



Arboretum Strategic Plan
for
Mount Pleasant Cemetery

Introduction

Mount Pleasant Cemetery (MPC), currently operated by the Mount Pleasant Group of Cemeteries (MPGC), has one of the finest tree collections of both native and exotic origins in North America. Located within the populated City of Toronto, this 205-acre (84 ha) establishment provides generous soil space for mature trees to establish, thus supporting a lush urban forest. The microclimate created by these mature individuals help buffer harsh environmental conditions for more sensitive, exotic species. As a result, MPC is able to house over 550 species of woody plants, some of which are seldom found anywhere else in North America. The resultant diversity of trees provides a widespread selection of fruits and nuts. This not only supports common park wildlife, such as chipmunks, squirrels, cardinals, and finches, but also scarcer animals, such as coyotes, deer, and redtail hawks. The intricate, fragrant flowers and colourful foliage attracts people year round to this park-like setting. Such unique characteristics and diversity make MPC a popular escape from an otherwise hectic, bustling city backdrop for both humans and animals alike.

The primary mission at MPC is to offer care, compassion, choice, and comfort to an otherwise difficult experience. It is the cemetery's guiding principles to serve the community and honour clients first. Trees within the cemetery help paint a sense of peace and tranquility to an otherwise serious and dampened setting. Mature trees in the Eternal Gardens and Forest of Remembrance are just examples of popular locations for burials and resting grounds. The trees present also express the natural history of the cemetery.

The role of the arboretum is to uphold the state and health of all plants while promoting improvement, conservation, and growth. The following strategic plan outlines the purpose of the Mount Pleasant Arboretum, identifies the audience, and provides provisions for the maintenance and care of woody plants. Goals, objectives, and successional opportunities are also defined for future arboretum development.

Mission

The mission of this plan is to ensure MPG manages its Arboretum and the Living Collection effectively to fulfill three primary purposes: cemetery aesthetics, recreation, and education. The aim is for continued preservation for existing and future woody plants that serve as a backdrop to this monumental sanctuary. By promoting sustainable landscaping, design, and maintenance, the arboretum can connect both the visitors and the clients to the rich tapestry of the cemetery's living history and natural beauty. The collection of trees and shrubs are valuable resources to the cemetery. The establishment of this plan solidifies Mount Pleasant Cemetery's commitment towards the protection of these assets at for both natural improvement and cultural preservation.

Goals of the plan include:

- Define maintenance governance, including but not exclusive to horticulture, arboriculture, ground maintenance, financial department, and/or human resources
- Outline the Living Collections for improvements
- Clarify Arboretum access and visitor uses
- Summarize conservation efforts and educational programs conducted on site
- Establish continuing plans for future plantings and upkeep
- Attain organizational excellence to maintain an awe-inspiring setting in Toronto

Brief History

Toronto General Burying Grounds Trust (now Mount Pleasant Group of Cemeteries) officially opened Mount Pleasant Cemetery in 1876 when the City of Toronto was just a small Victorian capital known as the Town of York. Citizens at the time insisted a cemetery plot with sufficient space that did not conflict with the expanding suburban townships; thus this 205-acre farmland east of Yonge Street was acquired for \$20 000. German-born landscape architect Henry Engelhardt was entrusted to develop the cemetery layout, later becoming its first cemetery superintendent. The ordinary farm field was transformed into a park-like setting complete with trees, shrubs, and pathways, quite different from the usual burial landscape. This unique layout quickly became a popular attraction for the city even to this day. Trees on the east side of the cemetery follow more of the traditional neat and linear layout while the west side tries to mimic forest patterns for a more natural feel. The selection in atmospheres attracts visitors of different interests including nature enthusiasts, athletes, ecologists, and more.

Being one of Canada's most historical cemeteries (declared a National Historic Site of Canada in 2000), MPC is the final resting ground for many prominent Canadians. Former Prime Minister William Lyon Mackenzie King, Canada's first female surgeon Jennie Smillie-Robinson; popular Métis artist Youngfox, and renowned pianist Glenn Gould are just some to be named. Frequently visited memorials include the Eaton family, medical scientists Charles Best and Frederick Banting, war hero Billy Barker, and the Massey family. Former Maple Leafs owner Steve Stavro's monument stands at the west entrance of Mount Pleasant Road, fashioning Alexander the Great on horseback with surrounding lions standing guard.



Governance Staffing and Roles

MPG Arbor Services Co-ordinator (Jeff McMann) assists the oversight of strategic planning, design, and task allocation regarding the health and maintenance of woody plants. This includes evaluations for safety hazards and tree vitality, land assignments, and the introduction of new plants. Land assignments are designated into three possible categories: existing memorial site for client, tree or woody plant, or vacant for future assignment. For tree risks, the curator must first use the appropriate tree risk assessment qualifications (TRAQ) protocol to evaluate the risks. If substantial work is deemed necessary, experienced certified arborists may be contracted for risk removal. Of course all construction involving trees onsite must be reviewed and approved by the curator. Work required for skilled and knowledgeable arborists may include tree hazard mitigation, maintenance pruning, and tree injections for disease/pest control.



The Property Manager directs a grounds team consisting of 56 seasonal and full time staff who are responsible for landscape maintenance and upkeep. This can include herbaceous plantings for aesthetic purposes, monument restoration and construction, turf irrigation and upkeep. All grounds activities are reported to the Director of Property Management. The Family Service Manager helps to oversee client administration and requests for tours of the cemetery.



Audience

MPC is not just accessible for the friends and families of the deceased that laid rest on the hallowed grounds but also to the public. The cemetery is open 365 days a year with no entrance fees. Audiences range from athletes to students, seniors to kids, passing strollers to grieving mourners, and so much more.

Various tours, conferences, and workshops are also held on site, for both tree and non-tree related topics. The cemetery is still active with over 200 funerals and ceremonies occurring annually. On top of that, over 500 people visit or walk through the cemetery every day. With that in mind, it is up to the grounds division to ensure the grounds, trees, and landscape are presentable and safe for public visitors while still honouring the departed that are interred here.

MPC has over 15 km of roads which double as trails, spanning over 205 acres of land. It is surrounded by parks including the David A. Balfour Park and is part of the Kay-Gardner Beltline Trails, which is a unique part of Toronto's park recreation. Within the cemetery, labelled paths, maps, and directional signs are placed strategically for easy way finding. The cemetery map illustrates locations of amenities, entrances, and trail routes. Hours of operation and office details are easily accessible online. Plots are sectioned off by trails and labelled alphabetically and numerically for categorical

organization and quick identification. Washrooms and garbage bins are placed throughout the location to accommodate visitors. Additional information on the cemetery can be found on the Mount Pleasant Cemetery website

(<http://www.mountpleasantgroup.com/en-CA/Locations/Cemeteries/Mount-Pleasant.aspx>).



Mount Pleasant Cemetery, Cremation and Funeral Centres

375 Mount Pleasant Road, Toronto, ON M4T 2V8

Office Hours: 8:00 a.m. to 5:00 p.m. Monday to Saturday

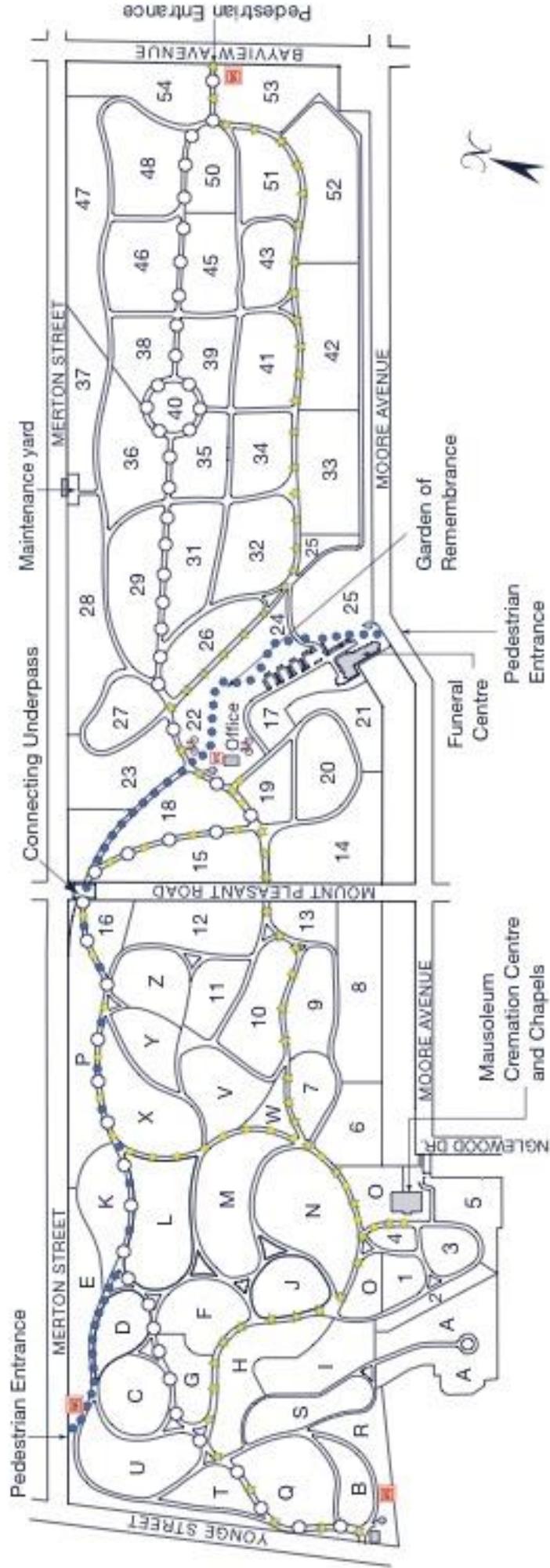
Cemetery: 416-485-9129 Funeral Centre: 416-485-5572

GATE CLOSING TIMES:

Daylight Saving to September 30th: 8:00 p.m.

October 1st to Eastern Standard Time: 6:00 p.m.

Eastern Standard Time to DST: 5:30 p.m.



DIRECTIONAL ROAD LINES

- ★ BROKEN YELLOW ROAD LINE (BETWEEN CEMETERY OFFICE AND CREMATORIUM/MAUSOLEUM CHAPELS)
- ☆ SOLID YELLOW ROAD LINE (FROM YONGE STREET, WEST MOUNT PLEASANT ENTRANCE OR BAYVIEW PEDESTRIAN ENTRANCE TO CREMATORIUM/MAUSOLEUM CHAPELS)
- SOLID BLUE LINE (FOR HERITAGE/BELTLINE PEDESTRIAN ENTRANCE)
- WHITE ROAD LINE (MAIN ROAD FROM YONGE STREET ENTRANCE, BENEATH MOUNT PLEASANT ROAD TO BAYVIEW PEDESTRIAN ENTRANCE)
- ♻️ PORTABLE WASHROOM (year-round) 🗑️ PORTABLE WASHROOMS (summers only)
- 🚲 BICYCLE RACK
- 🚰 DRINKING FOUNTAIN

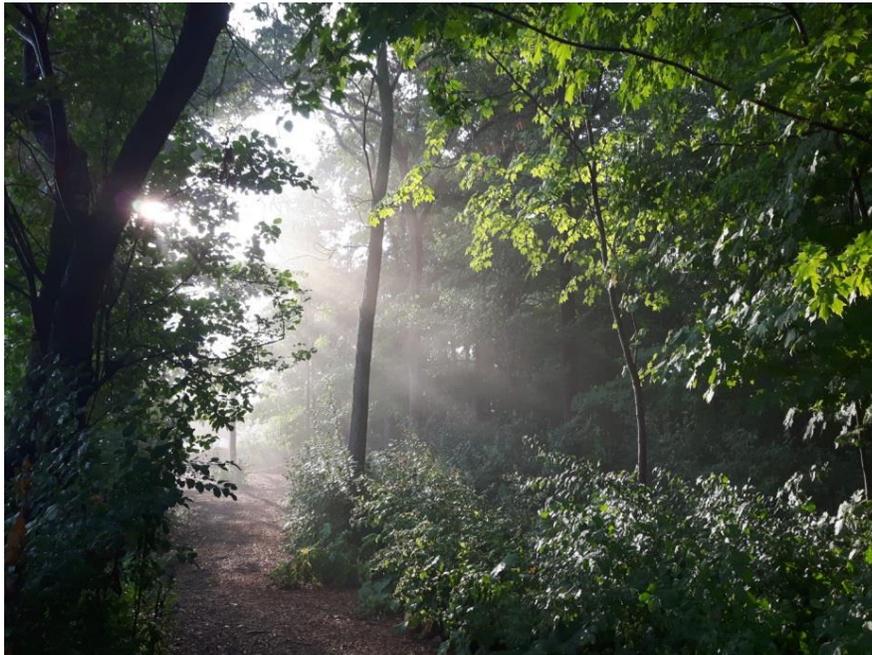
Plant Collection

MPC has a complete and extensive inventory of all woody plant units on the grounds, that includes all trees, shrubs, large perennials and mapped woodlots. The inventory is mapped using ArborPro® software with Google images for detailed coordinate identification. Details on characteristics such as leaves, flowers, buds, and bark, overall structure, and unique features are photographed for tree inventory records.

These data are accumulated over multiple seasons to portray a realistic and complete representation of the plant's life history. The inventory is therefore updated continually and the compiled data and pictures can be used for comparison and historical verification.

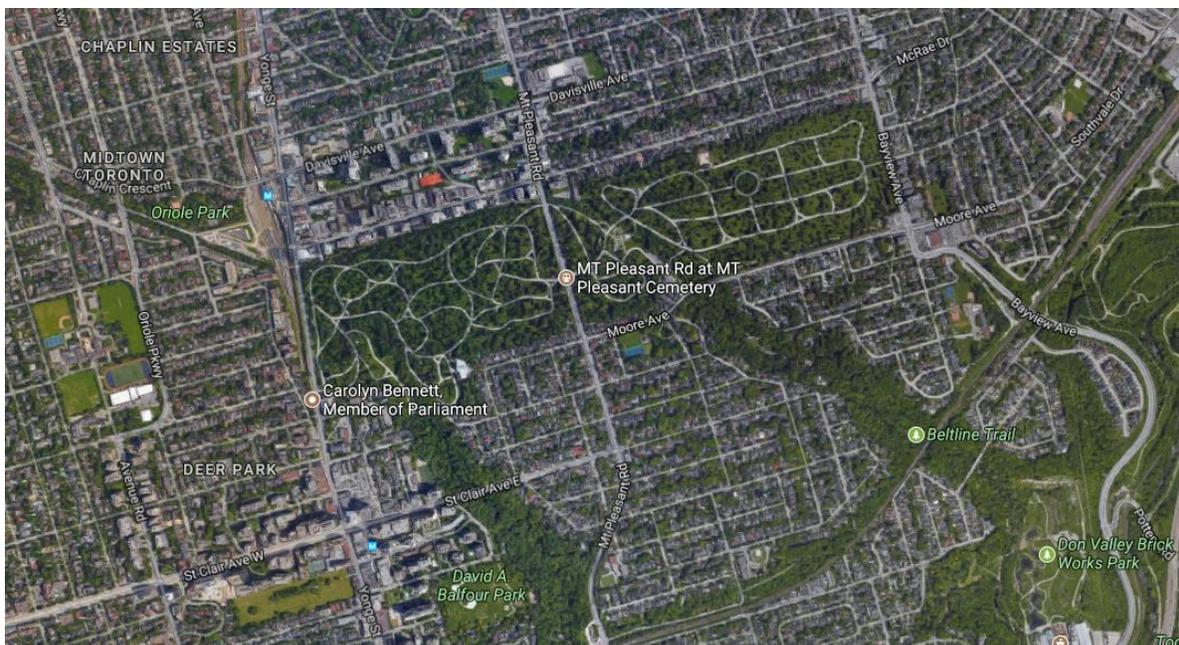
Each unit is assigned a unique tree ID number for precise inventory update. The ID is kept on file even after removal or death of the unit. Metal tags informing the public on the tree's information are placed either on the trunk or stands near the trunk. Details such as the botanical and scientific names of the species, tree ID number, taxonomic family and genus are all stated on the label.

The goal is to promote learning opportunities for the public and increase awareness and compassion for the ecosystem. For more detail, the Mount Pleasant Cemetery Living Collections Policy explains the strategies for the enhancement, development, and sustainment of the collections in further detail, including the aforementioned labelling and inventory practices.



There are over 16 000 inventoried units of plant(s) within the Mount Pleasant Cemetery, encompassing more than 500 species of trees, shrubs, and ornamental plants. Some common tree genus include maple "*Acer*", *Ginkgo*, apple "*Malus*", spruce "*Picea*", pine "*Pinus*", oak "*Quercus*", and linden "*Tilia*". Boxwood "*Buxus*", euonymus "*Euonymus*", juniper and red cedar "*Juniperus*", Alberta Spruce "*Picea glauca 'Conica'*", spirea "*Spiraea*", cedar "*Thuja*", and yew "*Taxus*" are some of the common shrubs within the cemetery. Some units are only identifiable with seasonal distinctive structures, generally flowers or cones. Because species-specific structures do not occur every year, the inventory needs constant update and verification. Changes to the collections require immediate inventory update. Further details on the collections inventory can be found in the *Living Collections Summary*.

Conservation



Mount Pleasant Cemetery serves as an important conservation area and urban park functionality within the populated City of Toronto for both plants and animals. It is part of the Kay-Gardner Beltline Trails that acts as a corridor between several green areas including Moore Park Ravine, Oriole Park, and the Don Valley Brick Works Park. Section 25 of the cemetery for example leads into Mud Creek, which flows through Moore Park. David A. Balfour Park is also connected to the cemetery in section A where the Yellow Creek flows from the cemetery to the most southern part of the Park Drive Reservation Lands.



The vast variety of plants present at Mount Pleasant Cemetery provides a buffet of seeds, fruits, leaves, and nectar for animals that cannot usually be spotted within busy urban centers. Pollinators such as bees and butterflies are attracted to the scented flowers that bloom continuously throughout the summer. Fruits and nuts produced feed squirrels, chipmunks, birds, and deer. Apex predators such as wolves, coyotes, and even redtail hawks have been spotted on the grounds. Because the peaceful cemetery grounds offer relatively undisturbed environmental conditions, the animals are sheltered from anthropogenic activities, such as traffic, noise pollution, and hazards. The sheer size and diversity at Mount Pleasant Cemetery makes it a great host to biodiversity; therefore serving an important conservational and educational purpose.



Continuing Research and Education

Mount Pleasant Cemetery is in collaboration with many academic institutions, forestry societies, and the ministry of natural resources departments. Academics from University of Toronto, University of Guelph, and Sir Sanford Fleming College have used the cemetery as a sample sites for their research. The University of Guelph tested the effects of root injected fertilizers and micronutrients on Red Maples "*Acer rubrum*" in conjunction with Ontario Ministry of Agriculture and Rural Affairs (OMAFRA).

Mount Pleasant also provides internship placements for the University of Toronto Master of Forestry Conservation students each year as a part of their field education. All research is aimed towards the mission of continuing education, preservation, and conservation of trees. Various workshops are also held on the grounds. The International Society of Arboriculture-Mount Pleasant hosted a workshop for a Tree Risk Assessment Course. The instructor came from Oregon to teach participants that included City of Toronto Forestry and By-laws Departments. Mount Pleasant also works with private entities for consultation and/or tours. Some examples are Sunnybrook Hospital and Girl Guides of Canada.



TRAQ Workshop



University of Toronto Master of Forestry Conservation Interns

Successional Strategy

With the goal of continued improvements on the quality of its arboretum in mind, the successional plan at Mount Pleasant Cemetery must include ever-developing tree/shrub examination, maintenance, and care. The governance board, grounds staff, and summer interns must collectively work towards enhancing tree care and advancing tree knowledge. The tree inventory is updated annually for new and additional plantings, removals, and all horticultural modifications.

Roughly 20 species of elm "*Ulmus*", pear "*Pyrus*", cherry "*Prunus*", apple "*Malus*", and ash "*Fraxinus*" at Mount Pleasant are expected to decline over the next five years due to disease and pests such as Dutch Elm disease, Emerald Ash Borer, and bacterial fire blight. The recent drought and flood that followed after is exerting immense environmental stress on these vulnerable trees. The loss of these species will be especially devastating as their population size represent roughly 5% of the total number of specimens. Ash and elm contribute significantly to the overall canopy cover at Mount Pleasant, directly affecting other plant growth and the local fauna populations. The microclimate created by the shade of these large canopied trees is crucial for exotic species survival. The aim is to remediate when possible instead of remove because these trees have so much historical and ecological value that cannot be replaced.

Because the current state of the trees lend itself to the larger canopied trees being over the age of 85 years with a major secondary range of 65 plus years, canopy cover is expected to decline as these trees expire. On top of that, Mount Pleasant Cemetery

must also be prepared for the imminent loss of elm and ash species in case mitigation efforts prove ineffective. Successional planting plans are set to establish the next generation of individuals to perpetuate the arboretum and increase the scope of the tree collections.

The newly established accessions will cushion the loss of species due to disease, pest damage, and environmental stressors when the primary and secondary canopy trees perish. Suggested future planting list expects at least 250 new species and 17 new genus to further diversify the collection. These candidates should be marginally hardy with a size not larger than 70mm diameter at breast height (DBH) to ensure proper adaptation to the local environmental conditions. It is also the goal to enhance the existing collection of native trees of Ontario for educational and conservation purposes.

It is also in the arboretum's interest to hold additional educational programs and collaborations with private, public, and municipality sectors. Events can be associated with educational seminars, school groups, or associations such as Landscape Ontario, International Society of Arboriculture (ISA), and Canadian Nursery and Landscape Association. Collaborations with research parties such of that with the University of Toronto Masters of Forest Conservation capstone projects are to be continued and expanded upon to other institutions.