

Howard Houle,
Director
Regional District of Nanaimo
Nanaimo, B.C.
July 14th, 2018

Dear Howard :

I am writing on behalf of the Board of Directors of the Gabriola Island Community Hall Association. We are applying for financial support from the Community Works Fund for the replacement of the flat roof of the Community Hall building.

As you may know, our mission is to maintain and develop the Hall for multiple uses by our community. A partial list of activities that take place in the Hall on a regular basis includes choral concerts, pantomimes, dances, pickle ball, the annual salmon barbecue, karate, badminton, tai chi, the library's annual book sale, food forums, the annual Christmas Spirit Feast, and many others. The Hall is the only facility on the Island that can accommodate this variety of activities. We endeavour to keep our rental rates as low as is feasible in order to make the Hall accessible to as many Gabriolans as possible. Our budgets are balanced, though with little or no surplus.

Last year, thanks to a generous grant from the Regional District of Nanaimo via the Community Works Fund, we were able to partially re-roof our building on those portions covered by metal roofing. Last month, we also made an application to the Community Works Fund to help cover costs for the replacement of the gutters and an upgrade to the mechanical room.

For the current project, after careful consideration by the board and consultation with Konrad Mauch (see his attached report), we have decided to accept the proposal by Vanderleek, even though it is slightly higher than the other bids, because of its 15 years warranty and superior technology.

We hope to secure matching funds via a Capital Project Grant from the BC Community Gaming Grants Branch, the application for which we are currently finalizing before the deadline of July 31st. Our MLA, Doug Routley, has committed to providing a letter of support for this application and we would welcome a similar letter of support from the RDN, should this current application be successful.

With regard to the asset management requirement, I attach a report outlining significant repairs done in the recent past as well as replacements and renovations planned for future years.

In conclusion, we are submitting this letter and accompanying documentation as a request for \$23,838.00 as a 50% contribution towards the replacement of the flat roof which will have a total cost of \$47,676.00. Please see the attached Project Budget for a detailed breakdown of costs and revenues.

The proposal has been carefully reviewed by the entire Board of Directors and has their unanimous approval.

Please find attached documentation regarding the above project.

Yours respectfully,

Joyce Babula,

President

Enclosures:

- (a) Project Budget
- (b) Estimates
- (c) Roof Report prepared by Konrad Mauch
- (d) Asset Management Report

	GABRIOLA ISLAND COMMUNITY HALL						
		Supplier	Rate	Cost			
	Flat Roof Repair / Replacement						
	Roofing contract	Vanderleek Roofing	See quote	\$42,142			
	Project specification / Quote analysis	Konrad Mauch	15 hrs @ \$40	\$600			
	Supervise installation	Konrad Mauch	15 Hrs @ \$40	\$600			
	Sub totals			\$43,342			
	Contingencies		10%	\$4,334			
	TOTAL COST			\$47,676			
	Requested CWF from RDN			\$23,838	50.0%		
	"In Kind" Labour	Konrad Mauch		\$1,200	2.5%		
	Matching funding from BC Gaming in process of application			\$22,638	47.5%		
	Total Matching funding			\$23,838	50.0%		
	TOTAL FUNDING			\$47,676	100.0%		

Gabriola Island Community Hall Association			
Balance Sheet			
As of July 11th, 2018			
		As of July 11, 2018	
Assets			
Current Assets			
Cash and Cash Equivalent			
1020 Chequing	\$9,544		
1021 Operating a/c	\$384		
1025 High Interest	\$579		
1026 Restricted funds (Flat roof replacement	\$15,000		
	\$25,506		
Total 1200 Accounts Receivable	\$0		
Total Accounts Receivable (A/R)	\$0		
1211 Prepaid Expenses			
1212 Prepaid insurance	\$235		
1213 Prepaid Security	\$24		
Total 1211 Prepaid Expenses	\$259		
Total Current Assets	\$25,765		
Non-current Assets			
Property, plant and equipment			
1400 Building	\$376,530		
Total Property, plant and equipment	\$376,530		
Total Non Current Assets	\$376,530		
Total Assets	\$402,295		
Liabilities and Equity			
Liabilities			
Total Liabilities	\$0		
Equity			
Retained Earnings	\$397,235		
Profit for the year	\$5,059		
Total Equity	\$402,295		
Total Liabilities and Equity	\$402,295		
Wednesday, Jul 11, 2018 12:49:01 PM GMT-7 - Cash Basis			

GABRIOLA COMMUNITY HALL ASSOCIATION

ASSET MANAGEMENT REPORT

1. **How old is the building?** The current building is now 34 years old.
2. **What are the past renovations in the last 10 years - 20 years?**

In the last 10 years, the following renovations have been completed :

- new opening windows were installed in the stairwell
- replace the second boiler
- ongoing maintenance of stage lighting and sound system
- new stoves and fridges in both kitchens
- Reverse osmosis system installed in kitchen sinks
- Interior and exterior of Hall were repainted
- replacement of all the lighting in the main hall
- installation of tile in the storage room
- New countertops in both kitchens
- Built a roof over double door entry along the ramp
- installation of carpeting in the downstairs area
- Replaced the metal portion of our roof which exposed a good amount of damage to the structural part that needed to be replaced
- Installation of an accessible washroom on the main floor this year
- Canada 150 grant was received and a realization of an external mural depicting the history of the Island

Previously, in the period between 1998 - 2008, the following work was done :

- new well was drilled and new water pump was installed from the well to the cistern to maintain ongoing stability with water.
- a filtration system was put in at that time.
- a new cistern was purchased and a wooden structure built around it
- installation of a new boiler in the mechanical room

- painting of the inside and outside of the Hall two times during the last 20 years and repaired holes made by woodpeckers.
- installation of curbing, resurfacing and improved drainage in the parking lot
- Skylights were removed from area above solarium and in stairwell and metal roof repair completed.

3. What are the future renovations planned for the next 5, 10, 20 years?

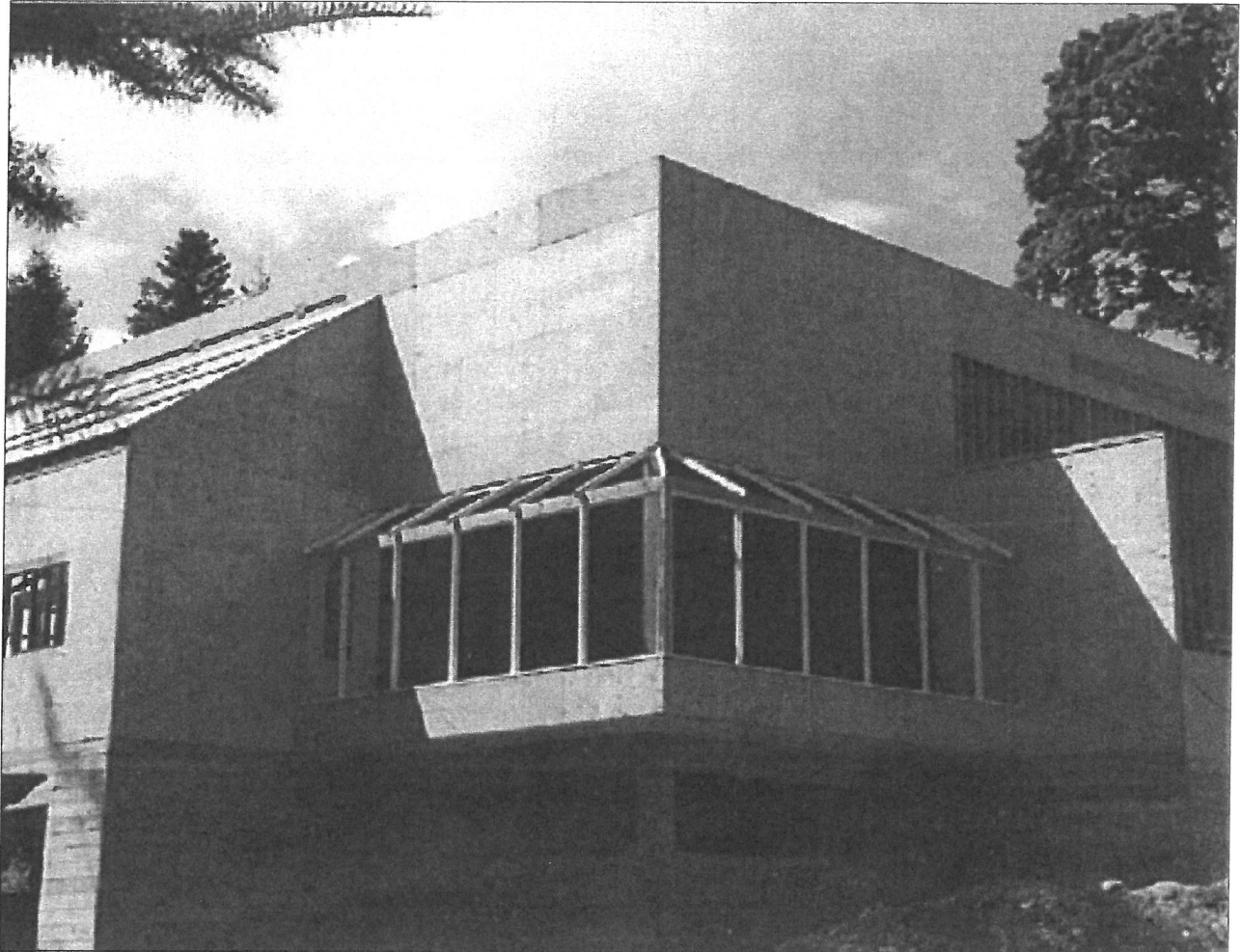
We have a list of items to be phased in during the coming years.

Future needs will comprise :

- upgrades to the mechanical room
- gutters and downspouts
- a generator to maintain lighting and electricity in the event of a power outage
- Replacement of windows in solarium as they are steamers with broken seals
- refinishing of the wooden floor in the main hall,
- replacement of the carpet in the stairwell
- over the next ten years, we could look at heat pumps for both heating and cooling.
- Explore new technology such as solar panels to make the hall greener and more energy efficient
- over the 20 year time frame, we plan to maintain the building as required for the changing needs of the growing community

4. Structural defects - none

GABRIOLA COMMUNITY HALL



Community Hall Re-roof Options

Prepared for: Community Hall Board

Prepared by: Konrad Mauch with advice from Graham Macdonald and John Campbell

April 22, 2018

COMMUNITY HALL RE-ROOF OPTIONS

SUMMARY

The Community Hall Board plans to apply to the RDN for funding to replace all or part of the existing roofing on the “flat” portion of the roof. The existing roof is still trouble-free and does not leak, but it is reaching its expected end of life and, in addition, a problem with roof drainage, and a potential problem with the plywood sheeting, should be addressed.

The scope of work for the application to the RDN should include the following:

1. Replacement of the entire roofing system, including the plywood sheeting
2. Correction of the pooling/drainage problem
3. Replacement of drains and vents
4. Replacement of metal perimeter flashing

The replacement of the plywood sheeting could be removed from the scope if sufficient funding is not available (this will save \$11,000 to \$12,000). However there is some risk that the sheeting will have to be replaced in any event if serious problems with the plywood are discovered during the re-roofing.

Quotes for the complete scope of work have been received from two reputable Nanaimo roofing contractors, Erickson Roofing and Vanderleek Roofing. Erickson proposes using torch-on roofing material and Vanderleek proposes using PVC membrane roofing material. Either should perform adequately for 15+ years but the PVC probably has a longer lifetime. The quoted prices are:

Erickson: \$37,915

Vanderleek: \$42,142

The Vanderleek (PVC) option probably has a lower annual cost of ownership, despite the higher initial price, because of the expected (but not guaranteed) longer life. However the Board should consider alternative, higher return to stakeholders, uses for its money, and whether the funding agency will support selecting a higher price supplier, before deciding on this option.

COMMUNITY HALL RE-ROOF OPTIONS

INTRODUCTION

The Community Hall Board plans to apply to the RDN for funding to replace all or part of the existing roofing on the “flat” portion of the roof. This report discusses options for the scope of the work and provides the needed back-up information for the application.

SCOPE OF WORK

The Community Hall was completed in 1984, probably with a “hot tar” roofing system on the flat portion. The roofing rests on 1/2” plywood sheeting. We believe that it has been re-roofed at least once with “torch-on” roofing but the original plywood sheeting remains. It would be good to check with someone familiar with the history (Stevy?) to confirm that the re-roofing occurred and when.

The existing roofing is trouble free and there have been no reports of leaks. The roofing looks to be in good shape and that has been confirmed by one roofing contractor (Allterrain). However there are grounds to consider re-roofing at this time. These are:

1. The existing roofing is probably approaching end of life. The building is 34 years old. Assuming one re-roofing, it is likely that the current roofing system is 15 to 20 years old. This is in the range of life-expectancy normally quoted for torch-on roofing.
2. The roof has problems with pooling of rainwater. The roof does not drain completely with the existing drain scuppers and a pool forms when there is significant rain. This is a long-run hazard for leaks with roofing systems.
3. The plywood sheeting may be weakened. Stuart Denholm reports that he found the plywood sheeting to be in poor condition when he replaced the sloped metal portions of the the roof in 2017. Inspection of the plywood under the flat portion (from the attic) shows some water staining, which could have occurred prior to the application of the roofing when the Hall was built. A moisture meter reading of the plywood shows 11%, which is reasonably dry. Poking at the plywood with a knife blade allows some penetration, but no clear signs of significant decay.

Options for scope of work range from simply putting on a new top coat of torch-on material to replacing the entire roof, including the plywood sheeting, and installing new vents and drains/scuppers. More detail on the different options quoted can be found in the Quotes section of this report.

We recommend that, for the purposes of the funding application, the scope of work should include:

1. Replacement of the entire roofing system, including the plywood sheeting
2. Correction of the pooling/drainage problem
3. Replacement of drains and vents
4. Replacement of metal perimeter flashing

If funding can't be obtained for the entire scope, consider dropping the replacement of the plywood sheeting since it isn't certain that the sheeting is actually a problem. However, be aware that a serious problem with the sheeting may become apparent when the roofing is removed. At that point funds may have to be allocated from other parts of the Hall's maintenance/renovation budget to replace the sheeting.

Roofing Material Options

Quotes were received for three roofing materials: EPDM, PVC (Duro-Last) and torch-on.

EPDM is a synthetic rubber roofing membrane. The supplier quoting this material did not recommend this option (prefers torch-on) and specified two inches of pea gravel ballast on top of the membrane, which could cause loading problems for the roof. We do not recommend this option.

PVC is a plastic roofing membrane. Advantages include

- Longer life than torch-on - maybe 20 to 30 years vs. 15 to 20 years
- Better warranty - 15 years and material manufacturer inspects and guarantees the work, so presumably no "finger pointing" if a problem occurs

Disadvantages:

- Higher cost
- May be more susceptible to penetration/impact damage (animals, careless people, falling branches)

Torch-on is the bitumen based material currently used on the Community Hall.

Advantages:

- Lower cost
- Proven performance in this location - probably 15+ years

Disadvantages:

- Shorter life expectancy than PVC
- Warranty coverage either not as long or as comprehensive. One supplier did quote 20 years on material and 15 years on labor, but we are somewhat skeptical if this will be honoured in 15+ years.
- Open flame used during installation. Work practices and insurance of the contractor need to be considered.

We believe that either PVC or torch-on will deliver satisfactory performance. It is likely that the PVC would last longer than the expected 15+ years for the torch-on, but this is not guaranteed by the supplier.

Quotes

Quotes for various scopes of work were received from the following three Nanaimo-based roofing contractors:

1. Allterrain Roofing
2. Erickson Roofing Ltd.
3. Vanderleek Roofing Inc.

Gabriola Community Hall Roofing Quotes									
Vendor	Price (GST Inc.)	Type of Roofing	Prep to Existing Roof	Underlay	Vents	Drains	Flashing	Warranty/ Guarantee	Comments
All Terrain Roofing Quote #1105	\$13087.00	Torch-on cap (IKO) on existing torch-on base	Clean and prime existing torch-on base	No	Torch down new seals on existing vents	Re-torch in existing drains	Install new metal flashing on perimeter	20 year guarantee on new torch-on, 15 year workmanship guarantee	All-Terrain says this is the best choice given the good condition of the existing torch-on roof.
All Terrain Roofing Quote #1104	\$20344.00	Torch-on (IKO)	Remove 2 layers of torch-on	Protecto board	Install new vents to code	Re-torch in existing drains	Install new metal flashing on perimeter	20 year guarantee on torch-on, 15 year workmanship guarantee.	
All Terrain Roofing Quote #1106	\$24043.00	EPDM membrane	Remove 2 layers of torch-on	Not specified	Install new vents and glue down	Install new drains and glue down	Install new metal cap flashing	10 year warranty on membrane, 10 year workmanship guarantee	2 inch pea gravel layer added on top of membrane for UV protection (also provides puncture protection). Adds another 15-20 lb. per sq. ft. load to the roof.
Erickson Roofing Base Quote	\$25870.95	Torch-on (Soprema)	Remove existing torch-on	Elastophene	Install 6 new vents	Four new copper drains	Install new perimeter flashing	10 year warranty on material and labor	Quote includes "cricket" to redirect pooling water from low spot in corner to a drain
Erickson Roofing Option #1	\$37915.50	Torch-on (Soprema)	Remove existing torch-on and plywood sheathing. Install new 5/8" plywood sheathing.	Elastophene	Install 6 new vents	Four new copper drains	Install new perimeter flashing	10 year warranty on material and labor	Quote includes "cricket" to redirect pooling water from low spot in corner to a drain
Vanderleek Roofing Base Quote	\$31081.00	PVC membrane (Duro-Last)	Drill holes in existing roofing system to allow moisture to escape	3/8" Duro-fold insulation over existing torch-on	Install 20 new vents into attic plus breather vents	Install five new drains, including one to drain low spot in roof	Install new metal flashing for access hatch and perimeter.	15 year warranty for material, labor and consequential damage	
Vanderleek Roofing Option #1	\$42142.00	PVC membrane (Duro-Last)	Replace existing roofing and sheathing with new 5/8" T&G ply	No	Install 20 new vents into attic plus breather vents	Install five new drains, including one to drain low spot in roof	Install new metal flashing for access hatch and perimeter.	15 year warranty for material, labor and consequential damage	

Roofing Quotes Received

The two quotes that reflect the recommended scope of work are Erickson Roofing Option #1 and Vanderleek Roofing Option #1 (in **bold** in the table above). A quote for the same scope of work was requested from Allterrain but has not been received. The quotes from Erickson and Vanderleek are within 12% of each other, so the lower quotation (Erickson) could be used as a basis for the funding application with the other showing that the chosen quote is reasonable. Choosing the higher quotation (Vanderleek) could be justified on the basis of the better warranty, expected longer life of the roofing material, and the additional ventilation that would be installed. We recommend that a contingency amount of at least 5% be added to either quote. Quotes are only valid for a limited time (30 days in the case of Erickson) and material costs do change.

Graham Macdonald reports that his experience with Erickson on some other projects has been good. I have a contact who has managed building contracts for both the City of Nanaimo and the RDN. He also says Erickson has a good reputation. Haven't found any references for Vanderleek, but they have been in business for many years. Allterrain is the smallest of the three companies, and their inability to deliver a quote for the requested scope may indicate that they are already stretched.

We believe either contractor can do the job and either the PVC or torch-on option will meet the Hall's needs for the next 15+ years. The decision on whether to choose the more expensive PVC option depends on how the Board feels about allocating its money. If the capital budget is big enough and there are no alternate better uses for the money, then the PVC option probably has a lower annual cost of ownership. If we assume that the torch-on will need to be replaced in 17 years and the PVC in 20 years or later, then the annual cost for the PVC is lower than the torch-on. However since the Board is also seeking funding from government sources, it should consider how they will respond to the selection of a more expensive option. If the funding agency decides it has better uses for its money than funding a longer life roof, we may be disappointed!

Other Considerations

Fire Risk Torch-on involves the use of open flame and there is an increased risk of fire during the roofing process. We were concerned whether re-roofing could proceed during the summer fire hazard season. Erickson responded to my inquiries on this with the following:

"We are indeed able to install torch-on roofing systems in extreme wildfire hazard rating, every job we do involving torches are submitted to a fire watch inspection through the day and at the end of the day for at least one hour after the last torch as been extinguished, we do regular walks around the areas that have been installed with a laser heat gun to ensure the temperature is dropping. We also have the required amount of water cans and fire extinguishers on site at all times, we pride ourselves in our high safety standards."

Nevertheless, as recommended by Graham Macdonald, if torch-on roofing is the selected approach, the Board should inform its insurer of the planned work and ensure that the contractor's safety procedures meet the insurer's requirements.

Asbestos Risk There is a small possibility that asbestos containing materials were used in the present roofing material, particularly if it was installed more than 20 years ago. The roofing contractors should be familiar with the possible risk and whether testing is necessary before the material is removed and disposed. This is another reason to find out as much as possible about the history of roof replacement at the Hall.

Seismic upgrade It has been suggested that replacing the 1/2" plywood sheeting with 5/8" plywood sheeting would improve the building's seismic capability. We think no such assumptions should be made and it should not be given as a reason for doing the work in the funding application. If the Board wishes to investigate what is required to improve the seismic rating of the building, it should budget for an investigation and report by a qualified structural engineer on the current status of the building, what could be done to improve its seismic rating, and what that might cost.

Scheduling Erickson estimates 7 working days to complete the job, assuming good weather. No estimate from Allterrain and haven't asked Vanderleek (yet).
