

Paul De Salvo
Professional Engineer

To: Historical Commission
Town Hall Committee
Library Building Committee

Re: Town Hall

After a visual inspection of the Town Hall which included measuring the floor joists of the first and second floor, and based on the National Lumber Manufacturers Association Design Tables, dated 1948, it is my opinion that a safe floor loading capacity for the Town Hall is as follows:

Second floor - 100 lbs per square foot
First floor - 250 pounds per square foot

These values match or exceed the building code requirements for a library occupancy.

Floor joist measurements on the second floor were 2 x 12, actual size 11 1/2 by 1 5/8
First floor joists 3 x 8 actual size 7 1/2 by 2 5/8. These floor joists are of a size that was in common use in the 1940's, hence the use of the tables consistent with that size. The sizes listed in this manual match the sizes measured in the town hall. It is my observation that the floor joist system dates to the 1940's. This corroborates research by Maryanne MacLeod which indicates that the floor joists were replaced in the late 1940's when they were discovered to be separating from the structural frame of the building.

The first floor has been greatly re-inforced by the addition of cement and concrete block piers, with footings, which were placed in an east-west and north-south grid every seven feet. The original piers, which are located directly under the columns on the first floor were repaired and strengthened. Most of these piers have beams placed atop of them, running the width of the building, also contributing to the strength of the first floor, but are not part of my calculations.

It is my opinion that the library can be safely accommodated in the Town Hall.

Paul De Salvo

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Profession Engineer
Certificate No. 19678



20 Old Salisbury St., Holden, MA 01520
508-839-2175