

**WET WEATHER CLEARING REQUIREMENTS**

KCC 16.82.150D

CONSTRUCTION PROJECTS CAN BE A SIGNIFICANT CONTRIBUTOR OF POLLUTION TO STREAMS AND WETLANDS. THEREFORE, FROM OCTOBER 1 THROUGH MARCH 31.

- CLEARING AND GRADING SHALL ONLY BE PERMITTED IF SHOWN TO THE SATISFACTION OF THE DIRECTOR THAT SILT-LADEN RUNOFF EXCEEDING STANDARDS IN KING COUNTY SURFACE WATER DESIGN MANUAL WILL BE PREVENTED FROM LEAVING THE CONSTRUCTION SITE THROUGH A COMBINATION OF THE FOLLOWING:
  - SITE CONDITIONS INCLUDING VEGETATIVE COVERAGE, SLOPE, SOIL TYPE AND PROXIMITY TO RECEIVING WATERS;
  - LIMITATIONS ON ACTIVITIES AND THE EXTENT OF DISTURBED AREAS; AND
  - PROPOSED EROSION AND SEDIMENTATION CONTROL MEASURES.
- THE DIRECTOR SHALL SET FORTH IN WRITING THE BASIS FOR APPROVAL OR DENIAL OF CLEARING OR GRADING DURING THIS PERIOD.
- CLEARING AND GRADING WILL BE ALLOWED ONLY IF THERE IS INSTALLATION AND MAINTENANCE OF AN EROSION AND SEDIMENTATION CONTROL PLAN APPROVED BY THE DEPARTMENT WHICH SHALL DEFINE ANY LIMITS ON CLEARING AND GRADING OR SPECIFIC EROSION AND SEDIMENT CONTROL MEASURES REQUIRED DURING THIS PERIOD. ALTERNATE BEST MANAGEMENT PRACTICES MAY BE APPROVED OR REQUIRED ON-SITE BY THE INSPECTOR.
- IF, DURING THE COURSE OF CONSTRUCTION, SILT-LADEN RUNOFF EXCEEDING STANDARDS IN THE KING COUNTY SURFACE WATER DESIGN MANUAL LEAVES THE CONSTRUCTION SITE OR IF CLEARING AND GRADING LIMITS OR EROSION AND SEDIMENT CONTROL MEASURES SHOWN IN THE APPROVED PLAN ARE NOT MAINTAINED, A NOTICE OF VIOLATION SHALL BE ISSUED.
- IF THE EROSION AND SEDIMENT CONTROL PROBLEM DEFINED IN THE VIOLATION IS NOT ADEQUATELY REPAIRED WITHIN TWENTY-FOUR HOURS OF THE NOTICE OF VIOLATION, THEN A NOTICE AND ORDER MAY BE ISSUED BY THE INSPECTOR TO INSTALL ADEQUATE EROSION AND SEDIMENT CONTROL MEASURES TO STOP SILT-LADEN RUNOFF FROM LEAVING THE SITE. THE NOTICE AND ORDER MAY ALSO REQUIRE THE CONTRACTOR TO DISCONTINUE ANY FURTHER CLEARING AND GRADING, EXCEPT FOR EROSION AND SEDIMENT CONTROL MAINTENANCE AND REPAIR, UNTIL THE FOLLOWING MARCH 31.

**EROSION CONTROL SEEDING NOTES**

**PURPOSE**

TO REDUCE EROSION AND SEDIMENTATION BY STABILIZING EXPOSED SOILS THAT WILL NOT BE BROUGHT TO FINAL GRADING OR PERMANENT COVER TREATMENT OR VEGETATION WITHIN 30 DAYS OF THE EXPOSURE.

**CONDITIONS WHERE PRACTICE APPLIES**

- PERMANENT STRUCTURES ARE TO BE INSTALLED OR EXTENSIVE GRADING OF THE AREA WILL OCCUR PRIOR TO THE ESTABLISHMENT OF PERMANENT VEGETATION.
- EXPOSED SOIL SURFACES WHICH ARE NOT TO BE FINAL GRADE WITHIN 30 DAYS.
- AREAS WHICH WILL NOT BE SUBJECTED TO HEAVY WEAR BY CONSTRUCTION TRAFFIC.
- AREAS SLOPING UP TO 10% FOR 100 FT. OR LESS.

**DESIGN CRITERIA/SPECIFICATIONS**

- TIME OF PLANTING - DURING THE TIME PERIOD BETWEEN APRIL 1 THROUGH JUNE 30 AND SEPTEMBER 1 THROUGH OCTOBER 31. (NOTE: IF PLANTING BETWEEN JULY 1 AND AUGUST 31, IRRIGATION MAY BE REQUIRED. IF PLANTING BETWEEN NOVEMBER 1 AND MARCH 31, MULCHING WILL BE REQUIRED IMMEDIATELY AFTER PLANTING.)
- SITE PREPARATION - BEFORE SEEDING, INSTALL NEEDED SURFACE RUNOFF CONTROL MEASURES SUCH AS GRADIENT TERRACES, INTERCEPTOR DIKE/SWALES, LEVEL SPREADERS AND SEDIMENT BASINS.
- SEEDBED PREPARATION - THE SEEDBED SHOULD BE FIRM, BUT NOT COMPACT, WITH A FAIRLY FINE SURFACE FOLLOWING SURFACE ROUGHENING. SURFACE ROUGHENING SHOULD BE DONE AT RIGHT ANGLES TO THE SLOPE AND PREFERABLY "CAT WALKED" UP SLOPE.
- FERTILIZATION - AS PER SUPPLIER'S RECOMMENDATIONS. DEVELOPMENTS ADJACENT TO WATER BODIES AND WETLANDS MUST USE NON-PHOSPHORUS FERTILIZER.
- SEEDING - APPLY THE FOLLOWING MIXTURE TO THE PREPARED SEED BED AT A RATE OF 20 LBS./ACRE:

| NAME                                      | PROPORTIONS BY WEIGHT | PERCENT PURITY | PERCENT GERMINATION |
|---|-----------------------|----------------|---------------------|
| REDTOP (AGROSTIS ALBA)                    | 10%                   | 92             | 85                  |
| ANNUAL RYE (LOLIUM MULTIFLORUM)           | 40%                   | 98             | 90                  |
| CHEWINGS FESQUE (FESTUCA RUBRA COMMUTATA) | 40%                   | 98             | 90                  |
| (JAMESTOWN, BANNER, SHADOW OR KOKET)      |                       |                |                     |
| WHITE DUTCH CLOVER                        | 10%                   | 95             | 90                  |

**FINAL STABILIZATION NOTES**

- ALL DISTURBED AREAS OF THE SITE SHALL BE VEGETATED OR OTHERWISE PERMANENTLY STABILIZED. AT A MINIMUM, DISTURBED AREAS SHALL BE SEEDED AND MULCHED (SECTION 5.4.2.4) WITH A HIGH LIKELIHOOD THAT SUFFICIENT COVER WILL DEVELOP SHORTLY AFTER FINAL APPROVAL. MULCH WITHOUT SEEDING IS NOT ADEQUATE TO ALLOW FINAL APPROVAL OF THE PERMIT, EXCEPT FOR SMALL AREAS OF MULCH USED FOR LANDSCAPING. THE ONLY EXCEPTIONS TO THESE REQUIREMENTS ARE LOTS WITHIN A PLAT THAT ARE TO BE DEVELOPED UNDER AN APPROVED RESIDENTIAL PERMIT IMMEDIATELY FOLLOWING PLAT APPROVAL. IN THESE CASES, MULCH AND/OR TEMPORARY SEEDING ARE ADEQUATE FOR COVER.
- STRUCTURAL MEASURES SUCH AS, BUT NOT LIMITED TO, SILT FENCES, PIPE SLOPE DRAINS, CONSTRUCTION ENTRANCES, STORM DRAIN INLET PROTECTION, SEDIMENT TRAPS AND PONDS, SHALL BE REMOVED FROM THE SITE. MEASURES THAT WILL QUICKLY DECOMPOSE, SUCH AS BRUSH BARRIERS AND ORGANIC MULCHES, MAY BE LEFT IN PLACE. IN THE CASE OF SILT FENCES, IT MAY BE BEST TO REMOVE FENCES IN CONJUNCTION WITH THE SEEDING, SINCE IT MAY BE NECESSARY TO BRING MACHINERY BACK IN TO REMOVE THEM. THIS WILL RESULT IN DISTURBED SOILS THAT WILL AGAIN REQUIRE PROTECTION. THE DDES INSPECTOR MUST APPROVE AN APPLICANT'S PROPOSAL TO REMOVE FENCING PRIOR TO THE ESTABLISHMENT OF VEGETATION. IN SOME CASES, SUCH AS RESIDENTIAL BUILDING FOLLOWING PLAT DEVELOPMENT, IT MAY BE APPROPRIATE TO LEAVE SOME OR ALL TESC MEASURES FOR USING DURING SUBSEQUENT DEVELOPMENT. THIS SHALL BE DETERMINED ON A SITE-SPECIFIC BASIS.
- ALL PERMANENT SURFACE WATER FACILITIES, INCLUDING CATCH BASINS, MANHOLES, PIPES, DITCHES, CHANNELS, R/D FACILITIES AND WATER QUALITY FACILITIES SHALL BE CLEANED. ANY OFF-SITE CATCH BASINS THAT REQUIRED PROTECTION DURING CONSTRUCTION (SECTION 5.4.5.3) SHALL ALSO BE CLEANED.
- IF ONLY THE INFRASTRUCTURE OF THE SITE HAS BEEN DEVELOPED (E.G., SUBDIVISIONS, AND SHORT PLATS) WITH BUILDING CONSTRUCTION TO OCCUR UNDER A DIFFERENT PERMIT, THEN THE SENSITIVE AREA BUFFERS AND NATIVE GROWTH PROTECTION EASEMENTS SHALL BE CLEARLY MARKED AS PER SECTION 5.4.1 IN ORDER TO ALERT FUTURE BUYERS AND BUILDERS.

**EROSION/ SEDIMENTATION CONTROL NOTES**

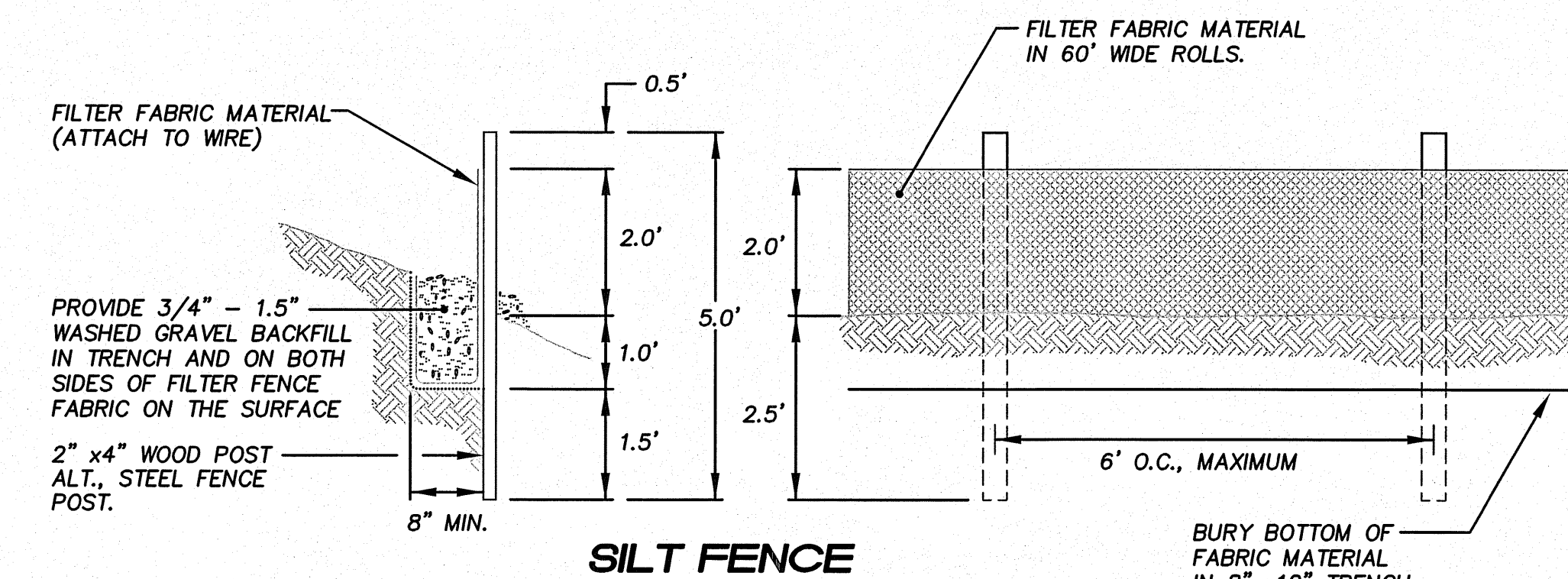
- APPROVAL OF THIS EROSION AND SEDIMENT CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
- THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/ESC SUPERVISOR UNTIL ALL CONSTRUCTION IS APPROVED.
- THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED BY SURVEY TAPE OR FENCING, IF REQUIRED PRIOR TO CONSTRUCTION (SWM APPENDIX D). DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE CLEARING LIMITS SHALL BE PERMITTED. THE CLEARING LIMITS SHALL BE MAINTAINED BY THE APPLICANT/ESC SUPERVISOR FOR THE DURATION OF CONSTRUCTION.
- STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS CONSTRUCTED WHEEL WASH SYSTEMS OR WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN AND TRACK OUT TO ROAD RIGHT-OF-WAY DOES NOT OCCUR FOR DURATION OF THE PROJECT.
- THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.
- THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G., ADDITIONAL COVER MEASURES, ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, PERIMETER PROTECTION ETC.).
- THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/ESC SUPERVISOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE KEPT OF WEEKLY REVIEWS OF THE ESC FACILITIES.
- ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO DAYS DURING THE WET SEASON OR SEVEN DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC COVER METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.).
- ANY AREA NEEDING ESC MEASURES NOT REQUIRING IMMEDIATE ATTENTION SHALL BE ADDRESSED WITHIN SEVEN (7) DAYS.
- THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN 24 HOURS FOLLOWING A STORM EVENT.
- AT NO TIME SHALL MORE THAN ONE (1) FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM.
- ANY PERMANENT RETENTION/DETENTION FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY. IF THE PERMANENT FACILITY IS TO FUNCTION ULTIMATELY AS AN INFILTRATION SYSTEM, THE TEMPORARY FACILITY MUST BE ROUGH GRADED SO THAT THE BOTTOM AND SIDES ARE AT LEAST THREE FEET ABOVE THE FINAL GRADE OF THE PERMANENT FACILITY.
- COVER MEASURES WILL BE APPLIED IN CONFORMANCE WITH APPENDIX D OF THE SURFACE WATER DESIGN MANUAL.
- PRIOR TO THE BEGINNING OF THE WET SEASON (OCT. 1), 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 FOR REVIEW.

**RECOMMENDED CONSTRUCTION SEQUENCE**

- PRE-CONSTRUCTION MEETING.
- POST NOTICE OF CONSTRUCTION ACTIVITY SIGN WITH NAME AND PHONE NUMBER OF ESC SUPERVISOR.
- FLAG OR FENCE CLEARING LIMITS.
- INSTALL CATCH BASIN PROTECTION IF REQUIRED.
- INSTALL PERIMETER PROTECTION (SILT FENCE, BRUSH BARRIER, ETC.).
- MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH KING COUNTY STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
- RELOCATE SURFACE WATER CONTROLS AND EROSION CONTROL MEASURES OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE THE EROSION AND SEDIMENT CONTROL IS ALWAYS IN ACCORDANCE WITH THE KING COUNTY EROSION AND SEDIMENT CONTROL STANDARDS.
- COVER ALL AREAS THAT WILL BE UNWORKED FOR MORE THAN SEVEN DAYS DURING THE DRY SEASON OR TWO DAYS DURING THE WET SEASON WITH STRAW, WOOD FIBER MULCH, COMPOST, PLASTIC SHEETING OR EQUIVALENT.
- STABILIZE ALL AREAS THAT REACH FINAL GRADE WITHIN SEVEN DAYS.
- SEED OR SOD ANY AREAS TO REMAIN UNWORKED FOR MORE THAN 30 DAYS.
- UPON COMPLETION OF THE PROJECT, ALL DISTURBED AREAS MUST BE STABILIZED AND BEST MANAGEMENT PRACTICES REMOVED IF APPROPRIATE.

**FILTER FABRIC FENCE INSTALLATION NOTES**

- THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP, AND BOTH ENDS SECURELY FASTENED TO THE POST.
- THE FILTER FABRIC FENCE SHALL BE INSTALLED TO FOLLOW THE CONTOURS (WHERE FEASIBLE). THE FENCE POSTS SHALL BE SPACED A MAXIMUM OF 6 FEET APART AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 30 INCHES).
- A TRENCH SHALL BE EXCAVATED, ROUGHLY 8 INCHES WIDE AND 12 INCHES DEEP, UPSLOPE AND ADJACENT TO THE WOOD POST TO ALLOW THE FILTER FABRIC TO BE BURIED.
- WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1 INCH LONG, TIE WIRES OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 4 INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
- THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 20 INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
- WHEN EXTRA STRENGTH FILTER FABRIC AND CLOSE POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POST WITH ALL OTHER PROVISIONS OF STANDARD NOTE 5 APPLY.
- THE TRENCH SHALL BE BACKFILLED WITH 3/4-INCH MINIMUM DIAMETER WASHED GRAVEL.
- FILTER FABRIC FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
- FILTER FABRIC FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

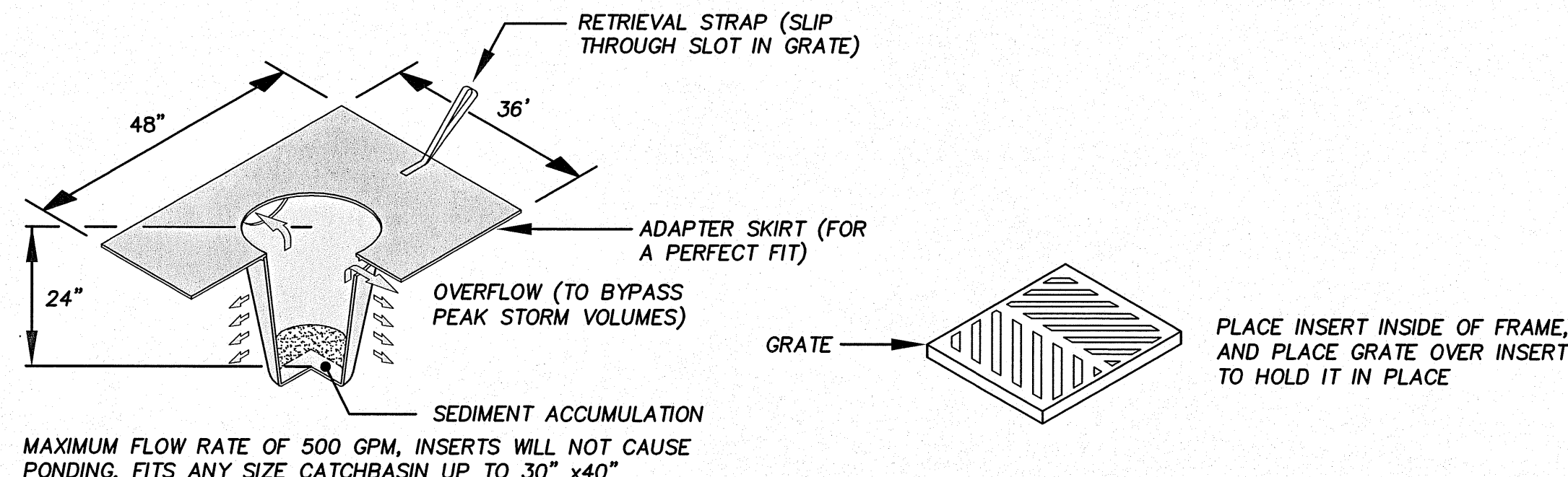


**PURPOSE:**

TO RETAIN SEDIMENT FROM VERY SMALL DISTURBED AREAS BY CONSTRUCTION OF A TEMPORARY BARRIER MADE FROM RESIDUE MATERIALS AVAILABLE FROM CLEARING AND GRUBBING THE SITE.

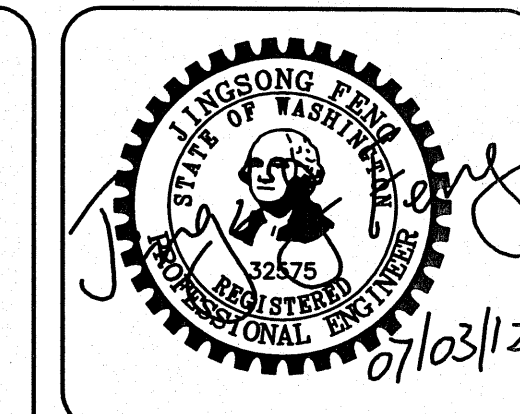
CONDITIONS WHERE PRACTICE APPLIES: BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION, WHERE ENOUGH RESIDUE MATERIAL IS AVAILABLE FOR CONSTRUCTION OF SUCH A BARRIER. NOTE: DOES NOT REPLACE THE NEED FOR A SEDIMENT TRAP OR POND.

DESIGN CRITERIA/SPECIFICATIONS: MINIMUM HEIGHT= 3.0'.  
 MAXIMUM HEIGHT= 5.0'.  
 MINIMUM WIDTH= 5.0' AT ITS BASE.  
 MAXIMUM WIDTH= 15.0'.  
 A FILTER FENCE ANCHORED OVER THE BRUSH BERM MAY BE REQUIRED BY KING COUNTY INSPECTOR TO ENHANCE THE FILTRATION ABILITY OF THE BARRIER.



**SEDIMENT FILTER INSERT**

|   |                                     |
|---|-------------------------------------|
| <b>LAKEHAVEN UTILITY DISTRICT</b>   |                                     |
| <input type="checkbox"/> Water Plan   | <input type="checkbox"/> Sewer Plan |
| Dated _____   |                                     |
| <b>APPROVED FOR CONSTRUCTION</b><br>SUBJECT TO CHANGES NOTED  |                                     |
| The District's review is not a check of any dimension or quantities and will not relieve the Developer from responsibility for errors of any sort. No changes shall be made in the plans except by the consent of the District. |                                     |
| General Manager/District Engineer   | Date                                |
| This construction plan will expire one year from plan approval date, if construction has not commenced.   |                                     |



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 Civil Engineering and Planning Consultants

LAKEHAVEN UTILITY DISTRICT PROJECT No. 6308021  
**RAM NIWAS CHURCH**  
 KING COUNTY, WA  
 FOR: SARKAR HOLDINGS, LLC  
 27902 36TH AVENUE SOUTH  
 AUBURN, WA 98001

PROJECT NO.: 10021  
 DRAWN BY: CJB  
 ISSUE DATE: 08-31-2011  
 SHEET REV.: 07-03-2012

**TEMPORARY EROSION CONTROL NOTES AND DETAILS**

10021TESCNT01.DWG  
**SS11**