WoodenBulkheadGeotextileInstallationGuide

BULKHEAD

Geotextile
1.0 General
1) This guideline covers general installation of a wooden bulkhead with a geotextile.
2) Where contradictions occur follow the instructions of the project engineer.

2.0 Install Pilings
1) Drive pilings approximately every 5 to 6 foot to an appropriate depth.
   a) A minimum of 4 foot depth is typical.
   b) A concrete footing for the pilings may also be necessary.
   c) Typical pilings are 6 x 6 inch pressure treated lumber.

3.0 Attach Wales
1) Attach wales horizontally to the pilings approximately every 1 foot.
   a) Attach with large galvanized fasteners in 3 to 4 locations.
      i) Number of locations depends on the bulkhead height.
   b) The wale size depends on the spacing between the pilings and the amount of earth
      retained behind the bulkhead.
      i) Typical sizes are 2 x 6 inch or 4 x 6 inch.

4.0 Drive Center Match
1) Drive center match approximately 2 feet below mud line and attach to wales.
   a) Center match is a sheathing material.
      i) Typically 2 x 6 inch to 2 x 10 inch tongue and groove pressure treated lumber.

5.0 Place Geotextile
1) Place the geotextile behind and against center match.
2) Attach the fabric to bulkhead with a hammer tacker or similar means to hold it in place until backfilled.

6.0 Install Deadman
1) Excavate further back behind bulkhead and place deadmen.
2) Bolt tie rods from deadmen through the bulkhead.
   a) A typical deadman is a round post 4 to 6 inches in diameter and 6 to 8 feet long.

7.0 Backfill Material
Install gravel or sandy backfill behind the bulkhead.
8.0 Optional Riprap

1) You may also need to place riprap at the toe of the bulkhead.
2) Riprap fabric should be placed underneath the area to be covered with riprap and against the bulkhead to the height of the riprap placement.
3) For information on installing riprap, see our Riprap Installation Guide.

9.0 Storage

1) Riprap fabric rolls are wrapped in a UV protective cover.
2) If stored outdoors for a prolonged period, geotextile must be elevated from the ground and covered with a tarpaulin or opaque plastic.
   a) Contractor must insure rolls are adequately protected from:
      i) Moisture
      ii) Ultraviolet radiation
      iii) Chemicals that are strong acids or bases
      iv) Temperatures in excess of 140°F
      v) Animal destruction