



Final Report submitted to the Town of Cochrane on November 7, 2016

Town of Cochrane Cemetery Master Plan

November 2016



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EXECUTIVE SUMMARY

The Town of Cochrane is committed to providing quality cemetery services to the citizens of Cochrane and as such commissioned LEES+Associates to prepare a Cemetery Master Plan to review the cemetery needs of the Town, prepare a revised cemetery bylaw and outline recommendations to improve and enhance the cemetery property over the coming years.

The following section summarizes the key findings, recommendations and actions proposed to move the cemetery towards long term, sustainable cemetery operations.

DEMOGRAPHICS, MARKET + TRENDS ANALYSIS KEY FINDINGS

Key findings that emerged from this analysis for the Town of Cochrane cemeteries include:

- The Town population has been growing at an average rate of 8.5% per year for 5 years;
- The Town's future population growth will decrease to an average 2.6% per year over the next 25 years;
- The Town population is on average, younger than the rest of Rocky View County, but older than the rest of the Province;
- The Town has averaged a lower death rate (5.2 deaths per 1,000 people) than the rest of the Province (5.6 deaths per 1,000 people) over the past 5 years;
- The Town has a higher cremation rate (86.3% in 2015) than the Province (70.3% in 2015). The cremation rate is increasing across the Province of Alberta;
- Casket market capture was below average compared to the standard market capture rate of casket burials in Town of Cochrane cemeteries from 2011 to 2015;
- Cremated remains market capture was on par with the standard market capture rate for cremated remains in in Town of Cochrane cemeteries from 2011 to 2015;
- The Town's cemeteries are occasionally capturing and interring decedents from surrounding communities of Rocky View County;
- In the next 25 years, the Town of Cochrane's death rate will increase to 6.1 per 1,000, due to the passing of the large Baby Boom generation;
- In the next 25 years, the Town of Cochrane will experience 4,650 deaths;
- In the next 25 years, 450 residents from the Town of Cochrane will choose casket burial and 4,200 residents from the Town of Cochrane will choose cremation, and
- The Town's cemeteries can expect approximately 300 casket (25%) interments and 900 cremated remains (75%) interments over the next 25 years.

SITE ANALYSIS KEY FINDINGS

- St. Mary's and St. Andrew's Cemeteries are currently closed to new plot sales, but continue to accommodate interments within pre-purchased (reserved) plots.
- The Cochrane Cemetery opened in 1996, and is approximately 20% developed. The cemetery property has a number of opportunities including: an existing wooded area, desirable mountain views, good drainage and potential for trail connections to popular walking destinations. Key constraints include wind, large subsurface boulders, unscreened spoil piles, and a lack of character-defining elements, seating, and benches.

BEST PRACTICES REVIEW RECOMMENDATIONS

It is recommended that the Town of Cochrane:

- Prioritize developing and adding a greater range of interment options offered including:
 - Green burial, Muslim burial, Veteran and Protective Services burial, infant and child burial.
 - Additional options for interment of cremated remains including columbaria, family vessels, scattering garden and ossuary.
 - Options for memorialization without interment including a memorial wall, memorial stones and memorial trees.
- Expand the range of cemetery services offered to include graveside set-up, supply of greens and lowering device, storage and installation of vaults or liners.
- Link digital cemetery records in Stone Orchard Software to GIS cemetery maps of graves.
- Consider implementing the iCemetery Smartphone APP for use by operations staff, stakeholders and the public.
- Promote Town of Cochrane cemeteries through appropriate media including: an enhanced cemetery webpage, a professional brochure, and press releases.
- Engage the community by hosting community, religious and historic events at Cochrane cemeteries, such as Remembrance Day, Mother's Day and Father's Day.
- Increase education and interpretation opportunities, such as: guided and non-guided walking tours, history class field trips, and other events through partnerships with genealogical societies, historical societies and schools.
- Undertake a Cemetery Business Plan to review Perpetual Care Fund policies, pricing practices and goals for financial performance.
- Expand the Cemetery Fees & Charges document to include pricing for all new interment and service offerings.
- Revisit the Town's cemetery land needs after new services are implemented to monitor changes in consumer response to the Town's new offerings and marketing efforts.

- Continue to monitor opportunities for acquiring additional lands contiguous to the existing cemetery sites.
- Consider inclusion of the Cochrane Cemetery property within the Town boundaries during the next annexation.

CONSULTATION KEY FINDINGS

- **Internal Stakeholders** who attended the site visit and staff workshop noted a desire for a diversification of products and services, optimization of mountain view, opportunities for cremation infill at the historic cemeteries and enhanced connections between the three cemetery sites.
- **External Stakeholders** who attended the workshops expressed a desire for the cemetery to be more “park-like,” inclusion of multi-purposes spaces with connections to trails and walking routes, new interment and memorialization options with a range of price points, and more character-defining elements.
- **Members of the public** who attended the Open House expressed strong overall support for the proposed concept plan and draft bylaw presented. Attendees noted a desire to consider increased traffic and crime within the cemetery precinct, and to prioritize development of walking paths, new interment options, and a new Field of Honour and cenotaph.

CONCEPTUAL DESIGN RECOMMENDATIONS

It is recommended that the Town of Cochrane:

- Implement the proposed Concept Plan as part of a phased development, as described in Chapter 7, with new inventory and improvements to include:
 - **Access & Circulation:** loop trail network, designated parking areas, vehicle controlled gate, enhanced entry and paving program.
 - **Interment and Memorialization:** columbaria plaza, cremation gardens, in-ground burial areas, Veterans Field of Honour, memorial plaza and walk of honour, green burial area, infant and children’s garden, and Muslim burial area.
 - **Feature and Amenity Areas:** nature walk, central gathering space and hitching post memorial.
 - **Operational Improvements:** expanded operations yard and materials storage.

Recommendations for the overall cemetery precinct include:

- Rename the roadway fronting the cemeteries to “Cemetery Road,” “Memorial Drive,” or an alternative name to improve wayfinding and define branding within the cemetery precinct;
- Improve wayfinding to the cemeteries from other parts of town through increased directional signage;
- Add value to the pioneer cemeteries (St. Andrew’s and St. Mary’s):
 - Establish a columbaria garden at St. Andrew’s;

- Refurbish the Veteran’s area at St. Mary’s Cemetery, to honour the war dead who are interred there;
- Upgrade the main entries with better quality gates and frontage fencing that celebrate the cemeteries in an appropriate style and create a cohesive identity amongst the three cemeteries;
- Create a walking loop to link the three cemetery sites as indicated in the Concept Plan, and
- Add historical interpretation panels to highlight the history of the sites.

CEMETERY BYLAW REVIEW RECOMMENDATIONS

It is recommended that the Town of Cochrane:

- Adopt the updated Cemetery Bylaw. The revised bylaw ensures the Town’s Cemetery Bylaw is presented in a user friendly format, uses current language, reflects the present day and future needs of the community, and is brought in line with Provincial definitions, guidelines and regulations.
- Provide a copy of the burial permit (signed by both parties) directly to the family, to strengthen the legal position of the Town should issues arise.
- Create a handout for families regarding key policies on planting and ornamentation; incorporate clarifying details about ornamentation at the cemeteries emphasizing the importance of safety.
- Provide a temporary shelf or location near the cemetery entrance where staff can place flowers and other items removed from graves.
- Consider the creation of a burial area with a “planting garden” where individual plantings may be accommodated for an annual fee.

IMPLEMENTATION PLAN SUMMARY

- A Phasing Plan is proposed, with key elements to be prioritized in the first phase to include: the trail loop and nature walk, Veterans memorial plaza and walk of honour, columbaria plaza, and central gathering space with hitching post memorial.
- The estimated order of capital costs for the proposed improvements is presented in Chapter 9 of this report. The total estimated costs are approximately \$1.5M with a breakdown of projects which can be phased in over multiple years.

CONCLUSION

The purpose of this plan is to review the cemetery needs of the Town, prepare a revised cemetery bylaw and outline recommendations to improve and enhance the cemetery property over the coming years. This will ensure that the Town of Cochrane will have the resources required to effectively meet the future interment and service needs of the community for the foreseeable future. This report charts a path forward that will move this important social service towards long term sustainability in its future site development.

1 INTRODUCTION

1.1 PROJECT SCOPE

The Town of Cochrane commissioned LEES+Associates to prepare a Cemetery Master Plan to review the cemetery needs of the Town, prepare a revised cemetery bylaw and outline recommendations to improve and enhance the cemetery property over the coming years.

This Cemetery Master Plan provides the Town with a guiding vision and strategy for the long-term sustainability of its cemetery operations. This plan considers how to best provide attractive interment options to the Town’s growing population and how Cochrane Cemetery can be recognized as valuable community space.

The objective of this project is to create a master plan for the Cochrane Cemetery site that reflects current best practices, demographics and market trends as well as the cultural needs of the community to ensure that residents have a local place to bury, commemorate and remember loved ones. The recommendations in this master plan are intended to serve as a guide for developing policies, budgets and operational decisions for the cemetery over the next 7 years.

1.2 REGIONAL CONTEXT

The Town of Cochrane was established as a railway town site in 1885 and became a village in 1903. It is the second largest town in Alberta, with a population of 23,084 (2015 municipal census). The Town has experienced waves of growth over the years and was the fastest growing small urban centre in Canada between 1996 and 2001.

Cochrane is known as a small industrial centre, noted for its high quality of life, western heritage and popularity as a tourist destination. Located 20km west of Calgary, the Town is positioned at the foothills of the Rocky Mountains in the Bow River Valley. The terrain surrounding Cochrane is generally rolling to hilly and lies within the fescue grassland ecoregion.

The Town maintains three cemetery sites which serve residents of the area: **Cochrane Cemetery** (the new cemetery), as well as **St. Andrew’s** and **St. Mary’s Cemeteries**.

Town of Cochrane by Numbers

| | |
|----------------------------|---------------------------|
| <i>Population:</i> | 23,084 in 2015 |
| <i>Land Area:</i> | 30.03 km ² |
| <i>Density:</i> | 585.5 per km ² |
| <i>Elevation:</i> | 1,159 m |
| <i>Town Incorporation:</i> | 1971 |



Figure 1: Map identifying Cochrane’s location relative to The City of Calgary, Source: CBC.ca

1.3 CEMETERY SITES OVERVIEW

The land for the Cochrane Cemetery was donated to the Town by the Franciscan Friars in the early 1980s. It opened as the new Town cemetery in 1996, when St. Mary's and St. Andrew's Cemeteries were closed to sales.

Cochrane Cemetery is bordered on the west by the residential development of Sunterra Heights. To the north lies woodland, and to the south lie urban reserve lands. East of the cemetery is Big Hill and the retreat centre of the Franciscan Friars of Western Canada. Presently, only a small portion of the cemetery is developed for casket and cremated remains interment.

St. Mary's and St. Andrew's Cemeteries are closed to sales, however they do accommodate interments within a pre-purchased (reserved) grave. Cochrane Cemetery is the primary focus of this Master Plan.



Figure 2: Cochrane Cemetery Aerial View, Source: Town of Cochrane

2 METHODOLOGY

2.1 DATA ASSEMBLY

LEES+Associates gathered information from Town Staff concerning historic cemetery operations. This information was analyzed in conjunction with external cemetery market research and a review of demographic, disposition and interment activity in the Town of Cochrane.

Data sources reviewed in the process of generating this report include, but are not limited to:

- Alberta Vital Statistics; National Statistics, Statistics Canada, (Census and National Household Survey);
- Cochrane Municipal Census, Town of Cochrane (2006 to 2015);
- Cochrane Open Space Master Plan 2012
- Cemetery Bylaw No. 08/2010
- Cemetery Maps and Aerial Photos;
- Municipal Development Plan 2008;
- Town of Cochrane’s Growth Management Strategy May 2013, and
- Additional reports and correspondence provided by the Town of Cochrane.

2.2 STAKEHOLDER CONSULTATION

LEES+Associates engaged cemetery stakeholders in the process of information gathering and analysis through workshops and interviews with Town Staff, and private sector and community representatives to achieve a holistic perspective of the Town’s cemetery operations, as well as land, cultural and social needs.

2.3 DEMOGRAPHICS AND TRENDS – DEMAND NEEDS ANALYSIS METHODOLOGY

The demand needs analysis examines the expected demand, land need, inventory (developed interment space for sale), and land capacity (maximum geographic potential) at the Town’s active cemetery. Death data for the Town of Cochrane broken down by disposition type (cremation versus casket) was obtained from Alberta Vital Statistics. The majority of those served by Cochrane Cemetery are residents of the Town of Cochrane, therefore in this report, it is assumed the primary market catchment area for Cochrane Cemetery is defined by the boundaries of the Town of Cochrane.

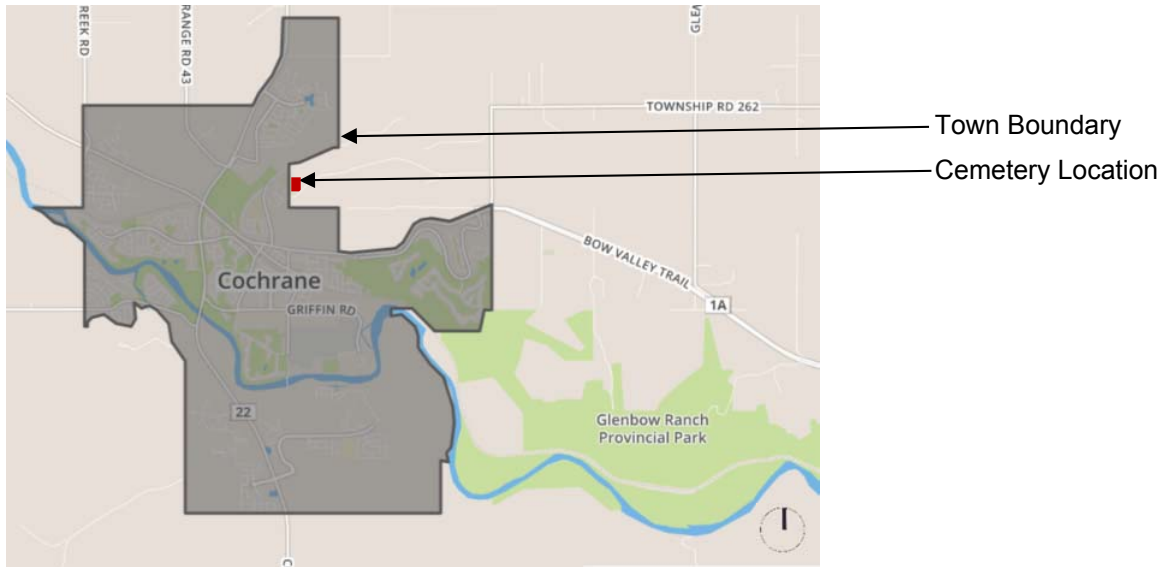


Figure 3. Cochrane Town Boundary (Source: OpenStreetMap)

Future demand for cemetery services was extrapolated from historic death and disposition trends, and a determination of cemetery use patterns, known as “market capture.” Cemetery market capture was calculated by comparing annual interments (provided by Town Staff) to the number of deaths reported by Alberta Vital Statistics. For these analyses, market capture rates are assumed to remain consistent over the next 25 years. If changes to cemetery operations (such as increased sales, marketing and community engagement initiatives) were implemented, then it is possible that market capture rates would increase.

The primary tool for this analysis is LEES+Associates’ Cemetery Business Case Analysis Tool (CBCAT). The CBCAT is a municipal cemetery planning tool developed specifically for tracking and analyzing market trends in Canada. The CBCAT incorporates baseline historic market data and cemetery sales activity data within a pro-forma template used for long term cemetery land needs and financial forecasting.

3 DEMOGRAPHICS, MARKET + TRENDS ANALYSIS

This chapter identifies the age distribution, population profile, death, cremation and burial trends that affect cemetery land capacity and service options for Town of Cochrane Cemeteries.

3.1 DEMOGRAPHIC PROFILE

In summary, research indicates that:

- The median age in the Town is 38.0, Rocky View County is 42.9 and Alberta is 36.5;
- A full 34% of the Town’s population is not affiliated with any particular religion;
- The most prevalent religion in the Town is Catholicism at 22%;
- “Other religion” groups in the Town include those who are Jewish and Muslim;
- Approximately 85% of Town residents are Caucasians of European descent. A high proportion of these have heritage from the British Isles, Germany and Ukraine, and
- The Town’s largest minority groups are Asian and North American Aboriginals, with each group composing 4% of the total population.

Over the past five years, the Town has been growing at the rapid rate of 8.6% per year, faster than the rest of the Province at 2.4%.

Over the past five years, the Town’s death rate has also averaged 5.2 deaths per 1,000 population, which is lower than the Provincial average of 5.6 deaths per 1,000 population.

Additional demographic details can be found in “Appendix A – Demographic Profiles.”

3.2 DISPOSITION + INTERMENT PROFILE

Disposition is the way in which human remains are transformed after death, in preparation for any formal viewing or visitation, ritual, rite, service or ceremony. Disposition in this analysis means the casket burial or cremation of a cemetery customer.

Canadian disposition trends indicate that cremation is becoming the preferred option nationwide. The average cremation rate rose from **55.8% in 2006** to **66.8% in 2014**, and is expected to continue to rise in most provinces (including Alberta).

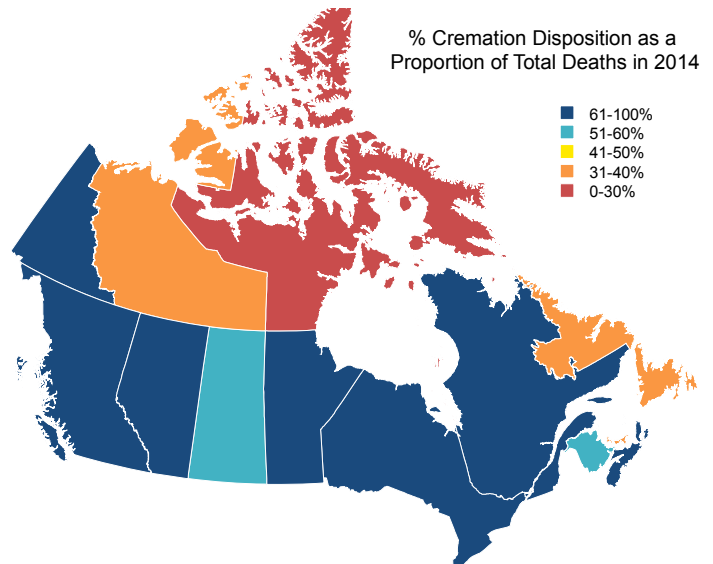


Figure 4: Canadian Rates of Cremation, Source: Cremation Association of North America.

The average cremation rate in Alberta was **59.8% in 2006** and increased to **69.4% in 2014**.

In comparison, the annual average cremation rate in the Town of Cochrane was **72.4%** in 2006 and **86.8%** in 2014, much higher than the Provincial and National average.

The Cremation Association of North America predicts Alberta cremation rates will rise to **73.8% by 2019**. If the Town's cremation rate increases at the same pace as the Province, it will be **90.0% by 2019**.

From 2011 to 2015, the Town of Cochrane experienced:

- 510 deaths, of which:
 - 79 residents chose casket burial;
 - 428 residents chose cremation;
 - 3 residents chose to donate their bodies to the Department of Anatomy, and
 - 145 residents were interred in Town of Cochrane cemeteries.
- 76% of all interments at Town cemeteries during this period were at Cochrane Cemetery;
- 55 of all interments at Town cemeteries were casket burial (38%), and
- 90 of all interments at Town cemeteries were burial of cremated remains (62%).

Further disposition and interment information and graphs are available in “**Appendix B – Cemetery Market Dispositions and Market Capture Details.**”

3.3 HISTORIC COMMUNITY USE

The extent to which residents in an area choose to be buried in a Town Cemetery is known as the market capture. Municipal and religious Canadian cemeteries generally experience the following standard market capture rates under conditions of low to medium competition intensity:

- **80 - 90%** of all casket interments, and
- **10 - 20%** of all cremated remains interments.

These rates are based on our firm's experience, market research and results of monitoring Canadian cemeteries over the last 17 years. From 2011 to 2015, Town cemeteries experienced:

- **70%** market capture of all traditional casket burials in the Town of Cochrane;
- **21%** market capture of all cremation burials in the Town of Cochrane, and
- **28%** total market capture of all deaths in the Town of Cochrane.

Historically, the number of Town Cemetery casket interments has occasionally exceeded the number of Town deaths that result in traditional burial. These additional interments suggest that Cochrane cemeteries also receive interments of non-residents, or individuals residing outside of the Town of Cochrane in the surrounding areas at the time of death.

According to the Town of Cochrane cemetery bylaw, a "Resident" is a person who has resided within the municipal boundaries of the Town of Cochrane preceding his or her death.

From 2011 to 2015, the Cochrane Cemetery records show that the Town experienced:

- 145 total interments;
- 65 resident interments (45% of total interments), and
- 80 non-resident interments (55% of total interments).

Cochrane Cemetery's proportion of non-residents is unusually high compared to other Canadian municipal cemeteries.

Market capture is affected by historic family choice of cemetery, customer satisfaction, marketing, price, distribution, competition, and range of available interment options. Cremated remains usually have a lower capture rate because they can be stored or interred in a variety of locations, or structures, or spread on non-sanctioned ground. Those that opt for in-ground burial usually have no choice but to use a cemetery.

It is important to keep in mind that market capture rates are highly variable depending on the number of private, religious and not-for-profit cemeteries within the same or overlapping service area.

“Appendix B – Cemetery Market Dispositions and Market Capture Details” provides additional information on the Town's historic cemetery market capture trends in detailed graphs.

3.4 FUTURE COMMUNITY USE

The following graph summarizes the future cemetery market demand that can be expected for Town cemetery services over the next 25 years.

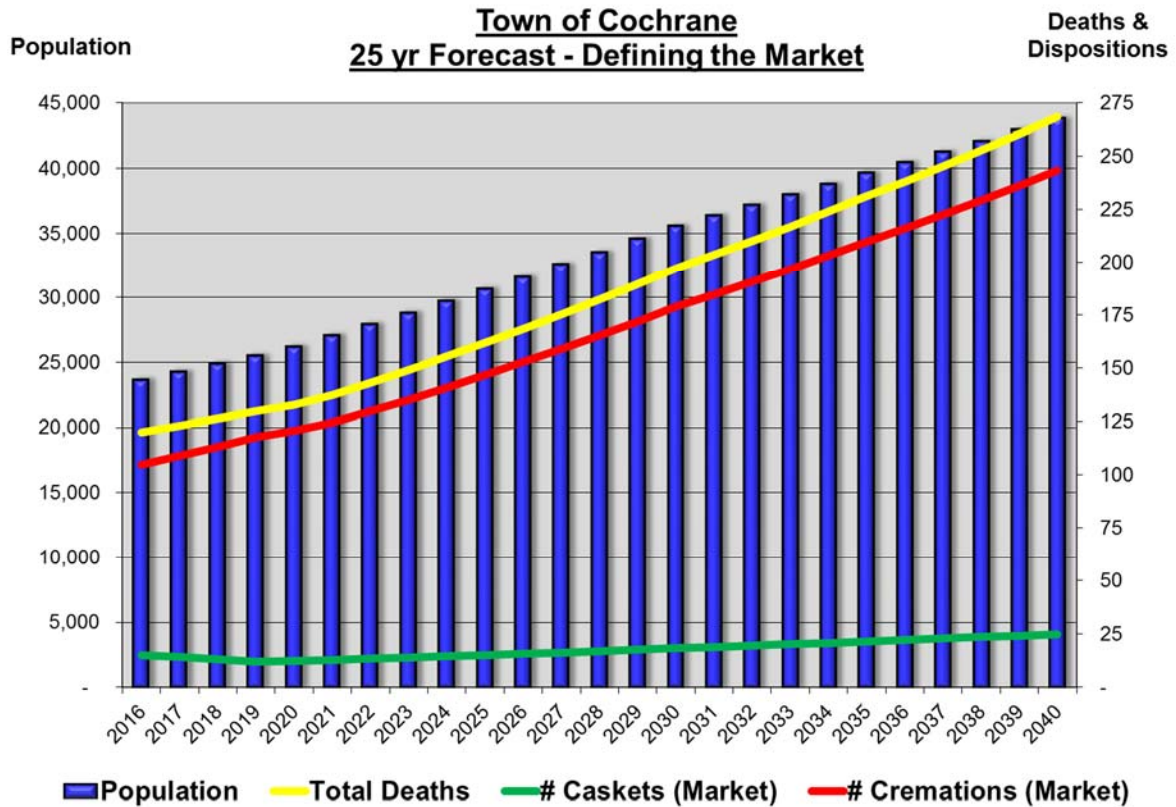


Figure 5: 25 Year Cemetery Market Forecast for the Town of Cochrane, Source: LEES+Associates.

According to the Town of Cochrane’s Growth Management Strategy 2013, the Town is expecting its future growth to slow to an average 2.6% per year over the next 25 years.

In contrast, the Town’s annual death rate is expected to increase over the next 25 years due to the anticipated passing of the large “Baby Boom” generation. Demographically, the largest single cohort in Canada is the "Baby Boom" generation: people born between **1952 and 1965**¹.

¹ “Canada’s Baby Boom Is Nothing like the One in the US,” Robert L. Brown, Past President of the Canadian Institute of Actuaries, expert advisor EvidenceNetwork.ca, http://www.huffingtonpost.ca/robert-l-brown/canada-baby-boom_b_6478760.html

As this generational cohort reaches its life expectancy, an increase in the demand for cemetery services is expected. According to Statistics Canada, the aging of the population should cause cemetery and funeral related purchasing to accelerate from 2017 to 2030.

The oldest Baby Boom generation members reached the age of 63 in 2015. The average life expectancy for this cohort is about 80 years. In 2032, the oldest of this group will reach the age of 80 so an increase in demand for death-related goods and services is expected prior to this, around 2022 or sooner. The number of deaths is then expected to decrease again towards 2045, when the youngest of this generation turns 80.

Overall, the average number of deaths is expected to rise from 120 per year in 2016 to 270 per year in 2040 in the Town of Cochrane, in the upcoming 25 year period.

The following graph summarizes the future cemetery activity that can be expected for Town cemeteries over the next 25 years.

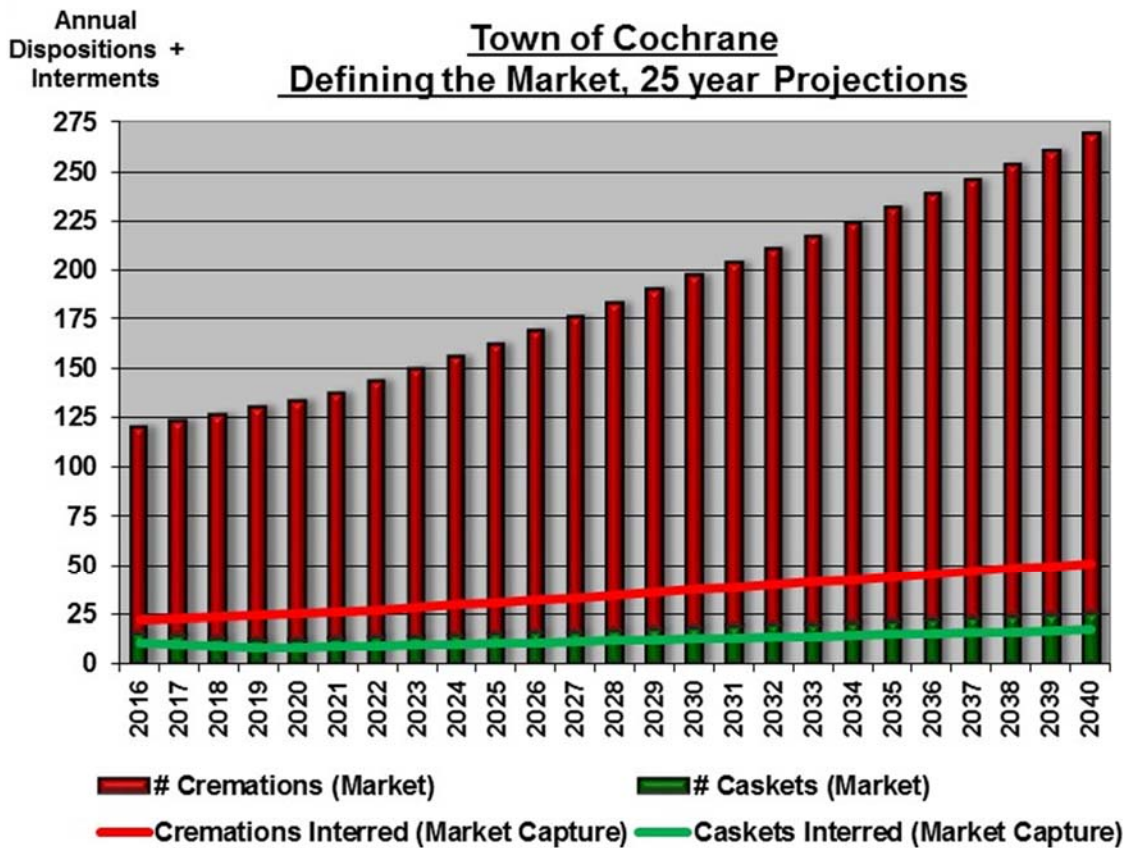


Figure 6: 25 Year Capture Forecast of the Town of Cochrane Cemetery Market, Source: LEES+Associates.

Assuming current operating practices continue as they are and past trends continue, the Town of Cochrane can expect approximately 4,650 deaths, but only 1,200 interments at Town Cemeteries over the next 25 years.

The remaining resident deaths are expected to be accommodated by cemeteries in neighbouring communities or in the case of cremated remains, they may be kept in urns or spread on non-sanctioned interment grounds.

The following graph identifies where Town of Cochrane resident deaths are expected to be accommodated over the next 25 years.

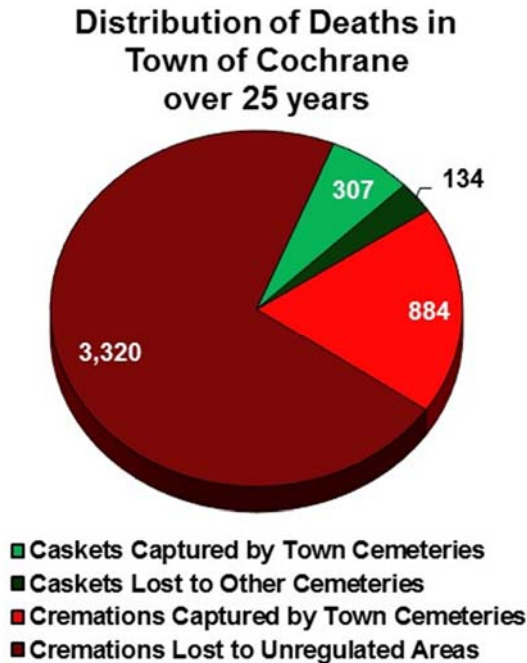


Figure 7: Distribution of Deaths in the Town of Cochrane over the next 25 years (2016 to 2040), Source: LEES+Associates.

3.5 KEY FINDINGS: DEMOGRAPHIC, MARKET + TRENDS ANALYSIS

Key findings that emerged from this analysis for the Town of Cochrane cemeteries include:

- The Town population has been growing at an average rate of 8.5% per year for 5 years;
- The Town's future population growth will slow to an average 2.6% growth per year over the next 25 years;
- The Town population is on average, younger than the rest of Rocky View County, but older than the rest of the Province;
- The Town has averaged a lower death rate (5.2 deaths per 1,000 people) than the rest of the Province (5.6 deaths per 1,000 people) over the past 5 years;

- The Town has a higher cremation rate (86.3% in 2015) than the Province (70.3% in 2015). The cremation rate is increasing across the Province of Alberta;
- Casket market capture was below average compared to the standard market capture rate of casket burials in Town of Cochrane cemeteries from 2011 to 2015;
- Cremated remains market capture was on par with the standard market capture rate for cremated remains in Town of Cochrane cemeteries from 2011 to 2015;
- The Town's cemeteries are capturing and interring decedents from surrounding communities of Rocky View County;
- In the next 25 years, the Town of Cochrane's death rate will increase to 5.6 per 1,000, due to the passing of the large Baby Boom generation;
- In the next 25 years, the Town of Cochrane will experience approximately 4,650 deaths;
- In the next 25 years, 450 residents from the Town of Cochrane will choose casket burial and 4,200 residents from the Town of Cochrane will choose cremation, and
- The Town's cemeteries can expect approximately 300 casket interments (26%) and 900 cremated remains interments (74%) over the next 25 years.

4 SITE ANALYSIS

On April 6, 2016, members of the LEES+Associates and Town’s Project Team visited Cochrane Cemetery as well as St. Mary’s and St. Andrew’s Cemeteries. From this site analysis, a series of opportunities and constraints for the enhancement of the cemetery system were determined. Those key elements are as follows. The Site Analysis Plan accompanying this chapter is found in Figure 11 and in “**Appendix E.**”

4.1 SITE OPPORTUNITIES AND CONSTRAINTS

INTERMENT AND MEMORIALIZATION

- Interment options at the cemeteries are limited with only in-ground casket and in-ground cremation burial currently offered.
- The Cochrane Cemetery property has an existing wooded area which could be used as a nature walk.
- St. Mary’s Cemetery has a Field of Honour but it is full and not well marked.
- There is an opportunity to create a columbaria garden at the pioneer cemeteries, so that families may choose to be interred in the historic sites.



Figure 8. In-ground casket and cremation burial at Cochrane Cemetery, Source: LEES+Associates.

TOPOGRAPHY AND VIEWS

- The Cochrane Cemetery property is bounded by coniferous trees which provide a buffer to surrounding land uses.
- Mid-range views to residential development could be better screened.
- The site can be windy and would benefit from screened viewpoints.
- There is an opportunity to capitalize on the site’s gradual incline to optimize scenic mountain views west towards the Rocky Mountains and east towards Big Hill.



Figure 9. Desirable views west towards the Rocky Mountains and east towards Big Hill, Source: LEES+Associates.

ACCESS AND CIRCULATION

- Parking in front of the cemetery entrance gate is a visual deterrent. The main entry could be enhanced as a processional route, by creating a designated parking area and enhancing the entry experience and sense of arrival.
- The cemetery sites are in proximity to popular walking destinations includes Big Hill and the Mt. St. Francis Retreat. Residents in the surrounding neighbourhood make use of the cemetery precinct for informal passive recreation such as walking, cycling and trail use. However, the cemeteries are not formally linked to any adjacent trails. The cemeteries would benefit from more character-defining elements and trail connections to make them more park-like and more appealing to Town residents.
- The existing gravel roadways at Cochrane Cemetery are in good condition.
- The existing internal roadway at St. Andrew's Cemetery could be decommissioned and used for cremation infill once the cemetery is closed to casket interments.



Figure 10. Veterans Area at St. Mary's Cemetery; Gravel driveways at Cochrane Cemetery, Source: LEES+Associates.

SIGNAGE, WAYFINDING AND AMENITIES

- Cochrane Cemetery is not well connected to the historic cemetery sites across the street; the three cemeteries could be better connected through pathways, fencing and signage.
- All three cemeteries lack seating and benches; there is no gathering or celebration space.
- Frontage fencing is sterile and could be improved.
- There is a lack of signage at the historic sites.

OPERATIONS, MAINTENANCE AND MATERIALS STORAGE

- The existing materials spoil at Cochrane Cemetery should be located in a less prominent location.
- Irrigation is installed within active burial zones at Cochrane Cemetery. The system is manually operated and uses potable water; water usage could be more effective with a weather-based irrigation controller.
- The existing operations yard is small, and lacks lights or power.
- St. Mary's Cemetery has many uneven monuments that require releveling.
- Groundwater is not an issue at the sites, however large boulders are often encountered at Cochrane Cemetery and cause challenges during grave opening, especially with double depth graves.

Town of Cochrane – Cemetery Master Plan

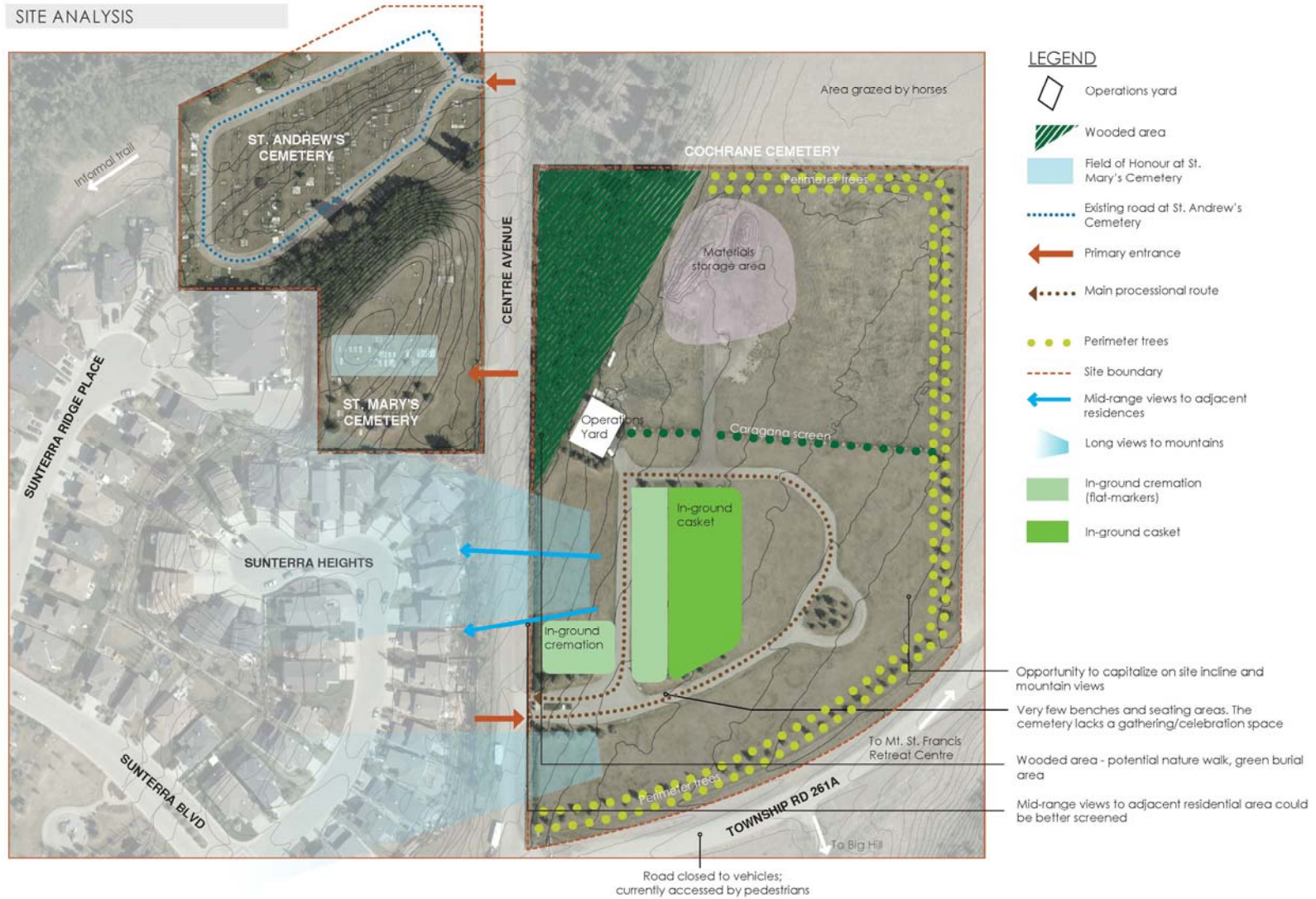


Figure 11. Site Analysis Plan (Source: LEES+Associates)

5 BEST PRACTICES REVIEW

This chapter includes an assessment of current operations at Town of Cochrane cemeteries in relation to industry trends and best practices. This section of the Master Plan provides an overview of short and long term improvement strategies, with a focus on providing a community service that is accessible and attractive to all residents. This chapter is organized under the following headings:

- Current and Future Service Offerings;
- Records Management;
- Marketing and Promotion;
- Financial Planning, and
- Future Land Needs.

5.1 CURRENT AND FUTURE SERVICE OFFERINGS

The Town of Cochrane has historically offered in-ground casket burial and in-ground burial for cremated remains. Cemetery interment options, products and services provided by other Canadian municipal cemeteries that are **not currently offered** at Cochrane cemeteries include:

- Columbaria, including family and community columbaria;
- Green burial;
- Muslim Burial area;
- Field of Honour for Veterans and Protective Services;
- Infant and Children's area;
- Graveside value-added services (such as graveside set-up, supply of greens, canopy and lowering device);
- Storage and installation of vaults or liners;
- Family vessels and community vessels;
- Memorial trees and stones;
- Ossuary;
- Scattering gardens, and
- Memorial walls.



Figure 12. Precedent Image: Cremation garden with columbarium, family vessels and memorial wall, Source: LEES+Associates.

Currently, the range of options for interment within Town of Cochrane cemeteries is **below average** compared to other private and public cemeteries in Canada. Diversifying offerings, potentially in partnership with local distributors of funeral products, will assist the Town in continuing to meet the community’s needs. Broadening the range of options for disposition of cremated remains will help to serve customers as cremation is already high and continues to increase within the region.

A more diverse range of service offerings will also create an attractive spectrum of price points providing greater access to these services for families with different budgets. Consumers in 2016, including Baby Boomers, are accustomed to having an array of choices for all types of products and services. This demand for choice extends to cemeteries as well. Convenience, ease of decision making and the ability to make necessary arrangements at one location are important considerations for families making funeral and cemetery arrangements. Additional information is provided in “**Appendix D – New Interment Options.**”

5.2 RECORDS MANAGEMENT

The Town is in the process of implementing Stone Orchard Software, a dedicated cemetery specific records management software. Once the software is operational, the Town could link the digital cemetery records spatially with GIS mapping to improve the Town’s cemetery site operations and customer service. This enhanced system would enable the Town to deliver advantages to Staff and the community including:

- Simple, efficient, secure and accurate record keeping and retrieval;
- The ability for cemetery records to be accessed remotely by Staff and members of the public, and utilized as an historical, educational and genealogical resource;
- A reduction in Staff time needed to respond to requests for information, and
- The ability for Staff and members of the public to easily and accurately locate a grave.



Figure 13. Stone Orchard Software GIS Mapping and iCemetery APP can provide digital wayfinding in the field, Source: LEES+Associates.

In addition to electronic maps, the **iCemetery app** for smartphones would be a significant addition to the Town’s range of options for serving customers and for timely, convenient grave location by field Staff without having to refer back or return to the office. It is an affordable, easy to use solution that takes advantage of the power of GIS and the standard cemetery records management software available.

5.3 MARKETING AND PROMOTION

There is an opportunity to improve the Town’s cemetery market share by investing in marketing initiatives and community engagement programs. This would serve to increase awareness of the Town’s cemetery system, strengthen relationships with the community and partner organizations, and attract more families to choose Town of Cochrane cemeteries. There are several methods used

successfully at other Canadian cemeteries to advertise their presence that could be employed by the Town. These initiatives include:

- Promoting the Cemetery through appropriate media (enhanced website, brochures, and press releases);
- Developing programs to host community, religious, cultural and historic events at the Cemetery, and
- Providing enhanced education and interpretation opportunities linked to school curriculums.

5.4 FINANCIAL PLANNING

The Town does not have a cemetery business plan to guide the financial performance of the cemetery or move the cemetery system towards financial sustainability. A cemetery business plan would assist the municipality to identify opportunities to increase revenue streams and move the cemetery system towards cost recovery.

5.5 FUTURE LAND NEEDS

St. Mary's and St. Andrew's Cemeteries are closed to new plot sales, but interments are still taking place within reserved lots. The Cochrane Cemetery is currently 20% developed with approximately 5.6 acres (2.3 ha) of developable land available for expansion. Traditionally, a design measure of approximately 500 casket-sized burial lots per acre of land is used to develop cemetery sites in Canada. Industry design standards also typically assume that the area of one casket burial lot can also accommodate four 2 ft. x 2 ft. cremation lots.

Depending on the design density of future development, the Town can expect to require a total of 1.1 acres of land over the next 25 years. Extrapolating this out further, the Town can expect the Cochrane Cemetery property to provide upwards of 100 years of interment capacity to the community.

Due to the long initial start-up time to acquire land, and the multi-generational, perpetual nature of cemeteries, it is the industry best practice for Canadian municipalities to use a time horizon of 100 to 150 years for future cemetery capacity planning. The Town is well positioned to continue to meet the community's interment need within this timeframe.

5.6 RECOMMENDATIONS: BEST PRACTICES

To align the Town of Cochrane with best practices in cemetery services and to communicate the Town's commitment to delivering enhanced value to the community, it is recommended that the Town:

INCREASE PRODUCT AND SERVICE DIVERSITY

- Prioritize developing and adding a greater range of interment options including:
 - Green burial, Muslim burial, Veteran and Protective Services burial, infant and child burial.

- Additional options for interment of cremated remains including columbaria, family vessels, scattering gardens and an ossuary.
- Options for memorialization without interment including a memorial wall, memorial stones and memorial trees.
- Expand the range of services offered to include graveside set-up, supply of greens and lowering device, and storage and installation of vaults or liners.

OPTIMIZE RECORDS MANAGEMENT

- Link cemetery records in Stone Orchard Software to GIS cemetery mapping of graves.
- Consider implementing the iCemetery Smartphone APP for use by operations staff, stakeholders and the public.

INCREASE MARKETING AND PROMOTION

- Promote Town of Cochrane cemeteries through appropriate **media**:
 - Enhance the cemetery **webpage** to include more information about the cemeteries, as well as a listing of upcoming events, and links to hospice, bereavement and memorialization sites;
 - Create a professional **brochure**, that includes information concerning the history of the cemeteries, and
 - Issue **press releases**, when for example, new services or products are instituted, new employees are brought on to the team and as new burial areas or feature areas are opened.
- Engage the community by hosting community, religious and historic **events** at Town of Cochrane cemeteries:
 - For example, work with school children and the “No Stone Left Alone Memorial Foundation” to decorate all Veterans graves in the week leading up to Remembrance Day (November 11th). Father’s and Mother’s Day are also opportunities for regular events.
- Increase education and interpretation opportunities:
 - Establish and promote a guided and non-guided walking tour, with:
 - A self-guided cemetery map, a
 - A **historical brochure** about the history of the cemetery sites, their notable gravesites, natural and cultural histories.
 - Enlist the aid of students/cooperative programs, and integrate student tours as history class field trips;
 - Enlist the aid of local volunteers interested in genealogy and decedents being buried near to ancestors, and
 - Develop partnerships with genealogical societies, historical societies, schools and others to assist in the development and delivery of the materials and tours.

MOVE TOWARDS FINANCIAL SUSTAINABILITY

- Undertake a Cemetery Business Plan to review Perpetual Care Fund policies, pricing practices and goals for financial performance, and
- Expand the Cemetery Fees & Charges document to include pricing for all new interment and service offerings.

MONITOR FUTURE LAND NEEDS

- Revisit the Town's cemetery land needs after new services are implemented to monitor changes in consumer response to the Town's new offerings and marketing efforts;
- Continue to monitor opportunities for acquiring additional lands contiguous to the existing cemetery sites, and
- Consider inclusion of the Cochrane Cemetery property within the Town boundaries during the next annexation.

6 CONSULTATIONS

This chapter provides a summary of the key findings from the Town staff, stakeholder and public consultations for this project.

6.1 THE CONSULTATION PROCESS

In order to bring forward core issues and identify key opportunities and constraints related to the cemetery system, consultations were held with Town staff, external stakeholder representatives and the public, including:

1. **Site Visit with Cemetery Staff:** a site visit was conducted on April 6, 2016 with key Town staff who are involved in the operation and maintenance of the cemeteries in order to become oriented and document significant site features, opportunities and constraints.
2. **Internal Staff Cemetery Workshop:** a workshop was held with Town staff on April 6, 2016 including a presentation of cemetery trends and issues in cemeteries internationally, nationally, and locally in Alberta. The workshop was attended by eight staff and included discussions about key staff needs as well as the cemetery services offered.
3. **External Stakeholder Cemetery Workshop:** a series of workshops and interviews were held with external stakeholders on April 6, 2016 including representatives from local funeral homes, the Cochrane Historical and Preservation Society (CHAPS), faith groups, community associations and the Cochrane Legion in order to gather stakeholder feedback about the cemeteries.
4. **Public Open House:** a Public Open House was held on September 21, 2016 from 7-9 pm at the Cochrane RancheHouse. A conceptual design with supporting information as well as a copy of the draft cemetery bylaw were displayed, in order to seek feedback and engage the community on the range and type of improvements they would like to see at the cemetery. Approximately 40 people attended.
5. **Questionnaire:** a hard copy feedback form was available at the Open House, and was posted online on the Town website following the Open House. Copies of the Open House display boards were also made available online for public comment from September 22 to 30, 2016.

6.2 CONSULTATION SUMMARY HIGHLIGHTS

The following is a summary of key findings and issues that were brought forward during the workshops with internal and external stakeholders as well as the Public Open House:

Internal Stakeholders noted that they would like the Master Plan to include:

1. A diversification of products and services;
2. Improvements to operations area;
3. Optimization of mountain views, and enhanced connections between the three cemetery sites, and

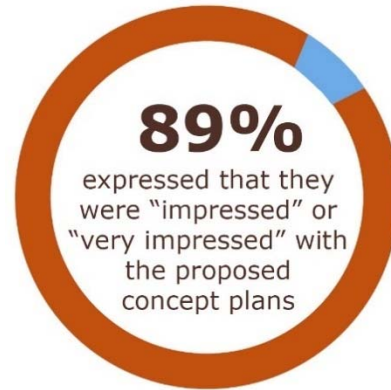
4. Opportunities for cremation infill at the historic cemeteries.

External Stakeholders noted that they would like the Master Plan to include:

1. Design of the cemeteries to be more “park-like”, including multi-purpose spaces with connections to trails and walking routes;
2. New interment options with a range of price points (such as a Field of Honour, infant garden, columbaria, scattering, green burial, a pre-need section as a premium offer);
3. Options for memorialization without interment;
4. Character elements unique to Cochrane, such as river rock, boulders, hills, viewscales, gates, reference to ranching heritage, and vegetation such as grasses.

Members of the public attending the Open House expressed strong overall support for the conceptual design and draft bylaw presented. Attendees noted that they would like the Master Plan to:

1. Consider increased traffic on Centre Ave;
2. Consider ways to mitigate crime on the site;
3. Prioritize the following developments at the cemetery:
 - a. Walking paths;
 - b. An expanded range of interment options, and
 - c. Field of Honour and cenotaph, in collaboration with the Legion.



Please see “**Appendix C – Consultation Summaries**” for a full summary of staff, stakeholder and community feedback.

7 CONCEPTUAL DESIGN

The overall objectives of the concept design for Cochrane Cemetery are to:

1. Create a cemetery with a beautiful, park-like setting;
2. Diversify the variety of interment options offered;
3. Provide more opportunities to celebrate and commemorate loved ones;
4. Reflect the unique character and heritage of Cochrane;
5. Respond to the site's topography and optimize views, and
6. Improve access and circulation.

The proposed design and recommendations are illustrated in the figure below and in “**Appendix E – Concept Plan.**” The concept design will provide 100+ years of additional burial capacity as part of a phased development. This chapter of the report provides a summary of recommended aesthetic and functional improvements, organized under the following headings: Access & Circulation, Interment and Memorialization, Feature and Amenity Areas, and Operational Improvements.



Figure 14, Cochrane Cemetery Concept Plan (Appendix E), Source, LEES+Associates.

7.1 ACCESS & CIRCULATION

PEDESTRIAN ACCESS & LOOP TRAIL

A loop trail network is proposed within the cemetery precinct to increase the permeability of the area and make the cemeteries more park-like. The loop trail network will provide pedestrian connectivity between the three cemetery sites, link key amenity areas such as the nature walk and central gathering area, and promote passive and active recreation opportunities within the cemeteries. The loop trail will include pedestrian entry gates inspired by ranching gates with contemporary materials, located along the cemetery frontage road and Retreat Rd. At the Open House, walking trails were identified as one of the top three features desired as part of future cemetery development. Future trail connections from the cemeteries should integrate with the trail network proposed in the Cochrane Open Space Master Plan. The proposed loop trail network is outlined in the following diagram.

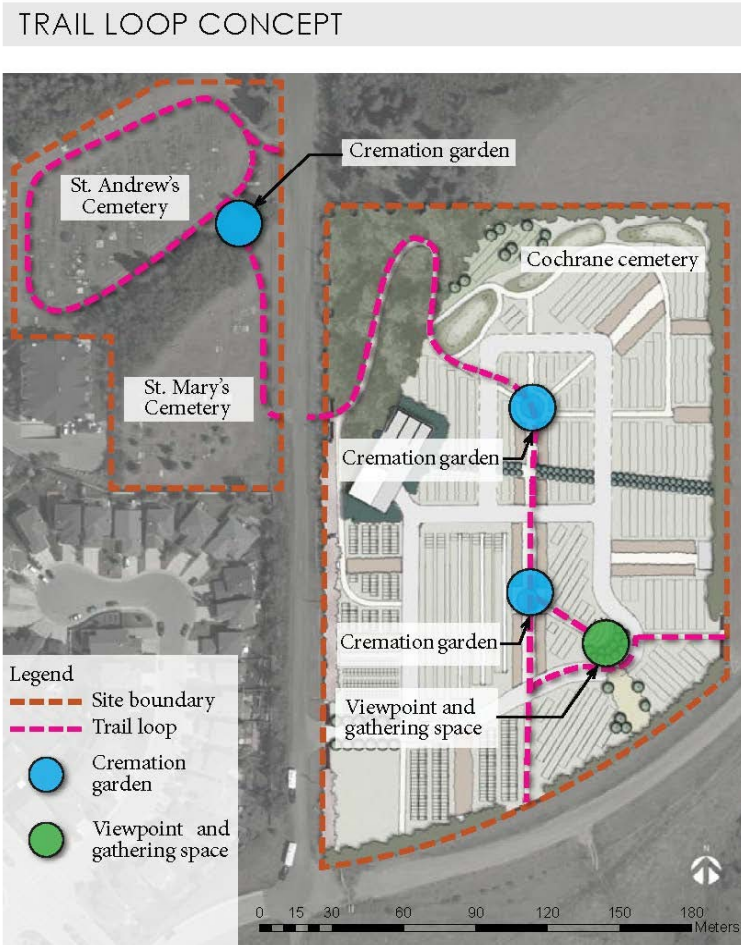


Figure 15. Proposed Trail Loop Concept, Source: LEES+Associates.

VEHICLE ACCESS, PARKING AND ROADWAYS

Access improvements proposed for the cemetery precinct respond to a desire to improve traffic circulation and parking on the roadway fronting the cemeteries. Designated parking areas are proposed on the western boundary of the Cochrane Cemetery just north of the main entry, and at the entry to St. Mary’s Cemetery and the proposed trail loop. Visitors will be encouraged to park their vehicles and visit the cemeteries on foot. A proposed controlled access gate would restrict vehicle circulation within the historic cemeteries, however the Town would allow access upon request for visitation and during funerals and events.

An enhanced main entry at the Cochrane Cemetery is proposed which will include a reduced entry drive, with a double row of trees to formalize the arrival area and processional into the cemetery for visitors. The existing cemetery map will be enhanced into a welcome node with a kiosk, trash bin, visitor information and maps and display of the Franciscan boulder in a prominent location. Proposed access improvements also include a paving program for the existing gravel vehicle roadways at Cochrane Cemetery. Proposed improvements to cemetery access and circulation are outlined in the following diagram.

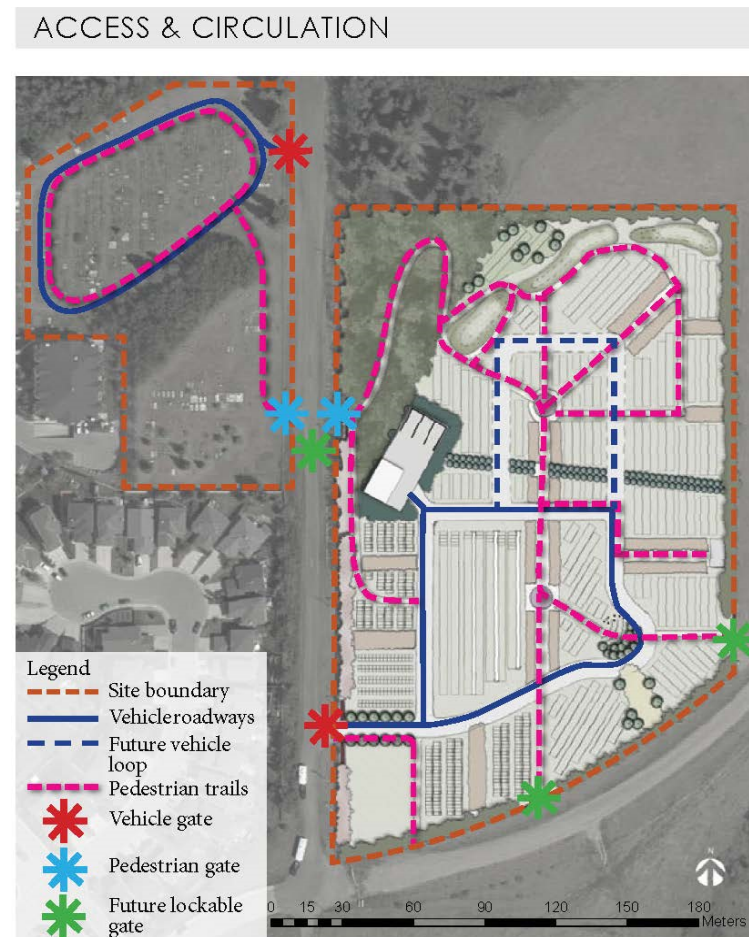


Figure 16. Proposed Cemetery Access & Circulation, Source: LEES+Associates



Figure 17. Precedent Image: information kiosk; boulder commemorating the donation of the cemetery land by the Franciscan Friars, Source: LEES+Associates.

7.2 INTERMENT & MEMORIALIZATION

COLUMBARIA PLAZAS

Two main columbaria plazas are recommended for Cochrane Cemetery to be phased in over time. The first plaza to be developed would be in proximity to the proposed gathering space. The columbaria plaza would include community columbaria using vernacular materials such as Alberta sandstone and river rock, as well as a designated scattering area. It is recommended that the columbaria plaza include amenities such as:

- Flower table with access to water where families can prepare cut flowers for placement on a grave;
- Reliquary table/shelves for families to:
 - Light candles;
 - Leave a memento, or
 - Write a message;
- Seating and benches, and
- Shade trees.

In addition, the concept plan includes provision for a third columbaria plaza on the sloping hill between St. Andrew's and St. Mary's Cemeteries. A columbaria development in this location would allow families the option to be interred in proximity to loved ones who may be buried at the historic sites. In addition, offering niches at the pioneer cemeteries could help fund future improvements to these sites.



Figure 18. Rendering of proposed columbaria plaza at Cochrane Cemetery, Source: LEES+Associates.

CREMATION GARDENS

It is recommended that cremation gardens be developed in each phase of the cemetery expansion to accommodate the rising cremation rate and the growing consumer demand for a variety of cremation options. Key locations for future cremation gardens include along the cremation walk between the two main columbaria plazas and central gathering space, and to define in-ground burial spaces within the cemetery. Cremation gardens should include a variety of premium cremation interment options such as:

- In-ground family estate lots;
- Individual in-ground cremation lots;
- Family and individual columbaria, and
- Family vessels and garden urns.



Figure 19. Family vessel, Source: LEES+Associates.



Figure 20. Examples of a cremation garden, Source: LEES+Associates.

TRADITIONAL IN-GROUND BURIAL AREAS

The concept design includes areas for traditional in-ground burial. These burial areas are laid out in an east-west orientation to capitalize on the spectacular views towards Big Hill and the Rocky Mountains. Areas for traditional in-ground burial should include a mix of in-ground casket and in-ground cremation lots to optimize choice for families. Two optional in-ground interment layouts are illustrated below. These layouts incorporate a mix of in-ground casket and in-ground cremation lots, and a mix of upright and flat markers.

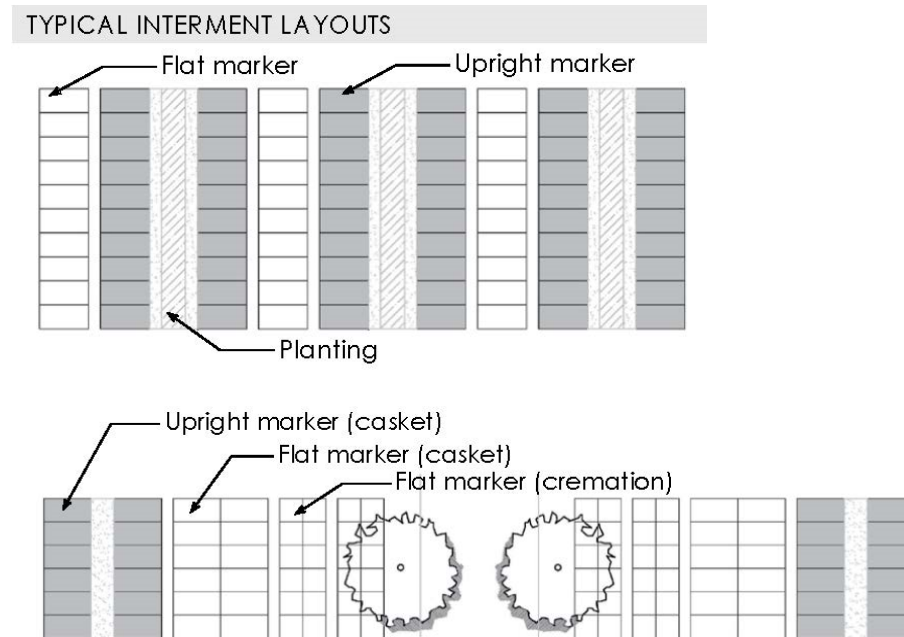


Figure 21. Option inground interment layouts for in-ground casket and cremation, Source: LEES+Associates.

Based on stakeholder and public feedback, it is recommended that the Town consider designating in-ground burial areas or gardens with specific features such as:

- A section without back to back concrete runners;
- A section with pre-need lots, and
- A section with a designated area for individual plantings.

VETERANS FIELD OF HONOUR, MEMORIAL PLAZA AND WALK OF HONOUR

The Veterans Plaza and Walk of Honour is designed to honour Veterans, and will include a plaza space for ceremonial purposes, processions and gatherings. A central memorial feature flanked by flag poles defines the plaza space and provides a place for the laying of wreaths. The memorial plaza is framed by maple trees, and includes a central flower bed for seasonal plantings. A Field of Honour with areas for in-ground casket and cremation burial is provided for Veterans of the Armed Forces as well as Veterans of Protective Services (e.g., those who served in police or fire services). The Walk of Honour includes spaces for the installation of smaller columbaria dedicated to Veterans.



Figure 22. Rendering of the proposed Veterans Memorial Plaza and Walk of Honour, Source: LEES+Associates.

GREEN BURIAL AREA

Green burial (also known as “natural burial,” “country burial” and “woodland burial”) is emerging as a new, full body interment option that municipal cemeteries are beginning to offer. While green burial represents a small portion of the overall market in Canada, trends indicate that demand is increasing. Feedback from the funeral directors and faith groups suggests there is an emerging interest in green burial in Cochrane. At the Open House 43% of questionnaire respondents indicated they would consider green burial if it were made available at Cochrane Cemetery. The recently established Green Burial Society of Canada (GBSC) has a growing membership participating in the Green Burial Council certification system.



Figure 23. Green Burial Area, Source: LEES+Associates

Generally, green burial is defined as traditional earth burial incorporating at least two of the five following elements: no embalming; use of a simple casket or shroud; does not include use of concrete grave liners; simple memorialization or a communal marker, and some aspect of habitat or ecosystem enhancement.

Green burial areas typically have a distinct and beautiful native landscape character. As such, the edge of the existing wooded area in the northwest section of the cemetery property provides an ideal location for a green burial area as part of future cemetery development. Cochrane Cemetery

currently accommodates a large amount of material spoil resulting from cemetery operations as well as from other park sites within the community. It proposed that this material spoil be used to create a series of berms along the northern edge of the cemetery to provide topographic interest and create a “room” like feeling within the green burial area. It is recommended that the Town develop a small area of 12 to 25 plots in this section initially, with expansion as demand for this type of interment grows. Additional information on green burial is provided in “**Appendix D – New Interment Options.**”

INFANT AND CHILDREN’S GARDEN

An area dedicated to infant and children burial is proposed as an opportunity to create a meaningful and appropriate landscape setting for the bereavement and commemoration of infants and children. This section would include appropriately size in-ground casket and cremation lots, with a boundary treatment to define it from adjacent areas.

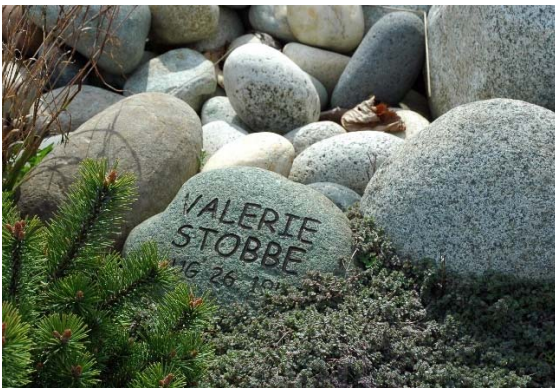


Figure 24. Precedent Images: Children's Burial Area, Source: LEES+Associates.

SPECIALIZED BURIAL AREAS – MUSLIM BURIAL

Some members of the community have specific burial requirements. In order to be inclusive and responsive to the community’s needs, the concept design includes an area designated for specialized burial such as Muslim burial, which has specific burial requirements not currently available at the Cochrane Cemetery. While there is a cemetery in the region dedicated to Muslim burial, it is recommended that the Town include provision for a specialized Muslim burial area as demand for this type of burial within the Town may arise in the future.

This area would have an adaption of the existing lot layout, with graves oriented to the northeast towards mecca. Development of the Muslim burial area should occur in collaboration with members of the local Muslim community to ensure specific burial needs and grave orientation is met. The proposed specialized burial area is within the Phase 2 development area. It is recommended that the Town develop a small area of 12 to 25 plots in this section initially, with expansion as demand for this type of interment grows.



Figure 25. Kibla (prayer) stone, Source: LEES+Associates.

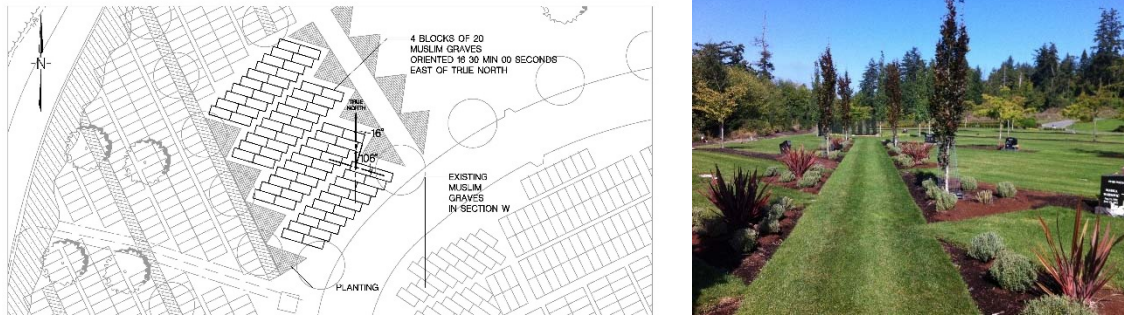


Figure 26. Sample grave orientation, Muslim Burial Area, Source: LEES+Associates.

SUMMARY OF PROPOSED INTERMENT & MEMORIALIZATION ZONES

A summary of proposed interment and memorialization areas is illustrated in the diagram below.

INTERMENT AND MEMORIALIZATION ZONES



Figure 27. Interment and Memorialization Zones, Source: LEES+Associates.

7.3 FEATURE AND AMENITY AREAS

NATURE WALK

A Nature Walk is proposed within the northwest section of the Cochrane Cemetery property. This wooded area is steep and therefore unsuitable for traditional in-ground burial. The Nature Walk will include a switchback path which links the Cochrane Cemetery to St. Mary’s Cemetery. The Nature Walk will provide an opportunity for families to commemorate or memorialize a loved one through sponsorship or purchase of a memorial stone, memorial tree or small customized family columbaria.

The entry to the Nature Walk will be flanked with landscape berms. This location will feature a cremation node with a scattering garden, memorial wall and ossuary integrated into the berm.



Figure 28. Rendering of proposed Nature Walk with columbaria and memorial stones, Source: LEES+Associates.

CENTRAL GATHERING SPACE WITH HITCHING POST MEMORIAL

The central gathering space will provide a multi-functional space for both quiet reflection and outdoor ceremonies. The gathering space is located on the natural high point of the site, capitalizing on scenic views towards the mountains. A backdrop of trees provides some shade and screening from the wind, while stone amphitheatre type seating provides an area for rest and reflection. Community and cemetery events could also be held within this space, as a way of further integrating the cemetery as an important open space within the Town.

The central gathering space will include the “Hitching Post Memorial,” a series of timber posts inspired by the traditional hitching post or snubbing post. Circular steel commemoration bands may be added to the posts, reminiscent of the ropes which left their marks on the posts over time. The memorial posts provide a space to remember loved ones, Town heroes, and community members who lived out their lives in Cochrane but are interred elsewhere. A garden behind the posts is planted with ornamental grasses and includes an area for scattering of cremated remains.



Figure 29. Precedent images: stainless steel commemoration bands, and traditional snubbing post



Figure 30. Rendering of proposed Central Gathering Space with Hitching Post Memorial, Source: LEES+Associates

7.4 OPERATIONAL IMPROVEMENTS

EXPANDED OPERATIONS YARD AND MATERIALS STORAGE

The existing maintenance building should be replaced in the future with a facility that will better meet the needs of the operational crews. A maintenance building with a garage is recommended to provide storage for all opening and closing and turf maintenance equipment. It is recommended that the works yard include a centralized materials storage area with storage bays for mulch, soil and other materials. The works yard should be fenced and gated, and adequately screen with vegetation. Spoil from other municipal park sites can continue to be stockpiled at the cemetery for use in the landscape berms within the green burial area.



Figure 31. Examples of cemetery operations yards with materials storage bays.

7.5 CEMETERY PRECINCT IMPROVEMENTS

Throughout the course of the site analysis described in Chapter 4, a number of cemetery wide improvements were identified. In order to improve the overall cemetery precinct, it is recommended that the Town:

- Rename the roadway fronting the cemeteries to “Cemetery Road,” “Memorial Drive,” or an alternative name to improve wayfinding and define branding within the cemetery precinct;
- Improve wayfinding to the cemeteries from other parts of town through increased directional signage;
- Add value to the pioneer cemeteries (St. Andrew’s and St. Mary’s):
 - Establish a columbaria garden at St. Andrew’s;
 - Refurbish the Veteran’s area at St. Mary’s Cemetery, to honour the war dead who are interred there;
 - Upgrade the main entries with better quality gates and frontage fencing that celebrate the cemeteries in an appropriate style and create a cohesive identity amongst the three cemeteries;
 - Create a walking loop to link the three cemetery sites as indicated in the Concept Plan, and
 - Add historical interpretation panels to highlight the history of the sites, notable graves and pioneer citizens. The information to be conveyed could tie into broader cultural, historic or educational programs supported by the Town, and a historical walk or programs and events specifically organized to take place at the cemeteries.

8 CEMETERY BYLAW REVIEW

The Town Cemetery Bylaw 08 / 2010, was reviewed in conjunction with the Alberta Cemeteries Act, C-3 RSA 2000, and relevant Provincial Regulations. An updated Bylaw was prepared (under separate cover) in order to accommodate new forms of interment and other cemetery improvements recommended as part of this Master Plan, and to adequately address new and emerging best practices in the administration, policy, and management of municipal cemeteries. The updated bylaw was prepared in conjunction with Town Staff, and presented for public comment at the Open House.

8.1 RECOMMENDATIONS - CEMETERY BYLAW REVIEW

In order to meet best practices for municipal Cemetery Bylaws, it is recommended that the Town:

- Adopt the updated Cemetery Bylaw. The revised bylaw ensures the Town’s Cemetery Bylaw is presented in a user friendly format, uses current language, reflects the present day and future needs of the community, and is brought in line with Provincial definitions, guidelines and regulations.
- Provide a copy of the burial permit (signed by both parties) directly to the family, to strengthen the legal position of the Town should issues arise. The burial permit is currently provided to the Funeral Home only.
- Create a handout for families regarding key policies on planting and ornamentation; incorporate clarifying details about ornamentation at the cemeteries emphasizing the importance of safety.
- Provide a temporary shelf or location near the cemetery entrance where staff can place flowers and other items removed from graves.
- Consider the creation of a burial area with a “planting garden” where individual plantings may be accommodated for an annual fee.

9 IMPLEMENTATION PLAN

9.1 PHASING PLAN

It is recommended that the Cochrane Cemetery Master Plan be delivered in phases. The Concept Plan recommendations are categorized into Phase 1 and Phase 2 as illustrated in the figure below.



Figure 32. Phasing Plan, Source: LEES+Associates

Based on staff and stakeholder input, the key elements to be prioritized in the first phase include:

Top priorities:

- Trail loop and Nature Walk;
- Veterans' Field of Honour, plaza and walk of honour;
- Columbaria plaza, and
- Central gathering space and hitching post memorial.

9.2 BUDGET ESTIMATES

An opinion of probable costs for the proposed cemetery enhancements is presented in the table below.

| Town of Cochrane - Cemetery Master Plan | |
|--|------------------------|
| Opinion of Probable Costs - Cochrane Cemetery | |
| SUMMARY | |
| ITEM | ESTIMATED COST |
| TRAIL LOOP AND NATURE WALK | \$ 75,800.00 |
| DESIGNATED PARKING ZONE AND CONTROLLED VEHICLE GATE | \$ 41,150.00 |
| COLUMBARIA PLAZA | \$ 176,340.00 |
| CENTRAL GATHERING SPACE WITH HITCHING POST MEMORIAL | \$ 131,350.00 |
| VETERANS FIELD OF HONOUR, MEMORIAL PLAZA AND WALK OF HONOUR | \$ 108,160.00 |
| VETERANS COLUMBARIA | \$ 27,600.00 |
| GREEN BURIAL AREA | \$ 43,180.00 |
| SCATTERING GARDEN & OSSUARY | \$ 20,900.00 |
| INFANT AND CHILDREN'S GARDEN | \$ 19,650.00 |
| NEW ENTRY GATES AND FRONTAGE FENCING | \$ 76,000.00 |
| CEMETERY DRIVEWAY PAVING | \$ 163,200.00 |
| WELCOME KIOSK AND MAPS | \$ 20,800.00 |
| NEW TREES TO ENTRY ALLEE | \$ 12,800.00 |
| NEW TREES TO REINFORCE CARAGANA SCREEN | \$ 36,000.00 |
| ORNAMENTAL SHRUBS ALONG WESTERN CEMETERY BOUNDARY | \$ 28,500.00 |
| EXPANDED WORKS YARD, FENCING & MATERIALS STORAGE BAYS | \$ 79,400.00 |
| TOTAL CONSTRUCTION COSTS | \$ 1,060,830.00 |
| GENERAL REQUIREMENTS | \$ 84,866.40 |
| ENGINEERING, DESIGN AND CONSTRUCTION ADMIN FEES @ 15% | \$ 171,854.46 |
| CONTINGENCY @ 15% | \$ 197,632.63 |
| TOTAL | \$ 1,515,183.49 |

Table 1. Summary of Estimated Costs

10 CONCLUSION

This Cemetery Master Plan comprehensively reviews the cemetery needs of the Town of Cochrane, provides a guiding vision, and outlines recommendations to improve and enhance the cemetery system over the coming years. This plan will help ensure that the Town is positioned to effectively meet the future interment and memorialization needs of the community, and charts a path forward that will move this service towards long term sustainability in its future operations.

11 APPENDICES

Appendix A – Demographic Profiles

Appendix B – Cemetery Market Dispositions and Market Capture Details

Appendix C – Consultation Summaries

Appendix D – New Interment Options

Appendix E – Concept Plan

Appendix F – Glossary of Cemetery Terms

APPENDIX A – DEMOGRAPHIC PROFILES

The following graphs shows the age distribution of the Town of Cochrane, Rocky View County and Province of Alberta.

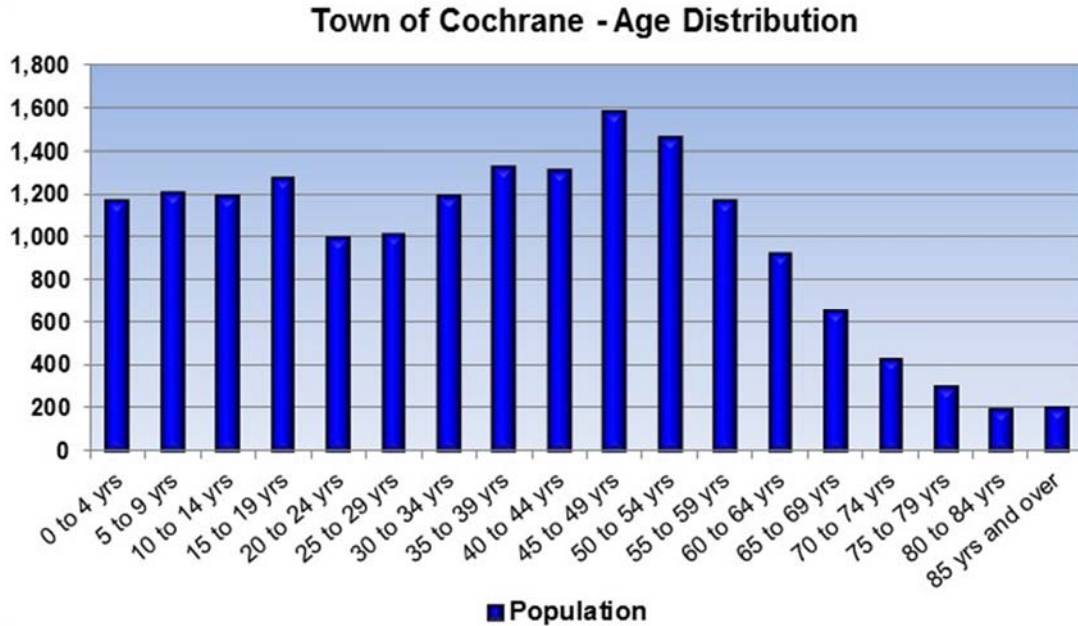


Figure 33: Town of Cochrane's Population Age Distribution as of 2011, Source: Statistics Canada.

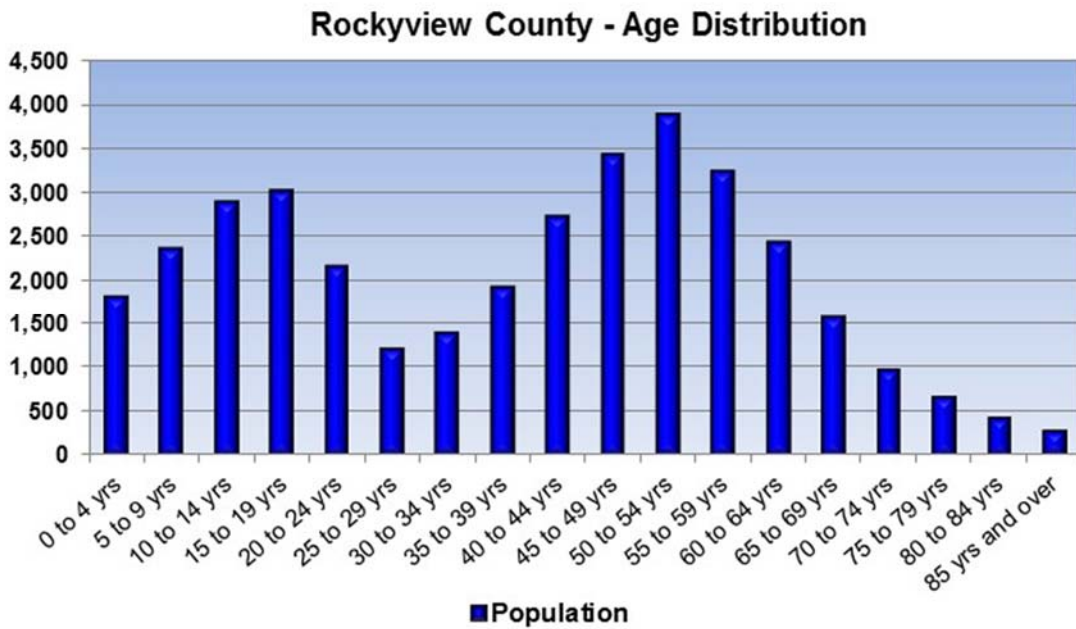


Figure 34: Rocky View County's Population Age Distribution as of 2011, Source: Statistics

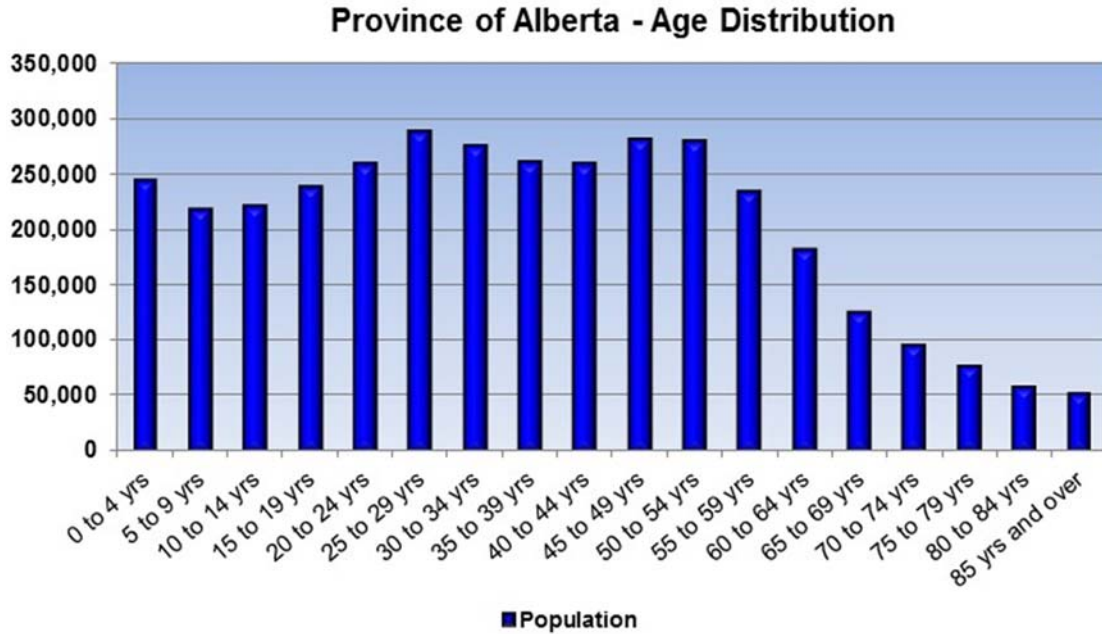


Figure 35: Alberta's Population Age Distribution as of 2011, Source: Statistics Canada.

The following graph shows the distribution of religions in the Town of Cochrane as of the 2011 National Household Survey.

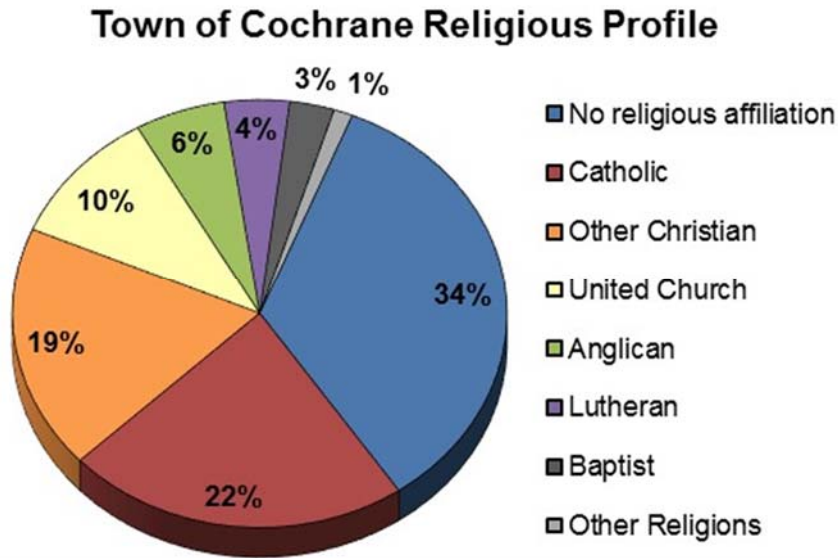


Figure 36: Town of Cochrane Religious Profile, Source: National Household Survey 2011.

The following table shows the historic population growth rates for Town of Cochrane and the Province of Alberta, over a 5 year and 10 year period.

| Population Measurement | 2006 Population | 2011 Population | 2015 Population | 2011-2015 Population Growth/Yr 5 yr *AVG | 2006-2015 Population Growth/Yr 10 yr *AVG |
|-------------------------------|------------------------|------------------------|------------------------|---|--|
| Town of Cochrane | 12,688 | 18,155 | 23,084 | 8.49% | 6.96% |
| Alberta | 3,421,361 | 3,790,193 | 4,196,464 | 2.37% | 2.30% |

Table 2: Municipal and Provincial Population Growth Rates,

Source: Statistics Canada Census 2006 + 2011, Alberta Vital Statistics. *AVG = Annual Average Rate.

The following table shows the death rates in the Town of Cochrane compared to the Province of Alberta over a 5 year and 10 year period.

| Deaths Measurement | 2006 Deaths | 2011 Deaths | 2015 Deaths | 2011-2015 Deaths/Yr 5 yr *AVG | 2006-2015 Deaths/Yr 10 yr *AVG |
|---|--------------------|--------------------|--------------------|--|---|
| Town of Cochrane | 87 | 90 | 117 | 102 | 96 |
| Alberta | 19,523 | 21,018 | 24,299 | 22,500 | 21,410 |
| Town of Cochrane Death Rate per 1000 people | 6.86 | 5.55 | 5.07 | 5.20 | 5.73 |
| Alberta Deaths per Death Rate per 1000 people | 5.71 | 5.55 | 5.79 | 5.62 | 5.64 |

Table 3: Municipal and Provincial Death Rates,

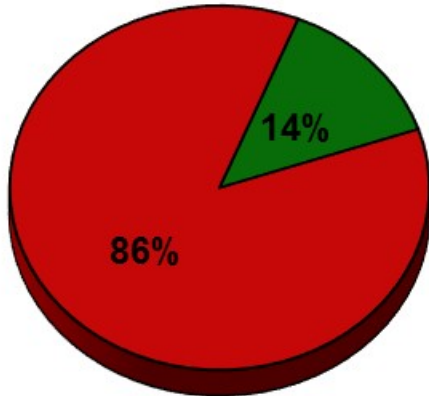
Source: Alberta Vital Statistics, Statistics Canada.

The death rate in this report measures the number deaths for each 1,000 individuals in the region's population for a particular year or stated time period.

APPENDIX B – CEMETERY MARKET DISPOSITIONS AND MARKET CAPTURE DETAILS

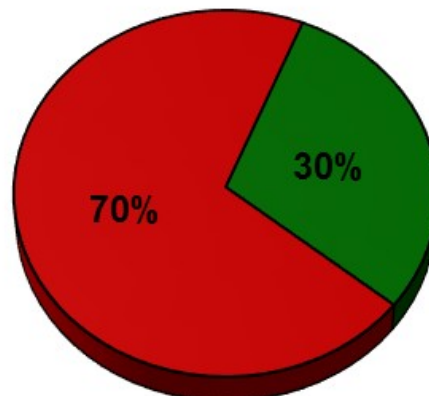
The pie charts below show the rate of disposition in the Town of Cochrane and Alberta in 2015.

Disposition Preferences - Town of Cochrane, 2015



■ Casket Disposition
■ Cremation Disposition

Disposition Preferences - Alberta, Canada, 2015



■ Casket Disposition
■ Cremation Disposition

Figure 37: Disposition Preferences in the Town of Cochrane and Alberta, Source: Alberta Vital Statistics, LEES+Associates.

The following table summarizes the interment activity at Town Cemeteries over the last 5 years.

| Service Type | Town of Cochrane Cemeteries Activity, 2011-2015 | | |
|--------------------|---|--------------------|-----------------------|
| | Total Interments | Average Interments | % of Total Interments |
| Traditional Casket | 55 | 11 | 38% |
| Cremation Urns | 90 | 18 | 62% |
| Total | 145 | 29 | 100% |

Table 4: Summary of 5 Years of Interments by Service Type at Town of Cochrane Cemeteries, Source: Town of Cochrane Interment Records.

The following two graphs summarizes the historic cemetery market that characterized the Town of Cochrane for the past 5 years.

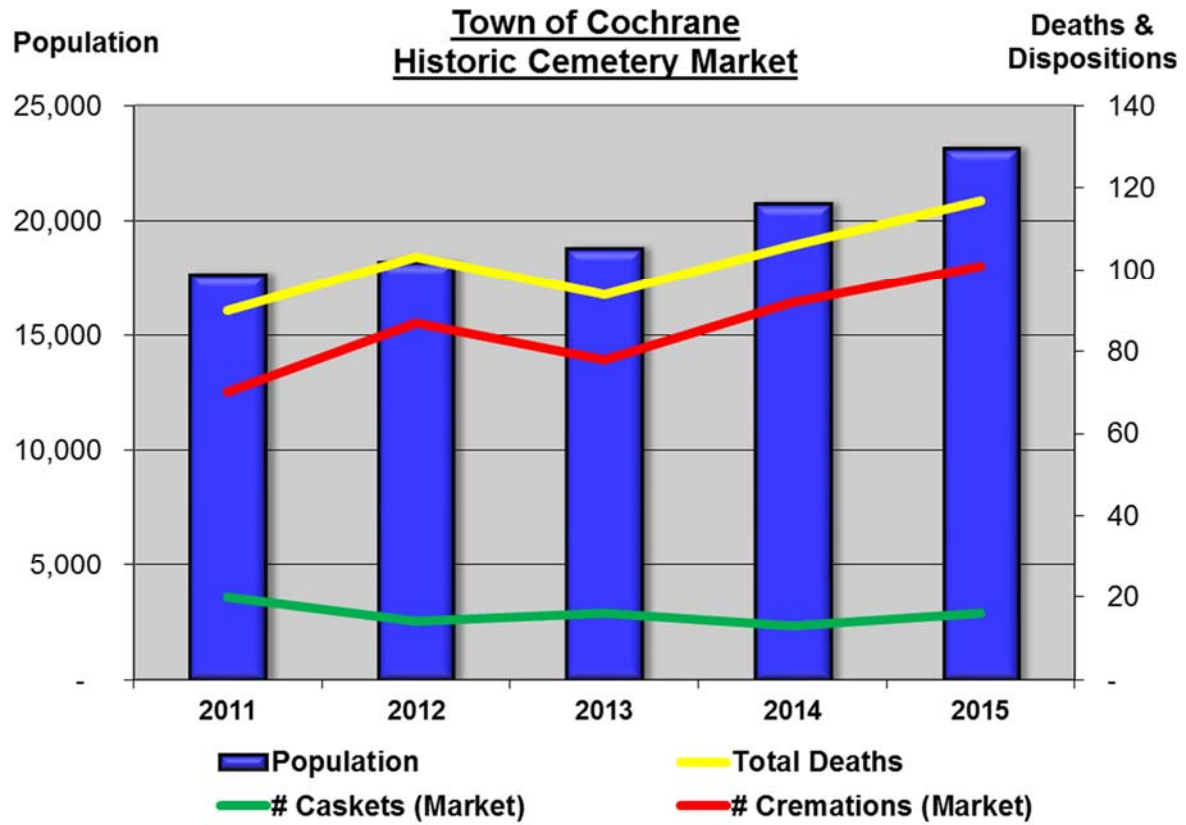


Figure 38: 5 Year Town of Cochrane Cemetery Market Overview, 2011-2015
 Source: LEES+Associates.

The following graph summarizes the historic cemetery market capture activity that characterized the Town of Cochrane cemeteries for the past 5 years.

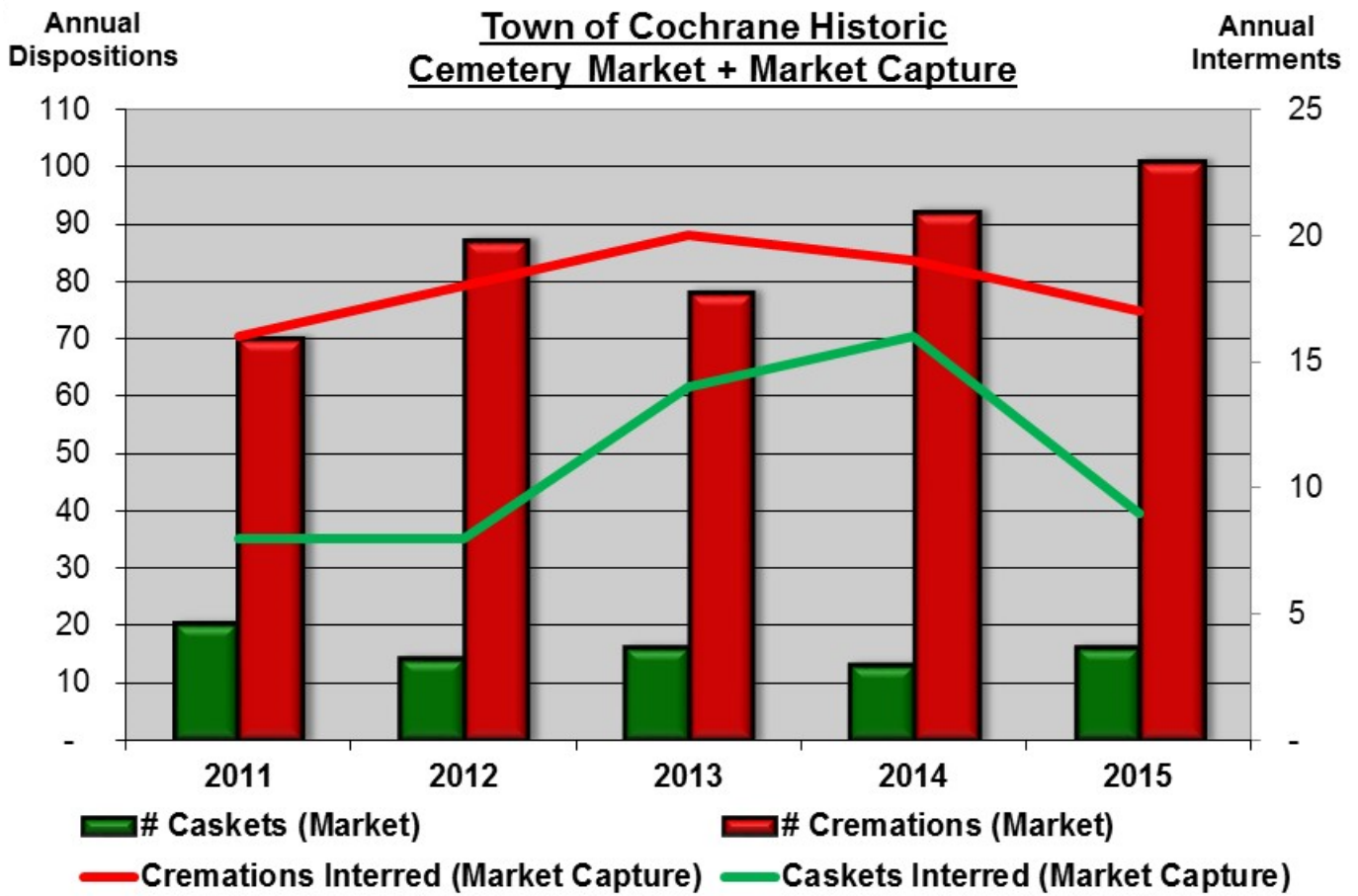


Figure 39: 5 Year Cemetery Market Capture of the Town of Cochrane Cemetery Market, 2011-2015
 Source LEES+Associates.

APPENDIX C – CONSULTATION SUMMARIES

#1 – WORKSHOP WITH TOWN STAFF

Date: April 6, 2016, 10:30 am – 12:00 pm

Location: Rm 278, 101 RancheHouse Rd, Cochrane

Attending:

Town of Cochrane: Gerry Murphy (Manager of Parks and Open Spaces), Stacey Loe (Manager, Legislative Services), Rob Husli (Parks Operator), Ryan Stewart (Sr Civil Engineering Technologist), Brad Luft (Parks Coordinator), Tanya Fiwchuk (Administrative Assistant), Nancy Remus-Everitt (Administrative Assistant)

Cemetery Consultants: Erik Lees, Heidi Redman (LEES+Associates), Brian Liu (WSP Group)

Key Messages from Town Staff:

1. Town population growth trends are substantial; it is worth noting that population growth has been over 10% in the last three years. There is no plan for annexation within the next 46 years. Future growth will be accommodated through increased density.
2. Resident and non-resident interment numbers are captured and should be added to the demand needs analysis.
3. The Cemetery Bylaw currently requires a concrete liner, in order to facilitate double depth burial and reduce settling of the ground after burial. This requirement could be more flexible, as liners may not be necessary all the time.
4. Memorial benches are currently located throughout the Town. There could be more options for memorialization without interment at the cemetery in order to encourage memorialization of the community heroes and residents.
5. Memorial trees are not presently offered at the cemetery, but could be added as an option.
6. A short handout could be produced to explain future policies on ornamentation and planting adopted as part of the new cemetery bylaw.
7. The Cochrane Cemetery land lies within Rocky View County boundaries and was donated by the Franciscan Friars. The Town will confirm if title was transferred to the Town as part of the donation.
8. The Franciscan's have their own burial area at their property – however, they may be interested in having a dedicated space at the cemetery.
9. A treed buffer to the materials storage area on site was planted but has not grown in yet.
10. St. Andrew's and St. Mary's cemeteries are closed to new sales, but are still interments are still taking place. Some families with plots at these sites have expressed an interest in columbaria/ash interment option at these locations in order to be close to family members

buried there. Once the sites are closed to interment, existing unoccupied lots could be planted with trees, and the road at St Andrew’s could be closed.

11. Ground penetrating radar will occur soon at the historic sites to confirm whether remaining reserved lots are unoccupied.
12. The three cemeteries could be tied together through fencing and signage. There is currently no signage at St. Andrew’s or St. Mary’s.
13. There are opportunities to capitalize on the existing site incline and mountain views at Cochrane Cemetery.
14. Groundwater is not typically encountered during grave opening however large rocks are a common problem, especially at double depth. Approximately 50% of graves have large rocks at depth, with some rocks up to 10’ in length.
15. A pre-dug trench was excavated along the current ribbon to facilitate the removal of large rocks. The trench was backfilled with clay and small rock, and covered with 1’ of loam. The local climate does not require winter pre-dug graves.
16. Ground penetrating radar could be done at the Cochrane Cemetery site in order to locate large rocks.
17. Double depth is available for families, with placement of up to an additional 6 cremated remains in one plot.
18. No pre-need is available at the cemetery. Plots are assigned at the time of need. It has always been done this way, and this has alleviated potential operational challenges of large rocks. The Town could be losing some families due to this policy. The policy could be changed for example to offer pre-need throughout the site, in cremation plots only, or in specific areas of the cemetery. The Town is interested in pre-need as a premium offer at the cemetery.
19. The cemetery requires a diversification of products and services. More variety of interment options is desired including areas or gardens for flat markers.
20. The existing cremation section is for flat markers only; there is demand for cremation upright markers, as well as scattering, columbaria, and an infant garden.
21. The site should be developed to be more park-like, ie., a “memorial park” with better integration of walking paths on the site.
22. Use of concrete ribbons was adopted in order to avoid sinking, keep headstones aligned, create clean lines and make for easier maintenance.
23. First Nations have their own cemetery in Morley.
24. It would be useful for Council to be informed of potential revenue returns on columbaria (ie., can columbaria generate revenue for future cemetery improvements).
25. The new cemetery will require a new Field of Honour. The existing Field of Honour in St. Mary’s could also be improved.

Notes by: HR

#2 – SITE VISIT WITH OPERATIONS STAFF

Date: April 6, 2016, 1:30 – 3:00PM

Location: Cochrane Cemetery

Attending:

Town of Cochrane: Gerry Murphy (Manager of Parks and Open Spaces), Rob Husli (Parks Operator)

Cemetery Consultants: Erik Lees, Heidi Redman (LEES+Associates), Brian Liu (WSP Group)

Key Messages from Operations Staff:

Cochrane Cemetery

General

1. There are currently separate sections for flat and upright markers.
2. The raised bed at the cemetery entry is typically planted with day lilies.
3. There are good long views to the Rocky Mountains, but mid views to adjacent residential development west of the site could be better screened.
4. A \$1M construction budget for cemetery improvements would be reasonable. However, there is flexibility in this number, additional funding can be considered depending what recommendations are put forward and how the improvements are phased.
5. There are a number of informal trails in the vicinity of the cemetery including up to Big Hill (a popular hiking destination), down the road to the St. Francis Retreat, as well as an informal trail through the woods to RanchoHouse.
6. The Open Space Master Plan should be referenced with regard to plans for adjacent parks and trails.
7. There is an existing wooded area within the cemetery property that could be considered for a nature walk, green burial or memorial stones.
8. The land directly to the north and east of the cemetery is grazed by horses.
9. There are no sanctioned events currently held at the cemetery. November 11th services are held at the Legion.
10. There are no more Veterans graves available at St. Mary's – a new Field of Honour will be required; possibly a "Walk of Honour" for veterans?
11. Double depth is currently available at all plots, but could be limited to certain areas to relieve operational constraints of large rocks encountered at depth.

Infrastructure

1. The irrigation system currently uses potable water, but the Town would like to move away from that if possible. The system is a manual pop-up but would like to move towards a climate based system.
2. Irrigation is only installed within the burial zones.
3. Trees are watered periodically, and appear healthy.
4. There have been no issues with the roads within the cemetery, however a road paving program should be considered as part of the Master Plan to improve the overall aesthetics of the cemetery, and reduce maintenance.
5. Parking in front of the cemetery entrance gate is a visual deterrent.

Operations

1. The current operations building does not have lights or power.
2. Funeral homes do grave side set-up. Grave lowering is also handled by the funeral homes (usually done by Calgary vaults). These are aspects of operations that the Town could consider providing on a fee for service basis.
3. All equipment including the backhoe are brought in to the site as required.
4. Ground mats and ground heater are used for winter burials and stored in the shed.
5. The Town will be acquiring turf specific equipment including an aerator, tiner etc.
6. The cemetery could house a satellite operations yard in the future with a new structure.
7. Materials spoil from other parks sites is currently stored at the cemetery, but this practice could change in the future.

St. Mary's & St. Andrew's

1. The historic cemeteries lack signage.
2. Frontage fencing at the two sites could be improved.
3. St. Mary's is the hillier of the two sites, and has many uneven monuments that require releveling.
4. Both cemeteries are closed to new interments, but there are still a couple of interments per year at reserved plots.
5. The roadway at St. Andrews could be decommissioned once the cemetery is closed to interments, and considered for cremation infill.
6. The Town has commissioned GPR at the historic sites to confirm remaining lots are vacant.
7. Many important citizens have been interred at St. Mary's and St. Andrew's – for example, Mr. Blaney who was the first black municipal worker and grave digger while employed with the Town. There are also a number of war dead at St. Mary's.

Notes by: HR

#3 – MEETING WITH FUNERAL HOMES

Date: April 6, 2016

Location: by telephone

Attending:

Town of Cochrane: Gerry Murphy (Manager of Parks and Open Spaces)

Stakeholder Representatives: Ernie Hagel (McInnis & Holloway)

Cemetery Consultants: Erik Lees, Heidi Redman (LEES+Associates)

Key Messages from Funeral Home Representatives:

1. Greater expediency and a more streamlined process for grave opening is desired.
2. The Town has a great cemetery system, and the cemetery is in a good location.
3. The requirement for compulsory vaults in the Cemetery Bylaw should be reconsidered.
4. The Town should be cautious in opening a green burial section.
5. Families have expressed an interest in niches (columbaria), an ossuary, and a scattering garden with a memorial wall.
6. If the Town were to provide casket lowering services, it would be received positively.
7. Families would appreciate a meaningful place to scatter remains with views to the mountains.

Notes by: HR

#4 – MEETING WITH FAITH / HISTORICAL GROUPS

Date: April 6, 2016

Location: Hall of Vision, 101 RancheHouse Rd

Attending:

Town of Cochrane: Gerry Murphy (Manager of Parks and Open Spaces)

Stakeholder Representatives: Gordon Davies (CHAPS), Bernice Klotz (CHAPS), Normajean Kinch and Al Campbell (St. Mary's Catholic Church)

Cemetery Consultants: Erik Lees, Heidi Redman (LEES+Associates)

Key Messages from Faith Groups / Historical Society Representatives:

1. Additional interment space at St. Andrew's and St. Mary's would be desirable for families to be buried with loved ones.
2. Cemetery should have integration of a walking route through the site, and more integration of casket and cremation interment options.
3. The main competition to Cochrane Cemetery is Garden of Peace and Mountain View Cemeteries, in Rocky View, Spring Bank, and Water Valley Cemetery (Roman Catholic).
4. The main storyline is the need to attract more cremation interment.
5. Many families would like to see pre-need lots or a hybrid of pre-need offered to create the ability for families to be laid to rest together.
6. The size of some monuments is too large.
7. The fencing is too close to graves in the old cemeteries.
8. There is currently no contemplative space or sitting area in any of the cemeteries.
9. An offer of memorial trees at the cemetery could be an appealing option, as well as a memorial wall for those buried elsewhere.
10. Columbaria, if implemented should be accompanied by marketing and/or an Open House or event at the cemetery, as many residents may not be familiar with the concept.
11. The land for St. Mary's and St. Andrew's Cemeteries was donated by Pete Collins, who owned a local brickyard. Integrating original bricks from the brickyard would be a fitting addition. There is a monument to the bricklayer in Town.
12. The St. Francis Retreat should also be recognized for their donation of the new cemetery lands.

Notes by: HR

#5 – MEETING WITH COMMUNITY ASSOCIATION REPS

Date: April 6, 2016

Location: Hall of Vision, 101 RancheHouse Rd.

Attending:

Town of Cochrane: Gerry Murphy (Manager of Parks and Open Spaces)

Community Association Representatives: Valerie McCracken (West Valley/West Terrace Community Association), Igor Visser (Cochrane Settlement Community Association)

Cemetery Consultants: Erik Lees, Heidi Redman (LEES+Associates)

Key Messages from Community Association Representatives:

1. Families would like to see more interment options and a diversification of quality and different price points.
2. The cemetery feels sterile and is not intimate; it is just grass, with underutilized spaces. Need to make the spaces multi purpose.
3. The cemetery could use more benches, bird feeders and pathways. The design should capitalize on views to the mountains.
4. Columbaria and green burial would be welcome as new interment options.
5. Possibly there could be a historical walk with names of community members.
6. Potential trail connections include a link to the Franciscan retreat, and Big Hill Creek Trail. There is also an informal trail from near the site to RancheHouse (see Open Space Plan).
7. Materials spoil could be better screened.
8. The site can be windy; consider a screened viewpoint.
9. A hard axis of cremation interment could help to define spaces within the site.
10. Cochrane is known for ranching, gates, and a prairie feeling. Landscape qualities unique to the place includes the river, river rock, hills, and sandstone. The biophysical vernacular of Cochrane could be evoked at the site.
11. Idea for “Trees for the Living”, ie, trees dedicated to births in the community (these could be tagged using GPS).

Notes by: HR

#6 – MEETING WITH COCHRANE LEGION

Date: April 21, 2016

Location: by telephone

Attending:

Legion Branch 15 Representatives: Darla Gullon (President)

Cemetery Consultants: Heidi Redman (LEES+Associates)

Key Messages from Legion Representatives:

1. There are quite a few Veterans in Cochrane. There is a growing interest in cremation and more specifically columbaria (above ground niches) from Legion members.
2. A cairn or monument at the new cemetery site would be utilized for the placing of wreaths on Remembrance Day.
3. Legion representatives would like to attend the Public Open House to provide input on the draft concept design.

Notes by: HR

#7 – PUBLIC OPEN HOUSE

Date: September 21, 2016

Location: 101 RancheHouse Rd

Time: 7-9pm

Background

Information boards with conceptual plans as well as a draft bylaw were presented at the Open House. Approximately 40 people attended. A formal presentation and Q&A session was facilitated, as well as informal discussion at the displays. Public feedback was welcomed via hardcopy feedback form. The information boards and an online version of the feedback form were available for public comment on the Town website at www.cochrane.ca/cemetery from September 22 to 30, 2016.

Total Feedback Forms Received: 8

Summary of Feedback

1. What is your overall impression of the proposed concept design?

- Looks impressive.
- This is an excellent start to improve existing deplorable conditions.
- Outstanding, so looking forward to the end result.
- Good.
- Very impressive, thoughtful design. Well done.
- Very good and well thought out.
- Very nice.
- I am impressed with the layout.

2. What are the top three features that you think the Town should include as part of future cemetery improvements?

1. Expand the range of interment options at the cemetery.
2. Enhance the overall aesthetics of the cemetery.
3. Upgrade cemetery driveways and access.
4. Other (please specify)
 - A planned and ongoing operation of upkeep.
 - Consult with the Muslim Community.
 - To be well lighted.

3. Are there any additional specific religious, cultural or secular practices that you would like to see accommodated at the cemetery?

- The Field of Honour
- The Legion would like to be consulted with regard to design and creation of the Veterans Memorial Cenotaph.
- No (4)

4. Would you consider green burial if it were made available at Cochrane Cemetery?

- Yes (3) No (3) N/A (1)

5. Would you consider one or more of the following options for cremated remains interment if they were made available?

- **Columbaria** Yes (3) No (5)
- **Scattering Garden** Yes (3) No (5)
- **Family Vessels** Yes (3) No (5)

6. Would you consider interment in a columbaria garden if this option was made available at the St. Andrew's Cemetery?

- Yes (2) No (5)

7. Is an inscription on a memorial wall an option your family might choose, even for those buried elsewhere?

- Yes (3) No (4)

8. The Cochrane Cemetery is intended to accommodate a wide variety of uses other than burial, including acting as an extension of our existing green spaces. Keeping that in mind, what are the MOST IMPORTANT amenities you would like to see in the improved cemetery? (1=most important)

1. Walking paths
2. Trees, horticultural features
3. Rest areas, benches and viewpoints
4. Ceremonial/gathering space
5. Sculpture/public art
6. Other: Security cameras 24/7 and personnel on site. Needs to have lighting.

9. In general, do you support the proposed upgrades to the Cochrane cemetery?

- Strongly Support (5)
- Support (2)
- Neutral (1)
- Opposed (0)
- Strongly Opposed (0)

10. The Town is also updating the Cemetery Bylaw to ensure it is current with industry standards and best practices. Do you have any comments related to the Bylaw?

- Just what I heard here.
- The plan allows for a Muslim designated section, is there a like section for those of the Jewish faith?
- At this point not familiar with what the bylaws are.
- No (2).

11. Any other comments?

- Great presentation. Hope it is completed as designed.
- Very concerned about the increased traffic on Centre Ave - already a BIG problem especially with students driving up and down the road recklessly to gather at the end - no security - student (or presumably students) smoking pot, drinking, etc. etc. Proposed gate at the end of Centre Ave barring unwarranted traffic, speed bumps, possible camera surveillance. Also will eliminate illegal dumping of garbage.
- What are the plans for security, i.e., closed CCTV, or surveillance.
- With regards to keeping the sites free of crime has a Crime Prevention through Environmental Design (CPTED) assessment been carried out on the plans?

Notes by: HR

APPENDIX D – NEW INTERMENT OPTIONS

COLUMBARIA NICHES are increasing in demand and can be profitable for a cemetery. Typically, approximately 25% of all cremated remains interred at Canadian municipal cemeteries are interred in columbaria. Columbaria installations at the Town cemeteries should be a prioritized as a key element in future development. With cremation on the rise and their popularity at Canadian cemeteries, niches can be a key source of sales growth and provide effective conservation of limited land capacity. Columbaria construction costs vary widely depending on size, design details and the amenities placed within the adjacent landscape.

SCATTERING GARDENS are areas in a cemetery that provide an attractive natural or ornamental setting, dedicated to the scattering of cremated remains. Scattering gardens often include memorial walls. With increasingly mobile families and people choosing not to inter the cremated remains of their loved ones in a cemetery environment, there is a large market for the sale of plaques that will enable people to memorialize family members whose remains are interred or scattered elsewhere. Developing scattering gardens at cemeteries offers an opportunity to improve the cemetery’s means of meeting the rising demand for the interment of cremated remains.

COMMUNITY AND FAMILY VESSELS are large, secure containers designed to hold several smaller urns that contain the remains of members of one family, or serve as an ossuary for community interment, or comingled cremated remains. These vessels are a new interment option in Canada, therefore the introduction of a new product into the community will require target marketing time and investment to increase the awareness of this new option. Best practices advise that vessels inventory be invested in phases, as driven by demand – with small numbers of inventory on hand to show customers. These vessels can be strategically located at attractive positions adjacent to scattering gardens, columbaria and paths.

GREEN BURIAL is emerging as a type of full body interment that is attracting increasing interest across North America. Also known as “natural burial,” “country burial” or “woodland burial,” this type of interment is still relatively uncommon in Canada. As of 2014, however, a new Green Burial Society of Canada has been established. Its role is to promote green burial standards, including cemetery participation in the (international) Green Burial Council’s certification system.



Figure 40: Green Burial Service, Royal Oak Burial Park, Victoria BC, Source: LEES+Associates.

Green burial is defined as traditional earth burial with:

- No embalming;
- No use of grave liners or vaults;
- A fully biodegradable burial container (casket or shroud);
- Interment sites planted with only indigenous groundcover, and
- No individual grave markers.

Green burial has three core tenets:

- Social;
- Economic, and
- Environmental Sustainability.

Societal trends exhibit a preference for environmentally sustainable choices, opening up green burial as an attractive service option and new revenue stream. Green burial can generate equivalent or larger margins than other interments due to the intrinsic ethical value families place on this service.

Green burial cemeteries can be either meadows or a wooded area with minimal maintenance, and no memorials marking the grave. This concept could also take place in a separate area of developed cemeteries.

Green burial allows for slightly shallower excavations (1.2m/ 4’ depth) compared with the 1.8m/6’ depth of conventional burials. Excavated soils do not need to be removed, nor does the grave need to be replanted with turf grass. Families typically pay for the re-vegetation of graves with native plant materials, which gradually restores the area to a more natural condition.

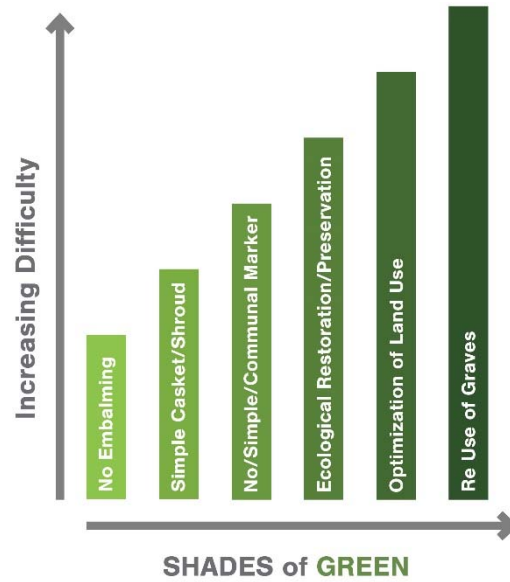


Figure 41: Shades of Green in Green Burial Practices, Source: LEES+Associates.

Green burial is an emerging trend in Canada. In the spring of 2014 the inaugural meeting of the Green Burial Society of Canada occurred. This organization intends to work collaboratively with the US Green Burial Council to develop a “made in Canada” green burial, funeral and products standard and to advocate for green burial cemeteries and areas within established cemeteries in Canada.

With the involvement of environmentalists, scientists, lawyers, and representatives from the funeral service industry, the US Green Burial Council has set forth the World’s first standards for burial grounds, funeral homes and burial products. The Council maintains all relevant documentation (i.e. conservation easements, deed restrictions, general price lists, material safety data sheets, engineering reports) to demonstrate proof of compliance with green burial standards.

Best Management Practices:

Green Burial cemeteries and areas within cemeteries are becoming more prevalent in many countries around the world. Royal Oak Burial Park in Victoria, BC opened Canada’s first green burial site in 2008. Waverley Cemetery in New South Wales, AU utilizes a “Limited Renewable Tenure” policy whereby a family may purchase a grave and inter up to three full bodies and 3 cremations for a fixed period.

Green burial has its roots in a desire felt by some to reconnect with the key events of life, including death, and to restore the personal meaning to the traditions that surround these events. Many who would otherwise choose cremation are attracted to green burial, especially as it better meets their environmental values by imposing a much smaller “environmental footprint.”

Choosing green burial is for many an expression of their personal values. Since the people choosing green burial would typically not choose to be interred in a conventional cemetery, offering green burial could be a means of tapping into a market segment that is currently unavailable.

Most people have heard of green burial and are curious to learn more about it. The largest green burial area in a public cemetery in Canada is the “Woodlands” at Royal Oak Burial Park near Victoria, BC. This site opened in late 2008 and since then has sold over 70 at-need and 100 preneed lots. Offering green burial is advantageous in terms of its **marketing value**. Print, TV and radio media are very attuned to stories about green burial. Stephen Olson, the Executive Director of Royal Oak attests to the promotional value of green burial at his cemetery.²

Green burial should be just as valued – and valuable – as traditional burial grounds and for that reason should be priced commensurate with other full depth burial sites. Over the long term, maintenance becomes less as a green burial area is expected to return to nature, if not take on a naturalistic, less manicured appearance.

Due to the small number of cemetery sites currently offering green burial within Canada, any new dedicated green burial area will have a distinct advantage to capture significant market share from families interested in the service.

² CTV News, 'More people opting for 'The Green Goodbye'', February 20, 2013

(<http://bc.ctvnews.ca/more-people-opting-for-the-green-goodbye-1.1158345>)

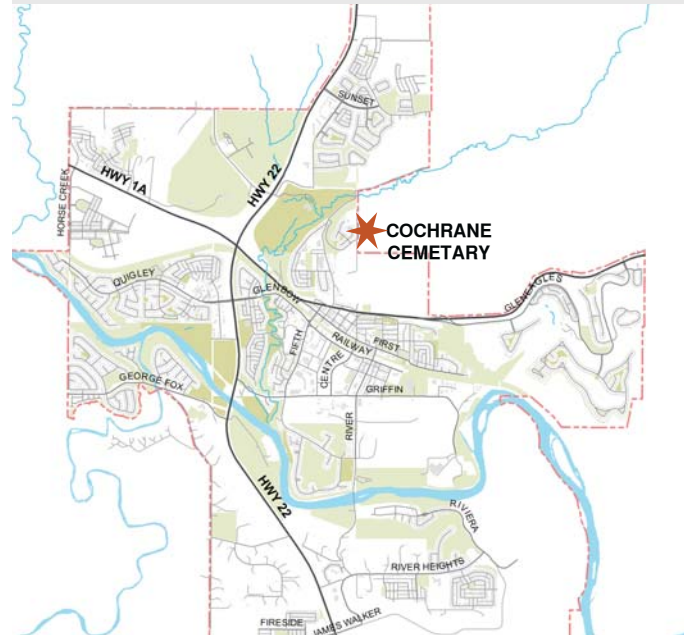
APPENDIX E – CONCEPT PLAN

INTRODUCTION

The Town of Cochrane owns and operates three cemeteries – St. Andrew's Cemetery, St. Mary's Cemetery and Cochrane Cemetery. St. Andrew's and St. Mary's have limited capacity and are now closed to new plot sales.

Cochrane Cemetery was opened in 1996, and to date only a small portion of the land has been developed. This Master Plan brings forward recommendations to enhance the layout and operation of Cochrane Cemetery in order to better serve the needs of the community over the coming years.

LOCATION PLAN



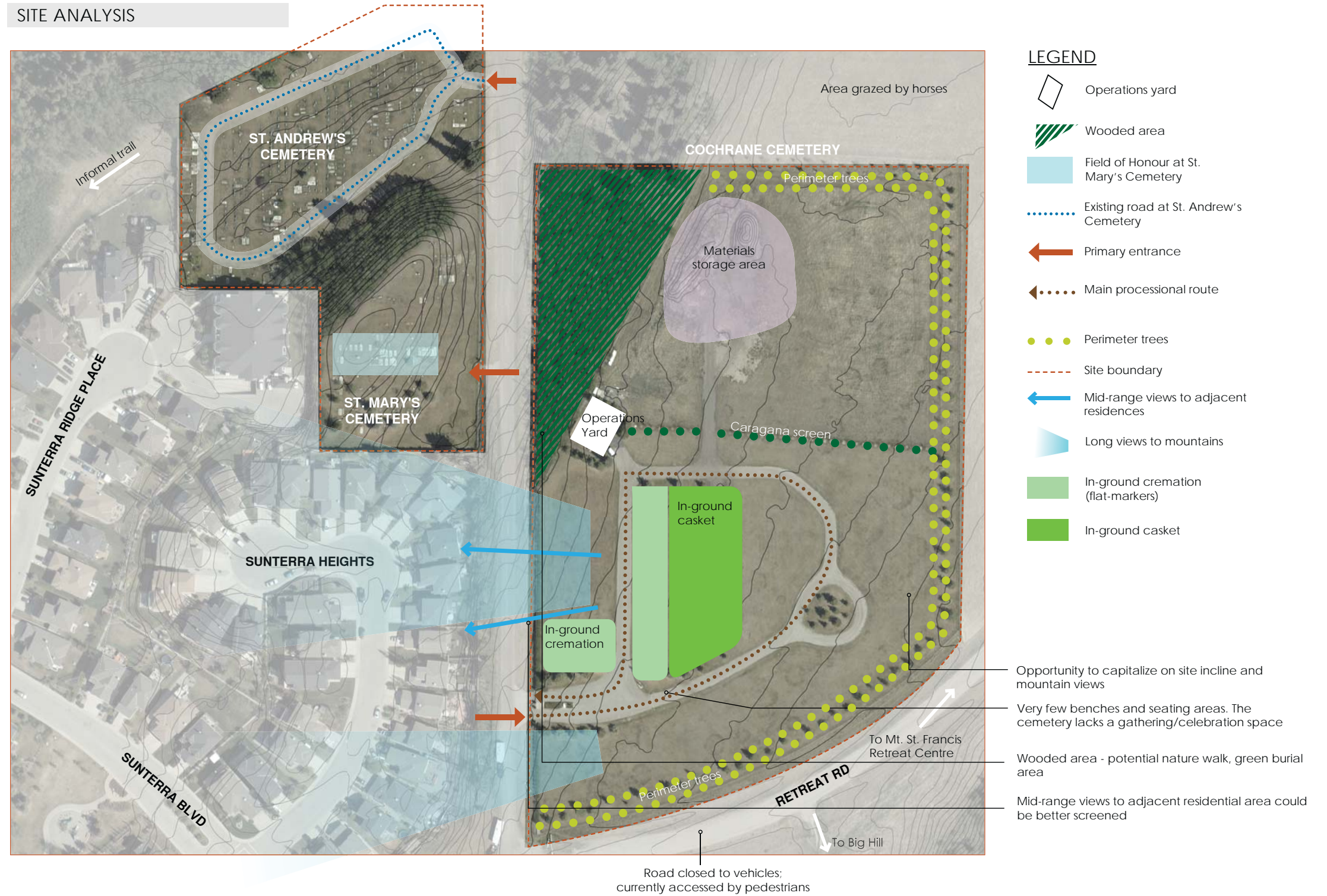
EXISTING SITE CHARACTER



PROJECT TIMELINE



SITE ANALYSIS



LEGEND

- Operations yard
- Wooded area
- Field of Honour at St. Mary's Cemetery
- Existing road at St. Andrew's Cemetery
- Primary entrance
- Main processional route
- Perimeter trees
- Site boundary
- Mid-range views to adjacent residences
- Long views to mountains
- In-ground cremation (flat-markers)
- In-ground casket
- Opportunity to capitalize on site incline and mountain views
- Very few benches and seating areas. The cemetery lacks a gathering/celebration space
- Wooded area - potential nature walk, green burial area
- Mid-range views to adjacent residential area could be better screened

1. SITE ANALYSIS AND EXISTING CONDITIONS

TOWN OF COCHRANE CEMETERY MASTER PLAN

OVERVIEW

The Cochrane Cemetery is currently 20% developed with room for expansion. The objectives of the concept design are to:

1. Create a cemetery with a beautiful, park-like setting;
2. Diversify the variety of interment options offered;
3. Provide more opportunities to celebrate and remember loved ones who have passed away;
4. Reflect the unique character and heritage of Cochrane;
5. Respond to the site's topography and optimize views to the mountains, and
6. Improve access and circulation.

The proposed design will provide 100+ years of additional burial capacity as part of a phased development.

GREEN BURIAL



"Natural" or "Green" Burial is an alternative to traditional burial practices. The five principles of Natural Burial are:

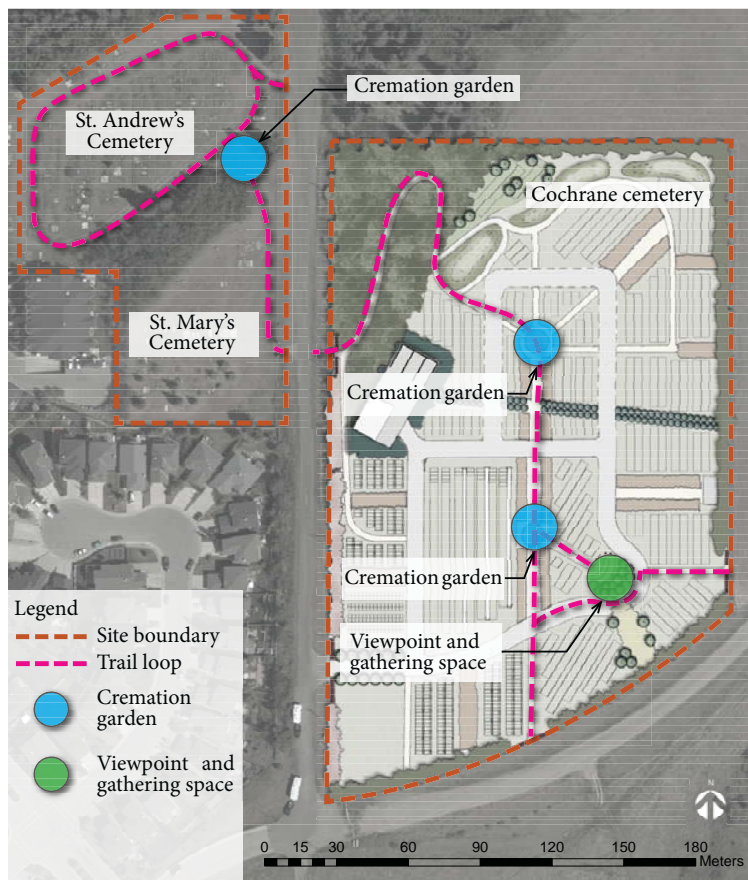
1. No embalming;
2. No outer burial container;
3. A biodegradable casket or shroud;
4. A communal marker, and
5. Some form of habitat enhancement.

To find out more visit the Green Burial Society of Canada's website: www.greenburialcanada.ca

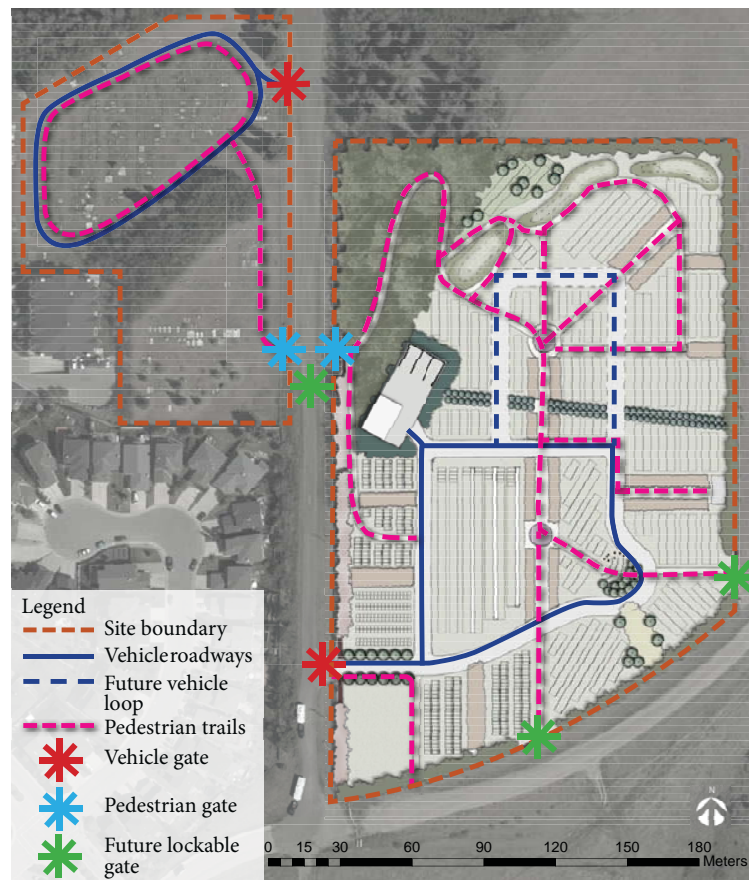
CONCEPTUAL DESIGN PLAN



TRAIL LOOP CONCEPT



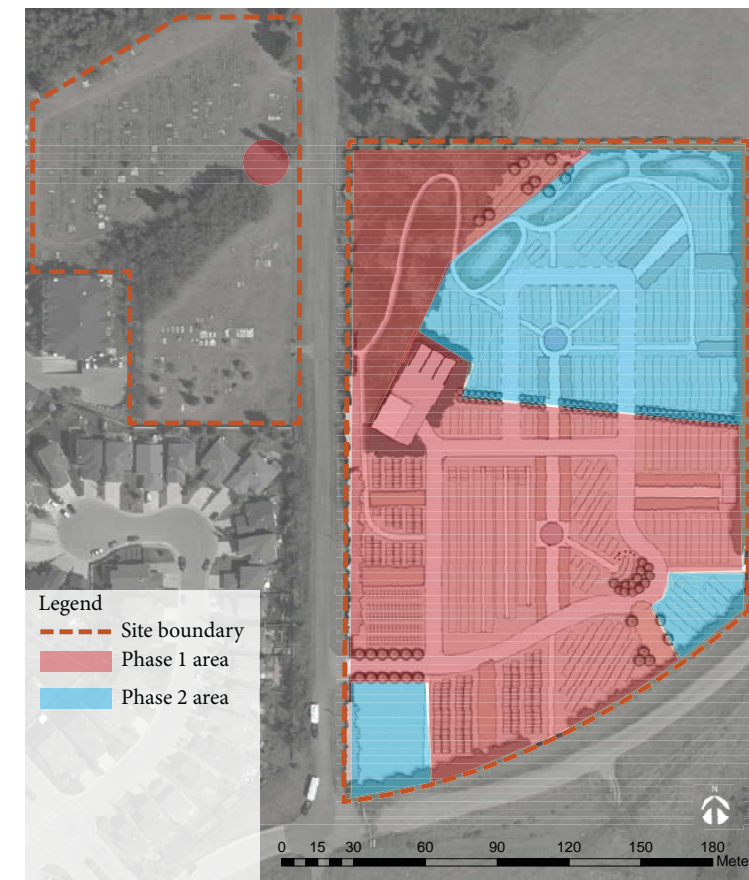
ACCESS & CIRCULATION



INTERMENT AND MEMORIALIZATION ZONES



PHASING PLAN



PRECEDENT IMAGES



AMPHITHEATRE SEATING / VIEWPOINT



IN-GROUND CREMATION GARDENS



GRASSES IN THE LANDSCAPE



ENTRIES AND GATES



NATURE WALK WITH MEMORIAL STONES



BERMS AND LANDFORM



GRASSES IN THE LANDSCAPE



RANCHING HERITAGE



COLUMBARIA WITH FAMILY VESSEL



MEMORIAL WALL

3. WHAT WILL THE CEMETERY LOOK LIKE AND INCLUDE?
TOWN OF COCHRANE CEMETERY MASTER PLAN



VIEW POINT AND GATHERING SPACE WITH HITCHING POST MEMORIAL WALL, AND SCATTERING AREA



VETERANS AND PROTECTION SERVICES MEMORIAL PLAZA



COLUMBARIA PLAZA WITH SCATTERING GARDEN AND FAMILY VESSELS



NATURE WALK WITH COLUMBARIA AND MEMORIAL STONES

4. RENDERINGS
TOWN OF COCHRANE CEMETERY MASTER PLAN

APPENDIX F – GLOSSARY OF CEMETERY TERMS

Adapted from various sources by LEES+Associates.

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| AT-NEED | <ul style="list-style-type: none">▪ At the time of, or immediately following, death.▪ Usually refers to the time of purchase of funeral or cemetery services. |
| BOOK OF MEMORIES | <ul style="list-style-type: none">▪ Plaque with list of names of the deceased who typically are located in areas not readily accessible.▪ A type of memorial monument. |
| BURIAL | <ul style="list-style-type: none">▪ One form of interment.▪ The placement of human or cremated remains in a grave. |
| BURIAL LINER | <ul style="list-style-type: none">▪ Similar to a burial vault, however, unlike a vault it only covers the top and sides of the casket |
| BURIAL PERMIT | <ul style="list-style-type: none">▪ A legal document issued by a regulatory authority authorizing final disposition of human remains. |
| BURIAL VAULT | <ul style="list-style-type: none">▪ A protective, sealable outer receptacle, into which a casket or urn is placed, designed to restrict the entrance of gravesite elements into the casket or urn. |
| BYLAWS | <ul style="list-style-type: none">▪ The written regulations, rules or laws governing the organization, management and operation of a cemetery, mausoleum, columbarium or crematorium. |
| CARE FUND (also known as PERPETUAL CARE FUND or MAINTENANCE FUND) | <ul style="list-style-type: none">▪ An irrevocable trust fund established, held and administered in accordance with applicable law, with the income from the fund to be used for the upkeep and repair of a cemetery, mausoleum or columbarium. |
| CASKET | <ul style="list-style-type: none">▪ A rigid container usually constructed of wood, metal or similar material, ornamented and lined with fabric, designed for the encasement of human remains. |
| CASKET ENTOMBMENT | <ul style="list-style-type: none">▪ When a casket is interred in a mausoleum. |

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| CEMETERY SERVICES | <ul style="list-style-type: none">▪ The disposition of human remains by interment or cremation and includes the supply of goods incidental to the provision of such service, but does not include the sale of lots. |
| COLUMBARIUM (plural: COLUMBARIA) | <ul style="list-style-type: none">▪ A structure, building, an area in a structure or building that contains, as an integral part of the structure or building or as freestanding sections, niches for the inurnment of cremated remains.▪ Can be “Individual”, “Family” or “Community”, based on the number of niches, and how they are sold. |
| COMMEMORATION | <ul style="list-style-type: none">▪ A ceremony, service or symbol of memory for a person/people or event |
| COMMINGLING | <ul style="list-style-type: none">▪ The mixing of the cremated remains of more than one deceased person. |
| CONTAINER | <ul style="list-style-type: none">▪ A self-contained receptacle or enclosure other than a casket, made of rigid cardboard, pressed wood or other similar material that is of sufficient strength to hold and conveniently transport human remains, but does not include a metal or fibre glass casket, or receptacle or enclosure made of plastic or similar substance, or a pouch or bag. |
| CREMATED REMAINS | <ul style="list-style-type: none">▪ The human bone fragments that remain after cremation that may also include the residue of any other materials cremated with the human remains. |
| CREMATION | <ul style="list-style-type: none">▪ The irreversible reduction of human remains to bone fragments through the application of flame and intense heat; in some jurisdictions this may include the repositioning or movement of the body during the process to complete the cremation; and the manual or mechanical reduction of the bone fragments after removal from the cremation chamber. |
| CREMATION LOT | <ul style="list-style-type: none">▪ A space used, or intended to be used, specifically for the interment of cremated remains.▪ Typically, a smaller than full-sized lot. |

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| CREMATORIUM | <ul style="list-style-type: none">▪ The building or part of a building that is fitted with approved appliances for the purpose of cremation human remains and includes everything incidental or ancillary to it. |
| CRIB GRAVE | <ul style="list-style-type: none">▪ A grave lot surrounded by a small picket fence. |
| CRYPT | <ul style="list-style-type: none">▪ One kind of lot.▪ Typically, a space in a mausoleum used or intended to be used for the entombment of human remains. |
| DEATH CERTIFICATE | <ul style="list-style-type: none">▪ A legal document certifying the vital statistics pertaining to the life and death of a deceased person. |
| DIRECT (or IMMEDIATE) DISPOSITION | <ul style="list-style-type: none">▪ The final disposition of human remains without any formal viewing or visitation, ritual, rite, service or ceremony. |
| DISINTERMENT | <ul style="list-style-type: none">▪ The removal of human remains, along with the casket or container or any remaining portion of the casket or container holding the remains, from the lot in which the remains had been interred. |
| DOUBLE DEPTH LOT | <ul style="list-style-type: none">▪ A lot dug at extra depth at the time of the interment of the first casket to allow for the accommodation of a second interment at regular depth. |
| EASEMENT | <ul style="list-style-type: none">▪ The right acquired, whether or not supported by a certificate, to interment in a lot. |
| ENTOMBMENT | <ul style="list-style-type: none">▪ One form of interment.▪ The placement of human remains in a mausoleum crypt. |
| FAMILY COLUMBARIUM | <ul style="list-style-type: none">▪ See columbarium |
| FAMILY ESTATE LOTS | <ul style="list-style-type: none">▪ A family estate lot contains 6-12 lots together. |
| FAMILY VESSEL | <ul style="list-style-type: none">▪ A large urn for several cremated remains. Remains may be comingled or may be contained in smaller, individual urns, held within the larger vessel. |
| FLAT MARKER | <ul style="list-style-type: none">▪ A grave marker set flush with the ground. |
| FUNERAL SERVICES | <ul style="list-style-type: none">▪ The arrangements, care and preparation of human remains for interment, cremation or other disposition and includes the supply of goods incidental to the arrangements, care and preparation, but does not include the sale of lots. |

- GRAVE
 - One kind of lot.
 - A portion of ground in a cemetery, used or intended to be used, for the burial of human remains or cremated remains.
- GRAVE LINER
 - A fibreglass or concrete structure installed over a casket once it has been placed in the grave.
- GRAVE MARKER
 - Can be in-ground (flat) or upright.
- GREEN BURIAL
 - A more environmentally conscious alternative to “traditional burial.” Typically includes:
 - a. no embalming;
 - b. burial directly in the ground without a grave liner or vault;
 - c. a fully biodegradable burial container (casket or shroud);
 - d. interment sites planted with indigenous ground cover, and
 - e. without individual grave markers.
- INTERMENT
 - Disposition by:
 - a. burial of human remains or cremated remains in a grave;
 - b. entombment of human remains in a mausoleum, crypt, or;
 - c. inurnment of cremated remains in a columbarium niche.
- INURNMENT
 - One form of cremated remains interment.
 - The process of placing cremated remains in a receptacle including, but not limited to, an urn and placing the urn into a niche.
- LAWN CRYPT
 - A concrete or other durable and rigid outer receptacle installed in a grave prior to burial.
- LOT
 - A space used, or intended to be used, for the interment of human remains or cremated remains under a right of interment and includes a grave, crypt, niche or plot.

- LOT HOLDER
- The person in whose name the right of interment in a lot is registered in the records of a cemetery and, where the interment has taken place, includes the person who has legally acquired ancillary rights to the lot.
- MAINTENANCE FUND
(also known as CARE FUND
or PERPETUAL CARE FUND)
- A fund established for the upkeep and repair of a cemetery, mausoleum or columbarium.
- MAUSOLEUM
(plural: MAUSOLEA)
- MAUSOLEUM CRYPT
- A structure or building that contains interior or exterior crypts designed for the entombment of human remains.
 - A chamber of a mausoleum or sufficient size for entombment of human remains.
- MEMORIAL
- A product, meeting the bylaw standard of a cemetery, used or intended to be used to identify a lot or to memorialize a deceased person interred or to be interred in a lot, including but not limited to:
 - a. a marker, headstone, tombstone monument, plaque, tablet or plate on a lot; or
 - b. a tablet inscription, lettering or ornamentation on a crypt or niche front, or
 - c. a tree, boulder or other feature so identified.
 - A ceremony, rite or ritual commemorating the life of a deceased individual without the human remains being present.
- NECESSARIUM
- Necessaria are stations located throughout a cemetery for filling vases and disposing of garbage. They often provide watering cans, flower vases, a rake and hand tools. They should be located within 60m from all graves.
- NICHE
- One kind of lot.
 - A space, usually within a columbarium, for placing a receptacle containing cremated remains.
- OSSUARY
- A vessel for the interment of two or more cremated remains.
 - Typically, the cremated remains are commingled

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| OUTER CONTAINER | <ul style="list-style-type: none">▪ A receptacle, which is designed for placement in a lot to accept the placement of a casket or urn. |
| PERPETUAL CARE FUND (also CARE FUND or MAINTENANCE FUND) | <ul style="list-style-type: none">▪ An irrevocable trust fund established, held and administered in accordance with applicable law, with the income from the fund to be used for the upkeep and repair of a cemetery, mausoleum or columbarium. |
| PRE-NEED | <ul style="list-style-type: none">▪ Any time prior to death.▪ Usually refers to the time of purchase of funeral or cemetery services.▪ “Pre-need planning” refers to the process of making arrangements and/or entering into contracts regarding future cemetery services for one or more persons who are still alive at the time. |
| REGISTRAR | <ul style="list-style-type: none">▪ The person responsible for the administration and enforcement of applicable laws and regulations relating to cemetery and funeral services. In British Columbia or Alberta, this person is known as the “Director of Cemeteries.” |
| SCATTERING | <ul style="list-style-type: none">▪ The irreversible dispersal of cremated remains over land or water, or commingling in a defined area in a cemetery. |
| SCATTERING GARDEN | <ul style="list-style-type: none">▪ An area within a cemetery, usually providing an attractive natural or ornamental setting, dedicated to the scattering of cremated remains. |
| SPIRIT HOUSE | <ul style="list-style-type: none">▪ A wooden shelter over a grave to house the spirit of the dead, typical of First Nations cemeteries. |
| UPRIGHT MARKER | <ul style="list-style-type: none">▪ A grave marker that is not flush with the ground is mounted on a footing and intended to be visible over the surrounding finished grade. |
| URN | <ul style="list-style-type: none">▪ A receptacle for containing cremated remains. |