

**Hornby Island Fire Hall
Project Close-out Report
July 9, 2018**

Purpose:

The purpose of this report is to provide the Hornby Island community with an overview of the fire hall project including a timeline and financial review and to reflect on the challenges overcome by the team and the lessons that were learned.

Overview: Preconstruction

In 2013, the Comox Valley Regional District (CVRD) engaged the services of a preconstruction coordinator from Hornby Island and began holding community meetings to introduce the concept of a new fire hall and to gauge public support for this effort. Preconstruction expenses, not related to the fire hall design and leading up to the referendum totaled \$56,370. These expenses include; preconstruction coordinator costs and community meeting expenses.

At that time, based on information from other fire hall projects recently constructed, the cost estimate for a new Hornby Island fire hall was approximately \$1.8 million.

Based on community input and general support for the concept, an architect was engaged to begin the design process. Further, a cost consultant was engaged to refine the cost estimates through the design development. Based on the cost consultant's work, the estimated cost of the project was revised to \$1.9 million.

The preliminary costing information was presented to the community leading up to a referendum. The preliminary funding for the project was to be a combination of: borrowing from the Municipal Finance Authority (MFA), Community Works Fund Grant Program (CWF), and reserve funds already held by the Hornby Island Fire Protection Service. This preliminary funding model is captured in Table 1 below.

Table 1 – Preliminary Project Costs

Funding sources	Amount
Borrowing from MFA	\$1,600,000
CWF grant	\$200,000
Reserves	\$100,000
Total:	\$1,900,000

Based on the above preliminary cost and funding model the CVRD conducted a referendum in April 2015. The referendum question on the ballot was:

“Are you in favour of the Comox Valley Regional District adopting bylaw no. 362 being the “Hornby Island Fire Protection Service (Fire Hall Construction) Loan Authorization Bylaw No. 362, 2015” to enable the CVRD to borrow \$1,600,000 to construct a fire hall on Hornby Island?”

The referendum was successful with 83 per cent in favour.

In July of 2015 the CVRD issued a request for qualifications seeking submissions from qualified construction firms that may be interested in prequalifying to provide their services to construct the new fire hall. Seven firms were pre-qualified.

An Invitation to Bid (ITB) was issued to pre-qualified firms and closed in February 2016, with four compliant bids received. Table 2 below summarizes the bidders and their tabulated bids.

Table 2

Bidder	Bid (excluding GST)
Island West Coast Developments Ltd.	\$2,175,526
Kinetic Construction Ltd	\$2,233,000
AFC Construction	\$2,389,177
Yellowridge Construction Ltd.	\$2,545,500

As all bids were over the estimated cost for the project, the CVRD, the architect and the user group conducted a cost and scope review exercise to lower the project construction cost. Further, the project budget was amended to increase the funding from the CWF grant and reserve funds. This revised funding model is captured in Table 3 below.

Table 3 – Budgeted Project Cost

Funding sources	Amount
Borrowing from MFA	\$1,600,000
CWF grant	\$230,000
Reserves	\$671,726
Less MFA Debt Expense (one-time cost of 1% of borrowing)	(\$16,000)
Total	\$2,485,726

In March of 2016 a construction contract was awarded to Island West Coast Developments Ltd for a cost of up to a maximum of \$2,175,526. The contractor began work on the project in May 2016 based on a revised contract cost of \$2,032,025.

Overview: Construction

Through the lifecycle of the project, the architect administered the construction contract including the management of construction change orders necessary for project success. Construction changes, additional design work required, and increased user group and community interactions resulted in increased architectural costs. The architectural contract and changes are listed in Table 4 below.

Through its lifecycle, the project also encountered challenges that resulted in change orders to the original construction contract. The construction contract and changes are listed in Table 4 below. In addition to the architectural and construction cost the project incurred other expenditures that were not specific to a contracted service but were required for project success. These other expenditures are also listed in Table 4. Total expenditures for the project are \$2,541,445. Based on a financial plan of \$2,485,726 the project is completed at approximately 2.2 per cent over budget.

Table 4

Project Revenue Sources	
Long-term debt	\$1,600,000
Reserves	\$671,726
Grants	\$230,000
Total Revenue available	\$2,501,726
Less MFA Debt Expense (1% of borrowing)	(\$16,000)
Total funds available for project (2016 budget)	\$2,485,726
Project Expenses	
Project Expenditures	\$2,541,445
Surplus (Deficit)	(\$55,719)

Project Expenditures	
<u>Architecture:</u>	
Simcic Uhrich Architects; original contract	\$115,250
Change orders #1 through #14 regarding: <ul style="list-style-type: none"> • Mechanical Consulting • Cost consulting • Civil Consulting • Structural consulting • Additional services (users and community concerns and interactions) • Water system and Hydrology 	
\$167,050	
Total architecture contract and changes	\$282,300
<u>Construction:</u>	
Island West Coast Developments; original contract	\$2,032,025
Changes #1 through #18 regarding: <ul style="list-style-type: none"> • Additional requests from user group • Additional electrical works • Additional water system works • Additional septic system works • Supplemental humidity control works (venting, blocking, humidistat) 	
	\$102,222
Total: Construction contract and changes:	2,134,247
<u>Other Expenses:</u>	
Includes: <ul style="list-style-type: none"> • Automatic transfer switch and commissioning • Nederman truck bay exhaust system • Millwork and water tanks installed by user-group • Well drilling and installation and land clearing • Supply and install moisture monitoring equipment • Community liaison and newsletters. 	
Total: Other expenses	\$124,898
Total Project Expenses	\$2,541,445

Challenges:

As with most capital projects, this development presented unanticipated challenges that tested the project team and budget. Some of these challenges included:

- Unanticipated bedrock intrusion where the septic system was designed to go
- Rain water intrusion under the apparatus bay doors (construction deficiency)
- Moisture trapped within apparatus bay walls (construction deficiency)
- Subcontractor's ability to return to the remote site to repair deficiencies.

Through the persistence of the team and the patience of the user group, each of these challenges was met and resolved to the success of the project.

Lessons Learned:

Through meeting the challenges presented by the project, the project team has gained valuable insight that will guide future capital projects for fire services.

Project delays: As the project neared completion, it was often a challenge to have subcontractors return to Hornby Island to repair deficiencies that were identified by the team. This was the largest contributing factor to project delays. To address this challenge in future capital projects, particularly for remote sites, future general contractors will be asked to provide a written plan to manage the return of sub-contractors to complete deficiency repairs.

User-Group input: At a recent meeting of CVRD staff and the HIFR department membership, a fire fighter said to the group, "This may be a CVRD capital project and the CVRD owns the building.... But it is our home". These words highlight a lesson learned that; although the fire hall needed to be managed as a capital project with prescribed processes and requirements, the project team also needs a greater view of the project from the firefighter's perspective. The fire hall will be the firefighter's "home" for the next 50 years and their input is integral to the project's success over the long-term.

With the completion of the fire hall, the CVRD wishes to thank everybody on Hornby Island that contributed to the success of the project. The select committee members gave of their time and knowledge, the HIFR membership displayed patience, and provided valuable insight, and the Hornby Island community granted their financial support and understanding. A special thank you to Fire Chiefs Giff LaRose and Doug Chinnery for their commitment to the improved safety of their community for their contributions to the project's success.

On behalf of the CVRD and the undersigned, it's been an honour to be part of the team that delivered a much needed new fire hall to the community of Hornby Island. Thank you for the opportunity.

Respectfully submitted

James Bast,
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Hornby Island Fire Hall Project Manager