

Executive Summary

PROJECT CONTEXT

The current Business Plan was commissioned to confirm the needs analysis and functional program, make recommendations for the development strategy of the new facility including pre-concept planning, and recommend a site, and determine the life-cycle cost of the proposed facility.

In 2012, Kobayashi Zedda Architects (KZA) produced a functional program for this facility. This report presents a more detailed functional program that builds on the KZA report, confirming the plan and refining it based on a review of standards and consultation with Health and Social Services staff.

DEMAND PROJECTIONS

Future demand for continuing care was projected using a population-based model. Yukon Bureau of Statistics population projections were extrapolated to 2035 to create a projection of population growth to that time. It was estimated that the Yukon's senior population would rise from 9.9% of the total population currently to 23% of the in 2031.

Demand for Continuing Care was then projected based on a ratio of 62 beds per 1,000 residents over 65. The table below indicates the projected number continuing care beds in the Yukon to 2035.

YEAR	TOTAL YUKON RESIDENTIAL BED REQUIREMENTS
2013	222
2014	234
2015	249
2020	369
2025	440
2030	504
2035	635

EXISTING FACILITIES

Continuing care beds in the Yukon are currently located in Whitehorse; Macaulay Lodge (46 beds), Thomson Centre (28 beds) Copper Ridge (97 beds), and Dawson City; McDonald Lodge (11 beds), which is in the process of being replaced by a 15-bed facility.

As requested, Macaulay Lodge and Thomson Centre were evaluated to determine their remaining useful life.

Macaulay Lodge is the oldest of these facilities. The building has numerous physical and functional deficiencies that are consistent with that of a facility at the end of its operational life given that it was designed in a time when the expectations of a continuing care facility were quite different. This report recommends that Macaulay Lodge be closed as soon as practical.

Thomson Centre is considered to be “mid-life”. The facility originally held 46 beds, but was closed in 2002 and later partially reinstated as a 28-bed facility, with Whitehorse Hospital Corporation, the owner of the building, using a large portion of the building. While the Thomson Centre is generally in good condition, it is considered to be too small for efficient operations. It is recommended that this facility be considered for closure once new facilities come on line.

Copper Ridge is considered to be in good condition, and is expected to provide continuing care for the foreseeable future.

FACILITY PLAN

The overall facility plan takes into account the timing of the new capital projects and closures of existing facilities recommended in this report and consists of the following:

- The introduction of 300 new beds distributed evenly across two phases, opening in 2017 and 2022 respectively
- Closure of Macaulay Lodge in 2017 to coincide with Phase 1 completion
- Closure of Thomson Centre to be examined as part of the Phase II analysis

DEVELOPMENT PLAN AND FUNCTIONAL PROGRAM

This report recommends that a 300-bed facility be constructed in two phases: Phase 1 consisting of construction of 150 beds with enough support space for 300 beds. Phase 2 consisting only of the addition of the final 150 beds.

Beds are grouped into care pods, with support spaces shared between pods. Standard care pods will contain 21 to 24 beds each, including one bariatric bedroom in each pod.

Mental Health, Palliative Care, and High Acuity care functions are grouped into smaller specialty pods. All of these specialized pods will be constructed in Phase 1.

The table below shows the breakdown of floor area by component for both phases, as well as the areas of the completed 300-bed facility.

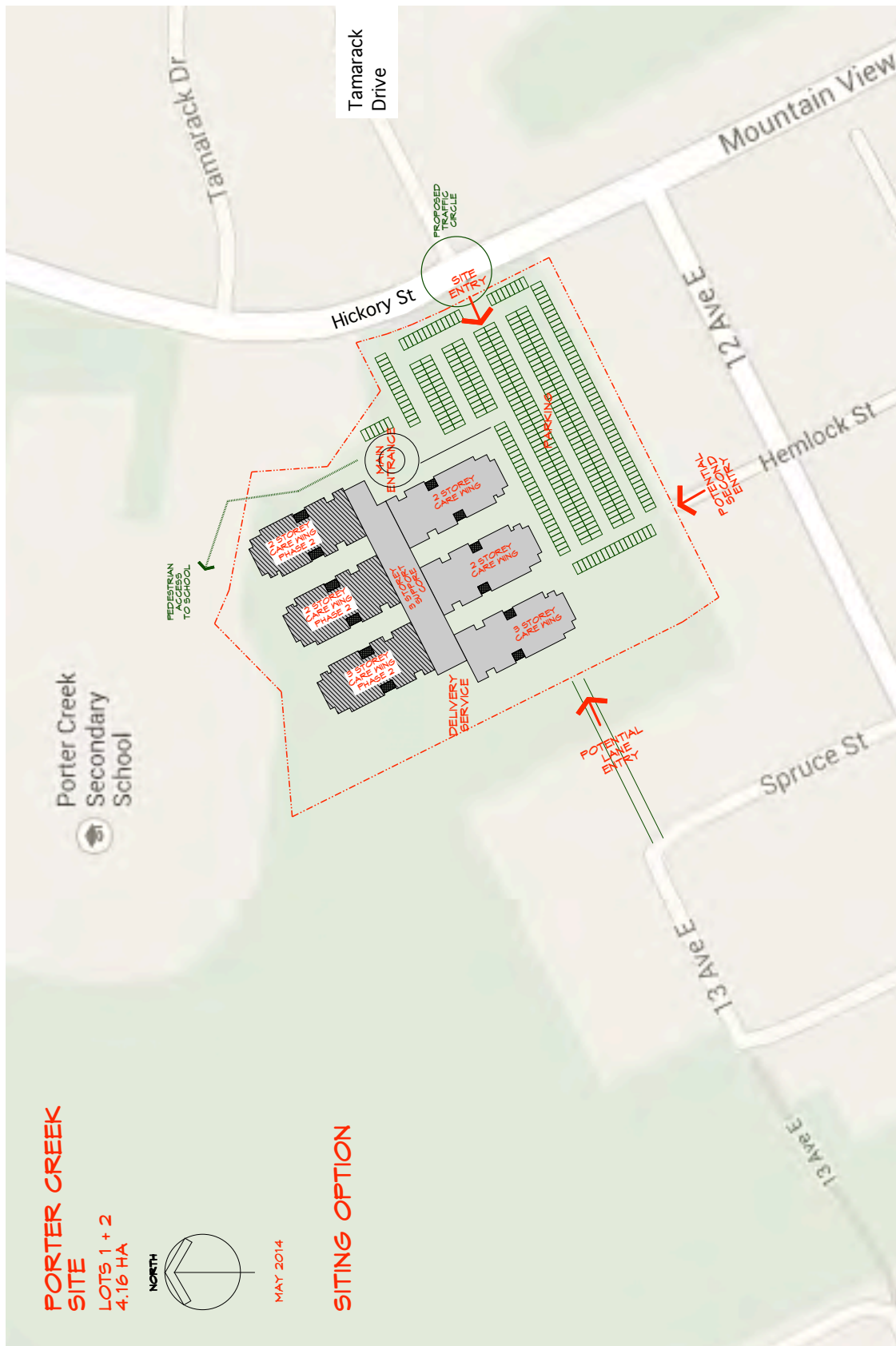
	PHASE ONE 150 Bed Facility (with support for 300)		PHASE TWO 150 Bed Addition		TOTAL 300 Bed Facility	
	Net	Component	Net	Component	Net	Component
		Gross		Gross		Gross
A Shared Public and Resident Support	631.0	757.0	0.0	0.0	631.0	757.0
B Administrative Support	559.0	671.0	0.0	0.0	559.0	671.0
C Facility and Operations Support	918.5	1,102.0	0.0	0.0	918.5	1,102.0
D Standard Resident Care Pods	4,742.5	6,023.0	6,123.5	7,776.5	10,866.0	13,799.5
E Mental Health Resident Pod	576.0	731.5	0.0	0.0	576.0	731.5
F Palliative Care Pod	552.0	701.0	0.0	0.0	552.0	701.0
G High Acuity Care Pod	282.0	358.0	0.0	0.0	282.0	358.0
H Shared Residence Support Pods	234.0	297.0	234.0	297.0	468.0	594.0
I Respite Care and Day Programs/Services	234.0	297.0	0.0	0.0	234.0	297.0
TOTALS	8,729.0	10,937.5	6,357.5	8,073.5	15,086.5	19,011.0
TOTAL Building Gross		13,442.7		9,790.6		23,233.2

SITE SELECTION

Three potential sites in Whitehorse were evaluated for the development of this facility. The evaluation compared geotechnical conditions, size, access to transit and the road system, and surrounding neighbourhood. Cost estimates were developed to determine the financial implications of each site.

The favored site is in Porter Creek. The site is located adjacent to Porter Creek High School, a location that offers opportunities for learning and intergenerational activities. The surrounding neighbourhood is well-established and the location offers excellent views overlooking the Yukon River valley. The site is also located near a major collector road and has a bus stop adjacent to the site providing good vehicular/transit access.

A test fit, shown on the next page, was developed to assess the suitability of the site for the continuing care facility and all required parking and landscaping.



PROCUREMENT STRATEGY

A SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats analysis) was performed to compare traditional Design/Bid/Build procurement (where a design consultant is contracted to design the building after which a contractor is retained for construction) and Design/Build (where one firm is hired for both detailed design and construction) for this project. While both procurement strategies have merit, an overriding factor in this project is the need to begin construction in the spring of 2015. Our analysis concludes that Design/Build is the only procurement method capable of completing the planning and design phases on schedule. Therefore, it is recommended that the project proceed under a Design/Build model.

LIFE CYCLE COSTING

In terms of ongoing operation and maintenance costs, Option 1 is the least expensive. This is due mainly to the slightly lower operating and maintenance costs anticipated for a single facility. No significant O&M cost difference is expected between the two different sites. In terms of overall life cycle costs, Option 1 and Porter Creek are the cheapest development option and site respectively, due to lower construction and ongoing costs associated with both. However, the difference between the largest and smallest 20-year net present value cost is 3%. Given the preliminary nature of this estimate, and the small difference in cost between options, cost is not a major driver in the choice of development option or site.

	Option 1 - Phae 1 & 2 at Porter Creek	Option 2 - Phase 1 & 2 at Porter Creek	Option 3 - Phase 1 & 2 at Porter Creek	Option 1 - Phase 1 & 2 at Whistle Bend	Option 2 - Phase 1 & 2 at Whistle Bend	Option 3 - Phase 1 & 2 at Whistle Bend
	<i>New 150 bed building (300 bed support) with a 150 bed addition in year 6</i>	<i>Two (150 bed) Stand-Alone Facilities</i>	<i>New 300 bed (150 bed addition in year 6) facility with support for an additional stand-alone 150 bed facility</i>	<i>New 150 bed building (300 bed support) with a 150 bed addition in year 6</i>	<i>Two (150 bed) Stand-Alone Facilities</i>	<i>New 300 bed (150 bed addition in year 6) facility with support for an additional stand-alone 150 bed facility</i>
Total Capital Costs (phase 1 & 2)	\$327.8	\$356.2	\$329.7	\$330.0	\$359.1	\$331.9
Annual Costs (over 20 years)						
Facility Staff Program Costs	\$811.9	\$811.9	\$811.9	\$811.9	\$811.9	\$811.9
Facility Systems Maintenance	\$39.0	\$40.7	\$39.2	\$39.0	\$40.7	\$39.2
Facility Operations - Utilities	\$19.8	\$20.8	\$20.0	\$19.8	\$20.8	\$20.0
Facility Operations - Expenses	\$9.8	\$9.5	\$10.4	\$9.8	\$9.5	\$10.4
Capital/Cyclical Renewal	\$23.6	\$25.3	\$23.8	\$23.6	\$25.3	\$23.8
Total Future Costs (over 20 years, not NPV)	\$1,231.9	\$1,264.5	\$1,235.0	\$1,234.2	\$1,267.3	\$1,237.3
Future Costs						
Year 5 Cumulative Investment (2014 NPV)	\$276.3	\$263.5	\$278.3	\$278.3	\$262.7	\$280.3
Year 20 Cumulative Investment (2014 NPV)	\$926.6	\$951.2	\$929.3	\$928.8	\$953.5	\$931.6