REPORT ON AN ASSESSMENT OF GRAND FALLS HOUSE

in

GRAND FALLS-WINDSOR, NEWFOUNDLAND

by

Rex Passion

for

Heritage Newfoundland and Labrador

on

June 18, 2025

Report submitted
July 31, 2025

INTRODUCTION

On June 18, 2025, I did a thorough examination of the exterior of Grand Falls House at 67 Lincoln Road, Grand FallsWindsor, Newfoundland and Labrador. I examined the foundation, the half-timbered first-floor walls, the shingled second-floor walls, the windows and doors including the dormers, the roof and the chimneys and the painting. I did this examination under contract to Heritage NL. The following is the report of my examination and my recommendations and best practices for the repairs to the building.

All the examinations were done from the ground level with the use of a telescope or from inside the house. I appreciate the use of drone images taken by Jeff Hennebury of College of the North Atlantic, Baie Verte for the evaluation of the chimneys

I did not closely examine the back addition and its connection to the building, nor any of the out buildings.

Alfred Harmsworth (Lord Northcliffe), the founder of the Anglo Newfoundland Development Company and owner of *The Daily Mail*, was concerned the supply of newsprint for his English newspaper empire could be interrupted by war in Europe and went to Canada looking for another source. He found it on the Exploits River and in 1909 opened the mill at Grand Falls establishing the company town, one of the largest communities in Newfoundland at the time, and built his official residence, Grand Falls House. By 1910, *The Daily Mail* was being printed on paper made in Newfoundland.

Built on the banks of the Exploits River, its steep roofs, prominent chimneys, and multi-paned windows are characteristic of the Tudor Revival Style. To see the architect, R. Douglass Wells's rendering and floor plan from 1910, see (**https://archive.org/details/sim_academy-architecture-and-architectural-review_1910_38/page/n2/mode/1up)** page 47**.**

The paper mill was completed in the fall of 1909 and, instead of loosing the army of construction workers which had built it, Lord Northcliffe set them to work on Grand Falls House, a timber-frame structure which was first put together in England then shipped to Grand Falls and reassembled there. It took less than three months to complete a stately English country manor on the banks of the Exploits River.

For nearly 100 years, Grand Falls House has been visited by a stream of dignataries and business moguls including a British Prime Minister, a Soviet Premier and frequently by Newfoundland icon, Joey Smallwood.

The mill closed in 2009 and the property, including Grand Falls House, was expropriated by the province of Newfoundland and Labrador which turned it over to the Town of Grand Falls who is the current owner of the property.

CONDITION OF THE FOUNDATION

The foundation is poured concete painted black. It is in fine condition throughout the building. The height of the foundation above grade varies from 37 inches at the west corner to 9 1/2 inches on the east corner of the house. On the back where the addition meets the house the tall exposure continues and at the north corner it is again 36 inches.

The quality of the concrete is first rate; not surprising given it was probably made by the same people who poured the dam at Grand Falls.

On the front elevation, at its tallest point, the concrete foundation is clad in field stone. Its height above grade on the left hand corner is 37 inches. The drip line at the foundation (where the water running off the roof hits the ground) is about 18 inches from the base of the foundation. The height of the foundation above grade and the large roof overhang prevent any splash from roof runoff contacting and damaging the wood.

37 inch exposure

33 inch exposure

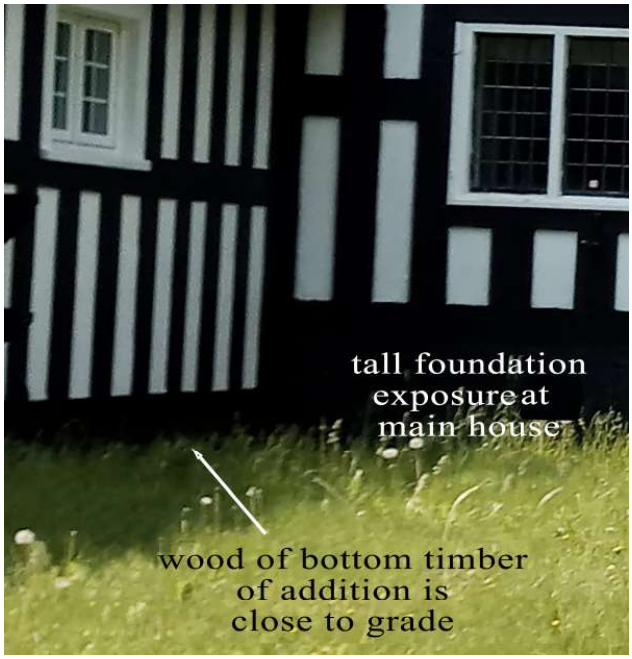
25 inch exposure

17 inch exposure

9 1/2 inch exposure on back elevation to the left of the addition

36 inch exposure on the back elevation to the right of the addition

On the left (northwest) side of the house, the concrete chimney sits atop the concrete foundation. You can also see where the stone veneer is attached.



Although I did not carefully examine the rear addition, I did note there was considerably less exposure of the foundation than in the main house. Six inches of foundation exposure is considered the minimum in the National Building Code.

FOUNDATION RECOMMENDATIONS AND BEST PRACTICES

The main house foundtion is in excellent shape and needs no work. It is high-quality poured concrete with no evidence of cracking, spalling or other deterioration. It is being well preserved by being well painted.

It is curious that the foundation is 9 1/2 inches above grade on the rear elevation to the left of where the addition was added, but is 36 inches above grade on the same elevation on the other side of the addition.

CONDITION OF THE FIRST-FLOOR HALF TIMBER WALLS

The first-floor walls consist of black painted timbers and white infill panels which are mostly in good condition.

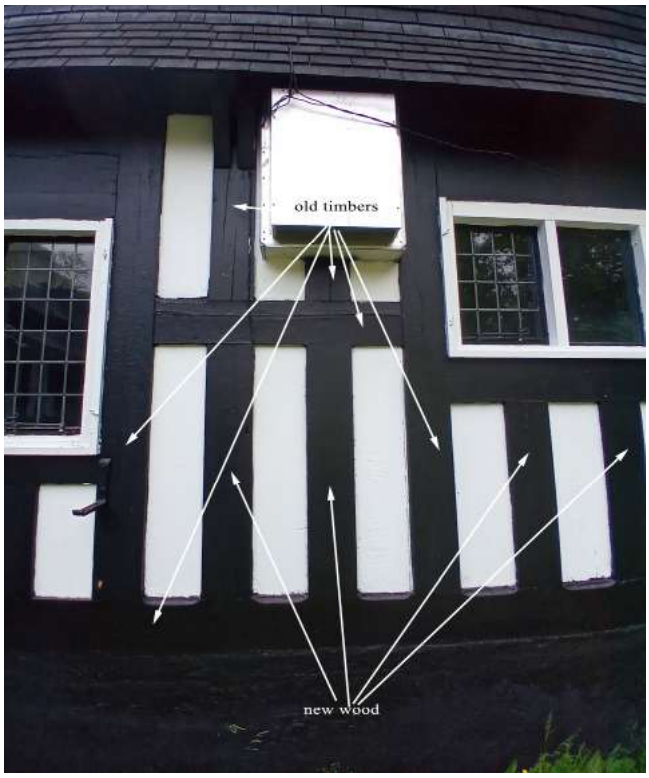
Most of the timbers appear to be English oak, which is a very durable wood with great longevity. They show a good deal of cracking, some of which is wide and deep. However, the wood is hard inside the cracks and I saw no signs of rot in any of the oak timbers with one possible small exception on the rear of the building. I have seen pictures of sound 500-year-old oak timbers with similar cracks. In some places, the cracks at Grand Falls House have been filled with caulking material.

In some places, where the timbers are exposed to the worst of the Newfoundland weather, the wood appears fragile but despite some flaking it is very hard without any sign of rot.

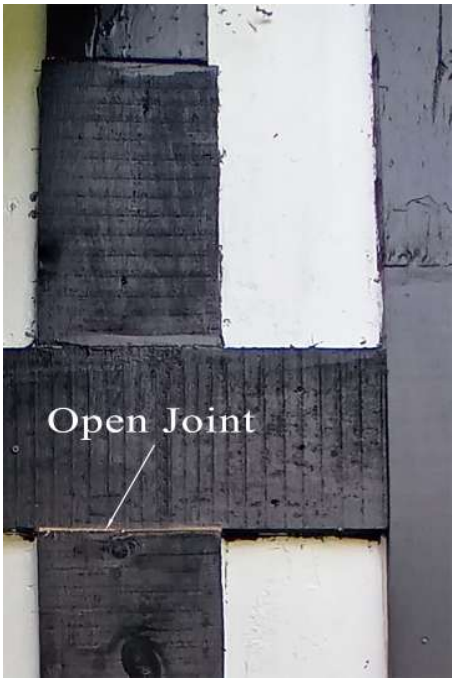
I think this is an original wood infill panel

In this one, there is plywood over the original panel

In the left front corner of the house, the wood infill panels appear to be original solid oak boards, but most of the other panels have been covered over recently with plywood or fiberboard. I have no idea of the original material or it's condition. Perhaps it is traditional wattle and daub (see below).

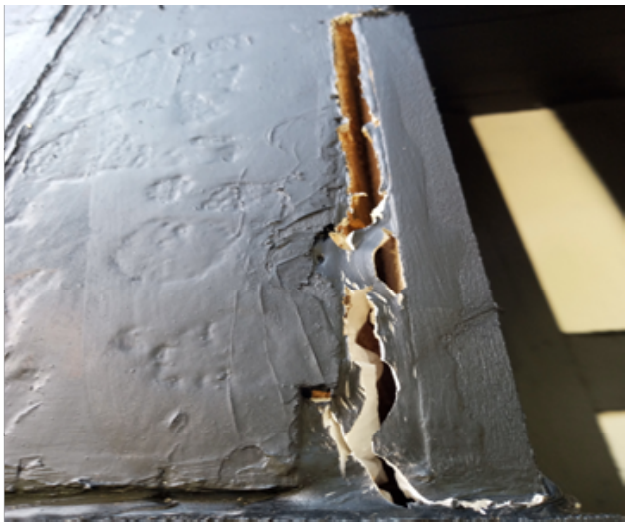


On the rear elevation, just northeast of the additiom, some of the original oak timbers appear to have been repaired, or in some cases, replaced with modern, local wood, which is not as durable as the oak. Some of this repair work was done in a slip-shod manner; other areas need to be repaired.



There is an open gap exposing raw wood which invites decay.

There are two small rot pockets in the timbers next to the window, nearest the addition



On the back elevation next to the recess behind the fire escape, it appears the bottom part of the corner timber has been replaced with a spurce or pine timber of the same dimension. Above this, the old oak timber has been patched with a piece of wood. This repair was poorly done and the open gap at the outside corner needs immediate attention to avoid water entry into the woodwork.

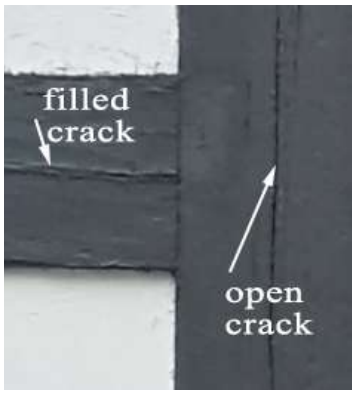
On that same corner a short piece of the bottom oak timber has been replaced with a piece of pressure treated wood, which is inappropriate. This corner timber area should be carefully investigated and repaired properly.

On the western end of the recess there is a plywood box concealing pipes, a chase. There is also one on the front elevation near the chimney and at the northwest corner. The front chase is filled with fiberglass insulation and I assume the others are as well.

In the frame of the center window on the left (northwest) end of the house there is a hole drilled for a cable. This hole should be filled with an appropriate material to seal out the water.

On the left (northwest) elevation there is a very nice splice joint in the original oak bottom timber. You can tell its age by the rough texture of the wood and the bevel between the vertical timbers.

TIMBERED WALLS
RECOMMENDATIONS AND BEST PRACTICES



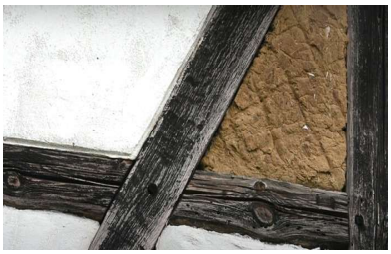
It is my understanding the building was first assembled in England in 1909, then disassembled, shipped to Grand Falls and reassembled. The construction is traditional English half-timbered using native oak. Some houses using English oak in their timbers are over 600 years old and the timbers are still sound despite centuries of neglect.*

The oak timbers of Grand Falls House typically have cracks, some of which are quite deep. I probed these cracks and found the wood inside was as hard as the wood at the surface. This cracking is typical of oak timbers and does not effect their strength. In some places, the cracks have been filled. I believe this is unnecessary and could possibly damage the wood by allowing water to accumulate behind the fill. I would recommend carefull removal of filling from the cracks without damage to the wood.

The entire front elevation is consistent in that the exposed timbers are cracked and checked, but on the back elevation some timber faces are much smoother. The contrast between the older, cracked timber surfaces and new smooth ones is often striking.

I believe prior to a 1980s renovation, some structural damage to the timbers on the back of the house was repaired, probably using modern lumber and framing. To keep the Tudor half-timber look of the building, smooth planed boards were used as faux timbers over the modern repairs. This accounts for the difference of the texture of the wood visible at the rear. Most of the repair work has been professionally done but some is slipshod resulting in some places where the wood is open to the weather. These need to be sealed to prevent damage.

Historically the space between the timbers was filled with wooden lath and native plaster called wattle and daub or with brick. The fill on the front elevation below the left-hand windows appears to be the oldest and the material is wood. It is possible that this tradtional wattle and daub filling might be covered with later wooden panels. Plywood and fiberboard were also used on top of the original fill. I would suggest one of the fiberboard panels be carefully removed to get a look at what may be the original filling material.



The oak timbers for Alfriston Clergy House were cut in the year 1400! (https://www.youtube.com/watch?v=tr6SXmnJZJs*)*

CONDITION OF THE SECOND FLOOR SHINGLE SIDING

On the front elevation, most of the shingles above the first floor windows are in good condition but some in the lower courses, where the walls flare out, are cracked or missing. The rest of the shingles on the other elevations appear sound.

SHINGLE SIDING
RECOMMENDATIONS AND BEST PRACTICES

The wood shingled walls above the half timbered first floor are generally in good condition. There are some cracked shingles where the roof flares at the bottom on the front elevation and some discoloration on the rear. I recommend replacing any cracked shingles and painting the shingled walls with an oil-based paint to protect the wood .

CONDITION OF THE WINDOWS AND DOORS

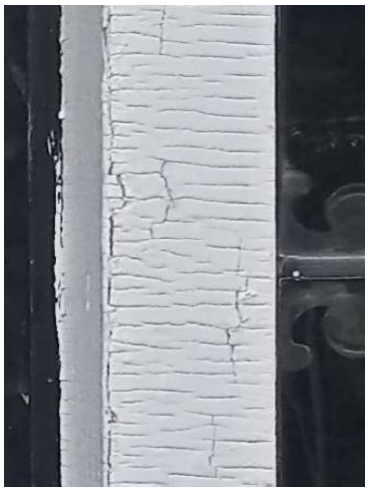
There are a total of 45 windows with 142 sashes and three doors in the main building. One of the doors and all but one of the windows and are made of steel frames with multi-lite leaded panels. Each of the panes of glass on the first and second floor measure four inches wide by five and a half inches high. The panes on the third floor are a bit bigger. In all there are nearly 3,000 panes of glass in the house, almost all of which appear to be handmade glass; only one or two panes are cracked.

The windows are all hinged casement type with sash that open to the inside of the building, and are most frequently ganged in two, three or more windows to an opening. They were built in 1909 by by Henry Hope and Sons. Ltd. 55 Lionel St, Birmingham, England. You can view a copy of the Henry Hope and Sons catalog dated 1909 at (**https://archive.org/details/metalcasementswr00henr/page/82/mode/2up?view=theater**).

The window hadware consists of an elegant latch and a window brace. The cremone bolt which locks the dining room French doors is a very graceful design. All the hardware is in very good condition.

An example of the number designations of the windows is shown below. The number of the a window consist of three separate parts. The first indicates the floor of the building (“1” for first, “2” for second, etc.), the second is the elevation (“F” for front, “R” for right, “B” for back and “L” for left), the third is the order of the window from left to right. A suffex of “-D” or “-S” refer to doors or storm windows respectively.

I will refer to the condition of a window as being similar to another particular window. An example would be “the condition of window 1B6 is typical of 1F1”. The types of window condition are shown below.



Condition Type 1F1: the wooden window frame paint is cracked and peeling, the glazing holding the leaded glass panel is cracked or missing, the leading between panes was universally in good condition and is well sealed. All the windows I tried opened easily and closed tighly.

The condition Type 1F3 is the same as 1F1 except the paint is in better shape.

Condition Type 2F3-S: the storm windows are wood instead of metal, their paint and glazing is similar to that of 1F1, badly peeling, cracked and missing. I was unable to examine the exterior window trim as it was covered by the storm window.

Overall, most of the metal casement windows are in very good shape. I observed only a small amount of surface rust on one or two sash. The lead cames between the small panes of glass are sound and well sealed. The leaded panels are held in place on the metal frame with typical glazing putty which consists of chalk and linseed oil. This glazing is failing in nearly all of the windows. All of the windows I opened did so easily and closed tightly. The window braces were usually free, but a few of them were sealed with paint in their cradles.

All the windows on the first floor are typical of 1F1 in that the paint and glazing are poor, except 1F3, 1F4, 1F6, 1F7, 1R4 and 1B1, which have better paint typical of 1F3. The condition of the metal casement windows on the second floor is typical of 1F1, but I could not see the exterior trim for evaluation because they were covered by the storm windows. All of the storm windows currently in place need to be repainted and reglazed. Below I will mention individual windows which have some issues.

The third-floor Palladian window on the front elevation (3F1) is probably the finest window of the building, but it is missing three of its storm windows. The paint of the window frames is badly peeling and there is some rust on the window braces.

Window 1R1 is typical of 1F1 except one pane of glass is cracked. The reflection shows the irregularity of handmade glass which is typical of all the windows.

The window sill of window 1B2 has a small area of rot.

The four dormer windows on the back elevation, 3B1, 3B2, 3B3 and 3B4, have peeling paint on the exterior side trim. The storms are typical of 2F3-S.

The original right-most dormer window on the back elevation (3B4) has been replaced with another metal framed casement window. I expect this was for egress to the fire escape. The hardware is different and the leaded glass panel is actually a single pane of glass with thin strips of lead attached with tape to simulate true leading. The glazing was recently done and is of poor workmanship.

The only window which is not metal framed with leaded glass is the front dining room window (1L3). It is a fixed, single-lite wooden sash. Its condition is fair and it needs painting and glazing touch up. It does not need to be removed to do this work.

There is an operable window (1F6-A) in the mass of the chimney; it opens into the dining room. The window is in poor condition with a poorly-done metal flashing on its top which has been pulled back to reveal an unpainted header timber. The metal window frame is rusted as is the window brace. The leaded glass panel is in good condition with some remnants of red paint on the upper cames. The side timbers are in contact with the chimney masonry and show signs of deterioration. The sill is heavily painted and caulked but I saw no signs of rot.There is evidence of water on the interior stool shelf, but it is unclear if it is from leakage or potted plants.

The front door (1F2-D) is wood with sixtgeen lites. There are sidelites with four lites each, a transom with seven and a modern aluminum storm door. The paint on the door as well as its frame, trim, sidelites and transom is cracked similar to the window, 1F1. The glazing of the lites in the door is on the inside of the building but those of the transom and sidelites are exposed to the weather and are in fair to poor condition.

The dining room door (1F5-D) consists of a pair of 52-lite metal-framed leaves hinged to a metal frame which is mouned to an oak frame. The condition of the metal leaves and frame is good as is the wooden frame. There is a slight bit of rot on the bottom of the sill where it sits on the concrete. The inside hardware is in good condition.

The door on the right elevation (1R2-D) is a wooden door with six vertical panels and a single, wire-glass lite. The door is in good condition, including its paint.

WINDOWS AND DOORS
RECOMMENDATIONS AND BEST PRACTICES

In general, the metal window frames and sash frames are in good condition and need no work other than painting. The glazing compound holding the leaded glass panels to the metal sash frame has failed in nearly all the windows creating the possibility that the glass panels could fall out. In many cases, this glazing needs to be removed and replaced and the leaded glass panels reset on new beds of glazing compound. This includes the window at 3B4 which has modern glazing putty which is poorly done.

The windows need to be reglazed using linseed oil and chalk putty (Allback ® from Sage Restoration). With metal windows, it is important to clean and prime the metal before installing the bedding putty which holds the glass panels to the metal sash frames and seals them in place. The face of the putty should be tooled to form sharp inside corners to allow water drainage.

If the leaded glass panels are not loose in the metal frames, it may be possible to repair the glazing with the sash still attached to the metal window frame. If the panels are loose they will need to be removed and the work done on a bench. There are only six screws holding the sash to the metal window frame.

A good video about window glazing is (**https://www.youtube.com/watch?v=xh6cGkRtBE0&t=173s**) It pertains to wooden windows, but metal windows are similar.

The wooden window frames are likely oak and are in good condition. In many cases, they need to be painted as the paint is cracked and in some cases peeling. Cracked or peeling paint can allow water to penetrate the surface and the resulting freezing and thawing can loosen the paint still further. Best painting practices include scraping with a hand scraper and sanding with a palm sander. The use of angle grinders or belt sanders can damage the wood and should be avoided. A good brand of oil-based primer and oil-based paint should be used.

In most cases, the storm windows have protected the metal ones, The second and third floor storm windows need to be removed and restored on a bench. Restoration includes removal, reinstallation and reglazing of the glass and painting of the wood frames. Any repairs to the wooden storm window structure or the window trim can be done at this time.

Three storms are missng from the Palladian window (3F1) and the paint on the frames is badly peeling. These storm windows should be replaced and the trim repainted. The frames and trim of the dormer windows need painting as does the wooden window (1L3). The front door (1F2-D) needs painting and the sidelites and transom need reglazing.

Of the nearly 3,000 panes of glass, only one or two are cracked. If they are to be repaired or replaced, a person experienced with leaded or stained glass should be used to do this work.

The small area of rot on the sill of 1B2 can be repaired using penetrating epoxy and epoxy filler. I recommend the use of West System ® epoxy and filler. The small area of rot on the sill of the dining room door (1F5-D) can also be treated with epoxy.

The small window in the front chimney (1F6-A) needs further examination to determine the amount of work to be done to restore and weatherproof this window. The windowsill should be stripped of paint and any damaged wood repaired with a wooden patch or epoxy. The metal sash is rusted and should be removed for restoration. The flashing above the window will need to be replaced with proper, lead flashing. This can can be done when the front chimney parging is dealt with.

CONDITION OF THE ROOF AND CHIMNEYS

There are a total of five chimneys in the house. All are visible from the ground except the center chimney. The condition of four of the five chimneys is similar in that the parging (a thin masonry veneer of fine mortar) is intact and they have been recently flashed to the new (2017) roof. The front chimey has problems with its parging.

Front Chimney

The most prominant chimney is on the front of the house. It appears to be made of poured concrete covered with parging which is peeling badly. There was white paint on the concrete chimney as well as the parging flakes indicating a poor bond between the mortar and the concrete.

Above the roofline, the chimney is covered with sheets of plywood. I assume these were installed to prevent the falling mortar from damaging the roof or causing injury. This is the only one of the four chimneys which has a plywood covering.

Although it was suggested that the chimney was originally of field stone construction, I found no evidence of this. This drawing was taken from an old photo; I think it shows the bottom of the front chimney with a covering of stone veneer.

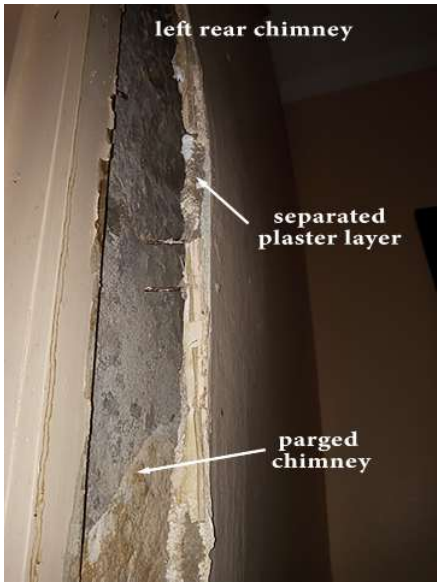
Left Chimney

Unlike the front chimney, the base of the left chimney is not parged, but painted concrete in good condition. The parging above the roofline appears to be sound and was probaly done later than the front chimney, possibly when the roof was redone in 2017. The white plume over the flashing is probably leeching mortar.

Right Rear Chimney

Similar to the left chimney, the right rear chimney is parged above the roofline. The obvious water damage around the chimneys is probably from before the latest roof was installed in 2017. I believe the leaks are not active and were fixed when the new chimney flashing was installed.

Left Rear Chimney



The left rear chimney is similar the right rear. I believe it has been recently parged and flashed to solve the leaking problem. The old parging (similar to that of the front chimney) can be seen behind the separated plaster wall in the third floor hallway and was possibly done when the building was built.

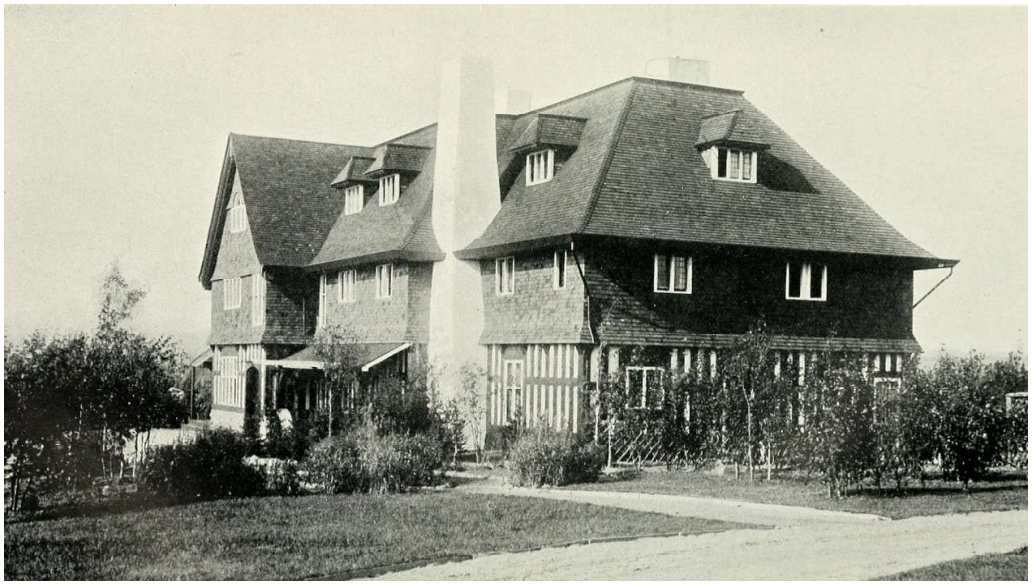
Center Chimney

The center chimney was not visible from the ground.* It is sealed at the top and flashed to the very low-pitched torch on roof using standard flashing techniques.

Chimney Flashing and Gutters

Chimney flashing is designed to prevent leaks where the chimney meets the roofing materials. When done properly the flashing directs water away from the chimney and protects the house and the chimney itself from water damage. Before the roof was renewed, the chimney flashing failed in at least two of the chimneys leading to serious water damage below. The new flashing on the shingled portion of the roof is not the best practice and uses non-durable materials adhered to asphalt tab shingles. The rough nature of the parging makes me think the chimneys were re-parged when the roof was renewed.

**My thanks to Jeff Hennebury of CNA Baie Verte for use of images from his drone video.*



The architect's drawings for the house shows gutters and long angled downspouts. They were still present in 1958, but are gone by 2010. The eaves have a significant overhang and rain runoff falls well away from the house. I do not believe gutters are necessary for water management.

ROOF AND CHIMNEYS
RECOMMENDATIONS AND BEST PRACTICES

There are a total of five chimneys in the house: one on the front, one on the left side, two on the rear and one in the middle of the low-sloped roof. It is not clear which ones are operable at this time, but several are capped. All are concrete chimneys are covered with mortar parging.

The parging appears sound in all but the front chimney, which is covered with plywood, assumedly to prevent falling mortar from damaging the roof or injuring people on the ground. From the foundation to the second floor, the parging is peeling away from the front chimney. It is apparent the mortar was put on the chimney over paint and the bond with the mortar has failed as it is peeling off in good sized sheets. I assume the same condition applies above the roofline and the concrete chimney underneath the parging is sound. To repair the parging, best practices need to be followed and scaffolding will be required. Best practices include removing any of the old parging which is not well adhered to the concrete, thoroughly cleaning the concrete surface using power washing and wire brushing, applying an approved bonding agent to the clean concrete and appling the mortar veneer according to manufacturer's recommendations. Some examples of parging repair follow: (**https://www.youtube.com/watch?v=l9JxBaFmmz0**, **https://www.youtube.com/watch?v=lCyjy660fVI&t=750s).** The other chimneys show no signs of failing parging, but they should be checked and repaired if loose parging is found.

The plywood covering the front chimney is a very temporary solution and when it begins to deteriorate, it will add another hazard which might damage the roof or injure people. I recommend the plywood be removed from the chimney in the near future and the exposed parging repaired. It is important to use best practices to assure good adhesion of the new mortar to the concrete. The other four chimneys are not showing any signs of peeling, but they should be carefully monitored and repaired when damage is first noticed.

Flashing prevents water from getting inside the house where the chimney penetrates the roof. For hundreds of years, metal flashing and counter-fashing was used to keep water out. On a sloped roof, lead or copper were placed between the shingles and folded up the surface of the chimney. A second layer of flashing, called counter-flashing, overlapped and was folded into a cut made in the chimney sufrace (a reglet) and the gap filled with mortar. Only metal and mortar were used to seal the chimney.

Over the years, this method of flashing has been replaced with roofing materials that self-adhere to both the chimney and the roof. Today's standard practice also includes a metal counter-flashing which is nailed and caulked to the chimney. This is the flashing method used on Grand Falls House. It is a less-durable method of flashing than metal sealed in a reglet but, when properly used on torch-on roofs, can last for many years.

The roof was replaced in 2017 and it appears the flashing was installed when the roof was done. There are two types of roofing materials where the chimneys meet the roof, asphalt tab shingles on the pitched roofs and torch on bitumen roofing on the top, nearly flat roof.

My concern is where the chimney goes through the higher-slope asphalt shingle roof. It appears self-adhered roofing materials, either torch-on, which uses heat, or peel and stick, have been used over the shingles. This is not recommended. Heat can damage existing asphalt shingles and peel and stick adhesives do not bond well to asphalt shingle granules.

For best practices, the flashing done with self-adhered roofing over asphalt shingles should be removed and replaced with lead or copper flashing properly installed. A groove will need to be sawn in the concrete walls of the chimneys. Best practices for flashing chimneys to a tab shingle roof follow: (**https://www.youtube.com/watch?v=9jJgV_k4nFs&t=70s** and **https://www.youtube.com/watch?v=-PowXyjDfZM).**

This image shows both the traditional method using copper counter-flashing in a reglet and the modern method of flashing. In the modern method, a metal channel is used to seal the top of the self-adhered counter-flashing.This is the same method used at Grand Falls House.

SUMMARY

I saw no active water drainage issues with the house. It is situated on well-drained land with good air circulation on three of the four elevations. The back of the house is more protected and thus is wetter. There is a good roof overhang keeping the drip line from roof drainage well away from the house and a very tall concrete foundation. There were no gutters or downspouts on the house when I examined it, but this does not appear to be an issue.

There are instances of delayed maintenance and sub-standard repairs, but overall, Grand Falls House is sound, weather-tight and in good condition but there are a couple areas which need attention in the near future.

The front chimney is covered with plywood to catch the falling parging before it damages the roof or injures people below. As time goes by the possibility of the plywood blowing off increases. This is a liability issue and needs to be dealt with as soon as possible. The plywood covering has to be carefully dismantled and the loose parging removed without damage to the roof.

There are some open joints in the repairs done to the timbers at the rear of the house. These need to be sealed to keep out the weather. A quick seal using caulking is the best option for the short term, but a more permenant solution should be found.

The metal-framed windows are generally in good condition, but the glazing which seals the leaded glass panels to the metal sash frames is failing throughout the house. It is important to do this repair in the near future as some glass panels may be loose and may fall out of their frames. Large pieces of glazing putty fell out of several windows when I opened them.

If the glass panels are loose, they will have to be removed and reinstalled with new glazing. This is best done on a bench. If the glass panels are still tight in their frames, the glazing can be repaired without removing the window sash.

The window in the front chimney may be leaking water inside the building. This needs to be more carefully examined to determine what repairs may be needed.

A new roof was installed in 2017 and the chimneys were flashed at that time. The low-pitch portion on the top of the building was torch-on bitumen and the chimney flashing there appears to be standard practice for a low-angle roof. Where the chimneys are flashed over the asphalt tab shingles self-adhered roofing material was used. The use of self-adhered roofing materials is not an accepted practice for flashing to a tab shingle roof. My recommendation is to remove the chimney flashing on the shingled part of the roof and replace it with metal flashing.

The second and third floor storm windows are in need of reglazing and repainting. Some wood repairs may also be needed. The first floor storm windows were evidently out for restoration in the house shop.

The paint around the windows, on the dormers and at the front door is in need of renewal with scraping, sanding, priming and repainting.