Tamarack (Queen Street Corp.)

Official Plan Amendment Submission
Planning Rationale

Cardinal Village East Urban Boundary Expansion
Project Number: RH-1-11-PO1

Prepared By:

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Date Submitted

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1 Introduction

This report has been prepared on behalf of Tamarack (Queen Street Corp.), and others for lands generally located east of Cardinal Creek and south of the Queensway (Highway 174). Tamarack (Queen Street Corp.) is subsidiary of the Taggart Group of Companies. The purpose of this report is to provide a planning rationale for inclusion of these lands to the urban area of Ottawa by way of Official Plan Amendment. **Richard W. Harrison & Associates** with technical support from IBI Group (transportation) and Muncaster Environmental Planning Inc. (environmental) was retained in November 2011 to prepare a land use concept report and technical analysis and planning analysis in support of a new community of approximately 13,000 persons. The area will be known as Cardinal Village.

This report is divided into nine sections beginning with an introduction, a discussion of the existing policy framework, a detailed description of the proposed development, overviews of environmental, traffic and engineering considerations and finally a rationale for including these lands into Ottawa's new urban boundary.

2 The Study Area

2.1 Location and General Characteristics

The subject lands, known as Cardinal Village, are located east of Ottawa's urban boundary and Cardinal Creek, west of the estate residential development along Ted Kelly Lane, south of Highway 174 and generally north of lands currently designated Agricultural Resource Area in the City's Official Plan. The area is illustrated on Figure 1. The lands consist of approximately 225 ha (556 acres).

The property consists of a series of four plateaus rising north to south beginning near the Ottawa River in the north at approximately 50m ASL and stepping up towards the highest elevation at 95m ASL along the southern boundary.

Current uses of these lands are diverse and include large lot rural residential, institutional, nursery and landscape supply. Approximately 50% of the area is pasture. Approximately 70% of the subject land is designated General Rural Area in the 2003 Official Plan (OP) and the remainder as Rural Natural Features Area. The rural natural features area was reduced by 22 hectares in OPA 76 discussed later in this report.

2.2 Background Documentation

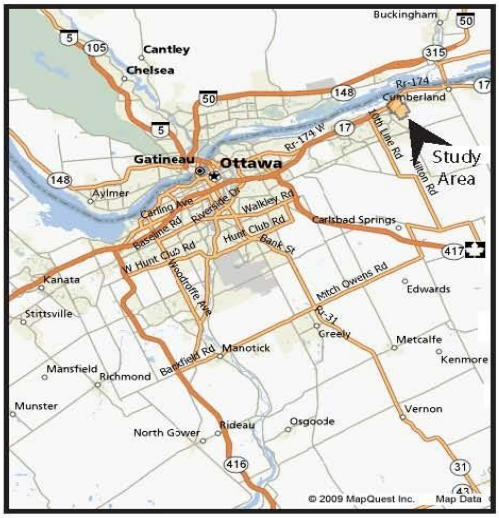
Extensive background research and review of planning studies have been completed by the study team including the following:

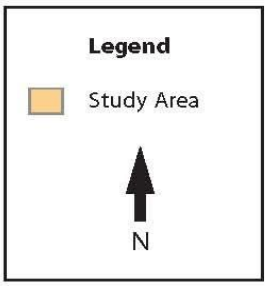
- City of Ottawa Official Plan, January, 2007
- Official Plan Amendment #76
- Ontario Provincial Policy Statement, 2005
- Municipal Drains Classification Map, RVCA, Oct 2007
- Design Brief (CCL, 2000)
- The Soils of the Regional Municipality of Ottawa-Carleton (Ministry of Agriculture and Food, 1987)
- Erosion and Slope Stability Evaluation Cardinal Creek, for the Township of Cumberland, Golder Associates Ltd., January 1990

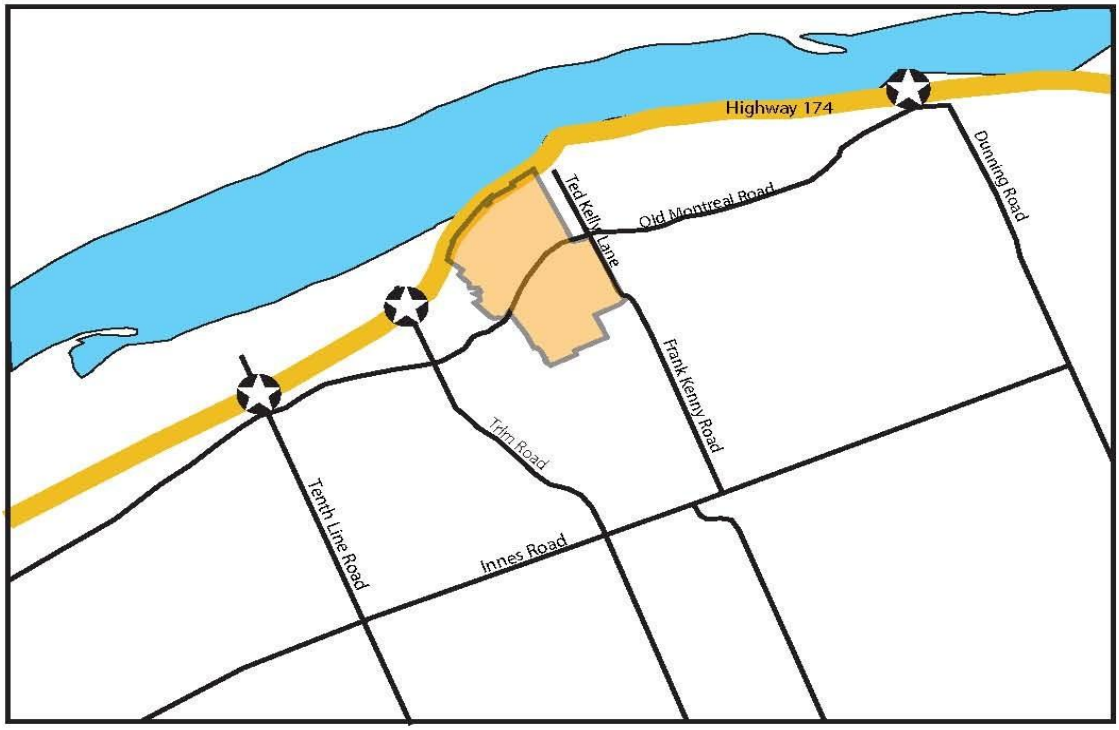
- Geotechnical Evaluation Cardinal Creek Karst Area, Watters Road, for the Cloverhurst Co-Tenancy, Golder Associates Ltd., June 1991
- Appendix E, Township of Cumberland E.U.C. Expansion Area Master Drainage Plan, Environmental Evaluation, Niblett Environmental Associates Inc., January 1992
- Various City staff reports on the official Plan process (March 20, 2009, May 4, 2009, June 24, 2011, September 1, 2001
- Ontario Municipal Board decision dated June 3, 2011
- Master Drainage Plan, for the Township of Cumberland, East Urban Community, McNeely Engineering, December 1992
- Stormwater Design Plan, Cardinal Creek Business Park, for the Township of Cumberland, Paul Wisner & Associates Inc., July 1992
- Hydrologic and Water Quality Studies for the Cardinal Creek MDP, Volume II, for the Township of Cumberland, Paul Wisner & Associates Inc., 1992
- Update to the Master Drainage Plan East Urban Community Expansion Area, for the City of Cumberland, Cumming Cockburn Limited, August 31 2000
- Supplementary Report to the Master Drainage Plan and Environmental Study Report, for the City of Cumberland, Cumming Cockburn Limited, August 2000, Revised May 2001
- Attachment 1, Design Brief Cardinal Creek Online Stormwater Management Facility, for the City of Ottawa, Cumming Cockburn Limited, July 2001
- Gloucester and Cumberland East Urban Community Expansion Area and Bilberry Creek Industrial Park Master Servicing Update, for the City of Ottawa, Stantec Consulting Ltd., November 2004, updated June 2005, October 2005 and July 2006
- Cardinal Creek Geomorphic Assessment, for the City of Ottawa, Geomorphic Solutions, April 2007

- Figures courtesy of **exp** Services Inc.

Orleans Urban Boundary Expansion



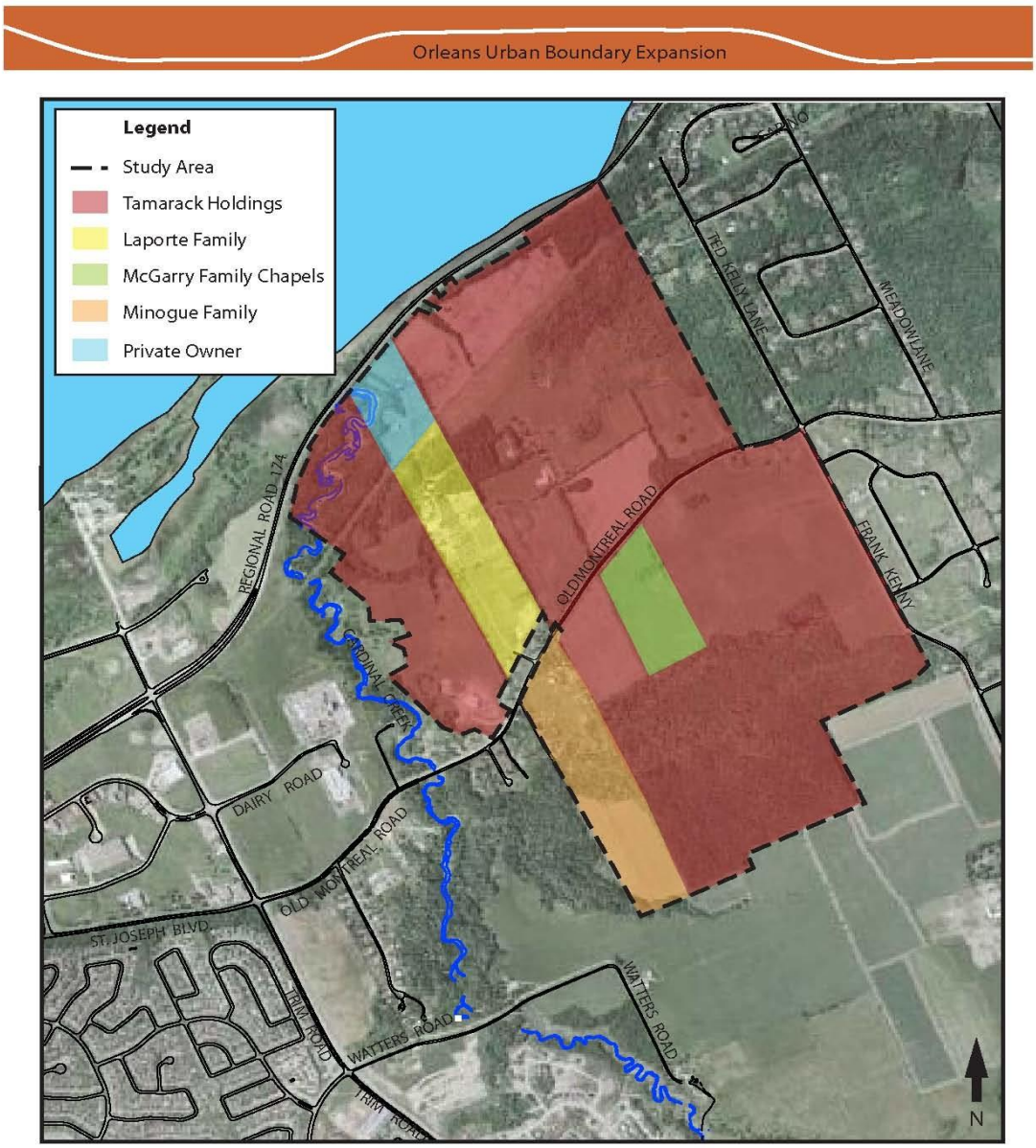




Location Map
Figure 1- November 2011

2.3 LAND OWNERSHIP

There are several land owners within the study area with Tamarack being the beneficial owner of approximately 180 hectares or 80% of the study area (Figure 2). Accordingly, Tamarack has taken the initiative to prepare this submission for consideration by the City of Ottawa on behalf of itself, the Laporte Family, McGarry Family Chapels and the Minogue Family.



Ownership Map
Figure 2-November 2011

3 Existing Planning Policy Framework

3.1 Provincial Policy Statement (PPS)

The Provincial Policy Statement provides policy direction on matters of Provincial Interest related to land use planning and development. The Statement was issued under Section 3 of the Planning Act and came into effect on March 1, 2005. The salient policies applicable to the subject application are as follows:

BUILDING STRONG COMMUNITIES

Ontario's long-term prosperity, environmental health and social well-being depend on wisely managing change and promoting efficient land use and development patterns. Efficient land use and development patterns support strong, liveable and healthy communities, protect the environment and public health and safety, and facilitate economic growth.

1.1 MANAGING AND DIRECTING LAND USE TO ACHIEVE EFFICIENT DEVELOPMENT AND LAND USE PATTERNS

1.1.1 Healthy, liveable and safe communities are sustained by:

a) promoting efficient development and land use patterns, which sustain the financial well-being of the Province and municipalities over the long term;

b) accommodating an appropriate range and mix of residential; employment (including industrial, commercial and institutional uses); recreational and open space uses to meet long-term needs;

c) avoiding development and land use patterns, which may cause environmental or public health and safety concerns;

d) avoiding development and land use patterns that would prevent the efficient expansion of settlement areas in those areas, which are adjacent or close to settlement areas;

e) promoting cost-effective development standards to minimize land consumption and servicing costs;

f) improving accessibility for persons with disabilities and the elderly by removing and/or preventing land use barriers which restrict their full participation in society; and

g) ensuring that necessary infrastructure and public service facilities are or will be available to meet current and projected needs.

The proposed land use plan complies and enhances these policies by being appropriately designed and incorporating a full mix of residential unit types, mixed use area and commercial land. The area has been recognized by the City as a logical extension to the existing urban boundary.

1.1.3 Settlement Areas

1.1.3.1 Settlement areas shall be the focus of growth and their vitality and regeneration shall be promoted.

1.1.3.9 A planning authority may identify a settlement area or allow the expansion of a settlement area boundary only at the time of a comprehensive review and only where it has been demonstrated that:

a) sufficient opportunities for growth are not available through intensification, redevelopment and designated growth areas to accommodate the projected needs over the identified planning horizon.

b) the infrastructure and public services facilities which are planned or available are suitable for the development over the long term and protect public health and safety.

c) in prime agricultural areas:

1. the lands do not comprise specialty crop areas;

2. there are no reasonable alternative which avoid prime agricultural areas: and

3. there are no reasonable alternatives on lower priority agricultural lands in prime

agricultural areas; and

d) impacts from new or expanding settlement areas on agricultural operations which are adjacent or close to the settlement area are mitigated to the extent feasible.

With the completion of the 5 year review the Cardinal Village area has been determined by the City to be a candidate for urban expansion. This expansion area will have no or minimal impact on lands designated Agricultural Resource Area.

1.3 EMPLOYMENT AREAS

1.3.1 Planning authorities shall promote economic development and competitiveness by:

a) providing for an appropriate mix and range of employment (including industrial, commercial and institutional uses) to meet long-term needs;

b) providing opportunities for a diversified economic base, including maintaining a range and choice of suitable sites for employment uses which support a wide range of economic activities and ancillary uses, and take into account the needs for existing and future business:

c) planning for, protecting and preserving employment areas for current and future uses; and

d) ensuring the necessary infrastructure is provided to support current and projected needs.

The proposed land use plan incorporates an appropriate mix and range of commercial lands and a substantial mixed use area to meet future needs.

1.4 HOUSING

1.4.3 Planning authorities shall provide for an appropriate range of housing types and densities to meet projected requirements of current and future residents of the regional market area by:

a) establishing and implementing minimum targets for the provision of housing which is affordable to low and moderate income households;

Urban expansion at this location is logical and provides the City appropriately located lands to meet its housing objectives.

1.5 PUBLIC SPACES, PARKS AND OPEN SPACES

1.5.1 Healthy, active communities should be promoted by:

b) providing for a full range and equitable distribution of publicly-accessible built and natural settings for recreation, including facilities, parklands, open space areas, trails and, where practical, water-based resources;

The land use plan provides for the appropriate amount of park space at strategic locations and provides for the preservation of significant open space environments.

1.6 INFRASTRUCTURE AND PUBLIC SERVICE FACILITIES

1.6.4 Sewage and Water

1.6.4.1 Planning for sewage and water services shall:

a) direct and accommodate expected growth in a manner that promotes the efficient use of existing:

1. municipal sewage services and municipal water services; and

2. private communal sewage services and municipal water services are not available;

b) ensure that these systems are provided in a manner that:

1. can be sustained by the water resources upon which such services rely:

2. is financially viable and complies with all regulatory requirements; and

3. protects human health and the natural environment;

c) promote water conservation and water use efficiency;

d) integrate servicing and land use considerations at all stages of the planning process; and

e) subject to the hierarchy of services provided in policies 1.6.4.2, 1.6.4.3 and 1.6.4.4, allow lot creation only if there is confirmation of sufficient reserve sewage system capacity and reserve water system capacity within municipal sewage services and municipal water services or private communal sewage services and private communal water services. The determination of sufficient reserve sewage system capacity shall include treatment capacity for hauled sewage from private communal sewage services and individual on-site sewage services.

The proposed land use plan is based on planned improvements and the logical extension of municipal sewer and water systems which exist just west of the site terminating approximately at Trim Road.

3.2 Official Plan

The City of Ottawa Official Plan (OP) was adopted by City Council on May 14, 2003 and was approved and modified by the Minister of Municipal Affairs and Housing on November 10, 2003. No outstanding amendments or appeals of the 2003 Plan to the Ontario Municipal Board affect the subject application. For the purposes of this report, the January 2007 consolidated version of the Official Plan has been utilized. The salient policies applicable to the subject application are as follows:.

2.2 –Managing Growth

2.2.1 – Urban Area Boundary

Policy #5 states:

"The City will consider applications to amend this Plan to designate additional urban land only as part of the five-year assessment of the urban land supply"

Policy #6 states:

> *"If, as a result of its land supply assessment, City Council amends this Plan to designate additional urban land, such an addition will be sufficiently large to create a complete new community or to complete an existing community, and will be designated Developing Community where future development is based on a community design plan"*

The urban boundary expansion to the subject lands was considered as a part of the City's 5 year review process as discussed below.

3.3 The City's 2008 OP Review

Beginning in 2007, the City of Ottawa undertook a comprehensive "five year Official Plan Review" as required by the Planning Act. The Official Plan for the City of Ottawa (OPA 76) was adopted by The Council of Ottawa on June 24, 2009 and was approved with the modifications by the Minister of Municipal Affairs and Housing on December 24, 2009.

The purpose of the OPA 76 was to meet the legislated requirements under Sect 26 (1) of the Planning Act, to update the 2003 City Official Plan, to address the 2005 Provincial Policy Statement and to provide an updated policy framework to guide development to 2031.

Commencing with public consultation, a series of White Papers and the adoption of growth projections in 2007, the City of Ottawa issued a consolidated draft proposal for the new Official Plan in November 2008. The report outlined key areas of review in the OP and the Infrastructure Master Plan. These key areas of review included the urban boundary, intensification, airport policies, rural settlement and wetlands.

The evaluation determined that there was a need for approximately 850 additional hectares over the next 20 years (2031) within the urban boundary. The location for these additional lands is currently being determined at a hearing of the Ontario Municipal Board.

At the then Joint Agricultural and Rural Affairs Committee and Planning and Environment Committee meeting held on February 2, 2009 City Staff tabled the Draft OP amendment and revised Infrastructure Master Plan. This report outlined and indentified the recommended locations for the urban boundary expansion which include approximately 2000ha of primarily General Rural Area. It was recommended that further investigation be undertaken to determine the "cumulative impact on infrastructure and to consider economies of scale." The analysis and ranking of the 2000ha of land was undertaken to determine the location of the 850ha of land. Various criteria such as servicing, transportation, community facilities, potential conflicting land uses, physical characteristics and demand for land were considered. Eleven candidate areas were identified by staff and analyzed on a comparative basis. Cardinal Village was identified as Candidate Area # 11.

Three public information sessions were held in February 2009 and public meetings at Joint Planning Committee and Rural Affairs Committee were held throughout 2009, on March 20, March 31, April 1, April 13 and May 11, 12, 14 and 26. During that time the applicant had two public meetings: one chaired by former Councillor Jellett in Cumberland Village and one chaired by the applicant at the Capital City Church on Old Montreal Road.

The City planning staff reports continued to recommend an urban expansion of 850 hectares with most of the land within Area11 consistently ranking very high by the City's comparative scoring system. Ultimately, Ottawa Council decided to add 230 hectares of land to the urban boundary at its council meeting on June 24, 2009.

That decision was appealed by some thirty parties to the Ontario Municipal Board (OMB). The OMB held three preliminary hearing conferences in which procedure and process were established. The Board agreed to deal with the urban boundary decision in two phases, the first being how much land should be added and the second to determine the location of lands to be added.

The 1st phase commenced on Feb 22, 2011. On June 3, 2011 the Board issued its decision of the question of land and confirmed City's staff's original estimate of 850 hectares. This amount included 163 hectares in the "Fernbank Area" approved through Amendment # 77, leaving some 687 hectares of additional land to be considered. The Board also determined that the City's process and methodology was "sound, transparent and open to public scrutiny with numerous opportunities for public and landowner input".

On July 4th, 2011 Planning Committee considered and adopted the staff proposed process for establishing Council's position on which lands would be added. (Staff Report dated June 24, 2011).

The report set a deadline of August 12, 2011 for submission to staff of any new information it should consider in its evaluation of the additional 687 hectares, a report back to Planning Committee in September and a Council decision in September 2011 establishing its position for Phase 2 of the urban boundary OMB hearing. On October 19, 2011 the OMB established certain dates for continuance of the hearing with 4 weeks scheduled on Jan 30th, 2012 to deal with the scoring criteria and July 2012 for the location of expansion lands.

3.4 OPA 76- The City's Recommended Urban Boundary Expansion for Area 11

In the City's 5 year review process, a series of criteria (or building blocks) were established to assess the relative merits of urbanizing a total of 11 different areas outside the City's current urban boundary. This assessment was made in 2009 and then revisited in 2011 to incorporate any significant changes of circumstance in the two year period. The scoring was based on some 16 criteria resulting in a matrix of properties which cumulatively accounted for the 850 hectare expansion. These reports by staff are all part of the public record and will not be repeated in this submission other than to say most of the lands in Area 11 consistently scored highly in the marking system. In August 2011 **Richard W. Harrison & Associates** was retained by Tamarack (Queen Street Corp.) to review the city scoring of Area. This report is summarized here. In our opinion the major inconsistency of the system was the somewhat arbitrary subdivision of Area 11 into as many as 7 separate parcels. As each of the 7 parcels were

scored separately, Area 11 was never considered as one contiguous entity which in reality it is. Consequently certain parcels were scored lower than they would be if the parcels were considered to be adjoining.

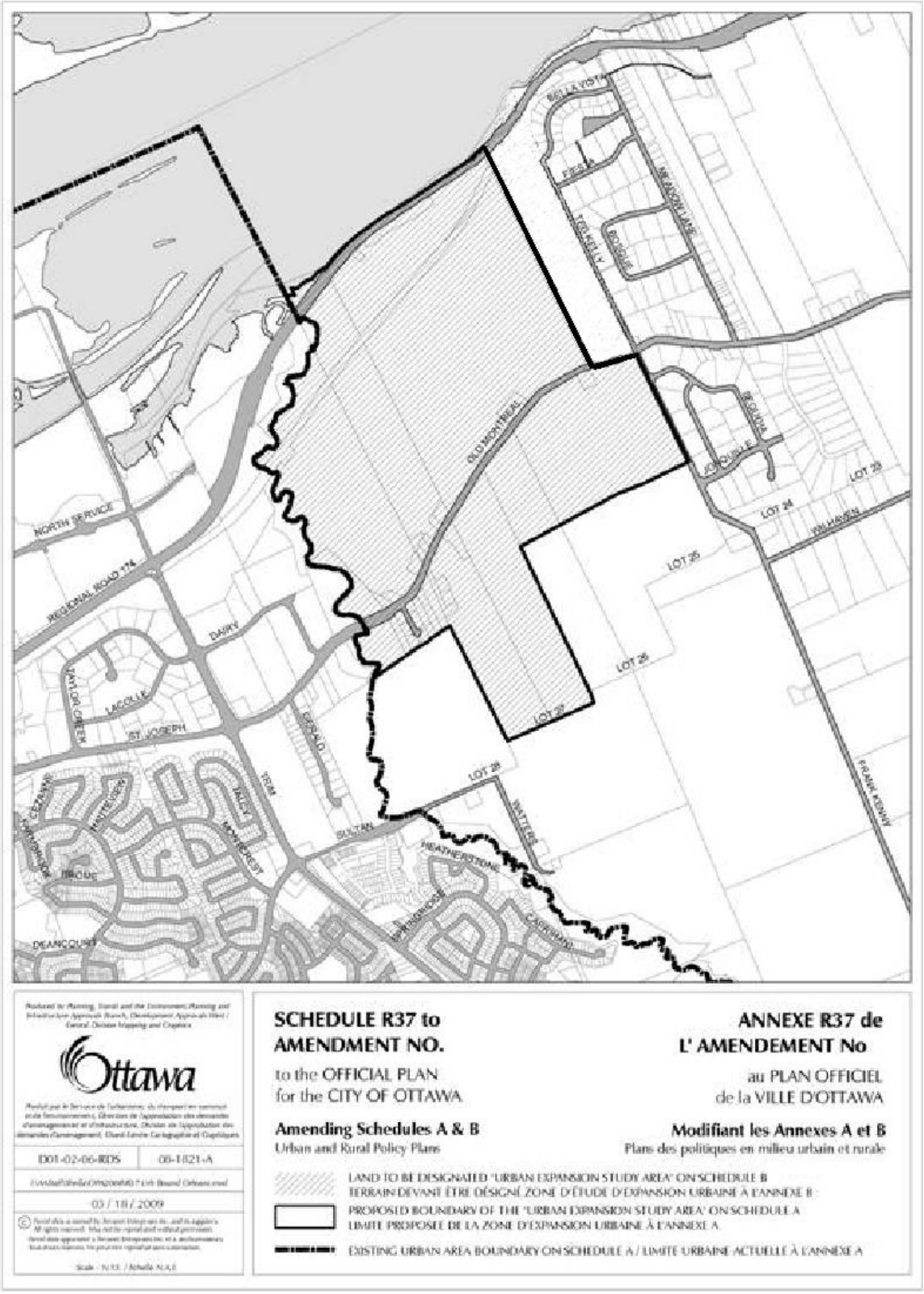
Our findings, by the re-ranking of the areas as one entity found that in the aggregate, Area 11 scored higher as a single parcel as opposed to several separate ones. As the criteria and the scoring are intended to be part of the upcoming rezoning OMB hearing, this submission will not delve into the detailed specifics of each criterion. Rather it is our conclusion that no matter the scoring system, Area 11 consistently ranks highly in the City of Ottawa as a candidate expansion area.

That conclusion is reinforced by the staff recommendation to council for the City's position to the Ontario Municipal Board on the Urban Boundary. That recommendation was adopted by council on September 13, 2011 and is expressed by the proposed Schedule R37 to Amendment 76.

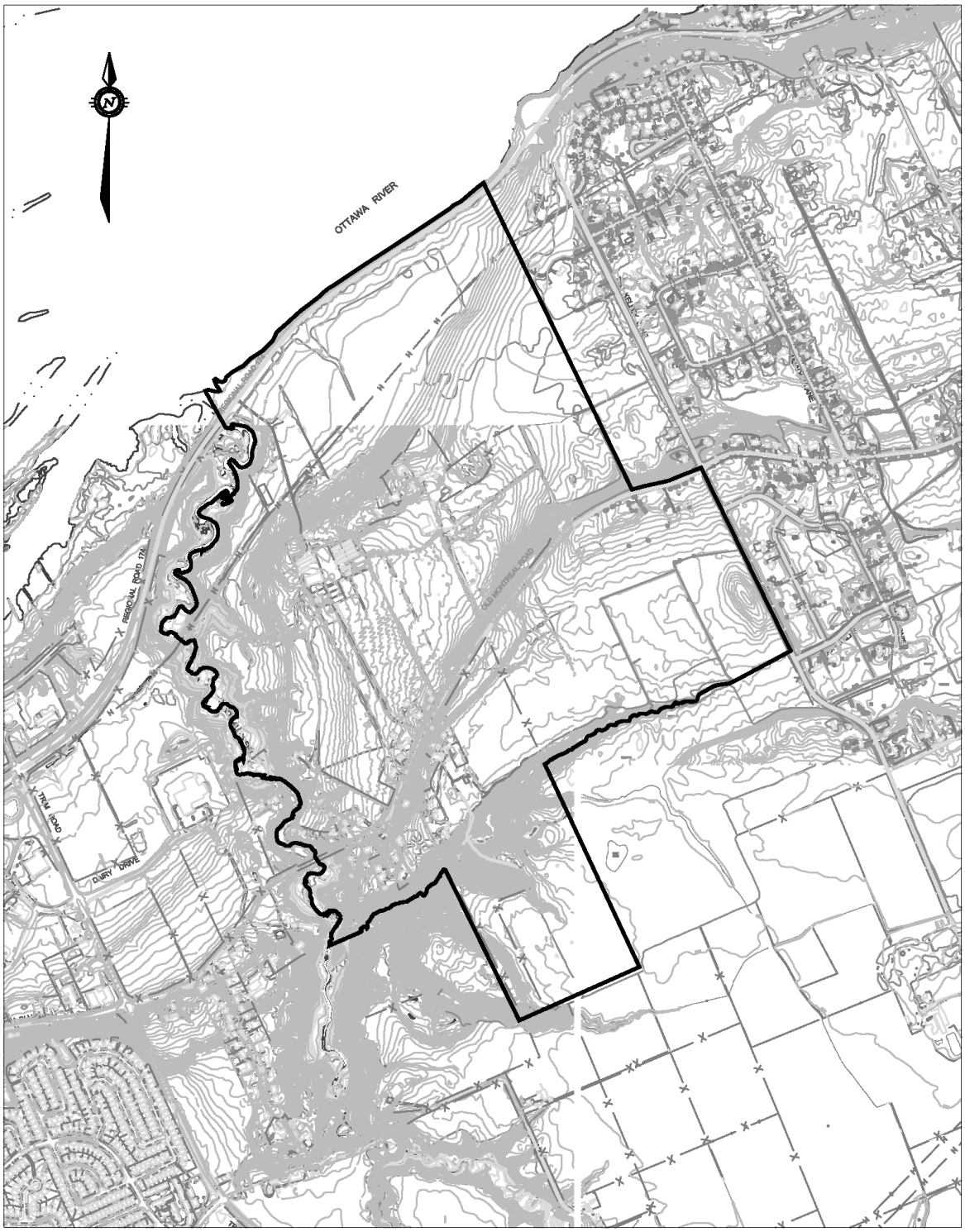
3.5 Requested Amendment to Schedule R37

Schedule R37 includes the urbanization of approximately 30 hectares south of the open space associated with the east west creek south of Old Montreal Road. This is shown in the following three figures and is highlighted as area 'A' on Figure 6.

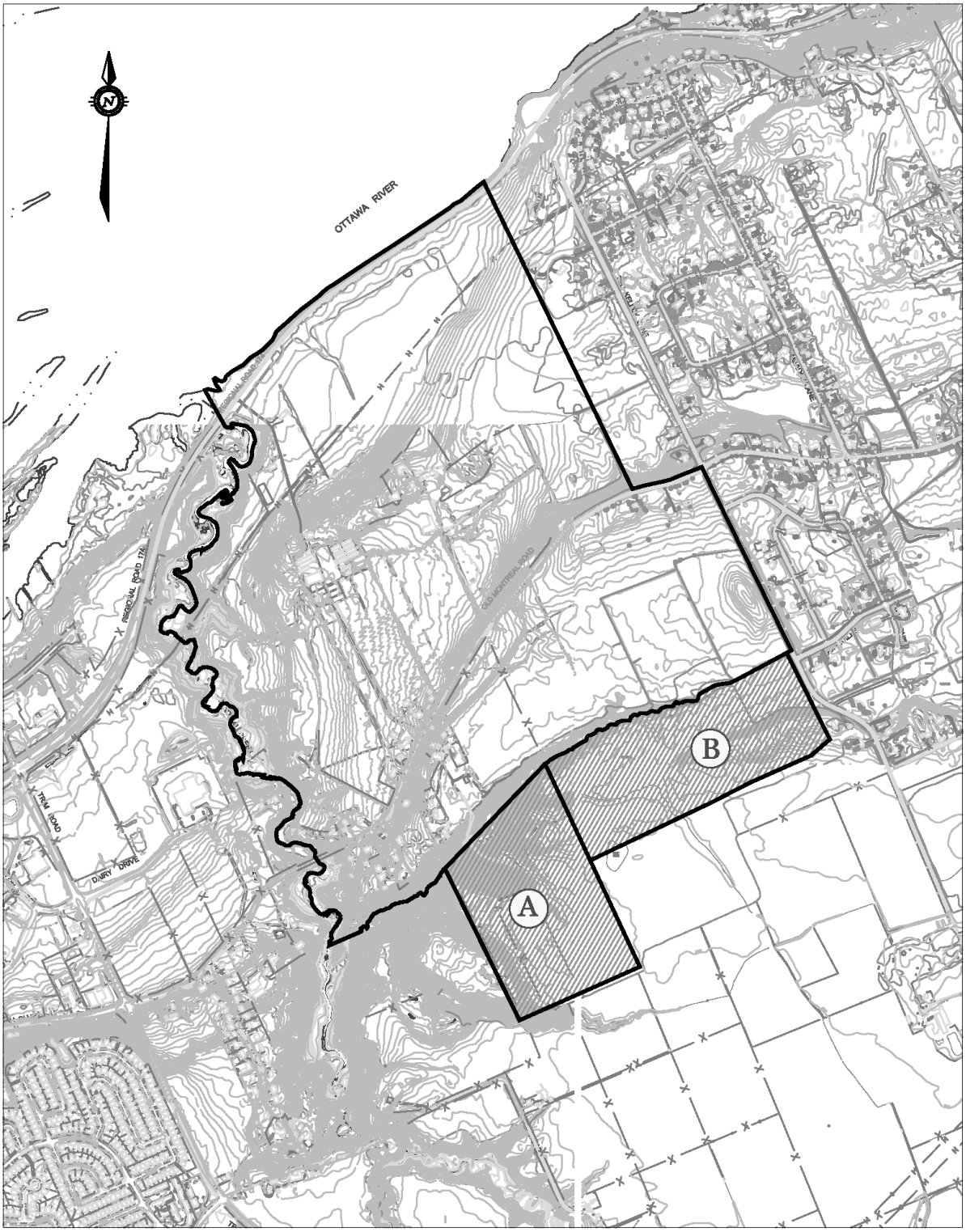
The creek on the northern edge of Area A is deeply incised and would require a bridge structure for road access to the south. This part of Cardinal Village is a difficult parcel in isolation to supply municipal services, unless it is serviced from the east. It is therefore requested that the urban designation on these lands be transferred in equal proportion further to the east and fronting on Frank Kenny shown as Area B on Fig 6. This will allow for a more orderly and logical development of this area of Cardinal Village. It is important to note that the area of lands being considered for urban expansion will remains identical.



Schedule R37 to Amendment No.
Figure 3- November 2011



Schedule R37 on contour base
Figure 4- November 2011



Recommended Revision to Schedule R3
Figure 5- November 2011

4 The Proposal

4.1 Introduction

The location of the Cardinal Village is a natural progression for urban growth on non-agricultural land east of Trim Road. A logical and appropriate new urban boundary in the east end would result at the interface of existing estate residential development at Ted Kelly Lane and in the south at the Agricultural Resource designation. For the purposes of considering these lands for urban expansion the current policy framework is considered appropriate. Accordingly the following sections describe the land use plan, its components, the transportation network and servicing options at a policy level.

4.2 The Demonstration Plan

The Demonstration Plan is based on the principals of a Developing Community Designation as outlined in the Official Plan.

> *"Developing Communities will offer a full range of choice in housing, commercial institutional and leisure activities within a development pattern that prioritizes walking, cycling and transit over the automobile."(Section 3.6.4)*
> *Policy 1 – Developing Communities are identified … areas that are vacant, or substantially vacant, that offer substantial opportunity for new residential development at increased intensities and opportunities to create complete, sustainable communities*

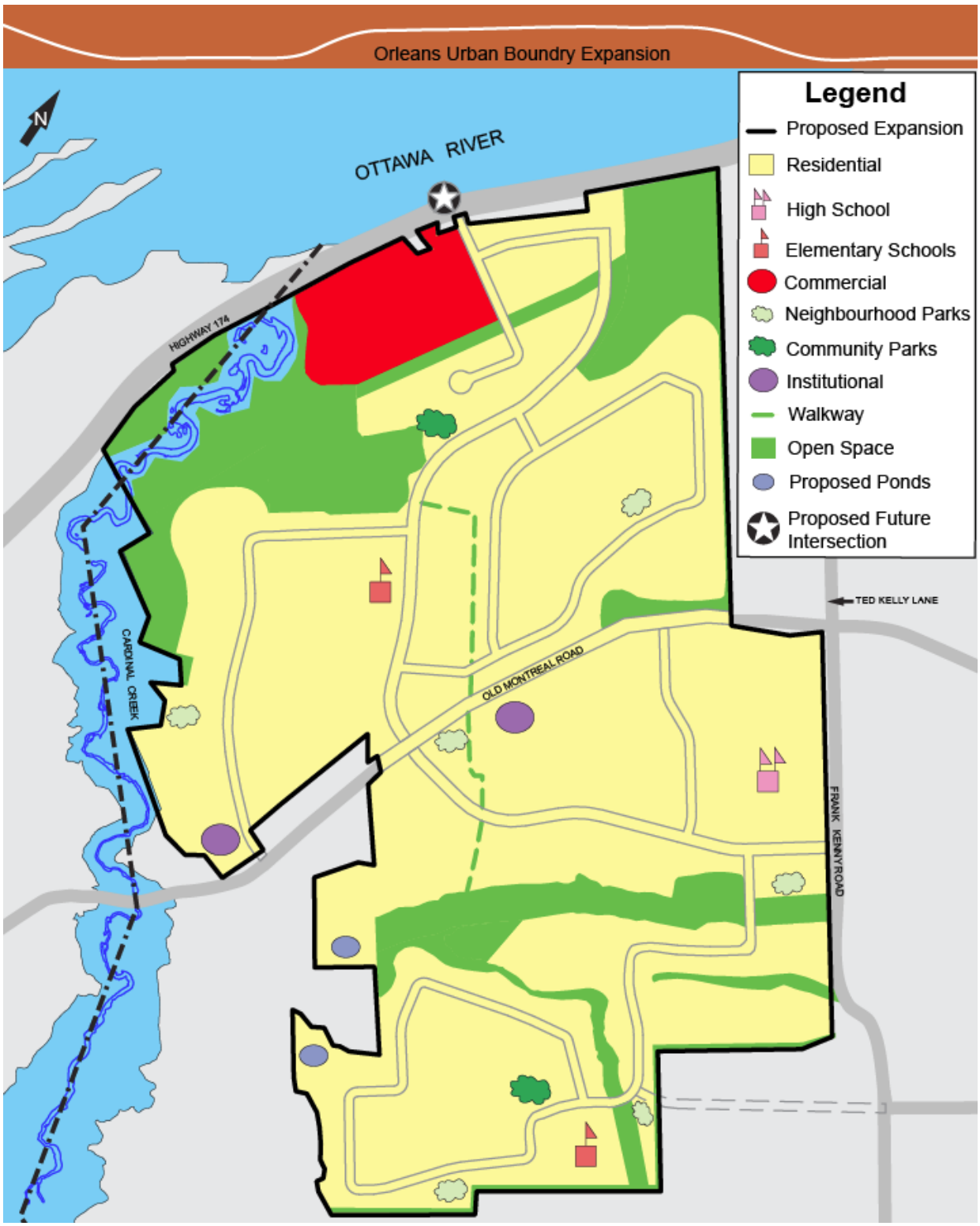
Notwithstanding Policies 2, 3 and 4 a Community Design Plan shall not be required for these lands.

The land allocated to the various land use types are categorized into Residential, Mixed Use, Commercial, Institutional, Schools, Parks and Open Space. Table 1 outlines the proposed Land Use Budget and Figure 5 identifies the location of each use on the Demonstration Plan.

Table 1: Land use Budget

Table 1: Land Use Budget

	Area	Percentage
Residential	108ha	46%
High School	8 ha	3.3%
Elementary Schools	5 ha	2.1%
Commercial	10 ha	4 %
Institutional	7 ha	3%
Neighbourhood Parks	5 ha	2.1%
Community Park	7 ha	3%
SWM facilities	6 ha	2.5%
Open Space	44 ha	18%
Roads	38 ha	16%
Total Area	**238ha**	**100%**



Demonstration Plan
Figure 6- November 2011

4.2.1 Residential

Approximately 130 ha of the subject land have been allocated for residential use. An overall average density of 34 units/hectare for all residential types will be used for the extent possible. This is based on 55% Single Family, 10% apartment dwellings and the remainder multiple dwellings (other than apartments). Based on calculations for this proposed development, there would be approximately 4800 units with a population of 13,000 people.

4.2.2 Commercial

A 19 hectare commercial site is proposed at the intersection of Ottawa Road 174 and the proposed north/south collector road. This site will be characterized by a combination of large format retail and other retail uses to provide Cardinal Village and the greater area with amenities and services. This location, with its visual and functional exposure to Ottawa Road 174 is a superior site for this form of retain development.

4.2.3 Institutional

The existing Capital City Church along old Montreal Road will continue to operate at its current level and is integrated into the proposed Village.

Also along Old Montreal Road is a 4 hectare site owned by McGarry Funeral Homes intended for a crematorium. It will be integrated into the Village with proper buffering and urban design features.

4.2.4 Schools

From analysis of similar communities in Ottawa and preliminary discussions with the school boards, it is estimated that 1 High School and 2 Elementary Schools would potentially be required to support the proposed Village. Confirmation of the number and locations of the schools will occur during the detailed review. The elementary schools have been placed adjacent to proposed collector roads. The High School is proposed to be located along Frank Kenny Road and a proposed collector road.

4.2.5 Parks and Open Space

Parkland is located throughout the Village with optimum accessibility for all residents. It provides active recreational space to fulfill the City's mandate. Five neighborhood parks and two community parks have been strategically located throughout the land use plan and respond to the unique attributes of the site including views to and from Cardinal Creek and the Ottawa

River. This Land Use Plan includes a significant amount of public open space and the requisite amount of formal parkland.

4.2.6 Neighbourhood Parks

The focus of Neighbourhood Parks is to provide active and passive recreation to the immediate neighbours. Neighbourhood parks are approximately 0.8ha in size and located along a local road. The neighbourhood parks have been located approximately 400m from each other within the residential area, to allow walking accessibility for all residents. Five neighbourhood parks are located throughout the Village.

4.2.7 Community Parks

Community Parks are approximately 3 ha in size located along a major road, and generally serve residents within an 800 metre radius. This provides active recreation opportunities and facilities. Two community parks are provided for Cardinal Village.

5 Environmental Overview

There are no Provincially Significant Wetlands or Life Science Areas of Natural and Scientific Interest within Cardinal Village. However it is noted that the Petrie Island Wetlands north of the site, are a Provincially Significant Wetland, as well as a Provincial Life Science Area of Natural and Scientific Interest. Also, an Earth Science Area of Natural and Scientific Interest (a Karst feature) is found along Cardinal Creek to the west and south of the site.

Cardinal Village has a Rural Natural Features Area OP designation on approximately 30% of the Site. During a site visit in March 2009 it was observed that there has been severe disturbance to the woodlands by logging. Some forest cover remains along the valley edges, including intermediate and mature deciduous and coniferous trees. The minimum width of this retained tree cover is in the range of 50 metres. Other prominent woodlands are proposed for retention including maple forests of approximately 400 and 275 metres in width in the northwest and northeast portions of the Cardinal Community, respectively. These forests show little disturbance from non-native vegetation, are connected to adjacent forests and have a good diversity of tree age, including an abundance of regenerating stems. These forests are typical of those that would rate moderate to high using the Urban Natural Area Environmental Evaluation System. A linear section of intermediate and mature maple and other deciduous trees is also proposed for retention along a knoll on the north side of Old Montreal Road in the east portion of Cardinal Village. Mature and younger deciduous trees are also proposed for retention along a greenway connection leading north from Old Montreal Road to the northwest forest. The environmental significance of these remaining woodlands will be further determined as part of future development stages. However, current discussions with City staff indicate that the Rural Natural Area designation is no longer supported by environmental science.

The Cardinal Creek Natural Area was identified as Natural Area 46 in the former Region's 1997 Natural Environment System Strategy and Urban Natural Area 94 in the Urban Natural Areas Environmental Evaluation Study (March 2005). The interface of this natural area with the proposed development will be considered through future study. Cardinal Creek runs along most of the western boundary of the site and connects into the Ottawa River along the northern

boundary. The confluence of Cardinal Creek with the Ottawa River is an important nursery, foraging and spawning area for sport fish and other components of the aquatic community. Several tributaries of Cardinal Creek flow in an east to west direction through the site. The extent of fish habitat in these tributaries needs to be assessed through further study.

Unstable slopes are indentified on Schedule K of the 2003 Official Plan along Cardinal Creek and two of the east-west tributaries south of Old Montreal Road. The effects of these slopes on development will be assessed through further detailed study.

6 Engineering

6.1 Servicing Requirements

Design and construction of municipal water, sanitary, storm and SWM servicing infrastructure will be required in order to support development of the Cardinal Village (see Figure 6 – Existing and Proposed Infrastructure). It is proposed that the development will utilize the following:

- proposed extension of the existing municipal sanitary servicing infrastructure (from the Orleans Cumberland Trunk sewer) in the vicinity of Trim Road/Regional Road 174 along the existing hydro corridor south of Highway 174
- proposed extension of existing municipal watermain infrastructure from Dairy Drive to Old Montreal Road
- proposed on-site storm sewer servicing infrastructure and SWM facilities where required.

6.2 Water Distribution System

Based on our research the proposed Cardinal Village is located adjacent to the current boundary of both the 1E and 2E Pressure Zones. A high level review of these pressure zones indicates that the 1E pressure zone (i.e. north of St. Joseph Boulevard) is not currently experiencing any static pressure issues, where pressures range from 40 psi to 60 psi. The 2E pressure zone (i.e. south of St. Joseph Boulevard/Old Montreal Road) appears to have slightly less than the minimum City of Ottawa recommended standard.

Given the location of the site it is appropriate to connect Cardinal Village to the existing infrastructure in the 1E pressure zone. The following connections are proposed:

- to the 406 mm diameter watermain crossing the existing hydro corridor ~ 340 metres east of the Trim Road/Highway 174 intersection and
- a secondary connection (for system redundancy) to either the 406 mm waterman extended from the Dairy Drive cul-de-sac or the 406 mm watermain extended from Trim Road/Old Montreal Road

Independent of Cardinal Village, the City intends to construct a future 610 mm diameter watermain, to supply water to the 2E pressure zone. It will run parallel to the existing 406mm St. Joseph watermain (west of Trim Road). Given the timing of completion of this project (~ within the next couple of years) a secondary connection, for system redundancy, to this 2E pressure zone would be feasible for the Cardinal Village lands.

A further hydraulic water servicing analysis will need to be completed at a more detailed design stage in order to determine the sizing of internal watermains and expected water pressure to provide water supply for the Cardinal Village.

6.3 Sanitary Infrastructure

It is estimated that Cardinal village will create a population of 12500 persons and an estimated 29 ha of commercial/industrial lands. Using Current City of Ottawa criteria, the total flow from Cardinal Village is estimated at 218 L/sec. Cardinal Village will utilize the reserve capacity (~ 195 L/s) in the Orleans Cumberland Collector and the Trim Road Trunk, Identified in a 2008 Report on services IBI Group. While the actual capacity will have to be determined by further study, it is estimated that a major portion of the entire subject lands can be developed prior to any additional infrastructure improvements.

It is proposed that wastewater servicing for the subject lands be made via a connection to the existing 900 mm diameter Orleans Cumberland Collector sewer via the existing 825 mm diameter Trim Road Trunk sewer along the hydro corridor just south of the Trim Road/Highway 174 intersection (see Figure 6). This corridor already crosses Cardinal Creek. Additional crossings of Cardinal Creek and associated approvals are therefore not being required.

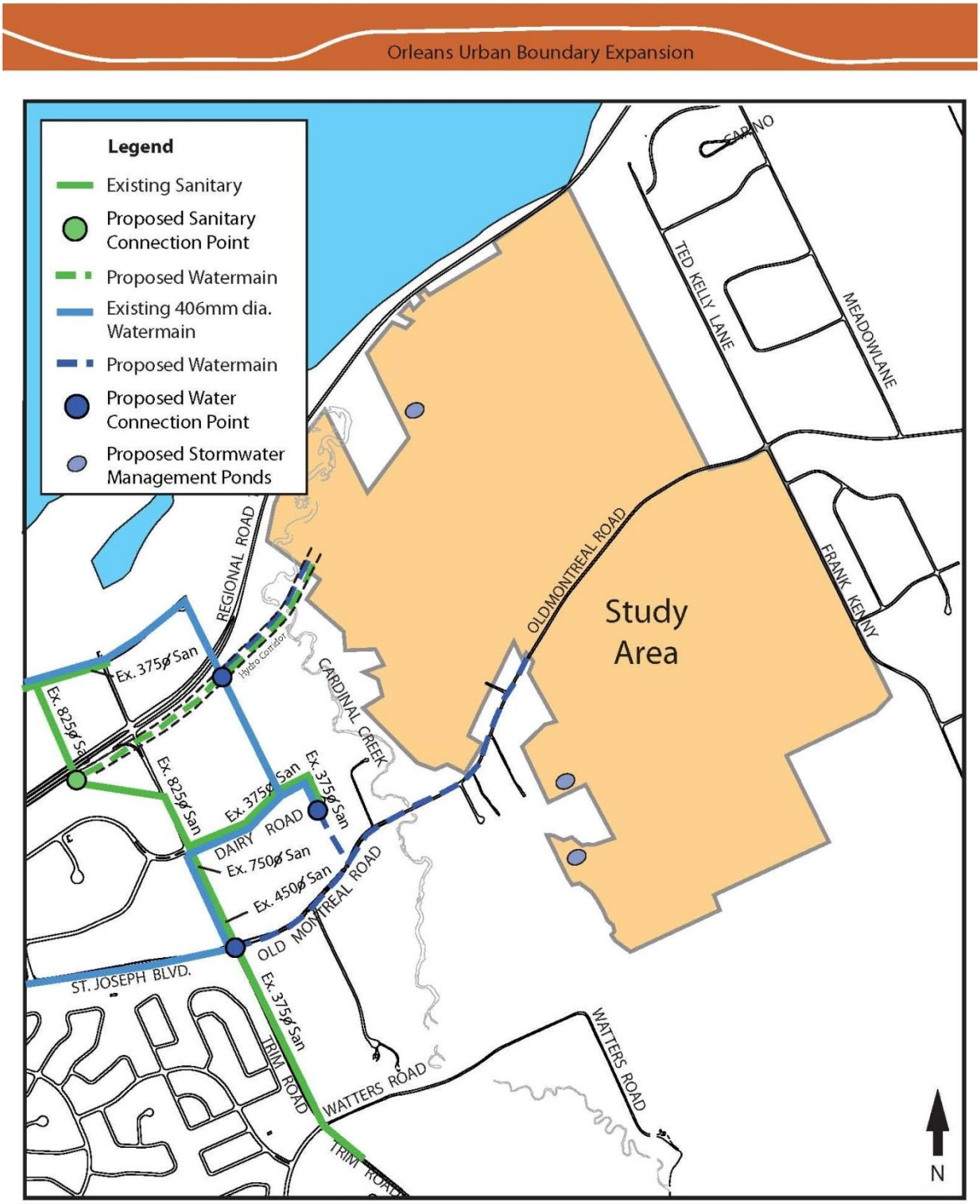
An overall system infrastructure analysis of the Orleans Cumberland Collector (including all tributary trunk sewers) is recommended in order to precisely determine any effects from the addition of the Cardinal Village lands.

6.4 Storm and SWM Infrastructure

Cardinal Village lies primarily within the Cardinal Creek Subwatershed with a small portion in the northeast located within Ottawa 1 Subwatershed. These two watersheds are currently being examined in the *Greater Cardinal Creek Subwatershed Study*. It is expected that SWM design criteria will be established as part of that study.

Given the existing topography of the site, it is recommended that a total of three SWM facilities will be required (see Figure 6). These ponds will outlet directly to Cardinal Creek or the Ottawa River with appropriate quantity/quality measures. Connection to the existing municipal storm sewer system abutting the subject lands is not required.

A detailed report entitled *Cardinal Village Engineering Servicing Evaluation*, prepared by **exp** Services Inc., is being filed under separate cover



Existing and Proposed Infrastructure
Figure 7- November 2011

7 Transportation Overview

IBI was retained to prepare a Transportation Overview (TO) for the Cardinal Village boundary expansion. It addressed the following issues:

- Site Context
- Transit Service
- Pedestrian and Cycling Facilities
- Preliminary Transportation Analysis
- Screenline Analysis

The following summarizes IBI's recommended infrastructure needs related to the subject lands:

- The addition of these lands will precipitate modification of existing transit routes as well as the implementation of new routes to service the proposed development
- An off- road multi-use pathway from Petrie Island to Frank Kenny Road is proposed in the Transportation Master Plan (TMP) and connections from it to the proposed development should be considered during future subdivision submissions.
- It is recommended that signalization along the major collector road may be required at Ottawa Road 174, Montreal Road and Frank Kenny.
- There is likely sufficient capacity along the section of Old Montreal Road between Frank Kenny and Dairy Road to accommodate the additional traffic generated by the proposed development without significant improvements.
- As Ottawa Road 174 is currently exceeding capacity, an additional lane in each direction from Trim Road to the proposed north south major collector may be required.

It should be noted that infrastructure expansions that are required with new developments, are generally funded through Development Charges and these developments incrementally add to the existing traffic. The subject land should be included in the calculations and preparation of the ongoing TMP being conducted in conjunction with the 5 year OP review.

8 Cardinal Village and The City's Evaluation System

The comprehensive review of the OP which included research regarding all aspects of managing growth. As Discussed earlier Cardinal Village was studied as Area 11 Shown Below:

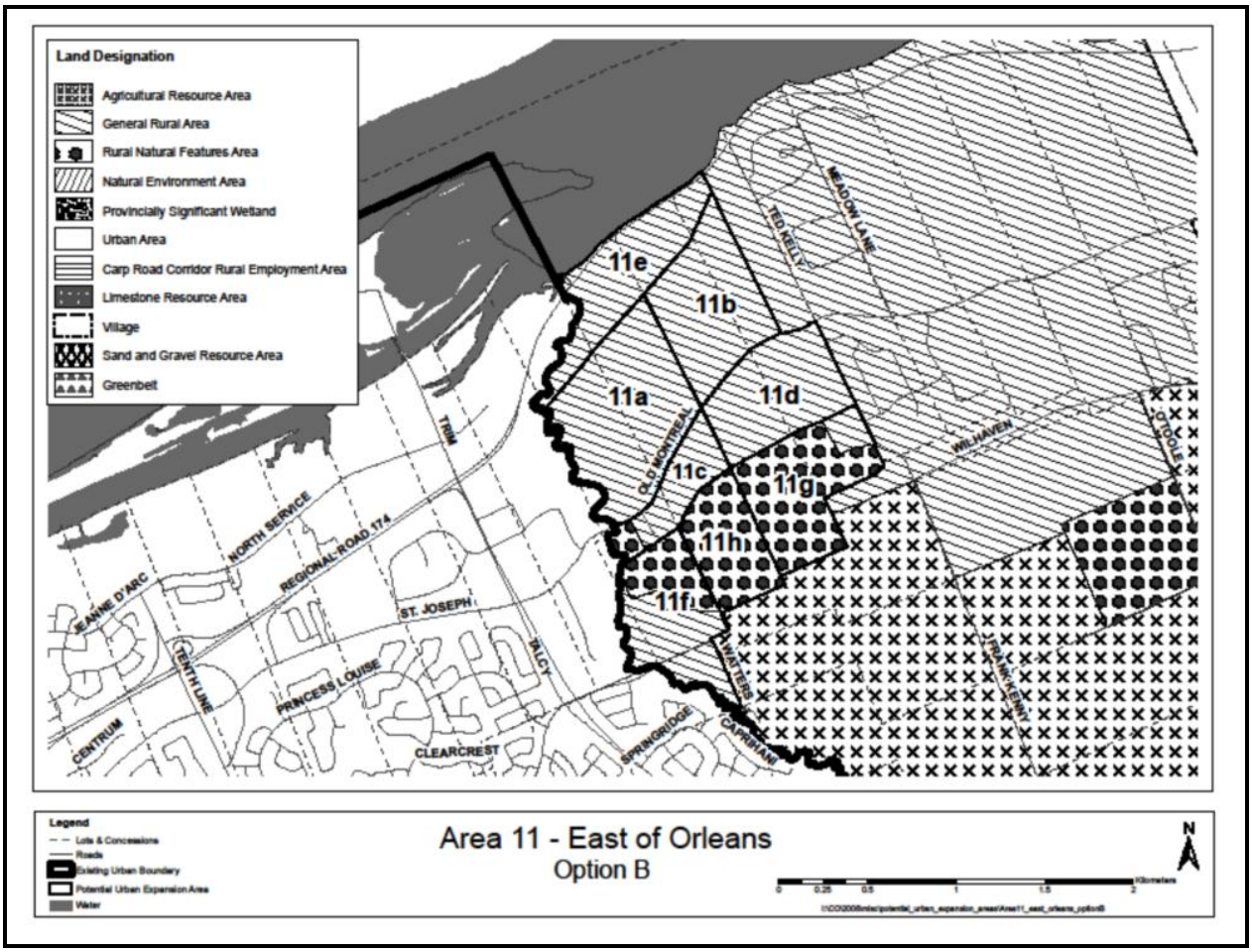


Figure 8- November 2011

A concept plan for this area as discussed earlier along with supporting documents were presented and submitted to the City as part of Official Plan Review process.

As the owner 80% of the subject area, Tamarack (Queen Street Corp.) took the initiative to meet and discuss the planning process with the other affected owners, there is an understanding and agreed by all owners that all the parcels will be treated as one larger area, and should be considered urban.

8.1 Evaluation Criteria

The May 2009 City Staff Report contained the final version of a ranking/scoring system that was used to narrow down the candidate areas into recommended parcels for inclusion in the expanded urban area of the City. There were 16 criteria used to award weighted points in categories which would ultimately select expansion areas that would take advantage of existing available infrastructure and community resources.

For the purpose of this section the methodology outlined in that report has been used to re-evaluate the individual parcels in Area 11. While 8 parcels where identified for this area (11 A to F) only 7 were ranked in May 2009. Area 11f was omitted because it was determined that there are significant servicing constraints and no gross developable area could be achieved.

While it is understood why Area 11 is broken down and scored by sub-area, submissions were been made throughout the process that there is merit to ranking this area as one continuous piece of land, regardless of ownership. This section scored the area as if all of Cardinal Village was one parcel. The prime reason for calculating this "As one Parcel" score is because it has been planned as a whole community with owners agreeing to a unified vision.

8.2 Individual Catergories

The May 2009 results are compared to the "new" scores on Tables 1 thru 16. Rationalization is provided if points differ (a red number indicates a change from 2009). This exercise was undertaken with input from the appropriate experts (civil, environmental and transportation engineers and planners).

Table 1 - Serviceability – Water

POSSIBLE SCORE = 8

Area	May 2009 Score	2011 Score	End Note
11a	8	8	-
11b	8	8	-
11c	8	8	-
11d	8	8	-
11e	8	8	-
11g	8	8	-
11h	8	8	-
As one Parcel	n/a	8	a

End Notes

a) The water supply to the entirety of Area 11 is very good and no additional infrastructure would be required to provide municipal water.

Criteria 2

Table 2 - Serviceability – Wastewater

POSSIBLE SCORE = 8

Area	May 2009 Score	2011 Score	End Note
11a	8	8	n/a
11b	8	8	n/a
11c	8	8	n/a
11d	8	8	n/a
11e	8	8	n/a
11g	8	8	n/a
11h	8	8	n/a
As one Parcel	**n/a**	**8**	**a**

End Notes

a) The developable portions of Area 11 can be connected to the municipal sanitary system.

Criteria 3

Table 3 - Serviceability – Stormwater

POSSIBLE SCORE = 8

Area	May 2009 Score	2011 Score	End Note
11a	6	8	a
11b	6	8	a
11c	6	8	a
11d	6	8	a
11e	6	8	a
11g	6	8	a
11h	6	8	a
As one Parcel	**n/a**	**8**	**b**

End Notes

a) To receive full marks for this criteria a parcel has to be both within an Environmental Management/ Subwatershed Plan and have an approved SWM design. The *Cardinal Creek Subwatershed Study* had been started in May 2009 but was not far enough along to award points in this category. The City has made progress on this work and an existing conditions report has been prepared along with updated flood plain mapping for the Ottawa River. The owners have also undertaken further work regarding drainage and stormwater infrastructure for this area, including establishing potential locations for ponds, review of grade raises and pipe sizes. The requirement to have "approved and ready to accommodate" SWM systems is unfair, seeing that the City will not review let alone approve any urban servicing outside of the current urban boundary. In the May 2009 ranking, none of the candidate areas received full marks in this category as it was impossible to achieve. These lands have done all that is possible given their current designation and therefore should receive full marks.

b) While the SWM Plan will be refined on a parcel by parcel basis the *Cardinal Creek Subwatershed Study* will encompass the whole of Area 11, therefore for the reasons outlined in "1" above full marks should be awarded.

Criteria 4

Table 4 – Road Capacity

POSSIBLE SCORE = 6

Area	May 2009 Score	2011 Score	End Note
11a	3	3	a
11b	3	3	a
11c	3	3	a
11d	3	3	a
11e	3	3	a
11g	3	3	a
11h	3	3	a
As one Parcel	**n/a**	**3**	**b**

End Notes

a) It is anticipated that the Volume to Capacity Ratio for the Bilberry and Greens Creek screenlines would improve if the transit demand model was re-done with the result of the City's 2009 Transit Survey. The City is also investigating the need to widen Highway 174 easterly from Jeanne D'Arc Boulevard. City Council in April 2011 endorsed the funding for a widening EA for this work.

b) The whole area of Cardinal Village mirrors the score for the other parcels. This score was based on the 2008 Transportation Master Plan, where the widening of Highway 174, Queen Street and the "Split" was taken into consideration.

Criteria 5

Table 5 – Arterial and Collector Roads

POSSIBLE SCORE = 8

Area	May 2009 Score	2011 Score	End Note
11a	4	4	-
11b	4	4	-
11c	4	4	-
11d	6	6	-
11e	4	4	-
11g	2	2	-
11h	0	0	-
As one Parcel	**n/a**	**8**	**a**

End Notes

a) The whole area of Cardinal Village receives top-marks in this category as it has direct access to two or more arterials (Highway 174 and Old Montreal Road) and a collector (Ted Kelly Lane).

Criteria 6

Table 6 – Transit

POSSIBLE SCORE = 10

Area	May 2009 Score	2011 Score	End Note
11a	8	10	a
11b	6	8	b
11c	8	10	a
11d	6	8	b
11e	6	8	b
11g	8	8	-
11h	6	8	b
As one Parcel	**n/a**	**10**	**c**

End Notes

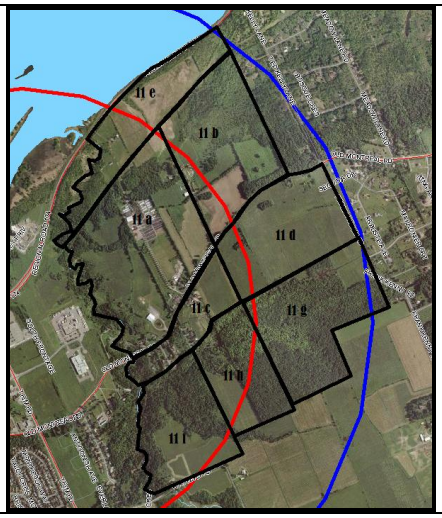
**read in conjunction with Map below*

a) The center point of this parcel is within 1.4 km from a the transit hub and therefore should received full marks for this category. It also fronts on to Old Montreal Road, which as an arterial will provide great connections to key transit nodes.

b) The center point of the parcel is located between 1.4 and 2.1 km from the Trim Road and Highway 174 intersection.

c) The center point and therefore the majority of Area 11 is within the 1.4 km radius of the nearest transit hub location.

Map



*The map shows a 1.4 km (**red**) and a 2.1 km (**blue**) radius from the planned Transit Station and existing Park and Ride at Trim Road and Highway 174. The scores were given based on the distance to the center of the parcel from the middle of the Park and Ride lot.*

Criteria 7

Table 7 – Retail/Commercial Focus

POSSIBLE SCORE = 5

Area	May 2009 Score	2011 Score	End Note
11a	3	3	-
11b	2	2	-
11c	4	4	-
11d	3	3	-
11e	3	3	-
11g	2	3	a
11h	3	3	-
As one Parcel	**n/a**	**3**	**b**

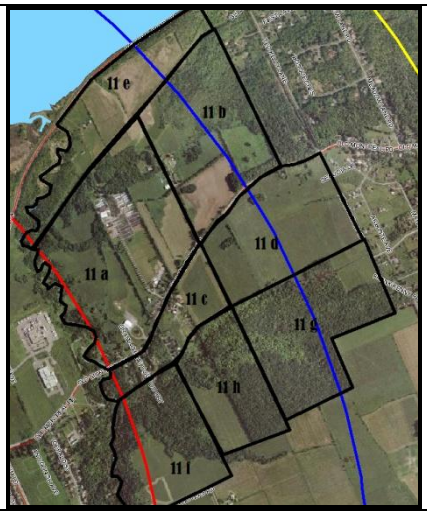
End Notes

**read in conjunction with Map below*

a) This parcel straddles the scoring line and since half points are not permitted, the range that contained the most area of the site is used to determine the score.

b) The center point of Area 11 is within 4.4 km from the nearest MUC/Mainstreet designation, therefore the overall score reflects this.

Map



*The above shows a 3.3 km (**red**) and a 4.4 km (**blue**) radius from the center of the MUC and the end of the Mainstreet designations in Orleans. The scores were given based on the distance to the center of the parcel.*

Criteria 8

Table 8 – Ability to Work in the Community

POSSIBLE SCORE = 3

Area	May 2009 Score	2011 Score	End Note
11a	0	0	-
11b	0	0	-
11c	0	0	-
11d	0	0	-
11e	0	0	-
11g	0	0	-
11h	0	0	-
As one Parcel	**n/a**	**0**	**a**

End Notes

a) Based on the City's formula Orleans does not have the required 1.3 jobs available per household, therefore Area 11 cannot achieve the jobs to housing ratio.

Criteria 9

Table 9 – Community Facilities

POSSIBLE SCORE = 5

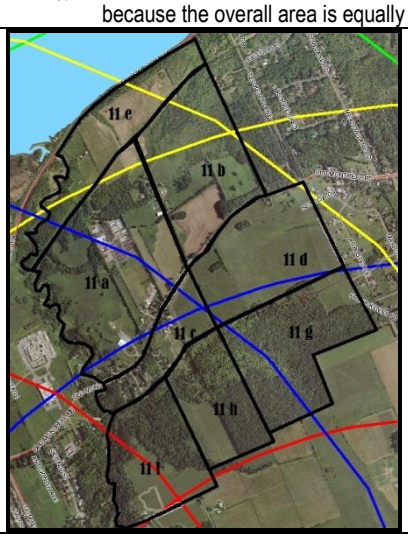
Area	May 2009 Score	2011 Score	End Note
11a	2	3	a
11b	1	2	b
11c	2	3	c
11d	1	2	d
11e	1	2	e
11g	0	2	f
11h	1	2	c
As one Parcel	**n/a**	**3**	**g**

End Notes

**read in conjunction with Map below*

a) The centre point for this parcel is within 3.6 km to the Ray Friel Center and should have a score that reflects this measurement.
b) The center point of this parcel is within 4.5 km of both the Ray Friel and Millennium Centers' and the score should reflect this measurement.
c) The center point of this parcel is within 3.6 km of both the Ray Friel and Millennium Centers' and the score should reflect this measurement.
d) The center point of this parcel is within 4.5 km of both the Ray Friel and Millennium Centers' and the score should reflect this measurement.
e) The center point of this parcel is with 4.5 km to the Ray Friel Center and should have a score that reflects this measurement.
f) The center point of this parcel is with 3.6 km to the Millennium Center and should have a score that reflects this measurement.
g) The center point of Area 11 boarders on two different radiuses. The higher points should be awarded because the overall area is equally assessable to two different complexes.

Map



*The above shows a 2.7 km (**red**), a 3.6 km (**blue**) and a 4.5 km (**yellow**) radius from the center of either the Millennium Sports Facility or Ray Friel Centre. The scores were given based on the distance to the center of the parcel. This is consistent with the May 2009 methodology.*

Criteria 10

Table 10 – Availability of Emergency Services

POSSIBLE SCORE = 5

Area	May 2009 Score	2011 Score	End Note
11a	3	3	-
11b	2	2	-
11c	3	3	-
11d	2	2	-
11e	2	3	a
11g	2	2	-
11h	3	3	-
As one Parcel	**n/a**	**3**	**b**

End Notes

The scores were given based on the distance to the center of the parcel. This is consistent with the May 2009 methodology.

End Note	Area	Police 3343 St. Joseph Blvd.	Fire 500 Charlemagne Blvd.	Ambulance 2851 St. Joseph Blvd.	Average
a	11e	4.1 km	5.2 km	5.6 km	4.9 km
b	Overall	3.7 km	4.6 km	5.3 km	4.5 km

Criteria 11

Table 11 – Connectivity to the Community

POSSIBLE SCORE = 4

Area	May 2009 Score	2011 Score	End Note
11a	2	2	-
11b	2	3	a
11c	0	0	-
11d	2	3	b
11e	2	2	-
11g	2	3	b
11h	0	3	b
As one Parcel	**n/a**	**2**	**c**

End Notes

a) The hydro corridor limits connectivity on the north edge of this parcel, but does not fully block access.
b) The Rural Natural Feature limits connectivity to parts of this parcel, but does not fully block access on any edge.
c) Connectivity along the entire western boundary is obstructed by Cardinal Creek.

Criteria 12

Table 12 – Bus Service

POSSIBLE SCORE = 2

Area	May 2009 Score	2011 Score	End Note
11a	1	1	-
11b	1	1	-
11c	1	1	-
11d	1	1	-
11e	0	0	-
11g	0	0	-
11h	0	0	-
As one Parcel	**n/a**	**1**	**a**

End Notes

a) OC Transpo Express Route 221 runs along Old Montreal Road from downtown Ottawa to Vars.

Criteria 13

Table 13 – Agricultural

POSSIBLE SCORE = 2

Area	May 2009 Score	2011 Score	End Note
11a	2	2	-
11b	2	2	-
11c	2	2	-
11d	2	2	-
11e	2	2	-
11g	0	0	-
11h	0	0	-
As one Parcel	**n/a**	**0**	**a**

End Notes

a) The lands south of Area 11 are currently zoned Agricultural Resource. As the City reviews the LEAR scores for agricultural lands, this designation might change and therefore a re-evaluation of this criterion will be required.

Criteria 14

Table 14 – Rural Lot Development/Landfill

POSSIBLE SCORE = 4

Area	May 2009 Score	2011 Score	End Note
11a	4	4	-
11b	0	4	a
11c	4	4	-
11d	0	4	a
11e	4	4	-
11g	0	4	a
11h	4	4	-
As one Parcel	**n/a**	**4**	**a**

End Notes

a) While we agree that an adjacent landfill is a conflicting land use, rural lot development is not if buffered correctly. There are rural lots developed along the eastern edge of Area 11, however they are either separated by a road (Ted Kelly Lane) or abut an escarpment/woodlot that will protect these existing rural lots from the impact of new urban development. One of the reasons why the OP requires a 1 km distance between the urban boundary and rural residential lots is to provide for the possibility of expansion, without having to "jump over" these larger country lots. This separation is also important to clearly delineate rural villages/hamlets from the urban area. We argue that Area 11 does not boarder a defined village/hamlet and that the abutting rural development is more organic in nature. This unique situation allows for the appropriate transition from urban to rural development and is more of an opportunity than a conflict.

Criteria 15

Table 15 – Depth to Bedrock

POSSIBLE SCORE = 2

Area	May 2009 Score	2011 Score	End Note
11a	2	2	-
11b	1	2	a
11c	2	2	-
11d	1	2	a
11e	1	2	a
11g	1	2	a
11h	1	2	a
As one Parcel	**n/a**	**2**	**a**

End Notes

a) Further geotechnical investigation has shown that all the parcels in Area 11 have more than 5 metres to bedrock (See Supporting Information).

Criteria 16

Table 16– Urban Land Supply

POSSIBLE SCORE = 2

Area	May 2009 Score	2011 Score	End Note
11a	8	8	-
11b	8	8	-
11c	8	8	-
11d	8	8	-
11e	8	8	-
11g	8	8	-
11h	8	8	-
As one Parcel	**n/a**	**8**	**a**

End Notes

a) Orleans and South Nepean have the least amount of land to accommodate the demand for urban uses and because of this these areas receive the highest scores in this category.

8.3 Area Calculations

After all the scoring was done by the City, the candidate areas with the highest scores were recommended as the areas that can accommodate the expected urban growth. The May 2009 Staff report refined the actual "buildable" area within each candidate parcel. Any lands that were encumbered by Natural Heritage Systems, limestone resource, landfill, airport, and servicing and/or road constraints were subtracted from the "Net Hectares" of the candidate area. This adjusted amount was used to reach the required 850 hectares.

As part of this submission, **Richard W. Harrison & Associates** reviewed the area calculations for each parcel within Area 11. Some discrepancies were found, however this is expected when using aerial mapping to determine boundaries and areas of environmental features. Queen Street embraces the physical attributes of this area and intends through the planning process to protect many of these "non-developable" areas as open space or park within the design of Cardinal Village. It is during subdivision approval that these lands will be verified by survey and conveyed to the City.

8.4 Recommended Score for Area 11

As a conclusion of our research, our conferring with industry experts and reviewing the most recent information exp can recommend that the scores in Table 18 be applied for Area 11.

Table 18 – Area 11 2011 Updated Scores and Area

Area	Criteria																Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
11a	8	8	8	3	4	10	3	0	3	3	2	1	2	4	2	8	69
11b	8	8	8	3	4	8	2	0	2	2	3	1	2	4	2	8	65
11c	8	8	8	3	4	10	4	0	3	3	0	1	2	4	2	8	68
11d	8	8	8	3	6	8	3	0	2	2	3	1	2	4	2	8	68
11e	8	8	8	3	4	8	3	0	2	3	2	0	2	4	2	8	65
11g	8	8	8	3	2	8	3	0	2	2	3	0	0	4	2	8	61
11h	8	8	8	3	0	8	3	0	2	3	3	0	0	4	2	8	60
As one Parcel	**8**	**8**	**8**	**3**	**8**	**10**	**3**	**0**	**3**	**3**	**2**	**1**	**0**	**4**	**2**	**8**	**71**

It is important to state that since the City started evaluating and scoring possible areas for urban expansion, Area 11 parcels have ranked among the top, no matter the criteria or the weight value for points. This proves the merits of the area. With all the owners agreeing to work together, the area can and should be scored as if it was one parcel. Looking at this “overall” score shows just how well this new Cardinal Village community benefits from the existing, available infrastructure and community facilities.

9 The Rationale for Urban Boundary Expansion

It is submitted that the City's analysis and the several scoring methodologies demonstrate = Cardinal Village as a prime candidate expansion area. When taken as one parcel these lands have excellent connectivity with the adjacent lands and communities. The lands are less than 2 km from an existing bus rapid transit 'park and ride' facility and will be on a direct rapid transit link to the future rail rapid transit facility at Blair Station. These lands are located in close proximity to Place D'Orleans Town Centre. The lands are adjacent to the City's freeway system thereby connecting it to all other areas of urban Ottawa.

It is submitted that this area of Orleans East is an appropriate and logical location for the expansion of Ottawa's urban boundary. This area is the last undeveloped parcel of land in the City's north east quadrant. It is submitted that the proposed termination of the urban boundary at the existing estate residential development on Ted Kelly Lane provides a definitive and concrete edge to the urban fabric of Ottawa at this location. It is consistent and supportive of all of the salient policies of the Provincial Policy Statement. Urban development of these lands advances the policy objectives of the Province of Ontario as expressed in the Statement. The research and analysis presented in this submission confirms compliance with the Provincial objectives with respect to "Building Strong Communities" and the "Wise Use and Management of Resources."

It is consistent and supportive of all the applicable policies of the new and old City of Ottawa Official Plan.

In summary, inclusion of these lands within the urban boundary of Ottawa is consistent with:

- The Provincial Policy Statement
- The general and specific policies of the former and new Official Plan of the City of Ottawa
- Cardinal Village is a logical area for the City to next urbanize, with minimal extension of all municipal services and represents good planning as detailed in this Planning Rationale.

Respectfully Submitted,

Richard W. Harrison, MCIP, RPP

Richard W. Harrison & Associates