

# **HEMANT MEHTA, P. E.**

# **CONSULTING ENGINEER**

STRUCTURAL ENGINEERING \* COST ESTIMATES \* FACILITY PLANNING \* ENGINEERING REPORTS

48 CONDOR ROAD  
SHARON, MA 02067  
(781) 724-7785

September 1, 2014

Ms. Lee Ann Amend  
Director  
Sharon Public Library  
Sharon, MA 02067  
Via: e-mail: lamend@ocln.org

Sharon Public Library  
Sharon, MA  
Floor at Main Entrance

Dear Ms. Amend:

I have visited the library to make observations of the reported conditions of the floor near the main entrance at your request. This area is on the Main Library floor. The observed condition is a slight bump on the floor as one approaches the area from the main entrance. Several feet besides the bump one can feel a floor depression.

I made three visits to examine the overall conditions of the floor framing members. The floor framing drawing that you provided to me shows the original 2 x 10 joists at 16" o.c., spanning approximately 14 feet. These joists are supported on the walls of the original construction on the outside and a girder at the center. The girder is supported on three posts, two of which appear to be added after the original construction.

On my third visit on August 29, a section of ceiling at the lower level rest room was removed to see the joists and the girder. However, due to the plaster boards (and/or other materials) covering the framing members, joists and the girder were not visible.

Without a close examination of the framing members one cannot assess the conditions, degree of deterioration and reasons for the observed conditions to develop a solution or corrective action. Without detailed examination of the structural elements, a firm, reliable engineering opinion cannot be given.

Based on the surface observations of the floor, it appears that the 2 x 10 joists have deflected in excess of the normal live load deflection causing a depression. The girder carrying the joists did not deflect as much so the area directly above the girder feels like a bump in the floor.

The joists size and span appear to be OK for the present loading conditions. It should be noted that the type of lumber, its condition today and the details of the connections – important parameters to determine load carrying capacity - are not known. The area should not be used as a stack room. The floor does not seem to present an immediate threat but this is only a personal judgment and is not based on any engineering data. This is not to say, the issue can be 'ignored'.

For further examination, sections of large ceilings can be removed to access and examine the joists and the girder from the floor below. Before such measures of disruptions are taken, a second opinion from a Structural Engineer may be taken.

This brief report of my limited observations and opinion is offered at no cost to the Library.

Sincerely,



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Hemant Mehta