TEMPORARY & <u>General</u> PERMANENT EROSION 8 SEDIMENT CONTROL

This plan has been developed to provide a strategy for dealing with soil erosion and sedimentation during and after the driveway construction on East Kidder Street This plan is based on the Standards and Specifications for Erosion Prevention as contained in the Maine Erosion and Sediment Control Handbook for Construction: Best Management Producted March 1991)

Construction Phase

In order to protect the soil, water, wetland, and wildlife resources of the area, only those areas necessary to construct the road, install landscaping, sidewalks, curbing and specified piping shall be disturbed.

The following measures shall be mandatory and the responsibility of the Contractor:

1. Those areas undergoing actual construction will be left in an untreated or unvegetated condition for A maximum of 14 days from final grading of the loam. Loam will be stockpiled for future use and and protected from erosion losses by mulch and filter fabric/hay bale barriers. The location of such stockpiles shall be determined by the City Inspector and Project Engineer at the time of construction.

Prior to clearing and grubbing the site, hay bales and/or filter fabric will be installed and staked across/along points of concentration and/or grades in excess of 3 percent and at the inlets of all existing culverts and catch basins. Prior to clearing and grubbing, filter fabric fencing or hay bale barriers will be staked across the slopes, on the contour, at or just below the limits of construction and/or just above any downslope adjacent property or wetland to protect against construction related erosion.

ces shall be constructed for ingress and egress from the project site prior

Check dams shall be placed in all drainage ditches not other All drainage ditches over 5 percent shall have stone lined centers. wise protected from erosion control ma

When work is immediately adjacent to the exisprior to the end of the work day. All hay bale barriers and silt fencing shall be inspected, replaced, and/or repaired weekly, as well as immediately following any significant rainfall, or when sediment reaches 1/3 the barrier height. ting wet

If final seeding of the disturbed areas is not completed by September 15th of the year of construction, then on that date these areas will be graded and smoothed, then seeded to a winter cover crop of Rye at the rate of 112 lbs/acre or 3 lbs/1,000 square feet and mulched at a rate of 70lbs./1000 square feet, the rye seeding will proceed by an application of 3 tons of lime and 1000lbs. of 10-10-10 fertilizer per acre, or its equivalent. If the rye seeding does not make adequate growth to prove at least 75% vegetative cover by November 15th, then on that date, a temporary mulch of hay will be applied to the area at a rate of 150lbs./1000 square feet. Areas stabilized with rye and mulch will be tilled and reseeded using the vegetation plan for permanent seeding the following spring. Final vegetation of the site shall not be considered complete until each disturbed area not to be paved or treated with riprap has a vegetative cover over at least 90% of its surface.

<u>1</u>0. During the construction phase, intercepted sediment will be returned to the site and regraded onto open areas. The disposal of post seeding sediment, if any shall, be the responsibility of the Contractor.

 Temporary mulch
 Vegetation Plan will be applied to all exposed soil surfaces within seven (7) days or prior

Revegetation measures will commence immediately upon completion of construction except as noted under Paragraph 9 above. All disturbed areas not otherwise stabilized will be graded, smoothed, and prepared for final seeding as follows:

Four inches of loam will be spread over disturbed areas and smoothed to a uniform surface. In lieu of soil tests, agricultural limestone will be spread at the rate of three tons per acre. 10-20-20 fertilizer will follow at a rate of 800 lbs per acre. These two soil amendments will be incorporated into the soil prior to installing plantings.

Following seed bed preparation, the landscaped areas shall be planted as shown on the landscaping plans. All other areas shall be seeded with roadside mixture #3 as specified in MDOT 717.03.

All areas designated for seeding (i.e. side slopes, embankments, swales,etc.) shall be covered with a "bonded fiber matrix" such as Weyerhaeuser SOIL GUARD or an approved equivalent. Bonded Fiber Matrix shall be spray—applied at a rate of 3000—4000 lb/acre, utilizing standard hydraulic seeding equipment in successive layers as to achieve 100% coverage of all exposed soil. The Bonded Fiber Matrix shall not be applied immediately before, during or immediately after rainfall, such that the matrix will have opportunity to dry for 24 hours after installation. Agricultural limestone, fertilizer and grass seed (Road—side Mixture Number 2 as specified in MDOT 717.03) can be all be mixed together with the SOIL GUARD and hydraulically applied as part of the same application.

All hay bale, filter fabric barriers and stone check dams will become 75% established and then removed with in 10 days.

Monitoring

Maintenance measures will be applied as needed during the entire construction cycle. Weekly and after each rainfall, a visual inspection will be made of all installed erosion control measures and repairs will be made as needed to insure their continuing function as designed. Following the final seedings, the site will be inspected every fifteen days until the seedings have been established. Established means a minimum of 75% of area vegetated with vigorous growth. Reseeding will be carried out, with follow up inspections, in the event of any falures. All erosion control measures will be removed within 10 days when vegetation is adequately established.

POST— 6' MAX. SPACING ECTION A
TOP VIEW

ANGLE FIRST STAKE – TOWARD PREVIOUSLY LAID BALE

EMBEDDING DETAIL

SECTION A • 

INSTALLATION:

1. EXCAVATE A 6"x 6" TRENCH ALONG THE LINE OF PLACEMENT FOR THE FILTER BARRIER.

2. UNROLL A SECTION AT A TIME AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH.

3. DRIVE POSTS INTO THE GROUND UNTIL APPROXIMATELY 2" OF FABRIC IS LYING ON THE TRENCH BOTTOM. JOIN SECTION AS SHOWN ABOVE.

4. LAY THE TOE—IN FLAP OF FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL THE TRENCH AND TAMP THE SOIL. TOE—IN CAN ALSO BE ACCOMPLISHED BY LAYING THE FABRIC FLAP ON UNDISTURBED GROUND AND PILING AND TAMPING FILL AT THE BASE, BUT MUST BE ACCOMPANIED BY AN INTERCEPTION DITCH.

5. BARRIER SHALL BE MIRAFI SILT FENCE OR APPROVED EQUAL. FILTER BARRIER

> 2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
>
> 3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR DRIVEN THE BALES. THE EIRST STAKE IN FACH BALE. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS DIRECTED BY PROJECT ENGINEER. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR REBARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

ANCHORING DETAIL

2 REBARS, STEEL PICKETS OR 2"x 2" HARDWOOD STAKES DRIVEN 1 1/2' TO 2' IN GROUND

- WIRE OR NYLON BOUND HAY BALES PLACED ON THE CONTOUR

HAY BALE SEDIMENT BARRIER

EXTEND WOODEN 2X4 TO GRADE TO DELINEATE END OF STUB FOR FUTURE CONNECTION, TERMINATE/AND PLUG LATERAL AT STREETLINE.
PLUG TO BE IDENTIFIED AS SANITARY
OR STORM 6" OF 3/4" CRUSHED STONE SURROUNDING PIPE EXISTING SURFACE TYPICAL NOT TO SCALE NOTE
LOCATION / WARNING TAPE SHALL BE INSTALLED OVER CENTERLINE OF PIPE AT A MAXIMUM OF 24 INCHES BELOW FINISH GRADE. HOUSE WOODEN ELEVATION VIEW LATERAL 2X4 07 SLOPE 45° BELL AND SPIGOT ELBOW PLAN VIEW WYE -9-45, 4" CONNECTION 200000 FLOW DETAILS WYE BRANCH MAIN SEWER

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