



St. Joseph Church, photo from
about 1896

Bartlett History Museum

Progress Report

Newsletter Supplement

September 2020

Another major leap forward has been made on the renovation of our future Bartlett history museum, the former St. Joseph Church building. *Your donations to this project have made it possible for us to install a new roof—frame, sheathing and shingles—on this historic building.* This was the last major step in our Phase 1 work to save the building. The significance of this new roof will be seen when it rains or the snow melts—the inside of the building will be dry as opposed to pools of water everywhere under the old roof.

In this Progress Report, aside from the new roof, we've included news on:

- ⇒ Discoveries of artifacts within the building
- ⇒ The redoing of the front entry and foyer structure on the building
- ⇒ Our next step plans.

If you have any questions concerning this project, please send a note to our President, Phil Franklin at Phil@BartlettHistory.org.



Future Bartlett History Museum
Today

Our Building's New Roof Signals the Completion of Renovation Phase 1!

The replacement of the roof on the former St. Joseph Church has been a project on the top of the priority list from the start of the campaign. With your donations, we were finally able to do the work. The effort to replace the roof is a story of its own. But first, it's important to point out that this work was coordinated and executed by our General Contractor, Bill Duggan. Bill is a local building contractor known for his high quality work and understanding of how buildings are put together, and in this case, how to take them apart to be rebuilt. We extend our thanks to Bill for the hours of work he put in on the roof project. We also thank Joe Yahna, principal of the Josiah Bartlett Elementary School, and his staff for allowing us to use the common parking lot adjacent to our building and behind the school building for a month.

In many past newsletters, we noted that the roof on the building had failed. Bill told us this back in 2018 and a condition assessment of the building performed by Alba Architects of Woodstock, NH also confirmed the roof failure. In discussing this situation with Andrew Cushing, the former Field Representative for the NH Preservation Alliance, he told Phil Franklin that roofs on these old buildings are prone to failure after many years of handling heavy snow loads, withstanding punishing mountain winds and the seepage of water over time. It's no surprise that this 130 year old roof frame was tired.

From the architects report and Bill's assessment, we learned that the roof rafters were undersized from the day the building was built. The collar ties that hold the rafters from spreading were placed too high in the frame thus decreasing their effectiveness. After many years of excessive weight on the frame due, in large part, to five layers of asphalt shingles plus a layer of wood shingles and sheathing boards, the rafters were "deflected" or bowing inward. It was estimated that the asphalt shingles were pressing down with about 25,000 pounds of weight on the building. The roof was also leaking very badly and even with tarpaulins on it, water still infiltrated. The long walls of the building were bowing outward by as much as 5" - 7" on each side of the building. Bill estimated that we were at a dangerous point with the structure and it was nearing the point of collapse. The roof project that you, our donors, funded changed all of that and we now have a safe, secure, dry building. Bill's comment to Phil Franklin was that the building is now square to an eighth of an inch. The best way to tell this story is in photographs so let's turn the page and see the story.

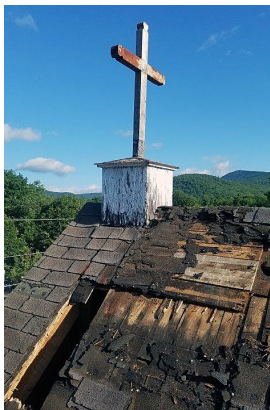
Removal and Replacement of the Museum Roof

Roof Replacement—Step 1—Prepare the Building

After some interior demolition to free the roof from the building gables ends, exterior work was needed to prepare the roof for removal by crane. This important preparation work took about two weeks in total.



Above—Left first course of asphalt shingles found covering original wood shakes; Center & Right above, shows close-up shots of the south side roof deterioration. Most of this lower part of the roof was removed by hand and fell apart as it was touched

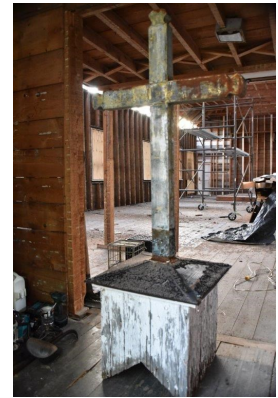


Many people have asked about the cross that was atop the building.

The former church's cross has been removed and it is safe in a storage unit. It will be displayed in our future museum. The cross and stand are about 5' tall. We believe this is the original 1890 cross.

Left—The cross minutes before it was removed from the roof

Right—The cross was temporarily stored in the building before being placed in the storage unit



Above—Left, the south face of the building prepared for removal of the roof; Right is the north face of the building.

The color differences in the two roofs reflect a heavy moss covering on the north face while the south face is free of moss. The holes in the roof are in place to allow the cables from the crane to be connected to the roof sections during the removal process. The lower section of the roof frame was exposed to allow the rafters to be cut for the roof removal. Windows are boarded to protect the original stained glass windows on the building.

Scaffolding rental cost was generously donated by Stan Szetela of S. D. Szetela Masonry, LLC of Bartlett.

Also, notice the curve in the chimney in the right photo; its been that way for decades; it's not a photo illusion. We'll have more on the fate of the chimney in layer photos.

Roof Replacement—Step 2—Remove the Roof in Sections

With the building ready to have its roof removed, August 6, 2020 became a significant day in the history of the building. After a two day postponement due to the tropical storm that came through the area, we undertook the effort to literally lift the roof off in six sections and set it in the parking lot next to the building. The whole operation took a mere 2.5 hours!

During the lift operation, each section was hoisted one at a time. Each section was estimated to be about 5,000 pounds but with a good crane operator, they came off very gently.



The first section of the building is lifted off the building and airborne



More roof sections are removed from the building



The parking lot adjacent to the museum building became the temporary landing zone for the roof sections. Once on the ground, workers salvaged 25 hemlock beams that were true 2" x 8" and averaging 26' long from the roof sections. Safety was a concern when harvesting these beams as the roof sections were unstable. The roof sections were crushed and disposed of the following day.

Step 2 continued ...



After the roof was removed, our museum building had the largest skylight in Bartlett!

Left photo shows gable peak/end of the building where the altar was located; bracing holding the walls in place

Center photo shows the building from the bend on School Street;

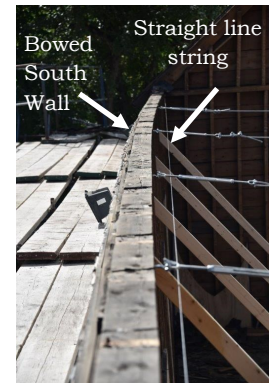
Right photo shows a view back to the choir loft with the gable of the front of the museum building. Both gable ends as well as the long eave walls of the building were straightened in the rebuilding process



Detail Views

Left—Cross section of the roof showing asphalt shingles over the original wood shingles over the sheathing

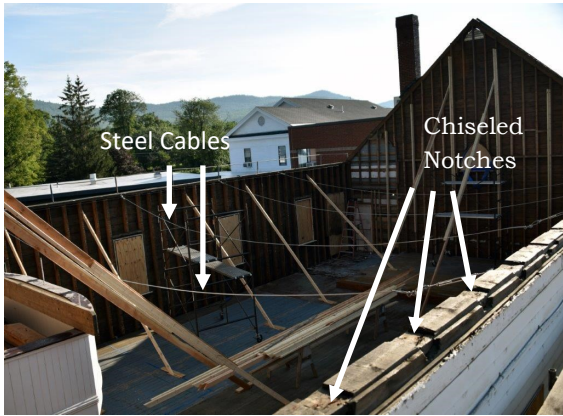
Right—View down the top of the south wall showing the bow in the wall that was even worse when the roof was pressing on it



Left—Photo shows patchwork siding installed when priest's apartment section of the building was removed (removal date unknown);

Right—Arrow points to location of priest's apartment section on the original church

Step 2 continued ...



Temporary cables installed November 2019 to hold building together once taugh, now sagging after roof removal

Also, notice notches in the top plate on the long wall; original builders chiseled custom notches for each rafter to level them to the building



Chimney Collapse—An inspection of the chimney revealed a need for significant repair. While taking the top of the chimney down, it suddenly leaned away from the building and then collapsed. No one was injured in this fall. We are not planning to replace the chimney as it will not be needed for museum heating.

This was certainly an unplanned event.

Roof Replacement—Step 3—Install the New Roof

Following the work to remove the roof and straighten the walls, the next major step was the installation of the new roof trusses, soffits and trim before the sheathing and shingles were installed.



Roof Truss Installation

Top Left—the last truss is positioned; Top Right—Trusses are complete with top peak installed
Bottom Left—View of trusses from above with peaks for each truss to be installed
Bottom Right—View of building from School Street with truss work complete

Step 3 continued ...



Interior views of the trusses. Note that we kept the same ceiling design as in the original roof with sloped sides and a flat center ceiling

Left—View looking toward where the altar was formerly located

Right—Looking to the choir loft



Sheathing installation in progress and complete



Roof installation is complete!

Phase 1—Save the Building Recap

Our main focus in Phase 1 of the renovation was to do the work needed to get the building stable, weather tight and free of environmental hazards. This work has been accomplished so the building is square and stable again, this winter we can rest easy that the building will withstand the snow weight and wind, and the building is ready for the next phase of work.

All of this work was accomplished by a variety of people, some contracted to complete the work and others volunteering their time and professional expertise. The results of this phase have positioned us nicely for the remaining tasks needing to be completed to open our museum.

Here's a list of the things that your donations helped us accomplish in Phase 1.

- ◆ Oil tank removed from basement preventing a potential environmental disaster (full with 250 gallons of oil held up only by intake pipe)
- ◆ Cut off all electricity to building as the old electrical system presented hazards of shorting and causing a devastating fire; installed temporary power panel on exterior of building
- ◆ Had NH Electric Coop cut branches pressing on power service line to building
- ◆ Installed temporary tarpaulins over roof to stop water infiltration (twice)
- ◆ Installed steel cables inside building to prevent walls from bowing farther under roof weight
- ◆ Contracted to have all hazardous materials (i.e. asbestos, lead paint, mold) removed from building plus all deteriorated plaster and insulation removed
- ◆ Straightened and strengthened the building, bringing the walls to a straight secure position
- ◆ Replaced the entire failed roof structure with a truss based roof system that will last for decades
- ◆ Leveled the front foyer, putting it on concrete piers to prevent wood to ground contact; replaced foyer roof

Artifacts We Found in the Building

As we cleaned the deep recesses of the building, we found several interesting things in the basement sand and in the bays between the studs. Here are some that we'll display in the museum:



- A. Old paint brush with wooden lath turned handle
- B. 1937 Novena missal from a Bartlett parishioner
- C. 1956 Weekly missal
- D. 1957 Weekly missal
- E. Clay pipe found in the sand in the basement
- F. Leather snap coin purse with a coin inside (the snap won't open so the coin is a surprise)
- G. 1965 25 cent piece that missed the collection plate
- H. Remains of a delicate rosary with wooden beads on a metal chain
- I. 5" Framing cut (or square) nails with today's standard 3.5" framing nails for comparison

Beginning of Phase 2 Work—Front Entry & Foyer Work

After completing the roof, the next step in the process and the start of our Phase 2 work to get the building open was the project to level the front foyer area and replace the front steps and sidewalk. In the process of doing this work, Bill Duggan discovered that the front two corners of the foyer were resting on the ground, not on stone to concrete piers as would be expected. That explains why the foyer was leaning to the south. Bill also discovered another five layers of shingles on the foyer roof. Fortunately, the sheathing boards were in good shape and could be reused.

As we write this newsletter, the foyer portion of the building is now level with concrete piers supporting it, the roof has been replaced and the front steps and walk have been removed. We are replacing the front steps with granite steps. The sidewalk will be concrete but we are raising the level of the walk (the old one was sinking into the ground) so the new walk will pitch to the road, thereby shedding water appropriately. We will also bring in loam to pitch the land away from the front of the building and walkway. Below are some photos of our work in progress on this portion of the building.



View of the front of the building, foyer level, stairs and walkway removed



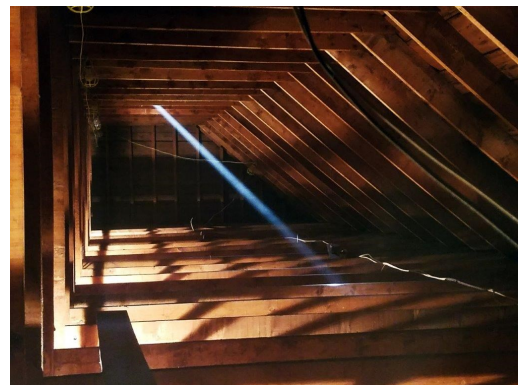
Concrete precast stairs set aside waiting to be disposed of; we know they were installed prior to 1955 based on dated photographs but we don't have an exact installation date; the original steps for the church were wooden



In the process of removing the steps and working on the foyer, workers found an old Frisbee; this had to have been there since the 1970's; a humorous artifact that will be a part of our collection on the church history

Next Steps in Phase 2

The next steps in the renovation process are to get all of the rest of the work done to open the museum. To do this, we have to raise the remaining funds before we can continue. We are actively asking for donations to complete this project and open the Bartlett History Museum. Many people have made generous donations to the project and their/your support has brought us to where we are today with the renovation. Your continued support is greatly appreciated as it will help us get to that point of success—the ribbon cutting to open the doors of our museum to the public.



Phil Franklin was one of the crew working with Bill Duggan on the roof replacement project. One day, while working in the rafters, Phil saw a sunbeam shining through a hole in the roof. We took this as a sign from above that we are on the right track saving this building.

If you have any questions on this project or know someone who you think would be interested in supporting our effort, please contact Phil Franklin, BHS President, at Phil@BartlettHistory.org.