

DATE OF MEETING 6/19/2023

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**SUBJECT BASIC SHELTER – 100 UNITS ON CITY PROPERTY –
STRUCTURE TYPES**

OVERVIEW

Purpose of Report

To provide Council with a summary of the estimated costs of various structure types and City-owned properties that may be considered to provide basic shelter for up to 100 people experiencing homelessness.

BACKGROUND

At the 2023-FEB-27 Regular Council Meeting, Council passed the following motion:

“that Council direct Staff to prepare a report to be delivered by June 1, 2023, outlining the costs of designing, constructing, and servicing (water and electric) basic shelter housing for up to 100 people on City property.”

The Nanaimo RCMP and other service providers estimate that the homeless population has increased from 433 individuals, identified in the 2020 Homeless Point in Time Count, to 600 individuals. The 2023 Homeless Point in Time Count results are expected to be released in July 2023. The 2020 Health and Housing Action Plan (HHAP) estimates that approximately 1,800 people experience homelessness over the course of the year. This estimate includes people experiencing transitional homelessness, episodic homelessness, and chronic homelessness.

- Transitional homelessness – includes people who typically experience homelessness as result of a major life change or a catastrophic event. These people do not stay in homelessness for long periods of time as long as there are preventative supports such as rent supplements, social support services, or affordable housing options. The HHAP estimates that 1,345 people are transitionally homeless.
- Episodic homelessness - includes people who experience periods of homelessness during the course of the year. They typically are the individuals who access emergency shelters, if available, or are couch surfing, staying with family or friends, living in their vehicle, or are found in other hidden homeless situations. The HHAP estimates that 270 people are episodically homeless.
- Chronic homelessness – includes people who are in a chronic and persistent state of homelessness throughout their lives. Usually this group of people have the most complex needs such as trauma, addictions, and other physical and mental health challenges. People living in chronic homelessness have the hardest time accessing shelter and other support services. The HHAP estimates that 180 people are chronically homeless.

Actions identified in the HHAP include creating appropriate, accessible, and culturally appropriate housing options across Nanaimo's housing network for individuals with diverse needs. This includes increasing the number of emergency shelter beds currently available in Nanaimo in order to meet current demands. *City Plan – Nanaimo ReImagined* (Section C3.2.20) also supports the development of accommodation and housing options to rapidly re-house those experiencing homelessness including shelters, transitional housing, and supportive housing. Shelters are an important part of the housing network and can help support individuals with diverse needs by providing stability, navigation supports, and pathways to permanent housing resources.

DISCUSSION

This Staff Report provides a summary of shelter models to temporarily house seniors, women and children, youth, and other individuals living in their cars, parks and open spaces, or other unsheltered locations. The research for this report included a review of the structure types that are currently being used locally and in other communities to provide shelter and housing to individuals experiencing or at risk of experiencing homelessness. For each shelter option listed below, a description of the structure type is provided, along with information about the structure costs, amenities that may be included, and potential for compliance with the British Columbia Building Code (BCBC). The costs related to site preparation (drawings, foundations, geotechnical work, etc.) and servicing, such as water and electrical connections, are not included as these costs are site specific and are best determined once a preferred site/s are selected. Attachment A contains a summary table of the structure options.

Note that some structure types do not include washrooms and showers, and a separate washroom facility would be needed. To provide a temporary style structure/s for washroom and hygiene facilities would cost approximately \$69,300 for 34 people or \$207,000 for up to 100 people.

Tent Shelters

Tent shelters or picnic shelters, similarly found on Satsutshun or in Bowen Park, come in a variety of sizes that could provide shelter to a number of tents. Sizes commonly range from 13m² to 37m² structures that could provide shelter for six to eight tents. Prices range from \$2,000 to \$5,000 for one wooden tent shelter structure, depending on size, the manufacturer, and the type of supplies used. Additional costs will include site preparation, tents, bedding, washroom/hygiene structures, meals, site managers, support services, security and other utility and maintenance service costs.

Four local communities have used tents and tent shelters temporarily; including, the Town Ladysmith, Municipality of North Cowichan, City of Duncan, and Cowichan Tribes First Nation. In these examples, portable toilets and mobile washing stations were provided, as well as meals and support services. These sites were limited to a dozen individuals at each site.

Estimated costs for Tent Shelters (per wooden tent shelter structure) - \$2,000 to \$5,000
Estimated costs to provide shelter for up to 100 tents - \$34,000 to \$50,000

Sprung Structures

Sprung Structures come in widths from 9.1m to 45.7m, and can be any size needed to fit any lot dimensions. They are insulated and designed to be BCBC compliant. The structure can be placed on concrete or in an empty parking lot. Sprung structures are designed to be temporary, but have been used as a longer-term solution in other communities. Sprung Structures can be rented for up to five years, taken down, and returned to the facility when not needed. The monthly cost to rent a 927.2m² sprung structure (15.2m wide by 61m long) to provide up to 100 shelter beds for 5 years is \$8,832. The estimated cost to purchase the same sprung structure to provide up to 100 shelter beds is \$564,582, which is \$5,646 per bed. Both costs include a lighting system and the delivery of the structure. Additional costs will include the installation of washroom facilities, electrical, water and sanitation connections, site managers, furniture, bedding, meals, support services, security and other utility and maintenance service costs.

Sprung structures are being used as navigation or respite centres for people experiencing homelessness in a number of cities across Canada and the United States. For instance, in the City of Toronto, three different sprung structures are being used as respite centres to address the overwhelming demand on the shelter systems. Each sprung structure in Toronto houses 100 people, meets Ontario's accessibility standards, and is connected to City water, sewer, electrical, and have heating and air conditioning systems. Each respite centre has washroom facilities and laundry services onsite. Meals are prepared off-site and delivered to the respite centre.

*Estimated costs for Sprung Structures per bed - **\$5,646***

*Estimated costs for one Sprung Structure that can provide up to 100 shelter beds - **\$564,582***

Cabins

A relatively new approach to supporting individuals living in homelessness is through the creation of cabin villages. Cabin villages have challenges with durability but can provide efficient short-term shelter until individuals are provided with more permanent housing solutions. Cabins normally contain one or two beds, a small table, and small storage space for clothing and personal items. Unit costs vary between cabin types, sizes, and durability. Cabins that are BCBC compliant will be more costly. The estimated cost range for cabins is from \$4,000 to \$14,500 per unit. Many of the higher priced cabins include amenities such as smoke detectors, electrical subpanels, hardwire connections, insulation, baseboard heating, and typically are BCBC compliant. Additional costs will include site preparation, electrical, water and sanitation connections, site managers, furniture, bedding, meals, support services, security and other utility and maintenance service costs.

Cabin villages are being utilized in Cities of Duncan, Port Alberni, and Vancouver, and in other communities across Canada and the United States. The cabins being utilized in Port Alberni are 8.9m² and cost roughly \$13,850 per unit. The Vancouver cabins are 9.2m² and cost approximately \$14,500 per unit. Both Port Alberni and Vancouver are utilizing cabins that are BCBC compliant. As an example, initial site preparation and water and sewer installation costs for a cabin village located on Julien Street in Duncan cost approximately \$180,000 for 13 units in 2021.

*Estimated costs for Cabins per unit - **\$4,000 to \$14,500***

*Estimated costs for 100 Cabins - **\$400,000 to \$1.4 million***

Workforce Housing

Workforce housing are modular units and/or dormitories that provide accommodation and may include shared washrooms with showers. The size of the modular unit can be adjusted based on the number of units and/or beds. Workforce housing is BCBC compliant, with finished interiors providing room for a single bed, a small table, and a small storage unit. The interior layouts of the modular units can be customized based on needs. The estimated cost per unit ranges between \$21,000 to \$45,000 depending on available stock and whether newly fabricated workforce housing is requested. The estimated costs include delivery and installation. Additional costs will include site preparation, electrical, water, and sanitation connections, site managers, furniture, bedding, meals, support services, security and other utility and maintenance service costs.

For example, Newcastle Place, operated by the Island Crisis Care Society, utilizes workforce modulars with up to 28 to 30 individual private units, with shared washrooms and showers. The estimated cost per unit is \$45,000. The average size of units at Newcastle Place are 5.9m² however, other workforce housing units can be as large as 8m². The layout of workforce housing at Newcastle Place places units around shared spaces such as the kitchen, recreation room, and staff offices. This allows for a balance between privacy and safety for individuals who may need assistance while in their units.

*Estimated costs for Workforce Housing per unit - **\$21,000 to \$45,000***

*Estimated costs for 100 units - **\$2.1 million to \$4.5 million***

10 Unit Modular

Another modular type available contains 10 units, 3-shared bathrooms with showers, a shared kitchen, and a shared living space. One of the three washrooms can be constructed to meet accessibility standards. Each modular includes electrical panels, hardwire connections, a fridge, stove, range hood, and is BCBC compliant. The size of the entire modular is 211.8m² and each unit is an average of 9.6m². The estimated cost for one modular with 10 units is \$475,900 which is \$47,590 per unit. These costs include delivery and installation of the modulars. Additional costs will include site preparation, electrical, water, and sanitation connections, site managers, furniture, bedding, support services, security and other utility and maintenance service costs. This is a new modular type designed specifically around the need to provide safe emergency shelter with the most cost effective per square foot design.

*Estimated costs for 10 Unit Modular per unit - **\$47,590***

*Estimated costs for 100 units (10 modulars) - **\$4.76 million***

Site Built

Builders around BC and on Vancouver Island are creating a variety of design concepts specific to housing individuals who experience homelessness. Their designs incorporate cost efficiencies with the purpose of providing a permanent shelter for individuals with different complexities. A firm in the Cowichan Valley has a design concept that could accommodate 28 self-contained units (each 11.4m²). Units include a bathroom, shower, mini kitchenette, space for a bed, and a small storage area. A preliminary review by a Cowichan Valley building inspector determined compliance with BCBC. Estimated construction costs are \$50,000 per unit, or \$1.4 Million for the 28-unit development. Additional costs will include site preparation, electrical, water, and sanitation connections, site managers, furniture, bedding, support services, security, and other utility and maintenance service costs. This example is only provided as one possible design option

of builders who design shelters. Other design concepts may be explored to support sheltering individuals who experience homelessness.

*Estimated costs for Site Built per unit - **\$50,000***

*Estimated costs for 84 units (3 x 28-unit development) - **\$4.2 million***

Fourplex Modular

Through Round One of the Strengthening Communities Services Program grant, and in partnership with Snuneymuxw First Nation (SFN), the City was able to fund the purchase of three fourplex modulares located on Snuneymuxw reserve lands in Cedar. Each modular contains four individual living units each with their own bathroom, shower, and a mini kitchenette. Each unit includes heating and cooling options, electrical panels, hardwire connections, and is BCBC compliant. One unit in each fourplex is also wheelchair accessible.

The overall SFN fourplex modular size is 92.3m². Individual unit sizes are 22.4m² and the wheelchair accessible unit is 25.6m². The cost to purchase one fourplex modular is \$280,000 which is \$70,000 per unit. These fees include delivery and installation of the modulares onsite (with stairs and ramps for accessible units). Additional costs will include site preparation, electrical, water, and sanitation connections, site managers, furniture, bedding, support services, security and other utility and maintenance service costs. As an example, the overall costs for the SFN fourplex site servicing, water and sewer installation was \$70,000 for three fourplex modulares in 2022 which is approximately an additional \$5,800 per unit.

*Estimated costs for Fourplex Modular per unit - **\$70,000***

*Estimated costs for 100 units (25 modulares) - **\$7 million***

Multi-Level Modular

Multi-level modulares are built with a high level of functionality, durability, and energy efficiencies and can provide both temporary and permanent housing solutions. The use of multi-level modulares provides some advantages for the use of temporary shelter or housing sites. If desired, modulares can be disassembled for reuse at a different location at a later date. Modular structures are typically built in a shorter time period and historically are more cost effective than site built construction. Modular structures also allow for the use of conventional designs in multiple projects. Estimates for costs per unit is \$300,000. Additional costs will include site preparation, electrical, water, and sanitation connections, site managers, furniture, bedding, support services, security and other utility and maintenance service costs.

The building at 702 Nicol Street is a recent example of a multi-level modular building with four floors, 52 units of supporting housing, and 14 bridge to housing beds. To complete this building, 48 separate modulares were constructed, delivered, and installed onsite. Each private unit is an average of 32.5m² and includes a private bathroom, shower, and a mini kitchenette.

*Estimated costs for Multi-Level Modular per unit - **\$300,000***

*Estimated costs for 100 units - **\$30 million***

Potential Project Locations

The Council motion directs use of City-owned properties to provide basic shelter for up to 100 people. Staff have compiled a list of City-owned properties for Council's consideration. A listing of City-owned properties is provided in Attachment B.

CONCLUSION

The summary of structure types provided are some examples currently being used as temporary or permanent options for sheltering individuals experiencing homelessness. This report includes manufacturers' estimated costs and does not include overall costs, including site preparation, servicing and operation. A listing of City-owned properties is provided for Council's consideration.

SUMMARY POINTS

- On 2023-FEB-27, Council passed a motion directing Staff to provide a summary of the costs of various structure types to provide basic shelter for up to 100 people on City property.
- A variety of structure types are currently being used locally and in other communities to provide shelter and housing to individuals experiencing or at risk of experiencing homelessness. Some of these structure types include tent shelters, sprung structures cabins, workforce housing, various modular models, and site built projects.
- The Council motion directs use of City-owned properties to provide basic shelter for up to 100 people. A listing of City-owned properties is provided.

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ATTACHMENTS

ATTACHMENT A: Structure Types Table Summary

ATTACHMENT B: Link to City-owned Properties