

ENTERED

Triassic Park
Admin. Record**Subject: Cost Estimate for Triassic Park LF Closure Design****Date:** Thu, 08 Nov 2001 07:37:37 -0500**From:** "Stephen J. Druschel, PE" <sdruschel@pathfinderenv.com>**To:** <david_cobrain@nmenv.state.nm.us>

David,

Here is the cost estimate you requested. I have reviewed landfill closure design estimates and bids that I had done in the past to gain a realistic basis. All billing rates are for 2001 fiscal year, and are based on my understanding of consulting engineer firms that I know to have experience in landfill closure design. Simply stated, the cost listed below is my estimate to do the closure design either using subcontractors or a team assembled by myself.

Basis of Estimate: The landfill is 35 acres in size. The design would be presented at 50 scale or 100 scale for all plan views, as listed below. It is assumed that no assistance would be available from the operator at the time of design, but that the original construction plans and survey would be available as part of the permit to operate. Further, it is assumed that no significant remediation of the landfill would be necessary, only cover system installation. No post-closure use of the landfill would be considered, only monitoring and maintenance activities. Finally, no treatment of the landfill leachate would be considered, the leachate would be treated at an off-site, permitted disposal facility.

The design effort would result in plans, specifications, a design memorandum, a construction quality assurance plan and a health and safety plan outline. This work would be delivered ready for bid and construction. The design would incorporate the following elements: grading, surface water control, erosion and sediment control, geotechnical stability analysis, geotechnical settlement analysis, cover system (layer) design, and landfill gas control.

The following drawings would be prepared:

Cover Sheet

Abbreviations

Existing Conditions (2 sheets at 50 scale)

Grading Plan (Subgrade Level) (2 sheets at 50 scale)

Finish Grading/Surface Treatment Plan (2 sheets at 50 scale)

Site Layout and Traffic Plan (1 sheets at 100 scale)

Sediment and Erosion Control (1 sheet at 100 scale)

Sections (4 Sheets)

Details (3 Sheets)

17 Sheets total

Specification Sections - Assume 15 Sections

Design Estimate:

Engineer 80 hours @ \$70/hr = \$5600

CADD Designer 120 hours @ \$60/hr = \$7200

Computer Fees 120 hours @ \$40/hr = \$4800

Aerial Mapping Cost = \$4000

Project Manager/Quality Control 40 hours @ \$100/hr = \$4000

Administrative Support 32 hours @ \$45/hr = \$1440

Printing and Shipping Costs = \$500

Total Cost \$27,540

Please feel free to contact me if you have any questions.

Stephen J. Druschel, PE
TechLaw, Inc.
64 Forest Street
South Hamilton, Massachusetts 01982
(978) 468-4525
(978) 468-6696 fax