EROSION AND SEDIMENTATION CONTROL PLAN

THIS PLAN HAS BEEN DEVELOPED AS A STRATEGY TO CONTROL SOIL EROSION AND SEDIMENTATION DURING AND AFTER CONSTRUCTION OF A 29,724 SF ADDITION TO BAYSIDE BOWL, PORTLAND, MAINE. THIS PLAN IS BASED ON THE STORMWATER MANAGEMENT FOR MAINE VOLUME III BMPs TECHNICAL DESIGN MANUAL DATED JANUARY 2006.

THE PROJECT CONSISTS OF CONSTRUCTION OF A PROPOSED 29,724 SF BUILDING ADDITION AND PAVED PARKING LOT. THE ASSOCIATED GRADING DEFINES THE LIMITS OF PROPOSED EARTH MOVEMENT FOR THE DEVELOPMENT. THE HORIZONTAL AND VERTICAL PLACEMENT PROPOSED BUILDING ADDITION AND PARKING LOT HAVE BEEN DESIGNED TO MAXIMIZE THE TOPOGRAPHIC OPPORTUNITIES AVAILABLE.

B. EROSION CONTROL PRACTICES/TEMPORARY MEASURES

THE FOLLOWING TEMPORARY MEASURES TO CONTROL EROSION AND SEDIMENTATION SHALL BE UTILIZED: EACH GROUND AREA, OPENED OR EXPOSED, WHETHER DIRECTLY OR INDIRECTLY DUE TO THE DEVELOPMENT, SHALL BE MINIMIZED AND SHALL BE STABILIZED WITHIN 15 DAYS OF INITIAL DISTURBANCE OF SOIL AND SHALL BE PERMANENTLY STABILIZED WITHIN SEVEN DAYS OF FINAL GRADING.
THIS STATEMENT APPLIES TO DISTURBED AREAS BEYOND THE LIMITS OF THE PROPOSED BUILDING. EXPOSED AREAS SHALL BE STABILIZED PRIOR TO A RAIN EVENT.

TEMPORARY SOIL STABILIZATION SHALL BE EITHER BY TEMPORARY MULCHING. TEMPORARY SEEDING. PERMANENT BASE GRAVEL, OR ASPHALT BINDER COURSE AS FOLLOWS:

TEMPORARY SEEDING: SEED SHALL BE AROOSTOOK RYE APPLIED AT 2.6O#/1000 SF.
LIME SHALL BE AGRICULTURAL GROUND LIMESTONE APPLIED AT 138#/1000 SF.
FERTILIZER SHALL BE 10-10-10 CLASSIFICATION APPLIED AT 13.8#/1000 SF.
MULCH SHALL CONSIST OF HAY AND STRAW MULCH AND SPREAD EVENLY AT A RATE OF 70-90#/1000 SF.
TEMPORARY SEEDING SHALL ONLY BE MADE BETWEEN APRIL 15 AND OCTOBER 1. AND SHALL NOT BE PLACED OVER SNOW.

TEMPORARY MULCHING: MULCH SHALL CONSIST OF CHOPPED HAY OR STRAW MULCH AND SPREAD BY MECHANICAL BLOWER EVENLY AT A RATE OF 150-200#/1000 SF. TEMPORARY MULCH SHALL BE REMOVED PRIOR TO PERMANENT SOIL STABILIZATION. MULCH MUST NOT BE PLACED OVER SNOW. SNOW SHALL BE REMOVED PRIOR TO MULCHING.

PERMANENT BASE GRAVEL: BASE GRAVEL UNDER PAVEMENT SHALL BE SUITABLE AS TEMPORARY SOIL STABILIZATION UNDER THE FOLLOWING CONDITIONS:
a. SLOPES SHALL BE LESS THAN EIGHT PERCENT;
b. GRAVEL SHALL MEET THE SPECIFICATIONS FOR BASE OR SUBBASE GRAVEL FOR THE PROPOSED COMPLETED PAVEMENT.
ASPHALT BINDER COURSE: ASPHALT BINDER SHALL MEET THE SPECIFICATIONS FOR THE ASPHALT BINDER COURSE FOR THE PROPOSED COMPLETED PAVEMENT.

C. EROSION CONTROL PRACTICES/PERMANENT MEASURES

THE FOLLOWING PERMANENT MEASURES TO CONTROL EROSION AND SEDIMENTATION SHALL BE UTILIZED:

1. PERMANENT SEEDING SHALL BE PERFORMED DURING CONSTRUCTION OPERATIONS AS EACH DISTURBED AREA HAS BEEN BROUGHT TO FINISH GRADE. PERMANENT SEEDINGS SHALL BE MADE AS DORMANT SEEDING AFTER THE FIRST KILLING FROST. DORMANT SEEDING AND MULCH SHALL BE USED AT TWO TIMES THE PERMANENT SEEDING AND MULCHING RATE SHOWN BELOW FOR BOTH LAWN AS WELL AS EMBANKMENTS. SEED, LOAM, LIME, FERTILIZER AND MULCH ARE TO BE AS FOLLOWS:

SEED: THE SEED MIXTURE SHALL CONSIST OF SEED PROPORTIONED BY WEIGHT. ALL SEED SHALL BE FRESH, CLEAN, "NEW CROP" SEED. HARMLESS INERT MATTER AND WEED SEEDS SHALL BE PERMITTED UP TO ONE PERCENT OF THE GROSS WEIGHT OF EACH VARIETY OF SEED. ALL SEED SUPPLIED SHALL BE PACKED IN APPROVED CONTAINERS BEARING THE MANUFACTURER'S NAME AND ANALYSIS OF CONTENTS. THE FOLLOWING MATERIALS AND APPLICATION RATES SHALL BE REQUIRED FOR PERMANENT SEEDING:

LAWN

CREEPING RED RESCUE:	0.69#/1000 SF
KENTUCKY BLUEGRASS:	0.57#/1000 SF
PERENNIAL RYE GRASS:	0.46#/1000 SF
REDTOP:	0.12#/1000 SF
TOTAL:	1.84#/1000 SF

LOAM SHALL BE FREE OF GRASSES, ROOTS, LARGE STONE AND INORGANIC DEBRIS. PLACE LOAM AT FOUR INCHES MINIMUM DEPTH OVER ALL DISTURBED AREAS. FINAL GRADING OF ALL LAWN AREAS TO BE APPROVED BY LANDSCAPE ARCHITECT BEFORE SEEDING.

LIME: LIME SHALL BE AGRICULTURAL GROUND LIMESTONE AND APPLIED AS PER RECOMMENDATION OF A STATE COMMERCIAL SOIL TESTING LABORATORY. FERTILIZER: FERTILIZER SHALL BE 10-20-20 CLASSIFICATION AND APPLIED AS PER RECOMMENDATION OF A STATE COMMERCIAL SOIL TESTING LABORATORY.

MULCH: MULCH SHALL CONSIST OF HAY OR STRAW MULCH. MULCH SHALL BE SPREAD EVENLY AT A RATE OF TWO AND ONE HALF TONS PER ACRE OVER ALL SEEDING. AFTER APPLICATION, THE MULCH SHALL BE THOROUGHLY WETTED. IN STEEP AREAS, THE MULCH SHALL BE HELD IN PLACE BY THE USE OF JUTE EROSION CONTROL NETTING OR APPROVED ALTERNATIVE NETTING MATERIAL. NOTE: ALL EXPOSED SOIL MUST BE COVERED REGARDLESS OF MULCHING RATES SPECIFIED.

THE CONTRACTOR SHALL MAINTAIN THE SEEDED AND MULCHED AREAS UNTIL FINAL ACCEPTANCE OR THE WORK. MAINTENANCE SHALL CONSIST OF PROVIDING PROPER WATERING, PROTECTION AGAINST TRAFFIC AND REPAIRING ANY AREAS DAMAGED DUE TO WIND, WATER, EROSION, FIRE OR OTHER CAUSES. SUCH DAMAGED AREAS SHALL BE REPAIRED TO REESTABLISH THE CONDITION AND GRADE OF THE SOIL PRIOR TO SEEDING AND SHALL THEN BE REFERTILIZED, RESEEDED AND REMULCHED.

D. WINTER CONSTRUCTION

THE WINTER CONSTRUCTION PERIOD IS FROM NOVEMBER 1 THROUGH APRIL 15. WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME. LIMIT THE EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDERTAKEN DURING THE PROCEEDING 15 DAYS AND THAT CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT. HAY AND STRAW MULCH RATE SHALL BE A MINIMUM OF 150 LBS./1,000 S.F. (3 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. THE CONTRACTOR SHALL INSTALL ANY ADDED MEASURES WHICH MAY BE NECESSARY TO CONTROL EROSION/SEDIMENTATION FROM THE SITE, DEPENDENT UPON THE ACTUAL SITE AND WEATHER CONDITIONS. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED. IN ORDER TO MINMIZE AREAS WITHOUT EROSION CONTROL PROTECTION.

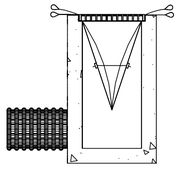
E. CONSTRUCTION SEQUENCE

THE GENERAL SEQUENCE OF WORK SHALL BE AS FOLLOWS:

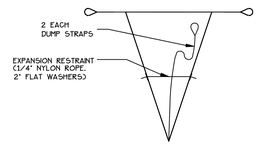
1. INSTALL EROSION CONTROL DEVICES.
2. GRADE SITE.
3. TEMPORARILY STABILIZE DISTURBED AREAS BY MULCHING ALL EXPOSED SOIL WITHIN 15 DAYS OF INITIAL DISTURBANCE.
4. COMPLETE SITE CONSTRUCTION WORK
5. CONSTRUCT PARKING AREA
6. INSTALL PERMANENT VEGETATION ON ALL EXPOSED AREAS WITHIN 15 DAYS OF FINAL GRADING.
7. PERFORM CONTINUING MAINTENANCE ON ALL EROSION AND SEDIMENTATION CONTROL DEVICES AND MEASURES.

F. SITE INSPECTION + MAINTENANCE

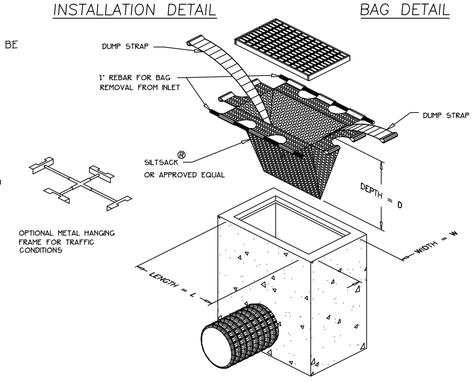
WEEKLY INSPECTIONS, AS WELL AS ROUTINE INSPECTIONS FOLLOWING RAINFALLS OF 0.5" OVER A CONSECUTIVE 24-HOUR PERIOD, SHALL BE CONDUCTED BY THE SITE CONTRACTOR OF ALL TEMPORARY AND PERMANENT EROSION CONTROL DEVICES UNTIL FINAL ACCEPTANCE OF THE PROJECT. NECESSARY REPAIRS SHALL BE MADE TO CORRECT UNDERMINING OR DETERIORATION. FINAL ACCEPTANCE SHALL INCLUDE A SITE INSPECTION TO VERIFY THE STABILITY OF ALL DISTURBED AREAS AND SLOPES, UNTIL FINAL INSPECTION. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL IMMEDIATELY BE CLEANED, AND REPAIRED BY THE SITE CONTRACTOR AS REQUIRED. DISPOSAL OF ALL TEMPORARY EROSION CONTROL DEVICES SHALL BE THE RESPONSIBILITY OF THE SITE CONTRACTOR. CONTINUED TEMPORARY MAINTENANCE AND LONG TERM PROVISIONS FOR PERMANENT MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROL FACILITIES AFTER ACCEPTANCE OF THE PROJECT SHALL BE THE RESPONSIBILITY OF BOPO, LLC OR ASSIGNS.



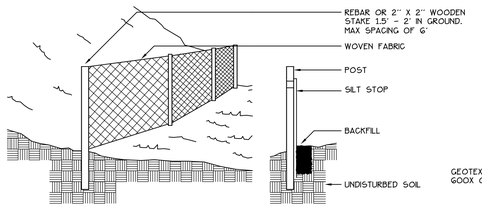
INSTALLATION DETAIL



BAG DETAIL

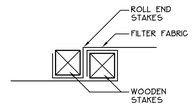


1/7 INLET SEDIMENT CONTROL DEVICE
NOT TO SCALE

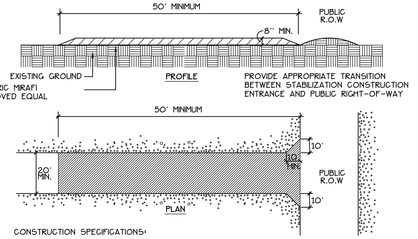


1. SILT FENCE TO BE INSTALLED PARALLEL TO EXISTING CONTOURS DOWNSLOPE FROM AREAS OF SOIL DISTURBANCE.
2. SILT FENCE TO BE SECURELY ATTACHED TO THE UPSLOPE SIDE OF THE SUPPORTING STAKES.
3. BOTTOM 4 TO 6 INCHES OF SILT FENCE TO BE BURIED IN SLOPE AND BACKFILLED WITH COMPACTED SOIL.
4. INSPECTION SHALL BE MADE AFTER EVERY RAINFALL WITH REMOVAL OF EXCESSIVE SEDIMENT AND REPAIR OF THE FENCE ACCOMPLISHED PROMPTLY.
5. SILT FENCE AND ACCUMULATED SEDIMENT SHALL BE REMOVED AS SOON AS PERMENANT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

3/7 SILT FENCE
NOT TO SCALE



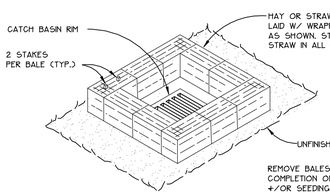
END POST OVERLAP DETAIL
NOT TO SCALE



CONSTRUCTION SPECIFICATIONS:

1. STONE SIZE: AASHTO DESIGNATION M 43, SIZE NO. 2 (2.5" TO 1.5"). USE CRUSHED STONE.
2. LENGTH: AS EFFECTIVE, BUT NOT LESS THAN 50 FEET.
3. THICKNESS: NOT LESS THAN EIGHT (8) INCHES.
4. WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINT OF INGRESS OR EGRESS.
5. WASHING: WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH, OR WATERCOURSE THROUGH THE USE OF SAND BAGS, GRAVEL, BOARDS OR OTHER APPROVED METHODS.
6. MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONES AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.

4/7 STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



STRAW BALE DROP
INLET SEDIMENT FILTER
2/7 NOT TO SCALE

STATE OF MAINE
STEPHEN
J.
BRADSTREET
#5740
LICENSED
PROFESSIONAL ENGINEER

Reviewed for Code Compliance
Inspections Division
Portland, Maine
Date: 06/08/16

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Date:
DECEMBER 18, 2015

Issued For:
AMENDED
SITE PLAN SUBMISSION

Revisions:

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Title:
EROSION AND SEDIMENTATION CONTROL PLAN

Scale: 1"=20'
0 10 20 40 ft.

North:

Sheet No.:
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