Low Profile Perimeter Sediment Control System for areas with cross traffic
Sediment Control
GUIDE SPECIFICATION

PRODUCT:
Perimeter Guard™

MANUFACTURER:
ERTEC®
1150 Ballena Blvd. Suite 250
Alameda, CA 94501
Phone: 866-521-0724
Fax: 510-521-3972
email: sales@ertecsystems.com
Web: www.ertecsystems.com

1.0 Description:

Perimeter Sediment Control System for areas with cross traffic (such as vertical construction areas) shall conform to the details shown on the plans and these special provisions and shall be installed around the perimeter of disturbed soil areas. The intended function of the Perimeter Sediment Control System is to disperse or spread concentrated water runoff, to reduce runoff velocities and minimize the off-site flow of sediment.

2.0 Material:

Low Profile Sediment Control Device. Provide, low profile sediment control device as shown on the plans.

A. **Size.** Furnish low profile "L" shaped sediment control device with a height of 6 inches, or as shown on the plans. Each segment shall be 7 feet long and have minimum vertical freeboard of at least 6" with a 2.5 inch hinged horizontal flap at the base, to be secured in place with nails and keyed-into the soil.

B. **Filter Aperture Size.** Furnish low profile sediment control device containing a filter fabric such that the AOS (Apparent Opening Size) is between 200 and 250 microns and POA (Percentage Open Area) is at least 20%.

C. **Structure.** Furnish low profile sediment control device manufactured from non-biodegradable materials which is UV Stable for at least 4 years. The system shall comprise semi-rigid, overlapping layers of thermally extruded, apertured polymeric high density polyethylene (HDPE) sheets, and one or more integrated filter sheets. The system shall be durable, such that it can be returned to original shape when deformed on the job site. The Perimeter Sediment Control System shall have an integrated filter fabric. The system shall also conform to the following:

Specification	Requirements
Height, inches, (minimum)	6
Mass per Unit Weight, (pounds/foot) (maximum – wet or dry) (6")	0.25
Tensile Yield ASTM D-638 (lb/in2)	1800 - 2800
Ultimate Tensile Strength: ASTM D-638 (lb/in2)	2000 - 2800
Percentage Open Area (COE 22125-86) (min %)	20

Specification	Requirements
Filter aperture size Average Opening Size (AOS) (ASTM D 4751) microns	250
Ultraviolet stability (outer jacket & filter), percent tensile strength retained after 500 hours, min. ASTM Designation: D 4355 (xenon-arc lamp and water spray weathering method)	90
Life in application (years - minimum)	4
San Diego State University SERL soil retention test – 3 consecutive 10 yr storms	81%

D. A copy of the manufacturer's product sheet together with instructions for installation shall be furnished to the Engineer 5 days before installation.

3.0 Installation:

Low Profile Perimeter Sediment Control System shall be installed as follows:

A. Place low profile sediment control device near the downstream perimeter of a disturbed area to intercept sediment from sheet flow.
B. A trench shall be excavated on elevation contours or against the sidewalk or curb to a depth of 1.5 inches, and to a 2.5-3.0 inch width, as shown in the manufacturer's installation instructions. The trench shall be cleared of obstructions including, but not limited to, rocks, clods, and debris greater than 1-inch in any dimension. Install three 6" nails (60D Bright Common) in every 7 foot segment. Nails shall be installed flush with the flap to ensure good contact with the soil.
C. Backfill flap with 1 to 1.5" of soil.
D. At the segment overlaps insert one section into the adjoining section as per the installation instructions.
E. The end-of-run of the Perimeter Sediment Control system shall be dog-legged or angled up-slope to ensure water and sediment containment.
F. Perimeter Sediment Control system shall be installed before the application of other erosion control or soil stabilization materials in the same area.
G. On perimeter installations, it is not necessary to use wooden stakes, except in areas of concentrated flows.

4.0 Maintenance:

Perform maintenance as required. Inspect following rainfall events and at least daily during prolonged rainfall. Maintain to provide an adequate sediment holding capacity. Sediment shall be removed when the sediment accumulation reaches half the post-installation vertical height above ground or 2 to 2.5 inches from the top of the barrier. Removed sediment shall be incorporated in the project at designated locations or disposed-of outside the project or in conformance with requirements. Damage to Perimeter Sediment Control System resulting from the Contractor's vehicles, equipment, or operations shall be repaired at the contractor's expense.

Split or torn segments shall be repaired with zip-ties, 16 gauge galvanized wire or replaced. Deformed segments shall be reshaped. Locations where rills and other evidence of concentrated runoff have occurred beneath the Perimeter Sediment Control System shall be corrected. Segments needing repair shall be repaired or replaced within 24 hours of identifying the deficiency.

5.0 Method of Measurement:

Quantities of Perimeter Sediment Control System material to be paid for will be determined by the linear foot measured along the centerline of the installed strip. Where Perimeter Sediment Control System segments are joined and overlapped, the overlap will be measured as a single installed strip.

6.0 Basis of payment:

The contract price paid per linear foot for Perimeter Sediment Control System shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installing the Perimeter Sediment Control System, complete in place, including trench excavation and backfill, and maintenance, as shown on the plans, and in these special provisions, and as directed by the Engineer.