



File No. 4668

Via E-Mail

November 7, 2014

Ms. Katherine Detmer  
Archetype Architects, P.A.  
48 Union Wharf  
Portland, Maine 04101

Subject: Design Phase Review of Building 1, Maine Wharf - Fire Protection Systems

Dear Ms. Detmer:

*FIREPRO*® Incorporated has reviewed the Fire Protection documents of the Design Phase Review of Building 1 located on Maine Wharf at 68 Commercial Street in Portland, Maine. The documents reviewed are the Maine Wharf Fire Protection Plan drawings (FP-1.1 and FP-1.2) dated April 16, 2014, and the hydraulic calculations labeled 'Third Floor Calc' and 'Second Floor Calc' dated March 26, 2014. The documents were produced by High Tech Fire Protection, PO Box 156, Minot, Maine 04258.

After a review of the drawings, we had a telephone conversation with High Tech Fire Protection to confirm a couple of the design items. The following addresses those issues:

- The designs were developed using the 2010 Edition of NFPA 13 *Installation of Sprinkler Systems* and NFPA 14 *Installation of Standpipe and Hose Systems*. The Maine State Fire Marshall's Office adopts the 2007 Editions of NFPA 13 and NFPA 14. However, the State of Maine permits the use of newer editions of referenced codes in accordance with the concept that they represent good engineering practices.
- In accordance with NFPA 1, 2009 Edition, Section 28.1.6.3.4, supply piping for standpipes on piers and bulkheads shall be sized for the minimum flow rate for Class II systems. NFPA 14, Section 7.10.2.1 outlines minimum flow rates for Class II systems. In order to review the pipe sizing for the hose connection, we need to review hydraulic flow calculations to determine if the pipe size is suitable. It is our understanding that High Tech Fire Protection will submit standpipe hydraulic calculations for review.

*FIREPRO* Incorporated

1600 Osgood Street, 2082, North Andover, MA 01845

T: 781.270.5200 F: 781.229.2922

[www.fireproincorporated.com](http://www.fireproincorporated.com)

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- NFPA 14, Section 7.3.2.2 outlines the requirements for hose connection locations and states that they shall be provided in approved locations, where required by the local fire department or the AHJ. *FIREPRO*®'s approval of these locations is dependent on approval by the AHJ. It is our understanding that High Tech Fire Protection has had discussions with the Portland, Maine Fire Department in regards to approval of the location of the 2 ½ inch standpipe hose connections. High Tech Fire Protection shall provide copies of the emails stating that the AHJ has accepted the hose connection locations as shown on the design drawings.

*FIREPRO*® reviews these documents for the limited purpose of checking for general compliance with the information provided in the contract documents and general conformance with the design concept of this part of the project and not to determine accuracy or completeness of other details such as dimensions and quantities. We do not approve means, methods or procedures of construction or installation, nor do we review the safety precautions. Accuracy and process are the responsibility of the Contractor.

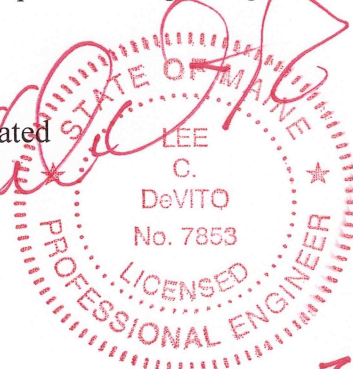
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|-------------------------------------|------------------------|--------------------------|-----------------------|
| <input type="checkbox"/>            | No Exception Taken     | <input type="checkbox"/> | Rejected              |
| <input checked="" type="checkbox"/> | Make Corrections Noted | <input type="checkbox"/> | Submit Specified Item |
| <input type="checkbox"/>            | Revise and Resubmit    | <input type="checkbox"/> |                       |

*FIREPRO*® makes all reasonable efforts to incorporate practical and advanced fire protection concepts into its advice. The extent to which this advice is carried out affects the probability of fire safety. It should be recognized, however, that fire protection is not an exact science. No amount of advice can, therefore, guarantee freedom from either ignition or fire damage.

Should you have any questions regarding these comments please do not hesitate to contact us.

Sincerely,  
*FIREPRO*® Incorporated

Lee C. DeVito, P.E.  
President



11-7-14