



2008 Grey Mountain Cemetery Master Plan Summary Report

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Introduction

The existing Grey Mountain Cemetery is located on Grey Mountain Road, overlooking the Riverdale neighbourhood. The Cemetery has served the citizens of Whitehorse since its construction in the 1960s. Upon the decommissioning of the downtown Pioneer Cemetery for active interments in the 1980s, the Grey Mountain Cemetery has become the sole resting place for the majority of the population. Exceptions include the various cemeteries in and around Whitehorse that are maintained by local First Nations for their own citizens.

In order to secure enough capacity to meet the City's needs into the next 20+ years, the City began the process of planning for the expansion of the cemetery to the adjacent parcel subsequent to the settling of the Kwanlin Dun First Nation land claim. Initial efforts focussed on exploring possible revisions to the existing Cemeteries Bylaw in order to address some outstanding issues, primarily with the restrictions on monument sizes. Research was done into the practices of other similar communities, and a number of options were put forward. Discussions with staff resulted in suggested revisions to the bylaw which respect the public's expressed wish for greater choice while recognizing the limitations placed on staff in current operations (i.e. weight-handling capacities of existing equipment, etc) as well as worker health and safety concerns. Details of the suggested revisions are included in Appendix I.

While the existing cemetery presently has sufficient capacity to accommodate actual interments for approximately 5 years, in recent years an increase in rate of interments and, more importantly, in pre-purchase of plots, has reduced the available plot inventory considerably. Current capacity is now estimated to be in the order of 2 years. The expansion plan outlined in this document is to be undertaken in a number of phases over the next 20+ years, dependant upon available funding and Council approvals. The first of these phases is recommended for implementation in 2008 in order to address this immediate capacity issue.

Existing Land Use

Apart from its primary use, the area near the cemetery is popular for recreation. A number of popular trails traverse the area, taking advantage of the natural forest and expansive views. These trails are well used by those travelling on foot as well as those travelling by bicycle, off-road motorcycle, ATV and snowmobile.

There have been some incidents of trail user conflict in the area in the past, primarily related to inappropriate use of motorized vehicles. Operations staff have some significant concerns about controlling access to the site. However, recent public input as part of the Trail Plan consultations tells us that preservation of trail opportunities is very important to users. Therefore, it will not be appropriate to simply decommission all trails within the expansion area; it is likely that some accommodation for trail use within the expansion area boundary may be necessary.

This is not uncommon in modern cemetery planning, where current trends see cemeteries being integrated more closely into the broader parks and recreation facilities of many municipalities. As a result, this conceptual master plan allows for trails within the site boundaries. However, the detailed planning of trails, done in accordance with the approved Trail Plan, should make provisions for dealing with existing, relocated and new trails, depending on the nature of the section under consideration. In all cases, trail planning within the expansion areas will require special attention to keep trail activity in the area to a level appropriate for the context and to make sure that changes to existing trails do not result in increased trail user conflicts.

Existing Vegetation

The cemetery expansion and surroundings are covered with the boreal forest typical of the area. The primary tree species are white spruce (*Picea glauca*), lodgepole pine (*Pinus contorta* var. *latifolia*), trembling aspen (*Populus tremuloides*) and balsam poplar (*Populus balsamifera*). People value the natural setting of the Cemetery and tell us that they would like to see this character preserved in the expansion area.

There are some challenges to preserving natural vegetation. Like many of our area forests, trees in these stands can be prone to blowdown if clearing and thinning are not undertaken carefully. Any detailed designs should make provisions for clearing, thinning and preservation of existing trees within the plan area, as well as for planting to augment existing vegetation or to create differing design aesthetics where appropriate.

Geotechnical Considerations

We know from past investigations and operational experience that the majority of the present cemetery area is underlain by glacial tills. However, we also know that there are significant pockets of sandier material. These sandy areas have had significant impacts on operations, creating difficulties with excavation, sloughing, etc. Although these materials are typically very well drained, we know that at certain times of the year, particularly in spring when the ground is still frozen, there are surface drainage issues on areas of the site.

Detailed geotechnical investigations were not part of the scope of work of the conceptual expansion plan. However, the knowledge that ground conditions may vary has been taken into consideration in the conceptual planning, meaning that some measure of flexibility to deal with these conditions has been built in. However, it is very important that detailed geotechnical investigations be undertaken prior to the final planning and construction of the various phases, so that final design decisions can take this information into account.

What We Heard

Staff

City cemetery staff highlighted a number of areas of operational concern that they wished to see addressed in the plan. These include:

Increased room for operations-related spaces: the current set-up at the Cemetery includes space for equipment and bulk materials located at the northwest corner of the site (to the rear), with other equipment and office functions located in modest-sized sheds. Staff members require additional room for office functions and for the storage and maintenance of equipment, as well as covered storage (pole-barn style) for bulk materials that are prone to freezing when wet, such as sand, etc. There will also be a requirement to accommodate additional staff in the future.

Increased spacing between rows, increased turning radii on internal roads: staff have indicated that in the final detailed planning, they would like to see increased room between plot rows, which allows greater flexibility in choice of equipment for excavation, etc. They also highlight a need for increased turning radii on internal roadways to allow for easier navigation by staff and visitors, and to prevent accidental incursion into interment areas by vehicles.

Special areas for larger or non-traditional monuments and multi-person plots: over the years, some members of the public have requested opportunities to use larger monuments than are currently permitted by the City. There have also been requests for double (side-by-side) plots sharing a single headstone, for larger family plots, for unconventional monuments, etc. While staff recognize this need, and try to respond as best they can, they note that allowing for these requests is very difficult within the bounds of the current cemetery layout and existing bylaw. Staff members suggested that these requests could be accommodated were there new sections specifically designed to accommodate them – in sections with greater clearances between headstone rows to allow for the larger equipment needed for large monuments, for example.

Appropriate surfacing of pedestrian pathways: cemetery staff indicate that they wish whatever surfacing method and material is chosen for pedestrian pathways be as low-maintenance as possible. The City typically does not use chemical weed killers, and the maintenance of weed growth on pathways can sometimes be difficult with manual means only.

Additional memorial benches for visitors: staff highlighted a need for additional benches to accommodate visitors to the Cemetery. Such benches also present additional dedication opportunities, as there are very few such opportunities at present on the cemetery grounds.

On-site surface water management: in the past, there has been discussion of the possibility of constructing a small holding pond on site to help deal with seasonal drainage issues. Staff members note that such a pond could also be a potential source of irrigation water for the grounds, and that this would be of particular benefit at times when the City has watering restrictions in place.

Better access control: as an example, staff drew our attention to their current challenges with ensuring that all visitors have left the Cemetery before locking the gate. Staff members therefore suggest that the planning of access points and barriers needs to be dealt with carefully.

Stakeholders

During the spring and summer of 2007, key stakeholders were invited to participate in the completion of a questionnaire and in telephone interviews. These stakeholders included the existing funeral services provider, monument providers, churches and other religious groups, elders/senior's organizations, service clubs, the Royal Canadian Legion, etc.

Feedback was generally very positive with regard to the current level of services the City provides, both in terms of front-line staff within the Parks & Recreation department office and with on-site staff.

Suggestions offered by these stakeholders include:

- Consider opening the cemetery on weekends;

- Consider a less formal approach;

- Don't use fibreglass vaults, or make their use optional;

- Consider other burial options (i.e. various "green burial" practices) and have a separate area for alternative burials; and

- Create a more park-like environment to appeal to families, making the cemetery a place to celebrate life as well as to remember.

A copy of the questionnaire used for stakeholder interviews is provided in Appendix III.

Public

Once input had been received from these key stakeholder groups and integrated into the design process, the project team held a public meeting to inform the public about the project, present some of the ideas being considered for the plan and to present two preliminary concepts for consideration. This meeting was held in the fall at the Canada Games Centre. The key stakeholders who participated in the earlier round of questionnaires and interviews were given an invitation by telephone to attend. The meeting was also advertised on the City Page in the weeks preceding the meeting. Despite best efforts, attendance was low, which is not uncommon for non-controversial City planning projects.

In addition to the public meeting, the materials prepared for the meeting were displayed several weeks in the entrance hall of the Canada Games Centre, along with questionnaires. We had found this approach to be very effective with other projects, given the high volume of traffic in the Centre. This display resulted in a number of additional questionnaires being returned.

The feedback received from the public meeting and questionnaires includes:

People also visit for a walk and look around, not only for funerals, and are interested in park-like settings and amenities;

Some people feel the cemetery does not currently offer the interment options they prefer, namely “green”, “natural” or lower-impact burial options; and

People are interested in the idea of a separate section for a pet cemetery.

A copy of the questionnaire used to invite public input is provided in Appendix III.

Preliminary Design Concepts

Along with the information about specific design features and consultation results to date, the stakeholders and public had a chance to comment on two preliminary concept plans. The two options presented various features in different layouts intended to convey relative sizes and required functional relationships.

Concept 1



This concept offered a mix of old and new ideas and interment options. To summarize, this concept:

Maintained the primary entrance at the existing location;

Kept the present placement of operational areas at the northwest corner and entrance areas of the site;

Added a central gathering space in association with the main operations area to economize on servicing;

Had a “traditional” area (for example, standard row-on-row) which is slightly larger in relationship to a neotraditional area (for example, the circular layout of the previous north expansion area);

Allowed for a separate area to accommodate special sections for specific ethnic, cultural or religious groups which do not presently have their own sections of the cemetery and which may have specific customs or needs (i.e. First Nations spirit houses);

Offered a large “woodland” interment area which could accommodate alternative or “eco-friendly” interment options, including cremation, in a more natural setting which retains much of the natural vegetation. The lessened requirement for grounds maintenance and associated equipment access means that this area can be accommodated in the slender finger of land;

Added a second entrance for operational or occasional use only near the woodland section – this and all other entrances to be gate-controlled;

Relocated existing trails to the buffer areas on the perimeter of the site; use would be limited to walking and bicycling and access would be controlled by specially constructed gates or stiles; and

Surrounded the site with a perimeter fence to better control access; suggestions were 1.8 m height (6') chain link for the west, north and east boundaries, with 1.2 m (4') high fencing of a more decorative nature along the road frontage.

Concept 2

This concept offered a broader selection of new ideas along with traditional practices. This concept:

Moved the primary operations area to a point further south, and offered the option to change the primary entrance, which could then be monitored from the ops office;



Kept the secondary operations area at its present location in the northwest corner;

Added a more formal memorial or scattering garden in association with the central gathering space;

Had a “traditional” area which is smaller in size with relation to “neotraditional” areas;

Gave the option of having the northeast corner as either woodland or traditional, depending on demand or preference;

Placed the woodland section in the narrower section of land, for reasons discussed above;

Added a separate section for a pet cemetery in the southernmost corner. This placement recognized the sensitivity that some people with more traditional tastes may have with regard to the placement of pets near people, while offering those with more “adventurous” tastes the option to be interred in a woodland setting potentially quite near their pets;

Relocated existing trails according to final design layout, but keeps them within the “body” of woodland and neotraditional areas; as above, use would be limited to walking and bicycling and access would be controlled by specially constructed gates or stiles; and

As above, surrounded the site with a perimeter fence to better control access; suggestions were 1.8 m height (6') chain link for the west, north and east boundaries, with 1.2 m (4') high fencing of a more decorative nature along the road frontage.

Final Concept

The final concept as presented in February is in part a hybrid between the two preliminary approaches, which balances the immediate expansion need with a long-term vision for providing a wide range of choice in interment options. Please note that all current and future interment practices must abide with applicable federal, territorial and municipal regulations.

To summarize, this concept:

- Allows for a second controlled entrance;
- Keeps the primary operations area centralized;
- Offers traditional, neotraditional, cultural & woodland areas, all possible in early phases in association with Phase 1 roadworks;
- Includes a central gathering space, adjacent to memorial and/or scattering gardens;
- Keeps main trails with the 20 m treed buffer, but allows for bicycle traffic & trail connection from central road; and
- Includes a separate, fenced pet cemetery.

A diagram showing the final conceptual plan is included on the following page.

Also in the following pages, recommendations regarding common elements such as operations areas, vehicular access, etc are summarized, as are some desired “new design features” which have been considered in this conceptual master plan layout.

Details for each of the primary section types – traditional, neotraditional, woodland and garden/cremation – are also provided, including areas (in hectares), approximate numbers of interments accommodated, suggested adjacencies and recommended phasing.

<insert 11x17 master plan drawing here>

Common Elements

Operations Areas

Operations areas are delineated on the Plan and include offices, vehicle and equipment storage and maintenance, bulk materials storage, irrigation, etc.

Adequate space has been provided to allow for retention and/or planting of vegetated buffers to conceal operations areas as warranted.

Vehicular Circulation & Parking

Primary roads as shown; minimum travelled width of primary roads to be 8.0 m width asphalt paved.

Location and layout of secondary roads and lanes within sections to be determined at detailed design stage; minimum travelled width of secondary roads to be 6.0 m gravel paved.

Parking in most cases to be along roadways; facility parking (i.e. operations, gathering areas) to be included at detailed facility design.

Fencing & Gates

Perimeter fencing to be 1.8 m galvanized chain link on east, north and west property lines; fencing along Grey Mountain Road to be 1.2 m to 1.8 m decorative fencing of a style consistent with design cues of existing entrance gate, etc.

New secondary entrance gate as shown on plans.

Boulevards

Boulevards adjacent to primary roadways to be 4.0 m minimum width turf or naturalized; see Cemetery Maintenance Policy for maintenance particulars.

Buffers

Perimeter treed buffer to be minimum 20.0 m width; see Cemetery Maintenance Policy for maintenance particulars.

Trails

Existing and relocated trails illustrated on plan; reconstructed trails to be minimum 1.2 m width packed gravel surface; see City of Whitehorse Trail Plan for design and maintenance considerations

New Design Features



Columbaria & mausoleums

Columbaria are structures for the **storage of urns**; mausoleums are **buildings** enclosing an entire interment space (i.e. tombs); detailed design of new sections will allow for the inclusion of columbaria and mausoleum(s) in selected areas



Scattering gardens, memorial gardens & trees

Scattering gardens are dedicated for the **scattering of ashes**; memorial gardens & trees are **planted in the memory** of individuals or families; a new section has been included for these purposes



Larger or unique/custom monuments

Currently **the cemetery uses low-profile monuments**; detailed design of new sections will accommodate larger or unique/custom monuments, with requirements for detailed engineering for custom bases as required



Double plots, family plots

New sections will be designed to accommodate double (**side-by-side**) plots for couples & for larger family plots



Special sections

New sections will allow the opportunity for separate sections for **specific cultural or religious groups** to accommodate different customs & recognize diversity



Green burial

“Green” burial practices will be considered in greater detail for future sections, particularly for Woodland sections. In green burial, bodies are not preserved or placed in traditional caskets but are allowed to **return to the earth naturally**; this is a growing trend in Canada, UK, Sweden, US



Pet cemetery

A new **separately fenced section nearby** has been included to allow families to commemorate special animals in their lives



Park-like amenities

In accordance with trends across Canada and public input, detailed design of new sections will allow for park-like amenities; cemeteries can become places for families to come together & **celebrate life**

Traditional Sections

Description



Traditional cemetery sections are typically laid out in a formal, linear fashion, similar to existing Section K plots.

Traditional sections can accommodate columbaria and mausoleums, scattering gardens, memorial gardens/trees, larger or unique/custom monuments, double plots, family plots, special sections and park-like amenities.

Traditional sections can be combined with NeoTraditional or Cultural sections according to demand.

Approximate interment yield all Traditional Sections

600 single interments

1.0 ha @ approximately 600 interments/hectare



Notes/Special Considerations

See Cemetery Maintenance Policy for maintenance particulars.

Phasing

Phase A
2008 - 2010

Phase A: 1.0 ha plus roadwork

Potential for additional Traditional Sections (dependant on demand) with future construction of Phases C and D

NeoTraditional Sections

Description



NeoTraditional cemetery sections are not restricted to traditional linear layouts and often include additional plantings, buffers, etc.

NeoTraditional sections can accommodate columbaria and mausoleums, larger or unique/custom monuments, double plots, family plots, special sections and park-like amenities.

Can be combined with traditional, cultural or woodland sections according to demand.

Approximate interment yield all NeoTraditional Sections

1,900 single interments

3.8 ha @ approximately 500 interments/hectare



Notes/Special Considerations

See Cemetery Maintenance Policy for maintenance particulars.

Phasing

Phase B: 0.8 ha

Phase B/C: 3.0 ha

Potential for additional NeoTraditional Sections (dependant on demand) with future construction of Phase D

Phases B & C

Woodland Sections



Description

Woodland sections are those which retain to the extent practicable existing vegetation and allow for the non-linear placement of plots within a forested setting. Woodland sections may also be able to accommodate green burials, pending further technical investigations.

Woodland sections can accommodate larger or unique/custom monuments, double plots, family plots, special sections and park-like amenities. Woodland sections are especially suited to the disposition of cremated remains.

Can be combined with neotraditional or cultural sections according to demand.

Approximate interment yield all Woodland Sections

940 single interments

4.7 ha @ approximately 200 interments/hectare (plus cremations)



Notes/Special Considerations

See Cemetery Maintenance Policy for maintenance particulars.

Phasing

Phase B: 0.7 ha

Phase C: 0.5 ha

Phase D: 3.5 ha

**Phases B,
C & D**

Garden & Cremation Sections

Description



Garden and cremation sections are those which specifically accommodate only the spreading and/or interment of cremated remains.

Garden sections can accommodate memorial groves, larger or unique/custom monuments, double plots, family plots, special sections and park-like amenities.

Can be combined with neotraditional or cultural sections according to demand.

Approximate interment yield all Garden & Cremation Sections

1,100 single interments

1.1 ha @ approximately 1,000 interments/hectare



Notes/Special Considerations

See Cemetery Maintenance Policy for maintenance particulars.

Phasing

Phase C

Phase C: 1.1 ha

Proposed Phasing

The following is a proposed approach to phasing, complete with estimated cost ranges in 2008 dollars. Cost ranges reflect a range of possibilities within each section that are associated with decisions that would be made at the detailed design phase, including level of hardscape, softscape and building finishes, etc (i.e. the difference between a Cadillac versus a Volkswagen solution). Costs presented are a guideline only - more detailed costing would be required at the detailed design phase for each section.

The initial phase is anticipated to begin in spring 2008, with the final phase to be completed (as need dictates) circa 2030.

Please note that all recommendations regarding project phasing (both in terms of sequence and scale) are dependent upon demonstrated community need, priority with regard to other City projects, and departmental planning and implementation capacity. All such decisions regarding prioritization and associated capital and operational funding are subject to approval by Mayor and Council.

Phase A:	Traditional A, indicated road works 1.0 ha area; 600 single interments (approximate)
	2008 – 2010 \$150K - \$200K + \$225K primary roads
Phase B:	Neotraditional B, Woodlands B, Gathering B 1.9 ha area; 540 single interments (approximate)
	2010+ \$350K - \$450K
Phase C :	Neotraditional/Cultural B/C, Woodlands C, Gardens & Cremation C, Pet C (long term) 4.6 ha area; 2,800 single interments (approximate)
	2020+ \$650K+
Phase D:	Neotraditional/Woodlands D (very long term) 3.5 ha area; 1,300 single interments (approximate)
	2030+ \$500K+

Appendix I

2008 Cemetery Bylaw (Suggested Revisions)

Appendix II
2008 Cemetery Maintenance Policy

Appendix III
Stakeholder & Public Questionnaires