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Leslie Architects
62 Whitford Street
Wakefield, RI 02879

Re: Compass School

Dear Nancy;

At your staffs request I have completed an inspection of sections of the "farm house" and the "barn" on the compass school property. Please note the following information.

The Farm House is a two story wood frame structure that has under gone a series of additions over time. The basement and a section of the oldest portion of the building were exposed and subject to inspection. A review of the framing supporting the second floor indicates that it was originally a post and beam structure. There was evidence of previous repairs and repeated "injuries" to the structure over time. It appears that most of the deflection in this area is due to settling of the main beam. The settlement is partially due to the repeated cuts made in the beam in an effort to repair the connections of the floor joists. The area appears to be structurally sound with the exception of several floor joists that have been toe nailed into the beam at some earlier date. **Option 1** is to identify the joists that are not properly connected and install joist hangers to insure proper connection. In addition one joist has dropped to the point that it is not in contact with the flooring material. I would suggest installing a new joist adjacent to this one that will properly support the floor. **Option 2** is to replace the existing timber beam with a new engineered lumber product and re-hang the existing joists to the new beam. This will result in a leveling of the floors and you may see some cracking in the flooring materials on the second floor.

A review of the basement indicates a number of wooden support posts on pieces of rock in the full basement area. The bases of all the posts appear to be rotting and there has been some insect damage. I recommend removing the wooden posts and replacing them with a steel column on a footing. In the crawlspace areas the beams are being support on stacks of stone and sections of logs. These need to be replaced with proper columns. The crawl space areas currently have a "dirt" floor with no vapor barrier. A vapor barrier was actually place on the underside of the floor joists over the insulation. The vapor barrier

should be removed from the joists and placed over the soil in the crawl spaces. It can be anchored with a couple of inches of clean sand.

Overall I find no significant structural defects in the building. My only other recommendation is to complete a pest inspection. There is no structural reason that the building can not be used for office and counseling space.

The Barn is a two story wood frame structure. According to the tax assessor it dates to 1805. The first and second floors were open and available for inspection. The main crawlspace hatch could not be accessed. The far right side of the building had a basement that was accessible through an exterior door. It appears to be in decent condition with the exception of insect damage to several of the posts and one of the beams. There have been some repairs to the second floor structure that were more cosmetic than structural. There were also several "unfortunate" repairs that need to be fixed. The one area of basement that was accessible was unusual. A contractor had come in and poured a concrete knee wall around a portion of the foundation and against the stones of the original foundation. An opening between this section of foundation and the remainder of the barn had been sealed up by a stud wall that was installed from the other side. The work appeared to be of high quality and the materials used in the construction of the first floor were in good condition and of a size that indicates the floor can sustain significant loads. What was odd was that some one had then installed single member engineered lumber beams (LVL's) at the mid span point of the joists and mutilated the ends of the beams so that the support was questionable.

In any event I recommend completing the following task to evaluate the barn for classroom space.

1. Get the hatch open to inspect the remainder of the first floor construction.

2. Complete an "as-built" of the building showing the location and size of the support beams, joists, and columns. I can use this information to establish the maximum loads the floors can support without reinforcement and determine what reinforcement may be required to allow for the proposed classroom use.

3. Get a pest inspection and treatment for affected members.

In closing it is my professional opinion that the barn is a salvageable structure and have not seen any significant structural issues as of yet. Should you have any questions, please contact this office.

Sincerely;

Craig R. Carrigan, P.E.