Maintenance Plan for Ponds & Best Management Practices

Site Inspection & Maintenance During Construction:

Weekly inspections, as well as routine inspections following rainfalls, shall be conducted by the General Site Contractor of all temporary and permanent erosion control devices until final acceptance of the project (85% grass catch). 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 General Contractor as required. Disposal of all temporary erosion control devices shall be the responsibility of the General Contractor.

Maintenance Agreement:

Short-term sedimentation maintenance shall be the responsibility of the Contractor to clean out all swales, structures and ponds prior to turning project over to the Owners. After project turnover, the Owner shall be the responsible party for inspecting and maintaining a pond and proper functioning of all stormwater conveyance practices and measures. The Owner may assign an environmental manager to carry out specific tasks identified below.

Ponds

Clearing Inlets and Outlets of Ponds (where applicable):

The inlet and outlet of a pond shall be checked periodically to ensure that flow structures are not blocked by debris. All ditches and pipes connecting ponds in series shall be checked for debris that may obstruct flow. Inspections shall be conducted monthly during wet weather conditions from March to November.

Ponds shall be inspected on an annual basis for erosion, destabilization of side slopes, embankment settling, and other signs of structural failure. Brief inspections shall be conducted following major storms. Corrective action shall be taken immediately upon identification of problem area. Records shall be kept of all maintenance operations at jobsite to help plan future work and identify problem

Maintenance Dredging:

Wet ponds typically lose 1% of their volume annually due to sediment accumulation. Dredging is required when accumulated volume loss reaches 15% or approximately every 15-20 years.

Drainage Area Inspections:

The owners' environmental manager shall inspect the basin's drainage area semi-annually for eroding soil and other sediment sources. Repair eroding areas using appropriate erosion control BMP's immediately. Control sediment sources, such as stockpiles of winter sand, by removing them from the basin's drainage area or surrounding them with sediment control BMP's.

A basin with a turf lining shall have its side-slopes and top of berm mowed at least twice a year to prevent woody growth. Clippings shall be removed to minimize the amount of organic material

Sediment Removal:

accumulating in the basin.

Remove accumulated debris and sediments from the sediment forebays, inlet plunge pools, and pre-treatment BMP's at least annually.

The ponds are not to be used for snow storage. Snow storage shall be sited so that snowmelt flows to a pre-treatment BMP before reaching the pond basin.

Pedestrian Access:

Limit access to ponds to passive recreational use.

Prohibit vehicle access to all ponds, except that authorized for maintenance.

Structures and Other Measures

Parking lots and streets shall be mechanically swept once per year. The first shall take after winter sanding operations terminate, prior to May 1.

Ditches/Swales:

Open swales and ditches need to be inspected on a monthly basis or after a major rainfall event to assure that debris or sediments do not reduce the effectiveness of the system. Debris needs to be removed at that time. Any sign of erosion or blockage shall be immediately repaired to assure a vigorous growth to vegetation for the stability of the structure and proper functioning.

Vegetated Ditches:

Vegetative should be mowed at least monthly during the growing season to a height of not less than 3 inches. Larger brush or trees must not be allowed to become established in the channel. Unless finely mulched, clippings should be removed to minimize the amount of organic material accumulating in the swales. Any areas where the vegetation fails will be subject to erosion and should be repaired and

Stone Lined Channels:

Where stone is displaced from constructed riprap areas, it should be replaced and chinked to assure stability. With time, riprap may need to be added. Vegetation growing through riprap should be removed on a yearly schedule.

If sediment in culverts or piped drainage systems exceeds 20% of the diameter of the pipe, it should be removed. This may be accomplished by mechanical means or hydraulic flushing. Care should be taken to prevent the release of the sediments into the downstream receiving areas. All. pipes should be inspected on an annual basis.

Catch Basin/Field Inlets:

All catch basins, and any other field inlets throughout the collection system, need to be inspected on a monthly basis to assure that the inlet entry point is clear of debris and will allow the intended water entry. At that time, these will be cleared if necessary. On a yearly basis, or when sediment reaches two thirds of the total volume, catch basins need to be vacuumed and cleaned of all accumulated sediment. Work must be done by a vacuum truck. The removed material must be disposed of in accordance with State of Maine Solid Waste Disposal Rules.

Level Spreaders & Ditch Turnout Sediment Traps:

Inspect and remove debris. Inspect for flow bypass or undermining. Repair any channelization if occurring and remove sediment build-up to assure potential storage volume and sheet flow characteristics of the discharge lip. Perform inspection on a semi-annual basis at a minimum. All work should be performed from the up gradient side, do not disturbed the down gradient receiving area or discharge edge.

EROSION CONTROL NOTES FOR PONDS

- 1) THE FOLLOWING CRITERIA FOR EROSION AND SEDIMENT CONTROL SHALL BE IMPLEMENTED WHEN CONSTRUCTING A POND STRUCTURE.
- 2) WHEN POSSIBLE, CONSTRUCT POND TO TAKE ADVANTAGE OF SEASONS WITH LOW OR NO RAINFALL CONDITION (GENERALLY LATE SUMMER MONTHS) TO MINIMIZE DOWNSTREAM IMPACTS FROM EROSION. WATER SHALL NOT BE CHANNELED TO POND UNTIL POND IS STABILIZED WITH VEGETATIVE AND STRUCTURAL MEASURES.
- 3) INSTALL SILT FENCE ON DOWNSLOPE SIDE OF CONSTRUCTION.

4) STRIP LOAM FROM SITE AND STOCKPILE (TEMPORARY SEED COVER IF NECESSARY)

- 5) CONSTRUCT POND TO GRADE. SPREAD LOAM, SEED AND MULCH THE SITE. ALL AREAS DISTURBED DURING INSTALLATION SHALL BE STABILIZED (HAY MULCH) WITHIN 14 DAYS (7 CALENDAR DAYS IN A LAKE WATERSHED OR DURING WINTER CONSTRUCTION) OR PRIOR TO A SIGNIFICANT RAINFALL EVENT IN ACCORDANCE WITH "BEST MANAGEMENT PRACTICES".
- 6) INSTALL EROSION CONTROL BLANKETS ON ALL SURFACES WITH STEEP SLOPES (GREATER THAN 15%). ANCHOR BLANKETS TO MANUFACTURERS SPECIFICATIONS. AREAS THAT RECEIVE HAY MULCH SHALL BE SPREAD AT A RATE OF 150 POUNDS PER 1000 SQUARE FEET DURING WINTER
- 1) INSPECT AND MAINTAIN POND CONSTRUCTION FOR EROSION OR SILTATION. CONSTRUCT CORRECTIVE MEASURES SHOULD SEDIMENT ENTER DOWNSTREAM AREAS.

CONSTRUCTION OF PONDS

- 1) THE FOUNDATION AREA SHALL BE CLEARED OF ALL TREES, STUMPS, ROOTS, BRUSH, BOULDERS, SOD AND OTHER DEBRIS. REMOVE ALL MUCK, PEAT, AND ANY SOIL WITH A HIGH ORGANIC CONTENT FROM THE FOUNDATION AREA. THE SURFACE OF THE FOUNDATION AREA WILL BE THOROUGHLY SCARIFIED BEFORE PLACEMENT OF THE EMBANKMENT FILL MATERIAL.
- 2) FILL MATERIAL SHOULD INCLUDE A WELL GRADED MIXTURE OF COARSE AND FINE TEXTURED MATERIALS. AN IDEAL MATERIAL CONTAINS PARTICLES RANGING FROM SMALL GRAVEL OR COARSE SAND TO FINE SAND AND SHOULD INCLUDE IS TO 25 PERCENT (BY WEIGHT) OF FINE CLAY
- 3) FILL MATERIAL SHALL NOT BE PLACED ON FROZEN, SLICK OR SATURATED SOIL.
- 4) THE MATERIAL PLACED IN THE FILL SHALL BE FREE OF ALL SOD, ROOTS, FROZEN SOIL, STONES LARGER THAN 6" IN DIAMETER, AND OTHER OBJECTIONABLE MATERIAL. THE PLACING AND SPREADING OF THE FILL MATERIAL SHALL BEGIN AT THE LOWEST ELEVATION OF THE FOUNDATION, AND THE FILL SHALL BE BROUGHT UP IN 6" TO 8" LIFTS OF LOOSE SOIL. EACH LAYER SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM SOIL DENSITY. CONSTRUCTION EQUIPMENT SHALL BE OPERATED OVER EACH LAYER IN SUCH A WAY THAT WILL RESULT IN THE REQUIRED COMPACTION THROUGHOUT THE EMBANKMENT AREAS.
- 5) THE MOISTURE CONTENT SHALL BE SUCH THAT THE FILL MATERIAL CAN BE COMPACTED TO 95% OF THE MAXIMUM SOIL DENSITY.
- 6) ALL EXCAVATIONS AND EMBANKMENTS INCLUDING SPILLWAYS SHALL CONFORM TO THE LINES, GRADES, WIDTHS, SIDESLOPES, AND ELEVATIONS AS SHOWN ON THE PLANS AS NEARLY AS SKILLFUL OPERATIONS OF THE EXCAVATION EQUIPMENT WILL PERMIT.
- 1) A PERMANENT LOG OF ALL ACTIVITIES SHALL BE KEPT OF ANY PROBLEMS/REPAIRS TO THE POND AS PART OF THE LONG TERM MAINTENANCE RESPONSIBILTIES OF THE OWNER. THE LOG SHALL IDENTIFY THE INSPECTOR, DATE OF INSPECTION, PROBLEM AREAS, LOCATION, AND DATE OF

EROSION AND SEDIMENT CONTROL PRACTICES

This plan has been developed to provide a strategy for dealing with soil erosion during and after the construction of access roads, driveways, buildings, and utilities at the Central Maine Commerce Center construction site. This plan is based on the standards and specifications for erosion prevention as contained in the Environmental Quality Handbook for Erosion and Sediment Control dated March 1986, Stormwater Management Manual by Greater Portland Council of Governments and "Best Management Practices" by the Soil and Water Conservation District and adopted by the Maine

Construction is expected to begin immediately following obtaining permits for approval. It is hopeful that construction will begin in the Fall of 2005 and be complete in late Summer of 2006. Special attention should be given to the sections pertaining to fall and winter seeding.

The principal erosion control devices will be hay bale barriers, silt fences, riprap, mulch, erosion control blankets, and seed to protect existing trees, houses, and drainage paths from the regions undergoing construction. Steep slopes shall be dressed with biodegradable erosion control netting Other features such as grassed waterways and landscaping will be constructed as permanent erosion controls.

Hay bales barriers shall be placed along the contour and perpendicular to the predominant slope of the land on the downslope side behind individual houses and/or road construction. Bales are to be staked and embedded 4" into the soil with ends tightly abutting adjacent bales. In areas of significant erosion, placement of filter fabric along uphill side of hay bale is prudent.

Silt fencing shall be installed along the contour and perpendicular to the predominant slope of the land just beyond the downslope limits of clearing and grubbing and/or just above any adjacent property line and streams where indicated on the plan to protect against construction related erosion. Installation shall be as shown on the plans or approved equal.

Riprap materials shall be placed as shown in all inlets/outlets of pipe culverts (within 24 hours of culvert installation) These aprons will prevent scour at stormwater outlets and minimize the potential for downstream erosion by reducing the velocity of concentrated stormwater flows. Average design size stone, D50, shall be as called out in the detail on the plans. Largest size of stone in the riprap is to

Protective mats on steep slopes will aid in controlling erosion on critical areas during the establishment period of vegetation. Jute erosion control mats are shown on the plan.

Naturally vegetated buffers and grass filter strips remove sediment and other pollutants from runoff by infiltration, deposition, absorption and decomposition. Filters are effective only if used to remove sediment from sheet (overland) flow.

Riprap swales (ditches) shall be placed as shown on the drawings. These swales are a minimum of two feet in depth and have D50 stone size that is designed to withstand the maximum allowable velocity for the waterway. Stones are to be placed on a 6" gravel bedding or geotextile fabric such as Mirafi 140N. Any section of ditch brought to final grade will be stabilized within 24 hours

Diversion ditches are to be created where indicated on plans to divert stormwater runoff away from unprotected or steep slopes to a stabilized outlet. Berms are to be a minimum of 1' deep and 5' wide. Grades of diversion berm is not to exceed 2% unless appropriate structural measures (riprap, paved flumes) are taken. Disturbed areas are to be stabilized immediately after construction.

A stone check dam is a filtering and energy dissipation device that limits the erosion process. These dams are 2"-3" crushed stone, 24" in height and are placed in drainage ditches as a temporary erosion control measure. The dams are to be removed prior to final acceptance of the project and riprap installed in its' place. (See typical detail)

Stabilized construction entrance is to be placed during construction, where traffic is entering or leaving construction site. This will reduce or eliminate the tracking or flowing of sediment onto public rights of way. A 8" thick layer of 1 1/2"-3" crushed stone 50' in length has been designed and shown on the plan. (See typical detail)

Level spreaders are used to convert channelized runoff to sheet flow. Since the spreader is built at zero percent grade, it significantly reduces the velocity of the channelized flow and allows it to be discharged at non-erosive velocities onto undisturbed areas that have existing vegetation capable of preventing erosion. They can be used with roadway ditch turnouts to divert the runoff into a naturally vegetated buffer area. This procedure is an effective method for reducing the export of phosphorus from a developed site.

1. Topsoil on site shall be stockpiled at a stable location on site and covered with anchored mulch for temporary erosion control.

2. If any disturbed area of soil will be left bare for more than two weeks, or if construction is to be completed in phases over an extended duration, temporary seeding and mulching shall commence immediately following initial fine grading of site. Areas of disturbed soil brought to final grade will be stabilized with permanent measures within seven days. In sensitive areas (within 25 of wetlands or streams) temporary mulch must applied within 7 days or prior to any storm event on all disturbed surfaces. It shall be maintained and reseased as necessary to insure good vegetative cover for the entire duration of construction. Seed will be selected from the following table, according to the time of the year.

Temporary Seed Mixture

5eed	lbs acre	lbs 1000 sf	Recommended Seeding Date
Winter Rye	112	2.6	8/15 - 10/1
Oate or Annual	80	1.8	4/1 - 7/1 and
Ryegrass	40	<i>0.</i> 9	8/15 - 9/15
Sudangrass	40	<i>©.</i> 9	5/15 - 8/15
Perennial Ryegrass	40	<i>©.</i> 9	8/15 - 9/15
Temporary Mulch with or without dormant seeding		Winter Mulch Rate	IØ/I - 4/I

Mulch will be applied with seeding according to mulch table.

- If it is not possible to seed 45 days or more prior to frost, than dormant seeding and anchored
- 3. Permanent seedings of grass cover shall be applied to all disturbed areas. All surface water control measures and final land grading in the vicinity should be completed. Ground preparation shall include tilling to a minimum 3" depth of fine but friable soil free of clods or stones. Permanent seed shall be selected according to its final destination. (See permanent seed mixture table)
- 4. All seeding will require mulch. Mulch provides several benefits: conserves moisture, prevents surface compaction, improves water quality, reduces runoff and erosion, controls weeds, and helps establish plant cover. Mulch shall be applied according to the following tables:

Permanent Seed Mixture

Mixture	Application Rate		
	Parke & Lawne lbe/l000 ef	Roadside Areas, ditches, basins lbs/1000 sf	
Kentucky Bluegrass	.46	.46	
Creeping Red Fescue	.46	<i>.</i> 05	
Perennial Ryegrass	.11	.46	
Redtop			
Tall Fescue			
Total Seed Rate	1.03	Ø.9T	

1. The contractor may wish to final seed from 10/1 to 11/1 with the same soil preparations, seeding mixes (doubling the seed rate) and mulching, but it may result in winter kill. Vegetation must be inspected and reseeded as necessary in the following spring to assure good vegetative cover.

- 2. No seeding shall be permitted on the snow.
- 3. Mulch shall be applied after all seed applications.
- 4. Permanent seedings should be made 45 days or more prior to the first killing frost or as a dormant seeding after the first killing frost.

Maintenance

During the period of construction and/or until long term vegetation is established:

Seeded areas will be fertilized and reseeded as necessary to insure 75% vegetative establishment.

At a minimum, the hay bale/silt fence barriers shall be inspected and repaired once a week and immediately following all significant rainfall or snow melt. Sediment trapped behind these barriers shall be excavated when it reaches a depth of 6 six inches and regraded onto the site.

Diversion ditches and swales will be checked weekly and repaired when necessary until adequate vegetation is established.

The Owner and contractor shall be responsible for the construction and maintenance of all proposed temporary and permanent erosion control measures including vegetation. The contractor must install or construct all required improvements shown on the plans. The contractor must incorporate all other site improvements, restrictions, construction limits, drainage improvements, natural vegetated buffers, proposed landscaping, etc. The contractor must obtain a complete set of plans, reports and documents pertaining to the project before beginning construction.

All temporary erosion control devices shall be removed from the site by the contractor after construction is complete and the site is permanently stabilized.

WINTER CONSTRUCTION (as applicable)

The winter construction period is from November 1 through April 15. If the construction site is not stabilized with pavement, a road gravel base, 75 % mature vegetation cover or riprap by November 15, then the site needs to be protected with over-winter stabilization. An area considered open is any area not stabilized with pavement± vegetation, mulching, erosion control mats, riprap or gravel base on a road. Winter excavation and earthwork shall be completed such that no more than I 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

All areas shall be considered to be denuded until the subbase gravel is installed in roadway areas or the areas of future loam and seed have been loamed, seeded and mulched. 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 must 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 minimize areas without erosion control protection.

SOIL STOCKPILES

Stockpiles of soil or subsoil will be mulched for over winter protection with hay or straw at twice the normal rate or at 150 lbs/1,000 s.f. (3 tons per acre) or with a four-inch (4") layer of woodwaste erosion control mix. This will be done within 24 hours of stocking and re-established prior to any rainfall or snowfall. Any soil stockpile will not be placed (even covered with hay or straw) within 100 feet from any natural resources.

NATURAL RESOURCES PROTECTION

Any areas within 100 feet from any natural resources, if not stabilized with a minimum of 75 % mature vegetation catch, shall be mulched by December 1 and anchored with plastic netting or protected with erosion control mats.

During winter construction, a double line of sediment barriers (i.e. silt fence backed with hay bales or erosion control mix) will be placed between any natural resource and the disturbed area.

Projects crossing the natural resource shall be protected a minimum distance of 100 feet on either side from the resource. Existing projects not stabilized by December 1 shall be protected with the second line of sediment barrier to ensure functionality during the spring thaw and rains.

During frozen conditions, sediment barriers shall consist of erosion control filter berms as frozen soil prevents the proper installation of hay bales and sediment silt fences.

All area shall be considered to be denuded until areas of future loam and seed have been loamed, seeded and mulched. Hay and straw mulch shall be applied at a rate of 150 lb. per 1,000 square feet or 3 tons/acre (twice the normal accepted rate of 75-lbs/1,000 s.f. or 15 tons/acre) and shall be

Mulch shall not be spread on top of snow. The snow will be removed down to a one-inch depth or less prior to application.

After each day of final grading, the area will be properly stabilized with anchored hay or straw or erosion control mattina

An area shall be considered to have been stabilized when exposed surfaces have been either mulched with straw or hay at a rate of 150 lb. per 1,000 square feet (3 tons/acre) and adequately anchored so that the ground surface is not visible through the mulch. Between the dates of November I and April 15, all mulch shall be anchored by either peg line, mulch netting, asphalt emulsion chemical, tracking into the surface or wood cellulose fiber. The mulch cover is sufficient when the ground surface is not visible. After November I, mulch and anchoring of all bare

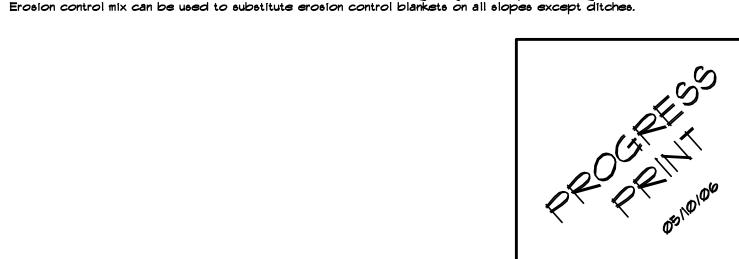
MULCHING ON SLOPES AND DITCHES

soil shall occur at the end of each final grading work day.

Slopes shall not be left exposed for any extended time of work suspension unless fully mulched and anchored with peg and netting or with erosion control blankets. Mulching shall be applied at a rate of 230 lbs/1,000 of on all slopes greater than 8%.

Mulch netting shall be used to anchor mulch in all drainage ways with a slope greater than 3 % for slopes exposed to direct winds and for all other slopes greater that 8%.

Erosion control blankets shall be used in lieu of mulch in all drainage ways with slopes 8% or greater.



Between the dates of October 15 and April 1, loam or seed will not be required. During periods of above freezing temperatures, finished areas shall be fine graded and either protected with mulch or temporarily seeded and mulched until such time as the final treatment can be applied. If the date is after November I and the exposed area has been loamed and final graded with a uniform surface, then the area may be dormant seeded at a rate of 3 times higher than specified for permanent seed and

Dormant seeding may be selected to be placed prior to the placement of mulch and fabric netting anchored with staples. If dormant seeding is used for the site, all disturbed areas shall receive 4" of loam and seed at an application rate of 5lbs/1000 s.f. All areas seeded during the winter will be inspected in the spring for adequate catch. All areas insufficiently vegetated (less than 75 % catch) shall be revegetated by removing the mulch and reseeding and remulching.

If dormant seeding is not used for the site, all disturbed areas shall be revegetated in the spring.

TRENCH DEWATERING AND TEMPORARY STREAM DIVERSION Water from construction trench dewatering or temporary stream diversion will pass first through a filter bag or secondary containment structure (e.g. hay bale lined pool) prior to discharge. The discharge site shall be selected to avoid flooding, icing, and sediment discharges to a protected resource. In no case shall the filter bag or containment structure be located within 100 feet of a protected

INSPECTION AND MONITORING

slope for late fall and winter.

root growth into the disturbed soil.

natural resource.

Maintenance measures shall be applied as needed during the entire construction season. After each rainfall, snow storm or period of thawing and runoff, the site contractor shall perform a visual inspection of all installed erosion control measures and perform repairs as needed to insure their continuous function. Following the temporary and/or final seeding and mulching, the contractor shall inspect and repair any damages and unvegetated spots. Established vegetative cover means a minimum of 85 to 90 % of areas vegetated with vigorous growth.

STANDARDS FOR TIMELY STABILIZATION OF CONSTRUCTION SITES DURING WINTER

by September 15. If the contractor fails to stabilize a ditch or channel to be grass-lined by September

Standard for the timely stabilization of ditches and channels: The contractor will construct and stabilize all stone-lined ditches and channels on the site by November 15. The contractor will construct and stabilize all grass-lined ditches and channels on the site

15, then the contractor will take one of the following actions to stabilize the ditch for late fall and

Install a sod lining in the ditch: The contractor will line the ditch with properly installed sod by October I. Proper installation includes the contractor pinning the sod onto the soil with wire pins, rolling the sod to quarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil.

Install a stone lining in the ditch: The contractor will line the ditch with stone riprap by November 15. The contractor will hire a registered professional engineer to determine the stone size and lining thickness needed to withstand the anticipated flow velocities and flow depths within the ditch. If necessary, the contractor will regrade the ditch prior to placing the stone lining so to prevent the stone lining, from reducing the ditch's cross-sectional area.

Standard for the timely stabilization of disturbed slopes: The applicant will construct and stabilize stone-covered slopes by November 15. The applicant will seed and mulch all slopes to be vegetated by September 15. The department will consider any area having a grade greater than 15% to be a slope. If the applicant fails to stabilize any slope to be vegetated by September 15, then the applicant will take one of the following actions to stabilize the

Stabilize the soil with temporary vegetation and erosion control mats: By October I the applicant will seed the disturbed slope with winter rye at a seeding rate of 3 pounds per 1000 square feet and apply erosion control mats (or mulch with jute netting) over the mulched slope. The applicant will monitor growth of the rye over the next 30 days. If the rye fails to grow at least three inches or cover at least 15% of the disturbed slope by November 1, then the applicant will cover the slope with an additional layer of winter mulch application, stone riprap, or woodwaste compost as described below.

Stabilize the slope with sod: The applicant will stabilize the disturbed slope with properly installed sod by October 1. Proper installation includes the applicant pinning the sod onto the slope with wire pins, rolling the sod to quarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil. The applicant will not use late-season sod installation to stabilize slopes having a grade greater than 33%.

Stabilize the slope with woodwaste compost: The applicant will place a six-inch layer of woodwaste compost on the slope by November 15. Prior to placing the woodwaste compost, the applicant will remove any snow accumulation on the disturbed slope. The applicant will not use woodwaste compost to stabilize slopes having grades greater than 50% or having groundwater seeps on the slope face.

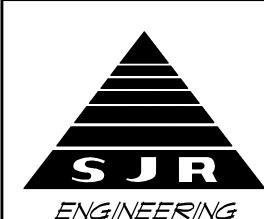
Stabilize the slope with stone riprap: The applicant will place a layer of stone riprap on the slope by November 15. The applicant will hire a registered professional engineer to dete needed for stability and to design a filter layer for underneath the riprap. 3. Standard for the timely stabilization of disturbed soils: By September 15 the applicant will seed and mulch all disturbed soils on areas having a slope less than 15%. If the applicant fails to stabilize these soils by this date, then the applicant will take one of the following actions to stabilize the soil for late

Stabilize the soil with temporary vegetation: By October 1, the applicant will seed the disturbed soil with winter rye at a seeding rate of 3 pounds per 1000 square feet, lightly mulch the seeded soil with hay or straw at 15 pounds per 1000 square feet, and anchor the mulch with plastic or jute netting. The applicant will monitor growth of the rye over the next 30 days. If the rye fails grow at least three inches or cover at least 75% of the disturbed soil before November 15, then the applicant will mulch the area for over-winter protection as described in one of the items below of this standard.

Stabilize the soil with sod: The applicant will stabilize the disturbed soil with properly installed sod by October I. Proper installation includes the applicant pinning the sod onto the soil with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote

Stabilize the soil with mulch: By November 15, the applicant will mulch the disturbed soil by spreading hay or straw at a rate of at least 150 pounds per 1000 square feet on the area so that no soil is visible through the mulch. Prior to applying the mulch, the applicant will remove any snow accumulation on the disturbed area. Immediately after applying the mulch, the applicant will anchor the mulch with plastic or jute netting to prevent wind from moving the mulch off the disturbed soil.

の5/10/06 UPDATE PL, LOTS, ROWF5会長中元の大点に3/13/425/ 10/18/05 STRIPING, UTILS, ETC. REY.* 1 9/16/05 PER D.E.P. REYIEW



S.J.R. ENGINEERING

21 MAYFLOWER ROAD AUGUSTA, MAINE TEL: (207) 622-1676

DETAILS

EROSION CONTROL NARRATIVE,

CENTRAL MAINE COMMERCE CENTER

CIVIC CENTER DRIVE - AUGUSTA, MAINE KENNEBEC COUNTY

SCALE : AS SHOWN DATE: JUNE, 2005

DRAWN BY : BOMAC CHECKED BY : SJR

PROJECT : CMCSP2 DRAWING # 13