

**Modification #1 to the Professional Services  
Agreement (#21154) for Lake County**

This first contract modification ("Modification #1") is between the County of Lake, Illinois, an Illinois body politic and corporate ("County"), and Applied Technologies, Inc. d/b/a ("Consultant") and relates to the parties' *Professional Services Agreement* ("Services").

**RECITALS**

Whereas:

- a. On September 21, 2021, the Parties entered into a *Professional Services Agreement* ("PSA") for Engineering Services for the Antioch Township Sanitary Sewer Study Update in accordance with the Local Government Professional Services Selection Act, 50 ILCS 510/1 et. Seq.
- b. Under the terms of the agreement, Consultant began services on September 22, 2021.
- c. Under its initial terms, the PSA anticipated submission of an engineering report to update the 1996 Antioch Township Sanitary Sewer Feasibility Study with current construction costs, current connection fees, and alternate methods to provide sanitary sewer service to the service area.
- d. This first contract modification is a request for engineering services to determine alternate conveyance options to provide service to sub areas that may provide cost savings, develop construction costs and investigate funding sources in accordance with the scope described on Attachment A.

**In light of the foregoing, the parties now agree as follows:**

1. **Incorporation of Recitals; Capitalized Terms.** The recitals above are incorporated into the body of this Agreement, as if set forth here in their entirety. Capitalized terms used and not otherwise defined herein shall have the meanings given to such terms in the *Professional Services Agreement*.
2. **Counterparts.** The parties may sign this Modification #1 in several counterparts, each of which will be deemed an original but all of which together will constitute one instrument.
3. **Effective Date.** The "Effective Date" of this Agreement is April 12, 2022, the date of the April County Board Meeting. The date of the signatures on this agreement are an acknowledgment of the approval by the Board.

**4. Agreement Price.** The County will pay the Consultant an additional fee of \$48,400 for a total amount not to exceed \$97,900 to complete the tasks outlined in Consultant's proposal dated February 21, 2022.

**Signed:**

**COUNTY OF LAKE:**

**CONSULTANT:**

Applied Technologies, Inc.

By: \_\_\_\_\_

Name: RuthAnne K. Hall  
Its: Purchasing Agent

By: Peter E. Kolb

Name: Peter E. Kolb, P.E.  
Title: Vice President

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

Date: February 23, 2022

February 21, 2022

Mr. Austin McFarlane  
Interim Director  
Lake County Department of Public Works  
650 Winchester Road  
Libertyville, Illinois 60048



Subject: Proposal for Engineering Services  
Antioch Township Sanitary Sewer Study - Task II

Dear Austin:

Applied Technologies (ATI) is pleased to present this proposal to provide engineering services for the Antioch Township Sanitary Sewer Study Task II.

## PROJECT DESCRIPTION

This proposal outlines engineering services to provide Task II activities for the Antioch Township Sanitary Sewer Feasibility Study 2021 (2021 Study). The 2021 Study was commissioned in September 2021 by the Lake County Public Works Department (LCPWD) for the purpose of updating the 1996 Antioch Township Sanitary Sewer Feasibility Study (1996 Study). LCPWD requested that the 1996 Study be updated with current construction costs and current connection fees for wastewater conveyance and treatment system providers, in addition to examining other Alternates to provide sanitary sewer service to the area.

The 2021 Study has been completed, and cost estimates were prepared for the Alternates investigated. The 2021 Study indicated possible alternate conveyance options that may provide cost savings to providing sewer service to select areas, including:

- Loon Lake Sub-Area:
  - The Loon Lake Sub-Area, which includes service areas surrounding East Loon Lake and West Loon Lake, is a cluster of properties north of Grass Lake Road and adjacent to the municipal boundaries of the Village of Lake Villa. Sewer service to this area may be provided by sending sewage flows through the Village of Lake Villa sewer system and avoid the need to construct a long conveyance system to



transport flows west on Grass Lake Road and then south on Rt. 59 to be discharged to the Petite Lake Road Pumping Station. Further investigation and discussions with the Village of Lake Villa regarding this sub-alternate may yield cost savings for this sub-area.

- Channel Lake/ Lake Catherine Sub-Area:
  - The Channel Lake/Lake Catherine Sub-Area is a cluster of properties surrounding Channel Lake and Lake Catherine and is located north of Rt. 173 and west of Rt. 59. This area is directly adjacent to the western municipal boundaries of the Village of Antioch and is near the Village's Wastewater Treatment Plant. The Village indicated that they are currently at their design capacity and could not provide service to additional properties, however there is the possibility of discussing the expansion of their treatment plant.
- Lake Marie/Bluff Lake/Petite Lake /Grass Lake Sub-Area:
  - The Lake Marie/Bluff Lake/Petite Lake /Grass Lake Sub-Area is a cluster of properties south of Lake Marie, east of Grass Lake, west of Petite Lake and surrounding Bluff Lake. The area is near the LCPWD existing Petite Lake/Fox Lake Hills/Stanton Bay sewer service area. Sewer service could be provided to the Sub-Area by connecting to the LCPWD sewer system.

Another important finding of the 2021 Study was that one of the biggest challenges for this project is the cost and affordability for system users. Affordability to the user is an extremely important factor and for this project to move forward it would require significant levels of outside funding to make it successful. Section IX of the 2021 Study identified Grant Programs and other funding sources that will be examined in greater detail during Task II to determine what funds can be secured to offset individual user costs. The funding sources include but are not limited to the following:

- IEPA - Unsewered Communities Planning Grant Program (UCPGP)
- IEPA - Unsewered Communities Construction Grant Program (UCCGP)
- IEPA SRF Loan Program
- Federal - ARPA Clean Water Infrastructure Program
- Federal - Infrastructure Investment and Jobs Act



The Task II work will explore in more detail sub-areas and determine costs in order to ascertain if there is a benefit to proceeding forward with this project using sub-areas, in addition to identifying requirements for receiving available public funding.

## SCOPE OF WORK

The project scope of work includes the following specific activities:

### **Antioch Township Sanitary Sewer Study Task II**

1. Contact the Village of Lake Villa for information on their sanitary sewer system and their available capacity in the collection system to be able to accommodate flows generated from the Loon Lake Sub-Area. Request connection fee and sewer service contractual obligations.
2. Contact the Village of Antioch for the potential of expanding their wastewater treatment plant to accommodate flows generated from the Channel Lake/Lake Catherine Sub-Area. Request connection fee and sewer service contractual obligations.
3. Coordinate with LCPWD on remaining capacity of their existing sanitary sewer system in the Petite Lake/Fox Lake Hills/Stanton Bay area to accommodate flows generated from the Lake Marie/Bluff Lake/Petite Lake/Grass Lake Sub-Area.
4. Contact and meet with funding agencies administering the Unsewered Communities Planning Grant Program, Unsewered Communities Construction Grant Program, ARPA Clean Water Infrastructure Program, and the Infrastructure Investment and Jobs Act to determine what funds can be made available for sanitary sewer projects in the area.
5. Prepare sanitary sewer routing and an Opinion of Probable Construction Cost for Loon Lake Sub-Area and determine the total cost per home.
6. Prepare sanitary sewer routing and an Opinion of Probable Construction Cost for Channel Lake/Lake Catherine Sub-Area and determine the total cost per home.
7. Prepare sanitary sewer routing and an Opinion of Probable Construction Cost for Lake Marie/Bluff Lake/Petite Lake/Grass Lake Sub-Area and determine the total cost per home.
8. Conduct a workshop with the public works staff to discuss the pressure sewer system features and functions. A power point presentation will be provided that is suitable for use in discussions with public works operation and maintenance staff.
9. Prepare a power point presentation that provides a summary of the Task II Study and Opinion of Probable Construction Cost for all Sub-Alternates. The power point presentation should be suitable for use in discussions with elected officials and the public.



## **Deliverables**

- A. Prepare a Draft Report that summarizes construction costs for all sewer systems, user charges, and resultant costs per home for each Sub-Area alternate. Submit a draft copy to the County for review and comment.
- B. Prepare a Final Report that addresses comments from the County review and provide 5 hard copies and an electronic format of the Final Report to the County.
- C. Provide a Power Point Presentation in electronic format that provides a summary of the Task II Study and the Opinion of Probable Construction Cost for all Alternates.

## **ENGINEERING BUDGET**

We propose to proceed with this effort on a lump sum cost basis for a total cost of \$48,400. Attached as Appendix A is a detailed Engineering Level of Effort for the proposed scope of work. We will not exceed the proposed budget unless approved by the County. We are available to start work on this project immediately and would be available to provide a draft memorandum for County review and comment two months following authorization to proceed.

Please contact us with any questions regarding this proposal. Thank you for the opportunity to continue our partnership with the Lake County Public Works Department.

Sincerely,

Applied Technologies, Inc.

Peter E. Kolb, P.E.  
Vice-President

Robert Doeringsfeld, P.E.  
Project Manager

Attachments: Appendix A – Engineering Level of Effort



**Lake County Department of Public Works**

*Antioch Township Sanitary Sewer Study Task II*

Accepted by:

Owner: Lake County Department of Public Works

By (Signed): \_\_\_\_\_

By (Print): \_\_\_\_\_

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

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

APPENDIX A

Engineering Level of Effort  
Antioch Township Sanitary Sewer Task II  
Lake County Public Works Department, Lake County, Illinois

NO.	TASK/ACTIVITY	PRINCIPAL QUALITY CONTROL	PROJECT MANAGER	PROJECT ENGINEER	TECH	LABOR HOURS	LABOR COST	EXPENSES	TOTAL COST
	PRELIMINARY PROJECT COORDINATION								
1	Kickoff Meeting	2	2	2		6	\$ 908	\$ 40	\$ 948
2	Proposed Service Areas & Flow Refinement	2	8	8	8	26	\$ 3,356	\$ 134	\$ 3,490
3	E-One Workshop with LCPWD Staff	4	4				\$ 1,376	\$ 55	\$ 1,431
4	Report Preparation	24	18				\$ 7,380	\$ 311	\$ 7,691
5	Sewer Task II PP Preparation & Presentation	8	8	8			\$ 3,632	\$ 161	\$ 3,793
	TOTAL	40	40	18	8	32	\$ 16,652	\$ 702	\$ 17,354
	ANTIOCH WWTP OPTION FOR NW PLANNING AREA								
6	Village of Antioch Coordination	4	4			8	\$ 1,376	\$ 55	\$ 1,431
7	Branch/Interceptor Sewer Refinement for Antioch Service		8	8	8	24	\$ 2,960	\$ 118	\$ 3,078
8	Opinion of Probable Construction Cost	2	4	8		14	\$ 1,860	\$ 74	\$ 1,934
9	Connection Fee Estimation	2	2	4		8	\$ 1,128	\$ 45	\$ 1,173
	TOTAL	8	18	20	8	54	\$ 7,324	\$ 293	\$ 7,617
	LAKE VILLA OPTION FOR LOON LAKE AREA								
10	Village of Lake Villa Coordination	4	4			8	\$ 1,376	\$ 55	\$ 1,431
11	Branch/Interceptor Sewer Refinement for Lake Villa Service		8	8	8	24	\$ 2,960	\$ 118	\$ 3,078
12	Opinion of Probable Construction Cost	2	4	8		14	\$ 1,860	\$ 74	\$ 1,934
13	Connection Fee Estimation	2	2	4		8	\$ 1,128	\$ 45	\$ 1,173
	TOTAL	8	18	20	8	54	\$ 7,324	\$ 293	\$ 7,617
	FOX LAKE HILLS OPTION FOR SW AREA								
14	Village of Fox Lake Hills Coordination	4	4			8	\$ 1,376	\$ 55	\$ 1,431
15	Branch/Interceptor Sewer Refinement for Fox Lake Hills Service		8	8	8	24	\$ 2,960	\$ 118	\$ 3,078
16	Opinion of Probable Construction Cost	2	4	8		14	\$ 1,860	\$ 74	\$ 1,934
17	Connection Fee Estimation	2	2	4		8	\$ 1,128	\$ 45	\$ 1,173
	TOTAL	8	18	20	8	54	\$ 7,324	\$ 293	\$ 7,617
	FUNDING INVESTIGATION								
18	IEPA Coordination Investigation	8	4			12	\$ 2,168	\$ 87	\$ 2,255
19	IEPA Coordination Meeting	8	4			12	\$ 2,168	\$ 87	\$ 2,255
20	Federal Funding Coordination	6	4			10	\$ 1,772	\$ 71	\$ 1,843
21	Local Funding Coordination	6	4			10	\$ 1,772	\$ 71	\$ 1,843
	TOTAL	28	16	0	0	44	\$ 7,880	\$ 315	\$ 8,195
	LABOR HOURS	92	110	78	32	238	46,504	1,896	48,400
	2022 Rates	\$ 198	\$ 146	\$ 110	\$ 114				
	TOTAL COST	\$ 18,216	\$ 16,060	\$ 8,580	\$ 3,648		\$ 46,504	\$ 1,896	\$ 48,400