AND PERIMETER AREAS, AND STREET AND PARKING LOT SWEEPING UPON COMPLETION OF CONSTRUCTION TO AVOID EXCESSIVE ACCUMULATION OF SEDIMENT IN THE DRAINAGE SYSTEM. INSPECT THE PIPES AND STRUCTURES FOR SEDIMENT ACCUMULATION AND PROPER FLOW.

INVASIVE SPECIES MANAGEMENT:

- 1. INVASIVE SPECIES MANAGEMENT SHOULD BE CUSTOMIZED TO THE INDIVIDUAL SPECIES FOLLOWING THE SPECIFIC MEASURES OUTLINED IN THE SPECIFICATIONS. MANAGERS SHOULD READ AND UNDERSTAND INVASIVE SPECIES CONTROL SPECIFICATIONS FOR THE SITE PRIOR TO COMMENCING ANY INVASIVE SPECIES MANAGEMENT ACTIVES.
- 2. ALL PESTICIDE APPLICATIONS MUST BE CONDUCTED BY A MASSACHUSETTS LICENSED PESTICIDE APPLICATOR.
- 3. PRIOR TO ANY WORK ALL INVASIVE SPECIES ARE TO BE IDENTIFIED AND MARKED BY A QUALIFIED PROFESSIONAL. ANY SPECIES IDENTIFIED, OR ANY INVASIVE ON THE MASSACHUSETTS INVASIVE SPECIES LIST, LOCATED WITHIN THE LIMIT OF WORK SHOULD BE REMOVED FOLLOWING THE MEASURES OUTLINED IN THE SPECIFICATIONS.
- 4. MONITOR ALL INVASIVE SPECIES AT THE SITE THROUGHOUT THE DURATION OF THE CONSTRUCTION PERIOD, AND A MINIMUM OF THREE YEARS FOLLOWING SUBSTANTIAL COMPLETION. NEW GROWTH OF ANY INVASIVE SPECIES SHOULD BE REMOVED AS SOON AS IT IS DETECTED

EROSION & SEDIMENT CONTROL NOTES:

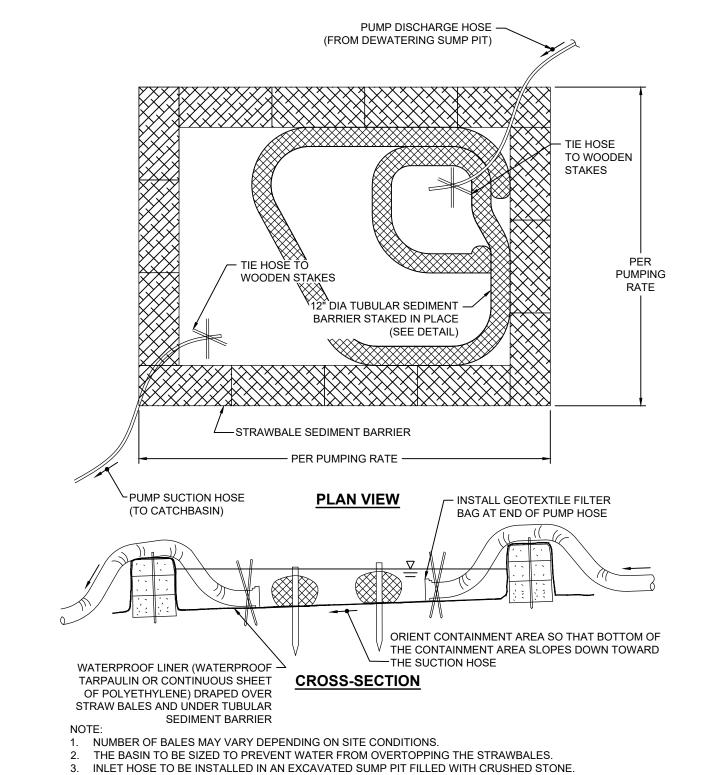
- 1. PRIOR TO THE START OF CONSTRUCTION A NOTICE OF INTENT (NOI) MUST BE FILED WITH NPDES. REFER TO THE STORMWATER AND POLLUTION PREVENTION PLAN (SWPPP) REGARDING ALL EROSION CONTROL MATTERS. MAINTAIN A WORKING COPY OF THE SWPPP ONSITE AT ALL TIMES. FOLLOW THE SWPPP PROTOCOL FOR SITE MAINTENANCE, INSPECTIONS AND PROPER DOCUMENTATION UNTIL THE SITE HAS BEEN ACCEPTED BY THE OWNER. AT THE COMPLETION OF THE PROJECT THE CONTRACTOR OR OWNER MUST FILE A NOTICE OF TERMINATION WITH NPDES. IN ACCORDANCE WITH NPDES REGULATIONS, THE COMPLETED SWPPP MUST 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
- DESIGNATE THE SITE CONSTRUCTION FOREMAN AS THE ON-SITE PERSONNEL RESPONSIBLE FOR THE DAILY INSPECTION AND MAINTENANCE OF ALL SEDIMENT AND EROSION CONTROLS AND IMPLEMENTATION OF ALL NECESSARY MEASURES TO CONTROL EROSION AND PREVENT SEDIMENT FROM LEAVING THE SITE.
- 3. INSTALL ALL EROSION AND SEDIMENT CONTROL (ESC) MEASURES AS INDICATED ON DRAWINGS IN CONSULTATION WITH THE CONSERVATION AGENT AND ENGINEER BEFORE <u>ANY CONSTRUCTION ACTIVITIES</u> BEGIN. INSPECT, MAINTAIN, REPAIR, AND REPLACE EROSION CONTROL MEASURES AS NECESSARY DURING THE ENTIRE CONSTRUCTION PERIOD OF THE PROJECT.
- 4. THE SITE PERIMETER EROSION CONTROLS ARE THE DESIGNATED LIMIT OF WORK. INFORM ALL PERSONNEL WORKING ON THE PROJECT SITE THAT NO CONSTRUCTION ACTIVITY IS TO OCCUR BEYOND THE LIMIT OF WORK AT ANY TIME THROUGHOUT THE CONSTRUCTION PERIOD.
- 5. MAINTAIN A MINIMUM SURPLUS OF 100 FEET OF EROSION CONTROL BARRIER (SILT SOCK ETC.) ONSITE AT ALL TIMES.
- 6. PROTECT THE ADJACENT RESOURCE AREA FROM SEDIMENTATION DURING PROJECT CONSTRUCTION UNTIL ACCEPTANCE BY THE OWNER & IN CONFORMANCE WITH THE ORDER OF CONDITIONS.
- 7. PROVIDE CONSTRUCTION EXITS AS INDICATED ON DRAWINGS TO SHED DIRT FROM CONSTRUCTION VEHICLE TIRES. CLEAN OR REPLACE THE CRUSHED STONE PAD AS NECESSARY TO MAINTAIN ITS SEDIMENT REMOVAL EFFECTIVENESS.

KEEP THE LIMIT OF CLEARING, GRADING AND DISTURBANCES TO A MINIMUM WITHIN THE PROPOSED AREA OF CONSTRUCTION.

PHASE THE SITE WORK IN A MANNER TO MINIMIZE AREAS OF EXPOSED SOIL. IF TREES ARE TO BE CUT ON THE SITE, CLEAR AND GRUB

- ONLY THOSE AREAS WHICH ARE ACTIVELY UNDER CONSTRUCTION. PROPERLY INSTALL THE SEDIMENTATION CONTROLS PRIOR TO BEGINNING ANY LAND CLEARING ACTIVITY AND/OR OTHER CONSTRUCTION RELATED WORK.

 9. MONITOR LOCAL WEATHER REPORTS DURING CONSTRUCTION AND PRIOR TO SCHEDULING EARTHMOVING OR OTHER CONSTRUCTION ACTIVITIES WHICH I FAVE LARGE DISTURBED AREAS LINSTABILIZED. IF INCLEMENT WEATHER IS PREDICTED. USE
- 9. MONITOR LOCAL WEATHER REPORTS DURING CONSTRUCTION AND PRIOR TO SCHEDULING EARTHMOVING OR OTHER CONSTRUCTION ACTIVITIES WHICH LEAVE LARGE DISTURBED AREAS UNSTABILIZED. IF INCLEMENT WEATHER IS PREDICTED, USE BEST PROFESSIONAL JUDGEMENT AND GOOD CONSTRUCTION PRACTICES WHEN SCHEDULING CONSTRUCTION ACTIVITIES AND ENSURE THE NECESSARY EROSION CONTROL DEVICES ARE INSTALLED AND FUNCTIONING PROPERLY TO MINIMIZE EROSION FROM ANY IMPENDING WEATHER EVENTS.
- 10. INSPECT EROSION AND SEDIMENT CONTROL DEVICES AND STABILIZED SLOPES ON A WEEKLY BASIS AND AFTER EACH RAINFALL EVENT OF 0.25 INCH OR GREATER. REPAIR IDENTIFIED PROBLEMS WITHIN 24 HOURS TO ENSURE EROSION AND SEDIMENT CONTROLS ARE IN GOOD WORKING ORDER. RESET OR REPLACE MATERIALS AS REQUIRED.
- 11. SURROUND THE PERIMETER OF SOIL STOCKPILES WITH SILT SOCK AND/OR SILT FENCE AS SHOWN ON PLANS OR AS REQUIRED BY SITE CONDITIONS.
- 12. DISTURBED AREAS AND SLOPES MUST NOT BE LEFT UNATTENDED OR EXPOSED FOR LONG PERIODS OF TIME SUCH AS THE INACTIVE WINTER SEASON. 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.
- 13. REINFORCE TEMPORARY AREAS HAVING A SLOPE GREATER THAN 4:1 WITH EROSION BLANKETS OR APPROVED EQUAL UNTIL THE SITE IS PROPERLY STABILIZED. TEMPORARY DIVERSION OR CONVEYANCE SWALES MAY ALSO BE REQUIRED IF DETERMINED NECESSARY IN THE FIELD BY THE ENGINEER.
- 14. INSTALL A SILT SACK OR APPROVED EQUIVALENT IN EACH EXISTING CATCH BASIN RECEIVING RUNOFF FROM THE SITE. UPON THE INSTALLATION OF EACH NEW CATCH BASIN, INSTALL A SILT SACK OR APPROVED EQUIVALENT. INSPECT SILT SACKS AFTER EACH SIGNIFICANT STORM EVENT AND REMOVE AND EMPTY BEFORE THEY ARE FULL OF SEDIMENT. DO NOT ALLOW INLETS TO REMAIN FULL OF SEDIMENT.
- 15. TEMPORARY DEPRESSIONS MAY BE CONSTRUCTED ON AN AS-NEEDED BASIS DURING CONSTRUCTION TO AID IN THE CAPTURE OF SITE RUNOFF AND SEDIMENT. IT WILL BE THE RESPONSIBILITY OF THE SITE CONTRACTOR IN CONSULTATION WITH THE ENGINEER, TO SIZE AND CREATE THESE AREAS IN APPROPRIATE LOCATIONS.
- 16. DURING PROJECT CONSTRUCTION, PROVIDE A SURFACE ELEVATION AT A MINIMUM 1-FOOT ABOVE THE BOTTOM OF MEDIA ELEVATION AS SHOWN ON DETAILS AND PLANS FOR ANY PARTIALLY CONSTRUCTED STORMWATER AREAS OR TEMPORARY DEPRESSIONS. THIS ALLOWS FOR AN OVER-DIG OF THE COLLECTED SEDIMENT FROM WITHIN THE BIORETENTION AREA PRIOR TO MEDIA/FABRIC INSTALLATION AT THE CORRECT ELEVATION.
- 18. REMOVE ACCUMULATED SEDIMENT FROM ALL TEMPORARY PRACTICES AND DISPOSE OF IN A PRE-APPROVED LOCATION.
- 19. CONTAIN ALL SEDIMENT ONSITE. SWEEP ALL EXITS FROM THE SITE AS NECESSARY INCLUDING ANY TRACKED SEDIMENTS. SWEEP PAVED AREAS AS NEEDED TO REMOVE SEDIMENT AND ANY POTENTIAL POLLUTANTS ACCUMULATED DURING SITE CONSTRUCTION.
- 20. 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 MUST CONTINUE TO PROVIDE PERSONNEL AND EQUIPMENT EITHER ON SITE OR READILY AVAILABLE TO PROPERLY MAINTAIN AND REPAIR ALL EROSION AND SEDIMENTATION CONTROL DEVICES IN A TIMELY AND RESPONSIBLE MANNER
- 21. PRIOR TO THE INSTALLATION OF FILTER FABRIC AND FILTER MEDIA WITHIN PERMANENT STORMWATER AREAS, REMOVE AND PROPERLY DISPOSE OF SEDIMENT ACCUMULATED IN ANY PARTIALLY CONSTRUCTED DEPRESSIONS OR TEMPORARY BASINS USED FOR SEDIMENT CONTROL DURING CONSTRUCTION.
- 22. CONTROL DUST BY WATERING OR OTHER APPROVED METHODS AS NECESSARY, OR AS DIRECTED BY THE ENGINEER.
- 23. THE CONTRACTOR IS RESPONSIBLE FOR THE INSPECTION AND MAINTENANCE DURING CONSTRUCTION OF ALL STORMWATER FACILITIES INSTALLED OR AFFECTED BY THE PROJECT. REMOVE SEDIMENT OR DEBRIS COLLECTED WITHIN THESE FACILITIES FROM THE PROJECT WORK PRIOR TO THE OWNER'S ACCEPTANCE.



GENERAL SYMBOLS EXISTING **PROPOSED** BENCHMAR BUILDING CONCRETE BOUNDARY CONTOUR - MINOR _____ EXISTING SHRUB CONTOUR - MAJOR CROSSWALK/PAVEMENT STRIPING EXISTING TREE CURB EXISTING EVERGREEN EDGE OF PAVEMENT FENCE - CHAIN LINE TREE STUMP ___ X _____ X ____ X ____ X ____ FENCE - WIRE EL:98.45 EXISTING SPOT GRADE FENCE - WOOD PROPOSED SPOT GRADE LIMIT OF WOR (S) SEWER MANHOLE STONE (E) ELECTRIC MANHOLE SIDEWALK STORMWATER AREA TELEPHONE MANHOLE TREE LINE (MH) MANHOLF WALL - STONE (TV) TV BOX (?) UNKNOWN MANHOLE PROPERTY INFORMATION METER PIT EXISTING (D) DRAIN MANHOLE -----CATCHBASIN PROPERTY, LOT, OR ROW

UTILITIES STONE APRON FXISTING PROPOSED WATER VALVE **OVERHEAD WIRE** SANITARY SEWER SEWER VALVE SEWER FORCE MAIN GAS VALVE UNDERGROUND E/T UNDERGROUND ELEC CURB STOP CABLE LINE © CLEAN OUT TELEPHONE LINI ☐ PIPE STUB

EROSION & SEDIMENT CONTROL

SF SILT FENCE
SS SILT SOCK

ENVIRONMENTAL

WETLAND BOUNDARY

WETLAND 50' BUFFER

WETLAND 100' BUFFER

COASTAL BANK
COASTAL BANK BUFFER
FEMA FLOOD ZONE

ROCK
SIGN
BENCH
PICNIC TABLE

BIKE BIKE RACK

HANDICAP SYMBOL

NUMBER OF PARKING SPACES

BL BLACK LOCUST

UTILITY BOX

HYDRANT

UTILITY POLE

TEST PIT

BORING

☐ MAIL BOX

MONITORING WEL

WETLAND FLAG

• GUY

PERFORATED HDPE/PVC PIPE OR PRE-CAST PERFORATED PUMP CAGE

EXISTING GRADE

AS

REQUIRED
2' MIN.

DEWATERING PUMP(S)
- SEE NOTES

2' MIN BELOW
EXCAVATION BOTTOM.

NOTES:

1. SUMP AND EQUIPMENT IS TEMPORARY AND MUST BE REMOVED AFTER USE. STONE AND/OR NATURAL MATERIAL CAN REMAIN.

2. LOCATE PUMP OUTSIDE OF THE MAIN EXCAVATION AREA TO MINIMIZE SEDIMENTATION.

3. SIZE PUMP TO SUFFICIENTLY DEWATER EXCAVATION. MULTIPLE PUMPS TO BE INSTALLED AS NECESSARY

4. PUMP CHAMBER SIZE TO BE DETERMINED BASED ON PUMP DIMENSIONS

DEWATERING SUMP DETAIL

5. FINAL DEPTH TO BE DETERMINED BY CONTRACTOR BASED ON EXISTING GRADE AND DEPTH OF WATER.

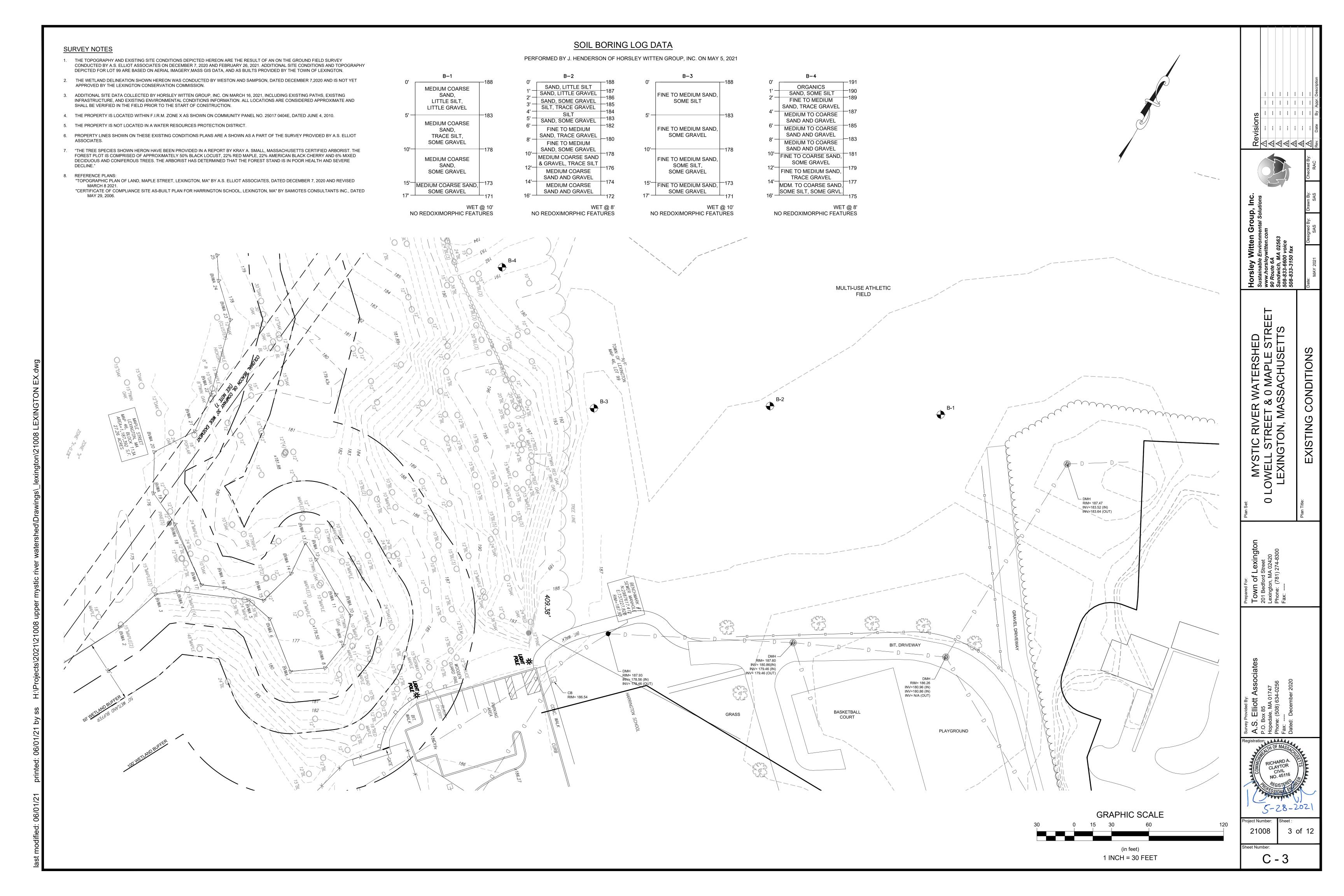
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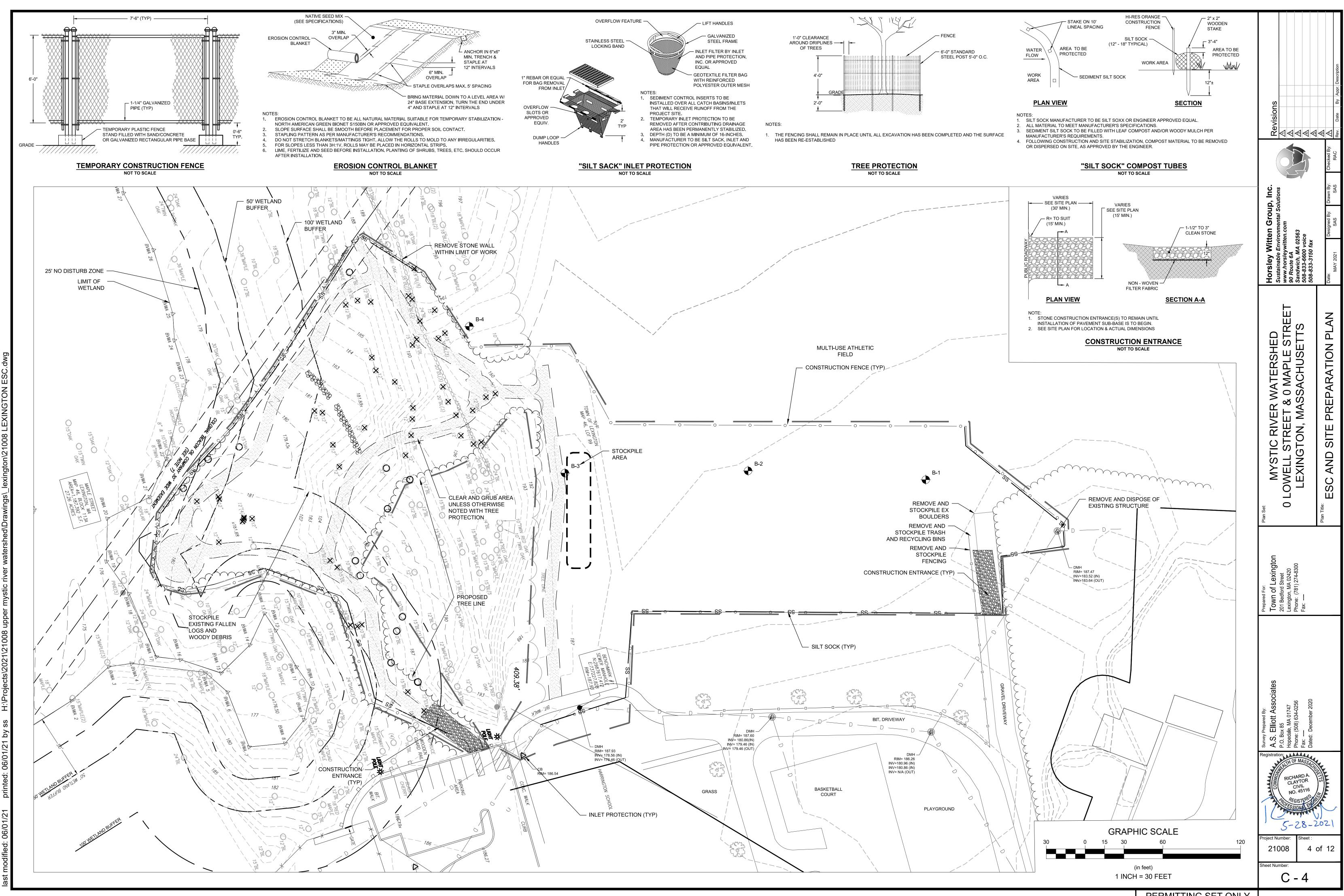
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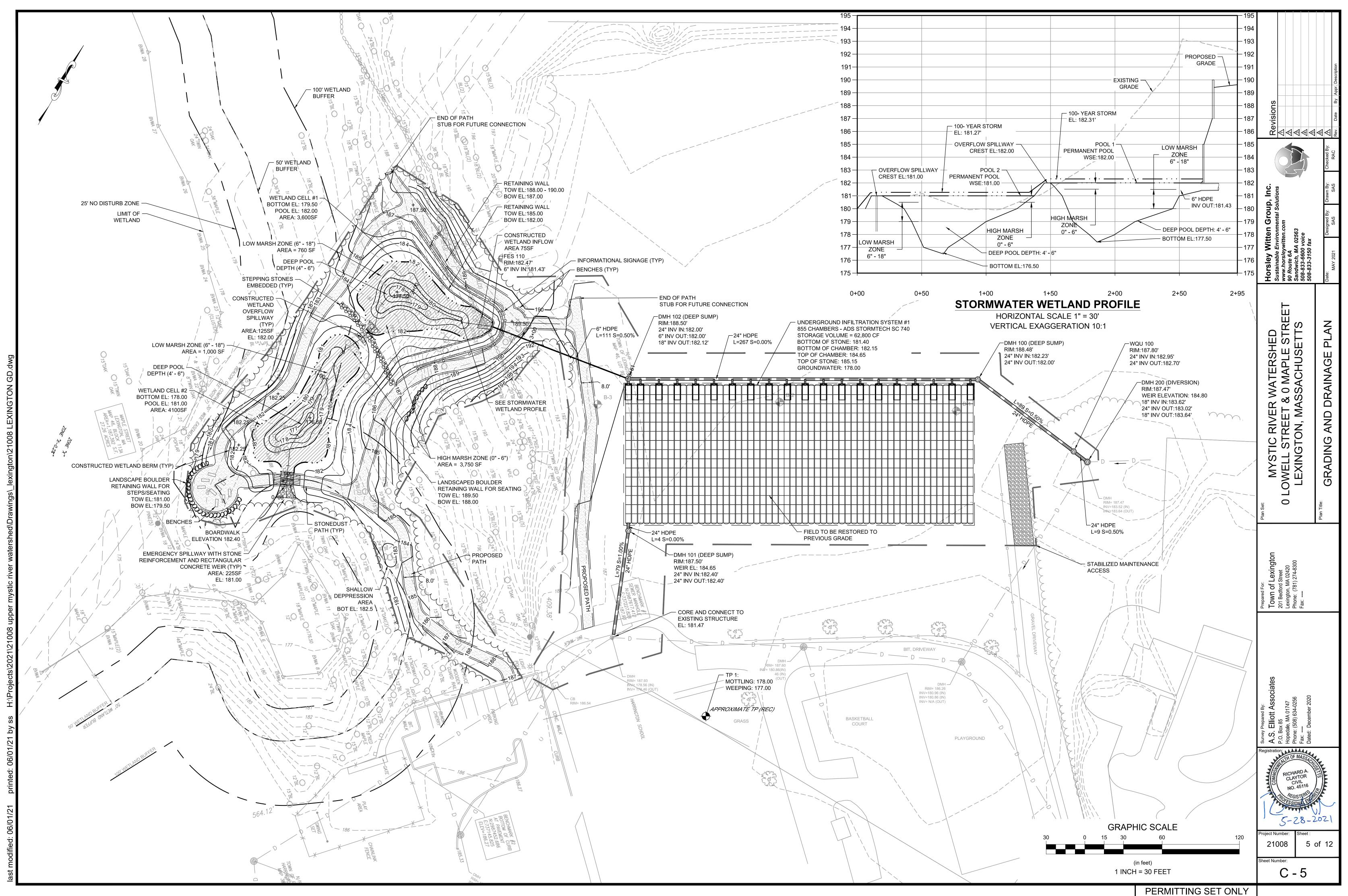
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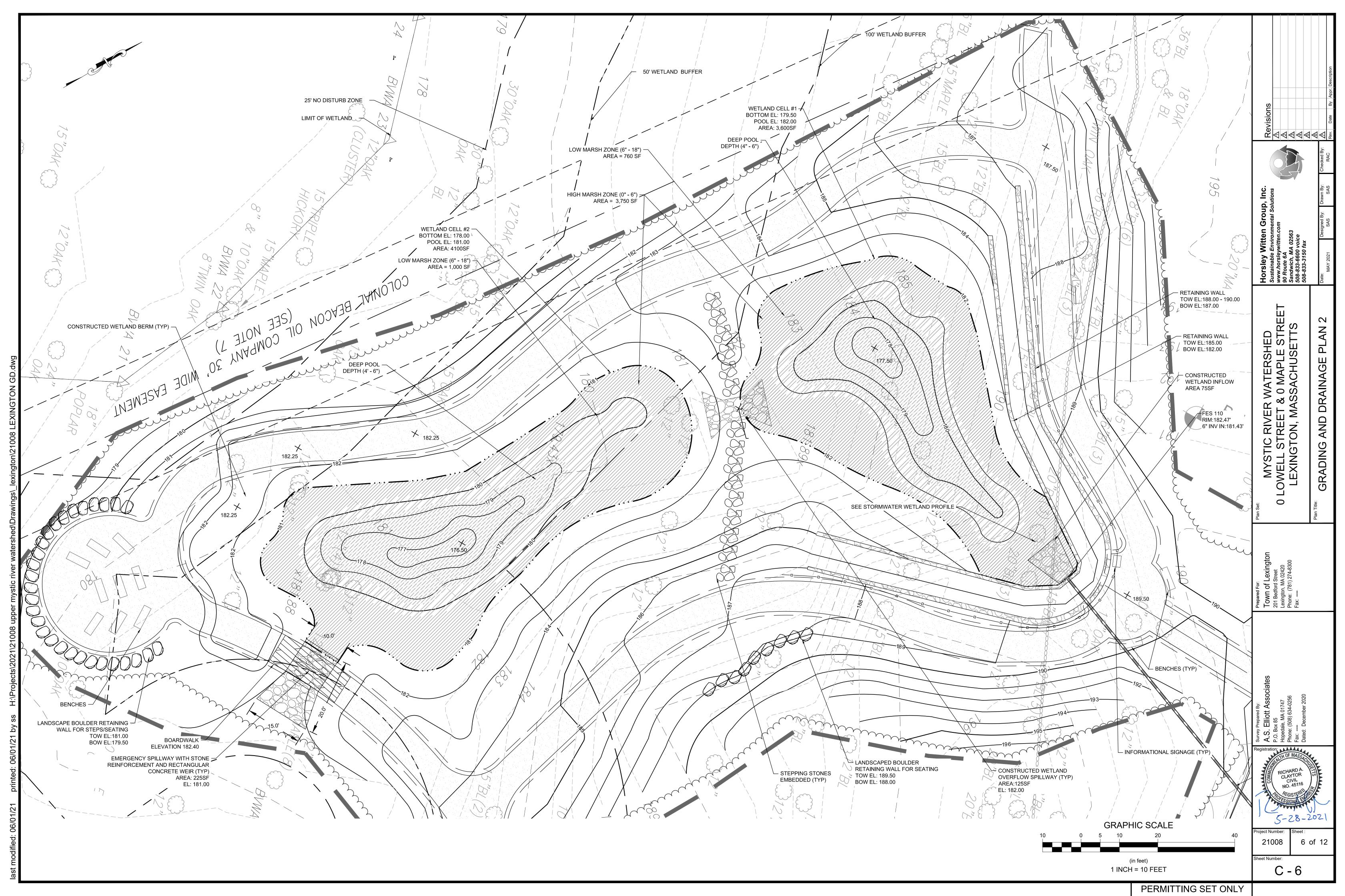
DEWATERING CONTAINMENT AREA DETAIL
NOT TO SCALE

NOT TO SCALE

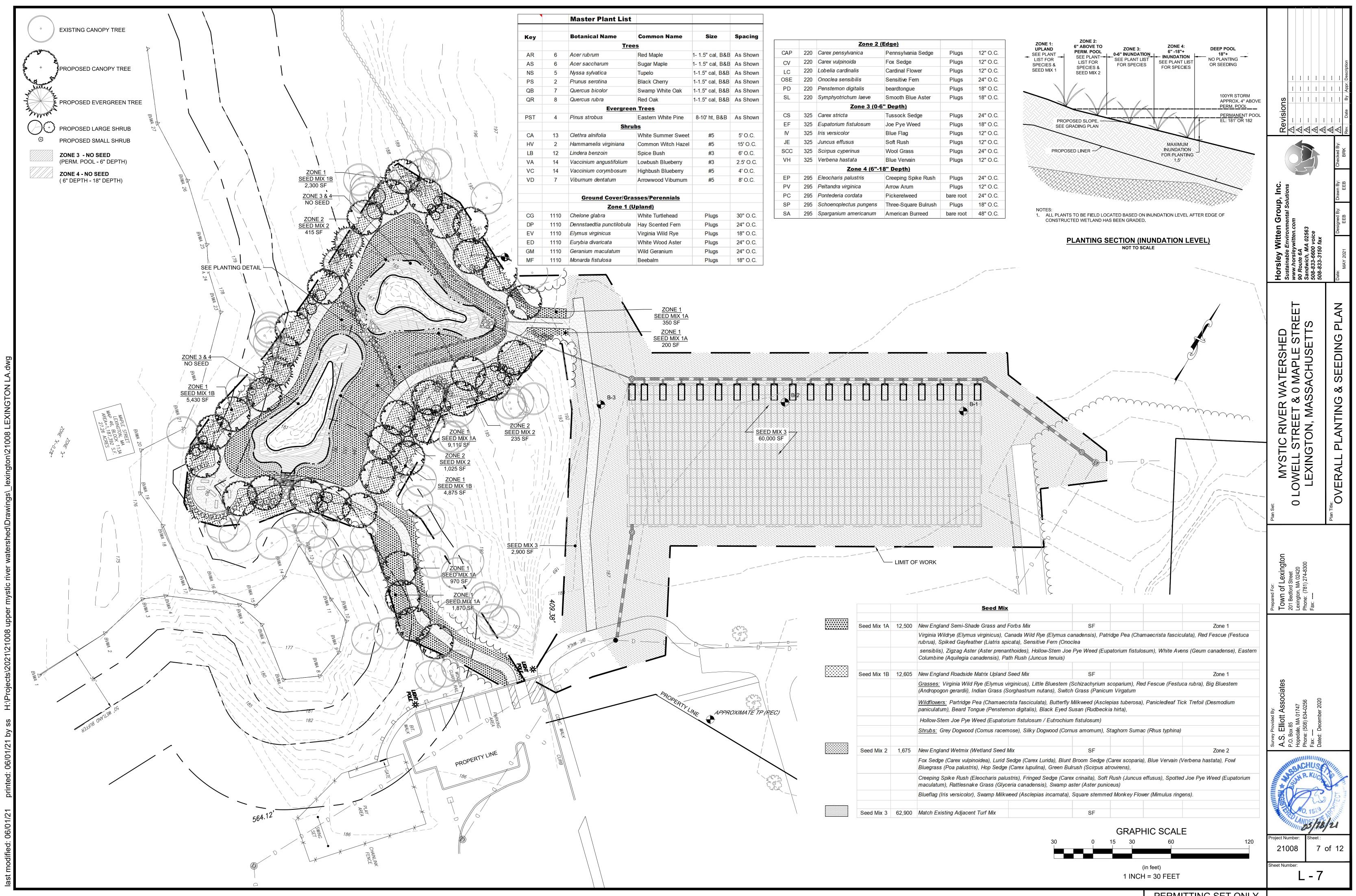


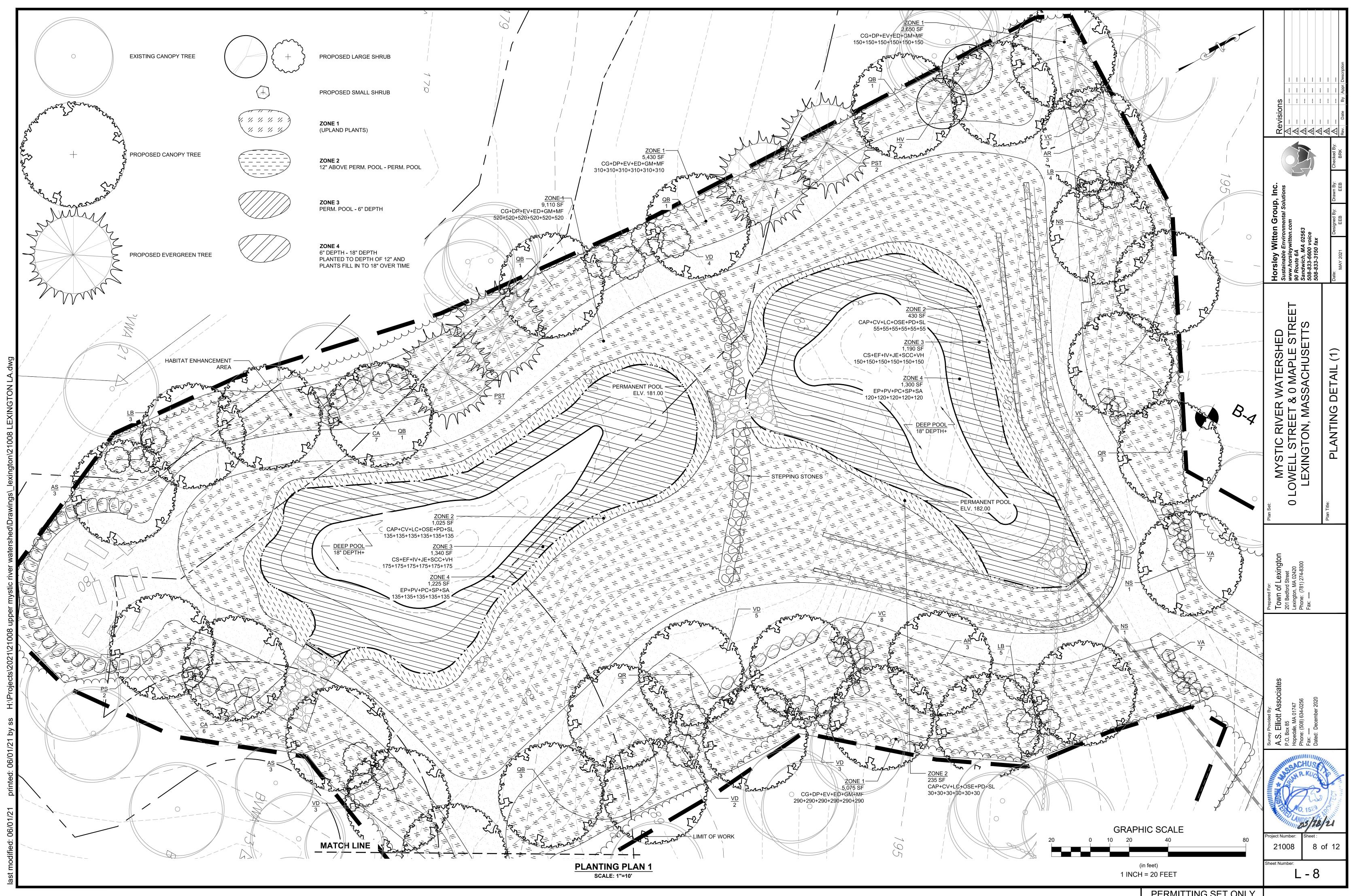


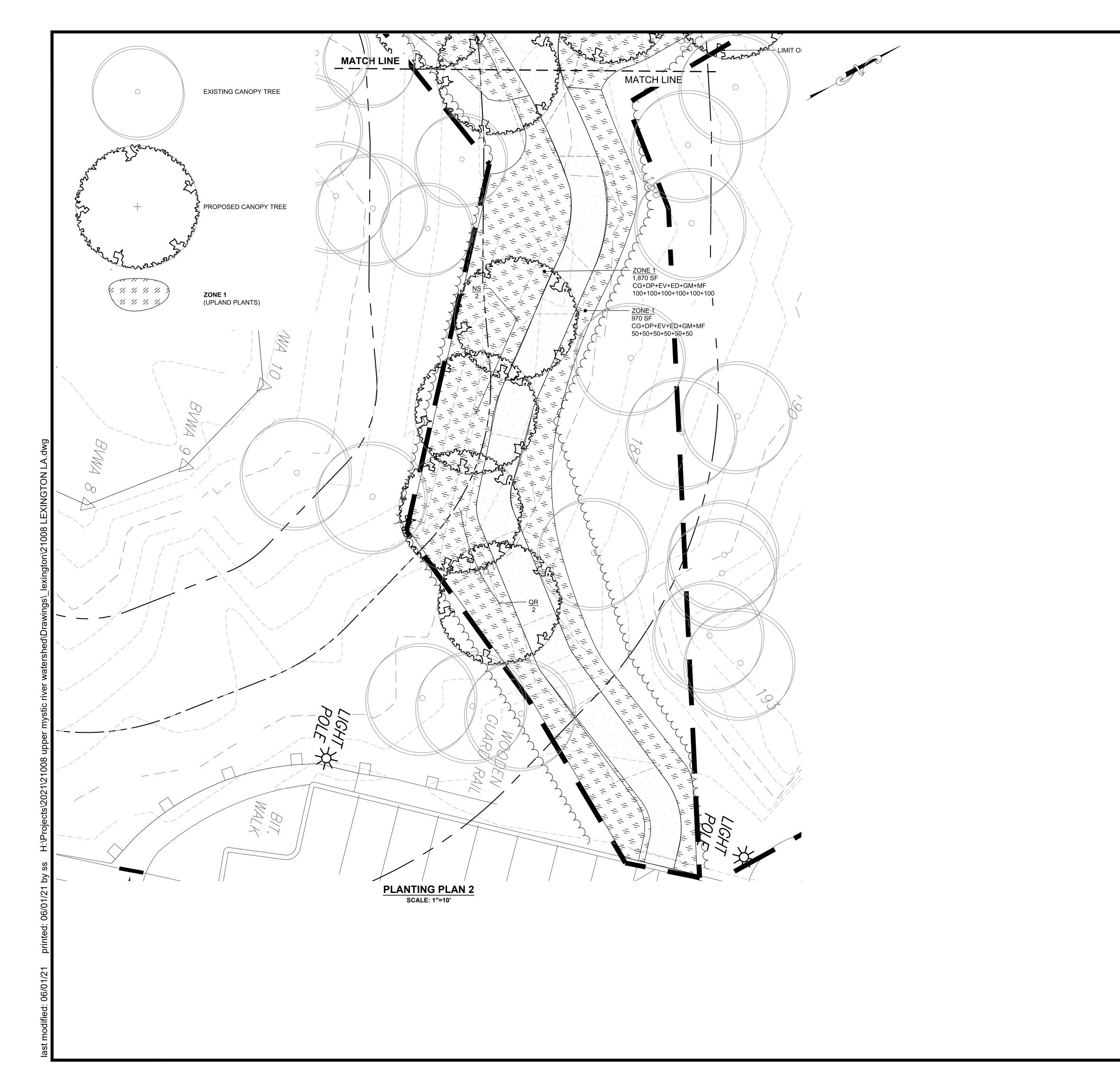




NOT FOR CONSTRUCTION

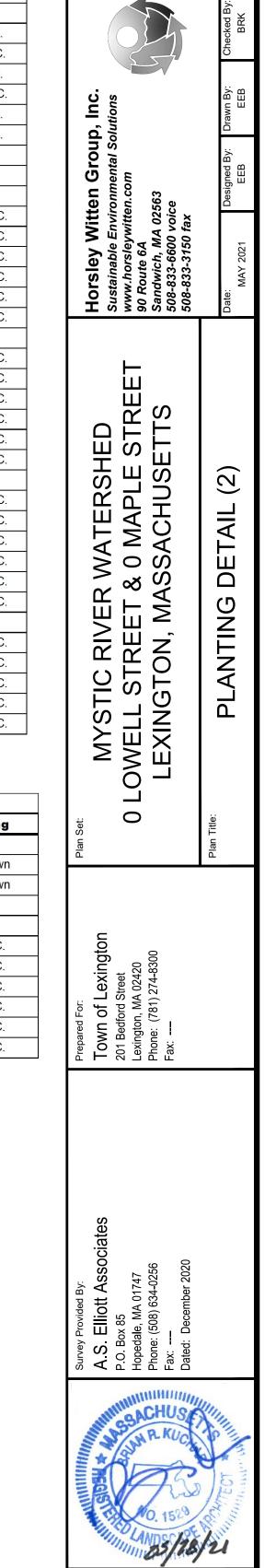






	Botanical Name	Common Name	Size	Spacing
	Trees			
6	Acer rubrum	Red Maple	1- 1.5" cal	As Showr
6	Acer saccharum	-	1- 1.5" cal	As Showr
3	Nyssa sylvatica	<u> </u>	1-1.5" cal	As Showr
2	Prunus serotina		1-1.5" cal	As Showr
7	Quercus bicolor		1-1.5" cal	As Showr
6	Quercus rubra	Red Oak	1-1.5" cal	As Showr
4		Factoria Milita Dina	0.401 h	A = Ob =
4	Pinus strobus	Eastern vvnite Pine	8-10° n	As Showr
	Shrubs			
13	Clethra alnifolia	White Summer Sweet	#5	5' O.C.
2	Hammamelis virginiana	Common Witch Hazel	#5	15' O.C.
12	Lindera benzoin	Spice Bush	#3	6' O.C.
14	Vaccinium angustifolium	Lowbush Blueberry	#3	2.5' O.C.
14	Vaccinium corymbosum	Highbush Blueberry	#5	4' O.C.
7	Viburnum dentatum	Arrowwood Viburnum	#5	8' O.C.
	Ground Cover/G	rasses/Perennials		
	-			
960	Chelone glabra	White Turtlehead	Plugs	30" O.C.
960	Dennstaedtia punctilobula	Hay Scented Fern	Plugs	24" O.C.
960	Elymus virginicus	Virginia Wild Rye	Plugs	18" O.C.
960	Eurybia divaricata	White Wood Aster	Plugs	24" O.C.
960	Geranium maculatum	Wild Geranium	Plugs	24" O.C.
960	Monarda fistulosa	Beebalm	Plugs	18" O.C.
	Zone 2	(Edge)		
220	Carex pensylvanica	Pennsylvania Sedge	Plugs	12" O.C.
220	Carex vulpinoida	Fox Sedge	Plugs	12" O.C.
220	Lobelia cardinalis	Cardinal Flower	Plugs	12" O.C.
220	Onoclea sensibilis	Sensitive Fern	Plugs	24" O.C.
220	Penstemon digitalis	beardtongue	Plugs	18" O.C.
220	Symphyotrichum laeve	Smooth Blue Aster	Plugs	18" O.C.
	Zone 3 (0	-6" Depth)		
325	Carex stricta	Tussock Sedge	Plugs	24" O.C.
325	Eupatorium fistulosum	Joe Pye Weed	Plugs	18" O.C.
325	Iris versicolor	Blue Flag	Plugs	12" O.C.
325	Juncus effusus	Soft Rush	Plugs	12" O.C.
325	Scirpus cyperinus	Wool Grass	Plugs	24" O.C.
325	Verbena hastata	Blue Vervain	Plugs	12" O.C.
	<u> </u>		J. mark	
295	Eleocharis palustris	Creeping Spike Rush	Plugs	24" O.C.
	Peltandra virginica	Arrow Arum	Plugs	12" O.C.
295	-			
295 295 295	Pontederia cordata Schoenoplectus pungens	Pickerelweed Three-Square Bulrush	bare root	24" O.C. 18" O.C.
	6 3 2 7 6 4 13 2 12 14 14 7 960 960 960 960 960 920 220 220 220 220 220 220 22	Trees 6 Acer rubrum 6 Acer saccharum 3 Nyssa sylvatica 2 Prunus serotina 7 Quercus bicolor 6 Quercus rubra Evergreen Trees 4 Pinus strobus Shrubs 13 Clethra alnifolia 2 Hammamelis virginiana 12 Lindera benzoin 14 Vaccinium angustifolium 14 Vaccinium corymbosum 7 Viburnum dentatum Ground Cover/Gr Zone 1 960 Chelone glabra 960 Dennstaedtia punctilobula 960 Elymus virginicus 960 Eurybia divaricata 960 Geranium maculatum 960 Monarda fistulosa Zone 2 220 Carex pensylvanica 220 Carex vulpinoida 220 Lobelia cardinalis 220 Penstemon digitalis 220 Penstemon digitalis 220 Symphyotrichum laeve Zone 3 (0 325 Carex stricta 325 Eupatorium fistulosum 325 Iris versicolor 325 Juncus effusus 325 Scirpus cyperinus 325 Verbena hastata Zone 4 (6"	Trees 6 Acer rubrum Red Maple 6 Acer saccharum Sugar Maple 7	Trees

Plant	Sch	edule 2			
Key		Botanical Name	Common Name	Size	Spacing
		<u>Trees</u>			
NS	2	Nyssa sylvatica	Tupelo	1-1.5" cal	As Shown
QR	2	Quercus rubra	Red Oak	1-1.5" cal	As Shown
		Ground Cover/Grasses/Perennials			
		Zone 1 (Upland)			
CG	150	Chelone glabra	White Turtlehead	Plugs	30" O.C.
DP	150	Dennstaedtia punctilobula	Hay Scented Fern	Plugs	24" O.C.
EV	150	Elymus virginicus	Virginia Wild Rye	Plugs	18" O.C.
ED	150	Eurybia divaricata	White Wood Aster	Plugs	24" O.C.
GM	150	Geranium maculatum	Wild Geranium	Plugs	24" O.C.
MF	150	Monarda fistulosa	Beebalm	Plugs	18" O.C.



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Revise Personal Revise Persona

(in feet) 1 INCH = 20 FEET

Parameter	Specification	Size	Notes
Planting Soil Media	See Below	n/a	See Below
Subgrade Soil	Well-compacted, fine-grained, stable soil.	n/a	Native materials may be used if appropriate USDA Soil Groups C and/or D are best.
Geomembrane Liner	Ultraviolet resistant, HDPE impermeable liner from Environmental Protection, Inc. or approved equal.	30MIL	Liner shall be installed per manufacturer recommendations with proper seam sealing and penetration sealing methods.

PLANTING SOIL - THE PLANTING SOIL SHOULD BE AN APPROVED HIGH ORGANIC CONTENT MEDIUM KTURED LOAM OR SANDY CLAY LOAM, FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO OTHER MATERIALS OR SUBSTANCES SHOULD BE MIXED OR DUMPED WITHIN THE CONSTRUCTED WETLAND AREA THAT MAY BE HARMFUL TO PLANT GROWTH. OR PROVE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATIONS. THE PLANTING SOIL SHOULD

THE CONSTRUCTED WETLAND SHALL UTILIZE PLANTING SOIL HAVING A COMPOSITION AS FOLLOWS:

CLAY:5-15%

ORGANIC MATTER: 15-20%

CATION EXCHANGE CAPACITY:

*NOTE: ORGANIC MATTER SHALL BE WELL AGED (6-12 MONTHS), WELL AERATED, LEAF COMPOST OR APPROVED EQUIVALENT.

THE PLANTING SOIL SHALL BE TESTED AND MEET THE FOLLOWING CRITERIA: PH RANGE: 5.5 - 7.0 ORGANIC MATTER 9 - 21% ELECTRICAL CONDUCTIVITY:

THE PLANTING SOIL SHALL ALSO CONTAIN MAGNESIUM, PHOSPHORUS (P205), & POTASSIUM (K20) AT A STANDARD LEVEL TO FACILITATE PROPER PLANT GROWTH AS APPROVED BY THE ENGINEER OR LANDSCAPE ARCHITECT.

NOT TO EXCEED 4 MMHO/CM

>15 MEQ/100 GRAMS OF SOIL

ALL CONSTRUCTED WETLAND AREA SHOULD HAVE A MINIMUM OF ONE TEST. EACH TEST SHOULD CONSIST OF BOTH THE STANDARD SOIL TEST FOR PH, PHOSPHORUS, AND POTASSIUM AND ADDITIONAL TESTS OF ORGANIC MATTER, ELECTRICAL CONDUCTIVITY, AND CATION EXCHANGE CAPACITY. A TEXTURAL ANALYSIS IS REQUIRED FROM THE SITE'S STOCKPILED TOPSOIL. IF TOPSOIL IS IMPORTED, THEN A TEXTURE ANALYSIS SHOULD BE PERFORMED FOR EACH LOCATION WHERE THE TOP SOIL WAS EXCAVATED.

SINCE DIFFERENT LABS CALIBRATE THEIR TESTING EQUIPMENT DIFFERENTLY, ALL TEST RESULTS SHOULD COME FROM THE SAME TESTING FACILITY. THE TESTING RESULTS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL

SHOULD THE PH FALL OUT OF THE ACCEPTABLE RANGE, IT MAY BE MODIFIED (HIGHER) WITH LIME OR (LOWER) WITH IRON SULFATE PLUS SULFUR.

- 3. FACILITY BACKFILLING WHEN BACKFILLING THE CONSTRUCTED WETLAND, PLACE SUBGRADE SOIL IN LIFTS 12" OR GREATER. PLACE A MINIMUM OF 4" OF PLANTING SOIL ABOVE SUBGRADE SOIL FOR PROMOTING PLANT GROWTH. HEAVY EQUIPMENT CAN BE USED AROUND THE PERIMETER OF THE BASIN TO SUPPLY SOIL. GRADE CONSTRUCTED WETLAND MATERIALS WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH MARSH TRACKS. SATURATE PLANTING SOIL AFTER PLACEMENT AND ALLOW TO SETTLE FOR AT LEAST ONE WEEK PRIOR TO INSTALLING PLANT MATERIAL.
- 4. **PLANT INSTALLATION** SEE LANDSCAPE PLANS.
- MISCELLANEOUS THE CONSTRUCTED WETLAND FACILITY MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREAS HAVE BEEN STABILIZED, AND SHALL REMAIN OFFLINE AND NOT OPERATIONAL UNTIL ALL VEGETATION IS STABILIZED.

CONSTRUCTED WETLAND FACILITY OPERATION & MAINTENANCE

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSPECTION AND MAINTENANCE THE CONSTRUCTED WETLAND AND ALL ASSOCIATED APPURTENANCES UNTIL SUCH TIME THAT THE FACILITIES ARE ACCEPTED BY THE OWNER.
- THE CONTRACTOR SHALL INSPECT AND RESTORE/CLEAN ALL FACILITIES (INLETS, OUTLETS, SPILLWAYS, 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.
- THE CONTRACTOR SHOULD REFER TO THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR ADDITIONAL INFORMATION PERTAINING TO STORMWATER FACILITY OPERATION AND MAINTENANCE REQUIREMENTS AND SHALL MAINTAIN A WORKING COPY ON SITE AT ALL TIMES.
- MAJOR RAINFALL EVENT FOR THE ENTIRE DURATION OF THE CONSTRUCTION PROJECT AND THE FIRST 3-MONTHS AFTER CONSTRUCTION TO ENSURE PROPER STABILIZATION AND CONSTRUCTION.
- SPECIFIC ANNUAL MAINTENANCE SHALL BE AS FOLLOWS:

6" DIAMETER OR 6" X 6" PT WOOD POST

EXTEND TO

GRAVFI

MATERIAL

BASE

(5' MIN.)

CONCRETE SHALL BE 4,000 PSI AFTER 28 DAYS.

<−− 12" DIA. −−

BOARDWALK PILE CONCRETE FOOTING DETAIL

A. DRAINAGE STRUCTURES (INLETS, OUTLETS, SPILLWAYS, MANHOLES, CATCHBASINS, ETC): ALL RAINAGE STRUCTURES WILL BE INSPECTED ANNUALLY TO MONITOR FOR PROPER OPERATION, COLLECTION OF LITTER OR TRASH, AND STRUCTURAL DETERIORATION. THE BASINS WILL BE

SIMPSON STRONGTIE POST BASE

OR APPROVED EQUAL WITH 10d X

1/2"X7" ANCHOR BOLT W/ WASHER

3/4" TO 1" MAX ABOVE CONCRETE

4000 PSI CONCRETE CAST IN

SONOTUBE AGAINST

UNDISTURBED EARTH

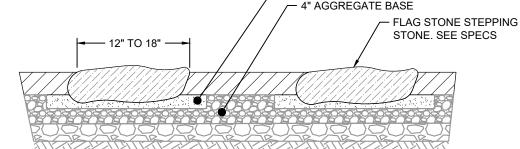
- & NUT, HOT-DIP GALV. TOP OF BOLT

1-1/2" NAILS

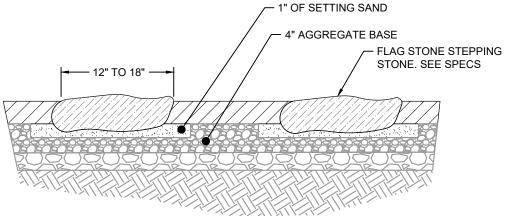
- CLEANED OF SEDIMENT (INCLUDING SUMPS) AS NECESSARY, AND REPAIRED WHEN REQUIRED.
- B. STONE PROTECTION: STONE TREATMENT AT THE OUTFALLS OR INFLOW POINTS WILL BE INSPECTED ANNUALLY AND REPAIRED AS NECESSARY.
- C. SEDIMENT FOREBAY: THE SEDIMENT FOREBAY TO THE CONSTRUCTED WETLAND WILL BE NSPECTED ANNUALLY 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. <u>ROUTINE MAINTENANCE</u>: OTHER ROUTINE MAINTENANCE WILL INCLUDE REMOVAL OF TRASH AND LITTER FROM PAVED AND PERIMETER AREAS, AND ANNUAL STREET/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.
- E. <u>VEGETATION</u>: VEGETATION WILL BE INSPECTED ANNUALLY TO ENSURE ADEQUATE PLANT GROWTH AND TO REMOVE INVASIVE SPECIES. DEAD OR DYING PLANTS WILL BE REPLACED AS NECESSARY. HARVESTING OF DEAD PLANT MATERIAL IS NOT REQUIRED.
- NOTE: OPERATION AND MAINTENANCE CHECKLIST AVAILABLE UPON REQUEST

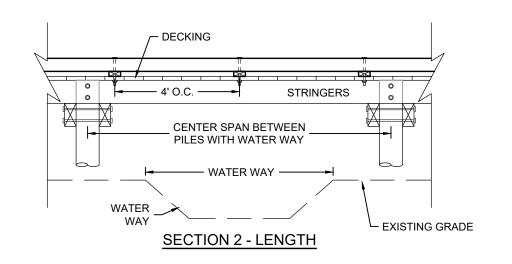
CONSTRUCTED WETLAND CONSTRUCTION SEQUENCE AND REQUIRED INSPECTIONS

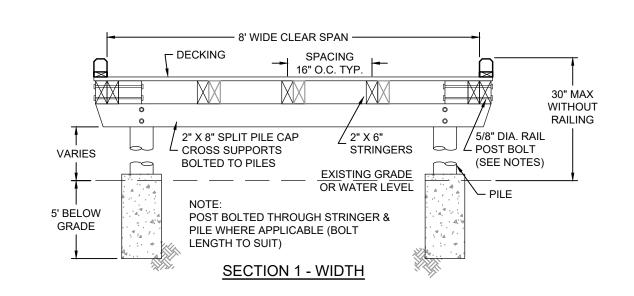
- PRECONSTRUCTION MEETING.
- 2. INSTALLATION OF EROSION AND SEDIMENT CONTROL PRACTICES.
- 3. CLEAR/GRUB PROPOSED DISTURBED AREA.
- 4. ROUGH GRADE CONSTRUCTED WETLAND AND SEDIMENT FOREBAY AREAS DURING GENERAL SITE GRADING.
- 5. INSTALL INFLOW DRAINAGE SYSTEM AS SHOWN IN DETAILS (PIPE, CHANNEL, ETC).
- 6. EXCAVATE CONSTRUCTED WETLAND FACILITY TO WITHIN 1 FOOT OF PROPOSED GRADES.
- 7. GRADE AND STABILIZE ALL CONTRIBUTORY DRAINAGE AREAS TO THE CONSTRUCTED WETLAND
- 8. EXCAVATE CONSTRUCTED WETLAND AREAS TO PROPOSED GRADES.
- 9. INSTALL OVERFLOW OUTLET STRUCTURE PER DETAILS.
- 10. INSTALL SILT SOCK ALONG THE CONSTRUCTED WETLAND PERIMETER TO PREVENT SEDIMENT FROM WASHING INTO THE BASINS FROM DISTURBED AREAS AROUND THE FACILITY.
- 11. INSTALL APPROVED SUBGRADE MATERIAL AND CONSTRUCT ALL BERMS AND SPILLWAYS AS SHOWN IN THE DETAILS.
- INSTALL PLANTING SOIL AS SHOWN IN THE DETAILS (UN-COMPACTED) SEE PLANTING SOIL SPECIFICATIONS. THE CONTRACTOR MUST SUBMIT A SOIL SAMPLE (1 GALLON) TO THE ENGINEER PRIOR TO SOIL DELIVERY TO THE SITE.
- 13. STABILIZE ALL REMAINING DISTURBED AREAS AROUND FACILITY BY SEEDING, HYDROSEEDING AND/OR OTHER EROSION CONTROL METHODS AS OUTLINED IN THE EROSION AND SEDIMENT CONTROL PLANS AND DETAILS. MANDATORY INSPECTION REQUIRED SEE NOTE (3) BELOW.
- INSTALL WETLAND PLANTS AS SHOWN IN PLANTING PLANS AND DETAILS. NO PLANTING SHOULD OCCUR BEFORE REMAINING DISTURBED AREAS AROUND THE FACILITY(IES) ARE STABILIZED. THE CONTRACTOR WILL BE REQUIRED TO REMOVE ANY SEDIMENT WHICH WASHES INTO THE CONSTRUCTED WETLAND AREA DURING THE CONSTRUCTION AND PLANTING PHASES. IF SUITABLE VEGETATIVE COVER HAS NOT BEEN ESTABLISHED ALONG THE CONSTRUCTED WETLAND SLOPES PRIOR TO PLANTING, A SILT FENCE PERIMETER SHALL BE INSTALLED AT THE TOE OF THE CONSTRUCTED WETLAND SLOPESAND REMAIN IN PLACE UNTIL VEGETATIVE COVER IS ESTABLISHED. MANDATORY INSPECTION REQUIRED SEE NOTE (3) BELOW.
- 15. INSTALL REMAINING PLANTING SOIL AROUND PLANTS AS SHOWN IN DETAILS.
- 16. REMOVE REMAINING EROSION AND SEDIMENT CONTROLS ONLY AFTER SURROUNDING EXPOSED SOIL ARES HAVE BEEN PROPERLY STABILIZED. MANDATORY INSPECTION REQUIRED SEE NOTE (3) BELOW.
- (1.) SEE GENERAL CONSTRUCTION NOTES FOR OVERALL CONSTRUCTION SEQUENCE. (2.) SEE GENERAL NOTES/SPECIFICATIONS/CONSTRUCTION DETAILS FOR DETAILED CONSTRUCTION
- REQUIREMENTS (3.) MANDATORY NOTIFICATION/APPROVAL OF THE PROJECT ENGINEER IS REQUIRED PRIOR TO PROCEEDING WITH NEXT STAGE. CALL THE ENGINEER (HORSLEY WITTEN GROUP, INC.) AT 508-833-6600 PRIOR TO 12:00 NOON THE PROCEEDING DAY TO ARRANGE FOR INSPECTION.



1. SPACES BETWEEN FLAG STONE SHOULD BE FILLED WITH WELL DRAINED PREPARED TOPSOIL AND SEEDED. SEE LANDSCAPE PLANS







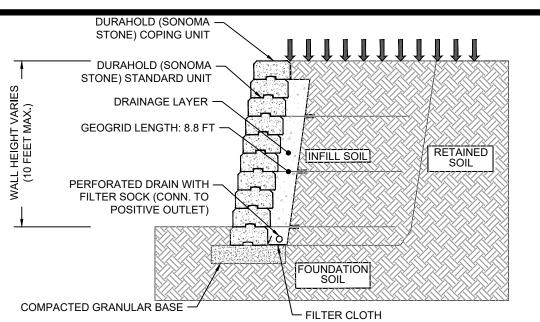
ALL HARDWARE IS TO BE STAINLESS STEEL UNLESS OTHERWISE NOTED. ALL WOOD TO BE PRESSURE TREATED LUMBER OR APPROVED EQUIVALENT.

STAMPED BY A QUALIFIED PROFESSIONAL ENGINEER. ALTERNATIVE DECKING: COMPOSITE TREK'S DECKING.

FINISHED STRUCTURE TO MEET OR EXCEED INTERNATATIONLA BUILDING CODE REQUIREMENTS.

3. CONTRACTOR MAY SUBMIT OTHER OPTIONS WITH SHOP DRAWING OF PROPOSED CROSSING

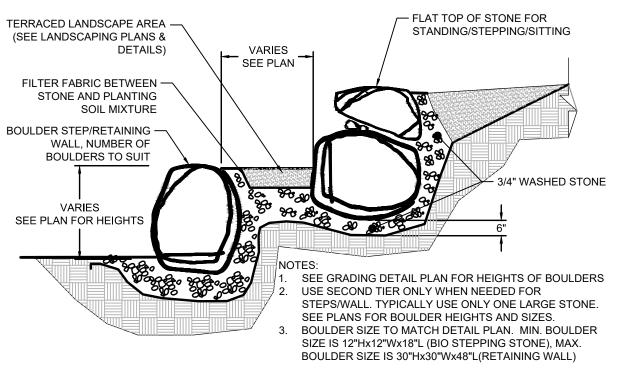
BOARDWALK/SPILLWAY CROSSING TYPICAL SECTIONS



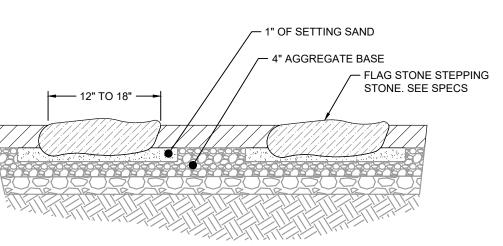
1. DURAHOLD (OR SONOMA STONE) RETAINING WALL AS MANUFACTURED BY UNILOCK OR APPROVED

2. PRELIMINARY DETAIL ONLY, FINAL WALL TO BE DESIGNED BY A STRUCTURAL ENGINEER.

RETAINING WALL NOT TO SCALE

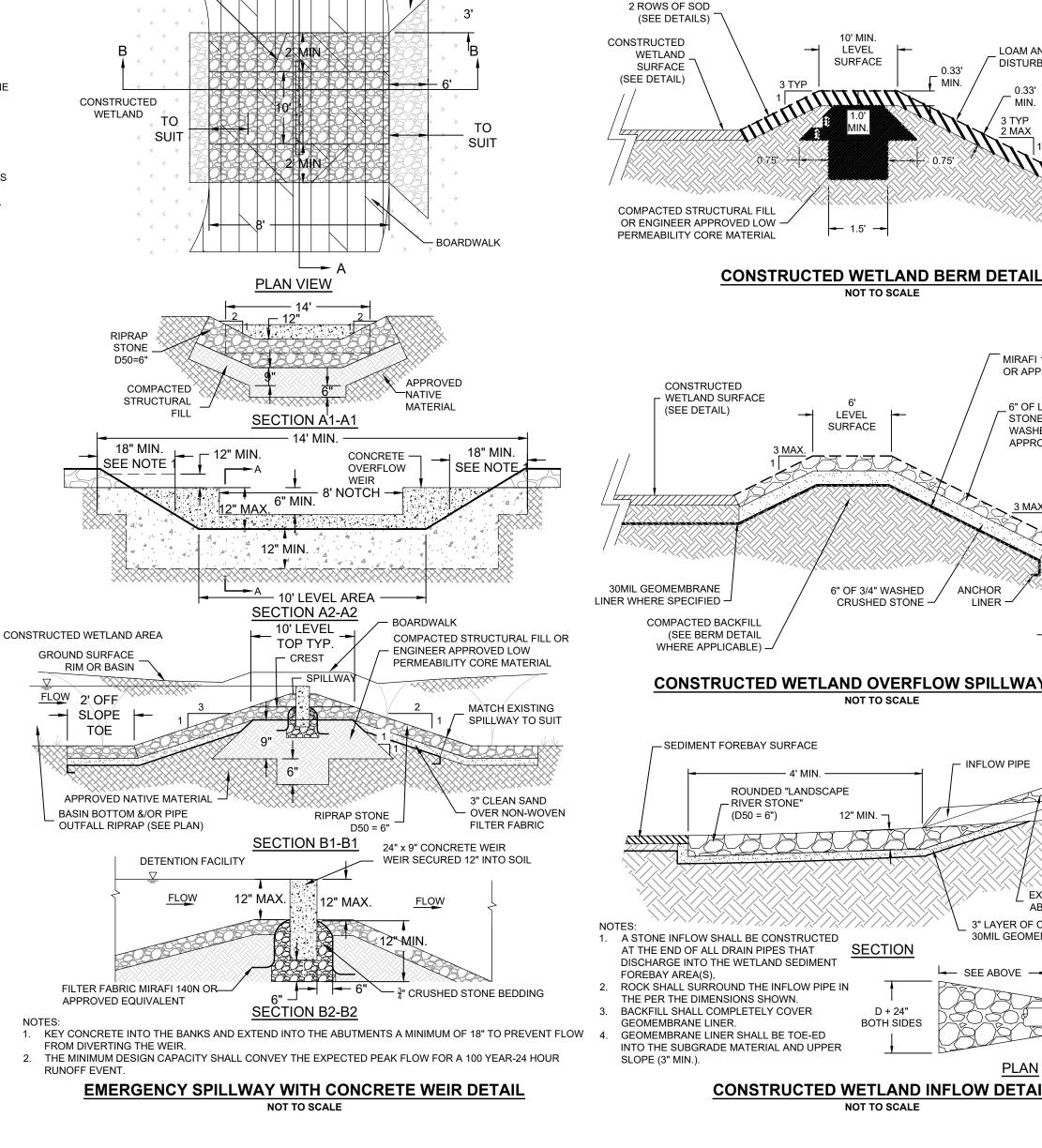


LANDSCAPE BOULDER RETAINING WALL FOR STEPS/SEATING NOT TO SCAL



STEPPING STONES

NOT TO SCALE



6" X 6" PRESSURE -

TREATED POST

SEE DETAIL

7' - 0"

CONCRETE FOOTING -

BOARDWALK CROSSING

CLEARANCE

6' - 0"

SURFACE MATERIAL VARIES

182.00

BOARDWALK CROSSING

SEE PLANS

RAMP SPAN | CENTER SPAN | TRAIL ELEV. (ELEV. A) | BOARDWALK ELEV. (ELEV. B) | SPILLWAY ELEV. (ELEV. C)

182.40

OVERFLOW SPILLWAY

EROSION CONTROL FABRIC

(SEE PLANS FOR LIMITS)

DEEP POOL

HIGH MARSH AREA (0-6")

CONSTRUCTED WETLAND

EXISTING SURFACE

(SEE SITE PLAN)

INFLOW (SEE DETAIL)

INFLOW PIPE

30 MIL LINER (TYF

2·1 MAX

SIDE SLOPE

FLUSH GRANITE -

8' MIN GRASS

TOP SHELF

TYP. (SEE DETAIL)

WATER QUALITY STORM (1")

VARIABLE EXTENDED

DETENTION STORAGE

(TYPICAL)

WETLAND PLANTINGS

APPROVED

LOW MARSH AREA (6-18") -

CONSTRUCTED WETLAND TYPICAL DETAIL

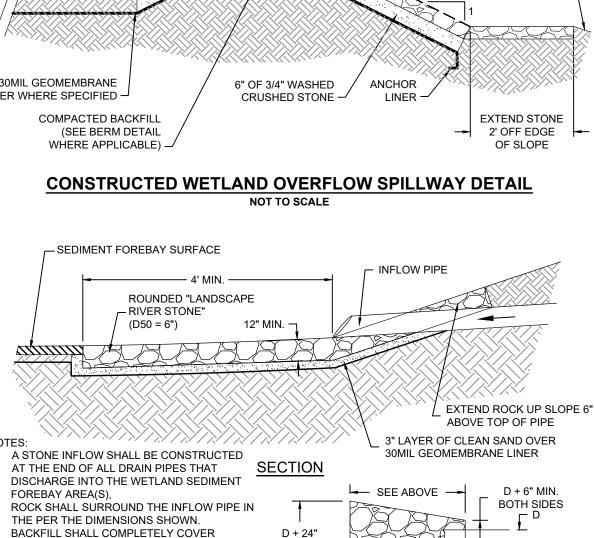
NOT TO SCALE

SUBGRADE SOIL

OUTSIDE RIPRAP

SHALL BE LOAM

& SEED PER



BOTH SIDES - INFLOW PIPE

2" x 10" STRINGER

FINISHED GRADE

CONSTRUCTED WETLAND INFLOW DETAIL NOT TO SCALE

EMERGENCY SPILL WAY

BERM

4" WETLAND

PLANTING SOI

DEEP

POOL

WITH CONCRETE WEIR

(SEE DETAIL)

EXISTING WETLAND

ESTIMATED SEASONAL HIGH GW: 178

LOAM AND SEED FOR ALL

MIRAFI 140N FILTER FARBRIC

STONE-ROUNDED RIVER

APPROVED EQUIVALENT

CONSTRUCTED

WETLAND

(SEE DETAIL)

SURFACE

WASHED (D₅₀ = 6") OR

OR APPR. EQUIVALENT

6" OF LANDSCAPE

MATCH EXISTING

GRADE (SEE PLAN

DISTURBED AREA

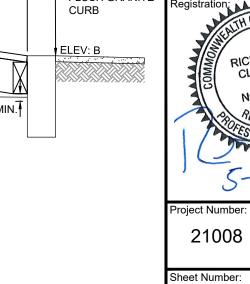
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 FLUSH GRANIT n:

10 of 12

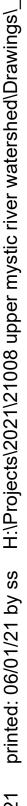
C - 10

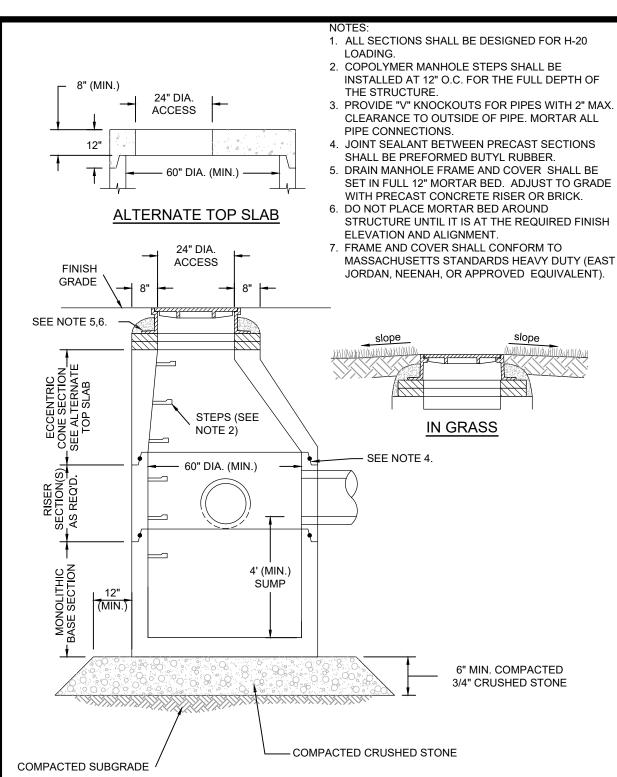


PERMITTING SET ONLY NOT FOR CONSTRUCTION

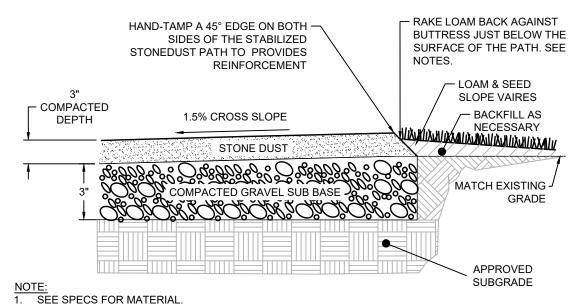


- 5. BACKFILL CAREFULLY IN 12" LIFTS AND TAMPER EACH LIFT WITH VIBRATOR, METAL ROD OR EQUAL EMBED ANCHOR BOLTS, CENTERED IN TUBES WITH 1" MAX EXTENDING ABOVE GRADE. ALL FASTENERS SHALL BE HOT DIPPED GALVANIZED PER ASTM A-153.
- CONCRETE SHALL CURE A MINIMUM OF 7-DAYS PRIOR TO APPLYING LOADING. AFTER CONCRETE CURING PERIOD REMOVE ANY ABOVE GRADE EXPOSED SONOTUBE. APPROVED EQUAL.
- 10. STEEL HELICAL PIER PILES SHALL BE CONSIDERED AS ALTERNATIVE TO THE POST PILE FOOTING.
- HELICAL PILES SHALL BE HUBBELL-CHANCE INSTANT FOUNDATION SYSTEM OR ENGINEER





PRECAST DEEP SUMP DRAIN MANHOLE (DMH) NOT TO SCALE



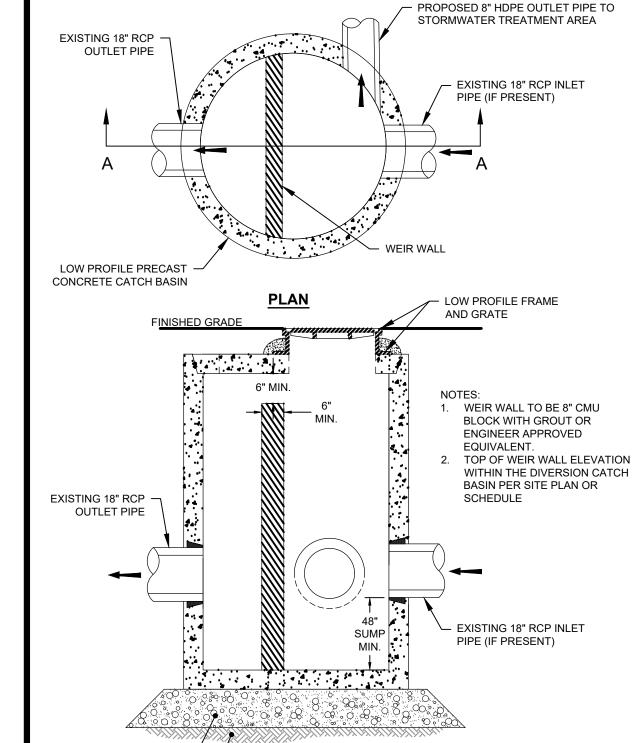
- BACKFILL ALONG PATH EDGE TO MATCH EXISTING GRADES AS NECESSARY. TAMP BACKFILLED MATERIAL ALONG EDGE OF PATH TO ENSURE POSITIVE DRAINAGE OFF STONE DUST PATH. CLEAN EDGE SHOULD NOT PROTRUDE ABOVE
- THE PATH AS THIS WILL PREVENT PATH FROM SHEDDING RUNOFF. 4. SEE PLANS FOR PATH WIDTH.

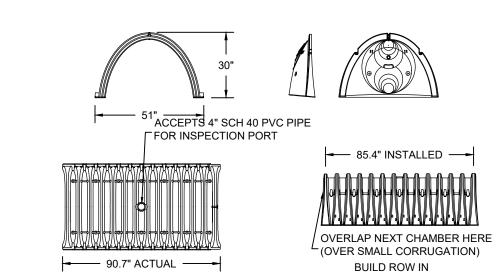
COMPACTED SUB-BASE -

COMPACTED SUBGRADE -

STONE DUST PATH

NOT TO SCALE





THIS DIRECTION

SIZE (W x H x INSTALLED LENGTH) 51.0" x 30.0" x 85.4" CHAMBER STORAGE 45.9 CUBIC FEET MINIMUM INSTALLED STORAGE 74.9 CUBIC FEET

STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B" STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"

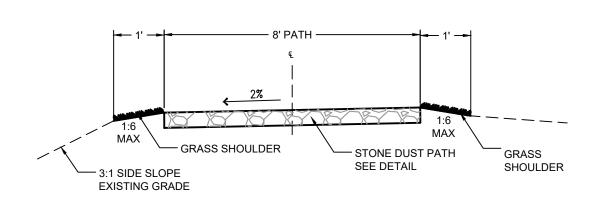
PART#	STUB	Α	В	С
SC740EPE06T	6"(150 mm)	10.90" (277 mm)	18.50" (470 mm)	N/A
SC740EPE06B	6"(150 mm)	10.90" (277 mm)	N/A	0.50" (13 mm)
SC740EPE08T	8"(200 mm)	12.20" (310 mm)	16.50" (419 mm)	N/A
SC740EPE08B	8"(200 mm)	12.20" (310 mm)	N/A	0.60" (15 mm)
SC740EPE10T	10"(250 mm)	13.40" (340 mm)	14.50" (368 mm)	N/A
SC740EPE10B	10"(250 mm)	13.40" (340 mm)	N/A	0.70" (18 mm)
SC740EPE12T	12"(300 mm)	14.70" (373 mm)	12.50" (318 mm)	N/A
SC740EPE12B	12"(300 mm)	14.70" (373 mm)	N/A	1.20" (30 mm)
SC740EPE15T	15"(375 mm)	18.40" (467 mm)	9.00" (229 mm)	N/A
SC740EPE15B	15"(375 mm)	18.40" (467 mm)	N/A	1.30" (33 mm)
SC740EPE18T	18"(450 mm)	19.70" (500 mm)	5.00" (127 mm)	N/A
SC740EPE18B	18"(450 mm)	19.70" (500 mm)	N/A	1.60" (41 mm)
SC740EPE24B	24"(600 mm)	18.50" (470 mm)	N/A	0.10" (3 mm)

NOTE: ALL DIMENSIONS ARE NOMINAL ALL STUBS, EXCEPT FOR THE SC740EPE24B ARE PLACED AT BOTTOM

OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694. *FOR THE SC740EPE24B THE 24" STUB LIES BELOW THE BOTTOM OF

THE END CAP APPROXIMATELY 1.75". BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

STORMTECH TECHNICAL DETAILS NOT TO SCALE



TYPICAL PATH CROSS SECTION NOT TO SCALE

	ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS					
	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT		
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.		
С	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145¹ A-1, A-2-4, A-3 OR AASHTO M43¹ 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MA LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).		
В	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43¹ 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.		
А	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43¹ 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ²³		

- 1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED
- STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.

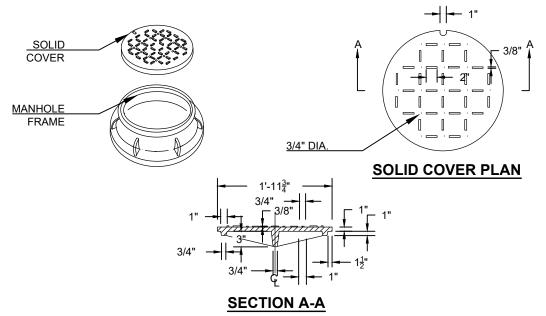
ADS GEOSYNTHETICS 601T NON-WOVEN GEOTEXTILE ALONG TOP OF CLEAN, CRUSHED, ANGULAR STONE (B LAYER) AND SIDEWALLS ONLY. DO NOT PLACE ALONG THE BOTTOM OF A LAYER - PAVEMENT -SEE DETAIL PERIMETER STONE -(SEE NOTE 6) EXCAVATION SIDEWALL -(CAN BE SLOPED OR VERTICAL) **DEPTH OF STONE** SUBGRADE SOILS -(SEE NOTE 4)

- 1. SC-740 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", OR ASTM F2922 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS'
- THE INSTALLED CHAMBER SYSTEM TO PROVIDE THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12 FOR EARTH AND LIVE LOADS, WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCE.

 "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.

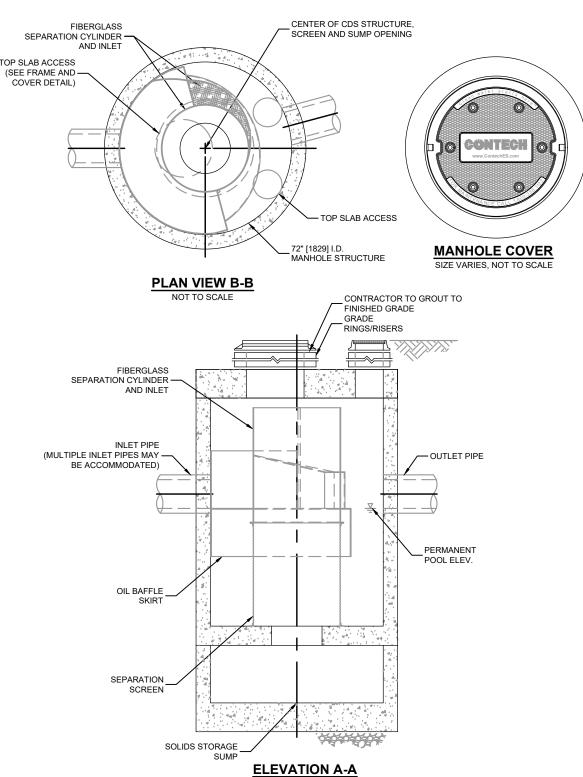
 ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

STORMTECH SC-740 CHAMBER TYPICAL CROSS SECTION NOT TO SCALE



NOTES: FRAME AND COVER SHALL CONFORM TO MASSACHUSETTS STANDARDS HEAVY DUTY (EAST JORDAN, NEENAH, OR APPROVED EQUIVALENT).

TYPICAL DRAINAGE STRUCTURE FRAME AND COVER/GRATE



	CONSIST OF (CLEAN, HARD, F GRAVEL MEETING	FOUNDATION MIN. TRENCH MINETER	
		PASSING 5-95	→ MIN. TRENCH WIDTH → DETAIL PROVIDED BY ADVANCED DRAINAGE SYSTEMS, INC.	
		5-15 0-2 BE INSTALLED AS ASTM D2321, LATEST	4. 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 MINIMUM RECOMMENDED * LOADING CONDITION COVER, in (mm)	
	BE 4" (100mm (100-600mm) A		H25 (FLEXIBLE PAVEMENT) 12 (300) H25 (RIGID PAVEMENT) E80 12 (300) RAILWAY HEAVY 24 (610) CONSTRUCTION 48 (1220)	
	(150mm) FOR CPEP.	NE PIPÉ (CPEP); 6" 30"-36" (750-900mm)	* 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	
3	MINIMUM TRE	NCH WIDTHS TO BE AS F	DLLOWS EXPERIENCE WITH THE PIPE. AASHTO SPECIFICATIONS SECTION 18.4.1.5 DEFINES THE MINIMUM COVER AS "ID/8 BUT NOT LESS THAN 12 INCHES". THIS COVER IS MEASURED FROM THE PIPE OD TO THE TOP OF A RIGID (CONCRETE) PAVEMENT	
	NOMINAL Ø in (mm) 8 (200) 10 (250) 12 (300) 15	MIN. RECOMMENDE TRENCH WIDTH, in (r 25 (630) 28 (710) 31 (790)	OR THE BOTTOM OF A FLEXIBLE (BITUMINOUS) PÁVEMENT.	
	(375) 18 (450)	34 (860) 39 (990) TYPICAL DE	CONSTRUCTION VEHICLE LOADS. AINAGE PIPE TRENCH DETAIL	Plan Set:
		TIFICAL DI	NOT TO SCALE	ă
		SITE SI DATA REQI		For:
				1 ~

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AVAIL - STANDARD HEADERS AVAILABLE

ADS MANIFOLD DETAIL

MANIFOLDS ARE DESIGNED TO BE COUPLED TO STORMTECH

PREFABRICATED END CAPS. WHEN USING STANDARD END CAPS,

CORRUGATE DPIPE UP TO 10 INCHES CAN BE INSERTED DIRECTLY INTO

THE END CAP. FOR 12" INLET PIPES, A CORRUGATED TO SMOOTH PIPE

FINAL BACKFILL

INITIAL BACKFILL,

6"-12" ABOVE

⟨TOP OF PIPE.

HAUNCHING

SPRINGLINE OF PIPE

STORMTECH TRIPLE ECENTRIC MANIFOLD

ADAPTER IS REQUIRED.

GROUND SURFACE

MANUFACTURED BY ADS

STORMTECH SINGLE TEE

MANUFACTURED BY ADS

STORMTECH DOUBLE MANIFOLD

MANUFACTURED BY ADS

1. FOUNDATION: WHERE THE TRENCH BOTTOM IS

MATERIAL AS DEFINED IN

ASTM D2321, "STANDARD PRACTICE FOR INSTALLATION OF THERMOPLASTIC PIPE FOR

SEWERS AND OTHER

APPLICATIONS," LATEST

EDITION; AS AN ALTERNATIVE

THE ENGINEER, THE TRENCH

BOTTOM MAY BE STABILIZED

USING A WOVEN GEOTEXTILE

BEDDING, HAUNCHING AND INITIAL

BACKFILL: SUITABLE MATERIAL TO

AND AT THE DISCRETION OF HDPE PIPE

GRAVITY-FLOW

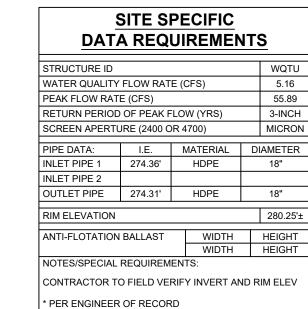
UNSTABLE, THE CONTRACTOR 5 TO EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH A FOUNDATION OF CLASS I OR II

SECTION VIEW A-A

FOR INFORMATION

CALL 1-888-892-2694

BEDDING MATERIAL

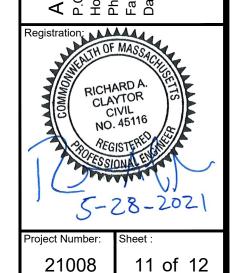


- DIMENSIONS MARKED WITH () ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY. 2. WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
- 3. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET AASHTO M306 LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.

INSTALLATION NOTES 1. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN

- CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD. 2. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND
- SET THE MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
- 3. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE. 4. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS
- 5. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

WATER QUALITY TREATMENT UNIT DETAIL



0

C - 11

GENERAL PLANTING NOTES:

- 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.
- 3. 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.
- 4. 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.
- 5. 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 THAT HAVE A WELL DEVELOPED ROOT SYSTEM. PLANTS MUST BE FREE OF DISEASE, INSECTS, EGGS OR LARVAE.
- 6. 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.
- 8. SEASONS FOR PLANTING:

	ANTINO.	
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

- DECIDUOUS: SEPTEMBER 15 TO NOVEMBER 15 **EVERGREEN:** SEPTEMBER 15 TO NOVEMBER 15 PERENNIALS: SEPTEMBER 15 TO NOVEMBER 15
- GROUNDCOVERS: SEPTEMBER 15 TO NOVEMBER 15 9. PLANTING UNDER FROZEN CONDITIONS WILL NOT BE PERMITTED. PLANTING BEFORE OR AFTER THE ABOVE REFERENCED PLANTING DATES WILL INCREASE THE
- LIKELIHOOD OF PLANT 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 ESTABLISHMENT. 10. FURNISH ONE YEAR MANUFACTURER WARRANTY FOR TREES, PLANTS, AND GROUND COVER AGAINST DEFECTS INCLUDING DEATH AND UNSATISFACTORY
- GROWTH. EXCEPTIONS ARE DEFECTS RESULTING FROM LACK OF ADEQUATE MAINTENANCE, NEGLECT 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 PALLETS, 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
- 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.
- 23. TRIM ANY BROKEN AND DEAD BRANCHES FOR EXISTING TREES TO REMAIN WITHIN THE LIMIT OF WORK. ALL TRIMMING AND PRUNING TO BE PREFORMATTED BY A REGISTERED ARBORIST
- 24. DO NOT USE FERTILIZERS WITHIN EXISTING WETLAND BUFFERS, OR INSIDE WALKWAY, ADJACENT TO CONSTRUCTED WETLAND.

GENERAL SEEDING NOTES:

- I. THE FOLLOWING NOTES ARE PROVIDED AS GENERAL PLANTING GUIDELINES ONLY. 1. 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.
 - 2. 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.
 - 3. PRIOR TO THE PLACEMENT OF TOP SOIL, LOOSEN THE SUBGRADE OF ALL PROPOSED SEEDED 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.
 - 4. DO NOT SPREAD TOPSOIL IF THE SUBGRADE IS FROZEN, EXCESSIVELY WET, COMPACTED OR NOT PROPERLY PREPARED PER THE NOTES AND SPECIFICATIONS.
 - 5. SEE SPECIFICATIONS FOR SEASONAL REQUIREMENTS FOR SEEDING.

WATERING NOTES:

- 1. 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.
- 2. ESTABLISH AN APPROPRIATE WATERING SCHEDULE FOR ALL PLANT MATERIAL BASED UPON PLANT SPECIES REQUIREMENTS AND SITE CONDITIONS. PROVIDE SCHEDULE IN WRITING TO THE LANDSCAPE ARCHITECT AND OWNER FOR REVIEW AND APPROVAL. ADHERE TO THE APPROVED SCHEDULE UNTIL PLANTS ARE FULLY ESTABLISHED.
- 3. AT A MINIMUM THE NEWLY SEEDED AND/OR HYDROSEEDED LAWNS SHOULD BE WATERED DAILY. SPECIAL CARE SHOULD BE TAKEN TO ENSURE THAT THE LAWN 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 SEEDED AREAS. THE AREA MUST BE MAINTAINED CONSISTENTLY MOIST FOR THE BEST GERMINATION RESULTS. ADDITIONAL WATERING MAY BE REQUIRED IF PLANTING AND SEEDING OCCUR OUTSIDE OF THE RECOMMENDED PLANTING SEASONS.

PLANTING LAYOUT NOTES

1. FOR AREAS WITH MIXED PERENNIALS AND/OR GRASSES (SHOWN AS HATCHED AREAS ON PLANS), DO NOT PLANT IN A PATTERN OR WITH 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.

HABITAT ENHANCEMENT NOTES

1¹/₂" DADO JOINT -

2" x 4" CAP -

6" MIN. GRAVEL -

COMPACT SUBGRADE -

1. PLACE STOCKPILED NATIVE WOODY DEBRIS TO PROVIDE HABITAT ENHANCEMENTS WITHIN REVEGETATED PORTION OF THE BUFFER ZONE.

FIBERGLASS EMBEDDED

COUNTERSUNK AND PLUGGED

2 CARRIAGE BOLTS AT

EACH JOINT - COUNTERSINK

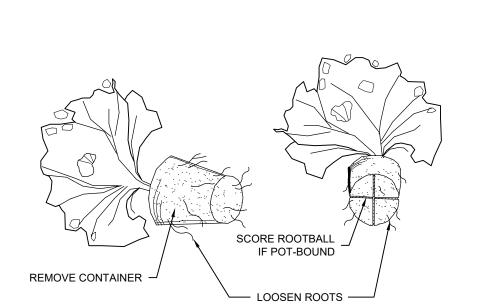
- 2" x 8" BRACERS

FINISH GRADE

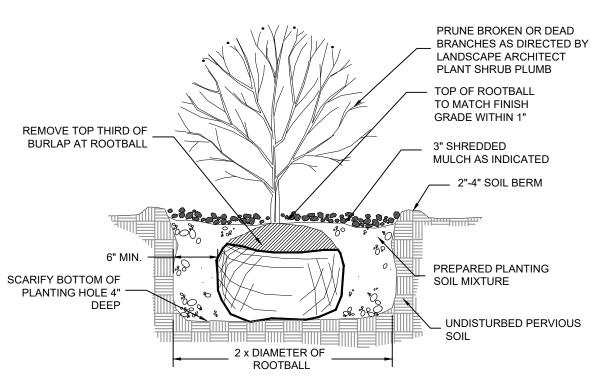
SIGN ON ALUMINUM

PANEL BOX

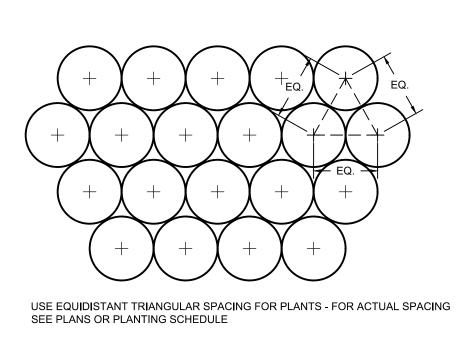
INTERPRETIVE GRAPHIC PANEL FRONT ELEVATION



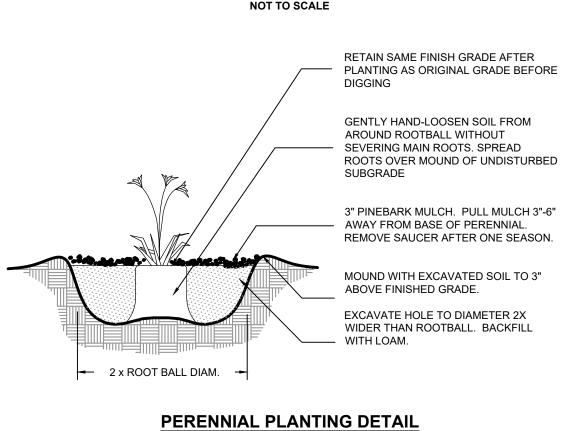
CONTAINER PLANT ROOTBALL TREATMENT



SHRUB PLANTING DETAIL NOT TO SCALE



PLANTING SPACING DETAIL



1. SEE LANDSCAPE GRADING SPECIFICATIONS FOR TOPSOIL REQUIREMENTS.

2. CONFIRM SUBGRADES ARE CORRECT AND POSITIVE DRAINAGE IS MAINTAINED PRIOR TO

3. NOTIFY ENGINEER/LANDSCAPE ARCHITECT FOR REVIEW OF SUBGRADE PRIOR TO PLACEMENT OF

LOAM AND SEED DETAIL

FINISH GRADE

PERENNIAL PLANTING DETAIL

NOT TO SCALE

- SEED AS SPECIFIED IN NOTES

COMPACT WITH A HANDROLLER IN TWO

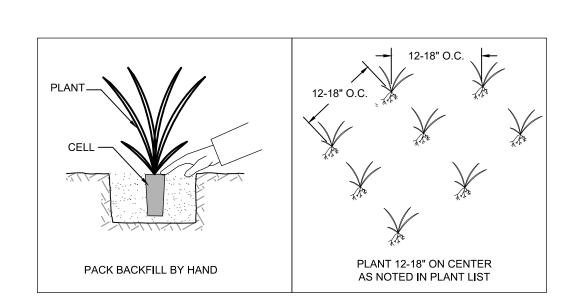
DIRECTIONS AND FINE RAKE PRIOR TO

SUBSOIL- SCARIFY AND LOOSEN

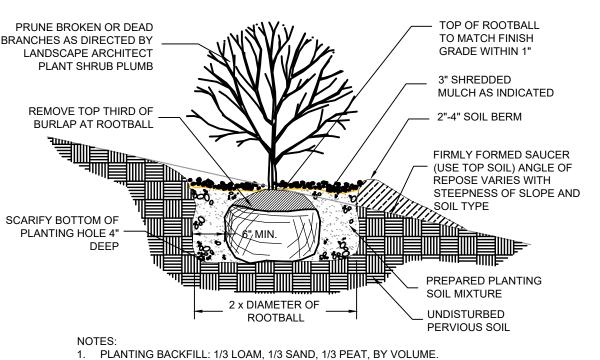
ROUGH GRADE PRIOR TO TOPSOIL

AND DRAWINGS.

PLACEMENT

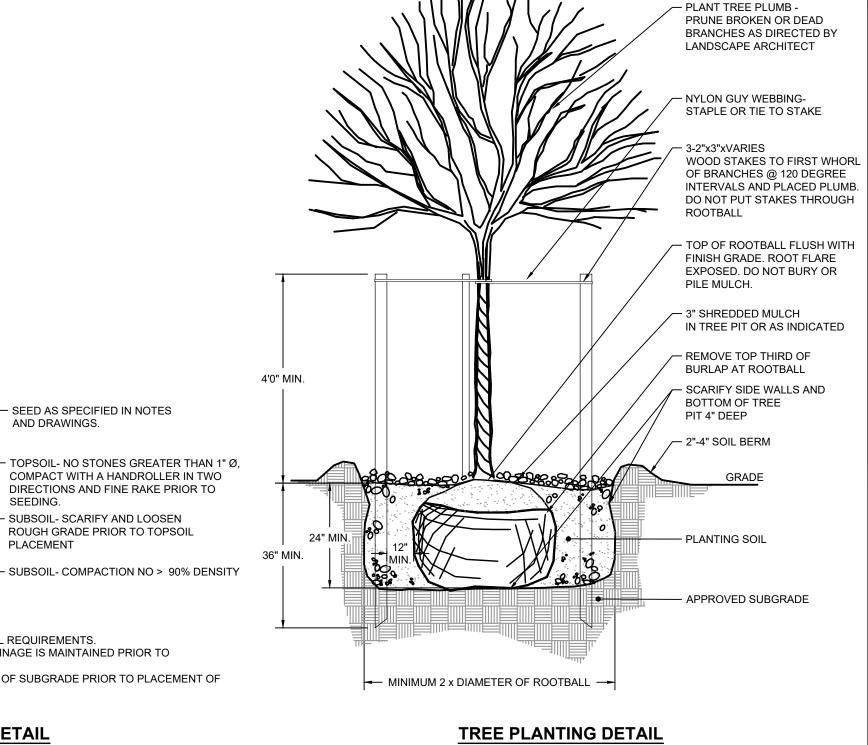


PLUG PLANTING DETAIL **NOT TO SCALE**

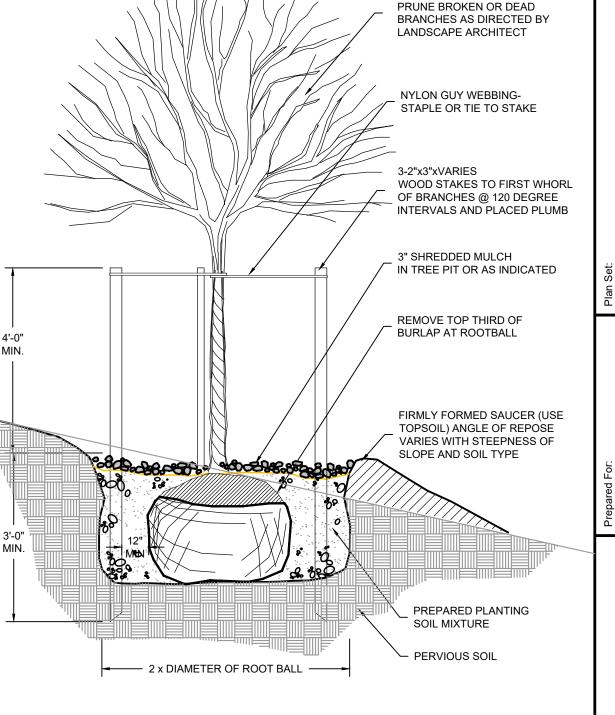


2. WHEN PLANTING ON SLOPE-MODIFY SLOPE AS SHOWN.

SHRUB PLANTING ON SLOPE DETAIL

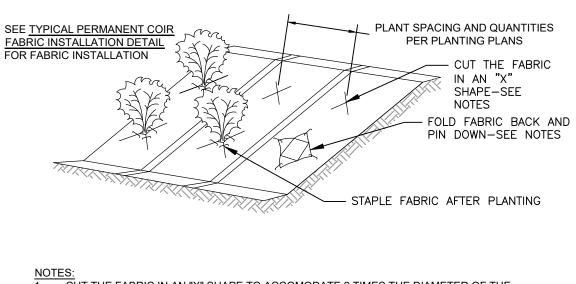


NOT TO SCALE



PLANT TREE PLUMB -

TREE PLANTING ON SLOPE DETAIL NOT TO SCALE



CUT THE FABRIC IN AN "X" SHAPE TO ACCOMODATE 2 TIMES THE DIAMETER OF THE FOLD FABRIC BACK AND PIN DOWN TO CREATE A HOLE IN THE MAT.

DIG THE HOLE PER PLANTING DETAILS AFTER PLANTING, FOLD FABRIC BACK INTO PLACE AND STAPLE DOWN AS REQUIRED TO SECURE FABRIC IN PLACE.

PLANTING IN COIR FABRIC DETAIL

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PERMITTING SET ONLY NOT FOR CONSTRUCTION