



HODGES, HARBIN,  
NEWBERRY & TRIBBLE, INC.

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June 10, 2014

Approved, 8/19/2014

Ms. Sarah Rice  
Compliance Officer – Solid Waste Section  
North Carolina Dept. of Environment & Natural Resources  
217 W. Jones Street  
Raleigh, NC 27603

**Re: Charlotte Motor Speedway Landfill V  
Cabarrus County, North Carolina  
Facility Permit No. 13-04  
Closure / Post-Closure Cost  
HHNT Project No. 6703-458-05**

Dear Ms. Rice:

I have enclosed the updated Closure/Post-Closure Cost Estimate for Financial Assurance on the subject project. Please note, these costs have been updated for inflation using the 2014 inflation factor of 1.015. These costs are summarized below:

Closure Costs.....	\$13,245,181.05
Post-Closure Costs.....	\$6,077,515.50
Potential Assessment and Corrective Action.....	<u>\$2,000,000.00</u>
Total Financial Assurance .....	\$21,322,696.55

The annual financial assurance mechanism will be submitted under separate cover.

Should you have any questions, please call.

Sincerely,

**HODGES, HARBIN, NEWBERRY & TRIBBLE, INC.**

H. Lowry Tribble, Jr., P.E.  
Principal

HLTjr/ml

Enclosure



cc: Edward F. Mussler, III, P.E. (w/ enclosure)  
Mike Gurley (w/ enclosure)

John Murray, P.E. (w/ enclosure)  
Bart Keller (w/ enclosure)

**CHARLOTTE MOTOR SPEEDWAY LANDFILL V  
CABARRUS COUNTY, NORTH CAROLINA**

**CLOSURE CARE COST ESTIMATE  
JUNE 2014**

**GENERAL**

Largest Area: Cells No. 1A, 1B, 2A-I, 2L = 11,430,144 s.f. = 262  
 Subtract Acreage Previously Closed = 56.7  
 262.4-56.7 = 205.7 = 8,960,292 s.f.

**CLOSURE CARE COST ESTIMATE**

1	6" Vegetative Cover					
		8,960,292 s.f. x 0.5 ft. ÷ 27 ft <sup>3</sup> /cy = 165,931 c.y. @	\$2.70 =	\$448,013.70		
		(soil cost \$0.50/ c.y. - Haul Cost \$1.90 / c.y. - Placement Cost \$0.30 / c.y.)				
2	18" Cover Soil					
		8,960,292 s.f. x 1.5 ft. ÷ 27 ft <sup>3</sup> /cy = 497,794 c.y. @	\$2.70 =	\$1,344,043.80		
		(soil cost \$0.50 / c.y. - Haul Cost \$1.90 / c.y. - Placement Cost \$0.30 / c.y.)				
3	18" Infiltration Layer (1 x 10 <sup>-5</sup> cm/sec) (Not required on slopes >5%)					
		654,053 s.f. x 1.5 ft. ÷ 27 ft <sup>3</sup> /cy = 36,336 c.y. @	\$7.50 =	\$272,522.08		
		(soil cost \$1.50 / c.y. - Haul Cost \$4.00 / c.y. - Placement Cost \$2.00 / c.y.)				
4	Drainage Layer (Geofabric Geonet)					
	Material	8,960,292 s.f. @	\$0.35 =	\$3,136,102.20		
	Labor	8,960,292 s.f. @	\$0.09 =	\$806,426.28		
5	FML					
	Material & Installation	8,960,292 s.f. @	\$0.45 =	\$4,032,131.40		
6	Seed					
		70 #/ac x 206 ac = 14,420 # @	\$5.15 =	\$74,263.00		
7	Fertilizer					
		0.8 tons/ac x 206 ac = 155 tons @	\$400.00 =	\$61,800.00		
8	Lime					
		1 ton/ac x 206 ac = 206 tons @	\$100.00 =	\$20,600.00		
9	Mulch					
		206 ac @	\$250.00 =	\$51,500.00		
10	Labor for Seeding, Fertilizing, Liming & Mulching					
		206 ac @	\$400.00 =	\$82,400.00		
11	Silt Fence					
		4,000 l.f. @	\$3.10 =	\$12,400.00		
12	Final Disposal of Waste & Cleanup					
		600 tons @	\$42.00 =	\$25,200.00		
13	Side Slope Berm Construction					
		92,472 l.f. @	\$11.00 =	\$1,017,192.00		
14	Downdrain Construction					
		16,390 l.f. @	\$15.50 =	\$254,045.00		
15	Ditch Lining					
		24,910 s.y. @	\$5.00 =	\$124,550.00		
16	Additional Sediment and Erosion Control Construction					
		1 L.S. @	\$4,000.00 =	\$4,000.00		
17	Sediment Basin Cleanout					
		10,000 c.y. @	\$5.00 =	\$50,000.00		
18	Leachate Lagoon, Containment System & Pumping Station Alarm System					
		1 L.S. @	\$8,000.00 =	\$8,000.00		
19	Waste Limit Survey					
		1 L.S. @	\$12,000.00 =	\$12,000.00		
20	Engineering and Closure Certification					
		206 ac @	\$4,500.00 =	\$927,000.00		
21	Completion of Gas Extraction System (Methane pipe network, Valves, Condensate Sump, Wells Installed, &					
		16.3 ac @	\$17,500.00 =	<u>\$285,250.00</u>		

<b>TOTAL CLOSURE COST (2013)</b>	<b>\$13,049,439.46</b>
<b>INFLATION FACTOR(2014)</b>	<b>1.015</b>
<b>TOTAL CLOSURE COST (2014)</b>	<b><u>\$13,245,181.05</u></b>

**CHARLOTTE MOTOR SPEEDWAY LANDFILL V  
 CABARRUS COUNTY, NORTH CAROLINA  
 POST-CLOSURE CARE COST ESTIMATE  
 JUNE 2014**

1	Sediment & Erosion Control, Including Inspections, Repairs to Cap, Slope & Vegetation	1	L.S.	@	\$8,000.00	=	\$8,000.00
2	Sediment Basin Cleanout	3,500	C.Y.	@	\$6.30	=	\$22,050.00
3	Leachate Collection Treatment & Analysis (Average over 30 years)	1	L.S.	@	\$18,000.00	=	\$18,000.00
4	Alarm System Monitoring	1	L.S.	@	\$1,000.00	=	\$1,000.00
5	Engineering Inspections	4	yr	@	\$3,000.00	=	\$12,000.00
6	Air Emissions Testing	1	yr	@	\$15,000.00	=	\$15,000.00
7	Maintenance and Testing of the Methane Gas Collection System	1	yr	@	\$100,000.00	=	\$100,000.00
8	Final Cover Maintenance (Mowing, replace plantings, fill for erosion, etc.)	206	ac	@	\$90.00	=	\$18,540.00
	<b>ANNUAL POST-CLOSURE CARE COST (2013)</b>						<b>\$194,590.00</b>
	<b>INFLATION FACTOR (2014)</b>						<b>1.015</b>
	<b>ANNUAL POST-CLOSURE CARE COST (2014)</b>						<b>\$197,508.85</b>
	<b>30 YEAR POST-CLOSURE CARE COST (2014)</b>						<b>\$5,925,265.50</b>
9	Leachate System Decommissioning (one-time cost)	1	L.S.	@	\$150,000.00	=	\$150,000.00
	<b>INFLATION FACTOR (2014)</b>						<b>1.015</b>
	<b>30 YEAR TOTAL POST-CLOSURE CARE COST (2014)</b>						<b>\$6,077,515.50</b>