

CRRA Hartford Landfill Capping Project Expression of Interest for Soils

The **Connecticut Resources Recovery Authority** will be undertaking closure activities at its Hartford Landfill during the next several years. Waste receipts will cease on or before December 31, 2008. Certain areas of the landfill have already reached capacity and are ready to be closed now. Closure of approximately 45 acres of the MSW/Interim Ash area is scheduled to begin during summer 2007 and extend into the 2008 construction season.

At this time, CRRA is interested in identifying sources of both **Topsoil** and **Cap Base Material** which may be amenable for use on this project.

Topsoil

The material specification for **Topsoil** is as prescribed in the CTDOT standards: Form 816; Material Specification M.13.01 – Topsoil

Additionally, **Topsoil** must meet the Residential DEC and the GA PMC pursuant to the Connecticut Remediation Standard Regulations (RSRs).

CRRA expects it will need approximately 54,000 yards of topsoil to cap the 45 acre area during the next year. CRRA is not inclined to consider discrete increments of less than 5,000 yards. Additional **Topsoil** will be needed in subsequent years.

Cap Base Material

The **Cap Base Material** must meet the material specifications described on the attached page.

Because this material will be placed underneath the synthetic membrane cover, CRRA will consider soils that exceed the I/C RSR standard. In this case, CTDEP approval as a special waste will be required.

CRRA estimates it will need approximately 36,000 yards of **Cap Base Material** in the next year. CRRA is not inclined to consider discrete increments of less than 5,000 yards. Additional **Cap Base Material** will be needed in subsequent years.

You may contact either David Bodendorf at 860-757-7721, or Peter Egan at 860-757-7725 if you have questions, or if you have soil that may meet these criteria.

This is neither a solicitation to buy nor an offer to accept any soil. CRRA reserves the right to reject all prospective increments of soil. Pricing for specific increments of soil will be negotiated on a case-by-case basis. Acceptance of soils for the Hartford Landfill capping project will be pursuant to an agreement between CRRA and the delivering party.

2.2 CAP BASE

- A. Cap Base Material. Naturally or artificially graded mixture of natural or crushed gravel free of sharp edges, and natural or crushed sand.
1. Use directly beneath landfill geomembrane liner.
 2. Minimum Permeability: ASTM D 5084, 1.0×10^{-3} cm/sec when compacted at optimum to 3 percent of optimum moisture content, and 90 percent of maximum density in accordance with ASTM D 1557.
 - a. Test samples at effective confining pressure of 3 psi, under hydraulic gradients ranging from 5 to 20.
 3. Minimum Interface Friction Angle: Between the cap base material and geomembrane liner. Test shall be performed with cap base material compacted to a dry density equal to a range between 85 and 90 percent of the maximum density, at a moisture content 3 percent wet of optimum moisture, obtained in accordance with ASTM D 1557 and tested in accordance with ASTM D 5321 after soaking the prepared samples for a period of at least 24 hours to obtain uniform moisture content in the materials being tested. The specimens shall be sheared via the large scale direct shear method at a rate of 0.005 in/minute at 1, 5 and 12 psi normal stresses.
 - a. Material proposed for slopes >10%: Minimum interface friction angle of 29 degrees peak and 29 degrees residual.
 - b. Material proposed for slopes ≤10%: Minimum interface friction angle of 18 degrees peak and 18 degrees residual.
 4. Minimum Internal Friction Angle: Shall be 29 degrees when tested in accordance with ASTM D 3080. Test shall be performed with cap base material compacted to a dry density equal to a range between 85 and 90 percent of the maximum density, at a moisture content 3 percent wet of optimum moisture, obtained in accordance with ASTM D 1557 after soaking the prepared samples for a period of at least 24 hours to obtain uniform moisture content in the materials being tested. The specimens shall be sheared via the large scale direct shear method with 1, 5 and 12 psi normal stresses.
 5. Minimum Compacted Wet Unit Weight: Shall be 110 pounds per cubic foot when compacted to 90 percent of maximum dry density at a moisture content of 3 percent wet of optimum, obtained in accordance with ASTM D 1557.
 6. Meet the following gradation:

<u>U.S. Standard</u> <u>Sieve Size</u>	<u>Percent Finer</u> <u>By Weight</u>
1-inch	100
No. 10	30-90
No. 40	10-70
No. 200	0-10