

*Report of Building Inspection & Code
Analysis - The Brown Church at 132 Main Street
Conway Village New Hampshire
Prepared for the Board of Trustees
Conway Village Congregational Church*

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Mr. Carl F. Vitters, President
Board of Trustees
Conway Village Congregational Church
132 Main Street
Conway, NH 03818

March 3, 2020

Dear Mr. Vitters and fellow Trustees,

Over the past few months we have spent many hours at the Conway Village Congregational Church performing our on-site inspection throughout the building. In addition to our on-site observations, we were provided and have reviewed the 1955 construction documents for the addition to the original building, with this information helping us to develop a better idea of how the building has become what it is today. While at the church we received (and appreciate) assistance from trustees, Rev. Hughes and Melody Bergman; assistance in understanding how they believe the building was constructed, how the building functions and how the building is used. Please accept this document as our initial analysis and report. We look forward to providing answers to specific questions that our work raises and in working with you and your architect to provide solutions to problems that have been identified and in making improvements that you want to accomplish.

General Building Description

The Brown Church has two distinct structural sections and due to the sloped condition of the site, two different building levels, both of which can be accessed from grade outside the building. The first structural section is the original building, the south building area beginning close to Main Street and running to the rear (north) wall of the Sanctuary. This original area, constructed circa 1906, comprises the main entrance beneath the bell tower and sanctuary at the upper or main floor level. At the lower level, the original building houses the Food Pantry rooms, "Henderson Room", storage rooms, restrooms and mechanical room. Construction documents prepared by Architect Maurice Witmer depict the 1955 addition at the rear or north end of the building, with this addition area comprised of hallways at the east side of both the upper and lower levels, the Fellowship Hall and kitchen at the upper level, and the meeting space, conference rooms and offices at the lower level.

The original building area is situated with its narrow axis parallel to, and its long axis perpendicular to, Main Street. The original building area is constructed of a wood structural frame supported by a foundation of stacked cut-granite walls and granite piers. Beneath most of the lowermost floor, both the original and the 1955 building areas, there is a dirt-floored crawl space, with the crawl space "floor" having been covered, likely in somewhat recent years, with polyethylene sheets. The mechanical room, located at the northwest lower-level corner of the original structure, has a cast-in-place concrete slab-on-grade floor with this floor being slightly higher in elevation above the adjacent crawl space areas. The crawl area beneath the Fellowship Hall can be accessed through an opening in the north wall of the mechanical room and the crawl space beneath the original building can be accessed through an opening in the south wall of the mechanical room. Once in the crawl areas, one can move from one to the other by crawling through various openings and over or under miscellaneous construction.

Structural Systems – Foundations

Original Building - The foundation beneath the original building was constructed entirely of dry-laid granite slabs, enclosing the perimeter footprint of the entire original structure. The foundation wall along the south gable end of the building, the wall that is parallel to main street, and the foundation beneath the main entry, extend from below grade (slightly below crawl space “floor” elevation) up to the underside of the floor assembly at the level of the sanctuary (upper) floor. These two original foundation walls serve a dual purpose: functioning as both the structural foundation wall and as a retaining wall for the higher exterior grade at this Main Street end of the building. Along the south foundation wall, towards the west, the high granite foundation continues west, beyond the building footprint, acting as a retaining wall to maintain grade along Main Street. At the interior of the foundation there are four large granite piers inside the crawl space, at the approximate midpoint of the narrow building dimension beneath the lowermost floor, with these piers supporting the center of the floor above. Along the south and west walls this original foundation appears to be intact, probably not having been modified since its original construction. At the north and east sides, the foundation appears to have been modified, likely when the 1955 addition was constructed, as sections of the foundation have been removed or otherwise displaced, with the granite sections remaining set aside in the crawl space.

The original granite block foundation was found to be in good condition throughout and despite its age and its dry-laid construction, the foundation appears to have survived the years quite well. We did not note any areas that need repair so if no new structural loads, vertical or lateral, are applied to the foundation, it should continue to serve the building into the foreseeable future.

The foundation beneath the 1955 addition is a 12” thick, cast-in-place concrete frost wall foundation. This foundation begins at the northwest corner of the original structure, at the corner of the mechanical room, constructed around the perimeter of the 1955 addition, terminating at the north wall of the original building’s foundation beneath the original building’s main entry and bell tower. Interestingly while reviewing the Maurice E. Witmer (Architect) construction drawings from 1955, we found the existing concrete foundation to have been a project revision as the original plan was to construct a foundation of concrete columns and beams supported atop concrete spread footings. This original foundation design would have left the underside of the building open, likely based on the knowledge that this area was in the flood plain, with the design intent being floodwaters would run beneath the building and not become encapsulated. Frankly the fully enclosed frost wall is a better configuration under most circumstances however during the occasional flood situation, the open concrete pier and support beam would have its benefits.

Regardless of its construction details, the 1955 concrete foundation was found to be in good condition throughout without need of maintenance or repair.

Structural Systems – Lower Level Floors – (See Crawl Space Configuration Plan for Additional Information)

There are two similarly constructed structural floor systems in the original building, one beneath the lower floor, just above the crawl space and the second being the ceiling/floor assembly between the lower floor, the food pantry for example and the sanctuary. Each of the two floor systems are constructed with a large center load carrying beam oriented from south to north with floor joists spanning from the east and west exterior walls to bear atop the center beam.

The **structural system of the lower level floor of the original building** was observed from the crawl area underneath. The floor framing system begins with three structural floor beams that are original to the building and another that has been installed somewhat recently, apparently to address an identified structural concern. *(Please see the Crawl Space Configuration sketch for visual assistance)*

Beam #1 is a 9 ¾" deep by 8" wide load carrying wood beam supported atop four granite intermediate posts and one smaller granite post at each end. This beam begins just inside the south foundation wall, spanning towards the north, terminating at the south mechanical room wall.

Beam #2, oriented south to north, located to the east of #1. This beam is a 6x6, supported on the south end by a small granite post and another granite block and at the north end by bearing atop a granite block that is part of the original foundation.

Beam #3, also oriented south to north, located close towards the east foundation wall, slightly out-of-parallel from the granite foundation. This beam is a 6x6 beginning approximately 3' in from the south foundation wall, bearing into the original granite foundation at its north end. At approximate mid span this beam has been reinforced by placement of a concrete block and wood "pier".

Beam #4, this beam is a recent installation, 6x6 pressure treated materials for both the beam and support posts, diagonally braced with an additional 6x6 PT. This beam is located towards the south west corner of the original foundation, spanning approximately 12' from just inside the granite foundation northward. Although no significantly deteriorated joists were noted above this beam it must have been installed to provide additional support to a floor area in need.

Above the beams, the structural floor consists of wood floor joists, generally full dimension 2" x 8 ½" lumber, believed to be eastern hemlock, which are oriented east to west, spaced at 16" on-center. The strength and stiffness of the floor joists are enhanced by the installation of 1" thick wood "X" bridging installed between the floor joists at approximate mid span. The floor sheathing atop the joists varies however the majority is rough sawn, random-width native boards, 7/8" to 1" thick, also believed to be of eastern hemlock.

The **structural system of the lower level floor of the 1955 addition** was observed from the crawl area underneath. The floor framing system begins with two structural floor beams that are oriented west-to-east, carrying the floor framing (joists) above. *(Please see the Crawl Space Configuration in appendix sketch for visual assistance).*

This first **beam, #5** on the configuration sketch, is located approximately at mid-span between the northernmost east-to-west foundation wall and the north wall of the original foundation. This beam bears into the concrete foundation walls at its east and west ends and atop four intermediate concrete columns or piers along its span. **Beam #5** varies in construction from end to end having been "built-up" of wood members of different sizes. Interestingly, like the foundation supporting the 1955 addition, the wood beam appears to be a deviation from the original construction drawings as the 1955 Witmer drawings indicated the various beam sections to be of structural steel. The first section of beam #5 spans from the west foundation wall, easterly over the first concrete pier, ending at the second concrete pier. This first beam section was constructed as a 10" wide x 11 ¼" deep wood beam, laminated of a single 4x12 and (four) 2x12s. At the next span, between the two center concrete columns, the beam was built-up of two (two) 2 x 12 laminations with a 3 ¾" spacer in-between. The final span, from the third concrete column, over the fourth column and into the east foundation wall, is constructed of a lamination of (six) 2x12s.

Beam # 6, another built-up beam, this one constructed of six (6) 2x12s is located beneath Melody's office, also spanning in an east to west orientation with the west end being in alignment with and very close to the original granite foundation's northeast corner. **Beam # 6** is supported near its west end by column #5 and from that column, clear spans easterly to bear into the concrete foundation at its east end.

Above the beams, the structural floor consists of wood floor joists, nominal dimension 2 x 12s possibly western hemlock or douglas-fir, oriented north to south, spaced at 16" on-center. Similar to beneath the original building, the strength and stiffness of the floor joists are enhanced by the installation of 1" thick wood "X"

bridging installed between the floor joists at approximate mid span. The floor sheathing atop the joists is 1x5 tongue and groove pattern, eastern hemlock boards installed diagonally across the top of the floor joist.

Inside both crawl areas, the original and the 1955 area, there are environmental conditions, improvements and equipment that have affected the condition of the structural floor system:

Airspace Area Inside the Crawlspace - Along the original building's south foundation wall, at the southwesterly corner, the distance from the soil (floor) of the crawl area to the underside of the joists is approximately 2.5' -3.0'. To the east, towards the area beneath the bell tower, the distance from the soil to the underside of the joists is substantially less, in places perhaps as close as 1.0'. Farther north in the crawl area, towards the mechanical room and at both the east and the west sides of the original building, the distance from the soil to underside of joists again increases, perhaps to slightly more than 3.0'. Also, towards the north end of the original crawl area there are permanent openings into the mechanical room and into the 1955 crawl space. These openings provide ventilation of the northern section of the crawl space which the southern end does not have and the increase in dimension between the "floor" and the underside of the floor framing is beneficial as the deleterious effect of inherent soil moisture on the wood floor structure is significantly reduced.

Inside the crawl space beneath the 1955 building, the distance between the "floor" to the underside of the structural beams and floor joists is at least 3.5' in most areas up to almost 6.0' in other areas. As explained above, the additional air area between the crawl space floor and the wood members above is beneficial.

Water Intrusion – As described earlier the granite foundation along the south wall and along the east wall in the area of the accessible ramp and for a small (southernmost) section of the west wall, are almost entirely below finished grade (ground level) outside the building. Ground water from outside the building infiltrates through the lower sections of the foundation in these areas, exposing the wood structural components that are or were in contact with the foundation to deleterious moisture. Beneath the 1955 area of the building there were no signs of water infiltration noted.

Soil Capillary Action – For most of the building's history the soil "floor" inside the crawl area was fully exposed which allows moisture from within the soil to vaporize into the crawl space. Somewhat recently the floor has been covered with sheets of polyethylene, apparently to reduce the moisture levels in the crawl area. The installation of the polyethylene was an excellent idea as there's a lot of water vapor condensed under the poly sheets throughout the crawl areas. Additionally, there are two Therma-Stor Santa Fe Force dehumidifiers installed in the crawl areas, one beneath the original building and the other beneath the 1955 area. This equipment helps significantly in the removal of airborne moisture from the crawl spaces, thereby helping to keep the wood structural members dry.

While considering the overall area, the actual square footage of structural wood floor beams, joists and sheathing, it's impressive that the majority of the structural floor system is in good condition. There are some deteriorated areas, some substantially deteriorated, that need to be addressed.

- 1. Along the south end of the original building, from just inside the granite foundation wall to one or in some cases two joists inward towards the north, the joists are in (from west to east) fair to entirely rotted condition and in some places, the joists are completely gone, having rotted away. The overall deterioration affects the joists and floor sheathing and, in all likelihood, the lower portions of any walls directly above these areas.***

2. ***Along the easterly side of the original building's crawl space area, the outermost floor joists, sill and associated floor sheathing is in varying stages of deterioration. Some areas are in fair condition and others, similar to as described in # 1 above, are generally gone.***
3. ***Sections of the main floor beams, # 1, 2 and 3 are in advanced deteriorated condition, generally the first few feet inward from the south granite foundation. Beam # 3 was also noted as somewhat deteriorated along its entire length as it runs along the east foundation wall.***
4. ***Repair and replacement of the beams and joists noted in 1 -3 above is necessary and when areas are "opened up" to expose and repair these areas, additional deterioration is probably going to be found and will therefore need to be addressed.***
5. ***The rim joist at the east exterior wall (the corridor wall) is moderately deteriorated in a few areas and will need replacement or repair. Finished exterior grade outside this area also needs to be improved.***

Structural Systems – Upper Level Floor/Ceiling Assemblies

Opportunity to inspect the floor/ceiling assemblies between the lower and upper floor at both the original and 1955 building areas were very limited as most of these assemblies are enclosed in building finishes.

In the **original building**, the framing members could be observed through a small opening in the ceiling at the southwest corner of the building, the corner towards the former jewelry store. The floor joists were noted as full dimension 2 x 8's, likely eastern hemlock, spaced at 16" center to center spacing, oriented west to east. At the east and west ends, these joists bear into the south to north exterior walls and at the center, atop a load carrying center beam. Floor sheathing atop the joists is rough sawn, 7/8" to 1" thick lumber. Somewhat similar to the floor construction beneath the lowermost floor, there is a 9 1/2" deep by 8" wide wood beam running north to south beneath the center of the sanctuary floor. This beam, which is located (vertically) in line with the beam in the crawlspace below, appears to span from a steel column just inside the south exterior foundation wall to the south wall of the mechanical room. The beam is reinforced with a steel tension rod and compression blocks installed beneath the beam, a common type of "old school" structural beam strengthening. Most of what we feel we know about this beam is based on what we observed of another similar beam located in the crawl space beneath the original section of the building. This beam carries one-half of the floor load of the sanctuary above so at times, this beam is heavily loaded. At some time after the church was originally constructed, a partition was built at the lower level, immediately beneath this beam. Steel lally columns were installed in this wall, bearing down through the floor, directly over the granite piers in the crawl area beneath with the obvious intent being to provide additional support to this beam and transfer vertical loads downward to the beam and posts in the crawl space below.

In the **1955 addition**, the components that make up the floor-ceiling assembly between the lower and upper levels could only be observed in one location, where the finishes had been removed from the southwest corner of Melody's office apparently due to water damage. The floor joists in this area were observed to be 2 x 12 running north to south with 2x4 strapping installed on the underside of the joists, running perpendicular to the joists span. The floor sheathing is 1x5 eastern hemlock tongue and groove boards oriented diagonally to the floor joists.

1. ***No concerns were noted of the ceiling/floor system between the lower and upper levels of the 1955 building.***
2. ***The main center carrying beam which supports the floor assembly of the Sanctuary was an expressed concern of the Brown Church Board of Trustees. It is our understanding from conversation, and supported by our observations, that additional lally column supports and an interior wall have been constructed beneath this beam, likely to reduce the beam's span and provide additional support for the Sanctuary floor above. As most of this beam is now encased in building finishes, except for the south end***

in the storage room, observing this beam and any structural failings is not possible without removing building finishes. The beam can be observed at the south end within the storage room at the lower level, and when viewed down its length from this area the beam appears crowned upward towards mid-span which actually is beneficial. The support of this center beam at its south end needs improvement as we don't believe there's positive connection of the beam to the foundation which has allowed the supportive column and beam to move. Consideration should be given to opening interior wall and ceiling finishes in a few areas to expose other areas of this beam to better determine its condition and plan for any improvements if needed.

Structural Systems – Load Bearing & Non-load Bearing Walls

The exterior walls of both the original building and the 1955 addition are constructed of common wood framing, 2x4 and 2x6 wood studs, spaced 16" on-center.

The exterior walls of the **original building** are "balloon framed" which means the studs begin at a heavy wood sill beam placed atop the foundation and run (upward) full-length to the top plate, the horizontal member at the top of the walls where the roof system begins. In balloon framing, the floor and ceiling joists are usually nailed to the sides of the studs or to a ledger applied to the face of the studs. Balloon framing came about in the late 1800's to early 1900's when sawn dimension lumber became readily available which caused wood building construction to move from heavy-timber post and beam frames to "stick built". Balloon framing fell out of favor quickly however as the vertically continuous stud bays and interconnected open spaces between the floor systems allowed structure fires to quickly rage throughout a building. When a fire begins in a balloon frame, each stud bay acts like a small chimney, drawing air in at the bottom which aids combustion and helps the fire to move quickly upward. Additionally, floor joist bays that open into the stud bays allows fire to move horizontally through the building. Balloon framing is not allowed by modern building and fire codes.

The exterior walls of **1955 edition** were constructed using the "platform framing method", the wall construction method that most of us are familiar with today. In platform framing, horizontal "plates", usually 2" (nominal) thickness dimension lumber, are secured in position with floor and wall assemblies constructed upward from these plates. The wall stud bays and each floor of a platform framed building is closed off from the next level. This construction method allows, for example, the first floor to be constructed, a plate secured around the perimeter, and then the exterior walls are constructed lying atop the floor as if the floor were a large workbench. When the first floor walls are complete, sometimes to the point where the exterior windows and even some trim have been installed, the whole wall, as an assembled component, is stood up and secured into position and then the next floor or the roof assembly constructed. The platform framing method is faster and safer for the workers and constructs an overall safer building as the "chimneys" within the stud bays don't exist as each stud bay ends at the next floor level and the floor joists are not open into the walls, preventing the horizontal movement of heat and flames. At the church's interior, the south-to-north oriented wall between the Sanctuary/food pantry and the upper and lower halls is also balloon framed as originally, this wall had been the east exterior wall of the original building.

Where we could observe **wall sheathing**, we found the original building's exterior walls to be sheathed with 1 x10 (rough-sawn) horizontal wood boards and the exterior walls of the 1955 addition to be sheathed with 1x5 (nominal) wood shiplap boards.

- 1. The lower sections of the lower level exterior walls at the southeast corner of the building (the area behind the accessible ramp) and along the front (south) wall are areas of concern. We know with certainty there are several places in these areas where the floor joists and floor sheathing have***

deteriorated badly. We feel there will be similar deterioration of the lower sections of the wall structure in these same areas.

- 2. The original building's north gable wall became an interior partition between the original and "new" building when the 1955 addition was constructed. When the 1995 addition was constructed the exterior siding, trim and sheathing was removed from the original gable-end wall, therefore reducing its overall integrity. We don't feel the wall became or was made structurally unsound as frankly it supports almost no load other than itself, but the removal of the exterior materials may be what caused or is causing the plaster inside the sanctuary to pull away from the framing beneath.*
- 3. Both south-to-north sanctuary walls, the two long walls that support the roof, need attention with the west wall being much worse than the east. At the lines of the five roof bents, the top of the west wall has splayed outward, at some locations significantly. For example, at the third bent northward from the south end of the sanctuary, the top of the wall is leaning outward, 2" horizontally in 72" vertically, close to a 4" outward lean overall. Some of this lean may have been there from the days of original construction, we have seen this in other old buildings, however we are concerned the roof bents are not providing the intended horizontal wall-to-wall connection that is necessary.*
- 4. The sill member of the walls around the mechanical room are supported by cripple (short) studs bearing atop granite slabs, an unusual configuration that accommodates the lower floor level of the mechanical room. The cripple studs on the south wall have rotated, causing the base of the wall to bow into the mechanical room.*
- 5. While performing our inspection we noted a separation at the ceiling/wall/carrying beam at lower level at Ministers office. We were unable to determine a cause so, frankly, would like to hear if anyone knows when this first appeared, and this condition should at least be monitored.*

Structural Systems – Roofs

The different building areas inside the Brown Church are beneath an array of roofs. Two of the roofs are above the original structure, the Sanctuary roof and the bell tower roof. The 1955 addition is beneath three separate roof areas, one above the Fellowship Hall, one above the kitchen and the third being the roof above the hallways.

The roof atop the sanctuary is a steeply sloped gable structure. At the interior, the sanctuary roof is an attractive cathedral configuration with the underside of the wood decking exposed as the interior ceiling finish. The structural roof components consist of 3x5 wood rafters at 40" center-to-center spacing with every third rafter having been built into a heavy timber (in appearance) structural bent. In addition to adding wonderful aesthetics to the building these bents perform the task of connecting the east and west exterior walls, preventing the walls from splaying outward. The structural components that make up both the bents and the rafters were "wrapped" in stained finish lumber, preventing us from determining what the structural components are however, considering the age and location of this building we feel the rafters are either of eastern hemlock or eastern pine. The bents will also have been constructed of one of these native woods however, steel elements or engineered wood components may be concealed beneath the finish carpentry "wrap" at the bents as structural steel materials and in recent years, engineered wood components, were often used to add strength to major structural building components.

When viewing the sanctuary roof from the exterior, we noted this roof appears to have been "built up", meaning some material appears to have been applied to the outer surface of the original roof making the overall roof "thicker". We suspect the "build up" is rigid insulation, applied to the roof deck before the installation of the existing metal standing seam roof. We've seen this on other buildings and frankly it is a reasonable way to accomplish insulation of a roof that otherwise was totally uninsulated.

The roof above the bell tower is constructed of steeply-sloped 2x6 wood rafters horizontally sheathed with 1" rough-sawn boards and was noted to be a wonderful example of hand-crafted carpentry. We are always amazed when we see the joinery and craftsmanship that was accomplished high up in the air using only hand tools.

The roof above the Fellowship Hall is constructed of 2x12 wood rafters placed 24" on-center, connected at the ridge to a 2x12 wood ridge board. The ceiling joists are 2x8 wood joists at 24" on-center, which provide the structure for the ceiling assembly and also provide a wall-to-wall lateral connection that prevents roof load from splaying the exterior walls outward. The 1955 Fellowship Hall roof includes a section that is an extension of the Sanctuary roof, constructed to connect the original to the "new" as part of the 1955 addition. This roof extension intersects into the south side of the Fellowship Hall in line with the roof of the original building. This roof extension is constructed of the same materials as described above for the roof atop the Fellowship Hall.

The roof over the kitchen is shallow pitch shed configuration, bearing onto the south slope of the main gable roof atop the Fellowship Hall. Within the roof assembly above the kitchen, there is a field-built truss header where the Fellowship Hall roof and kitchen roof join with this header spanning from the wall of the hallway to the eastern exterior wall. The rafters of this shed roof are 2x8 wood rafters spaced 16" on-center as are the ceiling joists beneath.

The roof system above the hallways could not be viewed as it is enclosed in finishes and there is no access into this space.

The various roof structures atop the church all appear to be in good structural condition however, the significant outward splaying of the west sanctuary wall and the much less significant outward splaying of the east sanctuary wall are at least partially the result of some movement of the main sanctuary roof bents. A plan should be developed to further evaluate this condition, even if the plan is only to monitor and document over a period of time. Otherwise, the structural roof components appear sound and adequate for the foreseeable future.

General Building - Exterior

Like the interior, except for the steel roof materials, many of the exterior finishes are probably original to the building. When we are considering exterior finishes, both for our new projects or what to do with an existing building, there are several important criteria but none more important than the materials ability to keep water outdoors. "The outdoors needs to stay outdoors". While working our way around the exterior of the church, we noted some areas of concern.

1. **The cedar shingle siding is generally in poor condition and in several areas is severely deteriorated and falling off the building. Some specific areas of note are:**
 - **In the immediate area of the diverter roof over the ramped entry door on the east side of the bell tower.**
 - **Above the main entry, where the entry roof connects back into the front wall of the steeple.**
 - **Where the eave over the main entry doors meets the south gable wall of the sanctuary.**
 - **At the north wall of the Fellowship Hall in the general area of the fire escape stair.**
 - **At the north wall of the lower level of the 1955 area, where the exit door from the hallway goes out onto the concrete landing.**
 - **Around the lower courses of shingles, and the base of the walls around much of the building, but more notable along the westerly side. Particular attention should be paid to the area where the lower level of the wooden westerly eave wall intersects the granite block foundation and retaining wall.**
 - **It's very likely the shingle deterioration has allowed water infiltration into the wood components beneath which, when this happens, doesn't often dry and leads to the development of encapsulated rot.**
2. **At least some of the exterior trim components of the ventilation louvres in the steeple are going to need to be replaced, mostly noted where vertical trim pieces intersect the steel roofing.**
3. **At least the windowsills but in a few cases, the vertical casing also, of the small windows located on the face of the steeple walls, will need to be replaced.**
4. **Many of the lowermost louver "slats" at the steeple louvers will need to be replaced. The lowermost slats rest atop the steel roofing which likely encapsulates debris, snow and ice leading to moisture deterioration. In addition to the moisture deterioration, some of these slats are completely broken horizontally.**
5. **The double-hung windows at the westerly lower level appear to be the original wood frames and trim with the sash having been removed and vinyl inserts installed. After replacement of a few wood exterior components, these windows could be scraped, caulked and painted or, if improved energy efficiency is desirable, these windows could be replaced with new insulated, vinyl clad double hung windows.**
6. **The leaded stained-glass casement windows at the sanctuary are wonderful examples of historic work that can be salvaged but need some skilled maintenance. As operable casements, the windows do not appear to be functional any longer as at the exterior, glazing panels have been installed over the windows, likely to improve energy efficiency. A few have cracked pieces of glass in the various windows and the windows are bowed inward and outward but generally are salvageable. New comes, improved cross bracing and replacement of broken glass pieces could allow these windows to remain another 100 years.**
7. **The remainder of the windows throughout the building are in areas that were portions of the 1955 work. The present windows appear to be replacement vinyl inserts that are in good condition.**
8. **The roof surface material consists entirely of standing seam metal roofing, which appears to have been applied over pre-existing roofing materials. The installation appears to have been well done originally, and with a few exceptions, the roofing was generally noted as being in good condition.**

- The area of greatest exception is at the valley, the intersections of the roofs over the Fellowship Hall/Kitchen and the Sanctuary/Hall. The roof in this area leaks and we believe this to have been ongoing for some time as there is an attempt at a roof patch in this location and even the patch is showing signs of age. EDPM roofing has been applied over the metal roofing at the valley. This may have provided a temporary fix, however, inspection of the patched area showed that the seams around the edge of the EDPM material in multiple areas, specifically on the upslope side of the EDPM patch, to have separated from the metal roofing creating a condition where water is probably running under the membrane roofing material, and then is trapped between this material and the metal roofing beneath. Once the water is entrapped between the two materials, it is very likely it will find its way into the building, quite possibly the very breach the patch was attempting to fix in the first place. To worsen this situation, leaf litter, pine needles and other debris were wedged between the EDPM material and metal roofing at the seam at the valley, lifting the EDPM up and providing a significant opening for water to flow under the material. As mentioned in the General Building Interiors section, it is this leak that we believe to have caused significant damage to the finishes in the upper hallway and in the southwest corner of Melody's office.
 - A plumbing vent penetrates through the roof at the southeast corner of the shed roof, above the corner of the kitchen. This is a small copper vent pipe, enclosed inside a larger metallic sleeve that had been secured to the steel roofing. The straps securing this sleeve in place are broken or otherwise have pulled away. Sooner or later, the sleeve is going to sheer off at its base, leaving a 4" cylindrical hole through the roof.
 - A second plumbing vent penetrates through the roof slightly downslope and to the east of the chimney. There are signs that this vent has leaked occasionally so it should be improved at the roof exterior. Before improving the penetration through the roof, consideration should be given to improving the vent itself, changing it to a larger diameter vent that will better serve the plumbing system.
9. The attachment of the weathervane to the spire needs attention. The base of the true weathervane appears to be held in place by gravity, the larger cylindrical mid-base having a hole in its center that friction fits down over the vertical steel pivot rod. The base (pivot) rod, the N-S-E-W indicators and the decorative base sphere beneath are all secured to a cap that's attached to the tip of the spire. There is, we believe, a continuous connection down through the tip of the spire which we are trying to confirm but first have to attain access into the higher reaches of the spire. The overall attachment has worn and deteriorated over the years, causing the Old Man to list; the wind coming out of the east at all times.
 10. As explained earlier it's important to keep water out of the building and "building" includes various building components. The brick chimney provides venting for two pieces of equipment, the oil-fired boiler and the oil-fired furnace. Above the roof, the brick masonry is in poor to fair condition, with the reason for the deterioration being a chimney cap that is in an advanced state of deterioration and therefore allows water to penetrate the chimney.
 11. The roof trim at the gable-end ventilation "dormer" atop the Fellowship Hall needs attention, particularly where the "rake" trim intersects or comes very close to the surface of the north roof slope. At the east side of the dormer this trim is rot deteriorated. At the west side, unknown vermin have chewed through the trim to nest indoors in the attic. We know this as we found the nest in the attic.
 12. The church is protected from lightning strike by a lightning rod system that is installed on all appropriate areas of the roof and roof structure. We suspect the system was in place before the steel roofing was installed and possibly removed and reinstalled by the roofing contractor. In New Hampshire, lightning rod systems are required to be installed, serviced and reinstalled by contractors that are licensed through the New Hampshire Dept. of Safety in accordance with the requirements of the NFPA 780 Standard. As part of the upcoming improvements, we recommend a lightning protection contractor inspect, service and repair the system as necessary as in many places the conductors are no longer attached to the building and we question the condition and capability of the overall grounding system.

- 13. The fire escape stairs located at the north east corner of the building appear generally sound but should certainly only be used for emergency exit purposes and as part of the overall improvement project, these stairs should be replaced with a properly designed and constructed covered exit stair that meets the requirements of both the State Building Code and the State Fire Code.**

General Building - Interior

During our inspection we have moved throughout the building over a period of months which provided opportunity to observe the general condition and at times, provide a second opportunity to see things that we may not have noticed earlier. A few common themes developed:

- 1. Much of the building appears to be “original” in that the interior finishes probably have not been updated or changed since first installed. The finishes have stood the test of time well in many of the areas of the addition, but many need repair and replacement in the original structure. Most of the original building wall and ceiling finishes were of lath and plaster, with wood tongue and groove beadboard panel wainscoting, trimmed with wood baseboard molding and chair rail trim. There are areas in the original building where the original finishes have been replaced with newer materials, such as in the upper level entry and on the lower level within the food pantry rooms and the restrooms.**
- 2. There is significant cracking, displacement and general deterioration of the lath and plaster finish where it remains. Significant damage and deterioration were noted over the double doors on the easterly eave wall of the sanctuary and on the north gable end behind the altar. Repairs and patching of the plaster finish has been performed in a few areas and in other areas, it appears the lath base has detached from the wall framing, leaving the plaster to be free-floating as it bulges away from the supportive surface beneath. To varying degrees, this was noted on all four interior walls of the sanctuary.**
- 3. The lath and plaster finishes remain on the perimeter walls of the lower level south storage areas (excluding the room under the bell tower) and within the mechanical room. In all areas the wall and ceiling lath and plaster are cracking, peeling, and in some areas, we noted exposed and broken lath.**
- 4. Throughout the building there are various ceiling finish materials in place. Lath and plaster as mentioned previously, gypsum, suspended acoustical ceiling tiles and Celotex tiles are installed in various locations throughout the building.**
- 5. There is significant damage to the ceiling and wall finishes at the upper hallway, to the left of the electrical panel, as well as in the southwest corner of Melody’s office. A roof leak, which appears to be an ongoing problem, has caused water damage to these areas with the deterioration continuing. In Melody’s office the suspended ceiling tiles are water damaged to the extent that some are warped and no longer can be placed in the ceiling grid with the adjacent wall experiencing similar water damage deterioration.**

Hazardous Materials

While performing building inspections we always try to note hazardous or potentially hazardous materials. During our time at the church we noted that the conference room floor on the lower level is surfaced with 9x9 floor tiles, a material that commonly tests positive for asbestos, as does the mastic that secures the tile to the subfloor beneath. We noted these tiles only in the conference room, but they may also be present in other locations as in older buildings we often find these tiles under carpeting and at times even beneath wood flooring. Ceiling tiles are another common material that may test positive for containing asbestos. Having noted these materials, we worked with our hazardous materials consultant, Desmarais Environmental from Barrington N.H. with Desmarais performing both an asbestos and lead paint investigation. Their findings are explained in detail in reports that are appendices to this document however, in summary, both asbestos containing and lead surfaced materials exist in the building and are cause for concern.

As noted in the Desmarais report, asbestos fibers are very small and lightweight and when or if disturbed asbestos fibers often become airborne and can remain "floating" for hours. The plaster wall finishes in the Sanctuary, the ceiling of the mechanical room and the floor tile in the conference room all tested positive for Chrysotile asbestos. Regarding lead sampling, the wall paint in the Sanctuary and at several exterior window and door trim components tested positive for lead based paints.

Bergeron Technical's immediate concern is the asbestos containing and lead painted plaster in the Sanctuary. As noted in the *General Building - Interior* section of this report, the plaster is substantially deteriorated and coming unattached at several locations in the Sanctuary. The deteriorating plaster could, at times, be releasing asbestos fibers into an airborne state and we are concerned that the hot-air heating system may actually help to keep the asbestos airborne and worse, distribute asbestos via the circulating airstream. As for the lead painted materials, appropriate "lead safe" practices must be implemented at all times when painted surfaces or materials are disturbed during renovation or repairs and if some of these materials are going to be left in place, the leaded surfaces should be appropriately encapsulated to prevent the leaching of lead from the painted surfaces or to prevent lead containing paint chips from falling away from the surface the paint was applied to.

NOTE: Please see the February 2020 Asbestos Survey Report from Desmarais Environmental and the Lead Survey Report from Marc Elbaum, both within the appendices section at the end of this report.

Electrical System

The electrical system at the church is a single-phase 120/240-volt system, the typical type of electrical system for a small commercial occupancy. The electrical system begins as overhead service with conductors running from a utility pole at the north side of Main Street to a utility pole on the west side of the property. At this second pole, the electrical service converts from overhead to underground, with service laterals, running to the exterior lower west gable end of the 1955 addition. At the gable end, the underground service laterals terminate at a double, 200-ampere (single meter) exterior disconnect. From the exterior disconnects, two sets of feeder conductors run into the building, one set of feeders to each of two primary interior distribution panels.

- The first panel fed from an exterior disconnect is in the lower level hall outside of Melody's Office. This is a somewhat older, but still serviceable, 42 breaker space, Square-D (brand) panel. This panel provides power to an array of branch circuits and to two other sub-panels located further into the building,
- The second panel fed from an exterior disconnect is identical to the one described above, this one in the upper level hall at the top of the dog-leg stairs. This panel provides power to additional branch circuits, generally duplex outlet and lighting circuits.
- The first sub-panel that is supplied power from the lower level panel near Melody's Office is located at the top of the straight stairway in the main entry. This panel is an old, twenty breaker space, Square-D brand panel and while not believed to be "original", this one is much older than the panel that this one is fed from. This panel provides power to duplex outlet, lighting circuits and, according to markings on the panel, the fire alarm control panel.
- The second sub-panel that is supplied power from the lower level panel near Melody's Office, is in the southern storage space at the lower level, beneath the bell tower. This panel is another Square-D brand panel, 30 breaker space, with close to one-half the breaker spaces remaining available. This panel appears to be a very recent installation, supplying power to an array of duplex outlets and lighting.
- Note for the future – the church is identified by the both the building and fire codes as an "assembly" occupancy. As such, all electrical wiring methods need to be either metallic-clad cable assemblies, known in the trade as "MC" or can also be individual conductors installed in metallic conduit. Additional "Romex", NM or NMB conductors cannot be installed in the building and wherever possible, exposed conductors that are not code compliant that are affected by ongoing work should be removed and replaced with appropriate code compliant conductors.
- Additional note for the future - Depending on future building improvement plans, the electrical service and distribution panels may be able to stay as they are however, the installation of central air conditioning, for example, may require the electrical system to be upgraded. As planning moves forward, electrical usage records for the past five years should be reviewed which is the best way to identify electrical demand. With the historical knowledge of electrical demand, it's much easier (and accurate) to determine if electrical service upgrades are going to be necessary.

Above each of the two primary sub panels, the one outside Melody's office and the one above it at the main floor level, are junction boxes mounted in the wall with high-to-low-voltage transformers located above each of these supplemental electrical boxes. These transformers reduce the 120-volt power down to 24 volt which goes to a series of low-voltage switching and relays, controlling lighting throughout the 1955 building.

Interestingly while we were in the bell tower, we found remnants of what we believe had been the original electrical service for the building which would have been an overhead service to a distribution panel possibly located in the bell tower. Without question the electrical system has been upgraded since the first system was installed with some of the upgrades likely having been part of the 1955 work and others being more recent.

The following electrical system items were noted as needing to be addressed with the list being in the order of importance.

1. The grounding electrode system at the service equipment should be further inspected to make sure there are at least two grounding electrodes that are properly connected and adequately spaced apart from one another. Bergeron Technical can do this in the spring.
2. There are multiple open junction boxes that were noted throughout our inspection in various locations in the building. Some of the locations noted include boxes located at the ridge of the ceiling in the sanctuary and next to the door in the Sanctuary anteroom.
3. In the bell tower there are “floating” junction boxes and non-secured “romex” conductors that need to be secured to the structure.
4. In the attic area above the Fellowship Hall we noted several electrical boxes without covers, electrical conductors that are not appropriately secured/fastened in place and conductors that are hanging with their ends taped. All should be corrected.
5. The two primary sub-panels need to be “cleaned up” by a licensed electrician. At the very least, missing knock-out covers should be capped, all circuits properly identified on up-to-date sheets inside the panel covers and consideration should be given to improving the conductor installations between the panels and the low voltage equipment mounted adjacent to the panels.
6. Although identified “FA” which we believe to mean fire alarm, we don’t believe the 30-ampere breaker marked as such, in the old sub-panel atop the main entry stair, is actually powering the fire-alarm panel. Frankly it shouldn’t be as this is a 30-ampere single-pole breaker, far greater than what’s needed or should be installed to supply the alarm panel. Additionally, we are not sure the conductors attached to this 30-ampere breaker are adequately sized for 30-amperes.
7. We believe the breaker labeled “Fire Alarm” in the panel in the lower level storage area to be the true power supply to the alarm panel. This breaker should be changed to a locking circuit breaker as required by the Fire Alarm code.
8. In the lower level meeting room, we noted several electrical receptacles without cover plates. Any receptacles or other device boxes that do not have cover plates need to have plates installed.
9. The lighting controls in the 1955 areas of the building are low-voltage (24V +/-) as compared to today’s lighting controls which for this system, would typically be “line voltage” (120V). In the three decades of performing commercial building inspections, this is the first low voltage lighting control system that we have seen. From some electrical history research, we found low voltage lighting controls came about in the late 1940^s into the late 1950^s, marketed by companies like General Electric (GE) and Pass & Seymour, companies that both still are in business. Low-voltage lighting controls were marketed as “high end” in terms of technology and quality, with the primary marketing points being safety as the voltage was low, convenience as lighting could be controlled more easily from various locations, and less expense as low voltage conductors and components were, at that time, less expensive to install. While at the Church we tested the functionality of a lot of these controls and took apart a few device boxes to see how the system is installed. All that we tried were functioning as they should be and can remain as is. In the future, when improvements or building modifications are made, all switching should be converted to current standards and devices.

Mechanical Systems & Mechanical Room

The significant components of the building's mechanical system are in the mechanical room, accessed from the food pantry's west entrance on the lower level of the building or through an exterior door at the lower level west (exterior) wall. From either the interior or exterior access, one has to move down a small set of steps as the floor of the mechanical room is located approximately 28" below the adjacent food pantry floor, and approximately 15" above the crawl space floors beneath the Sanctuary and the 1955 addition. There are significant openings through the walls of the mechanical room which allow access into both the 1955 and Sanctuary crawl spaces.

The mechanical room contains the following mechanical equipment:

- One Thermo-Pride 312,500 BTU oil-fired hot air furnace with a Beckett burner
- One Burnham 203,000 BTU oil-fired boiler with a Beckett AFG burner.
- One Rinnai RL75 on demand propane fueled hot water heater

The first component in the buildings heating system is a model MP0231-TB Burnham boiler that provides hot water for hydronic heating throughout most of the building, the exception being the sanctuary. This boiler was manufactured in 2007, is oil fueled and rated at 203,000 input BTU. This boiler supplies heated water to five separate zones, four heat zones and one (discontinued) that's marked "hot water" which may have been an indirect domestic water heater that has been removed. Heated water is moved through the zones via a Taco cartridge circulator, each zone thermostatically controlled with the thermostats actuating a Taco zone valve. Heat distribution is through an array of uninsulated copper tubing that supplies water to baseboard hydronic heat. Control of the heating zones is via wall mounted thermostats, one in Melody's office, one in the lower level meeting room, one in the food pantry and one in the Fellowship Hall.

The second component in the buildings heating system is a 312,500 input BTU, model OL37-250, ThermoPride hot-air furnace equipped with an oil-fired Beckett burner. This furnace provides hot-air heating for the sanctuary area of the building by moving heated air through galvanized metallic ducts that run from the mechanical room into the ceiling/floor assembly between the lower and upper building levels, discharging heated air into the Sanctuary through seven registers in the floor, three along the west exterior wall and four along the east (corridor side) wall. Return air moves back to the furnace through galvanized metallic duct, beginning at three vertical intake grills mounted on the lower "face" of the alter.

Fuel oil for both the boiler and the furnace is stored in three 275-gallon horizontal oil tanks located at the northwest corner of the 1955 crawl space beneath the Fellowship Hall. The tanks are installed side-by-side, supported by short steel legs bearing atop 8"x16"x4" solid concrete blocks. Individual fill pipes deliver oil into each tank with tank pressure being maintained through a manifolded configuration; the vent from each tank connected to a common vent pipe leading to the exterior of the building.

Domestic hot water is heated by a direct vent, Rinnai RL75i instantaneous tankless water heater. This is a modulating unit in that it can fire at 10,300 BTU when there is a small demand for hot water, or it can fire at 180,000 BTU when the demand is greatest. The water heater is mounted on the exterior west wall of the mechanical room with the vent and combustion/ventilation air pipe running through the wall, directly to outdoors.

In addition to the major components of the mechanical system located in the mechanical room, there are miscellaneous pieces of smaller equipment installed in various locations throughout the building. These include through-wall air conditioning units, one in Melody's office and another in the small meeting room, a wall cabinet

dehumidifier located in the chair storage area at the west end of the Fellowship Hall, and two dehumidifier units located in the crawl spaces, one under the Fellowship Hall addition area and the other under the Sanctuary are of the original structure. Regarding the crawl space dehumidifiers, these are Therma-Stor (brand) Santa Fe Force units that were properly installed and appear to be working well. Keeping the crawl spaces dry is an important factor that will lead to the longevity of this building and the health of its occupants. The dehumidifiers are key components of that effort.

The following mechanical system items were noted as needing to be addressed with the list being in the order of importance.

1. **The draft regulator in the vent connector for the furnace is stuck in position and needs to be repaired or replaced. Probably replaced.**
2. **The NFPA Standard (#31) for the Installation of Oil-Burning Equipment limits the horizontal length of vent connectors to 10' unless a draft fan is installed. The vent connector serving the boiler is very close to the 10' limit however, it's installed at close to a 45° angle so functionality and safety is not a concern. The vent connector at the furnace however is significantly longer than 10' and is installed as a troublesome horizontal, to vertical and then back to horizontal configuration. This installation needs to be corrected by installing a draft fan or better yet, installing a properly pitched and supported vent connector. The existing vent connector materials are badly deteriorated so should not be modified or reused.**
3. **As noted in number 2 above, the vent connector at the furnace is a concern as the first horizontal section, the section closest to the furnace, is actually pitched slightly downward, away from the furnace. Trapped flue gases and condensate are accumulating at the end of the downward slope, deteriorating the vent material. See # 2 above.**
4. **Neither the vent connector for the boiler or the furnace are appropriately supported. See # 2 above. NOTE: The boiler's vent connector can remain if properly supported.**
5. **Both the boiler and the furnace have a shut-off switch installed at the appliance which is the minimum code requirement. The installation of a second remote shut off switch, outside the mechanical room is strongly recommended. One switch should be installed for each appliance, with the switch mounted up high on the wall and properly identified as to which appliance each switch serves.**
6. **We could not find any cleanouts for the two chimney flues. We recommend the chimneys be internally inspected which could be done when the vent connectors are being repaired.**
7. **The three fuel oil storage tanks in the crawl space are located in a building area that is in the floodplain. As such, there are specific NFPA (therefore State Fire Code) requirements that possibly should have been adhered to when the tanks were installed, specifically anchoring the tanks to prevent floating during a flood. We are working with HEB to determine the exact elevation of the tanks to see if improvements need to be made.**
8. **The Rinnai water heater is electrically powered by an extension cord which is both a code violation and not in accordance with the installation requirements for this equipment. An appropriate electrical outlet needs to be installed to eliminate use of the extension cord.**
9. **The bonding of the water heater's gas supply piping to the building's electrical grounding system is done in a non-code compliant manner and therefore needs to be corrected. This repair should be done by a licensed electrician.**
10. **The water heater is missing the (required) drainpipe from the temperature and pressure relief valve on the unit.**
11. **The Omegaflex (brand) Tracpipe (material) propane gas pipe installation was also badly performed. The gas piping installation needs to be revisited and corrected by a licensed gas piping technician from the exterior regulator into the building and then to both the water heater and the commercial kitchen cookstove. The Tracpipe material should be salvageable so much of it should be able to be reused. The**

installation of this material needs to comply with both the National Fuel Gas Code and the Omegaflex installation requirements. Additionally, non-conductive jacketed CSST gas pipe (Tracpipe in this case) is required to be electrically bonded in accordance with the requirements of the National Fuel Gas Code, Section 4.10 of the Tracpipe installation manual and the National Electric Code. We did not note the Tracpipe to be bonded anywhere from where it begins in the mechanical room to where it ends in the kitchen. Bonding of the gas piping should be done by a licensed electrician.

12. The metal duct of the hot air supply and return systems are required by both the electrical code and the mechanical code to be bonded to the electrical ground system. We did not note bonding of the ducts at any location so therefore, this requirement should be addressed by a licensed electrician.

In addition to the mechanical equipment addressed above, there is the commercial kitchen exhaust hood (with a fire suppression system) installed above the propane fueled commercial range in the kitchen. The following items related to the kitchen exhaust hood were noted:

1. The hood does not have an integral replacement air supply which means air that is removed by the hood is being "replaced" with air from inside the building. New hood systems in buildings that are more airtight than the church require a replacement air supply however in this case, there's probably adequate air infiltration to provide replacement air.
2. The hood and fire suppression system need to be inspected, cleaned and serviced as found necessary according to the requirements of NFPA 96 and the State Fire Code. The hood is presently overdue for inspection and service and the fire suppression system needs to be done by May of 2020. We recommend you find a single company that can inspect and service the hood, ducts and fire suppression system.

Plumbing System

The plumbing system begins at a municipal underground water service from Conway Village Fire District, coming through the south granite foundation wall beneath the Sanctuary/Food Pantry. The insulated ¾" copper water service runs on the surface of the crawl space floor before entering the Mechanical Room where the water meter and backflow preventor are located. Water distribution throughout the building is generally through copper tubing however some small areas of more recent work have been done in cross-link-polyethylene (PEX). Drainage, waste and vent piping was originally installed using cast iron, steel and copper piping however more recent work has been installed using schedule 40 PVC, ABS and polybutylene. The main building drain exits the building at the northeast corner of the crawl space through the concrete foundation wall before running underground to the municipal sewer system.

Domestic water is heated by a Rinnai brand RL75 model tankless propane hot water heater located on the westerly exterior wall of the mechanical room. Please see water heater related notes in the mechanical section of this report.

In general, the plumbing piping installation was found to be functioning adequately with only a few improvement and maintenance items noted:

1. The backflow preventor at the water service is an old single-check device that likely has not been tested or inspected for a long time. In conversation with Superintendent Steve Anderson at Conway Village Fire District we learned the District erred in that they "allowed" the commercial kitchen with a backflow device that is not approved for a water supply to a commercial kitchen. We are working out details as to how to replace this backflow soon but with a device that we can grow into as the various projects move forward.

2. Stop and waste valves on the hot water domestic distribution piping within the mechanical room (over the crawl space access opening to the area under the Fellowship Hall) were leaking while we were in the building.
3. A possible leak was noted at the urinal in the men's room at the lower level of the building.
4. A significant amount of time passes before hot water arrives at lavatories and sinks throughout the building and once heated water does arrive, water temperature did not reach higher than 90 degrees F. As the heater is a tankless unit, this can be caused by multiple conditions; possibly the distance between the fixtures and the water heater, the volume of water from the faucets being greater than the gallon per minute rating of the heating unit, or a combination of both of these conditions. Additionally, it's possible the water heater temperature is set too low.
5. In the kitchen at the Fellowship Hall the drain beneath the food preparation sink is not indirectly connected as required by both the State Plumbing Code and the Food Service Licensing regulations.
6. The drainage, waste and vent piping at the kitchen handwashing sink is actively leaking at the trap.
7. The $\frac{3}{4}$ " water service pipe is protected from freezing by a "heat cable" enclosed within the pipe insulation. While it's understandable that a frozen water service is a serious concern, we strongly suggest another method of freeze protection be considered. "Heat tape" as these are often called are notorious for causing structure fires. At the very least, procedures should be in place to assure this is not left "on" during the warmer months and it should be inspected at least at the beginning of each heating season.

General Building Insulation System

During our inspection we made efforts to determine the types of building insulation that were in place and when found, tried to determine the condition and "R" values.

1. The foundation walls, both granite and cast-in-place concrete are not insulated.
2. The lower level floor assemblies are also uninsulated.
3. Inspection of the exterior of building indicated that blown-in insulation, appearing to be cellulose, had been installed from the exterior at some time in the past. We know the exterior walls throughout the building are framed with 2 x6 wood studs, leaving wall cavities of approximately 5 $\frac{1}{2}$ " in depth in the walls. Assuming these cavities are filled with loose-fill cellulose insulation the R-value of the insulation in the walls would be approximately R-19.
4. 8" thick fiberglass batt insulation has been installed in the ceiling joists and rafters above the Fellowship Hall. 8" of fiberglass insulation provides an R-Value of approximately R-25.
5. From the attic area above the Fellowship Hall the gable end of the original building was also observed and noted to have 8" of fiberglass batts installed on the exposed gable in the attic cold space.
6. The ceiling/roof at the sanctuary is enclosed within finishes which do not allow access to or determination of the type of insulation (if any) or its insulation value. From the interior southeast corner of the sanctuary what appeared to be fiberglass batt insulation was observed at the eave, where the beadboard panel finish had separated from the top of the wall. From the exterior the original roof appears to have been "built up" which we believe may be rigid insulation applied to the roof deck, immediately below the existing steel roofing panels.

Building Accessibility (aka "ADA" Requirements)

Building Officials are required to review accessibility in existing buildings during periods of construction or renovation as the requirements for accessibility that can be enforced by local enforcement agencies are within the State Building Code. The Americans with Disabilities Act requirements for building and site accessibility or barrier removal is enforced by the US Department of Justice and therefore, deficiencies are not addressed with

commercial/public building owners unless litigation is pursued by a private citizen. Where readily accomplishable, the Brown Church has made strides to remove architectural barriers to accessibility throughout the building. At the upper level an exterior ramp provides access to the main entry by way of the east exterior door. The upper level of the building is accessible in that the floors are level and no changes in floor elevation prevent occupants from accessing any open public space, including the restroom off the Fellowship Hall. The raised pulpit at the north end of the Sanctuary has also recently had a ramp installed for access from the nave. At the lower level of the building, an exterior covered ramp has been constructed to provide accessible entry to the building at the west exterior door leading to the Food Pantry areas of the lower level. The remaining portions of the lower level, the hallway, the offices and conference room spaces do not have a compliant accessible route from the exterior or from other areas of the building. The floor level of the food pantry rooms is approximately 16" below the floor of the remainder of the building's lower floor level with this change in elevation accomplished by moving over a two-riser stair. The other lower level entries, the two exterior doors, are several feet above exterior grade and served by exterior stairs for access. Lastly, access between the upper and lower levels of the building while indoors can only be achieved by either of the two interior stairways.

The 2010 ADA design standards and the Standard for Accessible and Usable Buildings and Facilities, ICC/ANSI A117.1-2009, as adopted as part of the NH State Building Code, do not consider stairs a compliant component of an accessible route. Changes in floor elevations of greater than ½" must be ramped for accessibility compliance. Elevators, Limited-Use/Limited Application (LULA) lifts, or in some cases, platform lifts may also be used to provide accessibility at changes in elevations.

As detailed above, the Brown Church has made efforts towards removing barriers and therefore provide accessibility to much of the building with an emphasis on areas where the public is most often served. However, improvements can be made to bring the building closer to full accessibility.

Some items that were noted as not being compliant with the currently adopted edition of A117.1 and the 2010 ADA standard are as follows:

1. Minimum Door Width (A117.1 Section 404.2)

- a. **Doors that are part of an accessible route are required to have a minimum clear width of 32 inches and where a door has two leaves, at least one must meet the minimum clear width requirement. The following doors in existing (otherwise) accessible routes inside the building do not meet the minimum opening width requirement of 32":**
 - i. **The doors between the hallway and the Fellowship Hall. Each leaf provides a clear opening of approximately 28".**
- b. **The following doors are not currently on accessible routes, but are noted as not meeting the minimum required clear width for an accessible door:**
 - i. **The door from the hallway to the minister's office has a clear width of 28"**
 - ii. **The door from the hallway to the small meeting room**
 - iii. **The door into the lower level Men's Room**
 - iv. **The door into the lower level Women's Room**

2. Maneuvering Clearance at Doors (A117.1 Section 404.2.3)

- a. **Doors on an accessible route are required to be provided with maneuvering clearances at each side of the door. Maneuvering clearance is an obstruction-free space at the door that which provides space for a disabled user to open the door and maneuver around the door leaf and through the door opening. Maneuvering clearances vary by the direction of approach to the door (straight at the door or from the side for example) and the side of the door (push or pull) and whether the door is equipped with an automatic closing device.**
- b. **The doors on the accessible route at the upper level appear to have (mostly) adequate maneuvering clearances at both sides. The entry door at the east side of the main entry (the**

accessible side-entry) is not provided with enough maneuvering clearance on the exterior at the latch side. Maneuvering clearance is required to extend 18" from the latch of the door (measured along the wall) with the ramp railing at the exterior being 14.5" from the door's latch.

- c. On the lower level the door between the entry hallway and the main food pantry room does not have the required maneuvering clearance at the hallway side due to the diagonal wall between the hallway and the service room. The maneuvering clearance at this side of this door is required to be 60" perpendicular from the wall of the door from the hinge of the door to 18" beyond the latch side of the door. The door cannot open to 90 degrees due to the diagonal wall and this also becomes an issue, making the area to maneuver around the door even smaller. Additionally, like the upper entry door, the exterior landing railing at the lower entry door infringes on the required maneuvering clearance as it is 10.5" from the latch side of the door, and 18" clearance is required here.
- d. While the remainder of the lower level is not presently on an accessible route it should be noted that the doors of the conference room, meeting room and Melody's office do not meet maneuvering clearance requirements on the hallway side; due to their recessed configurations, they are not provided with the required clearance of 18" beyond the latch side of the doors. Additionally, the door to the Minister's office is not provided 60" clearance perpendicular to the wall as the storage space across the hall, between the conference room doors is approximately 49" from the door opening.

3. Level Landing at Door (A117.1 Section 405.7.5)

- a. The exterior ramp leading to the east door of the main entry does not have a level (1/4" per foot or less) landing at the exterior side of the door. For a door to be considered accessible the landing on both sides of a door is required to be level (0° in each direction) or with a drainage slope that can be up to 2% (1.19°).

4. Graspable Handrails on Ramps (A117.1 Sections 405.8 & 505)

- a. Both exterior ramps and the ramp within the Sanctuary are lacking compliant handrails. While railings are provided at these ramps, none comply with the dimensional requirements for continuously graspable handrails. Handrails must have a circular cross section with an outside diameter of 1-1/4 inch to 2 inches and must be continuous without interruption for the full length of the ramp run. A diagram showing specific elements and dimensional requirements for ramps and elements is attached to the report for your review.
- b. Section 505.2 requires that graspable handrails be provided on both sides of ramps with rises greater than 6". While the two exterior ramps have railings on both sides of the ramp runs, the ramp to the pulpit has handrails on only one side.

5. Ramp Edge Protection (A117.1 Section 405.9)

- a. Both exterior ramps are required to have edge protection at the edge of the walking surface of the ramp. Edge protection can be a 4" inch high curb or a rail that is no greater than 4" above the walking surface. Neither of the ramps is provided with edge protection. This feature prevents walkers, canes and wheelchairs from being able to slide off the edge of the ramp.
- b. The ramp in the Sanctuary, from the main floor level to the raised pulpit, does not have edge protection and is steeper than 1" of rise to 12" of run that is allowed by accessibility standards.

6. Plumbing Fixtures (A117.1 Chapter 6)

- a. The restrooms on the lower level, including fixtures, clearances and dimensional criteria do not comply with the requirements for accessible restrooms.

7. Water Closet (toilet) Vertical Grab Bar

- a. The restroom located off the Fellowship Hall is designed for accessibility, however the water closet is required to have both a vertical and horizontal grab bar with only the horizontal grab

bar having been installed. The 18" minimum length vertical grab bar is required to be placed (centered) 39 to 41 inches off the rear wall of the water closet and with the bottom of the bar 39 to 41 inches above the floor.

8. Required Dispenser Locations (A117.1 Section 604.7)

- a. **The toilet paper dispenser in the accessible restroom is not placed in a compliant location. As the dispenser is the type that protrudes from the wall it must be located beneath the horizontal grab bar with the outlet no less than 18 inches above the floor and 24 inches to 42 inches from the rear wall of the water closet.**

Life Safety Code Inspection and Analysis of the Conway Village Congregational Church

The information in the section that follows represents Bergeron Technical's Life Safety Code analysis of the Brown Church. This report is based on our on-site inspection, conversations with Rev. John Hughes, the Trustees and Melody Bergman about how the building is used and on our analysis of the building according to the requirements of NPFA 101, the Life Safety Code (LSC), 2015 edition, as currently adopted and enforced by the State of NH Fire Code (Saf-C 6000).

Property Description and Occupancy Classifications

The Conway Village Congregational Church, or Brown Church, provides space for multiple functions, uses and events. There are multiple rooms and spaces throughout the building where functions and events can take place. As mentioned in the general building inspection report, the building was constructed in two parts, the original building containing the Sanctuary, bell tower, mechanical room and the areas that are currently used for the food pantry, storage and lower level restrooms. The addition that was constructed in the 1950's added the interior upper and lower hallways, the offices, conference and meeting rooms on the lower level and the Fellowship Hall and the kitchen on the upper level. Both sections of these buildings were constructed using combustible construction materials, specifically wood framing, framing that is not protected from exposure to fire by what the codes call "fire-rated construction". As such, the Brown Church is classified as a 2-story structure of type V(000) construction. The predominate use of this building is as a place of worship. This use takes place within the Sanctuary, classifying this area as an **Assembly Occupancy**. The Fellowship Hall is also an **Assembly Occupancy** as the space is used for the gathering of people in an assembly hall, exhibition hall or dance hall type use. The commercial kitchen is incidental to the Fellowship Hall and so is included in the Assembly Occupancy classification. This occupancy of the upper level classifies the entire upper level of the building as an **Assembly** occupancy. The lower level conference room and meeting rooms are also **Assembly Occupancies**, however, as the meeting room between the Minister's and Melody's offices has an occupant load below 50, it cannot be classified as an assembly occupancy and must be classified as a **Business Occupancy** with the Business Occupancy classification also applying to the smaller offices on each side of this room. The food pantry area has spaces classified as both Storage Occupancy and Business Occupancy. The hallway from the building's exterior into the main Food Pantry room (Painted with murals) is a **Business Occupancy** as this hallway provides a personal service to community members and is subject to only a few occupants at a time in comparison to a shopping center such as a grocery store or box store. The remainder of the spaces serving the Food Pantry are classified as **Storage Occupancy**. The storage space at the south end of the lower level is a **Storage Occupancy**.

As more than one class of occupancy exist within the building and the various occupancies are not separated from one another by fire-resistance rated assemblies, the building is identified by the Life Safety Code as a Mixed Occupancy structure and is required to meet the requirements of LSC Section 6.1.12.3.2. This section of the code requires non-separated Mixed Occupancies to comply with the most restrictive requirements of the occupancies within throughout the entire building so therefore, for the Brown Church, the requirements for the

Assembly Occupancy will be applied throughout. The requirements for existing Assembly Occupancies are addressed in Chapter 13 of the LSC.

Minimum Construction Requirements

Assembly occupancies are limited to building construction types based on their number of stories in height per LSC 13.1.6 and Table 13.1.6. Table 13.1.6 also considers the presence of a sprinkler system throughout the building when determining building type and number of story allowances. As mentioned, the Brown Church is of Type V(000) construction and, as we all know, the building is not equipped with a NFPA 13 sprinkler system throughout. In accordance with Table 13.1.6, existing assembly occupancies of type V(000) construction without a sprinkler system are permitted to be 1 story in height maximum and are limited to an occupant load of 1,000 or less. In accordance with the definition of a story-in-height per LSC 3.3.268, the story count begins at the *level of exit discharge* which, according to LSC 3.3.85.1, is the story that is either (1) the lowest story from which not less than 50 percent of the required number of exits and not less than 50% of the required egress capacity from such a story discharge directly outside at the finished ground level; or (2) the story that is provided with one or more exits that discharge directly to the outside to the finished ground level with the smallest elevation change. However, Assembly Occupancies have a separate requirement for determining the *level of exit discharge* per LSC 13.2.7.2, which requires that the **level of exit discharge be measured at the point of principal entrance to the building**. Based on this requirement, the upper (Main Street) building level is the defined level of exit discharge for the Brown Church, and therefore the first story, making the two assembly occupancies on the Main floor level, the Sanctuary and the Fellowship Hall compliant with Table 13.1.6. Considering the lower building level, Assembly occupancies are not permitted on any other story or levels below the level of exit discharge in buildings of type V(000) construction that are not equipped with sprinkler systems throughout. This requirement makes the conference room on the lower level, which has a calculated occupant load of 56, noncompliant with the LSC requirements.

Occupant Load

An occupant load calculation addendum is attached to this report for your reference however, in summary, the calculated occupant loads throughout the building are as follows:

Sanctuary: 257 <u>Fellowship Hall & Kitchen: 233</u> Upper Floor total: 490	Food Pantry Areas: 5 Melody’s Office: 2 Minister’s Office: 4 Meeting Room: 24 <u>Conference Room: 56</u> Lower Level Total: 91
Total Occupant Load of the Building: 581	

Means of Egress

A means of egress is simply defined as a continuous and unobstructed path of vertical and/or horizontal travel that building occupants will move through from any occupied portion of a building or structure to a public way. The Means of Egress consists of three parts: the exit access, the exit and the exit discharge. The exit access is the path within a room, space, or area that leads occupants to an exit, the exit is an exterior door or an interior building area that is (fire) separated from all other spaces of the building or structure by construction, location

or equipment that protects the traveled way to the exit discharge, and lastly, the exit discharge is the path from the exit to a public way. A means of egress can include components such as level or ramped floors, hallways, passageways or corridors, stairs, doors, and fire escape stairs and if appropriately installed and protected, elevators.

Number of and Arrangement of Exits

There are multiple exits in the Brown Church, three at the upper (Main Street) level and two at the lower floor level. These exits provide many means of egress from the various spaces to safe “public way” locations. Specifically, there are five different exits:

1. There is a double-door exit located at the south of the main upper level entry that discharge to a covered landing and set of exterior stairs to a walkway at grade that leads to Main Street.
2. The second exit is a steel door at the east side of the main entry, discharging to an exterior landing and ramp leading to the walkway at grade accessing Main Street.
3. The third exit on the upper level is a single leaf door located in the Fellowship Hall, on the east end of the north wall, which discharges to an exterior steel fire escape stair which provides access down to grade, where egress can be made to the parking area on the west side of the church and other public-way areas.

On the lower level are the two additional exits:

1. The first being a door located on the west exterior wall from the Food Pantry Hallway/entry area, which discharges to a covered exterior landing and ramp that lead to the adjacent parking area.
2. The second exit is a door on the north exterior wall, accessed from the central hallway, which discharges to an exterior concrete landing and small stair to grade. Once at grade, further egress movement can be made to the adjacent parking lot.
3. A third exterior door exists on the lower level, accessed from the hallway and located on the east wall, however this door is marked “NOT AN EXIT” as this door is seasonally blocked by snow and ice and therefore there is no continuously maintained exit discharge from this door to a public way or disbursement area.

Exit Access from the Sanctuary - Exit access from the Sanctuary is by way of aisle accessways from the fixed wooden pews and three aisles, two along the east and west perimeter walls and one central aisle, all aisles lead to the south end of the Sanctuary to a pair of double-action swinging doors into the main entry area, where egress can be made through either of the exit doors from this space. Egress could also be made by traveling down the hallway, into the Fellowship Hall and through the exit door to the exterior fire escape, or exit access is available by traversing the interior stairs (either set that exist from the upper hallway to the lower hallway) to the lower level hallway and to the exit door at the north end of the building. Another door is located on the northerly end of the east wall of the Sanctuary leading into the upper hallway. This door is located within the anteroom to the right of the pulpit and can be, if necessary, accessed by doors from the nave of the Sanctuary and from the pulpit.

Exit Access from the Fellowship Hall - Exit access from the Fellowship Hall is available by traveling through the hall to the exterior door located on the north wall or by traveling south through the upper hallway to the entry and out either exit door in the main entry. Like the Sanctuary, the option to travel down either interior stair to the lower level and out the door on the north end of the lower hallway is also available. Egress from the kitchen area is made though either of the two doorways between the kitchen and the Fellowship Hall to the exit door from the Hall or into the hallway to the main entry exits.

Exit Access from the Conference Room - The lower level conference room has two doors that lead to the lower level hallway. Occupants may use either door to travel into the hallway and then travel a short distance to the north exit door at the end of the hallway. Egress may also be made by traveling southerly through the lower hallway to either interior stair leading upwards to the upper level where occupants can access the exit doors at the main entry on this level.

Exit Access from the Meeting Room - The meeting room between the Minister's office and Melody's office accesses the exits through a door into the lower level hallway. Once in the hallway, egress can then be made by moving through the hallway to the north and out the exit door at the north end of the hallway, or to the south and up either set of interior stairs, through the upper hallway and out either exit door at the main entry.

Exit Access from Melody's Office - Melody's office has a door leading directly to the lower level hallway, where exit access is available to the exit door on the north end of the lower hall or by traveling up either interior stair to the upper hallway to access the exits doors at the main entry on the upper level. Melody's office also has an interior door that leads to the adjacent meeting room where egress can be made to another door leading to the lower hallway.

Exit Access from the Minister's Office - The minister's office has a door leading directly to the lower hallway, where egress can be made by traveling a small distance north to the exit door at the north end of the hall, or south to the interior stairs leading to the upper hallway and accessing the exits at the upper level. The Minister's office has a second door that leads to a small file/computer room at the northeast corner of the lower level. This room then has a door that leads to the meeting room, where egress can be made through the door from this room accessing the lower hallway.

Exit Access from the Food Pantry - Egress from the food pantry suite of rooms, including the storage and service areas, is via the main Food Pantry room into the Food Pantry entry hallway, and through the westerly exit door to the exterior covered ramp. This lower-level west exit is only accessible from the Food Pantry suite of rooms as the door connecting the main Food Pantry room to the lower level hallway is locked against entry from the hallway side of the building most of the time for security reasons so as such, the westerly exit is only a viable exit for the Food Pantry. The hallway, however, is accessible from the Food Pantry suite of rooms as the door can be unlocked from this side and so the hallway can be used by these rooms and spaces as exit access to the northerly exit door and the upper level exit doors.

Aisle Accessways and Aisles Serving Seating not at Tables

The Sanctuary has two sections of fixed wooden pews in the Nave which provide seating. There is also a section of fixed wooden pews at the left side of the pulpit which provide seating for the church choir. These areas are subject to the requirements of LSC Section 13.2.5.5 for arrangement of aisle accessways and LSC Section 13.2.5.6 for arrangement of aisles. Aisle accessways are defined by the LSC as the space between the rear of a seat and the front of the next seat, the space that provide occupants access to an aisle. The Sanctuary has aisle accessways between the rows of pews. The nave of the Sanctuary has three aisles, one at both east and west perimeter of the nave and one at the center between the two sections of pews. At the choir seating there is one aisle, along the north wall of the pulpit providing access and egress to this seating area.

Per the dimensional restrictions of LSC 13.2.5.5.1, the pews in the nave seat 8 occupants each, with the exception of the rear pew on the west side, which can accommodate 5 people. The choir pews can accommodate 7 occupants each, with the rear pew shortened and able to accommodate 2 occupants. The required width of aisle accessways between the pews in all locations is 12" measured from the forward most projection of the pew perpendicular to the back of the pew in front, or to the guard in front of the pew at the front of the choir seating.

In accordance with LSC 13.2.5.6.3(4), the minimum required width of the center aisle in the nave is 42" as it serves seating on both sides of the aisle and serves more than 60 occupants (it is assumed that ½ of each side of the pews would egress towards the center aisle, resulting in a catchment of 80 occupants, in addition to any occupants at the pulpit). The side aisles at the nave seating are required to be 30" in minimum width per LSC 13.2.5.6.3(5), as the side aisles serve an occupant load less than 60 and have seating on only one side of the aisle. At the choir pews the minimum aisle width required is 30" as the occupant load for these pews is 21 and seating is on one side of the aisle.

Approval of Layouts

The Fellowship Hall is an assembly occupancy that is used as a flexible space. It serves a multitude of events, organizations and purposes throughout the year. Accordingly, there is no fixed seating in this space and this space is set up in a variety of layouts at different times. The Fellowship Hall can be set up with tables and chairs for events that provide dining experiences, such as the weekly dinner bell, or it can be set up in a configuration using tables only, without chairs for craft fairs, or social events. Seating without tables can also be configured in this space. LSC Section 13.2.5.9 allows the local authority having jurisdiction (Conway Village Fire Chief in this case) to require spaces such as the Fellowship Hall to provide plans of the various layouts to be approved by the AHJ prior to any changes being made to the layout of that space. This allows the AHJ to confirm that the various layouts provide sufficient egress access, including aisle accessways and aisles, and determine that the permitted occupant load for the space is not being exceeded with any of the layouts. Where a new layout is proposed that deviates from layouts approved by the AHJ, a plan of the new layout is required to be submitted to the AHJ for review and approval before being implemented.

Travel Distance to Exits

In accordance with LSC 13.5.6.2 the maximum travel distance from any point within an assembly occupancy to an exit is 200 feet, measured along the path of travel. The maximum travel distance within the Brown Church to an exit is from south west corner of the lower level, within the south series of storage rooms to the nearest exit, which is the east exit door at main entry on the upper level. The travel distance from this point to the exit is 114 feet, well within the 200-foot maximum.

Illumination, Emergency Lighting & Marking of Means of Egress

LSC 13.2.8 and Section 7.8 require that means of egress be illuminated at all times when the building is occupied to allow occupants to move through the means of egress as needed. During non-daylight hours, artificial lighting must be installed and functional in all locations to maintain the required level of illumination. The required illumination for means of egress for existing buildings is 1 ft-candle measured at the floor, with the exception of assembly occupancies where during periods of performances or projections the illumination of the walking surfaces of exit access may be reduced to 0.2 ft-candle per LSC 7.8.1.3.

In the Brown Church emergency lighting is required to be provided at all means of egress, including at exit access, exits and exit discharge per LSC 13.2.9.1 and Section 7.9. Under LSC 13.2.3.9, assembly occupancies with occupant loads not exceeding 300 and used exclusively for religious worship are not required to have emergency lighting. While the Sanctuary is used for religious worship it is not used exclusively for this purpose as other organizations and parties have events in this space unrelated to religious activities. Emergency lighting units must provide a minimum of 90 minutes of illumination in the event of failure of normal lighting and the illumination provided must be arranged such that the initial illumination is not less than an average of 1 foot-candle measured along the path of egress.

Marking of means of egress (EXIT signs) is required in accordance with LSC 13.2.10.1 and Section 7.10. Exit signs are required to be placed at exits and along exit access ways where the exit or the path to reach the exit is not readily apparent to occupants. Where the direction of travel to reach the nearest exit is not apparent an EXIT sign with a directional indicator showing the direction of travel is required. Every required EXIT sign shall be illuminated by a reliable light source and shall be legible in both normal and emergency lighting mode.

Protection of Vertical Openings

LSC 13.3.1 requires any vertical opening between building levels to be enclosed or be protected within fire-rated construction. LSC 13.3.1(3) permits unenclosed stairs between two adjacent stories to be protected in accordance with Section 8.6. Currently, both stairs connecting the upper and lower hallways are unenclosed. Unenclosed vertical openings are considered hazardous as in the event of a fire they permit smoke, heat and other toxic products of combustion to spread to the other floor. Stairs enclosed on only one level may still be used as exit access stairs but cannot be considered an exit enclosure. Neither of the stairways in the hallways are configured in such a way that they are currently being treated or used as exit enclosures. Enclosing each stair at one level of the building with 1-hour fire-resistance rated construction will bring this existing deficient condition into compliance with the Life Safety Code.

Protection from Hazards

Boiler and furnace rooms containing equipment with an aggregate input rating of 200,000 Btu or more and rooms used to store combustible materials in quantities deemed hazardous to the authority having jurisdiction (Conway Village Fire Chief) are required to be protected from the remainder of the building by fire barriers having a minimum 1-hour fire resistance rating or the room be protected by an automatic extinguishing system per LSC 13.3.2.1.3(1) (a) & (b).

The mechanical room on the lower level contains both a boiler and a furnace with these two pieces of equipment cumulatively having total input rating of 515,500 Btu, requiring this room be protected from the remainder of the building. The mechanical room is finished with lath and plaster wall and ceiling finishes which, when in an existing building, are considered by the LSC as providing a fire-resistance rating of 1-hour, however, the lath and plaster in this room is severely deteriorated, missing and cracked in many areas. Additionally, there are two unprotected fully communicating openings from this space to the crawl space beneath the building. NOTE PLEASE: see the Hazardous Material section of this report as information therein is applicable to this room also.

The Henderson room and adjoining storage spaces are currently used to store large amounts of materials, many of them paper dining products and empty cardboard boxes from the food pantry. The number of combustible items in these rooms is a concern and serious consideration should be given to reviewing and reorganizing these stored items to determine if any can be disposed of.

LSC 7.2.2.5.3 initially prohibits enclosed spaces under stairs to be usable spaces, specifically as storage spaces. LSC 7.2.2.5.3.2 goes further to allow these spaces to be used as storage where the space is separated from the stair by construction of the same fire-resistance rating as required for a stair enclosure and where the space cannot be accessed from within a stair enclosure. Both stairs between the upper and lower levels of the building have enclosed space beneath them. The enclosed space beneath the northerly stair is finished with gypsum and various items are stored within this space, accessed by a door from the hall, adjacent to the door to Melody's Office. The space beneath the southerly stairs is accessed by a small door located in the narrow hallway leading to the door to the Henderson Room. This enclosed space has no interior finishes and the wood framing of the

stairs and walls is exposed. During our inspection we noted signage placed by the Conway Fire Department stating the space is not to be used for storage. Multiple combustible items are being stored in this space.

LSC 13.3.2.2 requires commercial cooking equipment be protected in accordance with NFPA 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations. This standard requires that exhaust hoods and grease ducts be installed over cooking equipment used in processes producing smoke or grease-laden vapors. The commercial cooking range includes six burners, two ovens, a broiler and a flat top griddle. This equipment is protected with an exhaust hood and an in-hood Ansul (brand) extinguishment system. The grease duct runs above the ceiling, terminating at the eastern wall at an exterior exhaust fan mounted horizontally at the wall. The duct above the ceiling is accessed by a hatch located at the kitchen ceiling and is installed with a clearance reduction system to allow installation closer than 18" to combustible materials. The wall termination of the exhaust system is not a compliant termination. Wall terminations of exhaust systems are permitted only through noncombustible construction and must have a minimum clearance of 10 feet from any combustible construction and any operable doors or windows below the plane of the exhaust terminations as per NFPA 96 7.8.3 (1). The wall and exterior finishes in contact with the exhaust termination are combustible, the exhaust termination is located less than 10 feet from the operable window of the kitchen above the three-bay sink and there is a combustible projection of the Fellowship Hall roofline in the immediate proximity of and below the termination.

The exhaust hood is not provided make-up air, or replacement air as required by NFPA 96 Section 8.3. This section requires replacement air be provided to the exhaust hood in such quantity to adequately prevent negative pressures in the commercial cooking areas. Make-up air supplied internally is required to be automatically shut off in the event of the fire-extinguishing system activating.

NFPA 96 Table 11.4 requires exhaust hood systems to be inspected annually for low-volume cooking operations, such as churches. The hood system at the Brown Church has not been inspected within the last 12 months and an inspection should be scheduled immediately with a commercial hood inspection/cleaning company as NFPA 96 11.7.1 requires commercial cooking equipment to be inspected and serviced annually. NFPA 96 11.7.2 additionally requires that commercial cooking equipment be inspected for grease accumulation annually and cleaned if accumulation is found by a qualified cleaning company.

Interior Finish

Existing assembly occupancies are required to have interior finishes meeting the requirements for Class A, Class B or Class C finishes in assembly areas having occupant loads of 300 or fewer, and Class A or Class B finish ratings in lobbies and corridors and Class A finish ratings in enclosed stairs. Much of the wall finish material through the building is a combination of softwood plywood wainscot at the wall base up to the wood chair rail, then transitioning to standard gypsum board up to the ceiling. In locations such as the Sanctuary, mechanical room and lower level storage rooms the wall finish is the original lath and plaster finish. The ceilings in the mechanical room and the storage areas are also lath and plaster.

The ceiling finish in the Sanctuary is wood beadboard panels with decorative wood casings and trim around structural rafters and bents. In the kitchen, restrooms, upper hallway and main entry area the ceiling finish is gypsum board. In the Fellowship Hall ceiling finish is Celotex tiles. Celotex tiles are also the ceiling finish material in the Henderson Room, lower level hallway and Minister's office. The conference room, food pantry rooms, meeting room and Melody's office have suspended acoustic ceiling tiles.

Gypsum meets the requirements of a Class A finish rating. The (assumed) softwood plywood meets the requirements for a Class B or C finish rating when unfinished however, having been painted this material cannot,

without laboratory testing, be assigned a finish rating. The Celotex tiles appear to be self-extinguishing as tested by BTS however does produce an acrid smoke.

Detection, Alarm and Communications

LSC 13.3.4.1.1 requires fire alarm systems in existing assembly occupancies that have an occupant load of more than 300. The Brown Church fulfills the requirement as the building is equipped with a monitored fire alarm system that is maintained by Pope Security of Conway. During our inspection we noted heat and smoke detectors in various locations in the building and manual pull stations that will initiate the fire notification system near exit doors. Audible and visible notification devices are installed in the upper and lower hallways in addition to a single audible/visible notification device in the Fellowship Hall adjacent to the exterior exit door. The remainder of the building is without notification devices so additional devices are likely going to be needed. Specifically noted as lacking occupant notification is the food pantry area as the rooms in this area are a long distance from the hallway, far enough away that audible signals will likely not reach the required decibel level to notify building occupants. Additionally, areas outside of the hallway and the Fellowship Hall are not provided with visible notification as required. Additional review of the heat detector installation in the crawl spaces should be performed as there were very few devices installed in what is a large and important space. The storage rooms at the south end of the lower level are presently protected with heat detectors which should be changed to smoke detectors. Lastly, many of the initiation devices (smoke detectors and heat detectors) noted throughout the building appear to be older devices, greater than 10 years in age which is the recognized life expectancy for smoke detection devices.

Extinguishment

The Life Safety Code does not have a blanket requirement for existing assembly occupancies such as the Brown Church to be equipped with an automatic sprinkler system. Many assembly occupancies are required to install sprinkler protection based on the type of building construction and specific triggering items in the code. As mentioned previously, the conference room on the lower level of the building is an assembly occupancy which is not permitted in Type V(000) nonsprinklered buildings in accordance with Table 13.1.6. To allow an assembly occupancy on this level, the building needs to be equipped throughout with an NFPA 13 compliant automatic sprinkler system, or the construction type of the building must change from type V(000) to type V(111), which requires all exterior walls, and structural components of the building to be protected in 1-hour fire-resistance rated construction.

Portable fire extinguishers are required and were noted in many areas the building. ABC (dry-chemical) type extinguishers are in various locations and are required to be placed in accordance with NFPA 10 Standard for Portable Fire Extinguishers. An ABC (type) fire extinguisher is required to be located within a travel distance not greater than 30 feet from any point within the building for extinguishers with 5B ratings or 50 feet for extinguishers with 10B ratings, as detailed in Table 6.3.1.1 of NFPA 10. Additionally, a type K extinguisher is required to be installed within 30' of the cooking equipment in the kitchen per NFPA 10 6.6.2. A type K extinguisher is mounted on the cabinetry to the right of the cooking equipment in the commercial kitchen.

Section 7.3 of NFPA 10 requires portable fire extinguishers be maintained and internally inspected by certified persons at intervals not to exceed one year. At the time of inspection, the extinguishers were noted as the annual maintenance and inspections having been performed. Additionally, NFPA 10 Section 7.2 requires the extinguishers to be inspected monthly, and records of the inspections recorded in a location accessible to the AHJ by request. The monthly inspections should confirm the extinguisher is in its designated place, the extinguisher is not obstructed and is visible, pressure gauge indicator is within operable range, the cylinder is

full, and the hose and nozzle are in good condition. These monthly inspections can and should be performed by Church personnel.

During our inspection we noted a few locations where extinguishers have been mounted such that they are partially obstructed from view and a few building areas where there may be a lack of required extinguishers:

1. In the upper hallway there is an extinguisher mounted on the end of a built-in coat rack near the entrance to the Fellowship Hall. This extinguisher cannot be seen from the entry area of the north end of the hall. Fire extinguisher signage, placed above the coat rack built-in, could be added to indicate the location of the fire extinguisher, or the extinguisher could be moved to a more visible location.
2. The food pantry area is lacking a fire extinguisher so one should be installed in this group of rooms.
3. There is an extinguisher located within the mechanical room, which is appropriate however, that door is locked against entry from the food pantry, making that extinguisher only useful for a fire in the mechanical room.
4. The Fellowship Hall should be provided with an extinguisher within the space, as the distance from the far corners of the room to the extinguisher in the upper hall is greater than 50 feet. An extinguisher located near the exit door would be an ideal location for access.

Building Services

The building services, including electrical, mechanical and plumbing are addressed under the General Inspection portion of the report, and the existing fire alarm system is addressed under the Detection, Alarm and Communications section of the Life Safety report.

Life Safety Code Inspection Summary

There are several Life Safety Code items that are in need of improvement:

1. **The open stairs between floor levels.**
2. **Horizontal termination of the kitchen hood exhaust through a combustible wall.**
3. **Lack of fire alarm notification devices in lower level areas.**
4. **Age of existing detection devices in the fire alarm system.**
5. **Types of existing detection devices installed, for example heat detectors in areas where smoke detection should be installed.**
6. **Lack of an adequate number of detection devices in the crawl areas.**
7. **Lastly, in consideration of both occupant safety and building preservation, we cannot suggest with adequate emphasis that a fire protection sprinkler system be installed throughout the building.**

Overall Summary

After having spent more hours and days than we imagined in and around the Brown Church we've concluded this is a great building that deserves the repairs and improvements that are necessary to extend its usefulness and service to the community into the next century. The Brown Church is both an architectural gem and functional destination in Conway Village. In order of importance we suggest the following listed items as a place to start. This is certainly not the end all, but a place to begin.

1. **Make improvements and necessary repairs to the propane gas piping system.**
2. **Modify or if necessary, replace the existing fire detection and alarm system with a new system that fully complies with the requirements of the National Fire Alarm Code and the National Electric Code.**

3. **Perform a more in-depth study of the asbestos containing materials situation, specifically in the Sanctuary, to make sure regular use of the building is not putting occupants at risk.**
 - **Items one through three should be implemented as soon as possible. BTS is presently working with JSM Mechanical Services of Madison, Jeff Montgomery, to have the propane piping improved, pressure tested and generally made code compliant.**
 - **BTS has spoken with POPE Security to obtain a proposal for the upgrade and to or installation of a new fire/smoke detection and alarm system.**
 - **BTS is working with Desmarais Environmental to bring them back to the site to have them perform air-quality sampling and analysis, specifically in the Sanctuary, to make sure occupancy of that area is not putting occupants at asbestos related risk. We have talked with Ray Desmarais about this and he explained asbestos fibers will remain airborne for up to 72 hours and suggests air sampling be performed on a Monday morning after the Sanctuary has been used as it would for a typical Sunday.**
4. **Bring a lightning protection system company to the Church and have them perform a thorough inspection of the lightning protection system and provide a quote for making necessary improvements and repairs.**
5. **Develop an overall fire protection sprinkler system plan and obtain quotes for the installation of a fire protection sprinkler system.**
6. **Develop a roof repair and improvement plan and implement this plan to keep roof water out of the building.**
7. **Develop a siding and rot repair and improvement plan and implement this plan to keep non-roof related water out of the building.**

The initial goal should be preserving the building “as is” and making it healthy and safe for occupants. Then, as you can probably tell from our recommendations, the greatest concerns are keeping the building from suffering a structure fire and keeping the water outdoors. After those two items are addressed, then Bergeron Technical would like to help to bring the building towards improvements that will make it more energy efficient, accessible and generally function better for everyone associated with the Brown Church.

Bergeron Technical appreciates the opportunity you have provided to work with all of you and looks forward to working with the Church, it’s trustees and members to preserve the Church and keep it functioning long into the future.

Sincerely,
Bergeron Technical Services,

Shawn Bergeron, C.F.P.S,
ICC Certified Building Inspector
Manager/Code Consultant

Kate Richardson, C.F.P.S
ICC Certified Accessibility Inspector
Project Manager

APPENDICES – Crawl space configuration sketch
Photo pages

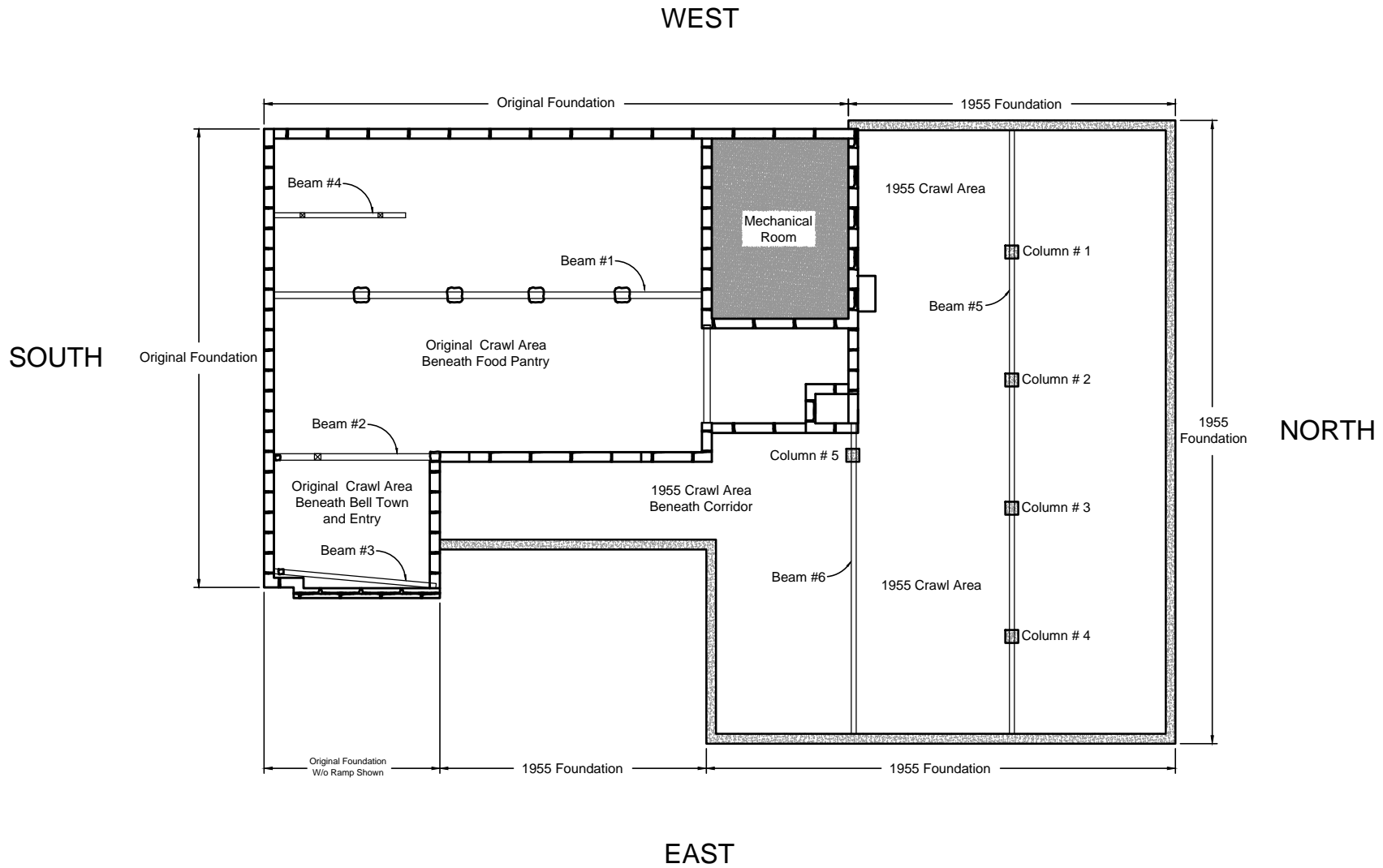
The Brown Church
132 Main Street
Conway, NH

Appendix

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Photos

S:\Brown Church - Conway Village - July 2019\BTS CAD Files\Brown Church - Rough Foundation Plan.dwg, 2/28/2020 3:31:01 PM, DWG To PDF.pc3



1 Crawl Space Configuration
SCALE: Not to Scale

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TECHNICAL SERVICES LLC
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PROJECT DESIGN &
MANAGEMENT SERVICES:
BERGERON TECHNICAL SERVICES
P.O. BOX 241
NORTH CONWAY NH 03860

PROJECT NAME:
Conway Village Congregational Church
"The Brown Church"
132 Main Street - Conway Village NH

SHEET TITLE:
Crawl Area Graphic

REVISIONS:

DRAWN BY:
KMR/SGB

CHECKED BY:
KMR/SGB

SCALE:
AS NOTED

DATE:
30 Jan 2020

EC1.0



ASBESTOS SURVEY REPORT



BROWN CHURCH CONWAY, NH

February 2020

February 7th, 2020

On February 5th, 2020, Desmarais Environmental, Inc. conducted a non-destructive asbestos survey of a church located at 132 Main Street, in Conway, NH.

The scope of work covered the entirety of the interior building materials. Materials analyzed included wall material, floor tile, linoleum, adhesives, ceiling tiles, ceiling materials, and sheet rock. The purpose of this survey was to determine the presence of asbestos-containing materials in order to ensure compliance with the regulatory requirements to renovate the building.

Reasonable efforts have been made by Desmarais Environmental, Inc personnel to locate and sample suspect asbestos-containing materials (ACM). However, for any facility, the existence of unique or concealed ACMs and debris is a possibility. In addition, sampling and laboratory analysis constraints typically hinder the investigation. Desmarais Environmental, Inc. does not warrant, guarantee or profess to have the ability to locate or identify all asbestos containing materials within the area surveyed.

BACKGROUND INFORMATION

Asbestos is a term to describe six naturally occurring mineral fibers that are commonly found in a wide array of building construction materials due to the fiber strength and heat resistant properties. When asbestos containing materials become damaged or are disturbed during repair, remodeling or demolition activities; microscopic fibers become airborne. Asbestos fibers are so tiny and light that they can remain airborne for many hours. When inhaled, they can cause health problems. The three (3) most common types of asbestos are chrysotile, amosite and crocidolite. The lesser common types are tremolite, anthophyllite, and actinolite. Nearly 95% of all asbestos in the United States is chrysotile.

The Environmental Protection Agency classifies asbestos-containing building materials (ACBM) into three (3) general categories.

1. Surfacing Materials
 - a. Any material that has been sprayed-on or troweled-on, or otherwise applied to surfaces. Textured ceilings, joint compound, and fireproofing are some examples of surfacing materials.
2. Thermal System Insulation (TSI)
 - a. Any material applied to pipes, fittings, boilers, breeching, tanks, ducts, or other interior mechanical components designed to prevent heat loss or water condensation.
3. Miscellaneous Materials
 - a. Any material that is not surfacing or thermal system insulation. Floor tiles, ceiling tiles, and transite board are some examples of miscellaneous materials.

The condition of asbestos containing materials is classified according to its friability, the current state of condition and its potential for disturbance. Friability is determined by the ability, when dry, to be crumbled, pulverized, or reduced to powder by hand pressure. The current state of condition is broken up into three categories

1. Significantly Damaged
 - a. Over 10% evenly distributed damage or over 25% of the localized damage.

2. Damaged
 - a. Less than 10% evenly distributed damage or less than 25% of the localized damage.
3. Good
 - a. No visible damage or very little damage.

The potential for disturbance is categorized by answering three (3) questions with high, moderate or low. The three questions are as follows,

1. The potential for contact with the material?
2. The influence of vibration on the material?
3. The potential for air erosion on the material?

Any question with a high answer shows potential for significant damage, any question answered with moderate shows potential for damage and all questions answered with low shows low potential.

The Environmental Protection Agency established the National Emission Standards for Hazardous Air Pollutants, 40 CFR 61, regulation to require the owner of a demolition or renovation activity and prior to commencement of the demolition or renovation, to thoroughly inspect the affected facility or part of the facility where the demolition or renovation operation will occur for the presence of asbestos. EPA defines a facility as any institutional, commercial, public, industrial, or residential structure, installation or building. It includes any structure, installation, or building containing condominiums or individual dwelling units operated as a residential cooperative, but excludes residential buildings having four or fewer dwelling units.

The State of New Hampshire established Env-A 1800 (Asbestos Management and Control) to better deal with asbestos within residential buildings. Under Env-A 1804.01, the State of New Hampshire requires that the owner/operator of a facility has an asbestos survey completed on the affected portion(s) prior to undertaking any demolition or renovation activity. According to Env-A 1802.31, the State of New Hampshire defines a facility as any institutional, commercial, public, or private building or structure, work place, ship, installation, active waste disposal site, inactive waste disposal site operated after July 9, 1981, or rental dwelling.

Asbestos samples of suspect materials were collected as described below according to type and quantity of material per homogeneous area. A homogeneous area is defined as a suspect material of similar age, appearance, function and texture.

Material	Samples
Miscellaneous materials	One sample per homogeneous area
Surfacing materials	Three samples per homogeneous area
Thermal system insulation	Three samples per homogeneous area

LABORATORY ANALYTICAL METHOD

All bulk samples collected were forwarded to Optimum Analytical & Consulting, LLC. located in Salem, New Hampshire. Optimum is a NIST/NVLAP and AIHA-accredited laboratory.

Analyses were performed using standard optical microscopy and petrographic techniques. A representative portion of the bulk sample was placed on a glass slide, immersed and macerated in the appropriate index oils. This was then examined under plane and fully polarized light on the petrographic microscope. The following features were used to identify unknown particles and fibers: Morphology, index of refraction, birefringence, size, color, etc.

Analytical results (compositions and percentages) are listed on the bulk report form attached. For the purpose of these analyses, asbestos determination and identification is based on definitions as set forth in the US. EPA Environmental Monitoring Systems Laboratory TEST METHOD "Interim Method for the Determination of Asbestos in Bulk Insulation Samples," EPA-600/M4-82-020.

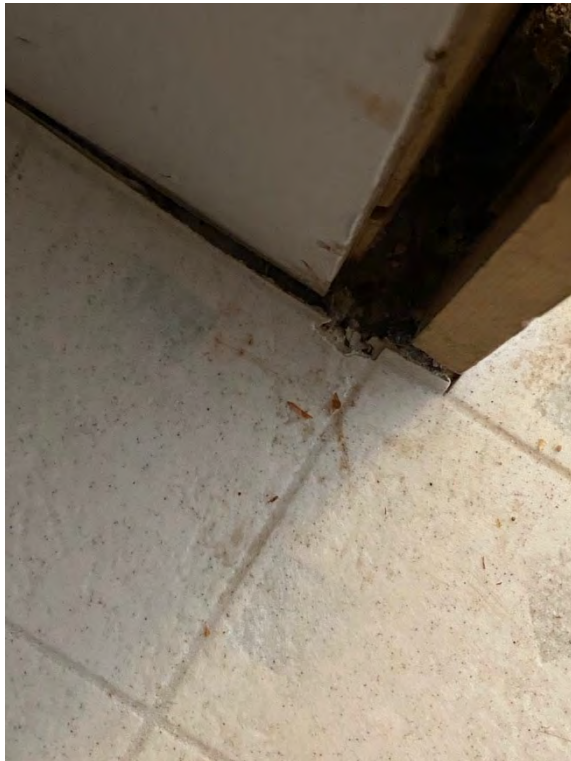
Polarized-light microscopy is not consistently reliable in detecting asbestos in floor tiles. Confirmation by Transmission Electron Microscopy is recommended for negative floor tile samples.

RESULTS

The results of the analysis of the samples taken reveal that some of the wall material and floor tiles contain asbestos.

PHOTOS







SAMPLING MAP

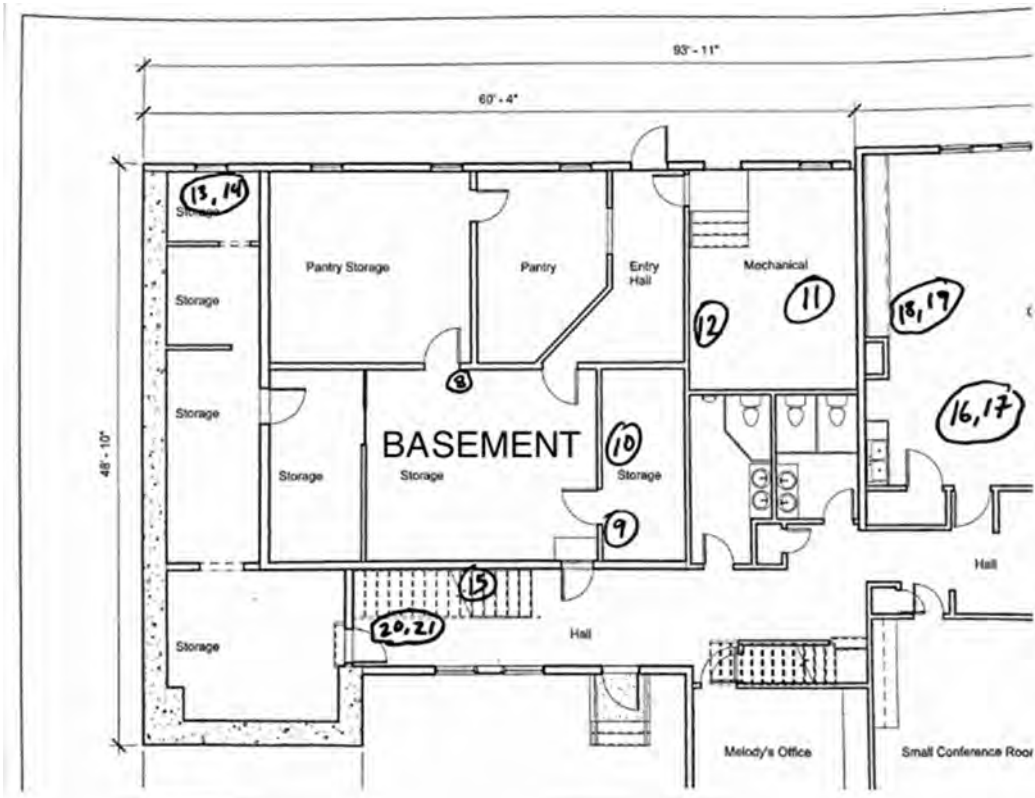
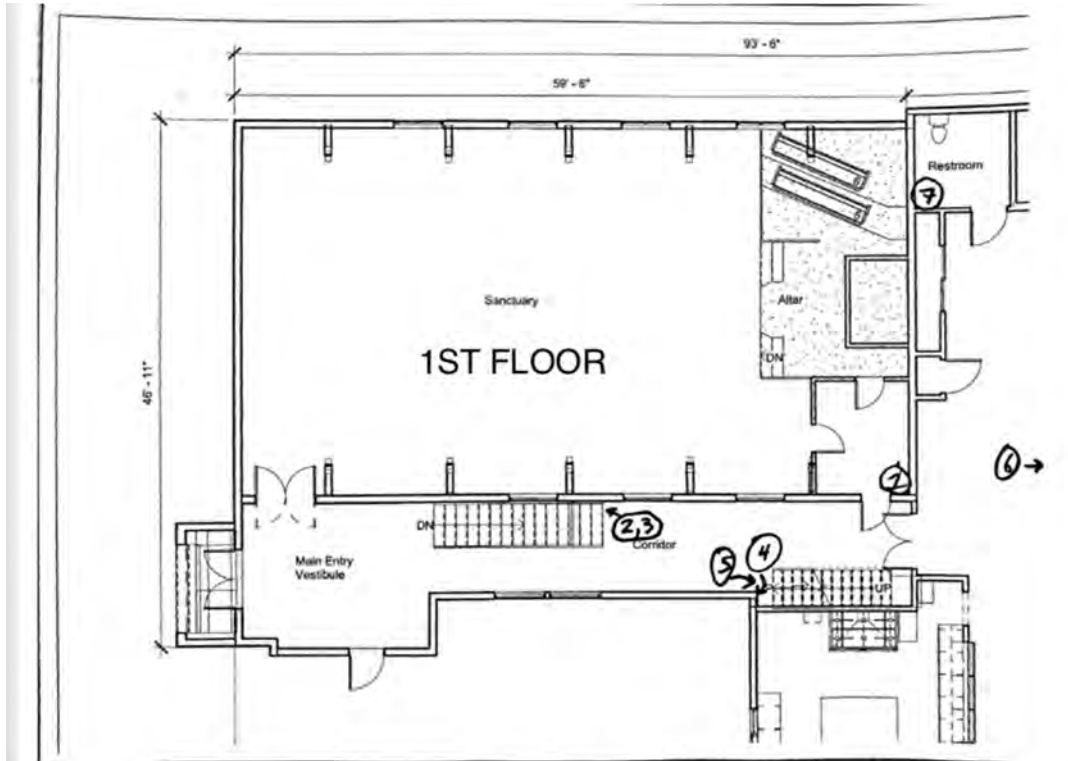


TABLE OF ASBESTOS BULK SAMPLING RESULTS

Sample #	Location	Item	Result
1	1 st Floor – Sanctuary Priest Area	Wall Material, Beige	18% Chrysotile
2	1 st Floor – Behind Staircase in Hallway	Floor Tile, Brown	None
3	1 st Floor – Behind Staircase in Hallway	Adhesive, Brown Adhesive, Tan	None None
4	1 st Floor – Top of Rear Hallway Staircase	Sheetrock, White Joint Compound, White	None None
5	1 st Floor – Top of Rear Hallway Staircase Ceiling	Ceiling Material, White	None
6	1 st Floor – Function Room Ceiling	Ceiling Tile, Beige	None
7	1 st Floor – Function Room Bathroom	Linoleum, Gray Adhesive, Yellow	None None
8	Bottom Floor – Main Storage Ceiling	Ceiling Tile, Beige	None
9	Bottom Floor – Small Storage Ceiling	Ceiling Tile, Beige	None
10	Bottom – Small Storage	Linoleum, Gray Mastic, Tan	None None
11	Mechanical Room Ceiling	Plaster Base Coat, Gray Skim Coat, White Powdery Layer on Plaster, Beige	None None 8% Chrysotile
12	Mechanical Room Wall	Plaster Base Coat, Gray Skim Coat, White	None None
13	Far Back Storage Floor	Floor Tile, Blue/Black	None
14	Far Back Storage Floor	Paper, Black Mastic, Brown	None None
15	Bottom of Main Stairs Ceiling	Ceiling Tile, Beige/White	None
16	Conference Room Floor	Floor Tile, Tan	5% Chrysotile

17	Conference Room Floor	Mastic, Black	None
18	Conference Room Floor	Floor Tile, Brown	5% Chrysotile
19	Conference Room Floor	Mastic, Black	None
20	Outside Storage Under Stairs	Floor Tile, Beige	None
21	Outside Storage Under Stairs	Adhesive, Tan	None

None = No Asbestos Structures Detected

ABATEMENT COST ESTIMATE

Material	Ft²	Cost
Sanctuary Wall Material	2,280	\$45,600
Mechanical Room Ceiling Material	42	\$840
Conference Room Floor Tile	1023	\$7,161
Specifications and Industrial Hygiene		\$10,000
TOTAL		\$63,601

The laboratory reports are presented in Appendix 1.

If you have any questions regarding this report or require additional services, please do not hesitate to contact our office at (603) 664-5500.

Respectively submitted,
Desmarais Environmental, Inc.



Raymond G. Desmarais, CIH, CSP
New Hampshire Licensed Inspector, Management Planner & Designer
New Hampshire License #024-IMD

Appendix 1: Laboratory Reports

Ray Desmarais
Desmarais Environmental, Inc.
320 Hemlock Lane
Barrington NH 03825

Project Reference:
Laboratory Batch #: 2032712
Date Samples Received: 02/06/2020
Date Samples Analyzed: 02/06/2020
Date of Final Report: 02/06/2020

SAMPLE IDENTIFICATION:

Twenty One (21) samples from Brown Church; Conway project were submitted by John Londergan on 02/06/2020

This bulk sample(s) was delivered to Optimum Analytical Consulting, LLC (Optimum) located in Salem, New Hampshire for asbestos content determination.

ANALYTICAL METHOD:

Analytical procedures were performed in accordance with the U.S. Environmental Protection Agency (EPA) Recommended Method for the Determination of Asbestos in Bulk Samples by Polarized Light Microscopy and Dispersion Staining (PLM/DS)(EPA-40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples, EPA-600/ R-93-116 Method for Determination of Asbestos in Bulk Building Materials). This report relates only to those samples analyzed, and may not be indicative of other similar appearing materials existing at this, or other sites. Quantification of asbestos content was determined by Calibrated Visual Estimation. Optimum is not responsible for sample collection activities or analytical method limitations. The laboratory is not responsible for the accuracy of results when requested to physically separate and analyze layered samples.

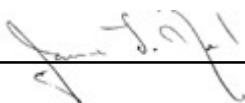
In any given material, fibers with a small diameter (<0.25µm) may not be detected by the PLM method. Floor tile and other resinously bound material may yield a false negative if the asbestos fibers are too small to be resolved using PLM. Additional analytical methods may be required. Optimum recommends using Transmission Electron Microscopy (TEM) for a more definitive analysis.

Optimum will retain all samples for a minimum of three months. Further analysis or return of samples must be requested within this three month period to guarantee their availability. This report may not be reproduced except in full, without the written approval of Optimum Analytical and Consulting, LLC.

Use of the NVLAP and AIHA Logo in no way constitutes or implies product certification, approval, or endorsement by the National Institute of Standards and Technology or the American Industrial Hygiene Association.

Detection Limit <1%, Reporting Limits: CVES = 1%, 400 Point Count = .25%, 1000 Point Count = 0.1%; Present or Absent are observations made during a qualitative analysis.

This report is considered preliminary until signed by both the Laboratory Analyst and Laboratory Director or Supervisor. If you have any questions regarding this report, please do not hesitate to contact us.



Jamie L. Noel
Laboratory Director



Kristina Scaviola
Laboratory Supervisor



OPTIMUM

Analytical and Consulting, LLC

85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

BULK SAMPLE ANALYSIS REPORT POLARIZED LIGHT MICROSCOPY

PLM (EPA-40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples, EPA-600/ R-93-116 Method for Determination of Asbestos in Bulk Building Materials) NVLAP Lab Code: 101433-0

CLIENT: Desmarais Environmental, Inc.
ADDRESS: 320 Hemlock Lane
CITY / STATE / ZIP: Barrington NH 03825
CONTACT: Ray Desmarais
DESCRIPTION: PLM Analysis
LOCATION: Brown Church; Conway

ORDER #: 2032712
PROJECT #:
DATE COLLECTED: 02/05/2020
COLLECTED BY: John Londergan
DATE RECEIVED: 02/06/2020
ANALYSIS DATE: 02/06/2020
REPORT DATE: 02/06/2020
ANALYST: Kristina Scaviola

REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type	(%)	Non-Asbestos Components	(%)	
2032712-001 1	1st-Sanctuary Priest Area Wall Wall Material, Beige	LAYER 1 100%	Chrysotile	18%	Cellulose Fiber	5%	
					Non-Fibrous Material	77%	
Total % Asbestos:				18.0%	Total % Non-Asbestos: 82.0%		
2032712-002 2	1st-Floor Behind Staircase in Hallway Floor Tile, Brown	LAYER 1 100%	None Detected		Cellulose Fiber	1%	
					Non-Fibrous Material	99%	
Total % Asbestos:				No Asbestos Detected	Total % Non-Asbestos: 100.0%		
2032712-003 3	1st-Floor Behind Staircase in Hallway LAYER 1 Adhesive, Brown	LAYER 1 100%	None Detected		Cellulose Fiber	1%	
					Non-Fibrous Material	99%	
		LAYER 2 Adhesive, Tan	LAYER 2 100%	None Detected		Cellulose Fiber	1%
						Non-Fibrous Material	99%
Total % Asbestos:				No Asbestos Detected	Total % Non-Asbestos: 100.0%		
2032712-004 4	1st-Top of Rear Hallway Staircase LAYER 1 Sheetrock, White	LAYER 1 100%	None Detected		Cellulose Fiber	10%	
					Fibrous Glass	1%	
		LAYER 2 Joint Compound, White	LAYER 2 100%	None Detected		Non-Fibrous Material	89%
						Cellulose Fiber	1%
Total % Asbestos:				No Asbestos Detected	Total % Non-Asbestos: 100.0%		
2032712-005 5	1st-Top of Rear Hallway Staircase Ceiling Ceiling Material, White	LAYER 1 100%	None Detected		Cellulose Fiber	1%	
					Non-Fibrous Material	99%	
Total % Asbestos:				No Asbestos Detected	Total % Non-Asbestos: 100.0%		
2032712-006 6	1st-Function Room Ceiling Ceiling Tile, Beige	LAYER 1 100%	None Detected		Cellulose Fiber	85%	
					Non-Fibrous Material	15%	
Total % Asbestos:				No Asbestos Detected	Total % Non-Asbestos: 100.0%		



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BULK SAMPLE ANALYSIS REPORT POLARIZED LIGHT MICROSCOPY

PLM (EPA-40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples, EPA-600/ R-93-116 Method for Determination of Asbestos in Bulk Building Materials) NVLAP Lab Code: 101433-0

CLIENT: Desmarais Environmental, Inc.
ADDRESS: 320 Hemlock Lane
CITY / STATE / ZIP: Barrington NH 03825
CONTACT: Ray Desmarais
DESCRIPTION: PLM Analysis
LOCATION: Brown Church; Conway

ORDER #: 2032712
PROJECT #:
DATE COLLECTED: 02/05/2020
COLLECTED BY: John Londergan
DATE RECEIVED: 02/06/2020
ANALYSIS DATE: 02/06/2020
REPORT DATE: 02/06/2020
ANALYST: Kristina Scaviola

REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type (%)	Non-Asbestos Components (%)
2032712-007 7	1st-Function Room Bathroom			
	LAYER 1 Linoleum, Gray	LAYER 1 100%	None Detected	Cellulose Fiber 65% Non-Fibrous Material 35%
	LAYER 2 Adhesive, Yellow	LAYER 2 100%	None Detected	Cellulose Fiber 2% Non-Fibrous Material 98%
Total % Asbestos:			No Asbestos Detected	Total % Non-Asbestos: 100.0%
2032712-008 8	Bottom-Main Storage Ceiling Ceiling Tile, Gray	LAYER 1 100%	None Detected	Cellulose Fiber 65% Fibrous Glass 25% Non-Fibrous Material 10%
	Total % Asbestos:			No Asbestos Detected
2032712-009 9	Bottom-Small Storage Ceiling Ceiling Tile, Beige	LAYER 1 100%	None Detected	Cellulose Fiber 90% Non-Fibrous Material 10%
	Total % Asbestos:			No Asbestos Detected
2032712-010 10	Bottom-Small Storage			
	LAYER 1 Linoleum, Gray	LAYER 1 100%	None Detected	Cellulose Fiber 65% Fibrous Glass 10% Non-Fibrous Material 25%
	LAYER 2 Mastic, Tan	LAYER 2 100%	None Detected	Cellulose Fiber 2% Non-Fibrous Material 98%
Total % Asbestos:			No Asbestos Detected	Total % Non-Asbestos: 100.0%
2032712-011 11	Mechanical Room Ceiling			
	LAYER 1 Ceiling - Plaster Base Coat, Gray	LAYER 1 100%	None Detected	Cellulose Fiber 5% Non-Fibrous Material 95%
	LAYER 2 Skim Coat, White	LAYER 2 100%	None Detected	Cellulose Fiber 1% Non-Fibrous Material 99%
	LAYER 3 Powdery Layer on Plaster Base Coat, Beige	LAYER 3 100%	Chrysotile 8%	Cellulose Fiber 3% Non-Fibrous Material 89%
Total % Asbestos:			8.0%	Total % Non-Asbestos: 92.0%



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BULK SAMPLE ANALYSIS REPORT POLARIZED LIGHT MICROSCOPY

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ANALYSIS DATE: 02/06/2020
REPORT DATE: 02/06/2020
ANALYST: Kristina Scaviola

REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type (%)	Non-Asbestos Components (%)
2032712-012 12	Mechanical Room Wall			
	LAYER 1 Wall - Plaster Base Coat, Gray	LAYER 1 100%	None Detected	Cellulose Fiber 5% Non-Fibrous Material 95%
	LAYER 2 Skim Coat, White	LAYER 2 100%	None Detected	Cellulose Fiber 1% Non-Fibrous Material 99%
		Total % Asbestos:	No Asbestos Detected	Total % Non-Asbestos: 100.0%
2032712-013 13	Far Back Storage Floor Floor Tile, Blue/Black	LAYER 1 100%	None Detected	Cellulose Fiber 10% Non-Fibrous Material 90%
			Total % Asbestos:	No Asbestos Detected Total % Non-Asbestos: 100.0%
2032712-014 14	Far Back Storage Floor			
	LAYER 1 Paper, Black	LAYER 1 100%	None Detected	Cellulose Fiber 85% Non-Fibrous Material 15%
	LAYER 2 Mastic, Brown	LAYER 2 100%	None Detected	Cellulose Fiber 3% Non-Fibrous Material 97%
		Total % Asbestos:	No Asbestos Detected	Total % Non-Asbestos: 100.0%
2032712-015 15	Bottom of Main Stairs Ceiling Ceiling Tile, Beige/White	LAYER 1 100%	None Detected	Cellulose Fiber 85% Non-Fibrous Material 15%
			Total % Asbestos:	No Asbestos Detected Total % Non-Asbestos: 100.0%
2032712-016 16	Conference Room Floor Floor Tile, Tan	LAYER 1 100%	Chrysotile 5%	Cellulose Fiber 1% Non-Fibrous Material 94%
			Total % Asbestos:	5.0% Total % Non-Asbestos: 95.0%
2032712-017 17	Conference Room Floor Mastic, Black	LAYER 1 100%	None Detected	Cellulose Fiber 3% Non-Fibrous Material 97%
			Total % Asbestos:	No Asbestos Detected Total % Non-Asbestos: 100.0%
2032712-018 18	Conference Room Floor Floor Tile, Brown	LAYER 1 100%	Chrysotile 5%	Cellulose Fiber 2% Non-Fibrous Material 93%
			Total % Asbestos:	5.0% Total % Non-Asbestos: 95.0%



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DESCRIPTION: PLM Analysis
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BULK SAMPLE ANALYSIS REPORT POLARIZED LIGHT MICROSCOPY

PLM (EPA-40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples, EPA-600/ R-93-116 Method for Determination of Asbestos in Bulk Building Materials) NVLAP Lab Code: 101433-0

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REPORT DATE: 02/06/2020
ANALYST: Kristina Scaviola

REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type (%)	Non-Asbestos Components (%)
2032712-019 19	Conference Room Floor Mastic, Black	LAYER 1 100%	None Detected	Cellulose Fiber 3%
				Non-Fibrous Material 97%
Total % Asbestos:			No Asbestos Detected	Total % Non-Asbestos: 100.0%
2032712-020 20	Outside Storage Under Stairs Floor Floor Tile, Beige	LAYER 1 100%	None Detected	Cellulose Fiber 1%
				Non-Fibrous Material 99%
Total % Asbestos:			No Asbestos Detected	Total % Non-Asbestos: 100.0%
2032712-021 21	Outside Storage Under Stairs Floor Adhesive, Tan	LAYER 1 100%	None Detected	Cellulose Fiber 3%
				Non-Fibrous Material 97%
Total % Asbestos:			No Asbestos Detected	Total % Non-Asbestos: 100.0%

Analyst Signatory: 
 Kristina Scaviola





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ANALYST: Kristina Scaviola

2032712

Sample Log and Chain of Custody Record

Project :	Conway - Brown Church
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RUSH TURNAROUND

Sample #	Description	Location	Analysis
1	Wall Material	1st - Sanctuary Priest Area	PLM ASB
2	Floor Tile	1st - Behind Staircase in Hallway	PLM ASB
3	Adhesive	1st - Behind Staircase in Hallway	PLM ASB
4	Sheetrock	1st - Top of rear hallway staircase	PLM ASB
5	Ceiling Material	1st - Top of rear hallway staircase	PLM ASB
6	Ceiling Tile	1st - Function Room	PLM ASB
7	Linoleum	1st - Function Room Bathroom	PLM ASB
8	Ceiling Tile	Bottom - Main Storage	PLM ASB
9	Ceiling Tile	Bottom - Small Storage	PLM ASB
10	Linoleum	Bottom - Small Storage	PLM ASB
11	Ceiling	Mechanical Room	PLM ASB
12	Wall	Mechanical Room	PLM ASB
13	Floor Tile	Far Back Storage	PLM ASB
14	Mastic Paper	Far Back Storage	PLM ASB
15	Ceiling Tile	Bottom of Main Stairs	PLM ASB
16	Tan Floor Tile	Conference Room	PLM ASB
17	Mastic	Conference Room	PLM ASB
18	Brown/Red Floor Tile	Conference Room	PLM ASB
19	Mastic	Conference Room	PLM ASB
20	Floor Tile	Outside Storage Under Stairs	PLM ASB
21	Adhesive	Outside Storage Under Stairs	PLM ASB

Sampled By:	John Londergan
Sampled On:	2/5/20
Shipped To:	Optimum
Received By:	<i>msc</i> 2/10/2020 12 ⁵⁰

Overview

On December 26, 2019 I conducted a lead paint survey on the exterior and interior surfaces of the building located at 132 Main Street, Conway NH 03818. Of the surfaces tested the following areas tested positive for lead paint.

Interior:

The B side window sills and sashes in area 20.

The outside plaster walls (Sides A and B) of area 21

The D wall of area 22

These areas were intact and are not friction and impact surfaces nor are they accessible/chewable surfaces and therefore are not considered a lead paint hazard at this time.

Exterior:

The upper trim and soffits were not accessible. They need to be tested and if found to test positive for lead paint, the defective sides should be encapsulated

The old window casings and sills tested positive for lead paint and are defective. These areas need to be encapsulated.

No other lead based paint was found on the surfaces tested.



Marc Elbaum

NH Risk Assessor.....License # RA-049

Address of Lead Survey: 132 Main St.
Conway NH 03818

Inspection Report Codes

- | | | | | |
|--------------------|--|---------------------|---------------------|------------------|
| AI = aluminum | CR = component is representative and is not tested | I = intact | P = paint | ST = stain |
| B = brick | CU = copper | LN = lauan | PL = plaster | UR = urethane |
| C = concrete block | D = defective | M = metal | PN = paneling | V = varnish |
| CI = cast iron | FB = fiber board | MS = masonite | PW = plywood | VN = vinyl |
| COV = cover | HW = hollow wood | NA = not accessible | REP = replace | VR = vinyl rep. |
| CP = carpet | G = Good | NP = no paint | SH = sheetrock | W = wood |
| Paint Condition | AC = Accessible | NV = not visible | SM = sheet metal | WP = wall paper |
| Hazard Type | | F = Fair | P = Poor | |
| | | CK = Chip or Crack | F&I = Frict./Impact | FP = Flake/ Peel |

Remarks:

- All surfaces painted unless otherwise noted.
- Lead-based paint survey, limited testing performed, not all representative surfaces tested.
- Lead-based paint was not present on the surfaces tested.
- Lead-base substance as defined in New Hampshire RSA-130A and He-P1600 was located on _____
- Lead-based paint was present on some surfaces tested. Lead-based paint was not located on accessible / chewable surfaces, friction and impact surfaces and the lead-based painted surfaces were in good condition and therefore are not considered a lead-based paint hazard as defined in New Hampshire RSA-130A and He-P1600.
- Lead-based paint was present on some surfaces tested. Lead-based paint was located on accessible / chewable surfaces, friction and impact surfaces or the lead-based painted surfaces were not in good condition and therefore are considered a lead-based paint hazard as defined in New Hampshire RSA-130A and He-P1600.

Calibration Log							
Time: 9:45		Time: 1:30		Time: 2:30		Time:	
-0.1	0.8	-0.1	0.8	-0.2	1.0		
-0.1	0.7	-0.1	1.0	-0.1	0.8		
-0.2	0.8	-0.1	0.8	-0.2	0.8		

Inspection Date				
1	2	2	6	19

Man Ellbaum
 Inspector

RA-049
 Registration No.

Introduction

A Lead-based Paint Survey is a limited inspection service, where a limited number of surfaces are sampled. The survey does not represent a full lead-based paint inspection as defined in RSA 130-A, He-P 1600 and Chapter 7 of the HUD Guidelines Chapter 7.

The purpose of this survey is to identify the possibility that some building materials in the structure contain lead-based paint. The purpose of this survey is not to identify all individual building components that contain lead-based paint or to identify all potential lead-based paint hazards. If the client's intent is to have a report that identifies all lead-based paint and all lead-based paint hazards the client may contractor with Alpha Lead Consultants, Inc. to perform those services.

This Lead-based Paint Survey Report only determines the presence or absence of a lead-based substance on the surfaces tested. This Lead-based Paint Survey Report does not determine the presence or absence of a lead-based substance at this property.

All untested surfaces shall be treated as a lead based substance as defined in RSA 130-A, He-P 1600 and Chapter 7 of the HUD Guidelines Chapter 7. All untested surfaces for safety purposes shall be treated as if they contain a lead-based substance.

Alpha Lead Consultants, Inc. has explained to the client and / or Realtor on site the scope of services available and the information provided by the survey verses the information provided by the full inspection with the risk assessment.

The Owner has chosen to perform the limited inspection service described above as a Lead-based Paint Survey.

Marc Elbaum
INSPECTOR
RA-049
LIC. #

Kate Richards
CLIENT for Bergeron Tech Svcs
CLIENT

Definition of a Lead Based Substance

"Lead based substance" as defined by the State of New Hampshire, RSA 130-A is as follows:

(a) When present in a dried film of paint or other coating on walls, woodwork or other surfaces, or in plaster, putty or other substances:

- (1) The presence of lead equal to or greater than 1.0 milligram of lead per square centimeter of surface area as measured on site by a portable x-ray fluorescence analyzer; or
- (2) The presence of lead equal to or greater than 0.5 percent lead by weight as determined by laboratory analysis.

Definition of a Lead Exposure Hazard

Lead exposure hazards as defined by the State of New Hampshire, RSA 130-A are as follows:

"Lead exposure hazard" means:

1. The presence of lead base substances on chewable, accessible, horizontal surfaces that protrude more than 1/2 inch and are located more than 6 inches but less than 4 feet from the floor or ground.
2. Lead base substances which are peeling, chipping, chalking, or cracking or any paint located on an interior or exterior surface or fixture that is damaged or deteriorated and is likely to become accessible to a child.
3. Lead base substances on interior or exterior surfaces that are subject to abrasion or friction or subject to damage by repeated impact.
4. When present in soil, the presence of lead equal to or greater than 400 parts per million of lead in bare soil in children's play area or 1,200 parts per million average for bare soil in the rest of the yard, unless otherwise established by the United States Environmental Protection Agency, in which case the United States Environmental Protection Agency standard shall prevail.
5. When presence in surface dust and quantified as an area or mass concentration of lead equal to or greater than:
 - (a) On the floors, equal to or greater than 40 micrograms of lead per square foot;
 - (b) On the window sills, equal to or greater than 250 micrograms of lead per square foot;
 - (c) On the window well, equal to or greater than 400 micrograms of lead per square foot;
 - (d) On an exterior surface, equal to or greater than 800 micrograms of lead per square foot.

X-Ray Fluorescence Spectrum Analyzer Testing

Testing was conducted using a Radiation Monitoring Device LPA-1, portable X-Ray Fluorescence Spectrum Analyzer (Serial No. 1164), aka XRF instrument. Testing was performed in accordance with U.S. Department of Housing and Urban Development (HUD) Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (June 1995) and the 1997 Revision of Chapter 7, the Performance Characteristic Sheet for the instrument used and the New Hampshire Rules He-P 1600. Testing was performed on the selected interior and may include exterior surfaces of the building. The testing performed was not a comprehensive lead-based paint inspection as defined by HUD Chapter 7 and He-P 1600, the testing performed was limited to select surfaces, and not all surfaces were tested.

Interpretation of the Survey Report

A listing of all components tested is provided in the Survey Report. The Survey Report consists of a floor plan of the property; all rooms and areas are assigned a number. The side of the rooms or areas is designated with the direction (A,B,C or, D, with the "A" side always referring to the street side). If more than one door or window is present on a particular wall, the #1 door/window is always on the inspector's left as he faces the wall and counts clockwise. Notations then proceed from left to right in numerical order.

Explanation of Lead Inspection Report Form Columns

Column A-B-C-D	Refers to A,B,C, or D side of the building or room. See the diagram on the cover sheet to determine the A-side of the room, which is explained above.
Lead (Pb)	The actual lead result. Each surface tested must have a result recorded in the "Lead" column. A number shows that the surface was tested with an XRF analyzer. A number (or average number) equal to or greater than 1.0 mg/cm ² is a dangerous level of lead.
Substrate	This is the type of surface that is being tested. Refer to page 2 of the inspection report for keys to the different substrates.
Condition	If lead is found this will tell the condition of the paint. G = Good, F = Fair and P = Poor
Comments	Any additional observations or test results made by the inspector that effect the inspection

93' - 11"

60' - 4"

Parking Lot

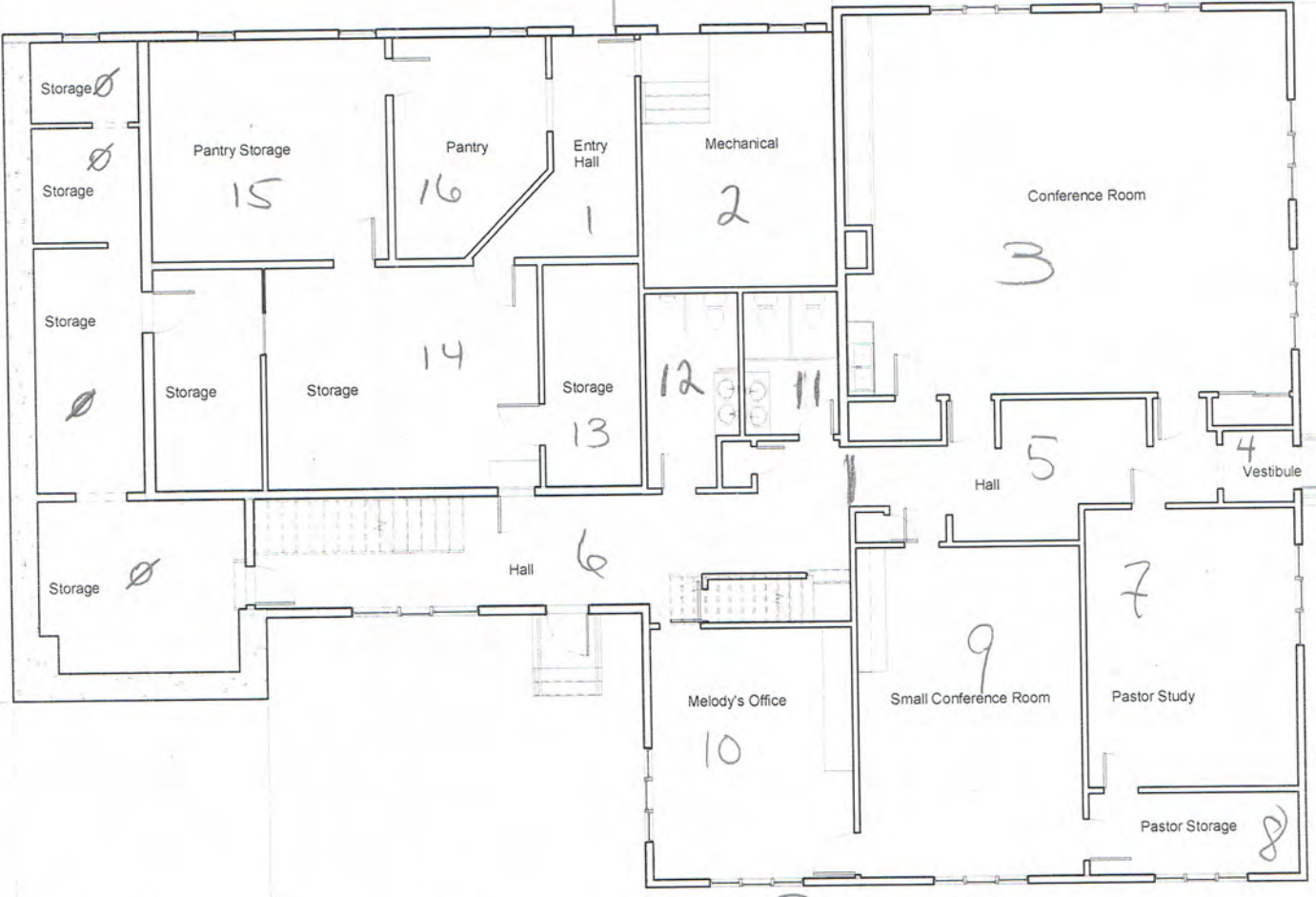
(B)

33' - 7"

132 MAIN ST
CONWAY NH 03818

48' - 10"

(A)



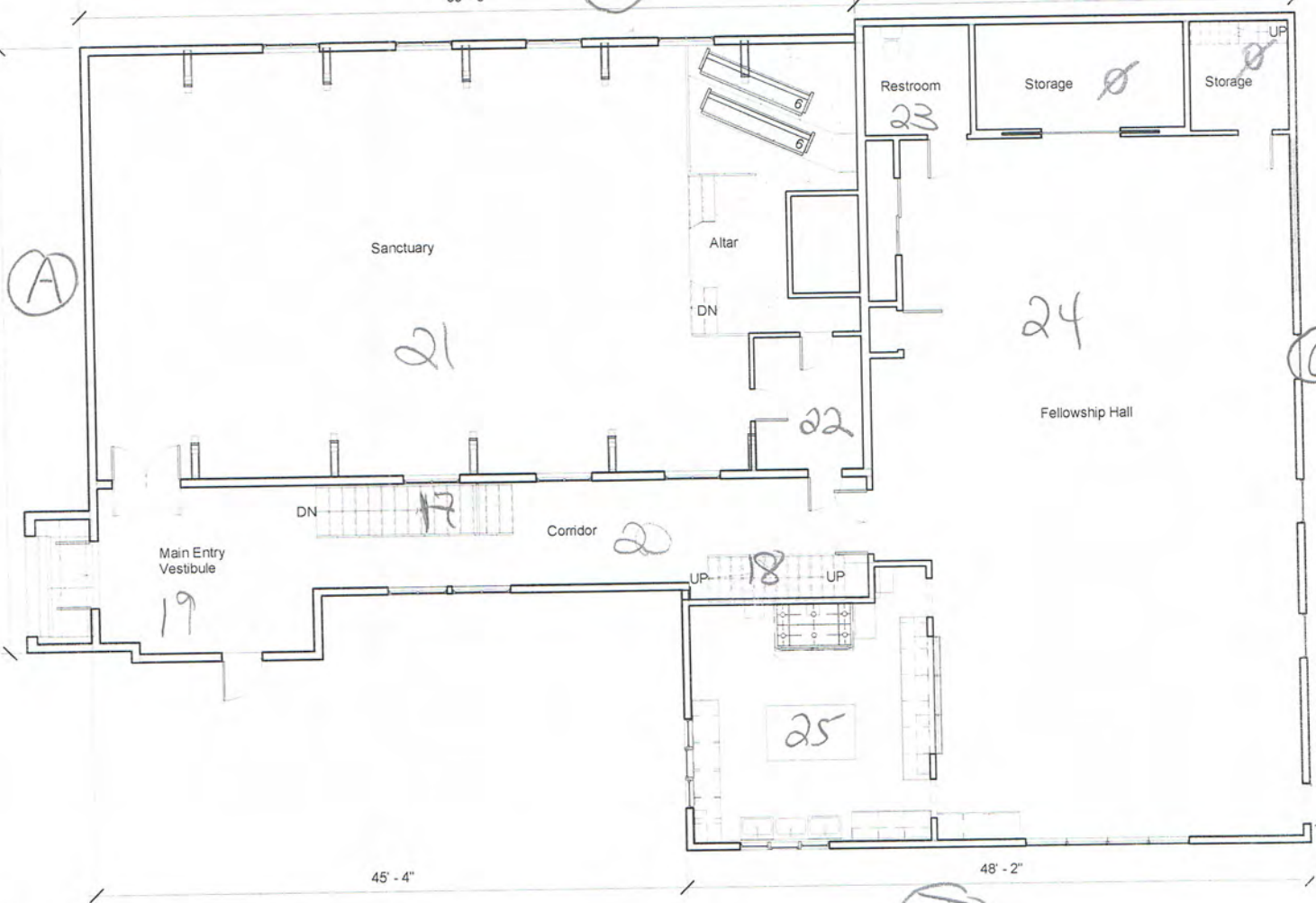
1 Lower Level 85% Plan
1/8" = 1'-0"

LOWER LEVEL

Parking Lot

Page 6 of 21

132 Main St.
CONWAY NH 03818



1 Main Level Floor Plan 85% completion
1/8" = 1'-0"

Main Level Floor Plan

Address of Inspection: 132 Main Street, Conway NH 03818

Area # 1 Room Hallway

Area # 2 Room Hallway Mechanical

Side	Surface	PB	Sub Type	Cond	Comments
↓	↓				
A	Walls	-0.2	Gy		
B	Walls	-0.2	Gy		
C	Walls	-0.1	Gy		
D	Walls	-0.1	Gy		
C	Chair Rail	0.0	W		
	Baseboard	-0.1	W		
C	Door	-0.3	W		
C	Casing	-0.1	W		
C	Door Jamb	-0.1	W		
C	Threshold	-0.2	W		
	Window Sill				
	Apron				
	Casing				
	Stops				
	Int. Sash				
	Ext. Sill / PB				
	Ext. Sash				
	Closet Walls				
	Baseboards				
	Door Int.				
	Casing/Jamb				
	Shelf/ Supports				
	Floor / Ceiling				
	Floor	-0.1	W	V	
C	Heat Unit	0.1	W		
	Ceiling	NC	tile		above drop < 0.1
A	Pass thru frame	-0.1	W		
A	Pass thru sash	-0.3	W		

Side	Surface	PB	Sub Type	Cond	Comments
↓	↓				
A	Wall	-0.1	P		
B	Wall	-0.1	P		
C	Wall	0.0	P		
D	Wall	0.1	P		
	Chair Rail				
	Baseboard				
	Door				
	Casing				
	Door Jamb				
	Threshold				
B	Window Sill	-0.3	W	V	
B	Apron	-0.2	W	V	
B	Casing	-0.3	W	V	
B	Stops	-0.3	W	V	
D	Int. Sash	NC	Vn	Rep	
B	Ext. Sill / PB	↓	↓	↓	
B	Ext. Sash	↓	↓	↓	
	Closet Walls				
	Baseboards				
	Door Int.				
	Casing/Jamb				
	Shelf/ Supports				
	Floor / Ceiling				
	Floor	NC			
	Heat Unit				
	Ceiling	NC			
A+B	Stairs	NC	W		

Remarks: Crown mldg 0.0 W

Remarks:

Room Closet, very full accessible surfaces tested.

Room Closet, very full accessible surfaces tested

Date					
1	2	2	6	1	9

Marc Ellman
Inspector

RA-049
Registration No.

Address of Inspection: 132 Main Street, Conway NH 03818

Area # 3 Room Hallway

Area # 4 Room Hallway

Side	Surface	PB	Sub Type	Cond	Comments
↓	↓				
A	Walls	-0.2	Gy		
B	Walls	-0.3	Gy		
C	Walls	-0.2	Gy		
D	Walls	-0.1	Gy		
A	Chair Rail	-0.1	W		
D	Baseboard	-0.1	Vn	Cov	
D3	Door	-0.1	W		
D3	Casing	-0.2	W		
D3	Door Jamb	-0.2	W		
D3	Threshold	-			
B1	Window Sill	-0.3	W		
B1	Apron	0.0	W		
B1	Casing	-0.1	W		
B1	Stops	0.0	W		
B1	Int. Sash	NC	Vn	Rep	
↓	Ext. Sill / PB	↓	↓	↓	
↓	Ext. Sash	↓	↓	↓	
D	Closet Walls	-0.3	Gy		
	Baseboards	-			
	Door Int.	-0.3	HC	V	
	Casing/Jamb	0.0/0.1	W/W		
	Shelf/ Supports	-0.1/1	W/		
I	Floor / Ceiling	NC-0.2	VCT/Gy		
	Floor	NC	VCT		
B	Heat Unit	-0.1	M		
	Ceiling	0.0	Tile		above NC tile
A	Cabinets	<0.0	W		all
A	bulletinbd	0.1	W/cork		

Side	Surface	PB	Sub Type	Cond	Comments
↓	↓				
A	Wall	-0.2	Gy		
B	Wall	-0.2	Gy		
C	Wall	-0.2	Gy		
D	Wall	-0.3	Gy		
A	Chair Rail	-0.1	W		
A	Baseboard	-0.1	W		
A	Door	-			
A	Casing	-0.1	W		
A	Door Jamb	-0.1	W		
A	Threshold	-			
	Window Sill				
	Apron				
	Casing				
	Stops				
	Int. Sash				
	Ext. Sill / PB				
	Ext. Sash				
	Closet Walls				
	Baseboards				
	Door Int.				
	Casing/Jamb				
	Shelf/ Supports				
	Floor / Ceiling				
	Floor	NC	CP	Cov	
	Heat Unit				
	Ceiling	-0.1	Tile		
	Crown	-0.2	W		

Remarks:
Crown mldg - 0.1 w

Room Closet, very full accessible surfaces tested.

Remarks:

Room Closet, very full accessible surfaces tested

Date
1 | 2 | 2 | 6 | 1 | 9

Marc Ellbaum
Inspector

RA-049
Registration No.

Address of Inspection: 132 Main Street, Conway NH 03818

Area # 5 Room Hallway

Area # 6 Room Hallway

Side	Surface	PB	Sub Type	Cond	Comments
↓	↓				
A	Walls	-0.3	Gy		
B	Walls	-0.2	Gy		
C	Walls	-0.2	Gy		
D	Walls	-0.2	Gy		
B	Chair Rail	-0.3	W		
B	Baseboard	0.0	W		
A	Door (cbsref)	-0.3	H/C		
A	Casing	-0.2	W		
A	Door Jamb	0.0	W		
A	Threshold				
	Window Sill				
	Apron				
	Casing				
	Stops				
	Int. Sash				
	Ext. Sill / PB				
	Ext. Sash				
A	Closet Walls	NC			
	Baseboards				
	Door Int.				
	Casing/Jamb				
	Shelf/ Supports				
	Floor / Ceiling				
	Floor	NC	CP	COV	
	Heat Unit				
	Ceiling	-0.2	Tile		
B	Cabinet	-0.3	MS		
	Crown Mldg	-0.3	W		

Side	Surface	PB	Sub Type	Cond	Comments
↓	↓				
A	Wall	-0.2	Gy		
B	Wall	-0.1	Gy		
C	Wall	-0.2	Gy		
D	Wall	-0.3	Gy		
A	Chair Rail	-0.2	W		
A	Baseboard	-0.1	W		
B2	Door	-0.3	H/C		
B2	Casing	-0.3	W		
B2	Door Jamb	-0.2	W		
	Threshold				
B	Window Sill	-0.1	W		
D	Apron	0.1	W		
D	Casing	-0.3	W		
D	Stops	-0.2	W		
D	Int. Sash	NC	Vn	Rep	
↓	Ext. Sill / PB	↓	↓	↓	
	Ext. Sash				
	Closet Walls				
	Baseboards				
	Door Int.				
	Casing/Jamb				
	Shelf/ Supports				
	Floor / Ceiling				
	Floor	NC	CP	COV	
B	Heat Unit	-0.1	M		
	Ceiling	-0.2	Tile		
B	Understair stor	-0.1	W		
B	bulletin bd	-0.1	W		

Remarks:

Remarks:

crown mldg 0.0 W

Room Closet, very full accessible surfaces tested.

Room Closet, very full accessible surfaces tested

Date					
1	2	2	6	1	9

Marc Allbaum
Inspector

RA-049
Registration No.

Address of Inspection: 132 Main Street, Conway NH 03818

Area # 9 Room Hallway

Area # 10 Room Hallway

Side	Surface	PB	Sub Type	Cond	Comments
↓	↓				
A	Walls	-0.1	Gy		
B	Walls	-0.2	Gy		
C	Walls	-0.2	Gy		
D	Walls	-0.3	Gy		
A	Chair Rail	-0.3	W		
A	Baseboard	-0.1	W		
A	Door	-0.1	HC	V	
A	Casing	-0.1	W		
A	Door Jamb	-0.1	W		
	Threshold	/			
D	Window Sill	0.0	W		
D	Apron	-0.1	W		
D	Casing	-0.2	W		
D	Stops	-0.1	W		
D	Int. Sash	NC	Vn	Rep	
↓	Ext. Sill / PB	↓	↓	↓	
↓	Ext. Sash	↓	↓	↓	
	Closet Walls				
	Baseboards				
	Door Int.				
	Casing/Jamb				
	Shelf/ Supports				
	Floor / Ceiling	/			
	Floor	NC	CP	COV	
D	Heat Unit	-0.2	M		
	Ceiling	0.0	Tile		
A	cabinets	<0.1	W	V	upper+lower
C	Bookshelves	-0.3	W	V	
C	Crown Molding	-0.3	W		

Side	Surface	PB	Sub Type	Cond	Comments
↓	↓				
A	Wall	-0.3	Gy		
B	Wall	-0.3	Gy		
C	Wall	-0.1	Gy		
D	Wall	-0.1	Gy		
A	Chair Rail	-0.3	W		
B	Baseboard	-0.1	W		
B	Door	-0.2	W	V	
B	Casing	-0.2	W		
B	Door Jamb	-0.1	W		
	Threshold	/			
A	Window Sill	0.1	W		
A	Apron	-0.1	W		
A	Casing	-0.2	W		
A	Stops	-0.2	W		
A	Int. Sash	NC	Vn	Rep	
↓	Ext. Sill / PB	↓	↓	↓	
↓	Ext. Sash	↓	↓	↓	
	Closet Walls				
	Baseboards				
	Door Int.				
	Casing/Jamb				
	Shelf/ Supports				
	Floor / Ceiling	/			
	Floor	NC	CP	COV	
A	Heat Unit	-0.1	M		
	Ceiling	0.0	Tile		
C	wall unit cabinets	-0.1	W	V	
D	ac frame	-0.2	W		

Remarks:

Room Closet, very full accessible surfaces tested.

Remarks:

Room Closet, very full accessible surfaces tested.

Date				
1	2	2	6	19

Marc Ellmann
Inspector

RA-049
Registration No.

Address of Inspection: 132 Main St., Conway NH 03818

Area # 11 Kitchen Pantry Bath Ladies

Area # 12 Kitchen Pantry Bath Men's

Side	Surface	PB	Sub Type	Cond	Comments
↓	↓				
A	Wall	-0.2	Gy		
B	Wall	-0.3	Gy		
C	Wall	-0.2	Gy		
D	Wall	-0.3	Gy		
	Chair Rail				
A	Baseboard	-0.1	W		
D	Door	-0.2	HC	V	
D	Casing	0.0	W		
D	Door Jamb	-0.3	W		
	Threshold				
	Window Sill				
	Apron				
	Casing				
	Stops				
	Int. Sash				
	Ext. Sill / PB				
	Ext. Sash				
	Upper Cabinets				
	Walls				
	Shelves				
A	Lower Cabinets	-0.3	W	V	
	Walls	-0.2	W	V	
	Shelves				
	Drawers				
	Floor	NC	VC	L: no	
	Ceiling	0.2	Gy		
	Heat Unit				
B	Stall doors	-0.2	W		

Side	Surface	PB	Sub Type	Cond	Comments
↓	↓				
A	Wall	-0.1	Gy		
B	Wall	-0.2	Gy		
C	Wall	-0.3	Gy		
D	Wall	-0.1	Gy		
	Chair Rail				
A	Baseboard	0.3	W		
D	Door	-0.3	HC		
D	Casing	-0.2	W		
D	Door Jamb	-0.1	W		
	Threshold				
	Window Sill				
	Apron				
	Casing				
	Stops				
	Int. Sash				
	Ext. Sill / PB				
	Ext. Sash				
	Upper Cabinets				
	Walls				
	Shelves				
	Lower Cabinets	-0.1	W		
	Walls	-0.3	W		
	Shelves				
	Drawers				
	Floor	NC	VC	L: no	
	Ceiling	-0.3	Gy		
	Heat Unit				
	Stall walls	0.3	W		

Crown mldg 0.3 W

Remarks: Crown mldg -0.1 W

Remarks:

Room Closet, very full accessible surfaces tested.

Room Closet, very full accessible surfaces tested.

Date				
1	2	2	6	19

Marc Pellam
Inspector

RA-049
Registration No.

Address of Inspection: 132 Main Street, Conway NH 03818

Area # 13 Room Hallway

Area # 14 Room Hallway

Side	Surface	PB	Sub Type	Cond	Comments
↓	↓				
A	Walls	0.0	Gy		
B	Walls	-0.1	Gy		
C	Walls	0.3	FF		
D	Walls	0.0	Gy		
	Chair Rail				
	Baseboard				
A	Door	-0.3	W		
A	Casing	-			
A	Door Jamb	0.1	W		
	Threshold	-			
	Window Sill				
	Apron				
	Casing				
	Stops				
	Int. Sash				
	Ext. Sill / PB				
	Ext. Sash				
	Closet Walls				
	Baseboards				
	Door Int.				
	Casing/Jamb				
	Shelf/ Supports				
	Floor / Ceiling				
	Floor	NC	Lino		
	Heat Unit				
	Ceiling	-0.2	Tile		
A	Shelves	-0.2	W		

Side	Surface	PB	Sub Type	Cond	Comments
↓	↓				
A	Wall	NC	Gy		
B	Wall	-0.2	Gy		
C	Wall	-0.2	Gy		
D	Wall	-0.2	Gy		
B	Chair Rail	0.1	W		
B	Baseboard	-0.1	W		
B1	Door	-0.2	Hc		
B1	Casing	-0.1	W		
B1	Door Jamb	-0.1	W		
	Threshold	-			
	Window Sill				
	Apron				
	Casing				
	Stops				
	Int. Sash				
	Ext. Sill / PB				
	Ext. Sash				
	Closet Walls				
	Baseboards				
	Door Int.				
	Casing/Jamb				
	Shelf/ Supports				
	Floor / Ceiling				
	Floor	-0.3	W	V	
D	Heat Unit	-0.1	M		
	Ceiling	-0.2	Tile		above drop-0.1
D	Step/riser	0.1	CP/W		

Remarks:

Room Closet, very full accessible surfaces tested.

Remarks:

Room Closet, very full accessible surfaces tested

Date
1 2 2 6 1 9

Marc Ellam
Inspector

RA-049
Registration No.

Address of Inspection: 132 Main Street, Conway NH 03818

Area # 15 Room Hallway

Area # 16 Room Hallway

Side	Surface	PB	Sub Type	Cond	Comments
↓	↓				
A	Walls	-0.3	Gy		
B	Walls	-0.3	Gy		
C	Walls	-0.3	Gy		
D	Walls	-0.2	Gy		
B	Chair Rail	-0.1	W		
	Baseboard				
C	Door	-0.3	HC		
C	Casing	0.0	W		
C	Door Jamb	-0.1	W		
	Threshold				
B	Window Sill	-0.2	W		
B	Apron	0.1	W		
B	Casing	-0.1	W		
B	Stops	-0.3	W		
B	Int. Sash	NC	Vn	Rep	
↓	Ext. Sill / PB	↓	↓	↓	
↓	Ext. Sash	↓	↓	↓	
	Closet Walls	/			
	Baseboards	/			
	Door Int.	/			
	Casing/Jamb	/			
	Shelf/ Supports	/			
	Floor / Ceiling	/			
	Floor	-0.3	W	V	
B	Heat Unit	-0.2	M		
	Ceiling	0.1	Tile		above drop < 0.1
A	Crown mldg	-0.1	W		
	Shelves	0.2	M		

B mini blinds -0.2 Vn

Remarks:

Room Closet, very full accessible surfaces tested.

Date					
1	2	2	6	1	9

Side	Surface	PB	Sub Type	Cond	Comments
↓	↓				
A	Wall	-0.3	Gy		
B	Wall	-0.2	Gy		
C	Wall	-0.3	Gy		
D	Wall	-0.3	Gy		
A	Chair Rail	0.1	W		
A	Baseboard	0.0	W		
A	Door	-0.3	HC		
A	Casing	0.1	W		
A	Door Jamb	0.0	W		
	Threshold				
B	Window Sill	-0.3	W		
B	Apron				
B	Casing	0.1	W		
B	Stops	-0.1	W		
B	Int. Sash	NC	Vn	Rep	
↓	Ext. Sill / PB	↓	↓	↓	
↓	Ext. Sash	↓	↓	↓	
	Closet Walls	/			
	Baseboards	/			
	Door Int.	/			
	Casing/Jamb	/			
	Shelf/ Supports	/			
	Floor / Ceiling	/			
	Floor	0.0	W	V	
B	Heat Unit	-0.2	M		
	Ceiling	-0.1	Tile		above drop NC
C	Crown mldg	-0.3	W		
	Shelves	0.0	M		

B mini blinds -0.3 Vn

Remarks:

C Pass-through -0.3 W
C work bench frame 0.0 W

Room Closet, very full accessible surfaces tested

Marc Ellam
Inspector

RA-049
Registration No.

Address of Inspection: 132 Main St., Conway NH 03818

Area # 17 Stairway Basem. to Main Floors

Area # 18 Stairway Basement to Main Floors

Side	Surface				Comments
		PB	Sub Type	Cond	
A	Up / Low Wall				
B	Up / Low Wall	-0.1	Gy		
C	Up / Low Wall	-0.3	Gy		
D	Up / Low Wall	-0.3	Gy		
	Chair Rail				
D	Wall Casing	0.0	W		
	Treads	NC	CP	Cov	
	Risers	NC	CP	Cov	
	Baseboards	/			
C	Joist Plate	0.0	W		
	Stringer	/			
B	Handrails	0.0	W	V	
D	Railing Cap	0.0	W		
	Balusters	/			
	Baluster Plate	/			
C	Newel Post	-0.1	W		
	Door				
	Casing				
	Jamb				
	Threshold				
	Window Sill				
	Apron				
	Casing / Stops				
	Int. / Ext. Sash				
	Ext. Sill / PB				
	Ceiling				

Side	Surface				Comments
		PB	Sub Type	Cond	
A	Up / Low Wall	-0.3	Gy		
B	Up / Low Wall	-0.2	Gy		
C	Up / Low Wall	-0.1	Gy		
D	Up / Low Wall	-0.3	Gy		
C	Chair Rail	-0.1	W		
D	Wall Casing	-0.3	W		
	Treads	NC	CP	Cov	
	Risers	NC	CP	Cov	
	Baseboards	/			
	Joist Plate				
	Stringer				
C, D	Handrails	0.0	W	V	
B	Railing Cap	-0.2	W		
	Balusters	/			
	Baluster Plate	/			
D	Newel Post	-0.2	W		
	Door				
	Casing				
	Jamb				
	Threshold				
	Window Sill				
	Apron				
	Casing / Stops				
	Int. / Ext. Sash				
	Ext. Sill / PB				
	Ceiling				

Remarks:

Remarks:

Area very full accessible surfaces tested

Area very full accessible surfaces tested

Inspection Date				
1	2	2	6	19

Mark Blain
Inspector

RA-049
Registration No.

Address of Inspection: 132 Main Street, Conway NH 03818

Area # 19 Room Hallway

Area # 20 Room Hallway

Side	Surface	PB	Sub Type	Cond	Comments
↓	↓				
A	Walls	-0.3	Gy		
B	Walls	-0.3	Gy		
C	Walls	-0.1	Gy		
D	Walls	-0.1	Gy		
A	Chair Rail	-0.1	W		
A	Baseboard	-0.2	W		
B	Door	0.0	W		
B	Casing	0.1	W		
B	Door Jamb	-0.3	W		
B	Threshold	-0.1	W	V	
	Window Sill				/
	Apron				
	Casing				
	Stops				
	Int. Sash				
	Ext. Sill / PB				
	Ext. Sash				
	Closet Walls				
	Baseboards				
	Door Int.				
	Casing/Jamb				
	Shelf/ Supports				
	Floor / Ceiling				
	Floor	NC	CP	CW	
	Heat Unit				
	Ceiling	-0.3	Gy		
	Crown molding	0.1	W		
	att ic access	-0.2	W		

Side	Surface	PB	Sub Type	Cond	Comments
↓	↓				
A	Wall	-0.2	Gy		
B	Wall	-0.3	Gy		
C	Wall	-0.3	Gy		
D	Wall	-0.2	Gy		
B	Chair Rail	-0.2	W		
A	Baseboard	-0.1	W		
B	Door	-0.2	W		
B	Casing	-0.1	W		
	Door Jamb	0.0	W		
	Threshold				
B2	Window Sill	2.5	W	I	
B2	Apron				
B2	Casing	-0.2	W		
B2	Stops	0.4	W		
B2	Int. Sash	1.7	W	I	
B2	Ext. Sill / PB	NA			fixed
B2	Ext. Sash	0.1	W		
	Closet Walls				/
	Baseboards				
	Door Int.				
	Casing/Jamb				
	Shelf/ Supports				
	Floor / Ceiling				
	Floor	NC	CP	CW	
	Heat Unit				
	Ceiling	-0.2	Gy		
A	Crown mldg	-0.2	W		
B	Coat racks	0.3	W		

Remarks:

Room Closet, very full accessible surfaces tested.

Remarks:
 D window < 0.1 and NC v n Rep
 B window sashes AND sills
 need to be encapsulated

Room Closet, very full accessible surfaces tested

Date
 1 | 2 | 2 | 6 | 1 | 9

Marc Ellawm
 Inspector

RA-049
 Registration No.

Address of Inspection: 132 Main Street, Conway NH 03818

Area # 21 Room Hallway Sanctuary

Area # 22 Room Hallway

Side	Surface	PB	Sub Type	Cond	Comments
A	Walls ^{up to level}	1.0 / 0.2	PL/W	I	
B	Walls	1.0 / 0.1	PL/W	I	
C	Walls	0.8 / 0.4	PL/W		
D	Walls	0.4 / 0.7	PL/W		
A	Chair Rail	-0.1	W		
A	Baseboard	0.0	W		
	Door	/			
	Casing	/			
	Door Jamb	/			
	Threshold	/			
A	Window Sill	-0.1	PL	(B1)	1.4 PL I
	Apron	-			
	Casing	-			0.0 W
	Stops	0.3	W		0.0 W
	Int. Sash	0.1	W		-0.1 W
	Ext. Sill / PB	- Fixed			- Fixed
	Ext. Sash	- Fixed			- Fixed
	Closet Walls	/			
	Baseboards	/			
	Door Int.	/			
	Casing/Jamb	/			
	Shelf/ Supports	/			
	Floor / Ceiling	/			
	Floor	-0.3	W	V	
	Heat Unit	/			
	Ceiling	-0.3	W	V	
	Chair part	0.0	W		
	pews	-0.3	W	V	

Side	Surface	PB	Sub Type	Cond	Comments
A	Wall	-0.1	W		
B	Wall	0.1	W		
C	Wall	0.4	PL		
D	Wall	1.0 / 0.3	PL/W	I	
D	Chair Rail	-0.1	W		
A	Baseboard	-0.1	W		
A	Door	0.0	W		
A	Casing	-0.1	W		
A	Door Jamb	-0.1	W		
A	Threshold	-0.3	W	V	
	Window Sill	/			
	Apron	/			
	Casing	/			
	Stops	/			
	Int. Sash	/			
	Ext. Sill / PB	/			
	Ext. Sash	/			
	Closet Walls	/			
	Baseboards	/			
	Door Int.	/			
	Casing/Jamb	/			
	Shelf/ Supports	/			
	Floor / Ceiling	/			
	Floor		NC	CP	CV
	Heat Unit	/			
	Ceiling	/			
	tread/river	NE	-0.5	SP	COV

Remarks:
plaster walls need to be encapsulated

Room Closet, very full accessible surfaces tested.

Remarks:
plaster walls need to be encapsulated

Room Closet, very full accessible surfaces tested.

Date
1 2 2 6 1 9

Marc Ellam
 Inspector RA-049
 Registration No.

Address of Inspection: 132 Main Street, Conway NH 03818

Area # 24 Room Hallway

Area # _____ Room Hallway

Side	Surface	PB	Sub Type	Cond	Comments
↓	↓				
A	Walls	-0.1	Gy/Gy		
B	Walls	-0.3	Gy		
C	Walls	-0.1	Gy/Gy		
D	Walls	-0.2	Gy/Gy		
A	Chair Rail	-0.1	W		
A	Baseboard	0.1	W		
A	Door	-0.2	W		
A	Casing	-0.1	W		
A	Door Jamb	0.0	W		
	Threshold				
C	Window Sill	-0.2	W		
C	Apron	-0.2	W		
C	Casing	-0.3	W		
C	Stops	-0.1	W		
C	Int. Sash	NC	Vn	Rep	
↓	Ext. Sill / PB	↓	↓	↓	
↓	Ext. Sash	↓	↓	↓	
A	Closet Walls	-0.1	Gy		
A	Baseboards				
A	Door Int.	-0.3	HC		
A	Casing/Jamb	0.1	W/W		
	Shelf/ Supports	-0.1	W		
	Floor / Ceiling	-0.3	Tile		
	Floor	-0.2	W	V	
C	Heat Unit	-0.1	M		
	Ceiling	-0.2	Tile		
A	Cabinets	NC	Lam		
A	Crown mldg	0.0	W		

Side	Surface	PB	Sub Type	Cond	Comments
↓	↓				
A	Wall				
B	Wall				
C	Wall				
D	Wall				
	Chair Rail				
	Baseboard				
	Door				
	Casing				
	Door Jamb				
	Threshold				
	Window Sill				
	Apron				
	Casing				
	Stops				
	Int. Sash				
	Ext. Sill / PB				
	Ext. Sash				
	Closet Walls				
	Baseboards				
	Door Int.				
	Casing/Jamb				
	Shelf/ Supports				
	Floor / Ceiling	/			
	Floor				
	Heat Unit				
	Ceiling				

Remarks:

Room Closet, very full accessible surfaces tested.

Remarks:

Room Closet, very full accessible surfaces tested.

Date

1	2	2	6	1	9
---	---	---	---	---	---

Marc Blawie
 Inspector

RA-049
 Registration No.

Address of Inspection: 132 Main St., Conway NH 03818

Area # 23 Kitchen Pantry Bath

Area # 25 Kitchen Pantry Bath

Side	Surface	PB	Sub Type	Cond	Comments
↓	↓				
A	Wall	-0.2	Gy		
B	Wall	-0.3	Gy		
C	Wall	-0.1	Gy		
D	Wall	0.0	Gy		
	Chair Rail				
A	Baseboard	-0.2	W		
D	Door	-0.2	HC		
D	Casing	-0.2	W		
D	Door Jamb	-0.1	W		
	Threshold	-			
B	Window Sill	0.0	W		
B	Apron	-0.1	W		
B	Casing	0.0	W		
B	Stops	-0.1	W		
B	Int. Sash	NC	Vn	Rep	
↓	Ext. Sill / PB	↓	↓	↓	
↓	Ext. Sash	↓	↓	↓	
	Upper Cabinets				
	Walls				
	Shelves				
	Lower Cabinets				
	Walls				
	Shelves				
	Drawers				
	Floor	NC	Lino		
	Ceiling	-0.3	Gy		
A	Heat Unit	-0.2	M		

Side	Surface	PB	Sub Type	Cond	Comments
↓	↓				
A	Wall	-0.2	JRP		
B	Wall	-0.3	JRP		
C	Wall	-0.2	JRP		
D	Wall	-0.2	JRP		
	Chair Rail				
	Baseboard				
C2	Door	-			
C2	Casing	-			
C2	Door Jamb	-0.2	W		
C2	Threshold	-0.3	W	V	
A	Window Sill	-0.3	M		
A	Apron	-			
A	Casing	-			
A	Stops	-			
A	Int. Sash	NC	Vn	Rep	
↓	Ext. Sill / PB	↓	↓	↓	
↓	Ext. Sash	↓	↓	↓	
	Upper Cabinets				
	Walls				
	Shelves				
A	Lower Cabinets	NC	Lam		
	Walls	-			
	Shelves	-			
	Drawers				
	Floor	-0.3	Tile		
	Ceiling	-0.3	Gy		
	Heat Unit	-			
	attic access	-0.2	W		
	frame door	-0.3	W	V	

Remarks:

Room Closet, very full accessible surfaces tested.

Date					
1	2	2	6	1	9

Remarks:

Room Closet, very full accessible surfaces tested.

Marc Ellam
Inspector

RA-049
Registration No.

Address of Inspection:

132 Main St. Conway NH 03818

Side Surface	A			B			C			D			Comments
	PB	Sub Type	Cond	PB	Sub Type	Cond	PB	Sub Type	Cond	PB	Sub Type	Cond	
Siding	-0.1	W		0.1	W		-0.2	W		-0.2	W		Shingles
Siding	-												
Dripboard	-												
Skirtboard	-												
Cornerboards	-												
Upper Trim	✓ NA	W	I	NA	W	Def	NA	W	Def	NA	W	I	
Soffits	✓ NA	W	I	NA	W	I	NA	W	I	NA	W	I	
Door	-0.2	W	V	0.0	W	DBI	-0.1	M		-0.3	W		
Door Casing	✓ 1.8	W	I	-0.3	W		-0.1	W		-0.3	W		
Door Jamb				0.0	W		0.1	W		FIXED			
Threshold / Kick	0.5	W		-0.1	W		NC	AL		NC	AL		
Door	-												
Door Casing	-												
Door Jamb	-												
Threshold													
Window Sill	✓ 1.7	W	I	0.4	W		NC	VN	REP				OLD WINDOWS
Casing	✓ 1.2	W	I	3.0	W	Def	I	I	I				
Exterior Sashes				NC	VN	REP	I	I	I				
Window Sill				NC	VN	REP							
Casing				I	I	I							
Exterior Sashes				I	I	I							
Window Sill													
Casing													
Exterior Sashes													
Basement Window Unit				0.1	W					0.0	W		
Basement Window Unit	-												
Foundation	NC	C		NC	C		NC	C		NC	C		
Bulkhead	-												
Stair Treads							NC	C					
Risers							NC	C					
Stringer							NC	C					
Handrail							0.2	M					
Deck							NC	C					
Lower Trim							-						
Lattice							-						
Newel Post							-						
Fire Escape							0.0	M					
Green Trim	299	W	I										ALL

Remarks:

Inspection Date
 1 2 2 6 1 9

Man Ellam
 Inspector

RA-049
 License #

Room Closet, very full accessible surfaces tested.

Maintenances Practices

When painted surfaces will be disturbed lead safe work practices shall be conducted in accordance with the "Lead Paint Safety A Field Guide for Painting, Home Maintenance and Renovation Work" Available at the HUD Office of lead Hazard Control web site at www.hud.gov/lea/leahome.html

Lead safe work practices shall include, occupant protection, work site preparation, proper work procedures, waste disposal, clean up and may include clearance testing.

If painted surfaces are disturbed it should be assumed that the surface contains lead-based paint unless the surface has been tested by a licensed lead inspector or risk assessor and found not to contain lead-based paint.

If painted surfaces are disturbed greater than the *De minimis levels* lead safe work practices and clearance testing is required on federally funded project and is recommended for all projects. The occupant is not permitted to re-occupy the work area until the clearance standards are meet.

De minimis level is when maintenance or hazard reduction activities disturb more than:

1. 20 Square feet of painted surface on the exterior;
2. 2 square feet of painted surface in any one interior room or space; or
3. 10 % of the total surface area on an interior or exterior component with a small surface area.

All person that disturb painted greater than the *De minimis levels* are required to be lead safe renovator trained, the training must be in a course approved by HUD when working where federal funds are provided.

The Brown Church
132 Main Street
Conway, NH



Main Street View



View from Salyards



View from Conway Elementary



Partial View from West



Partial View from West



Ice dam and leaking roof valley

The Brown Church
132 Main Street
Conway, NH



Granite Main Supports Beneath Original Building



Beneath Original Building Looking Towards Salyards

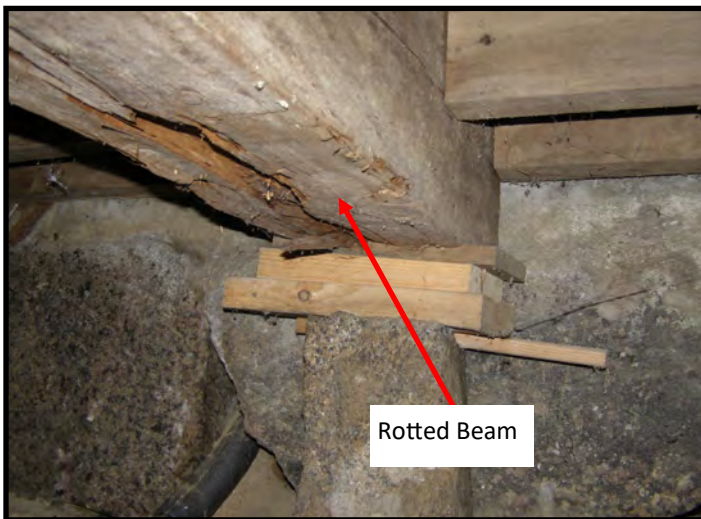


Rotted Beam

Improved Supports Beneath Original Building.



Improved Supports Beneath Original Building.



Rotted Beam

South Foundation Wall - End of Main Beam



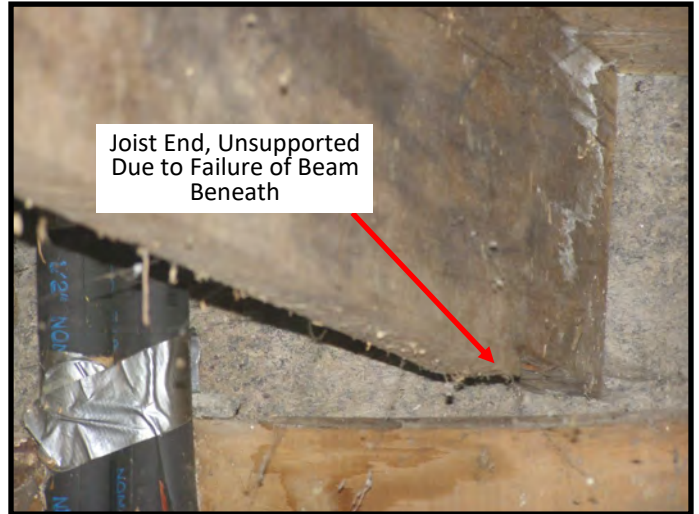
Rotted Joists

Under Entry/Bell Tower. South Foundation Wall

The Brown Church
132 Main Street
Conway, NH



Beneath Main Entry Looking Towards Salyards



Beneath East Wall of Bell Tower/Main Entry



Beneath Food Pantry, Looking North Beneath Restrooms



Transition Original to 1955 Foundation In 1955
Crawlspace. Granite Wall is North End of Original Building



Foundation Beneath Original Building Area—North Side



Base of Chimney - 1955 Crawl Area - Looking South

The Brown Church
132 Main Street
Conway, NH



Proper Wiring Method & Improperly Notched Floor Joists



Tension Rod Head Nut/Washer - Tension Rod at Lower Left



Tension Rod Floor Support Beam Truss - Wonderful Design



Additional Support Beneath Original Main Floor Carrying Beam



Floor Framing Beneath Main Entry - Looking East

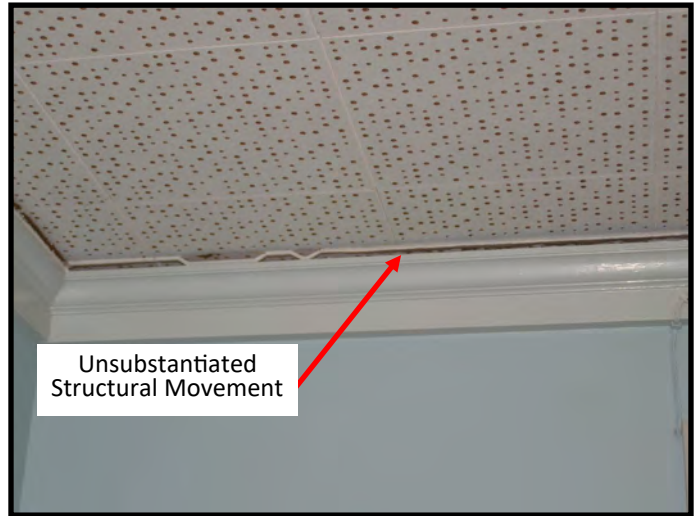


Dehumidifier Beneath Food Pantry - Nicely Done

The Brown Church
132 Main Street
Conway, NH



Wide Flange Floor Support Beam - Lower Hallway



Reverend's Office Ceiling to Wall Intersection



Tension Rod Head Nut/Washer - Tension Rod Shown at Right



Tension Rod & Compression Block Beneath Sanctuary



Column, Tension Rod & Main Floor Beam Beneath Sanctuary



Lower Level South Exterior Wall - Plaster Deterioration as Wall Dropped, Due to Floor Having Dropped Out Beneath the Wall

The Brown Church
132 Main Street
Conway, NH



1955 Attic - Looking Towards Salyards



Steeple - Looking Upward Towards Spire



1955 Attic - Insulation of Original Building Gable End



1955 Attic - Operable Gable End Louver at North End



Steeple - Opening Between Bell Tower & Spire



Bell Tower - Chicken Wire Keeps Birds Out

The Brown Church
132 Main Street
Conway, NH



Fire Escape & Deteriorated Siding - Time to Replace Both



Exterior View - Operable Gable End Louver



Lower Hallway Exit Towards the North - Note Siding Condition



Small Dormer at Sanctuary - Completely Salvageable



Abandoned Basement Window Well - Infill? Improve Drainage?



West Bldg Corner Looking North - Sanctuary Wall Badly Splayed

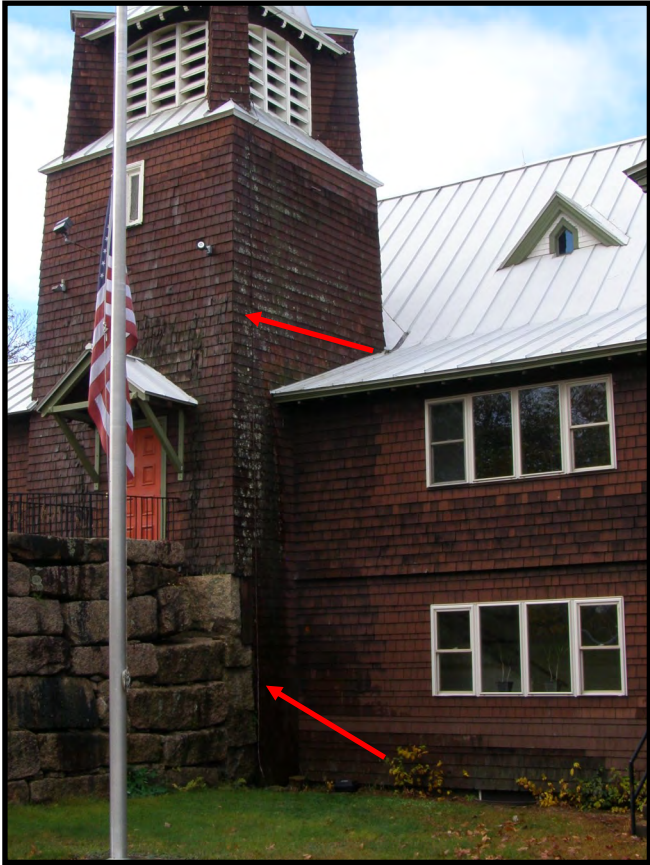
The Brown Church
132 Main Street
Conway, NH



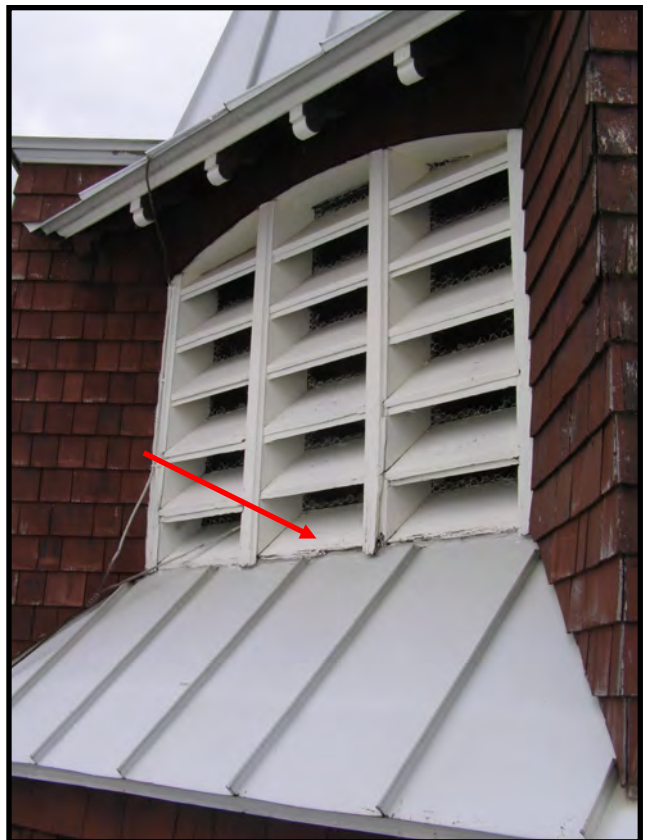
The Wonderfully Attractive Main & Side Entries. Arrows Indicate Rot Deterioration - Lots of It!



The Brown Church
132 Main Street
Conway, NH



Arrows Indicate Rot Deterioration - Depth of Deterioration Is Going to Vary from Siding Only to Into the Framing



The Brown Church
132 Main Street
Conway, NH



A Bad Original Building Detail - Rot Maker!



An Example of How to NOT Do a Roof Valley



Close Up of Sanctuary Dormer - East Side. Carefully Scrape, Caulk, Paint & Go for Another 100 Years!



Arrows Indicates Rot - Lower Arrow Indicates Opening Into the Building. South West Corner of Building

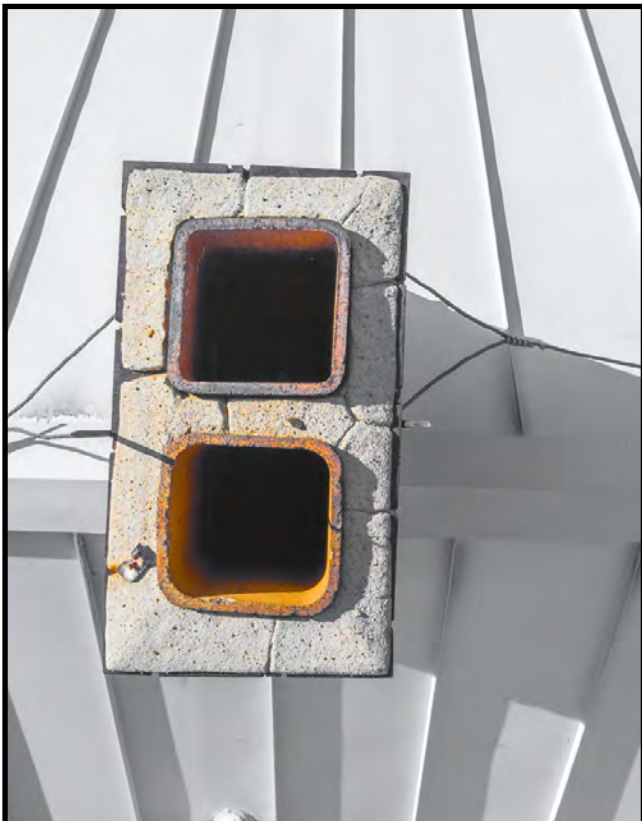
The Brown Church
132 Main Street
Conway, NH



The Chimney - Let's Make It Go Away



Lightning Protection - A Great Feature to Maintain



If The Chimney Remains, It Needs to Be
Re-built Above the Roof



He Needs to Be Removed and Fully Re-Furbished

The Brown Church
132 Main Street
Conway, NH



Red Arrow Indicates an "Out of Place" Molding That We Believe is Concealing Insulation of Some Type



This Appears to Be Fiberglass Insulation Which Is NOT an Original Building Component



Red Arrow Indicates More Water/Rot Deteriorated Siding



The Roof Valley "Repair" That Needs a Real Repair



Replacement Window in Original Frame. Arrow Indicates Flaking Lead Based Paint

The Brown Church
132 Main Street
Conway, NH



An Architecturally Wonderful and
MUST BE PRESERVED Sanctuary



West Sanctuary Wall. Arrows Indicate Where Wall Is Tipped
Outward and Stain-Glass Windows That Need Preservation



Beautiful Scissors Trusses and Organ



Deteriorating Sanctuary Plaster Is a Serious Concern



Deteriorating Sanctuary Plaster Is a Serious Concern



Deteriorating Sanctuary Plaster Is a Serious Concern

The Brown Church
132 Main Street
Conway, NH



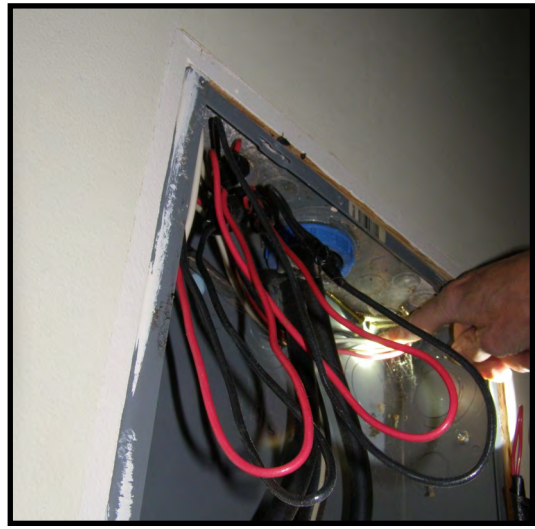
Electrical Panel - It's Salvageable or Replaceable. Planning Will Decide



Electrical Panel - It's Salvageable or Replaceable. Planning Will Decide



Sure, Improvements Can be Made



Sure, Improvements Can be Made

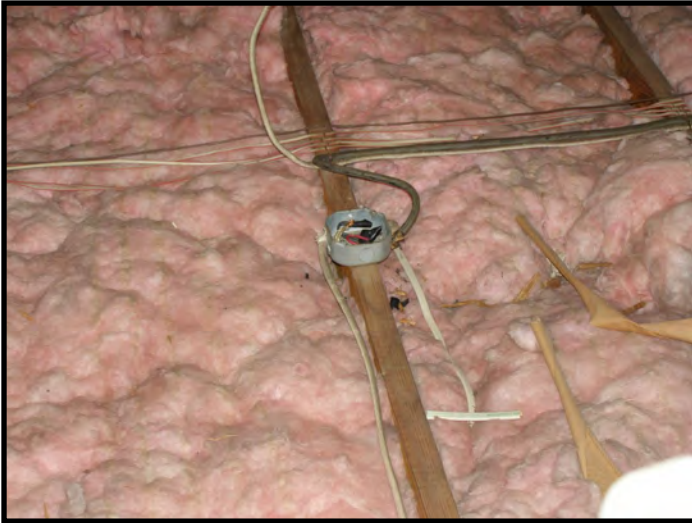


Mystery Transformer - LV Lighting Controls?



We Have Seen Much Worse Inside a Panel

The Brown Church
132 Main Street



Electrical Clean-Up Is Necessary - 1955 Attic



Electrical Clean-Up Is Necessary - Bell Tower



Electrical Clean-Up Is Necessary - Ante Chamber in Sanctuary. PLEASE NOTE - Photo is Rotated 90°



Electrical Clean-Up Is Necessary - Bell Tower



Electrical Clean-Up Is Necessary - Lower Level Meeting Room



Nicely Installed "New" Electric Panel

The Brown Church
132 Main Street
Conway, NH



2007 Boiler - Needs Maintenance or... Replace?



A Good Water Heater - Improve Installation



Undetermined Vintage Furnace - Needs Maintenance or... Replace? Let's Talk Replace.



Furnace Vent Connector - Must Be Corrected



A Horribly Non-Compliant Propane Pipe Installation



The Same Horribly Non-Compliant Propane Pipe Installation

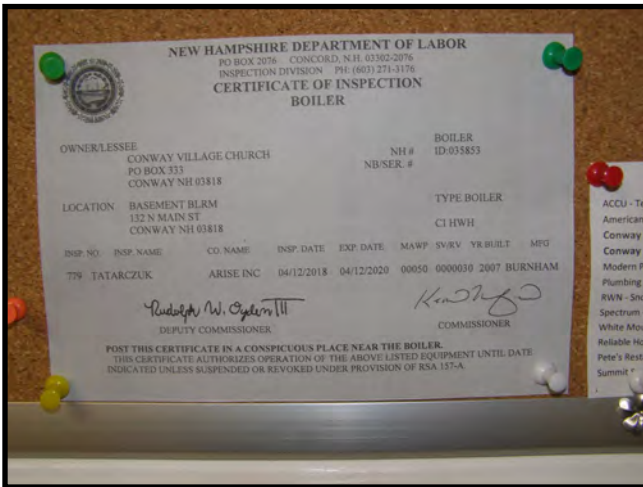
The Brown Church
 132 Main Street
 Conway, NH



The Furnace Is Nearing End of Life



Water Meter, Water Main, Backflow Preventer



We Are Not Sure The Boiler Requires State Inspection



Oil Tanks - Located Below River Flood Level



Mechanical Room Plaster - More Asbestos to Address



Opening, Mechanical Into Original Crawl Space

The Brown Church
132 Main Street
Conway, NH



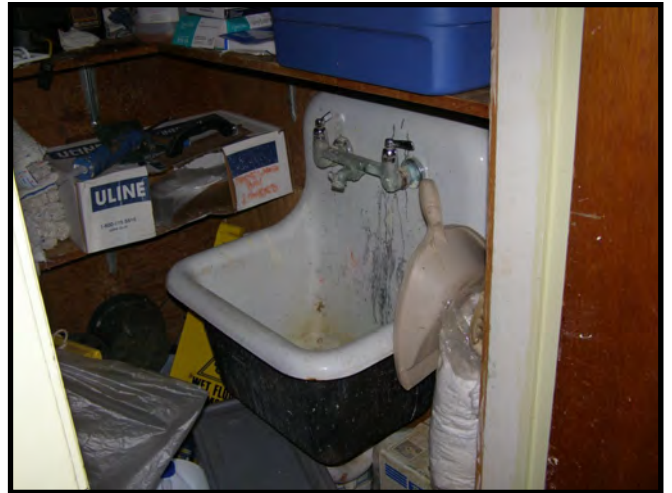
Fellowship Hall Restroom - Completely Salvageable



Fellowship Hall Restroom - Completely Salvageable



Old into "New" Building Drain - Improve Supports



Does This Sink Get Used? If "No" Remove & Cap Plumbing



Mens Room - Active Leak?



Kitchen - Some Plumbing Improvements Will Be Beneficial