

EVALUATION AND ASSESSMENT

MONADNOCK REGIONAL MIDDLE/HIGH SCHOOL
580 OLD HOMESTEAD HIGHWAY
SWANZEY, NEW HAMPSHIRE



DECEMBER 11, 2017

The H.L. Turner Group Inc.

ARCHITECTS ■ ENGINEERS ■ BUILDING SCIENTISTS

Monadnock School District
Monadnock Regional Middle/High School
580 Old Homestead Highway
Swansey, New Hampshire

December 2017

Facility Assessment

On October 5, 2017, representatives from The H.L. Turner Group Inc. (TTG) of Concord, New Hampshire, Paul M. Becht, P.E. and Dan Hall, AIA, visited the Monadnock Regional Middle/High School for the purpose of performing a facility assessment of specific areas of the school. The review was limited to the 700 and 800 wings of the building. During the assessment we were accompanied by the District's Facility Director, Mr. David LaPointe. The purpose of this assessment was to identify any existing deficiencies in this section of the building that the Town should plan to address and make recommendations for future upgrades.

Accurate and concise condition assessment data is essential for proper planning for maintenance and capital improvements. This condition assessment is intended for use by the Monadnock School District as a tool for budget planning for the allocation of resources on a priority basis. It is hoped that by determining the nature and extent of problems, and providing options for corrective action, items may be addressed before more serious damage or failure can occur. The purpose of this facility audit is to report conditions that are in need of repairs and upgrade, conditions that do not comply with current building and safety codes, and confirm that the facility operates as designed structurally, mechanically, and electrically.

Project Objectives

- To provide an accurate accounting of all items that may be classified as deferred maintenance or capital repair/improvements.
- To calculate opinions of cost for all identified maintenance and capital improvement items using an established method of construction and cost estimating data.



It is the intention that the results of this facility audit will ultimately be used to identify a prioritization of capital repair and replacement projects for the Monadnock Regional Middle/High School.

LIMITATIONS: The H.L. Turner Group Inc. (TTG) has prepared this report for the Monadnock School District based on visual observations only, and therefore it did not involve destructive demolition, scientific testing, or any other tests. The information/data in this report has been provided in general accordance with accepted Engineering/Architectural consulting practices, and TTG makes no warrantee, either expressed or implied, on the conclusions or cost estimates/opinions of cost provided.

Introduction

The original Middle/High School was constructed in the early 1960's. It has undergone several additions, one in the early 1980's and another addition in the mid 1990's. The sections of the school that are the subject of this report include the 700 wing, which includes rooms 700 through 710 (11 classrooms) and the 800 wing, which included rooms 800 through 809 (10 classrooms). We believe the 700 wing was constructed as part of the 1980's addition and the 800 wing was constructed as part of the 1990's addition. The basic construction consists of a steel frame with cold formed steel stud in-fill walls. The interior of the walls are gypsum and the exterior is brick veneer all the way to the roof line or a combination of brick veneer and insulated metal panels. The roof is a low slope, membrane covered roof. The four classrooms, rooms 707 through 710, are wood framed construction with gable style roofs. These were added in the late 1990's as temporary classroom space. The evaluation focused primarily on the interior of the school.

Interior

The ceilings throughout most of the educational areas are acoustical ceiling tile. The tiles are fine fissured panels. The tiles are in fair condition with some staining. Most of the tiles are cupped or distorted, indicating excessive humidity issues. In general, the ceiling tile should be replaced in the next four to five years.

The floors are primarily covered with vinyl composition tile (VCT). The VCT is in good condition throughout the 700 and 800 wings, and other than regular cleaning and waxing, the floors need no further work at this time.



The interior corridor and interior partition walls are mostly painted CMU while the exterior walls are painted drywall and all appear to be in good condition.

Most of the windows in the 700 and 800 wings are double-hung windows. Most of the windows are over 20 years old and some are even beyond that. The windows are leaky in terms of air infiltration and some of the seals are starting to deteriorate. All the windows in these wings should be scheduled for replacement in the next two to three years. In some rooms the windows are set in a full height masonry veneer wall, while in other rooms the windows are set in the masonry veneer wall that extends to the top of the window, and has an insulated metal band above it up to the roof line. In each case, new windows of a similar size should be installed.

Many of the classrooms have built-in casework along the walls below the windows. Much of this is in poor condition and needs to be replaced. Rather than replace this casework in kind, it is recommended that any new casework be mobile and not fixed in place. A former chemistry laboratory now serves as an art room. Along the corridor and interior partition wall, there are long counters with epoxy resin tops, built-in sinks, and pull-out drawers below the countertop. These units should be left in place; however, the existing gas valves on the countertops should be removed and the gas line removed and properly capped. The gooseneck faucets with serrated nozzles, currently at each sink, should be replaced with a conventional faucet. In the corner of the room there is an eye wash station which is no longer needed for the art room and it should be removed.

The two bathrooms in the 800 wing, designated as 08 (G & B) should be updated with new finishes and fixtures. The bathrooms do comply with ADA in all but a few minor items, but overall upgrades are needed, including better air exhaust and fresh air make-up.

Rooms 707, 708, 709 and 710 as mentioned earlier, appear to have been added as a temporary measure to provide additional classroom space. The temporary nature of these classrooms has led to premature deterioration and failure of windows, roofing, and most of the finishes. Rather than invest in trying to refurbish this temporary space, the overall recommendation is to remove these classrooms from the school. New classroom space to replace these rooms can be provided in the existing courtyard area between the 600 and 800 wings. The courtyard can be in-filled to provide the needed classroom space similar to what was done for the Discovery Center.

Building Systems

The lighting consists mostly of ceiling mounted 2 x 4 recessed or surface mounted fluorescent fixtures throughout the two wings. The lighting is adequate for the short-term, but eventually the lighting should be changed to LED from the current and outdated fluorescent fixtures.

Heating of the classrooms is through unit ventilators mounted on the exterior wall below the windows or in some cases hung from the ceiling just above the windows. These units are beyond their useful life and should be replaced with an alternate heating source such as radiant ceiling panels as was done in a previous upgrade.

The school lacks cooling apart from window units in various locations. A central cooling system or a variable refrigerant flow system (VRF) could be installed in each classroom.

Recommendations

Short-Term

Repairs, renovations, and upgrades that should be completed within the next two to three years:

- Remove the existing unit ventilator heaters and replace them with radiant ceiling panels \$100,000 to \$125,000
- Remove the existing built-in casework and replace it with portable casework units \$25,000 to \$35,000
- Replace the existing window units with new energy star rated aluminum windows \$120,000 to \$140,000
- Remove portions of the interior gypsum on the perimeter walls, install blown-in cellulose insulation, patch the gypsum, and refinish the walls \$25,000 to \$35,000
- On the exterior, in all places not covered by masonry, removing the existing wall covering, add an air barrier membrane, and cover with insulated metal panels or EIFS \$120,000 to \$140,000
- Convert the faucets in art room to new conventional style faucets\$5,000
- Remove all existing gas valves and gas lines..... \$6,000
- Remove the eye wash station \$2,500



The expenditure required to address the above list is estimated to be between \$403,500 and \$488,500.

Mid-Term

Repairs, renovations, and upgrades that should be completed within the next five to six years:

- Replace all existing lighting in the 700/800 wings with LED pendant type lighting fixtures..... \$75,000 to \$85,000
- Replace all drop ceiling tiles in the 700 and 800 wings \$15,000 to \$20,000

The expenditure required to address the above list is estimated to be between \$90,000 to \$105,000.

Long-Term

Repairs, renovations, and upgrades that should be completed within the next 10 to 12 years:

- Build new classroom space in the existing courtyard between the 800 wing and the 600 wing, and demolish the temporary classrooms (rooms 707 through 710).

The expenditure required to address the above list is estimated to be approximately \$1,200,000 to 1,300,000.



Suspended ceilings are cupped and stained.



Wood framed, double-hung windows are nearing the end of their useful life.



Ceilings, windows, and unit ventilators all need replacement.



Permanent casework should be removed and substituted with portable storage units.



Former chemistry work stations along wall should remain for art class.



Ceiling mounted unit should be replaced.



Room 709 part of portable/temporary add-on classroom.



Existing courtyard could be enclosed for new classrooms.

CORPORATE OFFICE:

27 Locke Road
Concord, NH 03301
Telephone: (603) 228-1122
Fax: (603) 228-1126
E-mail: info@hlturner.com
Web Page: www.hlturner.com

BRANCH OFFICES:

26 Pinewood Lane
Harrison, ME 04040-4334
Telephone: (207) 583-4571
Fax: (207) 583-4572

P.O. Box 1365
75 South Street
Lyndonville, VT 05851-1365
Telephone: (802) 626-8233

100 Pearl Street, 14th Floor
Hartford, CT 06103
Telephone: (860) 249-7105
Fax: (860) 249-7001