B 7.3 Roof Drainage - Townsites

POLICY For the purpose of drainage of stormwater from roofs under the provisions of the Building Code of Australia, the Shire road network, within Shire of Northam townsites, is an approved stormwater disposal system.

OBJECTIVES To prevent nuisance and damage to property caused by roof stormwater drainage.

GUIDELINES See Procedures Roof Drainage
/G: /Procedures /Building /Roof Drainage_Townsites

HISTORY Adopted: 16/09/2009
Last Review: 16/10/2013

REVIEW Executive Manager, Development Services

ATTACHMENT 7.3
ROOF DRAINAGE - TOWNSITES

1. BACKGROUND

Stormwater from roofs in Shire townsites shall be channelled into a suitable pipe to be laid under the footpath of the adjoining street and discharged into street drains, in accordance with the Shire's specifications available from the Shire office.

The owner of such dwellings will bear the full cost of this work, which will be inspected by a Council employee before any kerb bonds are returned.

1.1 Outside of townsites where a stormwater system is not available, stormwater is to be managed in one of the following ways:

(a) installation of soak-wells;

(b) construction of a stormwater detention basin(s);

(c) construction of a diversion or catch drain(s) across a slope to convey runoff at a non-erosive velocity and to divert runoff from upslope areas around the site of a disturbance or an area at risk of erosion;

(d) construction of a level water spreader, which slowly discharges water from the outlet of a drain or pipe onto an undisturbed area stabilised by vegetation cover. The purpose of the spreader is to convert a concentrated potentially erosive outflow from a discharge point into non erosive sheet flow". A construction note illustrating this method is included as Appendix – I;

(e) installation of a weed-free hay bale barrier(s) positioned so as to intercept runoff and sediment. The primary purpose of the hay bale barrier is to reduce runoff velocities and filter runoff. A construction note illustrating this method is included as Appendix –2;

(f) installation of a sediment fence(s) to reduce runoff velocities and cause the deposition of silt. These fences are usually used to intercept sheet flow from disturbed areas. A construction note illustrating this method is included as Appendix – 3;

(g) planting of continuous vegetated buffers to intercept sediment laden sheet flow. The buffers remove the silt from runoff by trapping soil and sediment particles and are most effective where the flow is shallow and spread over a large area;

(h) any other method identified as being acceptable for controlling stormwater runoff from developments in Council's Stormwater Drainage Strategy or accompanying Application Guidelines.

1.2 Stormwater runoff during the construction phase of a development shall be managed in accordance with the following principles:

(a) topsoil is to be retained on site and redistributed to disturbed areas post-construction;

(b) soil must be prevented from being washed off site and must be kept out of any existing or proposed drainage system(s);

(c) mulching, revegetation or other stabilisation of disturbed sloping areas;

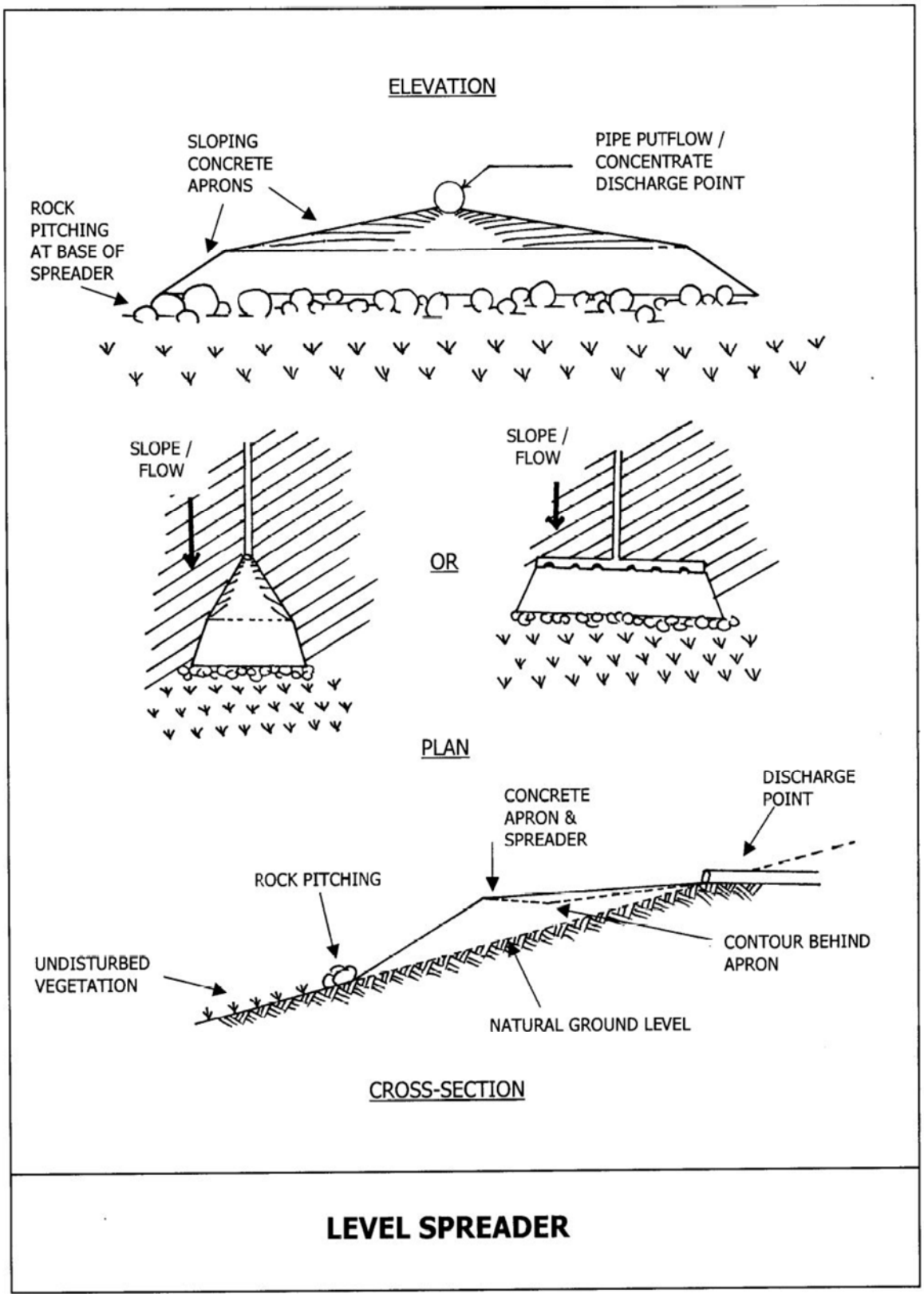
(d) construction of a level water spreader, which slowly discharges water from the outlet of a drain or pipe onto an undisturbed area stabilised by vegetation cover. The purpose of the spreader is to convert a concentrated potentially erosive outflow from a discharge point into non-erosive sheet flow;

(e) provision of stabilised site access. A construction note illustrating this method is included as **Appendix – 4**.

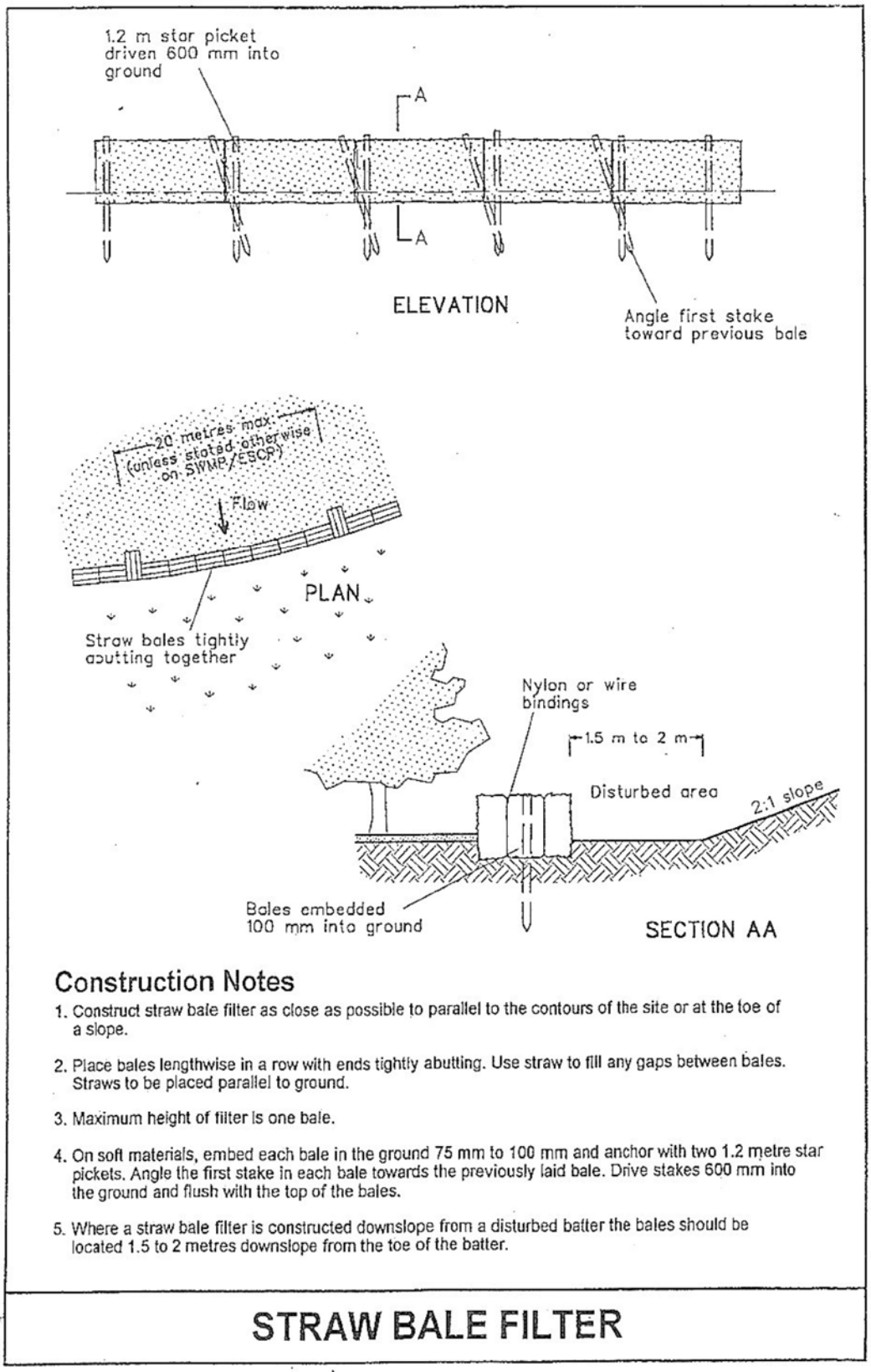
1.3 Council may at its discretion require the applicant of a development proposal to submit a detailed stormwater management plan for Council's consideration before determining their application, or as a condition of any Planning Approval granted for the development. Where required, such plan shall demonstrate to Council's satisfaction how stormwater runoff from the development will be managed to comply with the objectives of this Policy.

1.4 The information contained within and the requirements of this Policy do not remove or replace the need for any professional engineering or hydrological advice in the preparation of stormwater management solutions for new developments.

Appendix 1: Item 15



Appendix 2: Item 15



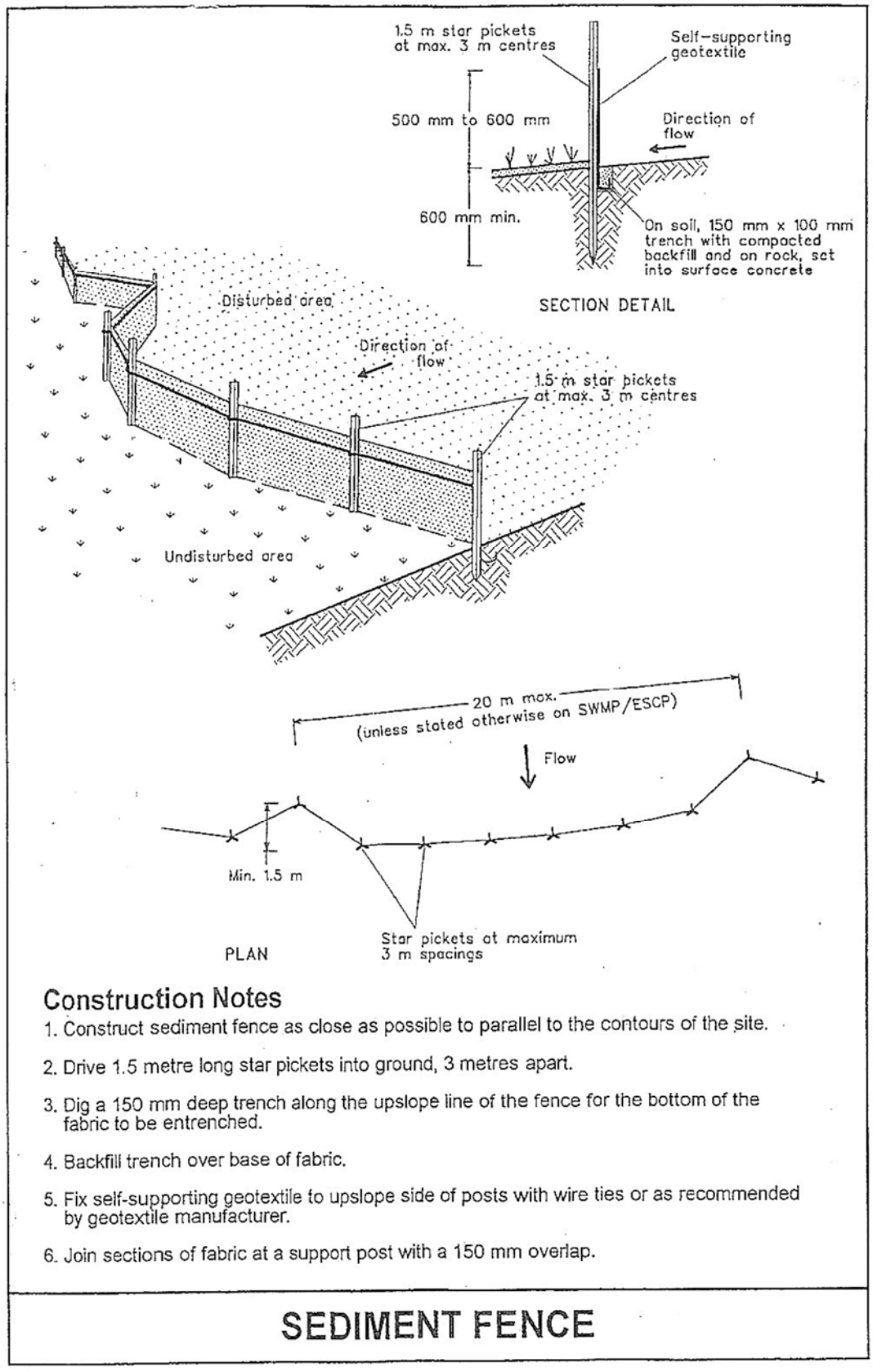
Construction Notes

1. Construct straw bale filter as close as possible to parallel to the contours of the site or at the toe of a slope.
2. Place bales lengthwise in a row with ends tightly abutting. Use straw to fill any gaps between bales. Straws to be placed parallel to ground.
3. Maximum height of filter is one bale.
4. On soft materials, embed each bale in the ground 75 mm to 100 mm and anchor with two 1.2 metre star pickets. Angle the first stake in each bale towards the previously laid bale. Drive stakes 600 mm into the ground and flush with the top of the bales.
5. Where a straw bale filter is constructed downslope from a disturbed batter the bales should be located 1.5 to 2 metres downslope from the toe of the batter.

STRAW BALE FILTER

(Source: Local Government NRM Policy Manual – Erosion and Sedimentation Control Guidelines for the Swan Coastal Plain (EMRC, 2002)).

Appendix 3: Item 15



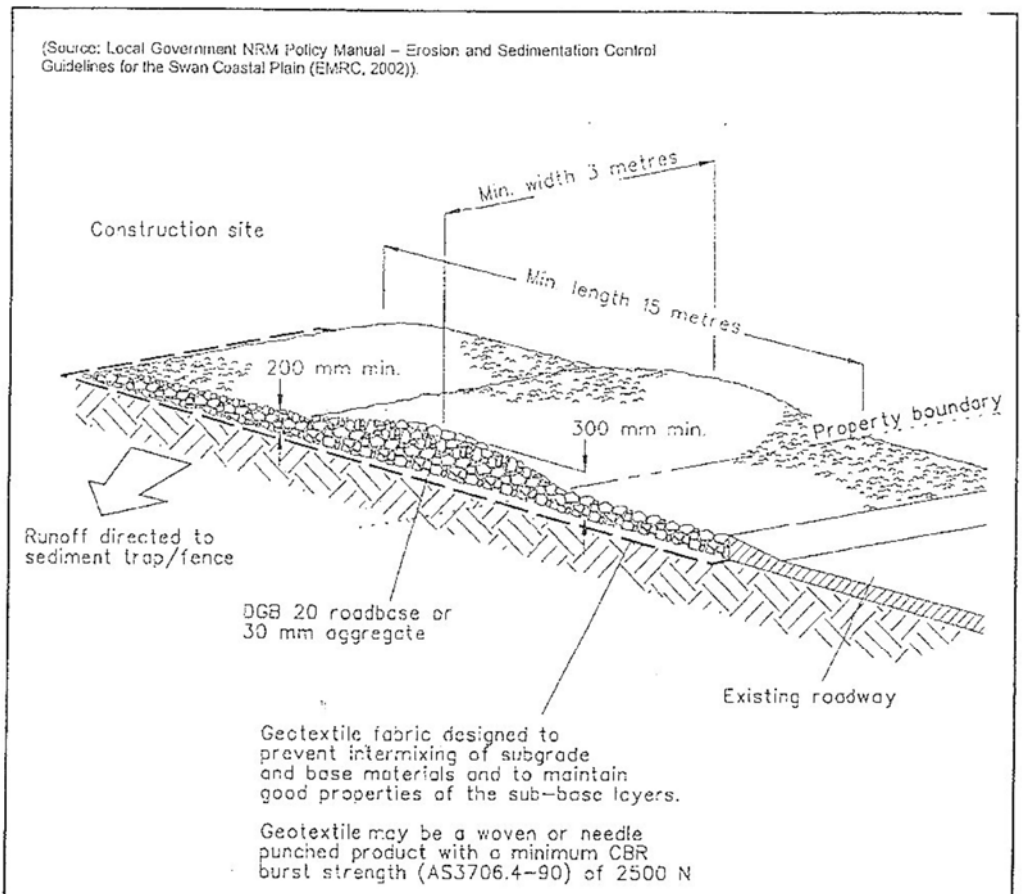
Construction Notes

1. Construct sediment fence as close as possible to parallel to the contours of the site.
2. Drive 1.5 metre long star pickets into ground, 3 metres apart.
3. Dig a 150 mm deep trench along the upslope line of the fence for the bottom of the fabric to be entrenched.
4. Backfill trench over base of fabric.
5. Fix self-supporting geotextile to upslope side of posts with wire ties or as recommended by geotextile manufacturer.
6. Join sections of fabric at a support post with a 150 mm overlap.

SEDIMENT FENCE

(Source: Local Government NRM Policy Manual – Erosion and Sedimentation Control Guidelines for the Swan Coastal Plain (EMRC, 2002)).

Appendix 4: Item 15



Construction Notes

1. Strip topsoil and level site.
2. Compact subgrade.
3. Cover area with needle-punched geotextile.
4. Construct 200 mm thick pad over geotextile using roadbase or 30 mm aggregate. Minimum length 15 metres or to building alignment. Minimum width 3 metres.
5. Construct hump immediately within boundary to divert water to a sediment fence or other sediment trap.

STABILISED SITE ACCESS