

**GENERALIZED CONSTRUCTION SEQUENCE**

THE BMP'S ASSOCIATED WITH THIS PROJECT WILL BE OWNED BY THE DEVELOPER, WHO WILL BE RESPONSIBLE FOR INSPECTION, OPERATION, AND MAINTENANCE.

- INSTALL STABILIZED CONSTRUCTION ENTRANCES.
- PREPARE TEMPORARY PARKING AND STORAGE AREA UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: TRAILER, PARKING, LAY DOWN, PORTA POTTY, WHEEL WASH, CONCRETE WASHOUT, MASON'S AREA, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC.. DENOTE THEM ON THE SITE MAPS IMMEDIATELY AND NOTE ANY CHANGES IN THE LOCATIONS AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS.
- INSTALL SILTATION FENCES AND CATCH BASIN INLET PROTECTION IN LOCATIONS SHOWN ON PLANS AND/OR AS DIRECTED. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY EARTH MOVING OPERATION. PREPARE STABILIZED CONSTRUCTION ENTRANCES IN SUITABLE LOCATIONS AS SHOWN ON THE PLANS OR AT LOCATIONS WHERE CONSTRUCTION VEHICLES ARE EXITING ONTO PUBLIC ROADWAYS.
- CUT AND CLEAR TREES; DISPOSE OF DEBRIS. STRIPPED TOPSOIL SHALL BE STOCKPILED, WITHOUT COMPACTION, AND STABILIZED WITH TEMPORARY SEEDING AGAINST EROSION. SILT FENCE SHALL BE PLACED AROUND STOCKPILES.
- CONSTRUCT AREAS TO BE USED AS SEDIMENT PONDS DURING CONSTRUCTION, AS NEEDED.
- THE WORK AREA SHALL BE GRADED, SHAPED, AND OTHERWISE DRAINED IN SUCH A MANNER AS TO MINIMIZE SOIL EROSION, SILTATION OF DRAINAGE CHANNELS, DAMAGE TO EXISTING VEGETATION, AND DAMAGE TO PROPERTY OUTSIDE LIMITS OF THE WORK AREA. SILT FENCES, AND/OR SEDIMENTATION BASINS MAY BE NECESSARY TO ACCOMPLISH THIS END.
- PERFORM SITE GRADING, INSTALL DRAINAGE SYSTEMS AND UTILITIES. DISTURBED AREAS SHALL BE STABILIZED UPON COMPLETION OF ROUGH GRADING PER THE EROSION CONTROL NOTES. INSTALL INLET PROTECTION IN ALL CATCH BASINS. ALL SIDE SLOPES SHALL BE STABILIZED WITHIN 72 HOURS.
- FINALIZE GRADING AND PLACEMENT OF SELECTS.
- INSTALL EROSION CONTROL PROTECTION ON CATCH BASIN RIMS UNTIL ROADWAY IS PAVED, IF SEDIMENT IS COLLECTING AROUND CATCH BASINS AFTER THE PLACEMENT OF THE BINDER COURSE, THE SILT SACKS SHALL REMAIN AND HAYBALES SHALL BE PLACED AROUND CATCH BASINS.
- INSPECT AND MAINTAIN EROSION CONTROL MEASURES WEEKLY AND AFTER EVERY RAIN EVENT OF 0.5" OR GREATER. DAILY OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, CULVERTS, DITCHES SILTATION DEVICES SEDIMENT TRAPS, ETC. MULCH AND SEED AS REQUIRED.
- FINISH GRADING TO PREPARE FOR PAVEMENT, LOAMING AND SEEDING. NO PORTION OF THIS SITE SHALL REMAIN UNSTABILIZED FOR OVER 45 DAYS. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF FINAL GRADING.
- FINISH PAVING AND CONSTRUCT DRIVES. COMPLETE PERMANENT SEEDING AND LANDSCAPING.
- TEMPORARY EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL ALL DISTURBED AREAS ARE STABILIZED AND HAVE A HEALTHY VEGETATIVE COVER. ONCE A HEALTHY VEGETATIVE COVER HAS BEEN ESTABLISHED ALL SILT FENCES, SILT SACKS, CATCH BASIN EROSION CONTROL, STONE CHECK DAMS AND ORANGE CONSTRUCTION FENCE SHALL BE REMOVED.
- WINTERIZATION EFFORTS FOR AREAS NOT STABILIZED BY NOV. 1ST SHALL BE MADE BY THE APPROPRIATE USE OF MATTING, BLANKETS, MULCH AND SEEDING.
- A CONSTRUCTION AREA SHALL BE CONSIDERED STABLE IF:
  - COMPACTED BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO RECEIVE PAVEMENT.
  - A MINIMUM OF 70% VEGETATED GROWTH HAS BEEN ESTABLISHED.
  - CUT OR FILL SLOPES HAVE A MINIMUM OF 3" NON-EROSIVE MATERIAL SUCH AS STONE OR RIP RAP OR EROSION CONTROL BLANKETS HAVE BEEN INSTALLED.
  - EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- CLEAN ALL DRAINAGE STRUCTURE SUMPS OF SEDIMENT AND DEBRIS (INCLUDING ALL STRUCTURES WITHIN THE LIMIT OF WORK).
- DUST SHALL BE CONTROLLED DURING CONSTRUCTION BY ADEQUATE USE OF WATER AND/OR CALCIUM CHLORIDE.
- SEEDING SCHEDULE
  - SEEDING OPERATIONS SHOULD BE PERFORMED AS AN EARLY SPRING SEEDING (APRIL 1 - MAY 15) WITH THE USE OF COLD TREATED SEED. A LATE FALL EARLY WINTER DORMANT SEEDING (NOVEMBER 1 - DECEMBER 15) CAN ALSO BE MADE, HOWEVER THE SEEDING RATE WILL NEED TO BE INCREASED BY 50%.
  - PERMANENT SEEDING SHOULD BE COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST. IF SEEDING CANNOT BE DONE WITHIN THE SPECIFIED SEEDING DATES, MULCH ACCORDING TO THE MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS, CONSTRUCTION PHASE EROSION AND SEDIMENT CONTROLS AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
- ESTABLISHING A STAND
  - STONES AND TRASH SHOULD BE REMOVED SO AS NOT TO INTERFERE WITH THE SEEDING AREA.
  - WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.
  - IF APPLICABLE, FERTILIZER AND ORGANIC SOIL AMENDMENTS SHOULD BE APPLIED DURING THE GROWING SEASON.
  - APPLY UNIFORMLY 2 TONS OF GROUND LIMESTONE PER ACRE (100 LBS. PER 1,000 SQ. FT.) OR ACCORDING TO SOIL TEST. APPLY UNIFORMLY 10-10-10 ANALYSIS FERTILIZER AT THE RATE OF 400 LBS. PER ACRE (14 LBS. PER 1,000 SQ. FT.) OR AS INDICATED BY SOIL TEST. FORTY PERCENT OF THE NITROGEN SHOULD BE IN ORGANIC FORM.
- WORK IN LIME AND FERTILIZER TO A DEPTH OF 4 INCHES USING ANY SUITABLE EQUIPMENT. SEED SHOULD BE SPREAD UNIFORMLY BY A METHOD MOST APPROPRIATE FOR THE SITE. SEEDING SHOULD BE PERFORMED BY ONE OF THE FOLLOWING METHODS:
  - DRILL SEEDINGS (DE-WEEDED OR DE-BEARDED SEED SHOULD BE USED UNLESS THE DRILL IS EQUIPPED WITH SPECIAL FEATURES TO ACCEPT AWNEED SEED)
  - BROADCAST SEEDING WITH SUBSEQUENT ROLLING, CULTIPACKING OR TRACKING THE SEEDING WITH SMALL TRACK CONSTRUCTION EQUIPMENT. TRACKING SHOULD BE ORIENTED UP AND DOWN THE SLOPE.
  - HYDROSEEDING WITH SUBSEQUENT TRACKING. IF WOOD FIBER MULCH IS USED, IT SHOULD BE APPLIED AS A SEPARATE OPERATION AFTER SEEDING AND TRACKING TO ASSURE GOOD SEED TO SOIL CONTACT.

**SEEDING FOR TEMPORARY COVER**

SPECIES	POUNDS PER 1,000 SQ. FT.	POUNDS PER ACRE	RECOMMENDED SEEDING DATES
ANNUAL RYE GRASS	40		APRIL 1 TO JUNE 1 AUG. 15 TO SEPT. 15
FOXTAIL MILLET	0.7	30	MAY 1 TO JUNE 30
QATS	2	80	APRIL 1 TO JULY 1 AUGUST 15 TO SEPT. 15
WINTER RYE	3	120	AUG. 15 TO OCT. 15

**CONSTRUCTION GENERAL PERMIT NOTES**

NARRATIVE: THE STORMWATER POLLUTION PREVENTION PLANS TOGETHER WITH AN EXISTING CONDITIONS PLAN, AND GRADING PLAN ARE THE TOTAL EROSION CONTROL MEASURES.

THE STORMWATER POLLUTION PREVENTION PLANS CONSIST OF:

- NOTES SHEETS, SWPPP-1
- THE STORMWATER PREVENTION POLLUTION PLAN SWPPP-2 (SHOWING THE EROSION CONTROL MEASURES)
- THE STORMWATER PREVENTION POLLUTION DETAILS SWPPP-3

THE EROSION CONTROL PLAN WILL BE IMPLEMENTED TO:

- TREAT EROSION AS SOON AS POSSIBLE AFTER DISTURBANCE.
- PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION AREA AND ENTERING THE MUNICIPAL SYSTEM.
- CONSTRUCTION ACTIVITIES SHALL BE SCHEDULED TO MINIMIZE EROSION.
- ONLY DISTURB, CLEAR, OR GRADE AREAS NECESSARY FOR CONSTRUCTION.

**CONSTRUCTION PHASE**

THE OWNER IS TO BE RESPONSIBLE FOR MAINTENANCE OF ALL DRAINAGE STRUCTURES IN THE PROJECT - INCLUDING DRAIN PIPES, ABOVEGROUND DETENTION BASINS AND SUBSURFACE INFILTRATION SYSTEMS. THE DEVELOPER WILL ULTIMATELY BE RESPONSIBLE FOR COMPLIANCE WITH THE PLAN.

REGULAR MAINTENANCE IS TO INCLUDE THE FOLLOWING:

- DURING CONSTRUCTION AND THEREAFTER, EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED AS NOTED:
- INSTALLATION OF SILTATION FENCES SHALL BE COMPLETED PRIOR TO THE START OF THE SITE WORK IN ANY GIVEN AREA. PREFABRICATED SILTATION FENCES SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
- SILTATION FENCES SHALL BE KEPT CLEAN DURING CONSTRUCTION AND REMOVED WHEN ALL SLOPES HAVE A HEALTHY STAND OF VEGETATIVE COVER. EROSION CONTROL MEASURES SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EVERY RAIN EVENT OF 0.5" OR GREATER.
- EXISTING VEGETATION IS TO REMAIN UNDISTURBED WHEREVER POSSIBLE.
- THE AREA OF LAND EXPOSED AND THE TIME OF EXPOSURE SHALL BE MINIMIZED. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 72 HOURS AFTER FINAL GRADING WITH EITHER PERMANENT MEASURES OR TEMPORARY MEASURES. DISTURBED AREAS REMAINING IDLE FOR MORE THAN 45 DAYS SHALL BE STABILIZED.
- IN NO CASE SHALL ANY DISTURBED AREAS BE LEFT UNSTABILIZED WITH EITHER PERMANENT OR TEMPORARY EROSION CONTROL MEASURES FOR MORE THAN 72 HOURS, OR AS NEEDED TO ENSURE SUFFICIENT STABILIZATION DUE TO WEATHER OR OTHER CONDITIONS.
- SIMULTANEOUS WORK IN MULTIPLE AREAS MAY BE PERMITTED AS NEEDED, SUBJECT TO THE ABOVE, HOWEVER THE CONTRACTOR SHALL NOT DISTURB AREAS THAT CANNOT REASONABLY BE PROPERLY STABILIZED AND MAINTAINED WITHIN 72 HOURS.
- ALL DISTURBED AREAS SHALL HAVE A MINIMUM OF 4" OF LOAM INSTALLED WITH NOT LESS THAN 1.1 POUNDS OF SEED MIX PER 1,000 SQ. FT. SEED MIXTURE SHALL BE:
 

A. SLOPE AND DETENTION MIX (MIX 6)	
CREeping RED FESCUE	- 0.25 LBS
CANADA BLUEGRASS	- 0.25 LBS
PERENNIAL RYEGRASS	- 0.10 LBS
RED TOP	- 0.10 LBS
B. MIX LAWN: MIX (MIX 11):	
CREeping BENTGRASS	- 0.10 LBS
BLUEJOINT REED GRASS	- 0.10 LBS
VIRGINIA WILD RYE	- 0.10 LBS
FOWL MEADOW GRASS	- 0.25 LBS
SHOWY TICK TREFOIL	- 0.10 LBS
RED TOP	- 0.10 LBS
- LIME AND FERTILIZER SHALL BE INCORPORATED INTO THE SOIL PRIOR TO OR AT THE TIME OF SEEDING. A MINIMUM OF 25 TONS PER ACRE OF AGRICULTURAL LIMESTONE AND 500 LBS. PER ACRE OF 10-20-20 FERTILIZER SHALL BE APPLIED. SEEDING PRACTICES SHALL COMPLY WITH LOCAL USDA SOIL CONSERVATION SERVICES RECOMMENDATIONS.
- HAY MULCH AND SLOPE PROTECTION BLANKET SHALL BE USED WHERE INDICATED ON THE PLANS, A MINIMUM OF 1.5 TONS OF MULCH PER ACRE SHALL BE APPLIED. MULCH SHALL BE ANCHORED IN PLACE WHERE NECESSARY. SLOPE PROTECTION BLANKET SHALL BE LAID IN THE DIRECTION OF RUNOFF FLOW AND APPLIED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND/OR THE DETAILS.
- PERMANENT OR TEMPORARY COVER MUST BE IN PLACE BEFORE THE GROWING SEASON ENDS. WHEN SEEDING AREAS ARE MULCHED, PLANTINGS MAY BE MADE FROM EARLY SPRING TO EARLY FALL. WHEN SEEDING AREAS ARE NOT MULCHED, PLANTINGS SHOULD BE MADE FROM APRIL 1 TO MAY 15 OR FROM AUGUST 1 TO SEPTEMBER 10. DORMANT SEEDING RATE WILL NEED TO BE INCREASED BY 50%. NO DISTURBED AREA SHALL BE LEFT EXPOSED DURING WINTER MONTHS.
- WATER SHALL BE USED FOR DUST CONTROL IN APPROPRIATE AREAS AS NEEDED.
- IF, DURING CONSTRUCTION, IT COMES APPARENT THAT ADDITIONAL EROSION CONTROL MEASURES ARE REQUIRED TO STOP ANY EROSION ON THE CONSTRUCTION SITE DUE TO ACTUAL SITE CONDITIONS, THE CONTRACTOR SHALL BE REQUIRED TO IMMEDIATELY INSTALL AND MAINTAIN THE NECESSARY EROSION PROTECTION.

**POST CONSTRUCTION PHASE**

THE DEVELOPER (OWNER) WILL BE RESPONSIBLE FOR MAINTENANCE OF THE SYSTEMS IN ACCORDANCE WITH THE PROJECT OPERATION AND MAINTENANCE PLAN INCLUDING THE FOLLOWING:

- INSPECTION OF ALL DRAINAGE FACILITIES AND SYSTEMS THREE MONTHS. DURING THE FIRST YEAR OF OPERATION, ALL DRAINAGE FACILITIES SHOULD BE INSPECTED AFTER EVERY STORM, AND 2-3 DAYS AFTERWARD. THESE INSPECTIONS SHOULD LOOK FOR EVIDENCE STRUCTURAL DAMAGE, SILT ACCUMULATION (NEAR INLET INVERTS ON CATCH BASINS), AND IMPROPER FUNCTION.
- AFTER INSPECTION, IF ANY OF THE ABOVE CONDITIONS EXIST, THE OWNER SHALL IMMEDIATELY ARRANGE FOR ALL NECESSARY REPAIRS AND SEDIMENT REMOVAL.
- THE CATCH BASINS AND TREATMENT DEVICES ARE TO BE INSPECTED ANNUALLY. REMOVE OIL, DEBRIS, AND SEDIMENT AFTER INSPECTIONS.
- ALL GRADED SLOPES SHALL BE INSPECTED FOR EROSION. UPON DISCOVERY OF ANY EROSION, LOAM AND SEED SHALL BE PUT IN PLACE AND NURTURED.

**MAINTENANCE**

- ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN AND NOTES, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:
  - INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.
  - ALL SEEDING AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
  - SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES SIX INCHES IN HEIGHT, OR AS REQUESTED BY THE OWNER OR ENGINEER.
  - THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.
  - THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.

**EROSION CONTROL AND SEDIMENT CONTROL NOTES:**

- REFER TO PROJECT PLANS FOR ADDITIONAL INFORMATION.
- AS CONSTRUCTION DISTURBANCE IS GREATER THAN 1 ACRE, A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION GENERAL PERMIT FOR NON-POINT SOURCE POLLUTION PREVENTION PLAN (SWPPP) WILL NEED TO BE SUBMITTED TO THE EPA NEW ENGLAND AND THE CITY OF CHELSEA. THE NPDES PERMIT FOR STORM WATER DISCHARGE, & CONSTRUCTION GENERAL PERMIT NO. WILL BE REQUIRED TO BE SUBMITTED AT LEAST 7 DAYS PRIOR TO COMMENCING CONSTRUCTION.
- SILT CONTROL SHALL BE INSTALLED PRIOR TO CONSTRUCTION AND SHALL BE ADEQUATE TO MAINTAIN SEDIMENT ON SITE. ANY MODIFICATIONS TO SILT CONTROLS SHOWN ON THE APPROVED PLANS AS A RESULT OF ACTUAL FIELD CONDITIONS OR CONSTRUCTION PRACTICES SHALL BE INSTALLED IN ACCORDANCE WITH B.M.P. (BEST MANAGEMENT PRACTICES) PER THE E.P.A. 1992 "STORMWATER MANAGEMENT FOR CONSTRUCTION ACTIVITIES" MANUAL. ANY SUCH MODIFICATIONS SHALL BE INSTALLED AS APPROVED BY THE ENGINEER.
- THE CONTRACTOR SHALL CONDUCT INSPECTIONS AFTER EACH RAINFALL EVENT IN ADDITION TO WEEKLY INSPECTIONS & MAINTAINING A LOG.
- AREAS OF EXPOSED SOIL UNDERGOING CONSTRUCTION THAT WILL NOT BE COVERED AND OR FINISHED GRADED WITHIN 7 DAYS OF EXPOSURE SHALL BE ANCHORED WITH TEMPORARY EROSION CONTROL MEASURES WITHIN 7 DAYS OF DISTURBANCE. TEMPORARY EROSION CONTROL MEASURES SHALL INCLUDE EROSION CONTROL MESH, NETTING OR MULCH AS DIRECTED BY THE OWNER'S REPRESENTATIVE AND SHOWN ON THE DESIGN PLANS. IF MULCH IS USED, HAY OR STRAW MULCH SHALL BE APPLIED AT THE RATE OF 2 BALES PER 1,000 SQUARE FEET. APPLICATION SHALL BE SUFFICIENTLY COVERED WITH MULCH TO AVOID ANY VISIBLE SOIL EXPOSURE. MULCH SHALL BE KEPT MOIST TO AVOID LOSS DUE TO WIND. MULCH AND NETTING SHALL BE APPLIED IN THE BASE OF ALL GRASSED WATERWAYS AND IN VEGETATIVE SLOPES WHICH EXCEED 15% AND DISTURBED AREAS WITHIN 100 FEET OF WETLANDS OR STREAMS.
- IF DISTURBED AREAS DO NOT RECEIVE FINAL SEEDING BY SEPTEMBER 15 OF THE CONSTRUCTION YEAR, THEN ALL DISTURBED AREAS SHALL BE SEEDING WITH A WINTER COVER CROP AT THE RATE OF 3 LBS PER 1,000 SQUARE FEET. WINTER SEEDING SHALL BE COVERED WITH EROSION CONTROL MESH (MULCH AND NETTING). HEAVY GRADE MATS SHALL BE USED IN THE BASE OF ALL GRASSED WATERWAYS ON VEGETATED SLOPES IN EXCESS OF 15%, AND ANY DISTURBED AREAS WITHIN 100 FEET OF WETLANDS OR STREAMS. MULCH AND NETTING SHALL ALSO BE PROVIDED FOR ADDITIONAL WINTER PROTECTION.
- SOIL AND FILL STOCKPILES EXPECTED TO REMAIN IN PLACE FOR LESS THAN 90 DAYS SHALL BE COVERED WITH HAY AND MULCH (AT 100LBS/1,000 SF), OR WITH AN ANCHORED TARP WITHIN 7 DAYS OR PRIOR TO ANY RAINFALL. SOIL AND FILL STOCKPILES EXPECTED TO REMAIN IN PLACE FOR 90 DAYS OR MORE SHALL BE SEEDING WITH WINTER RYE (FOR FALL SEEDING AT 3LB/1,000 SF) OR QATS (FOR SUMMER SEEDING AT 2LB/1,000 SF) AND THEN COVERED WITH HAY MULCH (AT 100LB/1,000 SF) OR AN ANCHORED TARP WITHIN 7 DAYS OR PRIOR TO ANY RAINFALL. LOAM SHALL BE STOCKPILED AT LOCATIONS DESIGNATED BY THE OWNER AND ENGINEER.
- ALL FILTER BARRIERS, SILT SACKS, AND EROSION CONTROL BERMS SHALL BE INSTALLED ACCORDING TO THE EROSION CONTROL PLAN. THESE SHALL BE MAINTAINED DURING CONSTRUCTION TO REMOVE SEDIMENT FROM RUNOFF WATER. ALL THE FILTER BARRIERS AND EROSION CONTROL BERMS SHALL BE INSPECTED AFTER ANY RAINFALL OR RUNOFF EVENT, MAINTAINED AND CLEANED UNTIL ALL AREAS HAVE AT LEAST 85-90% VIGOROUS PERENNIAL COVER OF GRASSES.
- THE EXISTING PARKING LOT SHALL BE PERIODICALLY SWEEPED OR WASHED TO AVOID TRACKING MUD, DUST OR DEBRIS FROM THE CONSTRUCTION AREA.
- A WATERING TRUCK WILL BE USED TO PERIODICALLY SPRINKLE CONSTRUCTION AREAS IN ORDER TO KEEP THE LEVEL OF DUST TO A MINIMUM (AS REQUIRED).
- THE CONTRACTOR SHALL USE EXTREME CAUTION TO AVOID ALLOWING SEDIMENTS TO ENTER THE STORM DRAIN SYSTEM DURING CONSTRUCTION. CATCH BASIN INLETS SHALL ALSO BE PROTECTED DURING CONSTRUCTION BY THE USE OF STRAW BALE BARRIERS AROUND EACH INLET. SILT SACKS SHALL BE INSTALLED IN ALL EXISTING BASINS. INLET PROTECTION MAY BE REMOVED ONLY AFTER FINISHED AREAS ARE PAVED AND THE VEGETATED SLOPES ARE ESTABLISHED WITH AT LEAST 85-90% OF VIGOROUS PERENNIAL GROWTH.
- REVEGETATION MEASURES SHALL COMMENCE IMMEDIATELY UPON THE COMPLETION OF CONSTRUCTION.
- LOAM WILL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE PER SPECIFICATIONS. LOAM SHALL BE FREE OF SOIL CLAY LUMPS, STONES AND OTHER DELETERIOUS MATERIAL.
- EROSION CONTROL MESH SHALL BE APPLIED IN ACCORDANCE WITH THE PLANS OVER ALL FINISHED SEEDING AREAS AS SPECIFIED ON THE DESIGN PLANS.
- ALL HAY BALE AND FILTER FABRIC SHALL REMAIN IN PLACE UNTIL SEEDINGS HAVE BECOME 85-90% ESTABLISHED AND THEN REMOVED WITHIN 10 DAYS.
- AT THE OWNER'S DISCRETION ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED TO MAINTAIN STABILITY OF EARTHWORKS AND FINISHED GRADED AREAS. THE CONTRACTOR, AT HIS EXPENSE, WILL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ANY ADDITIONAL MEASURES AS SPECIFIED BY THE OWNER. SUCH MEASURES SHALL NOT BE LIMITED TO REQUESTS BY MADEP AND THE MUNICIPALITY, AS AUTHORIZED BY THE OWNER.
- INSPECTIONS AND MONITORING MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION CYCLE. WEEKLY INSPECTIONS SHALL BE HELD THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITY. WEEKLY INSPECTION REPORTS SHALL BE MAINTAINED IN THE CONTRACTOR'S FIELD OFFICE. IN ADDITION TO THE NORMAL WEEKLY INSPECTIONS, THE CONTRACTOR SHALL PERFORM AN INSPECTION OF ALL EROSION CONTROL MEASURES AFTER EACH RAINFALL OR RUNOFF EVENT, AND PERFORM THE NECESSARY REPAIRS.
- IF ANY EVIDENCE OF SEDIMENTATION IS OBSERVED IN THE INLETS, THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, PROVIDE A PLAN TO THE ENGINEER TO REMOVE ANY ACCUMULATED SEDIMENT IN THESE AREAS. THE CONTRACTOR SHALL ALSO IMMEDIATELY PROVIDE ADDITIONAL ON SITE EROSION AND SEDIMENTATION CONTROL MEASURES TO PREVENT FURTHER DEGRADATION OF THE AREA.
- FOLLOWING THE TEMPORARY OR FINAL SEEDINGS, THE CONTRACTOR SHALL INSPECT THE WORK AREA BIMONTHLY TO ENSURE THE AREAS HAVE A MINIMUM OF 85-90% VEGETATED WOODRUS GROWTH. RESEEDING SHALL BE CARRIED OUT BY THE CONTRACTOR WITH FOLLOW UP INSPECTIONS IN THE EVEN OF ANY FAILURES UNTIL VEGETATION IS ADEQUATELY ESTABLISHED.

**DEWATERING**

IF DEWATERING IS NECESSARY IT SHALL ONLY BE COMPLETED AS FOLLOWS:

- THE DISCHARGE SHALL BE STOPPED IMMEDIATELY IF THE RECEIVING AREA SHOWS ANY SIGN OF INSTABILITY OR EROSION. ALL CHANNELS, SHOALS, AND DITCHES DUG FOR DISCHARGING WATER FROM THE EXCAVATED AREA SHALL BE STABLE PRIOR TO DIRECTING DISCHARGE TO THEM. IF A CONSTRUCTION EQUIPMENT BUCKET IS USED, IT SHALL EMPTY THE MATERIAL TO A STABLE AREA.
- NO DEWATERING SHALL OCCUR DURING PERIODS OF INTENSE, HEAVY RAIN. FLOW TO THE SEDIMENT
- REMOVAL STRUCTURE SHALL NOT EXCEED THE STRUCTURES CAPACITY TO SETTLE AND FILTER
- FLOW OR IS VOLUME CAPACITY. WHENEVER POSSIBLE, THE DISCHARGE FROM THE SEDIMENT REMOVAL STRUCTURE SHALL DRAIN TO A WELL-VEGETATED BUFFER BY SHEET FLOW WHILE MAXIMIZING THE DISTANCE TO THE NEAREST WATER RESOURCE AND MINIMIZING THE SLOPE OF THE BUFFER AREA.
- THERE SHALL BE NO DIRECT DISCHARGE TO EXISTING WETLANDS OR STREAMS. ALL DISCHARGE SHALL BE IN COMPLIANCE WITH STATE, LOCAL, AND FEDERAL REQUIREMENTS.

**Cushing Village Special Permit Condition 12.B - Part 4**



**LOCUS MAP**  
SCALE: 1" = 500'

**PETER QUINN ARCHITECTS**

ARCHITECTURE  
PLANNING  
COMMUNITY DESIGN

PETER QUINN ARCHITECTS LLC  
1804 MASS AVE, 2ND FLOOR  
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SEAL



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TEL: (603) 427-5290 FAX: (603) 427-5281  
WOBURN, MA • EASTON, MA • HANOVER, NH

SEAL



PROJECT  
**CUSHING VILLAGE**  
CUSHING SQUARE  
BELMONT, MA

PREPARED FOR  
**SMITH LEGACY**  
6 LITTLEFIELD ROAD  
ACTON, MA 07120

DRAWING TITLE  
**STORMWATER POLLUTION PREVENTION NOTES**

SCALE AS NOTED

REVISION	DATE
ISSUED FOR FINAL REVIEW	01-23-14
DRAWN BY MAM	REVIEWED BY MAM
SHEET	

**SWP-1**

# PETER QUINN ARCHITECTS

ARCHITECTURE  
PLANNING  
COMMUNITY DESIGN

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SEAL

CONSULTANT



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SEAL



PROJECT

**CUSHING VILLAGE**  
CUSHING SQUARE  
BELMONT, MA

PREPARED FOR



6 LITTLEFIELD ROAD  
ACTON, MA 07120

DRAWING TITLE

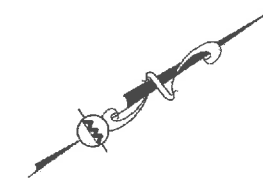
## STORMWATER POLLUTION PREVENTION PLAN

SCALE AS NOTED

REVISION	DATE
ISSUED FOR FINAL REVIEW	01-23-14
DRAWN BY	REVIEWED BY
MAM	MAM

SHEET

# SWP-2



### LEGEND:

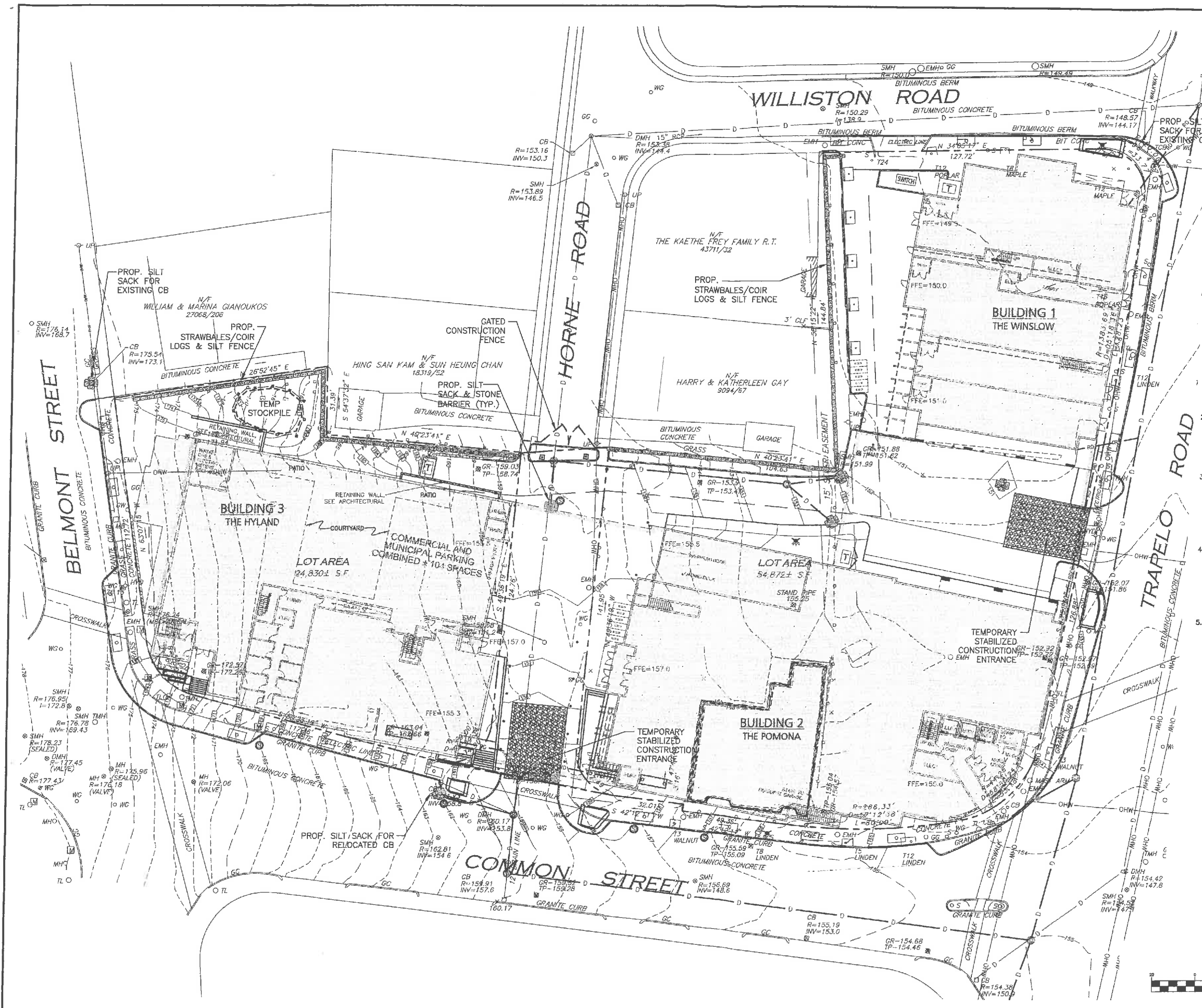
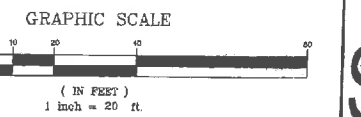
SILT FENCE	SF
HAYBALE LINE	—
EROSION CONTROL FABRIC	—
HAYBALE FILTER W/ SILT SACK	—
STABILIZED CONST. ENTRANCE	—
PROPOSED GRADING	125
TURBIDITY CURTAIN	TC
STOCKPILE/CONSTRUCTION STAGING AREA	—

### GENERAL NOTES

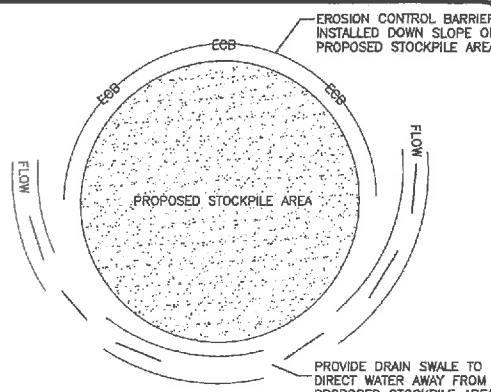
- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
- THE INFORMATION SHOWN ON THIS PLAN IS THE SOLE PROPERTY OF ALLEN & MAJOR ASSOCIATES, INC. ITS INTENDED USE IS TO PROVIDE INFORMATION, ANY ALTERATION, MISUSE, OR RECALCULATION OF INFORMATION OR DATA WITHOUT THE EXPRESSED, WRITTEN CONSENT OF ALLEN & MAJOR ASSOCIATES, INC. IS STRICTLY PROHIBITED.
- THE CONTRACTOR SHALL CONTACT "DIGSAFE", THE TOWN OF BELMONT DPW & COMMUNITY DEVELOPMENT AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST THE LOCATION OF THE EXISTING UTILITIES.  
DIGSAFE: 1-800-344-7233  
TOWN OF BELMONT DPW: 1-671-993-2680  
TOWN OF BELMONT COM. DEV. 1-617-993-2650
- WRITTEN DIMENSIONS ON THIS PLAN TAKE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL USE CAUTION WHEN SCALING REPRODUCED PLANS. IN THE EVENT OF A CONFLICT BETWEEN THIS PLAN SET AND ANY OTHER DRAWINGS AND/OR SPECIFICATIONS OR CONDITIONS, THE ENGINEER SHALL BE NOTIFIED BY THE CONTRACTOR. ALL SITE ITEMS SHALL BE LAYED OUT AND ASSULTED BY A LICENSED LAND SURVEYOR.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS AT THE SITE. THESE PLANS, PREPARED BY ALLEN & MAJOR ASSOCIATES, INC. DO NOT EXTEND TO OR INCLUDE SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PROVIDE THE APPROPRIATE SAFETY SYSTEMS WHICH MAY BE REQUIRED BY THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), STATE, AND LOCAL REGULATIONS.

### EROSION CONTROL NOTES

- CONTRACTOR TO SUPPLY CHAIN LINK FENCE AROUND ALL CONSTRUCTION FOR SAFETY.
- SEE SHEET C-3 FOR GRADING & DRAINAGE.
- SEE SHEET 1 FOR EXISTING CONDITIONS.
- SHEETS SWP 1-3 MAKE UP THE COMPLETE STORMWATER PREVENTION PACKAGE.
- THE INFORMATION SHOWN ON THIS PLAN IS THE SOLE PROPERTY OF ALLEN & MAJOR ASSOCIATES, INC. ITS INTENDED USE IS TO PROVIDE INFORMATION, ANY ALTERATION, MISUSE, OR RECALCULATION OF INFORMATION OR DATA WITHOUT THE EXPRESSED, WRITTEN CONSENT OF ALLEN & MAJOR ASSOCIATES, INC. IS STRICTLY PROHIBITED.

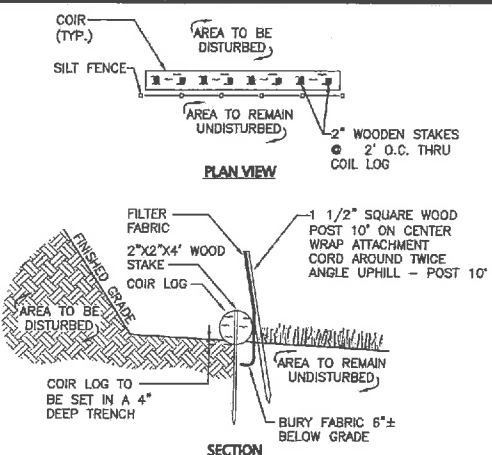


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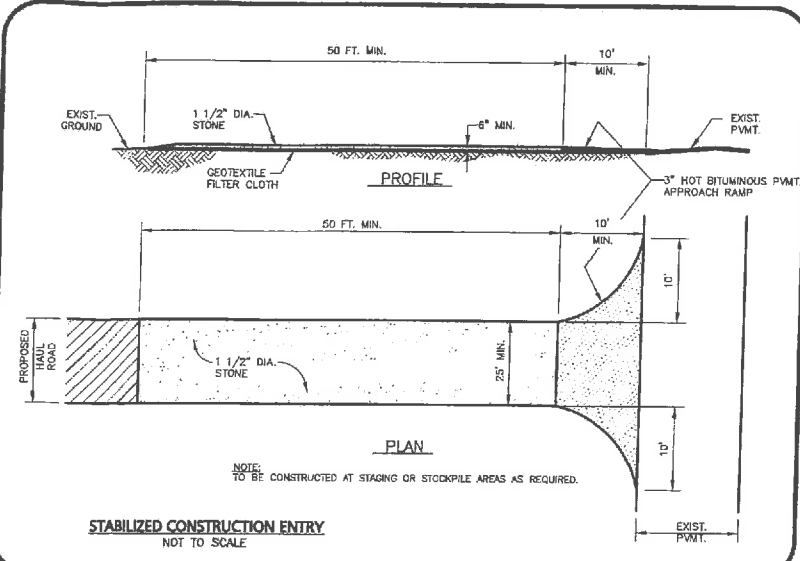
**NOTES:**  
 1. SOIL AND FILL STOCKPILES EXPECTED TO REMAIN IN PLACE FOR LESS THAN 90 DAYS SHALL BE COVERED WITH HAY AND MULCH (AT 100LBS/1,000 SF), OR WITH AN ANCHORED TARP WITHIN 7 DAYS OR PRIOR TO ANY RAINFALL.  
 2. SOIL AND FILL STOCKPILES EXPECTED TO REMAIN IN PLACE FOR 90 DAYS OR MORE SHALL BE SEEDED WITH WINTER RYE (FOR FALL SEEDING AT 1LB/1,000 SF) OR OATS (FOR SUMMER SEEDING AT 2LB/1,000 SF) AND THEN COVERED WITH HAY MULCH (AT 100LB/1,000 SF) OR AN ANCHORED TARP WITHIN 7 DAYS OR PRIOR TO ANY RAINFALL.

**STOCKPILE PROTECTION DETAIL**  
NOT TO SCALE

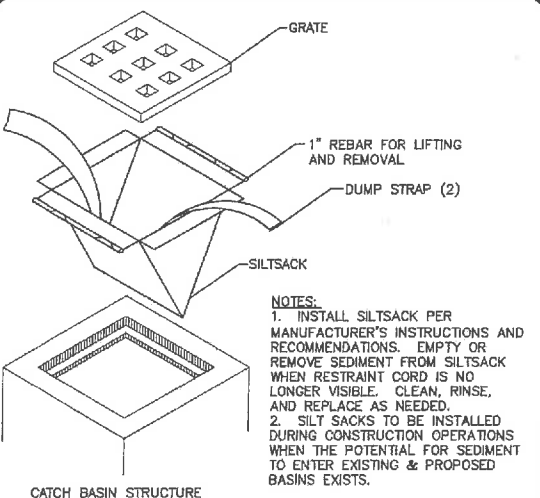


**NOTE:**  
 DEPTH TO BE 2' UNLESS POST IS TO BE SET IN PEAT THEN 3' OR DEPTH POSSIBLE BY PUSHING BY HAND SHALL BE REQUIRED.

**SILT FENCE AND HAYBALE DETAIL**  
NOT TO SCALE

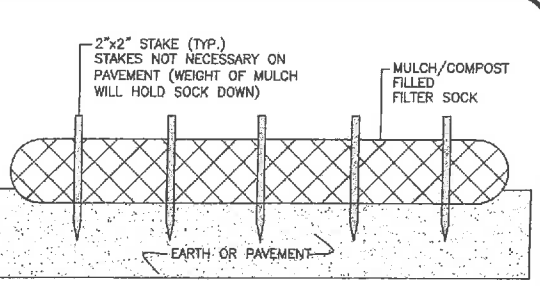


**STABILIZED CONSTRUCTION ENTRY**  
NOT TO SCALE



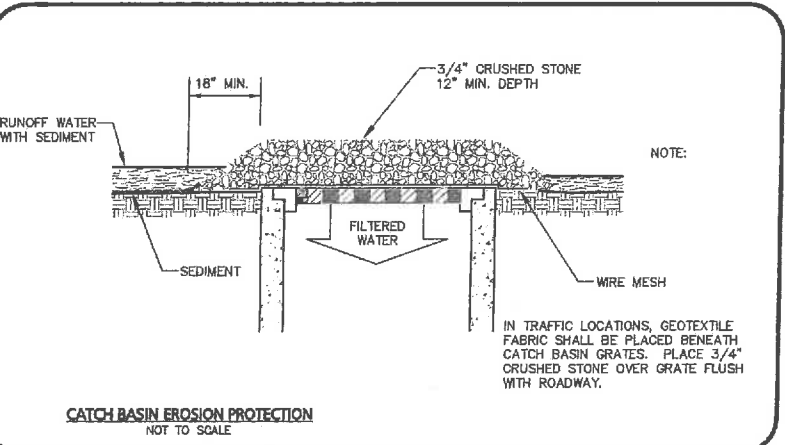
**NOTES:**  
 1. INSTALL SILT SACK PER MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS. EMPTY OR REMOVE SEDIMENT FROM SILT SACK WHEN RESTRAINT CORD IS NO LONGER VISIBLE. CLEAN, RINSE, AND REPLACE AS NEEDED.  
 2. SILT SACKS TO BE INSTALLED DURING CONSTRUCTION OPERATIONS WHEN THE POTENTIAL FOR SEDIMENT TO ENTER EXISTING & PROPOSED BASINS EXISTS.

**SILT SACK INLET DETAIL**  
NOT TO SCALE



**NOTE:**  
 1. DIG TRENCH IF NEEDED AND PLACE FILTER SOCK IN DESIRED LOCATION ACCORDING TO MANUFACTURER'S STANDARD SPECIFICATIONS.  
 2. INSTALL WOODEN STAKES THROUGH MESH AND DRIVEN INTO EARTH EVERY 2' O.C.. TIE ADJACENT SOCKS TOGETHER WITH BIODEGRADABLE TWINE.  
 3. AVAILABLE DIAMETERS: 8", 12", 18", 24" AND 32".  
 4. AVAILABLE LENGTHS VARY

**FILTER SOCK DETAIL**  
NOT TO SCALE



**CATCH BASIN EROSION PROTECTION**  
NOT TO SCALE

**OPERATION & MAINTENANCE PLAN SCHEDULE**

Project: Cushing Village  
Address: Belmont, MA  
Party Responsible for O & M Plan: Smith Legacy Partners  
Address: 6 Littlefield Rd, Acton, MA  
Phone: (978) 502-2276

Structure or Task	Maintenance Activity	Schedule/Notes	Inspection Performed	
			Date:	By:
Street Sweeping	Sweep, power broom or vacuum paved areas	Sweep paved areas monthly. All paved areas shall be swept prior to spring rains (March/April). Submit information that confirms that all street sweepings have been disposed in accordance with state and local requirements.		
Deep Sump Catch Basins(s)	Clean shell or vacuum sumps	Inspect or clean deep sump basins at least four times per year and at the end of the freeze and snow removal seasons. Clean when sediment is 6" deep, but never allow sediment to exceed 60% of sump volume. Submit information that confirms that all catch basin sediments have been disposed in accordance with state and local requirements.		
Proprietary Device	See the Stormwater Operator's Manual for the inspection and cleaning procedure.	Inspect at least four times annually as well as following storms exceeding 1" of rainfall. Clean when sediment is 6" Deep. Submit information that confirms that all water quality inlet sediments have been disposed in accordance with state and local requirements.		
Mosquito Control	CB management targeted larviciding treatment to CB's and all storm drains to control mosquitoes in their aquatic stages.	Surveillance is a non-chemical inspection method that involves classification of mosquito breeding sites, larval presence, and survey.		
Snow Storage	Debris shall be cleared from the site and properly disposed of at the end of the snow season, but shall be cleared no later than May 15.	Avoid dumping snow removal over catch basins, in detention ponds, sediment basins, rivers, wetlands, and flood plains. (See Site Plan for appropriate locations)		

Party Responsible for O & M Plan: Smith Legacy Partners  
Address: 6 Littlefield Road, Acton, MA  
Phone: (978) 502-2276

Operation and Maintenance Plan Log During Construction  
Project: Cushing Village  
Address: Cushing St & Trapelo Rd, Belmont, MA  
Company Responsible for O&M During Construction: TBD  
Individual responsible for Inspections & Log: TBD  
Inspection Calendar Inspections (Qualifications): TBD  
Phone (24 Hour Contact Number): TBD

Erosion Control Measure	Weekly Inspection Schedule After Rainfall	Inspection Performed		Method	Notes/Remarks
		Date	By:		
Temporary Tree Protection				Review temporary tree protection fencing and trunk protection. Verify no machinery or construction materials are stored within the fenced area. Repair any damaged fencing. Document any damage to site. Contact client's construction representative with any tree trunk or root damage.	
Strawbales & Silt Fence				Sediment accumulation up-gradient of the strawbales and silt fence sediment control greater than 6" in depth shall be removed and disposed of in accordance with all applicable regulations.	
Stone barrier and Silt Sacks at Catch Basins				When the sediment is accumulating the site, and as shown on the plan, silt socks shall be installed in all catch basins adjacent to the site. Sediment accumulation on all catch basin silt socks shall be removed and the silt sock replaced if torn or damaged. Remove silt and replace damage silt socks at each catch basin.	
Construction Entrance				When silt is accumulating to the construction entrance, the deconstruction entrance shall be cleaned and stone replaced as necessary.	

Note: Operation and maintenance plan log shall be documented by contractor and kept within onsite construction office. Upon request, log and operation and maintenance files shall be made available to the City, State, and Federal authorities.

**PETER QUINN ARCHITECTS**

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COMMUNITY DESIGN  
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WORTHEN, MA • LAVERGNE, MA • MANCHESTER, NH



PROJECT  
**CUSHING VILLAGE**  
CUSHING SQUARE  
BELMONT, MA

PREPARED FOR  
**SMITH LEGACY PARTNERS**  
6 LITTLEFIELD ROAD  
ACTON, MA 07120

DRAWING TITLE  
**STORMWATER POLLUTION PREVENTION DETAILS**

SCALE AS NOTED

REVISION	DATE

ISSUED FOR FINAL REVIEW: 01-23-14  
DRAWN BY: MAM REVIEWED BY: MAM  
SHEET

**SWP-3**