Michigan Underground Storage Tank Authority

Schedule of Costs

(for work performed from January 1, 2018 through December 31, 2018 - see accompanying notes document)

Code #	Task/Item Description	Activity Description	Unit	Maximum Allowed
BF-1	Backfill	Sand Transport, Placement, and Compaction (if not bid as part of soil excavation, transport, and disposal)	Ton	$23.00
BF-2	Backfill	21AA Transport, Placement, and Compaction (if not bid as part of soil excavation, transport, and disposal)	Ton	$26.00
BF-3	Backfill	Peastone Transport, Placement, and Compaction (if not bid as part of soil excavation, transport, and disposal)	Ton	$23.00
Bid-1	Required Competitive Bid Item	Excavation, Transport, and Disposal of Contaminated Soils, Purchase and Compaction of Backfill (unless charged separately) that is not Performed as an Initial Response Action (Note 4)	Per Bid	Per Bid
Bid-2	Required Competitive Bid Item *(Note 2)*	Liquid recovery and disposal that is not Performed as an Initial Response Action (Note 4)	Per Bid	Per Bid
Bid-3	Required Competitive Bid Item *(Note 2)*	Purchase of Treatment System	Per Bid	Per Bid
Bid-4	Required Competitive Bid Item *(Note 2)*	Construction/Installation of Treatment System	Per Bid	Per Bid
Bid-5	Required Competitive Bid Item *(Note 2)*	Decommissioning of Treatment System	Per Bid	Per Bid
Bid-6	Required Competitive Bid Item *(Note 2)*	Water Supply Well Abandonment	Per Bid	Per Bid
Bid-7	Required Competitive Bid Item *(Note 2)*	Drilling Services for Wells Exceeding 2 Inches in Diameter	Per Bid	Per Bid

Code #	Task/Item Description	Activity Description	Unit	Maximum Allowed
Bid-8	Required Competitive Bid Item *(Note 2)*	Drilling in Bedrock Greater than 60 ft. bgs. per boring	Per Bid	Per Bid
Bid-9	Required Competitive Bid Item *(Note 2)*	Drilling in Unconsolidated Soils Greater than 60 ft. bgs. per boring	Per Bid	Per Bid
Bid-10	Required Competitive Bid Item *(Note 2)*	Sonic Drilling	Per Bid	Per Bid
Bid-11	Required Competitive Bid Item *(Note 2)*	Ultra Violet Optical Screening (And comparable technologies including Laser Induced Fluorescence, Hydraulic Profiling Tool, Membrane Interface Probe, Electrical Conductivity)	Per Bid	Per Bid
Bid-12	Required Competitive Bid Item *(Note 2)*	Mobile Laboratory Services	Per Bid	Per Bid
Bid-13	Required Competitive Bid Item *(Note 2)*	Repair or Replacement of Blacktop/Concrete Surface Cover (if not bid as part of an eligible and necessary corrective action activity)	Per Bid	Per Bid
Bid-14	Required Competitive Bid Item *(Note 2)*	Professional Surveyor Services exceeding $2,000	Per Bid	NL
1-1	Consultant Labor *(Note 3)*	Professional 4	Hour	$140.00
1-2	Consultant Labor *(Note 3)*	Professional 3	Hour	$115.00
1-3	Consultant Labor *(Note 3)*	Professional 2	Hour	$95.00
1-4	Consultant Labor *(Note 3)*	Professional 1	Hour	$80.00
1-5	Consultant Labor *(Note 3)*	Technician 3	Hour	$75.00
1-6	Consultant Labor *(Note 3)*	Technician 2	Hour	$65.00
1-7	Consultant Labor *(Note 3)*	Technician 1	Hour	$55.00
1-8	Consultant Labor *(Note 3)*	CAD Operator	Hour	$70.00
1-9	Consultant Labor *(Note 3)*	Clerical/Administrative	Hour	$50.00

Code #	Task/Item Description	Activity Description	Unit	Maximum Allowed
2-1	Consultant Travel Expenses	Mileage	Mile	$0.54
2-2	Consultant Travel Expenses	Hotel Costs	Night	See code 2-4
2-3	Consultant Travel Expenses	Meal Expense	Day	
2-4	Consultant Travel Expenses	Per Diem (Hotel + Meals) (Per Diem requires overnight stay supported by hotel receipt. Pre-approval may be sought for areas of the state with higher than normal hotel rates). Meal receipts not required.	Day	$150.00
3-1	Consultant Mark-Up of Subcontractor Invoices	Invoices up to $50,000	%	10%
3-2	Consultant Mark-Up of Subcontractor Invoices	Invoices between $50,000.01 and $249,999.99	%	7%
3-3	Consultant Mark-Up of Subcontractor Invoices	Invoices equal to or greater than $250,000	%	5%
4-1	Equipment & Supplies	2 kW Generator	Day	$75.00
4-2	Equipment & Supplies	4-Gas meter with PID	Day	$100.00
4-3	Equipment & Supplies	5 kW Generator	Day	$125.00
4-4	Equipment & Supplies	Air Sampling Pump (variable flow)	Day	$35.00
4-5	Equipment & Supplies	Concrete Saw with Blade	Day	$100.00
4-6	Equipment & Supplies	Coring Machine	Day	$160.00
4-7	Equipment & Supplies	Electric Jackhammer with Bit	Day	$115.00
4-8	Equipment & Supplies	Encore Samplers	Each	$12.00
4-9	Equipment & Supplies	Ferrous Iron Kits for Colorimeter	Each	$20.00

Code #	Task/Item Description	Activity Description	Unit	Maximum Allowed
4-10	Equipment & Supplies	Flame Ionization Detector (FID) (includes calibration kit, cal. gas, regulator)	Day	$170.00
4-11	Equipment & Supplies	Fog Liquid for Smoke Testing	Gallon	$15.00
4-12	Equipment & Supplies	Gas/Hydraulic Grout Pump	Day	$300.00
4-13a	Equipment & Supplies	Ground Penetrating Radar Equipment - Consultant only (subcontractor refer to Code 5-30a)	1/2 Day	$400.00
4-13b	Equipment & Supplies	Ground Penetrating Radar Equipment - Consultant only (subcontractor refer to Code 5-30b)	Day	$600.00
4-14	Equipment & Supplies	Groundwater Metals Filters	Each	$15.00
4-15	Equipment & Supplies	HACH Colorimeter	Day	$40.00
4-16	Equipment & Supplies	Hand Auger (ineligible on dates where Direct Push or Drilling Activities occur)	Day	$25.00
4-17	Equipment & Supplies	Hand Sediment Sampler (core-type)	Day	$25.00
4-18	Equipment & Supplies	Hand-Held GPS Receiver	Day	$80.00
4-19	Equipment & Supplies	Hand-Held Magnetometer or Metal Detector	Day	$25.00
4-20	Equipment & Supplies	Hand-Held Manometer (pressure gauge)	Day	$35.00
4-21	Equipment & Supplies	LNAPL Skimmer Pump (down-well)	Day	$100.00
4-22	Equipment & Supplies	Multi-Parameter Meter pH, ORP, Conductivity, Temperature, Flow Cell, and Cables	Day	$150.00
4-23	Equipment & Supplies	Oil in Soil (NAPL shake test) Test Kits	Each	$8.00
4-24	Equipment & Supplies	Oil/Water Interface Probe	Day	$50.00
4-25	Equipment & Supplies	Particulate Meter	Day	$100.00
4-26	Equipment & Supplies	Peristaltic Pump	Day	$35.00
4-27	Equipment & Supplies	pH Meter	Day	$25.00
4-28	Equipment & Supplies	Photoionization Detector (PID) (includes calibration kit, cal. gas, regulator)	Day	$100.00
4-29	Equipment & Supplies	Pressure Washer (cold-water)	Day	$125.00

Code #	Task/Item Description	Activity Description	Unit	Maximum Allowed
4-30	Equipment & Supplies	Pressure Washer (hot-water)	Day	$200.00
4-31	Equipment & Supplies	Smoke-Testing Equipment	Day	$125.00
4-32	Equipment & Supplies	Static Water Tape	Day	$30.00
4-33	Equipment & Supplies	Submersible Pump (down-well)	Day	$35.00
4-34	Equipment & Supplies	Submersible Sampling Pump w/ Voltage Regulator	Day	$100.00
4-35	Equipment & Supplies	Soil Gas Sampling Equipment (shroud, helium regulator, helium, helium detector) (Prior to 2019, included hammer drill)	Day	$400.00
4-36	Equipment & Supplies	Support Vehicle	Day	$75.00
4-37	Equipment & Supplies	Survey Scope and Rod	Day	$75.00
4-38	Equipment & Supplies	Total Station Survey Equipment	Day	$150.00
4-39	Equipment & Supplies	Turbidity Meter	Day	$35.00
4-40	Equipment & Supplies	Utility Wand	Day	$20.00
4-41	Equipment & Supplies	Water Traps for PID	Each	$5.00
4-42	Equipment & Supplies	All miscellaneous field supplies and tools of the trade including but not limited to: baggies, brooms, circular saws, power inverters, decontamination detergent, extension cords, field books, garbage bags, general office supplies, gloves, hammers, hand saws, ice, Level D personal protective equipment, measuring wheels, paper towel, pliers, power drills, rakes, reciprocating saws, scissors/utility knives, screwdrivers, shop vac, string/rope, sabre saws, tape measures, taps, shovels, water for decontamination, water for QA/QC blanks, and related and/or similar items	Day	$25.00
4-43	Equipment & Supplies	Concrete Hammer Drill with Bit (only)	Day	$50.00
4-44	Equipment & Supplies	Sorbent Socks	Each	$5.00

Code #	Task/Item Description	Activity Description	Unit	Maximum Allowed
4-45	Equipment & Supplies	Sorbent Pads	Each	$2.50
5-1	Misc. Drilling Activities & Supplies	1" 10-slot PVC well screen (5'section)	Each	$20.00
5-2	Misc. Drilling Activities & Supplies	1” Lockable well caps (j-plugs)	Each	$10.00
5-3	Misc. Drilling Activities & Supplies	1” poly bailers	Each	$12.00
5-4	Misc. Drilling Activities & Supplies	1” PVC well points	Each	$12.00
5-5	Misc. Drilling Activities & Supplies	1” PVC well riser (5' section)	Each	$15.00
5-6	Misc. Drilling Activities & Supplies	1” 20-slot PVC well screen (10' section)	Each	$20.00
5-7	Misc. Drilling Activities & Supplies	1” 20-slot PVC well screen (5' section)	Each	$15.00
5-8	Misc. Drilling Activities & Supplies	12" Cover	Each	$150.00
5-9	Misc. Drilling Activities & Supplies	2” 20-slot PVC well screen (5' section)	Each	$25.00
5-10	Misc. Drilling Activities & Supplies	2” 10-slot PVC well screen (5' section)	Each	$25.00
5-11	Misc. Drilling Activities & Supplies	2” Lockable well caps (j-plugs)	Each	$15.00
5-12	Misc. Drilling Activities & Supplies	2” poly bailers	Each	$15.00
5-13	Misc. Drilling Activities & Supplies	2” PVC well points	Each	$15.00
5-14	Misc. Drilling Activities & Supplies	2” PVC well riser (10' section)	Each	$25.00
5-15	Misc. Drilling Activities & Supplies	2” PVC well riser (5' section)	Each	$19.00
5-16	Misc. Drilling Activities & Supplies	4" Square Stick Up	Each	$150.00
5-17	Misc. Drilling Activities & Supplies	7" Monitoring Well Manhole/Flushmount	Each	$65.00
5-18	Misc. Drilling Activities & Supplies	9" Monitoring Well Manhole/Flushmount	Each	$75.00
5-19	Misc. Drilling Activities & Supplies	Asphalt cold patch (50 lb. bag)	Each	$15.00
5-20	Misc. Drilling Activities & Supplies	Auger plugs (4.25")	Each	$10.00
5-21	Misc. Drilling Activities & Supplies	Bagged concrete (80 lb. bag)	Each	$9.00
5-22	Misc. Drilling Activities & Supplies	Bentonite Chips (50 lb. bag)	Each	$15.00
5-23	Misc. Drilling Activities & Supplies	Bentonite Gel (Powder) (50 lb. bag)	Each	$20.00
5-24	Misc. Drilling Activities & Supplies	Bentonite Granular (50 lb. bag)	Each	$18.00
5-25	Misc. Drilling Activities & Supplies	Drum, 55 gal. DOT steel	Each	$50.00
5-26	Misc. Drilling Activities & Supplies	Filter sand/gravel (50 lb. bag)	Each	$10.00

Code #	Task/Item Description	Activity Description	Unit	Maximum Allowed
5-27	Misc. Drilling Activities & Supplies	Padlock	Each	$16.00
5-28a	Misc. Drilling Activities & Supplies	Poly tubing (0.375") - Various Types	Foot	$0.35
5-28b	Misc. Drilling Activities & Supplies	Silicone Tubing - Various Types (i.e. Master Flex)	Foot	$6.50
5-29	Misc. Drilling Activities & Supplies	Portland cement (94 lb. bag)	Each	$15.00
5-30a	Misc. Drilling Activities & Supplies	Private Utility Location 1/2 Day - Subcontractor (mileage separate - Code 2-1). Inclusive of all equipment typical of the trade including, but not limited to, ground penetrating radar, magnetic and electromagnetic, and frequency location equipment, etc. Includes magnetometer, metal detector, utility wand.	1/2 Day	$600.00
5-30b	Misc. Drilling Activities & Supplies	Private Utility Location Full Day - Subcontractor (mileage separate - Code 2-1). Inclusive of all equipment typical of the trade, including, but not limited to, ground penetrating radar, magnetic and electromagnetic, and frequency location equipment, etc. Includes magnetometer, metal detector, utility wand.	Day	$1,000.00
5-31	Misc. Drilling Activities & Supplies	Screw on Vapor Pin Cap	Each	$13.00
5-31a	Misc. Drilling Activities & Supplies	Screw on Stainless Steel Flush Mount Vapor Pin Cover	Each	NL
5-32	Misc. Drilling Activities & Supplies	Vapor Point/Sub Slab Pin (Sleeve, Sealing Cap, O-Ring, Slip on Plastic Flush Mount Cover)	Each	$55.00
5-33	Misc. Drilling Activities & Supplies	Direct Push Sample Liners - 2.12" x 5'	Each	$5.00

Code #	Task/Item Description	Activity Description	Unit	Maximum Allowed
6-1	Direct Push	1/2 Day with operator. Includes labor to clear borings with hand auger and miscellaneous supplies and tools of the trade similar to those listed under Code 4-42. Inclusive of all equipment including, but not limited to, generator, concrete saw w/ blade, jackhammer w/ bit, coring machine, hammer drill w/ bit, hand auger, pumps, pressure washer, etc. Excluding expendable materials. Drillers assistant may be billed at the Technician 1 (1-7) Labor Rate.)	1/2 Day	$1,000.00
6-2	Direct Push	Full Day with operator. Includes labor to clear borings with hand auger and miscellaneous supplies and tools of the trade similar to those listed under Code 4-42. Inclusive of all equipment including, but not limited to, generator, concrete saw w/ blade, jackhammer w/ bit, coring machine, hammer drill w/ bit, hand auger, pumps, pressure washer, etc. Excluding expendable materials. Drillers assistant may be billed at the Technician 1 (1-7) Labor Rate.)	Day	$1,800.00
6-3a	Direct Push	Expendable Drive Point for Water Sampling	Each	$7.00
6-3b	Direct Push	Expendable Drive Point for Well Drilling	Each	$40.00
6-4	Direct Push	Primary Mob/Demob (0-100 miles round trip)	Mile	$2.00
6-5	Direct Push	Primary Mob/Demob (101-250 miles round trip)	Mile	$1.85
6-6	Direct Push	Primary Mob/Demob (greater than 250 miles round trip)	Mile	$1.70

Code #	Task/Item Description	Activity Description	Unit	Maximum Allowed
7-1	Drilling in Bedrock	0 - 60' bgs (greater than 60' bgs requires bidding) Rate includes driller helper and labor to clear borings with hand auger. Includes miscellaneous supplies and tools of the trade similar to those listed under Code 4-42. Includes all equipment including, but not limited to, generator, concrete saw w/ blade, jackhammer w/ bit, coring machine, hammer drill w/ bit, hand auger, grout and development pumps, pressure washer, etc. Excludes expendable materials.	Foot	$60.00
7-2	Drilling in Bedrock	Primary Mob/Demob (0-100 miles round trip)	Mile	$5.00
7-3	Drilling in Bedrock	Primary Mob/Demob (101-250 miles round trip)	Mile	$4.40
7-4	Drilling in Bedrock	Primary Mob/Demob (greater than 250 miles round trip)	Mile	$4.00
8-1	Drilling in Unconsolidated Soils - With Soil Sampling (HSA)	0 - 60' bgs (greater than 60' bgs requires bidding) Rate includes driller helper and labor to clear borings with hand auger. Includes miscellaneous supplies and tools of the trade similar to those listed under Code 4-42. Includes all equipment including, but not limited to, generator, concrete saw w/ blade, jackhammer w/ bit, coring machine, hammer drill w/ bit, hand auger, grout and development pumps, pressure washer, etc. Excludes expendable materials.	Foot	$50.00
8-2	Drilling in Unconsolidated Soils - With Soil Sampling (HSA)	Primary Mob/Demob (0-100 miles round trip)	Mile	$2.50
8-3	Drilling in Unconsolidated Soils - With Soil Sampling (HSA)	Primary Mob/Demob (101-250 miles round trip)	Mile	$2.20
8-4	Drilling in Unconsolidated Soils - With Soil Sampling (HSA)	Primary Mob/Demob (greater than 250 miles round trip)	Mile	$2.00
9-1	Limited Source Removal of Soils Performed as Initial Response *(Note 4)*	Primary Mob/Demob (0-100 miles round trip)	Mile	2016 rate or Per Bid if UST removal is not involved

Code #	Task/Item Description	Activity Description	Unit	Maximum Allowed
9-2	Limited Source Removal of Soils Performed as Initial Response *(Note 4)*	Primary Mob/Demob (101-250 miles round trip)	Mile	involved. Mobilization is not eligible if it occurred for UST removal
9-3	Limited Source Removal of Soils Performed as Initial Response *(Note 4)*	Primary Mob/Demob (greater than 250 miles round trip)	Mile	
9-4	Limited Source Removal of Soils Performed as Initial Response *(Note 4)*	Excavation, Transport, and Disposal (Includes securing all necessary permits/approvals)	Ton	$45.00
9-5	Limited Source Removal of Contaminated Liquid Performed as Initial Response *(Note 4)*	Primary Mob/Demob (0-100 miles round trip)	Mile	$2.50
9-6	Limited Source Removal of Contaminated Liquid Performed as Initial Response *(Note 4)*	Primary Mob/Demob (101-250 miles round trip)	Mile	$2.20
9-7	Limited Source Removal of Contaminated Liquid Performed as Initial Response *(Note 4)*	Primary Mob/Demob (greater than 250 miles round trip)	Mile	$2.00
9-8	Limited Source Removal of Contaminated Liquid Performed as Initial Response *(Note 4)*	Recovery and Disposal	Gallon	$0.60
10-1	Waste Disposal	Drill Cuttings (loading, transportation, disposal, and preparation of manifest(s))	Drum	$200.00
10-2	Waste Disposal	Groundwater Sample and/or Purge Water (loading, transportation, disposal, and preparation of manifest(s))	Drum	$200.00
10-3	Waste Disposal	Non-Aqueous Phase Liquid (NAPL) (loading, transportation, disposal, and preparation of manifest(s))	Drum	$300.00
10-4	Waste Disposal	Primary Mob/Demob (0-100 miles round trip)	Mile	$1.25
10-5	Waste Disposal	Primary Mob/Demob (101-250 miles round trip)	Mile	$1.10
10-6	Waste Disposal	Primary Mob/Demob (greater than 250 miles round trip)	Mile	$1.00

Code #	Task/Item Description	Activity Description	Unit	Maximum Allowed
11-1	Laboratory Analysis-Soils (Method 8260B)	BTEX, MTBE, TMB	Sample	See Code 11-4
11-2	Laboratory Analysis-Soils (Method 8270C)	Polynuclear Aromatic Hydrocarbons (PNAs) or Polyaromatic Hydrocarbons (PAHs)	Sample	$80.00
11-3	Laboratory Analysis-Soils (Method 8260B)	Volatile Organic Compounds (VOCs)	Sample	$82.00
11-4	Laboratory Analysis-Soils (Method 8260B)	MDEQ Unleaded Gasoline Parameters	Sample	$60.00
11-5	Laboratory Analysis-Soils (Method 8015B)	Gasoline Range Organics (GRO)	Sample	$60.00
11-6	Laboratory Analysis-Soils (Method 8015B)	Diesel Range Organics (DRO) and Oil Range	Sample	$70.00
11-7	Laboratory Analysis-Soils Method 8082A)	Polychlorinated Biphenyls (PCBs)	Sample	$65.00
11-8	Laboratory Analysis-Soils (Method Walkley-Black Modified)	Fraction of Organic Carbon (FOC)	Sample	$65.00
11-9	Laboratory Analysis-Soils (6000 Series)	Cadmium, Chromium, Lead (includes sample prep)	Sample	$45.00
11-10	Laboratory Analysis-Soils (6000 Series)	Michigan 10 Metals (includes sample prep)	Sample	$105.00
11-11	Laboratory Analysis-Soils (Method 1311)	Toxicity Characteristic Leaching Procedure (TCLP)	Sample	$55.00
11-12	Laboratory Analysis-Soils (Method 1312)	Synthetic Precipitation Leaching Procedure (SPLP)	Sample	$55.00
11-13	Laboratory Analysis - Soil	Lead (includes sample prep)	Sample	$25.00
11-14	Laboratory Analysis - Soils	MDEQ Leaded VOC Parameters	Sample	$65.00
12-1	Laboratory Analysis-Water (Method 8260B)	BTEX, MTBE, TMB	Sample	See Code 12-4
12-2	Laboratory Analysis-Water (Method 8270C)	Polynuclear Aromatic Hydrocarbons (PNAs) or Polyaromatic Hydrocarbons (PAHs)	Sample	$80.00
12-3	Laboratory Analysis-Water (Method 8260B)	Volatile Organic Compounds (VOCs)	Sample	$70.00
12-4	Laboratory Analysis-Water (Method 8260B)	MDEQ Unleaded Gasoline Parameters	Sample	$60.00
12-5	Laboratory Analysis-Water (Method 8015B)	Gasoline Range Organics (GRO)	Sample	Not Eligible
12-6	Laboratory Analysis-Water (Method 8015B)	Diesel Range Organics (DRO) and Oil Range Organics (ORO)	Sample	Not Eligible
12-7	Laboratory Analysis-Water (Method 8082A)	Polychlorinated Biphenyls (PCBs)	Sample	$65.00

Code #	Task/Item Description	Activity Description	Unit	Maximum Allowed
12-8	Laboratory Analysis-Water (6000 Series)	Cadmium, Chromium, Lead (includes sample prep)	Sample	$45.00
12-9	Laboratory Analysis-Water (6000 Series)	Michigan 10 Metals (includes sample prep)	Sample	$105.00
12-10	Laboratory Analysis - Water	Lead (includes sample prep)	Sample	$10.00
12-11	Laboratory Analysis - Water	MDEQ Leaded VOC Parameters	Sample	$65.00
13-1	Sampling/Lab Analysis	Methanol Kit (included in applicable laboratory analysis cost)	Each	Not Eligible
13-2	Laboratory Analysis - Air/Soil Gas	TO-15 (Includes Suma Canister/Bottle Vac, Regulator Rental, Cleaning Fee)	Sample	$250.00
13-3	Laboratory Charge	Disposal of Held Samples (Disposal of analyzed samples is included in the sample analysis rate)	Chain-of-Custody	NL