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London
CANADA

Chapter 11

Parks and Open Space

Design Specifications & Requirements Manual

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City of London

Design Specifications and Requirements Manual

The design information contained in this manual is intended to provide guidance beyond legislative and standard design practices for use in the City of London (the City). There will be site specific situations where the design will depart from these practices as it is not possible nor is it the intention of the City to anticipate every situation. The City intends to review and revise the Manual from time to time. The City also acknowledges that other references such as the ‘Standard Contract Documents for Municipal Construction Projects’ are to be used in conjunction with this manual. The 2012 update of this manual incorporates design information from the City’s former ‘Subdivision & Development Guide Manual’ to provide consistent and current design information for development projects.

The City of London maintains its right to accept or refuse any design submissions and requires an acceptable design for any given circumstance.

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11 Parks and Open Space

11.1 Definitions and Layout

The Parks and Open Space system is comprised of parks with different typologies, with each type having specific layout requirements.

As a general rule, all City of London parks shall be designed with the goal of protecting natural heritage features, as well as meeting the Accessibility for Ontarians with Disabilities Act and City specific accessibility standards. Careful consideration must be given during the design process to minimize short term capital costs and long term operating costs.

11.1.1 Neighbourhood Parks

Neighbourhood parks are intended to function as focal points within a neighbourhood and are designed to serve the needs of local neighbourhood residents by supporting both organized and unprogrammed activities. Typical features include play structures, pathway loops, seating/gathering areas, unlit sports fields, multi-use pads and basketball courts.

Neighbourhood parks should be centrally located within the service area radius of 0.8km and serve a population of up to 5,000 people. Neighbourhood parks should be located within a convenient and safe walking distance to the majority of residents and users should not have to cross Rapid Transit Boulevard, Urban Thoroughfare, Civic Boulevard, Urban Thoroughfare/Civic Boulevard in Primary Transit Area, Main Streets to access their neighbourhood park. Wherever practical, neighbourhood parks should be coordinated with school sites to maximize outdoor space for school use and hard surface/parking for park users.

Neighbourhood parks should be from 1.5 – 4.0 ha in size and roughly rectangular to accommodate facilities with a minimum 15m setback to adjacent houses and to reduce “blind” corners. Typically, a 30-60m minimum frontage to suit block configuration is required, with at least one secondary entrance to the park. Generally, a flat site is desirable for facility development, but some topography may provide for a variety of unprogrammed recreational uses. Stands of vegetation and healthy mature trees must be retained where possible.

Park facilities should be separated by suitable buffers and designed to be visible from the street. Pathways should connect all points of entry into the park. All layout of pathways and facilities is to be reviewed and approved on site by the City prior to proceeding with construction.

11.1.2 District Parks

District parks are intended to serve groups of neighbourhoods and are designed with an emphasis on facilities for organized sports and unorganized activities. Typical features may include lit sports fields, spray pads, tennis courts, skateboard parks, parking lots, major play structures, multi-use pads, gathering areas and benches. Facilities such as community centers, arenas, pools and washrooms may also be closely integrated with district parks.

District parks are generally 6-9 hectares in size and should be centrally located within the anticipated service area, as identified in the City of London Parks & Recreation Master Plan. District Parks are meant to service a 2km radius and a population of approximately 20,000 people. In some cases, district parks may incorporate more regional facilities such as indoor pools, community centers and arenas. They can be integrated with schools and should be located on Rapid Transit Boulevard, Urban Thoroughfare, Civic Boulevard, Urban Thoroughfare/Civic Boulevard in Primary Transit Area, Main Street, Rural Thoroughfare, Rural Connector, Neighbourhood Connector or Neighbourhood Streets for access by public transit.

Some degree of topography variation in district parks is considered an asset as it can provide aesthetic enhancements and/or buffers between facilities and adjacent houses. Natural heritage features such as woodlands and/or small patches of vegetation are also desirable features and should be incorporated into district park layout where feasible. Pathways are to connect all park facilities and park entrances. All layout of pathways and facilities is to be reviewed and approved on site by the City prior to proceeding with construction.

11.1.3 City-Wide Parks

City-wide Parks are developed for the enjoyment of a broad range of Londoners, including individuals, family groups, and community organizations. Opportunities for all types of recreational, social, and cultural activities will be provided with maximum accessibility. The preservation of natural heritage features, historic sites, and wildlife habitats will be incorporated in the park design. City-wide Parks serve London's entire population and attract visitors to London. These parks may include amenities found in other park categories, as they can also serve as an area's District Park or Neighbourhood Park.

11.1.4 Sport Parks

Sport parks are designed to accommodate multiple high-end sports fields and service larger areas of the City. These parks are generally programmed by the City to service sports associations and tournaments. Sports fields in this park category are often irrigated and fully lit; they may contain lit parking lots and asphalt pathways, as well as

washroom and change room facilities. A sport park may serve as the neighbourhood park for the surrounding community and provide neighbourhood amenities as well.

Sport parks are generally 10-13 hectares and should be centrally located and/or added onto existing sport park facilities where feasible. They should be situated on Rapid Transit Boulevard, Urban Thoroughfare, Civic Boulevard, Urban Thoroughfare/Civic Boulevard in Primary Transit Area, Main Street, Rural Thoroughfare, Rural Connector or Neighbourhood Connectors for access by public transit. These parks may involve an interior road/driveway network and extensive parking, but must also provide a clear network of pedestrian walkways and paths that minimize vehicular/pedestrian conflicts. Sport Parks incorporate maximum street frontage and adequate buffers between sport facilities and nearby residential properties.

11.1.5 Urban Parks

Urban parks are intended to be focal points within a neighbourhood that serves as a formal gathering space for area residents. Urban parks provide a high level of design quality, including extensive hard surfaces, outdoor lighting, irrigation, seating and horticultural features. These public spaces should be highly visible with maximum street frontage, strategically located in close proximity to densely populated areas and ideally linked to surrounding park corridors within the development.

Urban parks are small blocks of land that range between 0.5 and 0.8 hectares in size and are walk to destinations meant to service a radius of approximately 800 metres. Urban parks should be situated on Neighbourhood Streets or Neighbourhood Connector routes, with maximum street frontage and in close proximity to high density development. These parks should function as high-end, attractive public gathering spaces and where feasible, they should be strategically located at the entrance to broader park and open space systems. Urban parks should also function as gateways and/or prominent design features within a neighbourhood.

11.1.6 Civic Spaces

Civic spaces are generally located in the downtown core and/or along 'main streets' in close proximity to high density development. These spaces are designed to accommodate casual seating areas, key urban linkages, public art, public gatherings and community events. Civic spaces serve the entire population of London, but can also serve adjacent buildings, streetscapes and neighborhoods. Civic spaces typically include extensive hard surfaces, seating areas, high-end horticultural components, irrigation and are fully lit to encourage evening use throughout the year.

Civic spaces are typically smaller than urban parks (usually less than 0.5 hectares), but are designed to service the broader community. They are community destinations, often used for formal civic gatherings and both formal, and informal public events. These dynamic spaces are generally located in the downtown core and/or along 'main streets'

and in close proximity to high density development. The design treatment within a civic space should integrate with surrounding right-of-ways and act as an important architectural/urban design feature that influences the design and layout of surrounding development. Surrounding buildings should be oriented to front onto civic spaces and should be designed to encourage access to and use of the public space.

11.1.7 Open Space System

The open space park category protects natural heritage features and is often linear in nature following tributaries of the Thames River, upland corridors, or utility easements. The open space system typically includes asphalt multi-use pathways that link neighbourhoods to surrounding parks and community amenities such as schools, business areas, shopping areas and community centers.

Open Spaces are generally linear in nature following tributaries of the Thames River and upland corridors. Open Spaces typically include multi-use pathway systems that link neighbourhoods to surrounding parks and community amenities such as schools, business areas, shopping areas and transit corridors and villages, greatly improving active mobility and active living opportunities.

The Open Space System is laid out and developed to protect natural heritage features. Appropriate buffers that protect the natural heritage system and that meet official plan policies also form part of the open space system. Access points into the open space system should be located every 500 metres on average, should incorporate maximum street frontage, and act as significant focal points in an area's development proposal.

11.1.8 Woodland Parks

Woodland parks protect existing areas of environmental significance, such as woodland patches. These environmental features may have been identified in the City of London's official plan, through a previous City led study, or by a development related environmental impact study with recommendations for their protection, management and enhancement. Woodland parks typically include a managed trail system that serves the surrounding neighbourhood and consists of woodchip trails, boardwalks and occasional asphalt pathways where appropriate.

Woodland parks and their associated buffers are designed to protect natural heritage features as per official plan policies. Subdivision development surrounding woodland parks shall maintain public access with maximum street frontage on all sides. The creation of 'dead zones' without public access in a woodland park shall be avoided where feasible. The pathway and trail network implemented within woodland blocks shall have regard for the natural heritage feature being protected and shall adhere to official plan policies.

11.1.9 Environmentally Significant Areas (ESAs)

Environmentally significant areas include lands that are to be maintained in their natural state. These natural areas may contain significant species and habitat diversity, species at risk and critical habitat for species at risk. Details of the management and use of an ESA can be found within a City led conservation master plan document, as well as within the natural heritage policies of the City Official Plan.

Environmentally Significant Areas and their associated buffers are designed to protect important ecological features as per official plan policies. Entrances to ESAs and their associated hike only trail system shall be located and designed carefully to ensure protection of sensitive features. The management and use of an ESA are typically found within a City led conservation master plan document, an environmental impact study, as well as within the natural heritage policies of the official plan.

11.1.10 Pathways and Facilities

The design and layout of pathways and facilities is to be reviewed and approved on site by the City prior to proceeding with construction. A series of cuts and patches to remediate errors after construction may not be acceptable and is at the discretion of the Parks Long Range Planning & Design representative.

Recreational pathways will be constructed in accordance with City standard details and/or site specific geotechnical recommendations. All recreational pathways must incorporate a 1.0m turf 'run-out' zone that is generally flat (2 to 5%) on both sides of the pathway.

All recreational pathways must be designed for safe and enjoyable recreational experience as well as operational needs. Layout and grading considerations such as turning radii, sight lines, pathway slopes and adjacent slopes must all be designed with safety, maintenance, and pathway user experience in mind.

11.1.11 Thames Valley Parkway (TVP)

The Thames Valley Parkway is the City's primary multi-use/recreational pathway system which follows the Thames River corridor. The TVP is asphalt and typically 3-4m wide with convenient connections to surrounding neighbourhoods. Future extensions of the Thames Valley Parkway will occur as lands along the three branches of the Thames River come under urban development.

The design and layout of the TVP will be done through City capital projects and through the subdivision development process where the TVP crosses developing lands. Typically, layout, design and construction of the TVP is subject to detailed environmental assessments as it is sometimes routed through, or adjacent to natural heritage features and floodplain. In general, convenient access points that provide visibility from an adjacent street are required every 500m minimum.

The TVP will be constructed in accordance with City standard details and/or site specific geotechnical recommendations. All recreational pathways must incorporate a 1.0m turf 'run-out' zone that is generally flat (2 to 5%) on both sides of the pathway.

All recreational pathways must be designed for safe and enjoyable recreational experience as well as operational needs. Layout and grading considerations such as turning radii, sight lines, pathway slopes and adjacent slopes must all be designed with safety, maintenance, and pathway user experience in mind.

11.1.12 Stormwater Management Facilities

Stormwater management facilities (ponds or low impact development (LID) features) are constructed in conjunction with, or as part of the servicing requirements for various developments. Where feasible, storm water management facilities should be integrated with surrounding park land and open space uses. Official plan policies protection of natural heritage features and open space pathway linkages, as well as the recommendations made in associated environmental impact studies and/or environmental assessments must be considered when integrating storm water management facilities into the park and open space system.

The technical requirements and design of storm water management facilities is approved under **Section 6** of this manual by the City's Engineering Review Division. Through that process, integration with adjacent parks or open spaces may be desirable. Where storm facilities are located and designed to integrate with parks and open spaces, additional land around the pond may be required beyond the minimum technical setbacks to property lines in order to permit suitable pathway systems that meet Parks Long Range Planning & Design approval. Appropriate compensation may be provided for additional land requirements. Facilities located away from parks and open spaces and not intended to be used as a community amenity are not subject to these additional setback requirements.

LID features where proposed should be integrated carefully and not interfere with the functional use of the park. They should blend visually with the rest of the space and require low maintenance standards once established. All LID landscape plans located within a park block or right-of-way where Parks Operations will be responsible for the landscape maintenance, are to be approved by Parks Long Range Planning & Design. Any stormwater infrastructure located within parks will require maintenance access.

11.2 Grading

Park grading for all park categories shall integrate with the surrounding lands and provide positive flow from all facilities and adjacent private lands. Drainage from private lands may be directed to parkland if it can be accommodated within the park drainage design.

Pathways shall be set as high points through the park with positive drainage away from them. Limited amounts of sheet flow may be permitted to cross pathways in certain circumstances. In general, swales and culverts (Chapter 6) should be incorporated to allow for positive drainage away from pathway surfaces. All recreational pathways must incorporate a 1.0m turf 'run-out' zone that is generally flat (2 to 5%) on both sides of the pathway. Linear pathway slopes are to be designed for smooth transitions between high and low points, avoiding extreme undulations.

Park grading shall be smooth flowing and shown with contours, with spot elevations as required to demonstrate desired slopes, top-of-bank, field corners, and hard surface grades. Swales are to curve to suit facility layout, pathway alignments and natural topographical design.

Specific grading standards are:

- 1) Sports fields: 1.0%, directed to suit field layout and site conditions
- 2) Asphalt Pathways: 1 – 2% cross slope, up to 8% linear (4% preferred)
- 3) Concrete surfaces: 1-2% cross slope
- 4) Hike Only Trails (woodchip and dirt surfaces): 2-3% cross slope and up to a 15% linear slope (8%, or less is preferred).
- 5) Swales —2 – 4%, for a maximum length of 76m
- 6) Topography – 4:1 maximum with undulating surfaces. 3:1 is permitted if an area is to be naturalized. 2:1 will only be considered on a case-by-case basis and may require a geotechnical report.

Retaining walls are generally unacceptable within a park block unless they are required to maintain existing grades of adjacent facilities or for the protection of significant vegetation.

Grading within the open space system, or woodland parks is to be kept to a minimum and subject to review on a case-by-case basis. Grading of parks and open spaces adjacent to natural heritage areas shall be delineated by appropriate erosion and sediment control measures and/or as directed by a site specific environmental impact study.

Grading within stormwater management ponds is approved by the City's Engineering Review Division. If ponds are to be integrated with parks and open space areas, pathway grades (as above) and pond side-slope grades should mesh with surrounding landforms.

Grading plans for new subdivisions are to be included in engineering packages and meet all applicable requirements from the Engineering Review Division as well as Parks Long Range Planning & Design.

All rough grading for parks and open spaces is to be reviewed and approved on site by the City prior to proceeding with fine grading. When associated with a new subdivision,

servicing/grading/seeding shall occur within 1-year of registration and all as per approved engineering plans.

11.3 Servicing

Park and open space blocks generally require storm sewer systems and occasionally sanitary sewers and water lines to service community facilities such as field houses and pools. For specific sewer design requirements, refer to **Section 3 - Sanitary Sewer Collection System**, **Section 5 - Storm Sewer Collection System** and **Section 7 – Water Distribution System**.

Servicing plans for new subdivisions are to be included in engineering packages and meet all applicable requirements from the Engineering Review Division as well as Parks Long Range Planning & Design. Any stormwater infrastructure located within parks will require maintenance access.

When associated with a new subdivision, servicing/grading/seeding shall occur within 1-year of registration and all as per approved engineering plans.

11.4 Fencing

All Parks and Open Space blocks shall require fencing adjacent to private owned lands. Fencing shall always be located on a common property line. Fencing shall be constructed in accordance with the specifications in the **Standard Contract Documents for Municipal Construction Projects**, SPO-4.8. Fencing shall conform to the current City of London Fence By-law. Fencing shall not be located adjacent to a public right of way, School Block and any other City Facility, except where fencing is required under another section of this document.

Fencing that is an integral part of a park recreational facility (i.e., baseball diamonds, batting cages, etc.) are not subject to the above.

When associated with a new subdivision, fencing shall be installed within 1-year of registration and all as per approved engineering plans at no cost to the City.

11.5 Boundary Monuments

Boundary Monuments shall only be used in substitution for fencing where it can be demonstrated that fencing will have a significant adverse impact on the site or fencing is not physically possible. Boundary Monuments shall be located entirely on City property, offset the common property line by 100mm. Boundary monuments shall be constructed in accordance with the specifications in the Standard Contract Documents for Municipal Construction Projects, SPO-4.7. As a minimum Boundary Monuments shall be located at every change in direction of the property line and at 30 metre intervals. Where site topography is such that the line-of-sight between the Boundary Monuments is obscured

at above intervals, additional Boundary Monuments are required at these locations to the satisfaction of the City.

When associated with a new subdivision, installation of boundary monuments shall occur within 1-year of registration and all as per approved engineering plans.

11.6 Seeding

Seeding of park blocks is carried out in accordance with the specifications in the Standard Contract Documents for Municipal Construction Projects – Section B, Part 6 – Parks and Open Spaces.

When associated with a new subdivision, seeding and maintenance of seeded areas is the responsibility of the developer up to assumption. The optimal seeding time for park standard seed is April - May and August - September. For manicured areas, maintenance includes mowing to maintain a height of 50mm, weed control, and over-seeding, if required. Inspections for assumption will take place between May 30 and October 15, or outside of this time period at the discretion of a Parks Long Range Planning & Design representative. At assumption, the turf must be healthy and vigorous, cut to 50mm height with very few bare patches or weeds.

For naturalized areas, native seed mixes are best applied in the fall, from October 15th to November 15th. Maintenance includes weed control, repair and reseeded of dead or bare spots as needed to allow establishment. At assumption at the end of the second full growing season, a majority of the specified species shall be visually evident and non-native, invasive species shall not exceed 20% of the seeded area.

When associated with a new subdivision, servicing/grading/seeding shall occur within 1-year of registration and as per approved engineering plans and City specifications for Parks and Open Spaces. If the completed work does not meet the performance measures of City specifications or the timing requirements of the subdivision agreement, works may be considered deficiencies and completed by the City in accordance with the Subdivision and Development Agreement Security Policy.

11.7 Tree Preservation

The City of London requires a Tree Preservation Plan (TPP) be prepared for most Capital works, Operational and Development projects, consistent with **Section 12** – Tree Planting and Tree Preservation Requirements, within this manual. In many parks, community linkages and open space blocks, existing vegetation is to be maintained as an amenity feature. Protection of existing trees during park development shall be done in accordance with tree preservation guidelines out in **Section 12** of this manual.

11.8 Natural Heritage System

Natural areas which could include open space blocks, woodland parks, or environmentally significant areas have stringent design requirements, often specific to the area. Generally, through the land development process they have been set aside for their environmental/ecological significance and through the preparation of an EIS will have recommendations for their protection, management and enhancement that are to be accommodated in engineering plans. Some of the City's ESAs have conservation master plans that would also outline specific requirements.

Typically, standard grading, servicing and development requirements do not apply to natural areas, but pathway/trail development is usually required and will require some level of design and construction as directed by the City.

Prior to assumption of natural areas, all hazards such as tree forts, old fencing, and construction materials and general debris must be removed from the block. Hazard trees along existing or proposed trails and pathways and abutting adjacent lands should be removed.

New naturalization projects proposed in a park environment should preferably be located adjacent to an existing natural feature (woodland, wetland, etc.). Only native woody and herbaceous plant material shall be utilized and efforts to minimize the spread of invasive species shall be an important consideration during the planning process. All naturalization projects shall be approved by the Parks Long Range Planning & Design section.

11.9 Bio-Engineering

Within parks, open spaces, natural areas and ESAs, bio-engineering is to be used as the preferred approach for slope stabilization, channel creation or restoration, storm outlet design and any other "engineered" feature. Limited use of rip-rap or other erosion control materials is permitted where the situation warrants if used in conjunction with other "natural" approaches.

Conveyance channels from stormwater management facilities that outlet into parks and open spaces require suitable bio-engineered design to blend with the surrounding landscape.

Bio-engineering design may require specialized consultants to successfully implement parks standards and /or EIS recommendations.

11.10 Tree Planting

Tree planting within parks, open spaces, linkages, natural areas and stormwater management facilities is to be carried out in compliance with **Section 12 - Tree Planting and Protection Guidelines** of this manual.

11.11 Erosion & Sediment Control

The City of London requires an Erosion & Sediment Control Plan (E&SC Plan) be designed for most Capital Works, Operational and Development Projects. The complexity of the E&SC Plan is determined by the sensitivity of the area that is to be protected.

For reconstruction or resurfacing of existing roads, or for infill sites less than 3.0 ha in land area within existing urbanized areas, that are not in close proximity to an open watercourse, woodlands, ESAs, steep slopes or other natural area; an E&SC Plan is not required, unless otherwise directed by the City. Where an E&SC Plan is not required, all reasonable protective measures must be taken during construction to control sediment and prevent erosion from occurring.

For further information on the requirements of the E&SC Plan, please refer to **Section 10 – Sediment & Erosion Control**, within this manual.