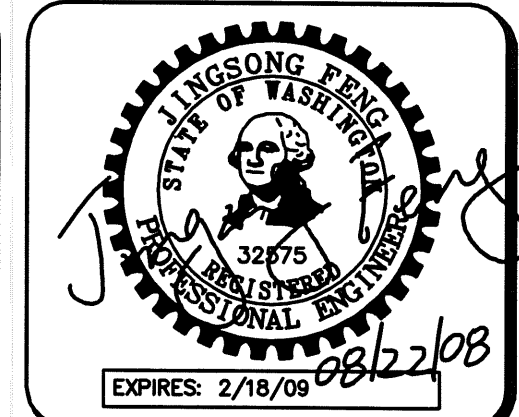


NW 1/4 OF SW 1/4 OF SEC. 34, T. 24 N., R. 05 E., W.M.

APPROVED FOR CONSTRUCTION

BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
CITY OF NEWCASTLE

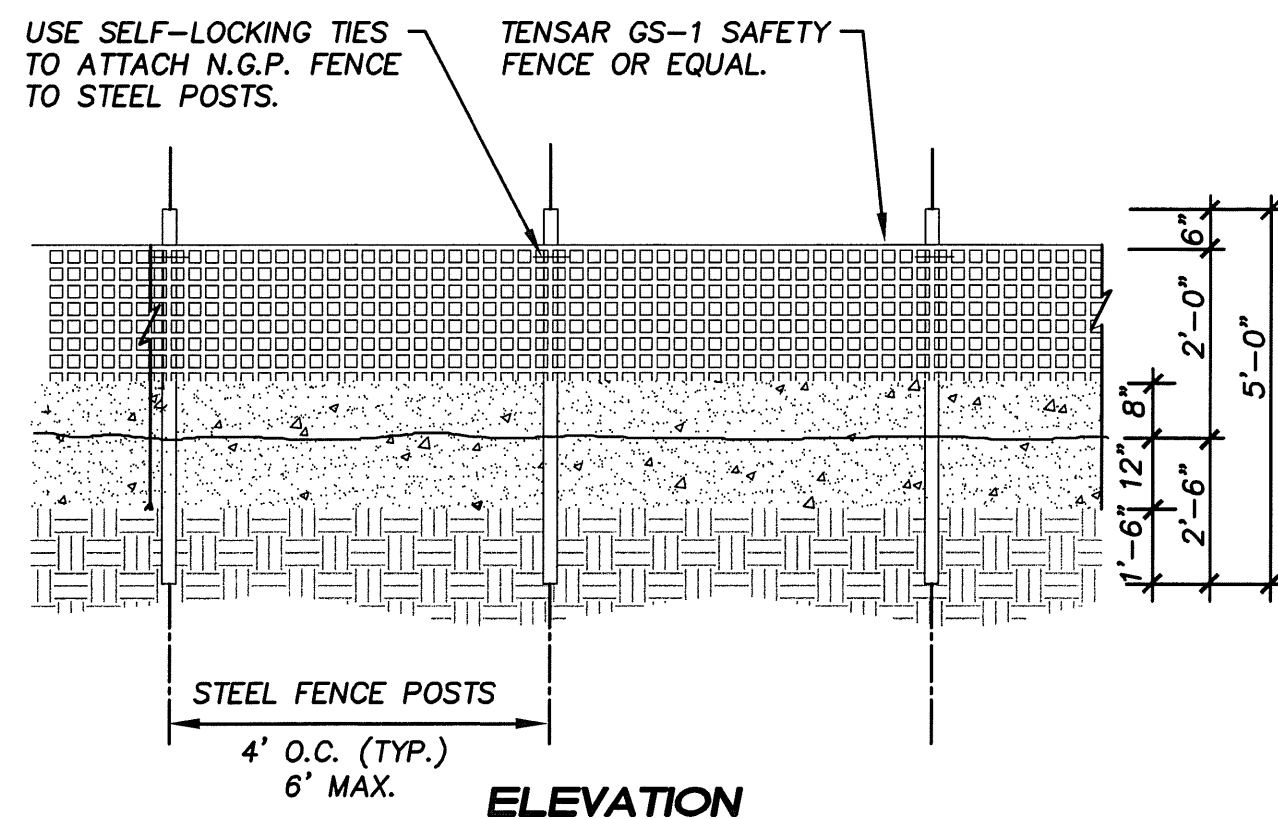
THESE DRAWINGS ARE APPROVED FOR CONSTRUCTION FOR A PERIOD OF 12 MONTHS FROM THE DATE SHOWN HEREON. THE CITY RESERVES THE RIGHT TO MAKE REVISIONS, ADDITIONS, DELETIONS, OR MODIFICATIONS SHOULD CONSTRUCTION BE DELAYED BEYOND THIS TIME LIMITATION. THE CITY, BY APPROVING THESE DRAWINGS, ASSUMES NO LIABILITY IN REGARDS TO THEIR ACCURACY OR OMISSIONS.



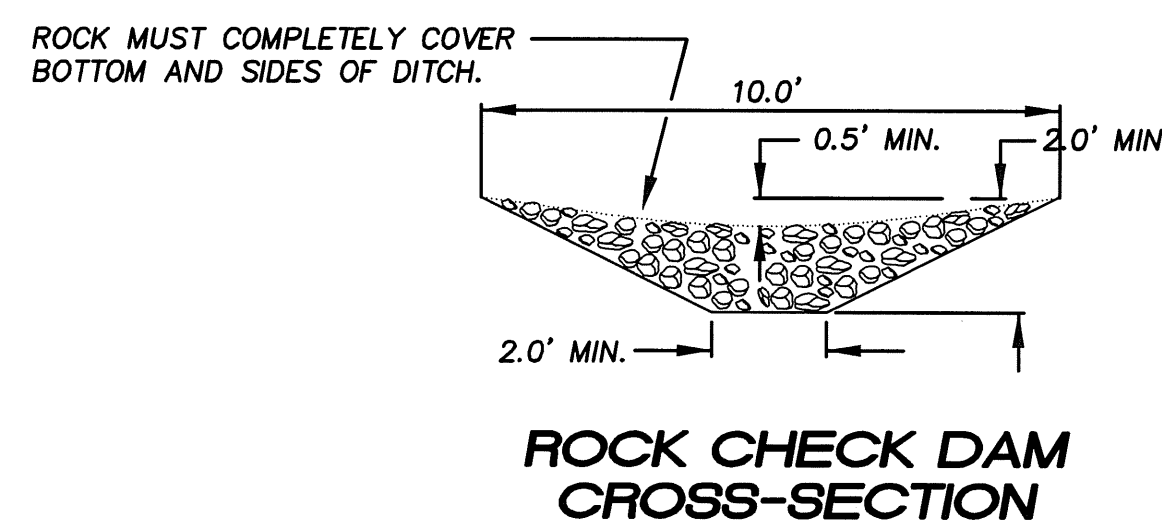
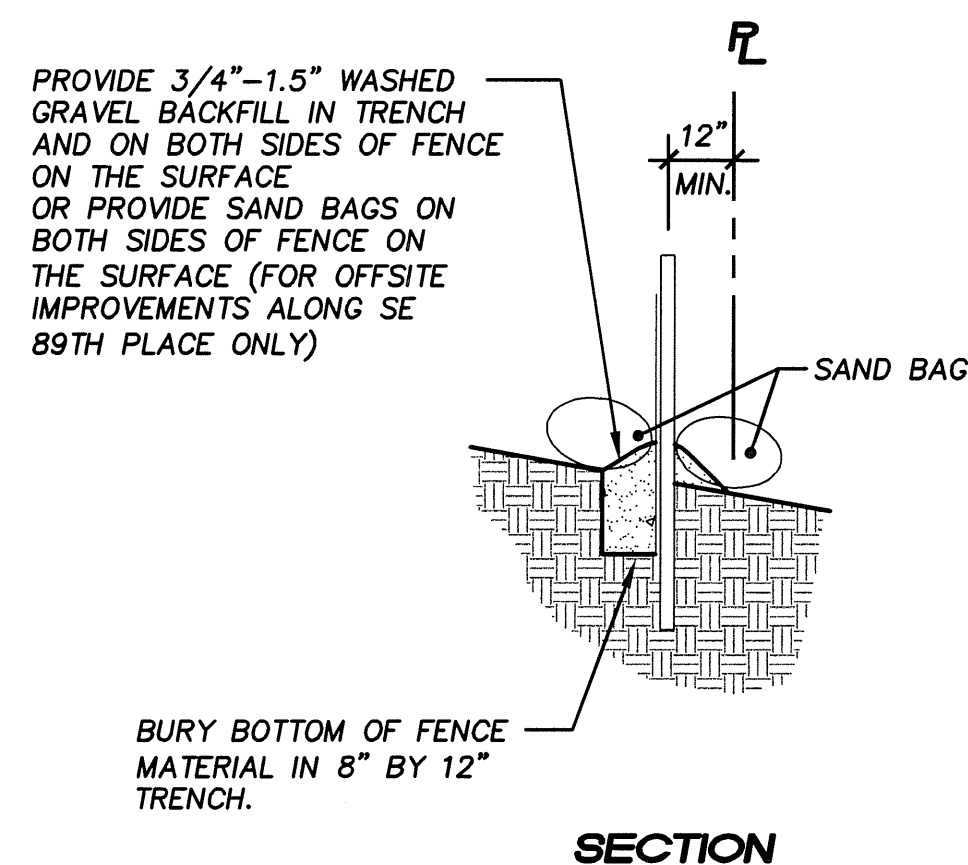
15445 53RD AVE. S.  
SEATTLE, WA 98188  
PHONE: (206) 431-7970  
FAX: (206) 388-1648  
WEB SITE: PACENG.COM

**Pacific Engineering Design, LLC**  
Civil Engineering and Planning Consultants

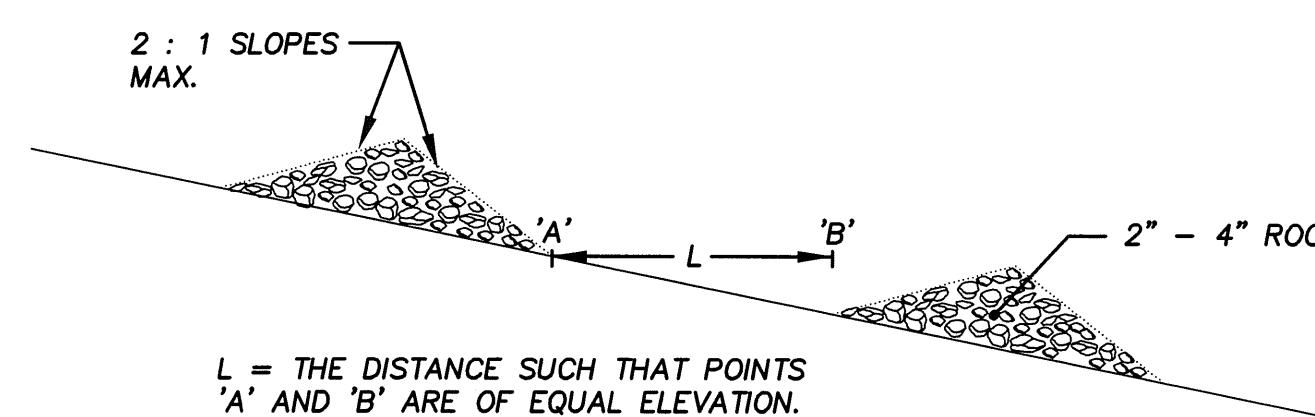
ALL AREAS ADJOINING TRACT "A" SHALL BE PROVIDED WITH AN ACCEPTABLE BOUNDARY DELINEATION BETWEEN ALL AREAS OR PORTIONS OF AREAS AND THE RESTRICTED NATIVE GROWTH AREA CONTAINED WITHIN THE TRACT. SAID BOUNDARY DELINEATION SHALL BE IN PLACE PRIOR TO ANY GRADING OR CLEARING OF THE PROPERTY AND REMAIN IN PLACE UNTIL COMPLETION OF PROJECT. DURING CONSTRUCTION IN THOSE AREAS REQUIRED TO HAVE SILT FENCING, THE SILT FENCE MAY BE SUPPORTED BY THE N.G.P. FENCE.



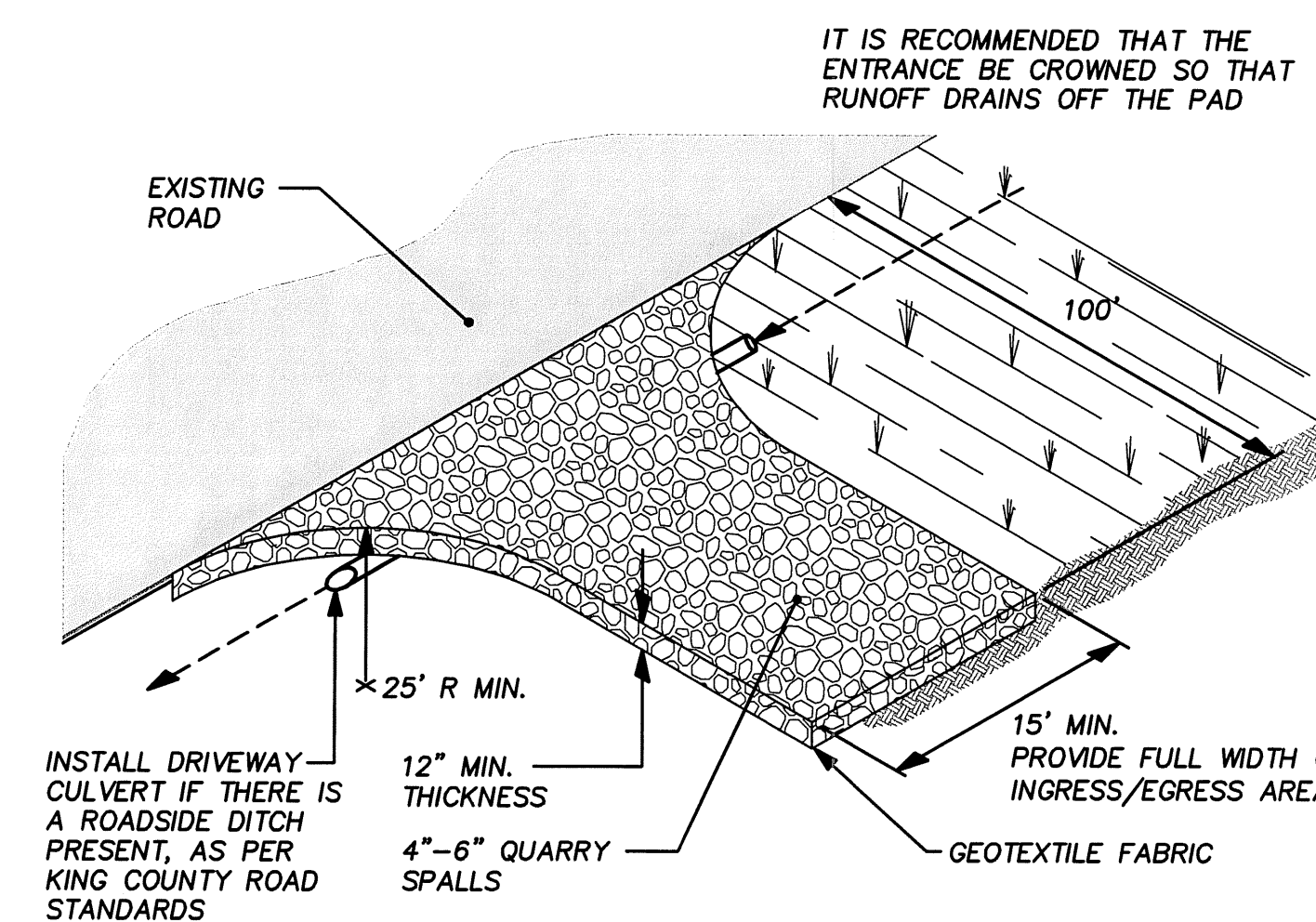
**NATIVE GROWTH PROTECTION FENCE**



**ROCK CHECK DAM CROSS-SECTION**



**ROCK CHECK DAM SPACING**



**NOTES:**

1. A SEPARATION GEOTEXTILE SHALL BE PLACED UNDER THE SPALLS TO PREVENT FINE SEDIMENT FROM PUMPING UP INTO THE ROCK PAD. THE GEOTEXTILE SHALL MEET THE FOLLOWING STANDARDS:

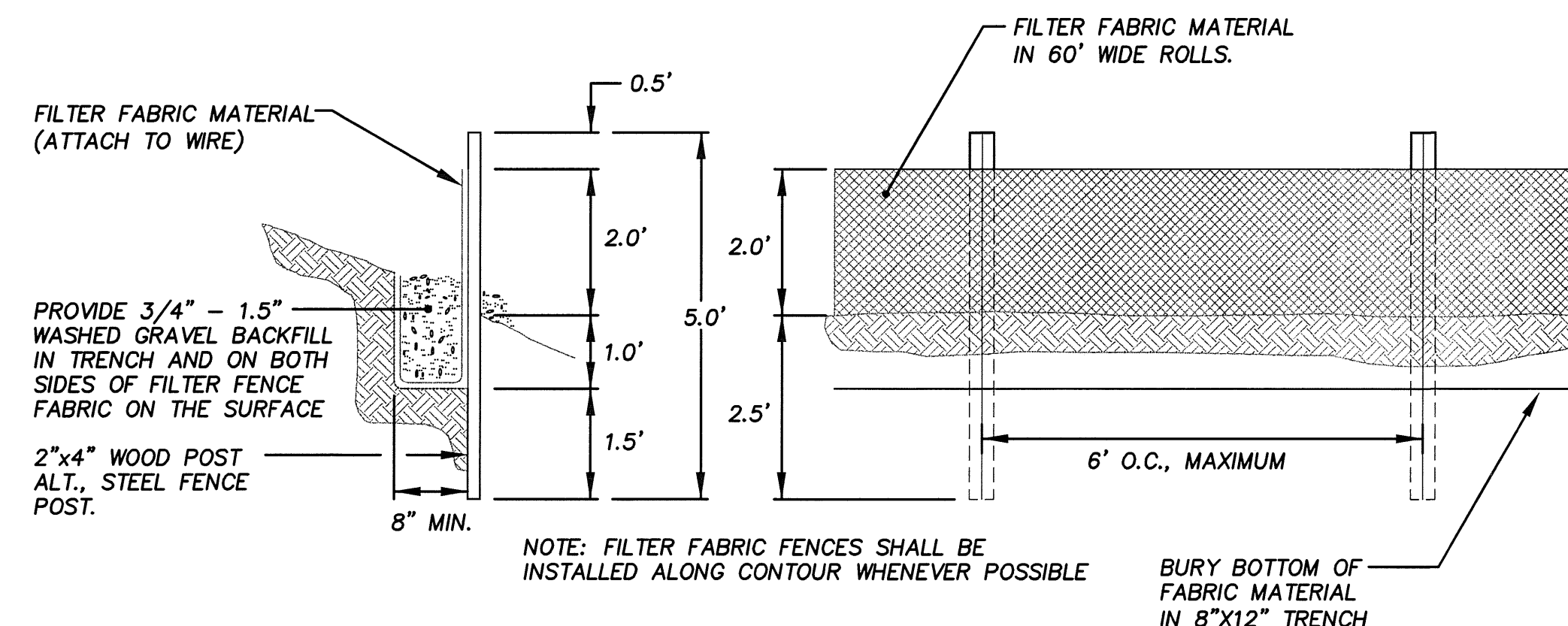
GRAB TENSILE STRENGTH (ASTM D4751)	200 PSI MIN.
GRAB TENSILE ELONGATION (ASTM D4632)	30% MAX.
MULLEN BURST STRENGTH (ASTM D3786-80A)	400 PSI MIN.
AOS (ASTM D4751)	20-45 (U.S. STANDARD SIEVE SIZE)

- FENCING (SEE SECTION D.4.1) SHALL BE INSTALLED AS NECESSARY TO RESTRICT TRAFFIC TO THE CONSTRUCTION ENTRANCE.
- WHENEVER POSSIBLE THE ENTRANCE SHALL BE CONSTRUCTED ON A FIRM, COMPACTED SUBGRADE. THIS CAN SUBSTANTIALLY INCREASE THE EFFECTIVENESS OF THE PAD AND REDUCE THE NEED FOR MAINTENANCE.

**MAINTENANCE STANDARDS:**

- QUARRY SPALLS (OR HOG FUEL) SHALL BE ADDED IF THE PAD IS NO LONGER IN ACCORDANCE WITH THE SPECIFICATIONS.
- IF ENTRANCE IS NOT PREVENTING SEDIMENT FROM BEING TRACKED ONTO PAVEMENT, THEN ALTERNATIVE MEASURES TO KEEP THE STREETS FREE OF SEDIMENT SHALL BE USED. THIS MAY INCLUDE STREET SWEEPING, AND INCREASE IN THE DIMENSION OF THE ENTRANCE, OR THE INSTALLATION OF A WHEEL WASH. IF WASHING IS USED, IT SHALL BE DONE ON AN AREA COVERED WITH CRUSHED ROCK AND WASH WATER SHALL DRAIN TO A SEDIMENT TRAP OR POND.
- ANY SEDIMENT THAT IS TRACKED ONTO PAVEMENT SHALL BE REMOVED IMMEDIATELY BY SWEEPING. THE SEDIMENT COLLECTED BY SWEEPING SHALL BE REMOVED OR STABILIZED ON SITE. THE PAVEMENT SHALL NOT BE CLEANED BY WASHING DOWN THE STREET, EXCEPT WHEN SWEEPING IS INEFFECTIVE AND THERE IS A THREAT TO PUBLIC SAFETY. IF IT IS NECESSARY TO WASH THE STREETS, THE CONSTRUCTION OF A SMALL SUMP SHALL BE CONSIDERED. THE SEDIMENT WOULD THEN BE WASHED INTO THE SUMP.
- ANY QUARRY SPALLS THAT ARE LOOSENED FROM THE PAD AND END UP ON THE ROADWAY SHALL BE REMOVED IMMEDIATELY.
- IF VEHICLES ARE ENTERING OR EXITING THE SITE AT POINTS OTHER THAN THE CONSTRUCTION ENTRANCE(S), FENCING SHALL BE INSTALLED TO CONTROL TRAFFIC.

**TEMP. ROCKED, CONSTRUCTION ENTRANCE**



**SILT FENCE**

**NOTES:**

- THE GEOTEXTILE USED MUST MEET THE STANDARD LISTED BELOW. A COPY OF THE MANUFACTURER'S FABRIC SPECIFICATIONS MUST BE AVAILABLE ON SITE.

AOS (ASTM D4751)	30-100 SIEVE SIZE (0.60-0.15 MM) FOR SLIT FILM 50-100 SIEVE SIZE (0.30-0.15 MM) FOR OTHER FABRICS
WATER PERMITTIVITY (ASTM D4491)	0.02 SEC <sup>2</sup> MIN.
GRAB TENSILE STRENGTH (ASTM D4632)	180 LBS. MIN. FOR EXTRA STRENGTH FABRIC 100 LBS. MIN. FOR STANDARD STRENGTH FABRIC
GRAB TENSILE ELONGATION (ASTM D4632)	30% MAX.
ULTRAVIOLET RESISTANCE (ASTM D4355)	70% MIN.

- STANDARD STRENGTH FABRIC REQUIRES WIRE BACKING TO INCREASE THE STRENGTH OF THE FENCE. WIRE BACKING OR CLOSE POST SPACING MAY BE REQUIRED FOR EXTRA STRENGTH FABRIC IF FIELD PERFORMANCE WARRANTS A STRONGER FENCE.
- WHERE THE FENCE IS INSTALLED, THE SLOPE SHALL BE NO STEEPER THAN 2H:1V.

**MAINTENANCE STANDARDS:**

- ANY DAMAGE SHALL BE REPAIRED IMMEDIATELY.
- IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEY MUST BE INTERCEPTED AND CONVEYED TO A BARRIER TO FLOW AND THEN CAUSING CHANNELIZATION OF FLOWS PARALLEL TO THE FENCE. IF THIS OCCURS, REPLACE THE FENCE OR REMOVE THE TRAPPED SEDIMENT.
- SEDIMENT MUST BE REMOVED WHEN THE SEDIMENT IS 6 INCHES HIGH.
- IF THE FILTER FABRIC (GEOTEXTILE) HAS DETERIORATED DUE TO ULTRAVIOLET BREAKDOWN, IT SHALL BE REPLACED.

**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.

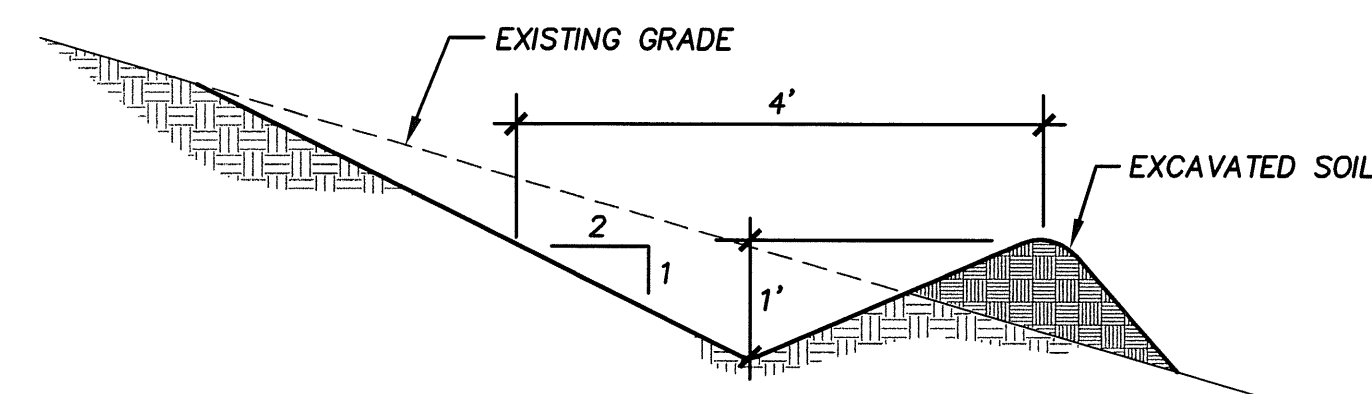
CONDITIONS WHERE PRACTICE APPLIES: BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION, WHERE ENOUGH RESIDUE MATERIAL IS AVAILABLE FOR CONSTRUCTION OF SUCH A BARRIER.

NOTE: DOES NOT REPLACE THE NEED FOR A SEDIMENT TRAP OR POND.

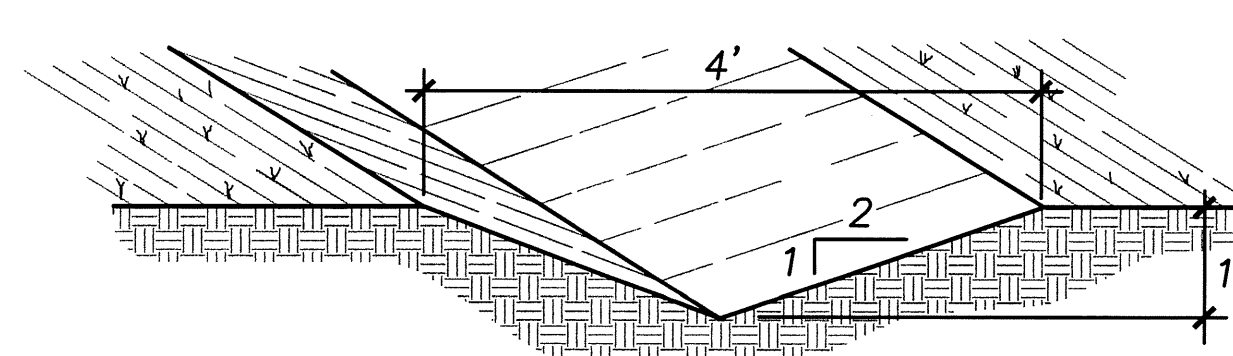
**DESIGN CRITERIA/SPECIFICATIONS:**

MINIMUM HEIGHT= 3.0'  
MAXIMUM HEIGHT= 5.0'  
MINIMUM WIDTH= 5.0' AT IT'S BASE.  
MAXIMUM WIDTH=15.0'.

A FILTER FENCE ANCHORED OVER THE BRUSH BERM MAY BE REQUIRED BY CITY OF NEWCASTLE INSPECTOR TO ENHANCE THE FILTRATION ABILITY OF THE BARRIER.



**CROSS SLOPE INTERCEPTOR SWALE**



**DOWN SLOPE INTERCEPTOR SWALE**

**LAWRENCE PARK**  
CITY OF NEWCASTLE  
FOR: MR. SCOTT CAMERON  
BIENT NOSE, LLC  
1215 120TH AVE NE, SUITE 110  
BELLVIEW, WA 98005  
PHONE: (425) 453-9595

PROJECT NO.: **0519**  
DRAWN BY: **JQC**  
ISSUE DATE: **01-01-08**  
SHEET REV.: **08-22-08**

**TEMPORARY EROSION/ SEDIMENTATION CONTROL DETAILS**

CD\0519\TE02-C05.DWG  
**C05**