



Bluestone, Inc.

P.O. Box 304
New Boston, NH 03070
603-487-5419
800-639-4016

ROOF INSPECTION REPORT

4-11-2003

Company Raymond School District Type of business Elementary School
Address Old Manchester Road
City Raymond, NH 03077
Individual James Turbeville Title Superintendent

BUILDING DESCRIPTION

Building located at Old Manchester Road * Raymond, NH
Building used for Elementary School
Owners identification of area or building # Lamprey River Elementary School * Built in 1976
Exterior wall construction: Masonry Wood Steel Other

ROOF DESCRIPTION

New roof Old roof 9 yrs. Age of roof 46,335 Area in sq. ft.
Roof shape: Flat Gable Arched roof Other

ROOF DECK

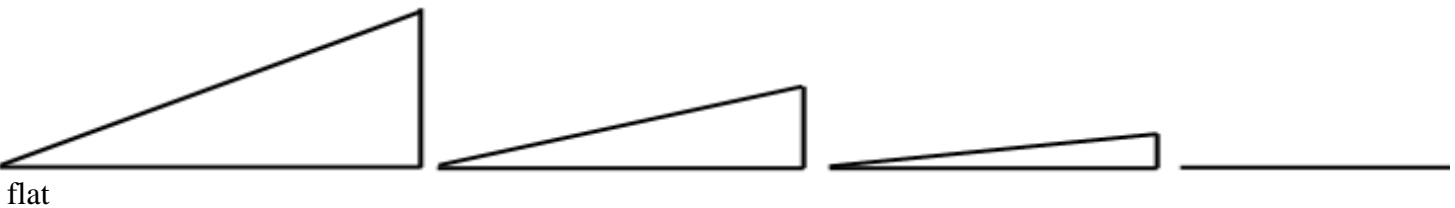
Wood Gypsum plank Concrete Lightweight concrete Steel Poured Gypsum Other
Re-roofed or restored with 45 mil Carlisle EPDM Date +or- 1990

ROOF MAT: Two, 3 ply Asphalt and gravel roofs plus one membrane roof.

6 No. of plies of felt Tar and gravel Asphalt and gravel Smooth asphalt Mineral surfaced asphalt Steel Polyurethane foam Single ply Hypalon & EPDM Type of single ply Fully adhered Ballasted Mechanically attached
Name of manufacturer of roofing materials Dupont & Carlisle

DRAINAGE

3" rise per ft. or more 1" to 2" rise per ft. Less than 1" rise per ft. Dead level



Water ponds on surface 10% of area

INSULATION

Wood fiberboard Thickness 2 in. Dry Wet 80%
 Isocyanurate foam (isoboard) Thickness 2 in. Dry Wet 80%
 Vapor barrier? Base sheet?

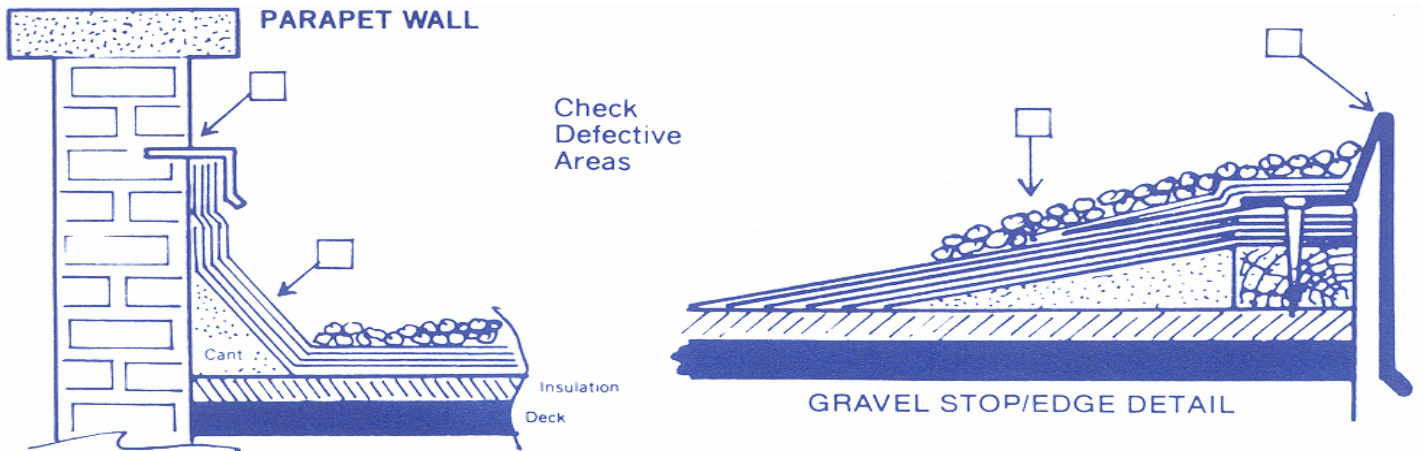
CONDITION OF ROOF

Dry and brittle % Alligatored Curled edges Drains clogged Open seams % Blisters
 Unfilled pitch pockets Open seams on metal roof Structural cracks/splits Wrinkled felts
 Debris Open coping joints _____ partial
 Aggregate adhesion good fair poor other _____

Is roof leaking? Describe exactly Yes. Screws backing up through the membrane. System wide seam failure and hundreds of patches resulting from foot traffic and snow removal activity.

Cause of leaks: Splits & breaks in roof mat Flashing failure Gravel stop or edge failure
 Roof top traffic Improper roof top installations Improper construction Ponding

FLASHING CONDITIONS



Total lineal feet _____
 Height of vertical flashing _____
 Condition of exposed membrane Fair to poor

Replace flashing
 Restore flashing

Total lineal feet _____
 Gravel stop raised flat
 Gravel stop joints open? yes no
 Gravel stop needs renailling? yes no
 Replace flashing
 Restore flashing

ADDITIONAL IMPORTANT INFORMATION:

The failed Carlisle EPDM roofing system is only 10 years old and has about 300 patches and nearly 5,000 lineal feet of failed seams that were resealed. This is a premature, system wide roof failure. This roof still has 10 years left on the warranty.

The school building has 3 roofs on it. There is approximately 15 lbs. per sq. ft. of roof weight on this building. This is serious tonnage. Removing all the roofs and replacing them with a 250 mil Bluestone Premium Roofing System will reduce the roof load by about 10 to 12 lbs. Per sq. ft.

The original roof has two inches of wood fiber insulation. When wood fiber insulation gets wet, it rots and produces an acid. This acid greatly accelerates the rate of rust. The International Building Code 2000 that the Town of Raymond uses, requires the removal of all failed roofs so the roof deck can be inspected for damage and repaired where needed prior to re-roofing. There are a few areas of the roof deck that have settled several inches lower than the roof drains. These areas are likely caving in due to a weakening of the metal roof deck because of severe rust.

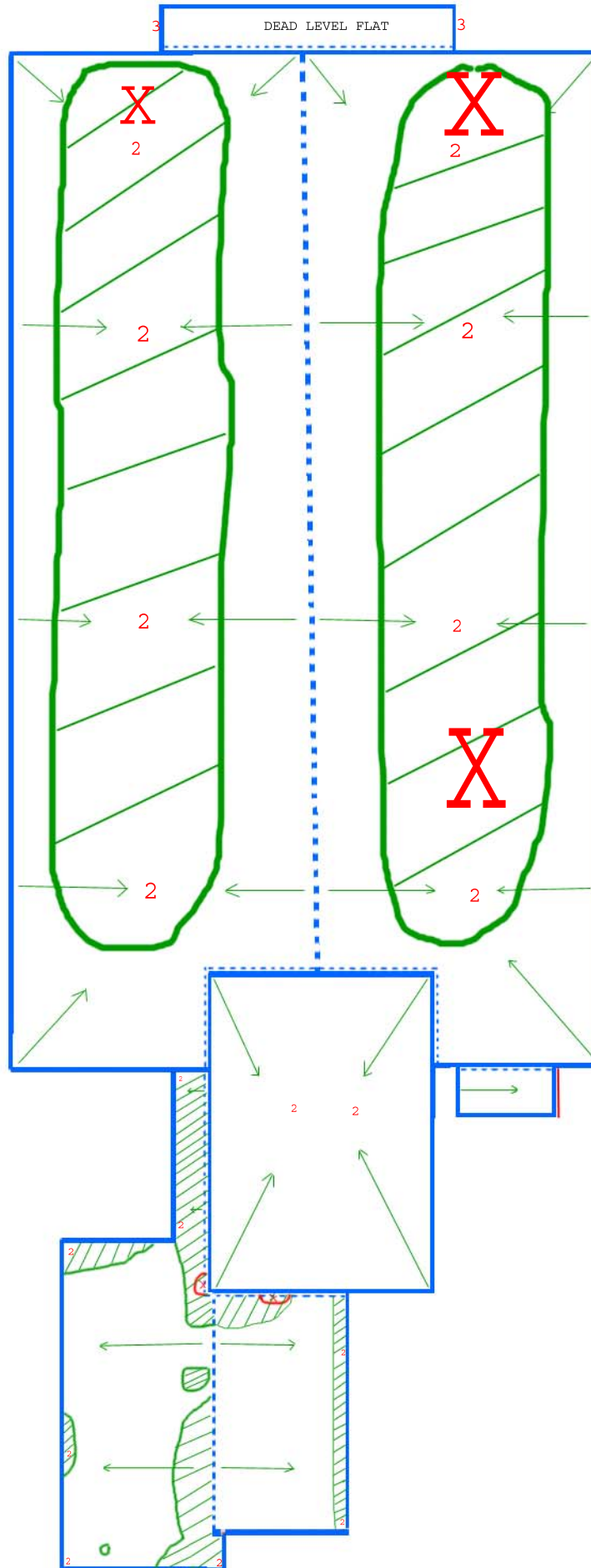
Also, since the school has been built, the snow load requirements have been upgraded to 62 lbs. per sq. ft. from 40 lbs per sq. ft. This is grand fathered in and does not need to be upgraded. However, it will require diligence and the frequent use of a snow blower. A thin membrane roof should be out of consideration for this re-roofing project.

BOCA Section 1512.3 Recovering vs. replacement indicates the following: New roof coverings shall not be installed without removing all existing layers of roof coverings where any of the following conditions exist.

1. Where the existing roof or roof coverings is water soaked or has deteriorated to the point that the existing roof or roof covering is not adequate.
2. Not applicable
3. Where the existing roof has two or more applications of any type of roof covering.

Conditions, #1 and #3 exist on the project. Compliance with the BOCA code requires removal down to the deck and inspection of the steel decking prior to any roof replacement.

4-11-2003



Subsurface moisture 

2 Drains

3 Overflow Scuppers

X Roof deck repairs needed



TOWN OF RAYMOND
Office of Code Enforcement
TOWN OFFICES
4 EPPING STREET
RAYMOND, NEW HAMPSHIRE 03077
Tel 603 / 895-4735 9 Fax 603 / 895-0903

May 21, 2003

Bluestone Inc.
45 Tucker Mill road
P.O. Box 304
New Boston, N.H.
03070

To whom it may concern;

In regards to your request as to the building code followed within the Town of Raymond, New Hampshire.

The answer is the Town enforces the State Building Code which currently is the International Building Code 2000.

In regards to snow load requirements, our local code requirements are 62# per square foot, ground snow load.

No more than 2 roofs are allowed. Before a 3rd roof is to be installed, the previous 2 roofs must be completely removed.

Sincerely,

Richard J. Mailhot, Sr.
Code Enforcement Officer

There are clearly 3 roofs on the Lamprey river Elementary School. Two built-up roofs and one thin membrane roof. With the flood coating and stones, the 2 built-up roofs are over 2 inches thick. Add the 2 inches of wood fiber insulation not included in this sample and you have +or- 6 inches of roof on the Lamprey River Elementary School.



**Douglas E. Wicks
23 Fawn Lane
Basking Ridge, N.J. 07920**

February 17, 2004

Mr. Gerard Beloin
Bluestone, Inc.
P.O. Box 304
New Boston, NH 03070

Dear Mr. Beloin, Ref: Lamprey River Elementary School roof project

During our recent meeting on January 22, 2004, you showed me a core sample you claimed was taken from Lamprey River Elementary School roof. My inspection revealed that this core sample is composed of at least 2 built up roofs and one thin membrane EPDM roof. **There are at least 2 built-up roofs because of the 2 layers of gravel within the core sample.** Any claim that the sample was taken too close to the parapet wall- and includes parapet flashing felts- is not credible as gravel would not have been placed on the built up roof surface before parapet flashing took place so the claim that the extra plies are due to wall flashings seems specious. Due to the six-inch thickness of the sample, there is a strong possibility that there are up to 4 existing roofing systems currently on the building

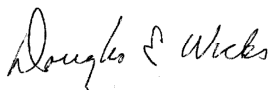
The thermal imaging device using snowmelt patterns can be extremely accurate in measuring the amount of wet insulation. The wet insulation retains the heat and melts the snow in the wet areas, thus visually demonstrating the wet insulation areas. Core samples of these areas should be taken to verify the moisture condition of the existing roof insulation

After looking at the photos of the roofs, the Engineers reports appear to be incorrect wrong and the Raymond Fire Chief seems to agree. There are clearly problems with the roof deck.

The specifications for the LRES seem to clearly violate the requirements of the building and safety codes and the persistence in the School Board insisting on using such flawed specifications by the school officials is troubling.

With all the open questions, it would be prudent to have an independent roof expert review the project. Under building code regulations the code official can require such an investigation.

Sincerely,



Douglas E. Wicks



National Roofing Consultants, Inc. 118 Lincoln Avenue, Pomona, California 91767 (909) 620-0177 Fax (909) 620 6068

February 19, 2004

Mr. Gerard Beloin
BLUESTONE, INC.
P.O. Box 304
New Boston, NH 03070

RE: LAMPREY RIVER ELEMENTARY SCHOOL

Dear Mr. Beloin,

I evaluated the core sample taken from the Lamprey River Elementary School roof. **There are at least three roofs in this core sample. Possibly more.** The roof photos indicate roof deck problems. I read the bid specifications. They clearly violate the building codes. To go over the existing system with another roof would cause more problems. These roofs need to be completely torn off down to the structure. The deck structure that is deteriorated should be replaced as needed and a new roof system applied.

Sincerely,

Mark M. Clonts
President