



## Engineering & Public Works Department

**SUBJECT:** 2019 Sewer Televising and Cleaning Program

**MEETING DATE:** April 9, 2019

**FROM:** [Brigitte Berger-Raish](#), P.E., Director of Engineering and Public Works  
[Dan Manis](#), P.E., Village Engineer  
[Danielle Horn](#), P.E., Project Manager

**BUDGET IMPACT:**

Contract Cost	\$179,200
Over/(Under) Budget	(\$0)

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### **Recommended Motion**

Move to approve a contract in the amount not-to-exceed \$179,200 with American Underground, Inc., Glenview, IL, for the 2019 Sewer Televising and Cleaning Program.

### **Background**

In order to protect the Village’s investment in new infrastructure, it is the Engineering and Public Works Department’s recommendation to repair deteriorated sewers prior to projects that involve street rehabilitation. Sewer televising identifies deteriorated pipe and sewers that have obstructions caused by mineral deposits or tree root intrusions.

Routine cleaning is a vital component of maintaining the existing sewer system to its maximum effectiveness. Prior to televising, the contractor cleans the sewers with a high pressure jet and then determines if the sewer requires additional heavy cleaning or root cutting before performing the inspection. The 2018 televising and cleaning program removed approximately 230 cubic yards of debris from Village sewers and inspected 13.3 miles of sewer pipe.

In addition, sewer televising assists the Engineering and Public Works Department to determine which sewers benefit from sewer lining. Sewer lining involves the trenchless rehabilitation of deteriorated sewer pipe in which a flexible lining is inserted into an existing sewer through a manhole and is heat cured. Sewer lining is economical, non-invasive and reliable. However, sewers have to be in a “round” (non-collapsing or oval) condition otherwise sewer lining is not an option.

Both the capital and operations sides of the Engineering and Public Works Department work together to establish the locations for televising. Candidates for this program are sewers that fall in one or more of the following categories:

- Sewers that are prone to surcharging during rain events contributing to basement sewer backups;
- Sewers under streets that are scheduled for resurfacing;
- Sewers that are planned for the sewer lining program;
- Sewers that are within public utility easements that are difficult to access;
- Sewers that are in basins programmed for the current year's cleaning.

This program will televise and clean approximately 9% (14 miles) of sewers throughout the Village in both the separate, combined and storm sewer systems.

### **Discussion**

The Village is one of several municipalities participating in the Municipal Partnering Initiative (MPI) for sewer televising and cleaning. The MPI allows area communities to collectively bid similar work to take advantage of economies of scale. The Villages of Wilmette, Glenview, Kenilworth, Niles, Lincolnshire, Vernon Hills and Northfield partnered to bid sewer televising and cleaning in 2015. American Underground was the lowest responsible bidder and established pricing for 2015-2017 with a mutual option to extend for two additional years beyond the initial contract term. American Underground has agreed to extend the 2017 pricing through December 31, 2019 for the 2019 Sewer Televising and Cleaning Program. This will be the last contract extension of the pricing established with the 2015 bid. The MPI will bid this project next year.

American Underground has performed well for the Village in the past, including the 2012-2018 Sewer Televising and Cleaning Programs. For this reason, the Engineering and Public Works Department recommends awarding the 2019 Sewer Televising and Cleaning Program to American Underground.

The project will begin in May and be completed in July 2019.

### **Budget Impact**

The 2019 Sewer Maintenance budget includes \$179,200 for sewer televising and cleaning.

<b>Description</b>	<b>Account Number</b>	<b>Budget</b>	<b>Recommended Awarded Amount</b>
Sewer Televising and Cleaning	40807090-425300	\$179,200	\$179,200

### **Documents Attached**

1. American Underground Bid Pricing
2. CIP Detail Sheets



Village of Glenview

1225 Waukegan Road  
Glenview, IL 60025  
(847)904-4350

SUBMISSION INFORMATION

INVITATION: #215011

BID OPENING DATE: February 12, 2015  
TIME: 3:00 P.M. Local Time  
LOCATION: Administrative Services  
Department

Submit 1 original, 1 copy, and 1 electronic copy of the RFB response.

INVITATION TO BID CONTRACTOR INFORMATION

COMPANY NAME: American Underground Inc.

ADDRESS: P.O. Box 569

CITY, STATE, ZIP CODE: Glenview IL 60025

**Sanitary and Storm Sewer Closed Circuit Television (CCTV) Inspection**  
per the specifications identified herein

**I. BASE BID**  
**a. Year 1 (2015)**

Item No.	Item Description	Estimated Quantities* (All Municipalities)	Unit of Measure	Unit Price	Extended Price
1.	CCTV Inspection of Storm Sewers (6" to 42")	127,300	LF	\$ <u>1.55</u>	\$ <u>197,315.00</u>
2.	CCTV Inspection of Sanitary Sewers (8" to 12") with Concurrent Dyed-water Flooding	23,000	LF	\$ <u>2.21</u>	\$ <u>50,830.00</u>
3.	CCTV Inspection of Sanitary Sewers (15" to 18") with Concurrent Dyed-water Flooding	7,800	LF	\$ <u>2.25</u>	\$ <u>17,550.00</u>
4.	CCTV Inspection of Sanitary Sewers (8" to 12") (no dyed-water flooding)	136,700	LF	\$ <u>1.32</u>	\$ <u>180,444.00</u>
5.	CCTV Inspection of Sanitary Sewers (15" to 18") (no dyed-water flooding)	18,300	LF	\$ <u>1.32</u>	\$ <u>24,156.00</u>
6.	CCTV Inspection of Sanitary Sewers (21" to 30") (no dyed-water flooding)	5,300	LF	\$ <u>1.71</u>	\$ <u>9,063.00</u>
7.	Sewer Condition Evaluation	217,500	LF	\$ <u>0.18</u>	\$ <u>39,150.00</u>
<b>TOTAL BASE BID, YEAR 1 (2015)</b>				\$ <u>518,508.00</u>	

**b. Year 2 (2016)**

Item No.	Item Description	Estimated Quantities* (All Municipalities)	Unit of Measure	Unit Price	Extended Price
1.	CCTV Inspection of Storm Sewers (6" to 42")	127,300	LF	\$ <u>1.55</u>	\$ <u>197,315.00</u>
2.	CCTV Inspection of Sanitary Sewers (8" to 12") with Concurrent Dyed-water Flooding	23,000	LF	\$ <u>2.21</u>	\$ <u>50,830.00</u>
3.	CCTV Inspection of Sanitary Sewers (15" to 18") with Concurrent Dyed-water Flooding	7,800	LF	\$ <u>2.25</u>	\$ <u>17,550.00</u>
4.	CCTV Inspection of Sanitary Sewers (8" to 12") (no dyed-water flooding)	136,700	LF	\$ <u>1.32</u>	\$ <u>180,444.00</u>
5.	CCTV Inspection of Sanitary Sewers (15" to 18") (no dyed-water flooding)	18,300	LF	\$ <u>1.32</u>	\$ <u>24,156.00</u>
6.	CCTV Inspection of Sanitary Sewers (21" to 30") (no dyed-water flooding)	5,300	LF	\$ <u>1.71</u>	\$ <u>9,063.00</u>
7.	Sewer Condition Evaluation	217,500	LF	\$ <u>0.18</u>	\$ <u>39,150.00</u>
TOTAL BASE BID, YEAR 2 (2016)				\$ <u>518,508.00</u>	

**c. Year 3 (2017)**

Item No.	Item Description	Estimated Quantities* (All Municipalities)	Unit of Measure	Unit Price	Extended Price
1.	CCTV Inspection of Storm Sewers (6" to 42")	127,300	LF	\$ <u>1.57</u>	\$ <u>199,861.00</u>
2.	CCTV Inspection of Sanitary Sewers (8" to 12") <u>with Concurrent Dyed-water Flooding</u>	23,000	LF	\$ <u>2.23</u>	\$ <u>51,290.00</u>
3.	CCTV Inspection of Sanitary Sewers (15" to 18") <u>with Concurrent Dyed-water Flooding</u>	7,800	LF	\$ <u>2.29</u>	\$ <u>17,862.00</u>
4.	CCTV Inspection of Sanitary Sewers (8" to 12") (no dyed-water flooding)	136,700	LF	\$ <u>1.35</u>	\$ <u>184,545.00</u>
5.	CCTV Inspection of Sanitary Sewers (15" to 18") (no dyed-water flooding)	18,300	LF	\$ <u>1.35</u>	\$ <u>24,705.00</u>
6.	CCTV Inspection of Sanitary Sewers (21" to 30") (no dyed-water flooding)	5,300	LF	\$ <u>1.71</u>	\$ <u>9,063.00</u>
7.	Sewer Condition Evaluation	217,500	LF	\$ <u>0.18</u>	\$ <u>39,150.00</u>
<b>TOTAL BASE BID, YEAR 3 (2017)</b>				\$ <u>526,476.00</u>	

\*The estimated quantities listed in the bid table are for reference only. The Contractor is hereby made aware that the bid prices shall apply to work in all Municipalities participating in this bid even if no estimated quantity is listed for that municipality.

See Estimated Quantities Table in the Technical Specifications for estimated quantities for each Municipality.

**TOTAL BASE BID AMOUNT (YEARS 1-3) \$ 1,563,492.00**

**II. SUPPLEMENTAL UNIT PRICES**  
**a. Year 1 (2015)**

Item No.	Item Description	Unit of measure	Unit Price
1.	CCTV Inspection of Storm Sewers (48" to 72")	LF	\$ <u>1.89</u>
2.	CCTV Inspection of Sanitary Sewers (21" to 30") with Concurrent Dyed-water Flooding	LF	\$ <u>2.95</u>
3.	CCTV Inspection of Sanitary Sewers (6") (no dyed-water flooding)	LF	\$ <u>1.95</u>
4.	Root Cutting (8" to 12")	LF	\$ <u>0.58</u>
5.	Root Cutting (15" to 18")	LF	<u>0.95</u>
6.	Root Cutting (21" to 30")	LF	\$ <u>6.00</u>
7.	Heaving Cleaning	CREW HRS	\$ <u>365.00</u>
8.	Emergency CCTV Inspection (no dyed-water flooding) Sanitary or Storm Sewer (8" to 42")	CREW HRS	\$ <u>385.00</u>

**b. Year 2 (2016)**

Item No.	Item Description	Unit of measure	Unit Price
1.	CCTV Inspection of Storm Sewers (48" to 72")	LF	\$ <u>1.89</u>
2.	CCTV Inspection of Sanitary Sewers (21" to 30") with Concurrent Dyed-water Flooding	LF	\$ <u>2.95</u>
3.	CCTV Inspection of Sanitary Sewers (6") (no dyed-water flooding)	LF	\$ <u>1.95</u>
4.	Root Cutting (8" to 12")	LF	\$ <u>0.58</u>
5.	Root Cutting (15" to 18")	LF	<u>0.95</u>
6.	Root Cutting (21" to 30")	LF	\$ <u>6.00</u>
7.	Heaving Cleaning	CREW HRS	\$ <u>375.00</u>
8.	Emergency CCTV Inspection (no dyed-water flooding) Sanitary or Storm Sewer (8" to 42")	CREW HRS	\$ <u>385.00</u>

**c. Year 3 (2017)**

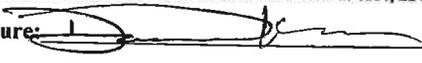
Item No.	Item Description	Unit of measure	Unit Price
1.	CCTV Inspection of Storm Sewers (48" to 72")	LF	\$ <u>1.89</u>
2.	CCTV Inspection of Sanitary Sewers (21" to 30") with Concurrent Dyed-water Flooding	LF	\$ <u>2.95</u>
3.	CCTV Inspection of Sanitary Sewers (6") (no dyed-water flooding)	LF	\$ <u>1.95</u>
4.	Root Cutting (8" to 12")	LF	\$ <u>0.58</u>
5.	Root Cutting (15" to 18")	LF	<u>0.95</u>
6.	Root Cutting (21" to 30")	LF	\$ <u>6.00</u>
7.	Heaving Cleaning	CREW HRS	\$ <u>375.00</u>
8.	Emergency CCTV Inspection (no dyed-water flooding) Sanitary or Storm Sewer (8" to 42")	CREW HRS	\$ <u>385.00</u>

**BIDS SHALL BE ACCOMPANIED BY BID SECURITY IN AN AMOUNT NOT LESS THAN FIVE PERCENT (5%) OF THE AMOUNT OF THE TOTAL BID.**

Any and all exceptions to these specifications MUST be clearly and completely indicated on the bid sheet. Attach additional pages if necessary.  
**NOTE TO BIDDERS:** Please be advised that any exceptions to these specifications may cause your bid to be disqualified. Submit bids by SEALED BID ONLY. Fax and e-mail bids are not acceptable and will not be considered.

**THE SECTION BELOW MUST BE COMPLETED IN FULL AND SIGNED**

The undersigned hereby certifies that they have read and understand the contents of this solicitation and agree to furnish at the prices shown any or all of the items above, subject to all instructions, conditions, specifications and attachments hereto. Failure to have read all the provisions of this solicitation shall not be cause to alter any resulting contract or to accept any request for additional compensation. By signing this bid document, the bidder hereby certifies that they are not barred from bidding on this contract as a result of a violation of either Section 33E-3 or 33E-4 of the Illinois Criminal Code of 1961, as amended.

Authorized Signature:  Company Name: American Underground Inc  
 Typed/Printed Name: David Kerber Date: 02-26-15  
 Title: Vice President Telephone Number: 847-724-3503  
 E-mail: david@ayinc.tv

<b>Sewer Maintenance</b>	2019	\$266,700	Operating
Sewer Fund-Sewer Improvements-Sewer	2020	\$272,000	
Collection System	2021	\$277,000	
	2022	\$282,500	
	2023	\$288,000	
X	Critical		
-	Recommended		
-	Contingent on Funding		

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**Original Purchase Date & Cost**

N/A

**Funding History**

2018	\$261,500	Operating
2017	\$261,500	Operating
2016	\$224,000	Operating
2015	\$251,000	Operating
2014	\$210,000	Operating
2013	\$325,000	Operating
2012	\$210,000	Operating
2011	\$210,000	Operating

**Project Description & Justification**

A multi-year effort targeting sewer maintenance, including contractual maintenance of drainage structures, emergency, and road program sewer point repairs.

The following sewer maintenance improvements are recommended in 2018:

- \$50,000 is budgeted for a contractor to perform repairs to sewers that are over 10 feet in depth and cannot be repaired by Village crews and emergency sewer repairs and improvements for the combined, sanitary, and storm sewer systems identified during the budget year.
- \$37,500 to clean approximately 500 drainage structures in order to obtain a five-year cleaning cycle (an additional 180 are cleaned by in-house crews).
- \$179,200 to cover the cost of televising/cleaning approximately 14 miles (9%) of main line sewers. The Village's sewer systems contain 53.5 miles of storm sewer mains, 47.8 miles of sanitary sewer mains, and 49.3 miles of combination sewer mains. In addition to the contractual sewer televising, the Village's in-house Water/Sewer crew cleans at least 2% of the total sewer system. The Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) mandates that a long term (O&M) Program be developed. The O & M program includes maintenance, cleaning and rehabilitation. At this time the MWRDGC does not require specific percentage of sewer cleaning. However, based on the age of the Village's

sewers, the best management practices would be to clean the sewers once every 7 years or 14-percent per year.

A breakdown of costs/linear feet of cleaning and televising is provided for the past four years of Sewer Televising and Cleaning programs:

<u>Year</u>	<u>Cost</u>	<u>Quantity (LF)</u>	<u>Cost/Quantity (\$/LF)</u>
2017	\$174,000	72,658 LF	\$2.39/LF
2016	\$148,700	65,153 LF	\$2.09/LF
2015	\$142,800	73,708 LF	\$1.94/LF
2014	\$102,150	52,800 LF	\$1.93/LF

In general, there has been an upward trend of costs for cleaning and televising over the past several years and which annually decreases the amount of cleaning and televising that can be performed.

**Project Update**

Budget projections for FY 2023 were added.

**Project Alternative**

This project is critical since a reduction in maintenance of the sewer system can ultimately lead to sewer back-ups and increased flooding. Portions of the work correlate to the Village’s mandated National Pollutant Discharge Elimination System (NPDES), the Combined Sewer Overflow (CSO) permits, and annual Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) long term maintenance program. The alternative would be a reduction to these contractual services which would place the Village in non-compliance unless additional personnel and equipment were added so the Public Works staff could perform the work in-house.

**Operating Budget Impact**

Is this purchase *routine*  X  or   *non-routine*?

ROUTINE	
Department Budget	Public Works / Sewer Fund
Account Number Description	Sewer Maintenance
Account Number	40807090-425300