

**AMENDMENT NUMBER 4 TO**  
AGREEMENT FOR PROFESSIONAL SERVICES  
BETWEEN  
TETRA TECH  
AND  
THE CITY OF ANN ARBOR

This Amendment Number 4 (“Amendment”) is to the agreement between the City of Ann Arbor, (“City”) and Tetra Tech, Inc., (“Contractor”) for 2018 Ann Arbor Landfill Monitoring and Maintenance Program, which is dated July 5, 2017 (“Agreement”). City and Contractor agree to amend the Agreement as follows:

- 1) Article V, Compensation of the Contractor, is amended to read as follows:

The Consultant shall be paid on the basis of time spent and materials used at the rates and prices specified, as amended for additional tasks by Amendment Number 1 (Exhibit B-1), Amendment Number 2 (Exhibit B-2), Amendment Number 3, and Amendment 4 (Exhibit B-3) for acceptable work performed and acceptable deliverables received. The FY 20/21 contract amount \$476,032 and contingency amount \$40,000. Total fee to be paid to the Consultant during each two year period Fiscal Year 18/19 \$297,511 and 20/21 \$516,032 for the Services. Payment shall be made monthly following receipt of invoices submitted by the Consultant, and approved by the Contract Administrator.


All terms, conditions, and provisions of the Agreement, unless specifically amended above, shall apply to this Amendment and are made a part of this Amendment as though expressly rewritten, incorporated, and included herein.

City and Contractor agree that for this Amendment and any documents related to the Agreement: 1) signatures may be delivered electronically in lieu of an original signature; 2) to treat electronic signatures as original signatures that bind them; and 3) signatures may be executed and delivered by facsimile and upon such delivery, the facsimile signature will be deemed to have the same effect as if the original signature had been delivered to the other party.

This Amendment to the Agreement shall be binding on the Parties’ heirs, successors, and assigns.

**[SIGNATURE PAGE FOLLOWS]**

**For Contractor**

By 

Michael S. Kovacich, Principal  
Hydrogeologist, Tetra Tech, Inc.

Date: 7/22/2020

**For City of Ann Arbor**

By  08/17/2020  
CHRISTOPHER TAYLOR, MAYOR

By  08/18/2020  
JACQUELINE BEAUDRY, CITY CLERK

Date: \_\_\_\_\_

 08/07/2020  
TOM CRAWFORD, INTERIM CITY ADMINISTRATOR

 08/04/2020  
CRAIG HUPY, PUBLIC SERVICES AREA ADMINISTRATOR

\_\_\_\_\_  
Craig Hupy, Service Area Administrator

 08/07/2020  
STEPHEN POSTEMA, CITY ATTORNEY

EXHIBIT B-3

<b>TT</b>	Project Cost Summary	15-Jun-20
AALF Clay Cap and PW-3R-12		Attention: Christina Gomes
City of Ann Arbor		

Phases / Tasks	Project Total		Task 1 Cap Repair	Task 2 Letter Report -clay	Task 3 PW-3R-12 Line Upsize and Cleanout Install	Task 4 Letter Report - discharge line					
	151 hrs	\$ 124,907.73									
<b>Tetra Tech Labor</b>	Hrly Rate	Tot Est. Hrs	Total Est. Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost
Patti J McCall	\$118.00	11.0	\$ 1,298.00	2.0	\$ 236.00	2.0	\$ 236.00	5.0	\$ 590.00	2.0	\$ 236.00
Alison D Rauss	\$86.00	12.0	\$ 1,032.00	-	\$ -	8.0	\$ 688.00	-	\$ -	4.0	\$ 344.00
Bridget L Kiser	\$64.00	5.0	\$ 320.00	1.0	\$ 64.00	1.0	\$ 64.00	2.0	\$ 128.00	1.0	\$ 64.00
BryanAllen	\$77.00	112.0	\$ 8,624.00	26.0	\$ 2,002.00	12.0	\$ 924.00	62.0	\$ 4,774.00	12.0	\$ 924.00
JaredWalbert	\$61.00	11.0	\$ 671.00	3.0	\$ 183.00	-	\$ -	-	\$ -	8.0	\$ 488.00
<b>Subtotal Tetra Tech Labor</b>		<b>151.0 hrs</b>	<b>\$ 11,945.00</b>	<b>32.0</b>	<b>\$ 2,485.00</b>	<b>23.0</b>	<b>\$ 1,912.00</b>	<b>69.0</b>	<b>\$ 5,492.00</b>	<b>27.0</b>	<b>\$ 2,056.00</b>
<b>--Total Tetra Tech Labor</b>			<b>\$ 11,945.00</b>		<b>\$ 2,485.00</b>		<b>\$ 1,912.00</b>		<b>\$ 5,492.00</b>		<b>\$ 2,056.00</b>
<b>Subcontractors</b>		Total Est. Cost		Cost		Cost		Cost		Cost	
Unspecified Sub (Catskill)		\$ 39,372.00		\$ 39,372.00		-		-		-	
Unspecified Sub (JSS)		\$ 37,720.00		-		-		\$ 37,720.00		-	
Unspecified Sub (Stearns)		\$ 29,712.50		-		-		\$ 29,712.50		-	
<b>Subtotal Subcontractors</b>		<b>\$ 106,804.50</b>		<b>\$ 39,372.00</b>		<b>\$ -</b>		<b>\$ 67,432.50</b>		<b>\$ -</b>	
	Markup	\$ 5,339.23	5.00%	\$ 1,968.60				\$ 3,371.63			
<b>--Total Subcontractors</b>		<b>\$ 112,143.73</b>		<b>\$ 41,340.60</b>		<b>\$ -</b>		<b>\$ 70,804.13</b>		<b>\$ -</b>	
<b>Travel</b>		Total Est. Cost		Cost		Cost		Cost		Cost	
Vehicle		\$ 450.00		\$ 75.00		-		\$ 375.00		-	
<b>Subtotal Travel</b>		<b>\$ 450.00</b>		<b>\$ 75.00</b>		<b>\$ -</b>		<b>\$ 375.00</b>		<b>\$ -</b>	
	Markup	\$ 22.50	5.00%	\$ 3.75				\$ 18.75			
<b>--Total Travel</b>		<b>\$ 472.50</b>		<b>\$ 78.75</b>		<b>\$ -</b>		<b>\$ 393.75</b>		<b>\$ -</b>	
<b>Other Direct Costs</b>		Total Est. Cost		Cost		Cost		Cost		Cost	
GPS		\$ 330.00		\$ 330.00		-		-		-	
<b>Subtotal Other Direct Costs</b>		<b>\$ 330.00</b>		<b>\$ 330.00</b>		<b>\$ -</b>		<b>\$ -</b>		<b>\$ -</b>	
	Markup	\$16.50	5.00%	\$16.50							
<b>--Total Other Direct Costs</b>		<b>\$ 346.50</b>		<b>\$ 346.50</b>		<b>\$ -</b>		<b>\$ -</b>		<b>\$ -</b>	

<b>TT</b>	Project Cost Summary	15-Jun-20
AALF Clay Oversight City of Ann Arbor		Attention: Christina Gomes

Phases / Tasks	Project Total		Task 1	Task 2	Task 3	Task 4
	151 hrs	\$ 124,907.73	Cap Repair	Letter Report -clay	PW-3R-12 Line Upsize and Cleanout Install	Letter Report - discharge line
Project/Task --Total	\$ 124,907.73		\$ 44,250.85	\$ 1,912.00	\$ 76,689.88	\$ 2,056.00
PROJECT Total	\$ 124,907.73					

## CAP REPAIR

- » Job Site Services - \$61,962.50
- » Catskill - \$39,372.00\* (Included in Task 1)
- » Great Lakes Fusion - \$42,559.00

\*Additional \$1,000 added to Catskill quote for Catskill to add topsoil and seeding to area of Phase I with trash at surface.

**Ann Arbor Landfill Clay Cap Repair - Contractor Comparison**

Scope of Work:

\* Source, deliver, and install 10<sup>-7</sup> clay over 1000'x15'x0.5' area.

\* Source, deliver, and install 0.5' of topsoil on top of clay layer.

	<b>Job Site Services</b>	<b>Catskill<sup>1</sup></b>	<b>Great Lakes Fusion</b>
Total Cost	\$61,962.50	\$38,372.00	\$42,559.00
Days	5	2	5
<b>Cost Breakdown</b>			
Mob & De-mob	\$3,075.00	\$4,508.00	\$9,120.00
Daily Crew & Equipment Rate	\$27,625.00	--	\$13,000.00
Clay	\$15,262.50	\$22,611.00	--
Top Soil	\$14,500.00	\$11,253.00	--
Clay, Top Soil, and Seeding	--	--	\$9,959.00
Seed & Mulch Restoration	\$1,500.00	--	--
Equipment	--	--	\$10,480.00
<b>Quantities</b>			
Clay (tons)	550	550	500
Top Soil (Yards)	--	--	250
Top Soil (tons)	500	300	--
Seed & Mulch (SF)	15,000	--	15,000
<b>Equipment</b>	Service Truck D-5/6 Bulldozer Pad-foot roller Track skid steer --	Field Truck Komatsu D-61 Dozer Bobcat Skid Steer Padfoot Compactor --	Semi 915 D6 Dozer Caterpillar Roller 350 Excavator
<b>Personnel</b>	Project Supervisor/Operator (1) Equipment Operator (1) Construction Laborer (1) --	Superintendent (1) Operator (1) Laborer (1) --	Foreman/Operator (1) Equipment Operator (2) Roller Operator (1) Delivery Driver (1)

1. Catskill quote for top soil includes seed and mulch for restoration.



January 22, 2020

Patti McCall  
Tetra Tech  
710 Avis Drive  
Ann Arbor, MI 48108

Subject: Clay & Topsoil Placement in Drainage Ditch - Ann Arbor Landfill

Thank you for the opportunity to provide a proposal for the subject project. Job Site Services Inc. has carefully reviewed the scope of work and has provided a detailed proposal and costs for this project. All assumptions and clarifications have been listed. Following are descriptions of items from your scope and a cost table for this work.

### **SUPPORTING DOCUMENTS & INFORMATION**

Information for our bid was obtained from the following documents. Any work that is not specifically called out in the plans, specifications or documents listed below is excluded from our proposed scope.

Other Documents and Information as follows:

- E-mail to Job Site Services. Dated January 15 and January 17, 2020.

### **Item 1 Mobilization and Demobilization**

- Contact Miss Dig for public utility locate
- Prepare Site Specific Health and Safety Plan
- Labor, equipment and materials necessary for Job Site Services to mobilize to and demobilize from the project site.
- One mobilization and demobilization included.

### **Item 2 Daily Crew & Equipment Rate**

- Includes:
  - One Project Supervisor/Operator
  - One Equipment Operator
  - One Construction Laborer
  - Service truck with construction tools
  - Bull Dozer - D-5 or D-6 size
  - Pad-foot roller – 84 Inch
  - Track skid steer – T-300 size
  - Crew per diem

### **Item 3 Clay**

- Purchase and delivery of clay for 6" layer over the ditch.

### **Item 4 Topsoil**

- Purchase and delivery of topsoil for 6" thickness over the clay layer.





### Item 5 Seed and Mulch Restoration

- Installation of a contractor's seed mix or MDOT roadside mix.
- Installation of single net straw mat blankets over seeded and topsoiled area.

### COST TABLE:

Item	Description	Estimated Qty	Unit	Unit Rate	Total
1.0	Mobilization and Demobilization	1	Lump Sum	\$ 3,075.00	\$3,075.00
2.0	Daily Crew and Equipment Rate	5	Day	\$ 5,525.00	\$27,625.00
3.0	Clay	550	Ton	\$ 27.75	\$15,262.50
4.0	Topsoil	500	Ton	\$ 29.00	\$14,500.00
5.0	Seed & Mulch Restoration	15000	SF	\$ 0.10	\$1,500.00
<b>Project Total</b>					<b>\$61,962.50</b>

### SCHEDULE

- Equipment and crew can mobilize to site upon receipt of Purchase Order and begin work.
- JSS will make every effort to complete this project in an efficient and timely matter, but cannot be responsible for delays due to equipment lead-times, weather, and unforeseen site conditions.
- JSS estimates this work will take up to 5 days to complete.

### INSURANCE

- JSS will provide Insurance as required

### HEALTH AND SAFETY

- JSS will be responsible for H&S of its employees.

### STAFFING

- All workers will be OSHA 40 hr. HAZWOPER trained and experienced in heavy construction and deep excavations.
- Foreman have Competent Person Training per OSHA capable of identifying existing and predictable hazards of excavations with the authority to shut down operations if new hazards are identified.

Thank you for the opportunity to provide a proposal for the subject project. JSS looks forward to working with Tetra Tech on this and future projects. If you choose to accept this proposal or if you have any questions, please do not hesitate to contact me at (989) 671-3318.

Sincerely,

Tom Holdeman



### **Terms & Conditions**

1. Payment for owner authorized services shall be due net 30 days after date on the invoice with monthly progress billing. Final payment is to be made within 30 days after completion of our work with no retention withheld.
2. This quote is good for 90 days and is subject to changes in material costs due to seasonal and market fluctuations.
3. This proposal reflects current fuel pricing from the date of this proposal; fuel surcharge will be added to items that require the use of fuel for transportation and heavy equipment operation if fuel prices increase.
4. A fuel surcharge of 2.5% of the total invoice will be incurred if the published Midwest fuel prices exceed \$4.00/US Gallon and will increase/decrease per each \$0.50 by 1% (not to exceed 5% max). These prices are published each Monday afternoon at [www.tonto.eia.doe.gov/oog/info/wohdp/diesel](http://www.tonto.eia.doe.gov/oog/info/wohdp/diesel) and will go into effect the following Monday.
5. This proposal assumes Level D PPE during construction. If PPE upgrade is required the job will be shut down to reassess proper PPE and standby time may be charged. Upgrades to Level C will be billed at \$350/crew day.
6. Standby time (\$500/hr.) may be charged once JSS is on site for delays beyond our control, excluding weather-related delays.
7. Costs assume 10 hour work days on Monday through Friday.
8. Pricing assumes frost laws or weight restrictions will not be in effect at the time the project starts.

### **Proposal Qualifications and Exceptions**

1. Estimate does not include groundwater management, dewatering, handling, removal, storage, or disposal.
2. Estimate does not include costs associated with disconnects for utilities (water, electrical, gas, etc.).
3. Estimate does not include relocating any utilities.
4. Work will not be performed within 10 feet of overhead wires per OSHA requirements.
5. Work will be performed in level D PPE.
6. Estimate does not include any costs associated with Geotechnical testing.
7. Pricing assumes access road can support clay and topsoil loads delivered in leads and does not include road restoration of additional aggregate for the road.
8. Pricing assumes the ditch will not be saturated and will support heavy equipment during clay and topsoil installation.

**From:** [McCall, Patti](#)  
**To:** [Allen, Bryan](#)  
**Subject:** FW: AALF Clay repair quote  
**Date:** Friday, May 15, 2020 2:09:09 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)  
[image005.png](#)

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*While we are operating remotely in response to COVID-19, Tetra Tech teams remain fully connected and hard at work servicing our clients and ongoing projects. We also would like to wish health and wellness to you and your family.*

-Patti

**From:** Tom Holdeman <[tholdeman@jssmi.com](mailto:tholdeman@jssmi.com)>  
**Sent:** Friday, May 15, 2020 2:06 PM  
**To:** McCall, Patti <[Patti.Mccall@tetrattech.com](mailto:Patti.Mccall@tetrattech.com)>  
**Subject:** RE: AALF Clay repair quote

**⚠ CAUTION:** This email originated from an external sender. Verify the source before opening links or attachments. **⚠**

Patti – We are good with the pricing in the proposal, thanks for checking.

Tom

Tom Holdeman  
Job Site Services, Inc.  
989-737-3138

**From:** McCall, Patti <[Patti.Mccall@tetrattech.com](mailto:Patti.Mccall@tetrattech.com)>  
**Sent:** Friday, May 15, 2020 12:30 PM  
**To:** Tom Holdeman <[tholdeman@jssmi.com](mailto:tholdeman@jssmi.com)>  
**Subject:** RE: AALF Clay repair quote



Thanks!

*While we are operating remotely in response to COVID-19, Tetra Tech teams remain fully connected and hard at work servicing our clients and ongoing projects. We also would like to wish health and wellness to you and your family.*

-Patti

**From:** Tom Holdeman <[tholdeman@jssmi.com](mailto:tholdeman@jssmi.com)>

**Sent:** Friday, May 15, 2020 11:50 AM  
**To:** McCall, Patti <Patti.Mccall@tetrattech.com>  
**Subject:** RE: AALF Clay repair quote

 **CAUTION:** This email originated from an external sender. Verify the source before opening links or attachments. 

Our prices are good (labor & equipment), but I am checking with the trucker so he can confirm clay and topsoil pricing. I should know shortly.

Thanks,

Tom

Tom Holdeman  
Job Site Services, Inc.  
989-737-3138

**From:** McCall, Patti <Patti.Mccall@tetrattech.com>  
**Sent:** Friday, May 15, 2020 8:29 AM  
**To:** Tom Holdeman <tholdeman@jssmi.com>  
**Subject:** AALF Clay repair quote

Hi Tom –

See the attached quote; can you take a look at it and see if it needs updated? I'm about to send the bids over to the City and I realized it's out of date now (past the 90 days it was good for). If it's still good. Just shoot me an email I can attach to it saying it is still valid. If not, can you resend a new one?

Thanks!

*While we are operating remotely in response to COVID-19, Tetra Tech teams remain fully connected and hard at work servicing our clients and ongoing projects. We also would like to wish health and wellness to you and your family.*

**Patti McCall, CPG, PWS** | Associate Hydrogeologist  
Direct +1 (734) 213-4069 | Mobile +1 (734) 476-7998 | Fax +1 (734) 213-5008 | [patti.mccall@tetrattech.com](mailto:patti.mccall@tetrattech.com)

**Tetra Tech** | *Leading with Science*<sup>®</sup> | ECA  
710 Avis Drive | Suite 100 | Ann Arbor, MI 48108 | [tetrattech.com](http://tetrattech.com)

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May 4, 2020

Patti McCall, CPG, PWS  
Tetra Tech  
710 Avis Drive  
Suite 100  
Ann Arbor, MI 48108

**RE: CITY OF ANN ARBOR LANDFILL – CAP REPAIR**

Dear Mrs. McCall,

*This is a revision to the original bid letter dated January 15, 2020.*

Enclosed, for your review and consideration is Catskill Remedial Contracting Services, Inc. (Catskill) scope of work and cost estimate to repair cap washouts at the City of Ann Arbor Landfill (site), located at 4120 Platt Rd, Ann Arbor, Michigan 48108. The cost estimate is based upon our understanding of the scope of work as described by Tetra Tech via email dated January 13, 2020.

**Scope of Work**

- Purchase, install, compact and grade clay over a 1000'x15'x0.5" area;
- Purchase, install and grade screened topsoil over above disturbed area; and
- Purchase and install seed and erosion matting over above area.

**Schedule and Equipment**

Catskill anticipates two (2) working days to complete the above scope of work. Mobilization can be scheduled fifteen (15) days after notice to proceed.

Catskill's crew will be comprised of: one (1) Superintendent, one (1) Operator and one (1) Laborer. Catskill will use the following equipment to complete the scope of work:

- Komatsu D-61 Dozer
- Bobcat Skid Steer
- Padfoot Compactor
- Hand Tools
- Field Truck

### **Assumptions and Clarifications**

- Estimate does not include survey layout, control or as built drawings.
- Estimate does not include any laboratory material testing.
- Estimate does not include construction quality assurance or construction oversight.
- Estimate includes up to 550 tons of clay.
- Estimate includes up to 300 cubic yards of screened topsoil.
- **Payment terms will be NET 45 days after the date of the invoices.**

### **Cost to complete the above scope of work:**

<b>Bid Item</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Rate</b>	<b>Extended Bid Price</b>
1	Mobilization/Demobilization	LS	1	\$4,508.00	\$4,508.00
2	Cap Repair	LS	1	\$22,611.00	\$ 22,611.00
3	Site Restoration	LS	1	\$11,253.00	\$11,253.00
				<b>TOTAL:</b>	<b>\$38,372.00</b>

Thank you for considering Catskill for this project; please contact me if you have any questions.

Sincerely,

**Catskill Remedial Contracting Services, Inc.**



Jeff Gostlin  
 President

cc: Josh Guy, Catskill – Construction Manager



Po Box 212 Vernon, MI 48476  
7505 E. M71 HWY, Durand, MI 48429

# Estimate

Date	Estimate #
5/13/2020	2326

Name / Address
Tetra Tech - Ann Arbor LF Clay

Description	Qty	Rate	Total
Mob/Demob	1	9,120.00	9,120.00T
Operator per hour	200	65.00	13,000.00T
Clay 500 Ton, Topsoil 250 Yards, Fabric and Seeding 15,000 Square Feet	1	7,550.00	7,550.00T
D6 Dozer per hour	1	0.00	0.00T
Caterpillar	1	0.00	0.00T
Roller per hour	1	0.00	0.00
Semi 915	1	0.00	0.00
350 Excavator per hour	1	0.00	0.00
Equipment - Total	1	10,480.00	10,480.00T
Sales Tax		6.00%	2,409.00

			<b>Total</b>	\$42,559.00
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Phone #	Fax #	E-mail
989-288-2656	989-288-5735	officemgr@greatlakesfusion.com



## **LINE UPSIZE & CLEANOUT INSTALL**

- » Job Site Services - \$37,720.00 (included in Task 3)
- » Horton Plumbing - \$49,799.00
- » Stearns Drilling - No Bid



March 20, 2020

Bryan Allen  
Tetra Tech  
710 Avis Drive  
Ann Arbor, MI 48108

Subject: Pipeline Replacement and Repairs Ann Arbor Landfill rev 3.20.2020

Thank you for the opportunity to provide a proposal for the subject project. Job Site Services Inc. has carefully reviewed the scope of work and has provided a detailed proposal and costs for this project. All assumptions and clarifications have been listed. Following are descriptions of items from your scope and a cost table for this work.

### **SUPPORTING DOCUMENTS & INFORMATION**

Information for our bid was obtained from the following documents. Any work that is not specifically called out in the plans, specifications or documents listed below is excluded from our proposed scope.

Other Documents and Information as follows:

- E-mail Job Site Services. Dated January 12, 2020.

### **Item 1 Mobilization and Demobilization**

- Labor, equipment and materials necessary for Job Site Services to mobilize to and demobilize from the project site.
- One mobilization and demobilization included.

### **Item 2 Utility Locate**

- Contact Miss Dig for public utility locate
- Perform third party utility locate of excavation area including ground penetrating radar.

### **Item 3 Daily Crew and Equipment Rate**

- Includes:
  - One Project Supervisor
  - One Equipment Operator
  - One Construction Laborer
  - Service truck with construction tools
  - 9000lb excavator
  - Track skid steer
  - Crew per diem
  - Vacuum excavation trailer unit

### **Item 4 Horizontal Directional Drilling and 6" HDPE Carrier Pipe Installation**

- Excavation of drilling and receiving pit.
- Horizontal directional drilling to install 6" SDR 11 HDPE carrier pipe



**Item 5 4" HDPE Conveyance Pipe, Clean Outs, Valves and Valve Boxes**

- 4" SDR 11 HDPE pipe
- 4" SDR 11 HDPE isolation valves with associated valve boxes.
- Install stainless steel tapping sleeve.
- Discharge main assumed to be 12" carbon steel or plastic.

**COST TABLE:**

Item	Description	Estimated Qty	Unit	Unit Rate	Total
1.0	Mobilization and Demobilization	1	Lump Sum	\$ 3,200.00	\$3,200.00
2.0	Utility Locate	1	Lump Sum	\$ 1,200.00	\$1,200.00
3.0	Daily Crew and Equipment Rate	4	Day	\$ 5,600.00	\$22,400.00
4.0	HDD and 6" HDPE Carrier Pipe Installation	50	Lineal Feet	\$ 138.00	\$6,900.00
5.0	HDPE Conveyance Pipe, Clean Outs Valves and Valve Boxes	120	Lineal Feet	\$ 33.50	\$4,020.00
<b>Project Total</b>					<b>\$37,720.00</b>

**SCHEDULE**

- Equipment and crew can mobilize to site upon receipt of Purchase Order and begin work.
- JSS will make every effort to complete this project in an efficient and timely matter, but cannot be responsible for delays due to equipment lead-times, weather, and unforeseen site conditions.
- JSS estimates this work will take up to 4 days to complete.

**INSURANCE**

- JSS will provide Insurance as required

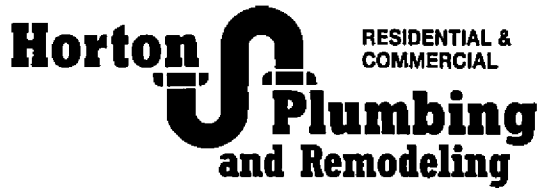
**HEALTH AND SAFETY**

- JSS will be responsible for H&S of its employees.

**STAFFING**

- All workers will be OSHA 40 hr. HAZWOPER trained and experienced in heavy construction and deep excavations.
- Foreman have Competent Person Training per OSHA capable of identifying existing and predictable hazards of excavations with the authority to shut down operations if new hazards are identified.

# Proposal 17443



Builders #2102164720  
Plumbing Contractors #8002340  
Mechanical #7110193

1382 S. Main Street • Plymouth, MI 48170  
(734) 455-3332 • FAX (734) 455-8869  
www.hortonplumbing.com

FAX NUMBER (734) 213-5008 EMAIL:  
CELLULAR (734) 476-7998 patti.mccall@tetrattech.com

To: **Tetra Tech**  
**710 Avis Drive**  
**Ann Arbor, MI 48108**

DATE 2/26/2020	
JOB NAME/LOCATION Tetra Tech- City of Ann Arbor 4150 Platt Ann Arbor, MI 48108	
JOB	PHONE (734) 213-4069

**We hereby submit specifications and estimates for:**

:	SCOPE: Horton Plumbing will furnish and install all necessary labor and material to directional bore an 8" HDPE pipe from the city sewer on the North side of Ellsworth to the new manhole on the South side of Ellsworth - Approximately 100'.	\$49,799.00
:	WORK INC: Hydro excavation to expose utilities in the work area. Directional bore an 8" pipe under the road. Sleeve 4" drain pipe through the 8" pipe. Install (2) 4' diameter manholes - one on the North side and one on the South side of Ellsworth. Install (2) 4" Butterfly valves on the 4" sewer in the manholes. Sewer connected to the city main on the North side of Ellsworth. 2" pump line connected to the 4" sewer on the South side of Ellsworth near the manhole.	

## **CLEANOUT INSTALL**

- » Job Site Services - \$26,030.00
- » Catskill - \$12,183.00
- » Stearns Drilling - \$32,948.00

Note: Chosen bid in Line Upsize and Cleanout Install already includes cleanout install costs. Quotes listed above not included in costing.



January 21, 2020

Patti McCall  
Tetra Tech  
710 Avis Drive  
Ann Arbor, MI 48108

Subject: Pipeline Replacement and Repairs Ann Arbor Landfill

Thank you for the opportunity to provide a proposal for the subject project. Job Site Services Inc. has carefully reviewed the scope of work and has provided a detailed proposal and costs for this project. All assumptions and clarifications have been listed. Following are descriptions of items from your scope and a cost table for this work.

**SUPPORTING DOCUMENTS & INFORMATION**

Information for our bid was obtained from the following documents. Any work that is not specifically called out in the plans, specifications or documents listed below is excluded from our proposed scope.

Other Documents and Information as follows:

- E-mail Job Site Services. Dated January 12, 2020.

**Item 1 Mobilization and Demobilization**

- Labor, equipment and materials necessary for Job Site Services to mobilize to and demobilize from the project site.
- One mobilization and demobilization included.

**Item 2 Utility Locate**

- Contact Miss Dig for public utility locate
- Perform third party utility locate of excavation area including ground penetrating radar.

**Item 3 Carrier Pipe Cleaning**

- Once existing 2 HDPE pipe is removed complete line jetting/cleaning of 4" PVC carrier pipe.

**Item 4 Daily Crew and Equipment Rate**

- Includes:
  - One Project Supervisor
  - One Equipment Operator
  - One Construction Laborer
  - Service truck with construction tools
  - 9000lb excavator
  - Track skid steer
  - Crew per diem



**Item 5 HDPE Conveyance Pipe, Valves and Valve Boxes**

- 2" SDR 11 HDPE pipe
- 2" SDR 11 HDPE isolation valves with associated valve boxes.
- If existing conveyance pipe can not be removed, isolation valves will be installed on existing conveyance pipe.

**COST TABLE:**

Item	Description	Estimated Qty	Unit	Unit Rate	Total
1.0	Mobilization and Demobilization	1	Lump Sum	\$ 3,000.00	\$3,000.00
2.0	Utility Locate	1	Lump Sum	\$ 1,200.00	\$1,200.00
3.0	Carrier Pipe Cleaning	1	Lump Sum	\$ 3,600.00	\$3,600.00
4.0	Daily Crew and Equipment Rate	3	Day	\$ 5,000.00	\$15,000.00
5.0	HDPE Conveyance Pipe, Valves and Valve Boxes	1	Lump Sum	\$ 3,230.00	\$3,230.00
				<b>Project Total</b>	<b>\$26,030.00</b>

**SCHEDULE**

- Equipment and crew can mobilize to site upon receipt of Purchase Order and begin work.
- JSS will make every effort to complete this project in an efficient and timely matter, but cannot be responsible for delays due to equipment lead-times, weather, and unforeseen site conditions.
- JSS estimates this work will take up to 3 days to complete.

**INSURANCE**

- JSS will provide Insurance as required

**HEALTH AND SAFETY**

- JSS will be responsible for H&S of its employees.

**STAFFING**

- All workers will be OSHA 40 hr. HAZWOPER trained and experienced in heavy construction and deep excavations.
- Foreman have Competent Person Training per OHSA capable of identifying existing and predictable hazards of excavations with the authority to shut down operations if new hazards are identified.



January 21, 2020

Bryan Allen  
Project Geologist  
Tetra Tech, Inc.  
710 Avis Dr., Suite 100  
Ann Arbor, Michigan 48108

**RE: CITY OF ANN ARBOR LANDFILL – WELL SERVICES**

Dear Mr. Allen,

Enclosed, for your review and consideration is Catskill Remedial Contracting Services, Inc. (Catskill) scope of work and cost estimate to install two (2) dual direction pipe cleanouts at the City of Ann Arbor Landfill located at 4120 Platt Rd, Ann Arbor, Michigan 48108.

**Scope of Work**

- Excavate to expose the 2-inch liquid transmission piping at two (2) locations (as directed by the Owner's Representative)
- Isolate and cut the 2-inch liquid transmission pipe.
- Fabricate and install two (2) 2-inch dual direction cleanouts.
- Install one (1) 2-inch HDPE ball valves, with 4-foot extension handles between the riser pipes at each new cleanout location.
- Install a valve box over valve extension handle.
- Backfill the excavations around the newly installed cleanouts.

**Schedule and Equipment**

Catskill anticipates one (1) full working day to complete the above scope of work. Catskill's crew will be comprised of: one (1) Superintendent, and one (1) Laborer. Catskill will use the following equipment to complete the scope of work:

- Komatsu PC138 Excavator
- HDPE Butt Fusion Equipment
- Hand Tools
- Field Truck

**Assumptions and Clarifications**

- Scope and bid based upon emails from Tetra Tech, Inc. dated, January 15, 2020.
- The Owner or Owner's representative is responsible to locate and mark all buried utilities and pipe in the vicinity of the new cleanouts. If buried utilities and pipes are not marked, Catskill is not liable for any damage, and costs to repair damage will be provided and



- approved prior to additional work.
- Bid price includes furnishing and installing bedding sand around the new cleanouts.
  - Based on email dated January 20, 2020, excavations will not exceed 5-feet in depth.
  - All other fill soil needed is readily available onsite.
  - Valve box is proposed to be pre-cast concrete (3-feet wide x 3-feet long and 2-foot deep). The valve box will have an 18-inch x 18-inch aluminum hatch for access to the extension handle.
  - Bid does not include pumping or managing any liquid that enters excavation.
    - If Catskill needs to support the dewatering of the excavation an hourly rate of \$395.00 will be billed while management of liquids is required.
    - This hourly rate includes all equipment and labor to pump liquid into an adjacent cleanout riser, sump or excavation in the waste mass.
  - Bid does not include costs for seed, mulch or other vegetative cover to repair areas disturbed during construction.
  - Estimate does not include handling or disposal of hazardous materials.
  - Estimate does not include survey layout, control or as built drawings.
  - Estimate does not include any laboratory material testing.
  - Estimate does include third party field testing.

**Cost to complete the above scope of work:**

<b>Bid Item</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Rate</b>	<b>Extended Bid Price</b>
1	Mobilization/Demobilization	Lump Sum	1	\$2,883.00	\$2,883.00
2	Installation of two (2) 2-inch Dual Direction Cleanouts, one (1) 2-inch Valve and Valve Box	Lump Sum	1	\$9,300.00	\$9,300.00
				<b>TOTAL:</b>	<b>\$ 12,183.00</b>

Thank you for considering Catskill for this project; please contact me if you have any questions.

Sincerely,

**Catskill Remedial Contracting Services, Inc.**



Josh Guy  
Construction Manager

cc: Jeff Gostlin, Catskill – President/Owner

Cas **40 YEARS**  
**SINCE 1977**



# STEARNS DRILLING

January 23, 2020

Mr. Bryan Allen  
Tetra Tech, Inc.  
710 Avis Drive  
Ann Arbor MI 48108

**Quote Number**  
**28505**

**Re: Cost Estimate for Well Services - Ann Arbor Landfill, Ann Arbor, Michigan**

Dear Mr. Allen:

We are pleased to provide a cost estimate for drilling services at the above referenced project.

**WORK SCOPE**

**Cleanouts:**

1. Install 2 cleanouts (1 on each side of the road) for the underground line at PW-3R-12:
2. Install 1 buried curb stop valve for the underground line at PW-3R-12 near the discharge side:
  - Excavate to the existing 2" diameter HDPE underground line, estimated to be about 4' deep, near the well;
  - Install a cleanout from the underground line to the ground surface;
  - Install 1 buried (4') curb stop valve;
  - Backfill with excavated soil.

**Treat Underground:**

3. Clean the underground line
  - Acid treat and insert a foam pig(s) at the new wye to clean the underground line.

**ESTIMATE ASSUMPTIONS:**

Decontamination procedure is high pressure steam.  
 Contract language will be acceptable to Stearns Drilling.  
 Prevailing wages are not required.  
 Level D safety is required.  
 Client to provide a Health & Safety plan for Stearns to adopt.  
 Client to coordinate utility clearance with the State one-call system and the site owner.  
 Client to provide a usable water source.  
 Waste water disposal is not included.  
 The well head is not located in a confined space.  
 Dewatering is not required.  
 The site is easily accessed by truck-mounted equipment.

Stearns Drilling offers environmental, geotechnical, geothermal, Geoprobe, sonic, water supply drilling and trenching services.

Mr. Bryan Allen  
Page 2  
January 23, 2020

Thank you for the opportunity to submit this cost estimate. If you have questions or need additional information regarding this cost estimate, please contact us at your convenience.

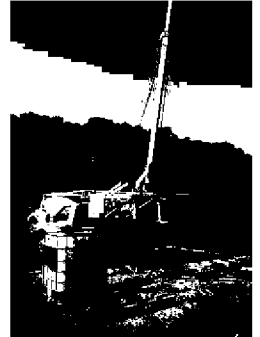
Very truly yours,

STEARNS DRILLING  
Roland S. Clapp

Enclosure

[Visit us at www.StearnsDrilling.com.](http://www.StearnsDrilling.com)

[Email me at Roland@StearnsDrilling.com.](mailto:Roland@StearnsDrilling.com)



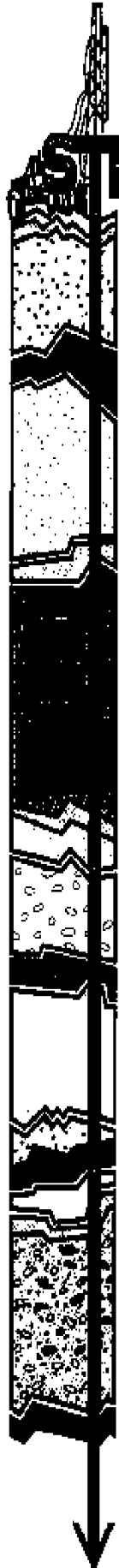
## Stearns Drilling Estimate

## Cleanouts:

Description	Quantity	Unit	Unit Cost	Amount
<b>Mobilization / Demobilization / Preparation</b>	1.0	Trip(s)	\$ 660.00	\$ 660.00
<b>Well Services</b>				
Crew labor	100.0	Hour(s)	150.00	15,000.00
Standby	0.0	Hour(s)	150.00	-
<b>Materials</b>				
Plastic (12' x 100' roll, 6 mil)	0.0	Roll(s)	78.00	-
Drum (55-gallon D.O.T.) -	0.0	Each	45.00	-
Pipe - 2" HDPE, DR 11, IPS for non-potable water	80.0	Feet	3.00	240.00
Clean out Wye - 2" HDPE, DR 11, IPS for non-potable water	2.0	Each	141.00	282.00
Compression Fitting - 2" x 2" for 2" HDPE DR 11 pipe	8.0	Each	92.00	736.00
2" HDPE butterfly flange, if needed	2.0	Each	25.00	50.00
2" ductile iron backup ring, if needed	2.0	Each	8.00	16.00
Clean out Cover -	2.0	Each	75.00	150.00
Transition - 2" HDPE to 2" Mnpt stainless-steel	2.0	Each	54.00	108.00
Camlock, female coupler Stainless-steel - 2" Fnpt x camlock	2.0	Each	62.00	124.00
Camlock, Dust Plug - stainless-steel - 2" Fnpt x camlock	2.0	Each	66.00	132.00
Miscellaneous	1.0	Each	200.00	200.00
Foam pig, - bare	0.0	Each	15.00	-
Foam pig, - coated, rotating, with rope loops for handling, pulling, if desired	0.0	Each	84.00	-
Curb stop valve (2"), extension (4' bury) and valve box to the surface	1.0	Set(s)	750.00	750.00
Muriatic Acid (also known as Hydrochloric Acid 31% - 20 degree Baume)	0.0	Gallon(s)	14.20	-
Soda Ash	0.0	Pound(s)	1.50	-
Antifoam NS	0.0	Pound(s)	3.00	-
<b>Expenses</b>				
Support truck	10.0	Day(s)	70.00	700.00
Steam cleaner	10.0	Day(s)	50.00	500.00
Skid steer loader	2.0	Week(s)	750.00	1,500.00
Mini Excavator - delivery / pick up	2.0	1-Way Trip(s)	400.00	800.00
Mini Excavator & fuel	2.0	Week(s)	1,810.00	3,620.00
Trench box	2.0	Week(s)	1,090.00	2,180.00
Soil compactor, if needed	2.0	Week(s)	160.00	320.00
Transfer pump & hose	10.0	Day(s)	65.00	650.00
Poly tank for clean water only	10.0	Day(s)	25.00	250.00
Winterizing charge (November thru March)	10.0	Day(s)	10.00	100.00
HDPE fusion machine	10.0	Day(s)	100.00	1,000.00
Confined space entry gear ( Tripod, Rescue winch, blower, harness, 4-gas monitor)	0.0	Week(s)	915.00	-
Cut off saw/core machine/jack hammer	0.0	Day(s)	120.00	-
Air compressor - 185 cfm at 100 psi, & fuel	0.0	Day(s)	235.00	-
Daily travel expense	20.0	Man Day(s)	130.00	2,600.00
Level "D" protection	20.0	Man Day(s)	14.00	280.00
Modified Level "D" protection - with Tyvek	0.0	Man Day(s)	40.00	-
		<b>Total for Cleanouts:</b>		<b>\$32,948.00</b>

## **WELL ATTACHMENT AND ACID TREATMENT**

- » Stearns Drilling - \$29,712.50 (included in Task 3)
- » Cascade Environmental – No Bid
- » Stock Drilling – No Bid



# STEARNS DRILLING

**40 YEARS  
SINCE 1977**

January 23, 2020

Mr. Bryan Allen  
Tetra Tech, Inc.  
710 Avis Drive  
Ann Arbor MI 48108

**Quote Number  
28505**

**Re: Cost Estimate for Well Services - Ann Arbor Landfill, Ann Arbor, Michigan**

Dear Mr. Allen:

We are pleased to provide a cost estimate for drilling services at the above referenced project.

### **WORK SCOPE**

#### **Cleanouts:**

1. Install 2 cleanouts (1 on each side of the road) for the underground line at PW-3R-12:
2. Install 1 buried curb stop valve for the underground line at PW-3R-12 near the discharge side:
  - Excavate to the existing 2" diameter HDPE underground line, estimated to be about 4' deep, near the well;
  - Install a cleanout from the underground line to the ground surface;
  - Install 1 buried (4') curb stop valve;
  - Backfill with excavated soil.

#### **Treat Underground:**

3. Clean the underground line
  - Acid treat and insert a foam pig(s) at the new wye to clean the underground line.

#### **ESTIMATE ASSUMPTIONS:**

Decontamination procedure is high pressure steam.  
Contract language will be acceptable to Stearns Drilling.  
Prevailing wages are not required.  
Level D safety is required.  
Client to provide a Health & Safety plan for Stearns to adopt.  
Client to coordinate utility clearance with the State one-call system and the site owner.  
Client to provide a usable water source.  
Waste water disposal is not included.  
The well head is not located in a confined space.  
Dewatering is not required.  
The site is easily accessed by truck-mounted equipment.

Stearns Drilling offers environmental, geotechnical, geothermal, Geoprobe, sonic, water supply drilling and trenching services.

Mr. Bryan Allen  
Page 2  
January 23, 2020

Thank you for the opportunity to submit this cost estimate. If you have questions or need additional information regarding this cost estimate, please contact us at your convenience.

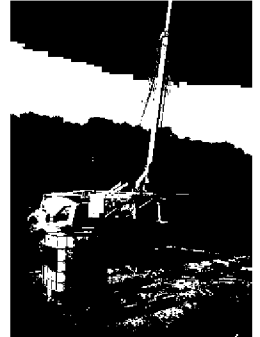
Very truly yours,

STEARNS DRILLING  
Roland S. Clapp

Enclosure

[Visit us at www.StearnsDrilling.com.](http://www.StearnsDrilling.com)

[Email me at Roland@StearnsDrilling.com.](mailto:Roland@StearnsDrilling.com)

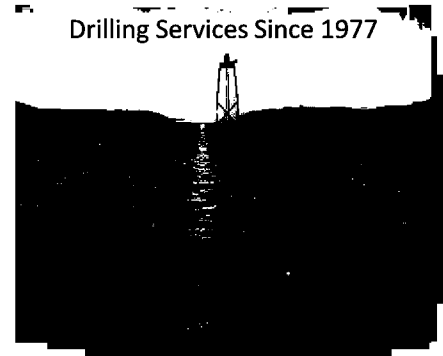
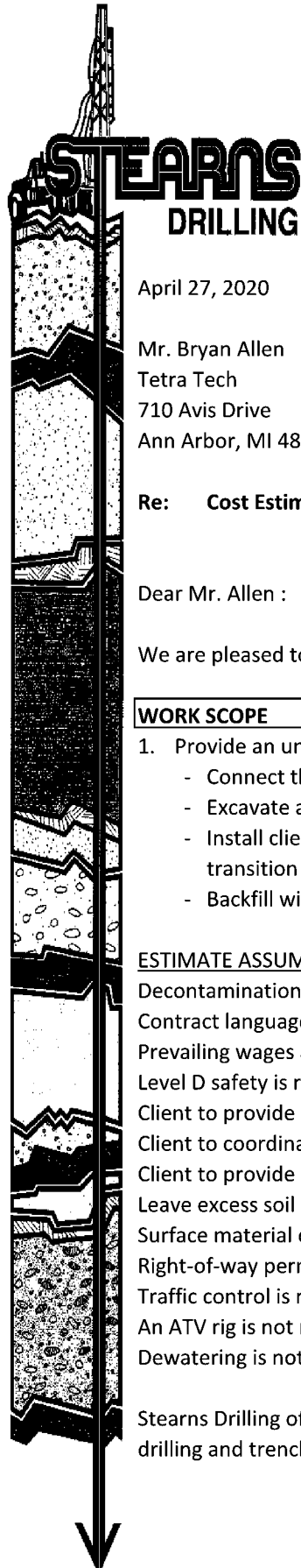


## Stearns Drilling Estimate

### Treat Underground:

Description	Quantity	Unit	Unit Cost	Amount
<b>Mobilization / Demobilization / Preparation</b>	1.0	Trip(s)	\$ 660.00	\$ 660.00
<b>Well Services</b>				
Crew labor	8.0	Hour(s)	150.00	1,200.00
Standby	0.0	Hour(s)	150.00	-
<b>Materials</b>				
Plastic (12' x 100' roll, 6 mil)	0.0	Roll(s)	78.00	-
Drum (55-gallon D.O.T.) -	0.0	Each	45.00	-
Pipe - 2" HDPE, DR 11, IPS for non-potable water	0.0	Feet	3.00	-
Clean out Wye - 2" HDPE, DR 11, IPS for non-potable water	0.0	Each	141.00	-
Compression Fitting - 2" x 2" for 2" HDPE DR 11 pipe	0.0	Each	92.00	-
2" HDPE butterfly flange, if needed	0.0	Each	25.00	-
2" ductile iron backup ring, if needed	0.0	Each	8.00	-
Clean out Cover -	0.0	Each	75.00	-
Transition - 2" HDPE to 2" Mnpt stainless-steel	0.0	Each	54.00	-
Camlock, female coupler Stainless-steel - 2" Fnpt x camlock	0.0	Each	62.00	-
Camlock, Dust Plug - stainless-steel - 2" Fnpt x camlock	0.0	Each	66.00	-
Miscellaneous	1.0	Each	50.00	50.00
Foam pig, - bare	6.0	Each	15.00	90.00
Foam pig, - coated, rotating, with rope loops for handling, pulling, if desired	0.0	Each	84.00	-
Curb stop valve (2"), extension (4' bury) and valve box to the surface	0.0	Set(s)	750.00	-
Muriatic Acid (also known as Hydrochloric Acid 31% - 20 degree Baume)	40.0	Gallon(s)	14.20	568.00
Soda Ash	25.0	Pound(s)	1.50	37.50
Antifoam NS	5.0	Pound(s)	3.00	15.00
<b>Expenses</b>				
Support truck	2.0	Day(s)	70.00	140.00
Steam cleaner	2.0	Day(s)	50.00	100.00
Skid steer loader	1.0	Week(s)	750.00	750.00
Mini Excavator - delivery / pick up	0.0	1-Way Trip(s)	400.00	-
Mini Excavator & fuel	0.0	Week(s)	1,810.00	-
Trench box	0.0	Week(s)	1,090.00	-
Soil compactor, if needed	0.0	Week(s)	160.00	-
Transfer pump & hose	2.0	Day(s)	65.00	130.00
Poly tank for clean water only	2.0	Day(s)	25.00	50.00
Winterizing charge (November thru March)	2.0	Day(s)	10.00	20.00
HDPE fusion machine	0.0	Day(s)	100.00	-
Confined space entry gear ( Tripod, Rescue winch, blower, harness, 4-gas monitor)	0.0	Week(s)	915.00	-
Cut off saw/core machine/jack hammer	0.0	Day(s)	120.00	-
Air compressor - 185 cfm at 100 psi, & fuel	1.0	Day(s)	235.00	235.00
Daily travel expense	4.0	Man Day(s)	130.00	520.00
Level "D" protection	4.0	Man Day(s)	14.00	56.00
Modified Level "D" protection - with Tyvek	0.0	Man Day(s)	40.00	-
<b>Total for Treat Underground:</b>				<b>\$4,621.50</b>





Quote Number  
30251

April 27, 2020

Mr. Bryan Allen  
Tetra Tech  
710 Avis Drive  
Ann Arbor, MI 48108

Re: **Cost Estimate for Drilling Services - Ann Arbor Landfill, Ann Arbor, Michigan**

Dear Mr. Allen :

We are pleased to provide a cost estimate for drilling services.

**WORK SCOPE**

1. Provide an underground connection at existing well PW-3R-12:
  - Connect the existing 6" diameter PVC well to existing underground 4" HDPE transmission pipe;
  - Excavate about 4' at the well to expose underground pipe and well;
  - Install client-provided 4" inline flow meter, reduce the existing 4" HDPE to 2" HDPE and then transition to NPT at the well
  - Backfill with excavated soil.

**ESTIMATE ASSUMPTIONS:**

- Decontamination procedure is high pressure steam.
- Contract language will be acceptable to Stearns Drilling.
- Prevailing wages are not required.
- Level D safety is required.
- Client to provide a Health & Safety plan for Stearns to adopt.
- Client to coordinate utility clearance with the State one-call system and the site owner.
- Client to provide a usable water source.
- Leave excess soil cuttings and waste water on the ground at the drilling locations.
- Surface material consists of soil.
- Right-of-way permit, if required, by others.
- Traffic control is not required or if required will be provided by others.
- An ATV rig is not required.
- Dewatering is not required.

Stearns Drilling offers environmental, geotechnical, geothermal, direct push, auger, rotary, coring, sonic, water well drilling and trenching services.

Mr. Bryan Allen  
Page 2  
April 27, 2020

Thank you for the opportunity to submit this cost estimate. If you have questions or need additional information, please contact us.

Very truly yours,

STEARNS DRILLING  
Roland Clapp





## Stearns Drilling Estimate

Description	Quantity	Unit	Unit Cost	Amount
<b>Mobilization / Demobilization / Preparation</b>	1.0	Trip(s)	\$ 660.00	\$ 660.00
<b>Drilling Services</b>				
Crew labor	60.0	Hour(s)	150.00	9,000.00
Standby	0.0	Hour(s)	150.00	-
Computerized driller's logs, if desired. There's no charge for copies of handwritten logs	0.0	Log(s)	45.00	-
<b>Materials</b>				
Pipe - 4" DR 11 IPS HDPE	40.0	Feet	7.10	284.00
Pipe - 2" DR 11 IPS HDPE	5.0	Feet	4.00	20.00
Transition - 4" HDPE DR 11 IPS x 4" stainless steel NPT	0.0	Each	149.00	-
Flange - 4" HDPE DR 11 IPS (with backup ring, gasket and bolts)	4.0	Each	172.00	688.00
Reducer - 4" HDPE DR 11 IPS x 2" HDPE DR 11 IPS	1.0	Each	18.00	18.00
Flange - 2" HDPE DR 11 IPS (with backup ring, gasket and bolts)	0.0	Each	164.00	-
Transition - 2" HDPE DR 11 IPS x 2" NPT stainless steel	1.0	Each	49.00	49.00
Electrofusion Coupling - 4" HDPE DR 11 IPS	4.0	Each	52.00	208.00
Electrofusion Coupling - 2" HDPE DR 11 IPS	0.0	Each	22.00	-
Compression Coupling - 4" HDPE DR 11 IPS	0.0	Each	327.00	-
Compression Coupling - 2" HDPE DR 11 IPS	0.0	Each	71.00	-
Pitless Adapter - 6" x 2" strap on style	0.0	Each	299.00	-
Sand pack	0.0	Bag(s)	12.00	-
Pea gravel	0.0	Bag(s)	13.00	-
Bentonite chips or granular	0.0	Bag(s)	14.00	-
Bentonite - 20 % solids grout	0.0	Bag(s)	20.00	-
Cement grout	0.0	Bag(s)	20.00	-
Padlock	0.0	Each	21.00	-
Concrete mix- standard	0.0	Bag(s)	7.00	-
Drum (55-gallon D.O.T.)	0.0	Each	48.00	-
Poly tank (1,500-gallon) - for water	0.0	Each	1,010.00	-
Poly tank (330-gallon) - for water	0.0	Each	445.00	-
Asphalt cold patch	0.0	Bag(s)	20.00	-
Bumper / Bollard post - steel (4" diameter x 7' long)	0.0	Each	105.00	-
Plastic Bollard Cover -4" x ~5' safety yellow with 2 red reflective stripes	0.0	Each	49.00	-
Plastic (10' x 100' x 6 millimeter)	0.0	Roll(s)	78.00	-
Topsoil	0.0	Bag(s)	5.00	-
Grass seed	0.0	Pound(s)	3.60	-
Miscellaneous - estimated	1.0	Each	300.00	300.00

### Expenses



## Stearns Drilling Estimate

Description	Quantity	Unit	Unit Cost	Amount
Support truck	6.0	Unit Day(s)	70.00	420.00
Steam cleaner	6.0	Unit Day(s)	50.00	300.00
Skid steer loader & fuel	6.0	Unit Day(s)	250.00	1,500.00
Generator	6.0	Unit Day(s)	65.00	390.00
Mini Excavator (7500 lb) & fuel	0.0	Unit Day(s)	540.00	-
Mini Excavator (7500 lb) & fuel	0.0	Unit Week(s)	1,530.00	-
~ 30-34K Hydraulic Excavator	2.0	Unit Week(s)	2,870.00	5,740.00
Excavator delivery / pickup	2.0	Trip(s)	575.00	1,150.00
2" Transfer pump & hose	0.0	Unit Day(s)	65.00	-
HDPE fusion machine - butt fusion	6.0	Unit Day(s)	80.00	480.00
HDPE fusion machine - electro fusion	6.0	Unit Day(s)	206.00	1,236.00
Traffic signs, cones & caution tape only	0.0	Unit Day(s)	20.00	-
Soil plate tamper / compacter	0.0	Unit Day(s)	90.00	-
Winterizing charge (November thru March)	0.0	Unit Day(s)	10.00	-
Cut off saw/core machine/jack hammer	6.0	Unit Day(s)	120.00	720.00
Air compressor - 185 cfm at 100 psi, & fuel	0.0	Unit Day(s)	230.00	-
Trench box - ~4' x 4', if required	1.0	Lump Sum	200.00	200.00
Daily travel expense	12.0	Man Day(s)	130.00	1,560.00
Level "D" protection	12.0	Man Day(s)	14.00	168.00
<b>Estimated Total:</b>			<b>\$</b>	<b>25,091.00</b>

Thank you for the opportunity to prepare this estimate. This estimate is valid for 60 days.

TERMS: The invoice will be based on actual times and quantities spent. Balance is due within thirty (30) days of the invoice date. A 1.5 percent monthly interest (equal to 18% annually) is charged on all overdue invoices.

These unit prices are based on drilling in soils. They do not include drilling through hard clay (blow counts greater than 50 blows per 6 inches), cobbles, boulders, coarse gravels, bedrock, rubble or landfill material.

Please remember that cold weather causes actual quantities to increase over estimated quantities.

To requisition our services, please sign this agreement and return a copy to our office.

Accepted by: \_\_\_\_\_

Date: \_\_\_\_\_

Title: \_\_\_\_\_

Project start up date: \_\_\_\_\_



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**From:** Donald Bond <DBond@cascade-env.com>  
**Sent:** Wednesday, January 15, 2020 4:13 PM  
**To:** Allen, Bryan  
**Cc:** McCall, Patti; Rauss, Alison; Dennis Robins  
**Subject:** RE: Cost Estimate for Rehabilitate Underground Line

▲ **CAUTION:** This email originated from an external sender. Verify the source before opening links or attachments. ▲

Hi Allen- sorry,  
Yes, unfortunately, we are not set up for horizontal line rehabilitation.  
Thank you,



DONALD BOND OPERATIONS MANAGER  
CASCADe | 6215 Lehman Dr, Flint MI 48507  
P 810-877-7176 Ext 3172 M 810-523-3957 | [DBOND@CASCADe-ENV.COM](mailto:DBOND@CASCADe-ENV.COM)  
EXCELLENCE ON EVERY LEVEL™ [WWW.CASCADe-ENV.COM](http://WWW.CASCADe-ENV.COM)  
Please consider the environment before printing this e-mail

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**From:** Jonathan Wiley <jonathan@stockdrilling.com>  
**Sent:** Friday, January 17, 2020 1:14 PM  
**To:** Allen, Bryan  
**Subject:** RE: Rehabilitate Underground Line

▲ **CAUTION:** This email originated from an external sender. Verify the source before opening links or attachments. ▲

Bryan,

We do not have the equipment to service discharge lines. If it was the well itself we are equipped and familiar with that process. I would contact jobsite services. This is in their wheel house. Thanks for reaching out and maybe we can be of service on another project next time.

Thanks,

**Jonathan Wiley**  
**Operations Manager**



***Our Job is Boring!***

**Jonathan@stockdrilling.com**

**Office: (734)279-2059**

**Fax: (734)279-2076**