Engineer's Estimate of Probable Construction Costs Gude Landfill Remediation 30% Design November 2018

Mobilization and Bonding Includes trailers and utility connection (estimated §P 12% of Surveying Femior 2-8) Is S3.444.000 S3.444.000 S4.444.000	Item Cost Categories and Items	Description/Assumptions	Quantity	Units	Unit Cost	Total Cost
Motivation and Bonding	1 MOBILIZATION AND SITE PREPARATION					\$4,186,350
SurveyIng	Mobilization and Bonding	•	1	LS	\$3,444,000	\$3,444,000
Submittals	Suproving	of Items 2-8)	1	l C	¢120.000	
Remove Existing Clair Lipids Finese			1			
Remove Existing Storm Drains Structures 5,600 F 530 5313,000 F 530 518,000 Remove Existing Storm Drain Structures 1.6 EA 51,000 516,000 51	Submittals	Preparation and management of submittals	1	LS	\$90,000	\$90,000
Remove Existing Storm Drains Structures	Remove Existing LFG piping	6-8 -in HDPE	19,250			\$134,750
Remove Existing Storm Drain Structures 15 EA 51,000 \$10,					•	\$13,600
Disposal of Removed Materials 3,400 TON \$200 \$30,000 \$2 WASTERELOCATION AND SUBGRADE PREPARATION \$3,170,000 \$3,170,00					·	
Temporary Chale-Link Fencing 3,400 LF \$50 \$170,000						
2	·				·	
Clearing and Stockpling of Estiting Cover Clean soil to be re used to over waste after relocation G,000 CY \$10 \$500,000	<u> </u>	ATION	3,400	LF	\$30	
Execution and Stockpling of Existing Cover Clean soil to be re-used to cover waste after relocation 60,000 CY 510 5500,000			100	AC.	\$7,500	
Waste Excavation and Placement Includes undercut 262,000 CV \$10 \$23,620,000						
Environmental Controls Tarps, Joan, dust control, etc. 1			,			\$2,620,000
Install Onsite Soil for Subgrade	Environmental Controls		1		·	\$400,000
Seminary Septiment Controls Includes perimeter controls, sediment basins, temporary 1 L5 \$800,000 \$900,0000	Install Onsite Soil for Subgrade	·	60,000	CY		\$600,000
Erosion & Sediment Controls Stabilization 1 LS \$800,000 \$800,000 \$800,000 \$4 CAPPING	Furnish and Install Offsite Soil for Subgrade	Purchase, transport, and install clean soil from offsite	5,000	CY	\$30	\$150,000
Ension & Sediment Controls stabilization 1 LS \$800,000 \$800,000	3 EROSION & SEDIMENT CONTROL					\$800,000
Consequence Furnish and install, textile, composite, liner						
Geosynthetics		stabilization	1	LS	\$800,000	\$800,000
Vegetative Support Soil						
Topsoil Material cost, delivery, and placement, 4" soil over cap area \$1,000 CY \$35 \$1,785,000	· ·				·	
Perimeter Riprap Drainage	Vegetative Support Soil		254,000	CY	\$30	\$7,620,000
SAMPHIL GAS (LFG) COLLECTION Removal of wellhead, 5-ft cut off, capping, and backfill 53 EA \$1,000 \$2,124,510 Extend Existing LFG Extraction Wells 1 LS \$215,000	Topsoil		51,000	CY	\$35	\$1,785,000
Abandon Existing LFG Extraction Wells Removal of wellhead, 5-ft cut off, capping, and backfill 1	Perimeter Riprap Drainage		8,415	TON	\$60	\$504,900
Extend Existing LFG Extraction Wells 1 LS \$215,000 \$215,00	5 LANDFILL GAS (LFG) COLLECTION					\$2,124,510
Shorten Existing LFG Extraction Wells		Removal of wellhead, 5-ft cut off, capping, and backfill	53	EA		\$53,000
New LFG Extraction Wells			1			\$215,000
LFG Header Piping and Fittings	Shorten Existing LFG Extraction Wells		1	LS	\$50,000	\$50,000
LFG Lateral Piping and Fittings 12,530 LF \$29 \$363,370 LFG Valves 70 EA \$3,300 \$231,000 Condensite Traps 13 EA \$2,500 \$323,500 6 DRAINAGE AND STORMWATER MANAGEMENT \$3,283,500 Modifications To Ex. Stormwater Ponds 1 LS \$2,000,000 \$2,000,000 New Storm Drain Inlets 20 EA \$3,000 \$60,000 New Storm Drain Inlets 20 EA \$3,000 \$60,000 New Storm Drains And Culverts 700 LF \$125 \$87,500 Downchutes MDE standard gabion 180 LF \$200 \$536,000 Water Quality Facilities 1 LS \$200,000 \$200,000 Water Quality Facilities 1 LS \$200,000 \$200,000 Water Quality Facilities 1 LS \$200,000 \$200,000 Subbase for Asphalt Access Road Assume 8" asphalt section 2,640 TON \$75 \$198,000 Subbase for Asphalt Access Road Assume 8" aggregate base 5,940 SY \$19 \$112,860 Access Roads with Pervious Pavement 14,900 SY \$25 \$372,500 Subbase for Operational Area Asphalt Paving Assume 8" aggregate base 12,000 SY \$19 \$228,000 Subbase for Operational Area Asphalt Paving Assume 8" aggregate base 12,000 SY \$19 \$228,000 Subbase for Operational Area Asphalt Assume 8" aggregate base 12,000 SY \$19 \$228,000 Subbase for Operational Area Asphalt Assume 8" aggregate base 12,000 SY \$19 \$228,000 Subbase for Operational Area Asphalt Assume 8" aggregate base 12,000 SY \$19 \$228,000 Subbase for Operational Area Asphalt Assume 8" aggregate base 12,000 SY \$19 \$228,000 Subbase for Operational Area Asphalt Assume 8" aggregate base 12,000 SY \$19 \$228,000 Subbase for Operational Area Asphalt Assume 8" aggregate base 12,000 SY \$19 \$228,000 Subbase for Operational Area Asphalt Assume 8" aggregate base 12,000 SY \$19 \$228,000 Subbase for Operational Area Asphalt Assume 8" aggregate base 12,000 SY \$19 \$228,000 Subbase for Operational Area Asphalt Assume 8" aggregate base 1	New LFG Extraction Wells	Assumes average length of LFG pipe is 40 ft and at \$155/LF	20	EA	\$6,200	\$124,000
LFG Valves	LFG Header Piping and Fittings		9,260	LF	\$114	\$1,055,640
Condensate Traps 13 EA \$2,500 \$32,500 \$32,500 \$32,500 \$32,83,500 \$32,83,500 \$32,83,500 \$32,83,500 \$32,83,500 \$32,83,500 \$32,83,500 \$32,000,000 \$32,000,000 \$32,000,000 \$32,000,000 \$32,000,000 \$32,000,000 \$32,000,000 \$32,000,000 \$32,000,000 \$32,000,000 \$32,000,000 \$32,000,000 \$32,000			12,530	LF		\$363,370
Modifications To Ex. Stormwater Ponds 1 LS \$2,000,000 \$2,000,000						\$231,000
Modifications To Ex. Stormwater Ponds	·		13	EA	\$2,500	
New Storm Drain Inlets 20 EA \$3,000 \$60,000		Т			4	
New Storm Drains And Culverts MDE standard gabion 180						
Downchutes				_		
Swales and Benches Includes erosion control lining, excludes excavation 15,000 SY \$60 \$900,000		MDE standard gabien				
Water Quality Facilities		•			·	
Roads And Operational Area Sites		includes erosion control inning, excludes excavation	13,000			
Asymalt Access Road	· · · · · · · · · · · · · · · · · · ·		_		\$200,000	
Subbase for Asphalt Access Road Assume 8" aggregate base 5,940 SY \$19 \$112,860 Access Roads with Pervious Pavement 14,900 SY \$25 \$372,500 Operational Area Asphalt Paving Assume 8" asphalt section 6,000 TON \$75 \$450,000 Subbase for Operational Area Asphalt Assume 8" aggregate base 12,000 SY \$19 \$228,000 Retaining Wall 3-ft tall wall at operational area 240 LF \$300 \$72,000 Traffic Protection "Jersey" barrier 800 LF \$25 \$20,000 8 SITE RESTORATION AND DEMOBILIZATION \$521,500 \$521,500 Remove Erosion & Sediment Controls 1 LS \$80,000 \$80,000 Tree Planting 100 EA \$175 \$17,500 Seeding and Stabilization 100 ACRE \$2,000 \$200,000 Chain-Link Fence 3,400 LF \$50 \$170,000 Chain-Link Gate Pedestrian gate 4 EA \$1,000 \$4,000		Assume 8" asphalt section	2.640	TON	\$75	
Access Roads with Pervious Pavement 14,900 SY \$25 \$372,500	•	·				
Operational Area Asphalt Paving Assume 8" asphalt section 6,000 TON \$75 \$450,000 Subbase for Operational Area Asphalt Assume 8" aggregate base 12,000 SY \$19 \$228,000 Retaining Wall 3-ft tall wall at operational area 240 LF \$300 \$72,000 Traffic Protection "Jersey" barrier 800 LF \$25 \$20,000 8 SITE RESTORATION AND DEMOBILIZATION \$521,500 \$521,500 \$521,500 Remove Erosion & Sediment Controls 1 LS \$80,000 \$80,000 Tree Planting 100 EA \$17,500 \$17,500 Seeding and Stabilization 100 ACRE \$2,000 \$200,000 Chain-Link Fence 3,400 LF \$50 \$170,000 Chain-Link Gate Pedestrian gate 4 EA \$1,000 \$4,000 Closeout Requirements 1 LS \$50,000 \$50,000 Subtotal \$32,883,120 20% Contingency \$6,576,624						\$372,500
Subbase for Operational Area Asphalt Assume 8" aggregate base 12,000 SY \$19 \$228,000 Retaining Wall 3-ft tall wall at operational area 240 LF \$300 \$72,000 Traffic Protection "Jersey" barrier 800 LF \$25 \$20,000 8 SITE RESTORATION AND DEMOBILIZATION 1 LS \$80,000 \$521,500 Remove Erosion & Sediment Controls 1 LS \$80,000 \$80,000 Tree Planting 100 EA \$175 \$17,500 Seeding and Stabilization 100 ACRE \$2,000 \$200,000 Chain-Link Fence 3,400 LF \$50 \$170,000 Chain-Link Gate Pedestrian gate 4 EA \$1,000 \$4,000 Closeout Requirements 1 LS \$50,000 \$50,000 Subtotal \$32,883,120 20% Contingency \$6,576,624		Assume 8" asphalt section				\$450,000
Traffic Protection	Subbase for Operational Area Asphalt	Assume 8" aggregate base	12,000	SY	\$19	\$228,000
8 SITE RESTORATION AND DEMOBILIZATION \$521,500 Remove Erosion & Sediment Controls 1 LS \$80,000 \$80,000 Tree Planting 100 EA \$175 \$17,500 Seeding and Stabilization 100 ACRE \$2,000 \$200,000 Chain-Link Fence 3,400 LF \$50 \$170,000 Chain-Link Gate Pedestrian gate 4 EA \$1,000 \$4,000 Closeout Requirements 1 LS \$50,000 \$50,000 Subtotal \$32,883,120 20% Contingency \$6,576,624		3-ft tall wall at operational area	240	LF	\$300	\$72,000
Remove Erosion & Sediment Controls 1		"Jersey" barrier	800	LF	\$25	\$20,000
Tree Planting 100 EA \$175 \$17,500 Seeding and Stabilization 100 ACRE \$2,000 \$200,000 Chain-Link Fence 3,400 LF \$50 \$170,000 Chain-Link Gate Pedestrian gate 4 EA \$1,000 \$4,000 Closeout Requirements 1 LS \$50,000 \$50,000 Subtotal \$32,883,120 20% Contingency \$6,576,624						\$521,500
Seeding and Stabilization 100 ACRE \$2,000 \$200,000						\$80,000
Chain-Link Fence 3,400 LF \$50 \$170,000 Chain-Link Gate Pedestrian gate 4 EA \$1,000 \$4,000 Closeout Requirements 1 LS \$50,000 \$50,000 Subtotal \$32,883,120 20% Contingency \$6,576,624	-				·	
Chain-Link Gate Pedestrian gate 4 EA \$1,000 \$4,000 Closeout Requirements 1 LS \$50,000 \$50,000 Subtotal \$32,883,120 20% Contingency \$6,576,624	_					
Closeout Requirements 1 LS \$50,000 \$50,000 Subtotal \$32,883,120 20% Contingency \$6,576,624		Dedestries sets				
Subtotal \$32,883,120 20% Contingency \$6,576,624		redestrian gate	·			
20% Contingency \$6,576,624	Closeout Requirements		1	LS		
				20%		
				20/0	Total	\$39,459,744