

Section 4 – Review of Development Applications

This section outlines the policies the City of Ottawa uses to review development applications in order to meet the objectives contained in this Plan. The extent to which these requirements apply varies depending on the location, land-use designation and nature of the application. The appropriate policies and studies will be identified through pre-consultation at the beginning of the design and review process.

Land development is the key source of growth and change in a municipality. A city can exert a strong influence over the nature and pace of land development by reviewing development applications and approving only those projects that respect the principles expressed in its official plan. The development application review process also provides an opportunity for the various agencies within the municipal administration to integrate their disparate concerns through their discussion of and comments on specific land development proposals. The review process also involves community stakeholders and the general public, who are invited to participate in community meetings or other consultation processes in order to bring their views concerning development applications to the municipality's attention.

As a result of this review process, a wide range of issues touching on the development are raised with the person putting forward the proposal (the proponent) and decisions are made as to the changes that will be made to the proposal in order to address the policies of the Official Plan and make the project acceptable to City Council. In many cases, the proponent will be required to undertake (and fund) studies designed to identify the likely impacts of the project on the social and natural environment.

The various policies, studies and assessments that the City requires are addressed as part of its review of development applications as described in this section. These requirements apply to a range of applications, generally being those made under the provisions of the *Planning Act*. They include, but are not limited to, the following categories:

Proposed Land-Use Changes

The following applications are made to change the existing or proposed use of an area or parcel of land permitted in an official plan or zoning by-law:

- Official plan amendment;
- Zoning by-law amendment;
- Non-conforming use application to Committee of Adjustment.

Proposed Division of Land

The following applications are made to divide land and create new lots:

- Plan of subdivision (including condominium approval);
- Severance (consent);
- Part lot control exemption.

Proposed Site Development

The following applications control design and what is built:

- Site plan;
- Minor variance;
- Public works.

In most situations, the development application applies to only one site-specific property. The affected lands may range in size from a single-dwelling residential lot to a redevelopment site in the downtown of the city or a vacant parcel of land of tens of hectares in area. A development application is usually submitted by one of three groups of applicants:

- Individual homeowner or landowner – e.g., a minor variance for a house addition or rural severance application;
- Developer or builder – e.g., a rezoning for a shopping plaza or an application for a new subdivision;
- Public agency – e.g., a site plan for a new school, city community centre or fire hall.

The nature of the development application and the location of the property to which it applies are the two main factors that determine which of the policies, studies and assessments have to be addressed in the application submission.

4.1 – Site-Specific Policies and Secondary Policy Plans

There are a number of policies in the official plans or secondary plans of the former municipalities now making up the City of Ottawa that have been included in Volume 2. These plans contain the more detailed policies needed for the orderly and planned development of larger areas or site-specific properties. The site-specific policies found in these plans address unique situations requiring policy direction for an area or neighbourhood. These policies complement the policies in this Plan and will provide more detailed policy directions for areas and neighbourhoods in the city. Annexes 4 and 5 show the areas that are subject to secondary plans, Village plans and site-specific policies. These plans can be more restrictive than this Plan but they must conform to the policies of this Plan. The plans in Volume 2 cannot permit uses that are not permitted in this Plan.

Prior to amalgamation of the new City, other plans such as neighbourhood plans, concept plans and design guidelines were prepared by the former municipalities. These plans are a rich source of information that the City will use as the basis for any future planning studies, including the preparation of community design plans.

Policies

1. Secondary plans, Village plans and site-specific policies found in Volume 2 provide more detailed policy directions for specific areas or neighbourhoods. The policies and plans in Volume 2 must conform to the policies and plans in Volume 1 of the Plan. However, the secondary plans, Village plans and site-specific policies in Volume 2 may be more restrictive than the policies in Volume 1 of the Plan. [Ministerial Modification 32, November 10, 2003]

4.2 – Adjacent to Land-Use Designations

Some of the policies set out in Section 3 of the Plan apply to lands not only in the designation but also to adjacent lands. The table below summarizes the policies that apply to lands adjacent to land-use designations shown on Schedules A and B.

See Section	Policy for Adjacent Designation	Where Required
2.5.5. and 4.6.3.1	Site Plan approval may be required Cultural Heritage Impact Statement required	Required for development including residential development of one or more dwellings on lots that abut the Rideau Canal UNESCO World Heritage Site
3.2.1	Environmental Impact Statement required	For severances within 30 metres or development within 120 metres of a Significant Wetland South and East of the

See Section	Policy for Adjacent Designation	Where Required
		Canadian Shield designated on Schedule A or B
3.2.2	Environmental Impact Statement required	All development including lot creation in a Natural Environment Area or a severance within 30 metres or other proposed development within 120 metres of a Natural Environment Area designated on Schedule A or B
3.2.3	Environmental Impact Statement required	Wetlands, forests and ravines in complexes of greater than 0.8 hectares in size or greater in the urban area (Schedule B) [Amendment 14, September 8, 2004] Within 30 m of Urban Natural Feature designated on Schedule B [Amendment 14, September 8, 2004]
3.2.3 3.2.4	Environmental Impact Statement required	Within 30 m of Urban Natural Feature designated on Schedule B [Amendment 14, September 8, 2004] A severance within 30 metres or other proposed development within 120 metres of a feature of the Natural Heritage System found within Rural Natural Feature.
3.4	Heritage Impact Statement required	Site on or adjacent to the Greenbelt or Central Experimental Farm designated on Schedule B
3.7.2	Environmental Impact Statement required	A severance within 30 metres or other proposed development within 120 metres of a feature of the Natural Heritage System found within General Rural Area.
3.7.2	Ensure development proposals do not limit potential expansion of the urban area	Within an area 1 kilometres outside of the urban area boundary
3.7.2	Ensure development proposals do not limit potential expansion of the Village	Within an area 1 kilometre outside of a Village boundary
3.7.3	Minimum Distance Separation	Adjacent to farms – all rural designations on Schedule A
3.7.4	No development permitted where development conflicts with future extraction	Within 500 metres of a Limestone Resource Area or 300 metres of a Sand and Gravel Resource Area designated on Schedule A or B [Ministerial Modification 34, November 10, 2003]
3.7.4	Seek advice of Ministry of Northern Development and Mines and the Ministry of Natural Resources [Ministerial Modification 35, November 10, 2003]	Within 450 metres of Lot 20, Concession 3, former City of Kanata
3.7.4	Impact Assessment Study required	Development proposals for land within 500 metres of a licensed quarry or within 300 metres of a licensed pit where there may be conflict with existing extraction operations

See Section	Policy for Adjacent Designation	Where Required
		[Ministerial Modification 34, November 10, 2003]
3.8 and 4.8-5	Demonstrate that there will be no impact on the proposed use or continuing landfill operations	Development proposals within 500 metres of an active or closed solid waste disposal site or other appropriate influence area. [Ministerial Modification 36, November 10, 2003]

4.3 – Walking, Cycling, Transit, Roads and Parking Lots

Roads and Parking Lots

Land use and transportation are closely interrelated. In particular, the City, when reviewing development applications, will assess the adequacy of the transportation network to meet the needs of the proposed development. Individual building sites, subdivisions and plans for large areas must be easy to get to and travel through on foot, by bicycle and transit, and by automobile. Supporting walking, cycling and transit means more than the simple provision of sidewalks and pathways. A logical network must be created, connecting origins and destinations along direct and well-marked routes. Landscaping, the positioning of buildings, and other features of adjacent development can be further organized to support pedestrians and cyclists. In its review of development applications, the City will utilize the transportation policies that follow, together with any required transportation studies/assessments indicated in the table below.

See Section	Studies/Assessment Required	Where Required
2.3.1	Protection of right-of-way	Designated on Schedules E, F, G & H and Annex 1
4.3	Transportation impact study assessment report	May be required for official plan amendments, subdivisions, rezoning and site plans where there may be a transportation impact on the transportation network in the surrounding area

Policies

1. The road network in new plans of subdivision will provide the opportunity for direct transit routes through the community and for all buildings to be within 400 metres walking distance of a transit stop. [OMB decision #2649, September 21, 2006]
2. The road network in new plans of subdivisions, particularly in Villages, will be designed to accommodate the potential future extension of the road system to adjacent properties, including those lands beyond an existing urban or village boundary.
3. Application of the City's Transit Oriented Development Guidelines will occur. To promote increased transit usage, private and/or public proponents of any development or redevelopment within 600 metres of a transit station or major transit stop along the primary transit network shown on Schedule D will:
 - a. Ensure that convenient and direct access between the proposed development and the transit station is provided or maintained; rapid-transit stations and where possible, transit stops are integrated into the development; and that in such cases, extended hours of public access through the buildings and quality linkages from stations and building entrances to sidewalks on nearby streets are provided;

- b. Locate any proposed high-density employment and residential development close to transit stations;
 - c. Provide a pedestrian-friendly, weather-protected (where possible) environment between the access point(s) of the rapid-transit station or major transit stop and the principal entrances to adjacent buildings;
 - d. Minimize walking distances from buildings to stations/major transit stops;
 - e. Provide adequate, secure and highly visible bicycle parking at rapid-transit stations/major transit stops.
4. The City may reduce parking requirements for uses located within 600 metres of a rapid-transit station and for uses where the need for on-site parking can be balanced with efforts to reduce reliance on the automobile. The City may use the zoning by-law and cash-in-lieu of parking agreements as tools to reduce parking requirements. Furthermore, as referenced in policy 42 of Section 2.3.1, the zoning by-law may establish maximum parking requirements that would apply to development within 600 metres of a rapid transit station/service.
 5. The City will require a transportation impact assessment report which may be a community transportation study, transportation impact study, or transportation brief to be submitted where the City determines that the development may have an impact on the transportation network in the surrounding area. The transportation impact study or brief will be undertaken in accordance with the City of Ottawa Transportation Impact Study Assessment Guidelines. The scope of the study or brief will vary depending on the nature of the development. Under most circumstances, a study or brief will not be required for minor infill development in areas where the road network is fully established. The transportation impact study or brief will, in general:
 - a. For the lands to be developed and the surrounding community, identify the required road, parking, transit, pedestrian, and cycling facilities necessary to support the proposed development, referencing the required timing or staging of such. It will also identify and address potential impacts on the local neighbourhood that would occur as a consequence of these required facilities;
 - b. Determine the method and means by which the development, as well as adjacent areas, can be efficiently and effectively serviced by transit;
 - c. Utilize the policies of this Plan as well as any applicable City design guidelines and/or practices when developing recommended modifications to transportation infrastructure;
 - d. Assess the impact of development traffic on the capacity of adjacent and nearby roads, accounting for the anticipated growth in levels of background traffic;
 - e. Take into account both the influence of anticipated future development in the surrounding area, as well as any planned infrastructure modification, e.g., future roads, road widenings;
 - f. Concurrent with the need for a transportation impact study, there may be a requirement to undertake a noise study as outlined in Section 4.8, Protection of Health and Safety.
 6. The City will require that parking for bicycles be provided in highly visible and lighted areas, sheltered from the weather wherever possible. The zoning by-law will set standards and regulations for land uses that normally generate demand for bicycle parking.
 7. The City will require that parking areas for motorized vehicles be screened from the street with low shrubs, trees, landscaped berms, decorative walls and fences.
 8. Where large areas of surface parking are required, they will be designed to:
 - a. Avoid one extensive parking area and instead have several smaller-sized parking areas defined by circulation patterns, landscaping, lighting, and other elements;
 - b. Ensure that the layout of the parking lots and adjacent buildings will be such that public roads may be defined in the future as part of more intensive redevelopment of the site.
 9. On new, and reconstructed roads where possible, the City will require the provision of sidewalks as follows:
 - a. On both sides of arterial, major collector and collector roads in the urban area and arterials in Villages. A multi-use pathway instead of a sidewalk may be provided on one side for a collector in a Village or on one side of an urban arterial if determined to be appropriate by the City;

- b. ~~[following not new, just moved from former c)]~~ A sidewalk or multi-use pathway on at least one side of all:
 - i. arterial roads passing through the Greenbelt;
 - ii. collector roads in villages;
 - iii. roads, other than arterial/collector, in the urban area that serve transit.
 - iv. ~~A sidewalk or multi-use pathway on at least one side of all roads in the urban area that serve transit. Where applicable this policy is superseded by policy a) Furthermore, as referenced in 2.3.1, the City will prepare a Pedestrian Plan that will identify discontinuities in the walking network and a strategy to correct these network deficiencies.;~~
 - c. ~~Wherever the Ottawa Pedestrian Plan or a Community Design Plan has identified discontinuities in the pedestrian network.~~
10. The City will ensure that sidewalks and crosswalks are made of smooth, well-drained walking surfaces of contrasting materials or treatments to differentiate the pedestrian areas from vehicle areas and provide marked pedestrian crosswalks at intersection sidewalks. In addition, sidewalks and open space areas will be easily accessible through such features as gradual grade transitions, depressed curbs at street corners and convenient access to extra-wide parking spaces and ramps.
11. The City will ensure that new developments are linked to the existing or planned network of public sidewalks, recreational pathways and on-road cycle routes, which connect parks and other open spaces, transit stations and transit stops, and community services and facilities. Where public sidewalks and recreational pathways intersect with roads, consideration will be given to providing traffic control devices to give priority to cyclists and pedestrians.
12. At main entrances to buildings the City will require safe, direct and attractive pedestrian access from public sidewalks through such measures as:
- a. Reduction of distances between public sidewalks and major building entrances;
 - b. Provision of pedestrian walkways from public streets to major building entrances;
 - c. Within individual sites, on-site pedestrian walkways along the front of adjoining buildings, between adjacent buildings, and connecting areas where people may congregate, such as courtyards and transit stops;
 - d. Wherever possible, protection from the weather is provided through canopies, colonnades, and other design elements. [OMB decision #2649, September 21, 2006]

4.4 – Water and Wastewater Servicing

Ensuring that there is a reliable supply of good quality water and the safe disposal of wastewater is an important consideration in the development review process. Proponents are required to demonstrate that the servicing proposed for the development is adequate. The servicing requirements for water and wastewater services for Public Service Areas and areas to be developed on private systems are set out in the sections below.

The following table indicates the studies/assessments that are required to assess a development application with regard to water and wastewater services.

See Section	Studies/Assessment Required	Where Required
4.4.1	Assessment of adequacy of public services	Development application in a Public Service Area
4.4.1	Water, wastewater and storm water impact study	Where services are found to be limited in Public Service Areas
4.4.2.1	Hydro-geological analysis; Registration of	Subdivision

	each phase (no more than 40 lots) supported by a servicing study; Well inspection report as condition of approval	
4.4.2.1	Terrain analysis; Registration of each phase (no more than 40 lots) supported by a servicing study	Subdivision
4.4.2.2	Demonstrate in accordance with City guidelines that the site can be adequately serviced with private services; Well inspection report as condition of approval	Severance
4.4.2.4	Hydro geological and terrain analysis including an impact assessment for nitrates; Responsibility agreement with the City; Wellhead protection plan [Ministerial Modification 37, November 10, 2003]	Institutions such as schools, seniors homes

4.4.1 – Servicing in Public Service Area

Development in Public Service Areas is primarily on the basis of public services, with exceptions described in Section 2.3.2. When reviewing development applications, the City will require an assessment of the adequacy of public services to support the development.

Policy

1. The City will require development applications in Public Service Areas to be supported by an assessment of the adequacy of public services. Where services are found to be limited, the proponent will be required to submit a water, wastewater and storm water impact study detailing how public services will be provided to support the development. The study will determine the extent to which the area will support development without further, unplanned upgrading of the networks in addition to the assessment of specific network improvements;
 - a. Determine the method and means by which the area as well as adjacent areas can best be serviced by the networks, taking into consideration the City's functional planning guidelines;
 - b. Identify specific network improvements deemed necessary and timing or staging of such improvements;
 - c. Assess any social, economic and physical environmental impact on the local neighbourhood and adjacent areas resulting from anticipated network improvements;
 - d. Take into account the effect of known development potential of other lands, which will utilize the networks;
 - e. Indicate the proposed location for connection to central services, if more than one option exists.

2. When considering development on urban lands, located inside the Greenbelt, that have the potential to reduce the capacity of the water and/or sewage systems or contribute to overland flow, the City will ensure that anticipated impacts can be adequately mitigated or otherwise addressed by means that include but are not limited to the following:
 - a. On-site retention and storage;
 - b. Water efficiency measures;
 - c. Green infrastructure;
 - d. Flow control measures;
 - e. Flow removal projects;

- f. Other measures such as compensation projects, as outlined in the document 'Managing Capacity to Support Intensification and Infill', which is included as Section 6 of the 2008 Infrastructure Master Plan Update.

4.4.2 – Private Water and Wastewater Servicing

Some parts of the rural area are subject to the policies of Section 4.4.1 above and Section 2.3.2 because they have public systems. However, new development in the City's rural area will occur primarily on the basis of private individual services. Private individual services will mean a privately-owned and maintained well-water supply and a privately-owned and privately-maintained wastewater disposal system that services the development on the lot upon which they are located and which will remain under one ownership.

~~Where new lots are created on the basis of private individual services, either by plan of subdivision or by severance, in accordance with Section 3.7,~~

Policies

1. Where development is proposed on the basis of private individual services and requires an application of an Official Plan or Zoning By-law amendment or involves a plan of subdivision, plan of condominium or severance, the City will require sufficient information with the development application to assess the likelihood that:
 - a. Sufficient quantity of groundwater exists on site to service the development;
 - b. A water well can be constructed on the proposed lot(s) that will not be impacted by identified potential sources of groundwater contamination in the area;
 - c. The quality of the groundwater is acceptable;
 - d. The operation of the on-site wastewater system on the new lot(s) will not adversely impact on a well to be constructed on the proposed lot(s) and on the wells of neighbouring properties.Specific information requirements for plans of subdivision, plans of condominium and severances are described in more detail in the following sections.
2. Requirements for private services in Public Service Areas, where no public services exist, are described in Section 2.3.2.

4.4.2.1 Subdivision

Policies

1. Where a plan of subdivision or condominium is proposed on private individual services, a servicing study of sufficient detail to establish evidence of site suitability will be required. The study must conform to the City guidelines. These guidelines require an include and integrated the hydro geological analysis required to confirm sustainability of the water supply with terrain analysis, and an impact assessment of nitrates on the groundwater, required to confirm sustainability of wastewater disposal. The study will also be of sufficient magnitude to consider the impact of the proposal on the operation of existing wells and septic systems in the vicinity.
3. As per policy 6 of Section 3.7.2 on the General Rural Area, country lots subdivisions created by plan of subdivision or plan of condominium in the General Rural Area are limited to a maximum size of 40 lots. Applications for subdivisions or condominium in Villages on private individual services that exceed 40 lots will not be approved for registration unless it is broken into discreet phases of no more than 40 lots. In such cases, a servicing review study of the operation of a reasonable number of wells and wastewater disposal systems in the first previous phase or phases of the subdivision will be undertaken in accordance with City guidelines is required prior to the registration of each subsequent phase. The servicing review study will confirm whether continued development is appropriate and identify any additional requirements. [Amendment 14, September 8, 2004]

4. As a condition of approval, development on private wells must be supported by a satisfactory well inspection report in conjunction with the building permit process.
5. As a condition of approval of plan of subdivision the developer will be required provide a dedicated monitoring well, at no cost to the City, and to which the City will unlimited have access to monitor groundwater conditions. Where the subdivision has a number of phases one monitoring well may be required for each phase of development.

4.4.2.2 Severances

Policies

1. Prior to the approval of a severance, the proponent must demonstrate, in accordance with City guidelines, that the site can be adequately serviced with private services.
2. In certain circumstances, where concerns are identified, the City may require the proponent to drill a well and undertake hydro geological testing, prior to the approval of the severance.
3. As a condition of approval, development on private wells must be supported by a satisfactory well inspection report in conjunction with the building permit process.

4.4.2.3 Development of Two to Five Units on Shared Water or Wastewater Systems

Policy

1. Development of two to five units on the basis of shared water and/or wastewater systems will only be permitted where:
 - a. The property, including the units, is in single ownership;
 - b. All of the requirements in the policies above in this section for private individual services have been met.

4.4.2.4 Small Water and Wastewater Works

Policies

1. Small water and wastewater works are owned, operated and managed by a single owner, for a single building, or complex of buildings that comprise an institution, through an agreement with the City. [Amendment 13, September 8, 2004]
2. Small water and wastewater works will only be considered for institutions such as schools and retirement homes and only if an agreement is entered into between the City and the proponent that contains, but is not limited to, the following: [Amendment 13, September 8, 2004]
 - a. A detailed description of the design criteria that meets City standards;
 - b. The monitoring, operation and maintenance requirements;
 - c. The complete financial plan, which provides assurance in the form of a letter of credit or equivalent, equal to the operating and capital reserve fund for the system;
 - d. Hydrogeology and terrain analyses that demonstrate the long-term sustainability of water supply and wastewater disposal. A wellhead protection plan in accordance with the City's terms of reference may be required; and a Reasonable Use Study, as described by current Ministry of the Environment Guideline, to determine the impact of nitrates from septic systems on the groundwater; [Ministerial Modification 38, November 10, 2003]
 - e. Identify the risk and mitigation necessary to protect the water supply.

4.5 – Housing

Applications to amend the zoning by-law to introduce or delete residential uses must be reviewed with reference to policies 6 to 8 of Section 2.2.3, Managing Growth Within the Urban Area. All applications for

residential development must also consider the requirements of policy 9 in Section 2.2.3 regarding alternative development standards and the requirements of Section 2.5.2 Affordable Housing. The policies in this subsection are designed to maintain existing housing stock in the city. [Ministerial Modification 39, November 10, 2003]

Policies

1. The conversion of rental housing with ~~five~~ **six** or more rental units to condominium ownership or to free hold ownership as a result of applications such as, but not limited to, applications for severance of properties, is premature and not in the public interest unless the following two criteria are satisfied:
 - a. The rental vacancy rate by dwelling/structure type for the City of Ottawa as defined and reported yearly through the Canada Mortgage and Housing Corporation (CMHC) Rental Housing Market Survey has been at or above 3 per cent for the preceding two-year reporting period;
 - b. The existing market rents of the units proposed for conversion are at or above the average market rent levels for the corresponding CMHC survey zone in the City of Ottawa, as reported yearly by the CMHC Survey for rental units of a similar dwelling/structure and bedroom type.
2. The City shall notify tenants in units approved for a conversion of their rights under the *Provincial Tenant Protection Act* or any successor legislation.
3. Heritage buildings individually designated under Part IV of the *Ontario Heritage Act* and Category 1 and 2 buildings designated under Part V of the Act, which contain rental units, are exempt from the rental conversion policy.
4. The maintenance and rehabilitation of the existing housing stock will be ensured through enforcement of the property standards by-law and support for residential rehabilitation assistance programs.
5. The City will study the use of demolition control throughout the urban area as a means of maintaining the supply of affordable rental housing. [Amendment 13, September 8, 2004]

4.6 – Cultural Heritage Resources

Heritage resources may include the following: heritage buildings, structures, and sites; archaeological resources; rural and urban cultural heritage landscapes; heritage conservation districts areas and environments that include river corridors; Scenic-Entry Routes and ~~Major Recreational~~ **Multi-Use Pathways**. The table below indicates where studies/assessments regarding heritage resources may be required to assess a development application. [Ministerial Modification 40, November 10, 2003]

See Section	Studies/Assessment Required	Where Required
4.6.1	Cultural heritage impact statement	Any designated heritage resource or building within a Heritage Conservation District
4.6.1	Demonstrate that the proposal is compatible with the heritage resource	All planning applications adjacent to a designated or undesignated heritage resource
4.6.2	Archaeological resource assessment	Areas with archaeological resource potential
4.6.3	Some land uses restricted; Require land dedication at waterfront	River corridors- all major rivers and streams
4.6.3	Cultural heritage impact statement	Rideau River and Canal

4.6.4	Design criteria	Scenic-Entry Routes designated on Schedules I & J
4.6.5	Assess potential for connections	Major Recreational Multi-Use Pathways designated on Schedule I & J

4.6.1 – Heritage Buildings and Areas

Heritage buildings and areas are buildings, structures, sites, landscapes, areas or environments which may have cultural, architectural, historical, contextual and/or natural interest, and which may warrant designation under the *Ontario Heritage Act*, and/or may warrant other means of cultural heritage recognition by the federal government.

Policies

1. Where a structure designated under the *Heritage Act* is to be altered, partially demolished, demolished or where a new building is proposed within a heritage conservation district, relocated, the approval of City Council, after consultation with its Local Architectural Conservation Advisory Committee (LACAC), is required. The City will require that a cultural heritage impact statement be conducted by a qualified professional with expertise in cultural heritage resources to do the following, in accordance with the policies in this subsection:
 - a. Describe the positive and adverse impacts on the heritage resource or heritage conservation district that may reasonably be expected to result from the proposed development;
 - b. Describe the actions that may reasonably be required to prevent, minimize or mitigate the adverse impacts in accordance with the policies below;
 - c. Demonstrate that the proposal will not adversely impact the cultural heritage value of the property, Heritage Conservation District, and/or its streetscape/neighborhood. [Amendment 13, September 8, 2004]
2. Where an alteration or addition to a building located in Heritage Conservation District is proposed, or new construction in a Heritage Conservation District is proposed, the applicant will consult the heritage conservation district study of that district for design guidance.
3. Where relocation is proposed of a structure designated under the *Heritage Act*, the City will require that the cultural heritage impact statement demonstrate that relocation is the only way to conserve the resource. The City may consider the option provided that:
4. The building is retained on site, but moved to another part of the property for integration into the new development, or, if that is not possible;
5. The building is relocated to a site appropriate to its cultural heritage value outside the proposed development or property.
6. Where an owner of a designated heritage property applies for approval to demolish, the City will require that the cultural heritage impact statement demonstrate that rehabilitation and reuse of the property is not viable. The City may consider acquisition of the property where it determines that it is in the public interest to do so, and the property is considered to be of sufficient cultural heritage value to the community.
7. Where a designated heritage property is approved for demolition or significant alteration, the City will require that the property be thoroughly documented for archival purposes at the expense of the applicant prior to demolition or alteration in accordance with accepted heritage recording guidelines, for deposit in the City of Ottawa archives.
8. The City may permit the transfer of density potential from one site to another to facilitate the retention of particular heritage resources in those areas which have an established floor space index under the zoning by-law, subject to:
 - a. A concurrent, equivalent down-zoning and up-zoning of donor and recipient sites, respectively;

- b. Maintaining compatibility of scale and architectural treatment between the heritage resource(s) and the new development and between the recipient site and its existing environs;
 - c. Where a density transfer is to take place in the central business district of the Central Area, conformity will be required with policies regarding building heights and the visual integrity and symbolic primacy of the Parliament Buildings and other national symbols, as referred to in Section 3.6.6.
9. When reviewing applications for zoning amendments, site plan control approval, demolition control, minor variance, or the provision of utilities affecting lands/properties adjacent to a designated heritage resource, the City will ensure that the proposal is compatible by: [Amendment 14, September 8, 2004]
- a. Respecting the massing, profile and character of adjacent heritage buildings;
 - b. Approximating the width of nearby heritage buildings when constructing new buildings facing the street;
 - c. Approximating the established setback pattern on the street;
 - d. Being physically oriented to the street in a similar fashion to existing heritage buildings;
 - e. Minimizing shadowing on adjacent heritage properties, particularly on landscaped open spaces and outdoor amenity areas;
 - f. Having minimal impact on the heritage qualities of the street as a public place in heritage areas;
 - g. Minimizing the loss of landscaped open space;
 - h. Ensuring that parking facilities (surface lots, residential garages, stand-alone parking and parking components as part of larger developments) are compatibly integrated into heritage areas;
 - i. Requiring local utility companies to place metering equipment, transformer boxes, power lines, conduit equipment boxes, and other utility equipment and devices in locations that do not detract from the visual character or architectural integrity of the heritage resource.
10. Where development is proposed adjacent to a building site on the Heritage Reference List (but not designated under the *Heritage Act*) the applicant shall demonstrate the proposal's compatibility with that heritage resource and its streetscape.
11. In undertaking its public works, the City will provide for the conservation of heritage buildings and areas in accordance with these policies.

4.6.2 – Archaeological Resources

Archaeological resources are the remains of any building, structure, activity, place, or cultural feature or object, which, because of the passage of time, are on or below the surface of land or water and are of significance to the understanding of the history of a people or place. Archaeological resources may also include significant Native and non-Native cemeteries or unmarked burials. The City has undertaken an *Archaeological Resource Potential Mapping Study* and the results of the study form the basis for determining the archaeological potential. [Ministerial Modification 43, November 10, 2003]

Policies

1. Where development is proposed on land where archaeological potential exists, as identified on the City of Ottawa map, Areas of Archaeological Potential, the City will require an archaeological resource assessment to be conducted by an archaeologist licensed under the Ontario *Heritage Act*, as a condition of development approval. The archaeological resource assessment report will:
 - a. Be provided by the developer to the City and submitted to the Ministry of Culture;
 - b. Be carried out to the satisfaction of the Ministry of Culture and communicated to the City;
 - c. Include conservation-related recommendations, such as documentation, removal and/or preservation in situ for heritage integrity purposes, if significant archaeological resources are discovered on a subject property;
 - d. Ensure that a plan for protection or salvage of any significant archaeological site(s) found during the course of the assessment is implemented prior to any disturbance of the land.

2. When reviewing plans of subdivision and condominium, site-specific official plan amendments and site plans involving large parcels of undisturbed land, the City will determine whether any portion of a proposal has the potential for the discovery of archaeological resources. The City's Archaeological Resource Potential Mapping Study will form the basis for determining the archaeological potential.
3. When reviewing consent and lifting of part lot control applications, the City will consider that archaeological potential exists only when the application would:
 - a. Contain or directly affect a registered archaeological site, or directly affect a federal, provincial or municipal historic landmark, monument or designated property; or
 - b. Lead to impacts (any soil disturbance) upon undisturbed lands (woodlot, pasture ploughed land) that are located within 100 metres of the top of bank of the Ottawa, Rideau, Carp, Mississippi or Jock Rivers when two or more new building lots are created.
4. When a consent or a lifting of part lot control application proposes to sever existing units, there is no requirement for an archaeological resource assessment.
5. While the *Archaeological Resource Potential Mapping Study* shows the historic core of the city (as defined by the city limits at the time of its incorporation in 1855) as having archaeological potential, an archaeological resource assessment will not be required as part of the development review process. However, if archaeological resources are discovered during the course of construction in the city's historic core area, the site must be protected from further disturbance until a licensed archaeologist has completed an archaeological resource assessment and any necessary mitigation has been completed. The City will develop information to assist developers, contractors and on-site workers in the recognition and reporting of potential archaeological resources discovered during the course of construction. A site monitoring assessment process for deeply buried remains will also be considered if significant archaeological resources are identified. Where new additional information within the urbanized city core indicates there is a high likelihood for archaeological remains to exist, a licensed archaeologist shall be retained for monitoring purposes and/or assessment prior to any major ground disturbances resulting from construction activities. [Ministerial Modification 42, November 10, 2003]
6. Where marked and unmarked cemeteries and burial places are encountered during assessment or any excavation activity, the provisions of the *Cemeteries Act* and its regulations will apply. Council shall ensure adequate archaeological assessment by a licensed archaeologist is conducted and consult appropriate government agencies, including the Ministry of Culture (MCL) and the Ministry of Consumer and Business Services (MCBS). [Ministerial Modification 43, November 10, 2003]
7. In undertaking public works, the City will conserve archaeological resources in accordance with these policies.
8. Council may maintain the integrity of archaeological resources by adopting zoning by-laws under Section 34 of the *Planning Act* to prohibit or restrict any land use activities or the erection of buildings or structures on land which is a site of a significant archaeological resource. [Ministerial Modification 44, November 10, 2003]

4.6.3 – River and Canal Corridors

Ottawa's defining natural features are its rivers. The Ottawa and Rideau Rivers and their tributaries have historically determined the location of communities and continue to define their boundaries. In the past, the Ottawa River served as the principal highway into the Canadian Shield for aboriginal people, explorers, loggers and settlers. Its cultural heritage, natural environment resources and recreational opportunities contribute to the tourism potential of the communities along its shore.

The Rideau River and Canal is a ~~national historic site~~ World Heritage Site, a National Historic Site, and a Canadian Heritage River. Its value lies in the combination of historic engineering works and buildings, open spaces, natural features, the canal itself, and adjacent diverse landscapes, which together constitute a cultural heritage resource of outstanding national significance. Parks Canada owns the bed of the Rideau Canal and land at lock stations along the canal.

The City will ensure that the shoreline of the Ottawa River, Rideau River and Canal, and other shorelines in the city remain accessible and that the river landscapes, which include farms and wooded areas, are maintained and improved, in terms of their cultural heritage, scenic quality, and recreation and economic benefits. The natural environment functions of rivers and streams are protected through provisions elsewhere in this Plan for planning on a watershed basis, environmentally-sensitive development practices, and other measures.

Policies

1. The City will conserve the natural environment, cultural heritage, scenic qualities, and recreational potential of the Ottawa River, Rideau River and Rideau Canal by:
 - a. Reviewing development applications adjacent to these rivers and canal to ensure that the visual quality of the waterway and view from the waterway, as well as natural and cultural features, are evaluated. In this respect, a cultural heritage impact statement, as described in Section 4.6.1, will be required for any development application adjacent to the Rideau River and Canal, which will be reviewed in consultation with Parks Canada and the National Capital Commission.
 - b. Requiring an assessment of the potential impact of the development on boating safety in parts of the Rideau Canal experiencing boating congestion and other impediments to safe navigation; and on the aquatic environment where significant aquatic natural features are known to exist. The study will be reviewed in consultation with Parks Canada;
 - c. Prohibiting pits and quarries along the Ottawa and Rideau Rivers and the Rideau Canal;
 - d. Prohibiting land uses that require outside storage or large paved areas or that produce noise, fumes and dust;
 - e. Ensuring, for development outside Villages in the General Rural Area adjacent to the Rideau River and Rideau Canal upstream from Roger Stevens Drive, notwithstanding the provisions of policy 3.7.2.8(b), or any other policy in this Plan, a minimum lot size of 5 hectares and a minimum of 200 metres of waterfront for the severed parcel, and a minimum lot size of 10 hectares for the remnant parcel, unless an alternate design has the same or less impact, as assessed by a cultural heritage impact statement. [Amendment 13, September 8, 2004] [Amendment #58, December 07, 2007]
2. For lots that abut the Rideau River and Canal the City may also require site plan approval for all non-agricultural buildings, which may include one or more dwellings and their accessory buildings that have not been subject to another approval under the Planning Act and in which the matters, identified in Section 2.5.5 have been addressed.
3. Public access to shorelines will be pursued through various means, as described in Section 2.4.5. For plans of subdivision abutting the shoreline, the City will secure public access along the shoreline of all waterways in the urban area and Villages, unless there are compelling reasons not to do so. This will be accomplished by requiring that land dedicated for public purposes be located at the shoreline or adjacent to environmental constraints. The dedicated lands should be accessible from a public road. [Amendment 14, September 8, 2004]
4. In addition, the City will use such measures as public acquisition, conservation easements or other appropriate means to secure public access to the shoreline where there is agreement of the property owner.

4.6.4 – Scenic-Entry Routes

Scenic-Entry Routes form a network that links major tourist, recreation, heritage and natural environment destinations in and beyond Ottawa. Some of them follow historic routes, while others follow rivers and many are attractive to cyclists and pedestrians. Scenic-Entry Routes include a variety of roads, such as highways, parkways, arterial roads and local streets. This system of Scenic-Entry Routes is under the jurisdiction of the federal government plus provincial and municipal governments in Ontario and Québec. Most Scenic-Entry Routes can be enjoyed by a variety of modes, including bus, bicycle, and in many areas of the network in the urban area and Villages, foot. Many Scenic-Entry Routes, such as Riverside

Drive or the Ottawa River Parkway, contribute to the continuity of the Green space Network through the design of their corridors. Key Scenic-Entry Routes are also the principal roads used by visitors and business travelers arriving in Ottawa and the National Capital Region. Signage along these roads must orient travelers and provide direction to the City's attractions, while the overall pattern of development along the routes must create a favourable first impression of Ottawa.

Policies

1. Scenic-Entry Routes are designated on Schedules I and J.
2. Guidelines for Scenic-Entry Routes that elaborate on the more general Arterial Road Corridor Design Guidelines, as updated from time to time, will be developed and implemented by the City. While respecting the primary function of the road, the guidelines will promote:
 - a. The creation of a safe and attractive environment for travellers including, where appropriate, such amenities as lay-bys, scenic lookouts, information, and directional signs to important urban and rural cultural, heritage, environmental and tourism destinations;
 - b. Attention to such matters as building orientation, outside storage, access and egress, landscaping, fencing, lighting and signage to create an aesthetically pleasing streetscape;
 - c. The protection of views to natural and cultural heritage features, mature trees, and roadside vegetation along and beyond the right-of-way;
 - d. Coordination of landscaping, berming, pathways and other features within the rights-of-way with the creation of such features on adjacent land, including the potential to locate these features on adjacent property;
 - e. Any other items determined by the City.
3. Until such time as the guidelines for Scenic-Entry Routes are prepared, development applications adjacent to these routes will be assessed against the criteria listed above, in addition to other requirements of this Plan.

4.6.5 – Major Recreational Multi-Use Pathways

Major Recreational Multi-Use Pathways provide a primarily off-road network for pedestrians and cyclists in green and open settings/corridors. In the rural area, they may be on-road or within their own or shared off-road corridors. The pathways are part of the Green Space Network and provide connections among communities and major tourism, cultural heritage and green space features. The plans and design standards for Major Recreational Multi-Use Pathways are based on municipal plans and the 1994 study, *Pathway Network for Canada's Integrated Network of Recreational Pathways for the National Capital Region*, which is updated periodically. Many pathways are owned and maintained by the National Capital Commission.

Policies

1. Major Recreational Pathways are designated on Schedules I and J. The system shown on the schedules is conceptual and the location of pathways may be refined without amendment to this Plan as a result of further study by the City or through the provisions of a development agreement, provided that continuity is maintained within the system, that destinations within the system continue to be connected, and the same general area is served.
2. When reviewing development applications for non-agricultural uses in or adjacent to Major Recreational Pathways, the City will ensure that the continuity of the Major Recreational Pathway system is maintained and connections to the pathways are provided where there are opportunities.
3. The Multi-Use Pathways Network designated on Schedules I and J is an essential part of an integrated sustainable transportation network and the Schedules should be read in conjunction with the Cycling Network on Schedules C and J. The system shown on the schedules is conceptual and the location of pathways may be refined as a result of further study by the City or through the provisions of a development agreement. Such refinement will not require amendment to this plan,

provided that: continuity is maintained within the system, destinations within the system continue to be connected, and the same general area is served.

4. The City may require pathway corridors to be dedicated for public purposes through a plan of subdivision and funding for pathway construction related to new growth may be included as part of Development Charges.
5. Multi-Use Pathways are generally located in open spaces, parkland and natural lands where broad green and open corridors can be provided. Multi-Use Pathways may be co-located with other land uses and infrastructure such as: rapid transit corridors, parkway-type road corridors, utility and infrastructure corridors, storm water management facilities, and cultural and institutional facilities, where the overall open and green landscape character can be retained.
6. When reviewing community design plans, development proposals, and public works the City will ensure that pathway corridors are designed to be accessible, visible and safe by;
 - a. ensuring opportunities for visual surveillance;
 - b. providing good pathway corridor visibility and way finding;
 - c. paralleling other well-travelled public rights-of-way;
 - d. providing frequent connections to adjacent communities and alternative travel routes; and
 - e. considering the design and mitigating the impact of adjacent development on the pathway.
7. In undertaking public works, the City will seek opportunities to construct Major Recreational Multi-Use Pathways and connections to them.

4.7 – Environmental Protection

Land can be developed in ways that support natural features and functions on individual sites and across large new development areas. The development requirements in this subsection serve the following objectives in the rural and urban areas:

- Increasing forest cover across the city;
- Maintaining and improving water quality;
- Maintaining base flows and reducing peak flows in surface water;
- Protecting and improving the habitat for fish and wildlife in stream corridors;
- Protecting springs, recharge areas, headwater wetlands and other hydrological areas;
- Managing resources by using low-maintenance, natural solutions.

The development review requirements in this section are based on design with nature principles. Development sites have natural characteristics (vegetation, topography, watercourses) and related functions, which must play a fundamental role in site design. Sensitive environmental design can result in increased protection for the environment and wildlife, and more effective green space provisions for residents. It can also lead to less energy-intensive solutions as natural approaches to storm water management or heating and cooling in buildings reduce the need for expensive and energy consumptive infrastructure.

Design components will be considered as basic inputs into the development process and must be assessed and considered prior to establishing an initial design or lot pattern. This process will be implemented through application of the integrated environmental review process described below and through a number of specific policies in Sections 3.2, 4.2, 4.6 and 4.7, including those related to tree saving, slope protection, environmental impact statements, watercourse setbacks, and landform protection. All development applications will indicate the location of treed areas, watercourses, poorly drained and wetland areas, rock outcrops, and significant changes in elevation.

The following table indicates where studies/assessments may be required, depending on characteristics of the site, to assess a development application.

See Section	Studies/Assessment Required	Where Required
4.7.1	Integrated environmental review to assess development applications	Summary of all environmental studies/assessments submitted with development application Subdivision, site plan and rezoning applications requiring an EIS, or tree retention and protection plan or landscape feature assessment.
4.7.2	Tree retention and planting	All plans of subdivision and site plans
4.7.2	Demonstrate no impact on the natural features or on the ecological function for which the area is identified	On lands adjacent to significant portions of the habitat of endangered and threatened species
4.7.3	Demonstrate no negative impact; If there is impact – review by Department of Fisheries and Oceans	On or adjacent to fish habitat
4.7.3	Erosion and sediment control plan	All development proposals
4.7.3	Determine appropriate setback from rivers, lakes and streams	Development proposals adjacent to rivers, lakes and streams
4.7.5	Hydrogeology/terrain analysis	Subdivisions based on private services
4.7.5	Groundwater impact assessment	Groundwater resources areas (to be defined in future studies)
4.7.5	Wellhead protection study	Wellhead Protection Area designated on Schedule K
4.7.6	Stormwater site management plans	Site plan and subdivision and zoning amendment applications
4.7.7	Assessment of landscape feature	Geomorphic, Geological and Landform feature (designated on Schedule K); Features (e.g. ANSI) identified in other studies

4.7.1 – Integrated Environmental Review to Assess Development Applications

A comprehensive understanding of the relationship between the natural environment and the built environment is the foundation of site design and subdivision planning, as well as planning for the larger areas subject to community design plans. The integrated environmental review considers as a whole the significant findings from individual support studies (ie, tree preservation and protection plans, environmental impact statements, stormwater site management plans, Phase 1 Environmental Site Assessments). It also ensures that development proceeds in keeping with the analysis and recommendations of any watershed and subwatershed studies and federal or provincial environmental assessments documents, where applicable. The integrated environmental review ensures that development design complies with the environmental policies contained in Section 4, and that the principles of design with nature have been applied. [Amendment 13, September 8, 2004]

Policies

1. Subdivision, and major-site plans and major rezoning applications requiring an EIS, or tree retention and protection plan or landscape feature assessment, will be accompanied by an integrated environmental review statement demonstrating how all the studies in support of the application influence the design of the development with respect to effects on the environment and compliance with the appropriate policies of Section 4. The appropriate policies and studies will be identified through pre-consultation at the beginning of the design and review process.
2. The integrated environmental review statement will provide:
 - a. A brief overview of the results of individual technical studies and other relevant environmental background material;
 - b. A graphic illustration, such as an air photo, summarizing the spatial features and functions (e.g. natural vegetation, watercourses, significant slopes or landform features, recharge/infiltration areas) as identified in the individual studies;
 - c. A summary of the potential environmental concerns raised, the scope of environmental interactions between studies, and the total package of mitigation measures, including any required development conditions and monitoring, as recommended in individual studies;
 - d. A statement with respect to how the recommendations of the support studies and the design with nature approach have influenced the design of the development;
 - e. An indication that the statement has been reviewed and concurred with by the individual sub consultants involved in the design team and technical studies.
 - f. A sustainable environmental design checklist, which documents how the principles of Design Objective 7 (Section 2.5.1) have been considered in development design. Sustainable environmental design is the design of communities, neighbourhoods and buildings in ways that reduce their environmental footprint, including reduced reliance on fossil fuels, and support human health and productivity. In comparison to conventional design, sustainable design takes advantage of natural processes to generate less waste, less pollution and reduce their overall environmental footprint.

4.7.2 – Protection of Vegetation Cover

Preserving vegetation on sites subject to development not only contributes to the urban and rural forest and the overall environmental health of the area, but also helps improve the visual appeal of newly developed areas. However, development proposals may necessitate removal of existing vegetative cover in some instances. Development proposals will be required to preserve vegetative cover or propose compensation measures, through the following policies. [OMB decision #1754, May 10, 2006]

Policies

1. In order to support the Official Plan objective for 30% tree cover, applications for subdivision or site plan approval will be supported by a tree preservation and protection plan and a landscape planting plan. The plans will:
 - a. Retain as much natural vegetation as feasible, especially along watercourses, on steep slopes, in valued woodlots and in areas linking green spaces, with a particular emphasis on high quality or rare vegetative communities; [OMB decision #1754, May 10, 2006]
 - b. Determine which stands of trees or individual trees warrant retention based on a preliminary assessment;
 - c. For those trees or stands of trees being retained, outline measures for their protection during construction and over the long term;
 - d. Describe the area and nature of tree loss and compensation measures proposed;
 - e. Indicate tree planting or vegetative cover required to provide protection for stream courses or steep slopes;

- f. Investigate the appropriateness of the use of native species in tree planting strategies;
 - g. Provide a reference document for future residents on the importance and care of trees on their property;
 - h. Where there is substantial alteration of the natural vegetation cover on the site, the impact on fauna or rare species during and after construction will be considered and mitigation measures proposed.
2. The City will promote the use of native species in public projects and private tree planting and land conservation wherever appropriate. [OMB decision #1754, May 10, 2006]
 3. On-site and adjacent natural features/functions will be protected and enhanced by incorporating them into public open spaces and recreational pathways.
 4. Streetscapes will be designed to include the provision of trees.

4.7.3 – Erosion Prevention and Protection of Surface Water

Protecting stream corridors and the surface water environment serves the dual purpose of preserving and enhancing the environmental quality of stream and river corridors and their aquatic habitat, as well as reducing risks from natural hazards associated with watercourses. Ensuring that development is set back an appropriate distance from watercourses helps serve these purposes by ensuring a healthy, natural riparian zone and providing a margin of safety from hazards associated with flooding and unstable slopes.

Council has adopted Slope Stability Guidelines for Development Applications in the City of Ottawa, 2004, to guide slope stability assessments and requirements for setbacks. Slope stability assessments identify the geotechnical limit of the hazard lands, which includes the stable slope allowance plus, where appropriate, an allowance for future erosion and in some cases, an additional allowance to permit access in the event of future slope failure. [OMB decision #1754, May 10, 2006]

Policies

1. Except as otherwise provided for in this section, Council will establish minimum setbacks from rivers, lakes, streams and other watercourses in watershed, subwatershed and environmental management plans and in these plans identify any additional studies needed to refine the setback through the development review process as well as any site-specific measures needed to protect the setback. [OMB decision #1754, May 10, 2006]
2. Where a Council-approved watershed, subwatershed, or environmental management plan does not exist, the minimum setback will be the greater of the following:
 - a. Development limits as established by the regulatory flood line (see Section 4.8.1);
 - b. Development limits as established by the geotechnical limit of the hazard lands;
 - c. 30 metres from the normal high water mark of rivers, lakes and streams, as determined in consultation with the Conservation Authority; or
 - d. 15 metres from the existing top of bank, where there is a defined bank. [OMB decision #1754, May 10, 2006]
3. No site alteration or development is permitted within the minimum setback, except as otherwise provided for in this section. Site alteration is defined as activities, such as fill, grading and excavation that would change the landform and natural vegetative characteristics of a site. Development is defined as the creation of a new lot or the construction of buildings and structures requiring approval under the *Planning Act* or the issuance of a Building Permit under the *Building Code Act*. Exceptions to this policy are:
 - a. Activities that create or maintain infrastructure within the requirements of the environmental assessment process or works subject to the *Drainage Act*;
 - b. Alterations necessary for recreation, environmental restoration, or slope stability works that are approved by the City and the Conservation Authority. [OMB decision #1754, May 10, 2006]

4. The geotechnical limit of hazard will be determined in keeping with the Slope Stability Guidelines for Development Applications in the City of Ottawa, 2004. Sites where slope stability issues are a concern were identified in the report, Slope Stability Study of the Regional Municipality of Ottawa-Carleton, 1976 (Ontario Misc. Paper MP 68) and are shown on Schedule K. Schedule K provides for early identification of slope stability concerns but is not sufficiently detailed to assess constraints on specific sites.
5. Exceptions to the setbacks in policy 2 will be considered by the City in consultation with the Conservation Authority in situations where development is proposed:
 - a. On existing lots where, due to the historical development in the area, it is unreasonable to demand or impossible to achieve minimum setback distances because of the size or location of the lot, approved or existing use on the lot, or other physical constraint;
 - b. Adjacent to a minor tributary that serves primarily a surface water function and that may have only an intermittent flow. This provision includes situations where a watershed, subwatershed or environmental management plan exists but does not provide guidance on a minor tributary;
 - c. Adjacent to an existing top of bank where the regulatory flood line and the geotechnical limit of the hazard lands are within 15 metres from the existing top of bank [OMB decision #1754, May 10, 2006]
6. Where an exception to the setback is requested, an alternate setback will be considered by the City in consultation with the Conservation Authority on the basis of a study that addresses the following criteria:
 - a. Slope of the bank and geotechnical considerations related to unstable slopes, as addressed in Council's Slope Stability Guidelines for Development Applications in the City of Ottawa, 2004;
 - b. Natural vegetation and the ecological function of the setback area;
 - c. The nature of the abutting water body, including the presence of a flood plain;
 - d. The need to demonstrate that there will be no negative impacts on adjacent fish habitat. [OMB decision #1754, May 10, 2006]
7. Notwithstanding policy 3, lot creation by subdivision may be considered which includes land within the required setback in Villages adjacent to a minor tributary that serves primarily a surface water function and that may have only an intermittent flow, subject to the following criteria:
 - a. Where slope stability is an issue, the lot area outside the geotechnical limit of hazard is sufficient to meet the required minimum lot size and Council's Slope Stability Guidelines for Development Applications in the City of Ottawa, 2004 are satisfied; and
 - b. The lot area outside the setback is sufficient to accommodate all structures and water and wastewater services. [OMB decision #1754, May 10, 2006]
8. Notwithstanding policy 3, lot creation by subdivision may be considered which includes land within the required setback in the rural area outside Villages, subject to the following criteria:
 - a. Where slope stability is an issue, the lot area outside the geotechnical limit of hazard is sufficient to meet the required minimum lot size and Council's Slope Stability Guidelines for Development Applications in the City of Ottawa, 2004 are satisfied; and
 - b. The lot area outside the setback is sufficient to accommodate all structures and water and wastewater services. [OMB decision #1754, May 10, 2006]
9. Notwithstanding policy 3, a lot created by severance in the rural area may include land within the required setback provided the criteria in policy 7 are satisfied. The new lot created by severance in the rural area should be located outside the setback to the extent possible. [OMB decision #1754, May 10, 2006]
10. Under the Ontario Regulation 174/06— Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation, the approval of the Conservation Authority is required for works such as site grading, the placement of fill, the alteration of existing channels of watercourses, and certain construction projects. The Conservation Authority should be consulted for any project near a lake, river, stream or wetland regarding the need for a permit.
11. Where development is proposed on private services, no septic tank or distribution piping may be located closer than 30 m from the normal high water mark of a river, lake or stream or other

watercourse unless an alternative setback has been permitted by the City in consultation with the Conservation Authority, for example, as may be required for existing lots in the rural area. [OMB decision #1754, May 10, 2006]

12. An erosion and sediment control plan will be provided that shows how erosion on the site will be minimized during construction through application of established standards and procedures. Measures to maintain vegetative cover along the slope during and after construction will be addressed.
13. Natural watercourses should be maintained in their natural condition. Where an alteration is assessed as being environmentally appropriate and consistent with an approved subwatershed plan, environmental management plan or a storm water site management plan or, in the case of public projects, through a Class Environmental Assessment, watercourse alterations must follow natural channel design. Watercourse alterations must also meet any other applicable provincial and federal regulations, as amended from time to time, such as the Lakes and Rivers Improvement Act, Public Lands Act and Fisheries Act and may require written approval from the appropriate Conservation Authority under the Fill, Construction and Alteration to Waterways regulations.
14. Development and site alteration will not be permitted in fish habitat except in accordance with federal and provincial requirements. Development applications near or adjacent to water bodies that provide fish habitat will be required to demonstrate that the proposed development will not have a negative impact on fish habitat. Fish habitat is defined as those areas on which fish depend directly or indirectly to carry out their life processes. Fish habitat includes spawning grounds, nursery and rearing areas, areas that supply food, and features that allow migration. In the event that a negative impact is unavoidable, the proposal must be reviewed and authorized by the federal Department of Fisheries and Oceans, or its designate, which may or may not, under the federal Fisheries Act, authorize the work depending on development circumstances and type of habitat. [Ministerial Modification 45, November 10, 2003]
15. In addition to the provisions for setbacks described in this section, development proposals adjacent to municipal drains must maintain clear access to the unregistered working space adjacent to the drain. This working space is defined in the Engineer's Report adopted by Council under the Drainage Act to create and maintain each drain in the City. Many drains also provide fish habitat.
16. In support of the policies of this Plan, the City will:
 - a. Support initiatives of the Ministry of Agriculture and Food, other provincial ministries, farming organizations, Conservation Authorities and others, which encourage sound agricultural land management and soil conservation practices and other measures that minimize or eliminate the amount of pesticides, nutrients, silt and other contaminants that can enter the ground and surface water systems of Ottawa; [Ministerial Modification 46, November 10, 2003]
 - b. Investigate means to control land alteration in significant wetlands and natural areas, and the removal of top soil and peat extraction, by applying the provisions of the *Conservation Authority Act*, or the *Municipal Act* as amended from time to time, in partnership with the Conservation Authorities;
 - c. When reviewing its own practices, serve as a model and ensure that the development of its properties and the provision of its infrastructure take advantage of opportunities to design with nature;
 - d. Initiate an annual recognition program to recognize innovative projects that design with nature.

4.7.4 – Protection of Endangered Species

Endangered and threatened species are those species either listed under the regulations of the *Ontario Endangered Species Act* or are considered by the provincial government to be at risk of becoming endangered through all or a portion of its Ontario range. The habitat of these species is identified and protected by the Ministry of Natural Resources. Wildlife habitat generally is protected through environmental designations in this Plan.

Policy

1. Endangered and threatened species are those listed under the regulations of the *Ontario Endangered Species Act* or other provincial legislation, or are set out by amendment to this Plan, as being at risk of becoming endangered through all or a substantial portion of its Ontario range. Notwithstanding any policies elsewhere in this Plan, no development or site alteration will be permitted in significant portions of the habitat of endangered and threatened species, as identified by the Ministry of Natural Resources. Development and site alterations on lands adjacent to the significant portions of the habitat of endangered and threatened species may be considered if it has been demonstrated that there will be no negative impact on the natural features or on the ecological functions for which the area is identified. [OMB decision #1754, May 10, 2006]

4.7.5 – Protection of Groundwater Resources

In order to safeguard the integrity of groundwater resources, the City will ensure that new development can be accommodated within the system without affecting supplies available to other users.

Policies

1. When reviewing development applications, the City will consider the potential for impact on groundwater resources. A groundwater impact assessment may be required where the City has identified that the lands play a role in the management of the groundwater resource or the need is indicated in other available information such as subwatershed plans or local knowledge.
2. Where wellhead protection areas have been identified, the policies in Section 4.8.2 will apply.

4.7.6 – Stormwater Management

The City's commitment to plan on a watershed and subwatershed basis is outlined in Section 2.4.3. The City will implement the recommendations of the watershed, subwatershed and environmental management plans through the implementation mechanisms of this Plan or other appropriate mechanisms. In reviewing applications, the City will require that stormwater site management plans be submitted in accordance with the guidance set out in the environmental management, subwatershed and watershed plans.

Policies

1. A stormwater site management plan will be required to support subdivision and site-plan applications.
2. Stormwater site management plans will be prepared in accordance with the guidance set out in a subwatershed or watershed plans (see Section 2.4.3). Generally, stormwater site management plans will include details on subdivision management, specific best management practices for stormwater, erosion and sediment control, and details for enhancement and rehabilitation of natural features. Where no subwatershed plan or environmental management plan exists, the City will review stormwater site management plans to ensure that:
 - a. Watercourse flows are not altered in a way that would increase the risk of downstream flooding or channel erosion;
 - b. Base flow in the watercourse is not reduced;
 - c. The quality of water that supports aquatic life and fish habitat is not adversely affected;
 - d. The quality of water that supports water-based recreational uses is not affected;
 - e. Natural habitat linkages that are located in or traverse the site are maintained or enhanced;
 - f. Groundwater is not negatively impacted;
 - g. Any other impacts on the existing infrastructure or natural environment are addressed in a manner consistent with established standards and procedures;
 - h. Objectives related to the optimization of wet weather infrastructure management are realized.

3. In areas of intensification the City will encourage new development or redevelopment to incorporate on-site stormwater management and/or retention measures. Where onsite measure cannot be provided other alternative measures identified in the document 'Managing Capacity to Support Intensification and Infill' contained in section 6 of the Infrastructure Master Plan may be considered.
4. Where insufficient stormwater and/or sewer capacity is available to support the development the proponent may be required to contribute to the advancement of any relevant sewer rehabilitation project of the City and/or undertake the rehabilitation of the sewer system on the City's behalf.

4.7.7 – Landform Features

Landform features may include geomorphic, geological and other landform features that are distinctive to Ottawa. Many of these features, such as Hog's Back Falls, are identified as Earth Science Areas of Natural and Scientific Interest (ANSI), and in a 1974 study *Geological Sites and Features in the Regional Municipality of Ottawa-Carleton*, undertaken in partnership with the Ministry of Natural Resources. Geomorphic, Geological and Landform Features are shown on Schedule K. Preservation of distinctive landform features has been a long-standing municipal objective. The escarpments in the Orléans and Cumberland areas are major area landmarks, which have been preserved from quarrying and development.

Policies

1. When reviewing development proposals or when designing or reviewing public works, the City will ensure that the educational, scientific and landscape value of the Geomorphic, Geological and Landform Features, as shown on Scheduled K, will not be impaired. Only permitted development that is sympathetic to the unique characteristic of the resource, its setting and its interpretation value will be considered. Earth Science ANSIs are subject to the policies of Section 2.4.2.
2. The City will encourage the protection of other significant landform features, such as rock outcrops, escarpments, knolls, valley or other features identified in such studies as provincial ANSI studies, or municipal subwatershed studies and community design plans.
3. When considering subdivision or site plan applications, the City will ensure the protection of landform features by encouraging owners or developers to implement such measures as:
 - a. Selective grading to minimize topographic change;
 - b. Orienting buildings and roads parallel to topographic contours;
 - c. Setting back development from the bottom and top of steep slopes;
 - d. Flexible setbacks;
 - e. Providing flexibility for road layouts and right-of-way requirements.

4.7.8 – Environmental Impact Statement

~~In the City of Ottawa, Environmental Impact Statements will be used to assess development adjacent to, or in some cases, within areas designated Natural Environment Area, Significant Wetlands South and East of the Canadian Shield, Urban Natural Features, and Rural Natural Features.~~

~~These statements Environmental Impact Statements will be reviewed and assessed by the City or delegated authority as a component of the development review process.~~

Development within or adjacent to woodlands, wetlands, watercourses, and other natural features has potential to impact the feature and its functions by removing vegetation, increasing the amount of paved or other impermeable surfaces, changing the grading of the site, or making other changes. The Environmental Impact Statement serves to identify the natural features of a site early in the development process and consider ways to avoid or mitigate these impacts, and enhance natural functions.

Policies

1. An Environmental Impact Statement is required for development proposed within or adjacent to areas designated Natural Environment Area, Significant Wetlands, Urban Natural Features, and Rural Natural Features. It is also required for development within or adjacent to significant woodlands and other features of the natural heritage system, as described in Section 2.4.2. The first step in preparing development proposals in the rural or urban area should include identification of natural heritage features and their functions within or adjacent to the study area. Aerial photographs, watershed and subwatershed studies, field investigations and other information sources may be consulted. The need for an Environmental Impact Statement will be determined through consultation early in the development review process.
2. There are different types of Environmental Impact Statements:
 - a. ~~Comprehensive impact statements in support of large-scale planning studies, such as watershed and subwatershed studies. Generally completed by the municipality or other public agency, these studies may provide direction to more detailed Environmental Impact Statements by identifying environmental features and functions and recommending land management practices; [Amendment 13, September 8, 2004]~~
 - b. Full site-impact statements to assess the effects of large-scale development proposals, such as a subdivision proposal. They are prepared by a qualified professional with expertise in assessing impacts on the natural environment, but reviewed and approved by the municipality;
 - c. Impact statements for lands adjacent to Urban Natural Features where the emphasis will be on managing the interface or transition zone between urban developments and natural features in an urban context. This would include such concerns as surface drainage adjacent to the feature; natural infiltration and soft edges adjacent to features such as wetlands, wet meadows and moist forests; protection of woodland edges (drip-line setbacks, soil compaction, removal and stock-piling); and management of access and other potential issues related to uses along the edge of the feature;
 - d. Scoped site-impact statements to assess the potential impacts of smaller development proposals, such as single-lot severances, where impacts would be minor. A scoped impact study can be as simple as a checklist of matters to be addressed as part of the application process, and can be completed by the applicant. Scoped site-impact studies may also be appropriate to address the potential impacts of larger proposals if more detailed studies, such as a comprehensive impact study, are available.
3. Environmental Impact Statements will include:
 - a. A map drawn to scale identifying the location and extent of the feature, a description of the environmental values within the environmental feature or designation which could potentially be adversely affected by the proposed development, a description of the terrain/topography, vegetative cover and types, soil type and depth, and surface water movement patterns;
 - b. A description of the proposed development;
 - c. A description of the impacts on the environmental feature that might reasonably be expected to result from the proposed development;
 - d. A description of the actions that may be reasonably required to prevent, change, minimize or mitigate impacts on the environmental feature as a result of the proposed development, including the identification of opportunities for ecological restoration, enhancement and long-term conservation of the feature;
 - e. A description of the flora and fauna present on the site and how the development may impact on the flora and fauna within the site or natural feature and proposed mitigation measures to be taken during and after construction;
 - f. An evaluation of the cumulative effects that the proposed development (in light of other known projects or activities in the area) may have following mitigation measures on the natural features and ecological functions identified in the area;

- g. A professional opinion on whether negative effects on the natural features and ecological functions will occur, and the significance of these impacts in the context of the evaluation of the natural area (i.e., the natural features and functions for which the area was originally identified as significant and the residual impact of the proposed development on the general significance rating of the larger natural area);
- h. Identification of monitoring needs and recognition of parties to be responsible for assessing and reporting on these needs over a prescribed period of time.

4.8 – Protection of Health and Safety

Environmental conditions, whether naturally occurring or not, can result in hazards to human life or health and damage or loss of value to property. These environmental conditions or constraints to development may be natural hazards such as flood plains and unstable soils or hazards that result from human activity. These hazards include contaminated sites, mine hazards and land affected by noise. This Plan includes measures to protect people and new development from the impacts of these natural and human-made conditions. Lands impacted by these environmental conditions or constraints are identified on various schedules of this Plan. Some conditions, such as noise, may have impacts beyond the site and this Plan includes provisions designed to reduce off-site impacts as much as possible. In other cases, it is necessary to buffer specific land uses, such as airports and the transitway, which generate noise or vibration, from incompatible development on adjacent land in order to maintain the function of these areas.

Consideration will be given both to the site of a specific development proposal and other areas affected by the constraint when reviewing applications. The following table provides a summary of the studies/assessments required to assess a development application for sites that may be affected by development constraints.

See Section	Studies/Assessment Required	Where Required
4.8.1	Review criteria	Flood plains designated on Schedule K
4.8.2	Protection of aquifer	Wellhead protection area designated on Schedule K
4.8.3	Geotechnical study	Everywhere to demonstrate the soils are suitable for development
4.8.3	Engineering study	Unstable soils or bedrock designated on Schedule K or unstable bedrock
4.8.4	Phase 1 ESA	All subdivisions; all sites with potential contamination [Ministerial Modification 47, November 10, 2003]
4.8.5 3.8	Risk Assessment	Within 500 metres of a former landfill [Ministerial Modification 47, November 10, 2003]
4.8.6	Evaluation safety hazard	On or adjacent to mine hazards and abandoned pits and quarries
4.8.7	Noise control study; Airport zoning requirements	Ottawa Airport Operating Influence Zone designated on Schedule K

See Section	Studies/Assessment Required	Where Required
4.8.8	Noise study	<p>Where noise-sensitive development is proposed within 500 metres of a freeway or 400-series provincial highway, 250 metres of an existing or proposed highway or light rail transit corridor, and within 100 metres of an existing or proposed arterial or major collector roadway or bus rapid-transit corridor.</p> <p>For all proposed noise-sensitive developments within 500 metres of a principal railway right-of-way or 250 metres from a secondary railway line or light rail transit corridor.</p> <p>Where a new noise-sensitive land use is proposed in areas affected by noise from existing stationary sources</p> <p>Where a proposed stationary source of noise will affect existing noise-sensitive land uses.</p> <p>Where the expansion or alteration of an existing stationary source of noise is proposed, or where a change of use of a stationary source is being proposed which could result in an increase in noise. [OPA 43, May 24, 2006]</p>
4.8.8	Vibration Study	<p>For all proposed vibration -sensitive developments within 75 metres of a railway right-of-way or light rail transit corridor. [OPA 43, May 24, 2006]</p>

4.8.1 – Flood Plains

A flood plain is the area adjoining a watercourse that has been or may be covered by floodwater generated by severe storms or rainfall and snowmelt in combination. For the purpose of this Plan, the flood plain is the area covered by water in the event of a 100-year flood.

This Plan contains policies to minimize the threat of injury, loss of life, property damage, and economic and social disruptions caused by flooding. The Plan will permit safe, compatible development in the reduced risk parts of the flood plain, provided there are no adverse environmental impacts and the proposal is approved by the appropriate Conservation Authority, in accordance with the applicable legislation. [OMB decision #1754, May 10, 2006]

Policies

1. The policies for flood plains apply to those areas designated on Schedule K as well as areas where flood plains exist but are not mapped by Conservation Authorities and are not designated.
2. The extent of the flood hazards for the purpose of implementing these policies will be determined by consulting flood plain maps prepared by the Conservation Authorities and, in conjunction with the Conservation Authorities, considering other information such as land surveys and engineering drawings that may be pertinent. In addition, the applicant may be required to provide sufficient information to establish whether the policies of this subsection are met.
3. The City will not permit any building, structure or septic system in a flood plain, regardless of the underlying designation, except:
 - a. In accordance with policies 4, 5 and 6 of this subsection;
 - b. Works and facilities related to flood and erosion control authorized under the *Environmental Assessment Act*;

- ~~c. Repairs and minor additions to buildings and accessory buildings may be permitted subject to approval of the appropriate Conservation Authority.~~
- ~~4. Where the flood plain is not incorporated into Fill, Construction, and Alteration to Waterways regulations administered by the Conservation Authorities, the City may permit development through a zoning by law amendment. Such a proposed amendment will be evaluated against the following criteria:
 - ~~a. There is sufficient information accompanying the application to show that the proposed development and its occupants will be protected from the effects of a 100-year flood;~~
 - ~~b. The hazards can be safely addressed, and the development and site alteration are carried out in accordance with established standards and procedures;~~
 - ~~c. New hazards are not created and existing hazards are not aggravated;~~
 - ~~d. No adverse environmental impacts will result;~~
 - ~~e. Vehicles and people have a way of safely entering and exiting the area during times of flooding, erosion and other emergencies;~~
 - ~~f. The development does not include institutional uses or essential emergency services or the disposal, manufacture, treatment or storage of hazardous substances;~~
 - ~~g. The proposed development is permitted on Schedules A and B.~~~~
- ~~5. Where the flood plain is incorporated into Fill, Construction, and Alteration to Waterways regulations administered by the Conservation Authorities, the zoning by law may permit repairs, minor additions, and new construction, provided that:
 - ~~a. The zoning by law has been prepared in consultation with the appropriate Conservation Authority and has given consideration to the need to issue a permit under the Development or Fill, Construction, and Alteration to Waterways regulations prior to the issuance of a building permit;~~
 - ~~b. The proposed development is permitted on Schedules A and B.~~~~
- ~~6. The City may request the Conservation Authority or the Ministry of Natural Resources, where no Conservation Authority exists, to give consideration to further defining the flood plain as two distinct zones, the "floodway" and the "flood fringe". The floodway is defined as that area where development would not be permitted due to depths and velocities of floodwaters. The flood fringe is defined as that area where depths and velocities of floodwater may be safely overcome. Where the two-zone approach is applied, development may be considered in the flood fringe, subject to review and approval by the City and the Conservation Authority.~~
- ~~7. All new development and infrastructure in the flood plain will be subject to the approval of the appropriate Conservation Authority, in accordance with the applicable provincial legislation. [OMB decision #1754, May 11, 2006].~~
- ~~8. The City will not permit development of uses associated with substances of a chemical, hazardous or toxic nature in the flood plain, and which could pose a threat to public health and safety if damaged as a result of flooding or the failure of flood-proofing measures~~
- ~~9. The City will not permit development associated with institutional uses such as hospitals, nursing homes, schools, and childcare facilities that would pose a significant threat to the safety of the inhabitants (e.g., the sick, the elderly, the disabled or the young) if involved in an emergency evacuation situation as a result of flooding or failure of flood-proofing measures within the flood plain.~~
- ~~10. The City will not permit development in the flood plain associated with essential services, such as police, fire or ambulance stations that must continue to function during a flood emergency, if delivery of such services would be compromised.~~
- ~~11. The City may permit development in special policy areas. Special policy areas are located within communities that have historically existed in the flood plain where site-specific policies have been approved by the Ministers of Natural Resources and Municipal Affairs and Housing to address the significant social and economic hardships to the community that would result from strict adherence to provincial policies concerning development.~~

The purpose of these policies is to reduce the potential for public cost or risk of injury, loss of life, property damage, and economic and social disruption, which may result directly or indirectly from development

and other activities in flood plains. The policies also recognize the significant role that flood plains play in support of natural drainage systems. The overall intent is to limit development within the flood plain. In a few established communities, provision is made for some development within the flood fringe, where it has occurred in the past.

Limits of the Flood Plain

1. The flood plain for river, stream and small inland lake systems, means the area, usually low lands adjoining a watercourse, which has been or may be subject to flooding during the one in 100-year flood and are designated on Schedule K. High points of land within a flooded area are considered part of the flood plain.
2. The extent of the one in 100-year flood will be determined by consulting flood plain maps prepared by the Mississippi Valley, Rideau Valley, and South Nation Conservation Authorities and, in conjunction with the Conservation Authorities, by considering other information such as land surveys and engineering drawings that may be pertinent.
3. The policies for flood plains also apply to areas where flood plains exist but are not mapped by the Conservation Authorities and are therefore not designated on Schedule K. Applicants may be required to undertake the necessary studies to delineate the extent of the flood plain in these instances.

Development Restrictions in the Flood Plain

4. The zoning of flood plains will reflect the restricted use of these lands as described in these policies. Development in the flood plain is regulated under the Conservation Authorities Act and, will require written permission from the appropriate Conservation Authority, in addition to a building permit from the municipality under the Building Code Act.
5. The City will not permit site alteration, meaning activities such as grading, excavation and the placing of fill that would change the landform and natural vegetative characteristics of a site, or development, meaning the creation of a new lot, a change in land use, or the construction of buildings and structures in the flood plain except for:
 - a. Facilities which by their nature must locate in the flood plain, such as bridges, flood and/or erosion control structures;
 - b. Minor additions and/or renovations to existing structures which do not affect flood flows, and which are approved by the appropriate Conservation Authority;
 - c. Passive non-structural uses which do not affect flood flows such as forestry, conservation uses, agriculture and outdoor recreation uses; and
 - d. Uses permitted in the flood fringe in accordance with Policy 10 in Two-Zone Flood Plain Policy Areas below.
6. Development, as defined in Policy 5, is prohibited in the flood plain for:
 - a. Uses associated with hospitals, nursing homes, pre-school, school nurseries, day care and schools, where there is a threat to safe evacuation of the sick, the elderly, persons with disabilities or the young during an emergency as a result of flooding or failure of floodproofing measures or protection works, or erosion;
 - b. Essential emergency services such as fire, police, ambulance stations and electrical substations that could be impaired in the case of flooding or failure of flood protection works and/or erosion; and
 - c. Uses associated with the disposal, manufacture, treatment or storage of hazardous substances and outdoor industrial storage.

Two-Zone Flood Plain Policy Areas

7. A limited number of Two-Zone Flood Plain Policy Areas are designated on Schedule K. In these areas, the flood plain is divided into two zones: a floodway and a flood fringe. The use of the two-zone concept may allow for some new development within the identified flood fringe areas of the flood plain that can be safely developed with no adverse impacts.

8. Under the Two-Zone concept, the floodway and the flood fringe are defined as follows:
 - a. The floodway is the hazardous portion of the flood plain where flood depths and/or velocities are considered to be such that they pose a significant threat to life and/or property. The floodway is generally defined as the area required for the safe passage of flood flows. In all circumstances, the delineation of the floodway will be approved by the relevant Conservation Authority based upon depth and velocity parameters and the required technical studies.
 - b. The flood fringe means the portion of the flood plain outside the floodway as defined by the relevant Conservation Authority, where depths and velocities of flooding are generally less severe than those experienced in the floodway.
9. The City may consider the designation of additional Two-Zone Flood Plain Policy Areas. This would normally be initiated by the City in consultation with the Conservation Authority and as part of a comprehensive land-use and watershed based planning process. Also, this would only be in areas of existing flood prone development, and provided all of the following are demonstrated through the appropriate technical studies:
 - a. Development and site alteration is carried out in accordance with floodproofing standards, protection works standards, and access standards;
 - b. Vehicles and people have a way of safely entering and exiting the area during times of flooding, erosion and other emergencies;
 - c. New hazards are not created and existing hazards are not aggravated; and
 - d. No adverse environmental impacts will result.
10. Once the Two-Zone Flood Plain Policy Area is designated, development and site alteration as defined in Policy 5, but excluding lot creation, may be considered in the flood fringe in accordance with the underlying Official Plan designation shown on Schedules A and B of the Official Plan, provided that the conditions in Policy 9 are met to the satisfaction of the City and the relevant Conservation Authority.
11. Permitted uses in the floodway portion of the Two-Zone Policy Areas shall be the permitted uses identified in Policy 5.

4.8.2 – Wellhead Protection

A wellhead protection area is the surface and subsurface area surrounding a well supplying a public water system, through which contaminants are reasonably likely to move forward and reach the well. The City ~~is undertaking~~ has undertaken studies to define and defined wellhead protection areas at for City-owned well sites. ~~The purpose of the studies is to draft policies to protect the municipal water supply from land uses that pose a threat to the quality and quantity of groundwater being extracted from the wells.~~ The studies define the wellhead protection areas, capture zones and recharge zones for each well. Where Wellhead Protection Areas have been identified, they are designated on Schedule K.

Policies

1. ~~The City will undertake a Wellhead Protection Study to be completed in 2003 to define Wellhead Protection Areas at City owned well sites and to develop policies for their protection.~~ Planning applications for uses within wellhead protection areas will be reviewed to assess the level of risk to a municipal water supply.
5. The zoning by-law ~~will~~ may restrict land uses that have the potential to cause contamination of the groundwater resource in areas identified on Schedule K as Wellhead Protection Areas.

4.8.3 – Unstable Soils or Bedrock

Unstable soils or bedrock could be unsafe or unsuitable for development and site alteration due to natural hazards or risk of damage to the structures built on these soils or bedrock. Unstable soils include organic soils, sensitive marine Leda clays and unstable slopes. Unstable bedrock includes Karst topography. Steep slopes are often associated with unstable soils. Organic soils are identified on soils maps prepared by the Ontario Institute of Pedology. ~~Unstable slopes have been identified in the report, Slope Stability Study of the Regional Municipality of Ottawa-Carleton, 1976 (Ontario Misc. Paper MP-68).~~ Areas affected by the environmental constraints of Organic Soils or ~~Unstable Slopes~~ are designated on Schedule K. There are other areas where unstable soils and unstable bedrock may exist but that are not designated on Schedule K. The policies apply in either case.

This Plan contains policies to:

- Minimize the hazard risk from threat of injury and loss of life, property damage and distress caused by unstable soils resulting in foundation stress caused by differential settlement, or slope failure or landslide, and
- Facilitate safe and compatible land uses and development on sites where hazard risk has been minimized.

Policies

1. Applications for site plan, plan of subdivision, condominium and consent shall be supported by a geotechnical study to demonstrate that the soils are suitable for development.
6. The City will review applications for site plan, plan of subdivision, condominium and consent in areas designated as having unstable soils, or in other areas where there is evidence of unstable soils or unstable bedrock, using the following criteria:
 - a. There is sufficient soils and engineering information (obtained using established standards and procedures) to indicate that, although the site is identified as having unstable soils or unstable bedrock, it is in fact suitable or can be made suitable for development;
 - b. Alterations to the site will not cause adverse environmental effects or aggravate the hazard elsewhere.
 - c. Vehicles and people have a way of safely entering exiting the area during times of erosion and other emergencies; and [Ministerial Modification 48, November 10, 2003]
 - d. The development does not include hospitals, nursing homes, preschool, nursery schools, day care and schools and those uses directly associated with the foregoing, where there is a threat to the safe evacuation of the sick, the elderly, the physically challenged or the young due to hazard risks, and does not include essential emergency services or the storage of hazardous substances. [Ministerial Modification 48, November 10, 2003]
7. The City will not permit development, meaning the creation of a new lot, an amendment to the zoning by-law, change in land use, or the construction of buildings and structures in areas with Unstable Soils or Unstable Bedrock where the use is:
 - a. Uses associated with hospitals, nursing homes, pre-school, school nurseries, day care and schools, where there is a threat of safe evacuation of the sick, the elderly, persons with disabilities or the young during an emergency as a result of flooding or failure of floodproofing measures or protection works, or erosion;
 - b. Essential emergency services such as fire, police, ambulance stations and electrical substations that could be impaired in the case of flooding or failure of flood protection works and/or erosion; and
 - c. Uses associated with the disposal, manufacture, treatment or storage of hazardous materials and outdoor industrial storage.

4.8.4 – Contaminated Sites

[Amendment 40, April 26, 2006]

Potentially contaminated sites are sites where the environmental condition of the property (soil and/or groundwater) may have potential for adverse effects on human health, ecological health or the natural environment. In order to prevent these adverse effects, it is important prior to permitting development on these sites, to identify these sites and ensure that they are suitable or have been made suitable for the proposed use in accordance with provincial legislation and regulations.

While the identification of potentially contaminated sites is important in the planning application review process, the policies in this section should not be interpreted as a commitment on the part of the City of Ottawa to identify all contaminated sites or properties. Rather, the objective of the City of Ottawa is to responsibly utilize available information in the development application review process in order to help ensure that development takes place only on sites where the environmental conditions are suitable for the proposed use of the site.

Policies

1. The City will require applicants to document previous uses of a property or properties that are subject of a development application and/or properties that may be adversely impacting the property that is subject of a development application in order to assist in the determination of the potential for site contamination.
2. The City will require an affidavit from a qualified person as defined by provincial legislation and regulations, confirming that a Phase 1 Environmental Site Assessment (ESA) has been completed in accordance with Ontario Regulation 153/04, as amended from time to time, as follows:
 - a. For all applications for proposed plans of subdivision;
 - b. For all other development applications under the *Planning Act* where a property or properties have been identified through the City's development review process as potentially contaminated due to previous or existing uses on or adjacent to the property.

A Phase I ESA documents the previous uses of the property and provides an assessment of the actual or potential soil or groundwater contamination on the site.
3. Where a Phase 1 ESA indicates that the property or properties that are subject of a development application under the *Planning Act* may be contaminated, the City will require the application to be supported by an affidavit from a qualified person as defined by provincial legislation and regulations, confirming that a Phase 2 ESA has been completed in accordance with Ontario Regulation 153/04, as amended from time to time. A Phase 2 ESA provides a sampling and analysis of the property to confirm and delineate the presence of soil or groundwater contamination at the site or confirm the absence of contamination at the site.
4. For a property or properties that have been identified through the City's development review process as potentially contaminated due to previous or existing uses on or adjacent to the property and where the City determines that there is a proposed change in land use to a more sensitive use, the City will:
 - a. Require as a condition of development approval, verification to the satisfaction of the City from a qualified person as defined by provincial legislation and regulations, that the property or properties in question are suitable or have been made suitable for the proposed use in accordance with provincial legislation and regulations, including where required by the City, or provincial legislation and/or regulations:
 - i. Filing by the property owner of a Record of Site Condition (RSC) signed by a qualified person in the Environmental Site Registry,
 - ii. Submission to the City of a Declaration signed by the qualified person acknowledging that the City may rely on the statements in the RSC, and,
 - iii. Submission by the property owner to the City of proof that the Ministry of Environment (MOE) has acknowledged receipt of the RSC;

- b. Establish conditions of development approval to ensure receipt of satisfactory verification of suitable environmental condition as per Policy 4 a.;
- c. Where applicable, utilize the holding provisions of the *Planning Act* to ensure receipt of satisfactory verification of suitable environmental condition as per Policy 4 a.
5. Where an RSC has been made a condition of planning approval, a building permit may be issued in regard to a property or properties on a phased basis to allow for site assessment and remediation/risk management.
6. Where the City is deeded land for public highways, road widenings, parks, stormwater management, easements, or for any other purpose, the City may require, as a condition of transfer, verification to the satisfaction of the City from a qualified person as defined by provincial legislation and regulations, that the property or properties in question are suitable or have been made suitable for the proposed use in accordance with provincial legislation and regulations, including where required by the City or provincial legislation and/or regulations, filing by the property owner of a Record of Site Condition (RSC) signed by a qualified person in the Environmental Site Registry, and submission by the owner to the City of proof that the MOE has acknowledged receipt of the RSC.
7. For instances where contamination from a property or properties extends onto a City right-of way and filing of a RSC in the Environmental Site Registry is not possible, the City may issue a building permit in regard to this property or properties on a phased basis contingent on the execution and implementation of an Off-Site Management Agreement or Remedial Action Plan that remediates/manages contamination in the right-of-way to the satisfaction of the City.
8. Where a gasoline station site is being redeveloped and there is no change in use to a more sensitive use, the City will require that a letter of continued use from the Technical Standards and Safety Authority be provided. For instances where contamination extends onto a City right-of way, the City will require that an Off-Site Management Agreement and Remedial Action Plan be implemented to the satisfaction of the City prior to issuance of the building permit.
9. The City will not consider an RSC as acknowledged by the MOE until either:
 - a. It has been confirmed that the RSC will not be audited by the MOE; or,
 - b. It has been confirmed that the RSC has passed the MOE audit. [Amendment 40, April 26, 2006]

4.8.5 – Former Landfill Sites

~~Human health and safety may be affected within the area of influence of a former landfill site. The most significant contaminant discharges and visual problems occur normally within 500 metres of the perimeter of the fill area. The actual area of influence will vary for every former site.~~

~~The City has commissioned a study to identify former landfill sites in the City of Ottawa. Upon completion of the study, former landfill sites identified will be designated on Schedule K by amendment to this Plan.~~

Policies

- ~~8. —~~
- ~~1. No land use may take place within 30 metres of the perimeter of a former landfill site.~~
- ~~9. The City will require land use proposals including official plan amendment and subdivision and condominium applications within 500 metres of a former landfill site, to be supported by a study to evaluate the presence and impact of any adverse effects or risks to human health and safety and that necessary remedial measures are undertaken when development proposals are within this distance.~~
- ~~10. The study will provide an assessment of:
 - a. Landfill gas in Public Service Areas;~~
- ~~11. An assessment of the groundwater quality and an assessment of landfill gas outside of Public Service Areas where groundwater is the source of drinking water.~~
- ~~12. Where previous studies have determined the influence area of the site to be less than 500 metres, the study area can be reduced to coincide with the actual influence area.~~

4.8.6 – Mine Hazards and Abandoned Pits and Quarries

Mine hazards are any feature of a mine defined in the *Mining Act* or any related disturbance of the ground that has not been rehabilitated. These hazards may pose a threat of injury and loss of life if they are not rehabilitated or mitigated. Abandoned pits and quarries are defined as an area of land not previously licensed or permitted under the *Aggregate Resources Act* from which aggregate has been removed, leaving it in a form that is derelict, unproductive or incompatible with the surrounding landscape.

This Plan contains policies that require development on or abutting lands affected by Mine Hazards and Abandoned Pits and Quarries to address and mitigate known or suspected hazards. [Amendment #58, December 07, 2007]

Policies

1. The City will require applicants for site plan, plan of subdivision and consent to indicate that they are satisfied that the previous uses of the property have been assessed and have not identified any former mine sites or abandoned pits and quarries on or adjacent to the site. Any assessment of the property will include reference to the Abandoned Pits and Quarries Inventory completed by the Ministry of Natural Resources and information regarding abandoned mine sites documented by the Ministry of Northern Development and Mines.
2. Where a Mine Hazard or Abandoned Pit or Quarry exists, the City will require development applications to be supported by a study that:
 - a. Identifies any potential safety hazard;
 - b. ~~Demonstrates that the site can be rehabilitated to mitigate the known or suspected hazard;~~
 - c. Establishes measures to address and mitigate known or suspected hazards; [Amendment #58, December 07, 2007]
3. Development on or abutting lands affected by mine hazards may be permitted only if measures to address and mitigate known or suspected hazards are underway or have been completed. [Amendment #58, December 07, 2007]

4.8.7 – Land-Use Constraints Due to Aircraft Noise Airport and Aircraft Operations

[Amendment 12, September 8, 2004]

~~The Ottawa-Macdonald-Cartier International Airport as well as the airports at Carp and Rockcliffe support the economic development of the National Capital Region and therefore warrant protection from incompatible development. At the same time, new communities must be planned and then built according to appropriate building standards so that noise-sensitive land uses are protected from the adverse effects of aircraft noise. Noise-sensitive land uses are housing, institutional uses, public facilities. Specific examples include, but are not limited to, campgrounds, hospitals, places of worship, schools, day care facilities, long-term care facilities, libraries, auditoriums and community centres. Hotels and motels are also noise-sensitive land uses, but they are treated differently from other such uses because they benefit from convenient access to the airport and the impact of noise on people is reduced by the short duration of most visits. [Amendment 36, November 30, 2005]~~

~~The types of land uses that are compatible with noise levels in the vicinity of airports are determined through reference to federal guidelines based on the Noise Exposure Forecast (NEF) and Noise Exposure Projection (NEP) system. This system uses noise contours to graphically display the expected level of annoyance within specific areas around airports. These noise contours have been used in this Plan to define the boundaries of areas that are affected by the airport and to set policies for these areas. These areas include Greenbelt lands and urban and rural areas; the policies regarding airport noise are to be considered in addition to policies for these areas elsewhere in this Plan.~~

The NEF and NEP were revised in 2005 to reflect current airport operations and new projections of future airport activity and associated noise. The 25 NEF/NEP and the 30 NEF/NEP are used to define the boundaries of the areas subject to land use constraints due to aircraft noise. For each planning area, the more restrictive of either the NEF or the NEP is generally used as the basis for the area boundary. [Amendment 36, November 30, 2005]

The boundary of the Ottawa Airport Operating Influence Zone is based on the more restrictive of either the 30 NEF and NEP contours. Within this area, noise sensitive development is generally not permitted, although infill and redevelopment may occur in specific areas within the zone in keeping with the policies below. The boundary of the Ottawa Airport Operating Influence Zone has been drawn to coincide with physical features such as roads, creeks, rail lines, and lot lines where possible. The boundary of the Ottawa Airport Operating Influence Zone, shown on Schedule K, is not subject to interpretation and its precise location should be read from a map at a scale of 1:50 000 available from the City of Ottawa and the Ottawa International Airport Authority. [Amendment 36, November 30, 2005]

The boundary of the Airport Vicinity Development Zone is based on the more restrictive of either the 25 NEF and NEP contours, as well as the boundary subject to the Ottawa International Airport Zoning regulations. The boundary of the Airport Vicinity Development Zone been drawn to coincide with physical features such as roads, creeks, rail lines, and lot lines where possible. Like the boundary of the Ottawa Airport Operating Influence Zone, the boundary of the Airport Vicinity Development Zone is shown on Schedule K and is not subject to interpretation. [Amendment 36, November 30, 2005]

Annex 10 shows the boundaries of the composite 25 NEF and NEP contours and the Ottawa International Airport Zoning regulations, and illustrates how the two combine to make up the boundary of the Airport Vicinity Development Zone. Noise sensitive uses are permitted between the 25 NEF/NEP composite and the boundary of the Ottawa Airport Operating Influence Zone, provided the noise is attenuated. Noise-sensitive uses are permitted outside the boundary of the 25 NEF/NEP composite without attenuation, although the Ottawa International Airport Zoning regulations may apply.

Annex 10 also shows the Ottawa Airport Operating Influence Zone and the 35 NEP contour. Residential and other noise sensitive land uses are not permitted above the 35 NEP contour, which is more restrictive than the 35 NEF contour and is used as the basis for land use policies in this section of the Plan. [Amendment 36, November 30, 2005]

The Ottawa Macdonald-Cartier International Airport (OMCIA) contributes considerably to the economic well-being of the National Capital Region by providing a full-service, commercial aviation passenger terminal and airfield system for the benefit of area residents and local businesses alike. Part and parcel of the OMCIA's operational and business success is its ability to accommodate passenger aircraft and air cargo carriers 24 hours a day, seven days a week. It is therefore paramount that the economic viability of the Ottawa's international airport be protected from incompatible development.

At the same time, new communities must be planned and then built so that residential and noise-sensitive land uses are protected from the adverse effects of aircraft noise and also developed in compliance with federal aerodrome standards or applicable airport zoning regulations, whichever case applies. Key to developing safe and healthy communities in the vicinity of the airport is therefore planning for land uses that are compatible with and protect the long-term operation and economic role of the OMCIA. Protection of airport from incompatible land uses and activities is achieved by:

- Prohibiting new residential development and other noise sensitive uses above the 30 Noise Exposure Forecast (NEF)/ Noise Exposure Projection (NEP) contours;
- Imposing building standards on residential and other noise sensitive development between the 25 NEF/NEP and 30 NEF/NEP contours to reduce the impact of aircraft noise indoors;

- Ensuring building heights and natural vegetation respect airport obstacle limitation surfaces as established by federal aerodrome standards or airport zoning regulations, whichever case applies;
- Developing land uses and managing activities in a manner that reduces the attractiveness of these to bird species and populations that are hazardous to aircraft operations;
- Restricting land uses, activities and the use of building materials that interfere with the performance of navigation aids and telecommunication; and
- Developing land uses and managing activities in a manner that will not increase wildlife presence and elevate risks to aviation operations.

Ottawa Macdonald-Cartier International Airport Operational Conditions:

Aviation related resource materials relied upon by Transport Canada and Airport Authorities across Canada to identify areas around airports that require protection include noise contours, Airport Zoning Regulations, the Ministry of Environment Noise Assessment Criteria in Land Use Planning LU-131, and two federal publications referred to as TP 312 titled Aerodrome Standards and Recommended Practices and TP 1247 titled Land Use in the Vicinity of Airports.

For the OMCIA, the 2013 NEF contours, the 2023 NEP contours and the Ottawa Airport Zoning Regulations have been used in this Plan to identify two zones around the airport that are affected by aviation operations: the 'Airport Operating Influence Zone' (AIOZ); and the 'Airport Vicinity Development Zone' (AVDZ).

The impacts of airport operations on land use typically result in two categories of constraints on development: aircraft noise; and Airport Zoning Regulations. A third and more recent category is wildlife management the focus of which is to reduce risks to airport activity as a result of wildlife movement in areas peripheral to the airfield system.

a) Aircraft Noise

The types of land uses that are compatible with noise levels in the vicinity of the airport are determined through reference to federal guidelines (TP 1247) based on the Noise Exposure Forecast (NEF) and Noise Exposure Projection (NEP) system. This system uses noise contours to graphically display the expected level of annoyance within specific areas around airports. The OMCIA's NEF and NEP contours were revised in 2005 to reflect current airport operations and project the impact of aircraft noise associated with future conditions and volumes of air traffic. These are as illustrated on the 2013 NEF map and the 2023 NEP map prepared by the Ottawa Macdonald-Cartier International Airport Authority. The 30 NEF/NEP and the 25 NEF/NEP contours are used to identify the limits of two areas where land uses are either restricted, as in the former case, or subject to development constraints due to aircraft noise, as in the latter case. The more restrictive of either the NEF or the NEP is generally used to define the limit of each affected area.

i. Airport Operating Influence Zone

The boundary of the Ottawa 'Airport Operating Influence Zone' (AIOZ) is based on the most restrictive of either the 30 NEF and NEP contours. Within this area, residential and noise sensitive development is not permitted. Notwithstanding, very limited residential infill and redevelopment may occur when strictly in keeping with the policies established below.

Noise-sensitive land uses are considered housing, institutional uses and public facilities. Specific examples include, but are not limited to, retirement homes, campgrounds, hospitals, places of worship, schools, day care facilities, long-term care facilities, libraries, auditoriums and community centres. Hotels and motels are also noise-sensitive land uses, but they are

treated differently from other such uses because they benefit from convenient access to the airport and the impact of noise on people is reduced by the short duration of most visits.

The border delimiting the Ottawa Airport Operating Influence Zone, as shown on Schedule K, has been drawn to coincide with physical features such as roads, creeks, rail lines, and lot lines where possible. The identified boundary of the zone is not subject to interpretation and its precise location should be read from a map at a scale of 1:50 000 available from the City of Ottawa and the Ottawa International Airport Authority.

The Ottawa Airport Operating Influence Zone also captures lands that are subject to the Ottawa Airport Zoning Regulations (OAZRs). Both noise-sensitive and non noise-sensitive uses are required to comply with the provisions of the OAZRs in effect under the federal *Aeronautics Act*.

ii. Airport Vicinity Development Zone

The boundary of the Airport Vicinity Development Zone (AVDZ) is based on the more restrictive of either the 25 NEF and NEP contours (the 25 noise composite line) as well as the 'Outer Limitation' and 'Bird Hazard Zone' boundaries as defined by the Ottawa Airport Zoning Regulations.

The boundary of the AVDZ has been drawn to coincide with physical features such as roads, creeks, rail lines, and lot lines where possible, as shown on Schedule K, and is not subject to interpretation. The lands within the 'Airport Vicinity Development Zone' are constrained by the Ottawa Airport Zoning Regulations and impacted by aircraft noise within the area defined by the 25 noise composite line and the AOIZ.

Annex 10 shows the boundaries of the composite 25 NEF and NEP contours and the Ottawa Airport Zoning Regulations, and illustrates how the two combine to make up the boundary of the Airport Vicinity Development Zone. Noise-sensitive uses are permitted between the 25 NEF/NEP noise composite line and the boundary of the Ottawa Airport Operating Influence Zone provided the noise is attenuated. Where residential and noise sensitive uses are proposed these are subject to the preparation of a Noise Control Detailed Study and implementation of the noise study recommendations that result. In the case of residential subdivision development the Prescribed Measures to Address Aircraft Noise, as amended from time to time, will apply. Noise-sensitive uses are permitted outside the boundary of the 25 NEF/NEP composite without attenuation, although the Ottawa Airport Zoning Regulations may apply.

b) Airport Zoning Regulations

The Airport Zoning Regulations apply to all lands, including public road allowances adjacent or in the vicinity of the airport. They are comprised of four categories of restrictive clauses relating to building heights, interference with communication, natural growth and bird hazard. The regulations are the means through which to:

- i) limit the height of new buildings, structures and objects, including natural growth,
- ii) prohibit within the Outer Limitation Surface, electronic interference with any signal or communication to or from an aircraft or any facility used to provide services to aeronautics; and
- iii) restrict land uses and activities which attract birds that create a hazard to aviation activity.

The Airport Zoning Regulations also apply to lands outside of the 'Airport Vicinity Development Zone' where these lay within the runway approach surfaces. Mapping is available from the Ottawa International Airport Authority to determine the precise location of affected areas. Development within those areas will be subject to the building height provisions of the regulations.

Annex 10 shows the boundaries of the 'Airport Operating Influence Zone' and the 'Airport Vicinity Development Zone'.

c) Wildlife Management

New Canadian Aviation Regulations in effect since December 2006 outlines requirements for 'Airport Wildlife Planning and Management'. The OMCIAA has accordingly prepared and implements a Wildlife Management Plan the purpose of which is to establish a management strategy for both lands on and in the vicinity of the airport. Key to the success of the Plan's program of actions is habitat management. The OMCIAA monitors wildlife movement and proposed land uses, municipal infrastructure projects and activities that could result in the creation or enhancement of habitat and by extension risk to aviation operations. Mapping is available from the Ottawa International Airport Authority to determine the general location of affected areas.

General Aviation

General aviation airfields at the OMCIAA, Carp, and Rockcliffe also contribute to economic development within the City by providing facilities that accommodate private aviation activity, flight schools and aviation related businesses. The business health of general aviation at OMCIAA, Carp and Rockcliffe airports will also be protected from incompatible development.

Policies

Aircraft Noise – Ottawa Macdonald-Cartier International Airport

1. Land impacted by the operation of the airport is identified on Schedule K as the Ottawa Airport Operating Influence Zone and the Airport Vicinity Development Zone. These zones have been identified in order to protect the economic potential of the city's airports as well as protect residents from the adverse impacts of unacceptable levels of noise. Review of development applications in these zones will be guided by the Transport Canada manual TP1247E - Land Use in the Vicinity of Airports and the Ministry of Environment Noise Assessment Criteria in Land Use Planning LU-131, as amended periodically.
2. A detailed noise control study may be required for any development proposal at or above the 25 line as mapped along physical features. A detailed noise control study includes, but is not limited to:
 - a. Consideration of all airport noise sources, including noise produced by aircraft run-ups and taxiing, the reverse thrust noise produced by landing aircraft, and helicopter noise;
 - b. Consideration of noise from sources other than the airport, including roads, rail lines and industry;
 - c. Details of the assessment methods, results, and recommendations for noise control measures, and provisions for how the measures will be secured through the conditions of approval of plans of subdivision and condominium, site plan or severance applications. [Amendment 36, November 30, 2005]
3. Within the Ottawa Airport Operating Influence Zone designated on Schedule K, no development of residential and other noise-sensitive land uses will be permitted above 35 NEP contour. [Amendment 36, November 30, 2005]
4. ~~Within the Ottawa Airport Operating Influence Zone, no development of residential and other noise-sensitive land uses will be permitted between the boundary of the Ottawa Airport Operating Influence Zone and the 35 NEP contour except:~~ Notwithstanding, exceptions may be considered to permit development under the following circumstances:
 - a. The redevelopment of existing residential and other noise-sensitive land use;
 - b. Infilling of new residential uses;
 - c. Hotels and motels. [Amendment 36, November 30, 2005]
5. Further to policy 3 4-, redevelopment of existing residential and other noise-sensitive land uses and infilling of new residential uses will only be permitted where the development:
 - a. Is below the 35 NEP contour;
 - b. Does not require the approval of a plan of subdivision, or amendment to the zoning by-law or amendment to this Plan; and

- c. Is on a new lot created by a severance where the severance is permitted in the zoning by-law existing on May 14, 2003 and is in accordance with all the provisions of the Plan; or
 - d. Is on a lot existing and fronting on a public road that is maintained year-round, provided that the lot was created under the *Planning Act* by May 14, 2003, and the use is permitted in the zoning by-law and is in accordance with all the provisions of this Plan. This policy is not to be interpreted so as to require a change in the provisions of the zoning by-law for 4120A-L Riverside Drive in effect on May 14, 2003.
6. Further to policy 3.4., a noise control study will be required for any redevelopment of existing residential and other noise-sensitive land uses and infilling of new residential uses. Development of hotels or motels will only be permitted where it can be demonstrated that such land uses are highly desirable in terms of the location and the attributes of the site.
 7. Within the Airport Vicinity Development Zone, noise-sensitive uses will be permitted between the 25 line as mapped along physical features and the boundary of the Ottawa Airport Operating Influence Zone, subject to the policies elsewhere in this Plan, provided appropriate noise attenuation measures are in place. ~~Applications for noise sensitive uses require either:~~ Subdivision, part lot control, site plan control and consent applications for residential and noise-sensitive uses require either:
 - a. A detailed noise control study that includes recommendations for noise control measures to meet provincial criteria, as outlined in LU-131 Noise Assessment Criteria in Land Use Planning; or,
 - b. Application of the *Prescribed Measures to Address Airport Noise* prepared in July, 1998 by area municipalities, homebuilders and the Ottawa Macdonald-Cartier International Airport Authority. These measures apply only to typically-built residential tract housing. [Amendment 36, November 30, 2005]
 8. Proposed development ~~will comply with~~ in the vicinity of the Ottawa International Airport will comply with the Ottawa Airport Zoning regulations, enacted under the *Aeronautics Act*, ~~regarding the location and height limits of objects in the vicinity of the airport.~~ The zoning regulations can be examined at the Land Registry Office. [Amendment 36, November 30, 2005]
 9. Proposed land uses, municipal infrastructure projects and activities in the vicinity of the Ottawa International Airport will be reviewed against the OMCIAA's Wildlife Management Plan. Development conditions and best practices may be required to reduce the risk of wildlife conflict with airport operations.
 10. ~~Proposed developments will also comply with Transport Canada's manual TP 1247—Land Use in the Vicinity of Airports, including:~~
 - a. ~~protection of navigational aids and telecommunications systems at the airport through attention to building height, orientation and use of metallic substances that could interfere with these systems;~~
 - b. ~~restrictions on land uses that could attract birds and wildlife and pose a hazard to aircraft operations.~~
 11. ~~Notwithstanding the policies of Section 4.8.7, residential development and other noise sensitive uses are permitted on the property known municipally as 81 and part of 15 Colonnade Road North and no noise studies as described in this section are required. This policy anticipates revision of the boundary of the AOIZ on Schedule K, based on revised projections in aircraft noise in 2005. These projections indicate that the subject site is outside the revised 25 NEF and NEP contours. The AOIZ Airport Zoning Regulations will still apply. [Amendment 37, November 30, 2005]~~

Operational Conditions – Carp and Rockcliffe Airports

12. Carp and Rockcliffe Airports are shown on Schedule K. Proposed development in the vicinity of Carp and Rockcliffe airports will comply with TP 312 titled Aerodrome Standards and Recommended Practices affecting building heights.
13. No noise-sensitive uses will be permitted above the 30 NEF and 30 NEP contour lines.
14. Development applications that propose noise-sensitive land uses between the 25 NEF and 25 NEP and the 30 NEF and 30 NEP contours require a detailed noise control study. [Amendment 12, September 8, 2004]

4.8.8 – Environmental Noise Control

[Amendment 43, May 24, 2006]

The intent of this Plan is to protect residents and their property from noise levels that exceed the noise level criteria adopted by Council. As a general approach, potential noise problems are best addressed through land use planning approaches that separate noise-generating uses from housing and other noise-sensitive land uses. A noise-sensitive land use is any type of land use where environmental noise is likely to cause an adverse effect or material discomfort whether inside or outside of a building.

Examples of sensitive land uses include:

- Residential developments;
- Seasonal residential developments;
- Hospitals, nursing/retirement homes, schools, day-care centres;
- Other land uses that contain indoor and/or outdoor areas and spaces where intruding noise may create an adverse effect.

Noise studies may be required for proposed development adjacent to transportation corridors and stationary sources of noise, as well as around the Ottawa International Airport. Section 4.8.7 provides detailed policies on development near the airport, including restrictions on specific noise-sensitive uses.

As the city matures and redevelops, noise becomes a potential problem in three situations:

- Where new noise-sensitive uses are proposed adjacent to existing sources of noise;
- Where a new noise source is proposed adjacent to existing noise-sensitive uses, for example through a change in land use that introduces a stationary noise source;
- Where an expansion or alteration of an existing noise sources is proposed adjacent to existing noise-sensitive uses.

In these situations, noise studies may be required to determine whether the proposed development can meet the noise level criteria adopted by Council. Where noise studies indicate that the noise level criteria may be exceeded, mitigation measures will be required as conditions of approval for site plans and plans of subdivision.

Council has adopted Environmental Noise Control Guidelines to implement its noise control policies. These guidelines are aligned with the Ministry of the Environment's policies on noise assessment in land use planning. The guidelines contain Council's noise level criteria within the city. The noise level criteria vary depending on several factors, including the source of noise - road, rail, aircraft and stationary sources of noise. Other factors include the time of day and whether the noise is measured indoors or outdoors. The guidelines also specify the study requirements for new noise-generating sources proposed near noise-sensitive land uses, with reference to Ministry of Environment policies, guidelines and procedures.

Study requirements in this Plan also include requirements set for proposed noise-sensitive development adjacent to light-rail corridors and bus transitways. Schedule D of this Plan shows the primary transit network, including the existing bus transitway, the O-Train, and future rapid transit corridors on defined and undefined alignments. Where the policies in this section refer to a "light rail transit corridor", the policies will apply to all future rapid transit corridors (alignment defined or to be defined) shown on Schedule D. Policies for light rail corridors also apply to the O-Train, as shown on Schedule D. Exceptions may be made where Council has approved an Environmental Assessment that has determined that the corridor is to be used for a bus transitway. [Amendment 43, May 24, 2006]

Typical Sound Level Examples

Common Sources	Typical Sound Level	Typical Reaction
	0	Threshold of hearing
Very soft sound	10	Barely audible
Radio station/studio	20	
Rustling of leaves	20	
Country home	30	Very quiet
Soft whisper at 5 feet	30	
Provincial Indoor Bedroom Criteria for Road Noise	40	A reasonably quiet bedroom
Public library	40	Quiet
Quiet office or living room	40	
Provincial Indoor Living Room Criteria for Road Noise	45	A reasonably quiet living room
Moderate rainfall	50	Speech interference
Inside average urban home	50	
Quiet street	50	
Washing machine	47 to 73	
Light car traffic at 50 feet	55	
Provincial Outdoor Objective in New Outdoor Living Areas	55	A reasonably quiet backyard in an urban area
Normal conversation at 3 feet	60	Intrusive
Noisy office	60	
Typical Objective for Retrofit Sound Barriers along Roadways	60	Maximum allowable objective for new residential backyards
Noisy restaurant	70	Telephone use difficult
Loud singing at 3 feet	75	
Coffee mill	75 to 79	
Tractor at 50 feet	78 to 95	
Busy traffic intersection	80	

Common Sources	Typical Sound Level	Typical Reaction
Electric typewriter	80	
Electric lawn edger	81	
Typical Objective for Occupational Noise in the Work Place	85	Potential hearing damage (8 hrs.)
Bus or heavy truck at 50 feet	88 to 94	Very annoying
Jackhammer	88 to 98	
Loud shout	90	
Freight train at 50 feet	95	
Modified motorcycle	95	
Jet taking off at 2000 feet	100	
Amplified rock music	110	Maximum vocal effort
Jet taking off at 200 feet	120	Threshold of pain
Air-raid siren	130	

[Amendment 43, May 24, 2006]

Noise From Transportation Sources

The noise level criteria for road, rail and buses in the Environmental Noise Control Guidelines (ENCG) are based on the criteria in MOE Guidelines. The maximum noise level criteria for noise from transportation sources are as follows:

- Leq 16 hour – 55 dBA (day)
- Leq 8 hour – 50 dBA (night) [Amendment 43, May 24, 2006]

Policies

Rail Noise and Vibration

1. The City will require a detailed noise study for all proposed noise-sensitive developments within 500 metres of a principal railway right-of-way or 250 metres from a secondary railway line and will require noise mitigation where necessary, as a condition of approval. [Amendment 43, May 24, 2006]
2. The City will also require a vibration study for all proposed vibration-sensitive developments within 75 metres of a railway right-of-way. [Amendment 43, May 24, 2006]

Road and Rapid-Transit Corridor Noise

3. The City will require a detailed noise-control study where the widening or construction of an arterial road, major collector road or a rapid-transit corridor identified on Schedules D, E, F, G and H is proposed. The Environmental Noise Control Guidelines set the requirements for these projects. [Amendment 43, May 24, 2006]
4. The City will require a noise study where new noise-sensitive development is proposed within 500 metres of a freeway or 400-series provincial highway, 250 metres of an existing or proposed provincial highway or light rail transit corridor, and within 100 metres of an existing or proposed

arterial or major collector roadway or bus transitway, as identified on Schedules D, E, F, G and H. [Amendment 43, May 24, 2006]

5. The City will require a vibration study for all proposed vibration-sensitive developments within 75 metres of an existing or proposed light rail transit corridor. [Amendment 43, May 24, 2006]
6. Where noise-sensitive development exists adjacent to a public road or existing rapid-transit infrastructure as identified on Schedules D, E, F, G and H and where the residents of this development raise the issue of noise as a concern, the City may consider construction of a noise barrier under its Local Improvement Policy, according to criteria in the Environmental Noise Control Guidelines. Owners of land abutting directly on the local improvement may contribute towards the costs incurred by the City if a sufficient number of affected landowners agree to the work and if the work is approved by City Council. [Amendment 43, May 24, 2006]

Noise from Stationary Sources

Based on MOE guidelines, stationary sources of noise are defined as all sources of sound and vibration, whether fixed or mobile, that exist or operate on a premises, property or facility, the combined sound and vibration levels of which are emitted beyond the property boundary of the premises, property or facility, unless the source(s) is (are) due to construction. Typical individual sources of noise include generators, fans or commercial air conditioners. Industrial facilities and other facilities that include more than one source of noise are considered as a single source, for the purposes of a noise study. Other facilities that are considered as stationary sources of noise include snow disposal sites, car washes, motor vehicle maintenance and repair facilities, and transit terminals. Sources of noise excluded from stationary sources, in accordance with MOE guidelines, include construction activities, gas stations, music and people noise, and retail facilities such as convenience stores where goods are delivered infrequently.

The assessment and mitigation of noise impacts from stationary sources is complex because stationary source noise involves a broad range of land uses and activities. For this reason, the Environmental Noise Control Guidelines are aligned with the Ministry of the Environment's *Noise Assessment Criteria in Land Use Planning (Publication LU-131)* for new noise-sensitive development, and *Sound Level Limits for Stationary Sources in Class 1 & 2 Areas (Urban) (NPC-205)*, and *Sound Level Limits for Stationary Sources in Class 3 Areas (Rural) (NPC-232)* for new sources of stationary noise.

The noise level criteria for sources of stationary noise in the ENCG are based on the criteria in MOE Guidelines. The maximum noise level criteria for noise from stationary sources are as follows:

- Leq 1 hour - 50 dBA (day)
- Leq 1 hour - 45 dBA (night) [OMB decision #1754, May 10, 2006]

Policies

7. The City will require a noise study for development applications that propose new noise-sensitive uses in proximity to existing sources of stationary noise as described in the Environmental Noise Control Guidelines (ENCG). If existing noise levels exceed the sound level criteria for stationary source noise, then mitigation measures will be required. [OMB decision #1754, May 10, 2006]
8. The City will require a noise study for development applications that entail construction of new sources of stationary noise or changes in land use that may introduce new sources of stationary noise that are in proximity to existing noise-sensitive land uses, as described in the Environmental Noise Control Guidelines (ENCG). If projected noise levels exceed the sound level criteria for stationary source noise in the ENCG, then mitigation measures will be required. [OMB decision #1754, May 10, 2006]
9. The City will apply the criteria in the Environmental Noise Control Guidelines where the expansion or alteration of an existing stationary source of noise is proposed, or where a change of use of a stationary source is being proposed which could result in an increase in noise from the new use.

Such proposals typically are made in the context of a building permit and require a certificate of approval from the Ministry of Environment. [OMB decision #1754, May 10, 2006]

Use of Noise Barriers

Noise is regulated better by land use planning than by noise barriers. The extensive use of noise barriers within or adjacent to a community can result in undesirable streetscapes and views. To improve the quality of the streetscape, communities will be designed to the extent possible to provide noise attenuation through planning and design. Approaches include locating noise-sensitive uses away from areas likely to receive unacceptable noise levels, locating commercial and employment uses along busier roads, or using service roads (also referred to as “single-loaded” roads). Other measures including site planning techniques, architectural design, selection of appropriate building components, are described in the Environmental Noise Control Guidelines. Where the use of noise barriers is unavoidable, the visual impact of the barrier shall be mitigated through the use of berms and landscaping. [Amendment 43, May 24, 2006]

10. To improve the quality of the streetscape, communities will be designed to the extent possible to provide noise attenuation through land use planning and design. Noise barriers may only be used where other noise attenuation methods are not feasible. The need for a barrier will have to be justified and approved by the City. [Amendment 43, May 24, 2006]

Warning Clauses

11. In some cases, control measures cannot achieve the sound level criteria established in the Environmental Noise Control Guidelines. In such cases, the City requires that appropriate warning clause(s) be included on title to advise purchasers or occupants of expected noise levels and other recommended noise control measures. [Amendment 43, May 24, 2006]

4.8.9 – Personal Security

Everyone in Ottawa should feel safe and be safe in Ottawa’s public spaces, whether they are taking an evening stroll in their neighbourhood, parking in a large parking structure, or cycling along a recreational pathway. The City uses the principles of Crime Prevention Through Environmental Design in its review of development applications to enhance personal security in the design of spaces that are accessible to the public. Crime Prevention Through Environmental Design is based on the philosophy that the physical environment can be designed and managed to reduce the incidence of crime and fear of crime. Also, community safety audits by community associations and other groups are used periodically to assess the safety of specific locations and to provide guidance to improvements by the City and property owners.

Policies

1. When reviewing development applications, the City will consider measures to enhance safety and security through such means as:
 - a. Provision of outdoor lighting in spaces intended for public use after dark that is sufficient to support the activities planned for that space;
 - b. An overall pattern of design that avoids creation of enclosed areas or areas such as narrow recesses between buildings that could be used to entrap persons passing through the space;
 - c. Preservation of unobstructed sight lines for persons passing through public spaces and opportunities for public spaces to be overlooked by people in adjacent buildings or other public spaces;
 - d. Provision of a mix of uses that creates a complementary pattern of activity among users, such as late-night businesses located on transit routes;
 - e. Restrictions on the use of overpasses and tunnels for pedestrian and cycling routes and where they are permitted, require provision of a safe, alternative route at grade.

4.8.10 - Land Use Constraints Due to Radiofrequency Electromagnetic Fields

The Communications Research Centre (CRC), located within the Greenbelt at 3701 Carling Avenue, is the Canadian government's leading centre of expertise in satellite communications. The CRC site contains a large satellite antenna field that emits radiofrequency electromagnetic fields. Exposure to radiofrequency electromagnetic fields represents a possible hazard to human health.

Radiation Protection Bureau of Health Canada has produced Safety Code 6 – “Limits of Human Exposure to Radiofrequency Electromagnetic Fields in the Frequency Range from 3kHz to 300 GHz” to specify maximum levels and durations of exposure to radiofrequency fields of frequencies between 3 kHz and 300 GHz to prevent human health effects.

The intent of the Plan is to limit the height of buildings within the area affected by the Safety Code 6 to avoid the possibility of impacts of radiofrequency electromagnetic fields originating from the CRC antenna and to prevent new structures from blocking or adding possible sources of radiofrequency interference at the CRC site.

Policies

1. The area affected by constraints due to radiofrequency electromagnetic fields is shown on Schedule K (to be confirmed by CRC once all calculations are completed).
13. The height of buildings in areas affected by constraints due to radiofrequency electromagnetic fields will comply with Safety Code 6 – “Limits of Human Exposure to Radiofrequency Electromagnetic Fields in the Frequency Range from 3kHz to 300 GHz” issued by the Radiation Protection Bureau of Health Canada.

4.9 – Energy Conservation Through Design

Landscaping and the layout of roads and general site design can contribute to energy conservation. For example, south-facing buildings and windows that are designed to reduce summer thermal gain and maximize solar energy potential. Landscaping can provide summer shade and protection from winter winds. When reviewing development applications, the City will require new development to take advantage of energy conservation design techniques.

Policies

1. When reviewing development applications, community design plans or concept plans, the City will:
 - a. Encourage the design of local road layout to provide opportunities for passive solar gain such as south-facing windows; [OMB decision #1754, May 10, 2006]
 - b. Require, where feasible, buildings to be oriented to maximize the potential from solar energy and use landscaping to provide summer shade and protection from winter winds.
 - c. Encourage consideration of alternative energy systems
2. Landscape designs shall consider energy and water conservation in landscape design through the following measures:
 - a. Provide for energy conservation through appropriate location and choice of species to provide shade and cooling during summer and provide for wind protection in winter.
 - b. Utilize native species and species with low watering requirements wherever possible.

- c. Utilize permeable, light coloured or landscaped surfaces wherever practical to reduce heat retention and encourage natural infiltration of storm water.
3. Design and orientation of subdivisions and developments should maximize the opportunity for use of alternative and renewable energy systems by:
 - a. Maximizing solar exposure through street and building orientation.
 - b. Ensuring that opportunities presented by access to sunlight are not impaired on adjacent properties.

4.10 – Parks and Greenspace Requirements

The City is committed to providing a range of greenspace throughout urban and rural communities. In particular, the requirements for greenspace (see Section 2.4.5) and for parks and leisure areas (see Section 2.5.4) will apply in the review of development applications.

Parkland Dedication

1. *[Former Section 2.5.4 policy 4, unchanged]* As a condition of development or redevelopment, the city will require land for park or other public recreational purposes through the provisions of the *Planning Act*, including alternative requirements, in a way that best meets park and leisure needs of the community.
2. *[Former Section 2.5.4 policy 5 unchanged]*, The City may require payment-in-lieu of the parkland dedication, where the lands to be dedicated are not the right kind of land, or are not located in the best place, or where open space and parkland targets have already been met. Where payment-in-lieu is taken, it will be for the acquisition of new parkland or the improvement of existing local park and recreational facilities accessible to the area being developed.
3. Where a payment pursuant to policy 2 is required, no person shall construct a building on the land proposed for development or redevelopment unless, the payment has been made or arrangements that are satisfactory to the City for the payment have been made.
4. *[Former Section 2.5.4 policy 6 unchanged]*, The City will determine the parkland dedication for mixed-use development on the basis of the proportion of the site or building occupied by each type of use, or some other proportionate basis, and will implement these provisions through a parkland dedication by-law, which has been prepared in consultation with the public, the development industry, and other interested parties.

Development adjacent to major greenspaces and waterways

5. The City will ensure that the design and character of private development and public works, that are adjacent to major greenspaces being the National Capital Greenbelt or to land that is in a Major Open Space or Urban Natural Features designation, enhances the visibility and accessibility of these public lands and contributes to their connection to the Urban Greenspace Network through such means as:
 - a. reviewing plans of subdivisions for opportunities to locate proposed major community facilities, parks and public infrastructure adjacent to the Greenbelt or land designated Major Open Spaces or Urban Natural Features, or to link them to these lands by multi-use pathways or other greenspace connections;
 - b. requiring the design of subdivisions to provide extensive street frontage to adjacent land in the Greenbelt or land designated Major Open Space or Urban Natural Features;
 - c. requiring proponents to demonstrate, at the time of site plan review, how the building design, building orientation and the external site design and use take into consideration the views of the site from the adjacent greenspaces and how the site and building design enhances the visibility and accessibility of these adjacent greenspaces.
6. In its review of development applications, the City will recognize the central role of the Ottawa River, Rideau River and Rideau Canal, as well as other rivers and streams, in the environmental health of the city, as well as their contribution to cultural heritage, scenic qualities, and recreation. Public access to the shorelines of these and other water bodies will be secured as part of the process

concerning dedication of lands for public use as described in Section 4.6.3 or through other means, such as:

- a. Public ownership, conservation easements, public land trusts, restrictive covenants, bonusing or other means deemed appropriate on a site-by-site basis;
 - b. Retaining opened and unopened road allowances where these may maintain the potential for public access to the shoreline;
 - c. When designing bridges or other public works at the shoreline, or when providing input on those designed by other public bodies, providing public access to the shoreline. [Amendment 45, September 27, 2006]
7. *[Former Section 2.4.5 policy 4unchanged]*, Applications to amend the zoning by-law for any land in the urban area or Villages currently in a zone intended to promote a conservation, waterway or recreation purpose, to another purpose will be assessed in terms of the parcel's contribution to local greenspace, its location with respect to the Urban Greenspace Network, and the feasibility of securing the land for public access or ownership. [Amendment 45, September 27, 2006] [OMB Decision #1582, June 17, 2005]
8. *[Former Section 2.5.4 policy 6unchanged]*, Privately-owned open spaces such as marinas, campgrounds and golf courses contribute to greenspaces in Ottawa. When reviewing an application to amend a zoning by-law in these locations, the City will consider opportunities to maintain the Greenspace Network through the area and otherwise reduce the impact of the loss and may consider acquisition of the land in accordance with Section 5.2.1 policy 6 of this Plan. [Amendment 45, September 27, 2006]

4.11 –Urban Design and Compatibility

[Amendment 28, July 13, 2005]

At the city-wide scale, issues of compatibility are addressed in the Official Plan through the appropriate designation of land and associated policies that direct where and how certain categories of land use should be permitted to develop. Locational policies are therefore required in order to direct uses that have the potential to generate negative impacts to appropriate locations, most typically at the periphery of residential neighbourhoods. It is recognized that because land use designations such as General Urban Area, Mainstreets and Employment Area contain broad use permissions, it will be necessary for the zoning by-law to establish more specific permitted use lists and development regulations within areas and on individual sites in a manner that achieves compatibility among proximate uses and built forms.

At the scale of neighbourhoods or individual properties, issues such as noise, spillover of light, accommodation of parking and access, shadowing, and micro-climatic conditions are prominent considerations when assessing the relationships between new and existing development. Often, to arrive at compatibility of scale and use will demand a careful design response, one that appropriately addresses the impact generated by infill or intensification. Consequently, the issue of 'context' is a dominant theme of this Plan where it speaks to compatibility and design.

Infill development may occur virtually anywhere in the city. Infill generally occurs on a single lot or a consolidated number of small lots, on sites that are vacant or underdeveloped. The resulting development may be similar in use and size with adjacent uses, in which case it is generally straightforward to design the infill to be compatible with-or fit well with-its surroundings. Reference to City Council-approved design guidelines addressing infill housing provide guidance in this regard.

However, compatibility may be more difficult to achieve in other situations. To achieve the Plan's strategic directions for managing growth, the zoning in many areas of the city, particularly areas adjacent to major roads, at the periphery of neighbourhoods and proximate to transit stations, may allow for more intensive development than has occurred in the past. In addition, an amendment to the zoning by-law may be

needed to change the permitted use of the land and increase the height or density permitted. In these circumstances, the compatibility of the proposed development must be considered.

Objective criteria that can be used to evaluate compatibility include: height, bulk or mass, scale relationship, and building/lot relationships, such as the distance or setback from the street, and the distance between buildings. An assessment of the compatibility of new development will involve not only consideration of built form, but also of operational characteristics, such as traffic, access, and parking.

Development applications and proposals for public works will be evaluated in the context of this section, as well as Section 2.5.1. In and of themselves, questions of compatibility and design do not determine what a development should be, but the merit of a development proposal will be influenced by such considerations.

Policies

1. In assessing new development / redevelopment proposals and public works, a key test the City will apply is whether the design takes advantage of opportunities for improving the character and quality of an area and the way it functions.
2. When evaluating compatibility of development applications, the City will have regard for the policies of the site's land use designation, and all applicable Community Design Plans, Secondary Plans, or site specific policies, Council-approved design guidelines, Provincial Environmental Assessments, and functional design plans for capital projects, as well as the Design Objectives and Principles in Section 2.5.1, and the preceding policies in Sections 4.1 through 4.10.
3. In addition to those matters set out in Section 4.11.4 policy 2 above, the City will evaluate the compatibility of development applications on the basis of the following compatibility criteria. The measures of compatibility will vary depending on the use proposed and the planning context. Hence, in any given situation individual criteria may not apply and/or may be evaluated and weighted on the basis of site circumstances:
 - a. Traffic: Roads should adequately serve the development, with sufficient capacity to accommodate the anticipated traffic generated. Generally, development that has the potential to generate significant amounts of vehicular traffic should be located on arterial or major collector roadways so as to minimize the potential for traffic infiltration on minor collector roadways and local streets;
 - b. Vehicular Access: The location and orientation of vehicle access and egress should address matters such as the impact of noise, headlight glare and loss of privacy on development adjacent or immediately opposite. Vehicular access and egress for development that has the potential to generate a significant amount of vehicular traffic should be oriented on streets other than local streets, ~~where ever~~ wherever the opportunity exists, considering traffic safety and other transportation objectives of this Plan;
 - c. Parking Requirements: The development should have adequate on-site parking to minimize the potential for spillover parking on adjacent areas. A range of parking forms, including surface, decked, and underground, should be considered taking in account the area context and character. Opportunities to reduce parking requirements and promote increased usage of walking, cycling and transit ~~should~~ will be considered pursued, where appropriate, particularly in the vicinity of transit stations or major transit stops in accordance with the provisions of Section 4.3;
 - d. ~~Building Height and Massing: New buildings should have regard to the area context—the massing and height of adjacent buildings, and planned function for the area. Application of design principles that contribute to a sense of human scale will improve and enhance user comfort and the perception of new development within its existing context. Where variation in building height or massing is appropriate, a transition in building heights is desirable. The desire for a transition in building heights can be offset where natural buffers and setbacks exist and/or through the use of appropriate design measures to create a more pedestrian friendly at-grade environment;~~

- e. ~~Pattern of the Surrounding Community: Where the height, building mass, proportion, street setback and distance between buildings for the proposed development varies from the pattern for the area, the proposed design may compensate for this variation through its treatment of other characteristics common to the surrounding community;~~
 - f. Outdoor Amenity Areas: The development should respect the privacy of outdoor amenity areas of adjacent residential units and minimize any undesirable impacts through the siting and design of the buildings and the use of screening, lighting, landscaping or other mitigative design measures;
 - g. Loading Areas, Service Areas, and Outdoor Storage: The operational characteristics and visual appearance of loading facilities, service areas (including garbage), parking and areas for the outdoor storage of goods or materials should be mitigated using a variety of methods (e.g., location, containment, screening, berms, and/or landscaping). These uses and activities should be located away from residences where possible;
 - h. Lighting: The potential for light spill over or glare from any lighting source onto adjacent light-sensitive areas should be avoided or mitigated;
 - i. Noise and Air Quality: The development should be located and designed to minimize the potential for significant adverse effects on adjacent sensitive uses related to noise, odours, and other emissions.
 - j. Sunlight: The development should minimize shadowing on adjacent properties, to the extent practicable, particularly on outdoor amenity areas, through the siting of buildings or other design measures;
 - k. Microclimate: The development should be designed to minimize adverse effects related to wind, snow drifting, and temperature on adjacent properties;
 - l. Supporting Neighbourhood Services: The development should contribute to or be adequately served by existing or proposed services and amenities such as health facilities, schools, parks and leisure areas. Where the proposed development itself is to contribute such services and amenities, they should be of a scale appropriate to the needs and character of the area.
[Amendment 28, July 13, 2005] [OMB decision #2649, September 21, 2006]
4. ~~[Former policy 1, S.2.5.1, modified) In the preparation of community design plans, the review of development applications, studies, other plans and public works undertaken by the City, the City will apply the Design Objectives and Principles set out above.~~ Development proponents will indicate how the proposed development addresses the intent of the Design Objectives and Principles. The Design Considerations, ~~to be set out in Annex 3, will~~ offer some ways in which the Design Objectives and Principles might be realized. The importance of each principle will be evaluated and weighted according to the specific circumstances under consideration. While all Design Objectives and Principles must be considered, not all elements will apply in all cases and not all will apply with equal importance. The City will work with the community at large to clarify how the design framework will be implemented for particular types of development applications.
5. Buildings, structures and landscaping will be used to clearly define public spaces, such as streets and parks. In density target areas identified in S.2.2.2 of this Plan, development will be in the form of continuous building frontages that frame the street edge and support a more pedestrian-friendly environment. In some parts of the city, this will mean that new development consolidates an existing building fabric through infill or redevelopment opportunities. In other cases, where there is no established building fabric along the street, new buildings will occupy gaps in the streetscape caused by parking and/or deep building setbacks. New buildings must either be properly integrated into their existing building fabric, or help create a new building fabric.
6. (Former policy 2, S.2.5.1) The City will work with development proponents to achieve the Design Objectives and Principles of this Plan through means such as the coordination and development of capital improvements within the public realm with development and redevelopment activities on adjacent properties in the private realm.
7. (Former policy 3, S.2.5.1) As the owner of many public places, public works and buildings, the City will set an example for the community through the provision of public art in municipal facilities (to include all types of municipal structures, and lands) and will encourage other public- and private-

sector owners and developers to include art as a public component of their developments.
[Amendment 28, July 13, 2005]

Building Profile

8. The following guidance is provided in the preparation of building profile policies in community design plans, secondary plans, and in the consideration of development applications:
 - a. Low-Rise – a one to four storey building;
 - b. Medium-Rise – a five to nine storey building;
 - c. High-Rise – a building 10 storeys or more.
9. High-rise buildings may be considered on lands within the following designations as defined on Schedule B of this Plan, provided all other policies of this Plan are met:
 - a. Central Area;
 - b. Mixed-use Centres and Town Centres;
 - c. Employment Areas that are principally prestige business parks and Enterprise Areas, subject to the provision of appropriate built form transitions between the Employment or Enterprise Area and adjacent residential communities built at lower profiles; and
 - d. Traditional and Arterial Mainstreets, provided the provisions of policy 10 below are satisfied.
10. In addition to provisions in policy 9 above, high-rise buildings may be considered, and heights greater than those identified in Section 3.6.3 on Mainstreets may be considered, in the following locations, provided all other policies of this Plan have been met:
 - a. Within areas characterized by high-rise buildings that have direct access to an arterial road;
 - b. Within 600 metres of a rapid transit station;
 - c. Where a community design plan, secondary plan, or other similar Council-approved planning document identifies locations suitable for the creation of a community focus on a strategic corner lot, or at a gateway location or at a location where there are significant opportunities to support transit at a transit stop or station by providing a pedestrian and transit-oriented mix of uses and activities;
 - d. Within areas identified for high-rise buildings in the Zoning By-law, community design plans, secondary plans, or similar plans approved by Council;
 - e. Within areas where a built form transition as described in policy 12 below is appropriate.

Building Profile and Compatibility

11. Integrating taller buildings within an area characterized by a lower built form is an important urban design consideration, particularly in association with intensification. Development proposals will address issues of compatibility and integration with surrounding land uses by ensuring that an effective transition in built form is provided between areas of different development profile. Transitions in built form will serve to link proposed development and existing uses, and should be accomplished through a variety of means, including measures such as:
 - a. Incremental changes in building height (e.g. angular planes or stepping building profile up or down);
 - b. Massing (e.g. inserting ground-oriented housing adjacent to the street as part of a high profile development or incorporating podiums along a Mainstreet);
 - c. Character (e.g. scale and rhythm, exterior treatment, use of colour and complementary building finishes);
 - d. Architectural design (e.g. the use of angular planes, cornice lines), and
 - e. Building setbacks.
12. The need to provide transitions in built form may be offset or reduced where natural buffers and features or changes in grade and topography exist, or through the orientation of buildings and the arrangement of land uses patterns.
13. A high-rise building will be considered both as an example of architecture in its own right and as an element of urban design sitting within a wider context.

14. Application of design principles that contribute to a sense of human scale will improve and enhance user comfort and enhance the perception of new development within its existing context. The City will consider proposals submitted for high-rise buildings in light of the following measures, depending on the type of approval sought:
- a. How the scale, massing and height of the proposed development relates to that of adjoining buildings, the character of the immediate area, and the vision for the area established in Council-approved community design plans, secondary plans, other similar Council-approved planning documents, or the Zoning By-law;
 - b. The width of the public right-of-way on which the proposed building has frontage. A wider right-of-way will enable greater building height. In this regard, general guidance is provided in the City's urban design guidelines for high-rise buildings;
 - c. The depth and width of the lot on which the proposed building is to be located. Greater lot depth and width will enable greater flexibility in determining building height;
 - d. How the proposal enhances existing or creates new views, vistas and landmarks;
 - e. The effect on the skyline of the design of the top of the building.
 - f. The quality of architecture and urban design;
 - g. How the proposal enhances the public realm, including contribution to and interaction with its surroundings at street level;
 - h. The maximization of accessibility to, relationship with and support of public transit;
 - i. The adequacy of vehicle movements into and out of the site and the carrying capacity of street network serving the development;
 - j. The adaptability of the design over time to enhance resource and energy efficiency, and;