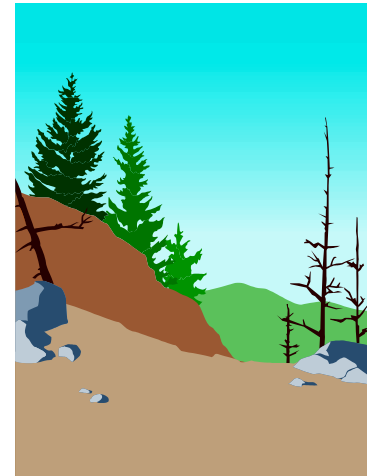


## POLICY ON NON-DISCRIMINATION ON THE BASIS OF DISABILITY

The County of Humboldt does not discriminate on the basis of disability in employment, services or activities. Persons alleging discrimination on the basis of disability may file a complaint on a form provided for this purpose with either the County Personnel Director, the County Administrative Officer or the County official directly responsible for the service, program or activity, whoever is most appropriate under the circumstances. Investigation of all such complaints shall be handled in an expedited fashion.

Questions regarding this policy may be directed to the ADA Coordinator, Room 111 (County Administrative Office), Humboldt County Courthouse, 825 Fifth Street, Eureka, CA 95501, telephone (707) 445-7266.

## Sedimentation and Erosion Control Plan Requirements



**PLANNING DIVISION  
3015 H STREET  
EUREKA, CA 95501-4484**

**PHONE (707) 445-7541  
FAX (707) 445-7446**

## **Applicability**

**These minimum erosion and sedimentation control standards shall apply to all projects requiring building, grading, and development permits, and County of Humboldt Public Works activities, to prevent sedimentation or damage to onsite and offsite property.**

## **STANDARDS**

These standards shall be incorporated into the project design and shall be adhered to during project construction:

### **General**

- Minimize soil exposure during the rainy season by proper timing of grading and construction.
- Retain trees and natural vegetation to stabilize hillsides, retain moisture, reduce erosion, minimize siltation and nutrient runoff and preserve scenic qualities.
- Vegetate and mulch denuded areas to protect them from winter rains.
- Divert runoff away from steep, denuded slopes or other critical areas with barriers, berms, ditches or other facilities.
- Design grading to be compatible with adjacent areas and result in minimal disturbance of the terrain and natural land features.
- Limit construction, clearing of vegetation and disturbance of the soil to areas of proven stability. Mitigate geologic hazards and adverse soil conditions when they are encountered.
- Reduce sediment transport off the site to the maximum extent feasible through the use of Best Management Practices (BMPs).
- Propose a new or modified erosion and sediment control technique if the technique is preferred and meets the intent of these regulations. Obtain approval from the County prior to implementation.
- Conduct frequent site inspections to ensure that control measures are working properly and to correct problems as needed.
- Employ other means of erosion and sediment control as required by the Chief Building Official or Director of the Department of Public Works as applicable.

## **Sediment Control**

- Use sediment basins, silt traps, or similar measure to retain sediment transported by runoff water onsite.
- Collect and direct surface runoff at non-erosive velocities to the common natural watercourse of the drainage area.
- Avoid concentrating surface water anywhere except swales or watercourses.
- Prevent mud from being tracked onto the public roadway by traveling over a temporary gravel construction entrance or washing off vehicle tires before entering a public or private driveway.



## **Slope Construction**

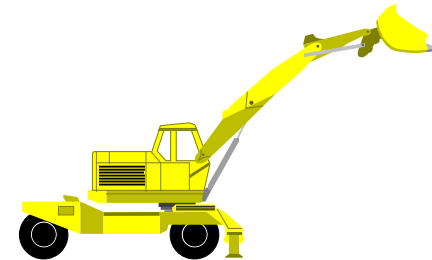
- Minimize length and steepness of slopes by benching, terracing or constructing diversion structures.
- Preserve, match, or blend cuts and fills with the natural contours and undulations of the land.
- Round sharp angles at the top and sides of cut and fill slopes.
- Maintain cut and fill slopes at less than two-to-one (2:1, run:rise) slope unless a geological and engineering analysis indicates that steeper slopes are safe and erosion and sediment control measures can successfully prevent erosion.
- Where a cut or fill slope occurs between two lots, make the slope a part of the downhill lot if possible.

## Protection of Watercourses and Drainage Inlets

- Prepare drainageways to handle concentrated or increased runoff from disturbed areas by using appropriate lining materials or energy absorbing devices to reduce the velocity of runoff water.
- Trap sediment-laden runoff in basins to allow soil particles to settle out before flows are released to receiving waters, storm drains, streets or adjacent property. This standard is not mandatory for grading conducted between April 15 and October 15 when the site is fully winterized and stabilized prior to October 15. Remove trapped sediment to a suitable location on-site or at a disposal site approved by the County.
- Do not grade or drive equipment in a Streamside Management or Other Wet Areas except as allowed through the County Streamside Management Area Ordinance.
- Deposit or store excavated materials away from watercourses.
- Protect all existing or newly installed storm drainage structures from sediment clogging.
- Use straw bales, filter fabric wraps and drainage inlet protections in a manner that does not cause additional erosion or flooding of a roadway.

## Disposal of Excavated Materials

- Stockpile topsoil on the site for use on areas to be revegetated.
- Place stockpiled soil in locations, so that if erosion occurs, it will not contribute to offsite sediment discharge.
- Protect stockpiled soil promptly through the use of appropriate BMPs to reduce the risk of erosion and sediment transport. Apply mulch or other protective coverings on stockpiled material that will be exposed through the winter season.
- Dispose of excavated material not used at the site at a location approved by the County.



## Dust Control

- All construction areas, including disposal sites, shall be treated and maintained as necessary to minimize the emission of dust. Maintenance shall be conducted as necessary to prevent a nuisance to offsite properties.
- All construction sites, including driveways, shall be maintained as necessary to minimize the emission of dust and prevent the creation of a nuisance to adjacent properties.



## Revegetation

- Apply temporary seeding and mulching to denuded areas prior to October 15 unless the project is conditioned otherwise.
- Establish a permanent vegetative cover on denuded areas not otherwise stabilized. Permanent vegetation ground cover must control soil erosion satisfactorily and survive severe weather conditions.
- Retain a vegetative barrier whenever possible around property boundaries.
- Use self-sustaining, non-invasive plants that require little or no maintenance and do not create an extreme fire hazard.
- Use native plant species whenever feasible.



## **Erosion and Sediment Control Plan Requirements**

### When Is It Required?

A site-specific erosion and sediment control plan shall be prepared and submitted with any development application which involves grading or related activities which has any one of the following characteristics:

- The total area of grading and related activities is one (1) acre or more.
- The slope is 15% or steeper (of the area to be developed).
- The grading is located within an area of moderate or high geologic instability.
- The grading is within a Streamside Management or Other Wet Area.
- The grading is within a floodplain.
- The grading is for a driveway or road which exceeds 300 feet in length.
- The grading is proposed to occur during winter land disturbing operations (15 October - 15 April).
- In addition, the Chief Building Official may require, at any time during design or construction of any project, an erosion and sediment control plan prepared by a qualified professional at the owner's expense.

### Who Prepares the Plan and Who Implements?

The plan shall be prepared by a person or firm qualified by training and experience to have expert knowledge of erosion and sediment control methods. The professionally qualified person or firm may be a duly licensed or registered architect, civil engineer, engineering geologist, landscape architect, professional forester, professional soil erosion and sediment control specialist, or a soil conservation service employee working under the responsible charge of a qualified professional. When approved by the Chief Building Official, such plan shall be implemented by the owner. Costs incurred by the County for the checking of plans or calculations or for inspection as a result of preparation of an erosion and sediment control plan shall be borne by the owner or permittee per the adopted County fee schedule.

### Implementation Measures

The proposed measures shall be based on recommendations contained in the latest edition of the

*State of California Erosion and Sediment Control Handbook* or *State Water Resources Control Board Best Management Practice Construction Handbook*

or equivalent Best Management Practice erosion and sediment control guides.

## REQUIRED CONTENTS

### General

- Identify the owner, plan preparers, project location and activity.
- Include a declaration that the plan was prepared by a person or firm qualified by training and experience to have expert knowledge of erosion and sediment control methods. If the plan is not prepared by a licensed or registered professional, state the justification for the declaration.
- Identify BMP guide(s) used for plan preparation.
- Outline the construction schedule and provide specific deadlines for implementation of erosion control features, specific grading and erosion control activities that will occur subsequent to Final Map recordation.
- Include a schedule for inspection and maintenance of erosion control features by date, project milestone or rainfall event. Specify the individuals responsible for the inspection and their reporting requirements.

For winter land disturbing operations (15 October - 15 April) include:

- Necessity for working during the winter and efforts to minimize land disturbance.

### Sediment Control, Slope Construction and Protection of Watercourses

- Identify existing and proposed drainage patterns, channels and facilities.
- Calculate changes in flow quantities or velocities and specify necessary slope protection or drainage channel and facility improvements.

For winter operations (15 October - 15 April) identify:

- Temporary slope stabilization measures such as mulching with protective coverings. Specify timing of application.
- Temporary channels, interceptors and diversions necessary to control surface water flow over cut and fill slopes.
- Measures to reduce drainage flow velocities such as, benches, vegetation filter strips and earth dams.
- Identify temporary sediment detention basins necessary to retain sediment transported by surface water onsite, including:
  - (i) Location, dimensions and design.
  - (ii) Design criteria and hydraulic sizing calculations.
  - (iii) Construction method.
  - (iv) Maintenance requirements and schedule.
- Methods to prevent vehicle tracking of mud onto public roadways.

## **Disposal of Excavated Materials**

- Type and quantity of material.
  - Location of disposal area.
  - Methods to prevent erosion.
- For winter land disturbing operations (15 October - 15 April) include:

- Methods to direct drainage away from stockpile.
- Methods to prevent erosion of stockpile during construction.

## **Dust Control**

- Measures to keep dust to a minimum during the construction period.
- Measures to prevent wind erosion of exposed soil.

## **Removal of Vegetation and Revegetation**

- Identify the area and type of vegetation to be removed and the necessity for removal.
- Identify methods for protecting existing vegetation.
- Specify area to be revegetated.
- Name the type, quantity and method of application of mulch, seed or plants.
- Describe plans for fertilization and irrigation.

- Comment on the ability of cut or fill surfaces to support permanent vegetation.

For winter operations (15 October - 15 April) include:

- Identify temporary revegetation measures such as stage seeding and/or planting of fast germinating seeds. Describe seed protection and vegetation maintenance requirements.

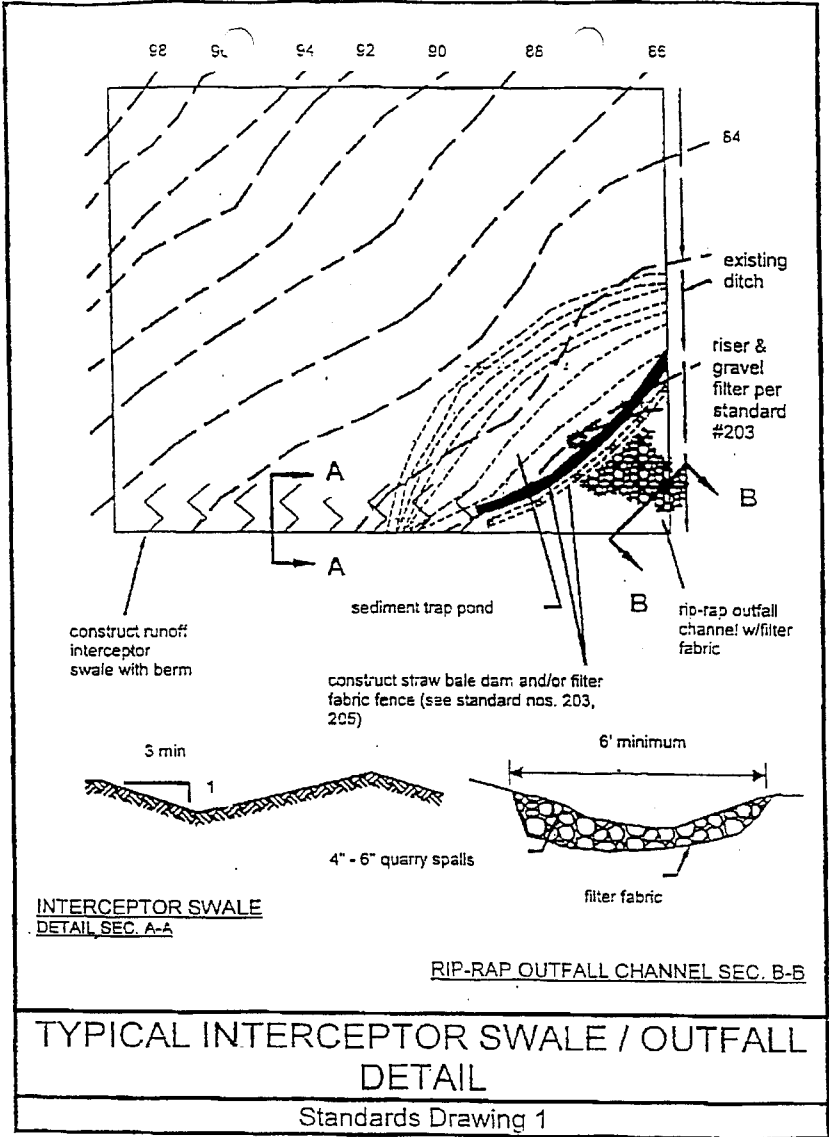
For winter land disturbing operations, the conditions identified above may be modified or deleted by the Director of Community Development Services based upon weather reports, the proposed construction period, the type and size of the activity and site attributes such as location, slope and soil stability.

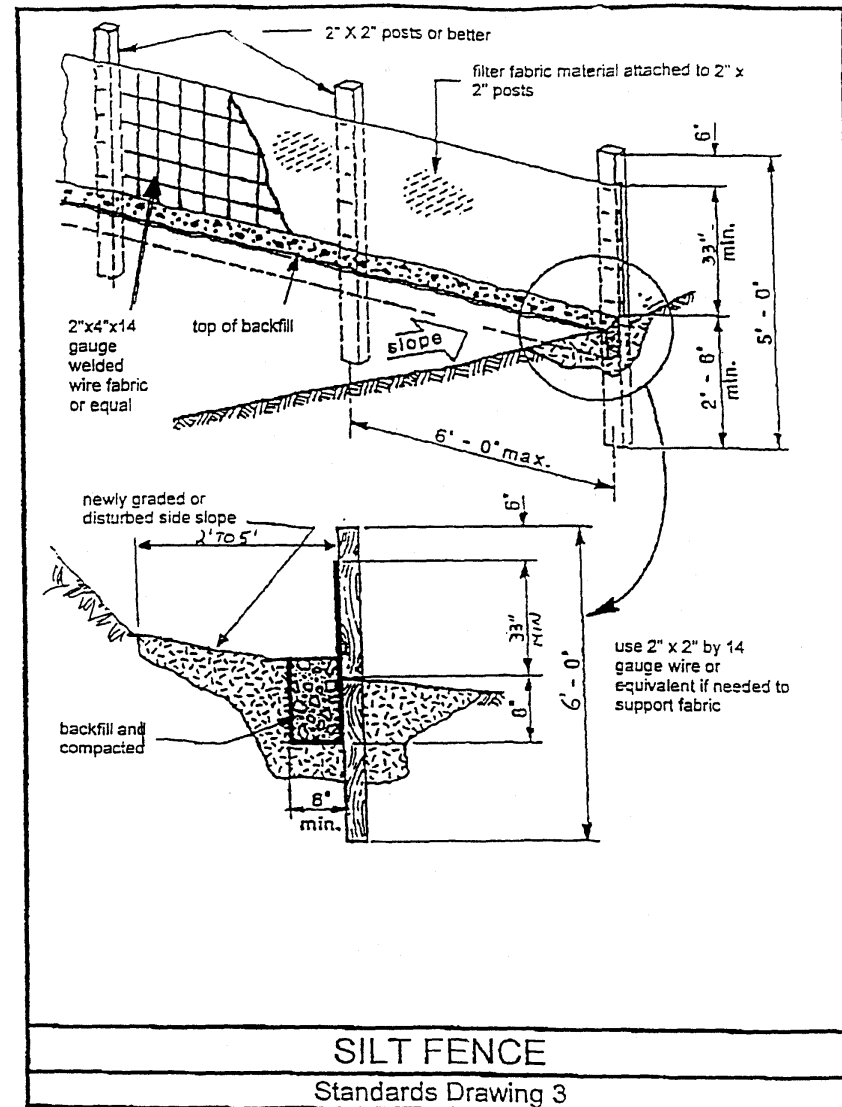
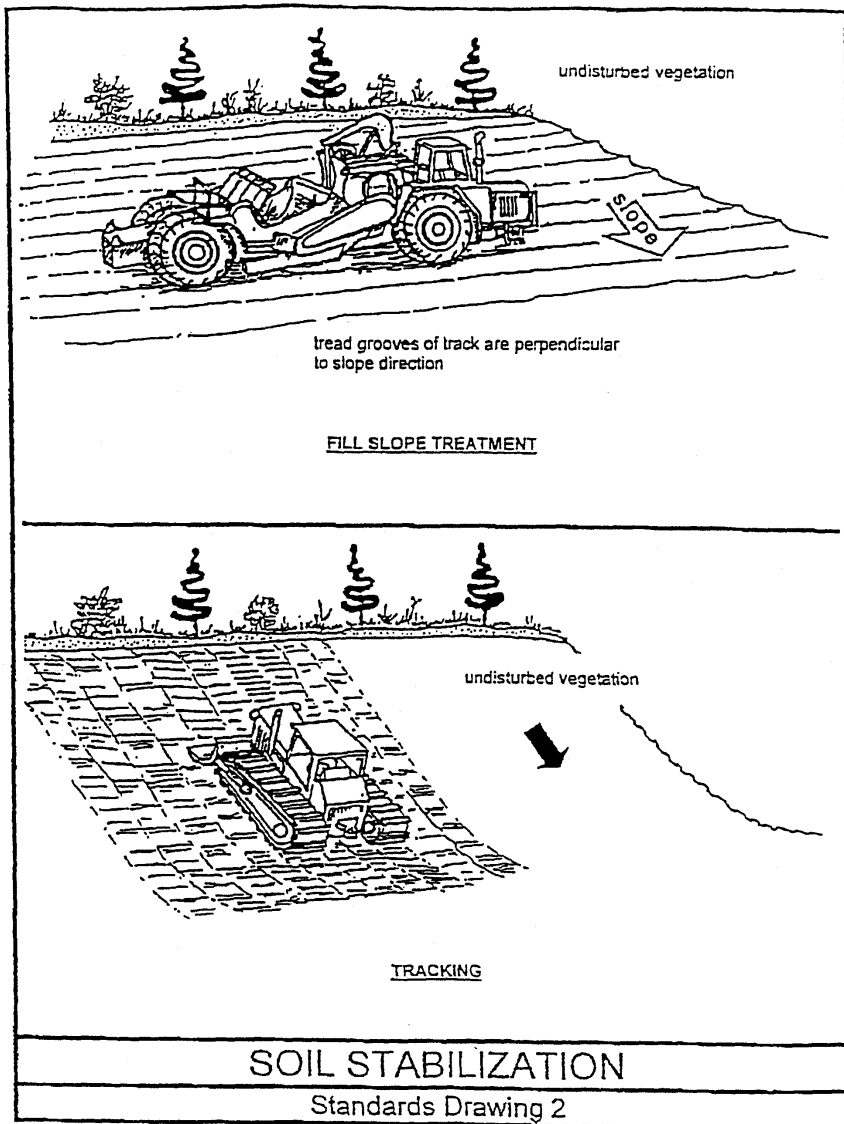
## **Storm Water Pollution Prevention Plans (SWPPP)**

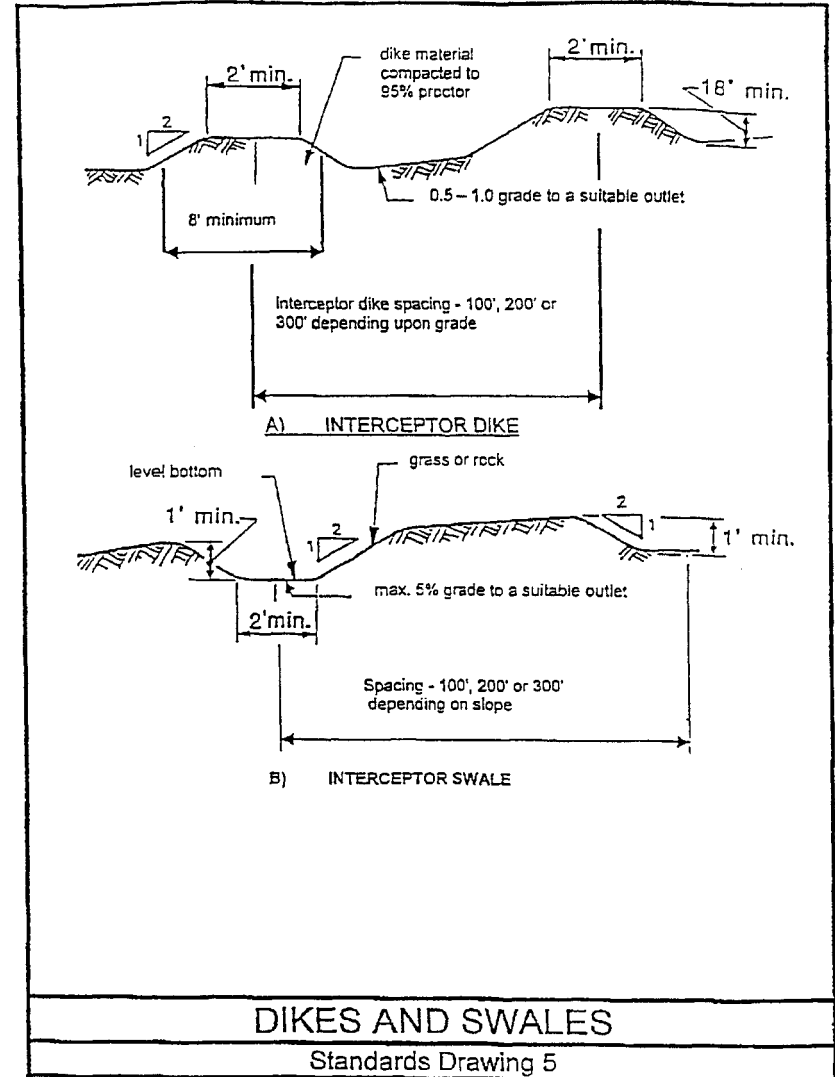
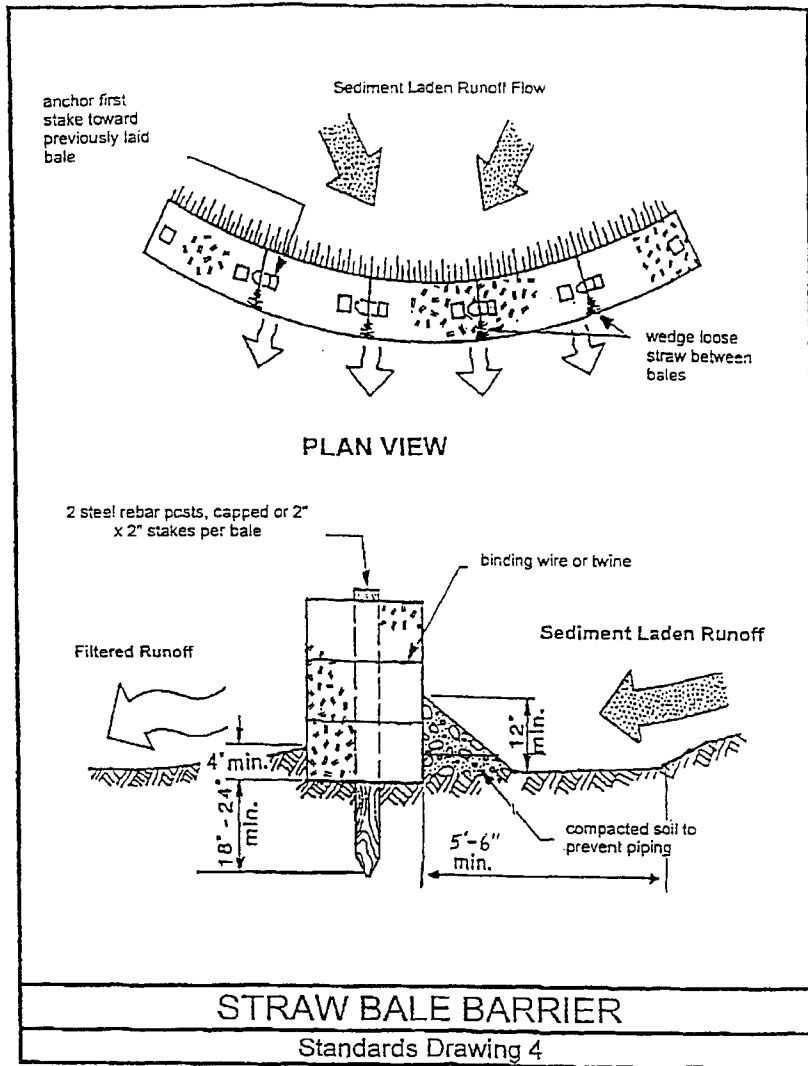
For projects subject to the requirement to prepare a SWPPP, a preliminary SWPPP may be submitted in lieu of the erosion and sediment control plan required by these regulations, so long as the SWPPP addresses all the standards and conditions contained within these regulations.

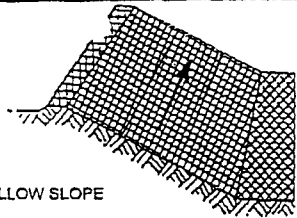
### **Samples of Best Management Practices**

Following are schematic drawings which show various Best Management Practices. Specific drawings may be cited for projects where they are proposed for use. Where included within a erosion and sediment control plan, the drawings are to be drawn to scale, with placement shown upon a site plan of the project area. Narrative may be included upon the grading and drainage plan sheet or may be contained in a separate report.



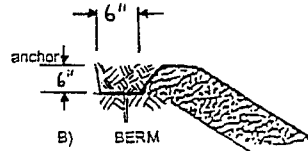




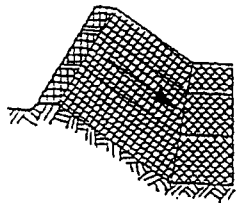


A) SHALLOW SLOPE

On shallow slopes, strips of netting may be applied across the slope, start at bottom and lap each upper course over lower course, progressing up the slope (slopes up to 1:1).



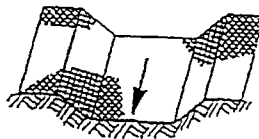
B) BERM



C) STEEP SLOPE

On steep slopes apply strips of netting parallel to the direction of flow and anchor by overlapping 2" to 3" and stapling to slope every 3'.

In ditches, apply netting parallel to the direction of flow.



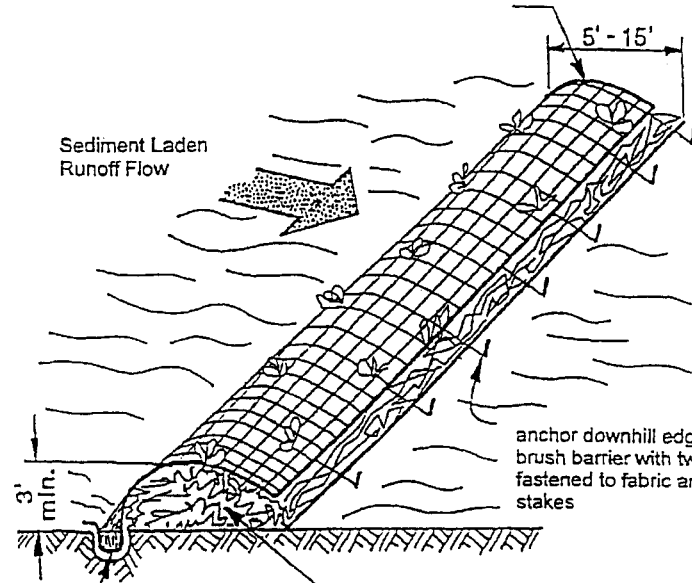
D) SHALLOW SLOPE - DITCH

Bring netting down to a level area before terminating the installation. Turn the end under 6" and stake at 12" intervals.

*Important*  
Follow manufacturers recommended installation procedures.

## EROSION CONTROL BLANKETS

Standards Drawing 6



Filter fabric draped over brush pile and secured in trench with compacted backfill

Sediment Laden Runoff Flow

5' - 15'

3' min.

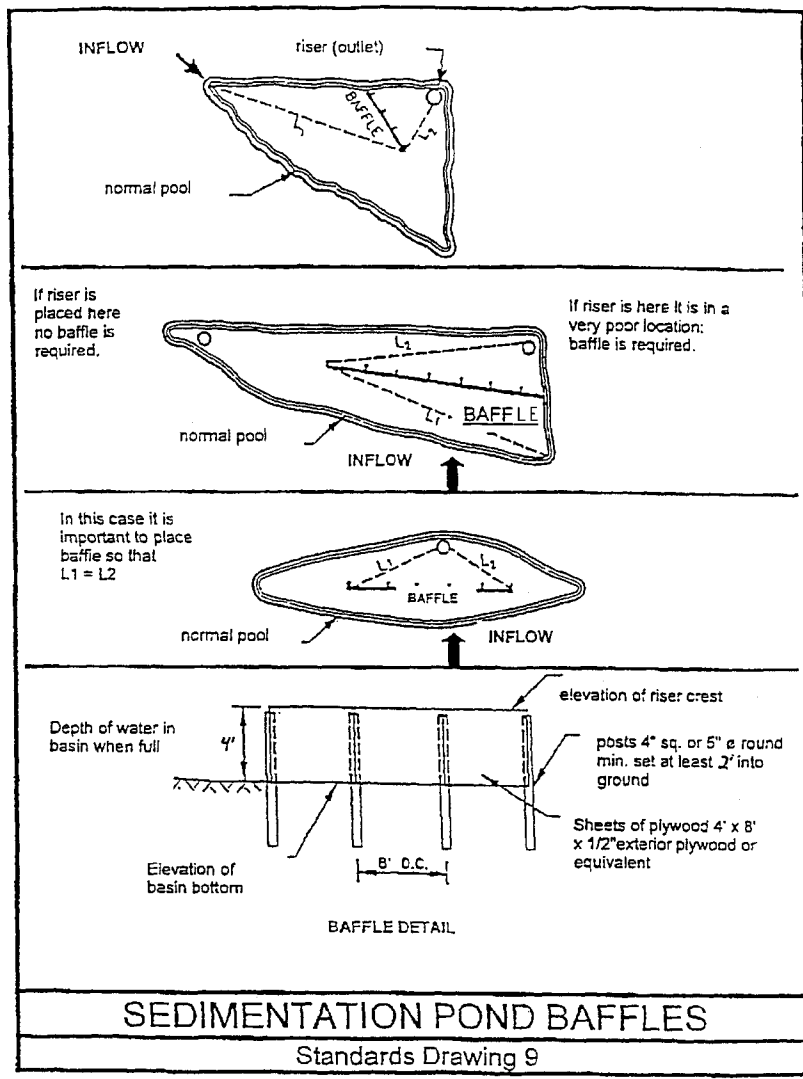
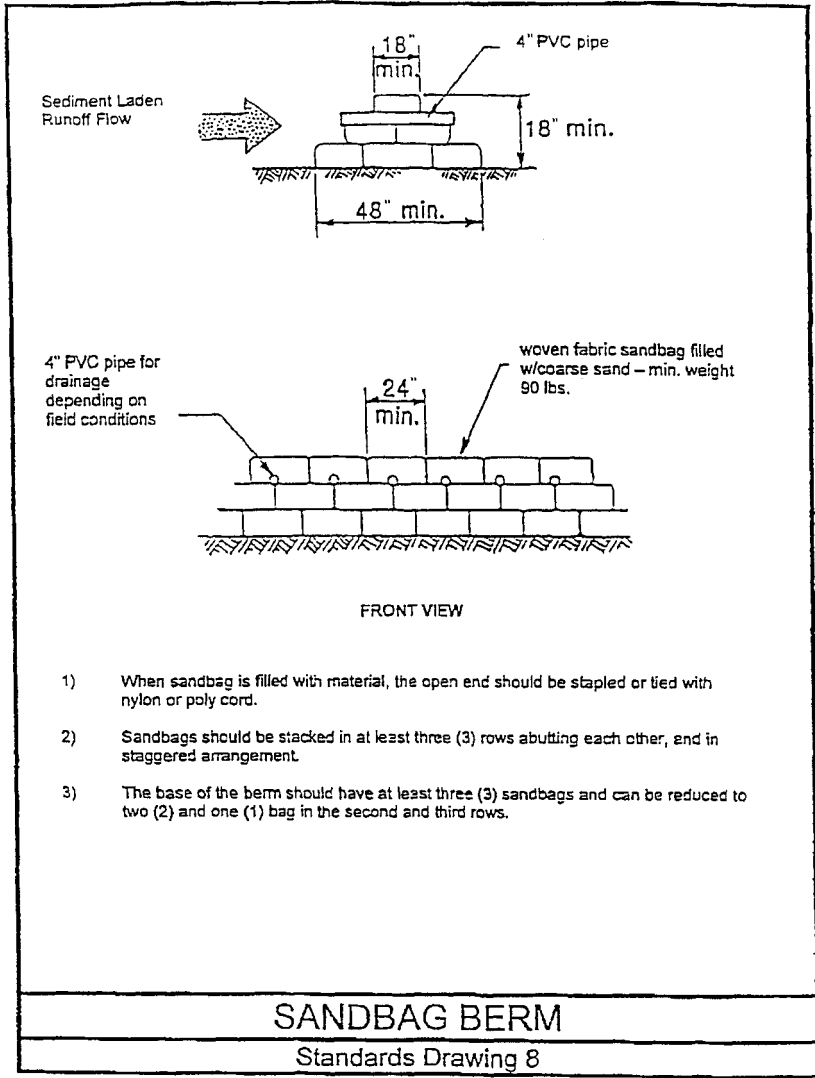
anchor downhill edge of brush barrier with twine fastened to fabric and stakes

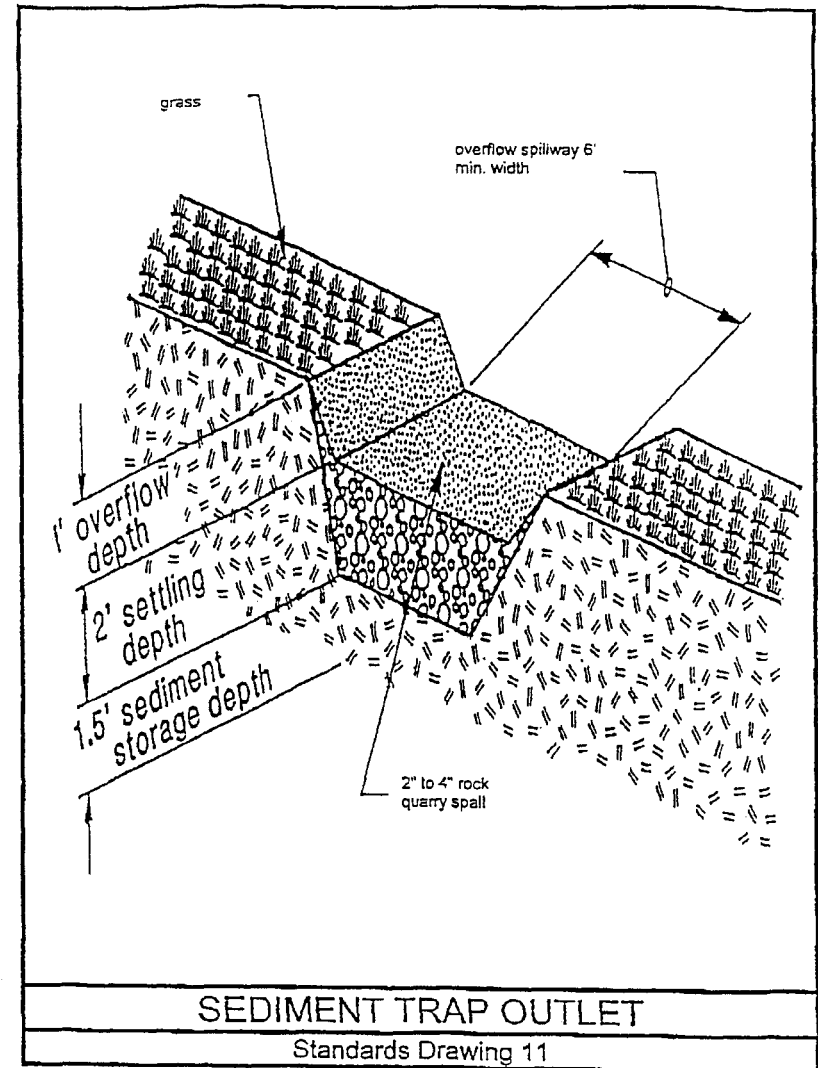
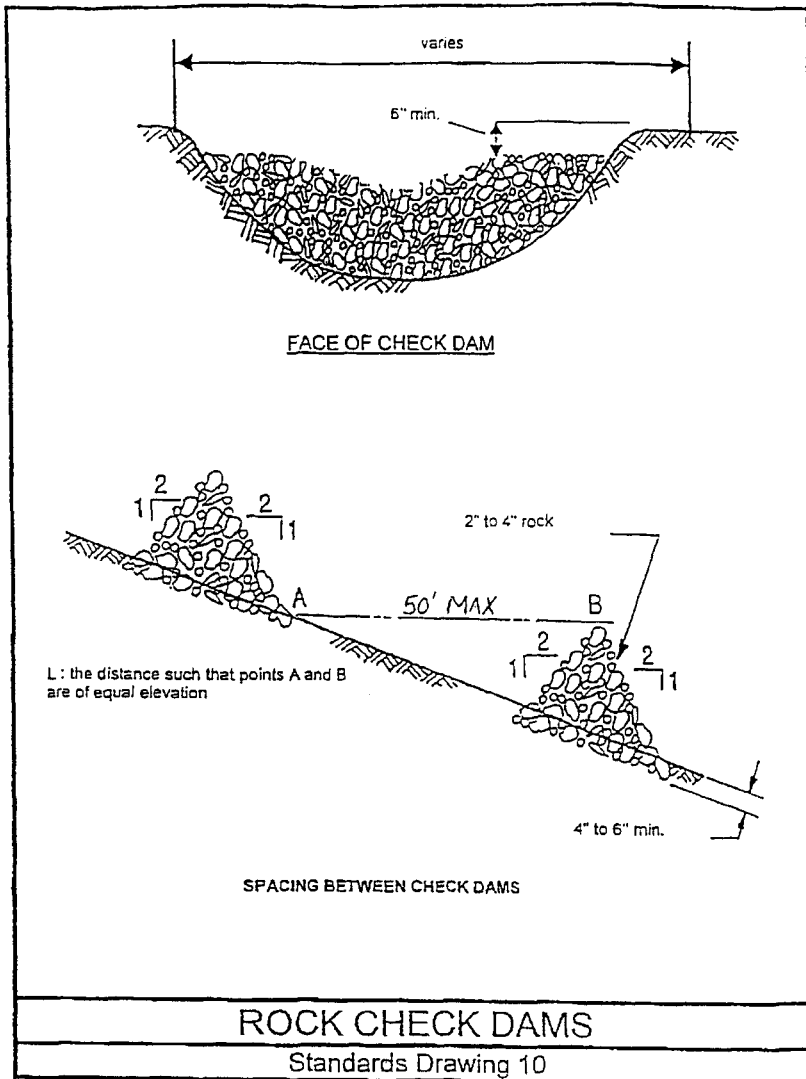
Vegetative debris/brush piled uniformly in row to form barrier

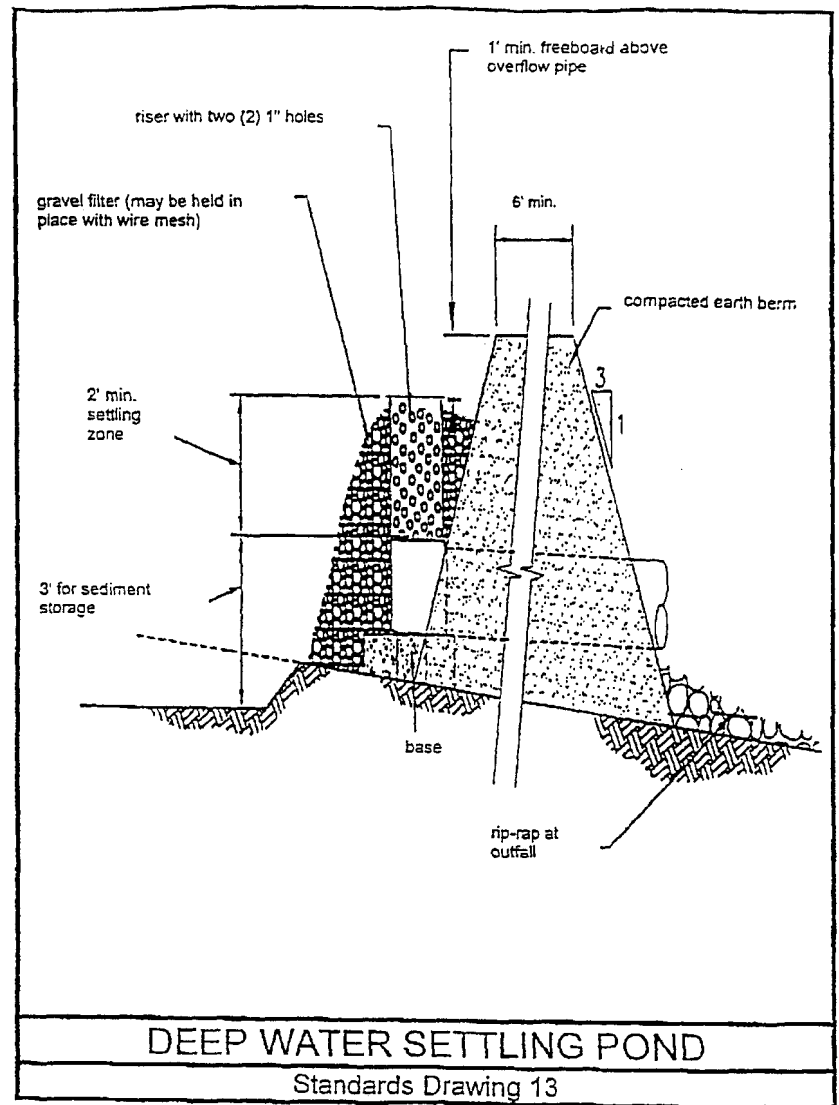
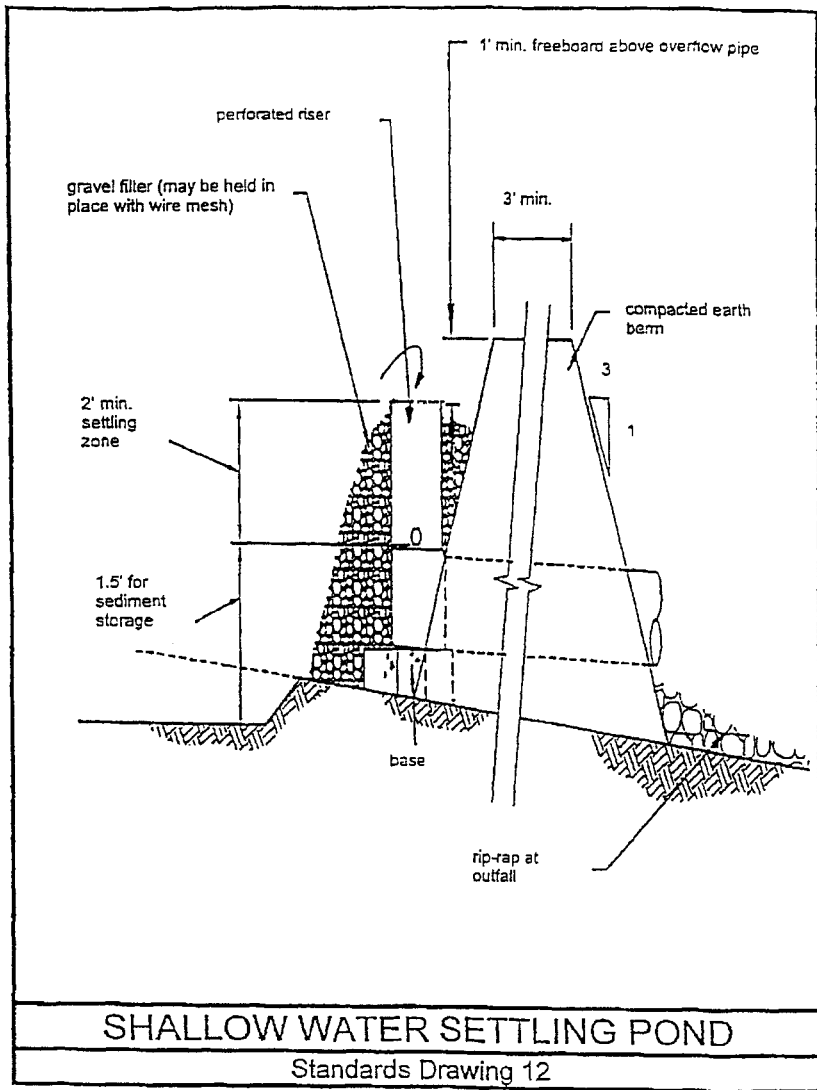
6" x 6" (min.) trench along uphill edge of brush barrier

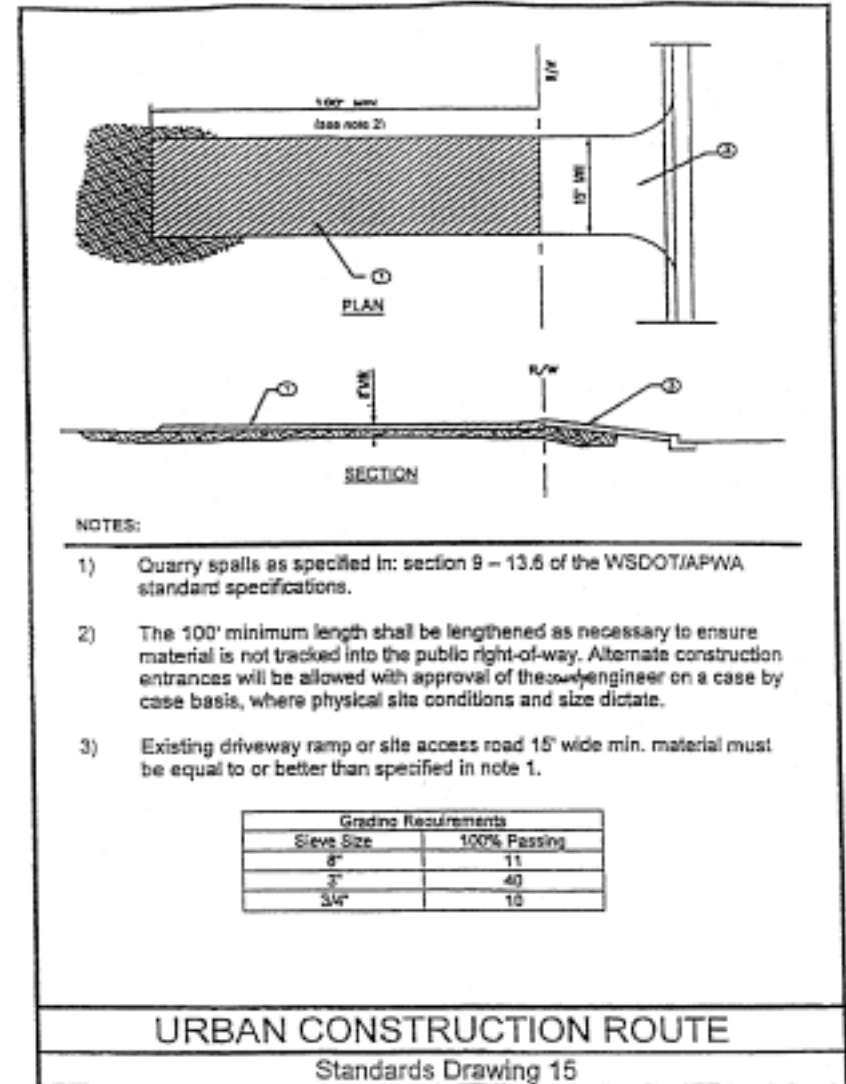
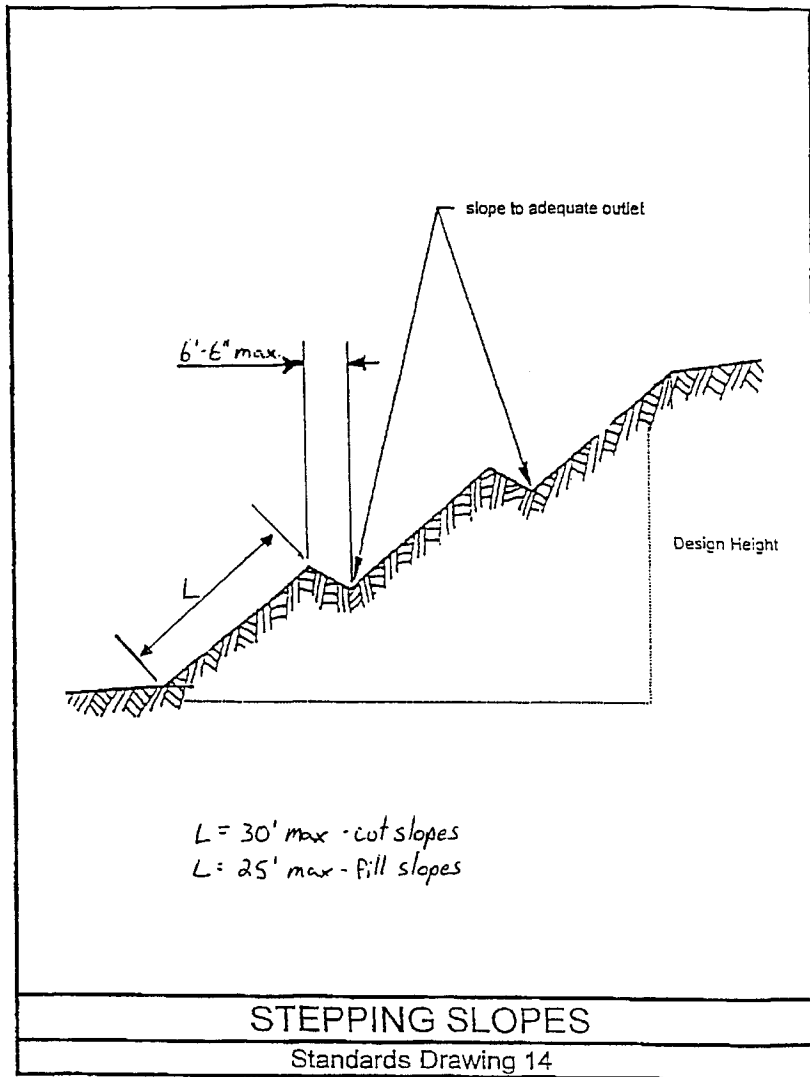
## BRUSH BARRIER

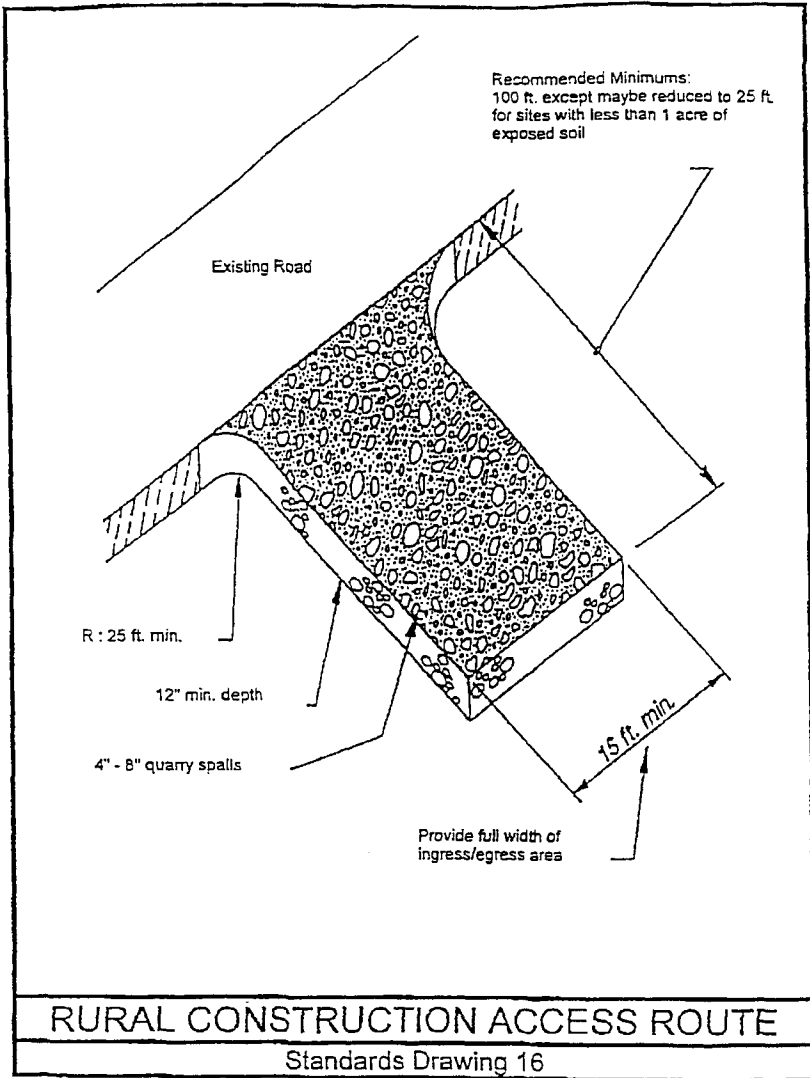
Standards Drawing 7

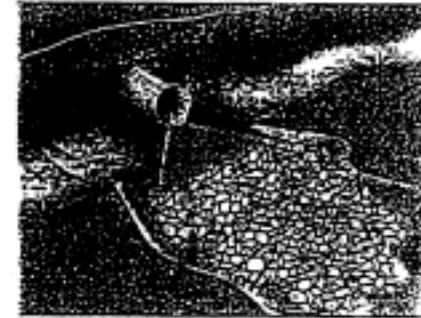
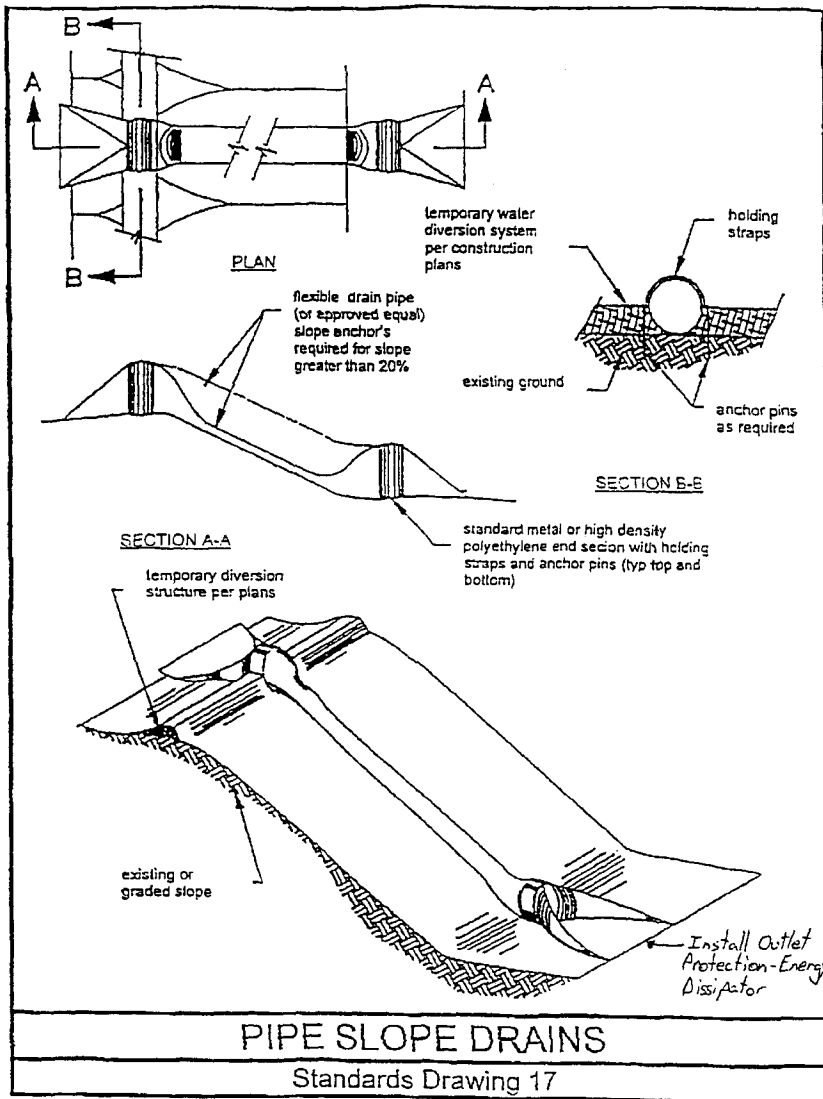












**ENERGY DISSIPATOR**

- Purpose:** Physical devices placed at pipe outlets and in channels reduce the velocity and energy of concentrated storm water flows. Outlet protection helps to prevent scour and to minimize the potential for downstream erosion.
- Application:**
- ▶ Outlets of pipes, drains, culverts, conduits, or channels.
  - ▶ Outlets located at the bottom of mild to steep slopes.
  - ▶ Outlets of channels that carry continuous flows of water.
  - ▶ Outlets subject to short, intense flows of water, such as from flash floods.
  - ▶ Where lined conveyances discharge to unlined conveyances.
- Limitations:**
- ⚡ Loose rocks or stones may wash away during high flows. Grouted riprap may breakup from hydrostatic pressure without adequate drainage.

**ENERGY DISSIPATOR**

Standards Drawing 18