

BID OPENING REPORT



C.T. MALE ASSOCIATES
 Engineering, Surveying, Architecture &
 Landscape Architecture, P.C.
 50 Century Hill Drive
 Latham, NY 12110

Project Name: Water System Improvements

Project Number: 07.7018

Location: Village of Corinth, NY

Sheet 1 of 2

Bid Opening Time and Date: 2:00 PM, July 31, 2013

Recorded By: Charles R. Kortz

Location: Village Clerk's Office, 244 Main Street, Corinth, New York 12822

Checked By: Chester P. Szymanski

Name of Contract: Water System Improvements

Date: 7/31/2013

Name of Bidder	Contract 1G – General	Contract 1M – Mechanical	Contract 1P – Plumbing	Contract 1E – Electrical	Bid Bond	Addenda No. 1 Received	Addenda No. 2 Received
Arcon Construction				\$158,200.00	X	X	X
Bast Hatfield							
BCI Construction	\$2,191,200.00				X	X	X
Blue Heron Const	\$2,250,422.00				X	X	X
Brownell Electric							
Brunswick Electric				\$148,780.00	X	X	X
Bunkoff General Cont.	\$2,089,000.00				X	X	X
DLC Electric				\$219,400.00	X	X	X
Eckert Mechanical		\$2,500.00	\$36,000.00		X	X	X
Family Danz		\$49,900.00			X	X	X
Gross Electric				\$207,000.00	X	X	X
Harold Clune				\$149,900.00	X	X	X
J Squared Construction							
Jack Hall Plumbing & Heating							

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Name of Bidder	Contract 1G – General	Contract 1M – Mechanical	Contract 1P – Plumbing	Contract 1E – Electrical	Bid Bond	Addenda No. 1 Received	Addenda No. 2 Received
Jett Industries	\$2,890,000.00				X	X	X
Kasselman Electric							
Kubricky Construction							
McBain Electric				\$262,183.00	X	X	X
RF Gordon Mechanical		\$72,520.00	\$49,832.00		X	X	X
Rozell Industries							
Stewart Equipment							
Standard Construction							
Stephen Miller General Cont.	\$2,230,000.00				X	X	X
Stising Electric				\$170,430.00	X	X	X
Trinity Construction							
VMJR Companies							
W.M. Schultz	\$2,177,000.00				X	X	X
CDE Electric				\$188,200.00	X	X	X

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Engineering, Surveying, Architecture & Landscape Architecture, P.C.

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518.848.3533 FAX 518.848.3534 ctmale@ctmale.com



August 6, 2013

Mayor Dennis Morreale and Board of Trustees
Village of Corinth
244 Main Street
Corinth, NY 12822

Re: *Water Filtration Plant Bid Results Analysis*
Village of Corinth, Saratoga County, NY

Dear Mayor and Trustees:

As you know, construction contract bids for the Water System Improvements Project (Water Filtration Plant) were received on July 31, 2013. The bid opening included the receipt of bids for four separate prime contracts – General Construction, Mechanical, Plumbing, and Electrical. Six prospective contractors responded to the General Contract bid, three to the Mechanical bid, two to the Plumbing bid, and eight to the Electrical bid. Please see the attached bid opening results for your reference.

The apparent low bidders for each contract are as follows:

<i>Contract</i>	<i>Contractor</i>	<i>Bid Amount</i>
General - 1G	Bunkoff General Contractors	\$2,089,000.00
Mechanical - 1M	Family Danz Heating and Cooling, Inc.	\$49,900.00
Plumbing - 1P	Eckert Mechanical, LLC	\$36,000.00
Electrical - 1E	Brunswick Electric, Inc.	\$148,780.00
	Total Project Bid Amount	\$2,323,680.00

The preliminary construction cost estimate included the July 2012 Revised Engineering Report was \$870,000. At the time, the construction cost estimate was based on a concept for the proposed filtration plant. A detailed construction cost estimate upon completion of the final design phase was not included in our scope of services to keep additional engineering costs to a minimum. There are three facets of the project that changed substantially during the design development process due to DOH and EPA GWUDI regulations as follows:

1. The size of the clearwell had to be increased dramatically from the initial membrane microfiltration plant design. We were aware this would be a requirement at the concept level, but unaware of how significant this would be. Once we were

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C.T. MALE ASSOCIATES

August 6, 2013

Mayor Morreale and Trustees

Page - 2

authorized to proceed with final design and worked through all of our calculations, it became apparent that the clearwell size would be approximately 5 times larger than the original design.

Because of the size of the project site, configuration of existing wells, buildings, and utilities, proximity to the existing stream, and the operational constraints of the water system, a clearwell integral and under the new building was the only viable choice for this project. A separate above grade water storage tank would have to be sited on a different site and the Village would have to purchase additional property. Since the best (and least expensive) choice for the clearwell was underneath the new building, we integrated it with the building foundation. Unfortunately, it became difficult for us to reduce the size of the building since the clearwell size was larger.

Ultimately, we reduced the size of the building from the original membrane microfiltration plant design by six feet in length and kept the width the same. Additionally, the clearwell was about twice as deep as the original design. It is hard for us to determine the exact project cost impact due to the required clearwell size, but we have worked with the apparent low bidder for the General Contract (Bunkoff Contractors, Inc.) to estimate that this impact is likely about \$440,000 to the General Contract. Some of the items included in this are additional excavation, significant dewatering efforts necessary to construct the clearwell and foundation, additional building footprint kept to accommodate clearwell and foundation size. Also, because of the increased footprint of the building, the process piping, plumbing, mechanical, and electrical systems also likely see an increase in cost. We estimate this increase to be approximately \$115,000.

Total Estimated Cost Impact = \$555,000.00

2. The project includes three high lift booster pumps required to pump finished water to the distribution system. In the original membrane microfiltration plant design, the high lift pumping was proposed to be accomplished with a set of two high lift booster pumps. The DOH standard for finished water pumping capacity is to be able to pump your maximum daily demand with one pump out of service. The maximum daily demand for the Village of Corinth is 1,000,000 gallons per day or 1 MGD. The average daily demand for the Village is approximately half of that amount or around 550,000 gallons per day.

To provide a set of two pumps to accommodate this requirement meant that each pump would be tremendously oversized for the normal demands of the system

C.T. MALE ASSOCIATES

August 6, 2013
Mayor Morreale and Trustees
Page - 3

which are experienced over 90% of the year. This would result in difficult operating conditions for these pumps as well as approximately 2.5 times bigger motors (more horsepower) to drive the pumps. A lot of efficiency would be lost and unnecessary energy wasted utilizing this setup.

A three pump setup allows the use of one pump to accommodate most of the low and normal demand pumping requirements and two pumps to handle the peak periods at optimal efficiency. The third pump then meets the requirement of being able to handle the peak day demand with one pump out of service. Over the long term, this will result in greater operational flexibility, more reliable pumping operations, and significant energy savings.

Total Estimated Cost Impact = \$105,000.00

3. The Village has received subsidized financing for this project from New York State Environmental Facilities Corporation's Drinking Water State Revolving Loan Fund (DWSRF). The subsidized funding has many administrative requirements associated with the release of funds. These requirements add administrative burden to the project and to the contractors awarded the work. In preparing construction cost estimates, particularly early in the planning process, it is very difficult to adequately capture the added costs associated with these administrative items. There are many variables to consider and without knowing each contractor's specific circumstances and situation, these costs are very difficult to estimate.

Through discussions with the apparent low bidder for each contract, the contractors and C.T. Male have estimated the following additional costs due to the increased administrative burden:

<i>Contract</i>	<i>Contractor</i>	<i>Bid Amount</i>
General - 1G	Bunkoff General Contractors	\$94,000.00
Mechanical - 1M	Family Danz Heating and Cooling, Inc.	\$2,800.00
Plumbing - 1P	Eckert Mechanical, LLC	\$1,700.00
Electrical - 1E	Brunswick Electric, Inc.	\$6,300.00

These additional costs include certified payroll preparation and filing, administrative forms, payment request effort, minority and women-owned business subcontracting requirements, and general record keeping and reporting requirements.

C.T. MALE ASSOCIATES

August 6, 2013
Mayor Morreale and Trustees
Page - 4

Total Estimated Cost Impact = \$161,500.00

The estimated cost impacts for this project that were not considered as a part of the initial planning and preliminary cost estimating as detailed in the three items above cost a total of \$821,500.00. The addition of these items to the original preliminary estimate would result in a construction cost estimate of \$1,691,500.00. For the purposes of this analysis, this estimate still leaves an additional \$632,180.00 difference between this estimate and the apparent low bidder's totals.

Market conditions can swing substantially from year-to-year. There are many factors to take into account. Some of these factors are construction work currently being undertaken by contractors, amount of work being bid, type, size, and scope of project, amount of specialty work, location, time of year, costs of commodities and goods, etc. While it is not possible to say which of these conditions may have affected the bid prices received on this project, recent bid history for many projects of similar and dissimilar kind, have experienced costs higher than anticipated by construction cost estimates. Much of this is due to local market conditions. Over the last 18 months or so, New York State has experienced a general increase in the amount of construction activity. Concurrently, costs for many materials, goods, commodities have increased over the last year or so while they had stabilized for the three to four year period preceding that.

Additionally, a marginal amount of cost increase for construction during winter conditions can be expected. Although the mechanical, plumbing, and electrical contractors did not note any increase due to winter construction as their outside work will be mostly complete and the winter will not affect their indoor work. The general contractor needed to add temporary heat to his temporary facilities. The concrete work will be done prior to freezing weather, but much of the other work will not. This is likely a minor amount with the general contractor indicating a ballpark amount of \$20,000.

In conclusion, we have determined that this project has received bids much higher than the preliminary cost estimate predicted for four main reasons:

1. Design developments that resulted in three changed conditions from the initial scope as detailed above.
2. Additional administrative burden due to NYS EFC funding requirements.
3. Market conditions.
4. Winter construction.

C.T. MALE ASSOCIATES

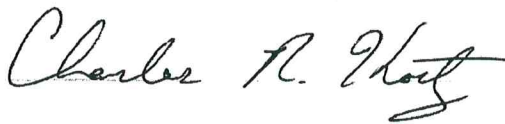
*August 6, 2013
Mayor Morreale and Trustees
Page - 5*

This project generated very good interest with the majority of plan holders bidding on the project for at least one contract. Each contract resulted in bidders very close to each other in their total bids. In reviewing the bids with several of the contractors, all of them were confident that the project was fairly bid and costs are appropriate. Many contractors noted that the construction contract documents and drawings were easy to follow, complete, and the scope of work for each contract was clear. It is important to note that we consider these bid prices to be competitive bids for the project at this time.

At this time, it is our opinion that re-bidding this project at a later time will not result in significantly lower bid prices. The biggest item that could potentially change is market conditions and the temporary heat for winter work (although very minor). The project, as designed, does not contain many "extras" or "bells and whistles," so to speak. We have designed the project to comply with the NYS DOH requirements to adequately treat the Village's GWUDI water supply. Therefore, we don't have a good opportunity to reduce the scope of the project. Having said that, we have already begun to work with the apparent low bidders to brainstorm ideas the overall project could be reduced during construction. We will continue to work to do so with the contractors through the end of the project.

Should you have any questions regarding this information, please don't hesitate to contact me at 848-3533 or c.kortz@ctmale.com.

Sincerely,
C.T. MALE ASSOCIATES
Engineering, Surveying, Architecture & Landscape Architecture, P.C.



Charles R. Kortz, P.E.
Managing Engineer

Attachment

C: Ms. Nicole Colson, Clerk-Treasurer
Mr. Arthur Lozier, Superintendent of Public Works
Mr. Jason Denno, NYS EFC