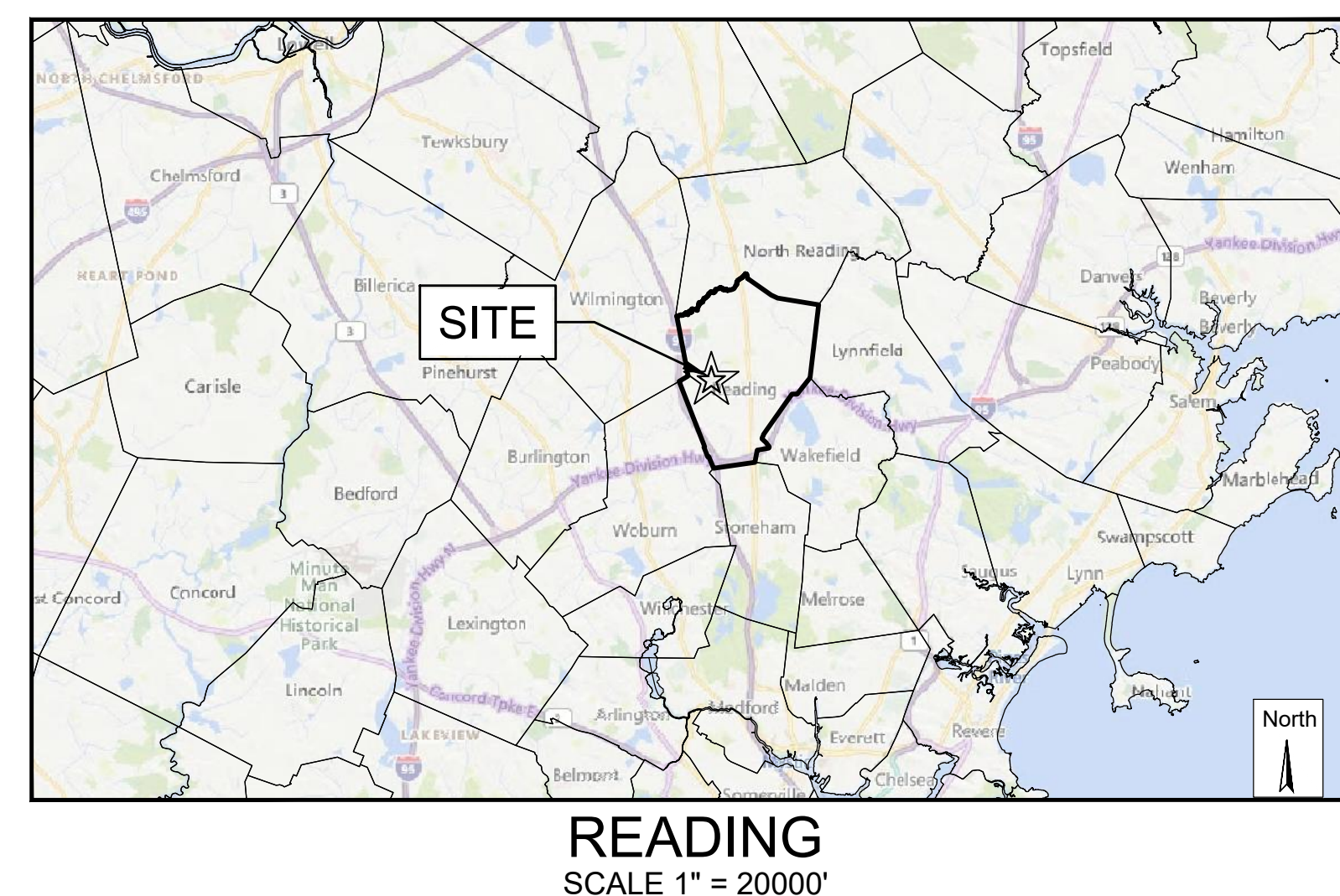


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GENERAL NOTES:

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

PLAT:	26
LOT:	50
ADDRESS:	0 WILLOW STREET
ZONING DISTRICT:	SINGLE FAMILY 15

PLAT:	26
LOT:	32
ADDRESS:	0 WILLOW STREET
ZONING DISTRICT:	SINGLE FAMILY 15

PERMITTING SET ONLY
NOT FOR CONSTRUCTION

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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.
- 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 OF READING. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF POLICE DETAIL AND FOR COORDINATING WITH THE LOCAL OR STATE POLICE DEPARTMENT FOR ALL REQUIRED POLICE DETAIL.
- 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.
- 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.
- 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 AGENCIES IN THE TOWN, 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- COLLECT SOLID WASTES AND STORE IN A SECURED DUMPSTER. THE DUMPSTER MUST MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS.
- 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.
- 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.
- ALL TRUCKS LEAVING THE SITE MUST BE COVERED.
- DO NOT WASH ANY CONCRETE TRUCKS ONSITE. REMOVE BY HAND ANY CEMENT OR CONCRETE DEBRIS LEFT IN THE DISTURBED AREA.
- 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.
- 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 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.

- 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.
- REMOVE ALL DEBRIS FROM THE SITE AND DISPOSE OF THE DEBRIS IN A PROPER AND LEGAL MANNER.
- 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.
- REFER TO UTILITY PLANS AND SPECIFICATIONS FOR ALL WORK WHICH REQUIRES UTILITIES TO BE REMOVED, RELOCATE OR ABANDONED AND LEFT IN PLACE.
- MAINTAIN CONTINUOUS ACCESS AND OPERATION FOR SURROUNDING FACILITIES, AS DEEMED BY THE OWNER, AT ALL TIMES DURING DEMOLITION OF THE EXISTING FACILITIES.
- PRIOR TO DEMOLITION OCCURRING, ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED.

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.

- 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 READING CONSERVATION COMMISSION AND DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP).
- 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.
- SURVEY AND STAKE CENTERLINE OF THE PROPOSED ROADS, STORMWATER MANAGEMENT AREAS, AND DRAINAGE LINES.
- 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.
- BEGIN CLEARING AND GRUBBING THE AREAS OF ROADWAYS 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 TEMPORARY TREATMENT AREAS. DIVERT OVERFLOW FROM PERMANENT STORMWATER TREATMENT AREAS; THEY ARE NOT BE USED AS ONLINE SYSTEMS DURING CONSTRUCTION.
- BEGIN ROUGH GRADING FOR ROADWAYS & PARKING AREAS. BRING ROUGH GRADING TO PROPER ELEVATIONS AS SOON AS PRACTICABLE. COORDINATE WORK TO MINIMIZE TIME SOILS ARE UN-STABILIZED.
- INSTALL DRAINAGE PIPES, DRAINAGE MANHOLES, AND CATCH BASINS. BEGIN WORK AT THE STORMWATER MANAGEMENT AREAS AND PROGRESS UP-GRADE. 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.
- PERMANENTLY SEED ALL DISTURBED AREAS OUTSIDE OF THE AREA TO BE PAVED.
- BEGIN ROAD AND PARKING CONSTRUCTION PER SITE PLANS AND IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL REGULATIONS. ROADS AND PARKING AREAS ARE NOT TO BE PAVED UNTIL THE ENTIRE PERMANENT DRAINAGE SYSTEM HAS BEEN INSTALLED AND ALL PIPE CONNECTIONS COMPLETE.
- 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.
- COMPLETE ALL REMAINING PLANTING AND SEEDING.
- SWEEP PAVEMENT TO REMOVE ALL SEDIMENTS. 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.
- 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:

- ALL CUT AND FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.
- EXISTING GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT.
- PROPOSED GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT.
- ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE WITH NEW PAVEMENT..
- 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.
- ALL DRAINAGE STRUCTURES AND PIPES MUST BE INSPECTED AFTER INSTALLATION PRIOR TO PATCHING OF ROADWAY AND ALLOWING OF FLOW TO THE STORMWATER TREATMENT AREAS.

DEWATERING:

- 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.
- PRIOR TO ANY DEWATERING, THE DEWATERING PLAN MUST BE APPROVED BY THE ENGINEER.
- 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 DETAILS.

INVASIVE SPECIES MANAGEMENT:

- 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 ACTIVITIES.
- ALL PESTICIDE APPLICATIONS MUST BE CONDUCTED BY A MASSACHUSETTS LICENSED PESTICIDE APPLICATOR.
- 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.
- 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

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.
- PRUNE TREE BRANCHES IF ANY DIE AS A RESULT OF ROOT PRUNING.
- IF MORE THAN 40% OF A TREES DRIP LINE IS DISTURBED, AND ITS ROOTS DESTROYED OR REMOVED, NOTIFY PROJECT ENGINEER TO DETERMINE IF TREE SHOULD BE REMOVED.

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.

- INSPECT AND RESTORE/CLEAN ALL FACILITIES (INLETS, MANHOLES, STORMWATER MANAGEMENT AREAS AS DESCRIBED BELOW) OF SEDIMENT AND DEBRIS PRIOR TO THE OWNER'S ACCEPTANCE.
- REMOVE AND DISPOSE ALL SEDIMENT AND DEBRIS TO A PRE-APPROVED LOCATION.
- 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.
- 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.
- SPECIFIC MAINTENANCE REQUIRED DURING CONSTRUCTION:
 - DRAINAGE STRUCTURES (INLETS, MANHOLES, CATCHBASINS, DIVERSION STRUCTURE):** 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 FRO THE STRUCTURES (INCLUDING SUMPS) AS NECESSARY, AND REPAIR WHEN REQUIRED.
 - RIP-RAP SLOPE PROTECTION:** MONITOR, REGULARLY INSPECT AND REPAIR AS NECESSARY.
 - SEDIMENT FOREBAY:** REGULARLY INSPECT TO ENSURE PROPER FUNCTION. REMOVE SEDIMENT BUILD-UP ON THE FLOOR OF THE FOREBAY AND PROPERLY DISPOSE, AS NECESSARY, TO LIMIT CLOGGING. CLEAN SEDIMENT FOREBAYS PRIOR TO COMPLETION OF CONSTRUCTION.
 - CONSTRUCTED WETLAND SYSTEM:** MONITOR AND INSPECT STRUCTURAL COMPONENTS OF THE SYSTEM, INCLUDING ORIFICE STRUCTURES, WEIR WALLS, DRAINAGE INLETS, 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 ENROACHING 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.
 - 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.

LEGEND:

GENERAL		
EXISTING	PROPOSED	
		BERM
		BUILDING
		CONCRETE
		CONTOUR - MINOR
		CONTOUR - MAJOR
		CROSSWALK/PAVEMENT STRIPING
		CURB
		EDGE OF PAVEMENT
		FENCE - CHAIN LINK
		FENCE - WIRE
		FENCE - WOOD
		GUARD RAIL
		LIMIT OF WORK
		PROPOSED SPOT GRADE
		SEWER MANHOLE
		ELECTRIC MANHOLE
		TELEPHONE MANHOLE
		MANHOLE
		UNKNOWN MANHOLE
		DRAIN MANHOLE
		CATCHBASIN
		ABUTTING LOT
		EASEMENT LINE
		PROPERTY, LOT, OR ROW
		DRAIN PIPE
		GAS LINE
		OVERHEAD WIRE
		SANITARY SEWER
		WATER LINE
		SILT SOCK
		WETLAND BOUNDARY
		WETLAND 25' NATURAL VEGETATION ZONE
		WETLAND 35' BUFFER
		WETLAND 100' BUFFER
		UTILITY BOX
		HYDRANT
		UTILITY POLE
		GUY
		LIGHT POST
		MONITORING WELL
		B-1 BORING
		WF WETLAND FLAG
		ROCK
		SIGN
		BENCH

MYSTIC RIVER WATERSHED
MAILLET CONSERVATION AREA
READING, MASSACHUSETTS

Prepared For:
Town of Reading
16 Lowell Street
Reading, MA 01867
Phone: (781) 942-9082
Fax: ---

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



Project Number: 21008
Sheet: 2 of 15

Sheet Number: C - 2

PERMITTING SET ONLY
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LEGEND:

GENERAL

BUILDING

CENTERLINE

CONTOUR - MINOR

CONTOUR - MAJOR

CURB

CURB CUT

EDGE OF PAVEMENT

FENCE - CHAIN LINK

FENCE - WOOD

GUARD RAIL

PATHWAY

STONE

SIDEWALK

TREE LINE

WALL - RETAINING

WALL - STONE

PROPERTY INFORMATION

ABUTTING LOT

EASEMENT LINE

PROPERTY, LOT, OR ROW

UTILITIES

DRAIN PIPE

GAS LINE

OVERHEAD WIRE

SANITARY SEWER

WATER LINE

ENVIRONMENTAL

WETLAND BOUNDARY

WETLAND 50 BUFFER

WETLAND 100 BUFFER

SYMBOLS

BENCHMARK

CONTROL POINT

EXISTING TREE

EXISTING EVERGREEN TREE

EXISTING SPOT GRADE

SPOT GRADE

SEWER MANHOLE

MANHOLE

DRAIN MANHOLE

CATCHBASIN

WATER VALVE

GAS VALVE

HYDRANT

UTILITY POLE

GUY

BORING

WETLAND FLAG

ROCK

SIGN

BENCH

- SURVEY NOTES
1. 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. MAY 17, 2021. HOUSES, WETLAND FLAGS AND TREES TAKEN FROM PLAN TITLED "TOPOGRAPHIC PLAN OF LAND WILLOW STREET READING, MA PREPARED FOR STEV ROY AND ANTHONY ZERILLI" PREPARED BY A.S. ELLIOT & ASSOCIATES DATED DECEMBER 14, 2020.

2. HORIZONTAL DATUM IS MASS STATE PLANE COORDINATE SYSTEM (NAD 83). DATUM ESTABLISHED WITH A.S. ELLIOT SURVEY GROUND CONTROL.

3. THE ELEVATIONS DEPICTED HEREON WERE BASED ON THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988.

4. THE PROPERTY LINES AND RIGHTS OF WAYS DEPICTED HAVE BEEN ESTABLISHED BY FIELD SURVEY AND DEEDS AND PLANS OF RECORD.

5. PROPERTY LINES FOR ABUTTING PROPERTY OWNERS ARE APPROXIMATE ONLY.

6. SEWER EASEMENT AND ABERJONA RIVER TAKEN FROM TOWN OF READING ONLINE GIS.

7. THE ACCURACY OF MEASURED PIPE INVERTS AND PIPE SIZES IS SUBJECT TO FIELD CONDITIONS, THE ABILITY TO MAKE VISUAL OBSERVATIONS, DIRECT ACCESS TO THE VARIOUS ELEMENTS AND OTHER CONDITIONS.

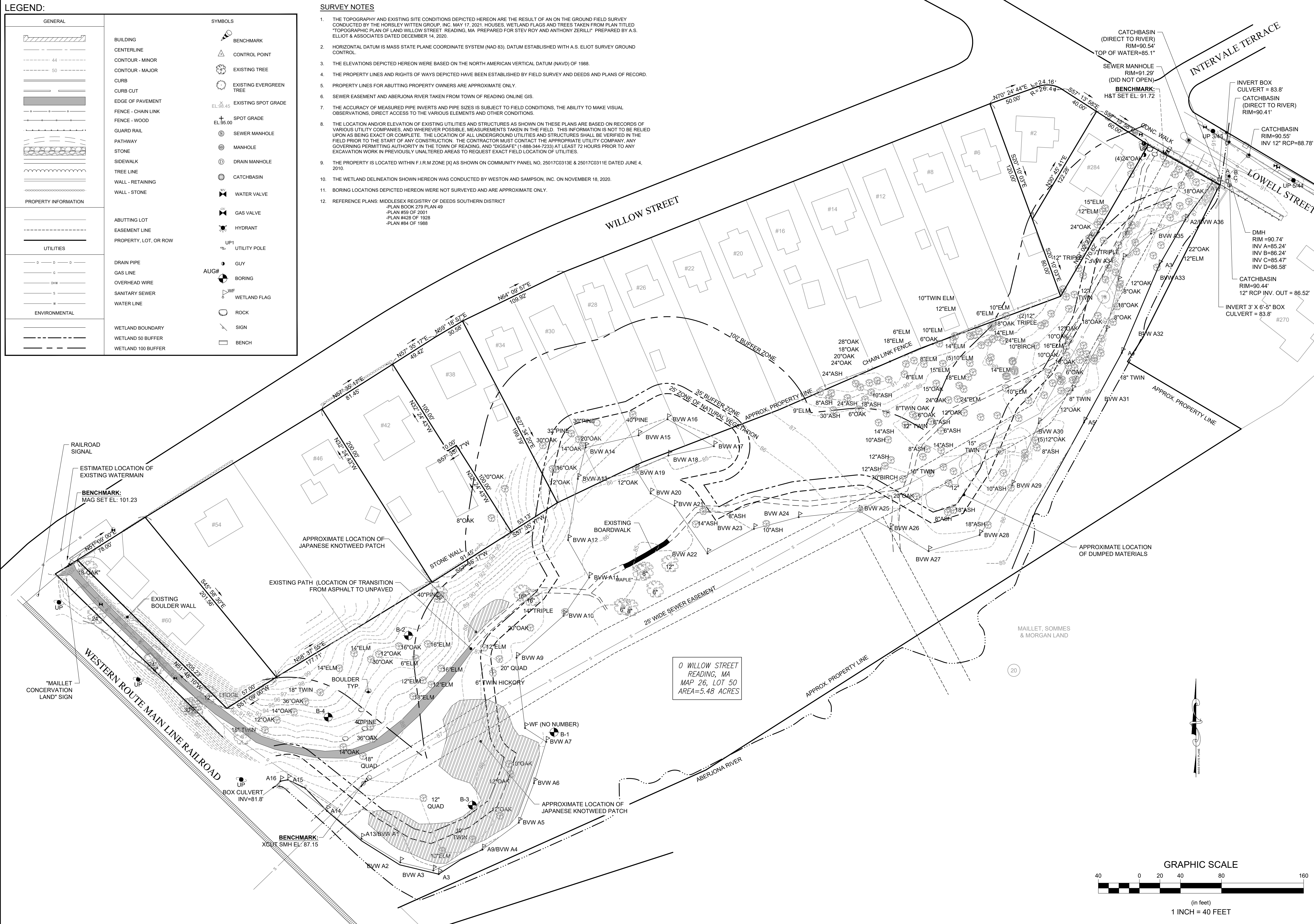
8. THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF VARIOUS UTILITY COMPANIES, AND WHEREVER POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND 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 READING, 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.

9. THE PROPERTY IS LOCATED WITHIN F.I.R.M ZONE [X] AS SHOWN ON COMMUNITY PANEL NO. 25017C0313E & 25017C0311E DATED JUNE 4, 2010.

10. THE WETLAND DELINEATION SHOWN HEREON WAS CONDUCTED BY WESTON AND SAMPSON, INC. ON NOVEMBER 18, 2020.

11. BORING LOCATIONS DEPICTED HEREON WERE NOT SURVEYED AND ARE APPROXIMATE ONLY.

12. REFERENCE PLANS: MIDDLESEX REGISTRY OF DEEDS SOUTHERN DISTRICT
-PLAN BOOK 279 PLAN 49
-PLAN #59 OF 2001
-PLAN #428 OF 1928
-PLAN #84 OF 1988



Revisions

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Horsley Witten Group, Inc.

Sustainable Environmental Solutions

90 Route 6A

Sandwich, MA 01967

Phone: (508) 833-6600

Fax: (508) 833-3150

508-833-3150 fax

Plan Set:

Prepared For:

Town of Reading

16 Lowell Street

Reading, MA 01867

Phone: (781) 942-9082

Fax: ---

Survey Provided By:

Horsley Witten Group, Inc.

90 Route 6A

Sandwich, MA 01967

Phone: (508) 833-6600

Fax: (508) 833-3150

Dated: ---

Registration:

Project Number:

21008

Sheet :

3 of 15

Sheet Number:

C - 3

EXISTING CONDITIONS PLAN

MYSTIC RIVER WATERSHED

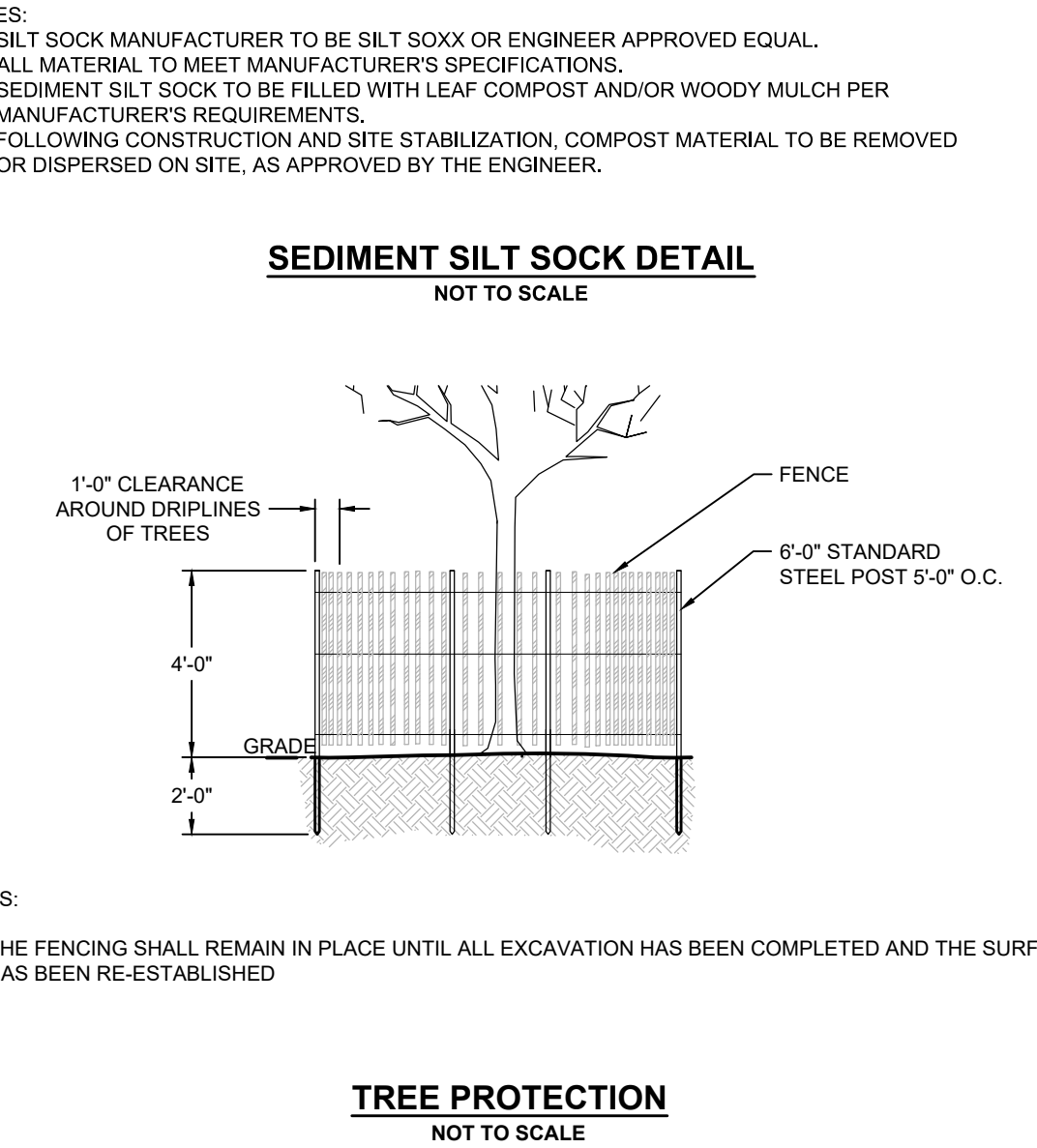
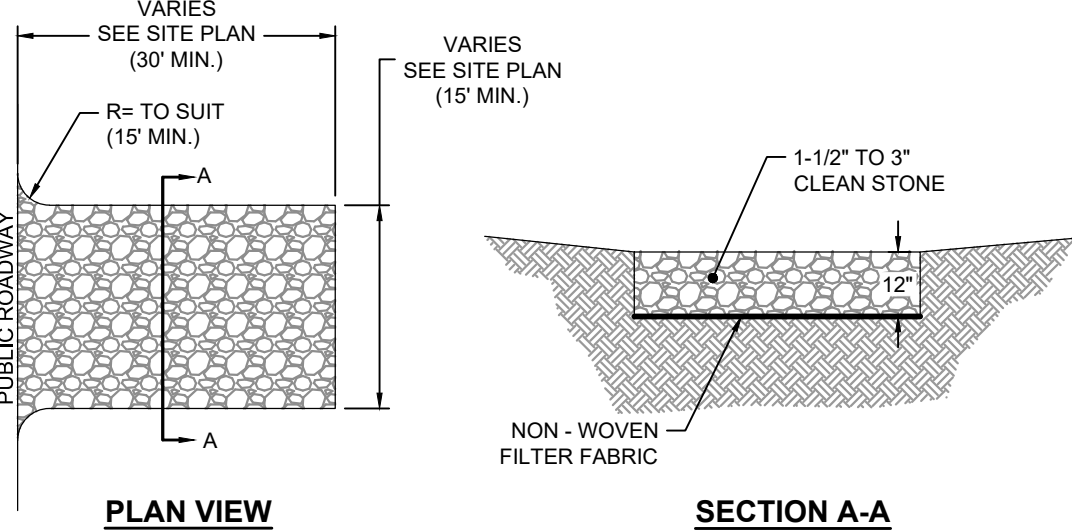
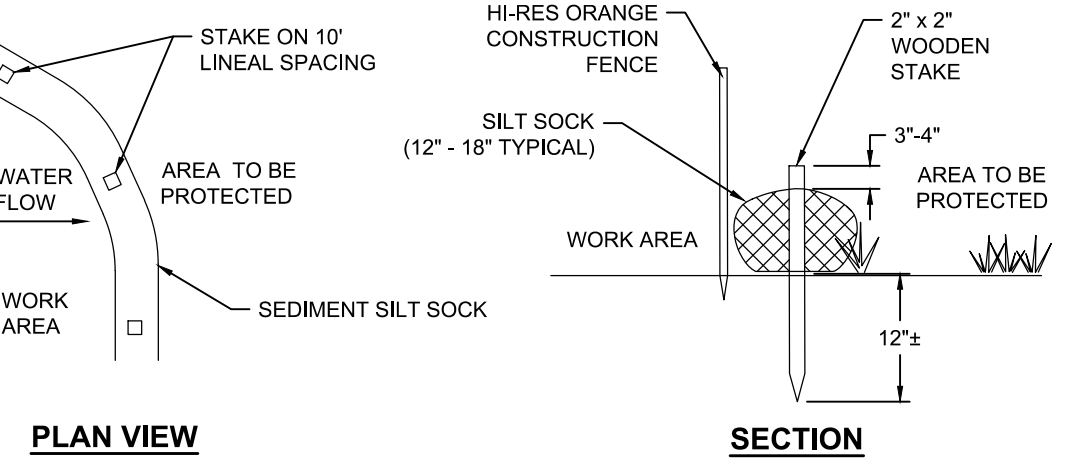
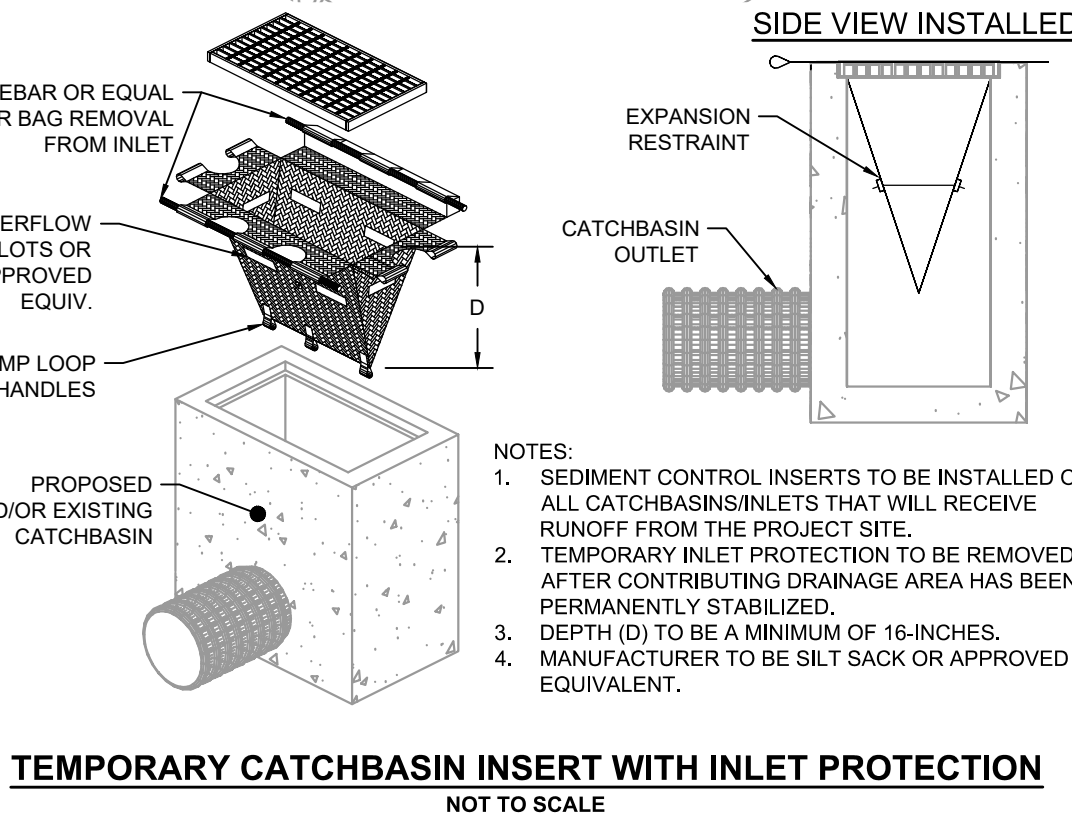
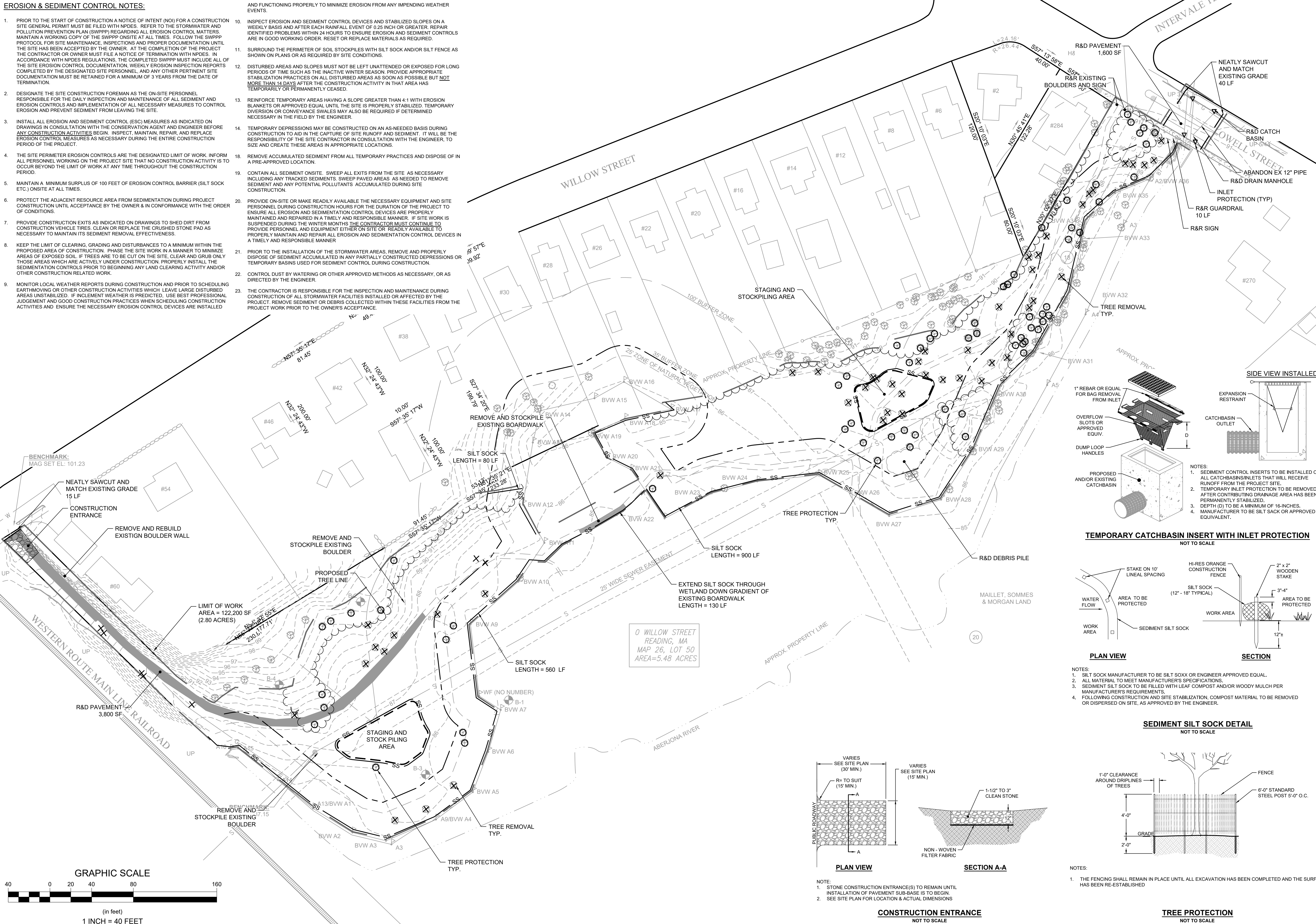
MAILLET CONSERVATION AREA

READING, MASSACHUSETTS

last modified: 05/27/21 printed: 05/28/21 by gg H:\Projects\2021\21008 upper mystic river watershed\Drawings_Reading\21008 READING ESC.dwg

EROSION & SEDIMENT CONTROL NOTES:

1. PRIOR TO THE START OF CONSTRUCTION A NOTICE OF INTENT (NOI) FOR A CONSTRUCTION SITE GENERAL PERMIT 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 ON SITE 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.
2. 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 ANY CONSTRUCTION ACTIVITIES 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.) ON SITE 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.
8. 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 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. 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.
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 THE 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.



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Survey Provided By:	Registration:
Horsley Witten Group, Inc.	RICHARD A. CLAYTON
16 Lowell Street	NO. 45116
Reading, MA 01867	PROFESSIONAL SEAL
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Fax: (603) 833-3150	
Date: 5-28-2021	

Project Number:	Sheet:
21008	4 of 15

Sheet Number: C - 4

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SHEET C-7

SHEET C-6

PROPOSED FIRE HYDRANT
FINAL LOCATION AND CONNECTION
TO BE COORDINATED WITH READING
WATER DEPARTMENT AND FIRE
DEPARTMENT

PARKING AREA
AND IMPROVED
ACCESS DRIVE

CONSTRUCTED
WETLAND
CELL 2

10' WIDE IMPROVED BOARDWALK/
WETLAND CROSSING
LENGTH = 120 LF

DWF (NO NUMBER)

B-1
BVV A7

BVW A6

BVW A5

A9/BVV A4

CONSTRUCTED
WETLAND
CELL 3

OUTLET TO EXISTING
WETLAND

8' WIDE MULTI-USE PATH
TOTAL LENGTH = 1,500 LF

CONSTRUCTED
WETLAND
CELL 1

CONSTRUCTED
WETLAND
PRETREATMENT CELLS

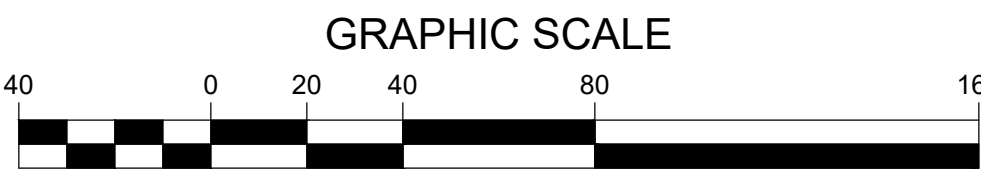
CONNECTION TO
EXISTING PATH
BVV A27

8' WIDE MULTI-USE PATH
TOTAL LENGTH = 1,500 LF

TRAIL HEAD AT
LOWELL STREET

BENCHMARK:
H&T SET EL: 91.72

MAILLET, SOMMES
& MORGAN LAND



MYSTIC RIVER WATERSHED
MAILLET CONSERVATION AREA
READING, MASSACHUSETTS

Prepared For:
Town of Reading
16 Lowell Street
Reading, MA 01867
Phone: (781) 942-9002
Fax: ---

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

Registration:



Project Number:
21008

Sheet:
5 of 15

Sheet Number:
C - 5

Revisions

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

Plan Set:

Plan Title:
LAYOUT PLAN

Task:
MAY 2021

Designed By:
CSG

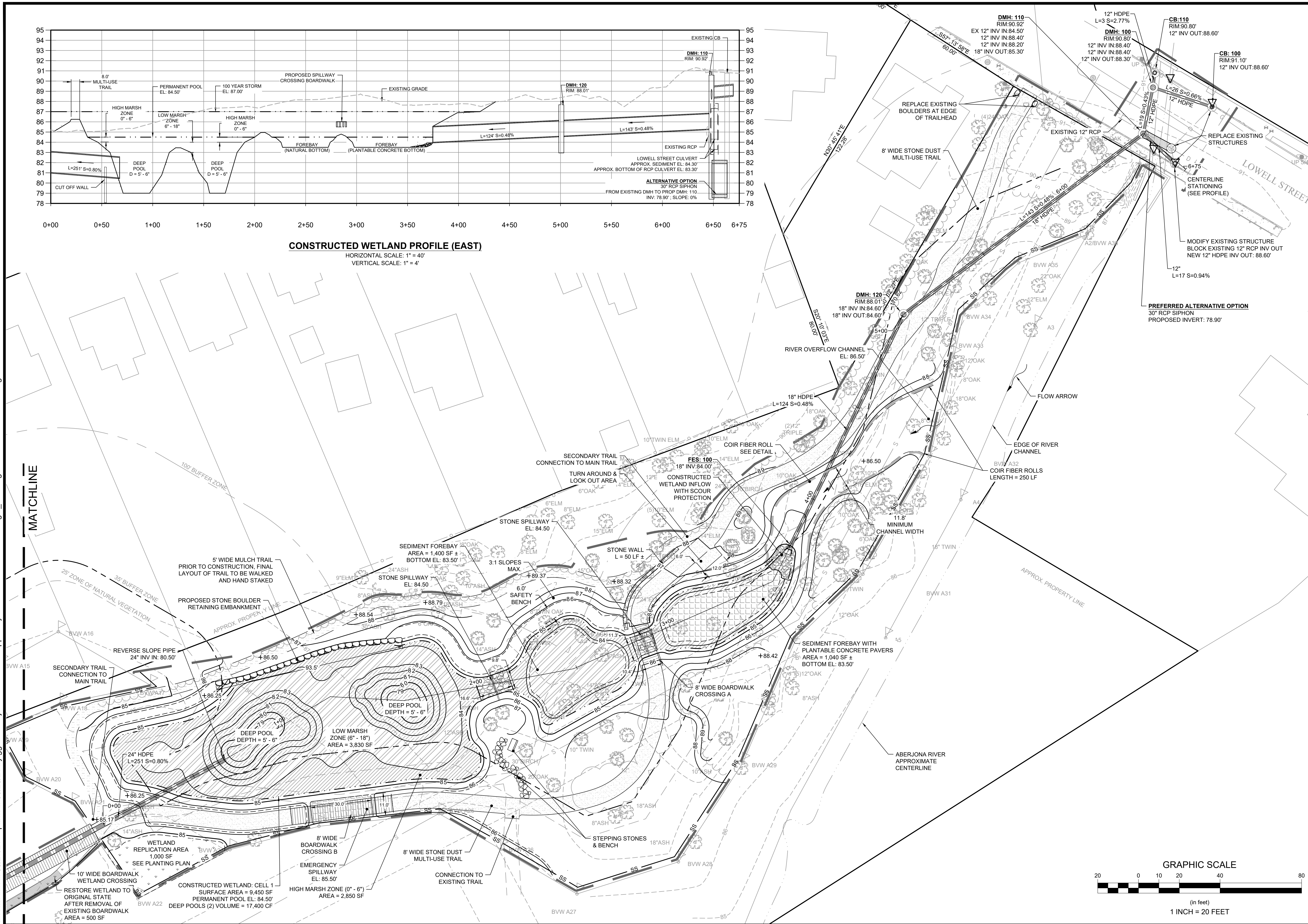
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NOT FOR CONSTRUCTION

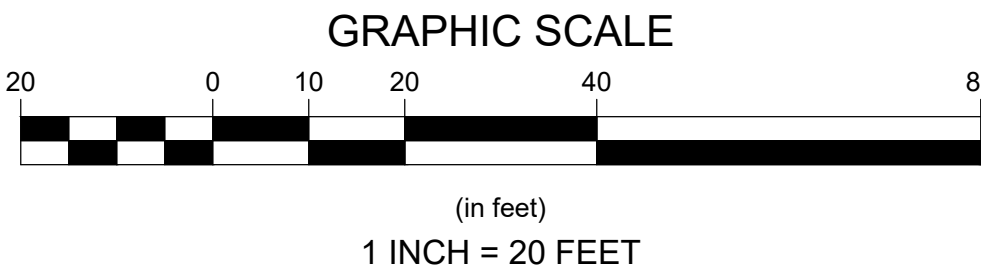
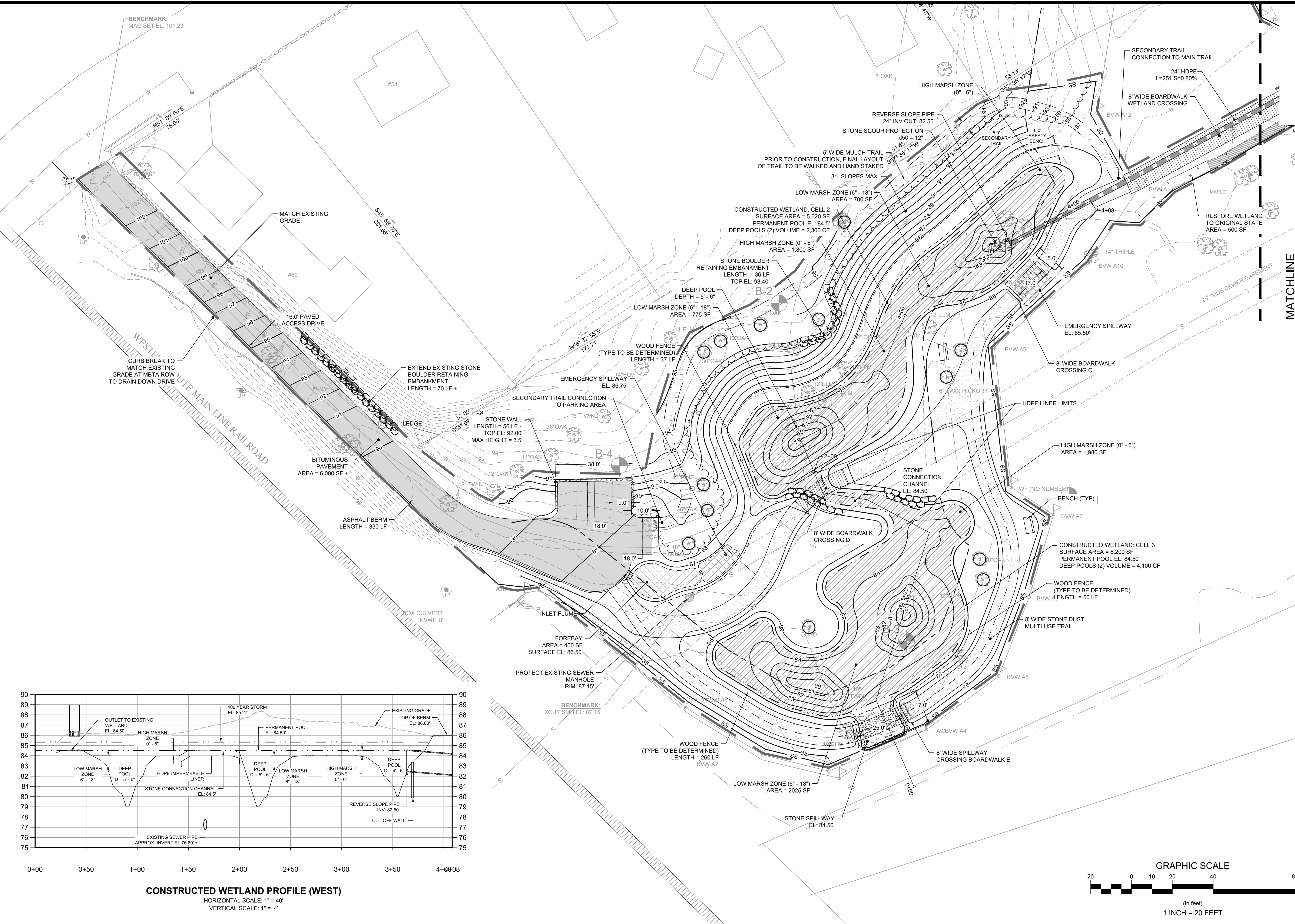
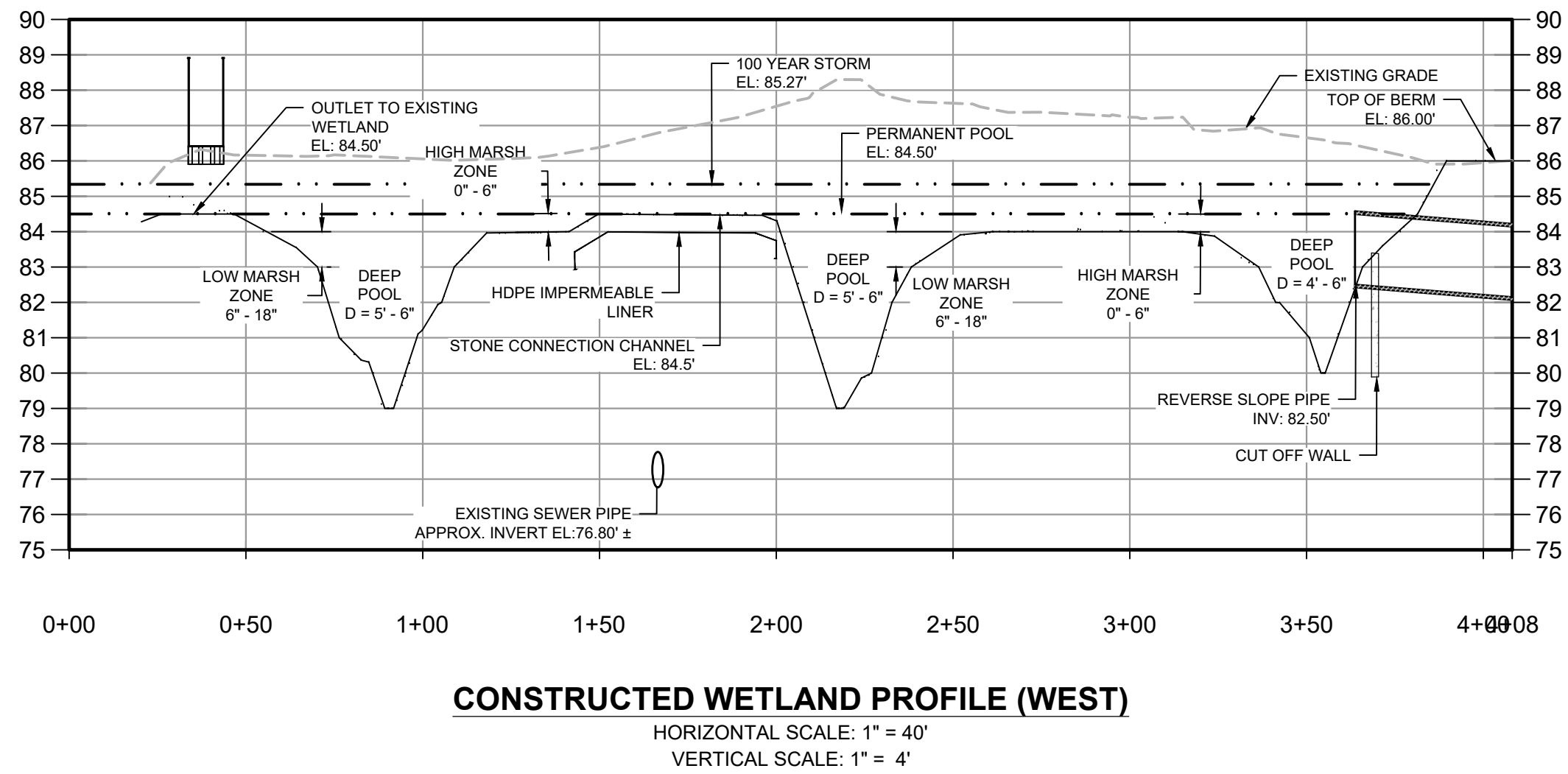
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Revisions	
Horsley Witten Group, Inc. Sustainable Environmental Solutions 90 Route 6A Sandwich, MA 02563 508-833-6600 voice 508-833-3150 fax	
Drawn By: CSG	Checked By: PAC
Designated By: CSG	Date: MAY 2021
MYSTIC RIVER WATERSHED MAILLET CONSERVATION AREA READING, MASSACHUSETTS	
GRADING AND DRAINAGE PLAN (1)	
Prepared For: Town of Reading 16 Lowell Street Reading, MA 01867 Phone: (781) 942-9082 Fax: ---	Survey Provided By: Horsley Witten Group, Inc. 90 Route 6A Sandwich, MA 02563 Phone: (508) 833-6600 Fax: (508) 833-3150 Date: ---
Registration: 5-28-2021	
Project Number: 21008	Sheet: 6 of 15
Sheet Number: C - 6	

PERMITTING SET ONLY
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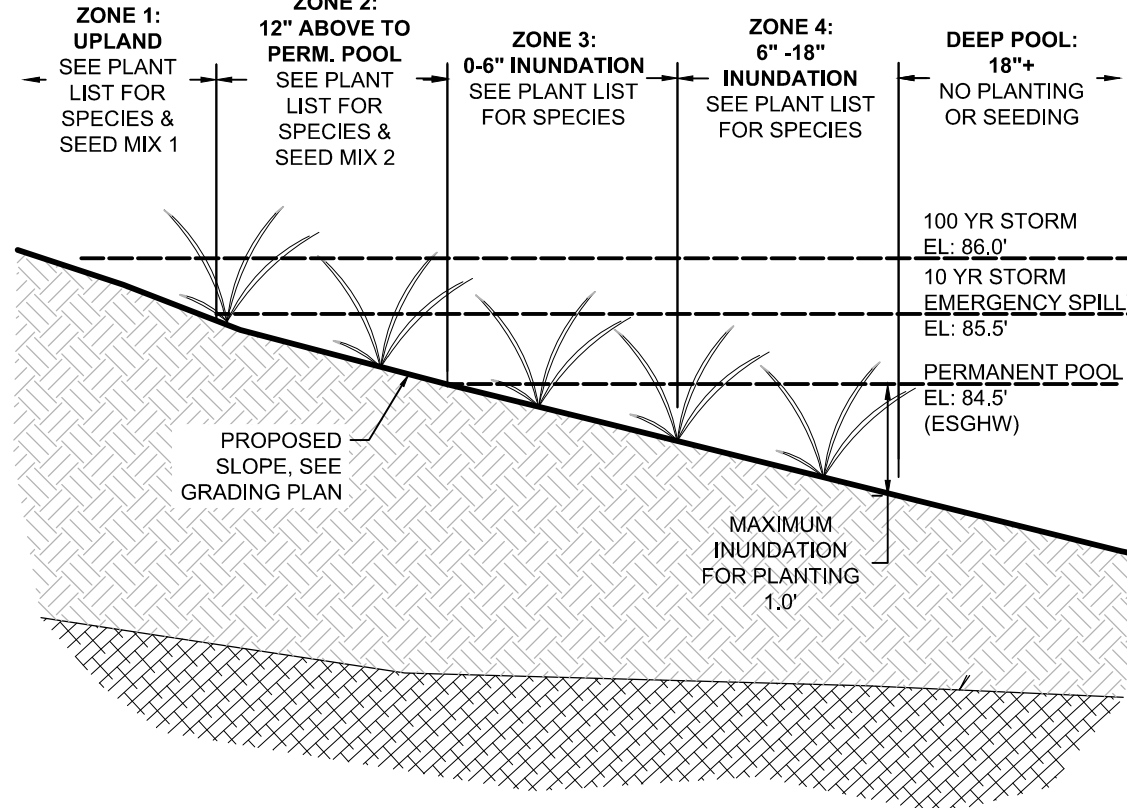
Revisions	
Horsley Witten Group, Inc. Sustainable Environmental Solutions 90 Route 6A Sandwich, MA 02563 508-833-6600 voice 508-833-3150 fax	
DATE: MAY 2021	CHECKED BY: CSJ
DESIGNED BY: CSJ	DRAWN BY: CSJ
PROJECT TITLE: MYSTIC RIVER WATERSHED MAILLET CONSERVATION AREA READING, MASSACHUSETTS	
PLAN TITLE: GRADING AND DRAINAGE PLAN (2)	
PREPARED FOR: Town of Reading 16 Lowell Street Reading, MA 01867 Phone: (781) 942-9082 Fax: ---	
SURVEY PROVIDED BY: Horsley Witten Group, Inc. 90 Route 6A Sandwich, MA 02563 Phone: (508) 833-6600 Fax: (508) 833-3150 Date: ---	
REGISTRATION: RICHARD A. CLAYTON NO. 45116 PROFESSIONAL ENGINEER 5-28-2021	
PROJECT NUMBER: 21008	SHEET: 7 of 15
SHEET NUMBER: C - 7	

PERMITTING SET ONLY
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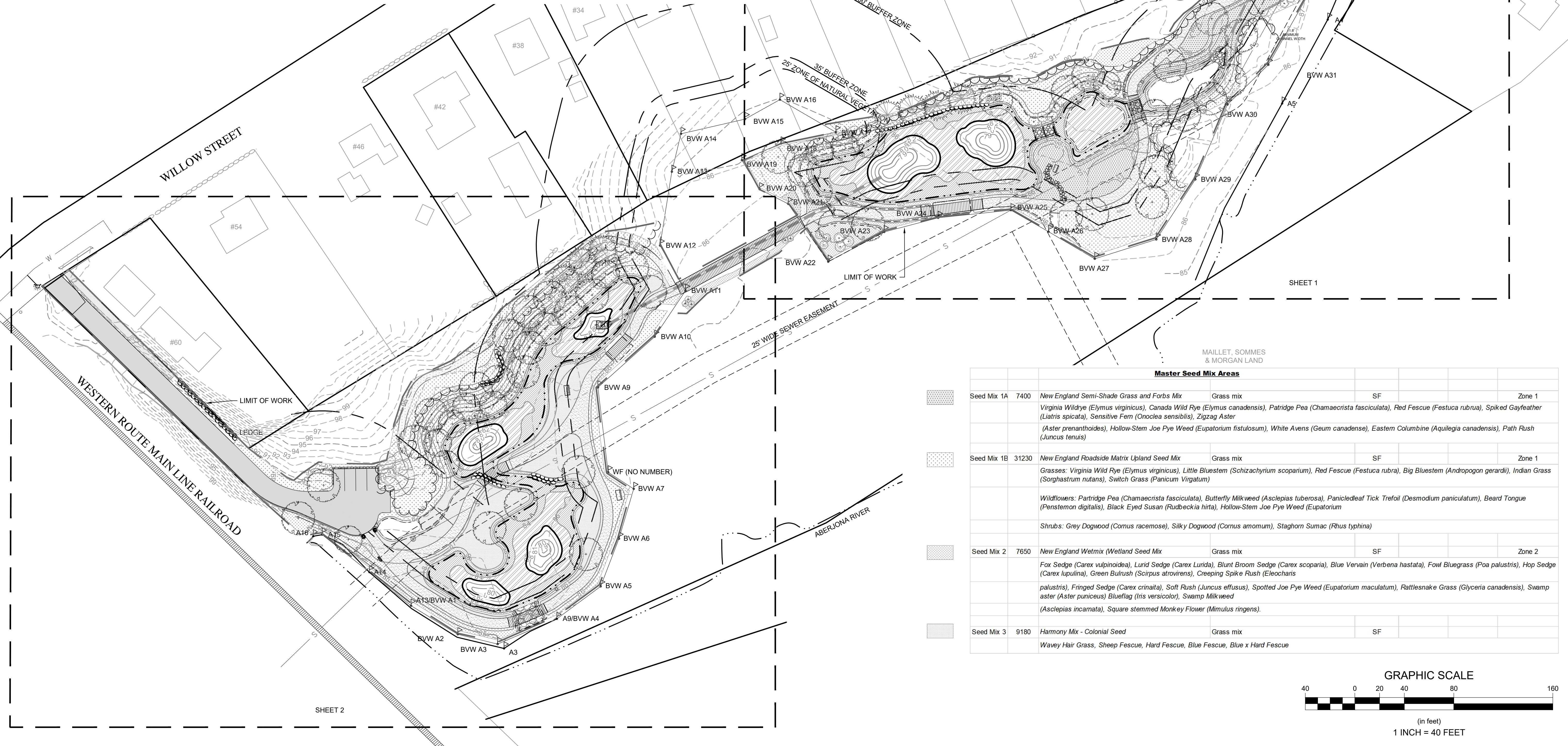
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Master Plant List					
Key		Botanical Name	Common Name	Size	Spacing
Trees					
AR	8	<i>Acer rubrum</i>	Red Maple	1- 1.5" cal, B&B	As Shown
AS	5	<i>Acer saccharum</i>	Sugar Maple	1- 1.5" cal, B&B	As Shown
AI	5	<i>Alnus incana sp rugosa</i>	Speckled Alder	5-8' HT, B&B	As Shown
BN	7	<i>Betula nigra</i>	River Birch	8-10' HT, B&B	As Shown
NS	3	<i>Nyssa sylvatica</i>	Tupelo	1-1.5" cal, B&B	As Shown
PS	11	<i>Prunus serotina</i>	Black Cherry	5-8' ht, B&B	As Shown
QB	8	<i>Quercus bicolor</i>	Swamp White Oak	1-1.5" cal, B&B	As Shown
QR	7	<i>Quercus rubra</i>	Red Oak	1-1.5" cal, B&B	As Shown
Evergreen Trees					
PST	7	<i>Pinus strobus</i>	Eastern White Pine	8-10' ht, B&B	As Shown
Shrubs					
CA	21	<i>Clethra alnifolia</i>	White Summer Sweet	#5	5' O.C.
HV	5	<i>Hammamelis virginiana</i>	Common Witch Hazel	#5	15' O.C.
LB	10	<i>Lindera benzoin</i>	Spice Bush	#3	6' O.C.
SA	9	<i>Swida amomum</i>	Silky Dogwood	#5	10' O.C.
VA	21	<i>Vaccinium angustifolium</i>	Lowbush Blueberry	#3	2.5' O.C.
VC	11	<i>Vaccinium corymbosum</i>	Highbush Blueberry	#5	4' O.C.
VD	13	<i>Viburnum dentatum</i>	Arrowwood Viburnum	#5	8' O.C.

		<u>Ground Cover/Grasses/Perennials</u>			
<u>Zone 1 (Upland)</u>					
CP	730	<i>Carex pensylvanica</i>	Pennsylvania Sedge	Plugs	12" O.C.
CG	730	<i>Chelone glabra</i>	White Turtlehead	Plugs	30" O.C.
DP	730	<i>Dennstaedtia punctilobula</i>	Hay Scented Fern	Plugs	24" O.C.
EV	730	<i>Elymus virginicus</i>	Virginia Wild Rye	Plugs	18" O.C.
ED	730	<i>Eurybia divaricata</i>	White Wood Aster	Plugs	24" O.C.
GM	730	<i>Geranium maculatum</i>	Wild Geranium	Plugs	24" O.C.
MF	730	<i>Monarda fistulosa</i>	Beebalm	Plugs	18" O.C.
<u>Zone 2 (Edge)</u>					
AIN	1360	<i>Asclepias incarnata</i>	Swamp Milkweed	Plugs	12" O.C.
CST	1360	<i>Carex stipata</i>	Awl-fruited Sedge	Plugs	12" O.C.
CV	1360	<i>Carex vulpinoidea</i>	Fox Sedge	Plugs	12" O.C.
LC	1360	<i>Lobelia cardinalis</i>	Cardinal Flower	Plugs	12" O.C.
OSE	1360	<i>Onoclea sensibilis</i>	Sensitive Fern	Plugs	24" O.C.
PD	1360	<i>Penstemon digitalis</i>	beardtongue	Plugs	18" O.C.
<u>Zone 3 (0-6" Depth)</u>					
CS	1090	<i>Carex stricta</i>	Tussock Sedge	Plugs	24" O.C.
EF	1090	<i>Eupatorium fistulosum</i>	Joe Pye Weed	Plugs	18" O.C.
IV	1090	<i>Iris versicolor</i>	Blue Flag	Plugs	12" O.C.
JE	1090	<i>Juncus effusus</i>	Soft Rush	Plugs	12" O.C.
SCC	1090	<i>Scirpus cyperinus</i>	Wool Grass	Plugs	24" O.C.
VH	1090	<i>Verbena hastata</i>	Blue Vervain	Plugs	12" O.C.
<u>Zone 4 (6"-18" Depth)</u>					
EP	785	<i>Eleocharis palustris</i>	Creeping Spike Rush	Plugs	24" O.C.
PEV	785	<i>Peltandra virginica</i>	Arrow Arum	Plugs	12" O.C.
PC	785	<i>Pontederia cordata</i>	Pickernelweed	bare root	24" O.C.
SL	785	<i>Schoenoplectus pungens</i>	Three-Square Bulrush	Plugs	18" O.C.
SA	785	<i>Sparganium americanum</i>	American Burreed	bare root	48" O.C.



PLANTING SECTION (INUNDATION LEVEL)
NOT TO SCALE



		Master Seed Mix Areas						
Seed Mix 1A	7400	New England Semi-Shade Grass and Forbs Mix	Grass mix	SF				Zone 1
		Virginia Wildrye (<i>Elymus virginicus</i>), Canada Wild Rye (<i>Elymus canadensis</i>), Partridge Pea (<i>Chamaecrista fasciculata</i>), Red Fescue (<i>Festuca rubra</i>), Spiked Gayfeather (<i>Liatris spicata</i>), Sensitive Fern (<i>Onoclea sensibilis</i>), Zigzag Aster (<i>Aster prenanthoides</i>), Hollow-Stem Joe Pye Weed (<i>Eupatorium fistulosum</i>), White Avens (<i>Geum canadense</i>), Eastern Columbine (<i>Aquilegia canadensis</i>), Path Rush (<i>Juncus tenuis</i>)						
Seed Mix 1B	31230	New England Roadside Matrix Upland Seed Mix	Grass mix	SF				Zone 1
		Grasses: Virginia Wild Rye (<i>Elymus virginicus</i>), Little Bluestem (<i>Schizachyrium scoparium</i>), Red Fescue (<i>Festuca rubra</i>), Big Bluestem (<i>Andropogon gerardii</i>), Indian Grass (<i>Sorghastrum nutans</i>), Switch Grass (<i>Panicum Virgatum</i>)						
		Wildflowers: Partridge Pea (<i>Chamaecrista fasciculata</i>), Butterfly Milkweed (<i>Asclepias tuberosa</i>), Panicleleaf Tick Trefoil (<i>Desmodium paniculatum</i>), Beard Tongue (<i>Penstemon digitalis</i>), Black Eyed Susan (<i>Rudbeckia hirta</i>), Hollow-Stem Joe Pye Weed (<i>Eupatorium</i>)						
		Shrubs: Grey Dogwood (<i>Cornus racemose</i>), Silky Dogwood (<i>Cornus amomum</i>), Staghorn Sumac (<i>Rhus typhina</i>)						
Seed Mix 2	7650	New England Wetmix (Wetland Seed Mix)	Grass mix	SF				Zone 2
		Fox Sedge (<i>Carex vulpinoidea</i>), Lurid Sedge (<i>Carex Lurida</i>), Blunt Broom Sedge (<i>Carex scoparia</i>), Blue Vervain (<i>Verbena hastata</i>), Fowl Bluegrass (<i>Poa palustris</i>), Hop Sedge (<i>Carex lupulina</i>), Green Bulrush (<i>Scirpus atrovirens</i>), Creeping Spike Rush (<i>Eleocharis palustris</i>), Fringed Sedge (<i>Carex crinita</i>), Soft Rush (<i>Juncus effusus</i>), Spotted Joe Pye Weed (<i>Eupatorium maculatum</i>), Rattlesnake Grass (<i>Glyceria canadensis</i>), Swamp aster (<i>Aster puniceus</i>) Blueflag (<i>Iris versicolor</i>), Swamp Milkweed (<i>Asclepias incarnata</i>), Square stemmed Monkey Flower (<i>Mimulus ringens</i>).						
Seed Mix 3	9180	Hamony Mix - Colonial Seed	Grass mix	SF				
		Wavy Hair Grass, Sheep Fescue, Hard Fescue, Blue Fescue, Blue x Hard Fescue						

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Horsley Witten Group, Inc.

Sustainable Environmental Solutions

90 Route 6A

Sandwich, MA 02563

Phone: (508) 833-4600

Fax: (508) 833-3150

508-833-3150 fax

MYSTIC RIVER WATERSHED

MAILLET CONSERVATION AREA

READING, MASSACHUSETTS

Plant Set:

Town of Reading

16 Lowell Street

Reading, MA 01867

Phone: (781) 942-9082

Fax: ---

Survey Provided By:

Horsley Witten Group, Inc.

90 Route 6A

Sandwich, MA 02563

Phone: (508) 833-4600

Fax: (508) 833-3150

Date: 05/16/21

Project Number:

21008

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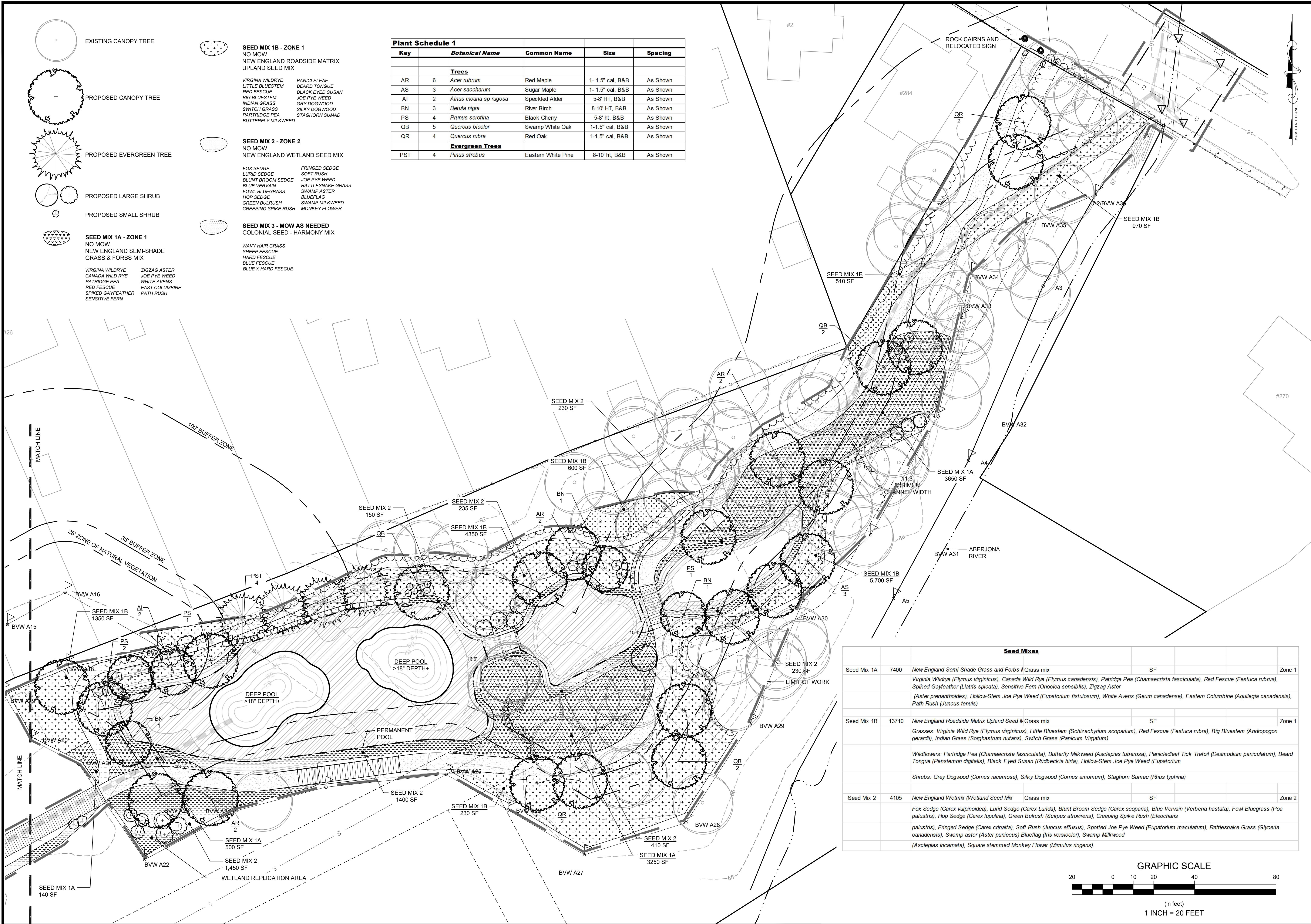
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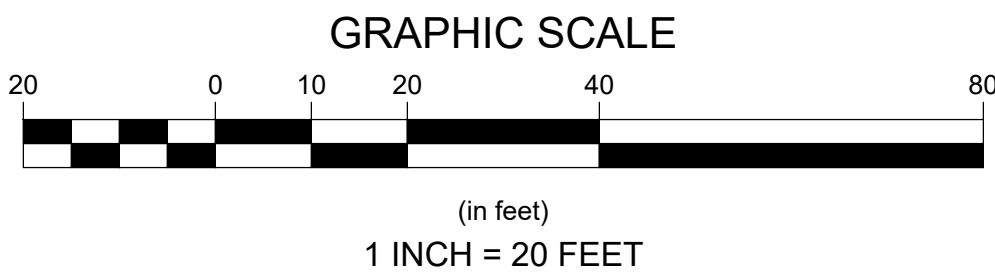
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Plant Schedule 1					
Key		Botanical Name	Common Name	Size	Spacing
		<u>Trees</u>			
AR	6	<i>Acer rubrum</i>	Red Maple	1- 1.5" cal, B&B	As Shown
AS	3	<i>Acer saccharum</i>	Sugar Maple	1- 1.5" cal, B&B	As Shown
AI	2	<i>Alnus incana sp rugosa</i>	Speckled Alder	5-8' HT, B&B	As Shown
BN	3	<i>Betula nigra</i>	River Birch	8-10' HT, B&B	As Shown
PS	4	<i>Prunus serotina</i>	Black Cherry	5-8' ht, B&B	As Shown
QB	5	<i>Quercus bicolor</i>	Swamp White Oak	1-1.5" cal, B&B	As Shown
QR	4	<i>Quercus rubra</i>	Red Oak	1-1.5" cal, B&B	As Shown
		<u>Evergreen Trees</u>			
PST	4	<i>Pinus strobus</i>	Eastern White Pine	8-10' ht, B&B	As Shown

Seed Mixes					
Seed Mix 1A	7400	New England Semi-Shade Grass and Forbs I	Grass mix	SF	Zone 1
Virginia Wildrye (<i>Elymus virginicus</i>), Canada Wild Rye (<i>Elymus canadensis</i>), Partridge Pea (<i>Chamaecrista fasciculata</i>), Red Fescue (<i>Festuca rubra</i>), Spiked Gayfeather (<i>Liatris spicata</i>), Sensitive Fern (<i>Onoclea sensibilis</i>), Zigzag Aster (<i>Aster prenanthoides</i>), Hollow-Stem Joe Pye Weed (<i>Eupatorium fistulosum</i>), White Avens (<i>Geum canadense</i>), Eastern Columbine (<i>Aquilegia canadensis</i>), Path Rush (<i>Juncus tenuis</i>)					
Seed Mix 1B	13710	New England Roadside Matrix Upland Seed I	Grass mix	SF	Zone 1
Grasses: Virginia Wild Rye (<i>Elymus virginicus</i>), Little Bluestem (<i>Schizachyrium scoparium</i>), Red Fescue (<i>Festuca rubra</i>), Big Bluestem (<i>Andropogon gerardii</i>), Indian Grass (<i>Sorghastrum nutans</i>), Switch Grass (<i>Panicum virgatum</i>)					
Wildflowers: Partridge Pea (<i>Chamaecrista fasciculata</i>), Butterfly Milkweed (<i>Asclepias tuberosa</i>), Panicleleaf Tick Trefoil (<i>Desmodium paniculatum</i>), Beard Tongue (<i>Penstemon digitalis</i>), Black Eyed Susan (<i>Rudbeckia hirta</i>), Hollow-Stem Joe Pye Weed (<i>Eupatorium</i>					
Shrubs: Grey Dogwood (<i>Cornus racemosa</i>), Silky Dogwood (<i>Cornus amomum</i>), Staghorn Sumac (<i>Rhus typhina</i>)					
Seed Mix 2	4105	New England Wetmix (Wetland Seed Mix)	Grass mix	SF	Zone 2
Fox Sedge (<i>Carex vulpinoidea</i>), Lurid Sedge (<i>Carex lurida</i>), Blunt Broom Sedge (<i>Carex scoparia</i>), Blue Vervain (<i>Verbena hastata</i>), Fowl Bluegrass (<i>Poa palustris</i>), Hop Sedge (<i>Carex lupulina</i>), Green Bulrush (<i>Scirpus atrovirens</i>), Creeping Spike Rush (<i>Eleocharis</i>					
palustris), Fringed Sedge (<i>Carex crinita</i>), Soft Rush (<i>Juncus effusus</i>), Spotted Joe Pye Weed (<i>Eupatorium maculatum</i>), Rattlesnake Grass (<i>Glyceria canadensis</i>), Swamp aster (<i>Aster puniceus</i>) Blueflag (<i>Iris versicolor</i>), Swamp Milkweed (<i>Asclepias incarnata</i>), Square stemmed Monkey Flower (<i>Mimulus ringens</i>).					



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

DESIGNED BY: EEB
CHECKED BY: BRK
DATE: MAY 2021

MYSTIC RIVER WATERSHED
MAILLET CONSERVATION AREA
READING, MASSACHUSETTS

Plan Set:
Town of Reading
16 Lowell Street
Reading, MA 01867
Phone: (781) 942-9082
Fax: ---

Survey Provided By:
Horsley Witten Group, Inc.
90 Route 6A
Sandwich, MA 02563
Phone: (508) 833-6600
Fax: (508) 833-3150
Date: 05/16/21

Project Number: 21008

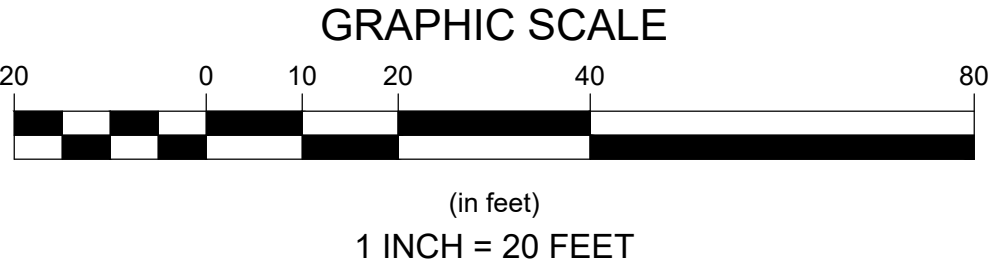
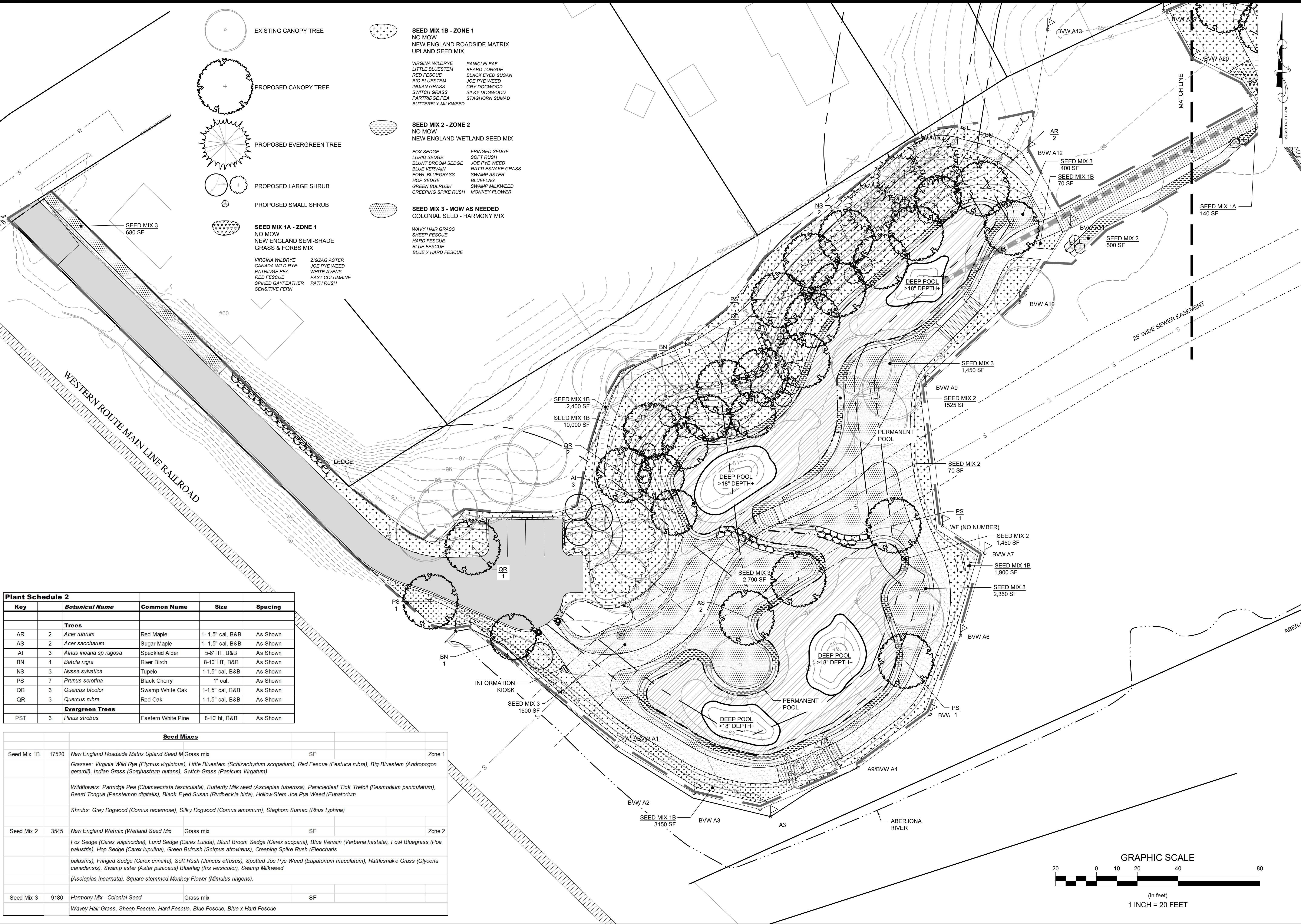
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Plant Schedule 2				
Key		Botanical Name	Common Name	Size
Trees				
AR	2	<i>Acer rubrum</i>	Red Maple	1- 1.5" cal, B&B
AS	2	<i>Acer saccharum</i>	Sugar Maple	1- 1.5" cal, B&B
AI	3	<i>Alnus incana sp rugosa</i>	Speckled Alder	5-8' HT, B&B
BN	4	<i>Betula nigra</i>	River Birch	8-10' HT, B&B
NS	3	<i>Nyssa sylvatica</i>	Tupelo	1-1.5" cal, B&B
PS	7	<i>Prunus serotina</i>	Black Cherry	1" cal.
QB	3	<i>Quercus bicolor</i>	Swamp White Oak	1-1.5" cal, B&B
QR	3	<i>Quercus rubra</i>	Red Oak	1-1.5" cal, B&B
Evergreen Trees				
PST	3	<i>Pinus strobus</i>	Eastern White Pine	8-10' ht, B&B

Seed Mixes				
Seed Mix 1B	17520	New England Roadside Matrix Upland Seed M Grass mix	SF	Zone 1
Grasses: Virginia Wild Rye (<i>Elymus virginicus</i>), Little Bluestem (<i>Schizachyrium scoparium</i>), Red Fescue (<i>Festuca rubra</i>), Big Bluestem (<i>Andropogon gerardii</i>), Indian Grass (<i>Sorghastrum nutans</i>), Switch Grass (<i>Panicum virgatum</i>)				
Wildflowers: Partridge Pea (<i>Chamaecrista fasciculata</i>), Butterfly Milkweed (<i>Asclepias tuberosa</i>), Panicleleaf Tick Trefoil (<i>Desmodium paniculatum</i>), Beard Tongue (<i>Penstemon digitalis</i>), Black Eyed Susan (<i>Rudbeckia hirta</i>), Hollow-Stem Joe Pye Weed (<i>Eupatorium</i>)				
Shrubs: Grey Dogwood (<i>Cornus racemosa</i>), Silky Dogwood (<i>Cornus amomum</i>), Staghorn Sumac (<i>Rhus typhina</i>)				
Seed Mix 2	3545	New England Wetmix (Wetland Seed Mix)	Grass mix	Zone 2
Fox Sedge (<i>Carex vulpinoidea</i>), Lurid Sedge (<i>Carex lurida</i>), Blunt Broom Sedge (<i>Carex scoparia</i>), Blue Vervain (<i>Verbena hastata</i>), Fowl Bluegrass (<i>Poa palustris</i>), Hop Sedge (<i>Carex lupulina</i>), Green Bulrush (<i>Scirpus atrovirens</i>), Creeping Spike Rush (<i>Eleocharis</i>)				
palustris), Fringed Sedge (<i>Carex crinita</i>), Soft Rush (<i>Juncus effusus</i>), Spotted Joe Pye Weed (<i>Eupatorium maculatum</i>), Rattlesnake Grass (<i>Glyceria canadensis</i>), Swamp aster (<i>Aster puniceus</i>) Blueflag (<i> Iris versicolor</i>), Swamp Milkweed (<i>Asclepias incarnata</i>), Square stemmed Monkey Flower (<i>Mimulus ringens</i>).				
Seed Mix 3	9180	Harmony Mix - Colonial Seed	Grass mix	
Wavy Hair Grass, Sheep Fescue, Hard Fescue, Blue Fescue, Blue x Hard Fescue				



Revisions

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Horsley Witten Group, Inc.

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MASSACHUSETTS
SEAL OF THE COMMONWEALTH
OFFICE OF THE ATTORNEY GENERAL
JUL 18 2021

Prepared For:

Town of Reading
16 Lowell Street
Reading, MA 01867
Phone: (781) 942-9082
Fax: ---

Survey Provided By:

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

Tree Title:

MYSTIC RIVER WATERSHED
MAILLET CONSERVATION AREA
READING, MASSACHUSETTS

Tree Title:

TREE PLANTING AND SEEDING PLAN

DATE:

MAY 2021

DESIGNED BY:

EEB

CHECKED BY:

EEB

CREATED BY:

BRK

Project Number:

21008

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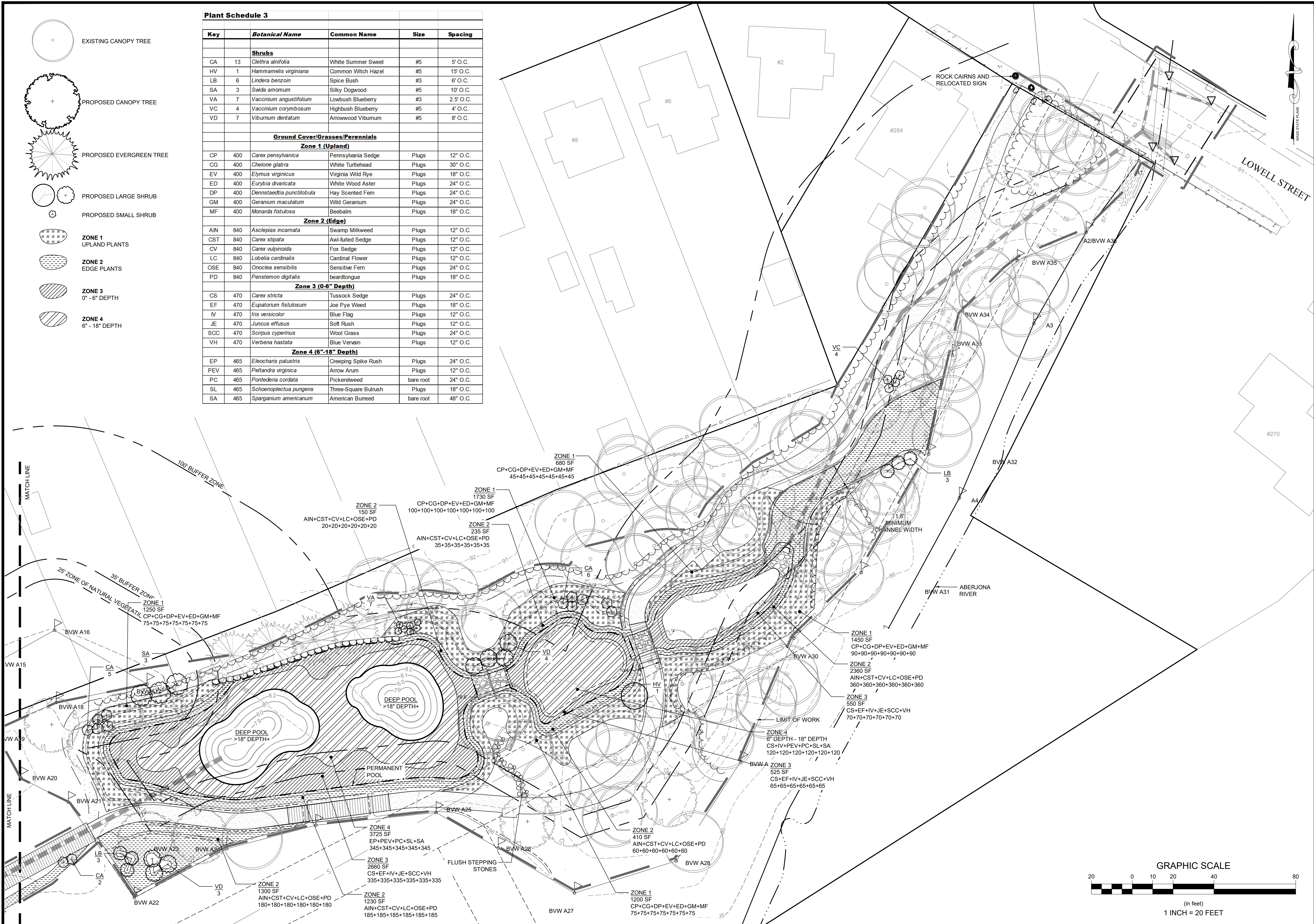
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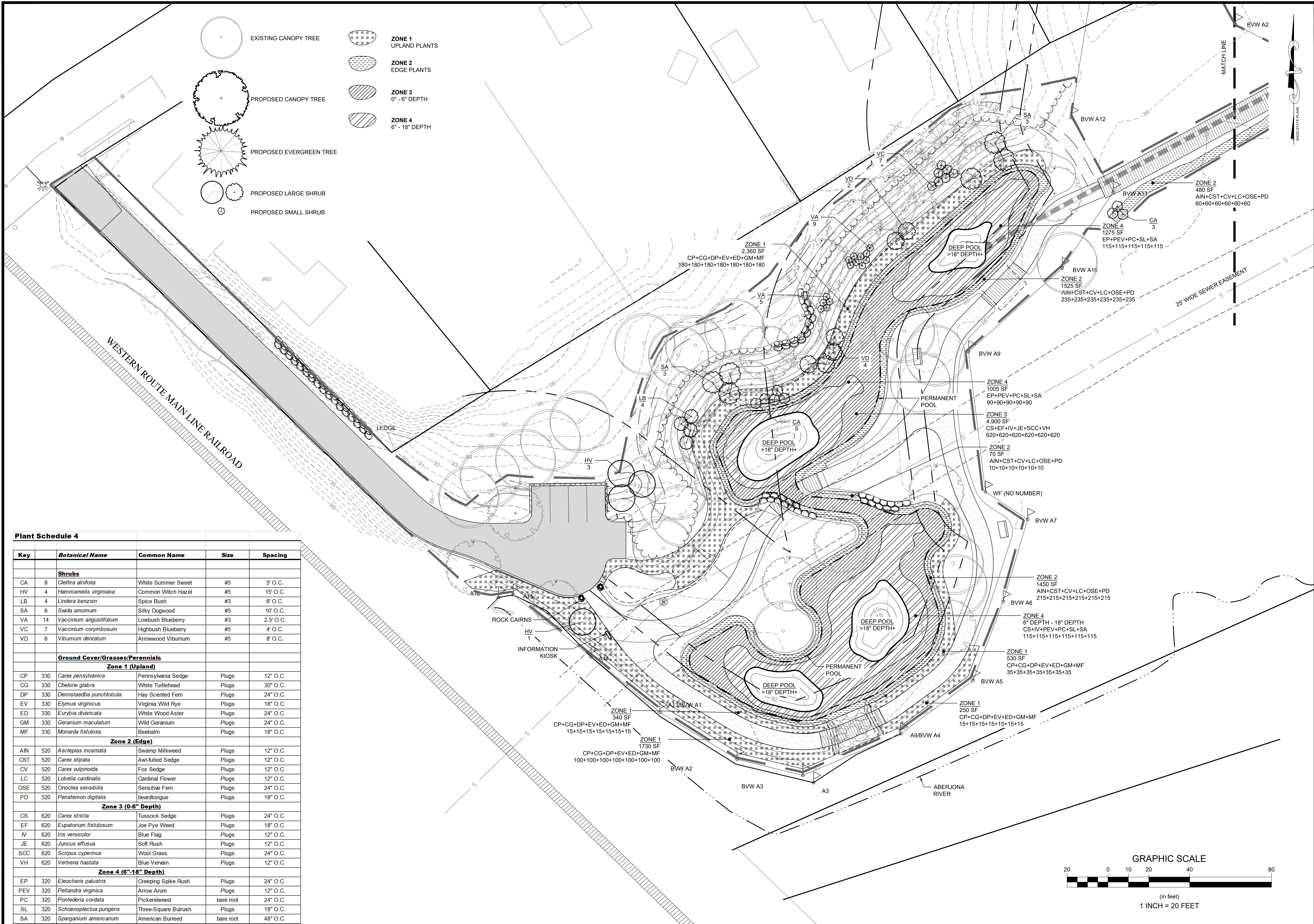


Plant Schedule 3				
Key		Botanical Name	Common Name	Size
Shrubs				
CA	13	Clethra alnifolia	White Summer Sweet	#5
HV	1	Hammamelis virginiana	Common Witch Hazel	#5
LB	6	Lindera benzoin	Spice Bush	#3
SA	3	Swida anomum	Silky Dogwood	#5
VA	7	Vaccinium angustifolium	Lowbush Blueberry	#3
VC	4	Vaccinium corymbosum	Highbush Blueberry	#5
VD	7	Viburnum dentatum	Arrowwood Viburnum	#5
Ground Cover/Grasses/Perennials				
Zone 1 (Upland)				
CP	400	Carex pensylvanica	Pennsylvania Sedge	Plugs
CG	400	Chelone glabra	White Turtlehead	Plugs
EV	400	Elymus virginicus	Virginia Wild Rye	Plugs
ED	400	Eurybia divaricata	White Wood Aster	Plugs
DP	400	Dennstaedtia punctilobula	Hay Scented Fern	Plugs
GM	400	Geranium maculatum	Wild Geranium	Plugs
MF	400	Monarda fistulosa	Beebalm	Plugs
Zone 2 (Edge)				
AIN	840	Asclepias incarnata	Swamp Milkweed	Plugs
CST	840	Carex stipata	Awl-fulled Sedge	Plugs
CV	840	Carex vulpinoidea	Fox Sedge	Plugs
LC	840	Lobelia cardinalis	Cardinal Flower	Plugs
OSE	840	Oncoclea sensibilis	Sensitive Fern	Plugs
PD	840	Penstemon digitalis	beardtongue	Plugs
Zone 3 (0-6" Depth)				
CS	470	Carex stricta	Tussock Sedge	Plugs
EF	470	Eupatorium fistulosum	Joe Pye Weed	Plugs
IV	470	Iris versicolor	Blue Flag	Plugs
JE	470	Juncus effusus	Soft Rush	Plugs
SCC	470	Scirpus cyperinus	Wool Grass	Plugs
VH	470	Verbena hastata	Blue Vervain	Plugs
Zone 4 (6"-18" Depth)				
EP	465	Eleocharis palustris	Creeping Spike Rush	Plugs
PEV	465	Peltandra virginica	Arrow Arum	Plugs
PC	465	Pontederia cordata	Pickerselweed	bare root
SL	465	Schoenoplectus pungens	Three-Square Bulrush	Plugs
SA	465	Sparganium americanum	American Burreed	bare root

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Plant Schedule 4

Key		Botanical Name	Common Name	Size	Spacing
		Shrubs			
CA	8	Clethra alnifolia	White Summer Sweet	#5	5' O.C.
HV	4	Hammamelis virginiana	Common Witch Hazel	#5	15' O.C.
LB	4	Lindera benzoin	Spice Bush	#3	6' O.C.
SA	6	Swda amomum	Silky Dogwood	#5	10' O.C.
VA	14	Vaccinium angustifolium	Lowbush Blueberry	#3	2.5' O.C.
VC	7	Vaccinium corymbosum	Highbush Blueberry	#5	4' O.C.
VD	6	Viburnum dentatum	Arrowwood Viburnum	#5	8' O.C.
		Ground Cover/Grasses/Perennials			
		Zone 1 (Upland)			
CP	330	Carex pensylvanica	Pennsylvania Sedge	Plugs	12" O.C.
CG	330	Chelone glabra	White Turtlehead	Plugs	30" O.C.
DP	330	Dennstaedtia punctilobula	Hay Scented Fern	Plugs	24" O.C.
EV	330	Elymus virginicus	Virginia Wild Rye	Plugs	18" O.C.
ED	330	Eurybia divaricata	White Wood Aster	Plugs	24" O.C.
GM	330	Geranium maculatum	Wild Geranium	Plugs	24" O.C.
MF	330	Monarda fistulosa	Beebalm	Plugs	18" O.C.
		Zone 2 (Edge)			
AIN	520	Asclepias incarnata	Swamp Milkweed	Plugs	12" O.C.
CST	520	Carex stipata	Awl-futed Sedge	Plugs	12" O.C.
CV	520	Carex vulpinoidea	Fox Sedge	Plugs	12" O.C.
LC	520	Lobelia cardinalis	Cardinal Flower	Plugs	12" O.C.
OSE	520	Onoclea sensibilis	Sensitive Fern	Plugs	24" O.C.
PD	520	Penstemon digitalis	beardtongue	Plugs	18" O.C.
		Zone 3 (0-6" Depth)			
CS	620	Carex stricta	Tussock Sedge	Plugs	24" O.C.
EF	620	Eupatorium fistulosum	Joe Pye Weed	Plugs	18" O.C.
IV	620	Iris versicolor	Blue Flag	Plugs	12" O.C.
JE	620	Juncus effusus	Soft Rush	Plugs	12" O.C.
SCC	620	Scirpus cyperinus	Wool Grass	Plugs	24" O.C.
VH	620	Verbena hastata	Blue Vervain	Plugs	12" O.C.
		Zone 4 (6"-18" Depth)			
EP	320	Eleocharis palustris	Creeping Spike Rush	Plugs	24" O.C.
PEV	320	Peltandra virginica	Arrow Arum	Plugs	12" O.C.
PC	320	Pontederia cordata	Pickereelweed	bare root	24" O.C.
SL	320	Schoenoplectus pungens	Three-Square Bulrush	Plugs	18" O.C.
SA	320	Sparganium americanum	American Burreed	bare root	48" O.C.

Revisions

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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.

2. 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.

7. 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:

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

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, 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 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 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.

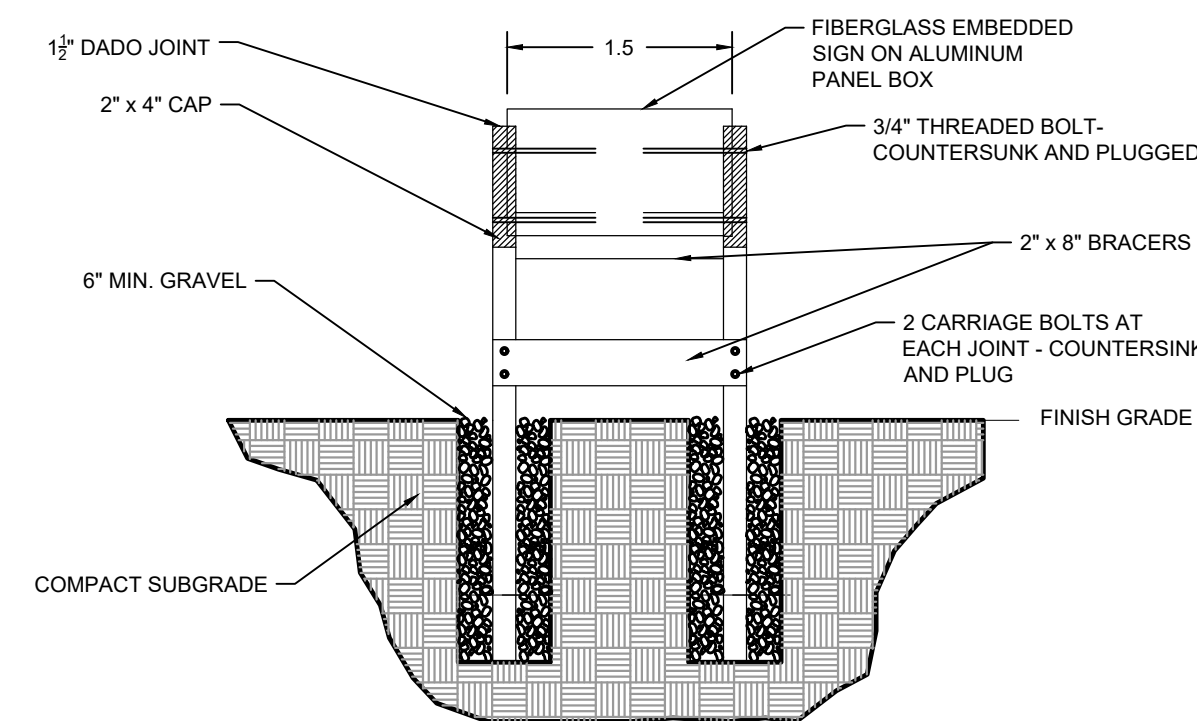
23. TRIM ANY BROKEN AND DEAD BRANCHES FOR EXISTING TREES TO REMAIN WITHIN THE LIMIT OF WORK. ALL TRIMMING AND PRUNING TO BE PREFORMATTED BY A REGISTERED ARBORIST.

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.

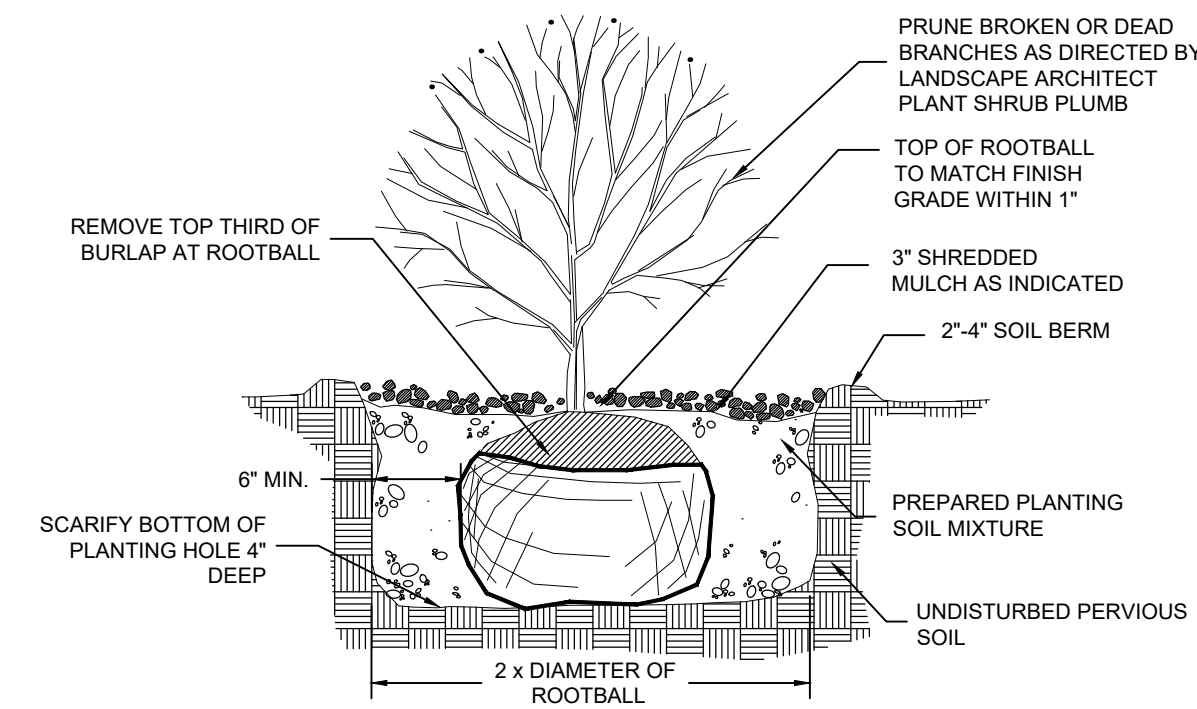
WATERING NOTES:

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.

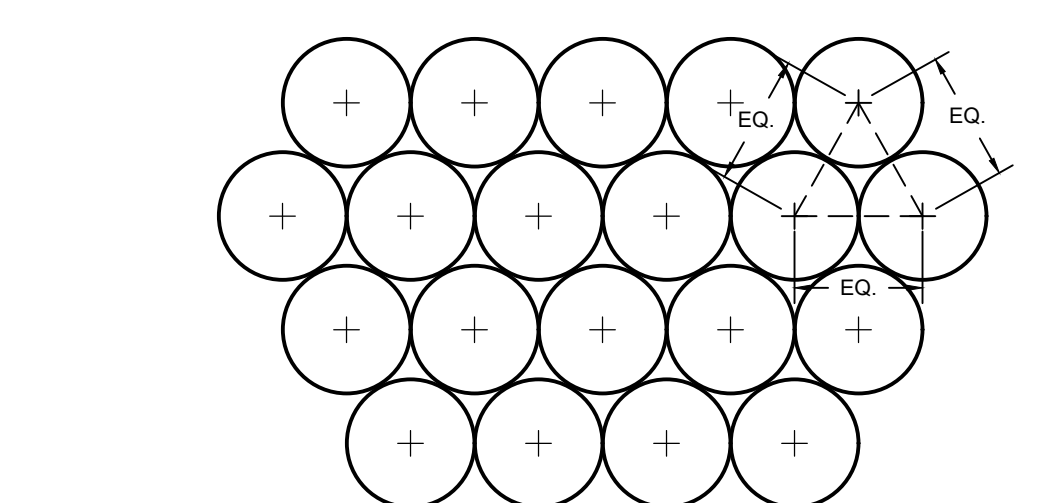
1. FOR AREAS WITH MIXED PERENNIALS AND/OR GRASSES (SHOWN AS HATCHED AREAS ON PLANS), DO NOT PLANT IN A PATTERN OR WITH LARGE AREAS OF THE SAME SPECIES. RANDOMLY PLANT AS INDICATED ON THE PLANTING PLANS INTO SMALL GROUPINGS OF THE SAME SPECIES TO CREATE A MORE NATURALISTIC APPEARANCE. PLANT THE SAME PLANT SPECIES IN GROUPS OF 8-12 AND NOT LARGER THAN 12, DEPENDING ON THE OVERALL NUMBER OF PLANTINGS.



INTERPRETIVE GRAPHIC PANEL FRONT ELEVATION
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SHRUB PLANTING DETAIL
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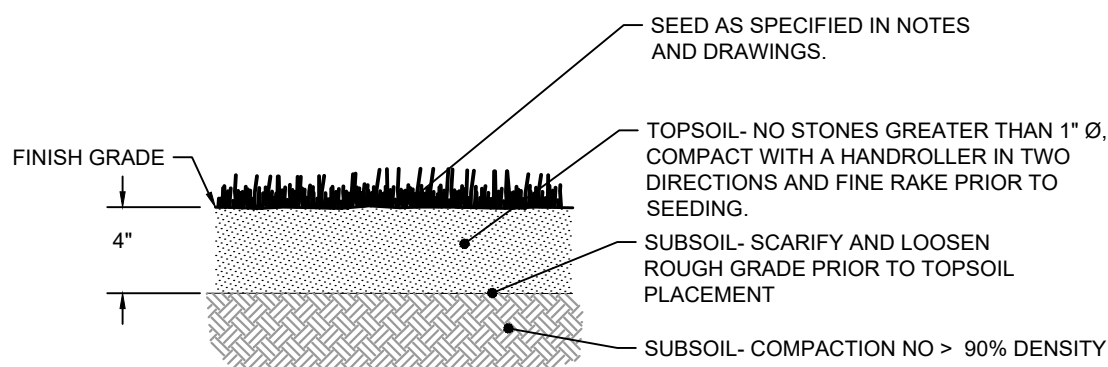
PLANTING SPACING DETAIL
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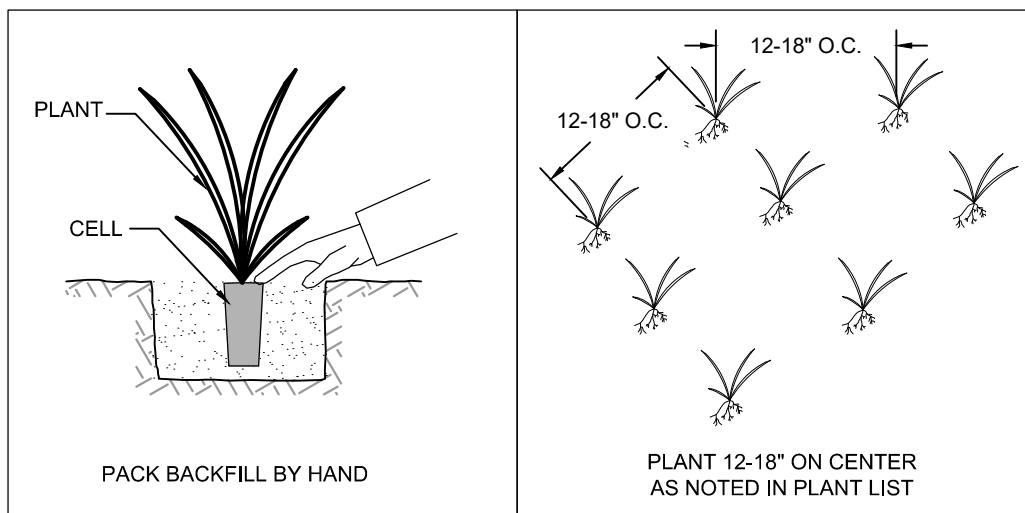
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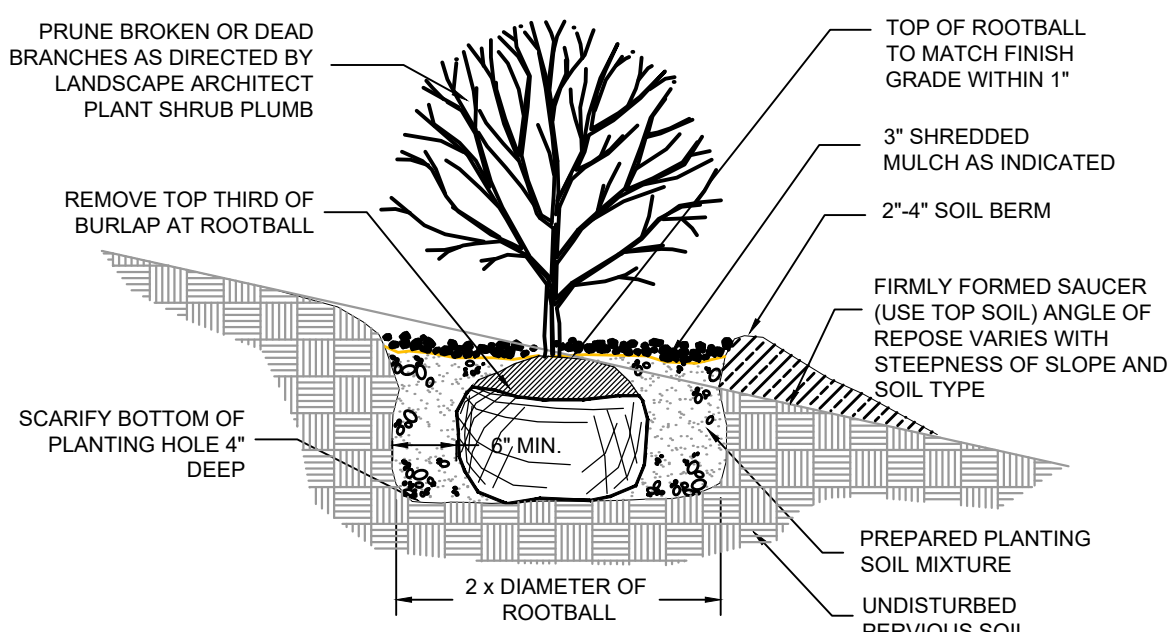
NOTES:

1. SEE LANDSCAPE GRADING SPECIFICATIONS FOR TOPSOIL REQUIREMENTS.
2. CONFIRM SUBGRADES ARE CORRECT AND POSITIVE DRAINAGE IS MAINTAINED PRIOR TO PLACEMENT OF TOPSOIL.
3. NOTIFY ENGINEER/LANDSCAPE ARCHITECT FOR REVIEW OF SUBGRADE PRIOR TO PLACEMENT OF THE TOPSOIL.

LOAM AND SEED DETAIL
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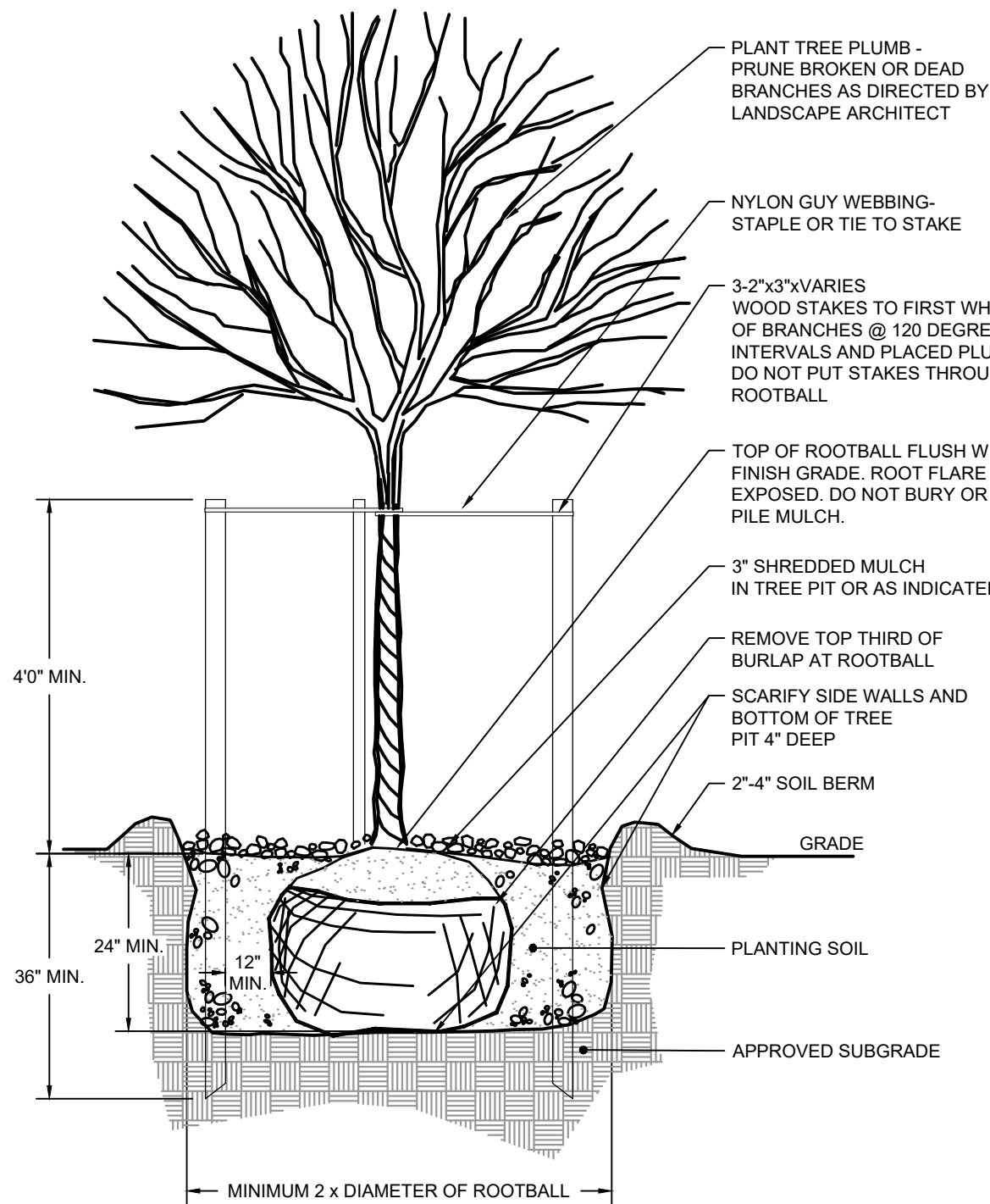


PLUG PLANTING DETAIL
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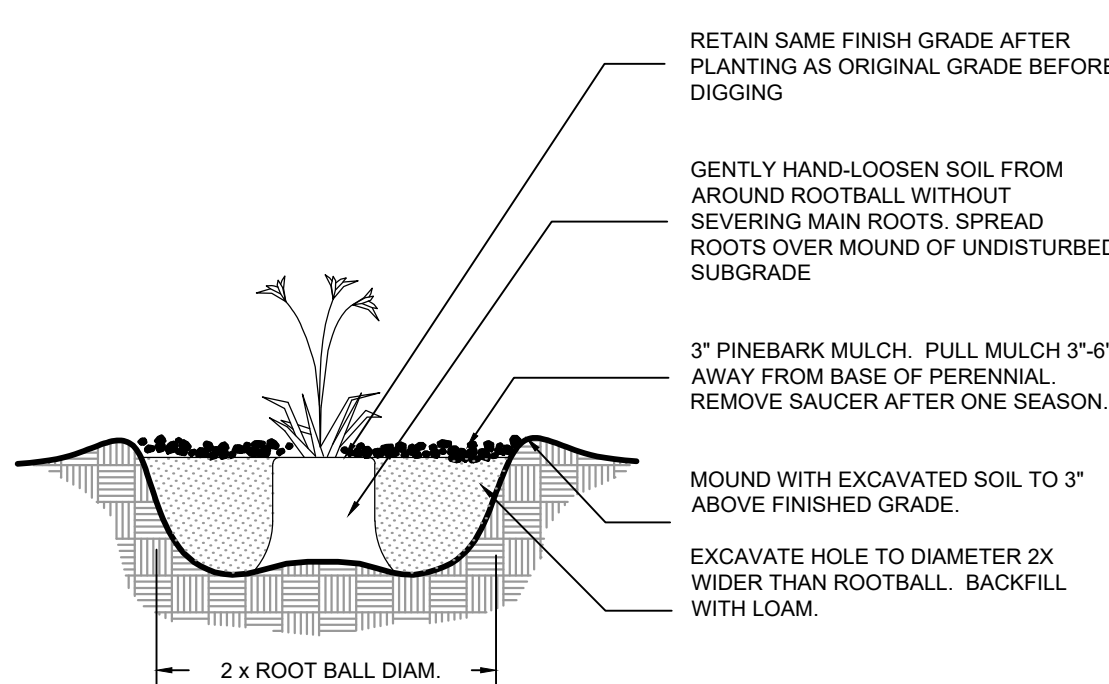


NOTES:
1. PLANTING BACKFILL: 1/3 LOAM, 1/3 SAND, 1/3 PEAT, BY VOLUME.
2. WHEN PLANTING ON SLOPE-MODIFY SLOPE AS SHOWN.

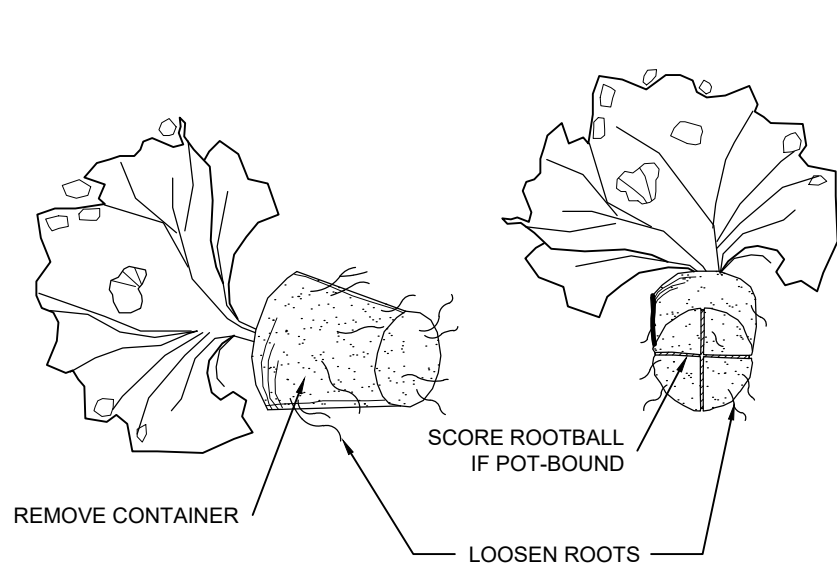
SHRUB PLANTING ON SLOPE DETAIL
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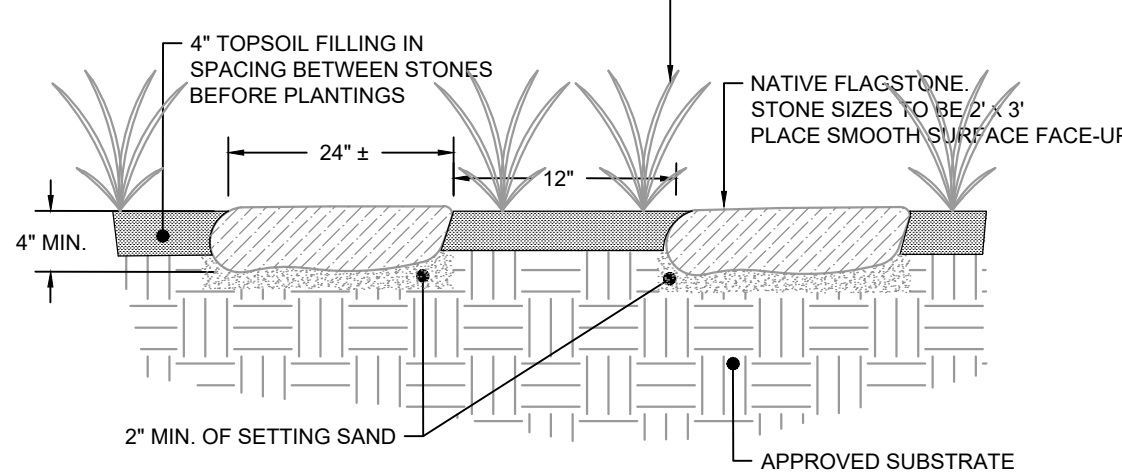
TREE PLANTING DETAIL
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PERENNIAL PLANTING DETAIL
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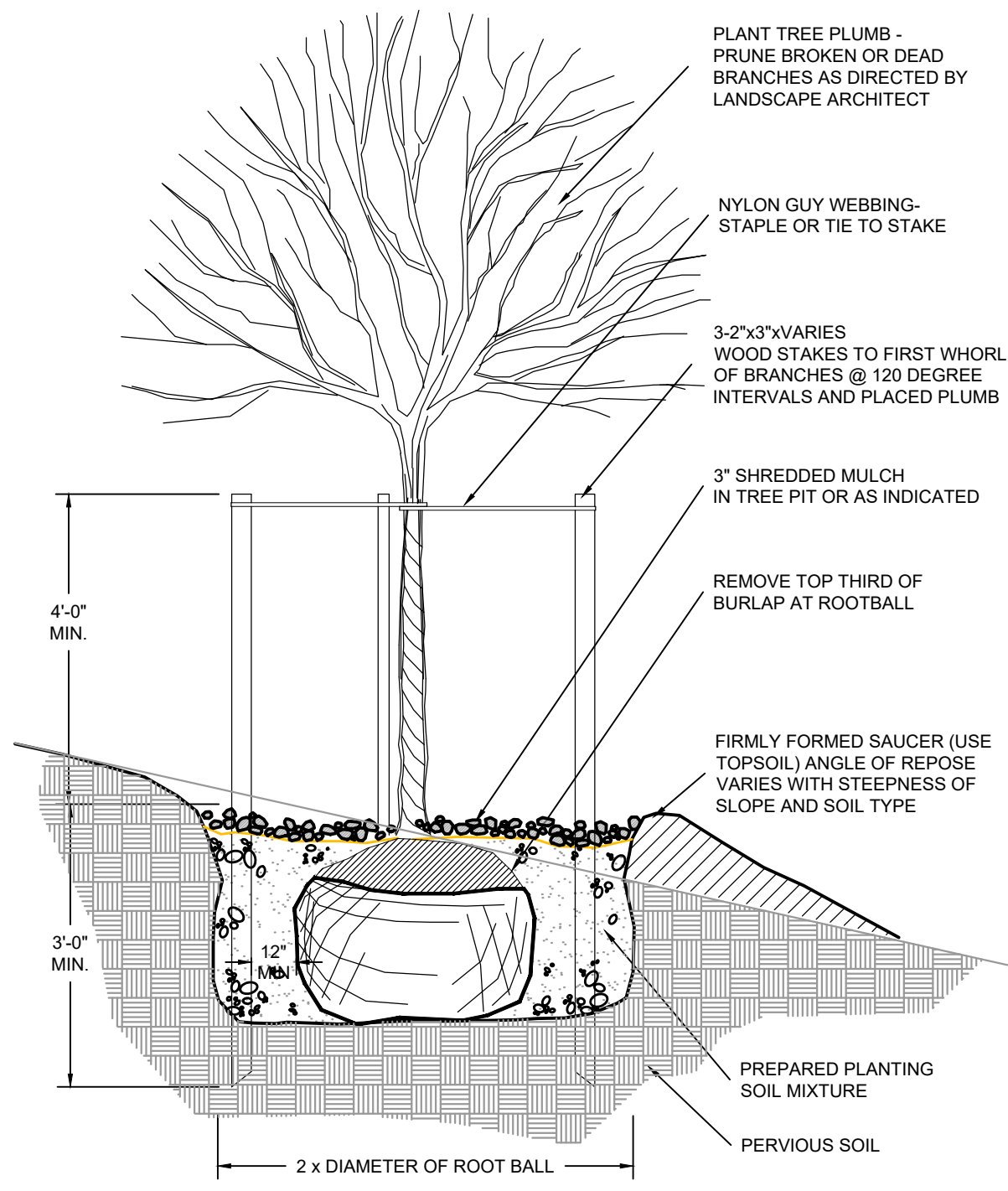


CONTAINER PLANT ROOTBALL TREATMENT

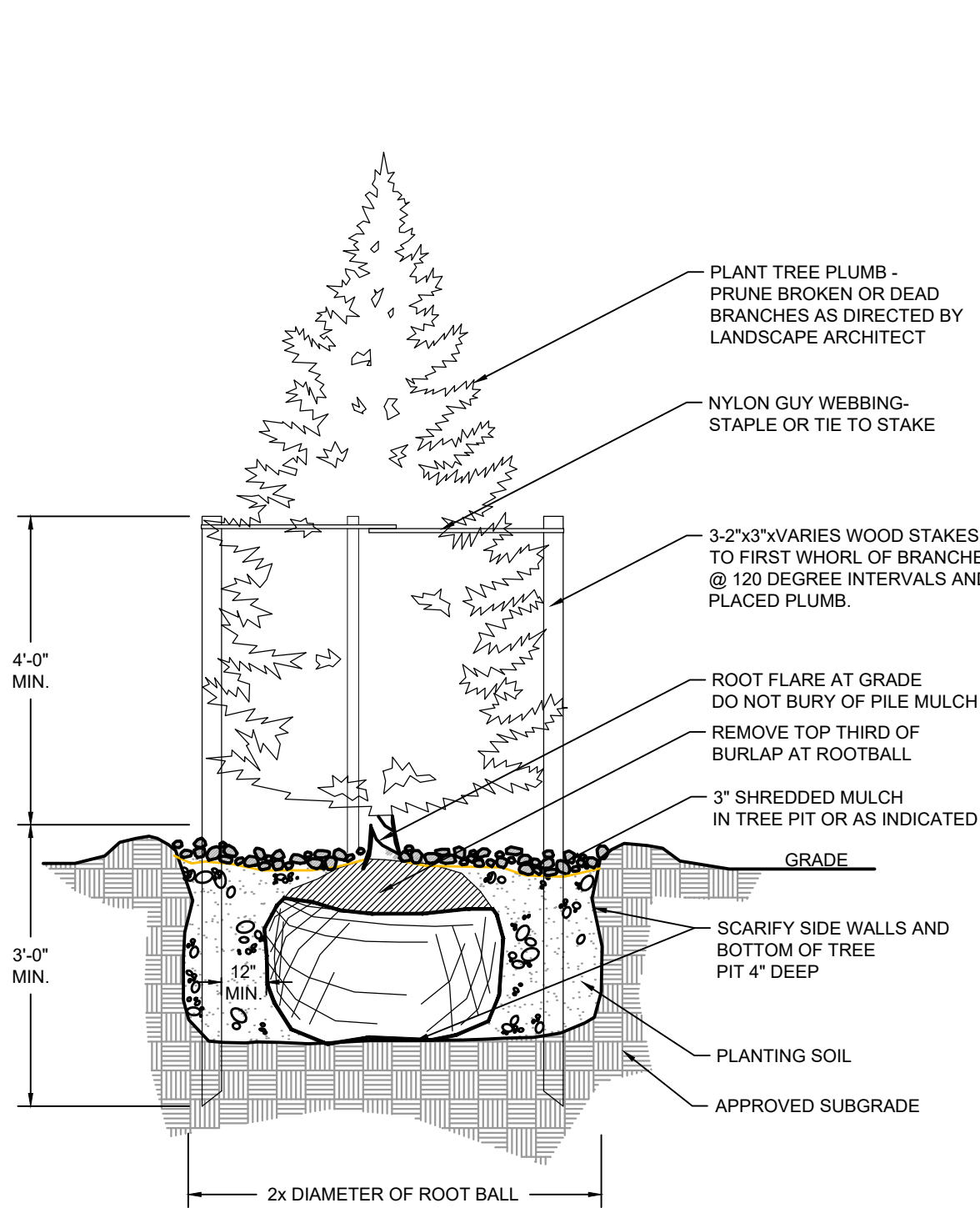


NOTES:
1. SPACES BETWEEN FLAG STONE SHOULD BE FILLED WITH WELL DRAINED PREPARED TOPSOIL AND SEEDED. SEE PLANTING PLAN & SCHEDULE

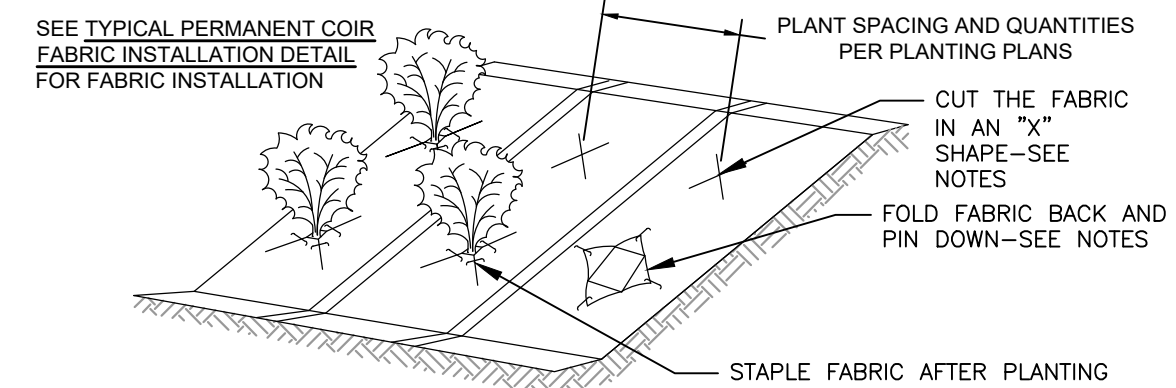
FLUSH STEPPING STONES
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TREE PLANTING ON SLOPE DETAIL
NOT TO SCALE




EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE



NOTES:

1. CUT THE FABRIC IN AN "X" SHAPE TO ACCOMMODATE 2 TIMES THE DIAMETER OF THE ROOTBALL.
2. FOLD FABRIC BACK AND PIN DOWN TO CREATE A HOLE IN THE MAT.
3. DIG THE HOLE PER PLANTING DETAILS.
4. AFTER PLANTING, FOLD FABRIC BACK INTO PLACE AND STAPLE DOWN AS REQUIRED TO SECURE FABRIC IN PLACE.

PLANTING IN COIR FABRIC DETAIL
NOT TO SCALE

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