Building Condition Assessment Report

Asset	E7c - Unit 8
Address	Riverview Lands, 2601 Lougheed Highway, Coquitlam, BC. V5C 4J2
Construction Year	1952.
Size (Gross Floor Area)	23,675 Sq.Ft.
Asset Type	RV_Units 5, 6 & 8 - Medical Office, 2 Story with Brick Veneer (Stucco) / Wood Frame
Floors Above Ground	2
Report Date	September 2013

Executive Summary

This building was constructed in 1952 as a 100 bed home for the aged. The 2,199 m2 two-storey, partial basement structure is poured concrete. Levels are connected by an internal concrete ramp. Unit 8 is currently vacant but has occasionally been used by local police for training purposes. This building was not considered of primary historical or architectural significance and was not rated in the previous heritage evaluations.

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: E7c - Unit 8

Replacement Costs	Renewal Costs	FCI
$4,871,500.00	$2,333,500.00	48%

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

Component	**1**	Overall Condition	Fair
Last Major Action Year	1952.		
Replacement Value	$254,000		
What & Where	Footings and foundations are reinforced concrete cast in place.		
Commentary (Condition ...)	Cracks visible in various locations.		

Action	**1.**
Action Type	Repair
Action Cost	$25,000
Action Year	2018.
Brief Description	Repair as required.
Commentary	Consider Consultant Study to address seismic and overall building conditions.

A20 Basement Construction

Component	**1**	Overall Condition	Good
Last Major Action Year	1952.		
Replacement Value	$160,000		
What & Where	Concrete slab on grade, footings, foundation walls and columns.		
Commentary (Condition ...)	Reinforced, cast in place.		

Action	**1.**
Action Type	Repair
Action Cost	$16,000
Action Year	2018.
Brief Description	Concrete slab on grade, footings, foundation walls and columns, reinforced, cast in place.
Commentary	Consider Consultant Study to address seismic and overall building structural conditions. See "Foundations".

B10 Superstructure

Component	1	Overall Condition	Good

Last Major Action Year	1952.
Replacement Value	$610,000
What & Where	Reinforced concrete.
Commentary (Condition ...)	The building's superstructure system appears to consist of engineered reinforced concrete components; however, upper floors were not verified due to the presence of architectural finishes.

Action	1.
Action Type	Repair
Action Cost	$60,000
Action Year	2018.
Brief Description	The structural system for the above grade portion of the building is reinforced concrete, which would be typical for this building type/era.
Commentary	The gravity load resistance system has provided acceptable performance levels. Consider Consultant study to address seismic and overall building structural conditions. See "Foundations".

B2010 Exterior Walls

Component	1	Overall Condition	Fair

Last Major Action Year	1952.
Replacement Value	$810,000
What & Where	Painted concrete with some brick veneer features.
Commentary (Condition ...)	Mix of reinforced concrete cast in place with some brick veneer feature insets.

Action	1.
Action Type	Repair
Action Cost	$80,000
Action Year	2018.
Brief Description	Repairs to exterior walls including repaint and repointing of brick veneer.
Commentary	Consider Consultant Study to address seismic and overall building conditions.

B2020 Exterior Windows

Component **1** Overall Condition Poor

Last Major Action Year	1987.
Replacement Value	$180,000
What & Where	Original steel framed single glazed. Single glazed storm windows installed internally in 1987. (135).
Commentary (Condition ...)	135 single glazed windows approximately 5 ft. x 6 ft. 3 steel framed skylights with single glazed Georgian wire glass.

Action **1.**

Action Type	Replacement
Action Cost	$180,000
Action Year	2014.
Brief Description	Replace windows and skylights.
Commentary	Windows are a mix of steel and aluminum frame, however, all are single glazed and should be replaced. Consider Consultant Study to address seismic and overall building conditions to determine and receive new window types.

B2030 Exterior Doors

Component **1** Overall Condition Poor

Last Major Action Year	1952.
Replacement Value	$50,000
What & Where	Exterior doors and frames.
Commentary (Condition ...)	Mix of double, single, some with lites. Mix of metal and wood frames, not fire rated. Do not comply with fire or building codes.

Action **1.**

Action Type	Replacement
Action Cost	$50,000
Action Year	2014.
Brief Description	Replace exterior doors and frames per code requirements.
Commentary	Doors and frames are beyond life cycle. Condition is fair to poor. Consider Consultant Study to define scope of work and order of magnitude for multiple buildings on site to achieve economies of scale.

B30 Roofing

Component	1	Overall Condition	Fair

Last Major Action Year	1952.
Replacement Value	$200,000
What & Where	Tar and gravel ballasted roof system.
Commentary (Condition ...)	3 skylights, Georgian wire glass.

Action 1.

Action Type	Replacement
Action Cost	$200,000
Action Year	2018.
Brief Description	Replace roofing and skylights.
Commentary	Consider Roofing Consultant Study to determine overall roof conditions, define scope of work and order of magnitude for multiple buildings on site to achieve economies of scale.

C1010 Partitions

Component	1	Overall Condition	Fair

Last Major Action Year	1952.
Replacement Value	$100,000
What & Where	Interior non-load bearing walls (some with windows), architectural features and commercial grade partitions.
Commentary (Condition ...)	Overall, good to fair condition, mostly drywall and lath & plaster, painted.

Action 1.

Action Type	Repair
Action Cost	$50,000
Action Year	2018.
Brief Description	Re & re walls as required.
Commentary	Mild cracks visible throughout. Ensure any/all compromised walls are reinstated to maintain integrity and finish. Asbestos indent infield in various areas, guidelines must be followed. Ensure Asbestos inventory is updated.

C1020 Interior Doors

Component	**1**	Overall Condition	Fair
Last Major Action Year	1952.		
Replacement Value	$50,000		
What & Where	Interior doors are a mixture of wood and metal. Fire doors solid core wood. Frames do not have a rating tag.		
Commentary (Condition ...)	Compartment doors have magnetic locks appear to be tied in to the fire alarm system.		

Action	**1.**
Action Type	Replacement
Action Cost	$50,000
Action Year	2018.
Brief Description	Re & re doors per code requirements.
Commentary	Doors should be equipped with panic hardware and ensure all closers are operational and in good order.

C1030 Fittings

Component	**1**	Overall Condition	Fair
Last Major Action Year	1952.		
Replacement Value	$180,000		
What & Where	Kitchen, bathroom and misc. cabinetry and countertops.		
Commentary (Condition ...)	Overall fair to poor condition. Some paint grade, other veneer surfaced particle board cabinets and laminate countertops.		

Action	**1.**
Action Type	Replacement
Action Cost	$80,000
Action Year	2018.
Brief Description	Re & re millwork as required.
Commentary	Fittings and upgrades based on occupancy needs.

C20 Stairs

Component	**1**	Overall Condition	Fair
Last Major Action Year	1952.		
Replacement Value	$150,000		
What & Where	Exterior and interior stairs and ramp.		
Commentary (Condition ...)	Mix of reinforced concrete and steel fabricated.		

Action	**1.**
Action Type	Replacement
Action Cost	$75,000
Action Year	2014.
Brief Description	Re & re exterior stairs as required. Significant corrosion.
Commentary	A Structural Engineer is recommended to review exterior fire exit staircases leading to timely remediation. Safety Risk.

C3010 Wall Finishes

Component	**1**	Overall Condition	Fair
Last Major Action Year	1952.		
Replacement Value	$50,000		
What & Where	Plaster and paint on drywall, ceramic tile in washrooms and terracotta brick in basement, not painted.		
Commentary (Condition ...)	Overall, fair condition.		

Action	**1.**
Action Type	Maintenance
Action Cost	$25,000
Action Year	2018.
Brief Description	Repair and paint as required.
Commentary	

C3020 Floor Finishes

Component	**1**	Overall Condition	Fair
Last Major Action Year	1952.		
Replacement Value	$250,000		
What & Where	Floor types vary, vinyl in common areas, terrazzo in washrooms, VC Tile misc. and sheet good vinyl on internal ramp and other.		
Commentary (Condition ...)	Fair to poor condition.		

Action	**1.**
Action Type	Replacement
Action Cost	$180,000
Action Year	2018.
Brief Description	Re & re as required.
Commentary	Condition varies fair to poor. Asbestos identified in various areas, guidelines must be followed. Ensure Asbestos inventory is updated.

C3030 Ceiling Finishes

Component	**1**	Overall Condition	Good
Last Major Action Year	1952.		
Replacement Value	$200,000		
What & Where	Mix of plaster on drywall, painted, t-bar ceiling grid with drop in acoustic tiles and exposed concrete in basement.		
Commentary (Condition ...)	Overall good condition. Repair and repaint ceilings, replace acoustic tiles as required.		

Action	**1.**
Action Type	Replacement
Action Cost	$25,000
Action Year	2018.
Brief Description	Overall good condition. Re & re as required.
Commentary	Refer to the Asbestos Inventory to confirm site conditions prior to disturbing or compromising any/all fabric components.

D1010 Elevators & Lifts

Component	1	Overall Condition	Fair

Last Major Action Year	1952.
Replacement Value	$120,000
What & Where	Dumb waiter in kitchen.
Commentary (Condition ...)	Currently not operating.

Action	1.
Action Type	Replacement
Action Cost	$120,000
Action Year	2018.
Brief Description	Dumb waiter in kitchen.
Commentary	Replace/upgrade elevator.

Action	2.
Action Type	Study
Action Cost	$1,500
Action Year	2014.
Brief Description	Dumb waiter in kitchen, currently not operating.
Commentary	Recommend Consultant assessment to determine compliance with safety branch and overall condition.

D2010 Plumbing Fixtures

Component	1	Overall Condition	Fair

Last Major Action Year	1952.
Replacement Value	$70,000
What & Where	Ceramic toilets and vanities, janitorial sinks, stainless kitchen sinks and chrome faucets.
Commentary (Condition ...)	Mostly original units. Era, finishes and types vary.

Action	1.
Action Type	Replacement
Action Cost	$30,000
Action Year	2018.
Brief Description	Update fixtures with water efficient type units.
Commentary	Consider Consultant Study to define scope of work and order of magnitude for multiple buildings on site to achieve economies of scale.

D2020 Domestic Water Distribution

Component	1	Overall Condition	Fair
Last Major Action Year	1952.		
Replacement Value	$100,000		
What & Where	Domestic water distribution in basement.		
Commentary (Condition ...)	Supply line with PRV to each floor with flexible and non-flexible connections to each fixture.		

Action	1.
Action Type	Replacement
Action Cost	$100,000
Action Year	2018.
Brief Description	Replace/upgrade system as required by code.
Commentary	Consider Consultant Study to define scope of work and order of magnitude for multiple buildings on site to achieve economies of scale.

D2030 Sanitary Waste

Component	1	Overall Condition	Good
Last Major Action Year	1952.		
Replacement Value	$25,000		
What & Where	Sanitary sewer from building to street.		
Commentary (Condition ...)	Gravity based risers leading to collector in basement appear to be in good condition.		

Action	1.
Action Type	Replacement
Action Cost	$25,000
Action Year	2018.
Brief Description	Consultant study required.
Commentary	Assess at time of Consultant Domestic Water Distribution Study.

D2040 Rain Water Drainage

Component 1 Overall Condition Fair

Last Major Action Year	1952.
Replacement Value	$25,000
What & Where	Gravity based storm system terminating in main collector on site.
Commentary (Condition ...)	Roof drains (internal), and overflow scuppers.

Action 1.

Action Type	Replacement
Action Cost	$25,000
Action Year	2018.
Brief Description	Re & re drains and scuppers as required.
Commentary	See "Roofing".

D2095 Domestic Water Heaters

Component 1 Overall Condition Poor

Last Major Action Year	1987.
Replacement Value	$15,000
What & Where	1 - A.O. Smith (HWH-4) DHW Heater.
Commentary (Condition ...)	Beyond life cycle. Unit has been shut down for approx. 2 years.

Action 1.

Action Type	Replacement
Action Cost	$15,000
Action Year	2014.
Brief Description	Replace DHW Heater as required.
Commentary	Consider Consultant Study to define scope of work and order of magnitude for multiple buildings on site to achieve economies of scale if building is to be restored.

D3012 Gas Supply System

Component	1	Overall Condition	Poor

Last Major Action Year	1952.
Replacement Value	$25,000
What & Where	Main supply typically maintained by utility provider (FortisBC).
Commentary (Condition ...)	No emergency shut off system.

Action	1.
Action Type	Replacement
Action Cost	$25,000
Action Year	2014.
Brief Description	
Commentary	Upgrade and install emergency shut-off system.

D3027 Heating Generating Equipment & Piping Insulation

Component	1	Overall Condition	Poor

Last Major Action Year	1952.
Replacement Value	$60,000
What & Where	2 - "SuperHot" natural gas boilers with Siemens auto energy control system.
Commentary (Condition ...)	Hot water piping to cast fin tube heat registers. Boilers are currently shut down.

Action	1.
Action Type	Replacement
Action Cost	$60,000
Action Year	2014.
Brief Description	Replace boilers.
Commentary	Boilers have been shut down. Decommissioning details not known.

D3041 Air Distribution Systems

Component 1 Overall Condition Poor

Last Major Action Year	1952.
Replacement Value	$55,000
What & Where	Diffusers throughout. Some ceiling fans installed at various locations.
Commentary (Condition ...)	Equipment in basement not operating at time of review. Air distribution is tempered, not AC.

Action 1.

Action Type	Replacement
Action Cost	$55,000
Action Year	2014.
Brief Description	Assess existing and repair/replace air distribution equipment as required.
Commentary	Consider Consultant Study to define scope of work and order of magnitude for multiple buildings on site to achieve economies of scale.

D3043 Hydronic Distribution Systems

Component 1 Overall Condition Fair

Last Major Action Year	1952.
Replacement Value	$40,000
What & Where	Hot water piping throughout fed from boilers located in basement.
Commentary (Condition ...)	Appears to be in fair condition.

Action 1.

Action Type	Replacement
Action Cost	$40,000
Action Year	2014.
Brief Description	Re & re distribution lines as required.
Commentary	Consider Consultant Study to define scope of work and order of magnitude for multiple buildings on site to achieve economies of scale.

D3045 Exhaust Ventilation Systems

Component	**1**	Overall Condition	Poor
Last Major Action Year	1952.		
Replacement Value	$50,000		
What & Where	Roof vents, kitchen exhaust, misc. and mechanical room exhaust.		
Commentary (Condition ...)	Most systems have been shut down.		

Action	**1.**
Action Type	Replacement
Action Cost	$50,000
Action Year	2018.
Brief Description	Exhaust systems throughout facility vary. Re & re equipment to code as required.
Commentary	Consider Consultant Study to define scope of work and order of magnitude for multiple buildings on site to achieve economies of scale.

D3055 Fin Tube Radiation

Component	**1**	Overall Condition	Poor
Last Major Action Year	1952.		
Replacement Value	$60,000		
What & Where	Boiler fed hot water heat registers throughout building.		
Commentary (Condition ...)	Overall in poor condition. Many units have been harvested for parts for maintenance in other buildings.		

Action	**1.**
Action Type	Replacement
Action Cost	$60,000
Action Year	2014.
Brief Description	Re & re heat registers as required.
Commentary	Consider Consultant Study to define scope of work and order of magnitude for multiple buildings on site to achieve economies of scale.

D3060 Controls And Instrumentation

Component	1	Overall Condition	Fair

Last Major Action Year	1952.
Replacement Value	$75,000
What & Where	Zone controlled thermostats and control systems.
Commentary (Condition ...)	Air compressor with pneumatic controls.

Action 1.

Action Type	Replacement
Action Cost	$75,000
Action Year	2014.
Brief Description	Replace thermostats and controls.
Commentary	Original equipment with some upgrades. Consider Consultant Study to define scope of work and order of magnitude for multiple buildings on site to achieve economies of scale.

D4010 Sprinklers

Component	1	Overall Condition	Poor

Last Major Action Year	1952.
Replacement Value	$100,000
What & Where	Building is not sprinklered.
Commentary (Condition ...)	Hose stations located each floor and ar maintained by fire protection service provider.

Action 1.

Action Type	Replacement
Action Cost	$100,000
Action Year	2014.
Brief Description	Install sprinkler system or maintain/upgrade existing fire protection equipment per local authority having jurisdiction.
Commentary	Consider Consultant Study to define scope of work and order of magnitude for multiple buildings on site to achieve economies of scale.

D5010 Electrical Service And Distribution

Component **1** Overall Condition Fair

Last Major Action Year	1952.
Replacement Value	$105,000
What & Where	Main transformer, 15,000 volts located in outside vault.
Commentary (Condition ...)	Main electrical distribution is Westinghouse 75kva - essential 600 amp - 120/208v 3 phase, 60 Hz. Non-essential 75kva 600 amp 120/208v 3 phase, 60 Hz. w/ non essential transformer disconnect. 100 amp 600v non-fused 2# c 3#2, 3 phase 3w fed from "K1" generator room.

Action **1.**

Action Type	Replacement
Action Cost	$105,000
Action Year	2014.
Brief Description	Re & re equipment as required. Currently, main supply line has been removed with reports of copper wire harvesting at this building.
Commentary	Consider Consultant Study to define scope of work and order of magnitude for multiple buildings on site to achieve economies of scale.

D5021 Branch Wiring

Component **1** Overall Condition Poor

Last Major Action Year	1952.
Replacement Value	$280,000
What & Where	Insulated copper wiring (2 wire).
Commentary (Condition ...)	Typically not visible due to conduit pipe and or behind architectural finishes.

Action **1.**

Action Type	Repair
Action Cost	$100,000
Action Year	2016.
Brief Description	All wiring devices (interior & exterior) should be tested for correct wiring polarity and retentive force. Any defective devices should be replaced.
Commentary	Existing electrical is 2 wire only. Electrical system upgrade should be contemplated. Consider a Consultant Study to define scope of work and order of magnitude for multiple buildings on site to achieve economies of scale.

D5022 Lighting Equipment

Component	1	Overall Condition	Poor

Last Major Action Year	1952.
Replacement Value	$80,000
What & Where	Fixtures typically original to construction of building. Mix of metal halide, fluorescent and incandescent.
Commentary (Condition ...)	Lighting - General With advances in technology, there are opportunities for energy savings that will offset the cost of lighting retrofits. For example, the cost of LED lighting, which uses far less energy than traditional fluorescent or incandescent lights has reduced drastically, and may be an economical choice. Also, T-5 fluorescent fixtures use less energy than T-8 fixtures.

Action	1.
Action Type	Replacement
Action Cost	$80,000
Action Year	2016.
Brief Description	Undertake a lighting study or energy audit to investigate/determine energy savings. Re & re lighting.
Commentary	Consider a Consultant Study to define scope of work and order of magnitude for multiple buildings on site to achieve economies of scale.

D5032 Intercommunications And Paging

Component	1	Overall Condition	Fair

Last Major Action Year	1952.
Replacement Value	$12,000
What & Where	INTERCOMMUNICATIONS and network equipment located in communications room in basement.
Commentary (Condition ...)	Maintained by WSI.

Action	1.
Action Type	Replacement
Action Cost	$12,000
Action Year	2027.
Brief Description	Re & re equipment as required.
Commentary	Replace/upgrade per occupancy need.

D5033 Telephone Systems

Component **1** Overall Condition Fair

Last Major Action Year	1952.
Replacement Value	$15,000
What & Where	Service provider equipment in basement, handset at various locations in building.
Commentary (Condition ...)	Phone system provided and maintained by service provider (Telus typically).

Action **1.**

Action Type	Replacement
Action Cost	$15,000
Action Year	2027.
Brief Description	Re & re equipment as required.
Commentary	Service provider to supply equipment based on future occupant needs.

D5037 Fire Alarm System

Component **1** Overall Condition Poor

Last Major Action Year	1952.
Replacement Value	$80,000
What & Where	Fire alarm panel ("Edwards Custom 6500") with monitoring equipment located in basement. Interconnected smoke detectors each floor. Fire bells each floor with pull stations centralized.
Commentary (Condition ...)	Fire Alarm system is regularly tested by service provider as required by code. Altogether, the fire alarm system is in good condition and may require additional periodic maintenance.

Action **1.**

Action Type	Replacement
Action Cost	$80,000
Action Year	2018.
Brief Description	Replace/upgrade as required.

Commentary	The facility is equipped with a fire alarm system. (Original to building) The fire alarm panel is located near the main entrance of the building. The panel is aging but should operate well for another 5 to 10 years. It will still be operational after 10 years; however; experience dictates that it becomes increasingly difficult to find replacement parts and technical support for older fire alarm control panels. Therefore, it becomes a discretionary call that at some point in time replacing the panel is less costly than trying to maintain it. 11K has been budgeted for the replacement of the fire alarm panel within 10 years time to account for changes in the product line of the suppliers. Smoke detectors are located appropriately throughout the facility. Smoke detectors tend to get replaced, as they fail, by the service contractor.

D5091 Exit & Emergency Light Systems

Component	**1**
Last Major Action Year	1952.
Replacement Value	$4,000
What & Where	Lighting - Emergency Lightning fixtures are installed throughout the facility.
Commentary (Condition ...)	Fixtures appear to be in fair condition and supported by rechargeable battery back up system.

Overall Condition Fair

Action	**1.**
Action Type	Replacement
Action Cost	$4,000
Action Year	2018.
Brief Description	Re & re as required.
Commentary	Replace/upgrade systems per fire code and local authority having jurisdiction.

D5092 Emergency Power & Generation Systems

Component	**1**
Last Major Action Year	1952.
Replacement Value	$60,000
What & Where	Emergency backup generator with transfer switch stored in "K1" generator room.
Commentary (Condition ...)	Generator vault not accessible at time of review. Presumed to be similar condition of others on site. Monthly generator tests completed by WSI maintenance staff per Safety Branch requirements.

Overall Condition: Good

Action	**1.**
Action Type	Replacement
Action Cost	$60,000
Action Year	2038.
Brief Description	Replace generator as required.
Commentary	Consider Consultant Study to define scope of work and order of magnitude for multiple buildings on site to achieve economies of scale.