



The Corporation of the Village of Cumberland Facility Master Plan and Space Needs Assessment



Presented by: **Stirling Rothesay Consulting Inc.**

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1.0 EXECUTIVE SUMMARY

The Village of Cumberland retained Stirling Rothesay Consulting Inc. to complete a Facility Master Plan and Space Needs Assessment. The objective of this study was to provide the Village with a facility needs assessment and functional space program describing the future space requirements (with a twenty-five year time horizon) for employees, work vehicles and materials within the following buildings/departments:

- Administration Office;
- Council Chamber;
- Cultural Centre;
- Cumberland Museum and Archives;
- Cumberland Recreation Centre;
- Existing Fire Hall;
- Public Works.

The study was to also:

- Summarize the overall condition of each of the existing facilities;
- Document the deficiencies of the existing facilities versus the future space requirements;
- Recommend a multi-year phasing strategy to upgrade or replace the existing facilities so as to achieve the required future space requirements.

The current space available versus the future space required for each facility/department is shown in table 1.1 below.

Table 1.1 – Facility Space Requirements

Facility/Department	Current Space Available (sq.ft.)	Future Need for Space (sq.ft.)		
		2023	2028	2043
Administration Office	3,500	5,518	6,852	7,335
Council Chamber	1,700	2,955	2,955	2,955
Cultural Centre	11,000	12,519	12,519	12,519
Fire Hall	6,500	13,640	13,640	13,640
Museum and Archives	6,000	12,497	12,695	12,964
Recreation Centre (Offices only)	700	2,645	2,992	3,252
Public Works Department	5,700	23,311	23,960	28,851

The required upgrade or replacement of the existing facilities will need to be completed in phases as capital funding is approved by Council over the coming years. The recommended phasing of the individual capital projects is described below and shown in table 1.2 on page 4.

Phase 1 requires the purchase of a 20-acre lot for the eventual construction of a new Public Works yard. It also involves the purchase (or lease) of an industrial trailer for two offices, a washroom, and a lab beside the sewer lagoon. Purchase of the 20-acre site is a very high

priority because of the importance of finding a greenfield site that satisfies the future needs of the Public Works yard (before it is developed by others).

Phase 2 requires the design and construction of a new Fire Hall on a 2.5-acre parcel of land already owned by the Village. This project is already in the planning stage as it is a very high priority because of the potentially unsafe condition of the existing Fire Hall.

Phase 3 requires the upgrade of the existing Fire Hall so that it can be converted into a Council Chambers. This will permit the existing Council Chambers and Administration Office to be renovated to meet the short-term needs of the Administration staff (until a permanent facility can be built). This is also a high priority because the Administration staff are already short of space, and are expecting to need significantly more space, in the coming years, to meet the growing demand for services by the community.

Phase 4 requires the construction of a new Public Works yard that would be built on a new 20-acre site within the Village. Currently, the Public Works Department occupies space that is inadequate for their needs. The new facility would be designed for a 25-year time horizon (2043). The total size of the main building (office, employee amenities, shops, storage, fleet maintenance garage) would be approximately 16,345 sq.ft.. A separate cool storage building for some of the work vehicles would be approximately 12,505 sq.ft. in size. These buildings would be pre-engineered with metal cladding to reduce costs. There would also be separate sand and salt storage structures (metal frame and fabric). The relatively high capital cost of the Public Works yard would likely require it to be constructed in two phases over a number of years.

Phase 5 requires the construction of a new Civic Centre to replace the existing Council Chambers, Administration Office, and Museum and Archives facilities. The Civic Centre would be built on the site currently occupied by the Fire Hall, Council Chambers and Administration Office. The Civic Centre would be designed for a 25-year time horizon (2043) and would be approximately 23,254 sq.ft in size. If possible, the existing Council Chambers facility should be saved and moved to a new site because of its historical significance to the Village. Consideration should be given to incorporating residential and/or commercial space within the new Civic Centre as a means of generating an on-going stream of revenue for the Village.

Phase 6 would require the leasing out of the existing Museum and Archives building to a tenant for on-going revenue to the Village.

Phase 7 would require the upgrade and expansion of the Recreation Centre. This project is a priority but reliant on receiving a financial grant to fund the full capital cost. Therefore, the timing of the project is unknown and difficult to predict.

The Cultural Centre would be maintained where it is.

The order of magnitude construction cost estimates (in current dollars) for the individual phases are described table 1.3 on page 5. Moving, temporary office lease costs, and taxes are not included.

Table 1.2 – Phasing Strategy

	Activity	2018 to 2033															
		18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
Phase 1	Purchase Land for new Public Works Yard																
	Lease/Purchase Trailer for Utility Operators at Lagoon																
Phase 2	Build new Fire Hall																
	Move Fire Department into new Fire Hall																
Phase 3	Upgrade existing Fire Hall & convert to new Council Chambers																
	Move existing Council Chambers into new Council Chambers																
	Convert existing Council Chambers into Administration Offices																
	Temporarily relocate Administration staff to leased facility																
	Renovate existing Administration Offices																
	Move staff into new converted/renovated Administration Offices																
Phase 4	Build new Public Works Yard (in two phases)																
	Move Public Works Department into new Public Works Yard																
Phase 5	Temporarily relocate Administration staff to leased facility																
	Build new Civic Centre on existing site																
	Move staff, Council & Museum & Archives into new Civic Centre																
Phase 6	Lease out existing Museum and Archives building																
Phase 7	Upgrade/Expand Recreation Centre																



Table 1.3 – Construction Cost Estimates

Phase	Facility	Size of Facility (sq.ft.)	Cost of Land (\$)	Capital Cost (\$)	Contingency (25%) (\$)	Total Cost (\$)
1	New Public Works Yard (land) and Trailer for Sewer Lagoon		500,000 (20 acres)	50,000 (trailer)	0	550,000
2	New Fire Hall	13,640	412,500	4,000,000	0	4,412,500
3	Renovate: - Fire Hall - Council Chambers - Admin. Office	6,500 1,700 3,700	0 0 0	500,000 102,000 277,500	125,000 25,500 69,375	625,000 127,500 346,875
4	New Public Works Yard (facilities)	28,850 (for two new buildings) plus 3,600 (for sand & salt storage structures)	(see above)	11,307,997	2,826,999	14,134,997
5	New Civic Centre: - Museum/Archives - Council Chamber - Admin. Office	23,254	300,000	10,323,688	2,580,922	13,204,610
7	Recreation Centre	15,200 (existing) 2,200 (new)	0	8,695,879	2,173,970	10,869,849
	TOTAL		1,212,500	35,257,064	7,801,766	44,271,330

Note: the cost estimate for the upgrades and expansion of the Recreation Centre is taken from the RDH Building Sciences Report.
Note: the estimated cost to repair the existing Fire Hall to comply with the building safety codes was provided by the Village Fire Chief

The Village of Cumberland is a leader in supporting those initiatives that facilitate environmental sustainability. Therefore, any new facilities to be built within the Village (following the construction of the proposed new Fire Hall) should incorporate design features that reduce energy consumption, and qualify for LEED certification (Leadership in Energy and Environmental Design). Therefore, a 20% premium has been added to the capital cost of the new Public Works Yard (phase 4), new Civic Centre (phase 5), and upgrade of the Recreation Centre (phase 7).

Therefore, the total estimated cost (in current dollars) is **\$44,271,330**

2.0 INTRODUCTION

2.1 Background

The Village of Cumberland has, in recent years, experienced tremendous growth in its population. With this growth expected to continue, well into the future, the Village expects to have to hire additional staff to meet the increasing demand for services. This will lead to an increase in the need for additional space for Village staff, and operations.

To determine how best to satisfy this need for space, the Village decided to retain a consulting firm to conduct a Facility Master Plan and Space Needs Assessment. This study will take into consideration the Facilities Condition Assessment that was conducted in 2012, and the Recreation Center Review that was conducted in 2016.

In preparation for the need for additional space, the Village recently purchased land for a new Fire Hall, and has completed the conceptual design for the new Fire Hall.

2.2 Project Objectives

The objective of this study was to provide the Village with a Facility Master Plan and Space Needs Assessment that would (a) describe the future space requirements (with a twenty-five year time horizon) for Village employees, and work vehicles, (b) summarize the overall condition of each of the existing Village facilities, (c) document the deficiencies of the existing facilities versus the future space requirements, and (d) recommend a multi-year phasing strategy to upgrade or replace the existing facilities so as to achieve the required future space requirements.

3.0 NEEDS ASSESSMENT

This section describes the current and future state facility needs required by the staff and Council (for the Village of Cumberland) to work efficiently and effectively for the next twenty-five years. The section outlines (a) the overall condition of the current facilities, (b) the functional area requirements, and (c) the future resource and space requirements to allow staff and council to work productively, and to continue to meet the service levels expected by the community. The time horizon for the Needs Assessment will be five, ten and twenty-five years.

The functional area requirements for the work spaces within the facilities will be documented as a step towards programming the new facilities and/or additions.

3.1 Current State Facility Maintenance Repair Requirements and Expected Life Span

The Village of Cumberland has a range of buildings that house functions of the Village operation and/or offer services to the Community. These buildings are of varying age and condition, and will all need repair or replacement at some point in the future.

In 2012, The Village of Cumberland retained a consulting firm to complete a condition assessment for the various facilities owned by the Village. This section provides a summary of the conclusions made within this assessment. This section also references the RDH Building Engineering Ltd. Report which focused on the Recreation Centre and was completed in 2016.

The Village of Cumberland documented a number of accessibility-related policy statements in their 2014 Official Community Plan (OCP). The following reflects the specific statements and policy directions set out in the OCP:

- All public spaces, municipal facilities and services as well as places of employment shall be accessible to people of all abilities;
- The Village will encourage business partners, governments, and employers on public and private lands to work to improve the physical accessibility of their property and facilities; and,
- The Village will ensure that there is adequate designated parking for people with disabilities.

In 2016, SPARC BC completed a report identifying those actions required to ensure that each of the Village's facilities complies with the accessibility-related policy statements. We refer the readers of this report to the SPARC BC report for further details.

ADMINISTRATION OFFICE

The Administration Office is located at 2673 Dunsmuir Avenue and was constructed in 1910 with more recent upgrades. It provides 3,700 sq.ft. of space on the main floor and an additional 1,700 sq.ft in the basement (with walkout above grade). The major issues include the following:

- There are heating imbalances between the front and the back of the building due to the design of the HVAC system;
- The Public Works fleet maintenance garage is located under the south end of the Administration Building. This generates an unacceptable amount of noise and odours which travel up into the office area.

The Administrative Office is an old, yet well-built building. Aside from the minor heating imbalances, the building is in good condition and will continue to provide quality administrative space well into the future.

COUNCIL CHAMBERS

The Council Chambers are located at 2675 Dunsmuir Avenue and was constructed in 1893 with renovations in 1910 and more recently. It provides 1,700 sq.ft. of space on the main floor, an additional 1,500 sq.ft in the basement, and a 3,500 sq.ft. garage (also in the basement) above grade. The major issues include the following:

- The building loses heat through poorly sealed doorways and windows.

The Council Chambers is an old, yet well-built building. Aside from the poorly sealed doorways and windows, the building is in relatively good condition and will provide the occupants with quality space well into the future.

Over the years, the building's original architectural features on the front façade have been removed. Replicating and restoring these original features would help to showcase the building as one of Cumberland's oldest buildings.

CULTURAL CENTRE

The Cultural Centre is located at 2674 Dunsmuir Avenue and was constructed in 1992 with more recent upgrades and repairs. The main floor provides 5,700 sq.ft. and the second floor provides 5,300 sq.ft.. The major issues include the following:

- Water penetrates through the walls;
- Deteriorating balcony-significant water damage (balcony condemned);
- Displaced 1st floor window header;
- The HVAC units require repair;
- An uninsulated floor that is cold throughout the winter;
- Cracked and displaced retaining wall.

The Cultural Centre facility is not built to the same quality as the older buildings owned by the Village. However, maintenance repairs have been completed, and the structure is in good condition. Therefore, the building will continue to provide valuable, long-lasting community space.

CUMBERLAND RECREATION CENTRE

The Recreation facility is located at 2665 Dunsmuir Avenue, was constructed in 1938, and had an addition constructed in 1972. Recently, repairs have been made to improve the functionality of the facility. The facility provides 14,700 sq.ft. on two floors. The major issues requiring attention are well documented in the RDH Building Engineering Ltd. report and focus on hazardous materials, architectural, structural, mechanical and electrical issues.

Most 20th century buildings of this type were built with an anticipated life span of fifty to sixty years. This would explain why the RDH report estimated that the cost to complete a major upgrade of the existing facility would be slightly more expensive than to replace it with new construction.

FIRE HALL

The Fire Hall is located at 2679 Dunsmuir Avenue and was constructed in 1958 with an addition added in 1972. The facility provides 4,100 sq.ft. on the main floor and 2,400 sq.ft. in the basement. The major issues include the following:

- A study, conducted in 2005, recommended approximately \$715,000 in structural upgrades to bring the building up to the 1998 BC Building Code. Apparently, less than \$20,000 worth of these upgrades were completed. The building is, therefore, considered to be unable to withstand a major earthquake. This would leave the Village without a major element of emergency response.
- There is a structural issue with one of the front bay doors.

The Fire Hall has significant structural issues and is considered to be unlikely to withstand a seismic event. Therefore, the Village has decided to move the Fire Department to a new hall (once it is constructed). Future use of the existing hall by the Village should continue only after a thorough Building Condition Assessment has been completed and structural repairs made.

MUSEUM AND ARCHIVES

The museum is located at 2680 Dunsmuir Avenue and was built in 1981. Repairs and improvements to the front entrance were made in 2017. It provides 3,000 sq.ft. on each of its two floors. The major issues include the following:

- Flooding occurs in the basement because of an inadequate storm water collection system surrounding the basement;
- The office area is "ridiculously hot" during the summer from solar gain and no air conditioning within the building;
- There is no staff room/lunch room, and only a single stall bathroom (shared with the public)

The building is not built to the same quality as the older buildings owned by the Village. However, it is in good condition and will continue to provide valuable services to the community well into the future.

PUBLIC WORKS

The Public Works department is located at 2673 Dunsmuir Avenue which was built in 1910. It also shares space in other adjacent facilities – the Council Chamber (lower level), and the Fire Department (lower level). In addition, the Public Works Department occupies a 1,500 sq.ft. wood framed building that is used to store work vehicles. Despite recent repairs, the major issues include the following:

- Discoloured insulation may be due to mold or dampness;
- There is an old, oil-fired furnace;
- There is an absence of noise, heat and fire protection barriers between the basement housing the Public Works operation and the offices above;
- The wood garage building is showing significant structural deformation of the south wall. Given the limited use of the building (for vehicle storage), we would recommend limiting investment in it - but ensuring that the building is not in danger of collapsing.

With the exception of the Fire Hall and the wood storage garage (in the yard), the buildings occupied by the Public Works department are well-built and solid.

3.2 Current State Facility Functional Area Deficiencies

In this section, we will identify the current and future state functional area deficiencies for each of the facilities within this study. This will include existing employee positions and those forecast to be required during the next twenty-five years. Functional area deficiencies have a direct impact on the efficiency and effectiveness of staff. Therefore, identifying these deficiencies will help us identify what changes are required to support the worker, enhance employee morale and productivity, and minimize the cost of accommodation.

The identification of these deficiencies will be guided by the Core Principles, Operating Principles, and Cost Containment Principles of the Government Office Space Standards for British Columbia (GOSS).

Core Principles

- Employees will be treated equitably and provided with healthy, safe and accessible office work spaces;
- Office work spaces will be designed to support effective program delivery;
- Maximizing value for money will be a goal of all facilities designs;
- Cost-containment strategies will be applied to all projects.

Operating Principles

- GOSS does not 'entitle' staff to specific workstation sizes. It is a method for determining the overall requirements of a group and then determining how that space is allocated. Actual individual space allocations are determined on the basis of functional space requirements, the priorities of the organization, and the total space and budget available.
- In general, provincial and municipal employees, within British Columbia, shall be provided with open area accommodation. Enclosed offices will be provided for those

staff requiring a high degree of unscheduled confidentiality, either from other staff or outside visitors. Based on functional justification, these enclosed spaces may be single occupant offices, meeting rooms, and/or other space types.

- Space plans will anticipate organizational or workstation pattern changes by having fewer types of workstations and flexible layouts. Furniture and screen purchases shall support anticipating change and flexibility by incorporating the following features: free standing, mobile, modular, and flexible.
- Building quality for new construction will be governed by cost containment strategies and BCBC' s Technical Standards.

Cost Containment Principles

- Space savings can be achieved through the use of efficient layouts, space saving equipment, and recovery of unused space.
- Government offices are encouraged to seek partnerships and co-locations with other governments with a view to sharing facilities, equipment, furniture and resources.
- Staff will move to a different workstation with similar furniture and functionality rather than move an entire workstation when occupants or work patterns change. Also known as a “Briefcase Move”.
- Existing tenant improvements and assets will be re-used/ re-furbished wherever practical.

In North America, the workplace is in transition due to new technologies which are more powerful, portable and integrated allowing for much greater flexibility in work space location.

The workplace is no longer seen as a central office but rather as a set of spaces and tools which enable workers and enhance work processes. The new workplace needs to accommodate teams (not just individuals) and support employees who are increasingly mobile, and use portable technology.

In the tables, below, the functional area requirements that do not exist will be highlighted in **red** font. Those requirements that do exist but are deficient in some way will be highlighted in **yellow** font.

ADMINISTRATION OFFICE

The facility used for the Administrative Office is not currently meeting the functional area requirements for the staff. The facility has 3,700 sq. ft. of space on the main floor.

In general, the Administration Office provides offices which are too small and in the wrong location (in terms of organizational adjacency requirements). Furthermore, there is insufficient storage space for archived materials, a lack of meeting rooms, and no hotel office for temporary visitors. Lastly, there should be an enclosed front reception area and desk (with public washroom) to provide security, and privacy for the staff office area, and the layout of the offices and flow of employees through the facility should be made more efficient.

A summary of the functional area requirements and deficiencies is shown in table 3.1 below

Table 3.1 – Administration Office

Functional Area Requirements	Description of Area	Current Status
1.0 Offices		
Front Reception Area	A separate front reception area and counter is recommended to provide privacy for the staff offices, and as a means of insulating the offices from the weather conditions outdoors. Twenty to forty members of the public drop in every day.	Exists but does not provide privacy and insulation
Public Washroom at Front Reception	A single (male/female) public, wheelchair accessible washroom should be located adjacent to the front reception area.	Does not exist
Mayor & Council Office	The Mayor and Council should have a private office (with a meeting table) adjacent to the CAO and a meeting room.	Exists but too small
CAO Office	The CAO should have an office (with a meeting table) adjacent to his direct reports	Satisfactory but in the wrong location with respect to his staff
Building Inspector Office	Require a private office	Exists but is not private
Engineering Tech Office	Require a private office (position not filled)	Does not exist
Planning/PW Clerk Office	Require an open office (position not filled)	Does not exist
Develop. Services Mgr. Office	Require a private office (position not filled)	Does not exist
Senior Planner Office	Require a private office	Exists but is not private
Planner Office	Require a private office	Exists but is not private
Econo. Develop. Coord. Office	Requires a private office (position not filled)	Does not exist
Financial Officer Office	Require a private office	Shares an office
Deputy Financial Officer Office	Require a private office	Shares an office
Senior Accountant Office	Require an open office (position not filled)	Does not exist
Accounting Student Office	Require an open office (position not filled)	Does not exist
Administration Clerk Office	Require an open office	Satisfactory
Accounting Clerk Office	Require an open office for two clerks (one position not filled)	Only one office exists
By-Law Enfor. Officer Office	Require a private office	Satisfactory
Deputy Corp. Officer Office	Require a private office	Satisfactory
Corporate Officer Office	Require a private office (position not filled)	Does not exist
Corp. Services Assist. Office	Require an open office	Satisfactory
Human Resources Mgr. Office	Require a private office (position not filled)	Does not exist
Communications Assist. Office	Require an open office (position not filled)	Does not exist
Committee Coordinator	Require an open office (position not filled)	Does not exist
Meeting Room 1	Require meeting space for employees and visitors (12 people)	Does not exist
Meeting Room 2	Require meeting space for employees and visitors (8 people)	Does not exist
Hotel Office	Require temporary office space for visiting employees (e.g. the Fire Chief, Liquid Waste Management Co-ordinator)	Does not exist

Functional Area Requirements	Description of Area	Current Status
Supply Room	Require storage space for office supplies	Satisfactory
File Storage (Vault)	Require a dedicated storage space for files and archived documents. Needs to be climate controlled with a dry fire suppression system.	Exists but very short of space and does not have the proper climate control and fire suppression systems
Printer Room	Require a separate room for both (2) printers to contain noise	Only one room exists
Lunch Room/kitchen	Require a lunch room with kitchen for staff.	Satisfactory but need a dish washer
Male/Female washrooms (2)	Require two wheelchair accessible washrooms (M/F) for staff	One will soon be made accessible
Electrical Room	A small room for securing the electrical panel is recommended.	Satisfactory
Mechanical Room	A small room for securing the mechanical equipment (i.e. HVAC) is recommended.	Satisfactory
Janitors Room	A janitorial room for supplies, equipment and access to water is required.	Exists but too small.
2.0 Outdoor Parking		
Employee/Visitor Parking	Require designated parking for employees and visitors outside the main entrance. Electric vehicle charging stations should be installed.	Parking exists but across the street which represents a safety hazard. No charging stations exist.
Bicycle Parking	Require secure parking for bicycles used by employees	Does not exist

COUNCIL CHAMBERS

The facility used for the Council Chambers is, in general, providing adequate functional space to satisfy the current needs of Council. The main floor is 1,700 sq.ft. in size. The basement is 1,500 sq.ft. in size, and used by Public Works for storage space and employee amenities.

There are, however, some needs that are not being fully met. More specifically, there should be a front reception area (to provide the council chamber with privacy and protection from the weather), a separate meeting room (for up to 12 people), and additional storage space.

A summary of the functional area requirements and deficiencies is shown in table 3.2 below:

Table 3.2 – Council Chambers

Functional Area Requirements	Description of Area	Current Status
1.0 Offices		
Front Reception Area	A separate front reception area is recommended to provide privacy of the council chambers from those waiting to enter, and insulation from the weather conditions outdoors.	Does not exist

Functional Area Requirements	Description of Area	Current Status
A Public Washroom (1) at the Front Reception	One (male/female) public, wheelchair accessible washroom should be located adjacent to the front reception area.	Two washrooms exist but they are in the council chamber
Council Chamber	The council chamber should be sized to accommodate the council members, key staff, and the typical number of residents who wish to attend a Council meeting. The current chamber is set up with approximately 30 portable chairs for residents.	Satisfactory
Kitchen	The kitchen should be sized to facilitate light meals for meetings taking place in the council chamber. The current kitchen provides more than sufficient space to meet the needs of Council.	Satisfactory
Council Washrooms (2)	Two (male/female) public, wheelchair accessible washrooms should be located adjacent to the council chamber for use by Council members and staff attending meetings. The current washrooms are also available for public use.	One of the washrooms is accessible
Meeting Room	A separate meeting room (sized for approximately 12 people) should be available for small meetings. This room could be used by members of Council to meet prior to the start of council meetings.	Does not exist
Supply Room	A small supply room for washroom and kitchen supplies is recommended.	Does not exist
Storage Room	A small storage room for storing additional chairs and audio-visual equipment is recommended.	Does not exist
Communications Room	A small room for securing electronic communications equipment (i.e. internet and phone) is recommended.	Does not exist
Electrical Room	A small room for securing the electrical panel is recommended.	Does not exist
Mechanical Room	A small room for securing the mechanical equipment (i.e. HVAC) is recommended.	Does not exist
Janitors Room	A janitorial room for supplies, equipment and access to water is recommended.	Does not exist
2.0 Outdoor Parking		
Employee/Visitor Parking	Parking should be available for Council members, staff and visitors	Does not exist

CULTURAL CENTRE

In general, the Cultural Centre is providing adequate functional space to satisfy the current needs of the various user groups.

The bottom floor of the facility is leased to the Old Aged Pensioners (OAP) for their various activities focusing on seniors within the community. This space is 5,700 sq. ft. in size and provides adequate functional space to satisfy the current needs of the OAP.

The top floor of the facility is used approximately 80% of the time by the Recreation and Parks Department to run recreational classes for the community. This space is 5,300 sq. ft. in size and provides adequate functional space to satisfy the current needs. However, the music used by the recreational classes and the resulting floor vibrations disrupt the OAP on the first floor. As a result, the recreational classes are forced to modify their routines.

A summary of the functional area requirements and deficiencies is shown in table 3.3 below:

Table 3.3 – Cultural Centre

Functional Area Requirements	Description of Area	Current Status
1.0 Cultural Centre		
Top Floor Open Hall	The open hall is required to provide flexible space for various types of recreation activities ranging from Yoga to Taekwondo and dance classes.	Less than satisfactory due to noise restrictions
Kitchen	The kitchen is fully equipped and adds to the flexibility of use for the open hall (e.g. party's)	Satisfactory
Storage	Storage space is required for activity based tools and equipment.	Satisfactory
Male/Female Washrooms (2)	Two (male/female) public, wheelchair accessible washrooms should be located on the top floor.	Not currently accessible
Reception Area	A separate reception area is recommended at each entrance to provide privacy for the Open Hall from those waiting to enter, and as a means of insulating the Hall from the weather conditions outdoors.	Satisfactory
First Floor Open Hall	The open hall is required to provide flexible space for various types of community-based activities ranging from quilting to senior's gatherings.	Satisfactory
Kitchen	The kitchen is fully equipped and adds to the flexibility of use for the open hall	Satisfactory
Storage	Storage space is required for activity based tools and equipment.	Satisfactory
Male/Female Washrooms (2)	Two (male/female) public, wheelchair accessible washrooms should be located on the bottom floor.	Not currently accessible though there is one outside the hall
Reception Area	A separate reception area is recommended at each entrance to provide privacy for the Open Hall from those waiting to enter, and as a means of insulating the Hall from the weather conditions outdoors.	Satisfactory
2.0 Outdoor Parking		
Employee/Visitor Parking	Parking should be available for all visitors	Satisfactory
Bicycle Parking	Require secure parking for bicycles used by visitors	Does not exist
Electric Battery Charging Stations	Require charging stations for electric vehicles	Does Not Exist

CUMBERLAND RECREATION CENTRE

The facility used for the Cumberland Recreation Centre is, in general, providing too little functional space to satisfy the current needs of the staff and community. The facility has 14,700 sq. ft. of space that is spread across two levels and is used for providing a weight room, gymnasium, climbing wall, squash courts, commercial kitchen, and changing rooms.

The facility is too small to meet the needs of staff. For example, there are too few offices, the Managers office is on a different floor from her employees, there is insufficient storage space, and there is no staff lunch/common room, or washrooms.

In terms of community programming, there should be a large multi-purpose meeting room for up to 100 people.

Some of the activities need to be conducted in separate buildings (the Cultural Centre and private space that is rented) because of insufficient space at the Recreation Centre. However, this space is not ideal for the type of recreational services provided.

There should also be a front reception area, counter, and washrooms to provide the public with a place to ask questions and register for activities.

The recreation facility is poorly laid out reflecting the fact that it was constructed in stages. For example, the changing rooms (which are too small) do not provide direct access to either the gymnasium or the squash courts.

Currently, the weight room is located on the upper floor of the Recreation Centre. However, the maximum weight load on the floor is severely restricted because it is made of wood framing rather than concrete. Therefore, much of the heavy free weight equipment was removed, thereby, reducing the potential use of the space.

Lastly, the building is not fully accessible for the handicapped. An elevator is required to allow the handicapped to travel to both floors of the facility.

A summary of the functional area requirements and deficiencies is shown in table 3.4 below:

Table 3.4 – Cumberland Recreation Centre

Functional Area Requirements	Description of Area	Current Status
1.0 Offices		
Front Reception Area and Desk	A separate front reception area and counter is recommended to provide a place for the public to ask questions and register for activities.	Satisfactory
Public Washroom at Front Reception	Two (male/female) public, wheelchair accessible washrooms should be located adjacent to the front reception area for public use.	Does not exist
Manager of Rec & Parks Office	The Managers office needs to be private and provide space for small meetings with employees and community leaders. It should be adjacent to the staff offices.	The current office is located on the lower level far from the front entrance. It is satisfactory in size.
Outdoor Rec. Co-ordinator Office	Requires a private office close to the Manager	The office is located in a different building
Recreation Coordinator Office	Requires a private office close to the Manager	Does not exist
Recreation Programmer Office	Requires a private office (position not filled)	Does not Exist
Special Events Coordinator Office	Requires a shared desk (position not filled)	Satisfactory
Recreation Worker - PFT	Requires a shared desk	Satisfactory
Recreation Worker - PPT	Requires a shared desk	Satisfactory

Functional Area Requirements	Description of Area	Current Status
Fitness Studio Attendant	Requires a desk in the weight room	Does not exist
Janitorial Supervisor	Requires a shared desk (position not filled)	Does not exist
Supply Room	Recommended for office supplies	Does not exist
File Storage	Recommended for storage of documents	Does not exist
Printer Room	Recommended for noise reduction and privacy	Does not exist
Lunch Room	Recommend a lunch room for employees	Does not exist
Male/Female washrooms (2)	Recommended for use by staff	Does not exist
Elevator	An elevator is required to provide accessibility to all levels of the facility	Does not exist
Stairs	Required for access and egress	Not to code
Communications Room	A small room for securing electronic communications equipment (i.e. internet and phone) is recommended.	Does not exist
Electrical Room	A small room for securing the electrical panel is recommended.	Exists but contains mold and asbestos
Mechanical Room	A small room for securing the mechanical equipment (i.e. HVAC) is recommended.	Satisfactory
Janitors Room	A janitorial room for supplies, equipment and access to water is recommended.	Exists but too small with no water supply or drain
2.0 Athletic Facilities		
Fitness Studio	For Yoga and other fitness focused activities	Exists but should be located at the recreation facility rather than at the Cultural Centre
Multipurpose Meeting Room	For miscellaneous types of group meetings for members of the community (e.g. cards and painting)	Does not exist
Weight Room	Weight room for males and females	Exists but the floor will not support all of the equipment
Kitchen	For cooking classes	Satisfactory
Squash Courts	For squash and other racquet ball sports	Exists but not regulation size and cracks are in the walls
Male/Female Change Rooms (2)	Require two sets of change rooms, washrooms and showers	Exists but too small and not directly accessible
3.0 Outdoor Parking		
Employee/Visitor Parking	Require designated parking for employees and visitors outside the main entrance	Exists but some is across the street which represents a safety hazard
Bicycle Parking	Require secure parking for bicycles used by employees and visitors	Exists but need more

FIRE HALL

The existing Village Fire Hall has 6,500 sq.ft. of space on two levels but has been outgrown by the Fire Department. For example, new pumper trucks will be too long and tall to fit within the storage bays. To remedy this, additional funding would be required to shorten the trucks and to increase the height of the garage doors. Furthermore, the facility's structure has been declared unsafe unless major structural modifications are made to withstand potential earth quakes. Therefore, the hall is to be replaced by a new Fire Hall within the next five years once capital funding is approved by Council. A new location within the Village has already been purchased.

Although there are functional area deficiencies, they are relatively minor and do not pose a health or safety risk. For example, there are no private changing rooms and showers for the crews, the washrooms are too small, and there is a need for a weight-training area. Given that a new Fire Hall is to be built, as soon as possible, we do not recommend that the Village invest in the functional areas of the current hall. Therefore, we have not provided a table of functional area deficiencies for the Fire Hall.

Options for repurposing the Fire Hall will be discussed later within this report.

MUSEUM AND ARCHIVES

The facility used for the Museum and archives is not meeting the current functional area requirements for staff and the collection of artifacts and archives housed inside. The facility currently has 3,000 sq. ft. of space on the main floor and an additional 3,000 sq.ft. in the basement.

The museum facility provides too little office space, storage space (for documents, archives, and collections) and exhibit space. In addition, it should provide a front reception area, lunch room/kitchen for employees and afterschool children, employee washrooms, large room for various programs, gift shop, and curatorial work space.

A summary of the functional area requirements and deficiencies is shown in table 3.5 below

Table 3.5 – Museum and Archives

Functional Area Requirements	Description of Area	Current Status
1.0 Offices		
Front Reception Area	A separate front reception area and desk is recommended to provide a place for the public to wait, ask questions and pay for entrance into the museum. It would also serve to insulate the remainder of the building from the weather conditions outdoors.	Does not exist
Public Washroom (1) at Front Reception	A male/female public, wheelchair accessible, washroom should be located adjacent to the front reception area for public use.	Satisfactory
Directors Office	Require a private office for the Museums Director adjacent to her staff	The Director currently shares an office with the rest of staff
Collections Manager's Office	Require a private office (position not filled yet)	Does not exist

Functional Area Requirements	Description of Area	Current Status
Administrative Office	Require a shared office for a bookkeeper, admin. assistant, education/tours assistant, VS Coordinator and M&D Services	Does not exist
Archivist's Office	Require a closed office for the Museums Archivist next to the Archives	Does not exist
Engagement Coordinator Office	Require an open office for the Museums Engagement Co-ordinator	Exists but more space is required
Supply Room	Require space for the storage of office supplies	Exists but more space is required
File Storage	Require space for the storage of documents	Does not exist
Printer Room	Require a private room for the use of a printer (to minimize noise)	Does not exist
Lunch Room/kitchen	Require a lunch room and kitchen for use by staff as well as for after school programs (10 to 15 children)	Does not exist
Male/Female washrooms (1)	A male/female wheelchair accessible washroom should be located adjacent to the lunch room for use by staff and the school children.	Does not exist
Collections Storage Room	Require a climate controlled storage room for collections not on display	Exists but too small
Archives Storage Room	Require a climate controlled storage room for archived material	Exists but too small
Progaming/Event/Meeting/Film Room	Require a room (with portable seating) for hosting large events, meetings, afterschool programs, and showing films.	Does not exist. Use exhibit space instead
Exhibit Space	Additional exhibit space is required to show the collections of materials.	Exists but too small
Gift Shop	A gift shop is required to generate additional revenue to fund the museum.	Does not exist. Items are sold in the front entrance.
Curatorial Workspace	Require a private workspace for staff to design and assemble future exhibits.	Does not exist
Elevator	Require full access to both levels of the museum	Satisfactory but the elevator is blocked by the Iron Lung Machine
Stairs	Require secondary access to both levels of the museum	Satisfactory
Communications Room	A small room for securing electronic communications equipment (i.e. internet and phone) is recommended.	Satisfactory
Electrical Room	A small room for securing the electrical panel is recommended.	Satisfactory
Mechanical Room	A small room for securing the mechanical equipment (i.e. HVAC) is recommended.	Satisfactory
Janitors Room	A janitorial room for supplies, equipment and access to water is required.	Exists but too small.
2.0 Outdoor Parking		
Employee/Visitor Parking	Require designated parking for employees and visitors outside the main entrance	Exists but in the parking lot for the Cultural Centre
Bicycle Parking	Require secure parking for bicycles used by employees	Does not exist

PUBLIC WORKS

The Public Works Department shares space in several facilities – the Administration Office (main floor and lower level), the Council Chamber (lower level), and the Fire Department (lower

level). In addition, the Public Works Department occupies a 1,500 sq.ft. wood framed building that is used to store work vehicles.

The facilities used for the Public Works Department fail to meet the needs of the employees. They provide too little space, and a poor, disjointed layout. The result is (1) an inefficient flow of employees, materials and work vehicles, and (2) lower productivity.

The department requires additional office space, meeting rooms, storage rooms, proper employee amenities, parts storage, shop space, lab space, and indoor/outdoor storage for vehicles, equipment and materials. Clean shop space (that meets industry standards with properly managed equipment and testing protocols) is required for water meter and hydrant testing. The wood framed building used for vehicle storage falls short of best practices in garage design.

The storage of salt must be contained and not permitted, instead, to leech into the groundwater.

Vehicle washing is conducted manually, outdoors. This creates an unsafe condition in the winter (with the build-up of ice). Also, for sustainable operations, a percentage of the wash water should be collected and filtered for re-use.

A summary of the functional area requirements and deficiencies is shown in table 3.6 below

Table 3.6 – Public Works

Functional Area Requirements	Description of Area	Current Status
1.0 Offices		
Reception Area	A separate front reception area and desk is recommended to provide a place for vendors to wait prior to a meeting with the manager. It would also serve to insulate the remainder of the building from the weather.	Exists but does not insulate
Public Works Manager's Office	Requires a private office with small meeting table (job position vacant)	Does not exist
Foreman's Office	Requires a private office for confidential meetings with staff	Shares an office
Lead Hand's Office (2)/Scada System	Require an open office for two lead hands and a Scada System	Does not exist
W/WW Utility Person's Office (3)	Requires an open office for three persons (job positions vacant)	Does not exist
Parks Supervisor Office	Require a private office (position not filled yet)	Does not exist
Map Room	Requires a private room for storage of drawings/maps	Does not exist
Crew Meeting Room	Require a private room for crew meetings and training (12 employees)	Does not exist
File Storage	Require a secure file storage room	Does not exist
Printer Room	Require a room for the printer to minimize noise	Does not exist
Male/Female washrooms (2)	Require two, wheel chair accessible washrooms for staff (M/F)	One will be made accessible
Communications Room	A small room for securing electronic communications equipment (i.e. internet and phone) is recommended.	Satisfactory
Electrical Room	A small room for securing the electrical panel is recommended.	Satisfactory

Functional Area Requirements	Description of Area	Current Status
Mechanical Room	A small room for securing the mechanical equipment (i.e. HVAC) is recommended.	Satisfactory
Janitors Room	A janitorial room for supplies, equipment and access to water is required.	Exists but too small.
2.0 Employee Amenities		
Lunch Room	Require a lunch room/kitchen for the crew	Exists but too small
Men's Change Room/Washroom	Require private room for men's lockers, toilets, and showers	Does not exist
Women's Change Room/Washroom	Require private room for men's lockers, toilets, and showers	Does not exist
Washer/Dryer Room	Require clean room for a washer/dryer to clean clothing	Does not exist
Drying Room	Require a special room for Water/Wastewater to leave contaminated clothing	Does not exist
3.0 Fleet Maintenance		
Bays - Maintenance Bays	Require 5 bays for welding, fabrication, hoist. Also need to maintain firetrucks.	Only have 3 bays and have to maintain firetrucks outdoors
Storage - Maintenance Parts Room	Require organized and secure storage of maintenance parts	Does not exist
Office - Mechanics Office (2)	Requires a private office for two mechanics	Exists but too small and not private
Oil storage	Require space for clean and dirty oil storage	Does not exist
4.0 Water/Waste Water		
Storage - Parts Storage Room	Require organized and secure storage of w/ww parts	Exists but not secure
Shop - Clean Water Meter Testing	Require a private, clean shop space for water meter testing	Does not exist
Shop - Hydrant Testing	Require a private, clean shop space for water hydrant testing	Does not exist
Lab - Utilities	Require a private, clean lab for water quality testing	Does not exist
5.0 Roads		
Shop - Carpentry	Require a carpentry shop	Exists but too small
Storage - Miscellaneous Storage	Require miscellaneous storage	Exists but too small
Storage - Traffic Storage	Require indoor storage space for traffic signs	Exists but too small
6.0 Indoor Vehicle Storage		
Storage - Vehicle Storage	Require indoor storage for 18 work vehicles	Exists but too small
7.0 Indoor Sand/Salt Storage		
Indoor Sand Storage	Require indoor storage for pickled sand	Does not exist
Indoor Salt/Brine Storage	Require indoor storage for salt and brine	Does not exist

Functional Area Requirements	Description of Area	Current Status
8.0 Outdoor Storage		
Outdoor Wash Bay	Recommend an outdoor area with high pressure water to spray clean work vehicles and equipment	Does not exist
Dump Area	Area for one or more dumpsters to collect various types of waste	Does not exist
Aggregate Storage	Storage bunkers to contain different materials such as gravel, top soil, etc.	Exists but minimal in size
Pipe Rack	Covered pipe rack to protect the pipe from direct sun light	Exists but needs to be larger
Sump for street sweeper	Require a sump collection for street sweepings	Does not exist
9.0 Outdoor Parking		
Employee/Visitor Parking	Require designated parking for employees and visitors outside the main entrance	Does not exist
Work Vehicle Parking	Require designated parking for work vehicles either indoors or within the yard	Exists but not all vehicles are stored indoors that should be.
Fueling Station	Require a fueling station for work vehicles	Exists though not in the optimal location

Given the size of the department, and the pressing need for a new facility, a more detailed description of Best Practices for the design of Public Works operations is shown in the following section.

3.3 Best Practices in Facility and Yard Layout for Public Works Operations

The following Best Practices are recommended for the design of municipal Public Works yards and should, where possible, be implemented into the design of a new Public Works yard for the Village of Cumberland:

- The yard should appear orderly and professional with each item in its assigned place.
- Where necessary, landscaping buffers should be employed for aesthetically pleasing, professional looking facilities.
- The yard and facilities should be organized such that workflow of vehicles and pedestrians proceeds safely and efficiently.
- Sustainable practices supported through environmentally friendly facilities are to be employed.
- Commodities, such as fuel and salt, should be handled in facilities that are designed for full containment to minimize the risk of environmental contamination.

- Facility safety and security should be applied to both employee and public safety and to keep private vehicles outside of the operations yard.

YARD DESIGN AND DESIGN AND ORGANIZATION

1. Public works yards and maintenance facilities should be organized and designed to present a well ordered professional appearance. It is important that the public view of the yard appears to be well managed, and well maintained.
2. The most prominent and most highly visible part of the yard should contain attractive landscaping and prominent signage that describes the yard operations.
3. The view of the yard from all public roadways must be attractive, well landscaped, well ordered, and well maintained without appearing extravagant. It should also try to highlight any design features promoting environmental sustainability.
4. Landscape plants should be comprised of native species that do not require irrigation.

YARD ENTRANCES

1. Where possible vehicle entrances should be located at signal lights, especially on busy road ways.
2. Where practical, vehicle entrances and exits should be separated.
3. Entrances for employee and public vehicles should be kept separate from the flow of operational vehicles
4. Vehicle entrances and exits to the yard should be closed off with an automated gate to exclude people and vehicles that are not part of the operations.
5. The entrance should be set back from the roadway, such that vehicles entering the yard are off from the main roadway, while waiting for the entrance gate to open.

YARD CONFIGURATION

1. Where possible, yards should be configured for one-way traffic flow utilizing primarily left-hand turns.
2. Backing to a truck dock, the truck should be turning left such that the driver can readily see the back of the truck from his driver's position.
3. Fuelling stations should be situated out of the main flow of traffic, and designed to be able to accommodate vehicle line-ups without blocking the general flow of traffic in the yard.
4. The yard should be configured such that items that are most frequently used are closest to the main yard flow. Items less frequently used are placed near the back of the yard.
5. The yard should be equipped with well-marked signage that clearly marks direction of travel, storage locations, and special movement and safety instructions.

YARD PARKING

1. Employee and public parking should be located outside of the fenced yard, with good lighting and adequate security. In some areas, this parking may be in a fenced zone.
2. Employee parking should be situated directly adjacent to the employee entrance.
3. Where it is not practical to park winter response vehicles indoors, they should be located in open shelters faced to the east or south, with receptacles to allow block heaters and hydraulic heaters to be plugged in overnight.

4. Where vehicles are parked in heated indoor spaces, adequate ventilation measures must be taken to prevent accumulation of fumes and to prevent fumes from entering office areas.
5. Outdoor operational vehicles should be parked within the yard so as to minimize employee walking distances.
6. Where possible, surfaces are unpaved to allow storm water to percolate naturally through the parking surface. When paving is required, materials that are permeable to water are recommended (e.g. permeable concrete).
7. Environmentally friendly modes of transportation should be promoted. Buildings should be equipped with lockable storage for bicycles and preferred parking spaces should be made available for car-pooling and energy efficient vehicles.
8. Light pollution control can be achieved by installing fixtures that are down-lit. Full-cut off, ground covers and positioning of the fixtures on site would stop the light from over spilling to other adjacent sites.

YARD STORAGE

1. Typically, most summer maintenance vehicles will be stored in unheated buildings over the winter, where they can be protected from the elements and sunshine.
2. All plastic and rubber items, including piping and fittings, must be stored in shelters that protect these materials from deterioration from the sun.
3. All items stored in the yard should be organized in well-marked storage locations.
4. Bulk materials should be stored in well-designed bunkers or storage bins that allow easy access for loading, yet contain the pile in a neat and orderly manner.
5. Items that must be kept clean, such as fittings for water services, should be stored such that they will not become contaminated with yard dust and debris.
6. Outdoor storage areas should not be paved, unless needed (i.e. salt), to allow storm water to percolate naturally into the ground.

GENERAL OFFICE CONFIGURATION

1. The main public entrance is located in the most prominent position immediately beside visitor parking.
2. The main employee entrance is kept separate from the public entrance and is beside the employee parking lot.
3. A public waiting area will provide space for seating and brochure display, and will provide a Unisex toilet facility. Any corridor off this public area will have restricted entry.
4. This public waiting area should also be equipped with a counter so that a member of the public can speak to a roads employee.
5. Operations offices should present a clean, well maintained, and professional appearance. Whether or not the public visits this facility, it should be maintained such that it is presentable and reflects the professional image required by the Village.
6. Common spaces within the office area should be used wherever possible to avoid space duplication and to encourage communication and collaboration. Common spaces should be used for the following: employee amenities; office spaces; meeting rooms; stores; crew rooms and training areas; and storage.

EMPLOYEE AMENITIES

1. The main employee entrance area should be equipped with an information area and notice board that contains all of the vital safety and operations information generally needed by employees under the laws affecting employment. This includes safety standards, labour standards, environmental standards and WHMIS information. There should also be an area for employees to post information.
2. Washrooms and locker rooms are to be kept completely separate from the lunch room.
3. Showers should be available for all employees.
4. The cafeteria should be designed such that all employees have breaks and lunch in the same space.
5. Where certain employees may arrive from their work site carrying mud or other contaminants, a separate entrance should be created with direct access to a mud/drying room so that contaminated clothing can be removed, dried and cleaned without coming into the main building.

VEHICLE FUELING

1. Vehicle fuelling is typically set up such that vehicles returning to the yard can easily travel (without backtracking) from the yard entrance to the fuelling area and then to the parking area, in the most efficient way possible. Since there may be a line-up for fuelling it should be situated such that vehicle line-ups do not block the main access route around the yard.
2. The fuelling area should be located well away from buildings and the property line to meet safety practices.
3. Fuelling traffic lanes are set up such that vehicles lined up waiting for fuel do not block yard circulation.
4. Fuel tanks are located above ground with each tank contained within a separate outer containment tank that acts as a protective barrier around the main inner storage tank.
5. The entire tank area, along with the pumps, is mounted on a concrete pad that is elevated above high level for any surface water in the area.
6. The entire tank area may also be protected by heavy steel bollards and a crash resistant railing. This may in turn be enclosed with a fence to prevent entry or tampering.
7. Fuel islands are set far enough apart that two full sized trucks equipped with ploughs can pass side by side between the islands and pumps.
8. Fuel islands and pumps are set up such that they can be approached from either side. For most busy yards, two islands with pumps are set up such that four lanes of vehicles can be serviced simultaneously.
9. Newer installations are equipped with canopies and lighting such that vehicles can be fuelled in the dark and in inclement weather without delaying operations.
10. The fuelling area does not have a drain so that spilled fuel will not enter local water courses.
11. Electric recharging stations should be made available.

VEHICLE WASHING

1. The wash facility is located near the brine makeup area.
2. It has 1 or 2 drive-through wash bays that can be accessed by vehicles without blocking traffic flowing through the yard.

3. The interior clearance in the wash area is high enough to allow dump trucks to raise the box sufficiently for rinsing of the dump box.
4. The interior is equipped with minimal heating to prevent freezing inside the facility.
5. The concrete pad immediately outside the doors will require radiant heating to prevent the formation of ice during the winter.
6. The space beside the wash bay is equipped with an access platform, where operators can access the tops of their vehicles safely without climbing onto the vehicle itself.
7. Rapid roll up doors on each end of the wash bay prevent cold winds from going through the facility during winter.
8. The door should be 17' wide and 15' high. The room for a single wash bay should be 45' long and 31' wide (to handle tandem trucks).
9. The wash bay is well lit and the interior lower sides of the wash bay are equipped with lighting for illumination of the underside of each vehicle.
10. The building is equipped with a steam cleaning system to remove grease from vehicles and engine parts.
11. The wash bay will utilize a high-pressure, hand held, spray wand. There will also be a fire hose and a built-in underbody spray.
12. The equipment for the operation should be stored in a different room to avoid corrosion.
13. A drainage system and sump will be required to collect grey water.

WASH TANKS AND EQUIPMENT

The following equipment is located in or around the building:

1. An underground rain water cistern tank that captures rain water from nearby roofs for use as wash water.
2. A two-stage wash area in each bay:
 - a. Stage one uses clean gray water for the initial rinse of dirty vehicles entering the building.
 - b. Stage two uses rain water from the cistern or fresh water for a final wash and rinse of the cleaned vehicle.
3. Each wash stage is equipped with water processing equipment which includes:
 - a. An oil and grease trap,
 - b. A sediment trap that can be easily shovelled out,
 - c. A settling tank.
 - d. A common water cleaning/hydro-clone system that removes the last of the sediment from the water.
4. A final cleaned water tank that is ready for reuse.
5. One of the wash bays is equipped with an automated washing system for smaller vehicles.
6. The initial gray water rinse of dirty vehicles is directed through the cleaning system and then to the brine makeup tank or to the water reuse system depending upon the amount of salt that is being removed from the washed vehicles in the stage 1 wash.

SALT/SAND/BRINE STORAGE AND LOADING

The overall system for supplying salt, salt/sand mixture, and brine is designed to be environmentally sustainable by containing the salt and making best use of water for brine

makeup (if applicable), while eliminating the discharge to the sewer. The facility has the following characteristics:

1. Salt and sand delivery and loading, and brine makeup and loading are all located under one roof.
2. Sand and salt should be dumped inside the building by the supplier and then conveyed to the top of the pile using a stacking conveyor. This will maximize the height of the pile and storage capacity of the building.
3. Brine makeup utilizes the salt pile as a feedstock along with the weak salt solution coming from the truck wash combined with rainwater collected from the storage building roof and neighbouring driveways.
4. The brine making area should be adjacent to the main structure (so that it does not block the flow of the loader during the loading process). Drywall should not be used within the brine pump room because of the moisture). The brine area should also include a washroom.
5. The concrete wall surrounding the sand/salt storage area should be at least 25' high to maximize the height of the pile within the cubic space of the building.
6. The two drive-through doors for the sanders should be 20' wide and 20' tall. The two doors for the delivery truck should be 20' wide and at least 38' high (to avoid being hit by a tilted truck bed). Use of metal for the door sliding system should be avoided due to potential corrosion and premature failure.
7. Salt, sand and brine loading should all take place on one side of the storage area in a covered drive through lane.
8. The loading lane for the sanders/salters should be at least 144' long to allow space for three trucks to be loaded with sand/salt or brine simultaneously.
9. The level of environmental sustainability built into the design of Public Works facilities varies depending on the level of importance the municipality places on achieving and promoting LEED certification (Leadership in Energy and Environmental Design). This is because achieving LEED certification typically adds 25-30% to the capital cost of the facility with comparatively small annual savings in energy costs. However, there are design features that are cost effective and, therefore, recommended to minimize electrical and water consumption, and provide a better working environment for employees including:
 - a) The roof decking, structural steel and walls of the storage facility should be painted white to present a bright clean appearance and to better reflect light.
 - b) Where possible, windows should be incorporated into the design of the facility to reduce the need for light fixtures and to provide a better working environment.

FLEET MAINTENANCE

Best practices within the maintenance area are as follows:

1. The fleet garage is designed to maximize natural light with the use of sky lights and translucent panels in the bay doors.
2. Garage overhead clearance is sufficient to allow dump trucks to lift the box for testing of the hydraulic system inside the building.
3. Above-ground hoists are used where possible. In-ground hoists are equipped with column locks in case of failure of the hydraulic system.
4. Parts storage is located in shelving and racking immediately beside the fleet maintenance area with parts arranged by frequency of use.

5. Barcode systems are used for parts stocking and retrieval.
6. The fleet maintenance area is designed for 24-hour operation with increasing use of second and third shift maintenance to reduce the requirement for spare vehicles.
7. Small equipment is stored in racks near the small equipment repair bay. These racks are used for off-season storage.
8. Energy efficiency and working comfort is maintained by the use of rapid acting doors on each of the maintenance bays.
9. A rapid lube bay is set up for the quick lubrication and inspection of small vehicles.
10. Maintenance bays are set up for specific purposes, such as heavy maintenance or light vehicle maintenance, to reduce setup time.
11. Special rooms are set up for oil storage, solvent storage, battery storage and painting, to ensure that no toxic fumes enter into the maintenance garage work space.

3.4 Impact of Forecasted Factors on Future State Resource Requirements and Facility Functional Needs

3.4.1 Forecasted Factors Affecting Growth

There are a number of key factors, during the next 25 years, that may impact the environment in which the Village of Cumberland operates, and its future resource and facility requirements. These factors include:

Strategic Planning Priorities

The Village's Corporate Strategic Planning Priorities outline a vision for the Village built upon the following priorities:

- Improvement and expansion of infrastructure to accommodate measured growth;
- Attainable housing;
- Village Centre rejuvenation;
- Promotion of the Village as a location for local and regional businesses;
- Recreation and tourism;
- A healthy, active and engaged citizenry of all ages and walks of life;
- Accountability and transparency;
- Protection and enhancement of natural features and functions.

These priorities include the following objectives:

- To replace and expand the utility, dedicated road and building assets of the Village in an organized and responsible fashion;
- To move towards environmental sustainability through a broad range of means including effective land use planning, waste reduction and protection of natural resources;
- To create and improve the social, environmental and economic assets that support the health and well-being of residents;
- To advance itself as a sustainable community now and for the future by addressing climate change;

- To promote transparency and an easy flow of information both within the corporation and between the corporation and the public and to deliver effective services to the community for the benefit of its citizens, businesses and visitors.

Official Community Plan

The Village of Cumberland's Official Community Plan (dated 2016), focuses, in part, on the importance of growth management of the community in the coming decades. It recognizes that the Comox Valley has been one of the most dynamic investment locations and fastest growing areas within western Canada, in recent years. With this in mind, the citizens of Cumberland have stated a preference for an accountable, balanced, and well managed approach to their community's future growth, in which the essential character and ambience of the Village, along with effective protection of its natural environment, are primary concerns. Therefore, long term planning for housing, infrastructure, employment, agriculture, and social services is central to effective growth management and essential for establishing attractive, affordable well serviced communities with access to employment opportunities.

For the Village, this will be achieved through encouraging compact complete communities close to existing services and community amenities. Growth will be a catalyst for a prosperous community. It will be planned and focussed so that the newly developed areas can absorb the growth efficiently, costs can be minimized, service delivery streamlined, and existing facilities used effectively.

Economic Growth

The Village of Cumberland has a thriving, and diversified economy based on tourism and various other industries. The development of the Village as a "destination" is the long-term plan to continue to attract highway travelers and tourists to the area. Therefore, the economic outlook for the Village is positive with steady economic growth.

Population Growth

People continue to be attracted to live in the Village because of its small-town friendliness and values, connection to the environment, and because it offers an unmatched quality of life. Furthermore, lower than average housing prices (compared to Victoria and Nanaimo) and its proximity to Courtenay and Comox have made the Village very popular to first-time home buyers, young families and retirees. As a result, the residential population continues to grow.

Population projections are the basis for future housing and land use requirements. The Official Community Plan estimates that a moderate, annual growth forecast of 3% would see the Village grow from 3,692 (in 2013) to 8,962 in 2043. This overall growth of **143%** will put increased pressure on the Village for new infrastructure and community services.

Demographics

The Village of Cumberland is a community in transition. According to Census data, the Village had a population of 2,726 in 2006, 3,398 in 2011 and 3,756 in 2015: a growth of over 1,000 people in the past 10 years. Cumberland is also comprised of younger families than in other municipalities in the Comox Valley and British Columbia:

- The population of Cumberland has a median age of 39.3 years of age;

- 62% of the population over 20 years of age is married or living with a common law partner;
- 78% of the population live in single detached homes;
- There is a total of 970 families in private households with 950 children.

Fiscal Positions of Governments

The worldwide recession of 2008-2009 had a huge impact on the fiscal position of governments across Canada. Prior to 2008, the Government of Canada and most provinces were running operating surpluses. Following 2008, provincial governments experienced large deficits and relatively large increases in debt. The Government of Canada made efforts to increase infrastructure spending, recognizing its importance to the economy in the short and long-term. The Federal government has committed to additional infrastructure funding but has yet to follow through.

The Village of Cumberland strives to maintain balanced budgets and receives significant transfers from the Provincial and Federal governments. As these senior levels of government work to get back towards balanced budgets, in the medium-term, there will be increased pressure on fiscal resources.

Infrastructure Deficit

Across Canadian cities, aging and deteriorating infrastructure has resulted in a large and growing infrastructure deficit. In the Village of Cumberland, of particular concern is the deterioration of road infrastructure, the need to maintain safe drinking water, and the need to improve and expand sewer and other infrastructure to accommodate growth and meet regulatory compliance.

Should the Federal government follow through with a stimulus spending plan for replacing aging infrastructure (as promised in the last election), there will be a focus on improving services.

Demand for Accountability and Value for Money

A trend affecting departments across municipal governments is an increasing demand of value for money, accountability and transparency in information. Along with a changing level of public trust, this trend creates a demand on the Village to provide accountability and performance measures in its decision-making and how tax dollars are spent.

Increasing Legislative Regulations, Standards and Associated Costs

A trend towards increasing government regulations, standards and their associated costs impacts the ability of the Village to deliver core services, meet public expectations and maintain the assets that the Village already owns. All Village departments are affected when regulations, policies and standards are passed or changed. Liability or potential liability claims, can also affect the Village's ability to manage within existing budgets and resources.

The number of employees and work vehicles required by the Village, over the next 25 years, will be determined, in large part, by the above factors as well as changes in technology, environmental requirements, and community expectations for service level requirements. All of these factors will likely lead to an increase in the number of employees and work vehicles required. However, there is no precise way to know how all of these issues will unfold, interact and affect the Village operations over the next 25 years.

3.4.2 Future State Resource Requirements

The Village of Cumberland's number of employees and work vehicles will increase, over the next 25 years. Currently, there are 23 full time employees, three part-time employees, one seasonal employee and one student. Below, we look closely at the forecast resource requirements for each of the departments within this study:

EMPLOYEE AND WORK VEHICLE REQUIREMENTS

Each of the facilities within this study should be sized to accommodate the forecast growth in employee levels over the next 25 years (2043). The total number of employees expected to work in each of these facilities (and the number of related work vehicles) is shown in the tables on the following pages.

ADMINISTRATION OFFICE

Table 3.7 – Future Number of Employees at the Administration Office

Job Title	Current Number of Employees	Future Number of Employees		
		2023	2028	2043
Mayor and Council	5	5	5	7
CAO	1	1	1	1
Manager of Operations	1	1	1	1
Building Inspector	0.5	1	1	1.5
Engineering Tech	0	0	1	1
Planning/Eng/PW Clerk	0	0	1	1
Development Services Manager	0	1	1	1
Senior Planner	1	1	1	1
Planner	1	1	1	1
Economic Development Coord.	0	1	2	2
Financial Officer	1	1	1	1
Deputy Financial Officer	1	1	1	1
Senior Accountant	0	0	0	1
Seasonal Accounting Student	0	0	0.34	2
Administration Clerk	1	1	1	2
Accounting Clerk	1	2	2	2
By-Law Enforcement Officer	0.6	1	1	1
Deputy Corporate Officer	1	0	1	1
Corporate Officer	0	1	1	1
Corporate Services Assistant	1	1	1	1
Human Resources Manager	0	0	1	1
Communications Assistant	0	0	1	1
Committee Coordinator	0	0	1	1
TOTAL	16.1	20	29.34	34.5 (103%)

COUNCIL CHAMBERS

Table 3.8 – Future Number of Employees at the Council Chambers

Job Title	Current Number of Employees	Future Number of Employees		
		2023	2028	2043
Mayor and Councillors	5	5	5	7
TOTAL	5	5	5	7 (40%)

CULTURAL CENTRE

Table 3.9 – Future Number of Employees at the Cultural Centre

Job Title	Current Number of Employees	Future Number of Employees		
		2023	2028	2043
No employees (managed from the Recreation Centre)	0	0	0	0
TOTAL	0	0	0	0

CUMBERLAND RECREATION CENTRE

Table 3.10 – Future Number of Employees at the Cumberland Recreation Institute

Job Title	Current Number of Employees	Future Number of Employees		
		2023	2028	2043
Manager of Rec & Parks	1	1	1	1
Outdoor Recreation Co-ordinator	1	1	1	1
Recreation Coordinator	1	1	1	1
Recreation Programmer	0	0	1	2
Special Events Coordinator	0	0	1	1
Recreation Worker - PFT	1	2	2	2
Recreation Worker - PPT	0.6	0	0.6	1
Fitness Studio Attendant	0	0.5	1	1
Janitor - PFT	1	2	2	2
Janitor - PPT	0.6	0.6	1	1
Janitorial Supervisor	0	0	0	1
TOTAL	6.2	8.1	11.6	14 (128%)

FIRE HALL

Table 3.11 – Future Number of Employees at the Fire Hall

Job Title	Current Number of Employees	Future Number of Employees		
		2023	2028	2043
Manager of Protective Services	1	1	1	1
Deputy Fire Chief	0.6	1	1	1
Mechanic	0	0	1	1
Volunteers	35	35	35	35
TOTAL	36.6	37	38	38

Note: Assumed that the Fire Department will be moving to a new location leaving the existing hall vacant

MUSEUM AND ARCHIVES

Table 3.12 – Future Number of Museum Employees at the Museum

Job Title	Current Number of Employees	Future Number of Employees		
		2023	2028	2043
Director	0.8	1	1	1
Archivist	0.2	0.5	1	1
Visitor Services Coordinator	0	0	0	1
Membership and Donor Services	0	0.5	1	1
Education/Tours Coordinator	0.16	0.5	1	1
Collections Manager	0	0	0	1
Administrative Assistant	0.16	0.5	0.5	1
Bookkeeper	0.1	0.2	0.5	0.5
Engagement Coordinator	0.8	1	3	3
TOTAL	2.2	4.2	8	10.5 (380%)

PUBLIC WORKS

Table 3.13 – Future Number of Employees in the Public Works Department

Job Title	Current Number of Employees	Future Number of Employees		
		2023	2028	2043
Public Works Manager	0	0	1	1
PW Foreman	1	1	1	1
PW Lead Hand	1	1	1	1
W/WW Utility Persons	0	2	2	3
Fleet Mechanic	1	1	1	2
Equipment Operator	1	1	1	2
Truck Driver/Labourer	3	4	4	5

Job Title	Current Number of Employees	Future Number of Employees		
		2023	2028	2043
Parks Supervisor	0	0	1	1
Parks Staff/Labourer	0	0.34	1.34	2
Parks Lead Hand	0	0	0	1
Parks & Trails Gardener (Seasonal)	1	1	2	2
Labourer (seasonal)	0	1	2	3
Summer Students	1	2	3	5
TOTAL	9	14.34	20.34	29 (222%)

The total number of Public Works work vehicles forecast to require, within the next ten years, either indoor or outdoor storage is shown in the table below.

Table 3.14 – Future Number of Municipal Vehicles (2028)

Work Vehicle Description	Future Number	Type of Storage
Vacuum Truck	1	Indoor
Mini Excavator & Trailer	1	Indoor
Ford Sweeper	1	Indoor
Freightliner Dump Truck	1	Indoor
Kuboto Mower	1	Indoor
Ford Dump Truck	1	Indoor
Ford Bucket Truck	1	Indoor
Kuboto	1	Indoor
Dump & Plow	1	Indoor
Ubilt Trailer Compressor	1	Indoor
KUB ATV	1	Indoor
Leroy Utility Trailer	1	Indoor
Pavement Roller	1	Indoor
Stand for Sander	1	Indoor
Sand Spreader	1	Indoor
Welder	1	Indoor
Line Painter	1	Indoor
Trailer for Roller & Paint Machine	1	Indoor
Total	18	
P/u Truck	8	Outdoor
Cube Van	1	Outdoor
Champion Grader	1	Outdoor
Case Backhoe	1	Outdoor
Cat Backhoe	1	Outdoor
Total	12	

3.4.3 Future State Facility Functional Needs

SATISFYING CORPORATE STRATEGIC PRIORITIES

As mentioned in section 3.4.1, the Village's Corporate Strategic Priorities and Official Community Plan outline a vision for the Village which includes a focus on (1) the Improvement and expansion of infrastructure to accommodate measured growth, (2) recreation and tourism and (3) a healthy, active and engaged citizenry of all ages and walks of life.

It is our opinion that in order to achieve the Villages priorities, the Village will need to plan for and satisfy the following facility functional needs:

- The Public Works department requires a proper, efficiently designed works yard complete with (a) vehicle/material storage buildings, (b) a fleet maintenance garage, (c) an office building with employee amenities, and (d) shop/lab space. The improvement and expansion of the Village's infrastructure will depend upon an efficiently run Public Works department that has the resources and facilities required to meet the service levels required by the community;
- The Cumberland Recreation Centre needs to be either (a) repaired and expanded to meet the functional and space requirements necessary to provide the community with the recreational services they require, or (b) replaced by a new, larger recreation centre. This would, typically, require a straight forward financial cost/benefit comparison between the two options. However, the existing facility provides many residents with a strong historical connection to the Village's past. In Cumberland, history matters;
- The Cumberland Museum requires additional space in order to continue to achieve its mandate including (a) exhibit space, (b) office space, (c) programing space, (d) employee amenities, and (e) storage/work space. The Cumberland Museum provides an important role in showcasing the Village's history, attracting tourists, engaging citizens, and differentiating the Village as a wonderful place to visit, live and work.

In addition, staff office space (in the existing or new Administration Office) will need to be expanded soon and rearranged in order to provide an efficient layout that meets the growing needs of staff. Doing this will permit staff to work efficiently and effectively to meet the expanding service requirements of the community.

SATISFYING ACCESSIBILITY REQUIREMENTS OF RESIDENTS AND VISITORS

The Village is home to a number of older adults and people with mobility challenges who have difficulty maneuvering through the Village because many of its buildings were built before universal design principles and accessibility standards were mandated. Therefore, the Village of Cumberland will, for some time, need to respond to the challenge of how to retrofit the current built environment to meet the full diversity of needs of residents and visitors. It will also need to ensure that all new facilities are built to comply with the needs of seniors, people with physical disabilities and mobility limitations, as well as individuals with low vision, hearing impairments, intellectual limitations, and chronic health conditions. To facilitate these objectives, the Village of Cumberland has a series of accessibility-related policy statements in the Official Community Plan (OCP). These statements include provisions related to specific accessibility-related

standards and principles for the different social, cultural and recreational amenities in the community.

The following reflects the specific statements and policy directions set out in the OCP:

- All public spaces, municipal facilities and services as well as places of employment shall be accessible to people of all abilities;
- The Village will encourage business partners, governments, and employers on public and private lands to work to improve the physical accessibility of their property and facilities;
- The Village will ensure that there is adequate designated parking for people with disabilities.

In addition, Safety & Accessibility Space will need to meet the requirement of Worksafe (the Occupational Health and Safety Regulations), the BC Building Code, and applicable Municipal Bylaws.

SUSTAINABILITY

The Village of Cumberland is a leader in supporting those initiatives that facilitate environmental sustainability. Therefore, any new facilities to be built within the Village (following the construction of the proposed new Fire Hall) should incorporate design features that reduce energy consumption, and qualify for LEED certification (Leadership in Energy and Environmental Design).

Qualifying for LEED certification typically adds 25-30% to the capital cost of the facility with comparatively small annual savings in energy costs.

However, there are design features that are cost effective and, therefore, recommended to minimize electrical and water consumption, and provide a better working environment for employees including:

- All lighting systems should be LED and, where possible, should utilize motion detection to turn the lights on/off;
- The roof decking, structural steel and walls of the vehicle storage areas and shops should be painted white to present a bright clean appearance and to better reflect light;
- Where possible, skylights and windows should be incorporated into the design of the facilities to reduce the need for light fixtures and to provide a better working environment;
- Capture rainwater and use it within the buildings, where possible. Approximately 70% of the grey water from the indoor vehicle wash bay (within a new Public Works facility) should be recycled. The internal vehicle storage area should be heated in the winter months with a radiant floor heating system to a temperature of 10°C to ensure that vehicles are ready for service in the morning. The installation of insulated rapid motion doors will prevent the need for air curtains over the external doors (to maintain the internal room temperature);

- The shop areas should also use a radiant floor heating system. The installation of insulated rapid motion doors will prevent the need for air curtains over the external doors (to maintain the internal room temperature);
- A high-performance building envelop should be used at floors, walls and roof of the building in order to minimize heating and cooling costs;
- New facilities need to inspire and enlighten occupants and users. They should celebrate the climate, culture, spirit and place appropriate for the internal functions and create places that promote and provide healthy and desirable work environments;
- New facilities should acknowledge the existing context, and create places that fit humanely into the existing neighbourhoods and environments where they are constructed;
- New facilities should be orientated so that windows for daylighting can be placed on the north and south facades. This approach allows shading devices to be used to deflect unwanted solar heat gain in the summer and permit desirable solar heat gain in winter months;
- Solar panels should be considered for reducing energy costs;
- Materials used for the construction of new facilities should generally be selected based on the following criteria:
 - Location of manufacture (closer is better),
 - Recycled content (the more recycled content the better),
 - Avoid the inclusion of hazardous materials in the manufacturing process or final product.
- Building mechanical systems should consider:
 - Use a highly efficient mechanical plant, i.e., geothermal systems with radiant floor heating and cooling delivery,
 - Displacement ventilation, heat recovery systems and CO2 monitoring controls for the delivery and exhaust of required fresh air to the building,
 - Heat recover systems design to capture heat from wastewater at showers and use it to heat domestic water for the building.

SATISFYING THE NEEDS OF WORK VEHICLES

Municipalities often have debates over the cost justification for building indoor storage space for work vehicles. Below are the primary benefits:

Public Safety

Vehicles such as plows are used to keep the roads safe, and to respond to emergencies. They are also sensitive to cold temperature and, therefore, may experience starting problems if parked outdoors during the winter. Diesel engines can suffer from jelling; hydraulic oil may have difficulty flowing; and air lines can freeze. In addition to starting problems, the driver/crew might be required to waste valuable time by having to warm-up and clean snow off their vehicle prior to responding to an emergency. This could result in unsafe conditions for the public

Employee Safety

Storage of larger vehicles outdoors during inclement weather may require an employee to climb on the vehicle to clean it off and prepare it for use. This could expose the employee to unnecessary risks such as slipping and falling. In addition, employees must often access and connect smaller equipment to their vehicles (such as plow attachments and towed compressors).

This could also pose unnecessary risks when conducted in inclement weather or in parts of the yard with inadequate lighting.

Improved Productivity and Response Time

Storing vehicles and equipment indoors will enhance the performance of the vehicles, thereby, eliminating potential delays associated with cold engines and frozen equipment. This will increase employee productivity and reduce response time. Furthermore, vehicles that are stored indoors can have their tools and related equipment left in the vehicle overnight. This reduces the need to unload and reload tools between shifts, thereby, increasing employee productive time.

Improved Asset Management

Storing vehicles and equipment indoors will reduce unscheduled maintenance costs and vehicle downtime, protect the vehicles from environmental conditions which could increase maintenance costs and reduce vehicle life span, and protect the vehicles from potential vandalism or theft.

Impact on the Adjacent Neighbourhood

The current yard is located beside residential homes. The outdoor storage of vehicles will increase the noise output and exhaust emissions from the site. The outdoor storage of vehicles will require extended periods of idling during the winter months, thereby, increasing the inconveniences already imposed on the neighbors.

Impact on the Environment

Storing vehicles and equipment outdoors will negatively impact the environment because of oil, grease, and engine fluid entering the groundwater or stormwater system. By comparison, any leaks that occur within a vehicle storage garage will be captured in a closed floor drain system, thereby, preventing the fluids from reaching the environment.

Cost Savings

The additional costs associated with storing the vehicles outdoors, as discussed above, include:

- Loss of productive labour due to delays in starting the vehicles and preparing them for the road;
- Increased unscheduled maintenance costs;
- Increased vehicle downtime and resulting loss in productivity;
- Reduced vehicle life expectancy and accelerated vehicle replacement costs.

Therefore, for the reasons discussed above, we recommend that the winter maintenance fleet be parked indoors.

4.0 FUNCTIONAL SPACE PROGRAM

4.1 Future State Facility Functional Space Requirements

In Appendix A, we provide the space requirements for each of the facilities to satisfy the growth requirements (for staff, service levels, materials, work vehicles) for the next five, ten and twenty-five years. Below, in table 4.1, we summarize the current and future need for space for each facility/department.

Table 4.1 Facility Space Requirements

Facility/Department	Current Space Available (sq.ft.)	Future Need for Indoor Space (sq.ft.)		
		2023	2028	2043
Administration Office	3,500	5,518	6,852	7,335
Council Chamber	1,700	2,955	2,955	2,955
Cultural Centre	11,000	12,519	12,519	12,519
Fire Hall	6,500	13,640	13,640	13,640
Museum and Archives	6,000	12,497	12,695	12,964
Recreation Centre (Offices)	700	2,645	2,992	3,252
Public Works Department	5,700	23,311	23,960	28,851

5.0 FACILITIES UPGRADE/EXPANSION AND REPLACEMENT PLAN

5.1 Opportunities for Future Use of the Existing Facilities

In this section, we will evaluate each of the existing facilities in terms of their potential future use by the Village.

ADMINISTRATION OFFICE

The Administration Office facility is (as stated in section 3.1) an old, yet well-built building. Aside from the minor heating imbalances, the building is in good condition and will continue to provide quality space well into the future.

The Administration Office facility is, however, too small to meet the future needs of the Village staff. The building currently provides 3,700 sq.ft. of space on the main floor with an additional 1,700 sq.ft. of space in the basement (which is not appropriate for office staff due to low ceiling height). By comparison, by 2023, the staff are forecast to require approximately 5,518 sq.ft. of office space. Therefore, while it may be possible to add another floor on top of the current building, we recommend that the Village consider other locations for a new Administration Office.

COUNCIL CHAMBERS

The Council Chambers facility is (as stated in section 3.1) an old, yet well-built building. Aside from the poorly sealed doorways and windows, the building is in relatively good condition and will provide the occupants with quality space well into the future.

The Council Chambers facility currently provides 1,700 sq.ft. of space on the main floor with 1,500 sq.ft. in the basement (which is used by Public Works for storage space and employee amenities). This space should continue to satisfy the needs of the Village for many years to come. However, best practice design would require a facility with approximately 2,955 sq.ft. of space. Therefore, we recommend that the Village consider, as part of a long-term plan, other locations for a new Council Chambers. Ideally, the Council Chambers and Administration Office would be located in the same facility.

CULTURAL CENTRE

The Cultural Centre facility is (as stated in section 3.1) not built to the same quality as the older buildings owned by the Village. However, maintenance repairs have been completed, and the structure is in good condition. Therefore, the building will continue to provide valuable, long-lasting space.

The main floor of the Cultural Centre provides 5,700 sq.ft. of space and the second floor provides 5,300 sq.ft.. Best practice design would require a facility with approximately 12,519

sq.ft. of space. However, the current space should continue to satisfy the needs of the Village for many decades to come.

CUMBERLAND RECREATION CENTRE

The Cumberland Recreation facility is (as stated in section 3.1) close to the end of its expected life span. To continue to use it will, as indicated in the RDH report, require extensive capital upgrades.

The facility currently provides 14,700 sq.ft. on two floors. However, it is too small to meet the needs of staff. The office area should be expanded to provide approximately 2,645 sq.ft of space by 2023, and 3,252 sq.ft. by 2043 (25-year horizon).

Council has decided to proceed with upgrading and expanding the existing facility once a government grant is received to fund the project. Timing for this is unknown.

FIRE HALL

The Fire Hall has (as stated in section 3.1) significant structural issues and is considered to be unlikely to withstand a seismic event. Furthermore, the garage bays are too short to hold a new fire truck. Therefore, the City has decided to move the Fire Department to a new hall (once it is constructed). This is expected to take place within the next three years. Future use of the existing hall by the Village should continue only after a thorough Building Condition Assessment has been completed, and recommendations implemented.

We believe that the Fire Hall has an interesting façade and is complementary to the historic nature of many of the other buildings on Dunsmuir Avenue. Therefore, we recommend preserving it, if financially practical. Given the commercial success within other buildings on Dunsmuir Avenue, we believe that the Village would be able to sell or lease the building for commercial purposes. However, the restoration cost is estimated to be more than \$700,000 (based on a 2005 study). The required Building Condition Assessment, mentioned above, will estimate the current restoration cost.

MUSEUM AND ARCHIVES

The Museum is (as stated in section 3.1) not built to the same quality as the older buildings owned by the Village. However, it is in good condition and will continue to provide valuable services to the community well into the future.

The museum facility currently provides too little office space, storage space (for documents, archives, and collections) and exhibit space. The facility currently has 3,000 sq. ft. of space on the main floor and an additional 3,000 sq.ft. in the basement. However, by 2042, the museum is forecast to require approximately 12,964 sq.ft. of space.

It may be possible to build another floor on top of the existing building but this would only add another 3,000 sq.ft. There does not appear to be room to add an addition onto the back of the building. Therefore, if the museum is to grow in size to satisfy its functional space requirements we recommend relocating it to a new, larger facility.

PUBLIC WORKS

With the exception of the Fire Hall and the wood storage garage (in the yard), the facilities occupied by the Public Works department are (as stated in section 3.1) well-built and solid. However, these facilities fail to meet the needs of the department. They provide too little space, and a poor, disjointed layout. The result is (1) an inefficient flow of employees, materials and work vehicles, and (2) lower productivity. Therefore, we recommend that the Village begin planning for the construction of a new Public Works yard that will satisfy the functional and space requirements of the department, and permit it to work efficiently and effectively for the next several decades.

In this section, we evaluated each of the existing facilities in terms of their potential future use by the Village. The conclusion was that the Village should (1) consolidate the Administration Office and Council Chambers into a new facility, (2) continue to maintain the existing Cultural Centre, (3) continue to try to receive a grant to upgrade and expand the Recreation Centre, (4) replace the existing Fire Hall with a new facility, (5) replace the existing Museum and Archives with a new facility, and (6) replace the existing Public Works facilities with a new facility and yard.

5.2 Options for Achieving the Future Facility Functional Space Requirements

In section 5.1, we evaluated each of the existing facilities used by the Village in terms of its ability to satisfy the future needs of the Village. In this section, we will identify and analyse three different options for achieving the Village's future facility needs (with a 25-year time horizon). The primary difference between each option will be the approach used to consolidate the Administration Office, Council Chambers and Museum into one new facility (Civic Centre).

1) Build a New Administration/Council Chambers/Museum on a New Site within the Village

This option is defined as the following:

- A new facility (Civic Centre) would be built on a new site within the Village to house the Administration Office, Council Chambers and Museum. The facility would be designed for a 25-year time horizon (2043) and would need to be approximately 23,254 sq.ft in size. The facility would be built, preferably, close to the centre of the Village;
- The Cultural Centre would be maintained where it is;
- The Recreation Centre would be upgraded and expanded (planning for this has already begun);
- The Fire Department would be relocated to a new facility that is currently in the planning stages;
- The existing Fire Hall would be upgraded to comply with the code requirements;
- The existing Fire Hall, Administration Office, and Council Chambers would be either leased out for ongoing revenue generation or sold;

- The Public Works Department would be relocated to a new Public Works facility and yard that would be built on a new 20-acre site within the Village. The total size of the main building (office, employee amenities, shops, storage, fleet maintenance garage) would be approximately 16,345 sq.ft.. A separate cool storage building for some of the work vehicles would be approximately 12,505 sq.ft. in size. There would also be separate sand and salt storage structures (metal frame and fabric).

2) Build a New Administration/Council Chambers/Museum on the Site Currently Occupied by the Fire Hall, Council Chamber, and Administration Office.

This option is the same as option 1 except that the Administration Office, Council Chamber and Museum would be built, as part of a new Civic Centre, on the site currently occupied by the Fire Hall, Council Chambers, and Administration Office. The Council Chamber has historical significance so consideration should be given to moving it to a new site for alternative use.

3) Purchase an Existing Building to Convert into a New Administration/Council Chamber/Museum

This option is the same as option 1 except that the Administration Office, Council Chambers and Museum would be built, as part of a new Civic Centre, within an existing building close to the centre of the Village.

The following table compares the strengths and weaknesses of the three options with respect to seven key criteria: capital cost, operating cost, revenue generation, location, impact on functional space requirements, impact on productivity, and sustainability. The highest-ranking option (for each criteria) will be shown in **green** font. The second highest will be in **yellow** font, and the lowest ranking option will be in **red** font.

Table 5.1 – Comparative Analysis

Criteria	Option 1 <i>A New Site for a New Civic Centre</i>	Option 2 <i>The Existing Site for a New Civic Centre</i>	Option 3 <i>Purchase and Redesign an Existing Building for a New Civic Centre</i>
Capital Cost	(1 st) Would likely be the least expensive option in terms of capital cost. The cost of the land would be paid for by the sale of the existing site.	(3 rd) Would likely be the most expensive option because the existing Fire Hall, Council Chamber and Administration buildings would be demolished (or moved) rather than sold or leased	(2 nd) Would likely be the middle option because renovating and expanding an existing building is often more expensive than building new

Criteria	Option 1 <i>A New Site for a New Civic Centre</i>	Option 2 <i>The Existing Site for a New Civic Centre</i>	Option 3 <i>Purchase and Redesign an Existing Building for a New Civic Centre</i>
Operating Cost	(1st) Designing a new facility will allow for an optimal design in terms of building materials and facility operating costs	(1st) Same as Option 1	(3rd) The existing building will likely not have highly efficient HVAC and other building materials so will be the highest in operating costs
Revenue Generation	(2nd) A new Civic Centre could incorporate commercial or residential space into the design for ongoing revenue generation for the Village	(1st) Same as Option 1. However, the existing site, sandwiched between Dunsmuir Avenue and a park, is well suited for maximizing revenue	(3rd) Purchasing an existing building might make it costlier to incorporate commercial or residential space into the facility
Impact on Functional Space Requirements	(1st) Designing a new facility would allow for an optimal design in terms of layout, size, and flow	(1st) Same as Option 1	(3rd) Renovating an existing building would require compromises in terms of layout, size and flow
Impact on Productivity	(1st) Designing a new facility would optimize the chance of improving employee productivity	(1st) Same as Option 1	(3rd) Renovating an existing building would require compromises that might negatively impact flow and employee productivity
Sustainability	(1st) Designing a new facility would permit the use of sustainable design solutions. The existing buildings would likely be torn down (or moved) by the new owner(s) to maximize the development potential of the site.	(1st) Same as Option 1. The existing buildings would likely be torn down (or moved) to make way for the new Civic Centre.	(3rd) Renovating an existing building would make it more difficult and costly to implement sustainable design solutions. The existing buildings would likely be torn down (or moved).
Overall Ranking	2nd	1st	3rd

5.3 The Preferred Option

Based on the analysis displayed in table 5.1, above, the preferred option is option 2.

The preferred option is defined as the following:

- The Fire Department would be relocated to a new facility that is currently in the planning stages;
- The existing Fire Hall would be upgraded to comply with the building safety code requirements;
- The Public Works Department would be relocated to a new Public Works facility and yard that would be built on a new 20-acre site within the Village. The facilities would be designed for a 25-year time horizon (2043). The total size of the main building (office, employee amenities, shops, storage, fleet maintenance garage) would be approximately 16,345 sq.ft.. A separate cool storage building for some of the work vehicles would be approximately 12,505 sq.ft. in size. These buildings would be pre-engineered with metal cladding to reduce costs. There would also be separate sand and salt storage structures (metal frame and fabric);
- A new facility (i.e. Civic Centre) would be built on the site currently occupied by the Fire Hall, Council Chambers and Administration Office (once they are demolished or moved). The Civic Centre would contain the administration offices, Council Chambers and Village Museum and Archives. The Civic Centre would be designed for a 25-year time horizon (2043) and would need to be approximately 23,254 sq.ft in size. Consideration should be given to including residential and/or commercial space in the new design for ongoing revenue generation for the Village;
- The Cultural Centre would be maintained where it is;
- The Recreation Centre would be upgraded and expanded (planning for this has already begun).

6.0 Phasing Strategy and Cost Estimates

6.1 Cost Estimates

The order of magnitude construction cost estimates (in current dollars) to implement the preferred option (from section 5.3) are shown in the following table (6.1). Moving and temporary office lease costs are not included. The costs have been divided into seven phases as explained in section 6.2 (Phasing Strategy).

Table 6.1 – Construction Cost Estimates

Phase	Facility	Size of Facility (sq.ft.)	Cost of Land (\$)	Capital Cost (\$)	Contingency (25%) (\$)	Total Cost (\$)
1	New Public Works Yard (land) and Trailer for Sewer Lagoon		500,000 (20 acres)	50,000 (trailer)	0	550,000
2	New Fire Hall	13,640	412,500	4,000,000	0	4,412,500
3	Renovate: - Fire Hall - Council Chambers - Admin. Office	6,500 1,700 3,700	0 0 0	500,000 102,000 277,500	125,000 25,500 69,375	625,000 127,500 346,875
4	New Public Works Yard (facilities)	28,850 (for two new buildings) plus 3,600 (for sand & salt storage structures)	(see above)	11,307,997	2,826,999	14,134,997
5	New Civic Centre: - Museum/Archives - Council Chamber - Admin. Office	23,254	300,000	10,323,688	2,580,922	13,204,610
7	Recreation Centre	15,200 (existing) 2,200 (new)	0	8,695,879	2,173,970	10,869,849
	TOTAL		1,212,500	35,257,064	7,801,766	44,271,330

Note: the cost estimate for the upgrades and expansion of the Recreation Centre is taken from the RDH Building Sciences Report.
Note: the estimated cost to repair the existing Fire Hall to comply with the building safety codes was provided by the Fire Chief

Therefore, the total estimated cost (in current dollars) is **\$44,271,330**

6.2 Phasing Strategy

The implementation of the preferred option will need to be completed in phases as capital funding is approved by Council over the coming years. The recommended phasing of the individual capital projects is described below and shown on the following page in table 6.2.

Phase 1 requires the purchase of a 20-acre lot for the eventual construction of a new Public Works yard. It also involves the purchase (or lease) of an industrial trailer for two offices, a washroom, and a lab beside the sewer lagoon. Purchase of the 20-acre site is a very high priority because of the importance of finding a greenfield site that satisfies the future needs of the Public Works yard (before it is developed by others).

Phase 2 requires the design and construction of a new Fire Hall on a 2.5-acre parcel of land already owned by the Village. This project is already in the planning stage as it is a very high priority because of the potentially unsafe condition of the existing Fire Hall.

Phase 3 requires the upgrade of the existing Fire Hall so that it can be converted into a Council Chambers. This will permit the existing Council Chambers and Administration Office to be renovated to meet the short-term needs of the Administration staff (until a permanent facility can be built). This is also a high priority because the Administration staff are already short of space, and are expecting to need significantly more space, in the coming years, to meet the growing demand for services by the community.

Phase 4 requires the construction of a new Public Works yard that would be built on a new 20-acre site within the Village. Currently, the Public Works Department occupies space that is inadequate for their needs. The new facility would be designed for a 25-year time horizon (2043). The total size of the main building (office, employee amenities, shops, storage, fleet maintenance garage) would be approximately 16,345 sq.. A separate cool storage building for some of the work vehicles would be approximately 12,505 sq.ft. in size. These buildings would be pre-engineered with metal cladding to reduce costs. There would also be separate sand and salt storage structures (metal frame and fabric). The relatively high capital cost of the Public Works yard would likely require it to be constructed in two phases over several years.

Phase 5 requires the construction of a new Civic Centre to replace the existing Council Chambers, Administration Office, and Museum and Archives facilities. The Civic Centre would be built on the site currently occupied by the Fire Hall, Council Chambers and Administration Office. The Civic Centre would be designed for a 25-year time horizon (2043) and would be approximately 23,254 sq.ft in size. If possible, the existing Council Chambers facility should be saved and moved to a new site because of the historical significance of the building to the Village. Consideration should be given to incorporating residential and/or commercial space within the new Civic Centre as a means of generating an on-going stream of revenue for the Village.

Phase 6 would require the leasing out of the existing Museum and Archives building to a tenant for on-going revenue to the Village.

Phase 7 would require the upgrade and expansion of the Recreation Centre. This project is a priority but reliant on receiving a financial grant to fund the full capital cost. Therefore, the timing of the project is unknown and difficult to predict.

The Cultural Centre would be maintained where it is.

Table 6.2 – Phasing Strategy

Activity		2018 to 2033															
		18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
Phase 1	Purchase Land for new Public Works Yard	█															
	Lease/Purchase Trailer for Utility Operators at Lagoon	█															
Phase 2	Build new Fire Hall		█														
	Move Fire Department into new Fire Hall			█													
Phase 3	Upgrade existing Fire Hall & convert to new Council Chambers				█												
	Move existing Council Chambers into new Council Chambers				█												
	Convert existing Council Chambers into Administration Offices				█												
	Temporarily relocate Administration staff to leased facility				█												
	Renovate existing Administration Offices				█												
	Move staff into new converted/renovated Administration Offices				█												
Phase 4	Build new Public Works Yard (in two phases)						█						█				
	Move Public Works Department into new Public Works Yard						█										
Phase 5	Temporarily relocate Administration staff to leased facility															█	
	Build new Civic Centre on existing site															█	
	Move staff, Council & Museum & Archives into new Civic Centre															█	
Phase 6	Lease out existing Museum and Archives building															█	
Phase 7	Upgrade/Expand Recreation Centre																█





APPENDIX A – Space Programs

No.	Functional Area		Number of Employees 2017	Current Area 2017 (sq.ft.)	Number of Employees 2023	Proposed Area in 2023 (sq.ft.)	Circulation Ratio	Total Proposed Area (sq.ft.)	Total Proposed Area (sq.m)	Comments	
	Meeting Room 1	Private		0		240	1.3	312	29	For 12 employees	
	Meeting Room 2	Private		0		150	1.3	195	18	For 8 employees	
	Hotel Office (2)	Private		0		240	1.3	312	29	for 2 people	
	Supply Room	Private		0		99	1.3	129	12		
	File Storage (Vault)	Private		152		457	1.3	594	55	Currently storing in Rec Centre	
	Printer Room	Private		168		64	1.3	83	8		
	Lunch Room/kitchen	Private		216		324	1.3	421	39	For 12 people	
	Male/Female washrooms (2)	Private		77		140	1.3	182	17	Wheel Chair accessible	
	Communications Room	Private		97.5		64	1.2	77	7		
	Electrical Room	Private		?		64	1.2	77	7		
	Mechanical Room	Private		?		80	1.2	96	9		
	Janitors Room	Private		29		60	1.2	72	7		
	Total			2,547		4,411		5,713	531		
	2.0 Outdoor Parking										
	Employee/Visitor Parking			0		319	1.2	383	36	12 employee, 5 for visitors	
	Bicycle Parking										

Council Chamber

No.	Functional Area		Number of Employees 2017	Current Area 2017 (sq.ft.)	Number of Employees 2023	Proposed Area in 2023 (sq.ft.)	Circulation Ratio	Total Proposed Area (sq.ft.)	Total Proposed Area (sq.m)	Comments
	1.0 Offices									
	Front Reception Area	Open		0		225	1.2	270	25	
	Public Washrooms (2) at Reception	Private		0		140	1.3	182	17	Two wheel chair accessible
	Council Chamber	Open		1355		1,355	1.1	1,491	138	For an audience of 30
	Kitchen	Private		225		165	1.3	215	20	For light meals
	Council Washrooms (2)	Private		120		140	1.3	182	17	For Council and staff
	Meeting Room	Private		0		240	1.3	312	29	For 12 people
	Supply Room	Private		0		40	1.2	48	4	
	Storage Room	Private		0		64	1.2	77	7	
	Communications Room	Private		0		25	1.2	30	3	
	Electrical Room	Private		0		25	1.2	30	3	
	Mechanical Room	Private		0		64	1.2	77	7	
	Janitors Room	Private		0		35	1.2	42	4	
	Total			1,700		2,518		2,955	274	
	2.0 Outdoor Parking									
	Employee/Visitor Parking			0		463	1.2	555	52	6 Council, 20 visitors
	Bicycle Parking									

Cultural Centre

No.	Functional Area		Number of Employees 2017	Current Area 2017 (sq.ft.)	Number of Employees 2023	Proposed Area in 2023 (sq.ft.)	Circulation Ratio	Total Proposed Area (sq.ft.)	Total Proposed Area (sq.m)	Comments
	1.0 Cultural Centre									
	Top Floor Open Hall	Open		3120		3,120	1.1	3,432	319	Used for Yoga
	Kitchen	Private		375		375	1.2	450	42	
	Storage	Private		600		600	1.2	720	67	
	Male/Female Washrooms (2)	Private		360		360	1.3	468	43	
	Reception Area	Private		600		600	1.2	720	67	
	Stairs	Open		645		645	1.1	710	66	
	First Floor Open Hall	Open		3120		3,120	1.1	3,432	319	Used by Seniors - perfect size
	Kitchen	Private		375		375	1.2	450	42	
	Storage	Private		500		500	1.2	600	56	
	Male/Female Washrooms (2)	Private		360		360	1.3	468	43	
	Reception Area	Private		300		300	1.2	360	33	
	Stairs	Open		645		645	1.1	710	66	
				11000		11,000		12,519	1,163	
	2.0 Outdoor Parking									
	Employee/Visitor Parking			0		447	1.2	536	50	25 visitors
	Bicycle Parking									

Museum and Archives

No.	Functional Area		Number of Employees 2017	Current Area 2017 (sq.ft.)	Number of Employees 2023	Proposed Area in 2023 (sq.ft.)	Circulation Ratio	Total Proposed Area (sq.ft.)	Total Proposed Area (sq.m)	Comments
	1.0 Offices									
	Front Reception Area	Open		230		225	1.2	270	25	
	Public Washroom at Front Reception	Private		60		70	1.3	91	8	wheel chair accessible
	Directors Office	Private	0.8	75	1	150	1.3	195	18	
	Archivist Office	Open	0.2	0	0.5	64	1.4	90	8	
	Engagement Coordinator Office	Open	0.8	75	1	64	1.4	90	8	
	Administrative office	Open		0	1.7	128	1.3	166	15	
	Collections Manager	Open		0		64	1.3	83	8	
	Supply Room	Private		42		64	1.3	83	8	
	File Storage	Private		0		64	1.3	83	8	
	Printer Room	Private		0		64	1.3	83	8	
	Lunch Room/kitchen	Private		10		360	1.3	468	43	Also for after school Program
	Male/Female washrooms (1)	Private		0		70	1.3	91	8	
	Collections Storage Room	Private		100		400	1.2	480	45	Temperature Controlled
	Archives Storage Room	Private		100		400	1.2	480	45	Temperature Controlled
	Programing/Event/Meeting/Film Room	Private		600		1,500	1.3	1,950	181	For 100 people
	Exhibit Space	Private		4000		6,000	1.1	6,600	613	
	Gift Shop	Private		85		175	1.3	228	21	
	Curatorial Workspace	Private		0		120	1.3	156	14	Exhibit Design/Conservation Work
	Elevator	Private		300		300	1.3	390	36	
	Stairs	Private		100		100	1.2	120	11	
	Communications Room	Private		97.5		36	1.2	43	4	
	Electrical Room	Private		0		64	1.2	77	7	
	Mechanical Room	Private		90		90	1.2	108	10	
	Janitors Room	Private		35		60	1.2	72	7	
	Total			6,000		10,632		12,497	1,161	

Recreation Centre

No.	Functional Area		Number of Employees 2017	Current Area 2017 (sq.ft.)	Number of Employees 2023	Proposed Area in 2023 (sq.ft.)	Circulation Ratio	Total Proposed Area (sq.ft.)	Total Proposed Area (sq.m)	Comments
	1.0 Offices									
	Front Reception Area and Desk	Open		0		225	1.2	270	25	
	Public Washrooms (2) at Reception	Private		0		140	1.3	182	17	wheel chair accessible
	Manager of Rec & Parks Office	Private	1		1	150	1.3	195	18	
	Outdoor Recreation Coordinator	Open	1		1	64	1.4	90	8	
	Parks Supervisor	Open	0	0	0	-	1.4	-	-	Not hired yet
	Recreation Coordinator	Open	1		1	64	1.4	90	8	
	Recreation Programmer	Open	0	0	0	-	1.4	-	-	Not hired yet
	Special Events Coordinator	Open	0	0	0	-	1.4	-	-	Not hired yet
	Recreation Workers	Open	1.6		2	128	1.4	179	17	
	Fitness Studio Attendant	Open	0	0	0.5	64	1.4	90	8	Not hired yet
	Janitor Supervisor	Open	0	0	0	-	1.4	-	-	Not hired yet
	Supply Room	Private		0		99	1.3	129	12	
	File Storage	Private		0		99	1.3	129	12	
	Printer Room	Private		0		64	1.3	83	8	
	Lunch Room	Private		0		264	1.3	343	32	For 10 employees
	Male/Female washrooms (2)	Private		0		140	1.3	182	17	
	Elevator	Private		0		150	1.3	195	18	
	Stairs	Private		100		100	1.2	120	11	
	Communications Room	Private		0		64	1.2	77	7	
	Electrical Room	Private		0		64	1.2	77	7	
	Mechanical Room	Private		72		100	1.2	120	11	
	Janitors Room	Private		15		80	1.2	96	9	
	Total			187		2,059		2,645	246	

No.	Functional Area		Number of Employees 2017	Current Area 2017 (sq.ft.)	Number of Employees 2023	Proposed Area in 2023 (sq.ft.)	Circulation Ratio	Total Proposed Area (sq.ft.)	Total Proposed Area (sq.m)	Comments
	2.0 Athletic Facilities									
	Fitness Studio	Private		0		1,000	1.3	1,300	121	
	Multipurpose Meeting Room	Private		0		320	1.3	416	39	For 18 people
	Weight Room	Private								
	Kitchen	Private								Fine as is
	Squash Courts	Private								
	Storage	Private								
	Male/Female Change Rooms (2)	Private								Need to be larger
				0						
	3.0 Outdoor Parking									
	Employee/Visitor Parking			0		686	1.2	823	76	15 employees, 25 for visitors
	Bicycle Parking									

Public Works

No.	Functional Area	Office Type PO-Private OO- Open	Number of Employees 2017	Current Area 2017 (sq.ft.)	Number of Employees 2023	Required Area in 2023 (sq.ft.)	Circulation Ratio	Total Required Area (sq.ft.)	Total Required Area (sq.m)	Comments
	1.0 Offices									
	Reception Area	Open		0		120	1.2	144	13	For 2 sales reps to wait
	Public Works Manager	Private	0	132	0	-	1.3	-	-	Not hired yet
	Foreman's Office	Private	1	168	1	120	1.3	156	14	
	Lead Hand's Office/Scada System	Open	1	168	1	128	1.3	166	15	
	W/WW Utility Person's Office	Open	0	0	2	128	1.3	166	15	Not hired yet
	Map Room	Open		48		120	1.3	156	14	
	Crew Meeting Room / Board Room	Private		0		260	1.3	338	31	For 14 people
	Hotel Office (1)	Private		0		120	1.3	156	14	
	File Storage	Private		0		180	1.3	234	22	
	Printer Room	Private		0		64	1.3	83	8	
	Male/Female washrooms (2)	Private		100		140	1.3	182	17	Should be accessible
	Communications Room	Private		32		64	1.2	77	7	
	Electrical Room	Private		?		64	1.2	77	7	
	Mechanical Room	Private		?		80	1.2	96	9	
	Janitors Room	Private		15		60	1.2	72	7	(for Office only)
	Total			663		1,648		2,104	195	
	2.0 Employee Amenities									
	Lunch Room	Private		279		364	1.3	473	44	For 10 crew & 4 staff
	Mens Change Room/Washroom	Private		60		376	1.3	489	45	2 lockers per employee, 10 men
	Women's Change Room/Washrm	Private		36		216	1.3	281	26	2 lockers per employee, 2 female
	Washer/Dryer Room	Private		0		96	1.3	125	12	
	Drying Room	Private		0		96	1.3	125	12	
	Total			375		1,148		1,492	139	

No.	Functional Area	Office Type PO-Private OO- Open	Number of Employees 2017	Current Area 2017 (sq.ft.)	Number of Employees 2023	Required Area in 2023 (sq.ft.)	Circulation Ratio	Total Required Area (sq.ft.)	Total Required Area (sq.m)	Comments
	3.0 Fleet Maintenance									
	Bays - Maintenance Bays	Open		1152		5,597	1.1	6,157	572	Require 5 bays
	Storage - Maintenance Parts Room	Private		10		400	1.3	520	48	
	Office - Mechanics Office	Private	1	48.75	1	64	1.3	83	8	
	Total			1210.75		6,061		6,760	628	
	4.0 Water/Waste Water									
	Storage - Parts Storage Room	Private		1,350		1,119	1.3	1,455	135	Require 1 bay
	Shop - Clean Water Meter Testing	Private		0		180	1.3	234	22	
	Shop - Hydrant Testing	Private		0		240	1.3	312	29	Needs Roll-up door to exit
	Lab - Utilities	Private		0		120	1.3	156	14	
	Total			1,350		1,659		2,157	200	
	5.0 Roads									
	Shop - Carpentry	Open		408		560	1.3	728	68	Require 1/2 bay
	Storage - Miscellaneous Storage	Private		300		560	1.3	728	68	Require 1/2 bay
	Storage - Traffic Storage	Private		100		300	1.3	390	36	
	Total			808		1,419		1,845	171	
	6.0 Parks									
	Storage - materials & tools	Private		0		560	1.1	616	57	
	Total			0		560		616	57	
	7.0 Indoor Vehicle Storage									
	Storage - Vehicle Storage	Open		1320		7,579	1.1	8,336	774	8 heavy and 10 small vehicles
	Total			1320		7,579		8,336	774	

No.	Functional Area	Office Type PO-Private OO- Open	Number of Employees 2017	Current Area 2017 (sq.ft.)	Number of Employees 2023	Required Area in 2023 (sq.ft.)	Circulation Ratio	Total Required Area (sq.ft.)	Total Required Area (sq.m)	Comments
	8.0 Indoor Sand/Salt Storage									
	Indoor Sand Storage			120		1,200	1	1,200	111	Fabric and metal frame
	Indoor Salt/Brine Storage			0		600	1	600	56	
	Total			120		1,800		1,800	167	
	9.0 Outdoor Storage									
	Outdoor Wash Bay			0		1,000	1.3	1,300	121	
	Dump Area			0		1,000	1.3	1,300	121	
	Aggregate Storage			0		1,000	1.3	1,300	121	
	Storage Bunkers (6)			500		1,350	1.3	1,755	163	concrete block 3m high
	Pipe Rack			50		100	1.3	130	12	
	Sump for Street Sweeper			0		1,200	1.3	1,560	145	
	Total			550		5,650		7,345	682	
	10.0 Outdoor Parking									
	Employee/Visitor Parking			0		335	1.2	402	37	14 employee stalls, 4 visitors
	Work Vehicle Parking			?		3,612	1.2	4,334	403	12 work vehicles
	Fueling Station			100		200	1.3	260	24	gas and diesel storage
	Total			100		4,147		4,996	464	

2028

Administration Office

No.	Functional Area		Number of Employees 2017	Current Area 2017 (sq.ft.)	Number of Employees 2028	Proposed Area in 2028 (sq.ft.)	Circulation Ratio	Total Proposed Area (sq.ft.)	Total Proposed Area (sq.m)	Comments
	1.0 Offices									
	Front Reception Area	Open		195		195	1.2	234	22	
	Public Washroom at Front Reception	Private		0		70	1.3	91	8	Accessible
	Mayor & Councilor's Office	Private	1	144	1	204	1.3	265	25	
	CAO Office	Private	1	140	1	204	1.3	265	25	
	Manager of Operation's Office	Private	1	132	1	150	1.3	195	18	
	Building Inspector Office	Private	0.5	220	1	120	1.3	156	14	
	Engineering Tech Office	Private	0	0	1	120	1.3	156	14	Not hired yet
	Planning/Engineering/PW Clerk Office	Open	0	0	1	64	1.4	90	8	Not hired yet
	Development Services Mgr Office	Private	0	0	1	150	1.3	195	18	Not hired yet
	Senior Planner Office	Private	1	220	1	120	1.3	156	14	
	Planner Office	Private	1	220	1	120	1.3	156	14	
	Economic Development Coord. Office	Private	0	0	2	240	1.3	312	29	Not hired yet
	Financial Officer Office	Private	1	120	1	150	1.3	195	18	
	Deputy Financial Officer Office	Private	1	120	1	150	1.3	195	18	
	Senior Accountant	Open	0	0	0	0	1.4	-	-	Not hired yet
	Seasonal Accounting Student Office	Open	0	0	0.34	64	1.4	90	8	Not hired yet
	Administration Clerk	Open	1	36	1	64	1.4	90	8	
	Accounting Clerk	Open	1	36	2	128	1.4	179	17	
	By-Law Enforcement Officer Office	Private	0.6	112	1	120	1.3	156	14	
	Deputy Corporate Officer Office	Private	1	112	1	150	1.3	195	18	
	Corporate Officer Office	Private	0	0	1	150	1.3	195	18	Not hired yet
	Corporate Services Assisstant	Open	0	0	1	64	1.4	90	8	Not hired yet
	Human Resources Manager	Private	0	0	1	120	1.3	156	14	Not hired yet
	Communications Assisstant	Open	0	0	1	64	1.4	90	8	Not hired yet
	Committee Coordinator	Open	0	0	1	64	1.4	90	8	Not hired yet

No.	Functional Area		Number of Employees 2017	Current Area 2017 (sq.ft.)	Number of Employees 2028	Proposed Area in 2028 (sq.ft.)	Circulation Ratio	Total Proposed Area (sq.ft.)	Total Proposed Area (sq.m)	Comments	
	Meeting Room 1	Private		0		240	1.3	312	29	For 12 employees	
	Meeting Room 2	Private		0		150	1.3	195	18	For 8 employees	
	Hotel Office (2)	Private		0		240	1.3	312	29	for 2 people	
	Supply Room	Private		0		99	1.3	129	12		
	File Storage (Vault)	Private		152		457	1.3	594	55	Currently storing in Rec Centre	
	Printer Room	Private		168		64	1.3	83	8		
	Lunch Room/kitchen	Private		216		564	1.3	733	68	For 23 people	
	Male/Female washrooms (2)	Private		77		140	1.3	182	17	Wheel Chair accessible	
	Communications Room	Private		97.5		64	1.2	77	7		
	Electrical Room	Private		?		64	1.2	77	7		
	Mechanical Room	Private		?		80	1.2	96	9		
	Janitors Room	Private		29		60	1.2	72	7		
	Total			2,547		5,203		6,762	628		
	2.0 Outdoor Parking										
	Employee/Visitor Parking			0		494	1.2	593	55	23 employee, 5 for visitors	
	Bicycle Parking										

Council Chamber

No.	Functional Area		Number of Employees 2017	Current Area 2017 (sq.ft.)	Number of Employees 2028	Proposed Area in 2028 (sq.ft.)	Circulation Ratio	Total Proposed Area (sq.ft.)	Total Proposed Area (sq.m)	Comments
	1.0 Offices									
	Front Reception Area	Open		0		225	1.2	270	25	
	Public Washrooms (2) at Reception	Private		0		140	1.3	182	17	Two wheel chair accessible
	Council Chamber	Open		1355		1,355	1.1	1,491	138	For an audience of 30
	Kitchen	Private		225		165	1.3	215	20	For light meals
	Council Washrooms (2)	Private		120		140	1.3	182	17	For Council and staff
	Meeting Room	Private		0		240	1.3	312	29	For 12 people
	Supply Room	Private		0		40	1.2	48	4	
	Storage Room	Private		0		64	1.2	77	7	
	Communications Room	Private		0		25	1.2	30	3	
	Electrical Room	Private		0		25	1.2	30	3	
	Mechanical Room	Private		0		64	1.2	77	7	
	Janitors Room	Private		0		35	1.2	42	4	
	Total			1,700		2,518		2,955	274	
	2.0 Outdoor Parking									
	Employee/Visitor Parking			0		494	1.2	593	55	8 Council, 20 visitors
	Bicycle Parking									

Cultural Centre

No.	Functional Area		Number of Employees 2017	Current Area 2017 (sq.ft.)	Number of Employees 2028	Proposed Area in 2028 (sq.ft.)	Circulation Ratio	Total Proposed Area (sq.ft.)	Total Proposed Area (sq.m)	Comments
	1.0 Cultural Centre									
	Top Floor Open Hall	Open		3120		3,120	1.1	3,432	319	Used for Yoga
	Kitchen	Private		375		375	1.2	450	42	
	Storage	Private		600		600	1.2	720	67	
	Male/Female Washrooms (2)	Private		360		360	1.3	468	43	
	Reception Area	Private		600		600	1.2	720	67	
	Stairs	Open		645		645	1.1	710	66	
	First Floor Open Hall	Open		3120		3,120	1.1	3,432	319	Used by Seniors - perfect size
	Kitchen	Private		375		375	1.2	450	42	
	Storage	Private		500		500	1.2	600	56	
	Male/Female Washrooms (2)	Private		360		360	1.3	468	43	
	Reception Area	Private		300		300	1.2	360	33	
	Stairs	Open		645		645	1.1	710	66	
				11000		11,000		12,519	1,163	
	2.0 Outdoor Parking									
	Employee/Visitor Parking			0		447	1.2	536	50	25 visitors
	Bicycle Parking									

Museum and Archives

No.	Functional Area		Number of Employees 2017	Current Area 2017 (sq.ft.)	Number of Employees 2028	Proposed Area in 2028 (sq.ft.)	Circulation Ratio	Total Proposed Area (sq.ft.)	Total Proposed Area (sq.m)	Comments
	1.0 Offices									
	Front Reception Area	Open		230		225	1.2	270	25	
	Public Washroom at Front Reception	Private		60		70	1.3	91	8	wheel chair accessible
	Directors Office	Private	0.8	75	1	150	1.3	195	18	
	Archivist Office	Open	0.2	0	1	64	1.4	90	8	
	Engagement Coordinator Office	Open	0.8	75	3	192	1.4	269	25	
	Administrative office	Open	0	0	3	192	1.4	269	25	
	Collections Manager	Open	0	0	0	-	1.4	-	-	
	Supply Room	Private		42		64	1.3	83	8	
	File Storage	Private		0		64	1.3	83	8	
	Printer Room	Private		0		64	1.3	83	8	
	Lunch Room/kitchen	Private		10		360	1.3	468	43	Also for after school Program
	Male/Female washrooms (1)	Private		0		70	1.3	91	8	
	Collections Storage Room	Private		100		400	1.2	480	45	Temperature Controlled
	Archives Storage Room	Private		100		400	1.2	480	45	Temperature Controlled
	Programing/Event/Meeting/Film Room	Private		600		1,500	1.3	1,950	181	For 100 people
	Exhibit Space	Private		4000		6,000	1.1	6,600	613	
	Gift Shop	Private		85		175	1.3	228	21	
	Curatorial Workspace	Private		0		120	1.3	156	14	Exhibit Design/Conservation Work
	Elevator	Private		300		300	1.3	390	36	
	Stairs	Private		100		100	1.2	120	11	
	Communications Room	Private		97.5		36	1.2	43	4	
	Electrical Room	Private		0		64	1.2	77	7	
	Mechanical Room	Private		90		90	1.2	108	10	
	Janitors Room	Private		35		60	1.2	72	7	
	Total			6,000		10,760		12,695	1,179	

Recreation Centre

No.	Functional Area		Number of Employees 2017	Current Area 2017 (sq.ft.)	Number of Employees 2028	Proposed Area in 2028 (sq.ft.)	Circulation Ratio	Total Proposed Area (sq.ft.)	Total Proposed Area (sq.m)	Comments
	1.0 Offices									
	Front Reception Area and Desk	Open		0		225	1.2	270	25	
	Public Washrooms (2) at Reception	Private		0		140	1.3	182	17	wheel chair accessible
	Manager of Rec & Parks Office	Private	1		1	150	1.3	195	18	
	Outdoor Recreation Coordinator	Open	1		1	64	1.4	90	8	
	Recreation Coordinator	Open	1		1	64	1.4	90	8	
	Recreation Programmer	Open	0	0	1	64	1.4	90	8	Not hired yet
	Special Events Coordinator	Open	0	0	1	64	1.4	90	8	Not hired yet
	Recreation Workers	Open	1.6		2.6	192	1.4	269	25	
	Fitness Studio Attendant	Open	0	0	1	64	1.4	90	8	Not hired yet
	Janitor Supervisor	Open	0	0	0	-	1.4	-	-	Not hired yet
	Supply Room	Private		0		99	1.3	129	12	
	File Storage	Private		0		99	1.3	129	12	
	Printer Room	Private		0		64	1.3	83	8	
	Lunch Room	Private		0		324	1.3	421	39	For 12 employees
	Male/Female washrooms (2)	Private		0		140	1.3	182	17	
	Elevator	Private		0		150	1.3	195	18	
	Stairs	Private		100		100	1.2	120	11	
	Communications Room	Private		0		64	1.2	77	7	
	Electrical Room	Private		0		64	1.2	77	7	
	Mechanical Room	Private		72		100	1.2	120	11	
	Janitors Room	Private		15		80	1.2	96	9	
	Total			187		2,311		2,992	278	

No.	Functional Area		Number of Employees 2017	Current Area 2017 (sq.ft.)	Number of Employees 2028	Proposed Area in 2028 (sq.ft.)	Circulation Ratio	Total Proposed Area (sq.ft.)	Total Proposed Area (sq.m)	Comments
	2.0 Athletic Facilities									
	Fitness Studio	Private		0		1,000	1.3	1,300	121	
	Multipurpose Meeting Room	Private		0		320	1.3	416	39	For 18 people
	Weight Room	Private								
	Kitchen	Private								Fine as is
	Squash Courts	Private								
	Storage	Private								
	Male/Female Change Rooms (2)	Private								Need to be larger
				0		1,320				
	3.0 Outdoor Parking									
	Employee/Visitor Parking			0		686	1.2	823	76	15 employees, 25 for visitors
	Bicycle Parking									

Public Works

No.	Functional Area	Office Type PO-Private OO- Open	Number of Employees 2017	Current Area 2017 (sq.ft.)	Number of Employees 2028	Required Area in 2028 (sq.ft.)	Circulation Ratio	Total Required Area (sq.ft.)	Total Required Area (sq.m)	Comments
	1.0 Offices									
	Reception Area	Open		0		120	1.2	144	13	For 2 sales reps to wait
	Public Works Manager	Private	0	132	1	150	1.3	195	18	Not hired yet
	Foreman's Office	Private	1	168	1	120	1.3	156	14	
	Lead Hand's Office/Scada System	Open	1	168	1	128	1.3	166	15	
	W/WW Utility Person's Office	Open	0	0	2	128	1.3	166	15	Not hired yet
	Parks Supervisor Office	Private	0	0	1	120	1.3	156	14	
	Map Room	Open		48		120	1.3	156	14	
	Crew Meeting Room / Board Room	Private		0		260	1.3	338	31	For 14 people
	Hotel office (1)	Private		0		120	1.3	156	14	for one person
	File Storage	Private		0		180	1.3	234	22	
	Printer Room	Private		0		64	1.3	83	8	
	Male/Female washrooms (2)	Private		100		140	1.3	182	17	Should be accessible
	Communications Room	Private		32		64	1.2	77	7	
	Electrical Room	Private		?		64	1.2	77	7	
	Mechanical Room	Private		?		80	1.2	96	9	
	Janitors Room	Private		15		60	1.2	72	7	(for Office only)
	Total			663		1,918		2,455	228	
	2.0 Employee Amenities									
	Lunch Room	Private		279		404	1.3	525	49	For 13 crew & 5 staff
	Mens Change Room/Washroom	Private		60		472	1.3	614	57	2 lockers per employee, 16 men
	Women's Change Room/Washrm	Private		36		280	1.3	364	34	2 lockers per employee, 6 female
	Washer/Dryer Room	Private		0		96	1.3	125	12	
	Drying Room	Private		0		96	1.3	125	12	
	Total			375		1,348		1,752	163	

No.	Functional Area	Office Type PO-Private OO- Open	Number of Employees 2017	Current Area 2017 (sq.ft.)	Number of Employees 2028	Required Area in 2028 (sq.ft.)	Circulation Ratio	Total Required Area (sq.ft.)	Total Required Area (sq.m)	Comments
	3.0 Fleet Maintenance									
	Bays - Maintenance Bays	Open		1152		5,597	1.1	6,157	572	Require 5 bays
	Storage - Maintenance Parts Room	Private		10		400	1.3	520	48	
	Office - Mechanics Office	Private	1	48.75	1	64	1.3	83	8	
	Total			1210.75		6,061		6,760	628	
	4.0 Water/Waste Water									
	Storage - Parts Storage Room	Private		1,350		1,119	1.3	1,455	135	Require 1 bay
	Shop - Clean Water Meter Testing	Private		0		180	1.3	234	22	
	Shop - Hydrant Testing	Private		0		240	1.3	312	29	Needs Roll-up door to exit
	Lab - Utilities	Private		0		120	1.3	156	14	
	Total			1,350		1,659		2,157	200	
	5.0 Roads									
	Shop - Carpentry	Open		408		560	1.3	728	68	Require 1/2 bay
	Storage - Miscellaneous Storage	Private		300		560	1.3	728	68	Require 1/2 bay
	Storage - Traffic Storage	Private		100		300	1.3	390	36	
	Total			808		1,419		1,845	171	
	6.0 Parks									
	Storage - Materials & Tools	Private		0		560	1.1	616	57	
	Total			0		560		616	57	
	7.0 Indoor Vehicle Storage									
	Storage - Vehicle Storage	Open		1320		7,579	1.1	8,336	774	8 heavy and 10 small vehicles
	Total			1320		7,579		8,336	774	

No.	Functional Area	Office Type PO-Private OO- Open	Number of Employees 2017	Current Area 2017 (sq.ft.)	Number of Employees 2028	Required Area in 2028 (sq.ft.)	Circulation Ratio	Total Required Area (sq.ft.)	Total Required Area (sq.m)	Comments
	8.0 Indoor Sand/Salt Storage									
	Indoor Sand Storage			120		3,000	1	3,000	279	Fabric and metal frame
	Indoor Salt/Brine Storage			0		600	1	600	56	
	Total			120		3,600		3,600	334	
	9.0 Outdoor Storage									
	Outdoor Wash Bay			0		1,000	1.3	1,300	121	
	Dump Area			0		1,000	1.3	1,300	121	
	Aggregate Storage			0		1,000	1.3	1,300	121	
	Storage Bunkers (6)			500		1,350	1.3	1,755	163	concrete block 3m high
	Pipe Rack			50		100	1.3	130	12	
	Sump for Street Sweeper			0		1,200	1.3	1,560	145	
	Total			550		5,650		7,345	682	
	10.0 Outdoor Parking									
	Employee/Visitor Parking			0		335	1.2	402	37	14 employee stalls, 4 visitors
	Work Vehicle Parking			?		3,612	1.2	4,334	403	12 work vehicles
	Fueling Station			100		200	1.3	260	24	gas and diesel storage
	Total			100		4,147		4,996	464	

2043

Administration Office

No.	Functional Area		Number of Employees 2017	Current Area 2017 (sq.ft.)	Number of Employees 2043	Proposed Area in 2043 (sq.ft.)	Circulation Ratio	Total Proposed Area (sq.ft.)	Total Proposed Area (sq.m)	Comments
	1.0 Offices									
	Front Reception Area	Open		195		195	1.2	234	22	
	Public Washroom at Front Reception	Private		0		70	1.3	91	8	Accessible
	Mayor & Councilor's Office	Private	1	144	1	204	1.3	265	25	
	CAO Office	Private	1	140	1	204	1.3	265	25	
	Manager of Operation's Office	Private	1	132	1	150	1.3	195	18	
	Building Inspector Office	Private	0.5	220	1.5	240	1.3	312	29	
	Engineering Tech Office	Private	0	0	1	120	1.3	156	14	Not hired yet
	Planning/Engineering/PW Clerk Office	Open	0	0	1	64	1.4	90	8	Not hired yet
	Development Services Mgr Office	Private	0	0	1	150	1.3	195	18	Not hired yet
	Senior Planner Office	Private	1	220	1	120	1.3	156	14	
	Planner Office	Private	1	220	1	120	1.3	156	14	
	Economic Development Coord. Office	Private	0	0	2	240	1.3	312	29	Not hired yet
	Financial Officer Office	Private	1	120	1	150	1.3	195	18	
	Deputy Financial Officer Office	Private	1	120	1	150	1.3	195	18	
	Senior Accountant	Open	0	0	1	64	1.4	90	8	Not hired yet
	Seasonal Accounting Student Office	Open	0	0	2	128	1.4	179	17	Not hired yet
	Administration Clerk	Open	1	36	2	128	1.4	179	17	
	Accounting Clerk	Open	1	36	2	128	1.4	179	17	
	By-Law Enforcement Officer Office	Private	0.6	112	1	120	1.3	156	14	
	Deputy Corporate Officer Office	Private	1	112	1	150	1.3	195	18	
	Corporate Officer Office	Private	0	0	1	150	1.3	195	18	Not hired yet
	Corporate Services Assisstant	Open	0	0	1	64	1.4	90	8	Not hired yet
	Human Resources Manager	Private	0	0	1	120	1.3	156	14	Not hired yet
	Communications Assisstant	Open	0	0	1	64	1.4	90	8	Not hired yet
	Committee Coordinator	Open	0	0	1	64	1.4	90	8	Not hired yet

No.	Functional Area		Number of Employees 2017	Current Area 2017 (sq.ft.)	Number of Employees 2043	Proposed Area in 2043 (sq.ft.)	Circulation Ratio	Total Proposed Area (sq.ft.)	Total Proposed Area (sq.m)	Comments	
	Meeting Room 1	Private		0		240	1.3	312	29	For 12 employees	
	Meeting Room 2	Private		0		150	1.3	195	18	For 8 employees	
	Hotel Office (2)	Private		0		240	1.3	312	29	for 2 people	
	Supply Room	Private		0		99	1.3	129	12		
	File Storage (Vault)	Private		152		457	1.3	594	55	Currently storing in Rec Centre	
	Printer Room	Private		168		64	1.3	83	8		
	Lunch Room/kitchen	Private		216		609	1.3	792	74	For 26 people	
	Male/Female washrooms (2)	Private		77		140	1.3	182	17	Wheel Chair accessible	
	Communications Room	Private		97.5		64	1.2	77	7		
	Electrical Room	Private		?		64	1.2	77	7		
	Mechanical Room	Private		?		80	1.2	96	9		
	Janitors Room	Private		29		60	1.2	72	7		
	Total			2,547		5,496		7,156	665		
	2.0 Outdoor Parking										
	Employee/Visitor Parking			0		8,322	1.2	9,986	928	23 employee, 5 for visitors	
	Bicycle Parking										

Council Chamber

No.	Functional Area		Number of Employees 2017	Current Area 2017 (sq.ft.)	Number of Employees 2043	Proposed Area in 2043 (sq.ft.)	Circulation Ratio	Total Proposed Area (sq.ft.)	Total Proposed Area (sq.m)	Comments
	1.0 Offices									
	Front Reception Area	Open		0		225	1.2	270	25	
	Public Washrooms (2) at Reception	Private		0		140	1.3	182	17	Two wheel chair accessible
	Council Chamber	Open		1355		1,355	1.1	1,491	138	For an audience of 30
	Kitchen	Private		225		165	1.3	215	20	For light meals
	Council Washrooms (2)	Private		120		140	1.3	182	17	For Council and staff
	Meeting Room	Private		0		240	1.3	312	29	For 12 people
	Supply Room	Private		0		40	1.2	48	4	
	Storage Room	Private		0		64	1.2	77	7	
	Communications Room	Private		0		25	1.2	30	3	
	Electrical Room	Private		0		25	1.2	30	3	
	Mechanical Room	Private		0		64	1.2	77	7	
	Janitors Room	Private		0		35	1.2	42	4	
	Total			1,700		2,518		2,955	274	
	2.0 Outdoor Parking									
	Employee/Visitor Parking			0		8,322	1.2	9,986	928	8 Council, 20 visitors
	Bicycle Parking									

Cultural Centre

No.	Functional Area		Number of Employees 2017	Current Area 2017 (sq.ft.)	Number of Employees 2043	Proposed Area in 2043 (sq.ft.)	Circulation Ratio	Total Proposed Area (sq.ft.)	Total Proposed Area (sq.m)	Comments
	1.0 Cultural Centre									
	Top Floor Open Hall	Open		3120		3,120	1.1	3,432	319	Used for Yoga
	Kitchen	Private		375		375	1.2	450	42	
	Storage	Private		600		600	1.2	720	67	
	Male/Female Washrooms (2)	Private		360		360	1.3	468	43	
	Reception Area	Private		600		600	1.2	720	67	
	Stairs	Open		645		645	1.1	710	66	
	First Floor Open Hall	Open		3120		3,120	1.1	3,432	319	Used by Seniors - perfect size
	Kitchen	Private		375		375	1.2	450	42	
	Storage	Private		500		500	1.2	600	56	
	Male/Female Washrooms (2)	Private		360		360	1.3	468	43	
	Reception Area	Private		300		300	1.2	360	33	
	Stairs	Open		645		645	1.1	710	66	
				11000		11,000		12,519	1,163	
	2.0 Outdoor Parking									
	Employee/Visitor Parking			0		447	1.2	536	50	25 visitors
	Bicycle Parking									

Museum and Archives

No.	Functional Area		Number of Employees 2017	Current Area 2017 (sq.ft.)	Number of Employees 2043	Proposed Area in 2043 (sq.ft.)	Circulation Ratio	Total Proposed Area (sq.ft.)	Total Proposed Area (sq.m)	Comments
	1.0 Offices									
	Front Reception Area	Open		230		225	1.2	270	25	
	Public Washroom at Front Reception	Private		60		70	1.3	91	8	wheel chair accessible
	Directors Office	Private	0.8	75	1	150	1.3	195	18	
	Archivist Office	Open	0.2	0	1	64	1.4	90	8	
	Engagement Coordinator Office	Open	0.8	75	3	192	1.4	269	25	
	Administrative office	Open	0	0	4.5	320	1.4	448	42	
	Collections Manager	Open	0	0	1	64	1.4	90	8	
	Supply Room	Private		42		64	1.3	83	8	
	File Storage	Private		0		64	1.3	83	8	
	Printer Room	Private		0		64	1.3	83	8	
	Lunch Room/kitchen	Private		10		360	1.3	468	43	Also for after school Program
	Male/Female washrooms (1)	Private		0		70	1.3	91	8	
	Collections Storage Room	Private		100		400	1.2	480	45	Temperature Controlled
	Archives Storage Room	Private		100		400	1.2	480	45	Temperature Controlled
	Programing/Event/Meeting/Film Room	Private		600		1,500	1.3	1,950	181	For 100 people
	Exhibit Space	Private		4000		6,000	1.1	6,600	613	
	Gift Shop	Private		85		175	1.3	228	21	
	Curatorial Workspace	Private		0		120	1.3	156	14	Exhibit Design/Conservation Work
	Elevator	Private		300		300	1.3	390	36	
	Stairs	Private		100		100	1.2	120	11	
	Communications Room	Private		97.5		36	1.2	43	4	
	Electrical Room	Private		0		64	1.2	77	7	
	Mechanical Room	Private		90		90	1.2	108	10	
	Janitors Room	Private		35		60	1.2	72	7	
	Total			6,000		10,952		12,964	1,204	

Recreation Centre

No.	Functional Area		Number of Employees 2017	Current Area 2017 (sq.ft.)	Number of Employees 2043	Proposed Area in 2043 (sq.ft.)	Circulation Ratio	Total Proposed Area (sq.ft.)	Total Proposed Area (sq.m)	Comments
	1.0 Offices									
	Front Reception Area and Desk	Open		0		225	1.2	270	25	
	Public Washrooms (2) at Reception	Private		0		140	1.3	182	17	wheel chair accessible
	Manager of Rec & Parks Office	Private	1		1	150	1.3	195	18	
	Outdoor Recreation Coordinator	Private	1		1	120	1.4	168	16	
	Recreation Coordinator	Private	1		1	120	1.4	168	16	
	Recreation Programmer	Private	0	0	2	128	1.4	179	17	Not hired yet
	Special Events Coordinator	Open	0	0	1	64	1.4	90	8	Not hired yet
	Recreation Workers	Open	1.6		3	128	1.4	179	17	
	Fitness Studio Attendant	Open	0	0	1	64	1.4	90	8	Not hired yet
	Janitor Supervisor	Open	0	0	1	64	1.4	90	8	Not hired yet
	Supply Room	Private		0		99	1.3	129	12	
	File Storage	Private		0		99	1.3	129	12	
	Printer Room	Private		0		64	1.3	83	8	
	Lunch Room	Private		0		334	1.3	434	40	For 13 employees
	Male/Female washrooms (2)	Private		0		140	1.3	182	17	
	Elevator	Private		0		150	1.3	195	18	
	Stairs	Private		100		100	1.2	120	11	
	Communications Room	Private		0		64	1.2	77	7	
	Electrical Room	Private		0		64	1.2	77	7	
	Mechanical Room	Private		72		100	1.2	120	11	
	Janitors Room	Private		15		80	1.2	96	9	
	Total			187		2,497		3,252	302	

No.	Functional Area		Number of Employees 2017	Current Area 2017 (sq.ft.)	Number of Employees 2043	Proposed Area in 2043 (sq.ft.)	Circulation Ratio	Total Proposed Area (sq.ft.)	Total Proposed Area (sq.m)	Comments
	2.0 Athletic Facilities									
	Fitness Studio	Private		0		1,000	1.3	1,300	121	
	Multipurpose Meeting Room	Private		0		320	1.3	416	39	For 18 people
	Weight Room	Private								
	Kitchen	Private								Fine as is
	Squash Courts	Private								
	Storage	Private								
	Male/Female Change Rooms (2)	Private								Need to be larger
				0						
	3.0 Outdoor Parking									
	Employee/Visitor Parking			0		686	1.2	823	76	15 employees, 25 for visitors
	Bicycle Parking									

Public Works

No.	Functional Area	Office Type PO-Private OO- Open	Number of Employees 2017	Current Area 2017 (sq.ft.)	Number of Employees 2043	Required Area in 2043 (sq.ft.)	Circulation Ratio	Total Required Area (sq.ft.)	Total Required Area (sq.m)	Comments
	1.0 Offices									
	Reception Area	Open		0		120	1.2	144	13	For 2 sales reps to wait
	Public Works Manager	Private	0	132	1	150	1.3	195	18	Not hired yet
	Foreman's Office	Private	1	168	1	120	1.3	156	14	
	Parks Supervisor	Private	1	0	1	120	1.3	156	14	
	Lead Hand's Office/Scada System	Open	1	168	2	256	1.3	333	31	
	W/WW Utility Person's Office	Open	0	0	3	192	1.3	250	23	Not hired yet
	Map Room	Open		48		120	1.3	156	14	
	Crew Meeting Room / Board Room	Private		0		260	1.3	338	31	For 14 people
	Hotel office (1)	Private		0		120	1.3	156	14	for one person
	File Storage	Private		0		180	1.3	234	22	
	Printer Room	Private		0		64	1.3	83	8	
	Male/Female washrooms (2)	Private		100		140	1.3	182	17	Should be accessible
	Communications Room	Private		32		64	1.2	77	7	
	Electrical Room	Private		?		64	1.2	77	7	
	Mechanical Room	Private		?		80	1.2	96	9	
	Janitors Room	Private		15		60	1.2	72	7	(for Office only)
	Total			663		2,110		2,704	251	
	2.0 Employee Amenities									
	Lunch Room	Private		279		575	1.3	748	69	For 19 crew & 8 staff
	Mens Change Room/Washroom	Private		60		568	1.3	738	69	2 lockers per employee, 22 men
	Women's Change Room/Washrm	Private		36		312	1.3	406	38	2 lockers per employee, 8 female
	Washer/Dryer Room	Private		0		96	1.3	125	12	
	Drying Room	Private		0		96	1.3	125	12	
	Total			375		1,647		2,141	199	

No.	Functional Area	Office Type PO-Private OO- Open	Number of Employees 2017	Current Area 2017 (sq.ft.)	Number of Employees 2043	Required Area in 2043 (sq.ft.)	Circulation Ratio	Total Required Area (sq.ft.)	Total Required Area (sq.m)	Comments
	3.0 Fleet Maintenance									
	Bays - Maintenance Bays	Open		1152		5,597	1.1	6,157	572	Require 5 bays
	Storage - Maintenance Parts Room	Private		10		400	1.3	520	48	
	Office - Mechanics Office	Private	1	48.75	2	128	1.3	166	15	
	Total			1210.75		6,125		6,843	636	
	4.0 Water/Waste Water									
	Storage - Parts Storage Room	Private		1,350		1,119	1.3	1,455	135	Require 1 bay
	Shop - Clean Water Meter Testing	Private		0		180	1.3	234	22	
	Shop - Hydrant Testing	Private		0		240	1.3	312	29	Needs Roll-up door to exit
	Lab - Utilities	Private		0		120	1.3	156	14	
	Total			1,350		1,659		2,157	200	
	5.0 Roads									
	Shop - Carpentry	Open		408		560	1.3	728	68	Require 1/2 bay
	Storage - Miscellaneous Storage	Private		300		560	1.3	728	68	Require 1/2 bay
	Storage - Traffic Storage	Private		100		300	1.3	390	36	
	Total			808		1,419		1,845	171	
	6.0 Parks									
	Storage - Materials & Tools	Private		0		560	1.1	616	57	
	Total			0		560		616	57	
	7.0 Indoor Vehicle Storage									
	Storage - Vehicle Storage	Open		1320		11,368	1.1	12,505	1,162	12 heavy & 15 small
	Total			1320		11,368		12,505	1,162	

No.	Functional Area	Office Type PO-Private OO- Open	Number of Employees 2017	Current Area 2017 (sq.ft.)	Number of Employees 2043	Required Area in 2043 (sq.ft.)	Circulation Ratio	Total Required Area (sq.ft.)	Total Required Area (sq.m)	Comments
	8.0 Indoor Sand/Salt Storage									
	Indoor Sand Storage			120		3,000	1	3,000	279	Fabric and metal frame
	Indoor Salt/Brine Storage			0		600	1	600	56	
	Total			120		3,600		3,600	334	
	9.0 Outdoor Storage									
	Outdoor Wash Bay			0		1,000	1.3	1,300	121	
	Dump Area			0		1,000	1.3	1,300	121	
	Aggregate Storage			0		1,000	1.3	1,300	121	
	Storage Bunkers (6)			500		1,350	1.3	1,755	163	concrete block 3m high
	Pipe Rack			50		100	1.3	130	12	
	Sump for Street Sweeper			0		1,200	1.3	1,560	145	
	Total			550		5,650		7,345	682	
	10.0 Outdoor Parking									
	Employee/Visitor Parking			0		8,859	1	8,859	823	26 employee stalls, 4 visitors
	Work Vehicle Parking			?		8,127	1	8,127	755	18 work vehicles
	Fueling Station			100		200	1	200	19	gas and diesel storage
	Total			100		17,186		17,186	1,597	