

Building Condition Assessment Report

Asset	C3a - Fern Terrace (Violet Way) Cottage 103		
Address	Riverview Lands, 2601 Lougheed Highway, Coquitlam, BC. V5C 4J2		
Construction Year	1924.		
Size (Gross Floor Area)	3,509	Sq.Ft.	
Asset Type	FPH RV_103 etc., 2 Story Vinyl Siding & 15% Brick Veneer / Wood Frame		
Floors Above Ground	2		
Report Date	October 2013		



Executive Summary

This building was constructed in 1928 and is a two-storey wood frame structure with a stucco finish, hipped roof, multi-pane windows and a small detached garage. This building was built as a residence for Medical Officers' and is much larger and better-appointed than the simpler bungalow constructed to house regular site staff. This unit is 326 m2 and is currently being utilized by Forensic Psychiatric Services. Unit 103 remains in good condition and was given a ("good") rating in the previous Heritage Evaluations. The Unit is somewhat isolated from other site facilities and makes it a good candidate for a program that requires some distance from other site programs. This Care Unit is currently occupied by the FPS Branch of PHSA who have requested a renewed tenancy for a further five year term.

This report assumes a continuation of the current use (or previous use if building is vacant) and does not include costs associated with a change of use of the building.



Summary Results of Assessment: C3a - Fern Terrace (Violet Way) Cottage 103

Replacement Costs	Renewal Costs	FCI
\$642,500.00	\$316,500.00	49%



Definitions:

- **Replacement Cost:** The combined costs (construction only - soft costs are not included) to replace all the components in the building without demolition and rebuilding. This number is arrived at from RS Means and other sources then verified (validated) by the persons doing the building assessments.
- **Renewal Cost:** The combined costs (construction only - soft costs are not included) of all the identified renewal needs.
- **Facility Condition Index (FCI):** a ratio of renewal costs divided by replacement costs
- **FCI Level Definitions:**
 - o Good: 0%-5%
 - o Fair: 6%-10%
 - o Poor: 11%-30%
 - o Critical: greater than 30%



A10 Foundations

<u>Component</u>	1	<u>Overall Condition</u>	Fair 
<u>Last Major Action Year</u>	1924.		
<u>Replacement Value</u>	\$40,000		
<u>What & Where</u>	Footings and foundation's are reinforced (presumed) concrete cast in place.		
<u>Commentary (Condition ...)</u>	Various locations indicate issues with perimeter drainage, mild ingress.		
<u>Action</u>	1.		
<u>Action type</u>	Study		
<u>Action Cost</u>	\$1,500		
<u>Action Year</u>	2014.		
<u>Brief Description</u>	Investigate extent of perimeter drainage and repair as required.		
<u>Commentary</u>	Study required to address seismic and overall building conditions.		



A20 Basement Construction

<u>Component</u>	1	<u>Overall Condition</u>	Fair 
<u>Last Major Action Year</u>	1924.		
<u>Replacement Value</u>	\$50,000		
<u>What & Where</u>	Reinforced (presumed) slab on grade. Full height concrete walls to grade level.		
<u>Commentary (Condition ...)</u>	There are visual signs of mild water ingress.		
<u>Action</u>	1.		
<u>Action type</u>	Study		
<u>Action Cost</u>	\$0		
<u>Action Year</u>	2014.		
<u>Brief Description</u>	Investigate source of moisture in basement.		
<u>Commentary</u>	Study required to address seismic and overall building conditions.		


B10 Superstructure

<u>Component</u>	1	<u>Overall Condition</u>	Fair 
<u>Last Major Action Year</u>	1924.		
<u>Replacement Value</u>	\$30,000		
<u>What & Where</u>	Wood Frame. Chimney to service fireplace. Small Detached Garage		
<u>Commentary (Condition ...)</u>	The building's framing system appears to consist of standard dimensional lumber, joists, studs and beams; however this was not verified due to the presence of architectural finishes. The gravity load resistance system has provided acceptable performance levels.		
<u>Action</u>	1.		
<u>Action type</u>	Repair		
<u>Action Cost</u>	\$10,000		
<u>Action Year</u>	2014.		
<u>Brief Description</u>	The structural system for the above grade portion of the building is wood framing, which would be typical for this building type/era.		
<u>Commentary</u>	Various areas require repairs. Repair or replace damaged brick, repoint, seal and paint. Study required to address seismic and overall building conditions. See "Foundations".		



B2010 Exterior Walls

<u>Component</u>	1	<u>Overall Condition</u>	Good 
<u>Last Major Action Year</u>	1924.		
<u>Replacement Value</u>	\$145,000		
<u>What & Where</u>	Concrete, brick and stucco painted finish.		
<u>Commentary (Condition ...)</u>	The building's framing system appears to consist of standard dimensional lumber, joists, studs and beams; however this was not verified due to the presence of architectural finishes. The gravity load resistance system has provided acceptable performance levels.		
<u>Action</u>	1.		
<u>Action type</u>	Replacement		
<u>Action Cost</u>	\$40,000		
<u>Action Year</u>	2074.		
<u>Brief Description</u>	Targeted repairs to stucco, brick, brick veneer and concrete.		
<u>Commentary</u>	Cracking, spalling of concrete has occurred due to age and exposure to elements. Study required to address seismic and overall building conditions.		



B2020 Exterior Windows

<u>Component</u>	1	<u>Overall Condition</u>	Fair 
<u>Last Major Action Year</u>	1924.		
<u>Replacement Value</u>	\$35,000		
<u>What & Where</u>	Original wood casement vertical slide single glazed windows. 34 total.		
<u>Commentary (Condition ...)</u>	Mix of wood casement vertical slide and fixed single glazed multi-pane windows.		
<u>Action</u>	1.		
<u>Action type</u>	Replacement		
<u>Action Cost</u>	\$35,000		
<u>Action Year</u>	2018.		
<u>Brief Description</u>	Original wood casement windows.		
<u>Commentary</u>	Re & re with new, or repair and paint existing trim.		


B2030 Exterior Doors

<u>Component</u>	1	<u>Overall Condition</u>	Fair 
<u>Last Major Action Year</u>	1924.		
<u>Replacement Value</u>	\$8,000		
<u>What & Where</u>	Front entry door frame and door are wood with lites. Other doors are mix of wood, solid core, some with single lites.		
<u>Commentary (Condition ...)</u>	Doors are beyond life cycle. Condition is fair to poor. Lites in doors are single glazed.		
<u>Action</u>	1.		
<u>Action type</u>	Replacement		
<u>Action Cost</u>	\$8,000		
<u>Action Year</u>	2018.		
<u>Brief Description</u>	Replace exterior doors		
<u>Commentary</u>	Doors are beyond life cycle. Condition is fair to poor. Lites in doors are single glazed.		



B30 Roofing

Component	1	<u>Overall Condition</u>	Poor 
<u>Last Major Action Year</u>	1924.		
<u>Replacement Value</u>	\$30,000		
<u>What & Where</u>	Hipped Roof with interlocking asphalt shingles.		
<u>Commentary (Condition ...)</u>	Small roof area, west, approx. 10' x 5' presumed to be torch-on. Not able to confirm at time of assessment.		
Action			
<u>Action type</u>	Replacement		
<u>Action Cost</u>	\$30,000		
<u>Action Year</u>	2014.		
<u>Brief Description</u>	Replace roofing.		
<u>Commentary</u>	The single family style dwelling consists of an organic asphalt shingle roof and a presumed SBS membrane roof system on a western small flat roof area. The largest sloped roof area of the cottage is interlocking organic asphalt shingles.		

C1010 Partitions

Component	1	<u>Overall Condition</u>	Good 
<u>Last Major Action Year</u>	1924.		
<u>Replacement Value</u>	\$45,000		
<u>What & Where</u>	Painted lath and plaster walls on wood studs.		
<u>Commentary (Condition ...)</u>	Repair damaged walls and paint throughout, as required.		
Action			
<u>Action type</u>	Repair		
<u>Action Cost</u>	\$5,000		
<u>Action Year</u>	2035.		
<u>Brief Description</u>	Ensure any/all compromised drywall are reinstated to ensure fire separations remain intact.		
<u>Commentary</u>	Asbestos identified in various areas, guidelines must be followed. Ensure Asbestos inventory is updated.		



C1020 Interior Doors

<u>Component</u>	1	<u>Overall Condition</u>	Fair 
<u>Last Major Action Year</u>	1924.		
<u>Replacement Value</u>	\$48,000		
<u>What & Where</u>	Interior wood doors.		
<u>Commentary (Condition ...)</u>	Most raised panel with wood frames. Some with single glazed glass lite panels.		
<u>Action</u>	1.		
<u>Action type</u>	Replacement		
<u>Action Cost</u>	\$48,000		
<u>Action Year</u>	2024.		
<u>Brief Description</u>	Interior and closet doors, hollow core. Some with single glazed lites. Upgrade/replace doors.		
<u>Commentary</u>	Frames do not have a rating tag.		



C1030 Fittings

<u>Component</u>	1	<u>Overall Condition</u>	Fair 
<u>Last Major Action Year</u>	1924.		
<u>Replacement Value</u>	\$30,000		
<u>What & Where</u>	Cabinetry in kitchen and bathrooms		
<u>Commentary (Condition ...)</u>	Melamine veneer surfaced particle board cabinets and laminate counters.		
<u>Action</u>	1.		
<u>Action type</u>	Replacement		
<u>Action Cost</u>	\$30,000		
<u>Action Year</u>	2018.		
<u>Brief Description</u>	Replace fittings.		
<u>Commentary</u>	Kitchen and bathroom cabinetry and countertops in fair condition.		



C20 Stairs

<u>Component</u>	1	<u>Overall Condition</u>	Poor 
<u>Last Major Action Year</u>	1924.		
<u>Replacement Value</u>	\$20,000		
<u>What & Where</u>	1 - Exterior front entry concrete and brick veneer stairs. 1 - Exterior wood frame fire exit stairway from second floor to grade. 1 - Interior stairway, wood frame with vinyl treads and nosings.		
<u>Commentary (Condition ...)</u>	Interior stairs in good condition. Exterior stairs in varying need of repair.		
<u>Action</u>	1.		
<u>Action type</u>	Repair		
<u>Action Cost</u>	\$6,000		
<u>Action Year</u>	2014.		
<u>Brief Description</u>	Brick areas damaged. Wood stairs need reinforcing.		
<u>Commentary</u>	Repoint mortar joints of brick. Stairwell h structural issues. Re & re as required to make good. Reinforce/repair wood stairs as required. Powerwash and paint.		



C3010 Wall Finishes

<u>Component</u>	1	<u>Overall Condition</u>	Good 
<u>Last Major Action Year</u>	1924.		
<u>Replacement Value</u>	\$15,000		
<u>What & Where</u>	Basement perimeter walls reinforced concrete (presumed), full height with interior wood framed bearing walls. Upper floors - Lath and Plaster walls.		
<u>Commentary (Condition ...)</u>	Overall in good to fair condition.		
<u>Action</u>	1.		
<u>Action type</u>	Replacement		
<u>Action Cost</u>	\$15,000		
<u>Action Year</u>	2018.		
<u>Brief Description</u>	Repair and repaint walls.		
<u>Commentary</u>	Ensure any/all compromised drywall are reinstated to ensure fire separations remain intact. Asbestos identified in various areas, guidelines must be followed. Ensure Asbestos inventory is updated.		



C3020 Floor Finishes

<u>Component</u>	1	<u>Overall Condition</u>	Good 
<u>Last Major Action Year</u>	1924.		
<u>Replacement Value</u>	\$30,000		
<u>What & Where</u>	Vinyl tile covering older vinyl (asbestos) in 2nd floor washroom and hallway. All other vinyl tile has no trace of asbestos.		
<u>Commentary (Condition ...)</u>	Overall condition good to fair.		
<u>Action</u>	1.		
<u>Action type</u>	Replacement		
<u>Action Cost</u>	\$30,000		
<u>Action Year</u>	2018.		
<u>Brief Description</u>	Re & re as required.		
<u>Commentary</u>	Asbestos identified in various areas, guidelines must be followed. Ensure Asbestos inventory is updated.		



C3030 Ceiling Finishes

<u>Component</u>	1	<u>Overall Condition</u>	Good 
<u>Last Major Action Year</u>	1924.		
<u>Replacement Value</u>	\$20,000		
<u>What & Where</u>	Lath and Plaster painted ceilings.		
<u>Commentary (Condition ...)</u>	Ceiling conditions range good to fair.		
<u>Action</u>	1.		
<u>Action type</u>	Repair		
<u>Action Cost</u>	\$6,000		
<u>Action Year</u>	2018.		
<u>Brief Description</u>	Re & re as required.		
<u>Commentary</u>	Asbestos identified in various areas, guidelines must be followed. Ensure Asbestos inventory is updated.		



D2010 Plumbing Fixtures

<u>Component</u>	1	<u>Overall Condition</u>	Fair 
<u>Last Major Action Year</u>	1924.		
<u>Replacement Value</u>	\$12,000		
<u>What & Where</u>	Bathrooms and kitchen. Laundry room sink in basement.		
<u>Commentary (Condition ...)</u>	Mostly original units. Era, finishes and types vary.		
<u>Action</u>	1.		
<u>Action type</u>	Replacement		
<u>Action Cost</u>	\$12,000		
<u>Action Year</u>	2018.		
<u>Brief Description</u>	Replace common area bathroom fixtures.		
<u>Commentary</u>	Update fixtures with water efficient type units.		



D2020 Domestic Water Distribution

<u>Component</u>	1	<u>Overall Condition</u>	Good 
<u>Last Major Action Year</u>	1924.		
<u>Replacement Value</u>	\$6,000		
<u>What & Where</u>	Main supply in basement with PRV. Washer/Dryer connections have thrust arresters installed.		
<u>Commentary (Condition ...)</u>	1/2 inch copper supply to each floor with flexible and non-flexible connections to each fixture.		
<u>Action</u>	1.		
<u>Action type</u>	Study		
<u>Action Cost</u>	\$1,500		
<u>Action Year</u>	2014.		
<u>Brief Description</u>	Domestic water distribution.		
<u>Commentary</u>	Recommend Consultant study to define scope of work and order of magnitude for multiple buildings on site to achieve economies of scale.		



D2030 Sanitary Waste

<u>Component</u>	1	<u>Overall Condition</u>	Good 
<u>Last Major Action Year</u>	1924.		
<u>Replacement Value</u>	\$4,000		
<u>What & Where</u>	Sanitary sewer from building to street.		
<u>Commentary (Condition ...)</u>	Gravity based risers leading to 6 inch sewer pipe in the basement.		
<u>Action</u>			
<u>Action type</u>	1. Study		
<u>Action Cost</u>	\$0		
<u>Action Year</u>	2014.		
<u>Brief Description</u>	Sanitary waste lines. Assessment required.		
 <u>Commentary</u>	Assess at time of Consultant Domestic Water Distribution assessment.		



D2040 Rain Water Drainage

<u>Component</u>	1	<u>Overall Condition</u>	Good 
<u>Last Major Action Year</u>	1924.		
<u>Replacement Value</u>	\$2,000		
<u>What & Where</u>	Gravity based storm system terminating in main collector on site.		
<u>Commentary (Condition ...)</u>	Repair at various location as required.		
<u>Action</u>			
<u>Action type</u>	1. Repair		
<u>Action Cost</u>	\$1,000		
<u>Action Year</u>	2014.		
<u>Brief Description</u>	Gutters, rain water leaders and perimeter drainage.		
 <u>Commentary</u>	Repair at various location as required.		



D2095 Domestic Water Heaters

<u>Component</u>	1	<u>Overall Condition</u>	Good 
<u>Last Major Action Year</u>	2001.		
<u>Replacement Value</u>	\$1,500		
<u>What & Where</u>	Electric hot water tank.		
<u>Commentary (Condition ...)</u>	Replaced in 2001.		
<u>Action</u>	1.		
<u>Action type</u>	Replacement		
<u>Action Cost</u>	\$1,500		
<u>Action Year</u>	2014.		
<u>Brief Description</u>	Replace hot water tank.		
<u>Commentary</u>	Hot water tank is in basement. Replace at first sign of leaking.		



D3012 Gas Supply System

<u>Component</u>	1	<u>Overall Condition</u>	Good 
<u>Last Major Action Year</u>	2006.		
<u>Replacement Value</u>	\$5,000		
<u>What & Where</u>	Oil fuel storage tank. Granby 1135 litre steel tank, mfg. 2006.		
<u>Commentary (Condition ...)</u>	Located outside, north side of cottage.		
<u>Action</u>	1.		
<u>Action type</u>	Maintenance		
<u>Action Cost</u>	\$1,000		
<u>Action Year</u>	2014.		
<u>Brief Description</u>			
<u>Commentary</u>			



D3026 Heating Generating Auxiliary Equipment

<u>Component</u>	1	<u>Overall Condition</u>	Good 
<u>Last Major Action Year</u>	1924.		
<u>Replacement Value</u>	\$5,000		
<u>What & Where</u>	Cast iron heat radiators.		
<u>Commentary (Condition ...)</u>	Throughout cottage		
<u>Action</u>	1.		
<u>Action type</u>	Replacement		
<u>Action Cost</u>	\$1,000		
<u>Action Year</u>	2014.		
<u>Brief Description</u>	Re & re as required.		
<u>Commentary</u>			



D3027 Heating Generating Equipment & Piping Insulation

<u>Component</u>	1	<u>Overall Condition</u>	Good 
<u>Last Major Action Year</u>	2006.		
<u>Replacement Value</u>	\$15,000		
<u>What & Where</u>	Oil fired, Weil-McLain boiler located in basement feeding cast iron radiators throughout facility.		
<u>Commentary (Condition ...)</u>			
<u>Action</u>	1.		
<u>Action type</u>	Replacement		
<u>Action Cost</u>	\$15,000		
<u>Action Year</u>	2051.		
<u>Brief Description</u>	Re & re boiler		
<u>Commentary</u>			



D3045 Exhaust Ventilation Systems

<u>Component</u>	1	<u>Overall Condition</u>	Good 
<u>Last Major Action Year</u>	2006.		
<u>Replacement Value</u>	\$4,000		
<u>What & Where</u>	Boiler, kitchen and dryer exhaust systems.		
<u>Commentary (Condition ...)</u>	Repair/replace as required.		
<u>Action</u>	1.		
<u>Action type</u>	Replacement		
<u>Action Cost</u>	\$4,000		
<u>Action Year</u>	2031.		
<u>Brief Description</u>			
<u>Commentary</u>			



D3060 Controls And Instrumentation

<u>Component</u>	1	<u>Overall Condition</u>	Good 
<u>Last Major Action Year</u>	2006.		
<u>Replacement Value</u>	\$7,000		
<u>What & Where</u>	Thermostats located on each floor level.		
<u>Commentary (Condition ...)</u>	Re & re as required.		
<u>Action</u>	1.		
<u>Action type</u>	Replacement		
<u>Action Cost</u>	\$7,000		
<u>Action Year</u>	2030.		
<u>Brief Description</u>			
<u>Commentary</u>			



D5010 Electrical Service And Distribution

<u>Component</u>	1	<u>Overall Condition</u>	Good 
<u>Last Major Action Year</u>	1975.		
<u>Replacement Value</u>	\$10,000		
<u>What & Where</u>	150 Amp Electrical panel, located in basement.		
<u>Commentary (Condition ...)</u>			
<u>Action</u>	1.		
<u>Action type</u>	Replacement		
<u>Action Cost</u>	\$10,000		
<u>Action Year</u>	2035.		
<u>Brief Description</u>			
<u>Commentary</u>	Consider infra-red scanning of electrical system		



D5021 Branch Wiring

<u>Component</u>	1	<u>Overall Condition</u>	Good 
<u>Last Major Action Year</u>	1924.		
<u>Replacement Value</u>	\$15,000		
<u>What & Where</u>	Insulated copper wiring.		
<u>Commentary (Condition ...)</u>	Typically not visible.		
<u>Action</u>	1.		
<u>Action type</u>	Repair		
<u>Action Cost</u>	\$5,000		
<u>Action Year</u>	2015.		
<u>Brief Description</u>	Interior/exterior wiring & devices.		
<u>Commentary</u>	All wiring devices (interior & exterior) should be tested for correct wiring polarity and retentive force. Any defective devices should be replaced.		



D5022 Lighting Equipment

<u>Component</u>	1	<u>Overall Condition</u>	Good 
<u>Last Major Action Year</u>	1975.		
<u>Replacement Value</u>	\$4,000		
<u>What & Where</u>	Lighting fixtures are installed throughout the facility.		
<u>Commentary (Condition ...)</u>	Fixtures appear to be in good to fair condition.		
<u>Action</u>	1.		
<u>Action type</u>	Replacement		
<u>Action Cost</u>	\$4,000		
<u>Action Year</u>	2025.		
<u>Brief Description</u>			
<u>Commentary</u>			



D5033 Telephone Systems

<u>Component</u>	1	<u>Overall Condition</u>	Good 
<u>Last Major Action Year</u>	1924.		
<u>Replacement Value</u>	\$0		
<u>What & Where</u>	Phone system provided and maintained by service provider (Telus typically).		
<u>Commentary (Condition ...)</u>			



D5037 Fire Alarm System

<u>Component</u>	1	<u>Overall Condition</u>	Good 
<u>Last Major Action Year</u>	1924.		
<u>Replacement Value</u>	\$3,000		
<u>What & Where</u>	Smoke detectors are located appropriately throughout the facility. Smoke detectors tend to get replaced, as they fail, by the service contractor.		
<u>Commentary (Condition ...)</u>	Fire Alarm system consists of pull stations and alarm bells that appear to be monitored. System is regularly tested as required by code. Altogether, the equipment is in fair condition and may require periodic maintenance.		
<u>Action</u>	1.		
<u>Action type</u>	Maintenance		
<u>Action Cost</u>	\$1,000		
<u>Action Year</u>	2014.		
<u>Brief Description</u>			
<u>Commentary</u>			

D5038 Security Systems

<u>Component</u>	1	<u>Overall Condition</u>	Good 
<u>Last Major Action Year</u>	1924.		
<u>Replacement Value</u>	\$2,000		
<u>What & Where</u>	Door and motion sensor activated intrusion alarm.		
<u>Commentary (Condition ...)</u>	Security staff deactivate and reactivate as required.		
 <u>Action</u>	 1.		
<u>Action type</u>	Replacement		
<u>Action Cost</u>	\$2,000		
<u>Action Year</u>	2024.		
<u>Brief Description</u>	Replace security system.		
<u>Commentary</u>	The condition of systems is good, however may require periodic maintenance. As with most electronic equipment, it's lifespan can be estimated to be approx. 15 years, as advances in technology will make the system obsolete, thus will become difficult to source replacement parts.		

D5091 Exit & Emergency Light Systems

<u>Component</u>	1	<u>Overall Condition</u>	Fair 
<u>Last Major Action Year</u>	1924.		
<u>Replacement Value</u>	\$1,000		
<u>What & Where</u>	Lighting - Emergency Lighting fixtures are installed throughout the facility.		
<u>Commentary (Condition ...)</u>	These fixtures appear to be in fair condition and supported by rechargeable battery back up system.		
 <u>Action</u>	 1.		
<u>Action type</u>	Maintenance		
<u>Action Cost</u>	\$1,000		
<u>Action Year</u>	2014.		
<u>Brief Description</u>			
<u>Commentary</u>			