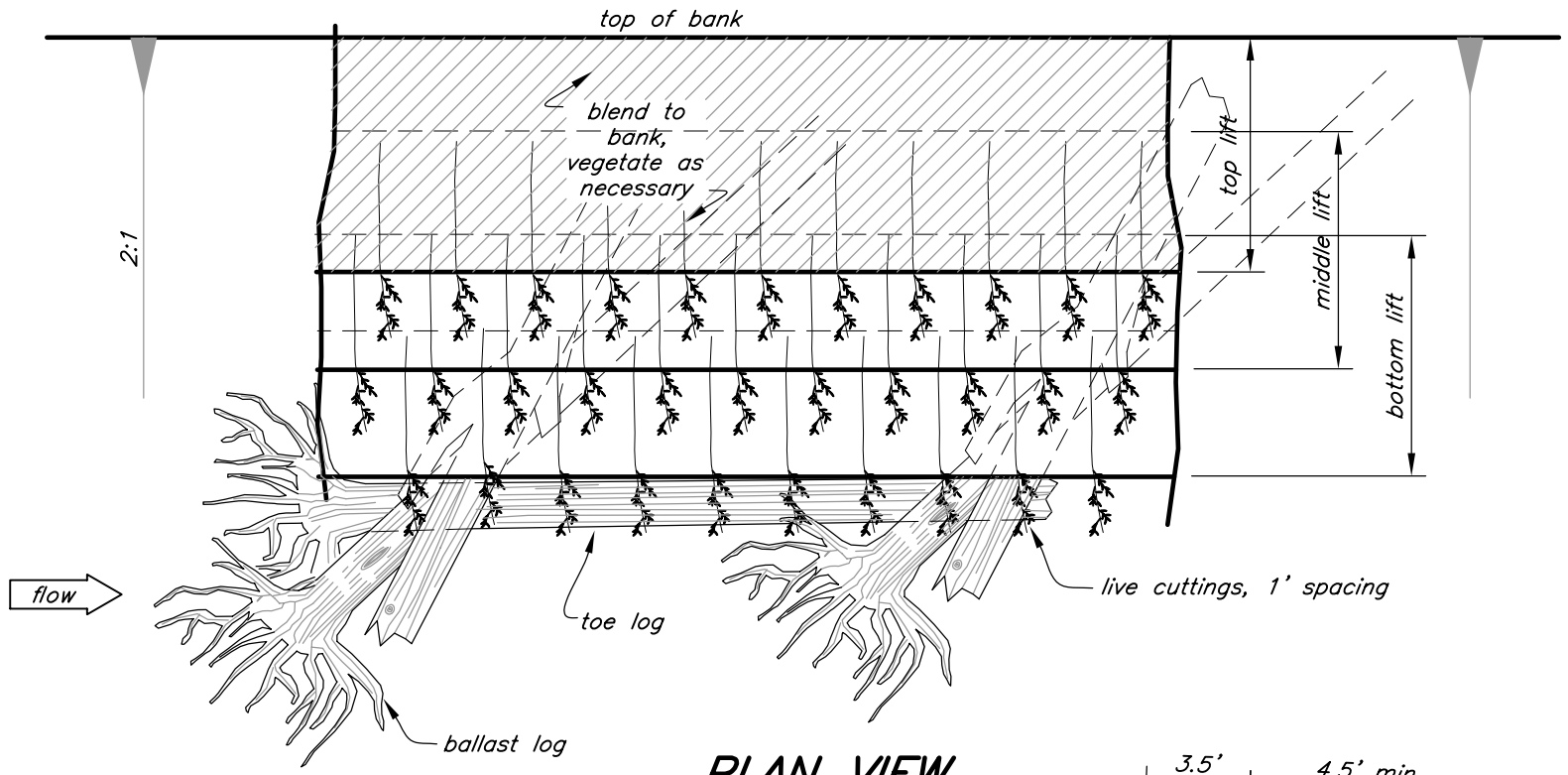
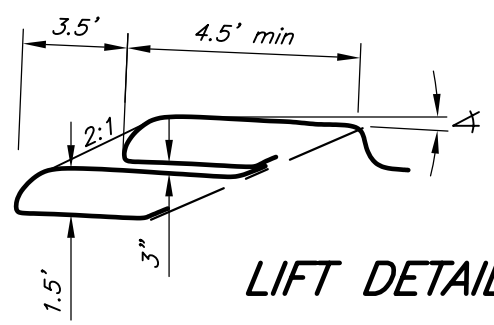


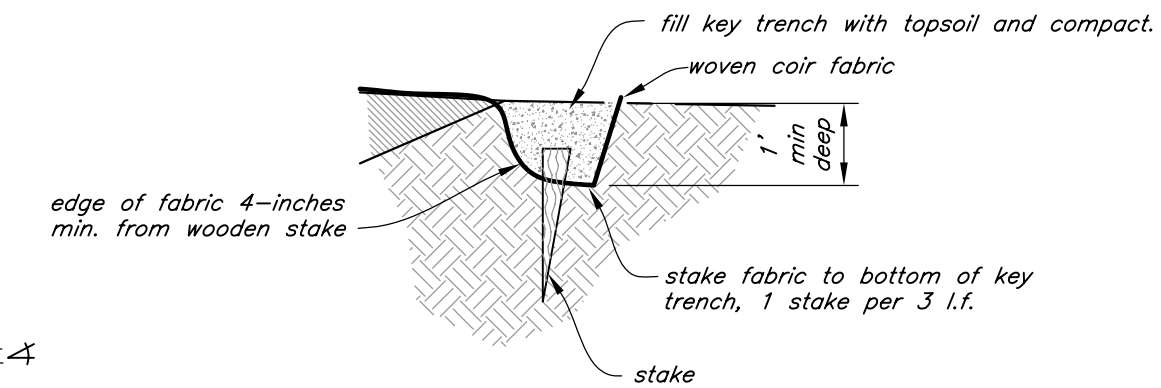
PLAN VIEW

GENERAL NOTES

1. Minimum length of live cuttings shall be 4' to 6' with a diameter of 1/2" to 2".
2. Embed live cuttings 4 feet into reinforced earth.
3. Installation shall occur while vegetation is dormant.
4. Logs shall be 1.5'ø, 20' long with 4' rootwad. Embed ballast logs 13' min. into bank. Ballast log shall be placed with a "tight" connection to restrain toe log.



LIFT DETAILS



KEY TRENCH DETAIL

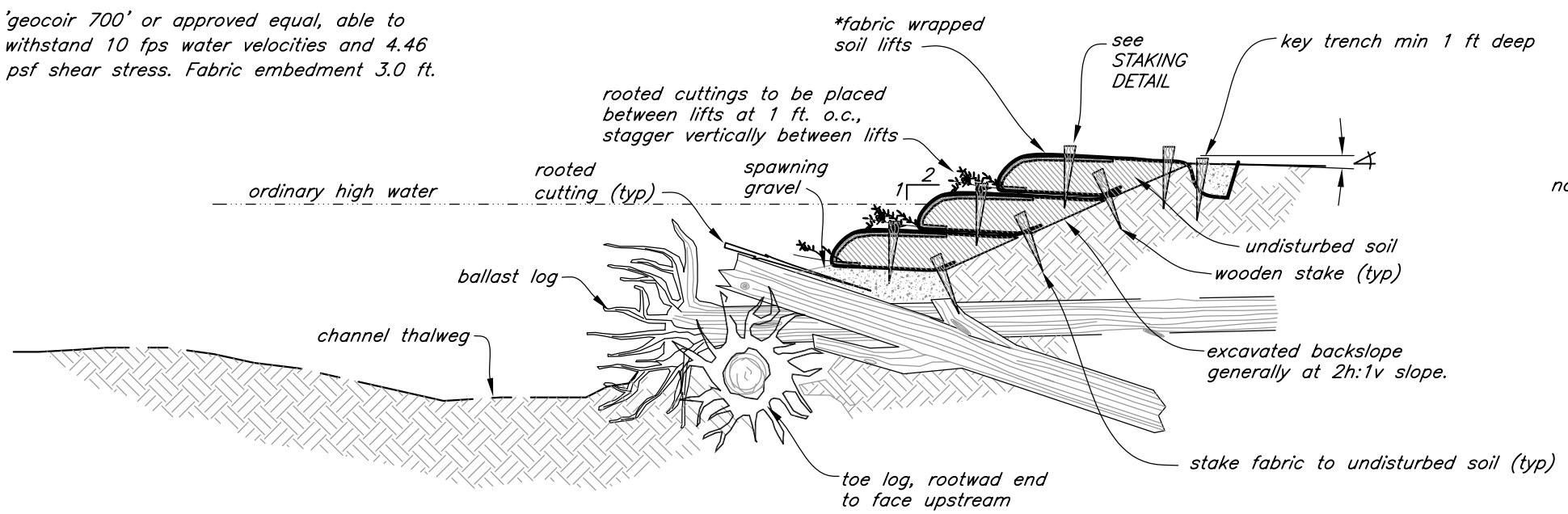
NOTES:

*Number of lifts may vary

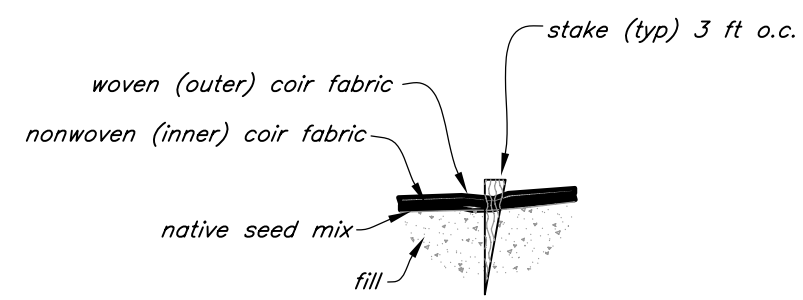
Fill: topsoil, stone, or spawning gravel

Fabric: nonwoven coir (inner) and woven coir (outer)

Coconut erosion control blanket shall be 'geocoir 700' or approved equal, able to withstand 10 fps water velocities and 4.46 psf shear stress. Fabric embedment 3.0 ft.



SECTION



STAKING DETAIL

This drawing requires supporting technical documentation prior to use and must be adapted to the specific site.

Drawing not to scale.

Designed
Drawn NRCS OREGON
Checked
Approved
Title
Date 5/2006

REINFORCED EARTH BANK TREATMENT

STREAMBANK RESTORATION

NRCS
Natural Resources Conservation Service
United States Department of Agriculture

File Name or_rein_earth.dwg
Drawing No.

Sheet 1 of 1

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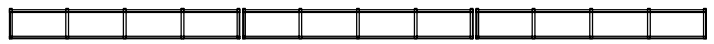

FIG 1. Place a row of construction forms along desired channel alignment for first lift.

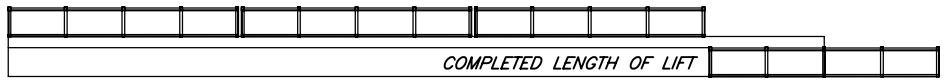

FIG 2. Construct fabric wrap lifts along length of first set of forms and then begin placement of forms and construction of second lift.

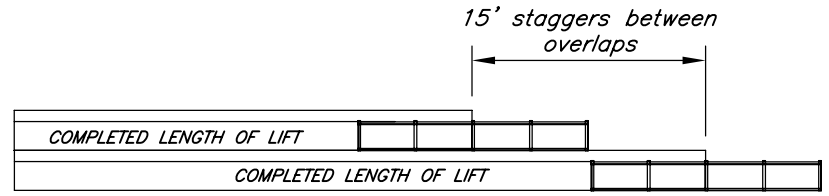

FIG 3. Stagger fabric overlaps a minimum of 15' between lifts.

SUGGESTED SEQUENCE FOR PLACEMENT OF FORMS

PROFILE VIEW LOOKING INTO BANK

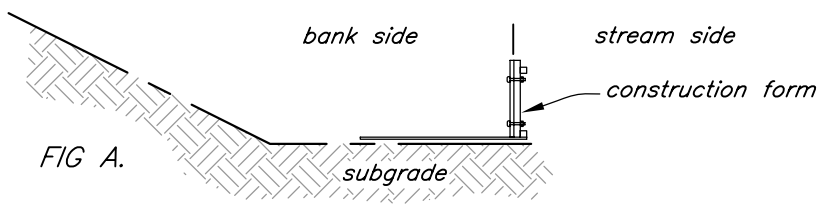

FIG A.

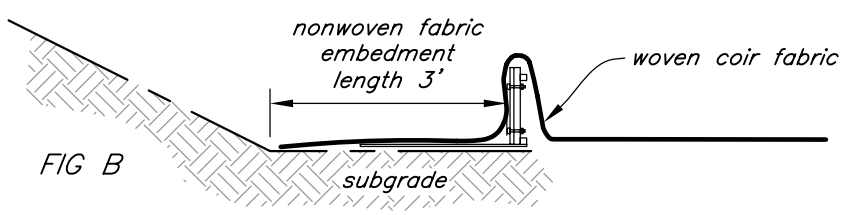

FIG B

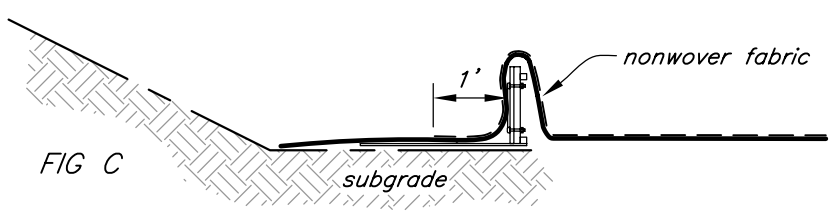

FIG C

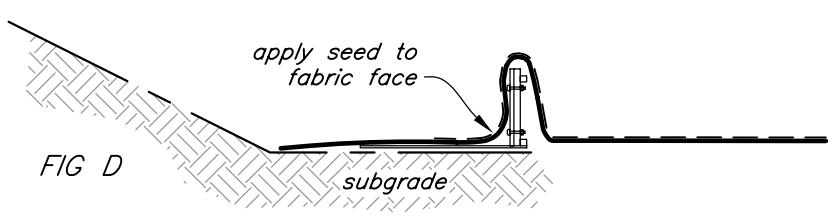

FIG D

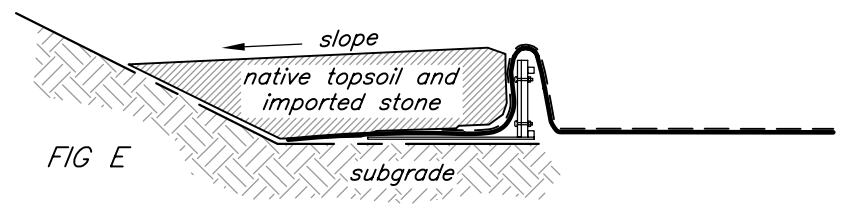

FIG E

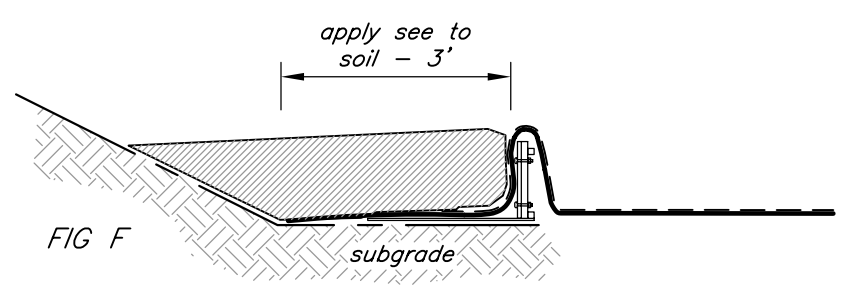

FIG F

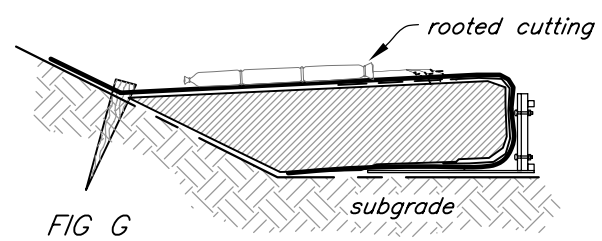

FIG G

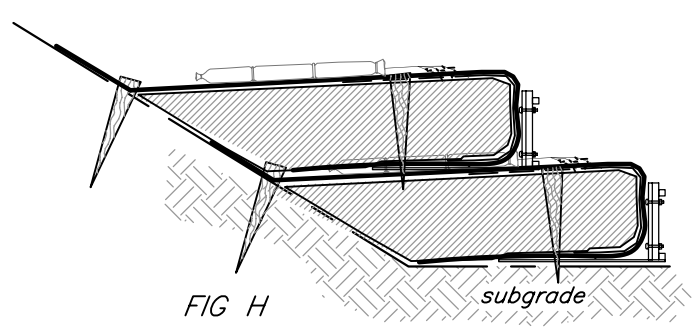

FIG H

GENERAL INSTRUCTIONS FOR CONSTRUCTING REINFORCED EARTH LIFTS

1. Banks may be constructed in either an upstream or downstream direction, as long as the fabric is overlapped in the proper direction.

2. Check plans and specifications: each lift may have a unique fill composition and varying placement of rooted cuttings.

3. Place a series of three or more forms on the ground so that the forms follow the proposed stream bank alignment. Butt the ends of the forms tightly together.

4. Unroll the woven coir fabric parallel to the long axis of the channel and position it so that 3.0 feet extends for embedment on the bank side of the forms (FIG. B), and a minimum 3 feet extends lengthwise beyond the last form for overlap. Drape the remainder of the fabric over the top of the forms on the stream side (FIG. B).

5. Unroll the nonwoven coir fabric over the top of the woven coir fabric (FIG. B) and position it so that at least 1 foot of the inner fabric extends as an embedment length on the bank side of the forms (FIG. C). Drape the remainder of the fabric over the top of the forms on the stream side and align the long edges of the coir fabrics. Stretch and pull the fabric layers to remove wrinkles.

6. Apply native seed mix to nonwoven coir fabric along vertical edge of lift (FIG. D). Place specified fill over the fabric on the bank side of the forms. Slope the fill downward to the bank and compact to 85–90 percent standard proctor density (FIG. E).

7. Apply native seed mix to top of fill from the front of the lift to 3 ft back from front of the lift (FIG. F).

8. Fold the loose ends of the two coir fabric layers back over the compacted fill material and stretch tightly to remove wrinkles (FIG. G). Secure with wooden stakes 1 per 3 L.F. Along the back edge and into undisturbed soil.

9. Remove the forms from the front of the completed lifts (FIG. 2). Leave the last form in place at the end of the newly constructed lift (FIG. 2). Place rooted cuttings on top of the finished layer for the next lift (FIG. G). Place a small amount of topsoil around the burlap sock of the rooted cutting. Carefully reset the forms on top of the finished layer for the next lift (FIG. H) to avoid damaging the rooted cutting.

10. Proceed with a new series of lifts by extending a new row of forms. Beginning at the end form that was left in place, lay out two new layers of fabric as previously described, making sure to overlap the new fabric layers with the previous layers. Stagger overlaps, between adjacent lifts by a minimum of 15 feet (FIG. 2).

11. On the top lift, excavate a key trench 1.5 feet wide and 1 foot deep along the edge of the woven coir fabric layer, parallel to the forms. Secure fabric in the key trench with wooden stakes, 3 ft o.c..

12. Backfill the key trench with topsoil and continue to apply topsoil to smoothly merge with existing contours. Apply native seed mix to key trench area.

This drawing requires supporting technical documentation prior to use and must be adapted to the specific site.

Drawing not to scale.

Date 5/2006
Designed
Drawn KLY
Checked
Approved
Title

REINFORCED EARTH BANK INSTRUCTIONS

STREAMBANK RESTORATION

NRCS
Natural Resources Conservation Service
United States Department of Agriculture

File Name
or_rein_earth.dwg
Drawing No.

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