DISTRICT 1 & 5

VILLAGE OF LOMBARD REQUEST FOR BOARD OF TRUSTEES ACTION

For Inclusion on Board Agenda

| X | Resolution or Ordinance (Blu Recommendations of Boards, Other Business (Pink) | | |
|--|---|---|--------------------------------|
| TO: | PRESIDENT AND BOARD | OF TRUSTEES | |
| FROM: | Scott Niehaus, Village Manaş | ger | |
| DATE: | December 23, 2021 | (COW) (<u>B of T</u>) | Date: January 6, 2022 |
| TITLE: | Large Diameter Combined Se Design and Construction Obs | | |
| SUBMITTED BY: | David Gorman, P.E., Assistan | nt Director of Public V | Vorks OCH |
| Design engineering a rehabilitation of an ap | OLICY IMPLICATIONS: and construction observation se pproximate total of 12,760 feet ich serves about 800 acres of an | of 30 inch, 90-inch, 9 | 96-inch, and 108-inch diameter |
| | FUNDING SOURCE: esign Engineering (FY 22) \$72 | 23.000 Resident Engir | neering (FY 23) |
| Project Number: SA | | - 0,000 11 0 01 00 110 | (1 1 gc) |
| Fund: Water/Sewer C | - | | |
| Total Contract Amou | ollution Control Loan (low-inter | est loans through the State | Revolving Fund) |
| | 5410 Water/Sewer Capital Re | serve Fund | |
| | (FY 22) IEPA Water Pollution | | |
| \$639,258.30 (| (FY 23) IEPA Water Pollution | Control Loan | |
| Review (as necessary | <i>y</i>): | | |
| Village Attorney X_ | , | | _Date |
| Finance Director X_ | | | _Date |
| Village Manager X_ | | | _Date |
| NOTE: | All materials must be submit Manager's Office by 12:00 no | | |

Distribution.

Interoffice Memo



To: Scott Niehaus, Village Manager

Through: Carl Goldsmith, Director of Public Works

From: David Gorman, P.E., Assistant Director of PW

Date: December 23, 2021

Subject: Large Diameter Combined Sewer Rehabilitation

Design Engineering and Construction Observation Services

Attached is a contract, resolution, and fee schedule for design engineering and construction observation services associated with the Large-Diameter Combined Sewer Rehabilitation Project.

The scope of work involves rehabilitation of approximately 12,760 feet of 30-inch, 90-inch, 96-inch, and 108-inch diameter combined sewer. The sewer was constructed during the 1930s and 1940s and received minor rehabilitation in the 1970s. The segment of the sewer to be rehabilitated runs roughly along Hickory Street (Glenbard Wastewater Treatment Plant to Main Street), Washington Street (Main Street to Fairfield Avenue), and Fairfield Avenue (Washington Street to Lombard Commons).

Public Works has done an initial evaluation of the rehabilitation costs of large diameter sewers versus separating the sewers within the approximate 800 acres the 90/108 combined sewer services. Separating the basin is cost-prohibitive in comparison to a trenchless rehabilitation of the existing combined sewer. This proposed solution was programmed into the Capital Improvement Program.

In 2018, the Village contracted with RedZone Robotics to determine the condition of the identified segments of the combined sewer. RedZone field crews collected CCTV, laser, and sonar data which revealed that many pipe segments have structural distress along with large mineral deposits. This means the integrity of the pipe wall is being compromised in two different ways: cracking and corrosion. Cracks and corrosion within the pipeline allow a significant amount of groundwater to enter the pipe and pose as a compromising element to the structural integrity of the pipe. Groundwater infiltration reduces hydraulic capacity and increases wastewater treatment costs due to the additional volume of clear water. The increasing frequency of intense rainstorms is also putting additional pressure on the combined sewer system and increasing the need to reduce infiltration.

Multiple trenchless solutions have been researched by Public Works. Each method has pluses and minuses related to design and constructability. However, each involves having a load-bearing layer/structure constructed/placed inside the existing sewer, essentially creating a pipe within a pipe. These are proven technologies that have been widely used both domestically and abroad.

The Village sent out a Request for Proposal to Consultants on the 2017-2021 Design and Resident Engineering Short Lists. Based on the five-member selection committee evaluation, Christopher B. Burke of Rosemont was determined to be the most qualified firm. This was after Public Works could not reach an agreement on the final scope and fee for the project with the initially selected firm of Baxter and Woodman. The total not to exceed contract amount is \$918,061.05, which is under the two-year project budget of \$924,000. Note that the final scope and fee for construction material testing (CMT) will be predicated on the final design and the awarded method of construction. The submitted CMT budget assumes a conservative approach to the amount of quality assurance inspection and testing performed during construction.

Funding for the project will be through a loan from the IEPA State Revolving Fund. IEPA has acknowledged that the project is eligible for funding, provided that the Village continues to conform to the required loan process protocol. In January of 2022, documentation will be provided to IEPA so the project can be recorded on the Intended Use Plan with the expectation that it will be listed on the next Intended Funding List.

Please present this Contract to the Board of Trustees on January 6, 2022. If approved, please have one signed original document sent to records and the other signed original document returned to Public Works for further processing.

DG/RGS

Village of Lombard - Large-Diameter Combined Sewer Rehabilaition Project Work Effort and Fee Estimate for Design Engineering and Construction Engineering Services December 23, 2021

Personnel & Hours

| | Eng. VI | Eng. V | Eng. IV | Eng. | Eng. //II | Survey V | Survey IV | Survey III | Survey II | Survey I | CAD Manager | | % of | μ. | otal |
|---|------------|-------------|------------|-------------|-----------|----------|------------|------------|------------|------------|-------------|--------|---------|----------|------------|
| Rate | \$77.50 | \$67.99 | \$56.58 | \$46.52 | \$33.22 | \$77.50 | \$69.00 | \$61.00 | \$50.00 | \$37.33 | \$65.17 | Hours | Hours | 0 | Cost |
| Task 1 - Kick-off Meeting and Project Coordination Meetings | 80 | 48 | | 24 | | | | | | | | 80 | 4.6% | 49 | 5,000.00 |
| Task 2 - Data Collection | | 16 | | 24 | | | | | | | | 40 | 2.3% | 69 | 2,204.32 |
| Task 3 - Survey | | | | | | 10 | 24 | 32 | 96 | 96 | 88 | 346 | 19.8% | 8 | 18,501.64 |
| Task 4 - Utility Coordination | | 2 | | 80 | | | | 40 | | | | 20 | 2.9% | 69 | 2,948.14 |
| Task 5 - Preliminary Design Report | 16 | 09 | 09 | 28 | | | | | | | | 164 | 9.4% | \$ 10 | 10,016.76 |
| Task 7 - Traffic Maintenance Analysis | | | | 48 | | | | | | | | 48 | 2.7% | \$ | 2,232.96 |
| Task 8 - Preparation of Plans, Specifications and Estimates | 16 | 160 | 80 | 520 | | | | | | | | 776 | 44.4% | \$ 40 | 40,835.20 |
| Task 9 - Permits | | 16 | | 80 | | | | | | | | 96 | 6.5% | \$ | 4,809.44 |
| Task 10 - IEPA Coordination and Management | | 30 | | 40 | | | | | | | | 20 | 4.0% | €9 | 3,900.50 |
| Task 11 - Public Information Meeting | 4 | 16 | | 32 | | | | | | | | 52 | 3.0% | 69 | 2,886.48 |
| Task 12 - Bidding Assistance | | 8 | | 16 | | | | | | | | 24 | 1.4% | €9 | 1,288.24 |
| Subtotal | 44 | 356 | 140 | 820 | 0 | 10 | 24 | 72 | 96 | 96 | 88 | 1746 | | | |
| % of Hours | 2.5% | 20.4% | 8.0% | 47.0% | %0'0 | %9'0 | 1.4% | 4.1% | 9:5% | 2.5% | 2.0% | 100.0% | | | |
| Total Cost | \$3,410.00 | \$24,204.44 | \$7,921.20 | \$38,146.40 | \$0.00 | \$775.00 | \$1,656.00 | \$4,392.00 | \$4,800.00 | \$3,583.68 | \$5,734.96 | | | 76 \$ | 94,623.68 |
| Multiplier | 2.65 | | | | | | | | | | | | | \$ 250 | 250,752.75 |
| Task 3 - Survey (Drone) | | | | | | | | | | | | | | €9 | 1,450,00 |
| Task 6 - Environmental Investigation and Analysis | | | | | | | | | | | | | | \$ 21 | 21,600.00 |
| Direct Costs | | | | | | | | | | | | | | 69 | 5,000.00 |
| Total Cost - Phase 1 and 2 Engineering | | | | H | | 100 | | | | | | | | \$ 278 | 278,802.75 |

| | | | | | <u>.</u> | Personnel & Hours | Hours | | | | | | | |
|---|---------|--------------|---------|----------|-------------|-------------------|-----------|------------|-----------|----------|-------------|--------|--|---------------|
| | Eng. VI | Eng. V | Eng. IV | Eng. III | Eng. I/II | Survey V | Survey IV | Survey III | Survey II | Survey I | CAD Manager | Total | ************************************** | Total |
| Rate | \$77.50 | \$67.99 | \$56,58 | \$46.52 | \$33.22 | \$77.50 | \$69,00 | \$61.00 | \$50.00 | \$37.33 | \$65.17 | Hours | Hours | Cost |
| Task 13 - Pre-Construction Services | | 140 | | | 90 | | | | | | | 200 | 2.6% | \$ 11,511.80 |
| Task 14 - Submittal Reviews | | 100 | | | 90 | | | | | | | 160 | 4.5% | \$ 8,792.20 |
| Task 15 - Public Outreach | | 80 | | | 40 | | | | | | | 120 | 3.4% | \$ 6,768.00 |
| Task 16 - Construction Observation | | 1680 | | | 1140 | | | | | | | 2820 | 79.7% | \$ 152,094.00 |
| Task 17 - Project Closeout | | 160 | | | 80 | | | | | | | 240 | 6.8% | \$ 13,536.00 |
| Subtotal | 0 | 2160 | 0 | 0 | 1380 | 0 | 0 | 0 | 0 | 0 | 0 | 3540 | | |
| % of Hours | %0.0 | 61.0% | %0.0 | %0.0 | 39.0% | %0.0 | %0.0 | %0.0 | %0.0 | %0.0 | %0'0 | 100.0% | | |
| Total Cost | \$0.00 | \$146,858.40 | \$0.00 | \$0.00 | \$45,843.60 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | | | \$ 192,702.00 |
| Muttiplier | 2.65 | - | | | | | | | | | | | | \$ 510,660.30 |
| Task 18 - Material Testing and Confined Space Entry Inspections | | | | | | | | | | | | | | \$ 116,598.00 |
| Direct Costs | | | | | | | | | | | | | | \$ 12,000.00 |
| Total Cost - Phase 3 Engineering | | | | | | Out the | | | | | | | | \$ 639,258,30 |

RESOLUTION R

A RESOLUTION AUTHORIZING AN AGREEMENT FOR THE LARGE DIAMETER COMBINED SEWER REHABILITATION

WHEREAS, the Corporate Authorities of the Village of Lombard have received a proposed Agreement between the Village of Lombard and Christopher B. Burke Engineering Ltd. regarding the Large Diameter Combined Sewer Rehabilitation project as attached hereto, marked Exhibit "A" and made part hereof (the "Agreement"); and

WHEREAS, the Corporate Authorities deem it to be in the best interests of the Village of Lombard to approve said Agreement;

NOW, THEREFORE, BE IT RESOLVED BY THE PRESIDENT AND BOARD OF TRUSTEES OF THE VILLAGE OF LOMBARD, DU PAGE COUNTY, ILLINOIS as follows:

SECTION 1: That the Agreement attached hereto as Exhibit "A" is hereby approved.

SECTION 2: That the Village President and the Village Clerk be and hereby are authorized and directed to execute the Agreement attached hereto as Exhibit "A", as well as any and all other documents necessary to carry out the provisions of said Agreement.

Adopted this 6th day of January 2022, pursuant to a roll call vote as follows:

| Ayes: | <i>t.</i> |
|--------------------------------------|-----------------------------------|
| Nays: | |
| Absent: | |
| Approved by me this 6th day of Janu | nary 2022. |
| | |
| 8.0 | Keith Giagnorio Village President |
| ATTEST: | |
| | |
| Elizabeth Brezinski Village Clerk | |

Exhibit A



VILLAGE OF LOMBARD CONTRACT

CONTRACT DOCUMENT NUMBER SA-18-01

This agreement is made this 6th day of January 2022, between and shall be binding upon the VILLAGE of Lombard, an Illinois municipal corporation hereinafter referred to as the "VILLAGE" and Christopher B. Burke Engineering, LTD. hereinafter referred to as the "ENGINEER" and its successors.

Witnessed, that in consideration of the mutual promises of the parties delineated in the contract documents, the ENGINEER agrees to perform the services, and the VILLAGE agrees to pay for the following services as outlined in the contract documents:

Design Engineering (Phases 1, 2) and Construction Observations Services (Phase 3) for the Large Diameter Combined Sewer Rehabilitation project.

- 1. This contract shall embrace and include all the applicable contract documents listed below as if attached hereto or repeated herein:
 - VILLAGE'S Request for Qualifications for Short-List for Engineering Services Dated October 28, 2016
 - b. Addenda #1 dated November 1, 2021
 - c. Addenda #2 dated November 10, 2021
 - d. ENGINEER'S Project Proposal Dated November 12, 2021
 - e. ENGINEER'S Revised Scope and Fee Proposal Submittal Dated December 23, 2021
 - f. Required Certificates and Signatures and Certificate of Insurance
- 2. The VILLAGE agrees to pay, and the ENGINEER agrees to accept as full payment for the services which are the subject matter of this contract following the General Provisions.
- 3. This Contract represents the entire agreement between the parties and may not be modified without the written approval of both parties.

Exhibit A

IN WITNESS WHEREOF, the Village of Lombard, Illinois by the Village President, and the ENGINEER have hereunto set their hands this 6th day of January 2022.

If an individual or partnership, all individual names of each partner shall be signed, or if a corporation, an officer duly authorized shall sign here:

| Christopher B. Burke Engineering, LTD. | | | |
|--|---------|--------------------------------------|--|
| Accepted thisday of_ | | , 2022. | |
| Individual or Partnership Corp | oration | | |
| Ву | | Position/Title | |
| Ву | | Position/Title | |
| THE VILLAGE OF LOMBARD, ILL | INOIS | | |
| Accepted this 6th day of January 2021 | | | |
| | - | Keith Giagnorio Village President | |
| an e | | f. g g. | |
| | Attest: | Elizabeth Brezinski Village Clerk | |

OF LOAMPAGE 1869

Exhibit A

VILLAGE OF LOMBARD ENGINEER'S CERTIFICATION

, having been first duly sworn depose and states as follows:

| (Off | ficer or Owner of Company) |
|------|---|
| Co | ristopher B. Burke Engineering, LTD., having submitted a proposal for Large Diameter embined Sewer Rehabilitation project to the Village of Lombard, hereby certifies that said IGINEER: |
| 1. | has a written sexual harassment policy in place in full compliance with 775 ILCS 5/2-105(A) (4). |
| 2. | is not delinquent in the payment of any tax administered by the Illinois Department of Revenue, or if it is: |
| | a. it is contesting its liability for the tax or the amount of tax following procedures established by the approved Revenue Act; orb. it has entered into an agreement with the Department of Revenue for payment of all taxes due and is currently in compliance with that agreement. |
| 3. | is in full compliance with the Federal Highway Administration Rules on Controlled Substances and Alcohol Use and Testing, 49 CFR Parts 40 and 382 and that |
| | (Name of employee/driver or "all employee drivers") is/are currently participating in a drug and alcohol testing program pursuant to the aforementioned rules. |
| | By: |
| | Officer or Owner of Company named above |
| | bscribed and sworn to |
| | fore me this |
| day | y of, 2022. |
| | |
| Not | tary Public |