

TOWN OF AJAX
SITE PLAN REVIEW MANUAL



PLANNING &
DEVELOPMENT SERVICES

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1.0 INTRODUCTION

1.1 PLANNING ACT REGULATIONS

Pursuant to Section 41(2) of the Planning Act, R.S.O., 1990, c. P. 13, as amended, the Corporation of the Town of Ajax passed By-law 111-98, identifying all lands within the territorial limits of the Town of Ajax as a site plan control area. All “development” is subject to site plan control as prescribed by Section 41 of the Planning Act. Section 41(1) of the Planning Act, R.S.O., 1990, c. P. 13 defines “development” as:

“the construction, erection or placing of one or more buildings or structures on land or the making of an addition or alteration to a building or structure that has the effect of substantially increasing the size or usability thereof, or the laying out and establishment of a commercial parking lot or of sites for the location of three or more trailers as defined in subsection 164 (4) of the Municipal Act, 2001 or subsection 3 (1) of the City of Toronto Act, 2006, as the case may be, or of sites for the location of three or more mobile homes as defined in subsection 46 (1) of this Act or of sites for the construction, erection or location of three or more land lease community homes as defined in subsection 46 (1) of this Act. R.S.O. 1990, c. P.13, s. 41 (1); 1994, c. 4, s. 14; 2002, c. 17, Sched. B, s. 14 (1); 2006, c. 32, Sched. C, s. 47 (8).”

In July 1998, Council passed By-law 92-98, a By-law delegating site plan approval authority to the Director of Planning and Development Services or his designate. Notwithstanding this delegated authority, Council retains the right to withdraw delegated approval authority on any site plan application. Staffs are therefore required to circulate all site plan applications to members of Council for review.

1.2 TOWN OF AJAX OFFICIAL PLAN

The Town of Ajax Official Plan contains specific policies pertaining to urban design and built form. The goal of the urban design policies is to improve the liveability and aesthetic quality of the Town through the enhancement of the layout and attractiveness of public and private spaces and buildings. The Official Plan establishes policies that apply desired functional and aesthetic parameters to the design of the built form and landscape of the Town.

The Town’s objectives are to:

- i) Promote an interesting, comfortable, accessible and safe environment that meets the needs of most residents. Where opportunities exist, innovative forms of development will be encouraged within the Town; and
- ii) Foster a sense of civic identity and pride through a high standard of urban design in all future development that considers:
 - a) the appropriate integration of the design of public and private spaces;
 - b) a high degree of visual diversity, interest and aesthetic quality;

- c) a well-defined public realm, including an interconnected open space network
- d) the sensitive integration of new development with existing development;
- e) a transit supportive and pedestrian oriented development pattern;
- f) public safety and barrier free development; and
- g) the combined effects of various climatic factors including wind, sun exposure, precipitation and air temperature

The Town's urban design objectives are to be implemented through, among other matters, site plan control.

In terms of Built Form, new development shall be designed so that it is compatible with its surrounding context. As such, relevant built form issues to be considered by the Town in the review of all development applications shall include:

- i) the impact of the proposed development on adjacent existing and approved land uses with respect to public safety, privacy, noise, shadow, light, traffic, access and parking;
- ii) the compatibility of the proposed development with adjacent existing development in terms of height, density, scale, massing and character;
- iii) the consideration of the orderly and appropriate transition to adjacent lands; and
- iv) the protection of significant man made or natural scenic vistas

In addition, measures addressing public safety and barrier free access shall be incorporated in the design of all buildings and public spaces, such that:

- i) publicly accessible spaces shall, where practical and appropriate, be located near public roads, transit stops and other high activity spaces to enable public surveillance and ease of access for the physically challenged;
- ii) appropriate lighting shall be installed to help enhance public safety and security and to define the aesthetic and functional quality of public places such as promenades, sidewalks and parks;
- iii) adequate access and vehicular circulation for fire prevention and other emergency, transit or maintenance vehicles shall be provided;
- iv) New residential development shall be appropriately buffered from Type 'A' and 'B' Arterial roads by measures which may include the use of tree cover, planting areas or other appropriate vegetation or berming;
- v) On-site parking, where required, shall be integrated with the development of the site and screened by appropriate fencing or landscaping from surrounding roads and properties;

- vi) Signage should be integrated with the architecture and landscape, not only to identify and inform, but also to complement and enliven the streetscape. The Town may regulate signage by enacting by-law(s) pursuant to the provisions of the Municipal Act and/or the Planning Act;
- vii) Utilities shall be located underground where practical. Transformers, pumping stations or other structures ancillary to the delivery of utilities and infrastructure shall be placed in accessible locations and screened, designed and maintained in harmony with surrounding land uses;
- viii) Buildings or structures on untreed sites shall incorporate landscaping including vegetative plantings to enhance the site, the streetscape and the surrounding area; and
- ix) The Town shall encourage measures which enhance public appreciation and visibility of interesting buildings, structures, parks or landscapes of historical, archaeological or scenic value

1.3 URBAN DESIGN GUIDELINES AND CRITERIA

In accordance with the policies of the Town of Ajax Official Plan, Urban Design Guidelines have been developed within the Town which provide additional detail and guidance for site plan submissions. In general, these guidelines provide assistance to applicants in order to ensure that, among other matters:

- i) the public realm is the focus of the design;
- ii) buildings are located close to, and address the street;
- iii) a significant portion of the street frontage is defined by buildings;
- iv) pedestrian movements are direct and self-connected;
- v) a high level of architectural detail is provided next to streets and public spaces;
and
- vi) services and storage areas are screened and hidden from view.

Urban Design Guidelines within the Town of Ajax include:

- i) Employment Areas Urban Design Guidelines;
- ii) Urban Design Guidelines for Service Stations and Gas Bars;
- iii) A6 Community Urban Design Guidelines;
- iv) A8 Community Urban Design Guidelines;
- vi) A9 Area Urban Design Guidelines;

- vii) Notion Road Urban Design Guidelines; and
- iv) Other Area Specific Guidelines

Please contact Ajax Planning staff to determine whether area specific urban design guidelines are in place for your site.

1.4 SITE PLAN REVIEW COMMITTEE

The Site Plan Review Committee is a committee consisting of staff members directly involved in the review of applications for site plan approval. The committee meets on a monthly basis to review and comment on site plan submissions, and to hear from delegations wishing to submit an application. Within this venue, staff can provide immediate comment and provide applicants with the opportunity to hear feedback respecting matters such as traffic circulation, public safety, lighting, pedestrian walkways, urban design, barrier free access, municipal services, drainage, flood protection, environmental protection, waste management, noise abatement, privacy screening and landscape design.

The Committee’s approach is to identify issues that influence design decisions at an early stage, in order to provide guidance regarding not only the functional needs of the proposal, but to assist with ensuring future compatibility of the development within the context of the neighbouring properties, coordinating the requirements of other agencies and departments that have jurisdiction. The forum has been successful for sharing information and for arriving at "win/win" outcomes for site plans.

1.5 RESPONSIBILITIES AND CONTACT INFORMATION

The following represents a list of departments/agencies involved in the site plan approval process and their corresponding responsibilities.

Department	Contact	Responsibility
Planning Services	(905) 619-2529 ext. 207, 201	primary contact, application processing, site plan agreements, official plan and zoning by-law conformity, urban design guideline conformity, site layout, waste management, lighting, landscape planning, urban design, tree preservation, boulevard trees, pedestrian accessibility, compatibility, circulation.
Building Services	(905) 619-2529, ext 260	preliminary comments on Ontario Building Code matters and servicing requirements relating to building permit applications
Engineering Services	(905) 619-2529, ext 256	stormwater management, waste management facilities, drainage plans, grading, retaining walls, road widenings, fencing, boulevard restoration, site illumination,
Fire and Emergency Services	(905) 683-7791, ext 6056	preliminary comments on Ontario Building Code and Fire Code matters relating to building permit applications as well as fire access routes and fire hydrant locations
Transportation Services	(905) 619-2529, ext 209	traffic, access, driveway locations, circulation, parking, traffic and parking study requirements

Department	Contact	Responsibility
Design Services	(905) 619-2529, ext 208	site design, elevations, landscaping, tree preservation and protection, pedestrian accessibility, compatibility and circulation
Operations Public Works	(905) 683-4712	curb cut requirements, garbage pick-up as well as any other impacts on the Town from a maintenance standpoint.
Veridian Connections	(905) 427-9870, ext 3252	hydro service requirements
Region of Durham Works Dept.	(905) 668-7711, ext 3411	sanitary and water connections, access, curb cuts and driveway access to Regional roads, road widenings.
Toronto and Region Conservation Authority	(416) 661-6600	stormwater management, natural feature protection, surface drainage, tree preservation, slope stability,
Central Lake Ontario Conservation Authority	(905) 579-0411	stormwater management, natural feature protection, surface drainage, tree preservation, slope stability,

2.0 SITE PLAN APPROVAL PROCESS

2.1 APPLICATION PROCESSING

Upon receipt of a complete site plan submission, an internal circulation to all departments and agencies, as well as Council, will be completed. If an application is deemed “incomplete”, any submitted application, drawings or cheque may be returned to the attention of the applicant.

Typically, comments on complete applications are provided within a 6-8 week period. Once all comments are received, outstanding issues are consolidated into a Site Plan Status Report, which outlines the nature of any required revision and will likely include red-lined markups of the original submission drawings. A meeting with staff may be required to discuss issues.

As noted earlier, Council has the right to request that delegated site plan approval be withdrawn on any site plan application. In this case, staff prepares a report with recommendations and forwards it to Community Affairs and Planning Committee, with Council ultimately making a decision on the subject application.

Upon receiving conditional site plan approval, six copies of a site plan agreement will be drafted and forwarded to the owner to be signed. All financial obligations must be submitted prior to the execution of the site plan agreement. Upon execution of the site plan agreement, the Town’s solicitor will “e-register” the agreement on title.

2.2 PRE-CONSULTATION MEETING

Prior to formal site plan submission, owners are required to contact Town staff for a pre-consultation meeting. At these meetings, specific requirements relating to site servicing, grading, stormwater management, Building Code requirements, landscaping, Fire

Department requirements, site design etc. are discussed. A delegation at Site Plan Review Committee constitutes pre-consultation for the purposes of site plan submissions. Additionally, external departments/agencies may also be required to review site plan submissions and should also be contacted prior to site plan submission.

Prior to site plan submission, applicants are encouraged to submit concept plans to be reviewed by the Site Plan Review Committee for preliminary comments. The submission of a concept plan may identify major problems associated with a proposal and will provide early feedback prior to the finalization of formal drawings. The identification and resolution of problems at the concept plan stage generally results in timely site plan approvals. Finally, pre-consultation may also identify additional information which may be required to be submitted in conjunction with a site plan application (i.e. Arborist Report, Traffic Impact Study, Environmental Site Assessment, Noise Study).

2.3 APPLICATION FOR SITE PLAN APPROVAL

Site Plan applications are available at the front counter of Planning and Development Services and on the Town of Ajax website at www.townofajax.com. Site plan applications must be submitted in person to Planning and Development Services, Town of Ajax, 65 Harwood Avenue South. Applications should be accompanied with a cover letter addressed to the Manager of Planning which outlines the development proposal.

3.0 SITE PLAN SUBMISSION REQUIREMENTS

3.1 REQUIRED DRAWINGS

In order to initiate the site plan approval process the following drawings are required:

- i) 1 current Legal Survey (which extends beyond the subject site to include all abutting road right-of-ways and all abutting property road access points – this includes property's located across the road from the subject site);
- ii) 15 Site Plan drawings;
- iii) 12 Site Servicing and Grading Plans;
- iv) 8 Landscape Plans, Tree Preservation Plans and Landscape Details;
- v) 8 Architectural Plans (exterior building elevations and floor plans) including 3 sets of coloured elevations;
- vi) 8 Roof Top Plan (if applicable);
- vii) 8 Illumination/Photometric Plan (if applicable);
- viii) 5 Truck Route Plan (this also includes garbage truck route); and
- ix) 10 reduced copies of the proposed site plan (8.5 x 11 or 8.5 x 14)

All drawings are required to be folded to 8.5" x 14" – **rolled plans will not be accepted for processing.**

All drawings shall include the following information:

- i) metric scale of 1:200 to 1:500;
- ii) applicant/owner information including name, address and phone no.;
- iii) project name, date, municipal address and legal description of the subject property;
- iv) the tracking of the drawing no., date, description and author;
- v) north arrow; and
- vi) Geodetic Benchmark

3.2 REQUIRED DOCUMENTATION & BACKGROUND STUDIES

In addition to the required drawings, the following information is also required:

- i) Completed Site Plan Application form supported by a Site Screening Questionnaire or Phase 1 Environmental Site Assessment;
- ii) Application Fee;
- iii) 3 copies of Drainage Plans and Erosion Control supported with a Stormwater Report;
- iv) 3 copies of a Waste Management Plan;
- v) Electronic version of all drawings in AutoCAD and PDF format on a compact disc; and
- vi) 5 copies of any additional reports as determined by Planning Section (i.e. traffic impact study, parking utilization study, noise study, shadow impact study, arborist report, Phase I Environmental Site Assessment etc.)

Note - additional application(s) and associated fee(s) may be required by external agencies (i.e. Regional Municipality of Durham, TRCA, CLOCA etc.) for the review of the site plan application. It is the applicant's responsibility to fill out the appropriate application and submit the required fees.

Architectural Plans:

Building elevations and floor plans shall form part of the complete site plan submission and shall be prepared by a qualified professional. Building elevations shall be provided from all directions and shall clearly identify the building materials and colours. Three copies of coloured elevations are required at the time of site plan submission. It is important that building elevations be provided for all sides of proposed buildings, supported with the following information:

- i) building materials, roof materials, dimensions including heights, roof pitches, locations of all doors and windows;
- ii) architectural treatment of loading and servicing areas;
- iii) locations of mechanical equipment affixed to the building and the method of screening;
- iv) fascia signage and lighting;
- v) architectural detailing including treatment of primary pedestrian points of entry;
- vi) the location of roof-top mechanical equipment and the proposed method of screening; and
- vii) locations of air-conditioning and exhaust vents

3.3 PLANNING REVIEW REQUIREMENTS

3.3.1 Site Statistics

All site plan drawings must include the following information:

- i) all bearings and dimensions of the subject property;
- ii) lot area, lot frontage, permitted and proposed lot coverage, permitted and proposed landscaped areas, permitted and proposed gross floor area, permitted and proposed parking, the location of barrier free parking spaces and the area of paved and landscaped areas.
- iii) all existing and proposed buildings and their dimensions, including dimensions of the closest point of all buildings/structures to lot lines and designated rights of way;
- iv) all permitted setbacks, as indicated in the Town's zoning by-law, illustrated and dimensioned;
- v) dimensions of all buildings and structures;
- vi) location and dimension of parking spaces, aisles and loading spaces;
- vii) type of development, as per the zoning by-law;
- viii) locations of all pedestrian entrances, including all barrier free access points and dimensions;
- ix) all easements, rights of way and road widenings on the subject property;
- x) location of all required fire access routes (see Section 3.3.9);

- xi) pylon sign location and setback from lot line;
- xii) garbage enclosure locations and details (see Section 3.3.5);
- xiii) outside storage locations and description of items to be stored (if applicable);
- xiv) information on adjacent lands which illustrates how the development of the subject property ties in to the adjacent lands;
- xv) sidewalks and boulevard trees;
- xvi) location of fire hydrants, overhead clearance for any projections, siamese connections, size and location of private watermains, location of fire route signs;
- xvi) barrier free design in accordance with Ontario Building Code, location of curb cuts, handicap ramps, railings etc (see Section 3.3.11).
- xviii) location of natural features on, or adjacent to, the subject property;
- xix) type, height and location of utilities on municipal boulevard including transformers, light poles, trees, Bell pedestals etc;
- xx) type and location of curbing. Curbing to be continuous 15 cm poured concrete high barrier in the following areas:
 - all vehicular routes;
 - landscape traffic islands;
 - pedestrian walkways;
 - bus bays or transit shelters; and
 - existing and proposed elevations (geodetic)
- xxi) location of all bicycle storage/lockers of racks;
- xxii) location of transit stops and transit shelters abutting the property;
- xxiii) location of daylighting triangle

3.3.2 Land Use Compatibility Between Residential and Non-Residential Areas

Non-residential site plan submissions situated adjacent to existing and planned residential neighbourhoods must be designed in a manner which minimizes any adverse impact on existing and/or future residents. Specific requirements may be incorporated as conditions of approval or within the site plan agreement. Specific concerns which must be considered at the site plan submission stage includes:

- i) location of drive-thru, pick-up windows and order boards;
- ii) location of patios;
- iii) loading and delivery locations, as well as garbage pick-up areas;

- iv) parking/access locations and headlight impacts;
- v) air conditioning and refrigeration equipment;
- vi) hours of operation;
- vii) lighting provisions;
- viii) landscaping and fencing requirements for all yards adjacent to residential properties.
- ix) site specific provisions may be incorporated within the site plan agreement to ensure that the above has been addressed in a manner satisfactory to the Town; and
- x) drive-thru facilities, where permitted, will be designed to mitigate impacts on residential areas, encourage pedestrian activity, locate the building close to the street to clearly define and support the street edge, place parking, driving aisle and stacking lanes away from the street, and provide appropriate massing and articulation of building elements. Idling vehicles, order boards and take-out windows will not be permitted adjacent to residential zones

Liquor licences being considered for outdoor patios adjacent to residential areas shall contain provisions which cease the serving of alcohol at 9:00 p.m. Please contact By-law Services regarding liquor licenses. Additionally, musical reproducing machines, music equipment, dancing, theatrical performances, music concerts or any other outdoor activity generating unreasonable noise will not be permitted. Patios, if not identified through the original site plan approval process, will require a site plan amendment.

Portables (does not include the placement of a portable classroom on a school site of a district school board if the school site was in existence on January 1, 2007), if not situated within a location identified through the original site plan approval process, will require a site plan amendment. Any such site plan amendment application shall be circulated to members of Council, assessed property owners within 60 metres (200 feet) of the property as well as the Durham Region Police Department. Following the circulation of the application, a public open house may be required.

3.3.3 Access Management

Access management is defined as “the systematic control of the location, spacing, design and operation of driveways, median openings, interchanges and street connections to a roadway” (Transportation Research Board (TRB) – Access Management Manual).

All access within the functional area of an intersection is to be avoided. The location, spacing and design of unsignalized/signalized intersections, raised medians and median openings, deceleration/acceleration lanes and driveways are to be determined by the Town of Ajax and/or the Regional Municipality of Durham, and will be evaluated in accordance to the Transportation Association of Canada (TAC) Manual (i.e. stopping/decision/intersection sight distance etc.).

Reasonable access is the minimum number of connections, direct or indirect, necessary to provide safe ingress and egress to the road network based on the road classification, traffic volume, number of reported collisions and type or intensity of the land use.

Access easements over neighbouring properties should be pursued in order to minimize driveways and cross-streets within the Town.

3.3.4 Parking

In conjunction with major site plan applications, the Town of Ajax may require a traffic impact analysis to address matters such as access locations and design, internal traffic flow, traffic control requirements, parking requirements and locations.

Parking areas should be located in close proximity to building entrances and provide an easily identifiable pathway to the building entrance. Barrier-free and visitor parking spaces are to be provided close to the main entrance.

Parking areas should generally be located behind the building mass at the side and rear of buildings, and screened from the street. Buildings should be located close to the street and/or public spaces thereby reinforcing the Town's objective of creating attractive, pedestrian spaces.

When parking cannot be accommodated behind the building mass, or is required in the front yard for small commercial developments, front yard parking will be limited to a single aisle wherever possible.

Buffer strips and landscaping should be provided around the perimeter of parking areas. Buffer strips will vary in width and extent and should generally be a minimum of 3 metres wide, depending on site characteristics, streetscape, grades and adjacent uses.

Curbed landscaped islands should be utilized at the end of parking lot aisles along major vehicular routes. Islands should also be used to visually divide large parking lots. The provision of islands and internal landscaping should be of a scale appropriate for the size of the parking lot and be 3 to 4.5 metres in width to sustain tree planting.

The Town of Ajax Zoning By-law requirements relating to parking stall size, aisle width and loading spaces are as follows:

Criteria	Standard
Minimum Parking Space Length	6.0 metres
Minimum Parking Space Width	2.7 metres
Minimum Parking Space Length	Parallel 6.7 metres
Minimum Parking Space Width	Parallel 2.5 metres
Barrier Free Parking Space Width	4.5 metres
Barrier Free Parking Space Length	6.0 metres

Criteria	Standard
Minimum Aisle Width	6.7 metres
Loading Space Length	15.0 metres
Loading Space Width	3.6 metres
Loading Space Height	4.5 metres
Loading Space Maximum Slope	8%

A parking utilization study is required for any site plan application that requires relief from the minimum off-street parking requirements as specified in the Town of Ajax Zoning By-law, as amended.

3.3.5 Sidewalks and Pedestrian Connections

Public sidewalks are generally required across the full frontage of properties. Primary pedestrian connections should be barrier-free, and should be provided directly from the public sidewalk to principle building entrances and parking areas.

In addition, secondary pedestrian connections (on-site sidewalks) should link major activity areas, provide a pathway through large parking areas and a pathway between parking areas and side yards.

Pedestrian surfaces should provide for safe movement under all weather conditions and be of low maintenance materials.

3.3.6 Waste Management

Waste storage areas must be inconspicuous, litter free and control odour. The design must be convenient for the occupants of the building and facilitate the removal of waste at regular intervals without inhibiting the safe and convenient use of the site. The facility must be inside the building with exterior access. No exterior enclosures are permitted. All garbage facilities are to be wholly enclosed within a building.

All site plan submissions are required to submit a supporting Waste Management Plan. A Waste Management Plan is intended to be very explicit, which will assist By-law Services in enforcing the Plan's requirements. A Waste Management Plan shall address the following:

- i) the location of all garbage containment on-site;
- ii) the control of garbage within storage bins;
- iii) frequency of garbage collection;
- iv) the scheduled time of day for pick-up;
- v) the location of garbage bins and number of bins required to satisfy the use;

- vi) the frequency of litter pick-up within and around the property;
- vii) the geometrics of on-site driveways, parking and service areas should be designed to facilitate the safe and unobstructed movement of the refuse collection vehicles,
- viii) the garbage truck circulation route,
- ix) the proposed recycling initiatives and whether there is adequate storage for recycling;
- x) the size of the required garbage facility shall be based on one bin (6 yards, physical floor area 8m²) for every 450 m² for the first 900m² of GFA, and one additional bin for every 900m² thereafter; furthermore, the size of garbage room must be able to accommodate one additional bin for every for every restaurant included on site and one additional for recycling;
- xi) the minimum internal clearance from bins and walls must be 0.450m; and
- xii) whether hazardous waste is being handled on-site and if so, how is it disposed of

Facilities should be conveniently accessible for all users and be located inside the building with exterior access and/or permit the sanitary storage of refuse, minimize litter, odour and the need for frequent maintenance. In addition, \$3,000.00 is collected through the Site Plan Agreement for each fast food establishment, retail convenience outlet and automobile service station. These funds will be directed towards anti-vandalism and anti-litter initiatives.

Furthermore, in order to provide staff with the tools to effectively deal with the on-going problem of garbage and litter on-site during the construction period of the project, a letter of credit in the amount of \$5,000.00 is required as security to ensure that litter and garbage problems are addressed immediately. Similar to the existing 'Mud Deposit' wording in the Site Plan Agreement, property owners will have six (6) hours to respond to clean-up requests. Should these requests not be acted upon, the Town will be in a position to have the site cleaned up immediately and will have the financial security to ensure that invoices are paid.

3.3.7 Illumination/Photometrics Plan

All proposed lighting, whether pole-mounted or building-mounted shall be designed in to be of minimal interference with adjacent properties. If the site is adjacent to residential areas, lighting shall be of reduced intensity, and shall be directed downward as well as inward so as to maintain zero cut-off light distribution at the property line. Suitable lighting shall be provided for parking areas and pedestrian walkways.

3.3.8 Signage

All signage should be designed to fit with the architectural features and character of the building thereby complimenting and enhancing the site and streetscape to assist in identification and orientation of the development for the general public and so far as not to interfere with adjacent users. All proposed signage shall be in accordance with the

current Town's Sign By-law. The location and size of signage is reviewed but not approved through the site plan approval process. A separate Building Permit is required for the erection of all signs.

3.3.9 Roof Top Mechanical Equipment

For developments which utilize roof top mechanical equipment, drawings are to be submitted which show a detailed method of screening this equipment that is consistent with the following:

- i) screening structures shall be of sufficient height and width to provide a complete enclosure that eliminates any view of the roof top mechanical equipment from ground level areas. The use of a heightened parapet or the enclosure of such units within the roof structure of the building is preferred;
- ii) painting roof top mechanical equipment units is not an acceptable means of providing the required screening;
- iii) materials used are to be compatible with the building. For example, if siding is used, it is to match the type and colour used on the building structure. Wood screening structures are to be of pressure treated wood with galvanized hardware and are to be painted to match the colour of the building. Open wood lattice screens are not acceptable; and
- iv) depending on the type of building, it is recommended that consideration be given to designing the screening structure to form an architectural feature of the building

3.3.10 Fire Access Routes and Fire Hydrants

Fire Department access routes shall:

- i) be clearly defined on the submitted site plan and shall be located in accordance with the Ontario Building Code;
- ii) be connected to a public thoroughfare with a clear inside driveway width of 6.0 metres;
- iii) be located not less than 3 metres and not more than 15 metres measured horizontally from each face of the building required to face a street;
- iv) have an overhead clearance of not less than 5 metres;
- v) have a centre line turning radius of not less than 12 metres with respect to any change in direction of the access route complete with a 3 metre clearance from the centre line to any obstruction such as islands or parking;
- vi) have turn around facilities for any dead end portion of the access point exceeding 90 metres;

- vii) be designed to support the expected loads imposed by fire fighting equipment and be surfaced with concrete, asphalt or other material designed to permit accessibility under all climatic conditions;
- viii) emergency access routes shall be constructed in accordance with the Town's standard;
- ix) cul-de-sacs/ dead-end streets over 90 metres shall be discouraged; and
- x) two remote means of ingress/egress shall be required for all streets exceeding 100 metres

Fire hydrants:

- i) whether on-street or private, are to be clearly identified on the site plan;
- ii) shall be located within 90 metres horizontally of any portion of the building perimeter which is required to face a street;
- iii) where possible, should be positioned not closer than 12 metres to any building;
- iv) shall be installed in compliance with the requirements of the Region of Durham;
- v) shall be located in an area unobstructed by landscaping;
- vi) upon completion of the project, the installing contractor shall certify in writing to the Fire Department that the hydrant(s) have been tested and left fully operational; and
- vii) all hydrants on private property must be painted red and the storz must be painted black in accordance with Durham Region Standards

Standpipe and Sprinkler Siamese Connections shall:

- i) be located in accordance with the Ontario Building Code and shall be identified on the site plan;
- ii) be located within 45 metres of a fire hydrant;
- iii) be located adjacent to a street or fire access route; and
- iv) be located in an area unobstructed by landscaping

3.3.11 CPTED Principles

Since the 1970's, the name Crime Prevention Through Environmental Design (CPTED) has been attributed to the concept that is based on the belief that:

- i) the proper design and effective use of the built environment can lead to a reduction in the fear and incidence of crime as well as an improvement in the quality of life;

- ii) its success and popularity can be measured, in part, by its global acceptance and world-wide institutionalization.

CPTED involves the design of physical space in the context of the needs of the bona fide users of the space, the normal and expected (or intended) use of the space and the predictable behaviour of both bona fide users and offenders. In this regard, the proper function must not only match a space that can support it but the design must assure that the intended activity has the opportunity to function well and support the control of behaviour.

The goal of CPTED is to create an environment where the design and use can lead to a reduction in the fear and incidence of crime and an improvement in the quality of life.

All Site Plan submissions will be reviewed for compliance to the general principles and common strategies of the CPTED philosophy.

General Principles:

- i) Natural Surveillance - keeps intruders under observation;
- ii) Natural Access Control - decreases crime opportunity; and
- iii) Territorial Reinforcement - unleashes feelings of ownership

Common CPTED Strategies:

- i) Provide clear border definition of controlled space;
- ii) Provide overlook opportunities for common areas, walkways, driveways, and pedestrian entrances;
- iii) Provide clearly marked transitions from public, to semi-public, to private spaces;
- iv) Place safe activities in vulnerable areas and/or vulnerable areas in safe places;
- v) Provide natural barriers (including distance) between conflicting activities;
- vi) Maximize natural surveillance (i.e. eyes on the street); and
- vii) Use design efficiencies to overcome distance and isolation

3.3.12 Barrier-Free Accessibility

Barrier Free Entrances, ramps, walks and parking spaces etc. shall be designed in accordance with the Town of Ajax 2007 Facility Accessibility Design Standards and Ontario Building Code and with the following design criteria:

Entrances, ramps and walks

- i) Barrier Free Path of Travel for the purpose of this manual is defined as a seamless and continuous plane not interrupted by a drive aisle, steps or abrupt changes in elevation greater than 13 mm;
- ii) ground surfaces shall be stable, firm, slip-resistant and glare-free;
- iii) the minimum clear width of an accessible route shall be 1.8 m;
- iv) all entrances to non-residential and high density residential buildings (used by the public, staff etc.) shall be accessible, in a retrofit situation where it is technically infeasible to make all entrances accessible, at least 50% of all entrances shall be accessible. In a retrofit situation where it is technically infeasible to make all public entrances accessible, the primary entrances (used by the public, staff etc.) shall be accessible;
- v) the sidewalk or landing at the Barrier Free entrance must have a minimum 2.4 m x 2.4 m level area no greater than 13 mm below the first floor entrance elevation;
- vi) all the Barrier Free entrances in multi-tenant commercial or industrial building must be interconnected by 1.8 m accessible sidewalk. This sidewalk must provide a continuous barrier free path of travel;
- vii) a seamless and continuous barrier free path of travel must be provided from the barrier free parking space to the barrier free building entrance;
- viii) exterior accessible ramps running slope shall be between 1:20 (5%) and 1:25 (4%). In a retrofit situation where it is technically infeasible to provide a ramp with a running slope between 1:20 (5%) and 1:25 (4%), a running slope not steeper than 1:12 (8.3%) may be used. Exterior ramps with gradient between 1:12 (8.3%) and 1:20 (5%) must be equipped with handrails and guards. Shallower slopes are preferred. Ramps shall have a 2.4 m x 2.4 m level landing at the top and bottom of each run and a minimum 1.7 m x 2.4 m landing where the ramp changes direction. The maximum horizontal length between landings shall not exceed 9 m. Ramp and landing surfaces shall be slip-resistant. Edges of ramps and landings shall be protected with a wall or guard on all sides and shall comply with the requirements of the Ontario Building Code;
- ix) accessible curb ramps running slope shall be between 1:50 and 1:20 (2%-5%). In a retrofit situation where it is technically infeasible to achieve these slopes, a running slope no steeper than 1:12 (8.3%) may be used. Surfaces of curb ramps shall be slip-resistant and incorporate a truncated dome detectable warning surface 0.6 m long, starting 150-200 mm back from the edge of the curb and extend the entire width of the ramp;
- x) exterior walkways less than 1:20 are not considered as a ramp;
- xi) all exterior walkways and ramps shall be designed to meet the requirements of Ontario Building Code section 3.8;

- xii) a barrier free path of travel should be designed so that a person does not cross a driveway or pass behind parked vehicles;
- xiii) barrier free path of travel should be as close as possible to the barrier free entrance and not exceed a length of 30 metres; and
- xiv) gratings located in walking surfaces shall have spaces not greater than 13 mm wide in one direction and be places so that the long dimension is across the dominant direction of travel

Parking Spaces:

- i) maximum permitted cross and longitudinal slope for a barrier free parking space shall not exceed 2%;
- ii) barrier free parking spaces shall be paved, have slip-resistant pavement markings containing the International Symbol of Access. Gravel is not acceptable;
- iii) accessible parking shall be located adjacent to the main barrier free entrance of each unit of a multi-tenant building;
- vi) passenger loading/drop off zones shall be located adjacent to the main barrier free entrance of a building, be on an accessible route, provide an access aisle at least 2.44 m x 7 m adjacent to a vehicle pull-up space, have a minimum vertical clearance of 3.35 m and a curb ramp;
- vii) minimum barrier free parking space size 4.5 m x 6.0 m, with a height clearance of at least 2.75 m. For parallel parking, minimum parking space size shall be 3.9 m x 7.4 m; and
- viii) refer the Ontario Building Code and the Town's Traffic By-law for other technical standards;

Parking Requirements for Hospitals and Medical Clinics	
Required No. of Parking Spaces	No. of Required Spaces Designated for Use by Persons with Disabilities
1 to 30	Minimum of 2 spaces
31 to 60	Minimum of 4 spaces
61 to 100	Minimum of 6 spaces
For each additional 30 spaces or part thereof above 100	A minimum of 2 spaces to a maximum of 40 additional spaces

Parking Requirements for All Other Uses	
Required No. of Parking Spaces	No. of Required Spaces Designated for Use by Persons with Disabilities
2 to 19	Minimum of 1 space
20 to 200	Minimum of 2 spaces
201 to 400	Minimum of 5 spaces
For each additional 400 spaces or part thereof	A minimum of 2 spaces to a maximum of 40 additional spaces

Size of Parking Space for Persons with Disabilities

Each off-street parking space designated for persons with disabilities shall be a minimum of 6.0 m long, 4.5 metres wide and have a vertical clearance of 2.75 m.

Landscaping Materials and Plantings

- i) the use of unit pavers as a walking/wheeling surface is not recommended, unless they are laid in a location that is not subject to effects of settlement and frost heave, such as over a structural slab;
- ii) the edges of planting beds located immediately adjacent to pedestrian pathways or walkways, shall incorporate clearly defined, cane-detectable curbs at least 75 mm high;
- iii) shrubs with thorns and sharp edges shall be planted at least 1.0 m away from accessible pathways and seating areas;
- iv) plants that drop large seed pods shall not overhang or be positioned near accessible pathways or walkways;
- v) overhanging branches of trees or shrubs over walkways or paths shall not reduce the available headroom at any part of the walkway or path to less than 2.1 m; and
- vi) permanent guide wires shall not be used in any area which is intended for use by the general public, clients, customers or employees;

Benches

- i) all benches, except those located in unpaved areas of parks, wilderness, beach or unpaved picnic areas, shall be accessible to persons using wheelchairs or other mobility devices;
- ii) benches shall be adjacent to an accessible route and be stable;
- iii) shall have a seat height between 0.45 m and 0.5 m from the ground;

- iv) have arm and back rests;
- v) be of contrasting colour to their background; and
- vi) have an adjacent level, firm ground surface at least 0.92 m x 1.37 m

Streetscape

- i) where sidewalks are provided along public rights-of-way, within the downtown core area, an accessible route at least 2.1 m wide shall be maintained along the sidewalk;
- ii) where sidewalks are provided along public right-of-ways, outside the downtown core area, an accessible route at least 1.8 m wide shall be maintained along the sidewalk;
- iii) the accessible routes along public rights-of-way must be identified using a minimum 0.3 m wide continuous indicator surface along each side of the accessible route;
- iv) street elements shall not reduce the required width of the accessible route, be cane-detectable, be consistently located to one side of the accessible route, entirely within an amenity strip that is hard-surfaced, at least 0.6 m wide, and identified using a indicator surface, street elements must be securely mounted within an amenity strip, minimum 0.6 m wide, located adjoining walkways, paths, sidewalks and other accessible routes;
- v) street elements shall incorporate pronounced colour contrast to differentiate it from the surrounding environment;
- vi) waste receptacles and recycling bins shall be large enough to contain the anticipated amount of waste, so that overflows do not cause a tripping hazard; and
- vii) waste receptacles and recycling bins in accessible open areas, such as parks, wilderness areas, beaches or picnic areas, shall be mounted on firm, level pads adjacent to the path or sidewalk (but not directly beside seating areas)

Lighting

- i) exterior lighting shall be in compliance with Illuminating Engineering Society of North America Standards in all public thoroughfares, and at all pedestrian routes, to provide safe access for persons with disabilities from sidewalks, bus stops and parking areas to nearby facilities and site amenities;
- ii) at pedestrian entrances, lighting levels should be minimum 100 lux (9.4 ft-candles) consistently over the entrance area, measured at the ground;

- iii) over frequently used pedestrian routes, including walkways, paths, stairs and ramps, lighting levels shall be minimum 30 lux (3 ft-candles) consistently over the route measured at the ground;
- iv) at designated parking spaces including accessible spaces and limited mobility/caregivers spaces, and passenger drop-off areas, lighting levels shall be minimum 30 lux (3 ft-candles) consistently over each of these parking spaces and drop-off areas, measured at the ground;
- v) at frequently used steps and stairs, lighting shall be located at or beside the steps or stairs, to clearly define the treads, risers and nosings; and
- vi) all lighting shall provide a good colour spectrum and be evenly distributed to minimize cast shadows

Colour

- i) exterior colour schemes shall incorporate a pronounced colour contrast, to differentiate boundaries of objects, distinguish objects from their background, and to generally enhance spatial orientation;
- ii) colour contrast shall be used as a safety measure to define edges of boundaries of objects (e.g. stair nosings, doors, handrails etc.)
- iii) bright colours and/or a highly contrasting tone shall be used to assist with wayfinding; and
- iv) end walls or return walls in long corridors shall be visually defined using highly contrasting colours or tone, to enhance a change of direction or the end of the space

Windows, Glazed Screens & Sidelights

- i) fully-glazed doors and sidelights at exterior entrances or vestibules shall be clearly identified with a horizontal row of decals, or a continuous stripe, minimum 50 mm wide and of highly contrasting colour, mounted with its centre line between 1.475 m and 1.525 m from the floor or ground. Additionally, a second row of decals, or a continuous stripe, a minimum 50 mm wide and of highly contrasting colour, mounted with its centre line between 1.17 m and 1.2 m above the floor/ground.

3.4 ENGINEERING REQUIREMENTS

3.4.1 Site Grading Design and Specifications

Site Grading Plans shall contain the following information:

- i) centre line of road grades at 15 metre intervals along all existing streets bounding the property, and existing grades;
- ii) a legend indicating which are existing and which are proposed elevations;

- iii) geodetic spot elevations must be noted on the drawings to illustrate existing grade conditions provided these elevations were obtained from a field survey on a regular grid pattern with the interval not exceeding 15 metres. Alternatively, contours at maximum 0.5 metre intervals to indicate the existing elevations of the site (geodetic based). The grading information must extend a minimum distance of 15 metres beyond the property limits to indicate the grading and drainage patterns of adjacent lands;
- iv) proposed and existing elevation at key locations around the site and building must be identified;
- v) key elevation locations must include drainage arrows and percentage of cross fall to catch basins;
- vi) proposed and existing elevation at streetline and at all lot corners as well as elevations at intermediate and key locations;
- vii) undisturbed strip with a minimum width of 600 mm around the perimeter of the site should be maintained;
- viii) cross sections and sketches to clarify the proposed grading, particularly in relation to adjacent lands, proposed elevations on paved areas, around proposed buildings, along swales, along roadways, parking areas, driveways, catchbasin rim elevations, and any other elevations necessary to establish the grading and drainage patterns for the development;
- ix) all manholes, catchbasins, hydrants and valves;
- x) all sidewalks and walkways;
- xi) all top and bottom of curb and retaining walls;
- xii) all building elevations shall be established and referenced to a "Finished First Floor" or a "Finished Entrance Floor" and a "Finished Basement Floor" elevation;
- xiii) All proposed construction and related work must not create any surface drainage problems on the subject property, nor on any adjacent private property or public property;
- xiv) the drainage of the site shall be self-contained;
- xv) the grading of the site shall be compatible with the elevation of the surrounding lands;
- xvi) elevations of driveways, sidewalks, parking areas and other paved activity areas are to be related to the building elevations to achieve positive drainage;
- xvii) all grassed embankments shall have a maximum slope of 3:1;

- xviii) the grade of sodded or other landscaped areas shall have a maximum slope of 8% and a minimum slope of 2%;
- xix) swales on sodded areas shall have a minimum slope of 2% and a maximum slope whereby the velocity of the flow contained does not exceed 5 metres/sec;
- xx) the maximum length of any drainage swale shall not exceed 75 metres;
- xxi) the minimum depth for any drainage swale shall be 0.15 metres;
- xxii) the maximum depth for any drainage swale shall be 0.5 metres;
- xxiii) municipal boulevards must be graded between 2% to 5% maximum;
- xxiv) all main driveways shall be graded with a minimum grade of 1% to a maximum of 8% and cross slope of 5% maximum;
- xxv) driveways and parking areas (longitudinal and cross slope) shall be graded with a minimum grade of 1% to a maximum 5%;
- xxvi) service areas shall be graded with a minimum grade of 1% (longitudinal and cross slope) to 5% maximum;
- xxvii) walkways shall be graded with a minimum grade of 2% to a maximum 3 % (cross slope);
- xxviii) walkways shall be graded with a minimum grade of 1% to a maximum 8% (longitudinal);
- xxix) vehicle ramps exceeding a 8% slope shall be rounded off at the top and bottom to provide an easy and safe gradient between connected levels;
- xxx) exterior ramps to interior garages with gradients in excess of 8% should be heated;
- xxxi) vehicle ramps must have a level area (3% to 5%) at the top of the ramp of 6 metres in length; and
- xxxii) If a retaining wall is required, then a detail must be supplied. If the retaining wall is defined as a designated structure by the Ontario Building Code, a building permit application will be required, along with a detail of the retain wall that is stamped/approved by Engineer

3.4.2 Site Plan Design Information

Site Plans shall contain the following information:

- i) roadway/driveway dimensions and curb radii including location and details of all existing adjoining curbs and pavement;
- ii) location of embankments, retaining walls, stairs, utilities, etc;

- iii) traffic control signage and pavement markings;
- iv) pavement structure;
- v) driveways and parking areas should be paved and curbed to match the Town's minimum design criteria;
- vi) driveways and parking areas should be defined with 150 mm high curb to assist in delineating traffic and pedestrian patterns and to restrict vehicle encroachment on landscaped areas;
- vii) development should be designed to provide adequate space for on-site snow storage without infringing on required parking spaces; and
- viii) The applicant is required to submit a foundation certificate and survey prior to framing as well as a grading certificate upon completion of landscaping. Additionally, the applicant agrees to deliver to the Town, a Certificate of Compliance from a Professional Engineer certifying that all works have been constructed in accordance with the approved Plans.

3.4.3 Stormwater Management

The collection and discharge of stormwater into local watercourses can impact downstream resources e.g. increased peak flows, sedimentation, increased water temperature, downstream erosion, nutrient and pollutant loading. All of these factors can adversely affect water quality and fisheries.

A stormwater management report, if required, shall include the following:

- i) quality and quantity control measures;
- ii) post-development and pre-development calculations of flows;
- iii) restrictions on the number of roof drains to provide detention of stormwater;
- iv) detention of stormwater on parking areas;
- v) oversizing storm sewers to create pipe storage;
- vi) reduced grading to allow greater ponding of stormwater and natural filtration;
- vii) roof leaders or downspouts are to be connected to the storm drainage system;
- viii) soil compaction and infiltration measures;
- ix) overland flows; and
- x) detention or permanent stormwater storage

3.4.4 Internal Drainage Plan

Internal Drainage Plans shall include the following information:

- i) internal drainage plan showing tributary area to each manhole on proposed storm system and proposed grading;
- ii) design flow to each length of sewer shall be computed on standard Town of Ajax design sheets according to the "rational" formula $Q=0.002778 \text{ AIR}$ (see Town of Ajax Design criteria);
- iii) rainfall intensity shall be determined from Yarnell's 5 year storm curve $i=2464:(T+16)$ using 15 minute inlet entry time at the head of the system for residential development, and a 5 minute entry time for industrial and commercial development;
- iv) overland flow for a 100 year or regional storm curve, whichever is more stringent, shall be accommodated in road cross-sections and/or blocks of land dedicated to the municipality. The extent and top elevation of any potential 100 ponding are to be shown on the grading plans. Complete design calculations and plans shall be prepared and submitted for approval;
- v) run-off co-efficients as per AS-501 (see design criteria);
- vi) pipe capacities - see tables prepared by the Region of Durham Works Department for "Capacity and Velocity of Circular Pipes by Mannings Formula";
- vii) flow velocities - minimum acceptable velocity = 0.75 metres/sec, max=4.60 metres/sec;
- viii) the minimum size for a storm sewer shall be 250 mm;
- ix) minimum grades - see design criteria;
- x) minimum cover to the top outside pipe barrel shall be 1.3 metres;
- xi) pipe crossings - minimum clearance of 0.15 metres shall be provided between the outside of all pipe barrels at all points of crossing (see standard drawings and design criteria); and
- xii) maximum change in velocity from one pipe to another is 0.6 metres/sec

3.4.5 Site Servicing Design and Specifications

- i) all existing underground services on the streets, and easements adjacent to and/or within the limits of the property;
- ii) the location, size, grade, invert elevations of all existing storm and sanitary service connections to the property;
- iii) the location and size of all existing watermain connections to the property;

- iv) the basement floor elevations of all buildings to be constructed; and
- v) proposed underground servicing as per section 6.3 (with drainage plan and calculations)

All sanitary and watermains including backflow prevention devices shall be designed in accordance with the requirements of the Region of Durham and the Ontario Building Code.

The owner shall assume full responsibility for having assured that the building grades and internal drainage system (storm and sanitary) are such to allow connection to the Town or Regional sewers by gravity fall.

3.4.6 Sediment and Erosion Control

Disturbance of surface material and stockpiling of soil during construction can produce substantial quantities of sediment. Sediment can have adverse impacts on retained vegetation features and on down-gradient aquatic features. A Sediment & Erosion Control permit is required prior to commencing any work on site except when a Site Plan Agreement has been approved by Planning and Development Services.

The following Sediment and Erosion Control requirements shall be followed upon clearance:

- i) contractor to comply with Sediment and Erosion Control By-law #32-99;
- ii) contractor to comply with Mud Tracking By-law #69-2002.

Before proceeding with any area grading the following must be constructed:

- i) mud mat, temporary swales, tree preservation, silt fence and temporary pond, if required.
- ii) silt control fence shall be installed around the perimeter of the site and maintained until the completion of the landscaping;
- iii) catchbasin buffers are to be installed at all catchbasins and manhole locations upon completion of servicing;
- iv) accumulated silt to be removed off site prior to removal of the silt control fence;
- v) contractor to install and maintain mud mat at construction access in order to prevent mud tracking onto adjacent roads. Mud mat to be 25 metres long and 6 metres wide and shall consist of 100 mm clear stone and 400 mm deep;
- vi) contractor to clean adjacent roads on a regular basis to the satisfaction of the Town of Ajax or Durham Region whichever is applicable. The road shall be, at a minimum scraped daily and flushed on Friday evening or Saturday morning, or as directed by the Town;

- vii) the silt fence must be inspected weekly and immediately after rainfall events for rips or tears, broken stakes, blow outs (structural failure) and accumulation of sediment. The silt fence must be fixed and/or replaced immediately when damaged. Sediment must be removed from silt fence when accumulation reaches 50% of the height of the fence;
- viii) the owner will seed, mulch and maintain the entire site if a building permit is not issued within 270 days of the Sediment and Erosion Control Permit being issued;
- ix) if the site remains dormant at any time for more than 270 days then the owner shall seed, mulch and maintain areas that have been disturbed and are otherwise unfinished; and
- x) upon completion of landscaping all sediment and erosion control measures shall be removed

3.4.7 Site Access

All site plans shall include identification of the following elements:

- i) any temporary construction access points or haul routes; and
- ii) ingress, egress and turning movements for any delivery and garbage trucks

3.4.8 On-site Circulation

Sites shall be designed to incorporate primary means of traffic movement. In order to maximize internal traffic flow, no parking spaces shall be designed to directly access these primary vehicular driveways. Parking spaces which flank these driveways shall feature end islands with a 3.0 metre minimum width. These end islands clearly delineate the internal circulation flow and also ensures that necessary sight lines are maintained. These end islands are intended to be landscaped with shrubs not exceeding 60 cm height or deciduous trees.

All truck movement must be self-contained so that adequate turn round facilities and loading facilities are provided on site.

3.4.9 General Notes

The following notes must be included on the Site Plan:

General Notes:

- i) boulevards to be graded, top soiled 150 mm depth and sodded by owner/contractor to the Town's satisfaction.
- ii) all existing pavement, curbs, sidewalks, driveways and boulevard areas disturbed by the construction must be reinstated to the satisfaction of the Town of Ajax.

- iii) a minimum setback of 1 metre from street furniture to proposed driveways and sidewalks shall be maintained. All existing street furniture to be relocated by the contractor/owner to a setback of 1 metre. The cost of relocation of any utility is the responsibility of the developer/owner.
- iv) the contractor/owner is responsible for all utility locates and any damage or disturbance during construction.
- v) all barrier free entrances and barrier free paths of travel must comply with O.B.C.3.8.
- vi) the owner/contractor shall supply all fire route and handicap signs as set out in the Town of Ajax By-laws and design criteria.
- vii) all exterior illumination to be directed downward as well as inward and designed to maintain zero cutoff light distribution at the property line.
- viii) sidewalk and driveways shall be constructed as per Town of Ajax detail AS 231 and AS 342 respectively.
- ix) all municipal curbs to be cut by the Town. Contact 905.619.2529 ext.224 to obtain a curb cut permit.
- x) all downspouts to be connected to the storm drainage system.

3.4.10 Site Grading Notes

The following notes must be included on the Grading Plan:

Site Grading Notes:

- i) all disturbed grassed areas shall be restored to its original condition or better with sod on a minimum 150 mm topsoil base. The relocation of trees and shrubs shall be subject to the approval of the Town's Landscape Architect.
- ii) all granular base and sub-base materials shall be graded and compacted to 98% Standard Proctor Density, free of depressions as per Geotechnical Report by the soil engineer.
- iii) the pavement structure shall consist of the following materials:

Light duty asphalt (Car park area and light access roads)
 40 mm HL3 Asphaltic concrete
 50 mm HL8 Asphalt binder
 150 mm – 20 mm Granular "A"
 225 mm – 50 mm Granular "B"

Heavy duty asphalt (Fire & truck route and entrances)
 40 mm HL3 Asphaltic concrete
 75 mm HL8 Asphalt binder
 150 mm – 20 mm Granular "A"

300 mm – 50 mm Granular “B”

or as specified in the Geotechnical Report prepared by the soil engineer, which ever is greater.

- iv) provide subdrains, minimum length of 3.0 metres, extending from all catchbasins and catchbasin manholes to drain the granular sub-base layer.
- v) all barrier curb within the site to be constructed as per detail, unless otherwise specified.
- vi) all work shall be subject to the conditions and requirements of the Town’s Road Occupancy Permit.
- vii) inspection(s): All work on the municipal right of way and easements to be inspected by the municipality prior to backfilling. All work relating to watermains and sewers to be inspected by the municipality when required by the municipality.
- viii) refer to site plan for dimensions and site details.
- ix) step joints are to be used where proposed asphalt meets existing asphalt as per detail. All joint must be sealed as per detail.
- x) transitions within the sub-grade within 1.2 metres from the top of pavement should include 3H:1V transitions.
- xi) embankments to be sloped at max. 3:1.
- xii) all pavement marking, line painting, directional lines/arrows etc. shall be place in accordance with the architectural site plan or the owner’s traffic engineering consultant’s drawings. Line painting and directional symbols shall be applied with a minimum of two (2) coats of organic solvent based paint in accordance with OPSS 1712.
- xiii) where applicable, the contractor is to submit shop drawings for retaining walls (include railing if applicable) to the engineer for approval prior to construction. Shop drawings must be site specific, signed and sealed by a licensed structural engineer. The contractor will also be required to supply structural and geotechnical certification of the as-constructed retaining wall to the engineer prior to final acceptance.
- xiv) the contractor shall provide to the engineer one (1) set of as-constructed site servicing, grading, and site electrical drawings.

3.4.11 General Notes for Sediment and Erosion Control

The following notes must be included on the Sediment and Erosion Control Plan:

General Notes – Sediment and Erosion Control:

- i) Contractor to comply with sediment and erosion control By-law #53-2006.
- ii) Contractor to comply with Mud Tracking By-law #69-2002.
- iii) before proceeding with any area grading the following must be constructed:
 - a. mud mat where indicated
 - b. silt fence where indicated
 - c. tree protection fencing
 - d. temporary swales
 - e. temporary pond, if req'd
- iv) silt control fence shall be installed around the perimeter of the site and maintained until the completion of the landscaping.
- v) catchbasin buffers are to be installed at all catchbasins and catchbasins manhole locations upon completion of servicing.
- vi) accumulated silt to be removed off site prior to removal of the silt control fence.
- vii) contractor to install and maintain mud mat at construction access in order to prevent mud tracking onto adjacent roads. Mud mat to be 25 metres long and 6 metres wide and shall consist of 100 mm clear stone and 400 mm deep.
- viii) contractor to clean adjacent roads on a regular basis to the satisfaction of the Town of Ajax or Durham Region whichever is applicable. The road shall be, at a minimum scraped daily and flushed on Friday evening or Saturday morning, or as directed by the Town.
- ix) the silt fence must be inspected weekly and immediately after rainfall events for rips or tears, broken stakes, blow outs (structural failure) and accumulation of sediment. The silt fence must be fixed and/or replaced immediately when damaged. Sediment must be removed from silt fence when accumulation reaches 50% of the height of the fence.
- x) the owner will seed, mulch and maintain the entire site if a building permit is not issued within 365 days of the sediment and erosion control permit being issued.
- xi) if the site remains dormant at any time for more than 365 days then the owner shall seed, mulch and maintain areas that have been disturbed and are otherwise unfinished.
- xii) upon completion of landscaping all sediment and erosion control measures shall be removed.

3.4.12 General Notes for Storm and Sanitary Sewer and Watermain and Firemain

The following notes must be included on the Site Servicing Plan:

General Notes – Storm and Sanitary Sewer:

- i) storm and sanitary 100 mm to 750 mm diameter corrugated high density polyethylene (HDPE) or latest version
- ii) sanitary 375 mm diameter and smaller shall be Polyvinyl Chloride (PVC) SDR 28 or 35 (as required) to CSA B182.2, B182.4 or latest version
- iii) minimum depth of cover 1.3 metres storm and 1.8 metres for sanitary.
- iv) pipe bedding as per S-401 Durham Region Standard for PVC.
- v) the contractor/owner is responsible for all utility locates and any damage or disturbance during construction.
- vi) storm sewer pipes 375 mm diameter and smaller conform to CSA B 182.2 and B 182.4 or latest revision, standard dimension ratio (SDR) as shown on drawing. 450 mm dia and larger shall be steel reinforced concrete pipe certified as conforming to specification CSA A257.1, A257.3 or latest version and class as noted.
- vii) all benching as per AS-113 Town of Ajax Standard or as noted.
- viii) maintenance Holes shall conform to OPSD 701.010 (1200 mm), OPSD 701.011 (1500 mm) and 701.011. Covers and frames shall conform to OPSD 401.010.
- ix) catchbasins shall conform to OPSD 705.010 (single) and 705.020 (double). Frame and grates to conform to OPSD 400.010.
- x) subdrains to be installed at each catchbasin and maintenance hole see detail.
- xi) all storm connections shall conform to AS-165.
- xii) all sanitary connections shall conform to S-301 and S-302.
- xiii) all downspouts to be connected to the storm drainage system.

General Notes - Watermain and Firemain:

- i) water service connection shall be constructed in accordance with Durham Region Standard S-410.
- ii) hydrant and valve shall conform to S-409 Durham Region Standard, and provided with storz pumper connection.
- iii) watermain shall be polyvinyl chloride (PVC) Class 150 DR-18 pipe manufactured to AWWA C900-89 and CSA CAN3 B137.3-M1986 with gasketed bell end C/W #14 AWG solid copper tracer wire. Tracer wire shall be attached to every non-metallic watermain, firemain and service connection as per S-435 Region of Durham Standard.
- iv) all watermains shall be hydrostatically tested in accordance with local municipal and provincial guidelines unless otherwise directed. Provisions for flushing

water line prior to testing, etc., must be provided. All new mains and services to be pressure tested to 200 psi (1379 kPa) for at least 1 (one) hour. The contractor (inspected by the engineer) shall successfully swab and chlorinate mains and services prior to connecting to external watermains. The system to be constructed and tested as per OPSS 701. No connection to municipal watermain until a positive laboratory test result is delivered to the Town of Ajax and Durham Region and a written clearance is given by the Town of Ajax.

- v) the contractor/owner is responsible for all utility locates and any damage or disturbance during construction.
- vi) pipes 300 mm diameter and smaller shall be polyvinyl chloride pipe (PVC) conforming to CAN/CSA B-137.3.
- vii) bedding as per S-401 Durham Region Standard for PVC.
- viii) watermains, firemains and service connections shall have a minimum vertical clearance of 0.5 metres over and 0.5 metres under sewers and all other utilities when crossing and a horizontal 2.4 metres from all sewer lines. All watermains and services shall have 1.80 metres minimum cover.
- ix) all watermain stubs shall be terminated with a plug and 50 mm blow-off unless otherwise noted.
- x) all thrust blocks and restraint shall conform to S-435 Region of Durham standard.
- xi) back flow prevention as per S-420 Region of Durham standard.
- xii) meter room layout as per S-443 Region of Durham standard.
- xiii) install 19 mm test point by-pass as per S-429 Region of Durham standard.
- xiv) all proposed water piping must be isolated from existing mains in order to allow independent pressure testing and chlorination.
- xv) all hydrant flange elevations to be installed 0.15 metres above proposed finished grade at hydrant.
- xvi) building service valves to be 3.0 metres off the face of the building unless otherwise noted and must be restrained a minimum of 12.0 metres back from stub.
- xvii) provisions for flushing watermains must be provided with a minimum 50 mm outlet for mains 100 mm and larger. Flushing points matching the size of the pipe must be provided at the end of each copper main. Fire main flushing outlets to be 100 mm diameter minimum or a hydrant. Flushing points must be hosed or piped to allow the water to drain.
- xviii) All hydrants on private property must be painted red and the storz must be painted black in accordance with Durham Region Standards.

3.5 DESIGN REQUIREMENTS

3.5.1 Landscape Plans

The submission of a landscape plan, prepared by a Landscape Architect shall be required in conjunction with all site plan applications. At the discretion of Design Services, applications with limited requirements for landscape development may not be required to include a plan prepared by a Landscape Architect.

Landscape Plans shall include the following information:

- i) adjacent lands and roads marked with spot elevations to show the slope of land based upon the engineer's grading plan and architectural site plan;
- ii) walkways, parking areas, exterior lighting, street furniture, hydrants, boulevard trees, transformers, curbs, signage etc;
- iii) all existing natural features specifically identifying features/trees to be preserved or re-located;
- iv) if the landscape plan is also serving as the Tree Preservation Plan, all existing trees must be accurately shown and identified as being removed or preserved. All trees must be specified by type, diameter, condition and elevation. While groups of small trees or shrubs may be depicted together, trees over 60 mm calliper must be dealt with on an individual basis;
- v) surface materials;
- vi) location and size of all outdoor amenity areas;
- vii) plant list to include full botanical name, common name, quantity, caliper, height, spread;
- viii) planting details for coniferous trees, deciduous trees and shrubs (Refer to latest Town standards);
- ix) location of all landscape structures including walkways, retaining walls, playground apparatus, fences, benches, planters etc;
- x) spot elevations which locate catch basins, sub-drains, finished ground floor elevation, door and garage entrances;
- xi) existing and proposed contours; and
- xii) all above ground services (i.e. fire hydrants, light standards, manholes, catchbasins, valve chambers etc)

3.5.2 Landscape Design & Standards

In preparing a Landscape Plan, landscape design considerations must achieve the fundamental objective to provide an aesthetically pleasing view of the subject development from the street. Parking lots have a significant impact on both the aesthetic qualities and functional elements of a development. As such, landscape plans must attempt to break up the monotony of paved surfaces, define internal driveways for traffic movement vs. parking, and screen headlights from abutting areas.

The use of specialty pavings within pedestrian areas is encouraged to define crossing points, arrival and entrance areas, and amenity spaces. Such pavings shall compliment the architectural style and facade treatments of proposed buildings.

Landscape strips adjacent to parking areas are required to provide large growing deciduous shade trees on 7 to 9 metre centres and must also include appropriate ground cover. Mulched shrub beds are typically required in front of parking areas to help screen parked cars.

Large asphalt areas are also typically framed by curbed planting islands a minimum of 3.0 metres in width (preferably 4.5 metres) and shall include drought-resistant trees and/or shrubs. Plantings shall not obscure a driver's sight lines (i.e. shrub planting not exceeding 60 cm in height).

Additional landscaping is also required and shall unify the appearance of the subject property as well as be compatible with adjacent lands. Specific attention should be focussed along primary street frontages, main entrances, adjacent to residential neighbourhoods, and along foundations of buildings. A variety of plantings should be provided for year-round interest and should be provided in an adequate quantity to achieve a good balance of trees, shrubs, sodded areas etc

Large projects shall also provide for pedestrian connections within the site itself, as well as from external locations. Walkways/sidewalks must take into account car overhangs, trees, signage, bike racks, benches etc.

Landscape plans must take into account adjacent lands. Buffer requirements will be determined by the Town of Ajax and may include any combination of the following: landscape strip width, plantings, fencing and berming. In addition to the aesthetic qualities that soft landscaping presents, fencing and/or berming may be required to serve as a noise reduction and/or privacy enhancing element.

Standards

- i) deciduous shade trees must have a minimum trunk caliper of 60 mm; deciduous ornamental flowering trees must have a minimum trunk calliper of 50 mm or multi-stemmed;
- ii) coniferous trees must have a min. height of 1.8 metres;
- iii) shrubs required for screening must have a min. height of 1.2 metres at the time of planting;

- iv) other required shrubs shall have a min. height or spread of 50 cm;
- v) deciduous trees of 50 mm to 75 mm should be wire basket or B&B;
- vi) deciduous trees planted in a row should be centred 5 to 7 metres apart for small flowering trees, and 7 to 12 m apart for shade trees;
- vii) evergreen trees should be spaced 4 to 8 m apart depending on effect;
- viii) shrub spacing depends on variety; however, shrubs should be grouped in large beds and shall be mulched to a min. depth of 70 mm; and
- ix) all mulch shall be shredded bark

The above standards are minimum requirements. Trees and/or shrubs may be required to be planted at closer intervals, with higher calipers and in greater quantities if a specific purpose is identified by the Town.

3.5.3 Tree Preservation Plan

Site plan submissions on lands which have existing trees/vegetation must review both the Durham Regional Tree Conservation By-law No. 27-2008 and Town of Ajax Tree Protection By-law No. 137-2006. Site plan submissions on lands which have existing trees/vegetation must comply with these by-laws.

Site plan submissions on lands which have existing trees/vegetation must include a Tree Preservation Plan. All trees/vegetation shall remain undisturbed until such time as site plan approval has been given and the Tree Preservation Plan has been agreed to by the Town. The Tree Preservation Plan shall include the following:

- i) identify all trees with a minimum caliper of 60 mm and group together masses of vegetation by outlining the canopy;
- ii) the location of existing trees are to be surveyed and located on the Plan by an O.L.S.;
- iii) clearly identify all plant material by providing species, quantity, size, height, condition and indicate if material is to be saved, removed or re-located;
- iv) boulevard trees;
- v) trees/vegetation within 3 metres of subject property;
- vi) proposed and existing grades, proposed entrances and utilities;
- vii) after care of trees to be preserved should be identified; and
- viii) details of how trees will be successfully preserved during construction and post construction must be clearly identified

3.5.4 Tree Replacement Program

At the discretion of the Town, deciduous trees with a min. caliper of 150 mm or coniferous trees with a min. height of 4.5 metres, which are to be removed or intended to be protected and expire within five years of completion of construction of the development, the following aggregate caliper formula shall be used:

If one 250 mm caliper tree is to be removed, the replacement shall be 5-50 mm caliper trees, 2-125 mm caliper trees or 1-250 mm caliper tree.

3.5.5 Boulevard Trees

The development shall provide boulevard tree plantings within the municipal boulevard across the full frontage of the subject property, to the satisfaction of the Town of Ajax.

3.6 URBAN DESIGN REQUIREMENTS

3.6.1 Service Stations

Site Plans are encouraged to include the following elements:

- i) locate buildings at the street where ever possible, with enhanced elevations facing the street;
- ii) garbage enclosure as part of C-store; and
- iii) provide decorative metal fencing with masonry columns adjacent to key frontages

3.6.2 Employment Lands

Site Plans are encouraged to include the following elements:

- i) establish well-defined, visually appealing streetscapes;
- ii) buildings and landscaping should contribute to the larger streetscape;
- iii) buildings shall be sited, designed and organized in such a manner that over a discrete area, all new development appears and functions as an integrated extension of all other adjacent employment development. Examples of discrete areas include:
 - iv) street corridors, particularly arterials and other through streets;
 - v) a cluster of buildings at the end of a cul-de-sac;
 - vi) a crescent streetscape;
 - vii) sites relating to natural features;

- viii) areas defined by clear edges, such as major roads and open spaces, or that may be within one visual corridor.
- ix) avoid homogeneity of building design in discrete areas;
- x) concentrate amenities and activities at prominent locations wherever possible. For instance, locating the main front entrance at a corner, close to the sidewalk, adjacent to an employee amenity space such as a patio, allows for multiple opportunities for casual encounter and interaction and will enrich the streetscape;
- xi) outdoor storage shall be screened with a barrier, which may be some combination of a berm and/or a fence, or other appropriate landscaping.
- xii) To support well-defined streetscapes where buildings have a direct, intimate relationship with the street, a “civic” type of site plan should be the general approach to most new development, and is particularly appropriate to infill or redevelopment of older employment sites.
- xiii) site buildings generally parallel to adjacent roads. The public faces of buildings shall align with neighbouring buildings so as to present a consistent street edge defined by the building faces lining the street;
- xiv) site buildings with a substantial portion of their front and exterior side facades between 9.0 and 11.5 metres of the front and exterior lot lines, called the **Build Within Zone**. If a highly articulated exterior side yard building façade is provided, encourage the building to be set back 3.0 m from the exterior lot line (i.e. closer than the build within zone);
- xv) provide a minimum amount of building wall located within the build within zone as follows:
 - on all lands adjacent to arterial and collector roads, the minimum built frontage shall be 50% of the property frontage; on all lands adjacent to local roads, the minimum built frontage shall be 40% of the frontage of the property; and;
 - if the size of the building relative to the size of the property is such that the building is not large enough to achieve the applicable minimum built frontage standard, then the building shall be oriented such that the longest building face is presented to the street within the build within zone.
- xvi) locate the main entrance to face or address the street;
- xvii) provide a significant amount of built form along the street frontage;
- xviii) locate parking and servicing to the side or rear of buildings, where the building itself screens them from view;
- xix) no parking areas or driveway aisles are permitted between an adjacent street and any part of the building façade within the build within zone;

- xx) provide visitor parking that is easily accessible to the main entrance;
- xxi) provide shared vehicular access between sites where possible;
- xxii) locate service functions such as loading bays, garbage and recycling disposal away from public view, using the building, including wing wall extensions, as the primary screen;
- xxiii) where outdoor storage is permitted, locate such storage away from public view, using the building as a primary screen. Outdoor storage areas shall not be visible from any street;
- xxiv) locate office uses to face the most important streets;
- xxv) locate show rooms, presentation and sales pavilions, and retail components to face streets, to add interest and vitality to the streetscape;
- xxvi) locate amenity or commercial uses, such as kitchens, cafeterias, or sandwich shops, at grade, facing public space, preferably public streets or natural features;
- xxvii) provide periodic unimpeded views to natural features from streets through building placement and landscape design;
- xxviii) provide direct visual contact with natural features from interior spaces wherever possible;
- xxix) divide large parking areas through the use of landscaping, pathway systems, and building placement to create smaller “outdoor rooms”;
- xxx) ensure that service areas have adequate space for manoeuvring and allow for efficient operation. Vehicle movements in and around service areas should not conflict with adjacent parking areas; locate service areas, truck manoeuvring areas, and outdoor storage areas away from adjacent residential properties, using the building as a primary buffer or screen; and, pave all service areas.

3.6.3 Plans of Condominium

Site Plans are encouraged to include the following elements:

- i) locate meter rooms and accessory buildings away from the view of the street where ever possible;
- ii) 8 metre paved widths for roadways/ service corridors; and
- iii) a “looped” street pattern, in order to ensure municipal garbage collection

3.6.4 Architectural Control

The Town of Ajax employs architectural control in the site plan review and approval process. When the control architect is engaged, the fees shall be paid by the applicant through the required site plan agreement.

In cases where a site plan application is to be submitted within a designated Employment Area, the Town of Ajax requires that the elevation drawings be reviewed and stamped by the Town's control architect prior to application submission. This process is outlined within the Employment Areas Urban Design Guidelines.

3.7 BIRD STRIKE PREVENTION DESIGN GUIDELINES

Migratory birds that are not adept at living in urban areas are prone to flying into buildings. The impact of striking a reflective or clear window in full flight often results in death. These "bird strikes" are primarily a result of reflections in glass that birds cannot perceive as reflective images, a birds inability to perceive clear glass as a solid object, brightly lit ground level lobbies decorated with large trees and or plants and light emitted from urban areas that disorients migrating birds that fly around until exhaustion and drop to the ground. Bird strikes occur throughout the year, but increase dramatically during the annual spring and fall migrations due to the tendency of migratory birds traveling at night.

In order to reduce migratory bird deaths, the following elements are to be included in the design of buildings:

- i) provide window patterns or features on glass with a minimum distance of 28 cm, or at the most effective pattern distance of 10 cm or less, for at minimum the first 12 metres above grade or ideally to the entire building;
- ii) patterned or "fritted" glass, used only in combination with non-reflective glass;
- iii) window decals that have a pattern with clear spaces of no more than 28 cm;
- iv) multiple paned glass with a pane pattern range of 28 cm to 10 cm or less;
- v) exterior decorative grilles with grilles that are spaced in a range of 28 cm to 10 cm or less;
- vi) artwork installed on the interior or exterior of windows;
- vii) angling glass in such a way as to project reflected images downward; angles become effective at a minimum angle of 20 degrees or optimally at 40 degrees;
- viii) awnings and overhangs that cover windows to ground floor lobbies and reduce image reflections;
- ix) external sunshades that reduce direct sunlight and reduce image reflections in glass windows; and
- x) External lighting that:

- a. eliminates direct upward light;
- b. reduces spill light (light that spills beyond areas that need to be lit for safety and security reasons); and
- c. optimizes useful light (light used to illuminate urban areas that need to be lit for safety and security reasons)

3.8 MODELS HOMES AND SALES TRAILERS

New Models Homes and Sales Trailers are subject to site plan approval. As is standard for other site plan submissions, siting, landscaping, grading, elevation drawings are required.

A separate agreement is executed between the proponent and the Town. Sample agreements can be obtained at Planning and Development Services.

4.0 PERFORMANCE GUARANTEES

4.1 Standard Performance Guarantees

As a condition of most site plan approvals, the applicant will be required to enter into a site plan agreement with the Town and through the agreement be required to provide performance guarantees (i.e. securities) to the Town to ensure the proper and timely completion of the approved works including all landscaping, as well as paving and curbing, garbage facilities, roof top mechanical screening, stormwater management facilities, the restoration of any disturbed areas on Town property and/or other matters identified through the site plan review process.

The amount of the securities required is determined from a detailed cost estimate for the site works, listing items, quantities, unit costs and total costs. The Security Calculation Form is to be completed by the applicant and submitted to the Town for approval.

In addition to securities, the Town will require the submission of additional fees for benchmarking (\$750.00), digital imaging (\$300.00), legal registration of the agreement, engineering services, cash-in-lieu of parkland, architectural control services, litter management program (\$3,000.00; applicable to all proposed development that include a service station, convenience store, supermarket, grocery store or a fast food restaurant) and any other fees that may be required through the agreement.

Furthermore, a public liability and property damage insurance policy (liability insurance), which adds the Town as additionally insured, not less than \$5,000,000.00 is required through the site plan agreement.

4.2 Parkland Dedication Requirement

Pursuant to Section 42 of the *Planning Act* and By-law 79-2006, the Town of Ajax requires, as a condition of site plan approval, a payment of cash-in-lieu of the dedication of parkland amounting to two (2%) percent of the appraised value of the land in cases of industrial and commercial development and five (5%) percent of the appraised value of the land in the case of residential development. In both instances, the date of valuation is the day prior to the issuance of the building permit by the Town of Ajax Building

Approvals Section. In some instances, the alternative requirement for parkland dedication for residential development, prescribed by Subsection 42(3) of the Planning Act, is applied by the Town of Ajax Official Plan. Where in respect of the proposed development, land has been conveyed for park or other public purposes, or a payment of money in lieu of such conveyance has already been received pursuant to Sections 42, 50 or 52 of the Planning Act, the previous conveyance or payment shall be included in determining the amount of land or money in lieu thereof that may be required.

In order to establish the required cash-in-lieu payment, the applicant shall submit for review by the Town of Ajax an appraisal prepared by a certified Ontario Land Appraiser to establish the current market value of the lands subject to this application. Upon the Town's concurrence and prior to the execution of the site plan agreement, the applicant shall pay the required monies.

4.3 Security Reduction Procedure

4.3.1 Execution of Site Plan Agreement:

Prior to the issuance of any building permit, or the execution of any site plan agreement, the applicant is required to provide security in the form of an irrevocable letter of credit, covering 100% of the costs relating to landscaping and engineering matters.

4.3.2 Letter of Credit Reduction Request and Site Inspection:

Letters of Credit will be reduced in whole or in part following a written request by the applicant, and following receipt of all applicable completion certificates in accordance with Schedule 'B' of the site plan agreement. The applicant is obligated to contact the Town's Engineering Section to arrange the final site inspection.

4.3.3 Deficiency List and Holdback:

The applicant may request a reduction to their security based on the applicant completing all items on the deficiency list prepared by Town staff for engineering site works and landscaping. The remaining security will continue to be retained until all work is completed to the satisfaction of the Town. For all plant material, the Town will hold back 25% of the landscaping securities for a period of one year. Regarding trees being protected/re-located, the Town reserves the right to retain \$1,000.00 per tree for a period of 5 years.