

EXISTING

100' — ELEVATION CONTOUR
 1000.0 — SPOT GRADE
 — PROPERTY LINE
 — WETLAND DELINEATION
 — WETLAND BUFFER ZONE
 — SHORELINE

PROPOSED

100' — ELEVATION CONTOUR
 1000.0 — SPOT GRADE
 — PROPERTY LINE
 — WETLAND DELINEATION
 — WETLAND BUFFER ZONE
 — SHORELINE

— TREE LINE / EDGE OF VEGETATION
 — EDGE OF PAVEMENT
 — CAPE COD BERM CURBING
 — GRANITE CURBING
 — GRAVEL/DIRT ROAD
 — STOCKADE FENCE
 — OVERHEAD POWER LINE
 — UTILITY POLE
 — GUY WIRE
 — ELECTRIC BOX
 — STORM DRAIN
 — STRAW WATTLES
 — DEEP SOIL OBSERVATION HOLE

EL	ELEVATION	HDPE	HIGH DENSITY POLYETHYLENE
SF	SQUARE FEET	N/F	NOW OR FORMERLY
AC	ACRES	WF	WETLAND FLAG
FT	FEET	TW	TOP OF WALL
BIT	BITUMINOUS	BW	BOTTOM OF WALL
FG	FINISH GRADE	LS	LANDSCAPING
FF	FINISH FLOOR		



NOT TO SCALE



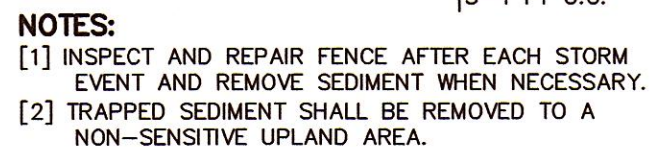
[1] ALL CHAMBERS MAY NOT BE SHOWN, SEE SITE PLAN FOR NUMBER AND CONFIGURATION.
[2] GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES. COMPACT IN 6" LIFTS TO MINIMUM 95% STANDARD PROCTOR DENSITY.
[3] SEE STORMTECH CHAMBER SYSTEMS DESIGN MANUAL FOR MANUFACTURERS SPECIFICATIONS AND MATERIAL SPECIFICATIONS.

NOT TO SCALE

1.01. SUMMARY:
FURNISH, INSTALL AND MAINTAIN TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES, SUCH AS, BUT NOT NECESSARILY LIMITED TO, STRAW WATTLE AND SILT FENCE BARRIERS, RIPRAP, DIVERSION CHANNELS AND BERMS, CHECK DAMS, STABILIZED CHANNELS, ETC. PROVIDE AND MAINTAIN TEMPORARY EROSION CONTROL MEASURES (HEREINAFTER "CONTROL MEASURES") ADEQUATE TO PREVENT THE CONVEYANCE OF EROSION PRODUCTS (E.G. SOIL, MULCH, SOD) OFF SITE OR INTO ENVIRONMENTALLY SENSITIVE AREAS. SUCH MEASURES SHALL BE DESIGNED TO PROTECT AND MAINTAIN ENVIRONMENTALLY SENSITIVE AREAS INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO, WETLANDS, TRIBUTARIES TO WETLANDS, WETLAND BUFFER ZONES, INTERMITTENT AND PERMANENT STREAMS, AND OTHER ENVIRONMENTALLY SENSITIVE AREAS.
REFER TO DRAWINGS FOR LOCATION AND DETAILS OF CONTROL MEASURES REQUIRED TO COMMENCE WORK. THESE CONTROL MEASURES WILL BE ADEQUATE ONLY FOR THE PROPOSED CLEANING AND GRADING WORK. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN CONTROL MEASURES THAT WILL BE REQUIRED TO MEET THE REQUIREMENTS DESCRIBED IN 1.01.A.
2.01. DESIGN AND EMPLOY CONTROL MEASURES THROUGHOUT THE DURATION OF PROJECT, OVER ALL AREAS DISTURBED OR UNDISTURBED BY CONSTRUCTION, AS NECESSARY TO MEET THE REQUIREMENTS DESCRIBED IN 1.01.A.
3.01. DESIGN AND EMPLOY CONTROL MEASURES AS NECESSARY TO MEET THE REQUIREMENTS DESCRIBED IN 1.01.A, WHILE ALLOWING WORK TO PROCEED IN AN EFFICIENT, COST EFFECTIVE MANNER.
4.01. EMPLOY CONTROL MEASURES UNTIL SUCH TIME AS THE ENTIRE SITE IS PERMANENTLY STABILIZED BY ESTABLISHED VEGETATION, FINISH LANDSCAPE MATERIALS, PAVED SURFACES, AND/OR ROOF AREA.
5.01. MAINTAIN THE SITE UNTIL THE CONTRACTOR IS DEEMED CERTIFIED AS SUCH BY ENGINEER. REMOVE TEMPORARY CONTROL MEASURES WHILE PROTECTING STABILIZED SURFACES.

A. COMPLY WITH "GOVERNING" CODES AND REGULATIONS. PROVIDE PRODUCTS FROM A QUALITY MANUFACTURER. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

B. CONFORM TO CONDITIONS OF APPROVAL ISSUED BY REGULATORY AGENCIES INCLUDING, BUT NOT NECESSARILY LIMITED TO, LOCAL PLANNING BOARD, CONSERVATION COMMISSION, BOARD OF SELECTMEN, BOARD OF HEALTH, PUBLIC WORKS, HIGHWAY DEPARTMENT, STATE ENVIRONMENTAL PROTECTION DEPARTMENT, AND U.S. GOVERNMENT. ENVIRONMENTAL PROTECTION AGENCY AND STATE COMMISSIONS MAY APPLY DIFFER FROM REQUIREMENTS CONTAINED HEREIN OR ON THE DRAWINGS, COMPLY WITH THE MORE STRINGENT REQUIREMENT.



TYPICAL CROSS SECTION
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- 2.01 MATERIALS
STAKES: 100% WHEAT STRAW WITH NATURAL BIO-DEGRADABLE JUTE NETTING.
MINIMUM 9-INCH DIAMETER AND 10 FEET LONG. USE 12-INCH OR 20-INCH DIAMETER
WATLES TO PROTECT AGAINST UNSTABLE AREAS.
- 2.02 BODIES
BODIES: 100% POLYPROPYLENE FABRIC, FLOW RATED AT 10
GPM/SF MINIMUM, GRAB TENSILE RATED AT 124 POUNDS MINIMUM, WITH INTEGRAL STAKE
LOOPS, AND HARDWOOD STAKES USE NO. 2130 BY AMOCO FABRICS & FIBERS, OR
EQUIVALENT.
- 2.03 MULCH: ORGANICS INCLUDING STRAW, PROCESSED PINE / HEMLOCK TWIGS AND NEEDLES.
2.04 SEED MIXES: PERENNIAL RYEGRASS, KENTUCKY BLUEGRASS, AND / OR FINE FESCUE,
AND A WEED-RESISTANT MAINTAINED AREA OPTION ANNUAL RYEGRASS COMBINED
WITH MEDIUM RED CLOVER.

- A. LIMIT THROUGHOUT CONSTRUCTION
- B. MAINTAIN SUFFICIENTLY LARGE DRAINAGE AREA TO GO AS TO LIMIT DRAINAGE AREA THAT IS TRIBUTARY TO DISTURBED AREAS, DEVISE, EMPLOY, AND MAINTAIN CONTROL MEASURES SUCH AS DIVERSION CHANNELS AND BERMS, STRATEGICALLY LOCATED STOCKPILES, AND SEDIMENT TRAP AND SUBSIDENCE SUBBASINS, MANAGEABLE SUBAREAS, THEREBY MINIMIZING RUNOFF AND THE POTENTIAL FOR EROSION.
- C. MAINTAIN BARRIER AT LIMIT OF WORK AND PROTECT EXISTING VEGETATION FACILITIES
- D. LIMIT EXTENT OF LIMIT OF WORK
- E. MAINTAIN SPARE MATERIAL STOCKPILES FOR IMMEDIATE EMPLOYMENT / REPAIR / EXPANSION OF CONTROL MEASURES, AT A MINIMUM, SUCH MATERIALS SHALL INCLUDE HAY BALE FENCE, EROSION CONTROL MATS, EROSION CONTROL LOGS, AND EROSION CONTROL MATS
- F. INSPECT AND MAINTAIN EFFECTIVENESS OF CONTROL MEASURES BY REPAIRING AS NECESSARY TO ENSURE INTENDED FUNCTION; BY SUPPLEMENTING AS NECESSARY FOR MAINTAIN EXTENT OF TRAPPED PRODUCTS OF EROSION AS NECESSARY TO MAINTAIN EFFECTIVE TRAP VOLUME.
- G. LIMIT EXTENT OF WORK AREA SO THAT ALL DISTURBED AREAS CAN BE STABILIZED WITHIN 60 DAYS OF COMPLETION OF CONSTRUCTION
- H. INSTALL CONTROL MEASURES PRIOR TO ANY EARTH DISTURBANCE, EMPLOY TEMPORARY MEASURES AS NECESSARY TO STABILIZE DISTURBED AREAS, EVEN WHERE SUBSEQUENT EROSION CONTROL MEASURES ARE REQUIRED
- I. WHEN INTENSE RAINFALL IS EXPECTED, CONSIDER, DEVISE, AND EMPLOY REINFORCING CONTROL MEASURES PRIOR TO THE RAINFALL EVENT TO MEET THE REQUIREMENTS OF THE EROSION CONTROL PLAN
- J. MAINTAIN SUFFICIENTLY LARGE STOCKPILES OF MATERIAL TO COUNTERACT POTENTIAL SEDIMENT TRANSPORT DURING INTENSE RAINFALL
- K. PROPERLY DISPOSE OF DEBRIS, SOLID WASTE, TRASH AND CONSTRUCTION WASTE / BYPRODUCTS OFF SITE
- L. SWEEP OFF SITE -STREETS AS NECESSARY TO PREVENT SILT AND DEBRIS ORIGINATING ON SITE FROM ENTERING CLOSED DRAINAGE SYSTEMS AND / OR ENVIRONMENTALLY SENSITIVE AREAS.



TYPICAL CROSS SECTION
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- 3.02 SITE PREPARATION AND ACCESS
 - A. WALK SITE AND IDENTIFY LOCATIONS OF LIMIT OF WORK AND ENVIRONMENTALLY SENSITIVE AREAS. ESTABLISH CONSTRUCTION STAGING AREA, LOCATED BEYOND ENVIRONMENTALLY SENSITIVE AREAS.
 - B. INSTALL CONTROL MEASURES AS SHOWN ON THE DRAWINGS, INCLUDING THOSE DEFINING LIMIT OF WORK.
 - C. LIMIT VEHICULAR TRAFFIC TO AND FROM SITE TO MINIMIZE TRANSPORT OF SEDIMENT.
- 3.03 CLEARING, GRUBBING, AND STRIPPING
 - A. SCHEDULE GRUBBING AND STRIPPING TO OCCUR IMMEDIATELY PRIOR TO EARTH DISTURBANCE. DEPENDING ON SITE AREA, CONSIDER MULTIPLE GRUBBING PHASES. SEQUENCED TO TAKE ADVANTAGE OF THE EROSION PREVENTION POTENTIAL OF EXISTING VEGETATION COVER.
 - B. MINIMIZE THE AREA OF EXISTING VEGETATION REMOVED WHEREVER POSSIBLE.
 - C. LOCATE AND SIZE STOCKPILES TO MINIMIZE EROSION POTENTIAL, TAKING ADVANTAGE OF TERRAIN AND SOIL WHERE APPROPRIATE.
 - D. PROTECT VEGETATION, INCLUDING ROOT SYSTEMS, BEYOND LIMIT OF CLEARING.
 - E. PROTECT TIMBER, STUMPS, SLASH, AND BRUSH SO AS TO PROTECT ENVIRONMENTALLY SENSITIVE AREAS FROM EROSION CONTROL MEASURES. PROPERLY DISPOSE OF EXCESS OF SITE. BURIAL OF STUMPS ON SITE IS PROHIBITED.

3.04 EXCAVATION FOR BUILDING FOUNDATIONS AND UTILITIES

- A. DEVISE AND INSTALL CONTROL MEASURES ADEQUATE TO HANDLE DISCHARGES AND TRAP DEBRIS FROM EXCAVATION.
- B. ARMOR SUMP DISCHARGE LOCATIONS TO PREVENT EROSION AT POINT OF DISCHARGE AND AREAS DOWNSTREAM.
- C. CONSTRUCT EXCAVATION GRAD TO DAYLIGHT ON THE LOW SIDE, DEVISE AND INSTALL CONTROL MEASURES TO HANDLE SURFACE AND GROUNDWATER FLOW FROM EXCAVATION.
- D. STOCKPILE EXCAVATED MATERIALS TO BUFFLE OVERLAND RUNOFF, AVOIDING THE CREATION OF LENGTHY PATHS OF CONCENTRATED RUNOFF.
- E. PREVENT UTILITY TRENCHES AS NEARLY VERTICAL AS POSSIBLE TO PREVENT FLOODING, SLURRIES, POTENTIAL OVERFLOW, AND REPETITIVE EARTH DISTURBANCE.

3.05 SITE GRADING
A. WHERE APPLICABLE, FOLLOW EXCAVATION AND FILL PRACTICES SHOWN ON DRAWINGS TO LOCALIZE AND MINIMIZE EROSION.

3.06 LANDSCAPING

- A. COMPLETE LANDSCAPING AS SOON AS POSSIBLE AFTER COMPLETION OF FINAL SUBGRADE.
- B. IMMEDIATELY AFTER PLACEMENT OF TOPSOIL, STABILIZE WITH CONTROL MEASURES INCLUDING, BUT NOT NECESSARILY LIMITED TO, SEED MIX, MULCH, AND / OR BLANKET.
- C. ALL DISTURBED AREAS UNLESS OTHERWISE NOTED SHALL BE STABILIZED WITH 4" OF LOAM AND SEEDED.

GPR Engineering Solutions
for Land & Structures

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☐ CONCEPT ☐ CONSTRUCTION

☒ PERMIT ☐ CONSTRUCTION RECORD

THIS DRAWING IS NOT INTENDED FOR CONSTRUCTION UNTIL
ISSUED FOR CONSTRUCTION BY GOLDSMITH, PREST &
RINGWALL, INC

2.	7/1/2025	CONSERVATION COMMISSION COMMENT
1.	5/12/2025	FOR PERMITTING

No.	DATE	DESCRIPTION
DESIGNED BY:	JAAB	CHECKED BY: LT

SCALE: 1" = 20'

A horizontal scale bar with tick marks at 0, 10, and 20 feet. The bar is divided into two equal halves, each representing 10 feet. The total length represents 20 feet.

PROJECT:

76 HARTWELL AVENUE
LITTLETON, MA

SITE PLAN

DATE:	MAY 2025	SHEET 1
JOB NO.	251011	
SHEET:	1 OF 1	

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