

CCR LANDFILL CLOSURE

Project Scope Highlights

- Compliance grading of the subgrade
- Installed 25 acres of 40 mil LLDPE flexible membrane liner
- Installed 25 acres of geo-composite drainage membrane
- Loaded, hauled and placed 24" of final soil cover on top of liner system
- Installed 3,605 LF of perimeter geo-composite outlets
- Installed 6,000 LF of tack-on benches with subsurface geo-composite outlet
- Installed 1,400 LF of Hydro-Turf down chutes with hydro-binder infill
- Hydro-seeded and installed double straw matting on all areas disturbed by construction activity

Project Overview

The Landfill was constructed to serve the needs of a large-scale basin excavation that occurred over a 2-year time frame. The basin excavation exceeded 2M CY of CCR material, requiring multiple phases of landfill construction and closure. The landfill closure was accomplished with a traditional work scope including LLDPE liner, geo-membrane, final soil cover and engineered Hydro-Turf down chutes to carry water off the landfill slopes.

Project Challenges and Solutions

Several items were encountered throughout the life cycle of this project that created the following challenges and solutions:

- An existing Hydro-Turf ditch surrounded the landfill creating site access issues throughout the project. Spoils from subgrade preparation and cover soil had to be loaded over the existing ditch. In order to maximize production and increase operational efficiencies, Trans Ash utilized specialty equipment, including long reach excavators to load the material across the perimeter ditch.
- Throughout the project life cycle, installation of the tack-on bench, geo-composite outlets proved to be a challenge. With the specification restrictions on the liner, installation had to be from the bottom up, necessitating equipment and personnel travel across the previously installed outlets. Trans Ash protected the completed areas with additional 8oz. non-woven fabric which minimized the rework activity.
- During the closure process, the design for the down chutes was continually revised. Trans Ash worked closely with the engineer of record and the client to ensure the design that was implemented would be provide sufficient performance for the life of the landfill.



Final CCR Placement



Subgrade Prep



Liner Installation



Geosynthetic Liner System Install



Tack-on Bench Construction

- Due to a previous environmental issue at this facility, the site was under constant scrutiny by state regulators and environmental groups. Trans Ash employed strict environmental control measures to ensure the project's compliance.

“Trans Ash worked cooperatively with our staff and the design engineers to provide creative solutions to the project challenges and complete the project on schedule and on budget.”



Cover Soil Placement



Final Grading & Seeding