

A PORTION OF THE SE1/4, SE1/4, SEC 12, NE1/4, NE1/4, SEC 13, TWP 26N, RGE 4E, W.M. KING COUNTY

COVER MEASURES

TEMPORARY AND PERMANENT COVER MEASURES SHALL BE PROVIDED TO PROTECT DISTURBED AREAS. TEMPORARY COVER SHALL BE INSTALLED IF AN AREA IS TO REMAIN UNWORKED FOR MORE THAN SEVEN DAYS DURING THE DRY SEASON (MAY 1 TO SEPTEMBER 30) OR FOR MORE THAN TWO DAYS DURING THE WET SEASON (OCTOBER 1 TO APRIL 30). THESE TIME LIMITS MAY BE RELAXED IF AN AREA POSSES A LOW RISK OF EROSION DUE TO SOIL TYPE, SLOPE GRADIENT, ANTICIPATED WEATHER CONDITIONS, OR OTHER FACTORS. CONVERSELY, THE COUNTY MAY REDUCE THESE TIME LIMITS IF SITE CONDITIONS WARRANT GREATER PROTECTION (E.G., ADJACENT TO SIGNIFICANT AQUATIC RESOURCES OR HIGHLY EROSION SOILS) OR IF SIGNIFICANT PRECIPITATION IS EXPECTED. ANY AREA TO REMAIN UNWORKED FOR MORE THAN 30 DAYS SHALL BE SEEDED OR SODDED, UNLESS THE COUNTY DETERMINES THAT WINTER WEATHER MAKES VEGETATION ESTABLISHMENT INFEASIBLE. DURING THE WET SEASON, SLOPES AND STOCKPILES 3H:1V OR STEEPER AND WITH MORE THAN TEN FEET OF VERTICAL RELIEF SHALL BE COVERED IF THEY ARE TO REMAIN UNWORKED FOR MORE THAN 12 HOURS. ALSO, DURING THE WET SEASON, THE MATERIAL NECESSARY TO COVER ALL DISTURBED AREAS MUST BE STOCKPILED ON SITE. THE INTENT OF THESE COVER REQUIREMENTS IS TO HAVE AS MUCH AREA AS POSSIBLE COVERED DURING ANY PERIOD OF PRECIPITATION.

MULCHING

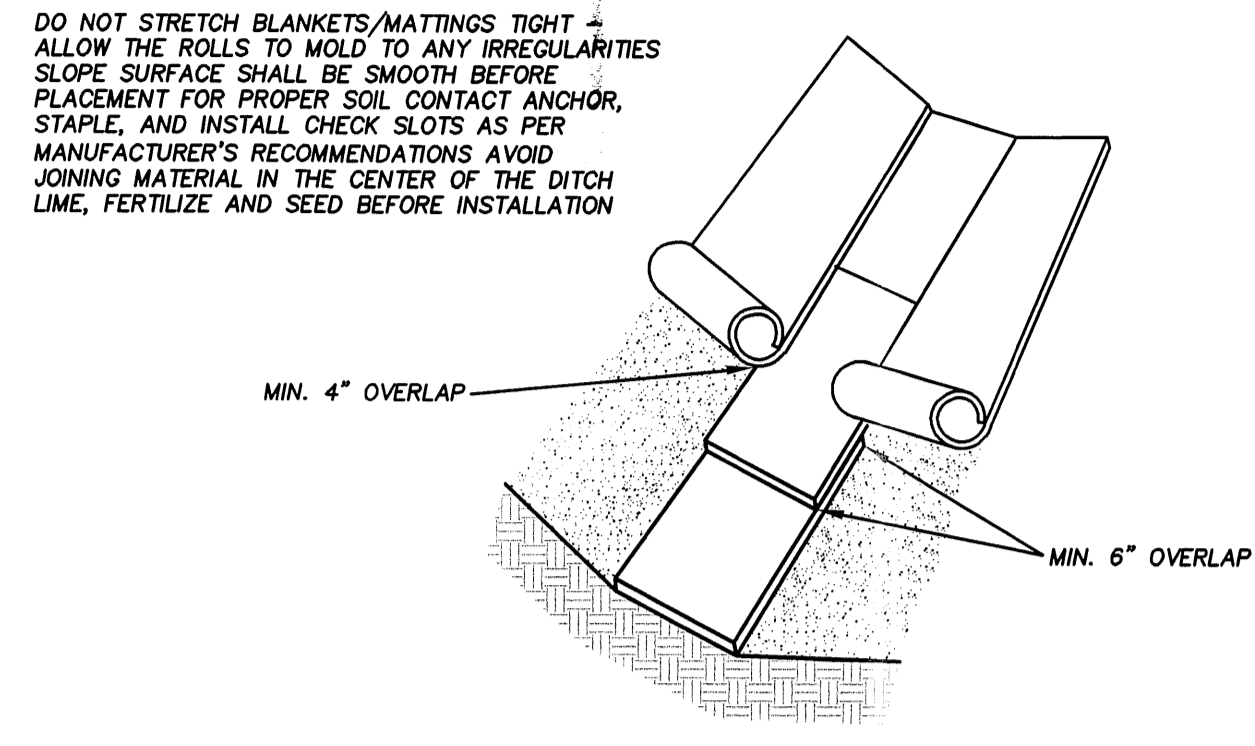
CONDITIONS OF USE

AS A TEMPORARY COVER MEASURE, MULCH SHOULD BE USED:

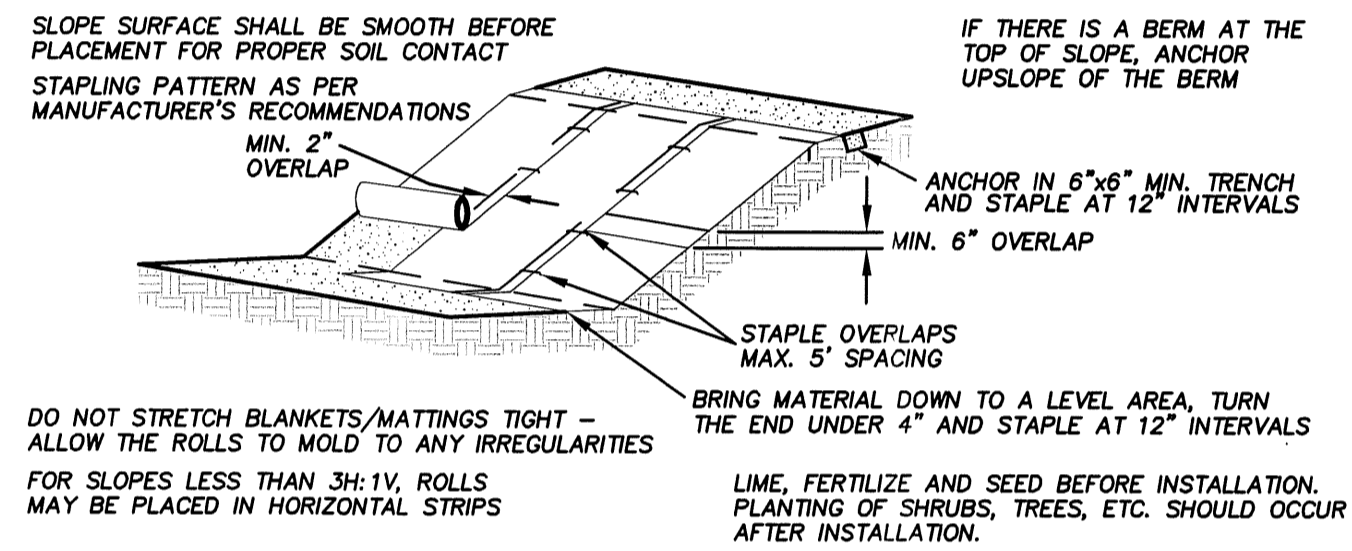
- ON DISTURBED AREAS THAT REQUIRE COVER MEASURES FOR LESS THAN 30 DAYS.
- AS A COVER FOR SEED DURING THE WET SEASON AND DURING THE HOT SUMMER MONTHS.
- DURING THE WET SEASON ON SLOPES STEEPER THAN 3H:1V WITH MORE THAN 10 FEET OF VERTICAL RELIEF.

NOTE: THICKNESSES MAY BE INCREASED FOR DISTURBED AREAS IN OR NEAR SENSITIVE AREAS OR OTHER AREAS HIGHLY SUSCEPTIBLE TO EROSION.

Mulch Material	Quality Standards	Application Rates	Remarks
Straw	As-dried; free from undesirable seed and coarse material	2"-3" thick; 2-3 bales per 1000 sq ft or 2-3 tons per acre	Cost-effective protection when applied with adequate thickness. Hand-application generally requires greater thickness than blown straw. Straw should be clipped to avoid wind blow. The thickness of straw may be reduced by half when used in conjunction with seeding.
Wood Fiber Cellulose	No growth inhibiting factors	Approx. 25-30 lbs per 1000 sq ft or 1000-1500 lbs per acre	Should be applied with hydromulcher. Shall not be used without seed and tackifier unless the application rate is at least doubled. Some wood fiber with very long fibers can be effective at lower application rates and without seed or tackifier.
Compost	No visible water or dust during handling. Must be purchased from supplier with Solid Waste Handling Permit.	2" thick min.; approx. 100 tons per acre (approx. 200 tons per acre)	More effective control can be obtained by increasing thickness to 3". Excellent mulch for protecting final grades until landscaping because it can be directly seeded or tilled into soil as an amendment. Sources for compost are available from the King County Commission for Marketing Recyclable Materials at (206) 236-4439.
Chipped Site Vegetation	Average size shall be several inches.	2" minimum thickness	This is a cost-effective way to dispose of debris from clearing and grading, and it eliminates the problems associated with burning. Generally, it should not be used on slopes above approx. 10% because of its tendency to be transported by runoff. It is not recommended within 200 feet of surface waters. If seeding is expected shortly after mulch, the decomposition of the chipped vegetation may tie up nutrients important to grass establishment.



NET OR BLANKET WATERWAY INSTALLATION
N.T.S.



NET OR BLANKET SLOPE INSTALLATION
N.T.S.

MAINTENANCE STANDARDS

- THE THICKNESS OF THE COVER MUST BE MAINTAINED.
- ANY AREAS THAT EXPERIENCE EROSION SHALL BE REMULCHED AND/OR PROTECTED WITH A NET OR BLANKET. IF THE EROSION PROBLEM IS DRAINAGE RELATED, THEN THE PROBLEM SHALL BE FIXED AND THE ERODED AREA REMULCHED.

NETS AND BLANKETS

CONDITIONS OF USE

EROSION CONTROL NETS AND BLANKETS SHOULD BE USED:

- FOR PERMANENT STABILIZATION OF SLOPES 2H:1V OR GREATER AND WITH MORE THAN 10 FEET OF VERTICAL RELIEF.
- IN CONJUNCTION WITH SEED FOR FINAL STABILIZATION OF A SLOPE, NOT FOR TEMPORARY COVER. HOWEVER, THEY CAN BE USED FOR TEMPORARY APPLICATIONS AS LONG AS THE PRODUCT IS NOT DAMAGED BY REPEATED HANDLING. IN FACT, THIS METHOD OF SLOPE PROTECTION IS SUPERIOR TO PLASTIC SHEETING, WHICH GENERATES HIGH-VELOCITY RUNOFF.
- FOR DRAINAGE DITCHES AND SWALES (HIGHLY RECOMMENDED). THE APPLICATION OF APPROPRIATE NETTING OR BLANKET TO DRAINAGE DITCHES AND SWALES CAN PROTECT BARE SOIL FROM CHANNELIZED RUNOFF WHILE VEGETATION IS ESTABLISHED. NETS AND BLANKETS ALSO CAN CAPTURE A GREAT DEAL OF SEDIMENT DUE TO THEIR OPEN, POROUS STRUCTURE. SYNTHETIC NETS AND BLANKETS CAN BE USED TO PERMANENTLY STABILIZE CHANNELS AND MAY PROVIDE A COST-EFFECTIVE, ENVIRONMENTALLY PREFERABLE ALTERNATIVE TO RIPRAP.

DESIGN AND INSTALLATION SPECIFICATIONS

NOTE: INSTALLATION IS CRITICAL TO THE EFFECTIVENESS OF THESE PRODUCTS. IF GOOD GROUND CONTACT IS NOT ACHIEVED, RUNOFF CAN CONCENTRATE UNDER THE PRODUCT, RESULTING IN SIGNIFICANT EROSION.

- JUTE MATTING MUST BE USED IN CONJUNCTION WITH MULCH. EXCLESIOR, WOVEN STRAW BLANKETS AND COIR (COCONUT FIBER) BLANKETS MAY BE INSTALLED WITHOUT MULCH.

MAINTENANCE STANDARDS

- GOOD CONTACT WITH THE GROUND MUST BE MAINTAINED, AND THERE MUST NOT BE EROSION BENEATH THE NET OR BLANKET.
- ANY AREAS OF THE NET OR BLANKET THAT ARE DAMAGED OR NOT IN CLOSE CONTACT WITH THE GROUND SHALL BE REPAIRED AND STAPLED.
- IF EROSION OCCURS DUE TO POORLY CONTROLLED DRAINAGE, THE PROBLEM SHALL BE FIXED AND THE ERODED AREA PROTECTED.

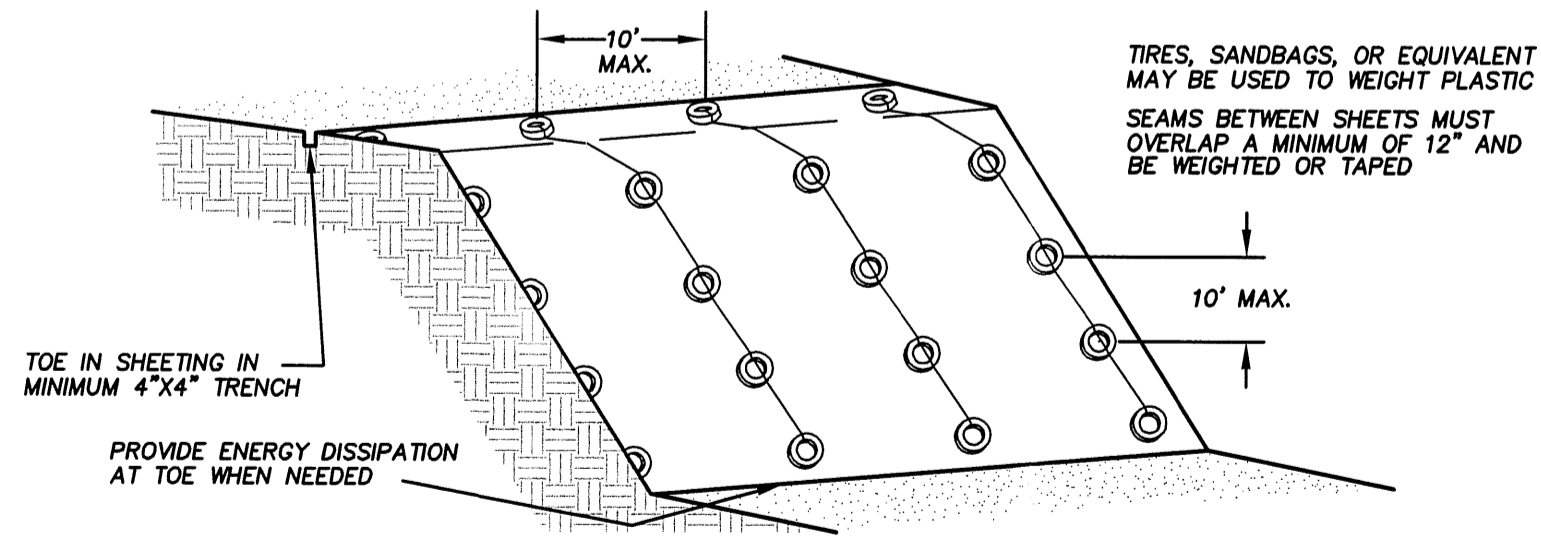
PLASTIC COVERING

CONDITIONS OF USE

- PLASTIC COVERING MAY BE USED ON DISTURBED AREAS THAT REQUIRE COVER MEASURES FOR LESS THAN 30 DAYS.
- NOTE: THE RELATIVELY RAPID BREAKDOWN OF MOST POLYETHYLENE SHEETING MAKES IT UNSUITABLE FOR LONG-TERM APPLICATIONS.
- CLEAR PLASTIC SHEETING CAN BE USED OVER NEWLY-SEEDED AREAS TO CREATE A GREENHOUSE EFFECT AND ENCOURAGE GRASS GROWTH. CLEAR PLASTIC SHOULD NOT BE USED FOR THIS PURPOSE DURING THE SUMMER MONTHS BECAUSE THE RESULTING HIGH TEMPERATURES CAN KILL THE GRASS.
- DUE TO RAPID RUNOFF CAUSED BY PLASTIC SHEETING, THIS METHOD SHALL NOT BE USED UPSLOPE OF AREAS THAT MIGHT BE ADVERSELY IMPACTED BY CONCENTRATED RUNOFF. SUCH AREAS INCLUDE STEEP AND/OR UNSTABLE SLOPES.

DESIGN AND INSTALLATION SPECIFICATIONS

- PLASTIC SHEETING SHALL HAVE A MINIMUM THICKNESS OF 0.06 MILLIMETERS.
- IF EROSION AT THE TOE OF A SLOPE IS LIKELY, A GRAVEL BERM, RIPRAP, OR OTHER SUITABLE PROTECTION SHALL BE INSTALLED AT THE TOE OF THE SLOPE IN ORDER TO REDUCE THE VELOCITY OF RUNOFF.



PLASTIC COVERING
N.T.S.

MAINTENANCE STANDARDS FOR PLASTIC COVERING

- TORN SHEETS MUST BE REPLACED AND OPEN SEAMS REPAIRED.
- IF THE PLASTIC BEGINS TO DETERIORATE DUE TO ULTRAVIOLET RADIATION, IT MUST BE COMPLETELY REMOVED AND REPLACED.
- WHEN THE PLASTIC IS NO LONGER NEEDED, IT SHALL BE COMPLETELY REMOVED.

TEMPORARY AND PERMANENT SEEDING

CONDITIONS OF USE

- SEEDING SHALL BE USED THROUGHOUT THE PROJECT ON DISTURBED AREAS THAT HAVE REACHED FINAL GRADE OR THAT WILL REMAIN UNWORKED FOR MORE THAN 30 DAYS.
- VEGETATION-LINED CHANNELS SHALL BE SEEDED.
- RETENTION/DETENTION PONDS SHALL BE SEEDED AS REQUIRED.
- AT THE COUNTY'S DISCRETION, SEEDING WITHOUT MULCH DURING THE DRY SEASON IS ALLOWED EVEN THOUGH IT WILL TAKE MORE THAN SEVEN DAYS TO DEVELOP AN EFFECTIVE COVER. MULCH IS, HOWEVER, RECOMMENDED AT ALL TIMES BECAUSE IT PROTECTS SEEDS FROM HEAT, MOISTURE LOSS, AND TRANSPORT DUE TO RUNOFF.
- AT THE BEGINNING OF THE WET SEASON, ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN BE SEEDED IN PREPARATION FOR THE WINTER RAINS. DISTURBED AREAS SHALL BE SEEDED WITHIN ONE WEEK OF THE BEGINNING OF THE WET SEASON. A SKETCH MAP OF THOSE AREAS TO BE SEEDED AND THOSE AREAS TO REMAIN UNCOVERED SHALL BE SUBMITTED TO THE DDES INSPECTOR. THE DDES INSPECTOR MAY REQUIRE SEEDING OF ADDITIONAL AREAS IN ORDER TO PROTECT SURFACE WATERS, ADJACENT PROPERTIES, OR DRAINAGE FACILITIES.
- AT FINAL SITE STABILIZATION, ALL DISTURBED AREAS NOT OTHERWISE VEGETATED OR STABILIZED SHALL BE SEEDED AND MULCHED.

DESIGN AND INSTALLATION SPECIFICATIONS

- THE BEST TIME TO SEED IS APRIL 1 THROUGH JUNE 30, AND SEPTEMBER 1 THROUGH OCTOBER 15. AREAS MAY BE SEEDED BETWEEN JULY 1 AND AUGUST 31, BUT IRRIGATION MAY BE REQUIRED IN ORDER TO GROW ADEQUATE COVER. AREAS MAY ALSO BE SEEDED DURING THE WINTER MONTHS, BUT IT WILL TAKE SEVERAL MONTHS TO DEVELOP A DENSE GROUND COVER DUE TO COLD TEMPERATURES. THE APPLICATION AND MAINTENANCE OF MULCH IS CRITICAL FOR WINTER SEEDING.
- TO PREVENT SEED FROM BEING WASHED AWAY, CONFIRM THAT ALL REQUIRED SURFACE WATER CONTROL MEASURES HAVE BEEN INSTALLED.
- THE SEEDBED SHOULD BE FIRM BUT NOT COMPACTED BECAUSE SOILS THAT ARE WELL-COMPACTED WILL NOT VEGETATE AS QUICKLY OR THOROUGHLY. SLOPES STEEPER THAN 3H:1V SHALL BE SURFACE ROUGHENED. ROUGHENING CAN BE ACCOMPLISHED IN A VARIETY OF WAYS, BUT THE TYPICAL METHOD IS TRACK-WALKING, OR DRIVING A CRAWLING TRACTOR UP AND DOWN THE SLOPE, LEAVING CLEAT IMPRINTS PARALLEL TO THE SLOPE CONTOURS.
- IN GENERAL, 10-20-20 N-P-K (NITROGEN-PHOSPHORUS-POTASSIUM) FERTILIZER CAN BE USED AT A RATE OF 90 POUNDS PER ACRE. SLOW-RELEASE FERTILIZERS ARE PREFERRED BECAUSE THEY ARE MORE EFFICIENT AND HAVE FEWER ENVIRONMENTAL IMPACTS. IT IS RECOMMENDED THAT AREAS BEING SEEDED FOR FINAL LANDSCAPING CONDUCT SOIL TESTS TO DETERMINE THE EXACT TYPE AND QUANTITY OF FERTILIZER NEEDED. THIS WILL PREVENT THE OVER-APPLICATION OF FERTILIZER. DISTURBED AREAS WITHIN 200 FEET OF WATER BODIES AND WETLANDS MUST USE SLOW-RELEASE LOW-PHOSPHOROUS FERTILIZER (TYPICAL PROPORTIONS 3-1-2 N-P-K).
- THE FOLLOWING REQUIREMENTS APPLY TO MULCHING:
 - MULCH IS ALWAYS REQUIRED FOR SEEDING SLOPES GREATER THAN 3H:1V.
 - IF SEEDING DURING THE WET SEASON, MULCH IS REQUIRED.
 - THE USE OF MULCH MAY BE REQUIRED DURING THE DRY SEASON AT THE COUNTY'S DISCRETION IF GRASS GROWTH IS EXPECTED TO BE SLOW, THE SOILS ARE HIGHLY ERODIBLE DUE TO SOIL TYPE OR GRADIENT, THERE IS A WATER BODY CLOSE TO THE DISTURBED AREA, OR SIGNIFICANT PRECIPITATION IS ANTICIPATED BEFORE THE GRASS WILL PROVIDE EFFECTIVE COVER.
 - MULCH CAN BE APPLIED ON TOP OF THE SEED OR SIMULTANEOUSLY BY HYDROSEEDING.

HYDROSEEDING IS ALLOWED AS LONG AS TACKIFIER IS INCLUDED. HYDROSEEDING WITH WOOD FIBER MULCH IS ADEQUATE DURING THE DRY SEASON. DURING THE WET SEASON, THE APPLICATION RATE SHALL BE DOUBLED BECAUSE THE MULCH AND TACKIFIER USED IN HYDROSEEDING BREAK DOWN FAIRLY RAPIDLY. IT MAY BE NECESSARY IN SOME APPLICATIONS TO INCLUDE STRAW WITH THE WOOD FIBER, BUT THIS CAN BE DETRIMENTAL TO GERMINATION.

- AREAS TO BE PERMANENTLY LANDSCAPED SHALL USE SOIL AMENDMENTS. GOOD QUALITY TOPSOIL SHALL BE TILLED INTO THE TOP SIX INCHES TO REDUCE THE NEED FOR FERTILIZER AND IMPROVE THE OVERALL SOIL QUALITY. MOST NATIVE SOILS WILL REQUIRE THE ADDITION OF FOUR INCHES OF WELL-ROTTED COMPOST TO BE TILLED INTO THE SOIL TO PROVIDE GOOD QUALITY TOPSOIL. COMPOST USED SHOULD MEET ECOLOGY PUBLICATION 98-38 SPECIFICATIONS FOR GRADE A QUALITY COMPOST.
- THE SEED MIXES LISTED BELOW INCLUDE RECOMMENDED MIXES FOR BOTH TEMPORARY AND PERMANENT SEEDINGS. THESE MIXES, WITH THE EXCEPTION OF THE WETLAND MIX, SHALL BE APPLIED AT A RATE OF 120 POUNDS PER ACRE. THIS RATE CAN BE REDUCED IF SOIL AMENDMENTS OR SLOW-RELEASE FERTILIZERS ARE USED. LOCAL SUPPLIERS SHOULD BE CONSULTED FOR THEIR RECOMMENDATIONS BECAUSE THE APPROPRIATED MIX DEPENDS ON A VARIETY OF FACTORS, INCLUDING EXPOSURE, SOIL TYPE, SLOPE, AND EXPECTED FOOT TRAFFIC. ALTERNATIVE SEED MIXES APPROVED BY THE COUNTY MAY BE USED.

	% Weight	% Purity	% Germination
Chewings or red fescue <i>Festuca rubra</i> var. <i>commutata</i> or <i>Festuca rubra</i>	40	98	90
Annual or perennial rye <i>Lolium multiflorum</i> or <i>Lolium perenne</i>	40	98	90
Redtop or colonial bentgrass <i>Agrostis alba</i> or <i>Agrostis tenuis</i>	10	92	85
White Dutch clover <i>Trifolium repens</i>	10	98	90

	% Weight	% Purity	% Germination
Perennial rye blend <i>Lolium perenne</i>	70	98	90
Chewings and red fescue blend <i>Festuca rubra</i> var. <i>commutata</i> or <i>Festuca rubra</i>	30	98	90

	% Weight	% Purity	% Germination
Dwarf tall fescue (several varieties) <i>Festuca arundinacea</i> var.	45	98	90
Dwarf perennial rye (Barclay) <i>Lolium perenne</i> var. <i>barclay</i>	30	98	90
Red fescue <i>Festuca rubra</i>	20	98	90
Colonial bentgrass <i>Agrostis tenuis</i>	5	98	90

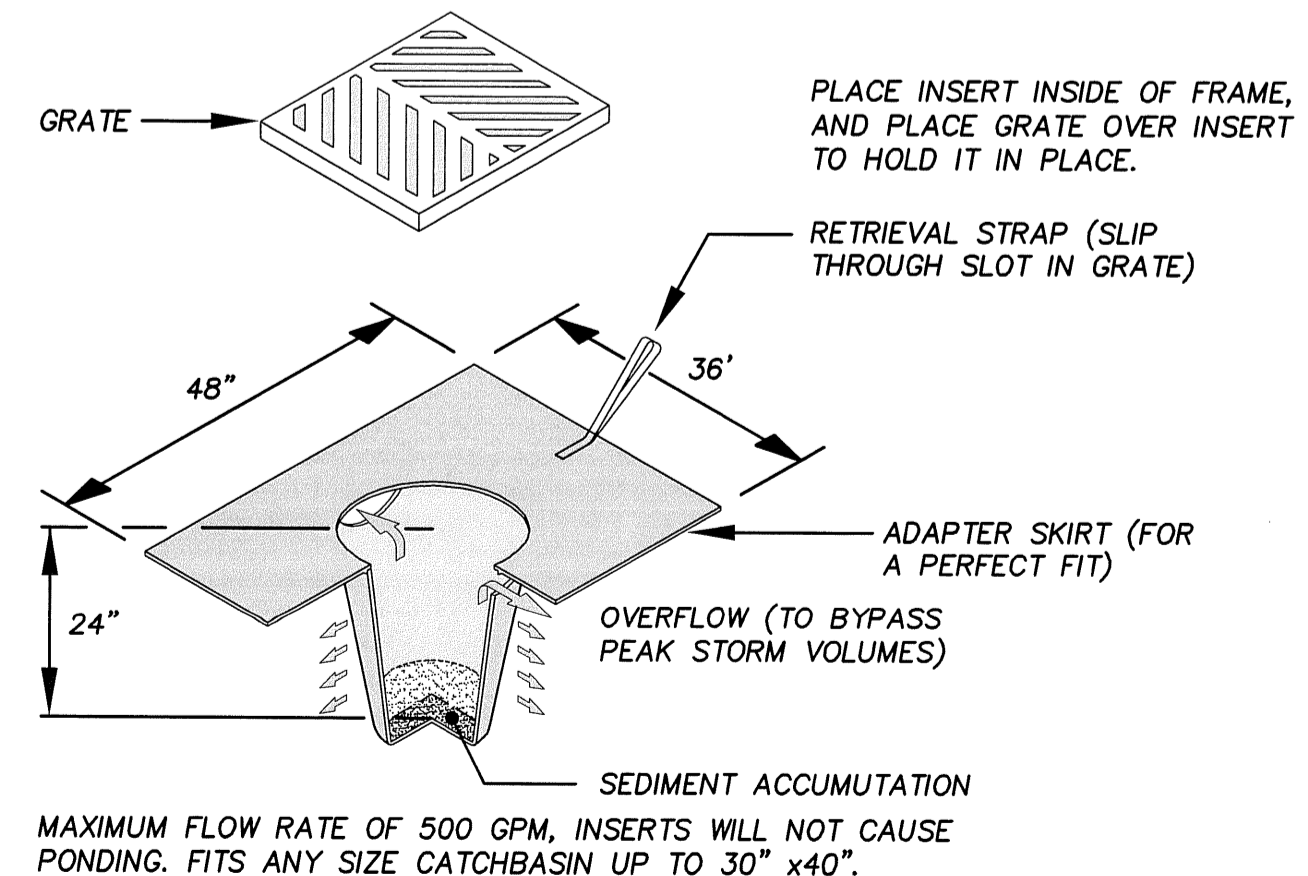
	% Weight	% Purity	% Germination
Tall or meadow fescue <i>Festuca arundinacea</i> or <i>Festuca elatior</i>	75-80	98	90
Seaside/Creeping bentgrass <i>Agrostis palustris</i>	10-15	92	85
Redtop bentgrass <i>Agrostis alba</i> or <i>Agrostis gigantea</i>	5-10	90	80

	% Weight	% Purity	% Germination
Tall or meadow fescue <i>Festuca arundinacea</i> or <i>Festuca elatior</i>	60-70	98	90
Seaside/Creeping bentgrass <i>Agrostis palustris</i>	10-15	98	85
Meadow foxtail <i>Alopecurus pratensis</i>	10-15	90	80
Alkali clover <i>Trifolium hybridum</i>	1-6	98	90
Redtop bentgrass <i>Agrostis alba</i>	1-6	92	85

	% Weight	% Purity	% Germination
Redtop or Oregon bentgrass <i>Agrostis alba</i> or <i>Agrostis oregonensis</i>	40	92	85
Red fescue <i>Festuca rubra</i>	40	98	90
White Dutch clover <i>Trifolium repens</i>	20	98	90

MAINTENANCE STANDARDS FOR TEMPORARY AND PERMANENT SEEDING

- ANY SEEDED AREAS THAT FAIL TO ESTABLISH AT LEAST 80 PERCENT COVER WITHIN ONE MONTH SHALL BE RESEEDED. IF RESEEDING IS INEFFECTIVE, AN ALTERNATE METHOD, SUCH AS SODDING OR NETS/BLANKETS, SHALL BE USED. IF WINTER WEATHER PREVENTS ADEQUATE GRASS GROWTH, THIS TIME LIMIT MAY BE RELAXED AT THE DISCRETION OF THE COUNTY WHEN SENSITIVE AREAS WOULD OTHERWISE BE PROTECTED.
- AFTER ADEQUATE COVER IS ACHIEVED, ANY AREAS THAT EXPERIENCE EROSION SHALL BE RESEEDED AND PROTECTED BY MULCH. IF THE EROSION PROBLEM IS DRAINAGE RELATED, THE PROBLEM SHALL BE FIXED AND THE ERODED AREA RESEEDED AND PROTECTED BY MULCH.
- SEEDED AREAS SHALL BE SUPPLIED WITH ADEQUATE MOISTURE, BUT NOT WATERED TO THE EXTENT THAT IT CAUSES RUNOFF.



CATCH BASIN FILTER FABRIC INSERT
N.T.S.



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TEMPORARY EROSION COVER MEASURES

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SHEET 6 OF 10