



Park and Open Space Development Guide

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Disclaimer

Information in the Park and Open Space Development Guide is subject to change without notice. The reader must ensure that they have the most current version of this guide and all other documents referenced therein. Please contact Landscape Architectural Services (LAS), Environmental Services, Public Works to verify that this is the most up-to-date version or see the City of Hamilton website and search “Park and Open Space Development Guide”.

The ***Park and Open Space Development Guide*** shall not be a static document and is subject to change without notice. It is the intent of the Public Works Department to update this Guide as required with new and more efficient standards or requirements to ensure the health and safety of its park patrons, the economic feasibility and sustainability of the City of Hamilton’s park and open space assets, and its environmental resources.

The preparation of the ***Park and Open Space Development Guide*** has deliberately prepared each Chapter of the Guide to stand on its own. Therefore, the reader in reviewing the entire document may sense that there has been repetition due to this strategy.

A glossary of terms used throughout this document can be found in **Appendix A – Glossary**.

Executive Summary

The ***Park and Open Space Development Guide*** was created by the Public Works Department of the City of Hamilton and included inter-departmental assistance, to define the requirements and guidelines in the development of parks and open spaces within the City. Several years ago, this guide received valuable input from the Hamilton Halton Home Builders Association (HHHBA) which the City of Hamilton has sincerely appreciated. During this time, the development community, through the Parkland Development Financing Agreement (PDFA) and the Open Space and Trail Development Financing Agreement (OSTDFA), has successfully participated in the design and construction of at least a dozen park and open space development projects.

While the format version of the Guide has been updated, and processes better described, it remains the goal that this Guide continue to be used by the development community, consultants, and City of Hamilton staff as a resource tool in defining the process of creating Hamilton’s parks and open spaces, either by the development community or by the City of Hamilton itself. It is also the intention of this Guide to identify the design standards for the design and construction of park and open space lands.

The objectives of the ***Park and Open Space Development Guide*** include the following:

- To define the process and approvals required in designing and constructing park and open space lands.
- To promote contact and feedback with the development community on the provision of park and open space resources.
- To ensure that the proposed parkland is efficient and sufficient in size, layout, location, and suitable topography, and supports both active and passive recreation for the citizens of Hamilton.
- To create the **OPTION** for developers to build parks or open spaces, **only IF** both the Developer and the City agree with this Option.
- To promote the **Parkland Development Financing Agreement (PDFA)** and **Open Space and Trail Development Financing Agreement (OSTDFA)** which is the agreement between a developer and the City to construct a park or open space by the developer for the City and the City's timing and payment for this work generally through Development Charges reimbursement.
- To improve the timing of the delivery of parks and open spaces to the City of Hamilton's existing and future residents.
- To support the delivery of parks to the residents of Hamilton utilizing cost effective methodologies related to the applicable development charges funding.
- To complement existing City of Hamilton Planning and Economic Development Department (PED) documents related to parks and open spaces.

The ***Park and Open Space Development Guide*** outlines **two OPTIONS** for the design and development of both park and open space lands.

Both **OPTIONS** are defined in the Guide as to the process, responsibilities, and approvals typically required in undertaking these Development Options for Park and Open Space lands.

OPTION 1 continues the process of park development as it existed in the former City of Hamilton prior to the amalgamation of the City of Hamilton and adjacent communities, in which the Development Community was required to provide the first stage of development of a park or open space. That is, developers ensured the park grading complimented the overall subdivision grading design complete with any required swales or catch basins. In addition, the park or open space was seeded with grass, and the common boundaries between the public parkland and private lands were fenced according to City standards. In this **OPTION**, the City of Hamilton would later "complete" the park with the addition of recreational amenities such as playground equipment, multi-purpose courts, sports fields, site furnishings and plantings for examples.

OPTION 2 provides the opportunity for a developer to design and build a completed park or open space in a new subdivision development. This **OPTION** would reimburse the developer for the Development Charge related items for both park and open space development.

For a Developer to proceed with **OPTION 2**, that is the Developer building the complete park or open space, a **Parkland Development Financing Agreement (PDFA)** or **Open Space and Trail Development Financing Agreement (OSTDFA), including a park specific Project Charter** with the City is required. The PDFA / OSTDFA is the agreement between a developer and the City to construct a park or open space by the developer for the City and defines reimbursement of related Development Charges to the Developer. The PDFA / OSTDFA is required to be legally executed with the City Manager's Office. The template for the PDFA / OSTDFA is included in this Guide for reference.

The advantages of the development community choosing **OPTION 2**, that is, developers designing and building parks and open spaces, are as follows:

- The completed park or open space should be available to the new residential community's residents closer to their time of moving into the community;
- With the development community building parks and open spaces there is the potential of the development cost of these resources being reduced; and
- **OPTION 2** requires **both** the developer and the City agreeing in order to proceed with this strategy. Therefore, the development community and the City both have the **choice** to proceed with this **OPTION**.

To further assist the Development Community and City staff in undertaking either of the **OPTIONS** described, the **Park and Open Space Development Guide** also defines Development Standard Resources. These resources include a primary listing of pertinent related planning and design information, standard construction details, construction specifications, drawing submission standards, tender requirements, and construction information and expectations. It should be noted that the procedures for tendering of park or open space development has been coordinated, as closely as possible, with the principles and tender process outlined with the City of Hamilton's *Construction and Material Specifications Manual (C&MSM)*, latest version.

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Chapter 1: Introduction

1.1 Park and Open Space Development

Parks and open spaces provide an important resource to the residents and visitors to the City of Hamilton and play a key role in the quality of life that is enjoyed by our residents. These spaces deliver many benefits to both new and established communities across our City. Access to green spaces improves our physical and mental health, bring our communities closer, and make our neighbourhoods more attractive places to live and work.

Parks, open spaces and areas with trails are important as Hamilton becomes more and more developed. It is essential to match development growth with recreational areas for everyone to enjoy. The Government of Ontario recognizes the importance of this through the *Ontario Planning Act*. The *Act* requires developers to provide land or cash-in-lieu of land for recreational use to the City within a development area. The preservation and creation of these spaces helps to encourage a healthy and active city.

The goal of this guide is to describe the process of developing Hamilton's parks and open spaces. It is designed to help the development community, City staff, and external stakeholders along each step of the park, open space and trail development process. The guide outlines how to obtain approvals and provides the tools to maintain consistent delivery of recreational areas. It is also the aim of this guide to identify the standards for the design and construction of park and open space lands.

Parks and open spaces are important as Hamilton becomes more and more developed. It is essential to match this growth with recreational areas for everyone to enjoy.

The guide contains two development Chapters. Chapter 3: covers the development of parks, while Chapter 4: outlines open space and trails. The two Chapters are similar in their development processes but are different in description and purpose.

This guide references development resources to further help with the process. These resources are comprised of a glossary, relevant planning information, relevant design information and standards, drawing submission standards, tender requirements, a project charter template, a City-developer financing agreement template, a list of standardized construction details, a list of standardized park construction specifications and relevant construction information and expectations. This information can be found in the **Appendices**.

1.2 Park and Open Space Designation and Zones

The City of Hamilton has four categories of Parks and two categories of Open Space in the Urban Hamilton Official Plan (UHOP) and five zones in Zoning By-law 05-200 Open Space and Parks Classification that generally align with the UHOP categories as follows:

<u>Urban Hamilton Official Plan (UHOP)</u>	<u>Zoning By-law 05-200</u>
City-Wide	City-Wide Park (P3) Zone
Community	Community Park (P2) Zone
Neighbourhood	Neighbourhood Park (P1) Zone
Parkette	Parkette (P1, P4 or other) Zone
General Open Space	Open Space (P4) Zone
Natural Open Space	Conservation/Hazard Land (P5) Zone

1.3 Types of Parks (Park Classification)

City Wide Parks: are municipally, regionally, provincially or nationally significant destinations that meet the needs of residents and are of interest to visitors. These facilities are often associated with major recreation, education or leisure activities and may have natural, historic, or unique features. They range greatly in size and type.

Community Parks: serve more than one neighbourhood but are not intended to serve the City as a whole. Community Parks have more intensive recreational facilities such as sports fields, and recreational and community centres. These facilities shall have good transportation access along adjacent arterial or collector roadways and provide adequate parking to meet anticipated demand. Community Parks in the urban area should appropriately be located along transit routes. They serve a population of approximately 20,000 people and have a minimum size of approximately 7.0 hectares city wide.

Neighbourhood Parks: primarily cater to the recreational needs and interests of the residents living within its general vicinity. Residents can easily walk or bike to these parks. Neighbourhood Parks are generally comprised of municipal parkland, containing a mixture of passive areas, sports facilities, informal and formal play areas, and may include natural areas. They serve a population of approximately 5,000 people and have a minimum size of approximately 2.0 hectares.

Parkettes: are small open spaces which have no or limited recreational facilities. They are generally located in the older urban areas where they serve an important function in the provision of open space opportunities.

1.4 Types of Open Spaces

General Open Space: shall include golf courses, community gardens, pedestrian and bicycle trails, walkways, picnic areas, beaches, remnant parcels of open space lands, and urban plazas, squares and core spaces. These areas do not function as parks but are used for both active and passive recreational activities.

Natural Open Space: shall include lands with significant natural features and landscapes such as woodlots, hazard lands, forested slopes, creek/ravine corridors, the Niagara Escarpment, environmentally sensitive areas (of natural and scientific interest), and areas of wildlife habitat. These areas perform important biological and ecological functions and provide passive recreational opportunities.

1.5 Who Should Use this Guide?

This guide shall be used by the development community in the process of submitting a development application that incorporates a park or open space component within the City of Hamilton. It is designed to provide insight on the development process to consultants, residents and community stakeholders alike. Additionally, this guide shall be used by internal City staff to direct the review process and to establish the staff sections responsible for approvals.

1.6 How Should this Guide be Used?

The guide should be used in conjunction with other planning, engineering and landscape architectural documentation referenced throughout. The goal is to guide the process of submitting or reviewing a development application within the City of Hamilton and to inform individuals of the requirements related to park and open space lands.

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Chapter 2: The Development Process

2.1 Development Options

There are **two Options** offered for the development of parks and open spaces. Developers are required to complete only the minimum construction requirements (Option 1) or they may choose to build a complete park or open space and trails (Option 2). This gives the developer the flexibility to choose the option that best fits their goals and objectives for their development project.

Option 1: The developer only completes the first stage of park development and makes sure minimum requirements are met. The City of Hamilton later “finishes” the park or open space with recreational features and amenities.



Figure 1: Minimum requirements met by the developer

Option 2: The developer designs and builds a finished park or open space and trails. This method usually supplies the finished product to a community sooner than Option 1. This **Option** repays the developer with the development related charges collected by the City for park development.



Figure 2: Park development completed by the developer

Option 1 is the traditional development model used in the City of Hamilton and consists of the City designing and constructing the majority of the work for the park or open space. For parks, the developer is responsible for rough grading, fine grading, fencing, service stubs to the park, stormwater drainage infrastructure and seeding, all to City standards. If it is general open space, the developer is responsible for providing pedestrian access (sidewalk or walkways) with bollards, hard surfacing treatment, and fencing. Natural open space may not allow pedestrian access or hard surfacing. Developers are also required to fence any

open space with neighbouring land uses. Grading and seeding might also be required depending on the design of the subdivision. Development Charges are primarily used by the City to tender and complete the construction of the remaining works which may include such items as sports facilities, creative play structures, multi-purpose courts, walkways, plantings, utilities, and other amenities.

Additional information on the requirements for **Option 1** can be found in the City's Local Service Policy (LSP), which can be found in the City's most recent Development Charges Study.

Option 2 is available only if both the developer and City are in agreement that the developer undertakes the design and construction of the park or open space on behalf of the City. This **Option** repays the developer with the development related charges collected by the City for park development and construction. This model usually supplies the finished product more quickly to the community than **Option 1**.

2.2 Flow Charts

The following flow charts are designed to assist with the understanding of the processes involved with developing park and open space lands. The charts contain numbered steps that correspond with the **Option** Chapters that follow to assist with referencing. The flow charts are a general overview of the development process, while the description of the **Option** scenarios offer a more detailed look at what a developer may encounter.

A comparison of the **two Options** available for park and open space development in the City is outlined in the first chart titled **CHART 1: Comparison of Development Options for Park and Open Space**. The next two charts under **OPTION CHARTS** explain **Option 1** and **Option 2** in greater detail. These two charts are divided into two columns. The left column outlines the development steps involved for both the developer and the City to each carry out. The right column indicates which internal City staff are involved in that step of the flow chart.

Please note that the flow charts are to be read in combination with the **Options** Chapters where more detailed descriptions and explanations are provided.

CHART 1: Comparison of Development Options for Park and Open Space



OPTION CHART: Option 1, Developer Completes Minimum Requirements (Steps 1-5) & City Completes Park Development (Steps 6-10)



OPTION CHART: Option 2, Developer Completes Park / Open Space (Steps 1-5)



Developer's Role



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Chapter 3: Park Development Options

3.1 Overview

Through consultation with the Hamilton Halton Home Builders Association (HHHBA), it was clear that not all developers in Hamilton would be interested in participating in the construction of complete parks. However, the City of Hamilton wanted to ensure that the **Option** was available to those developers that would be interested in doing such work as part of their overall subdivision construction.

To help understand the range of possibilities for park development, the City of Hamilton has identified three basic scenarios. Each of these scenarios reflects a common circumstance that a developer may encounter. These scenarios are not intended to represent all development conditions a developer may encounter but to simply offer a broad overview.

The three scenarios cover:

- 1) No park block present in a subdivision
- 2) Park block present (developer chooses **Option 1**)
- 3) Park block present (developer and City chooses **Option 2**)

As previously stated, developers have **two Options** to develop parkland:

- 1) **Option 1** is the traditional option in the City of Hamilton. If a developer has a park block in the subdivision, they are responsible, as part of the subdivision agreement, for the minimum construction requirements. For a park this includes rough grading, fine grading, fencing, service stubs to the park, stormwater drainage infrastructure and seeding. The park, upon City approval, is assumed in that condition and the development is completed sometime in the future by the City.

Additional information on the requirements for **Option 1** can be found in the City's Local Service Policy (LSP), which can be found in the City's most recent Development Charges Study.

- 2) **Option 2** lets developers build the complete park and is common in many municipalities in the Greater Toronto Area. The developer and the City must be in agreement for this option to proceed. This usually produces a completed park for the community faster than Option 1.

3.2 No Park Block Present in the Subdivision	
Description of Scenario	Many subdivisions in the City will not have any parkland identified through the planning process. In this case, there is still City involvement by Landscape Architectural Services (LAS) of Public Works. This Section generally comments on all Draft Plan applications.
Overview	In this scenario, Draft Plan submissions are received and reviewed by the City. Comments are made on streetscape elements, pedestrian linkages, and Record of Site Condition. Comments are also made on other features identified on a case-by-case basis. Since this scenario assumes there are no proposed parks, a cash-in-lieu payment value is established (see City By-laws No. 17-039 and 09-124 for more information). Plans for approval at the Registration Phase are reviewed and approved by the City.
City's Role	Development Planning of the Planning and Economic Development Department (PED) circulates Draft Plan applications when they are submitted by the developer. Comments from LAS are made on the individual applications and submitted to Development Planning. Plans are then prepared by the Developer at the Registration Phase on features that LAS commented on. These plans are submitted to Growth Management of PED. The plans are then recirculated to the LAS staff for review and comment. Written approval will be given to Growth Management once LAS is satisfied with the plans. Any issues with the plans are identified in writing to Growth Management. This information is then sent to the developer so that changes can be made. Parkland dedication or cash-in-lieu of Parkland is also identified at this time by the Real Estate Section of PED established (see City By-laws No. 17-039 and 09-124 for more information).
Developer's Role	The developer must apply for Draft Plan approval and work with City staff to satisfy any development concerns. When this is achieved, plans are submitted to Growth Management of PED. These plans are used by City staff for approval of the details of each phase. After written comments are received, the developer must amend any issues with the plans and resubmit. Plans requiring approvals on specialized features are submitted at the same time as the engineering plans submission. Note: LAS staff needs a minimum of three weeks to review and comment on plan drawing submissions.

3.3 Option 1: Park Block Present in the Subdivision, Developer Completes Minimum Requirements (Steps 1-5) & City Completes Park Development (Steps 6-10)	
Description of Option	Option 1 describes when the City assumes parkland that meet minimum requirements completed by the developer in accordance with the <i>Planning Act</i> and specific Subdivision Agreement. The minimum requirements include rough grading, fine grading, fencing, service stubs to the park, stormwater drainage infrastructure and seeding (See the City’s Local Service Policy for more information). These items must be inspected and approved by City staff.
Option 1 Step 1: Development Review	
Step 1a: Official Plan	
Overview	The Official Plan for the City of Hamilton includes Parkland Planning and Classification Information. For more information about the Official Plan and the types of Parkland Classification, refer to Appendix B – Planning Documentation .
City’s Role	Development Planning of the Planning and Economic Development Department (PED) will direct park planning at this step and facilitate the development application process. Development Planning reviews the Official Plan, applicable secondary/neighbourhood plans and the zoning By-law to determine where parks and/or open space may be required and if an Official Plan and/or Zoning By-Law amendment is required in addition to the draft plan of subdivision application. If an Official Plan amendment is needed, the application is circulated to Landscape Architectural Services (LAS) for comment. Comments are required from LAS if there is a park or open space issue. City PED staff will investigate to determine if parkland is required in the subdivision development and LAS will confirm parkland programming requirements. Parkland dedication, deficits and other related information are reviewed by PED staff.
Developer’s Role	If required, the developer must submit relevant information and an application for an Official Plan amendment and/or Zoning By-law amendment.
Step 1b: Secondary Plan/Neighbourhood Plan	
Overview	The Secondary/Neighbourhood Planning process determines the park location and classification. The planning process is referenced in Appendix B – Planning Documentation . Many new subdivisions are subject to Secondary/Neighbourhood Plans and the location of the parkland block will have already been identified for development. Should a Secondary/Neighbourhood Plan not exist, requirements are determined using existing and future parkland need and is defined by the City’s Official Plan and Zoning By-Law.

City's Role	City involvement is led by the Community Planning division of PED. LAS and the Recreation Division give direction to preferred park location, total area requirements, park envelope shape, programming, access, street frontage, and fencing.
Developer's Role	The developer, if a current landowner, will be consulted by Community Planning for input to the planning process leading to the City's preferred Secondary/Neighbourhood Plan (refer to Appendix B – Planning Documentation).
Option 1 Step 2: Draft Plan of Subdivision	
Step 2a: Program Development	
Overview	During this step, the park block is assessed to determine what facilities are required or can be accommodated. This depends on the road frontage, envelope shape, size, and grading of the park. The Draft Plan will cover all phases of the proposed development. The park block is also evaluated for program requirements at this point. See Appendix J – Park and Trail Standards for more information on park/trail programming and how amenities/features are determined.
City's Role	The Recreation Division determines requirements for park facilities on a case-by-case basis.
Developer's Role	It is the developer's decision when to submit the Draft Plan of Subdivision. The developer is required to have a pre-consultation meeting with City officials which will identify the comments and requirements for the subdivision before a formal submission. Once the comments are received, the developer must choose how to proceed with the Draft Plan. The developer can contact Development Planning with any questions or concerns at this step or continue following this guide.
Step 2b: Facility Fit Plan	
Overview	The Facility Fit Plan acts as a preliminary concept plan for the park. It is used to determine potential layouts of the park and any facilities that are required. The plan also identifies any conflicts between the desired facilities, the proposed park parcel, and neighbouring land uses for the City and developer to resolve any issues early in the development process.
City's Role	LAS prepares the Facility Fit Plan using information from the Recreation Division. LAS staff ensure that the required facilities are possible within the proposed park envelope and work with the developer to achieve an optimal park layout.
Developer's Role	The developer works with the City to reach the City's parkland goals. This may require meeting with City staff to discuss options for parkland layout. When the developer chooses Option 1 , the City will present the preferred Facility Fit plan for the parkland. The City also specifies the program goals for the future park.

Step 2c: Draft Conditions	
Overview	Draft Conditions are prepared by Development Planning based on the comments from internal staff and outside agencies review of the proposed Draft Plan. Draft Conditions that relate to all phases of the subdivision are added into the Subdivision Agreement (Step #3a).
City's Role	LAS staff comment on the entire Draft Plan. Comments focus on park and open space blocks, pedestrian connections, trail systems, and any other features that require approval by LAS. These comments are sent to Development Planning to be included in the Draft Conditions for the subdivision. Draft Plan Conditions are identified for features that impact the park block during the City review of the Draft Plan.
Developer's Role	The developer follows the procedure outlined by Development Planning for this step. Revisions to the Draft Plan are completed as per the City's and external agencies' comments.
Option 1 Step 3: Subdivision Agreement	
Step 3a: Agreement Preparation	
Overview	The Subdivision Agreement is prepared following the approval of the Draft Plan. The Draft Conditions are added into the Subdivision Agreement for all phases of the subdivision.
City's Role	The Subdivision Agreement is prepared by Growth Management and Legal Services of the City Manager's Office. Development Planning will confirm with LAS that the parkland has been included in the 10 Year Park Capital Budget Forecast. The park development is scheduled into the budget forecast based on demand for park development in the City.
Developer's Role	The developer follows the procedure outlined by the Development Planning Section for this step. Revisions to the Draft Plan are completed as per the City's and external agencies' comments.
Option 1 Step 4: Registration Phase	
Step 4a: Plan Submission	
Overview	The developer either registers the subdivision in its entirety or registers each phase of the subdivision individually. These phases are identified in the Draft Plan (Step #2) and the Subdivision Agreement (Step #3). An engineering submission from the developer's consultant is required for each phase. The submission outlines the details of the works in that phase. City approvals are required before the subdivision is registered. Securities for the subdivision works are taken at this step.
City's Role	LAS reviews the park and open space development plans submitted by the developer through Growth Management. LAS provides the approvals of these plans necessary for registration. Any issues with the plans are identified to Growth Management staff. Note: LAS staff need a minimum of three weeks to review and comment on any plan drawing submissions.

<p>Developer's Role</p>	<p>The developer submits plans to Growth Management for approval and registration of the phase of development. Minimum park requirements include rough grading, fine grading, fencing on all boundaries next to private lands, service stubs to the park, stormwater drainage infrastructure, topsoil and seeding finished. Service stubs must also be provided to street frontage on the common boundary of the park. Requirements for plan submissions related to LAS approvals are found in Appendix C – Drawing and Submission Standards. If flaws are found in the submission, the developer will revise and resubmit for approval. Plans must be submitted in a timely manner so that there is enough time for review and comment by staff. The developer will provide securities for the works in each phase of subdivision. The minimum park works are covered by the engineering securities identified in the phases. At the time of Subdivision Registration, the developer will provide: 1) a Record of Site Condition for all park and open space lands and any lands being dedicated to or purchased by the City and 2) a Letter of Reliance from the environmental consultant. For Option 2, transfer of the parkland will not occur at the Registration Phase. The transfer will happen at the time of the City's approval of Substantial Performance of the park (Step #5b).</p>
<p>Option 1 Step 5: Park Construction and Assumption</p>	
<p>Step 5a: Inspections</p>	
<p>Overview</p>	<p>Parkland must meet minimum development requirements as outlined in the Subdivision Agreement (Step #3a). Standards for these minimum requirements are found in Appendix D – Standard Requirements for Park and Open Space Development. An inspection is conducted to verify that the work is completed to City standards.</p>
<p>City's Role</p>	<p>Growth Management staff coordinates an inspection of the parkland. This is led by LAS and Parks and Cemeteries. The inspection ensures that the work meets the City's standards. Staff identify any issues or outstanding deficiencies with the work to be corrected by the developer. Corrections must be made before Substantial Performance (Step #5b) and park assumption (Step #5c).</p>
<p>Developer's Role</p>	<p>Any issues or outstanding deficiencies identified by City staff during the inspection are to be corrected by the developer. City staff must be notified when this is complete for a second inspection to take place.</p>
<p>Step 5b: Substantial Performance</p>	
<p>Overview</p>	<p>The park development works must receive final site inspection approval and sign-off before assumption by the City.</p>
<p>City's Role</p>	<p>Parks and Cemeteries staff prepare a final sign-off letter after the final inspection (Step #5a). This verifies that the works are accepted and that all issues and deficiencies have been corrected.</p>
<p>Developer's Role</p>	<p>The developer must maintain the park until the final sign-off letter is received.</p>

Step 5c: Maintenance Assumption	
Overview	Maintenance assumption occurs after final sign-off and approval of the minimum park requirements (Step #5b). A two-year warranty period starts at the Substantial Performance approval date. A final warranty inspection is conducted by City staff at the end of this period. Any deficiencies found by the City are corrected by the developer before the park block is assumed by the City.
City's Role	Parks and Cemeteries is responsible for the maintenance of the park after final approval (Step #5b). Parks and Cemeteries staff identify any deficient warranty works during this two-year warranty period to Growth Management who then contact the developer to complete the warranty work. A final inspection by Growth Management, LAS and Parks and Cemeteries staff is conducted at the end of the warranty period.
Developer's Role	The developer must complete any warranty works in a timely manner identified during the warranty period and as identified at the final inspection. The developer can apply for a release of the securities after the two-year warranty period once deficiencies have been corrected.
No Further Developer Involvement, City to Complete Park Development (Steps 6-10).	
Option 1 Step 6: Facility Fit Plan for Future Park	
Step 6a: Facility Fit Plan	
Overview	A Facility Fit Plan is required at this point if it was not fully completed at the Draft Plan stage of development. The Facility Fit Plan acts as a concept plan for the park. Information gathered regarding facility needs is used to determine what facilities are required in the park. This determines potential layouts of the park and identifies any conflicts.
City's Role	LAS prepares the Facility Fit Plan based on information from Recreation's needs analysis regarding park facilities. The requirements for park facilities are determined on a case-by-case basis. City staff ensure that the required facilities are possible within the proposed park envelope. Efforts are then made to reach an optimal park layout.
Option 1 Step 7: Capital Budgeting Approval	
Step 7a: Budget for Development Completion	
Overview	The park project is identified in the 10 Year Park Capital Budget Forecast and the Development Charges By-Law by LAS staff (Step #3a). Funding, for design development and public process, needs to be identified at this step. The allocation of funding is required to complete the next steps.
City's Role	LAS is responsible for identifying funding requirements for the park. The funding requirements relate to the park design and construction, not including proposed buildings. The allocation of funding is facilitated through the Capital Budgets and Development Section of Corporate Services.

Step 7b: Budget for Buildings	
Overview	Funding required for any buildings needs to be identified through the Capital Budget process. It should be noted that buildings are usually constructed in selected parkland, as opposed to open space areas.
City's Role	Facilities Management and Capital Programs is responsible for submitting the Capital Budget funding requirements. The funding requirements are for the design and construction of buildings in parks. This process is assisted by Financial Planning and Policy.
Option 1 Step 8: Master Plan and Functional Plan	
Step 8a: Master Plan	
Overview	The Master Plan Concept is based on the Facility Fit Plan. This step includes public consultation where residents can review and comment on the Master Plan Concept plans. Public consultation follows the guidelines for public notification in the <i>Planning Act</i> . At a minimum, residents within a 120-metre radius of the park facility must be notified of any public meetings.
City's Role	This step is led by LAS staff who collect internal and external stakeholder comments regarding the Master Plan, particularly from staff in Recreation and Parks and Cemeteries.
Step 8b: Functional Plan	
Overview	The Functional Plan is based on the final approved Master Plan (Step #8a). It provides the basis for construction plans in the next phases. All necessary internal and external stakeholder approvals must be obtained during this step. If required, a Tree Management Plan is made for review and approval by Forestry and Horticulture.
City's Role	The Functional Plan is prepared by LAS. They arrange and discuss all approvals necessary to construct the park facilities. Any buildings other than shade structures need site plan approval by the City. For examples of internal and external approval requirements, see Appendix E – Internal and External Approvals .
Option 1 Step 9: Detailed Design of Park Facilities	
Step 9a: Working Drawings	
Overview	Final working drawings are prepared based on the Functional Plan (Step #8b). These become part of the tendering package and public bidding process. Permits for building construction must be secured during this step.
City's Role	LAS staff leads this step to prepare final working drawings for the purposes of the tendering process.
Step 9b: Tendering	
Overview	The official tendering process comes after the completion of the working drawings and is undertaken as per the City of Hamilton's Procurement Policy.

City's Role	Tendering of the project will be facilitated through the Procurement Section of Financial Services. The award of the tender is completed by Finance and Administration and LAS.
Option 1 Step 10: Park Construction and Assumption	
Step 10a: Inspections	
Overview	The supervision and administration of the park construction begins after the tender is awarded to the successful bidder (Step #9b).
City's Role	This step is led by LAS. Forestry and Horticulture oversees any forestry related works at the start of construction. Parks and Cemeteries are consulted during construction for maintenance related concerns.
Step 10b: Substantial Performance	
Overview	After the final inspection, Substantial Performance is awarded if the park construction is acceptable. The contractor, in accordance with the <i>Construction Lien Act</i> , can apply for a release of the statutory holdback after 60 days if the work is satisfactory. The contractor must also correct any deficiencies or outstanding work.
City's Role	Substantial Performance is granted by LAS staff in consultation with Parks and Cemeteries. LAS staff review and approve applications for release of the statutory holdback 60 days after Substantial Performance. Finance and Administration staff assist in processing and releasing the holdback.
Step 10c: Maintenance Assumption	
Overview	Park maintenance is assumed after Substantial Performance has been awarded (Step #10b). The two-year warranty begins on all park work at this point. A final inspection is carried out by City staff at the end of the two-year warranty period. This inspection identifies any work issues and warranty replacements that may be required.
City's Role	Park maintenance is assumed by Parks and Cemeteries and occurs after notice from LAS that Substantial Performance has been awarded. This notice marks the start of the two-year maintenance period when Parks and Cemeteries will identify any warranty issues. LAS staff are notified of these issues and contact the contractor to make corrections. A final warranty inspection is conducted by Parks and Cemeteries and LAS staff to identify any deficiencies at the end of the warranty period which would require the contractor to rectify.

3.4 Option 2: Park Block Present in the Subdivision, Developer Completes Park (Steps 1-5)	
Description of Option	This Option describes when the developer undertakes and completes the detailed design and construction of the park block. This process is optional and requires agreement by both the City and developer. At the draft plan stage, the developer must notify Development Planning and Landscape Architectural Services Park Development Option 2 is being pursued. Implementation is subject to City approval.
Option 2 Step 1: Development Review	
Step 1a: Official Plan	
Overview	The Official Plan for the City of Hamilton includes Parkland Planning and Classification Information. For more information on the Official Plan and the Parkland Classifications, refer to Appendix B – Planning Documentation .
City’s Role	Development Planning of the Planning and Economic Development Department (PED) will direct park planning at this step and facilitate the development application process. Development Planning reviews the Official Plan, applicable secondary/neighbourhood plans and the Zoning By-law to determine where parks and/or open space may be required and if an Official Plan and/or Zoning By-Law amendment is required in addition to the draft plan of subdivision application. If an Official Plan amendment is needed, the application is circulated to Landscape Architectural Services (LAS) for comment. Comments are required from LAS if there is a park or open space issue. City PED staff will investigate to determine if parkland is required in the subdivision development and LAS will confirm parkland programming requirements. Parkland dedication, deficits and other related information are reviewed by PED staff.
Developer’s Role	If required, the developer must submit relevant information and an application for an Official Plan amendment.
Step 1b: Secondary Plan/Neighbourhood Plan	
Overview	The Secondary/Neighbourhood Planning process determines the park location and classification. The planning process is explained in Appendix B – Planning Documentation . Many new subdivisions are subject to Secondary/Neighbourhood Plans and parkland will have already been identified for development. Should a Secondary/Neighbourhood Plan not exist, requirements are determined using existing and future parkland need and is defined by the City’s Official Plan and Zoning By-law.
City’s Role	City involvement is led by the Community Planning division of PED. LAS and the Recreation Division give direction to preferred park location, total area requirements, park envelope shape, programming, access, street frontage, and fencing.

Developer's Role	The developer, if a current landowner, will be consulted by Community Planning for input to the planning process leading to the City's preferred Secondary/Neighbourhood Plan.
Option 2 Step 2: Draft Plan of Subdivision	
Step 2a: Program Development	
Overview	During this step, the park block is assessed to determine what facilities are required or can be accommodated. This depends on the road frontage, envelope shape, size, and grading of the park. The Draft Plan will cover all phases of the proposed development. The park block is also evaluated at this time for program requirements. See Appendix J – Park and Trail Standards for more information on park/trail programming and how amenities/features are determined.
City's Role	The Recreation Division determines requirements for park facilities on a case-by-case basis.
Developer's Role	It is the developer's decision when to submit the Draft Plan of Subdivision. The developer is required to have a pre-consultation meeting with City officials which will identify the comments and requirements for the subdivision before a formal submission. Once the comments are received, the developer must choose how to proceed with the Draft Plan. The developer can contact Development Planning with any questions or concerns at this step or continue following the guide.
Step 2b: Facility Fit Plan	
Overview	The Facility Fit Plan acts as a preliminary concept plan for the park. It is used to determine potential layouts of the park and any facilities that are required. The plan also identifies any conflicts between the desired facilities, the proposed park parcel, and neighbouring land uses for the City and developer and the developer's landscape architectural consultant to resolve these issues early in the process. The developer's landscape architectural consultant is required to be a Full Member with Seal, in good standing, with the Ontario Association of Landscape Architects (OALA).
City's Role	LAS staff, using information from the Recreation Division, ensure that the Facility Fit Plan's required facilities are possible within the proposed park envelope and work with the developer and the developer's landscape architectural consultant to achieve an optimal park layout.
Developer's Role	The developer and the developer's landscape architectural consultant (who is required to be a Full Member with Seal, in good standing, with the OALA), work with the City to reach the City's parkland goals. This may require meeting with City staff to discuss options for parkland layout. The City also specifies the program goals for the future park. The developer's landscape architectural consultant prepares the Facility Fit Plan based on the Recreation Division's facility requirements and LAS input.

Step 2c: Draft Conditions	
Overview	<p>The City must be officially notified at this point if the developer is pursuing Park Development Option 2 (this Option). The City and the developer must agree for Option 2 to proceed. The Ward Councillor is contacted to review the plans for park development with possible public consultation. Draft Conditions are prepared by Development Planning based on comments of the Draft Plan review by internal staff and outside agencies. These conditions are added into the Subdivision Agreement (Step #3a).</p>
City's Role	<p>LAS staff comment on the entire Draft Plan. Comments focus on park and open space blocks, pedestrian connections, trail systems, and any other features that require approval by LAS. These comments are added into the draft conditions by Development Planning. One of the conditions included is related to the Parkland Development Financing Agreement (PDFA) (Step#4d). The condition stipulates that the developer will enter into this agreement which states the developer will undertake and complete the detailed design and construction of the park block.</p>
Developer's Role	<p>The developer follows the procedure outlined by the Development Planning Section for this step. The developer agrees to the conditions of the Parkland Development Financing Agreement (PDFA) (Step#4d). Revisions to the Draft Plan are completed as per the City's and external comments.</p>
Option 2 Step 3: Subdivision Agreement	
Step 3a: Agreement Preparation	
Overview	<p>The Subdivision Agreement is prepared following the approval of the Draft Plan. Draft Plan Conditions are added into the Subdivision Agreement for all phases of the proposed subdivision. A condition outlines the need for the developer to enter into a Parkland Development Financing Agreement (PDFA) (Step #4d). If the Draft Plan Conditions are approved by City Council, delegated authority is then given to LAS to fulfill the PDFA. This agreement must be made in order to go forward with the construction of the park. A template for the PDFA, including the Project Charter and Letter of Intent is included in Appendix F – Parkland/Open Space and Trail Development Financing Agreement (PDFA/OSTDFA). The Subdivision Agreement outlines that the transfer of the Parkland Deed occurs at Substantial Performance (Step #5c).</p>
City's Role	<p>PED staff prepares a Subdivision Agreement for the entire development for approval by City Council. This agreement includes the requirement for a PDFA between the City and the developer.</p>
Developer's Role	<p>The developer works with the City to finalize the Subdivision Agreement and the PDFA.</p>

Option 2 Step 4: Registration Phase	
Step 4a: Preparation of Project Charter and Letter of Intent	
Overview	<p>LAS prepares a draft Project Charter for the park that outlines the key contacts, the park description and budget, the process checkpoints and the roles and responsibilities of the key players, refer Schedule C – Project Charter of Appendix F – Parkland/Open Space and Trail Development Financing Agreement (PDF/A/OSTDFA). LAS sends the Project Charter to the developer for review and input. If the developer and the City are in agreement, both parties sign the project charter and the developer submits a completed Letter of Intent to LAS, refer to Schedule D – Letter of Intent Template of Appendix F – Parkland/Open Space and Trail Development Financing Agreement (PDF/A/OSTDFA).</p>
City’s Role	<p>LAS prepares the Project Charter, this includes the identification of the park overall budget and construction budget allocated within the 10-year Capital Budget Forecast. At this time, LAS will identify the programming needs for the Park in consultation with Recreation staff and will identify the expected submittals and administrative duties during design and construction of the park. The goal of the Project Charter is to clearly outline expectations. LAS will sign the Project Charter after the developer and the developer’s landscape architectural consultant have reviewed, filled in the required information and signed the Project Charter.</p>
Developer’s Role	<p>The developer’s role is to review the Project Charter and provide input. It is expected that the developer will provide the information for the key contacts of the developer and the developer’s landscape architectural consultant. The developer’s landscape architectural consultant is to review the Project Charter and working with the developer, provide their fees for their services. Both parties are to sign off on the Project Charter. The developer will also prepare a Letter of Intent and submit the signed Letter and Project Charter to LAS.</p>

Step 4b: Plan Submissions	
Overview	<p>Per the plan submission outlined in the Project Charter the developer submits a Conceptual Park Design plan and cost estimates. The Conceptual Park Design is refined to meet the City’s goals for the park parcel. For more information about features that are accepted in City parks, refer to Appendix B – Planning Documentation and Appendix D – Standard Requirements for Park and Open Space Development. Thoughtful park design can lead to less crime and an improved quality of life. This is known as Crime Prevention Through Environmental Design (CPTED). The developer and developer’s landscape architectural consultant are required to refer to Appendix G – Crime Prevention through Environmental Design (CPTED) Principles for Park and Open Space Design. Once the Conceptual Park Design has been approved, the developer may proceed with preparing functional and tender drawings, a proposed completion schedule, and cost estimates which are to be submitted to LAS for review and approval. If required, a Tree Management Plan is submitted to the Forestry and Horticulture Section at this step.</p>
City’s Role	<p>LAS reviews and approves the Conceptual Park Design, functional and tender drawings, completion schedule, and the cost estimates. The cost estimates are needed to establish which party (developer or City) is responsible to pay for which items based on the Local Service Policy and Development Charges by-law. The cost estimates need to include contingency and the developer’s landscape architectural service fee, refer to the template provided in Schedule B – Project Charter of Appendix F – Parkland/Open Space and Trail Development Financing Agreement (PDFA/OSTDFA) . LAS provides comments to the developer with any required changes to the drawings. Note: LAS staff need a minimum of three weeks to review and comment on drawing submissions. If required, Forestry and Horticulture staff review and comment on the Tree Management Plan. Any tree removals or conservation plans must be submitted to the Forestry and Horticulture Section for approval. These plans must be submitted and approved before LAS gives final approval to the design drawings.</p>
Developer’s Role	<p>The developer, at this step, must submit to LAS for review Conceptual Park Design drawings and cost estimates prepared by the developer’s landscape architectural consultant. This submission is in coordination with the engineering plan requirements specified by Growth Management. The requirements for submission are found in Appendix C – Drawing and Submission Standards and Appendix D – Standard Requirements for Park and Open Space Development. [cont....]</p>

<p>Developer’s Role [cont....]</p>	<p>Design standards, details, and specifications can be found in the following appendices:</p> <ul style="list-style-type: none"> • Appendix H – Playground Equipment Standards • Appendix I – Spray Pad Standards • Appendix J – Park and Trail Standards • Appendix K – Approved Tree Species for Parks and Open Spaces • Appendix L – Park and Open Space Standard Detail Drawings • Appendix M – Park and Open Space Standard Specifications <p>The developer works with the City to refine the Park Design Concept. This is to ensure the City’s goals for the park parcel are met.</p> <p>Once this is finalized, the functional plan and tender drawings, completion schedule, and revised cost estimates must be submitted to LAS. Developers should be aware that there is an upset limit to the repayment of Development Charges which is determined by the City’s Development Charges By-law and is established in the Project Charter. The Park Design and cost estimates should reflect this upset limit. Costs that are above the upset limit are the responsibility of the developer.</p>
<p>Step 4c: Tendering</p>	
<p>Overview</p>	<p>It is the developer’s responsibility to tender the project. The tendering process are outlined in the PDFa, refer to Appendix F – Parkland/Open Space and Trail Development Financing Agreement (PDFa/OSTDFA) and follows the “Requirements for Tendering” in the City of Hamilton’s <i>Engineering Guidelines for Servicing Land Under Development Applications</i>. Copies of the bids must be provided to the City immediately after bid opening. The developer may select the contractor, but the Park construction repayment is based on the lowest qualified bid including a 10% contingency to the upset limit established for the park construction budget.</p>
<p>City’s Role</p>	<p>The City must be present at the opening of the bids. A digital bid and tender process may be employed, and the bid opening may be remote provided that the online portal can be publicly accessed and viewable in real time. The City requests a tele-call with the developer and developer’s landscape architectural consultant at the time the digital bid closes.</p>
<p>Developer’s Role</p>	<p>The developer must follow the proper tendering procedure as outlined in the PDFa that follows the City of Hamilton’s <i>Engineering Guidelines for Servicing Land Under Development Applications</i>. The procedures outline the type of bid process that must be employed depending on cost of works. The developer’s landscape architectural consultant is to coordinate the tendering and bid opening to ensure that the process is public, that a City representative is present at bid opening and that copies of the bids are provided to the City immediately after opening.</p>

Step 4d: Parkland Development Financing Agreement	
Overview	LAS will prepare a draft Parkland Development Financing Agreement (PDFA) once the developer has selected a bidder and will obtain review from the City’s legal section. The PDFA is a legal agreement signed by the City (i.e. Mayor and Clerk), initialled by the manager and supervisor of LAS and signed by the developer. The PDFA identifies the works that are to be constructed and their costs, the parties responsible to pay the costs, the general responsibilities and obligations of the parties as it pertains to the completion of the works, the conditions for repayment of the City’s share of work and the requirements for insurance and securities, including the conditions of release of the securities. A PDFA template can be found in Appendix F – Parkland/Open Space and Trail Development Financing Agreement (PDFA/OSTDFA) . The developer must wait until the financing agreement is signed prior to entering into any general contract with the selected bidder to complete the works.
City’s Role	The City works will prepare a draft PDFA for the developer to review and sign. Once the PDFA is signed by all parties, LAS will prepare a Purchase Order Requisition and send the Purchase Order to the developer. The Purchase Order will be used to pay for the City’s share of the approved works. The preparation of the PDFA and Purchase Order are facilitated through LAS, Financial Planning and Policy, and Legal Services.
Developer’s Role	The developer reviews the PDFA and if in agreement, signs the document. The developer is responsible to provide the City a Letter of Credit for the securities once the tender has been awarded and the PDFA is signed by the developer and City.
Option 2 Step 5: Park Construction and Assumption	
Step 5a: Construction Administration	
Overview	The construction administration duties are performed by the developer’s landscape architectural consultant. It is expected that a pre-construction meeting will be held, along with bi-weekly meetings that must be attended by a LAS staff member, the developer’s contractor, the developer’s landscape architectural consultant and a representative of the developer. It is expected that site inspections of the minimum key milestones identified in the Project Charter will be performed and documented, that shop drawings will be submitted for review and approval to the developer’s landscape architectural consultant and LAS, and that the third-party testing will be performed, documented and submitted to the developer’s landscape architectural consultant and LAS. Meetings, testing and submissions are expected to occur in a timely fashion to prevent delays and ensure that the park is being constructed according to the contract documents.

<p>City's Role</p>	<p>LAS will play an active role in overseeing the construction of the park and expects to be circulated on all shop drawing submissions and testing reports for review and approval. Site inspection reports, progress payment and documentation related to the construction of the park should also be circulated to LAS. LAS will attend all bi-weekly meetings and will coordinate with other City sections should their presence on site be required, such as Parks and Cemeteries and Forestry and Horticulture. Other internal and external agencies may also be asked to attend site meetings as required.</p>
<p>Developer's Role</p>	<p>The developer's landscape architectural consultant is expected to set-up the pre-construction meeting and the bi-weekly meetings and take minutes. The developer's landscape architectural consultant will aid in the review and approval of shop drawings and ensure that the developer's contractor is submitting documentation in a timely fashion to avoid construction delays. The developer's landscape architectural consultant will be responsible to perform the key milestone reviews and document the reviews to ensure that the park is being constructed according to the contract documents. Any issues or changes to the contract must be presented to the City prior to the issuance of site directives or change orders. Templates produced by the City of Hamilton for construction administrative documentation are available upon request.</p>
<p>Step 5b: Deficiency Review</p>	
<p>Overview</p>	<p>A playground inspection review and deficiency review must be performed prior to initiating substantial performance. The playground inspection review must be performed by LAS and the playground inspector of Parks and Cemeteries. The playground inspector will identify any deficiencies and provide them to LAS for inclusion into the final Deficiency Report. Following the playground inspection, a deficiency review of the entire park will be performed with LAS, the Park and Cemeteries superintendent, the developer's landscape architectural consultant, the developer's contractor and a representative of the developer. A Deficiency Report will be prepared, and the developer is responsible to rectify the deficiencies to the satisfaction of the City prior to substantial completion being initiated.</p>
<p>City's Role</p>	<p>LAS will coordinate with the playground inspector to perform the playground inspection review and will provide to noted deficiencies to the developer's landscape architectural consultant for inclusion in the overall Deficiency Report. LAS will ensure that the appropriate stakeholders from the City attend the deficiency review walks and are satisfied with the deficiency corrections performed by the developer.</p>
<p>Developer's Role</p>	<p>The developer landscape architectural consultant is responsible to help coordinate a deficiency review meeting, to note deficiencies not in compliance with the contract requirements and to circulate a final Deficiency Report. The developer will ensure that the deficiencies are corrected and to notify the City for a final review to occur. Substantial performance will not be initiated until the identified deficiencies are corrected to the satisfaction of the City.</p>

Step 5c: Substantial Performance and Release of Securities	
Overview	<p>Once the deficiencies have been rectified to the satisfaction of the City, the City will send a substantial performance cover letter granting the developer approval to initiate substantial performance for the works. The developer may then execute Substantial Performance according to current Construction Law. The two-year warranty period begins after Substantial Performance is achieved. The developer may also reimbursement for the City’s share of works and request the release of the securities for the performance of the works. The developer will be reimbursed for the City’s share of the works and the securities will be released following the expiration of the lien period according to the current construction law and the receipt of the documentation outlined in the PDFa. The securities for the warranty period will be held until the expiry of the two-year warranty period. The Record of Site Condition and Letter of Reliance must be provided, and the Parkland Deed transferred to the City at this Step.</p>
City’s Role	<p>LAS will prepare a cover letter confirming that Substantial Performance has been reached and a notification letter for the commencement of the warranty period. Following the expiration of the lien period, LAS will have the City’s Law Clerk perform a lien check. Once all documentation is received from the developer according to the conditions outline in the PDFa, LAS will initiate the release of the securities and the reimbursement for the City’s share of works through Business Programs.</p>
Developer’s Role	<p>The developer’s landscape architectural consultant prepares the Certificate of Substantial Performance after receiving clearance from the City. The developer will publish the Substantial Performance document as per the <i>Construction Lien Act</i>. The developer is responsible to apply for the release of securities and to request reimbursement for the City’s share of works. The developer is responsible to submit the required documentation along with this request. Refer to Appendix F – Parkland/Open Space and Trail Development Financing Agreement (PDFa/OSTDFA) for the standard conditions and documentation that must be submitted prior to the release of securities and reimbursement of the City’s share of the works.</p>
Step 5d: Maintenance Assumption	
Overview	<p>The start of the two-year warranty period begins at Substantial Performance after the City has accepted the construction works. Inspections must occur at an appropriate time of the year to review the works, including vegetative health, during the first year of the warranty period and during the second year of the warranty period. A final inspection is complete LAS and any outstanding warranty corrections will be identified for correction by the developer. Should the work be acceptable, a letter of Contract Completion will be issued to the developer and the developer may then apply for the release of securities for the warranty component of the works. Should the developer fail to correct the deficiencies the securities will be used by the City to do so.</p>

<p>City's Role</p>	<p>Park maintenance is assumed by Parks and Cemeteries staff once Substantial Performance is awarded. LAS will perform the one-year and two-year warranty inspection reviews on-site with the developer. LAS will conduct the final inspection review at the termination of the two-year warranty period and will issue a letter of Contract Completion should the work be deemed acceptable. LAS will facilitate the release of the security for the warranty period through Business Programs.</p>
<p>Developer's Role</p>	<p>The developer's landscape architectural consultant is responsible to schedule and perform a one-year and two-year maintenance review. The reviews must be conducted with LAS staff present and the developer's landscape architectural consultant is responsible to prepare and issue the maintenance reports. The developer must rectify the identified warranty deficiencies in timely manner and notify the City when the work is complete. The developer is responsible to apply for the release of the securities following the expiration of the warranty period and the receipt of a letter of Contract Completion issued by LAS.</p>

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Chapter 4: Open Space and Trail Development Options

4.1 Overview

Through consultation with the Hamilton Halton Home Builders Association (HHHBA), it was clear that not all developers in Hamilton would be interested in participating in the construction of complete parks. However, the City of Hamilton wanted to ensure that the **Option** was available to those developers that would be interested in doing such work as part of their overall subdivision construction.

To help understand the range of possibilities for open space development, the City of Hamilton has identified three basic scenarios. Each of these scenarios reflects a common circumstance that a developer may encounter. These scenarios are not intended to represent all development conditions a developer may encounter but to simply offer a broad overview. The three scenarios cover:

- 1) No open space block present in a subdivision
- 2) Open space block present (developer chooses **Option 1**)
- 3) Open space block present (developer and City chooses **Option 2**)

The process for developing open space lands closely resembles the process for parks development. Developers have **two Options** to develop open space and trails.

- 1) **Option 1** is the traditional option in the City of Hamilton. If a developer has open space on their land they are responsible, as part of the Subdivision Agreement, for the minimum construction requirements. For open space this includes providing pedestrian access (sidewalk or walkways) with bollards, hard surfacing treatment, and fencing. Generally, developers are required to fence any open space with neighbouring land uses. Grading and seeding might be required depending on the design of the subdivision. The open space, upon City approval, is assumed in that condition, and completed sometime in the future by the City.

Additional requirements for Option 1 can be found in the City's Local Service Policy, which can be found in the City's most recent Development Charges Report.

- 2) **Option 2** lets developers build the complete open space and is common in many municipalities in the Greater Toronto Area. The developer and the City must agree for this option to proceed. This usually produces a completed open space faster than Option 1.

4.2 No Open Space Block Present in the Subdivision	
Description of Scenario	Many subdivisions in the City won't have any open space block present. In this case, there is still City involvement by Landscape Architectural Services (LAS) of Public Works. This section generally comments on all Draft Plan applications.
Overview	In this scenario, Draft Plan submissions are received and reviewed by the City. Comments are made on streetscape elements, pedestrian linkages, and the Record of Site Condition. Comments are also made on any other features identified on a case-by-case basis. Since this scenario assumes there are no proposed open space blocks, a cash-in-lieu payment value is established (see City By-laws No. 17-039 and 09-124 for more information). Plans for approval at the Registration Phase are reviewed and approved by the City.
City's Role	Development Planning of the Planning and Economic Development Department (PED) circulates Draft Plan applications when they are submitted by the developer. Comments from LAS are made on the individual applications and submitted to Development Planning. Plans are then prepared by the Developer at the Registration Phase on features that LAS commented on. These plans are submitted to Growth Management of PED. The plans are then circulated to the LAS staff for review and comment. Written approval will be given to Growth Management once LAS is satisfied with the plans. Any issues with the plans are identified in writing to Growth Management. This information is then sent to the developer so that changes can be made. Parkland Dedication or cash-in-lieu of Parkland is also identified at this time by the Real Estate Section of PED (see City By-laws No. 17-039 and 09-124 for more information).
Developer's Role	The developer must apply for Draft Plan approval and work with City staff to satisfy any development concerns. When this is achieved, plans are submitted to Growth Management of PED. These plans are used by City staff for approval of the details of each phase. After written comments are received, the developer must amend any issues with the plans and resubmit. Plans requiring approvals on specialized features are submitted at the same time as the engineering drawings submission. Note: LAS staff need a minimum of three weeks to review and comment on plan drawing submissions.

4.3 Option 1: Open Space Block Present in the Subdivision, Developer Completes Minimum Requirements (Steps 1-5) & City Completes Open Space Development (Steps 6-10)

Description of Option	Option 1 describes when the City assumes open space from subdivision developments. The developer is only responsible for completing minimum requirements such as providing pedestrian access to the open space. The pedestrian access can be a sidewalk connection or a pedestrian walkway complete with bollards, hard surfacing treatment, and fencing. Generally, the developer is required to provide fencing for an open space area with neighbouring land uses. Grading and seeding might also be required based on the design of the subdivision or local requirements.
Option 1 Step 1: Development Review	
Step 1a: Official Plan	
Overview	The Official Plan for the City of Hamilton includes Open Space Planning and Classification information. For more information about the Official Plan and the types of Parkland Classification, refer to Appendix B – Planning Documentation .
City’s Role	The Development Planning division of the Planning and Economic Development Department (PED) will direct open space planning at this step and facilitate the development application process. Development Planning reviews the Official Plan, applicable secondary/neighbourhood plans and the Zoning By-law to determine where parks and/or open space may be required and if an Official Plan and/or Zoning By-Law amendment is required in addition to the draft plan of subdivision application. If an Official Plan amendment is needed, the application is circulated to Landscape Architectural Services (LAS) for comment. Comments are required from LAS if there is an open space issue. City PED staff will investigate to determine if open space is required in the subdivision development and LAS will confirm open space programming requirements. Parkland dedication, deficits and other related information are reviewed by PED staff.
Developer’s Role	If required, the developer must submit relevant information and an application for an Official Plan amendment.

Step 1b: Secondary Plan/Neighbourhood Plan	
Overview	The Secondary/Neighbourhood Planning process determines the open space location and classification. The planning process is explained in Appendix B – Planning Documentation . Many new subdivisions are subject to Neighbourhood/Secondary Plans and the location of the open space will have already been identified for development. Should a Secondary/Neighbourhood Plan not exist, requirements are determined using existing and future open space need and is defined by the City’s Official Plan, Zoning By-Law and the Hamilton Recreational Trails Master Plan.
City’s Role	City involvement is led by the Community Planning division of PED. LAS and the Recreation Division give direction to preferred open space location, total area requirements, park envelope shape, programming, access, street frontage, and fencing.
Developer’s Role	The developer, if a current landowner, will be consulted by Community Planning for input to the planning process leading to the City’s preferred Secondary/Neighbourhood Plan (refer to Appendix B – Planning Documentation).
Option 1 Step 2: Draft Plan of Subdivision	
Step 2a: Program Development	
Overview	During this step, the open space parcel is assessed to determine what facilities are required or can be accommodated. This depends on the road frontage, access, trail connections and topography. The Hamilton Recreational Trails Master Plan is also used as a guide. The Draft Plan of Subdivision covers all phases of the proposed development. Any open space or trails are evaluated for program requirements at this point. See Appendix J – Park and Trail Standards for more information on park/trail programming and how amenities/features are determined.
City’s Role	LAS staff review the Hamilton Recreational Trails Master Plan to determine the direction of open space development. The Recreation Division determines requirements for open space facilities on a case by case basis.
Developer’s Role	It is the developer’s decision when to submit the Draft Plan of Subdivision. The developer is required to have a pre-consultation meeting with City officials which will identify the comments and requirements for the subdivision before a formal submission comments and requirements for the subdivision before a formal submission. Once the comments are received, the developer must choose how to proceed with the Draft Plan. The developer can contact Development Planning with any questions or concerns at this step or continue following this guide.

Step 2b: Facility Fit Plan	
Overview	The Facility Fit Plan acts as a preliminary concept plan for the open space and is used to determine potential trail layouts between the desired facilities, the proposed trail alignment, or neighbouring land uses and to identify any conflicts for the City and developer to resolve these issues early in the development process. Information from the Hamilton Recreational Trails Master Plan is used to determine what facilities are required.
City's Role	LAS staff prepares the Facility Fit Plan using information from the Recreation Division and the Hamilton Recreational Trails Master Plan. LAS staff ensure that the required facilities, with a focus on required trail alignments and connections, are possible within the proposed open space envelope and work with the developer to achieve an optimum trail layout.
Developer's Role	The developer works with the City to reach the City's open space, trail alignment and trail connection goals. This may require meeting with City staff to discuss options for open space layout. If the developer chooses Option 1 , the City will present the preferred Facility Fit for the open space and trail which specifies program goals for the future trail.
Step 2c: Draft Conditions	
Overview	Draft Conditions are prepared by Development Planning based on the comments from internal staff and outside agencies' review of the proposed Draft Plan. Draft Conditions that relate to all phases of the subdivision are added into the Subdivision Agreement (Step #3a).
City's Role	LAS staff comment on the entire Draft Plan. The comments focus on the open space block, pedestrian connections, trail systems, and any other features identified on a case-by-case basis. These comments are sent to Development Planning to be included in the Draft Conditions for the subdivision. Draft Plan Conditions are identified for features that impact the open space or trail during the City review of the Draft Plan.
Developer's Role	The developer follows the procedure outlined by Development Planning for this step. Revisions to the Draft Plan are completed as per the City's and external agencies' comments.
Option 1 Step 3: Subdivision Agreement	
Step 3a: Agreement Preparation	
Overview	The Subdivision Agreement is prepared following the approval of the Draft Plan. The Draft Conditions are added into the Subdivision Agreement for all phases of the subdivision.
City's Role	The Subdivision Agreement is prepared by Growth Management and Legal Services of the City Manager's office. Once the agreement is signed, Development Planning will confirm with Landscape Architectural Services (LAS) that the open space has been included in the 10 Year Capital Budget Forecast. The development project is scheduled into the budget forecast based on the demand for open space development in the City.

Developer's Role	The developer follows the procedure outlined by the Development Planning section for this step. Revisions to the Draft Plan are completed as per the City's and external agencies' comments.
Option 1 Step 4: Registration Phase	
Step 4a: Plan Submission	
Overview	The developer registers each phase of the subdivision individually. These phases are identified in the Draft Plan (Step #2) and the Subdivision Agreement (Step #3). An engineering submission from the developer's consultant is required for each phase. The submission outlines the details of the works in that phase. City approvals are required before the subdivision is registered. Securities for the works are taken at this step.
City's Role	LAS reviews the open space development plans from the developer through Growth Management. LAS provides the approvals of these plans necessary for registration. Any issues with the plans are identified to Growth Management staff. Note: LAS staff need a minimum of three weeks to review and comment on any plan drawing submissions.
Developer's Role	The developer submits plans to Growth Management for approval and registration of the phase of development. The developer is only responsible for completing minimum requirements like providing pedestrian access to the open space. The pedestrian access can be a sidewalk connection or a pedestrian walkway complete with bollards, hard surfacing treatment, and fencing. Generally, the developer is required to provide fencing for an open space area with neighbouring land uses. Grading and seeding might also be required based on the design of the subdivision or local requirements. Requirements for plan drawing submission related to LAS approvals are found in Appendix C – Drawing and Submission Standards . If plan drawing flaws are found in the submission, the developer will revise and resubmit for approval. Plans must be submitted in a timely manner so that there is enough time for review and comment by staff. The developer will provide securities for the works in each phase of subdivision. The minimum open space development works are covered by the engineering securities identified in the phases. At the time of Subdivision Registration, the developer will provide 1) a Record of Site Condition for all park and open space lands and any lands being dedicated to or purchased by the City and 2) a Letter of Reliance from the environmental consultant. (For Option 2 , transfer of the open space lands will not occur at the Registration Phase. The transfer will happen at the time of the City's approval of Substantial Performance of the open space lands (Step #5b).

Option 1 Step 5: Open Space Construction and Assumption	
Step 5a: Open Space Construction Inspections	
Overview	Open space in the subdivision must meet minimum requirements as outlined in the Subdivision Agreement (Step #3a). Standards for these minimum requirements are determined on a case-by-case basis. Some examples are found in Appendix D – Standard Requirements for Park and Open Space Development . An inspection must be conducted to verify that the work is completed to City standards.
City’s Role	Growth Management staff coordinates an inspection of the open space. This is led by LAS and Parks and Cemeteries. The inspection ensures that the work meets the City’s standards. Staff identify any issues with the work to be corrected by the developer. Corrections must be made before Substantial Performance and open space assumption.
Developer’s Role	Any issues identified by City staff during the inspection are corrected by the developer. City staff must be notified when this is complete for a second inspection to take place.
Step 5b: Substantial Performance	
Overview	The open space development works must receive final site inspection approval and sign-off before assumption by the City.
City’s Role	Parks and Cemeteries staff prepare a final sign-off letter after the final inspection (Step #5a). This verifies that the works are accepted and that all issues and deficiencies have been corrected.
Developer’s Role	The developer must maintain the open space area until the final sign-off letter is received.
Step 5c: Maintenance Assumption	
Overview	Open space maintenance assumption occurs after final sign-off and approval of the minimum open space requirements (Step #5b). A two-year warranty period starts at the Substantial Performance approval date. A final warranty inspection is conducted by City staff at the end of this period. Any deficiencies found by the City are corrected by the developer before the open space is assumed by the City.
City’s Role	Parks and Cemeteries is responsible for the maintenance of the open space after final approval (Step #5b). Parks and Cemeteries staff identify any deficient warranty works during this two-year warranty period to Growth Management who then contact the developer to complete the warranty work. A final inspection by Growth Management, LAS and Parks and Cemeteries staff is conducted at the end of the warranty period.
Developer’s Role	The developer must complete any warranty works in a timely manner identified during the warranty period and as identified at the final inspection. The developer can apply for a release of the securities after the two-year warranty period once deficiencies have been corrected.

No Further Developer Involvement, City to Complete Park Development.	
Option 1 Step 6: Facility Fit for Future Open Space	
Step 6a: Facility Fit Plan	
Overview	A Facility Fit Plan is required at this point if it was not fully completed at the Draft Plan stage of development. The Facility Fit Plan acts as a concept plan for the open space and trail. Information gathered from the Hamilton Recreational Trails Master Plan is used to determine what facilities are required. This also determines potential layouts of the trail and identifies any conflicts between the desired facilities and the proposed trail alignment.
City's Role	LAS prepares the Facility Fit Plan based on information from the Recreation Division's needs analysis regarding open space facilities from the Hamilton Recreational Trails Master Plan. City staff ensure that the required facilities are possible within the proposed open space area. Efforts are then made to reach an optimal open space layout and trail alignment.
Option 1 Step 7: Capital Budgeting Approval	
Step 7a: Budget for Development Completion	
Overview	The open space project is identified in the 10 Year Park Capital Budget Forecast and the Development Charges By-Law by LAS staff (Step #3a). Funding, for design development and public process, needs to be identified at this step. The allocation of funding is required to complete the next steps.
City's Role	LAS is responsible for identifying funding requirements for the open space or trail. The funding requirements are for the design and construction of the open space and trail, not including any proposed buildings. The allocation of funding is facilitated through the Capital Budgets and Development Section of Corporate Services.
Step 7b: Budget for Buildings	
Overview	Funding required for any buildings needs to be identified through the Capital Budget process. It should be noted that buildings are usually constructed in selected parkland, as opposed to open space areas.
City's Role	Facilities Management and Capital Programs is responsible for submitting the Capital Budget funding requirements. The funding requirements are for the design and construction of any buildings. This process is assisted by the Financial Planning and Policy Division.

Option 1 Step 8: Master Plan and Functional Plan	
Step 8a: Master Plan	
Overview	The Master Plan Concept is based on the Facility Fit Plan. This step includes public consultation where residents can review and comment on the conceptual plans. Public consultation notification follows the guidelines for public notification in the <i>Planning Act</i> . At a minimum, residents within a 120-metre radius of the open space facility must be notified of any public meetings.
City's Role	LAS staff collects internal and external stakeholder comments regarding the Master Plan, particularly from staff in Recreation and Parks and Cemeteries.
Step 8b: Functional Plan	
Overview	The Functional Plan is based on the final approved Master Plan (Step #8a). It provides the basis for construction drawings in the next phases. All necessary internal and external stakeholder approvals must be obtained during this step. If required, a Tree Management Plan is prepared for review and approval by Forestry and Horticulture.
City's Role	The Functional Plan is prepared by LAS. They arrange and discuss all approvals necessary to construct the open space and trail facilities. This includes negotiating necessary licenses with utility companies or conservation authority approvals. For examples of internal and external approval requirements see Appendix E – Internal and External Approvals .
Option 1 Step 9: Detailed Design of Open Space Facilities	
Step 9a: Working Drawings	
Overview	Final working drawings are prepared based on the Functional Plan (Step #8b). These become part of the tendering package and public bidding process. Permits for building construction must be secured during this step.
City's Role	LAS leads this step to prepare final working drawings for the purposes of the tendering process.
Step 9b: Tendering	
Overview	The official tendering process comes after the completion of the working drawings and is undertaken as per the City of Hamilton's Procurement Policy.
City's Role	Tendering of the project will be facilitated through the Procurement Section of Financial Services. The award of the tender is completed by Finance and Administration and LAS.

Option 1 Step 10: Open Space Construction and Assumption	
Step 10a: Inspections	
Overview	The supervision and administration of the open space and trail construction begins after the tender is awarded to the successful bidder (Step #9b).
City's Role	This step is led by LAS. Forestry and Horticulture oversees any forestry related works at the start of construction. Parks and Cemeteries are consulted during construction for maintenance related concerns.
Step 10b: Substantial Performance	
Overview	After the final inspection, Substantial Performance is awarded if the open space and trail construction work is acceptable. The contractor, in accordance with the <i>Construction Lien Act</i> , can apply for a release of the statutory holdback after 45 days if the work is satisfactory. The contractor must also correct any deficiencies or outstanding work.
City's Role	Substantial Performance is granted by LAS in consultation with Parks and Cemeteries. LAS staff review and approve applications for release of the statutory holdback 45 days after Substantial Performance. Finance and Administration staff assist in processing and releasing the holdback.
Step 10c: Maintenance Assumption	
Overview	Open space and trail maintenance is assumed after Substantial Performance has been awarded (Step #10b). The two-year warranty begins on all open space and trail work at this point. A final inspection is carried out by City staff at the end of the two-year warranty period. This inspection identifies any work issues and warranty replacements that may be required.
City's Role	Open space and trail maintenance is assumed by Parks and Cemeteries and occurs after notice from LAS that Substantial Performance has been awarded. This notice marks the start of the two-year maintenance period when Parks and Cemeteries will identify any warranty issues. LAS staff are notified of these issues and contact the contractor to make corrections. A final warranty inspection is conducted by Parks and Cemeteries and LAS staff to identify any deficiencies at the end of the warranty period which would require the contractor to rectify.

4.4 Option 2: Open Space Block Present in the Subdivision, Developer Completes Open Space (Steps 1-5)	
Description of Option	Option 2 describes when the developer undertakes and completes the detailed design and construction of the open space or trail block. This process is optional and requires agreement by both the City and the developer. At the draft plan stage, the developer must notify Development Planning and Landscape Architectural Services if the Open Space Development Option 2 is being pursued. Implementation is subject to City approval.
Option 2 Step 1: Development Review	
Step 1a: Official Plan	
Overview	The Official Plan for the City of Hamilton includes Open Space Planning and Classification Information. For more information on the Official Plan and the Parkland Classifications, refer to Appendix B – Planning Documentation .
City’s Role	The Development Planning division of the Planning and Economic Development Department (PED) will direct open space planning at this step and facilitate the development application process. Development Planning reviews the Official Plan, applicable secondary/neighbourhood plans and the Zoning By-law to determine where parks and/or open space may be required and if an Official Plan and/or Zoning By-Law amendment is required in addition to the draft plan of subdivision application. If an Official Plan amendment is needed, the application is circulated to Landscape Architectural Services (LAS) for comment. Comments are required from LAS if there is an open space issue. City PED staff will investigate to determine if open space is required in the subdivision development and LAS will confirm open space programming requirements. Parkland dedication, deficits and other related information are reviewed by PED staff.
Developer’s Role	If required, the developer must submit relevant information and an application for an Official Plan amendment.
Step 1b: Secondary Plan/Neighbourhood Plan	
Overview	The Secondary/Neighbourhood Planning process determines the open space location and classification. The planning process is explained in Appendix B – Planning Documentation . Many new subdivisions are subject to Neighbourhood/Secondary Plans and open space will have already been identified for development. Should a Secondary/Neighbourhood Plan not exist, requirements are determined using existing and future open space need and is defined by the City’s Official Plan, Zoning By-Law and the Hamilton Recreational Trails Master Plan.

City's Role	City involvement is led by the Community Planning division of PED. LAS and the Recreation Division give direction to preferred open space location, total area requirements, park envelope shape, programming, access, street frontage, and fencing.
Developer's Role	The developer, if a current landowner, will be consulted by Community Planning for input to the planning process leading to the City's preferred Secondary/Neighbourhood Plan.
Option 2 Step 2: Draft Plan of Subdivision	
Step 2a: Program Development	
Overview	During this step, the open space parcel is assessed to determine what facilities are required or can be accommodated. This depends on the road frontage, access, trail connections and topography. The Hamilton Recreational Trails Master Plan is also used as a guide. The Draft Plan of Subdivision covers all phases of the proposed development. Any open space or trails are evaluated for program requirements at this point. See Appendix J – Park and Trail Standards for more information on park/trail programming and how amenities/features are determined.
City's Role	LAS staff review the Hamilton Recreational Trails Master Plan to determine the direction of open space development. The Recreation Division determines requirements for open space facilities on a case by case basis
Developer's Role	It is the developer's decision when to submit the Draft Plan of Subdivision. The developer is required to have a pre-consultation meeting with City officials which will identify the comments and requirements for the subdivision before a formal submission comments and requirements for the subdivision before a formal submission. Once the comments are received, the developer must choose how to proceed with the Draft Plan. The developer can contact Development Planning with any questions or concerns at this step or continue following the guide.
Step 2b: Facility Fit Plan	
Overview	The Facility Fit Plan acts as a preliminary concept plan for the open space and is used to determine potential trail layouts between the desired facilities, the proposed trail alignment, or neighbouring land uses and to identify any conflicts for the City and developer to resolve these issues early in the process. Information from the Hamilton Recreational Trails Master Plan is used to determine what facilities are required. The developer's landscape architectural consultant is required to be a Full Member with Seal, in good standing, with the Ontario Association of Landscape Architects (OALA).

<p>City's Role</p>	<p>LAS staff work with the developer and the developer's landscape architectural consultant to meet the City's open space goals and achieve an optimum trail layout in the Facility Fit Plan. With information from the Recreation Division and the Hamilton Recreational Trails Master Plan, LAS ensures that the required facilities, with a focus on required trail alignments and connections, are possible within the proposed open space envelope.</p>
<p>Developer's Role</p>	<p>The developer and the developer's landscape architectural consultant (who is required to be a Full Member with Seal, in good standing, with the OALA), work with LAS to meet the City's open space goals and achieve an optimum trail layout. The developer's landscape architectural consultant prepares the Facility Fit Plan based on information received from LAS, the Recreation Division and the Hamilton Recreational Trails Master Plan.</p>
<p>Step 2c: Draft Conditions</p>	
<p>Overview</p>	<p>The City must be officially notified at this point if the developer is pursuing Open Space Development Option 2 (this Option). The City and the developer must agree for Option 2 to proceed. The Ward Councillor is contacted to review the plans for open space development with possible public consultation. Draft Conditions are prepared by Development Planning based on the comments from internal staff and outside agencies review of the proposed Draft Plan. These conditions are added into the Subdivision Agreement (Step #3a).</p>
<p>City's Role</p>	<p>LAS staff comment on the entire Draft Plan. Comments focus on park and open space blocks, pedestrian connections, trail systems, and any other features that require approval by LAS. These comments are added into the draft conditions by Development Planning. One of the conditions included is related to the Open Space and Trail Development Financing Agreement (OSTDFA) (Step#4d). The condition stipulates that the developer will enter into this agreement which states the developer will undertake and complete the detailed design and construction of the open space and trail.</p>
<p>Developer's Role</p>	<p>The developer follows the procedure outlined by the Development Planning Section for this step. The developer agrees to the conditions of the Open Space and Trail Development Financing Agreement (OSTDFA) (Step#4d). Revisions to the Draft Plan are completed as per the City's and external comments.</p>

Option 2 Step 3: Subdivision Agreement	
Step 3a: Agreement Preparation	
Overview	The Subdivision Agreement is prepared following the approval of the Draft Plan. Draft Plan Conditions are added into the Subdivision Agreement for all phases of the proposed subdivision. A condition outlines the need for the developer to enter into an OSTDFA (Step #4d). If the Draft Plan Conditions are approved by City Council, delegated authority is then given to LAS to fulfill the OSTDFA. This agreement must be made in order to go forward with the construction of the open space and trail. A template for the OSTDFA is included in Appendix F – Parkland/Open Space and Trail Development Financing Agreement (PDFA/OSTDFA) . The Subdivision Agreement outlines that the transfer of the Open Space Deed occurs at Substantial Performance (Step #5c).
City’s Role	PED staff prepares a Subdivision Agreement for the entire development for approval by City Council. This agreement includes the requirement for an Open Space and Trail Development Financing Agreement (OSTDFA) between the City and the Developer. The OSTDFA is prepared by LAS and Legal Services and is required at the time of Registration Phase (Step #4d) for all phases where the developer is completing Option 2 .
Developer’s Role	The developer works with the City to finalize the Subdivision Agreement and the Open Space and Trail Development Financing Agreement (OSTDFA).
Option 2 Step 4: Registration Phase	
Step 4a: Preparation of Project Charter and Letter of Intent	
Overview	LAS prepares a draft Project Charter for the open space and trail that outlines the key contacts, the open space and trail description and budget, the process checkpoints and the roles and responsibilities of the key players, refer Schedule C – Project Charter of Appendix F – Parkland/Open Space and Trail Development Financing Agreement (PDFA/OSTDFA) . LAS sends the Project Charter to the developer for review and input. If the developer and the City are in agreement, both parties sign the project charter and the developer submits a completed Letter of Intent to LAS, refer to Schedule D – Letter of Intent Template of Appendix F – Parkland/Open Space and Trail Development Financing Agreement (PDFA/OSTDFA) .
City’s Role	LAS prepares the Project Charter, this includes the identification of the open space and trail overall budget and construction budget allocated within the 10-year Capital Budget Forecast. At this time, LAS will identify the programming needs for the open space and trail and will identify the expected submittals and administrative duties during design and construction of the open space and trail. The goal of the Project Charter is to clearly outline expectations. LAS will sign the Project Charter after the developer and the developer’s landscape architectural consultant have reviewed, filled in the required information and signed the Project Charter.

<p>Developer's Role</p>	<p>The developer's role is to review the Project Charter and provide input. It is expected that the developer will provide the information for the key contacts of the developer and the developer's landscape architectural consultant. The developer's landscape architectural consultant is to review the Project Charter and working with the developer, provide their fees for their services. Both parties are to sign off on the Project Charter. The developer will also prepare a Letter of Intent and submit the signed Letter and Project Charter to LAS.</p>
<p>Step 4b: Plan Submissions</p>	
<p>Overview</p>	<p>Per the plan submission outlined in the Project Charter the developer submits an Open Space and Trail Design plan and cost estimates. The Open Space and Trail Design is refined to meet the City's goals for the open space and trail parcel. Thoughtful trail design can lead to less crime and an improved quality of life. This is known as Crime Prevention Through Environmental Design (CPTED). The developer and developer's landscape architectural consultant are required to refer to Appendix G – Crime Prevention through Environmental Design (CPTED) Principles for Park and Open Space Design. Once the Open Space and Trail Design has been approved, the developer may proceed with preparing functional and tender drawings, a proposed completion schedule, and cost estimates which are to be submitted to LAS for review and approval. If required, a Tree Management Plan is submitted to the Forestry and Horticulture Section at this step. The developer is required to provide fencing of the open space area with neighbouring land uses. Grading and seeding may also be required based on the design of the Subdivision application or local requirements. At this step, approvals from third parties must be obtained. Necessary approvals may include: license agreements for utility corridor trails; conservation authority approvals for trails through regulated areas; or approvals from the Niagara Escarpment Commission for any trails in the escarpment area. For more information refer to Appendix E – Internal and External Approvals</p>

<p>City's Role</p>	<p>LAS reviews and approves the Open Space and Trail Design, functional and tender drawings, completion schedule, and the cost estimates. The cost estimates are needed to establish which party (developer or City) is responsible to pay for which items based on the Local Service Policy and Development Charges by-law. The cost estimates need to include contingency and the developer's landscape architectural service fee, refer to the template provided in Schedule B – Project Charter of Appendix F – Parkland/Open Space and Trail Development Financing Agreement (PDFA/OSTDFA). LAS provides comments to the developer with any required changes to the drawings. Note: LAS staff need a minimum of three weeks to review and comment on drawing submissions. If required, Forestry and Horticulture staff review and comment on the Tree Management Plan. Any tree removals or conservation plans must be submitted to the Forestry and Horticulture Section for approval. These plans must be submitted and approved before LAS gives final approval to the design drawings.</p>
<p>Developer's Role</p>	<p>The developer, at this step, must submit to LAS for review Open Space and Trail Design drawings and cost estimates prepared by the developer's landscape architectural consultant. This submission is in coordination with the engineering plan requirements specified by Growth Management. The requirements for submission are found in Appendix C – Drawing and Submission Standards and Appendix D – Standard Requirements for Park and Open Space Development. Design standards, details, and specifications can be found in the following appendices:</p> <ul style="list-style-type: none"> • Appendix H – Playground Equipment Standards • Appendix I – Spray Pad Standards • Appendix J – Park and Trail Standards • Appendix K – Approved Tree Species for Parks and Open Spaces • Appendix L – Park and Open Space Standard Detail Drawings • Appendix M – Park and Open Space Standard Specifications <p>The developer works with the City to refine the Open Space and Trail Design Concept. This is to ensure the City's goals for the Open Space and Trail parcel are met. Once this is finalized, the functional plan and tender drawings, completion schedule, and revised cost estimates must be submitted to LAS. Developers should be aware that there is an upset limit to the repayment of Development Charges which is determined by the City's Development Charges By-law and is established in the Project Charter. The Open Space and Trail Design and cost estimates should reflect this upset limit. Costs that are above the upset limit are the responsibility of the developer.</p>

Step 4c: Tendering	
Overview	It is the developer’s responsibility to tender the project. The tendering process are outlined in the Open Space and Trail Development Financing Agreement (OSTDFA), refer to Appendix F – Parkland/Open Space and Trail Development Financing Agreement (PDF/A/OSTDFA) and follows the “Requirements for Tendering” in the City of Hamilton’s <i>Engineering Guidelines for Servicing Land Under Development Applications</i> . Copies of the bids must be provided to the City immediately after bid opening. The developer may select the contractor, but the Open Space and Trail construction repayment is based on the lowest qualified bid including a 10% contingency to the upset limit established for the park construction budget.
City’s Role	The City must be present at the opening of the bids. A digital bid and tender process may be employed, and the bid opening may be remote provided that the online portal can be publicly accessed and viewable in real time. The City requests a tele-call with the developer and developer’s landscape architectural consultant at the time the digital bid closes.
Developer’s Role	The developer must follow the proper tendering procedure as outlined in the OSTDFA that follows the City of Hamilton’s <i>Engineering Guidelines for Servicing Land Under Development Applications</i> . The procedures outline the type of bid process that must be employed depending on cost of works. The developer’s landscape architectural consultant is to coordinate the tendering and bid opening to ensure that the process is public, that a City representative is present at bid opening and that copies of the bids are provided to the City immediately after opening.
Step 4d: Open Space and Trail Development Financing Agreement	
Overview	LAS will prepare a draft Open Space and Trail Development Financing Agreement (OSTDFA) once the developer has selected a bidder and will obtain review from the City’s legal section. The OSTDFA is a legal agreement signed by the City (i.e. Mayor and Clerk), initialled by the manager and supervisor of LAS and signed by the developer. The OSTDFA identifies the works that are to be constructed and their costs, the parties responsible to pay the costs, the general responsibilities and obligations of the parties as it pertains to the completion of the works, the conditions for repayment of the City’s share of work and the requirements for insurance and securities, including the conditions of release of the securities. A OSTDFA template can be found in Appendix F – Parkland/Open Space and Trail Development Financing Agreement (PDF/A/OSTDFA) . The developer must wait until the financing agreement is signed prior to entering into any general contract with the selected bidder to complete the works.

City's Role	The City works will prepare a draft OSTDFA for the developer to review and sign. Once the OSTDFA is signed by all parties, LAS will prepare a Purchase Order Requisition and send the Purchase Order to the developer. The Purchase Order will be used to pay for the City's share of the approved works. The preparation of the PDFa and Purchase Order are facilitated through LAS, Financial Planning and Policy, and Legal Services.
Developer's Role	The developer reviews the OSTDFA and if in agreement, signs the document. The developer is responsible to provide the City a Letter of Credit for the securities once the tender has been awarded and the OSTDFA is signed by the developer and City.
Option 2 Step 5: Open Space and Trail Construction and Assumption	
Step 5a: Construction Administration	
Overview	The construction administration duties are performed by the developer's landscape architectural consultant. It is expected that a pre-construction meeting will be held, along with bi-weekly meetings that must be attended by a LAS staff member, the developer's contractor, the developer's landscape architectural consultant and a representative of the developer. It is expected that site inspections of the minimum key milestones identified in the Project Charter will be performed and documented, that shop drawings will be submitted for review and approval to the developer's landscape architectural consultant and LAS, and that the third-party testing will be performed, documented and submitted to the developer's landscape architectural consultant and LAS. Meetings, testing and submissions are expected to occur in a timely fashion to prevent delays and ensure that the open space and trail is being constructed according to the contract documents.
City's Role	LAS will play an active role in overseeing the construction of the open space and trail and expects to be circulated on all shop drawing submissions and testing reports for review and approval. Site inspection reports, progress payment and documentation related to the construction of the park should also be circulated to LAS. LAS will attend all bi-weekly meetings and will coordinate with other City sections should their presence on site be required, such as Parks and Cemeteries and Forestry and Horticulture. Other internal and external agencies may also be asked to attend site meetings as required.

<p>Developer’s Role</p>	<p>The developer’s landscape architectural consultant is expected to set-up the pre-construction meeting and the bi-weekly meetings and take minutes. The developer’s landscape architectural consultant will aid in the review and approval of shop drawings and ensure that the developer’s contractor is submitting documentation in a timely fashion to avoid construction delays. The developer’s landscape architectural consultant will be responsible to perform the key milestone reviews and document the reviews to ensure that the open space and trail is being constructed according to the contract documents. Any issues or changes to the contract must be presented to the City prior to the issuance of site directives or change orders. Templates produced by the City of Hamilton for construction administrative documentation are available upon request.</p>
<p>Step 5b: Deficiency Review</p>	
<p>Overview</p>	<p>A deficiency review must be performed prior to initiating substantial performance. A deficiency review of the open space and trail will be performed with LAS, the Park and Cemeteries superintendent, the developer’s landscape architectural consultant, the developer’s contractor and a representative of the developer. A Deficiency Report will be prepared, and the developer is responsible to rectify the deficiencies to the satisfaction of the City prior to substantial completion being initiated.</p>
<p>City’s Role</p>	<p>LAS will ensure that the appropriate stakeholders from the City attend the deficiency review walks and are satisfied with the deficiency corrections performed by the developer.</p>
<p>Developer’s Role</p>	<p>The developer landscape architectural consultant is responsible to help coordinate a deficiency review meeting, to note deficiencies not in compliance with the contract requirements and to circulate a final Deficiency Report. The developer will ensure that the deficiencies are corrected and to notify the City for a final review to occur. Substantial performance will not be initiated until the identified deficiencies are corrected to the satisfaction of the City.</p>
<p>Step 5c: Substantial Performance and Release of Securities</p>	
<p>Overview</p>	<p>Once the deficiencies have been rectified to the satisfaction of the City, the City will send a substantial performance cover letter granting the developer approval to initiate substantial performance for the works. The developer may then execute Substantial Performance according to current Construction Law. The two-year warranty period begins after Substantial Performance is achieved. The developer may also reimbursement for the City’s share of works and request the release of the securities for the performance of the works. The developer will be reimbursed for the City’s share of the works and the securities will be released following the expiration of the lien period according to the current construction law and the receipt of the documentation outlined in the OSTDFA. The securities for the warranty period will be held until the expiry of the two-year warranty period. The Record of Site Condition and Letter of Reliance must be provided, and the Open Space and Trail Deed transferred to the City at this Step.</p>

<p>City's Role</p>	<p>LAS will prepare a cover letter confirming that Substantial Performance has been reached and a notification letter for the commencement of the warranty period. Following the expiration of the lien period, LAS will have the City's Law Clerk perform a lien check. Once all documentation is received from the developer according to the conditions outline in the OSTDFA, LAS will initiate the release of the securities and the reimbursement for the City's share of works through Business Programs.</p>
<p>Developer's Role</p>	<p>The developer's landscape architectural consultant prepares the Certificate of Substantial Performance after receiving clearance from the City. The developer will publish the Substantial Performance document as per the <i>Construction Lien Act</i>. The developer is responsible to apply for the release of securities and to request reimbursement for the City's share of works. The developer is responsible to submit the required documentation along with this request. Refer to Appendix F – Parkland/Open Space and Trail Development Financing Agreement (PDF/A/OSTDFA) for the standard conditions and documentation that must be submitted prior to the release of securities and reimbursement of the City's share of the works.</p>
<p>Step 5d: Maintenance Assumption</p>	
<p>Overview</p>	<p>The start of the two-year warranty period begins at Substantial Performance after the City has accepted the construction works. Inspections must occur at an appropriate time of the year to review the works, including vegetative health, during the first year of the warranty period and during the second year of the warranty period. A final inspection is complete LAS and any outstanding warranty corrections will be identified for correction by the developer. Should the work be acceptable, a letter of Contract Completion will be issued to the developer and the developer may then apply for the release of securities for the warranty component of the works. Should the developer fail to correct the deficiencies the securities will be used by the City to do so.</p>
<p>City's Role</p>	<p>Open space and trail maintenance is assumed by Parks and Cemeteries staff once Substantial Performance is awarded. LAS will perform the one-year and two-year warranty inspection reviews on-site with the developer. LAS will conduct the final inspection review at the termination of the two-year warranty period and will issue a letter of Contract Completion should the work be deemed acceptable. LAS will facilitate the release of the security for the warranty period through Business Programs.</p>
<p>Developer's Role</p>	<p>The developer's landscape architectural consultant is responsible to schedule and perform a one-year and two-year maintenance review. The reviews must be conducted with LAS staff present and the developer's landscape architectural consultant is responsible to prepare and issue the maintenance reports. The developer must rectify the identified warranty deficiencies in timely manner and notify the City when the work is complete. The developer is responsible to apply for the release of the securities following the expiration of the warranty period and the receipt of a letter of Contract Completion issued by LAS.</p>

Appendix A – Glossary

City Wide Park	A park that is a municipally, regionally, provincially or nationally significant destination that meets the needs of residents and is of interest to visitors. These facilities are often associated with major recreation, education or leisure activities and may have natural or unique features. They range greatly in size and type of features.
Community Park	A park that serves more than one neighbourhood but is not intended to serve the City as a whole. Community Parks have more intensive recreational facilities such as lit sports fields, recreational and community centres. These facilities will have good transportation access along adjacent arterial and/or collector roadways and provide adequate parking to meet anticipated demand. Community Parks in urban areas should be appropriately located along transit routes. They serve a population of approximately 20,000 people and have a minimum size of approximately 7.0 hectares (17.3 acres).
Contract Documents	Those documents that comprise a contract, e.g. in a construction contract, the owner-contractor agreement, conditions of the contract (general, supplementary, and other conditions, plans and / or drawings, specifications, all addenda, modifications, and changes thereto, together with any other items stipulated as being specifically included.
Draft Conditions	Form the basis of the Subdivision Agreement and reflect a municipality's requirements related to a draft plan that must be satisfied by a developer before final approval of a plan is granted.
Easement	A legal agreement to gain the right of entry to private property, for the purpose of maintaining public facilities.
Functional Plan	The functional plan is the further refinement of the master plan. The functional plan shall include critical dimensions of facilities, sports fields, parking lots, pathways, and any other features of the design. Additionally, it shall include a preliminary grading concept, preliminary planting concept, and requirements for sanitary sewers, surface and subsurface storm drainage, and investigation of utilities. Any significant features within the design such as an entry feature need to be specified. This completed functional plan shall serve as the base plan for working and construction drawings. The functional plan shall be provided in micro station format, as per City standard.

General Open Space	Lands that do not function as parks but are used for both active and passive recreational activities. Includes golf courses, community gardens, pedestrian and bicycle trails, walkways, picnic areas, beaches, remnant parcels of open space lands, urban plazas, squares and core spaces.
Lease	A legal agreement whereby the owner of land grants exclusive possession of its land to another party for a specified time period.
Master Plan	A plan, usually graphic and drawn to a small scale, which depicts all the elements of a project or scheme. Often has supplemental material.
Natural Open Space	Lands having environmental features that are intended to be preserved in their natural state. Where appropriate, limited recreational activities / uses may be permitted, including trails, picnic areas, forest management, etc. Natural Open Space shall include lands with significant natural features and landscapes such as woodlots, hazard lands, forested slopes, creek/ravine corridors, environmentally sensitive areas (of natural and scientific interest i.e. the Niagara Escarpment), and areas of wildlife habitat. These areas perform important biological and ecological functions and provide passive recreational opportunities.
Neighbourhood Park	A park that primarily caters to the recreational needs and interests of the residents living within its general vicinity. They are generally comprised of municipal parkland, containing a mixture of passive areas, sports facilities, informal and formal play areas, and may include natural areas. They serve a population of approximately 5,000 people and have a minimum size of approximately 2.0 hectares (5.0 acres). Residents can easily walk or bike to these parks.
Neighbourhood Plan	Guide plans, prepared to provide direction for future land use decisions. They include a land use plan (map) and policies. They are adopted as a guide to Council but are not incorporated into the Official Plan as an amendment. Neighbourhood Plans show road pattern and general land use.
Official Plan	The policy document, prepared by a municipality under the auspices of the Ontario <i>Planning Act</i> , which sets out the guidelines for the development of the community.
Open Space	Lands designated as Open Space are greater than 0.4 hectares (1.0 acres) in size, are public or private areas where the predominant use or function of the land is for recreational activities, conservation management and other open space uses. Uses include, but are not limited to, parks for both active and passive recreational activities, pedestrian pathways, trails, bikeways, walkways, seasonal campgrounds, marinas, woodlots, forestry and wildlife management areas, fishing reserves, hazard lands, cemeteries and recreation / community centres. See also "General Open Space" and Natural Open Space".

Open Space and Trail Development Financing Agreement (OSTDFA)	An agreement between a developer and the City to construct an open space or trail by the developer for the City and the City’s timing and payment for this work which is generally through Development Charges reimbursement.
Park Facility Fit	A plan prepared by the City of Hamilton to confirm the ability of the parkland within a subdivision to meet the needs of the existing and future community.
Parkette	Small open spaces which have no or limited recreational facilities. They are generally located in the older urban areas where they serve an important function in the provision of open space opportunities.
Parkland Development Financing Agreement	An agreement between a developer and the City to construct a park by the developer for the City and the City’s timing and payment for this work which is generally through Development Charges reimbursement.
Project Charter	The Project Charter forms part of the Parkland/ Open Space and Trail Development Financing Agreement. The Project Charter identifies the scope and budget of the park and defines the roles and responsibilities of the parties responsible for the delivery of the park.
Proponent	The owner of land requesting subdivision of that land.
Public Bidding Process	The process of obtaining the lowest price for a specific project through an open competition among interested and qualified contractors.
Recreation Facilities Supply Standards	Per capita, the minimum requirements for recreational facilities such as for example soccer fields and baseball diamonds.
Secondary Plan	A plan for a specific geographic area containing specific policies to guide future development which can form the basis of an amendment to an Official Plan.
Securities	Monies of a developer secured by its financial institution on behalf of the City under its Subdivision Agreement, to ensure that a developer satisfies all financial obligations with respect to the construction of works and payment of fees and charges imposed on the development lands. In the event that the developer does not fulfill the required obligations, the City will use the securities to complete the works.
Stormwater Management Facilities	Any structural stormwater management measure, including stormwater management basins, filtration or other treatment systems.

Streetscape	The aesthetic design and pedestrian amenity of the full right-of-way of a street. This can include tree or other landscaping along the street boulevards (edges) or within a median, special paving on sidewalks and / or within the pedestrian portions of intersections, lighting, public art, street furniture such as benches, transit shelters, etc.
Subdivision Agreement	A legally binding contract that outlines the subdivision requirements for all phases of a proposed subdivision draft plan. It lists all documents, conditions, and cash contributions required to be paid by a developer, either for the implementation of the works by the City, or to ensure that the works are carried out by a developer. It will list any future requirements for front-ending agreements for any of the phases of the development.
Substantial Performance	<p>A contract is substantially performed when:</p> <ul style="list-style-type: none"> a) When the improvement to be made under that contract or a substantial part thereof is ready for use or is being used for the purposes intended; and b) When the improvement to be made under that contract is capable of completion or, where there is a known defect, correction, at a cost of not more than, <ul style="list-style-type: none"> • 3 per cent (3%) of the first \$1,000,000 of the contract price; and • 2 per cent (2%) of the next \$1,000,000 of the contract price; and • 1 per cent (1%) of the balance of the contract price. <p>It is the contractor’s responsibility to request a certificate of substantial performance.</p>
Ten Year Parks Budget Forecast	Capital budget projecting project timelines and expenditures 10 years into the future.
Tender Documents	Produced in addition to contract documents, they are developed to manage the bidding process for constructing the project.
Tree Management Plan	Identifies trees that require removal, relocation, and protection (including hoarding measures). Includes a complete inventory of existing trees on the proposed development site.
Utility Corridor	A defined area of land through which the primary purpose is the conduction of major utilities (i.e. Hydro corridor).
Warranty	A legally enforceable assurance of the quality or work or duration of a product or work performed.
Working Drawings	Drawings, intended for use by a contractor, subcontractor, or fabricator, which form part of the contract documents for a building or development project; containing the necessary information to construct an object, structure, or landscape.

Appendix B – Planning Documentation

1. OFFICIAL PLAN

In 2001, six former municipalities amalgamated to form the present City of Hamilton. Each of the municipalities had their own Official Plan; therefore, the City of Hamilton was working with six (6) different Official Plan documents, and six (6) different zoning by-laws. In 2006, the City of Hamilton adopted an Official Plan and Zoning By-law amendment to establish an amalgamated strategy for parklands and open spaces.

The existing Official Plan relies on Land Use schedules and supporting planning documentation (planning policies) to regulate and enhance the open space system.

Generally, the Official Plans:

- Identify lands designated for open space purposes;
- Classify parks (park hierarchy);
- Identify the location of parks; and
- Identify the amount of land needed for park purposes to serve its users.

This Appendix explains the process for development planning as it relates to the development of parks. Parks have a hierarchy, any or all of which may be included in the process of development. The step-by-step process for parks in Greenfield development may include: Official Plan or Zoning By-law Amendments, Neighbourhood Plan, Plan of Subdivision, Subdivision Agreement, and Subdivision Construction and Warranty Periods.

Prior to the development process, a meeting with Planning and Economic Development Department (PED) staff of the City of Hamilton will determine the needs of the Community, identify the size of the property, and the need to include the property in a Neighbourhood Plan. Additionally, PED staff will confirm the requirements, necessity, and process for an Official Plan Amendment or a Zoning By-law Amendment.

1.1 Park Classification

In 2006, an Official Plan amendment was initiated by PED to provide a consistent Official Plan policy with respect to parkland across the City.

This Official Plan amendment introduced five (5) park classifications which best reflect the parkland structure of the amalgamated City of Hamilton. Below are the classifications taken from Council Report PED06152, June 14, 2006:

- **Neighbourhood Parks**
- **Community Parks**
- **City Wide Parks**
- **General Open Space**
- **Natural Open Space**

Neighbourhood Parks primarily cater to the recreational needs and interests of the residents living within its general vicinity. Residents can easily walk or bike to these parks. Neighbourhood Parks are generally comprised of municipal parkland, containing a mixture of passive areas, sports facilities, informal and formal play areas, and may include natural areas. They serve a population of approximately 5,000 residents and have a minimum size of approximately 2.0 hectares.

Community Parks serve more than one neighbourhood but are not intended to serve the city. Community Parks have more intensive recreational facilities such as lit sports fields, recreational and community centres. These facilities will have good transportation access along adjacent arterial and/or collector roadways and provide adequate parking to meet anticipated demand. Community Parks in urban areas should be appropriately located along transit routes. They serve a population of approximately 20,000 people and have a minimum size of approximately 7.0 hectares.

City Wide Parks are municipally, regionally, provincially or nationally significant destinations that meet the needs of residents and are of interest to visitors. These facilities are often associated with major recreation, education or leisure activities and may have natural or unique features. They range greatly in size and type of features.

Parkettes although not a part of the formal park classification hierarchy are small open spaces which have no or limited recreational facilities. They are generally located in the older urban areas where they serve an important function in the provision of open space opportunities.

General Open Space shall include golf courses, community gardens, pedestrian and bicycle trails, walkways, picnic areas, beaches, remnant parcels of open space lands and urban plazas, squares and core spaces. These areas do not function as parks but are used for both active and passive recreational activities.

Natural Open Space shall include lands with significant natural features and landscapes such as woodlots, hazard lands, forested slopes, creek/ravine corridors, the Niagara Escarpment, environmentally sensitive areas (of natural and scientific interest) and areas of wildlife habitat. These areas perform important biological and ecological functions and provide passive recreational opportunities.

2. NEIGHBOURHOOD/SECONDARY PLAN

Neighbourhood Plans are guide plans, prepared to provide direction for future land use decisions. They include a land use plan (map) and accompanying land use policies. Neighbourhood Plans are adopted as guides by Council but are not incorporated into the Official Plan as an amendment. Therefore, Neighbourhood Plans are not legally binding, and can easily be revised. There are presently approximately 111 Neighbourhood Plans in effect within the City of Hamilton.

Secondary Plans provide future direction and include a land use plan (map) and accompanying land use policies, similarly to a Neighbourhood Plan. However, unlike Neighbourhood Plans, Secondary Plans are adopted by Council and PED as amendments to the City's Official Plan. Such amendments involve a more complicated, formal process that is regulated by the *Planning Act*. Secondary Plans are created for smaller areas within the City. The Secondary Plan includes:

- Preparation of overall Land Use Schedule, Official Plan Amendment and supporting planning documentation for the secondary planning area;
- Design direction and principles for the preparation Neighbourhood (Block) Plans for sub-areas within the Secondary Planning area;
- Adopted by Council after the Official Plan Amendment/Secondary Plan is presented at a Public Meeting.

In terms of parks and open space requirements, Secondary Plans identify the specific 'type' of park and open space required to serve the needs of the residents in the area, as well as the number and location of parks within the neighbourhood and the relationship of the park to other neighbourhood components.

The guidelines ensure that planning and design of Open Space Systems are consistent with the City of Hamilton's overall design objectives for the various classifications of parks.

Landscape Architectural Services (LAS) staff of the Environmental Services Division of Public Works typically provide input during the development of a Secondary Plan in the City of Hamilton. During this consultation process, LAS staff reviews the location of open spaces and parkland, as well as any trail connections in the Secondary Plan Area.

PED will prepare the Neighbourhood Plan or Secondary Plan. LAS Section in Public Works, or the developer's consultant, will prepare a park Facility Fit drawing that responds to the community needs for parks. The Facility Fit will ensure that sports and recreation facilities can physically be accommodated on the lands provided by the developer. Outplay and buffer areas will be identified and accommodated around all formal field areas. Pedestrian access will be provided from streets of the community, as well as through the parks and open spaces, allowing multiple access points.

3. SUBDIVISION PLANNING

3.1 Parkland Dedication

Developers in the City of Hamilton must apply to the City for approval of any proposed subdivision development. Planning policies by PED establish the process and timing of such applications; therefore, for any details on the specifics of response times, requirements of applications, and other details, please contact PED. As these policies and procedures may change, they will not be reproduced here.

All new developments are required to provide Parkland Dedication to the City, as per the Ontario *Planning Act* and City By-laws No. 17-039 and 09-124. Any greenfield development, brownfield development, or increase in density development within the City is required to contribute parkland or cash-in-lieu of parkland. Residential, Commercial, and Industrial developments are subject to park dedication under the Ontario *Planning Act*.

Parkland dedication is determined according to Section 42 and/or Section 51 of the *Planning Act* and City By-laws No. 17-039 and 09-124. The *Planning Act* allows municipalities to collect parkland dedication of 5% of the total land area (2% for commercial/industrial developments), or 1 hectare (ha) / 300 housing units, whichever is greater.

However, the City of Hamilton generally exempts industrial developments from parkland dedication, and the City's area per unit dedication requirements vary depending on the unit density of the development. See By-law 09-124 as amended by By-law 17-039 for more information. Residential developments in the Hamilton Downtown Community Improvement Project Area are required to only contribute 5% of the total land area, regardless of density (or the equivalent in cash-in-lieu) to encourage residential development in the downtown. Parkland dedication and cash-in-lieu calculations are completed by PED.

Stormwater Management Ponds (SWM Ponds), valley lands, or floodplains are not acceptable as parkland dedication. However, if forest or other lands are given to the City as 'Open Space', these lands are removed from the 5% total land area calculation used to determine the amount of parkland dedication.

3.2 Parks in New Subdivisions

New parks must conform to specific size and configuration standards. A minimum of **120 metres** of street frontage is required to ensure adequate access and visibility into the park. A square or rectangular configuration of the park parcel allows for the greatest flexibility for the construction of sports facilities; therefore, odd shapes will not be accepted for parkland dedication.

All parkland will have an as-built grading plan and be seeded or sodded to the satisfaction of the Director of Environmental Services, Public Works.

Additionally, parks shall be constructed on tableland. Valley lands, floodplain lands, or parcels with excessive grades will not be accepted as parkland dedication, due to the inherent restrictions on development that are encountered on these types of land. Stormwater Management Ponds shall not be accepted as parkland dedication.

Different scenarios for parkland development can occur within the City of Hamilton's subdivision development process. If there is parkland or open space to be built in the subdivision area, either the City can be responsible for the final design and construction of these facilities, after the parkland or open space have been dedicated or purchased by the City, or the developer has the option to construct the park themselves.

3.2.1 Park Design Consultant (Landscape Architect)

When the developer constructs the park, the design shall be completed by a full member in good standing of the Ontario Association of Landscape Architects (OALA), to gain approval by the LAS Section staff, Public Works.

3.2.2 Record of Site Condition and Letter of Reliance

All dedicated parkland, whether on greenfields or brownfields, requires a Record of Site Condition, acknowledged by the Ontario Ministry of the Environment, Conservation and Parks (MOECP), and to the satisfaction of LAS staff. Additionally, a letter of reliance is required to be provided to the City from the Environmental Consultant that undertook the work for the Record of Site Condition.

3.3 Introduction to Subdivision Agreement

The City of Hamilton developed a new Subdivision Agreement in 2006, and this new agreement was approved by Council in September of 2006.

The detailed engineering and landscape drawings, including park and open space design drawings shall be submitted by the developer, and approved by City staff at the Phase Registration stage, and shall be a written approvals process. This process shall occur separately for each phase of a development.

For more information on the Subdivision Agreement, contact the Planning and Economic Development Department for the City of Hamilton.

4. OTHER LEGISLATION

4.1 Greenbelt Legislation

The *Greenbelt Act* (2005) protects environmentally sensitive land, including agricultural land, within the Golden Horseshoe from urban development and sprawl. The lands protected under this legislation more than doubles the lands protected under the Oak Ridges Moraine and the Niagara Escarpment, covering a total of 1.8 million acres. The Greenbelt Act gives government the authority to establish the types of land uses that are permitted in the protected areas.

Areas of the City of Hamilton fall into this Greenbelt area. Development in those areas is restricted according to the *Greenbelt Act* (2005). Landowners must consult this act to determine the impact of the legislation on their properties.

Appendix C – Drawing and Submission Standards

Once the developer has obtained approval for a development application where park or open space improvements are required, a detailed Park or Open Space submission can be made to:

Attn: Manager, Landscape Architectural Services
City of Hamilton
Public Works Department
Environmental Services
Landscape Architectural Services
77 James Street North, Suite 400
Hamilton, Ontario
L8R 2K3

Please note that the following represents Landscape Architectural Services (LAS) minimum submission requirements for a park development project. More complex projects may require additional submissions or documentation. This will be determined by the City.

1. FIRST SUBMISSION – CONCEPTUAL DESIGN

1.1 Submission Requirements

The first park or open space submission shall be submitted at stage 2, and shall consist of:

- a) One (1) digital (PDF) set of the conceptual park or open space drawings (see Item 1.2 below for detailed information on what must be included in the conceptual drawing submission).
- b) One (1) digital (PDF) set of the preliminary cost estimate for the park or open space works.
- c) One (1) digital (PDF) set of a conceptual drainage design for the park or open space, in context with the rest of the subdivision.

The design of the park or open space facilities shall be completed by a full member with seal, in good standing, of the Ontario Association of Landscape Architects (OALA). The park or open space drawings shall be approved by the Landscape Architectural Services Section; however, this approval shall in no way relieve the Landscape Architect of the responsibility to design adequate and safe facilities.

All park facilities, including sanitary, storm sewers, and watermains and their appurtenances and all interior park pathways or roadways shall conform to the City's Construction and Material Specifications Manual (latest version) which is available from the Public Works Department. The standards for park facilities are found in this document. Any upgrades or alterations to these standard specifications require the approval by the Director of Capital Planning and Implementation.

Upon review of the first submission of parks or open space drawings and cost estimates by the City, the Landscape Architect shall amend the drawings and cost estimates to incorporate the comments and shall resubmit two (2) sets of the conceptual park or open space drawings for final approval. The cost estimates shall be amended and submitted with the drawings.

Conservation Authority Approvals

If required, the conservation authority shall be sent, by the developer, a copy of the first parks or open space submission for approval. It is up to the developer to determine if this approval is necessary.

1.2 Conceptual Drawing Requirements

The conceptual drawings submission by the developer's Landscape Architect shall be subject to the following:

- a) All drawings shall be metric, and shall be neat, and legible.
- b) Lettering shall be done with a minimum font size of 10 pt. If hand-drawn, a lettering template shall be used.
- c) Sheet size shall be metric A1 (594mm x 841 mm) or imperial (24"x36").
- d) Plan-profile drawings shall be to a scale of 1:500 horizontal and 1:100 vertical.
- e) All drawings shall contain a key plan, north arrow, title block showing the name of the landscape architect together with the sheet title and current revision status.
- f) All drawings shall be sealed, signed, and dated by the landscape architect responsible for the design.
- g) All elevations are to relate to a geodetic datum acceptable to the City, and the bench mark shall be described on all the drawings.

The conceptual drawings shall consist of the following:

- a) Title sheet
- b) Conceptual layout plan
- c) Conceptual drainage plan
- d) Plan-profile drawings, if applicable
- e) Other drawings (example: tree preservation plan, any unique design elements)

2. SECOND SUBMISSION – WORKING DRAWINGS (50% COMPLETION)

2.1 Submission Requirements

For the City to prepare the approval for the phase of development, the developer shall submit, at step 3, the following:

- a) One (1) full size digital (PDF) copy of the final survey plan or plan of subdivision signed by the surveyor and the owner.
- b) One (1) full size digital (PDF) set of the working drawings for the park or open space works (See Item 2.2 below for detailed information on what must be included in the working drawing submission).
- c) One (1) digital (PDF) copy of the final cost estimates for the park or open space works.
- d) Digital (PDF) copies of any approvals received by outside agencies if applicable.
- e) One (1) digital (PDF) copy of a land appraisal, where required, in accordance with the City's Parkland Dedication policy, showing the calculated amount for any required cash-in-lieu of park dedication (where enough land is not being dedicated for park purposes), or where excess park dedication must be acquired by the City).
- f) Written confirmation of the owner's Landscape Architectural consultant's name and address.

2.2 Working Drawing Requirements

The working drawings submission by the developer's Landscape Architect shall be subject to the following:

- a) All drawings shall be completed using Computer Aided Design and Drafting (CADD) technology and provided in MicroStation format.
- b) All drawings shall be metric, and shall be neat, and legible.
- c) Lettering shall be done using a minimum font size of 10 pt.
- d) Sheet size shall be Architectural Size D (Arch D, 24" x 36").
- e) Plan-profile drawings shall be to a scale of 1:500 horizontal and 1:100 vertical.
- f) All drawings shall contain a key plan, north arrow, title block showing the name of the landscape architect together with the sheet title and current revision status.
- g) All drawings shall be sealed, signed, and dated by the landscape architect responsible for the design.
- h) All elevations are to relate to a geodetic datum acceptable to the City, and the bench mark shall be described on all the drawings.

The working drawings shall consist of the following:

- a) Title sheet
- b) Layout plan

- c) Drainage and grading plan
- d) Servicing plan
- e) Planting and removals plan
- f) Plan-profile drawings, if applicable
- g) Details drawings
- h) Other drawings (example: tree preservation plan)

3. THIRD SUBMISSION – TENDER SET

The developer shall submit **prior to tender**:

- a) One (1) digital (PDF) copy of the detailed concept plan showing the arrangement and spatial requirements of all proposed features for review and approval.
- b) One (1) digital (PDF) set of “Issued for Tender” drawings, complete with consultants’ seal and signature. and tender documents at the 100% stage for review.
- c) One (1) digital (PDF) copy of the final bid forms.
- d) One (1) CD, Flash Drive, or Electronic File Transfer (EFT) with final contract document files including all drawings (in MicroStation format), specifications (PDF), product cut sheets (PDF), etc.

4. FOURTH SUBMISSION – ADDITIONAL DOCUMENTATION

The developer shall submit the following documents as they are available:

- a) One (1) digital (PDF) copy of the completed bid forms from all bidders.
- b) One (1) digital (PDF) set of “Issued for Construction” drawings, complete with consultants’ seal and signature. Note: this is only required if the construction drawings differ from the tender drawings.
- c) One (1) digital (PDF) copy of the contractor-submitted and consultant-reviewed shop drawings (stamped “reviewed” or “approved” by the landscape architectural consultant).
- d) One (1) digital (PDF) set of final as-built drawings.

5. PLAN DRAWING REQUIREMENTS

5.1 Title Sheet

A Title Sheet shall be included for every park or open space drawings submission. All title sheets shall contain the following information:

- 1) Name of Municipality (City of Hamilton)
- 2) Key plan showing the location of the park within the proposed development
- 3) Name of the development

- 4) Name of the park or open space (if applicable)
- 5) Name of the Landscape Architect
- 6) List of drawings

5.2 Conceptual Layout Plan or Layout Plan

This Plan shall show the features of the design of the park or open space and indicate dimensions of, and between, those features. Existing features to remain on site shall be indicated, as well as all existing and future roads, buildings, and other major landscape features.

5.3 Conceptual Drainage Plan

This plan shall show a general understanding of how the site will be drained for stormwater flow for the proposed features. This plan shall show existing and proposed features, and arrows with % slopes indicated for overland flow. Where underground utilities are required, these will be indicated with % slope of pipes, and the required connection locations to the existing services indicated.

5.4 Grading and Drainage Plan

This plan shall show a detailed outline of the proposed grading of the site's proposed and existing features, and how the site shall meet grades at the property line or fixed points on the site. Slopes shall be indicated where necessary, particularly for drainage swales and underground servicing. Any underground servicing shall be indicated generally on this plan. Drainage areas shall be indicated on the plan.

5.5 Plan-Profile Drawings

Plan-profile drawings shall be prepared where necessary to show alignments of roads, underground utilities, walkways, or other landscape features. Follow the requirements outlined in the City of Hamilton's *Engineering Guidelines for Servicing Land Under Development Applications*.

5.6 Servicing Plan

This plan shall show the detailed outline of the proposed and existing servicing on the site. All pipes shall be shown, indicating length, slopes, inverts, sizes of pipes, and the connections to existing services on the plan. This plan shall also show all proposed and existing features of the site and adjacent surrounding area, including roads, buildings, utilities, major grade changes, water bodies, and landscape features. Drainage areas for servicing shall be shown on the plan.

5.7 Planting and Removals Plan

This plan shall show any existing vegetation that is to be removed due to the site works, proposed plantings, and existing vegetation to remain on the site. If necessary, two plans may be prepared. The first plan shall show the existing vegetation to remain and existing vegetation to be removed. The second plan shall show the existing vegetation to remain, and the proposed plantings as part of the site works. This plan shall also show all proposed and existing features of the site and adjacent surrounding area, including roads, buildings, utilities, major grade changes, water bodies, and landscape features.

An itemized list of the plant material to be removed, remain, or planted shall be on the plans, and correspond with notations on the drawing to allow the reader to understand the implications of the removals and plantings.

5.8 Details Drawings

Any details that relate to the proposed site works shall be shown on a details sheet(s). Details should reference any standard City of Hamilton details, from the City's *Construction and Material Specifications Manual* (latest version), as well as any amended or design-specific details required to accurately install the works.

Appendix D – Standard Requirements for Park and Open Space Development

1. POLICY AND LEGISLATIVE REQUIREMENTS

1. All park development shall comply with the latest Local Service Policy, as set out in the City's most recent Development Charges Study and By-law.
<https://www.hamilton.ca/budget-finance/development-charges>
2. All parks and play equipment shall be accessible in accordance with the City of Hamilton Barrier-Free Design Guidelines (2006), version 1.1, published Feb. 7, 2006.
3. All play areas and play equipment shall comply with the City of Hamilton Playground Equipment Standards (found in **Appendix H – Playground Equipment Standards**) and CAN/CSA Standard Z614 – Children's Playspaces and Equipment (latest edition).
4. Refer to US Guide to ADA Guidelines for Accessible Play Areas for clarification and requirements of "accessible" play features. See <https://www.access-board.gov/attachments/article/1344/play-rule.pdf>
5. All spray pad areas and spray pad equipment shall comply with the City of Hamilton Spray Pad Standards (found in **Appendix I – Spray Pad Standards**).
6. Comply with *Accessibility for Ontarians with Disabilities Act, 2005* and *Ontarians with Disabilities Act, 2001*.
7. Unless specified otherwise in the details and specifications listed below, construction materials and methods, including testing requirements, shall comply with the City of Hamilton's *Construction and Material Specifications Manual*, latest version. This document is available online at:
<https://www.hamilton.ca/develop-property/policies-guidelines/construction-and-material-specifications>
8. All development servicing shall adhere to the City of Hamilton's *Engineering Guidelines for Servicing Land Under Development Applications*, latest edition. Available online at: <https://www.hamilton.ca/develop-property/policies-guidelines/comprehensive-development-guidelines-and-financial-policies>

9. Comply with all City of Hamilton By-laws. Copies are available on the City of Hamilton website at: <https://www.hamilton.ca>. The following is a select listing and not intended to capture all applicable by-laws:
 1. 05-200 Zoning By-law and any applicable Amendments
 2. 16-184 Swimming Pool Enclosure By-law
 3. 10-197 Sign By-law
 4. 15-125 Trees on Public Property By-law
 5. 09-124/17-039 Conveyance of Land for Parks By-law and Amendment
 6. The City's most recent Development Charges By-law and Amendments

2. SUBDIVISION REQUIREMENTS

2.1 Record of Site Condition and Letter of Reliance

If the Owner is conveying to the City of Hamilton naturalized open space blocks, tableland for parkland uses and any other lands for public usage, then the Owner shall submit a signed Record of Site Condition (RSC) to the City of Hamilton, and the Ontario Ministry of the Environment, Conservation and Parks (MOECP). This RSC must be completed to the satisfaction of the City of Hamilton, including an acknowledgement of receipt of the RSC by the MOECP. A letter of reliance from the environmental consultant must accompany the RSC, to allow the City to use the studies conducted in the future if required.

2.2 Warranty

The City of Hamilton requires a two-year comprehensive warranty on all plant material, and all park and open space construction works.

2.3 Standard Comments at Draft Plan Approval

At the draft plan submission step (Step 2), the Landscape Architectural Services (LAS) Section shall review and make comments. Aspects for review and comment include elements of the parkland, and other open space considerations.

For parkland, LAS will comment on:

- Park servicing: 50mm water service, 200mm sanitary sewer service, 250mm storm sewer service to property line of park are minimum requirements.
- Park grading: Minimum slopes of 2%, graded in a manner to avoid ponding and maintain proper drainage.
- Park fencing: Minimum standard must adhere to the **Appendix L – Park and Open Space Standard Detail Drawings, Appendix M – Park and Open Space**

Standard Specifications and the City's Construction and Material Specifications Manual (latest version).

- Minimum street frontage: 120 metres
- Park turf: seeding is the minimum standard.
- Development construction: Undeveloped, disturbed blocks shall be graded, seeded, and maintained by the Owner until acceptance of land by the City.

2.4 Unauthorized Park Usage

The Owner agrees not to dispose or stockpile any waste or surplus fill material on the Subdivision Plan lands except in a manner and in a location approved by the City of Hamilton. The park block shall not be used for topsoil or other construction material, equipment storage, or sales pavilions.

2.5 Development Adjacent to Park Property

Where development abuts a park or open space, whether the developer is constructing the minimal requirements or the finished park or open space, runoff from the development property shall not drain into the park or open space unless approved by the Director of Environmental Services. A rear lot catch basin may be required. A grading plan showing the proposed drainage solution must be reviewed to the satisfaction of the Director of Environmental Services.

2.6 Tendering Process

Tendering Process Requirements if Option 2 (Developer to build the park) will follow the standard Public Works Design Engineering tendering process.

2.7 Guidelines for the reimbursement of park development works through Development Charges:

Traditional park and open space facilities are eligible for reimbursement through Development Charges (DC). An outline of traditional park features is found in **this Appendix**. Upgraded features are solely at the developer's cost and will be reviewed on a case by case basis; upgrades must be approved by LAS prior to tender and construction. City standards for park facilities construction are outlined in **Appendix M – Park and Open Space Standard Specifications**.

Reimbursement of park and open space construction will be permitted according to the above guidelines and City approval of drawings and cost estimates, up to the maximum amount allocated by the DC by-law and calculated by the City of Hamilton staff based on standard unit costs for park design and open space design for the design and construction of

the park or trail in question. The amount allocated to the park by the DC by-law includes design fees for developer's consultant. All cost estimates must include the design consultant fees.

2.8 Servicing Design Criteria

All park servicing calculations shall follow the criteria outlined in the City of Hamilton's *Engineering Guidelines for Servicing Land Under Development Applications* (latest edition).

3. PARK AND OPEN SPACE FEATURES

3.1 Traditional park features include:

- Chain link fence to City standards where park property is adjacent to private lots. Park frontage on streets is not fenced, nor is park boundaries shared with schools, open spaces, or stormwater management facilities
- Site furniture to City standards including benches and trash cans.
- Park walkways that are to be maintained in the winter must be 3m in width, asphalt surfaced constructed according to **Appendix M – Park and Open Space Standard Specifications** and **Appendix L – Park and Open Space Standard Detail Drawings**.
- Park walkways that are not to be maintained may be constructed of other materials and will be evaluated on a case-by-case basis. Generally, the other acceptable park walkway material is stone dust. Paving stones are generally not permitted.
- Lighting of park walkways in Neighbourhood Parks is generally not recommended.
- Lighting of sports facilities in Neighbourhood Parks is generally not recommended, unless premier facilities are proposed. These will be evaluated on a case-by-case basis.
- Supply of sports facilities, including soccer pitches, baseball diamonds, bocce facilities, and multi-purpose courts are determined through consultation with the Recreation staff of the City of Hamilton.
- Playgrounds must conform to the latest Canadian Standards Association (CSA) standards for play spaces and equipment. At least one (1) light standard must be provided at playgrounds for security.

3.2 Parking Supply Standards

Parking lots may be supplied for Neighbourhood Parks, if there is no adjacent school parking.

Parking Supply Standards for Community or City-Wide Parks:

- 16 spaces per ball field, 32 spaces if fields are lit
- 16 spaces per soccer field, 32 spaces if fields are lit
- 15 for general park users
- 12 (4 per court) per group of tennis courts

3.3 Soil Testing

Soil testing is applicable for any park development or redevelopment or open space development. For minimum soil and soil testing requirements, please refer to the City's Local Service Policy (LSP), which can be found in the City's most recent Development Charges Study.

3.4 Warranty

The City of Hamilton requires a two-year comprehensive warranty on all plant material, and all park works, whether new parkland development or redevelopment, or open space development.

3.5 Approved Plant Material

A list of approved plant material, by the Forestry and Horticulture Section of Environmental Services (Public Works), is found in **Appendix K – Approved Tree Species for Parks and Open Spaces**. This list should be used for all park development, redevelopment or open space development in the City of Hamilton.

3.6 Landscape Maintenance Notes

These are found in **Appendix M – Park and Open Space Standard Specifications**.

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Appendix E – Internal and External Approvals

1. RESPONSIBILITIES

When the park or open space development is being constructed under the Developer Build option (Option II), it is the responsibility of the Developer to determine which agency (agencies) have jurisdiction over the lands in question. The Developer is responsible for following any permit or approval application procedures outlined by the appropriate involved agency. This process may vary, depending on the agencies involved.

When the park or open space development is being constructed under the City Build procedure (Option I), and after the subdivision construction process is completed, the City shall undertake the steps necessary to obtain approvals and/or permits from the required agencies.

2. CONSERVATION AUTHORITIES

2.1 Conservation Authorities

The City of Hamilton land area falls under the jurisdiction of five Conservation Authorities. These are: Conservation Halton, Credit Valley Conservation Authority, Grand River Conservation Authority, Hamilton Conservation Authority and Niagara Peninsula Conservation Authority.

2.2 Conservation Authority Act History and Impacts to Development Process

In 1995, the *Red Tape Reduction Act* established the Red Tape Commission. This Commission created a process to implement changes to the *Conservation Authority Act* of 1946, to bring the Conservation Authority Act in conformity with the *Provincial Policy Statement*. The Conservation Authorities to this point had developed individual regulations to implement the 1946 *Conservation Authority Act*. The new “Generic Regulations” were intended to bring consistency across Ontario for the regulation of development around wetlands and watercourses. The new Ontario Regulation 97/04 was officially titled “Content of Conservation Authority Regulations under Subsection 28 (1) of the Act: Development, Interference with Wetlands and Alteration to Shorelines and Watercourses”, and features that are subject to the regulation include: watercourses, hazardous lands, river of stream valleys, shoreline of the Great Lakes, and wetlands (Government of Ontario, 2004). Each of the Conservation Authorities in Ontario was responsible for developing location regulations to implement the Ontario Regulation.

Conservation Authorities are involved in the *Planning Act* through the *Provincial Policy Statement*. They are the commenting authorities on “natural hazards” that are affected by development. Municipalities circulate development applications to the Conservation Authorities when development impacts the regulated area (defined by the Generic Regulation). The Conservation Authorities impose restrictions on the development according to the projected impacts of the development on the regulated area.

Conservation Authorities also have authority to impose restrictions on developments where there is no development application required. The *Conservation Authority Act* makes the Conservation Authorities the permit issuing authority for any works involving the regulated areas that would affect control of flooding, erosion, dynamic beaches, conservation of land, or pollution (Government of Ontario, 2004).

2.3 Top of Valley Slope

The Generic Regulation includes a 15-metre buffer from the stable top of slope, or from the 100-year stream bank erosion allowance plus 15 metres, as part of the regulated area. This buffer is meant to reduce the impacts of development on the stream and valley, as well as to buffer the development from the natural river processes and subsequent toe erosion (Government of Ontario, 2004).

Consultation with the five Conservation Authorities that have lands within the Municipality of Hamilton (Conservation Halton, Credit Valley Conservation Authority, Grand River Conservation Authority, Hamilton Conservation Authority and Niagara Peninsula Conservation Authority) revealed that trail development in this 15-metre top of bank buffer zone would generally be permitted, if the trail had minimized negative impacts to the fisheries, slope stability, vegetation, and wildlife. Permits would have to be obtained from the appropriate conservation authority on a site-by-site basis for any proposal of trail development along this buffer area. Generally, city maintenance vehicles would be permitted on these trails for trail upkeep purposes, and the trail should be designed to accommodate these vehicles. Each conservation authority may have their own drawing submission criteria, and information regarding such criteria must be sought from the appropriate conservation authority.

2.4 Stormwater Management Facilities

Consultation with the five conservation authorities with regulated areas in the City of Hamilton boundaries revealed that their requirements for the design of stormwater management facilities follow the Ontario Ministry of the Environment, Conservation and Parks (MOECP) guidelines, as well as the City of Hamilton’s *Criteria and Guidelines for Stormwater Infrastructure Design* (2007). Generally, trails in stormwater management facilities are encouraged, and should attempt to connect to other naturalized areas or amenity systems where possible.

Many of the conservation authorities have published planting guidelines complete with plant lists for various planting environments, including those found in stormwater management facilities. These lists, if available, should be consulted to ensure that the planting design is in compliance with whichever conservation authority has jurisdiction over the property in question.

2.5 Responsibilities

If the developer is undertaking the completed park or open space construction, it is the developer's responsibility to obtain these approvals. If the City is undertaking the construction, Landscape Architectural Services staff shall undertake the necessary steps to obtain approval for the proposed works.

2.6 References

Government of Ontario. "O. Reg. 97/04: Content of Conservation Authority Regulations under Subsection 28 (1) of the *Act: Development, Interference with Wetlands and Alteration to Shorelines and Watercourses*". 2004, E-Laws currency date of March 7, 2019.

3. OTHER APPROVAL AUTHORITIES

3.1 Archaeology

The requirements for archaeological assessments are defined by the Ontario Ministry of Tourism, Culture and Sport, in the *Ontario Heritage Act*, and by the Ontario Ministry of the Environment, Conservation and Parks (MOECP), through the *Environmental Assessment Act*.

Historical buildings and landscapes are present in the City of Hamilton, including native burial grounds and battlefields. If work is being proposed on one of these areas, approval for the works must be obtained by the approval body related to the specific type of heritage feature or landscape.

If the developer is undertaking the completed park or open space construction, it shall be up to the developer to obtain these approvals. Otherwise, Landscape Architectural Services staff shall undertake the necessary steps to obtain approval for the proposed works.

3.2 Niagara Escarpment Commission (NEC)

The City of Hamilton contains part of the Niagara Escarpment, a landscape feature that crosses Ontario, from Niagara in the south, to Georgian Bay in the north.

The Niagara Escarpment Commission (NEC) is an agency that controls development on the Niagara Escarpment, a World Biosphere Reserve. A "Biosphere Reserve" is an international designation of recognition from UNESCO (the United Nations Educational, Scientific, and

Cultural Organization) for an area in the world which is deemed to demonstrate a "balanced relationship between humans and the biosphere." By this it is meant that "collaborative efforts among people in the designated area serve to promote the sustainability of local economies and communities, as well as the conservation of the terrestrial/or coastal ecosystems they are in." (NEC website October 28, 2006). For more information on the Niagara Escarpment Commission, refer to <http://www.escarpment.org>.

The NEC website outlines the regulated area, the policies guiding the commission, and the process to apply for development approval along the escarpment.

If the developer is undertaking the completed park or open space construction, it shall be up to the developer to obtain these approvals. Otherwise, Landscape Architectural Services staff shall undertake the necessary steps to obtain approval for the proposed works.

3.3 Utility Companies

Park or open space development in the City of Hamilton may impact the existing structures or easements of utility companies.

For normal park development or redevelopment, the local hydro utility company may be the only approval necessary to complete the park or open space construction. Existing utility poles and supports may require moving for certain circumstances, or access across an easement may be required to complete the park or open space works. The individual utility companies must be contacted prior to works being finalized. If the developer is undertaking the completed park or open space construction, it shall be up to the developer to obtain these approvals. Otherwise, Landscape Architectural Services staff shall undertake the necessary steps to obtain approval for the proposed works.

In the case of trail development along a utility corridor, a license agreement shall be required for the development and maintenance of the trail along that corridor. There may be more than one utility company involved in such an approval, as corridors are sometimes shared. Plans must be sent for approval by the appropriate utility companies prior to the finalization of the design. If the developer is undertaking the completed park or open space construction, it shall be up to the developer to obtain these approvals. Otherwise, Landscape Architectural Services staff shall undertake the necessary steps to obtain approval for the proposed works.

Appendix F – **Parkland/Open Space and Trail Development Financing Agreement (PDFAs/OSTDFAs)**

Contents:

Parkland/Open Space and Trail Development Financing Agreement Template.....	F-2
Cost Estimate Template.....	F-14
Project Charter Template.....	F-15
Letter of Intent Template	F-26

Notes:

1. Placeholders are shown highlighted in **green**.
2. Please note that templates are for reference purposes only. PDFAs/OSTDFAs may be altered on a project-by-project basis to accommodate specific project requirements.

PROJECT NAME

**PARKLAND/OPEN SPACE AND TRAIL DEVELOPMENT
FINANCING AGREEMENT**

DRAFT FOR DISCUSSION PURPOSES ONLY

THIS AGREEMENT made in quadruplicate on the **XX day of Month, Year** (the "Agreement").
BETWEEN:

DEVELOPER NAME

(hereinafter called the "Developer")

-and-

CITY OF HAMILTON
(hereinafter called the "City")

WHEREAS the Developer is the registered owner of the lands more particularly described in Schedule "A" hereto, which lands are hereinafter referred to as the "Lands";

AND WHEREAS the City has approved a Draft Plan of Subdivision for the Lands subject to certain terms and conditions;

AND WHEREAS as a condition of the said Draft Plan approval, the Developer is required to **construct certain works, more particularly described in Schedule "B" attached hereto and forming part of this Agreement, which works are hereinafter referred to as the "Works";**

AND WHEREAS as a condition of the said Draft Plan approval, the Developer is required to complete the Works following an agreed to process including all project scope, expectations, submittals, milestones, inspections, and third-party testing, more particularly described in **Schedule "C" attached hereto and forming part of this Agreement, which are hereinafter referred to as the "Charter";**

AND WHEREAS the **Works have been identified in the City's Development Charges By-law 14-153, which by-law applies to the Lands and charges thereunder are payable by the Developer in accordance with the *Development Charges Act 1997, S.O. 1997, c 27;***

AND WHEREAS the City has agreed to reimburse the Developer for the value of the growth **related portion of the said Works, as determined by the City's Development Charge By-Law, the cost of which is hereinafter referred to as the "City Share", to the extent and in a manner hereinafter set out;**

AND WHEREAS the Developer has entered into a Letter of Intent ("**LOI**") in the form attached hereto as **Schedule "D" setting out its intention to enter into** this Agreement respecting the reimbursement of the City Share of the Works.

NOW THEREFORE THIS AGREEMENT WITNESSETH THAT, in consideration of the Lands, and of the said draft plan approval, and of the mutual covenants and agreements

herein contained, the receipt and sufficiency of which is acknowledged, the Parties hereto mutually covenant and agree as follows, namely:

1. The Developer hereby covenants and agrees to undertake and complete the construction of the Works to the satisfaction of the City and in accordance with this Agreement.
2. The City hereby covenants and agrees to reimburse the Developer for the City Share of the Works in accordance with the terms of this Agreement.
3. **The City Share shall be set out in Schedule "B"** attached to and forming part of this Agreement.
4. The Parties mutually covenant and agree that the said reimbursement of the City Share relating to the **Works as set out in Schedule "B" shall be in** the amount agreed to by the City and the Developer by way of the following Payment Schedule:
 - 4.1 One Hundred (100) % of payment for the completion of the City Share of the Works shall be due following receipt of:
 - 4.1.1 Completed Milestone Inspection Summary Report, as set out in **Schedule "C," appendix "A";**
 - 4.1.2 Completed Project Close-out Checklist as set out in Schedule **"C," appendix "B.;"**
 - 4.1.3 Certificate of Substantial Performance and Progress Payment **Certificate broken down in the same format as Schedule "B"** with each request for payment of the City Share . **"Substantial Performance" is as defined in the Construction Act of Ontario R.S.O. 1990;**
 - 4.1.4 Statutory Declaration;
 - 4.1.5 Proof of Advertisement;
 - 4.1.6 Property Lien Check to be completed by the City 60 days (or reasonably thereafter) after the date of Substantial Performance.;
 - 4.1.7 Current Workplace Safety & Insurance Board Clearance Certificate (WSIB);
 - 4.1.8 Standby Letters of Credit for Security for Performance and Security for Warranty Performance; 5.1.8 Request for Release of Securities excluding the 10% Warranty Security; and
 - 4.1.9 Start of Maintenance Period Letter.
5. The Developer shall be responsible to retain a 10% Holdback on all payments made by the City to the Developer, subject to the provisions of the Construction Act. The release of the 10% holdback shall take place no earlier than sixty (60) days after the date of Substantial Performance in accordance with the Construction Act.

6. The Developer covenants and agrees that it has not, and will not, file a complaint under the Development Charges Act with respect to the calculation and application of **the City's Development Charge to the Lands, including the quantum of the said charge and the quantum of the soft services component thereof.**
7. Consulting Services
 - 7.1 The Developer has designed and shall develop and construct the Works in accordance with the Contract Documents approved by the City, which shall be prepared by a qualified Landscape Architect, who is a full member in good standing of the Ontario Association of Landscape Architects hereinafter called **"the Developer's Landscape Architect"**.
 - 7.2 **The Developer acknowledges and confirms that the Developer's Landscape Architect is aware of and will conform with the City's Parkland Development Guidelines, the Charter, standards, relevant policies and by laws with regard to the design and construction of the Works.**
 - 7.3 **It shall be the responsibility of the Developer's Landscape Architect to retain** the necessary sub-consultants required for the preparation of the Contract Documents and construction inspections and shall include a qualified Civil Engineer who is a full member in good standing of the Professional Engineers of Ontario, and a qualified Electrical Engineer who is a full member in good standing of the Professional Engineers of Ontario.
 - 7.4 **The Developer's Landscape Architect shall oversee the construction** administration of the Works and shall comply with the requirements as set out in the Charter to the satisfaction of the City. It shall be the responsibility **of the Developer's Landscape Architect to coordinate** all necessary construction inspections with retained sub-consultants.
8. The Developer acknowledges that the City Share is less than 100% of the total actual cost of the Works. Reimbursement of any additional amount by the City to the Developer is subject to further Council approval. The execution of this Agreement by the City does not constitute a guarantee or commitment by the City that any additional funding for the Works will be available. The Developer further acknowledges and agrees that it is undertaking the Works pursuant to this Agreement at its sole risk with respect to the unfunded balance of the actual costs thereof.
 - 8.1 When a change to the approved Works is proposed or required the Developer shall present to the City for approval its claim for a change and the price with appropriate documentation
9. General Parkland Development Requirements
 - 9.1 The following requirements shall apply to any procurement or tender of services by the Developer respecting any Works subject to this Agreement:
 - 9.1.1 Any Works where the CityShare of the cost is in excess of \$50,000 + HST shall be tendered by an open tender (i.e. public notice in the Hamilton Spectator, the Hamilton Construction

Association, etc.) and a minimum of three (3) bids will be required;

- 9.1.2 **The tenders shall close at the office of the Developer’s Landscape Architect if located within the Municipal Boundary of the City of Hamilton or at the City of Hamilton’s offices if the Consultant’s office is located outside of the Municipal Boundary.** Alternatively, a remote tender opening is acceptable only if using an online open tender portal that is publicly accessible and viewable in real time;
- 9.1.3 A City representative shall be in attendance at the opening of the tenders to witness the bids received and shall be verbally provided with the bid results and immediately provided copies of the Schedule of Quantities of the **XX** number of bidders. The City accepted the **XX** bids as the Developer displayed due diligence in following an open tendered process;
- 9.1.4 The Developer may select the Contractor of its choice for the Works, but the City shall pay for the City Share of the Works only on the basis of the overall low bidder (unless there is a justified reason to choose another bid, i.e. tender disqualification, poor performance of contractor, etc.). **CONTRACTOR’S NAME** was the overall lowest bidder and has been selected as the Contractor for the Works;
- 9.1.5 The Developer shall not enter into any general contract or subcontract to complete the City Share or any portion thereof pursuant to the release of approved Tender Documents until the City had approved the said contract; and
- 9.1.6 **The Developer’s Landscape Architect shall certify on the Estimates of City Share of the Works that the City Share is based on the prices submitted by the low bidder that has been accepted by the City. The Developer’s Landscape Architect shall provide supporting documentation to the City for approval prior to issuance of any payment certificates.**

10. Security

- 10.1 The Developer shall provide the City with the following security in the form of irrevocable Standby Letters of Credit issued by a financial institution:
- 10.1.1 Security for Performance in the sum of 100% of the total contract costs; and
- 10.1.2 Security for Warranty Performance in the sum of 10% of the total contract costs.
- 10.2 The security is required to secure:
- 10.2.1 Completion of the Works by the Developer in conformity with the provisions of this Agreement; and,

- 10.2.2 Performance of all other obligations of the Developer under this Agreement.
- 10.3 The security received and held by the City in accordance with this Agreement may be applied and used by the City not only for the matters for which the security is expressly required, but may also be applied and used by the City in accordance with the remedial provisions of this Agreement, to any other matter, expense or obligation of the Developer, arising in any way out of the implementation of any provision of this Agreement, notwithstanding that such security was not expressly received for such purpose
- 10.4 The Security for Performance may be reduced in amounts from time to time at the sole discretion of the City, acting reasonably, following receipt of a **Progress Certificate from the Developer’s Landscape Architect** that was approved by the City prior to payment and proof of payment to the Contractor in respect of the Works covered by the said security. In no case shall the amount of security be reduced to less than an amount equivalent to the cost of the uncompleted Works as **estimated by the Developer’s Landscape Architect** and approved by the City, plus ten percent (10%) of the estimated cost of Works or \$10,000.00, whichever amount is greater.
- 10.5 The 100% Security for Performance shall be released following the reimbursement of the City Share.
- 10.6 The 10% Security for Warranty Performance shall be released following:
 - 10.6.1 A period of twenty-four (24) months from the date of Substantial Performance of the Works has elapsed.
 - 10.6.2 The receipt of a one (1) and a two (2) year Warranty Inspection Report **by the City, as contained in schedule “C”**
 - 10.6.3 Notification Letter of Contract Completion.
- 10.7 Subject to the Certificate of Substantial Performance and the date listed therein being approved by the City, the following shall apply from the date of the approval of Substantial Performance of the Works.
 - 10.7.1 The Developer shall remain responsible for any and all warranties for the Works for a period of twenty-four (24) months.
 - 10.7.2 The City shall become responsible for the maintenance of the Works.
 - 10.7.3 The City shall hold the Security for Warranty Performance as security as set out in this Agreement.
- 11. Default

- 11.1 If the Developer fails **to perform the City's Work to the City's satisfaction** or otherwise fails to comply with the requirements of this Agreement and the requirements laid out in the Charter, **the City's Manager of Landscape Architectural Services, Environmental Services, Public Works** without prejudice to any other right or remedy it may have, may:
 - 11.1.1 Notify the Developer in writing that it is in default of its contractual obligations and instruct it to correct the default in fifteen (15) working days immediately following the receipt of such notice;
 - 11.1.2 Claim the Security for Performance and apply same toward the completion of the Works; or
 - 11.1.3 Retain and claim the City Share and apply same toward the completion of the Works in whole or in part.
- 11.2 The waiver or acquiescence by the City of any default by the Developer under any obligation to comply with this Agreement shall not be deemed to be a waiver of that obligation or any subsequent or other default under this Agreement.
12. Inspection, Testing and Emergency Repairs
 - 12.1 **Employees or agents of the City may without notice to the Developer, at any time and from time to time prior to the end of maintenance of the Works:**
 - 12.1.1 **Inspect any of the Works. Such inspection by the City shall in no way relieve or replace the City's requirement for the Owner's Consulting Engineer to provide full time inspection of the Works under this Agreement; and,**
 - 12.1.2 **Conduct any tests that in the opinion of the Manager of Landscape Architectural Services are necessary to confirm or verify quality of materials and construction; and,**
 - 12.1.3 **Make emergency repairs in the event the Works do not function or do not function properly, or in the reasonable opinion of the Manager of Landscape Architectural Services, require necessary immediate repairs to prevent damage or hardship to any persons or to any property. The undertaking of repairs by the City shall in no way be deemed as acceptance of the Works by the City and is not a release the of Developer's maintenance responsibility for the Works under this Agreement.**
 - 12.2 The cost of all such emergency repairs and testing as determined by the City shall be paid forthwith by the Developer upon receipt of a written demand by the City. In the event the Owner fails to make payment within thirty (30) days of receipt of such written demand, the City may recover its cost from the Developer's security.
13. Indemnity and Insurance

- 13.1 The City shall not be responsible for or liable for:
 - 13.1.1 Any loss or damage that may happen to the Works, or to any part or parts thereof installed by the Developer pursuant to this Agreement prior to the maintenance of the Works becoming the responsibility of the City; or
 - 13.1.2 Any of the materials or other things used and employed in finishing and completing the Works by the Developer or any part or parts thereof where such materials or other things have not been specified or specifically approved by the City; or,
 - 13.1.3 Any injury to any person or persons, including workers and the public, during the construction of the said Works pursuant to the provisions of this Agreement; or,
 - 13.1.4 Damage by the Developer to the property of any person while the Developer is carrying out any of the Works.
- 13.2 The Developer covenants and agrees, at the **Developer's** expense, to defend, indemnify and forever save harmless the City, its employees, personnel, servants, contractors and agents from and against all actions, causes of action, interest, claims, demands, costs, (including legal costs) charges, damages, expenses prosecutions, fines, rights of contribution, and loss which the City may, at any time, bear, incur, be liable for, sustain or be put to for any reason, on account of or by reason of or in consequence of, arising directly or indirectly from:
 - 13.2.1 The City entering into this Agreement; and,
 - 13.2.2 The implementation of the provisions of this Agreement by the Developer, its employees, agents, assignees or contractors; and,
 - 13.2.3 Any failure by the Developer to fulfill its obligations under this Agreement.
- 13.3 Notwithstanding any provision of this Agreement, the City shall not be liable for, and no provision of this Agreement shall be construed as imposing upon the City any liability arising directly or indirectly out of the provisions of this Agreement for any loss, damage or damages suffered by the Developer, or any employee, servant or agent of the Developer, or to any property of the Developer or any other person by reason of:
 - 13.3.1 Any inspection carried out by the City or by a duly authorized employee, servant, contractor or agent of the City under any by-law of the City, under this Agreement or otherwise; or,
 - 13.3.2 The failure of the City or of any duly authorized employee, contractor or agent of the City to carry out any inspection under any by-law of the City, this Agreement or otherwise; or,

- 13.3.3 The approval or failure to approve of any matter or thing, arising directly or indirectly out of the provisions of this Agreement, by the City or any duly authorized employee, servant, contractor or agent of the City.
- 13.4 In accordance with the indemnification and save harmless covenants in favour of the City from the Developer in this Agreement, and prior to construction of any Works, the Developer shall:
 - 13.4.1 obtain at its own expense, including the cost of deductibles, its own policies of Insurance as specified below in this Agreement, in a form and with limits and deductibles acceptable to the Manager of Landscape Architectural Services, Environmental Services, Public Works, and maintain such policies in force until the transfer of maintenance responsibilities to the City; and,
- 13.5 The said policies of insurance required under this Agreement shall include the following:
 - 13.5.1 Commercial General Liability Insurance, providing coverage in an amount of not less than Two Million Dollars (\$ 2,000,000) per occurrence; including but not limited to, blanket contractual liability, products liability, completed operations liability, owners/Prime Contractors protective liability, non-owned automobile liability.
 - 13.5.2 The **Developer's** policy shall:
 - 13.5.2.1 insure the Developer and shall include all contractors, agents, sub-trades and subcontractors employed or used by the Developer while engaged in any activities under this Agreement; and,
 - 13.5.2.2 Name the City as an additional insured; and,
 - 13.5.2.3 Contain cross-liability and severability of interest provisions.
 - 13.5.3 Automobile Liability Insurance, being a Standard Owners Form Automobile insurance policy, including third party liability coverage in an amount of not less than Two Million Dollars (\$ 2,000,000) per occurrence; to cover all licensed vehicles owned and/or leased, as may be used in conjunction with this Agreement; and
 - 13.5.4 Any other form of insurance coverage(s) in such amounts and deductible levels, or increased limits of the aforementioned coverage(s), as the City may require, taking into consideration the Works to be done and industry standards.
- 13.6 Prior to execution of this Agreement by the City and prior to construction of the Works, the Developer shall deposit with the City original Certificates of

Insurance, or if required by the City, certified copies of each of the above noted insurance policies and, thereafter during the term of this Agreement, shall provide Certificates of all policy renewals at least 15 days prior to the expiry date of such insurance.

- 13.7 All insurance policies shall be in terms, form and amount acceptable to the City and with Insurers licensed to carry on business in Ontario.
 - 13.8 Insurance policies shall contain a provision that in the event of cancellation/termination/non-renewal, insurers shall provide prior written notice to the City of not less than 30 days for Commercial General Liability Insurance and 15 days for Automobile Liability insurance.
 - 13.9 In the event the required insurance is not received or not maintained in force by the Developer, the City may, but is not obliged to, pay premiums for such insurance or substitute insurance. In such event, the Developer shall reimburse the City forthwith for all premiums so paid by the City. In the event of the failure of the Developer to so reimburse the City, within ten (10) days of the Notice of payment by the City, the City may, without further Notice, realize upon the security or may recover same as a debt in a court of competent jurisdiction.
14. Applicable Law
- 14.1 In constructing, installing or providing the Works required under this Agreement to service the Land, the Developer shall comply with all statutes, laws, by-laws, regulations, ordinances, orders and requirements of governmental or other public authorities having jurisdiction at any time and from time to time in force. Without limiting the foregoing, the Developer agrees to comply with and cause to be complied with the provisions of the Occupational Health and Safety Act, the Environmental Protection Act and the Ontario Water Resources Act and any regulations, policies and guidelines relating thereto, including all obligations of the constructor and employer under the Occupational Health and Safety Act, and regulations as applicable, and any obligation to obtain any approval or permit required under the Environmental Protection Act or the Ontario Water Resources Act or any regulations, policies and guidelines relating thereto.
 - 14.2 The Developer shall do, cause to be done or refrain from doing any act or thing as directed by the City if at any time the City considers that any situation or condition is unsafe damaging to the environment or contrary to the provisions of any applicable laws above. If the Developer fails to comply with such direction, the City may take action to remedy the situation at the expense of the Developer and in this regard the City shall also be entitled to draw upon any security filed by the Developer under this Agreement.
 - 14.3 Nothing in this Agreement shall relieve the Developer from compliance with all applicable city by-laws laws and/or regulations or laws and/or regulations established by any other government body which may have jurisdiction over the Land.
15. Title to the Works together with all fixtures and personal property appurtenant thereto, shall vest in the City immediately upon their installation and the Developer

- shall execute and deliver to the City when requested by the City, such other assurance(s) of title as the City may require.
16. The Developer covenants and agrees to register this Agreement and any other required amendments, agreements, easements and transfers with or in favour of the City free and clear of all mortgages and charges on title to the Land, all at the Owner's expense and in a form satisfactory to the City Solicitor. Such registration shall be in an electronic format or in a paper format, as may be required by the Land Registry Office.
 17. The Developer acknowledges having obtained independent legal advice with respect to the terms of this Agreement prior to its execution, **or the Developer has made the informed decision not to do so and has elected to enter into this Agreement without the benefit of independent legal advice**, and further acknowledges and agrees that it understands the said terms and its further obligations and liabilities hereunder.
 18. This Agreement contains the entire and only understanding between the Parties relating to the subject matter hereof and supersedes all prior agreements, arrangements, promises, representations, or other understandings, whether written or oral, between them in relation thereto. This Agreement shall not be amended in any way except in writing of equal formality, including all necessary prior approvals, as this Agreement.
 19. This Agreement shall ensure the benefit of, and be binding upon, the Parties hereto and their respective successors, assigns and trustees.
 20. Notices may be given to the Developer at the address set out on the signing page of this Agreement. Notices to the City may be addressed as follows (until the City gives notice otherwise);

City of Hamilton,
Attention: City Clerk,
71 Main Street West, First Floor
Hamilton ON L8P 4Y5
 22. If any of the provisions of this Agreement or their application to any person or circumstance are to any extent illegal, invalid or unenforceable at law, the remainder of this Agreement shall be construed as if such illegal, invalid or unenforceable provision were not part of the Agreement.
 22. This Agreement may not be modified or amended except by instrument in writing signed by the Developer and the City.
 23. Time shall be of the essence of this Agreement.
 24. List of Schedules to this Agreement
 - 24.1 It is understood and agreed that the following Schedules are included in and form part of this Agreement and shall consist of:

Schedule "A" – Legal Description of the Lands

Schedule "B" – Form of Schedule and Quantities/ Total Contract Costs

Schedule "C" – Project Charter

Schedule "D" – Letter of Intent

IN WITNESS WHEREOF the Parties hereto have duly executed this Agreement.

SIGNED, SEALED & DELIVERED) CITY OF HAMILTON
In the presence of)
)
Approved) _____(c/s)
as to Form) XXXXXX, Mayor
)
)
Legal Services) _____
()) XXXXXX, City Clerk
)
_____)
Solicitor)
)
)
) NAME OF DEVELOPER
)
)
) _____(c/s)
)
)
) _____
)
) I/We have authority to bind the
) corporation

Initials: Manager of
Landscape Architectural
Services (LAS)

Initials:
Supervisor of
LAS

SCHEDULE "A"

To the Agreement made on the **XX day of MONTH, YEAR**. Specific details of the Land that is the subject of this Agreement to which this Schedule is attached, are set out below.

Legal Description of Land

[Developer's Consultant to provide this information]

Municipal Address of Location of Development:

[Developer to provide this information]

SCHEDULE “B”

To the Agreement made on the **XX day of MONTH, YEAR.**

Total Contract Costs

[Estimate of costs of works to be carried out by the Developer]

[Estimate of costs of works to be carried out by the City]

PLEASE REQUEST THE COST ESTIMATE TEMPLATE FROM THE
CITY OF HAMILTON PROJECT MANAGER.

SCHEDULE “C”

To the Agreement made on the **XX day of MONTH, YEAR.**

Project Charter

[City of Hamilton Project Manager to attach completed and signed Project Charter]

THIS IS A SAMPLE ONLY.
PLEASE REQUEST THE FULL DOCUMENT FROM THE
CITY OF HAMILTON PROJECT MANAGER.

Key Contacts

By undersigning, you have read the document and agree to its contents:

Table 1: Approval of Project Charter

	Role	Contact	Signature	Date
Support	City of Hamilton, Project Champion	Cynthia Graham, Manager Landscape Architectural Services City of Hamilton cynthia.graham@hamilton.ca 905-546-2424 x2337		
	City of Hamilton, Project Sponsor	NAME , Supervisor Landscape Architectural Services City of Hamilton EMAIL PHONE		
Prime Contacts	City of Hamilton, Project Manager	NAME . Landscape Architect Landscape Architectural Services City of Hamilton EMAIL PHONE		
	Developer, Project Lead	NAME & TITLE COMPANY EMAIL PHONE		
	Consultant, Project Manager	NAME & TITLE COMPANY EMAIL PHONE		

Park Description

PARK NAME Park is a **XX hectare** neighbourhood level park located at **PARK ADDRESS** in Ward **X**. The design and construction of the park will be the responsibility of **DEVELOPER NAME**. The park must comply with City of Hamilton standards and applicable legislative requirements. The park program must include **(ADD HERE ANY SPECIAL PROGRAM REQUIREMENTS)**:

- Multi-use court
- Asphalt walkways to connect features and allow for fitness/ walking loop
- Senior playground structure for children aged 5-12 years and a junior playground structure for children aged 18 months to 5 years
- Swing set – 2-bay with 2 belt seats, 1 seat for toddlers and 1 accessible seat for children with disabilities aged 5-12 years
- Concrete bench pads
- Sun shelter with a light
- Light standard
- Power supply pedestal
- Neighbourhood park sign
- Tree planting
- Sod
- Site servicing

Program elements other than those listed must be approved in writing by the City of Hamilton Project Manager.

City Standards

The park must be designed and constructed to meet all applicable City Standards and Guidelines. This includes:

- Park and Open Space Development Guide, includes reference to all available standard City details, specifications and special provisions and parkland design requirements and compliance
- Construction and Materials Specifications Manual, includes reference to general construction conditions and requirements, specifications for watermains and sewer pipes and standard road, water and sewer drawings

- The Road Authority Website, updates the City of Hamilton’s Approved Products List
- City of Hamilton Barrier Free Design Guidelines
- Applicable City By-laws, such as but not limited to Building Permits, Noise, Site Alteration, Trees – Private Property

Documents are available online or on request, can be provided by the City Project Manager. It is the responsibility of the Project Consultant to ensure that the latest versions of the details and standards are being used.

Park Budget

The allocated budget for the park and the breakdown of fees are as follows:

Table 2: Park Budget

	Item	Total
Breakdown	City of Hamilton Internal Review and Inspection Fees (10%)	\$ 65,000.00
	Reimbursable Consulting Fees to a maximum limit of 10% of construction costs without contingency (must include sub-consultants)	\$ 52,650.00
	Maximum Limit of Reimbursable Construction Fees (must include a 10% contingency)	\$ 532,350.00
	<i>Total Allocated Park Development Budget identified in City Capital Budget (Year XX)</i>	<i>\$ 650,000.00</i>

The City of Hamilton has no additional funding available for the park.

Process Checkpoints and Deliverables

The following outlines the process checkpoints that are required and lists the expected deliverables. The roles and responsibilities of each undersigned party is outlined in the Roles and Responsibilities section of this document.

Table 3: Checkpoints and Deliverables

Checkpoint	Deliverables
1.0 Notice	

Checkpoint	Deliverables
.1 Notice of Intention and Commitment to fulfill Project Expectations	<ul style="list-style-type: none"> Signed Letter of Intent Signed Project Charter Consulting Firm Proposal with fee breakdown and CV's of team members, including subconsultants – CV's must indicate professional designations and the proposed project role of the team members
2.0 Design	
.1 Preliminary Design	<ul style="list-style-type: none"> Concept design Preliminary cost estimate Project schedule with future design submission targets
.2 Contract Document Package Submission #1	<ul style="list-style-type: none"> 50% working drawing package Cost estimate National Master Specification (NMS) format specifications and City of Hamilton special provisions
.3 Contract Document Submission #2	<ul style="list-style-type: none"> Pre-tender working drawing package (95%) Cost estimate and schedule of quantities for tendering purposes NMS specifications and City of Hamilton special provisions
.4 Pre-tender Submission	<ul style="list-style-type: none"> Tender (100%) working drawing package Cost estimate and schedule of quantities NMS specifications and City of Hamilton special provisions
<i>Note: contract document package must be prepared by a licensed professional in good standing with the applicable Ontario professional association</i>	
3.0 Contract Award	
.1 Tendering	<ul style="list-style-type: none"> Open tender process with proof of public notice for all projects where the City's share is greater than \$50,000.00 +HST Tender closing located at the Consulting Firm's office or the City of Hamilton office for out of town consultants (a City representative must be present to witness the bid opening) Copies of the schedule of quantities from the three lowest bidders immediately after opening <p><i>Note: the developer may select the Contractor of choice for the project, but the City will pay for its share of the works based on the overall low bidder</i></p>
.2 Agreement	<ul style="list-style-type: none"> Signed Parkland Development Financing Agreement (PDFa) Submission and receipt of Letter of Credit for 100% securities and 10% warranty component Purchase Order for City's share of works only

Checkpoint	Deliverables
4.0 Construction	
.1 Pre-Construction Meeting	<ul style="list-style-type: none"> • Agenda including checklist of the topics that must be discussed provided by the City of Hamilton LAS Project Manager • Construction schedule • Meeting minutes
.2 Bi-Weekly Construction Meetings	<ul style="list-style-type: none"> • Meeting minutes <p><i>Note: a representative from the City of Hamilton, developer, consulting firm and contractor must attend all site meetings</i></p>
.3 Site inspections	<ul style="list-style-type: none"> • Site inspection reports of the minimum key milestones with photo documentation • Milestone Inspection Summary Report required to achieve substantial completion • Site instructions (if applicable)
.4 Payments	<ul style="list-style-type: none"> • Signed progress payments. Must indicate the City's share per line item based on the unit rates submitted by the lowest bidder. • Contemplated change order and signed change orders (if applicable) <p><i>Note: items will not be paid for in full until all associated submittals are received</i></p>
.5 Submittals and Third-Party testing	<ul style="list-style-type: none"> • Asphalt Walkways: <ul style="list-style-type: none"> ○ Asphalt mix design; sub-grade proof rolling; granular compaction results; asphalt in place density measurements • Concrete mix design for all concrete works to be used on project • Concrete Pads/ Walkways: <ul style="list-style-type: none"> ○ Sub-grade proof rolling; granular compaction results; concrete cylinder tests • Sun shelter: <ul style="list-style-type: none"> ○ Product sheets with colour selection; shop drawings that includes footing design stamped by Structural Engineer Licensed in the Province of Ontario; building Permit application, letter of completion certified by Structural Engineer Licensed in the Province of Ontario and Statutory Declaration; concrete cylinder tests; reinforcing inspection

Checkpoint	Deliverables
	<ul style="list-style-type: none"> • Play structures: <ul style="list-style-type: none"> ○ Product sheets for all components with colour selection; wood fibre product sheets; shop drawings for footing design stamped by a Structural Engineer Licensed in the Province of Ontario; concrete cylinder tests; CSA playground compliance letter • Servicing: <ul style="list-style-type: none"> ○ Markup of products used from the City of Hamilton’s Approved Products List ○ CCTV inspection (where applicable) • Electrical: <ul style="list-style-type: none"> ○ Standard park light product sheets; sun shelter light product sheets; power supply pedestal and pre-cast base product sheets; ESA certificates of inspection and letter of acceptance • Tree Planting: <ul style="list-style-type: none"> ○ Plant order from nursery; mulch product sheets; imported planting soil composition (soil texture, pH, organic matter content and macronutrients) • Fill: <ul style="list-style-type: none"> ○ If fill is imported to the site, confirmation and proof of origin of the fill is required. In accordance with the City’s Site Alteration By-law: <i>no person is permitted to transport fill to a site from any other site that is located outside the City of Hamilton.</i>
.6 Playground Inspection Walk	<ul style="list-style-type: none"> • Meeting minutes
.7 Deficiency Walk	<ul style="list-style-type: none"> • Deficiency Report • Notification that all deficiencies have been rectified
.8 Acceptance Prior to Issuance of Substantial Completion	<ul style="list-style-type: none"> • As-builts • Signed and completed Project Close-out Checklist and Milestone Inspection Summary Report
5.0 Substantial Performance	
1. Substantial	<ul style="list-style-type: none"> • Certificate of substantial performance

Checkpoint	Deliverables
Completion	<ul style="list-style-type: none"> Substantial performance cover letter Start of warranty period notification letter
2. Release of Securities	<ul style="list-style-type: none"> Proof of advertisement Statutory declaration Request for release of security deposit WSIB clearance certificate Lien check Final payment Letter of credit and release of security deposit (except for the 10% security for warranty)
6.0 Warranty	
1. Year One Warranty	<ul style="list-style-type: none"> Warranty report Notification that warranty items have been rectified
2. Year Two Warranty	<ul style="list-style-type: none"> Warranty report Notification that warranty items have been rectified Release of warranty security Notification letter of contract completion

Roles and Responsibilities

A responsibility assignment matrix, known as RACI matrix is provided to outline the roles and responsibilities of the team members for key project deliverables. The high-level matrix is a guide intended to eliminate confusion and ensure the park is delivered to the quality and standard expected by the City of Hamilton and its residents.

The definitions of the terms used in the RACI matrix are as follows:

Responsible: person who is responsible to perform and/or coordinate the work to ensure the work is delivered according the agreed upon schedule to the appropriate team members.

Approve: person that reviews the submitted deliverables before deemed complete to ensure that the project objectives and goals of the City of Hamilton and relevant stakeholders are being achieved. Approval does not imply that the team member is taking on legal or technical responsibility for the deliverable. For example, by approving stamped construction drawings, the City of Hamilton Project Manager is not taking on the professional duties and obligations of the stamper.

Consult: person that needs to provide feedback and expertise for consideration prior to the deliverable being approved and deemed complete.

Inform: person that needs to be aware of the project deliverables, decisions and actions after the deliverable is approved and deemed complete. This is often one-way communication.

Table 4: RACI Matrix

Deliverables	City of Hamilton Project Champion	City of Hamilton Project Sponsor	City of Hamilton Project Manager	Developer Project Lead	Consultant Project Manager	Contractor
<i>Legend: R=Responsible, A=Approve, C=Consult, I=Inform</i>						
1.0 Notice						
.1 Signed Letter of Intent	I	I	A	R		
.2 Signed Project Charter	A	A	R/A	A	A	
.3 Consulting Firm Proposal with fee breakdown and CV's of team members			A	R	R	
2.0 Design						
.1 Concept design, preliminary cost estimate and project schedule	C	C	A	R	R	
.2 50% working drawing package, cost estimate, NMS specifications and special provisions	C	C	A	R	R	
.3 Pre-tender working drawings package, cost estimate and schedule of quantities, NMS specifications and special provisions			A	R	R	
.4 Tender working drawing package, cost estimate and schedule of quantities, NMS specifications and special provisions			A	R	R	
3.0 Contract Award						
.1 Proof of public notice			I	R		
.2 Copies of the schedule of quantities from the three			I	R		

Deliverables	City of Hamilton Project Champion	City of Hamilton Project Sponsor	City of Hamilton Project Manager	Developer Project Lead	Consultant Project Manager	Contractor
<i>Legend: R=Responsible, A=Approve, C=Consult, I=Inform</i>						
lowest bidders						
.3 Signed PDF/A (City Mayor and City Clerk approve on behalf of City)	C	C	R/C	R/A		
.4 Letter of credit for 100% performance security plus a 10% warranty security	I	I	A	R		
.5 Purchase Order for City's share of works only	A	A	R	I		
4.0 Construction						
.1 Pre-construction meeting agenda			C	R	R	I
.2 Construction schedule			I	R	R	R
.3 Meeting minutes			I	R	R	I
.4 Site inspection reports at key milestones with photo documentation			I	R	R	I
.5 Signed progress payments			A	R	R	R
.6 Construction submittals for components and materials			A	R	R	R
.7 Third-party testing reports			I	R	R	R
.8 Change orders (if required)			A	R	R	I
.9 Site instructions (if required)			A	R	R	I
.10 Deficiency report			A	R	R	I
.11 As-builts			A	R	R	R
.12 Signed Project Close-out Checklist			A	R	R	R
.13 Signed Milestone Inspection Summary Report			A	R	R	R
5.0 Substantial Performance						
.1 Certificate of substantial performance	I	I	A	R	R	I

Deliverables	City of Hamilton Project Champion	City of Hamilton Project Sponsor	City of Hamilton Project Manager	Developer Project Lead	Consultant Project Manager	Contractor
<i>Legend: R=Responsible, A=Approve, C=Consult, I=Inform</i>						
.2 Substantial performance cover letter	I	I	R	I	I	I
.3 Start of warranty period notification letter	I	I	R	I	I	I
.4 Proof of advertisement, statutory declaration, request for release of securities, WSIB clearance certificate, letter of credit			A	R	R	R
.5 Lien check			R			
.6 Release of 100% Performance security (maintain 10% Warranty security)	I	I	R/A	I		
6.0 Warranty						
.1 Year one warranty report			A	R	R	I
.2 Year two warranty report			A	R	R	I
.3 Letter of credit and request for release of warranty security			A	R		
.4 Release of securities for warranty (10%) and notification letter of contract completion	I	I	R/A	I	I	I

Supporting Documents

All undersigned parties must be familiar with the following documents:

Park and Open Space Development Guide: the purpose of this document is to identify the design standards for parks built in the City of Hamilton and provide an overview of the process. This document is available online at the City of Hamilton’s website.

Engineering Guidelines for Servicing Land Under Development Applications: this document is to be used as a reference guide only to clarify the requirements for tendering. This document is available online at the City of Hamilton’s website.

2019 Development Charges Background Study: Appendix E of this document outlines the base local service policy for parkland development. The items identified as base conditions are the direct responsibility of the developer and are not eligible for reimbursement through development charges. This document is available online at the City of Hamilton’s website.

Construction and Materials Specifications Manual: identifies all soil testing, soil compaction, asphalt, concrete and granular requirements and contains the approved products list. This document is available online at the City of Hamilton’s website.

SCHEDULE “D”

(DEVELOPER’S LETTERHEAD)

LETTER OF INTENT

(Developer’s Name)

(Park Development Project Name)

This Letter dated (place date) is confirmation of the Developer’s (place Developer name) intention to develop (place name) Park through a Parkland/Open Space and Trail Development Financing Agreement (PDFa/OSTDFA).

It is understood through a PDFa/OSTDFA:

- That the Developer (place Developer name) will agree to undertake and complete the construction of Works to the satisfaction of the City of Hamilton, and
- That the City will reimburse the Developer (place Developer name) for the City share of construction by way of a written Payment Schedule to be determined and set out in the proposed PDFa/OSTDFA between the Parties.

The projected schedule will be to complete the design and construction detailed drawings by (place date); the tendering of contract documents by (place date) and construction and completion of the (place name) Park by (place date).

Signature _____

Name of Developer or Developer’s Agent

Company Position/Title

Contact Information

Appendix G – **Crime Prevention through Environmental Design (CPTED) Principles for Park and Open Space Design**

1. APPLICABILITY

Crime Prevention Through Environmental Design (CPTED) Principles are a requirement in the design of parks and open space within the City of Hamilton, and therefore must be given due consideration during the design process, whether undertaken in development Option 1 or Option 2.

2. BACKGROUND

Since the 1970s, CPTED has been attributed to the concepts that:

- The proper design and effective use of a built environment can lead to a reduction in the fear and incidence of crime, as well as an improvement in the quality of life; and
- Its successes and popularity can be measured in part by its global acceptance.

3. DESIGN STRATEGIES

The conceptual basis of CPTED is that the physical environment can be modified to produce or induce behavioral effects that will reduce the fear and incidence of crime and improve the quality of life.

There are three overlapping CPTED design strategies:

- i) Natural surveillance
- ii) Natural access control
- iii) Territorial reinforcement

The conceptual foundation of the Crime Prevention Through Environmental Design (CPTED) program is towards the exploitation of 'natural' forms of surveillance and access control. The term 'natural', in reference to natural surveillance and natural access control refers to deriving surveillance and access control as a result of the routine use and enjoyment of the property.

3.1 Natural Surveillance

Natural surveillance is a design strategy that is directed at keeping intruders under observation.

Issues	Design Directive
Does the design allow observation?	Design space to facilitate observation by increasing 'visual permeability', i.e. the ability to see what is ahead and around. Measure the need for privacy and / or limited sightlines against the need for personal safety.
Is this level responsive to the needs for observation?	Place vulnerable activities, such as cash handling or child care in places that can be naturally well-monitored. Develop potential for 'eyes on the street' by strategically aligning windows, work stations, and other activity generators towards these areas of 'vulnerable activity'.
Has the need for observation been carried consistently throughout the project?	Take special care to ensure that each phase of the project enhances and complements the natural surveillance opportunities created in the design phase. This is particularly critical with respect to the landscaping and lighting phases.

Examples of natural surveillance include the strategic use and placement of park benches, windows, and building lobbies.

3.2 Natural Access Control

Natural Access Control is a design strategy that is directed at decreasing crime opportunity. The primary concept of an access control strategy is to deny access to a crime target and to create a perception of risk in offenders.

Issues	Design Directive
Does the design decrease criminal opportunity by effectively guiding and influencing movement?	Provide for 'eyes on the street' through the strategic placement of entrances, windows, etc. Direct normal access to observable areas and prevent access to unobservable areas. Design space to provide people with a sense of direction, while giving them some natural indication as to where they are and are not allowed.
Will safety be compromised by limiting access?	Provide a limited number of access routes while allowing users some flexibility in movement.

<p>Does the design develop natural access control opportunities without considering their impact on natural surveillance?</p>	<p>Take special care to ensure that natural access control opportunities enhance and complement natural surveillance objectives.</p>
--	--

Examples of natural access control include the strategic use of distance (e.g. lawns, flooring) and / or topographical features (e.g. creeks, sidewalks) to direct activity or to create a buffer between potentially conflicting activities.

3.3 Territorial Reinforcement

Territorial reinforcement is an ‘umbrella’ design strategy that realizes that physical design can create or extend a sphere of influence so that users of a property develop a sense of proprietorship over it. Territorial strategies will often embody natural surveillance and natural access control strategies.

Territorial reinforcement is an expression of proprietorship. For example, a clean, well-lit, attractive store will present behavioral and environmental cues that tell the ‘normal user’ that they are safe and only accepted behaviors will be tolerated. The same cues have an adverse effect on ‘abnormal users’. The design of space and the way in which people are behaving will give the impression that the abnormal user will be observed, stopped, or apprehended.

Issues	Design Directive
<p>Does the design act as a catalyst for natural surveillance and access control opportunities?</p>	<p>Enhance the feeling of legitimate ownership by reinforcing existing natural surveillance and natural access control strategies with symbolic or psychological barriers. Accomplish this by demonstrating the transition between public, semi-public, and private space so that unwanted intrusion elicits a protective response for offenders. This is often easily accomplished with the strategic use of bollards and signs.</p>
<p>Does the design create ambiguous spaces?</p>	<p>Minimize the creation of ambiguous spaces, which are spaces that lack any sort of clue as to what and who they are for. Accomplish this by identifying potential ‘leftover spaces’, for instance the area between the aboveground portion of a building’s underground parking lot and its property line. Then take some positive action to develop this space so that users of the property take responsibility for it.</p>

Will the design create heavy or unreasonable maintenance demands?	Design space to allow for its continued use and intended purpose. Create durable environments that limit the need for maintenance, especially where it affects natural surveillance and access control.
--	---

Territorial reinforcement, together with natural surveillance and access control, promotes more responsiveness by users in protecting their territory.

Reference:

Peel CPTED Advisory Committee (2006). *Crime Prevention through Environmental Design Principles*. Region of Peel, Ontario.

Appendix H – **Playground Equipment Standards**

City of Hamilton PLAYGROUND DEVELOPMENT STANDARDS

Revised: April 12, 2019

This document details the standards for a complete playground facility including services, play components, and site restoration.

Contents:

1.0	REGULATIONS	H-2
2.0	BUDGETS	H-2
3.0	GENERAL DESIGN STANDARDS	H-2
4.0	TYPICAL PLAYGROUND PROGRAMME.....	H-3
5.0	PRODUCT SELECTION	H-4
6.0	NATURAL PLAYGROUNDS.....	H-5
7.0	PLAY AREA	H-6
8.0	PLAY EQUIPMENT – Non Electronic.....	H-10
9.0	PLAY EQUIPMENT – Electronic.....	H-11

1.0 REGULATIONS

1. Drainage services shall be designed and installed in compliance with the City of Hamilton Construction and Materials Specifications Manual (C&MSM), latest version: <https://www.hamilton.ca/develop-property/policies-guidelines/construction-and-material-specifications>.
2. Stormwater must be drained to the storm sewer system or combined sewer system (NOT to the sanitary sewer system).
3. Electrical work must comply with the latest electrical code(s) applicable to the City of Hamilton.
4. Locations of the playground are subject to approvals from the Conservation Authority (CA) and Niagara Escarpment Conservation (NEC) when placed in parks within their areas of jurisdiction.
5. Standard City of Hamilton Specification 11 68 13, Play Equipment
Standard City of Hamilton Specification 32 18 15, Fibre Play Surface
Standard City of Hamilton Specification 32 18 16, Rubberized Play Surface
Standard City of Hamilton SP260, Playground Safety Surface
Standard City of Hamilton SP261, Play Structures

2.0 BUDGETS

1. The following budgets are guidelines subject to modification by City of Hamilton park planners on a site-specific basis.
 - a) Neighbourhood Parks: \$75 - \$90,000.00 for supply and installation of all creative structures, swings, spring toys, sub-drainage, curbs, and safety surface. Accessible equipment is required and included in this budget.
 - b) Community Parks: \$130 - \$150,000.00 for supply and installation of all creative structures, swings, spring toys, sub-drainage, curbs, and safety surface. Accessible equipment is required and included in this budget.
 - c) City Wide Parks: Meeting or exceeding the requirements of a Community Park. Budgets to be set by Landscape Architectural Services on a site-specific basis. Accessible equipment is required and included in this budget.

3.0 GENERAL DESIGN STANDARDS

1. Comply with *CAN/CSA Standards Z614 – Children’s Playspaces and Equipment* (latest edition).
2. Comply specifically with *Annex H of the CAN/CSA Standards Z614 – Children’s Playspaces and Equipment* (latest edition), *Children’s Playspaces and Equipment that are Accessible to Persons with Disabilities*.
3. Comply with *Accessibility for Ontarians with Disabilities Act, 2005* and *Ontarians with Disabilities Act, 2001*.

4. Herein, playspaces will be separated into sections called **Junior Children’s Play** and **Senior Children’s Play**.
 - **Junior Children’s Play** - for children 18 months to 5 years old
 - **Senior Children’s Play** - for children 5 to 12 years old.
5. It is acceptable to mix products from different manufacturers on a project site.
6. Steel posts are preferred. Aluminum posts are permitted but they must be minimum **4” in diameter**. Timber components are not acceptable.
7. Consultants and contractors shall provide product sheets of creative play structures and play equipment for review and approval by the Supervisor of Playground Maintenance. Prior to construction, shop drawings of footings must be provided to the Project Manager for review; these drawings must be stamped by an engineer certified to practice in Ontario.

4.0 TYPICAL PLAYGROUND PROGRAMME

1. Playground equipment shall be as scoped by Landscape Architectural Services (LAS). This section provides a suggestion of the programme elements. The play equipment elements and layout will be reviewed by LAS. This information shall be conveyed on the functional plan, detailed budget estimate and/or play equipment programme document.
2. Notwithstanding the above clause, a typical programme for a Neighbourhood Park may include:
 - a) Swings:
 - Minimum: 4 seats (2 bay unit) - 2 belt seats, 1 seat for toddlers, and 1 accessible seat for children with disabilities.
 - Desired: 6 seats (3 bay unit) - 3 belt seats, 2 seats for toddlers, and 1 accessible seat for children with disabilities.
 - OPTION: Saucer Swing
 - b) Junior creative structure:
 - 1-2 decks, transfer station and stairs, 2 plastic slides – single and dual track, vertical climber, 2-3 activity panels (Options: talk tube or alternate, angled rock wall/stair).
 - c) Senior creative structure:
 - 3-4 decks with 1 roof, transfer station with stairs and/or accessibility ramp, 2 plastic slides – straight and spiral both open, 2 vertical climbers, 1 overhead climber, rock wall or similar activity, 4-5 activity panels.
 - d) Junior / Senior combination structure:
 - 3-4 decks with 1 roof, transfer station with stairs and/or accessibility ramp, 2-3 plastic slides – straight, dual track and spiral all open, 2 vertical climbers, 1 overhead, rock wall or similar activity, 4-6 activity

panels (Options: wobble pods, rock wall angled for junior and vertical for senior).

- e) Spring/spinning toys:
 - 1-2 units varying types.
3. Notwithstanding the above clause, a typical programme for a Community Park may include at a minimum:
- a) Swings:
 - Minimum: 6 seats (3 bay unit) - 3 belt seats, 2 seats for toddlers, and 1 accessible seat for children with disabilities.
Desired: 8 seats (2 separate -2 bay units)- 4 belt seats, 3 seats for toddlers, and 1 accessible seat for children with disabilities.
 - b) Junior creative structure:
 - 1-3 decks with min. 1 roof, transfer station and stairs and/or accessibility ramp, 2 plastic slides – single and dual track, vertical climber, 2-3 activity panels (Options: talk tube or alternate, angled rock wall/stair).
 - c) Senior creative structure:
 - 3-6 decks with min. 1 roof, transfer station with stairs, accessibility ramp, 2-3 plastic slides – straight and spiral both open, 2 plastic slides – straight and spiral both open, 2 -3 vertical climbers, 1 overhead climber, rock wall or similar activity, 5-7 activity panels (Options: wobble pods).
 - d) Junior / Senior combination structure:
 - 3-6 decks with 1 roof, transfer station with stairs and/or accessibility ramp, 2-3 plastic slides – straight, dual track and spiral all open, 2 vertical climbers, 1 overhead, rock wall or similar activity, 5-7 activity panels (Options: wobble pods, rock wall angled for junior and vertical for senior).
 - e) Spring/spinning toys:
 - 2-3 units varying types.

5.0 PRODUCT SELECTION

1. For a list of approved manufacturers, please see the most recent version of specification Section *11 68 13 Play Equipment*.
2. Components
 - a) Decks:
 - Steel with plastisol coating preferred; plastic wood or composite wood is acceptable.
 - Provide a transfer deck on structure to make it accessible.
 - Provide minimum 1 set of stairs.

- b) Climbers:
- Chain net, cable net, and cargo net climbers shall have one-piece coupling or nut and bolt couplings. Screw couplings are not acceptable.

NOTE: the following components are not acceptable: diggers, track rides and flexible bridges.

3. Activity Panels

- a) Panel design and variety:
- Provide a variety of panel types for different play and learning experiences. Use steel bars at ends of ramps. Do not place a poly panel at the end of a ramp.
 - Incorporate a mixture of steel bars, poly windows, activity panels to add interest to the structure.
 - Provide 40% of activity panels on ground level for wheelchair users.
 - Do not create entrapment spaces in the lower level. Arrange panels in lower area to permit an escape, i.e. 2 panels on opposite posts and 2 sides open.
- b) Pre-approved panels:
- Storefront / counter on lower level
 - Door panel on lower level
 - Tic tac toe or animal panel
 - Mirror
 - Little Tikes 7 station factory
 - Poly windows
 - Steering wheel or steering panel
 - Seat panel
 - Gear panel
 - Alphabet or similar learning panels
 - Melody maker / music panel (in low vandalism areas)
- c) Unrated panels:
- All other activity panels will be considered. Must be approved by Project Manager and Supervisor of Playground Maintenance prior to final design and ordering.

6.0 NATURAL PLAYGROUNDS

1. Natural Play contributes to the overall physical, cognitive, and emotional development of children, helps them score higher on tests for concentration and self-discipline, helps them experience more diverse play, and helps them exhibit less aggressive behaviours, strive toward advanced motor fitness, and become healthier. A natural playground is a change in thinking about play spaces - rather than one centralized piece, the activities are spread around the entire area, allowing for **diversified play, more running between activities, and less chance of "king of the castle" exclusion.** These work best in conjunction with traditional equipment.

2. Components of a natural playground
 - a) Vegetation, including coniferous and deciduous trees.
 - b) Natural Rock boulders for climbing feature (must comply with CSA standards listed above).
 - c) Slides embedded in hill - reduces fall height to zero, allows for plantings beside the slide to give a tactile/smell experience, no exclusion of height-fearful children, suitable for all ages.
 - d) Variations in pathway materials to draw allow a ground-level tactile experience.
 - e) Native plant materials including shrubs, herbs, flowers, vegetables, and other garden plants, designed to attract wildlife.
 - f) Changes in topography, sculptured to include berms, stone walls, natural amphitheaters.
 - g) Different areas defined by boulders, levels and tiers, benches, rain gardens, paths, and grassy areas.
 - h) Structures including gazebos, pergolas, arbors, gateways, shade tents, game tables, climbing walls.
 - i) Outdoor art - mural walls, play sculpture, sound gardens.
 - j) Learning tools including sundials, rain gauges, nature trails.

7.0 PLAY AREA

1. General
 - The total play area shall encompass all play equipment as per CAN/CSA-Z614 (latest edition).
 - As a guideline the total play area shall be 400 – 500 sq.m. (e.g. 50m x 100m) except where the selected play equipment requires a different space.
 - Do not create an oversized play area with safety surface material.
2. Perimeter
 - Where walkways are provided, use asphalt or concrete sidewalks as borders to retain safety surface materials. Provide rolled edges as per PK-0621.01, unless directed otherwise.
 - In other areas, use sodded edge.
 - Ensure minimum setbacks are provided from each piece of play equipment as per CSA standards.
3. Drainage (as per PK-0210.01 unless directed otherwise)
 - **Provide a subdrain system comprised of 100mm (4") diameter corrugated poly drain pipe (Big "O") with filter sock embedded in a French drain of 300mm wide x 300mm deep 19mm dia. clear stone set into the subgrade, Slope subgrade to drain towards drain pipe at 1.0%.**
 - **Provide a drainage layer immediately beneath the engineered wood fibre over the full area of the play area, comprised of 100 (4") 19mm dia. clear drain stone.**
 - Provide a non-woven geotextile filter fabric between fiber layer and drainage layer. See the *Parks* dropdown of the *Approved Product List*

(<http://www.roadauthority.com/mpl/mpl.asp?MPIShortName=Hamilton+MPL>)
for approved geotextile.

- Provide minimum 3 legs of drain pipe to cover all sides and centre of play area. Slope drain pipe minimum 0.5% to drain towards a catch basin or discharge into a swale.
- Ensure placement of drainage pipe does not interfere with play equipment footings.

4. Safety Surfacing

1. Safety surfacing for playgrounds shall be either:

- a) Poured-in-place Rubber: In highly urban areas where drug use in parks is more prevalent, poured-in-place rubberized surfacing shall be used. This is so needles, glass, and other sharps are more clearly visible, and do not become buried in the safety surfacing.
- b) Engineered Wood Fibre: In suburban and rural areas, loose engineered wood fibre (designed for use in playgrounds) shall be used.

2. Approved Products: For a list of approved products, please see the most recent version of specification Section *32 18 15 Fibre Play Surfacing & Drainage*.

3. NOT Approved Products:

- Ecostrat

5. Sample Sites

Park Name	Park Type	Address	Description
Gage Park	City Wide	1000 Main Street East, Hamilton (Ward 3) (Note: Playground is on west edge of par)	Combined senior/junior structure, swing set (total 7 seats), saucer swing, teeter-totter, four spin toys, two instrument panels, crawl tunnel.
Joe Sams Leisure Park	City Wide	752 Centre Road, Flamborough (Ward 15) (Note: Located between concession building and batting cages)	Separate junior and senior creative structures, swing set (total 8 seats), spinner toy, two spring toys.
William Connell	City Wide (Traditional AND Natural Playgrounds)	1086 West 5th Street, Hamilton (Ward 8) (Note: Traditional Playground is in NW corner, natural playground is in NE corner next to pavilion)	Natural Playground: Numerous natural elements, swing set (total 6 seats), basket swing, teeter-totter, spring toy, hill slide. Traditional Playground: Separate junior and senior creative structures, swing set (total 4 seats), two slides, three spring toys.
Mount Hope Park	Community	3027 Homestead Drive, Glanbrook (Ward 11)	Combined senior/junior structure, climbing rope structure, swing set (total 6 seats), four spring toys.
Sam Manson Park	Community	80 Nash Road North, Hamilton (Ward 5)	Separate junior and senior creative structures, swing set (total 6 seats).
Victoria Park	Community	500 King Street West, Hamilton (Ward 1)	Separate junior and senior creative structures, swing set (total 4 seats), monkey bars.
Eringate Park	Neighbourhood	45 Shadyglen Drive, Stoney Creek (Ward 9)	Two sets of swings (total 8 seats), separate junior and senior creative structures, one car spring toy and one dinosaur spring toy.
Lakepointe Park	Neighbourhood	60 Westhampton Way, Stoney Creek (Ward 11)	Separate junior and senior creative structures.
Newlands Park	Neighbourhood	137 Lynbrook Drive, Hamilton (Ward 8)	Two sets of swings (total 8 seats), separate junior and senior creative structures, one car spring toy and one spinner toy.
Southbrook Park	Neighbourhood	111 Southbrook Drive, Glanbrook (Ward 11)	Two sets of swings (total 8 seats), separate junior and senior creative structures, one car spring toy and one spinner toy.

Park Name	Park Type	Address	Description
Veteran's Memorial Park	Neighbourhood	105 Huntingwood Avenue, Dundas (Ward 13)	Separate junior and senior creative structures.
Honourable Bob Mckenzie Park	Neighbourhood (Natural Playground)	122 Province Street North, Hamilton (Ward 4)	Natural Playground, swing set (total 4 seats), small traditional senior structure, small traditional junior structure.
Matilda Street Playground	Neighbourhood (Natural Playground)	236 King Street West, Dundas (Ward 13)	Natural Playground.
Perth Park	Neighbourhood (Natural Playground)	300 Woodworth Drive, Ancaster (Ward 12)	Natural Playground, swing set (total 2 seats).
A.M. Cunningham School	School (Acts as a Neighbourhood Park)	100 Wexford Avenue South (Ward 4)	Combined senior/junior structure, challenge circuit, swing set (total 8 seats), creative play panel.
Marimat Gardens	Parkette	20 Marimat Court, Dundas (Ward 13)	Combined senior/junior structure, climbing structure, swing set (total 2 seats), creative play panel, spring toy.
McLaren Park	Parkette	160 John Street North, Hamilton (Ward 2)	Climbing rope structure, junior slide, teeter-totter, spin toy, spring toy.
Stinson Street Playground	Parkette	200 Stinson Street, Hamilton (Ward 2)	Separate junior and senior creative structures, two spring toys.
Chappel East Parkette	Parkette (Natural Playground)	1837 Upper Wentworth Street, Hamilton (Ward 7)	Natural Playground, slide, saucer swing.

8.0 PLAY EQUIPMENT – Non-Electronic

1. Spring Toys

- a) General:
 - Spring toys shall be anchored with either concrete footing(s) or stringer(s).
 - Spring Toys must be removable by Parks Maintenance personnel.
- b) Approved Products: Any products by one of our approved manufacturers. For a list of approved manufacturers, please see the most recent version of specification Section *11 68 13 Play Equipment*.
- c) Not Approved Products:
 - Little Tikes: All spring toys and Super Rider
 - Game Time: Jumbo Flyer
 - Jambette: All spring toys

2. Independent Climbers

- a) Approved products:
 - Any product by Belair or Landscape Structures.
- b) Finish:
 - Zinc bath, polyester powder coat.

3. Independent Swings

- a) Swing standards:
 - The basic minimum style of swings is the three (3) leg end support (**A frame) type with min. 89mm (3.5") O.D. top rail and legs.**
 - Pre-approved styles include arch frame leg support and dual leg support styles.
 - Top cross bar shall be min. 2440mm (8' - 0") **above finished grade.**
 - All swing posts shall be embedded in footings (anchor footing to bedrock where depth of cover is not at least 1200mm).
 - **All swing chains shall be ¼" galvanized.**
 - Supplied with standard swing hangers (anti-wrap swing hangers are not required but are permitted).
- b) Approved products:
 - Belt seats from all manufacturers
 - Tot seats shall be full wrap around style
 - Accessible bucket seats:
 - o The pre-approved manufacturer is:
Manufacturer: Landscape Structures
Supplier: ABC Recreation
Contact: Tony DeJongh, Tel: 1-800-267-5753
Model No.: 177350A, 5-12 year
Additional Options: One (1) Seat Strap and ProGuard chains **for 8'** beam height.

- o Or approved equal. All equals must be designed for ages 5-12 and have the added option of a belt harness (plastic T-bar harnesses are not permitted).
 - c) Products that are not permitted:
 - Dura glide seats by Little Tikes
 - Plastic coated swing chains (plastisol)
 - Single post leg end supports swings
4. Slides
- a) Standards:
 - Attached to creative structures, no independent slides (exception of Hill Slides in Natural Playgrounds).
 - In high vandalized areas, specify stainless steel slide. In all other areas, specify poly slides.
 - Open slides are required, slide tubes are not approved.
 - Straight, wavy and spirals are acceptable.
5. Basket Ball Goals
- a) Poles, **cantilever basketball standard, 114mm (4½") O.D. galvanized steel** pipe with 1220mm (4 ft.) extension:
 - GameTime Model #460,
 - Henderson Model #BB020,
 - Or approved equal.
 - b) Backboard, steel/cast aluminum backboard, fan shaped:
 - Henderson Model #BP002,
 - GameTime Model #854,
 - Or approved equal.
 - c) Hoop, double rim with steel chain net:
 - Super goal by GameTime Model #423,
 - Henderson Model # BP007 with #BP010,
 - Or approved equal.
6. Fencing
- a) Commercial grade, galvanized steel, chain link fence:
 - Fabric – **50mm (2") square mesh, knuckle top and bottom.**
 - Basketball/multi-purpose court – **3.0m (10ft.) high (please see the City's standard multi-purpose court details: PK-401 and PK-402).**

9.0 PLAY EQUIPMENT – Electronic

1. Commercial interactive electronic play equipment is not typically used in Hamilton playgrounds. A proposal to include interactive electronic-based play equipment will be considered on a project specific basis and requires the approval of Landscape Architectural Services and the Supervisor of Playground Maintenance.

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Appendix I – Spray Pad Standards

City of Hamilton SPRAY PAD DEVELOPMENT STANDARDS

Revised: April 12, 2019

This document details the standards for a complete spray pad facility including services, spray components, and site restoration.

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1.0 REGULATIONS

1. Spray pad designs are subject to water, sewer, and road cut permits issued by the City of Hamilton.
2. Plumbing must comply with the latest plumbing code applicable to the City of Hamilton.
3. Water and sewer services shall be designed and installed in compliance with the City of Hamilton Construction and Materials Specifications Manual (C&MSM), latest version: <https://www.hamilton.ca/develop-property/policies-guidelines/construction-and-material-specifications>.
4. Waste water must be drained to the storm or combined sewer system. Do not drain to the sanitary sewer system. Do not drain to grass or landscaped areas.
5. Electrical work must comply with the latest electrical code(s) applicable to the City of Hamilton.
6. Locations of the spray pad are subject to approvals from the Conservation Authority (CA) and Niagara Escarpment Conservation (NEC) when placed in parks within their areas of jurisdiction.
7. Command control centres shall comply with confined space entry regulations.
8. Standard City of Hamilton Specification 13 15 00, Spray Pads
Standard City of Hamilton SP232, Spray Pads

2.0 GENERAL DESIGN STANDARDS

1. Definition

Spray Pad: an indoor or outdoor installation that includes sprayed, jetted or other water sources contacting bathers and not incorporating standing or captured water as part of the bather activity area (O. Reg. 141/18).

2. General Spray Pad Styles and Sizes

The City of Hamilton has approximately 67 outdoor spray pad facilities in the City of Hamilton (as at year end, 2018). See Section 10.0 for a current listing.

Spray pads are installed in parks classified as city wide, community and neighbourhood. The size of the spray pad and number of play components are proportionate to the park class with a city wide facility being larger than a Community Park facility that is larger than a Neighbourhood Park facility. Spray pads are no longer installed in Parkettes.

The City's spray pads can be categorized by types being:

- Type A – Stock Vertical Spray Features and Ground Jets
The most prevalent style featuring manufactured vertical spray posts/water play components and ground jets.

Type B – Spray Jets Only – no vertical features
 The style featuring only manufactured ground features/jets. May include programmed central donut spray ring with central geyser and a variety of ground jets.

Work with Landscape Architectural Services Project Manager to determine the appropriate spray pad style and size for the specific project.

3. Wind Patterns

Typical summer wind patterns in Hamilton are blowing from the westerly to south-southwesterly direction (W to SSW). Therefore, do not place geyser jets or vertical post with fine sprays on the north eastern side of the spray pad that can overspray and saturate adjacent landscapes. Arrange elements so that the typical spray patterns are contained within the spray pad.

4. Spray Pad Maintenance Program

The City’s spray pads receive pre/post and regular “in season” inspection and maintenance services. Pre/post season works include inspection, repair, activation/winterization which is performed by staff or Contractors as required. “In season” inspection and regular maintenance activities (such as ground litter, debris, garbage collection, graffiti removal and system monitoring) are performed in accordance with the operating season noted below:

Location	Season of Operation
Dundas Driving Park	Week of June 12 th – Week of September 4 th
Gage Park	Week of June 12 th – Week of September 4 th
Pier 4 Park	Week of June 12 th – Week of September 4 th
Village Green Park	Week of June 12 th – Week of September 4 th
Waterdown Memorial Park	Week of June 12 th – Week of September 4 th
Winona Park	Week of June 12 th – Week of September 4 th
All other locations	Week of June 19 th – Week of September 4 th

All water systems are controlled by a timer set for standard hours of operation (10:00am to 8:00pm); most systems are also equipped with activation sensors limiting operation to real time demand thus enhancing water conservation.

3.0 SPECIFIC DESIGN STANDARDS

1. Surface

1. The spray pad surface shall be non-slip concrete and constructed as follows:
 - a) **150mm 32MPa concrete over 150mm granular ‘A’ base compacted to 100% S.P.D. (Standard Proctor Density).**
 - b) Fibre-reinforced concrete is acceptable.
 - c) Finish shall be swirl or broom finish.
 - d) Control joints shall be saw cut and not tooled to maintain a smoother surface.

- e) All sawcut joints shall be filled with clear silicone sealant to prevent catching debris and glass. Finish sealant level with the concrete surface.
2. There shall be no standing water. All water must be sheet drained to a catch basin that:
 - a) Is located at one end of the pad (or use a jet drain in the centre with a trench drain around the edges). This is to avoid kids plugging the drain to create a wading pool.
 - b) Delivers the water to a sodium sulphite tablet system for dechlorination prior to discharging water into the storm sewer system (Note: dechlorination is not required if draining to a combined sewer system). For additional information on sodium sulphite tablet dechlorination systems, please see Section 3.1 of *City of Hamilton Spray Pad Servicing Analysis: Dechlorination Alternatives and Preferred Solutions*, (GHD Limited, March 16, 2018).
 - c) Connects to the City of Hamilton storm sewer system or combined sewer system (no requirement to separate).
2. Controls and Water Supply
 1. Spray pad shall be a fully automated system.
 2. Water supply to the spray pad shall be from the Municipal water service. Water pressure at the street must be checked, as there are variations in the City. Pressure districts can vary from a low of 45 psi with gravity pressure from a reservoir to 95 psi from the pumping station. Pressure surges may occur on a pumped system. The spray pad shall be designed to work with the available residual pressure. A pressure regulating valve is also required. See Section 7.0 for more information.
 3. Spray pad controls shall be housed in a vandal resistant, lockable park building or above ground control vault. There must be adequate space around, below, and beside the shut-off valves and connections for winterization. There must be room in the vault to attach hoses.
 4. Controller shall be programmed with an automated sequence of water feature control steps that is initiated by touching of the activator. Each sequence shall include a minimum of 5 minutes of customizable feature control. Each sequence may involve multiple water features being activated at one time. Initial programming shall be done by manufacturer with the City having control of changes in the field.
 5. **The controller shall be “user-owned”, meaning that the City can re-program the sequences, turn on and off components in the sequence without calling the manufacturer; this saves the City money.**
 6. The activator button shall be weather resistant, vandal resistant, makes a **“beep” when activated, have an LED light, and recessed under a steel plate.** This is for durability, accessibility (sound and light), and easy replacement (these are the same buttons as used for cross-walks). Colour shall be selected **from manufacturer’s choices of black, green and yellow.** Approved products

for the push button activator **can be found in the City of Hamilton's** Construction and Material Specification Manual, latest version.

7. Each feature in the pad must have an activation switch on the electrical panel, and therefore can be turned on and off at the panel without having to activate the switch at the spray pad. There also needs to be a switch that triggers the activator at the spray pad, so that the sequence can be turned on from the panel. This allows the pad to be serviced by one staff member.
3. Shape and Play
 1. The concrete pad shall be separated into zones designated Spray Zone and Overspray Zone:
 - a) Spray zone shall be the area of the spray zone of each component.
 - b) Overspray Zone shall be 2.0m (minimum) larger than the spray zone of each component, or as required for the individual jet based on available water pressure.
 2. The water play design of the spray pad must accommodate both junior play and senior play areas. Junior refers to children under 5 years old, and senior refers to children over 5 years old.
4. Site Furnishings and Landscape
 1. Spray pad must provide a seating area with a minimum of two benches for parental supervision, as well as one garbage receptacle.
 2. Perimeter landscaping shall be gently integrated into adjacent park grades. Ensure that trees are set back from the spray pad to avoid leaf-drop plugging the drains.
 3. All disturbed areas shall receive 150mm minimum top soil and sod installation.
5. Maintenance Manuals
 1. The installer shall provide the Project Manager with all instructional and operational materials in a PDF electronic file format and with one (1) complete hard copy (white cover with plastic cover) assembled in substantial manuals and permanent, three-ringed or three-post binders.
 2. For additional manual requirements, please see the most recent version of specification Section *13 15 00 Spray Pads*.

4.0 SPATIAL REQUIREMENTS

1. Each spray pad will require a concrete base to contain the spraying water within the automatic system. Therefore, minimal spatial requirements will be dependent on the internal components used.

2. Spray pad locations shall be defined as two separate zones. The concrete pad zone will contain the spray pad components. The outer perimeter zone will contain the adjacent landscape and select site furnishings.
3. Neighbourhood Park
Concrete Pad: 115m² -150m²
4. Community Park
Concrete Pad: 115m² -250m²
5. City Wide
Concrete Pad: site specific

5.0 SPRAY PAD PROGRAMMING

1. Spray pad development will be separated into sections herein called junior play targeted for users 18 months to 5 years of age, and senior play targeted for users 5 to 12 years of age.
2. Junior and senior programmes shall be built within the same spray pad as separate elements, differing in components based on classification of Neighbourhood Park or Community Park.
3. Neighbourhood Park

Junior spray pad elements shall include, as a minimum:
 - Ground elements (2)
 - Vertical elements (1)
Senior spray pad elements shall include, as a minimum:
 - Ground elements (2)
 - Vertical elements (1)
4. Community Park

Junior spray pad elements shall include, as a minimum:
 - Ground elements (3)
 - Vertical elements (1)
Senior spray pad elements shall include, as a minimum:
 - Ground elements (3)
 - Vertical elements (1)
5. Community Parks shall also include one special element targeted for both age groups (e.g. cat tails, aqua arch, water tunnels).
6. Designs need to consider accessibility. There must be adequate room for wheelchairs between features. Sound and texture should be part of the interactive experience. In general, 1-1.2m (3-4ft) between spray zones is adequate (a feature of several jets would count as one spray zone).
7. Designs that display water are encouraged.

6.0 SPRAY PAD COMPONENTS

1. Guidelines

The following shall be considered when selecting spray pad components:

1. Spray component colours shall be considerate of colour schemes within the park (i.e. play equipment). Colours used shall also be prevalent in the adjacent neighbourhood.
2. Arrange play equipment such that junior play features and senior play features are clustered separately. Where possible, position junior play features closer to seating areas to allow for adult supervision.
3. Provide adequate space between ground jets and vertical posts to allow for many children running around features without running into posts and other children. Provide min. 2.0m space between jets and posts for neighbourhood facilities and min. 2.5m space for community facilities.
4. Where vertical elements are specified, it is preferred to install components with easy removable deck level anchoring system and toe guards, such as **Vortex "Safeswap" anchoring system or Waterplay "DEX" anchoring system.**

2. Approved Components

The following components are approved by the City of Hamilton:

- Interactive components
- Columns and thematic posts
- Flowers and trees
- Tunnels
- Arches
- Ground sprays
- Activator posts
- Music jets
- Water cannons
- Graphics on the ground plane

3. Materials

1. All aquatic products shall be manufactured from 304/304L stainless steel. The anchoring system and associated fastening hardware shall be manufactured from 304/304L stainless steel.
2. Exposed and accessible hardware shall be tamper resistant, requiring a special tool for removal.
3. All vertical spray products shall be painted with a polyester smooth glossy heat-cured powder coat that is UV and chemical resistant and suitable for public places.

4. Controller

1. Spray pad system controller shall have at minimum: 10 valve manifold, 10 valve control outputs, 120 / 240 Vac, and 10/6 amps, or approved equal.
2. **The Controller shall be “user-owned” pre-programmed with 3 different sequences and have the capability to be “user-owned” revised by either a transportable memory cartridge or via the touch pad user interface on-site.** For a list of approved products, please see the most recent version of specification Section *13 15 00 Spray Pads*.
3. Each spray pad feature shall have its own valve so that pressure may be regulated for each individual component. The sharing of a valve between multiple spray pad features (whether in-ground or above-ground) is not permitted.

5. Distribution Manifold

The distribution manifold shall be supplied and installed within the locked command centre.

6. Command Centres

Command centres are best placed inside a locked building. Where a building is not available, the City uses a pre-manufactured above ground vault. Note: due to confined space legislation, all command centres must have a fully opened hatch, and shall only allow a maintenance person to get half way below ground level; vaults that require a maintenance person to go completely below ground are no longer permitted.



Above Ground Command Centre

Place on site to allow maintenance operator a clear view of the spray pad when setting the control panel for the spray jets. Add louvers to vent hot air. Add a GFI duplex receptacle inside the cabinet for operation of maintenance power tools, work light, laptop etc.



Above Ground Command Centre Signage.



Example of graphic wrapper design for command centre cabinets. (Courtesy, Pier 8 Group)



Below Ground Command Centre



7.0 SERVICING

1. General

1. Confirm location of all services with Project Manager.

2. Water Service

1. Size of water service is based on water pressure at the road, length of run to the spray pad, and the number/type of components in the spray pad.
 - a) Typical service between the road and the command centre is 50mm type K copper, however, pipe size will depend on hydraulic design.
 - b) In low pressure districts or where more flow is required, larger water service may be 100mm dia. PVC water pipe.
2. Provide water meter chamber in accordance with WM-209.02 (16-50mm dia. Service) or WM-234.02 (100-250mm dia. service), complete with 150mm dia. storm drain and connect to municipal storm sewer in accordance with the

City's standard sewer (SEW) drawings (WM and SEW drawings can be found in the C&MSM).

3. Water meters shall be positive displacement (PD) type. Meter sizing shall be determined by site and design - specific flow rates. Note that a smaller meter may be suitable for your application, given design flow rates can be achieved. **i.e. a 1.5" meter may be possible on a 2" water service.**
 4. Provide a pressure regulating valve to ensure a constant working pressure as stipulated by the spray equipment manufacturer and to prevent pressure surges.
 5. The City of Hamilton has variable water pressure and flow districts throughout the City. Obtain the records for static and residual water pressure and flows **in the specific park location from the Hamilton Water's Infrastructure and Source Water Protection Section** and design the spray pad to function within the available parameters.
3. Storm Service
1. Confirm storm sewer drain connection location and invert elevations early in the planning process to ensure the spray pad will have positive slopes to the sewer.
 2. Supply and install catch basin in accordance with OPSD 705.010 complete with frame and cover as per OPSD 401.010 Type B – open cover. Custom catch basin covers by the spray pad manufacturer are also permitted. Supply catch basin with goss trap and stopper in accordance with SEW-304.
 3. Water shall move from the catch basin to a sodium sulphite tablet system (for dechlorination) via a minimum 150mm dia. storm sewer pipe (note, if draining to a combined storm/sanitary sewer, dechlorination is not required). For additional information on sodium sulphite tablet dechlorination systems, please see Section 3.1 of *City of Hamilton Spray Pad Servicing Analysis: Dechlorination Alternatives and Preferred Solutions*, (GHD Limited, March 16, 2018).
 4. **Treated water can then be transported to the City's storm sewer with a minimum 150mm dia. storm sewer pipe.**
4. Electrical
1. Provide 120V electrical service to control centre. Electrical services usually require a hydro meter. See photo of a freestanding power centre with external hydro meter.
 2. Provide all wires inside a minimum 25mm PVC conduit buried 600mm below grade.
 3. Provide a GFI Plug in the electrical panel.



Tall Power Pedestal



Short, double-door pedestal

Please note, Hydro One requires that meters be elevated 1.75m from grade.

5. Distribution Piping

1. All water distribution pipes between the command centre and the spray pad features shall be at a minimum Municipal Grade 200, tested to ASTM D1598.
2. Under the concrete, plastic Grade 80 PVC piping is permitted. Can also use Crylon pipe, or pipe-in-pipe systems, although these latter two are more expensive.
3. Provide ball valves and unions in control vault. Each valve must be isolated with a shut-off above and below the valve.
4. All fittings must be union fittings (screwed together) for easier maintenance.
5. Install all piping to self-drain to a drain valve located in a drainage chamber and discharged to the sewer system.

8.0 PRODUCT SELECTION

1. For a list of approved manufacturers, please see the most recent version of specification Section *13 15 00 Spray Pads*.

9.0 DETAILS

1. Concrete control joints shall be saw-cuts and must enclose a feature, not run to a feature. Joints shall be a minimum of 300mm away from a spray feature. This allows the feature to be replaced by digging up only one section on concrete.

10.0 EXISTING SPRAY PAD INSTALLATIONS

1. **Type 'A' Spray Pad** - Stock Vertical Spray Features and Ground Jets



Henry and Beatrice Warden Park



North Central Park



Churchill Park



William McCulloch Park

2. **Type 'B' Spray Pad** – Spray Jets Only, No Vertical Features



Dundas Driving Park



Hampton Park

3. Sheet Drain to Catch Basin with Open Manhole Cover



Provide min. 1.0m concrete apron with 50mm rise on down slope side to contain and direct water to drain. Sheet drain to catch basin with slotted cover.

4. Custom Activators with Polara Control



William McCulloch Park



Dundas Driving Park



Hampton Park (Polara control mounted in concrete wall)

5. Saw Cut Pattern



Henry and Beatrice Warden Park



*Hampton Park
(Two-Tone Concrete and Saw Cut Pattern)*

6. City of Hamilton Spray Pad Locations and Types

Legend:

Type = Spray Pad Style Type

A = Vertical spray posts and ground jets

B = Ground jets only - no vertical features

Year = Year Installed or Redeveloped

Control Location

Bldg = Building Mechanical Room

AGCC = Above Ground Command Centre

BGCC = Below Ground Command Centre

	Park Name	Ward	Type	Year	Control
City Wide	Confederation Beach Park	5	A	2007	Bldg
	Dundas Driving Park	13	B	2007	BGCC
	Gage Park	3	A	1999	Bldg
	Heritage Green Sports Park	9	A	2018	AGCC
	Pier 4 Park	2	A	1993	BGCC
	William Connell Park	8	A	2018	AGCC
Community	Beasley Park	2	B	2018	AGCC
	Billy Sherring Park	7	A	2001	Bldg
	Buchanan Park	8	A	2015	AGCC
	Churchill Park	1	A	2006	AGCC
	Eastwood Park	2	A	1997	Bldg
	Fairgrounds Community Park	11	A	2013	AGCC
	Green Acres Park	9	A	2017	Bldg
	Hamilton Amateur Athletics Assoc. (HAAA)	1	A	1999	BGCC
	Huntington Park and Recreation Centre (AKA Jesse Patterson Park)	6	A	1993	BGCC
	Lawfield Park / Bill Friday Lawfield Arena	7	A	2008	AGCC
	Macassa Park	6	A	1998	Bldg
	Maplewood Park	9	A	2018	Bldg
	Mount Hope Park	11	A	2018	AGCC
	Sam Manson Park	5	A	1993	AGCC
	Victoria Park	1	A	1999	BGCC
	Village Green Park	12	A	2013	BGCC
	Waterdown Memorial Park	15	A	2006	Bldg
	William McCulloch Park	8	A	2011	Bldg
William Schwenger Park	8	A	2013	AGCC	
Winona Park	11	A	2012	AGCC	

	Park Name	Ward	Type	Year	Control
Neighbourhood	Alexander Park	1	A	2018	
	Allison Neighbourhood Park	7	A	2007	AGCC
	Andrew Warburton Memorial Park	4	A	1998	Bldg
	Belview Park	3	A	1990	BGCC
	Berrisfield Park	6	A	1998	Bldg
	Broughton Park East	6	A	1998	
	Carter Park	2	A	1990	Bldg
	Central Park	2	A	1998	Bldg
	Durand Park	2	A	2015	AGCC
	Eastmount Park	7	A	1999	
	Eleanor Park	7	A	1995	BGCC
	Elmar Park	7	A	1991	BGCC
	Fairfield Park	4	A	2007	AGCC
	Father Sean O'Sullivan Memorial Park	5	A	1992	BGCC
	Gilkson Park	8	A	1995	BGCC
	Glendale Park	5	A	1998	Bldg
	Gourley Park	8	A	1998	
	Hampton Park	6	B	2010	BGCC
	Henry and Beatrice Warden Park	5	A	2006	AGCC
	Highview Park	6	A	1991	BGCC
	Jack C. Beemer Park	3	A	1999	
	Jerome Neighbourhood Park	7	A	2013	BGCC
	Kennedy East Park	8	A	1993	
	Lisgar Park	6	A	1996	
	Montgomery Park	4	A	1993	
	Mount Lions Park	6	A	1993	
	Mountview Park	8	A	1993	
	Myrtle Park	3	A	2010	BGCC
	North Central Community Park	3	A	2008	AGCC
	Powell Park	3	A	1997	
	Riverdale East Park (AKA Oaklands Park)	5	A	2017	AGCC
	Roxborough Park	4	A	1999	
Rushdale Park	7	A	1994	BGCC	
Shawinigan Park	8	A	1997		
St. Christopher Park	4	A	1996		
Templemead Park	6	A	1992		
Trenholme Park	6	A	1992		
Veevers Park	5	A	2001	Bldg	
Woodward Park	4	A	2012		
Parkette	Lucy Day Park	3	A	1989	
	McLaren Park	2	A	2015	AGCC

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Appendix J – Park and Trail Standards

Revised: March 11, 2019

The purpose of these standards is to provide guidance in determining what elements are typically included in standard park construction projects.

Contents:

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1.0 C&MSM STANDARD SPECIFICATIONS

Unless specified otherwise in the specifications below, construction materials and methods shall comply with *The City of Hamilton Construction and Material Specifications Manual* (C&MSM), latest version.

<https://www.hamilton.ca/develop-property/policies-guidelines/construction-and-material-specifications>

Standard road, watermain, and sewer details can also be found in the C&MSM.

List of Standard Specifications:

Form 200	General Conditions
Form 300	General Construction Requirements
Form 400	Specification for the Installation of Watermains
Form 500	Specification for Sewer Pipe Materials and CCTV Inspection
Form 600	Specification for Granular Fill Materials
Form 700	Specification for Portland Cement Concrete
Form 800	Specification for Hot Mix Asphalt
Form 900	Specification for Standard Compaction Requirements
Form 1000	Amendments to Ontario Provincial Standards

2.0 APPROVED PRODUCTS

The City's Approved Products List can be found at <http://www.roadauthority.com/mpl/mpl.asp?MPIShortName=Hamilton+MPL>. Refer to the Approved Products List when specifying Park elements. Only products on this list may be sole-sourced.

3.0 TYPICAL ELEMENTS BY PARK CLASSIFICATION

All park development and redevelopment elements are to conform to City standard details and products. Certain exceptions exist when designing parkettes and streetscapes within Business Improvement Areas (BIAs) or within City Wide Parks. In these cases, more design flexibility is permitted where site furnishings, buildings, shade structures, signage, bollards etc. must conform to specific themes/designs of the surrounding area.

Determining What Elements to Include in a Design

1. Refer to the Table 1 below for typical park elements by park classification.
2. Refer to the Recreational Trails Master Plan (<https://www.hamilton.ca/city-planning/master-plans-class-eas/recreational-trails-master-plan>) for design standards by trail classification. See also 8.2-8.4 below).

Internal park pathways are typically 3.0m wide asphalt pathways (see 8.2 below).

3. Recreational facilities will be determined by the park's Recreational Needs Assessment (obtained from Recreational Planning). This report identifies local amenity deficiencies and provides recommendations for each park development/redevelopment project.
4. All elements should conform to applicable zoning by-laws and setbacks. Note that the best-practice setbacks are 15m for passive play (e.g. walkways) and 30m for active play (e.g. multi-courts, playgrounds and ice rinks). These setbacks should be observed from all property lines.
5. For typical playground programmes, please refer to **Appendix H – Playground Equipment Standards**.
6. For typical spray pad programmes, please refer to **Appendix I – Spray Pad Standards**.

Table 1: Typical Amenities by Park Classification

Element/Amenity	Parkette	Neighbourhood Park	Community Park	City Wide Park
Tree Planting	S	S	S	S
Decorative Planter/ Raised Planter	S			
Asphalt Walkway	S	S	S	S
Decorative Concrete Paving	O	SC	SC	SC
Park Sign	S	S	S	S
Chain Link Fencing		S	S	S
Ornamental Fencing	S	SC	SC	SC
Benches	S	S	S	S
Seating Walls	S			
Waste Receptacles	S	S	S	S
Bicycle Rack	S	O	S	S
Drinking Fountain	O	SC	S	S
Sun Shelter w/Light		S	S	S
Park Lighting	O	S	S	S
Play Equipment	O	S	S	S
Sports Fields		SC	S	S
Spray Pad		SC	S	S
Washroom Facilities		SC	S	S
Misc. Facilities (Band Shell, Pool, Wading Pool,)		SC	SC	SC
Misc. Amenities (Pump Track, Bowling Green, Rose Garden, Skate Park)		SC	SC	SC

S = Standard
 O = Optional
 SC = Special Condition

4.0 STANDARD DESIGN: PARK AMENITIES

4.1 Drinking Fountains



LAS Detail #: PK-360.02
Approved Products: See the <i>Parks</i> dropdown on the City's <i>Approved Product List</i> (http://www.roadauthority.com/mpl/mpl.asp?MPI ShortName=Hamilton+MPL).
Options: <ul style="list-style-type: none"> • Water bottle filler hose bib and dog bowl. • Colour, stainless is most durable.
Notes: <ul style="list-style-type: none"> • Concrete pad or footing mounted.

4.2 Multi-use Court



LAS Detail #: PK-401 (full), PK-402 (half)
Approved Products: <ul style="list-style-type: none"> • Henderson Recreation Equipment: Backboard #BP002 and Hoop with Chain Net #BP013; • Gametime (Park N Play Design) Backboard #854 and Hoop with Chain Net #423; or • Approved equals.
Options: Full court or half court.
Notes: <ul style="list-style-type: none"> • Ensure 30m setback from property lines. • Galvanized fence is standard, black vinyl when approved (9-gauge inner mesh diam). • Materials must conform to the C&MSM. • Orient north/south.

4.3 Street Hockey Court



LAS Detail #: See as example Honourable Bob Mackenzie Park (W4).
Approved Products: <ul style="list-style-type: none"> • Yanchor Original ground anchors (for grounding net) or approved equal. • Regulation-sized mountable net.
Options: Various sizes.
Notes: <ul style="list-style-type: none"> • Pedestrian warning signs and rules of use signs typically required. • 8 ft fence, pads on fence posts. • Consult with Risk Management, Parks Operations and Recreation when planning these installations. • Materials must conform to the C&MSM. • Orient north/south when possible.

4.4 Play Equipment



Approved Products: No standard products. For a list of approved manufacturers, see standard specification *Section 11 68 13 Play Equipment*.

Options: Colour, theme, components.

Notes:

- See also **Appendix H – Playground Equipment Standards**.
- Consult with Playground Maintenance during initial design stages.
- Ensure swing sets are included.
- Engineered wood fibre standard surfacing. Poured-in-place rubber in downtown areas. Combination in areas where unimpeded accessibility is required.

4.5 Natural Playgrounds



Approved Products: No standard products.

Options: Colour, theme, components.

Notes:

- See also **Appendix H – Playground Equipment Standards**.
- Consult with Playground Maintenance when planning these installations.
- Ensure swing sets are included in playground design.
- Guide ropes, grab bars and hand holds are required on 'Log Jams' and main access to slides and climbers.
- Uneven height 'Log Pile' - type stairs are acceptable, but must have at least one clear, consistent riser height access path.

4.6 Spray Pads



Approved Products:

- Spray pad activator button: See the *Parks* dropdown on the *City's Approved Product List* (<http://www.roadauthority.com/mpl/mpl.asp?MPIShortName=Hamilton+MPL>).
- No standard products for elements. For a list of approved manufacturers, see standard specification *Section 13 15 00 Spray Pads*.

Options:

- Colour, theme, components.
- Concrete pad colour and pattern.

Notes:

- See also **Appendix I – Spray Pad Standards**.
- Consult with Playground Maintenance during initial design stages.
- Materials must conform to the C&MSM.

4.7 Fitness Equipment



Approved Products: No standard products. For a list of approved manufacturers, see standard specification *Section 11 68 23 Fitness Equipment*.

Options: Colour, theme, components.

Notes:

- Equipment with moving parts are not recommended.
- Consult with COH Public Health and Playgrounds Maintenance during initial design stages.
- Possibility for pathway distance markers, 'Bench Fit' stations and drinking fountains in fitness parks.
- Engineered wood fibre standard surfacing.

4.8 Sports Fields



LAS Detail #: PK-0100 and PK-0200 Series details

Approved Products: No standardized products.

Options: Various classes, sizes, surface, fencing, and other options.

Notes:

- Normally constructed in Community and City Wide parks due to setbacks and size requirements.
- Consult with Sports Development (Recreation) and user groups to determine needs and field size requirements.
- Refer to current sports field sizing requirements issued by municipal, provincial/national organizations.
- Orient fields to design standards whenever possible.

4.9 Neighbourhood/Community Park Shade Structure



Approved Products: Poligon SQR 20, or approved equal.

Options: Post/roof colour.

Notes:

- Square 6m x 6m metal shade structure with hip roof.
- City to choose footing installation detail prior to tender.
- Shelters exempt from Site Plan Approval process but should respect zoning setbacks. Building permit is required.

4.10 Small Shade Structure/Pergola



Approved Products: No standard products.
Options: Size, Post/roof colour, ornamentation (budget and location driven).
Notes: <ul style="list-style-type: none"> • Used adjacent to spray pads, playgrounds in parkettes or where space is limited. • Structures over 10 sq.m. subject to building permit.

4.11 Custom Shade Structure



Approved Products: No standard products.
Options: Design, size, Post/roof colour, ornamentation (budget and location driven).
Notes: <ul style="list-style-type: none"> • Used adjacent to spray pads, playgrounds in parkettes or where space is limited. • Structures over 10 sq.m. subject to building permit.

5.0 STANDARD DESIGN: SITE FURNISHINGS

5.1 Perimeter Fence



LAS Detail #: PK-1010.06 (1500mm chain link), PK-1010.03 (1500mm vinyl-coated)
Approved Products: No standard products.
Options: 1.5m or 1.8m high, Galvanized (Std.) or black vinyl. Wood not typically used.
Notes: <ul style="list-style-type: none"> • Install 0.15m inside City property • Height and finish dependent on PM, Parks or stakeholder preference and site context. • See multi-use court, above, for fencing information around multi-use courts.

5.2 Steel Rail Fence



LAS Detail #: PK-1060.04
Approved Products: No standard products.
Notes: <ul style="list-style-type: none"> • Used on frontages where 30m active play setback is not achievable. • Used to limit access to hazard areas i.e. bioswale channels, top of slopes/embankments. • Used to delineate passive/active areas.

5.3 Knock-down Bollard



LAS Detail #: PK-1070.03
Approved Products: No standard products.
Options: Galvanized (Std.) or powder coating.
Notes: <ul style="list-style-type: none"> • Used to limit access at park walkway or trail entrances. • Contact Parks Operations once installed for City lock installation.

5.4 Ornamental Bollard



Approved Products: No standard products.
Options: Fixed, removable, combination, various ornamentation options.
Notes: <ul style="list-style-type: none"> • Ensure placement allows clear pedestrian passage between (1.8m). • Must be durable and able to withstand commercial levels of use. • Ensure parks operations has 3m wide equipment access where required (install removable bollard where access is needed).

5.5 P-Gate (Rural)



LAS Detail #: PK-1055.06
Approved Products: No standard products.
Options: Various lengths.
Notes: <ul style="list-style-type: none"> • Galvanized, used to provide park maintenance access to parks and trails • Contact Parks Operations to determine P-Gate requirements.

5.6 P-Gate (Multi-use Trail)



LAS Detail #: PK-1010.16
Approved Products: No standard products.
Notes: <ul style="list-style-type: none"> Used on multi-use trails to limit vehicular access while allowing pedestrians and bikes to pass between gap in gates. Stagger pair of gates by 2.0m down length of path.

5.7 Standard Bench



LAS Detail #: PK-1625.01
Approved Products: Parks Operations supplied.
Notes: <ul style="list-style-type: none"> Placed on concrete pad only (sinks if placed on asphalt). Most commonly used bench in City Parks. Vandal resistant, cost effective and easily replaced. Cost: \$550 per bench, payable to Parks Operations through journal transfer.

5.8 Ornamental Bench



LAS Detail #: PK-1630.02 (waterfront-specific)
Approved Products: <ul style="list-style-type: none"> King by StressCrete Group, KDB20 (metal with wood slats) Maglin, MLB310-M (all metal) Maglin, HBSP (for waterfront projects) Landscape Forms bench??? Other as specified by the City Approved equal.
Options: Fixed, removable, combination, various ornamentation options.
Notes: <ul style="list-style-type: none"> Used in specific neighbourhoods, parkettes, plazas, community or city-wide parks, waterfront and along certain trails. Refer to specific neighbourhood design guidelines or park classifications. Cost: min \$1,500.

5.9 Players' Bench



LAS Detail #: PK-0225.01
Approved Products: No standard products.
Options: Custom made. Prefabricated approved equals often accepted.
Notes: <ul style="list-style-type: none"> Placed on sidelines of playing courts or sports fields min 2.0m off playing surface.

5.10 Armour Stone Seating



Approved Products: No standard products.
Options: Various colours, patterns (e.g. flamed), cuts (guillotine, natural).
Notes: <ul style="list-style-type: none"> Limestone seating boulders with seat height 400-450mm height, 1.2-1.8m long. Guillotine all exposed faces, ensure stones are consistent heights (20mm tolerance). Edges shall be saw-cut where stones are butt together. Max 8mm gaps between stones. Joint larger than 3mm shall be filled with non-shrink grout.

5.11 Picnic Tables



LAS Detail #: PK-1631.01
Approved Products: Parks Operations supplied.
Notes: <ul style="list-style-type: none"> Placed under sun shelters (bolted to concrete), or under trees. Cost: \$475 each, payable to Parks Operations through journal transfer.

5.12 Standard Drum Waste Receptacle



Approved Products: Parks Operations supplied.
Notes: <ul style="list-style-type: none"> Placed beside benches, along pathways, close to playgrounds. Cost: \$50 each, payable to Parks Operations through journal transfer.

5.13 Ornamental Waste Receptacle



LAS Detail #: PK-1641.01 (Waterfront, silver), PK-1642.03 (BIA, black, short)
Approved Products: <ul style="list-style-type: none"> • Maglin #MLWR200-32 (Waterfront); • Maglin #MLWR200-20 (BIA); or • Approved equal.
Options: Silver or black powder coat.
Notes: <ul style="list-style-type: none"> • Installed in City-Wide Parks, waterfront, or BIA projects. • Cost: min \$1,000. To be installed on concrete pad and bolted down. • Ensure operational feasibility (contact Parks Operations).

5.14 Bicycle Rack



Approved Products: No standard products.
Options: Various products and options available.
Notes: <ul style="list-style-type: none"> • Cast iron or steel. Cast aluminum not permitted due to durability issues. • Ensure placement observes spatial requirements of 600mm x 1800mm per bicycle. • To be installed on concrete pad and bolted down or embedded.

6.0 STANDARD DESIGN: LIGHTING

6.1 LED Walkway Light



LAS Detail #: PK-1433.03, PK-1433.04
Approved Products: See the <i>Parks</i> dropdown on the City's <i>Approved Product List</i> (http://www.roadauthority.com/mpl/mpl.asp?MPI ShortName=Hamilton+MPL).
Options: <ul style="list-style-type: none"> • 4.6m steel, round pole (+ footing depth); or • 6.1m concrete, octagonal pole (direct bury).
Notes: <ul style="list-style-type: none"> • Single light in Neighbourhood and Community Level parks. • Walkways and paths may be lit if pathways are part of a commuter route/trail network.

6.2 LED Sun Shelter Light



Approved Products: See the *Parks* dropdown on the City's *Approved Product List* (<http://www.roadauthority.com/mpl/mpl.asp?MPI ShortName=Hamilton+MPL>).

Options: Black or white.

Notes:

- Must be vandal-resistant.
- All sun shelters require lighting unless otherwise directed.
- Ensure photocell control is mounted to allow protection from vandalism and ensure functionality.
- Shelter may require custom mounting plate.

6.3 LED Flood Light (7.6m, 25 ft)



LAS Detail #: PK-1431.01

Approved Products: See the *Parks* dropdown on the City's *Approved Product List* (<http://www.roadauthority.com/mpl/mpl.asp?MPI ShortName=Hamilton+MPL>).

Notes:

- Used for any application where flood lighting may be required.

7.0 STANDARD DESIGN: SIGNAGE

7.1 Standard Park Name Signs



LAS Detail #: PK-400

Approved Products: No standard products. Custom manufactured.

Options:

- Parkette (Interior), Neighbourhood, Community.

Notes:

- City-wide parks tend to have more elaborate signs designed on a park-by-park basis (i.e. do not follow PK-400).
- Typically one (1) sign per park, installed along Municipal address frontage, perpendicular to street.
- Sign footings and green frame supplied and installed by contractor.
- Top sign panels ordered and paid for by LAS, picked up and installed by Contractor. Stainless or galvanized fasteners required.

7.2 Trail Wayfinding Signage



Approved Products: No standard products.
Options: <ul style="list-style-type: none"> • Colour, design, graphics, placement.
Notes: <ul style="list-style-type: none"> • Ensure compliance with AODA. • Custom-designed for each trail system.

7.3 Interpretive Signage



Approved Products: No standard products.
Options: <ul style="list-style-type: none"> • Colour, design, graphics, placement.
Notes: <ul style="list-style-type: none"> • Ensure compliance with AODA. • Single pedestal or double pedestal. • Designs and placement result of consultation with various City divisions and community groups. • Suppliers: Fontasy Sign and Display, Folia (SH Immersive Environments).

8.0 STANDARD DESIGN: HARDSCAPE AND TRAILS

8.1 Urban Plazas



Approved Products: No standard products.
Options: Various materials, colours, patterns.
Notes: <ul style="list-style-type: none"> • Generally designed and constructed with high levels of unique detail. • Consult BIA, planning and Economic Development as well as other key stakeholders. • Options: Unit pavers, seat walls, natural concrete paving with creative finishing and saw cuts to create interest (cost effective), patterned concrete in special circumstances. • Integral concrete colour (no surface tinting). • Design according to anticipated vehicle loading. • Materials must conform to the C&MSM.

8.2 Asphalt Walkway/Trail



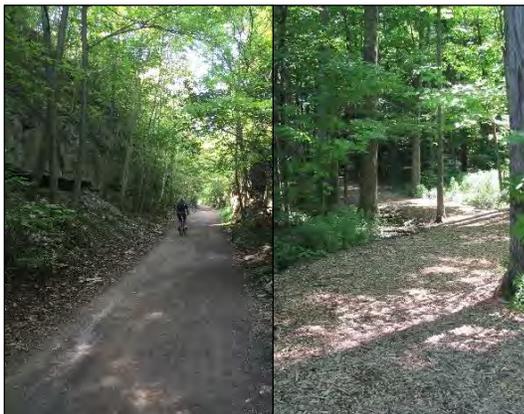
LAS Detail #: PK-700.10
Approved Products: Superpave 9.5, PG 58-28.
Notes: <ul style="list-style-type: none"> • Typically 3.0m wide. Some multi-use trails are 4-6m wide. • Ensure conformance to AODA (slopes <5%). • Ensure radii allow for turning of stake trucks (min 4.0m). • Materials must conform to the C&MSM. • Reference: Recreational Trails Master Plan (https://www.hamilton.ca/city-planning/master-plans-class-eas/recreational-trails-master-plan).

8.3 Boardwalks



Approved Products: No standard products.
Options: <ul style="list-style-type: none"> • Wood/composite, railings.
Notes: <ul style="list-style-type: none"> • Structural design often influenced by geotechnical recommendations. • Used in low-lying areas, over rocky terrain or adjacent to drainage channels. • Ensure conformance to AODA (slopes <5%, 50mm edge protection). • Reference: Recreational Trails Master Plan (https://www.hamilton.ca/city-planning/master-plans-class-eas/recreational-trails-master-plan).

8.4 Other Trail Types



Approved Products: No standard products.
Options: Tar and chip, limestone screenings, wood chips, natural ground.
Notes: <ul style="list-style-type: none"> • Ensure conformance to AODA (slopes <5%). • Ensure radii allow stake truck turning (min 4.0m). • Reference: Recreational Trails Master Plan (https://www.hamilton.ca/city-planning/master-plans-class-eas/recreational-trails-master-plan).

9.0 STANDARD DESIGN: SOFTSCAPE

9.1 Berms



Approved Products: No standard products.
Options: Seeded, sodded, naturalized or planted with trees.
Notes: <ul style="list-style-type: none"> Slope max 4:1 (25%), although 5:1 (20%) is ideal for mowing of slopes (requested by Parks Operations). Ensure CPTED visibility principles are adhered to (See Appendix G – Crime Prevention through Environmental Design (CPTED) Principles for Park and Open Space Design for more information).

9.2 Low Impact Development (Including Bioswales)



LAS Detail #: PK-0481.01 (bioswale)
Approved Products: No standard products.
Options: Permeable pavement, grass paving, rain gardens, bioswales, storm chambers, soak-away pits.
Notes: <ul style="list-style-type: none"> Ensure Parks Operations is supportive prior to design.

9.3 Deciduous Tree



LAS Detail #: PK-1105.04
Approved Products: See the <i>Parks</i> dropdown on the City's <i>Approved Product List</i> (http://www.roadauthority.com/mpl/mpl.asp?MPIShortName=Hamilton+MPL) for approved ties and guards.
Options: See Appendix K – Approved Tree Species for Parks and Open Spaces for lists of approved tree species.
Notes: <ul style="list-style-type: none"> No monoculture plantings permitted. Consult with forestry to determine min/max number of species. Consult with Forestry to determine whether trees are to be staked. 70-80mm caliper is preferred, 50mm acceptable in certain circumstances.

9.4 Coniferous Tree



LAS Detail #: PK-1110.02
Approved Products: See the <i>Parks</i> dropdown on the City's <i>Approved Product List</i> (http://www.roadauthority.com/mpl/mpl.asp?MPIShortName=Hamilton+MPL) for approved guards.
Options: See Appendix K – Approved Tree Species for Parks and Open Spaces for lists of approved tree species.
Notes: <ul style="list-style-type: none"> • 1.8-2.4m height is recommended, 1.5m acceptable in certain circumstances.

9.5 Shrubs



LAS Detail #: PK-1140.01 (bare root shrub), PK-1141.01 (potted shrub).
Approved Products: No standard products.
Options: Various species.
Notes: <ul style="list-style-type: none"> • Shrubs are not normally permitted in parks. Consult with Parks Operations to determine acceptance • Permitted in buffer plantings and within stormwater management /LID situations

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Appendix K – Approved Tree Species for Parks and Open Spaces

Revised: April 10, 2019

1. REASONING FOR SELECTION OF TREE SPECIES

This list has been compiled to aid in species selection within different planting areas throughout the City of Hamilton. This list will serve to incorporate a greater diversification within the Urban Forest and to maintain a healthier forest by meeting cultural requirements. Selecting the right species for the right location will increase plant vigour and reduce the incidents and severity of pest and disease problems.

Past practice has limited species diversity, adaptable species and their cultivars. This approach has the potential to have a devastating affect through the possible outbreaks of pest and/or diseases. Severe problems (Chestnut Blight, Dutch Elm Disease, Emerald Ash Borer etc.) can devastate entire populations of trees. Through greater diversification, the impact of such problems can be reduced.

Diversification should be maintained by limiting genus (e.g. *Quercus*) selection to no greater than a total of 20% per project. If this is inappropriate for a specific project application, approval to deviate from this percentage must be provided by Landscape Architectural Services and Forestry Section.

A mix of evergreen and deciduous planting is permitted, but design must consider Crime Prevention through Environmental Design (CPTED) best practices and an emphasis should be placed on deciduous plantings.

This list does not include cultivars. The selection of cultivars can be utilized where external requirements limit the planting of species from this list due to height restrictions, desired shapes, size restrictions etc. Most cultivars have the same requirements as the species, but this is not always true and because of this care should be taken in their selection.

All species within this list are known to be hardy in the City of Hamilton, Zone 6b (5 USDA) and most species are native. The planting of native species is strongly encouraged, and the planting of non-native species is not permitted in naturalized areas.

Contact the Landscape Architectural Services Section to confirm if any additions or deletions from the approved list have been made. Other species may be considered for approval if it can be shown the proposed species are appropriate for the proposed planting locations and

to permit trial plantings of new species or cultivars. Final approval of species through the Forestry and Horticulture Section is required before any planting occurs on City of Hamilton property.

Note: The City’s Forestry Section is currently in a temporary suspension of Maple street tree planting to build diversity in our tree canopy.

2. STREET TREES

Please refer to the City of Hamilton’s *Design and Preservation Standards for Working within the Public Right of Way* (latest version) for right-of-way design guidelines and approved street tree species.

3. PARK TREES

Botanical Name	Common Name	Cultural Requirements	Comments
<i>Aesculus x carnea</i>	Red Horsechestnut	Prefers moist rich soils	Non-native. Should be utilized more where room permits, selected cultivars superior to species.
<i>Aesculus flava</i>	Yellow Buckeye/ Chestnut	Adaptable to soil types but prefers acidic. Tolerant of wet and dry conditions.	Non-native. Large yellow flowering ‘Buckeye’ as with all chestnuts can be messy.
<i>Aesculus glabra</i>	Ohio Buckeye	Full sun, partial shade. Prefers moist, well-drained rich soils.	Native. Dense foliage, difficult to grow grass under. Tends to be messy. Plant only where space permits.
<i>Amelanchier canadensis</i>	Serviceberry	Sun or shade. Very adaptable.	Native. Pioneer tree, recommended for areas of limited space only.
<i>Betula alleghaniensis</i>	Yellow Birch	Sun or part shade	Native. Exfoliating barks adds interest. Yellow fall colour.
<i>Betula lenta</i>	Cherry Birch	Adaptable, prefers moist, rich slightly acidic soils.	Native, catalogued on Ontario’s Species at Risk list (2014).
<i>Betula papyrifera</i>	Paper Birch	Full sun, adapted to a wide variety of soils.	Native. Attractive bark and yellow fall colour. Struggles in polluted, difficult areas.
<i>Carpinus caroliniana</i>	Blue Beech/ Musclewood	Adaptable. Prefers moist, rich slightly acidic soils.	Native. Small tree with muscled bark.
<i>Celtis occidentalis</i>	Hackberry	Full sun. Prefers moist, rich soils but can grow in heavy, sandy or rocky soils.	Native, performs well under adverse conditions. Withstand cityscapes.
<i>Cercidiphyllum japonicum</i>	Katsuratree	Full sun. Prefers moist, rich and well-drained soils. Prefers acid soils.	Non-native. Attractive tree for parks.

Botanical Name	Common Name	Cultural Requirements	Comments
<i>Cercis canadensis</i>	Redbud	Full sun, partial shade. Adaptable, prefers moist rich soils.	Native, recommended for areas of limited or sheltered space only. Specimen.
<i>Cladrastis lutea</i>	Yellowwood	Full sun, prefers moist rich soils. Tolerates variety of pH levels.	Non-native. Specimen with showy yellow flowers and yellow fall colour. Often poor crotch formation.
<i>Cornus alternifolia</i>	Pagoda Dogwood	Full sun, partial shade. Requires moist, well-drained, acid soils.	Native, small-tree. Interesting, broad, horizontal spreading branches.
<i>Cornus florida</i>	Flowering Dogwood	Full sun, partial shade. Prefers moist rich acid soils.	Native, catalogued on Ontario's Species at Risk list (2014).
<i>Cornus kousa</i>	Kousa Dogwood	Full sun, partial shade. Prefers moist rich acid soils.	Non-native. Flowers after leaf-out, not as showy as <i>C. Florida</i> .
<i>Corylus columna</i>	Turkish Hazel	Full sun, partial shade. Prefers well-drained, loamy soil, pH adaptable.	Non-native. Good formal character for use in city conditions.
<i>Crataegus crus-galli</i> var. <i>inermis</i>	Thornless Cockspur Hawthorn	Full sun, pH adaptable. Tolerant of most soils but should be well-drained.	Non-native. Vigorous tree, thornless variety must be used.
<i>Fagus grandifolia</i>	American Beech	Full sun, partial shade. Prefers moist rich acid soils.	Native, will not stand compaction, prone to vandalism.
<i>Fagus sylvatica</i>	European Beech	Full sun, partial shade. Prefers moist rich acid soils.	Non-native. More tolerant of native, but generally concerns are the same.
<i>Gymnocladus dioicus</i>	Kentucky Coffeetree	Full sun. Adaptable, prefers moist rich soils.	Native. Picturesque, bare-limbed. Pods and leaflets can be messy. Catalogued on Ontario's Species at Risk list (2014).
<i>Halesia carolina</i>	Carolina Silverbell	Full sun, partial shade. Prefers moist rich acid soils.	Non-native. Small tree.
<i>Juglans cinerea</i>	Butternut	Full sun. Adaptable, prefers moist rich limestone soils.	Native, catalogued on Ontario's Species at Risk list (2014). *Consult with Forestry Section if plantings are being considered
<i>Juniperus virginiana</i>	Eastern Red Cedar	Full sun. Tolerant of adverse conditions, poor gravelly soils and high pH soils.	Native. Useful for windbreaks, as specimen and in groups.

Botanical Name	Common Name	Cultural Requirements	Comments
Liquidamber styraciflua	Sweetgum	Full sun, partial shade. Prefers moist rich acid soils.	Non-native. Not pollution tolerant and may be prone to excessive damage if in exposed areas where temperature frequently reach -25 degrees Celsius or colder.
Liriodendron tulipifera	Tuliptree	Full sun, prefers moist well-drained loam.	Native. Needs a large, open space. Can be weak wooded. Specimen.
Maackia amurensis	Amur Maackia	Full sun, adaptable to soil pH.	Non-native. Small, round-headed tree. Late summer flowers. Branches upright-arching-spreading.
Magnolia acuminata	Cucumbertree Magnolia	Full sun, partial shade. Prefers moist, rich slightly acid soils. Does not do well with drought or extreme wetness.	Native, catalogued on Ontario's Species at Risk list (2014). Specimen, character tree. Needs large space due to massive, spreading branches in maturity.
Metasequoia glyptostroboides	Dawn Redwood	Full sun, prefers moist, deep well-drained soils.	Ornamental well suited for open spaces in parks. Best suited in sheltered areas.
Morus rubra	Red Mulberry	Full sun to light shade. Prefers rich, moist soil.	Native, catalogued on Ontario's Species at Risk list (2014). Difficult to find in nurseries.
Nyssa sylvatica	Black Gum	Full sun, partial shade. Prefers moist, rich, well-drained slightly acid soils.	Native. Excellent specimen tree. One of the most consistent native trees for red fall colour.
Ostrya virginiana	Ironwood	Full sun or partial shade. Often found in dry, gravelly or rocky soil.	Native. Handsome small to medium sized tree well suited for city conditions.
Pinus banksiana	Jack Pine	Full sun, grows in dry, sandy and acid soils too poor for most plants.	Native. Adaptable for windbreaks and mass plantings, especially in sandy soils.
Pinus strobus	Eastern White Pine	Full sun. Prefers sandy, moist loam.	Native, tallest tree in eastern Canada. Excellent windbreak or specimen.
Platanus occidentalis	American Sycamore	Full sun. Prefers moist rich soils.	Native. Prone to anthracnose. Tends to be messy and needs large area. Striking specimen in winter.
Platanus x acerifolia	London Planetree	Full sun. Adaptable, withstands pollutants.	Non-native. Prone to anthracnose. Plant where space allows.

Botanical Name	Common Name	Cultural Requirements	Comments
<i>Pseudotsuga menziesii</i>	Douglas Fir	Full sun. Prefers well-drained, moist soils. Will not tolerate dry, poor soils.	Native. Ornamental under cultivation. Good as specimen or in groups. Not suited for windbreaks; does not withstand high-winds.
<i>Ptelea trifoliata</i>	Hoptree	Full sun, partial shade. Adaptable.	Native, catalogued on Ontario's Species at Risk list (2014). Small tree, low-branching.
<i>Quercus alba</i>	White Oak	Full sun. Prefers moist rich acid soils.	Native. Slow growing large tree somewhat difficult to transplant. Plant only where space permits.
<i>Quercus macrocarpa</i>	Bur Oak	Full sun. Prefers sandy limestone soils. Tolerant of city conditions.	Native. Large tree, plant only where space permits.
<i>Quercus muehlenbergii</i>	Chinquapin Oak	Full sun. Prefers moist rich limestone sandy soils.	Native, medium sized tree. Plant only where space permits. Can tolerate high pH soils.
<i>Quercus palustris</i>	Pin Oak	Full sun. Prefers moist rich acid soils. Tolerant of wet soils. Avoid where pH is too high.	Native. Plant only where space permits. Iron chlorosis can be an issue for this species.
<i>Quercus prinus</i>	Chestnut Oak	Full sun. Prefers moist rich acid soils.	Native. May be difficult to source. Plant only where space permits. Slow-growing.
<i>Quercus robur</i>	English Oak	Full sun. Prefers moist rich acid soils. Pollution tolerant.	Non-native. Use for formalized setting only where space permits.
<i>Quercus rubra</i>	Red Oak	Full sun. Prefers moist rich acid soils. Pollution tolerant.	Native. Medium sized tree, plant only where space permits. Will develop chlorosis in high pH soils.
<i>Quercus shumardii</i>	Shumard Oak	Full sun. Prefers moist rich acid soils. Tolerant of wet soils.	Native, catalogued on Ontario's Species at Risk list (2014). Similar properties to Pin Oak.
<i>Quercus velutina</i>	Black Oak	Full sun. Prefers moist rich acid soils.	Native. Plant only where space permits. Similar properties to Red Oak.
<i>Tilia americana</i>	American Basswood	Full sun, partial shade. Prefers deep, moist fertile soils. pH adaptable.	Native. Plant only where space permits. Struggles in high pollution areas.

Botanical Name	Common Name	Cultural Requirements	Comments
<i>Tsuga canadensis</i>	Eastern Hemlock	Partial shade. Avoid windy sites and pollutant conditions. Moist well-drained soils, rocky sites and sandy soils.	Native. Good for groupings and as an accent plant. Does not tolerate city conditions.
<i>Ulmus davidiana</i> var. <i>japonica</i> Accolade syn. 'Morton'	Accolade Elm	Full sun. Excellent resistance to Dutch Elm. Well-drained soils, medium moisture.	Non-native. Tolerates city conditions. Good fall colour.
<i>Ulmus</i> spp.	Elm	Must be Dutch Elm Resistant.	*Consult with Forestry Section if plantings are being considered.

4. NATURALIZATION TREES

Please note: large shrubs are not included in this list and can be considered in naturalization plantings where appropriate.

Botanical Name	Common Name	Cultural Requirements	Comments
<i>Abies balsamea</i>	Balsam Fir	Sun, partial shade. Prefers well-drained, acid, moist soils. Does not tolerate pollution.	Native. Shallow rooted, often found in pure stands or with Black Spruce.
<i>Aesculus glabra</i>	Ohio Buckeye	Full sun, partial shade. Prefers moist, well-drained rich soils.	Native; conservation status of S1-extremely rare. Found native in bottomlands along banks of creeks and rivers.
<i>Amelanchier canadensis</i>	Serviceberry	Sun or shade. Very adaptable.	Native, pioneer tree. Occurs naturally in bogs and swamps. Spreads by suckering.
<i>Amelanchier laevis</i>	Allegheny Serviceberry	Sun or partial shade. Tolerates rocky soils.	Native. Fruits are black and sweet and are attractive to wildlife.
<i>Asimina triloba</i>	Pawpaw	Sun, partial shade or shade. Prefers moist rich, slightly acidic soils.	Native; conservation status of S3-provincially rare to uncommon. Fruits useful for wildlife. Common in hardwood forests as understory tree and river bottoms.
<i>Betula alleghaniensis</i>	Yellow Birch	Sun or part shade. Prefers moist, cool soils.	Native. Will not perform well in hot, dry areas.
<i>Betula papyrifera</i>	Paper Birch	Full sun, adapted to a wide variety of soils.	Native. Tolerates high pH soils better than River Birch.
<i>Carpinus caroliniana</i>	Blue Beech/ Musclewood	Adaptable. Prefers moist, rich slightly acidic soils., but will tolerate drier sites.	Native. Often found in woodland settings as understory tree. Will tolerate moist sites and periodic flooding.

Botanical Name	Common Name	Cultural Requirements	Comments
<i>Carya cordiformis</i>	Bitternut Hickory	Partial sun. Prefers moist rich soils.	Native. Fastest growing of the hickories. Seeds are bitter, and some wildlife ignore them.
<i>Carya glabra</i>	Pignut Hickory	Intolerant of shade. Prefers well drained to dry, rich soils.	Native (locally rare); conservation status of S3-provincially rare to uncommon. Found along hillsides and ridges. Seeds are bitter.
<i>Carya ovata</i>	Shagbark Hickory	Prefers rich, well drained loams but is adaptable to variety of soils.	Native. Seed is sweet and edible. Trees typically grow on lower slopes and alluvial soils, but also found on upland slopes and well-drained soils in lowlands and valleys.
<i>Celtis occidentalis</i>	Hackberry	Full sun. Prefers moist, rich soils but can grow in heavy, sandy or rocky soils.	Native (locally uncommon). Good for plains and prairies. Tolerates windy conditions.
<i>Cercis canadensis</i>	Redbud	Full sun, partial shade. Adaptable, prefers moist rich soils.	Native, excellent landscape woodland shrubby tree. Will not tolerate permanently wet conditions.
<i>Cornus alternifolia</i>	Pagoda Dogwood	Full sun, partial shade. Requires moist, well-drained, acid soils.	Native, small-tree. Useful for border plantings.
<i>Corylus americana</i>	American Filbert	Full sun, partial shade. Prefers moist rich acid soils. Adaptable to varying soil pH.	Native (locally rare). Typically found along fencerows and the edge of woodlots. Tolerant of moist and dry areas.
<i>Fagus grandifolia</i>	American Beech	Full sun, partial shade. Prefers moist rich acid soils.	Native, climax species. Often found in stands of where it is the only species or with oaks and hickories.
<i>Gymnocladus dioicus</i>	Kentucky Coffeetree	Full sun. Adaptable, prefers moist rich soils.	Native, catalogued as “threatened” species on Ontario’s Species at Risk list (2014). Occurs in deep, rich soils in bottomlands, deep ravines and moist slopes.
<i>Hamamelis virginiana</i>	Common Witchhazel	Full sun or shade. Prefers moist soil, avoid dry situations.	Native. Found in moist, shady areas along streambanks.

Botanical Name	Common Name	Cultural Requirements	Comments
<i>Juglans cinerea</i>	Butternut	Full sun. Adaptable, prefers moist rich limestone soils.	Native, catalogued as “endangered” species on Ontario’s Species at Risk list (2014). Seeds are sweet and edible. *Consult with Forestry Section if plantings are being considered
<i>Juglans nigra</i>	Black Walnut	Full sun. Prefers moist rich soils but can tolerate drier sites.	Native. Develops deep tap-root.
<i>Juniperus virginiana</i>	Eastern Red Cedar	Full sun. Adaptable to wide range of conditions, except shade.	Native. Useful in groupings, for screenings, shelter belts and windbreaks.
<i>Larix laricina</i>	American Larch	Full sun. Moist, well-drained, acid soils. Intolerant of pollution.	Native. Best on moist soils and in groves. Often found in boggy areas.
<i>Liriodendron tulipifera</i>	Tuliptree	Full sun, prefers moist well-drained loam.	Native (locally rare). Does not tolerate drought. Can be weak-wooded.
<i>Magnolia acuminata</i>	Cucumbertree Magnolia	Full sun, partial shade. Prefers moist, rich slightly acid soils. Does not do well with drought or extreme wetness.	Native, catalogued as “endangered” species on Ontario’s Species at Risk list (2014).
<i>Morus rubra</i>	Red Mulberry	Full sun to light shade. Prefers rich, moist soil.	Native, catalogued as “endangered” species on Ontario’s Species at Risk list (2014). Conservation status of S2-imperiled. Fruits are cherished by wildlife.
<i>Nyssa sylvatica</i>	Black Gum	Full sun, partial shade. Prefers moist, rich well-drained slightly acid soils.	Native (locally rare); conservation status of S3-provincially rare to uncommon. Found on dry ridges and abandoned fields. Sheltered locations preferred.
<i>Ostrya virginiana</i>	Ironwood	Full sun or partial shade. Often found in dry, gravelly or rocky soil.	Native, understory tree. Found on drier slopes of woodlands.
<i>Picea glauca</i>	White Spruce	Full sun. Adaptable.	Native. Often found in stream banks, lake shores and adjacent slopes.

Botanical Name	Common Name	Cultural Requirements	Comments
<i>Picea mariana</i>	Black Spruce	Full sun, partial shade. Moist, well-drained alluvial bottoms.	Native (locally rare). Found on cold, sphagnum bogs, bog edges, wet depressions and swamps.
<i>Pinus banksiana</i>	Jack Pine	Full sun, grows in dry, sandy and acid soils too poor for most plants.	Native. Adaptable for windbreaks and mass plantings, especially in sandy soils.
<i>Pinus resinosa</i>	Red Pine	Full sun.	Native. Variable adaptability.
<i>Pinus strobus</i>	Eastern White Pine	Full sun. Prefers sandy, moist loam.	Native, tallest tree in eastern Canada.
<i>Platanus occidentalis</i>	American Sycamore	Full sun. Prefers moist rich soils.	Native (locally rare). Typically found in bottomlands and long the banks of rivers and streams.
<i>Populus deltoides</i>	Eastern Cottonwood	Full sun. Adaptable. Tolerates saline conditions and pollutants.	Native, short-lived. Useful for disturbed sites, like all poplar. Plant in areas not accessed by the public due to safety concerns from falling limbs.
<i>Populus grandidentata</i>	Big-toothed Aspen	Full sun. Adaptable, but prefers moist soils.	Native, fast-growing. Plant in areas not accessed by the public due to safety concerns from falling limbs.
<i>Populus tremuloides</i>	Trembling Aspen	Full sun, partial shade. Adaptable.	Native. Fast-growing, short-lived. Plant in areas not accessed by the public due to safety concerns from falling limbs.
<i>Prunus pensylvanica</i>	Pin Cherry	Full sun, intolerant of shade. Adaptable.	Native, pioneer species, fast-grower. Useful nurse tree for disturbed sites similar to the Gray Birch.
<i>Prunus serotina</i>	Black Cherry	Full sun, prefers moist fertile soils.	Native. Best growth in fertile soils, but can be found on dry, gravelly or sandy soils in uplands.
<i>Pseudotsuga menziesii</i>	Douglas Fir	Full sun. Prefers well-drained, moist soils. Will not tolerate dry, poor soils.	Native. Needs open, sunny, roomy conditions. Do not use as an underplanting.
<i>Ptelea trifoliata</i>	Hoptree	Full sun, partial shade. Adaptable.	Native, catalogued as species of “special concern” on Ontario’s Species at Risk list (2014). Conservation status of S3-provincially rare to uncommon. Small tree, low-branching.

Botanical Name	Common Name	Cultural Requirements	Comments
<i>Quercus alba</i>	White Oak	Full sun. Prefers moist rich acid soils.	Native.
<i>Quercus bicolor</i>	Swamp Oak	Full sun. Prefers moist rich acid soils. Good drought resistance.	Native. Found in low lying areas, moist bottomlands and banks of streams.
<i>Quercus macrocarpa</i>	Bur Oak	Full sun. Prefers sandy limestone soils. Adaptable.	Native. Found on sandy plains to moist alluvial bottoms and uplands.
<i>Quercus muehlenbergii</i>	Chinquapin Oak	Full sun. Prefers moist rich limestone sandy soils.	Native. Found on dry limestone outcrops and rich bottomlands.
<i>Quercus rubra</i>	Red Oak	Full sun. Prefers moist rich acid soils. Pollution tolerant.	Native. Fast-growing. Can grow on rocky, hardscrabble soil near water.
<i>Quercus velutina</i>	Black Oak	Full sun. Prefers moist rich acid soils.	Native. Similar properties to Red Oak and species frequently hybridize together.
<i>Salix discolor</i>	Pussy Willow	Full sun. Prefers moist rich soils.	Native. Large, multi-stem shrubs to small tree. Typically found on moist sites along stream banks and in swamps.
<i>Salix nigra</i>	Black Willow	Full sun. Prefers moist rich soils.	Native. Typically found on moist sites along stream banks and in swamps.
<i>Sassafras albidum</i>	Common Sassafras	Full sun, partial shade. Prefers moist rich acid soils.	Native, pioneer species. Often found on acidic, rocky soils. Tend to invade abandoned fields and form thickets.
<i>Thuja occidentalis</i>	Eastern White Cedar	Full sun, partial shade. Requires a deep, well-drained soil. Tolerant of limestone soils.	Native, thrives in marshy loam. Useful as shelterbelt.
<i>Tilia americana</i>	American Basswood	Full sun, partial shade. Prefers deep, moist fertile soils. Is pH adaptable.	Native. Found on the slopes of hills, in rich coves, along streams and in floodplain soils.
<i>Tsuga canadensis</i>	Eastern Hemlock	Partial shade. Moist, well-drained, acid soils, rock bluffs or sandy soils.	Native. Does not tolerate city conditions. Abundant on slopes, mountainsides and most areas where drainage is adequate.

Appendix L – Park and Open Space Standard Detail Drawings

1. GENERAL

Standard road, watermain, and sewer details can be found in the City of Hamilton’s *Construction and Material Specifications Manual (C&MSM)*, latest version.

Landscape Architectural Services (LAS) keeps and maintains a library of standard park details, and it is up to the developer and their consultant to ensure that they are using the most recent versions. As such, it is recommended that the developer or their landscape architectural consultant contact LAS at the start of the design process, for any proposed park development, to obtain these details.

An index of these details and contact information for obtaining them can be found below.

2. INDEX OF STANDARD DETAILS

Drawing No.	Description
0100 – Playing Fields and Courts	
PK-0106.03	Double Bocce Court
PK-0109.03	Mini (Jr.) Soccer Field Layout
PK-0109.04	Mini (Jr.) Soccer Field Layout (Double Field)
PK-0110.01	Sr. Soccer Field Layout & Surface Drain
PK-0110.25	Champion Soccer Field Layout
PK-0111.02	Soccer Field Sub-Drainage
PK-0156.03	Category 3 Soccer Field Profile
PK-0156.04	Category 4 Soccer Field Profile
PK-0156.05	Category 5 Soccer Field Profile
PK-0156.06	COH Acceptable Soil Textures
0400 – Signage	
PK-0400	Park Signage
0200, 0400 – Recreational and Athletic Equipment	
PK-0210.01	Play Structure Drainage
PK-0215.01	Sr. Baseball Softball Field Foul Line Post
PK-0220.01	Sr. Baseball Softball Field Distance Markers
PK-0228.01	Spectator Bleachers
PK-0401	Multi-use Court Layout
PK-0402	Multi-use Half Court Layout

Drawing No.	Description
0400 – Sewers and Drainage	
PK-0480.01	Swale
0600 – Curbs	
PK-0621.01	Rolled Asphalt Curb
0700 – Paving and Surfacing	
PK-0700.04	Asphalt Walkway Standard B
PK-0700.07	Concrete Bench Pad
PK-0700.08	Concrete Pad
PK-0700.10	Asphalt Walkway Standard A
PK-0708.01	Culvert Detail
PK-0710.09	Asphalt (Parking Lot)
PK-0720.01	Limestone Screening Walkway
PK-0757.01	Unit Paving
1000 – Fences and Bollards	
PK-1010.03	Park Chain Link Fence - Black Vinyl 1500mm (5') High
PK-1010.04	Park Chain Link Fence Gate – New Development
PK-1010.05	Park Chain Link Fence 1200mm (4') High
PK-1010.06	Park Chain Link Fence – Galvanized Heavy Duty 1500mm (5') High
PK-1010.07	Chain Link Fence – 2000mm (6.5') High
PK-1010.08	Park Chain Link Fence – Galvanized 1500mm (5') High
PK-1010.09	Park Chain Link Fence – Black Vinyl Coated 1200mm
PK-1020.10	Harbourfront Fence
PK-1070.03	Collapsible Bollard
PK-1073.01	Waterfront Bollard
1100 – Planting, Sodding and Seeding	
PK-1100.01	Tree Hoarding – Streets
PK-1100.02	Tree Hoarding – Parks
PK-1105.03	Deciduous Tree Planting
PK-1105.04	Deciduous Tree Planting with Staking
PK-1110.02	Coniferous Tree Planting
PK-1125.01	Installation of Round Tree Grate
PK-1140.01	Bare Root Shrub
PK-1141.01	Potted Shrub
1400 – Lighting	
PK-1433.03	Standard Park Light – Optima LED
PK-1433.04	Standard Park Light – York VL1 LED
PK-1440.04	West Harbourfront Light & Footing - 4.3 or 5.5m High Pole
1500 – Electrical	
PK-1500.01	Conduit
1600 – Site Furnishings	
PK-1622.02	Waterfront Bench
PK-1625.01	Concrete Bench
PK-1641.01	Waterfront Garbage Receptacle

3. CONTACT INFORMATION

The most recent version of the Parks Standard Detail Drawings will be made available in PDF format by request. Please forward requests to:

Jarrad Johnston, Technician
Jarrad.Johnston@hamilton.ca

Landscape Architectural Services, Environmental Services
City of Hamilton, Public Works Department
77 James Street North Suite 400
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Appendix M – Park and Open Space Standard Specifications

1. GENERAL

Landscape Architectural Services (LAS) keeps and maintains a library of standard specifications, and it is up to the developer and their consultant to ensure that they are using the most recent versions. As such, it is recommended that the developer or their landscape architectural consultant contact LAS at the start of the design process, for any proposed park development, in order to obtain these specifications.

An index of these specifications and contact information for obtaining them can be found below.

2. INDEX OF STANDARD SPECIFICATIONS

Spec No.	Spec Name
01 14 13	Site Protection & Access
01 33 23	Shop Drawing Procedures
03 11 00	Concrete Formwork
03 20 00	Concrete Reinforcement
03 24 00	Fibre-reinforced Concrete
03 30 00	Cast-in-place Concrete
11 68 13	Play Equipment
11 68 23	Fitness Equipment
13 15 00	Spray Pads
13 34 23	Pre-fabricated Sun Shelter
26 05 00	Lighting & Electrical Works
31 22 13	Earthwork
31 22 19	Topsoil
32 11 23	Granular Base Course
32 12 16	Asphalt Concrete Paving
32 18 15	Fibre Play Surfacing & Subsurface Drainage
32 18 16	Rubberized Play Surface
32 31 00	Chain Link Fences & Gates
32 33 00	Site Furnishings
32 92 19	Seed
32 92 23	Sod
32 93 43	Tree Planting & Planting Beds

3. CONTACT INFORMATION

The most recent version of the Parks Standard Specifications and Special Provisions will be made available in word format by request. Please forward requests to:

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