

VILLAGE OF LA GRANGE
Department of Public Works

BOARD REPORT

TO: Village President, Village Clerk, Board of Trustees, and Village Attorney

FROM: Robert J. Pilipiszyn, Village Manager
Ryan Gillingham, Director of Public Works

DATE: May 12, 2014

RE: **AWARD OF CONTRACT – (1) CONSTRUCTION OF COSSITT AVENUE WATER MAIN REPLACEMENT PROJECT FROM GILBERT AVENUE TO LEITCH AVENUE ; (2) CONSTRUCTION ENGINEERING SERVICES AGREEMENT**

In advance of the Cossitt Avenue Resurfacing Project (Gilbert to Brainard) staff recommends replacement of the water main on Cossitt Avenue from Gilbert Avenue to Leitch Avenue. This section of main was installed in 1925 and has experienced a number of recent water main breaks. The remaining water main on Cossitt Avenue from Leitch Avenue to Park Road was replaced in 1995. This project is scheduled to be completed a year in advance of the Cossitt Avenue Street Resurfacing Program.

On August 26, 2013, the Village Board approved a task order engineering agreement with Baxter & Woodman to complete the plans and specifications for this project. The plans called for the rehabilitation of the existing water main by using a process called cured-in-place pipe lining technology. Cured-in-place lining involves inserting a new liner inside the existing pipe and curing in place with either steam or hot water. A remote controlled machine is then sent inside the pipe to cut holes through the liner where existing water services are located. The process is less disruptive to residents, results in fewer tree removals and requires less parkway restoration since it does not require traditional open trench methods for installation. This method of water main rehabilitation provides a new structurally sufficient pipe inside the existing pipe without the disruption and cost associated with traditional open trench excavation methods. The life expectancy of the new liner is estimated to be 50+ years.

As part of the bid document staff also requested an alternate bid to rehabilitate the connecting water main segment that runs below the BNSF Railroad should favorable bid prices be received.

On April 2, 2014, the Village advertised that bids would be received for the Cossitt Avenue Water Main Lining Project. A total of three water main lining contractors picked up the bid documents. The bid opening was held on Tuesday, April 29, 2014 at 10:00 am with the following results:

Cossitt Avenue Water Main Replacement Project

Award of Contract

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Rank	Contractor	Base Bid Amount	Alternate Bid Amount
1	Fer-Pal Construction, Elgin IL	264,802.68	346,478.67
2	Michels, Brownsville WI	296,604.50	373,651.50
3	Insituform, Chesterfield MO	308,139.20	400,588.30
	Engineer's Estimate of Cost	\$249,660.00	

In the attached bid analysis, Baxter & Woodman believes the higher than expected bid prices are the result of (1) increased costs for pavement patching and (2) increased use of water main lining for rehabilitation in the Chicagoland area with limited contractor availability. However the cost for water main installation utilizing traditional open cut methods has also increased. Baxter & Woodman estimates that the cost for replacing the Cossitt Avenue water main using open cut methods is approximately \$327,000, or \$62,000 more than the low bid price for lining. Therefore staff recommends implementing the water main lining project as bid because the water main is in need of replacement, and water main lining is less disruptive and less expensive than traditional open cut methods.

Baxter & Woodman finds the low bidder, Fer-Pal Construction, to be lowest, responsible, and responsive Bidder, and technically capable to perform the work as specified. Baxter & Woodman recommends awarding the contract to this firm in the amount of \$264,802.68. We concur with their assessment and recommend awarding the contract to Fer-Pal Construction. Staff does not recommend awarding the alternate bid for lining the water main below the BNSF railroad due to prioritization of the Cossitt Avenue water main and limited funding.

The FY2014-15 Water Fund Budget includes \$250,000 for construction and construction engineering, which was based on preliminary engineering estimates. Based on the actual bids received an additional \$35,178 is needed to construct the project. Staff recommends using Water Fund reserves for this expense as sufficient funds exist within this fund. A budget amendment would be required at the end of the year to recognize this additional expense. The following is the proposed budget for the project:

Cossitt Avenue Water Main Replacement Project – Gilbert Avenue to Leitch Avenue	BUDGET
Expenses	
Engineering	
Phase 2 – Development of Plans and Specifications	15,500
Phase 3 – Construction Engineering	19,875
Subtotal	35,375
Construction	
Fer-Pal Construction	264,803

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Total	300,178
Funding Sources	
Water Fund – Mains – FY2013-14	15,000
Water Fund – Mains – FY2015-16	250,000
Water Fund – Reserves	35,178
Total	300,178

Also attached for your consideration and approval is an agreement for construction engineering services. We recommend Baxter & Woodman perform the construction management for this project based on their knowledge of this project, experience in this type of work, familiarity with the Village, and past performance. Baxter & Woodman proposes to complete all construction inspection, IEPA mandated documentation, preparation of all contractor payments and submission of as-built drawings for an amount not-to-exceed \$19,875. If approved, a task order with Baxter & Woodman will be executed for this work in accordance with their municipal engineering task order contract.

We anticipate the following schedule for the project:

<u>Action</u>	<u>Completion Date</u>
Contract Award	May 12, 2014
Construction Start	June 15, 2014
Substantial Completion	July 31, 2014

In summary, staff recommends that the Village Board award the contract for the Cossitt Avenue Water Main Replacement Project to Fer-Pal Construction in the amount of \$264,802.68. The final amount of the contract will be based on the actual work performed by the contractor at the unit prices listed in the contract. Also, we recommend approval of a task order agreement with Baxter & Woodman for construction engineering services for the project in the amount of \$19,875.

4-C,2

May 1, 2014

Mr. Ryan Gillingham, P.E.
Director of Public Works
Village of La Grange Public Works
320 East Avenue
La Grange, Illinois 60525

RECOMMENDATION TO AWARD

Subject: Village of La Grange – Cossitt Avenue Water Main Lining

Dear Mr. Gillingham:

The following bids were received and opened publicly on June 13, 2012 for the Cossitt Avenue Water Main Lining project.

<u>Bidder</u>	<u>Base Bid</u>	<u>Alternate Bid</u>
Fer Pal Construction USA LLC Elgin, IL	\$264,802.68	\$346,478.67
Michels Corporation Brownsville, WI	\$296,604.50	\$373,651.50
Insituform Technologies USA Chesterfield, MO	\$308,139.20	\$400,588.36

Our pre-bid opinion of probable cost of construction for the project was \$249,660 for the Base Bid and \$322,000 for the Alternate Bid.

The scope of work of the Base Bid consists of rehabilitating the 6-inch water main on Cossitt Avenue from Gilbert Avenue east to Leitch Avenue by installing a Cast In Place Pipe (CIPP) liner inside the existing water main pipe. The scope of work of the Alternate Bid consists of the same scope of work as the Base Bid, plus rehabilitating the 8-inch water main on Leitch Avenue from Cossitt Avenue north to Hillgrove Avenue (underneath the railroad tracks) by installing a Cast In Place (CIPP) liner inside the existing water main pipe.

We have analyzed each of the bids and find Fer Pal Construction USA LLC to be the lowest, responsible, and responsive Bidder.

Based on our prior experience with this bidder, we believe Fer Pal Construction USA LLC is qualified to complete the project. We recommend award of the Bid in the amount of \$264,802.68 to Fer Pal Construction USA LLC.

Following is a list of a two projects Fer Pal Construction USA LLC has recently completed for our Clients:

1. **Project Name: Lombard Avenue Water Main Lining Under I-290**

Client: Village of Oak Park

Project Scope: The Scope of work includes water main rehabilitation including lining a 12 inch water main under I-290 (approx. 380 ft.); replacement of piping in vertical chambers, gate valves; water main connections; testing; surface restoration; and other miscellaneous items of work.

Contract Value: Approximately \$340,000

2. **Project Name: Oak-Euclid-Forest-Alley Improvements**

Client: Village of Glen Ellyn

Project Scope: The water main lining portion of this project consisted of water main rehabilitation including lining 1,900 lineal feet of a 6-inch water mains; gate valves; fire hydrants; water main connections; testing; surface restoration; and other miscellaneous items of work.

Contract Value: Approximately \$300,000 of water main lining and appurtenances - the total project cost was approximately \$2,656,000.

Discussion Of Why The Bids Received Are Higher Than The March 2013 Budget Costs

In March of 2013 BWI provided the Village budgetary costs to rehabilitate the Cossitt Avenue water main from Gilbert Avenue to Leitch Avenue in two different methods of construction: 1) water main lining, and 2) open cut water main replacement. The budgetary costs were \$177,815 for lining and \$233,730 for open cut installation of a new water main. At the time these budgetary prices were prepared it was unknown that the cross section of Cossitt Avenue included an 8-inch PCC base, of which the PCC base restoration portion of the low bidder's bid is \$35,000 of their total bid. The other primary factor of why the bids received are higher than the budgeted estimate is that the overall unit prices received in water main lining projects has increased markedly over the past year. There are only about 5 contractors that bid water main lining projects in the Chicagoland area and as water main lining has become more popular over the last year, the prices of the lining projects has increased.

Also of note is that the cost of open cut water main replacement projects have also markedly increased over the last year. The economic down turn caused many contractors to go out of business, and now the remaining underground contractors are generally very busy, thus resulting in price increases for open cut construction. BWI has revised the open cut cost estimate provided in March 2013 and determined the current cost estimate for open cut replacement of this section of water main is \$327,000 when accounting for overall higher bid prices and including the restoration of PCC base course in Cossitt Avenue. Not included in this estimate of \$327,000 are potential additional pavement restoration costs that may be incurred if the PCC base course of Cossitt Avenue was to break-up once it is saw-cut and excavated through to install a new water main. Older PCC base courses are known to be very stable when undisturbed, however are very susceptible to breaking apart once they are saw cut and exposed. When PCC base breaks up, additional quantity of pavement has to be removed until stable PCC base course is found.

The original bid bonds and bid forms are enclosed for your files. Please advise us of your decision.

Sincerely,

BAXTER & WOODMAN, INC.
CONSULTING ENGINEERS



Tony Anezer, P.E.
Project Manager

C: Dennis Dabros, P.E. BWI (via e-mail, letter only)

VILLAGE OF LA GRANGE, ILLINOIS
COSSITT AVENUE WATER MAIN IMPROVEMENTS – GCA / RPR

TASK ORDER NO. 60

In accordance with Section 1.2 of the Master Contract dated May 13, 2013 between the Village of La Grange (the "Village") and Baxter & Woodman, Inc. (the "Consultant"), the Parties agree to the following Task Number 60:

1. Contracted Services:

Baxter & Woodman, Inc. shall provide the Village with construction engineering services for the Cossitt Avenue Water Main Improvement project. All terms and conditions of the master task order contract dated May 13, 2013 with the Village of La Grange shall apply.

2. Project Schedule:

The following schedule is anticipated:

April 29, 2014	Bid Opening
May 12, 2014	Contract Award
June 15, 2014	Construction Start
July 31, 2014	Substantial Completion

3. Project Completion Date:

September 12, 2014

4. Project Specific Pricing (if applicable):

Baxter & Woodman, Inc. shall be compensated on a cost plus fixed fee basis in an amount not to exceed \$19,875.

5. Additional Changes to the Master Contract (if applicable): N/A

All other terms and conditions remain unchanged.

[signature page follows]

VILLAGE

Signature

Director of Public Works

Date

CONSULTANT

John V. Ambrose

Signature

John V. Ambrose
Vice President/Secretary

Date

If greater than, \$2,000, the Village Manager's signature is required.

Signature

Village Manager

Date

If greater than \$10,000, the Village Board must approve the Task Order in advance and the Village President's signature is required.

Signature

Village President

Date

VILLAGE OF LA GRANGE, ILLINOIS
COSSITT AVENUE WATER MAIN IMPROVEMENTS – GCA / RPR

EXHIBIT A

PROJECT DESCRIPTION

This Project consists of providing construction engineering services for cured-in-place pipe (CIPP) rehabilitation and other miscellaneous work necessary to complete the water main improvements along Cossitt Avenue (Gilbert Avenue to Leitch Avenue) and north along Leitch Avenue, including the BNSF Railroad crossing.

VILLAGE OF LA GRANGE, ILLINOIS
COSSITT AVENUE WATER MAIN IMPROVEMENTS – GCA / RPR

EXHIBIT B

SCOPE OF SERVICES

1. Act as the Village's representative with duties, responsibilities and limitations of authority as assigned in the construction contract documents.
2. PROJECT INITIATION
 - Attend and prepare minutes for the preconstruction conference, and review the Contractor's proposed construction schedule and list of subcontractors.
 - Prepare Award Letter, Agreement, Contract Documents, Performance/ Payment Bonds, and Notice to Proceed. Review Contractor insurance documents.
3. CONSTRUCTION ADMINISTRATION
 - Attend periodic construction progress meetings.
 - Check, review, and approve shop drawings, manufacturer's literature, samples, and other submittals by the Contractor, but only for compliance with the drawings and specifications as to quality of materials and performance of equipment. Such review shall not be construed as relieving the Contractor of the responsibility to meet requirements of the construction contract documents.
 - Prepare for construction layout and staking.
 - Review construction record drawings for completeness prior to submission to CADD.
 - Prepare construction contract change orders and work directives when authorized by the Village.
 - Review the Contractor's requests for payments as construction work progresses, and advise the Village of amounts due and payable to the Contractor in accordance with the terms of the construction contract documents.
 - Research and prepare written response by Consultant to requests for information from the Village and Contractor.
 - Visit site as needed by Project Manager or other office staff.
4. FIELD OBSERVATION
 - Provide a Resident Project Representative at the construction site on a full-time basis for two weeks (80 hours) and a part-time basis for two weeks (40 hours) from the Consultant's office of not more than eight (8) hours per regular weekday, not including legal holidays as deemed necessary by the Consultant, to stake-out construction lines and grades, to assist the Contractor with interpretation of the Drawings and

Specifications, to observe in general if the Contractor's work is in conformity with the Final Design Documents, and to monitor the Contractor's progress as related to the Construction Contract date of completion. The construction Contractor is a separate company from the Consultant. The Village understands and acknowledges that the Consultant is not responsible for the Contractor's construction means, methods, techniques, sequences or procedures, time of performance, compliance with Laws and Regulations, or safety precautions and programs in connection with the Project, and the Consultant does not guarantee the performance of the Contractor and is not responsible for the Contractor's failure to execute the work in accordance with the construction contract documents.

- Provide the necessary base lines, benchmarks, and reference points to enable the Contractor to proceed with the work.
- Keep a daily record of the Contractor's work on those days that the Consultant are at the construction site including notations on the nature and cost of any extra work, and provide weekly reports to the Village of the construction progress and working days charged against the Contractor's time for completion.

5. COMPLETION OF PROJECT

- Provide construction inspection services when notified by the Contractor that the Project is complete. Prepare written punch lists during final completion inspections.
- Review the Contractor's written guarantees and issue a Notice of Acceptability for the Project by the Village.
- Review the Contractor's requests for final payment, and advise the Village of the amounts due and payable to the Contractor in accordance with the terms of the construction contract documents.
- Complete field survey work to be used in completing the construction record drawings.
- Prepare construction record drawings which show field measured dimensions of the completed work which the Consultant considers significant and provide the Village with one set of reproducible record drawings within ninety (90) days of the Project completion.

VILLAGE OF LA GRANGE, ILLINOIS
 COSSITT AVENUE WATER MAIN IMPROVEMENTS
 SECTION NO.: N/A

EXHIBIT C

CONSTRUCTION ENGINEERING
 COST ESTIMATE OF CONSULTANT'S SERVICES IN DOLLARS

Route: Cossitt Avenue
 Local Agency: Village of La Grange

Section: N/A
 Project: N/A
 Job No.: N/A

*Firm's approved rates on file with IDOT's
 Bureau of Accounting and Auditing:
 Overhead Rate 147%
 Complexity Factor 0
 Calendar Days 45

Anticipated Service from 6/16/14 to 7/31/14

Method of Compensation:
 Cost Plus Fixed Fee 1 14.5%[DL + R(DL) + OH(DL) + IHDC]
 Cost Plus Fixed Fee 2 14.5%[DL + R(DL) + 1.4(DL) + IHDC]
 Cost Plus Fixed Fee 3 14.5%[(2.8 + R)DL] + IHDC
 Direct Labor Multiple
 Specific Rate
 Lump Sum

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Element of Work	Employee Classification	Man-Hours	Payroll Rate	Payroll Costs	Overhead*	In-House Direct Costs	Services by Others	Profit	Total
PROJECT INITIATION & PUBLIC MEETINGS	SR. ENGR. I	8	\$41.74	\$334.00	\$491.00	\$44.00		\$126.00	\$995.00
	ENGR. III	4	\$37.92	\$152.00	\$223.00	\$22.00		\$58.00	\$455.00
	ENGR. TECH III	4	\$37.94	\$152.00	\$223.00			\$54.00	\$429.00
	CLERICAL I	2	\$25.40	\$51.00	\$75.00			\$18.00	\$144.00
CONSTRUCTION ADMINISTRATION	SR. ENGR. I	12	\$41.74	\$501.00	\$736.00	\$88.00		\$192.00	\$1,517.00
	ENGR. TECH. III	8	\$37.94	\$304.00	\$447.00			\$109.00	\$860.00
	CLERICAL I	2	\$25.40	\$51.00	\$75.00	\$25.00		\$22.00	\$173.00
FIELD OBSERVATION & CONSTRUCTION LAYOUT	SR. ENGR. I	4	\$41.74	\$167.00	\$245.00	\$22.00		\$63.00	\$497.00
	ENGR. TECH. III	120	\$37.94	\$4,553.00	\$6,693.00	\$440.00		\$1,694.00	\$13,380.00
COMPLETION OF PROJECT	SR. ENGR. I	8	\$41.74	\$334.00	\$491.00			\$120.00	\$945.00
	ENGR. TECH. III	4	\$37.94	\$152.00	\$223.00	\$44.00		\$61.00	\$480.00
MATERIAL TESTING									\$0.00
TOTALS		176		\$6,751.00	\$9,922.00	\$685.00	\$0.00	\$2,517.00	\$19,875.00

CONSTRUCTION ENGINEERING TOTAL NOT TO EXCEED **\$19,875.00**

In-House Direct Costs:
 VEHICLE EXPENSES: TRAVEL - 1,336 MI @ CURRENT IRS RATE (\$0.560 FOR ESTIMATING PURPOSES) = \$660.00
 PRODUCTION, ADMINISTRATION, POSTAGE: \$25.00

Services by Others:
 MATERIAL TESTING: N/A \$0.00