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Ann H. Gallelli  
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*Village Manager*  
Abraham Zambrano

*Assistant Village Manager*  
Janine King

*Village Treasurer*  
Sandra Bullock

*Village Engineer/Building Inspector*  
Daniel O'Connor, P.E.

*Asst. Building Inspector/Assessor*  
Joseph Sperber

*Fire Inspector*  
Peter Anfiteatro

## MEMORANDUM

Date: December 28, 2011  
To: Abe Zambrano  
From: Daniel O'Connor, P.E.   
Subject: Washington Engine Fire House Sprinkler System - Professional Design and Construction Inspection Services

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The Washington Engine Fire House was completed in 1979. The original design plans for the fire house did not include a fire sprinkler system. The Croton Fire Department requested that the Village fund the installation of a sprinkler system and funding was provided in the FY 2011-2012 budget. In order for a sprinkler system to be installed the system will need to be designed and bid documents prepared and the project bid.

Fire Systems Services, Inc in Ossining was contacted and a request was made to provide a proposal for professional design services for the necessary design and construction inspection work. A site visit was conducted today with a representative from Fire Systems Services to discuss the installation of the sprinkler system, the proposal and to review the accuracy of the design plans with the existing conditions. The work will also include the design and preparation of documents for submission to the WCHD for the installation of a backflow prevention device that will be required on the new 4" water service line for the sprinkler system. The proposal is attached a W-9 is already on file with the Village. Fire System Services recently completed the design of the sprinkler system for the Harmon Fire House. The total cost (see attached cost summary sheet) for the professional services is \$7637.50. The cost of the professional services is considered reasonable; another firm quoted \$3500 on a different project just for the preparation of the documents for the backflow prevention device.

The FY 2011-2012 approved budget included \$26,000 in the capital budget for the installation of the sprinkler system in the Washington Engine Fire House. The above amount should be charged to capital account #12237 for this project. It is unlikely that the balance of the funds will cover the cost of the sprinkler system installation since it includes a new 4" water service line and new backflow prevention device.

It is requested that this be placed on the next Village Board agenda to have the Village board pass a resolution authorizing the Village Manager to sign the proposal from Fire System Services, Inc in the amount of \$7637.50.

The bid for the Harmon Fire House was postponed until the spring since the fire apparatus will need to be temporarily located outside when the sprinkler installation work is being performed in the bays. It is expected that the design work on the Washington Fire House sprinkler system will be completed in time that the work there can also be bid this spring. This will allow both fire house sprinkler installation bids to be combined into a single bid with options. The bid will be structured to include a separate bid for each fire house sprinkler system and then a single bid for both fire house sprinkler systems. The Village will have the option of awarding each single bid separately or the combined bid if cost savings is achieved.

If any additional information is needed please let me know.

Enc (proposal, cost summary sheet)

Janine King w/enc. (email only)

Ronnie Rose w/enc. (email only)

Sandra Bullock w/enc. (email only)

File w/enc.

### **Washington Engine Fire House Sprinkler System Engineering Design Services**

| <b>No</b> | <b>Item</b>                                                                           | <b>Quantity</b> | <b>Unit</b> | <b>Unit price</b>   | <b>Amount</b>            |
|-----------|---------------------------------------------------------------------------------------|-----------------|-------------|---------------------|--------------------------|
|           | 1 Sprinkler system design, technical specifications, estimates construction cost      | 1               | LS          | \$3,000.00          | \$3,000.00               |
|           | 2 Preparation of digital (AutoCAD) floor plans from scanned paper plans <sup>1</sup>  | 1               | LS          | \$1,000.00          | \$1,000.00               |
|           | 3 Backflow prevention device approval documents                                       | 1               | LS          | \$1,200.00          | \$1,200.00               |
|           | 4 Bidding Assistance (prebid meeting with contractors, written response to questions) | 3               | Hours       | \$125.00            | \$375.00                 |
|           | 5 Pre-construction meeting with contractor                                            | 2               | Hours       | \$125.00            | \$250.00                 |
|           | 6 Construction inspections (4 estimated)                                              | 6               | Hours       | \$125.00            | \$750.00                 |
|           | 7 Final inspection and acceptance testing                                             | 2.5             | Hours       | \$125.00            | \$312.50                 |
|           | 8 Preparation of as-built plans                                                       | 6               | Hours       | \$125.00            | \$750.00                 |
|           |                                                                                       |                 |             | <b><u>Total</u></b> | <b><u>\$7,637.50</u></b> |

1. We were not able to acquire copies of the digital AutoCAD files from the architectural firm that designed the Washington Engine Fire House.



***FIRE SYSTEMS SERVICES, INC.***

40 Beach Road  
Ossining, NY 10562  
Phone: (914) 941 - 0338  
Fax: (914) 944 - 0809

December 23, 2011

Village of Croton on Hudson  
1 Van Wyck Street  
Croton-on-Hudson, NY 10520

Attn: Daniel O'Connor, Village Engineer

Re: Proposal for Engineering Design Services  
Washington Fire House

Dear Mr. O'Connor:

As you requested, we offer to provide engineering design services for the following fire protection systems at the referenced facility:

1. Engineering and Design of Automatic Sprinkler System in accordance with NFPA 13 and NYS codes and standards.
2. Technical specifications for use in bid documents
3. Estimated construction cost

We anticipate the sprinkler system will require a new 4 inch underground supply from the municipal water main. A 4-inch double check valve assembly or double check detector assembly backflow preventer shall be provided at the incoming water supply line.

A 4 inch sprinkler riser will be provided including a control valve, water flow switch, and a riser check valve. Supply piping and risers shall be steel, schedule 10 and schedule 40. Sprinklers shall be the type appropriate for the occupancy. Exposed piping & piping in Apparatus Room, Boiler Room and other Ordinary Hazard areas shall be steel. Piping in the light hazard areas such as Meeting Room, Recreation Room and office areas shall be steel or CPVC piping.

Hydrant flow test results will be required for this project.

Sprinkler protection shall be provided throughout the building. Outline specifications and equipment designations shall be indicated on the plans.

We propose to perform the above work as listed below:

Sprinkler Systems including hydraulic calculations,  
Technical Specifications & Estimated Construction Costs \$ 3,000.00

Preparation of computer generated floor plans (AutoCAD format): \$ 1,000.00

As the sprinkler system will incorporate a backflow prevention device as outlined above, Submittal documents for approval of the backflow preventer device by the Westchester Department of Health can be prepared by my office.

Backflow Preventer approval documents \$ 1,200.00

Total: \$ 5,200.00

Estimated time for completion: 3 weeks from receipt of signed acceptance of this proposal.

6 signed and sealed paper copies of reports and plans to be provided along with digital files of all documents in PDF format and AutoCAD (2000) for plans. Plans shall conform to applicable sections of the code and referenced NFPA Standards 13, 14, 20, and 72.

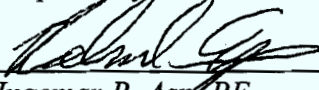
Additional Services: shall be billed on an hourly rate of \$125.00 per hour.

Estimated hours for additional services are:

- Bidding Assistance (attending prebid meeting with contractors and providing written response to any technical questions from bidders): 3 hours
- Pre-construction meeting with contractor: 2 hours
- Inspections requested by Village: 1.5 hours per requested inspection
- Final Inspection including acceptance testing: 2.5 hours
- Preparation of final as-built plans 4 – 6 hours

Note that hours for additional services are estimated and dependent on Village of Croton requests.

Prepared by:

  
Ingemar B. Asp, PE

Date: 12/23/11

Fire Systems Services, Inc  
40 Beach Rd.  
Ossining, NY 10562  
(t) 914 941-0338  
(f) 914 944-0809  
fss2@optimum.net