

Bid Specifications: Rip Rap Installation at East Beach

May 2010

1. Purpose:

This bid specification describes the Standard Operating Procedure and installation protocols for shoreline rip rap placement to protect the RCD owned Lake Court Center and Dam Dock area of Lost Lake from soil erosion. It will be used as the protocol for installation of rip rap placed on the Lake Court Center and Dam Dock Shorelines. The bidding on this project shall be done on a time and materials basis with a not to exceed maximum.

2. Procedure:

2.1. Rip rap installation procedure:

- 2.1.1. A maximum of 2:1 slope is required for the installation of rip rap. If the shoreline is greater than a 2:1 slope, the shoreline must be graded to a 2:1 slope before rip rap is installed.
- 2.1.2. The rip rap will be installed to a minimum of 2 feet above normal pool elevation. In areas where the shoreline elevation does not reach 2 feet above normal pool, the natural shoreline grade shall be followed.
- 2.1.3. Rip rap is to be placed as soon as possible after grading to minimize erosion.
- 2.1.4. The rip rap shall be placed 16 inches thick for shoreline stabilization and shall meet the criteria of IDOT RR#3 having an average size of 6 to 10 inches in diameter and shall not contain more than 10% fine and be of Quality A as determined by IDOT soundness testing.
- 2.1.5. Rip rap will be installed on non-woven geo-textile filter fabric with a minimum weight of 6 oz/ square yard and meeting IDOT specifications as outlined in section 1080.03 for use under rip rap- gradation 4 and 5. Bedding material (consisting of well graded gravel with a maximum size of 1 inch) will be installed over the fabric at a minimum of 3 inches thick.
- 2.1.6. The filter fabric shall be pinned in place to ensure no movement of the fabric during the construction phase and care shall be taken to avoid damage to or displacement of the filter fabric. Riprap shall not be dropped over 12" onto the fabric and no equipment shall be allowed to drive on the filter fabric or rock at any time. Utmost care must be taken to ensure the fabric is not compromised.
- 2.1.7. Upon completion of the rip rap installation, re-seeding of the top soil above the rip rap is required for any areas that are disturbed.
- 2.1.8. The use of erosion blankets is required where soils will be exposed during re-seeding.

3. Resources:

3.1.1.IDOT Specifications for rip rap and filter fabric:

<http://www.dot.il.gov/desenv/spec2007/div1000.pdf>

See section 1080.03 for filter fabric specifications

See section 1005.01 for rip rap specifications

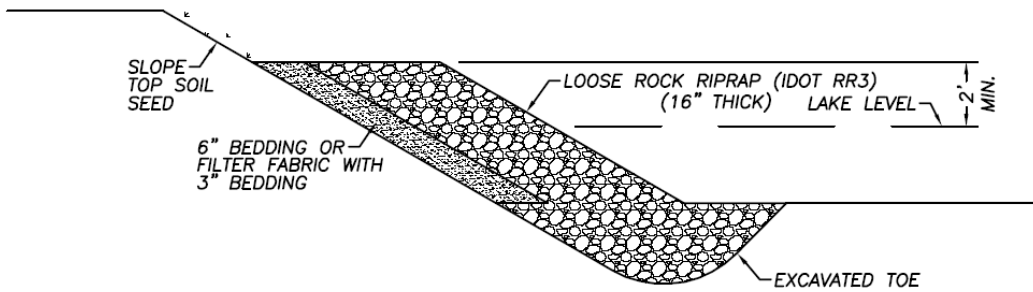
3.1.2.Data sheets for filter fabric suppliers: (you are not restricted to these vendors)

SI Geosolutions:

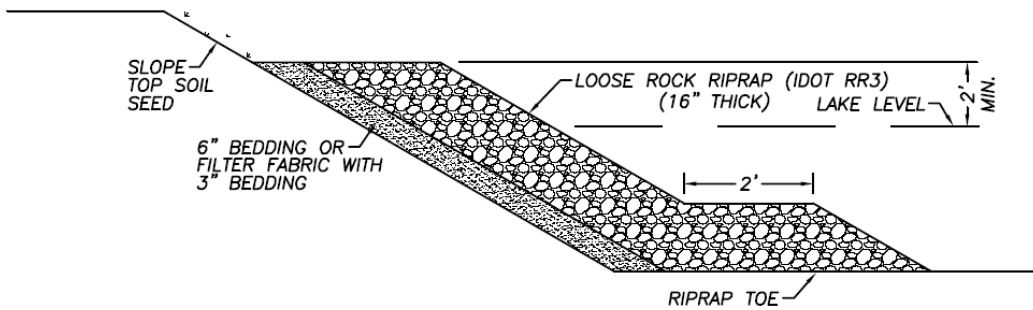
http://www.geo-synthetics.com/pdf/products/SI/product_144.pdf

US Fabrics, Inc.:

<http://www.usfabricsinc.com/media/products/US160NW.pdf>



TYPICAL CROSS SECTION - ALTERNATE NO. 1



TYPICAL CROSS SECTION - ALTERNATE NO. 2