

REGION OF OTTAWA-CARLETON  
RÉGION D'OTTAWA-CARLETON

REPORT  
RAPPORT

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Our File/N/Réf.                    45-00-0061  
Your File/V/Réf.

DATE                                    22 August 2000

TO/DEST.                            Co-ordinator, Transportation Committee

FROM/EXP.                         Planning and Development Approvals Commissioner

SUBJECT/OBJET                 **ALTA VISTA DRIVE/SMYTH ROAD TRANSPORTATION STRATEGY**

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**DEPARTMENTAL RECOMMENDATION**

**That the Transportation Committee recommend Council approve the Alta Vista Drive/Smyth Road Transportation Strategy and its recommendations as contained in the Final Draft Report (excluding appendices) attached in Annex 'A'.**

**BACKGROUND**

On 7 October 1999 the following motion was approved by Transportation Committee in response to a report and request by Councillor Hume.

*"That Regional staff be directed to assume a leadership and co-ordinating role with all the affected property owners (DND, Canada Lands Corporation, the Ottawa Health Sciences Complex, and the Province of Ontario/City of Ottawa), to undertake and participate in the development of a comprehensive traffic management strategy for the affected lands so that the transportation for these sites will meet the transportation goals contained in the Region's Official Plan."*

Terms of reference for this project were to developed to create transportation cause and effect scenarios for all of the various redevelopment options of the health care facilities within the study area. This would enable decision-makers to understand the level of infrastructure that will be required to properly service the Region's most concentrated Health Care area.

The Region retained Delcan Corporation to conduct a project that examined the proposed development of the health care facilities in the area and determine the suitable transportation infrastructure needed to service the development and surrounding communities.

### REGIONAL OFFICIAL PLAN/TRANSPORTATION MASTER PLAN

The recommendations contained in this report adhere to those in both the Regional Official Plan (ROP) and the Transportation Master Plan (TMP). The ROP has identified the study area to be a major community facility and business park. Given the important roles of hospitals and health care facilities within a community, appropriate transportation service is essential for employees, visitors and emergency situations. It is important, however, to make every effort to ensure that the quality of life in the local neighbourhoods is not severely impacted by traffic congestion generated by the developments.

The Alta Vista Parkway is identified in Schedule C1 of the Regional Official Plan as a proposed Regional Road. The recommendations to enhance facilities for walking, cycling and transit in the near future and constructing the portion of the Alta Vista Parkway between Smyth Road and Riverside Drive are appropriate solutions to accommodate this important development and are in accordance with the ROP.

### FINANCIAL IMPLICATIONS

The Transportation Strategy in Annex 'A' contains preliminary cost estimates of the recommended infrastructure improvements. Some costs will be borne by the agencies as a condition of development and will have to be negotiated at the time site applications are filed. Major infrastructure, such as the Alta Vista Parkway will be partially funded by development charges.

### CONSULTATION

The Project Team met with the community associations and local residents several times throughout the study to present and confirm the findings. The community associations were:

- Faircrest Heights Community Assoc.
- Canterbury Community Assoc.
- Riverview Community Assoc.
- Alta Vista Community Assoc.

Some residents of Alta Vista Drive and Smyth Road also attended the meetings and provided input.

The Project Team met with City of Ottawa and OC Transpo Staff to discuss the findings and gather their views and concerns which were incorporated in the Draft Report.

*Approved by  
Nick Tunnacliffe, MCIP, RPP*

# Alta Vista Drive / Smyth Road Transportation Strategy

*prepared for*



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## 1 Introduction

The Hospital/Health Sciences Complex, located on Smyth Road east of Alta Vista Drive, is the Region's most concentrated health care facility. As evidenced by the proposed development plans of individual sites, the complex is responding to the ever-increasing demand for health services in the Province. The objective of this study was to identify and examine the proposed development plans of individual facilities in the area in order to determine the appropriate transportation infrastructure needed to adequately service both the phased development of the Complex and the surrounding communities.

To this end, the Alta Vista Smyth Transportation Strategy project was initiated by Regional staff in the Fall of 1999, and Delcan Corporation was subsequently retained to undertake the study. The Consultant was asked to develop transportation cause and effect scenarios for all of the various development options of the health care facilities within the study area and compose appropriate recommendations in keeping with the transportation goals contained within the Regional Official Plan.

As the development scenarios for the Complex could have considerable implications for community residents, a Public Advisory Committee (PAC) was formed to help guide the study. The PAC consisted of community representatives, Regional staff and Consultant staff.

The study area, shown in Figure 1, consists of the major road links (i.e., Smyth Road, Alta Vista Drive) and intersections in the immediate vicinity of the Hospital/Health Sciences Complex. As well, other key intersections in the vicinity were examined given their importance to the general issue of transportation system capacity.

## 2 Background

Transportation issues, and the study of these issues, have been prevalent in the southeast sector of Ottawa for many years. The combination of increasing population, the development and growth of large employment and service nodes, commuter traffic oriented toward Ottawa's central area and limited bridge crossings of the Rideau River and the Rideau Canal, has resulted in significant traffic increases on certain roads in southeast Ottawa. The roads that link these bridges with the population and employment located in southeast Ottawa, and currently carry significant traffic volume, include:

- Riverside Drive;
- Airport Parkway;
- Bronson Avenue;
- Bank Street;
- Alta Vista Drive;
- Main Street;
- Smyth Road; and
- St. Laurent Boulevard;

The ability of these roads to continue to accommodate increasing traffic volumes at acceptable levels of service, was initially addressed in "The Study of Transportation Demands To and From the Southeast Sector", conducted for the Region in 1993/94. This study assessed the projected travel demand on the above-noted roads in the southeast sector and determined that a number of transportation system improvements

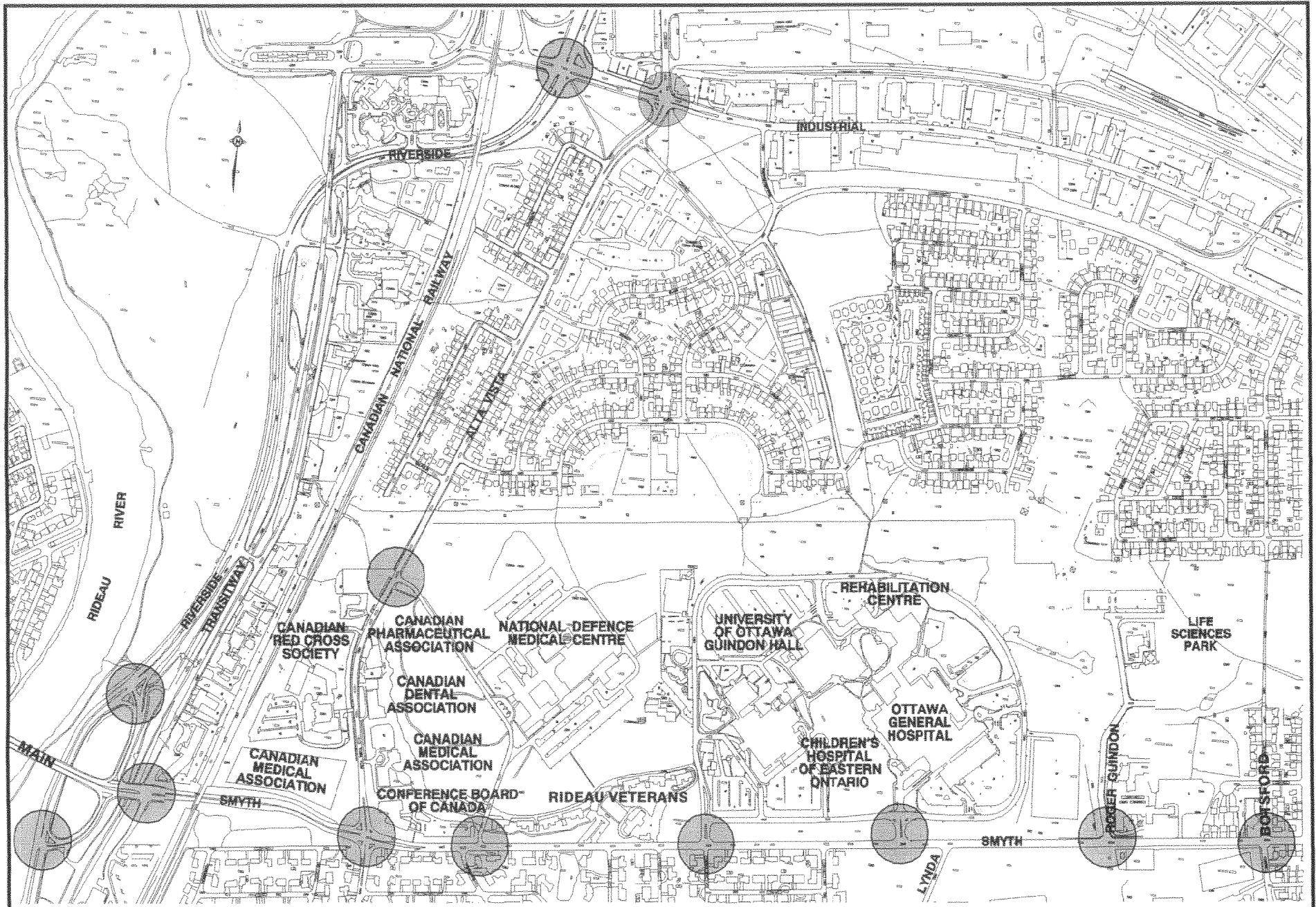


Figure 1: Study Area



were required to achieve a balanced land use and transportation solution. The study, and its recommendations, were adapted by Regional Council in September 1994 as satisfying Phase 1 and 2 of the Environmental Assessment process. Recommendations from that study, relevant to the current Alta Vista/Smyth Transportation Strategy, were that the following transportation facilities be implemented by the horizon year (2011) of the Regional Official Plan in place at the time:

- the widening of Conroy Road;
- the widening of Hawthorne Road;
- the twinning of the Airport Parkway;
- the construction of the Alta Vista Parkway;
- the extension of Hunt Club Road from Hawthorne Road to Highway 417; and
- a bus-only road within the Smyth Road Hospital Complex.

The Transportation Master Plan (TMP), completed in 1997 as a primary background document to the new Regional Official Plan (ROP) and which determined transportation needs to the new ROP horizon year (2025), reconfirmed the need for all of the above-mentioned infrastructure. To date, the first two projects on this list have been constructed, but the last four have not. As a result, traffic conditions in the suburban portion of southeast Ottawa have improved significantly, but conditions closer to the Central Area, such as in the Alta Vista and Canterbury communities, have not. Not only has additional road capacity not been provided in and adjacent to these neighbourhoods, but major employment nodes located adjacent to them are projected to continue to grow and generate more traffic. Two such nodes are the Hospital/Health Sciences Complex on Smyth Road, and the Ottawa Business Park on Conroy Road. As a result, intersection operation has deteriorated and traffic infiltration onto the residential collector roads within the two communities has increased.

The ultimate solution to the Southeast Sector transportation needs is, in part, the completion of the remaining transportation links recommended in the TMP, and identified above. There are, however, current issues/factors that have delayed the construction of these facilities. Thus, there continues to be pressing community issues related to proposed developments in the study area that would add additional traffic to the existing, already busy streets. The Hospital/Health Science node contains many of these potential developments.

The City of Ottawa's Alta Vista Smyth Planning Study (1996) identified certain specific area transportation system improvements that would be required to accommodate a specific redevelopment scenario for the Hospital/Health Sciences node. These recommendations included provisions for the following:

- an eastbound right-turn lane at the intersection of Alta Vista Drive and Industrial Avenue;
- longer westbound and eastbound right-turn and northbound left-turn lanes at the intersection of Alta Vista Drive and Smyth Road;
- northbound right-turn and southbound left-turn lanes and traffic control signal installation at the intersection of Alta Vista Drive and NDMC Access;
- eastbound left-turn and southbound left-turn lanes and traffic control signal installation at the intersection of Smyth Road and NDMC Access;
- a new internal east-west roadway linking Alta Vista Drive to the "Ottawa Health Sciences Centre" Ring Road;

- modification and upgrades to the existing north-south roadway along the west side of the NDMC; and
- a new internal east-west roadway along the north side of the former Rideau Veterans site.

While many of the recommendations of that Study remain valid today, some of the development options currently being considered were not addressed in the City's Study. As such, the full transportation impacts and solutions related to some of these new development options had not been addressed to the extent necessary for the comfort of the adjacent community.

To ensure that some of these projects are not delayed unnecessarily, and that the appropriate transportation infrastructure is in place before allowing other projects to proceed, the Region has initiated the Alta Vista Drive/Smyth Road Transportation Strategy.

With the foregoing as background and context, the following is an overview of the key requirements of the Alta Vista Drive/Smyth Road Transportation Strategy project:

- understand the planning and transportation history of the area;
- develop a rapport and relationship with community representatives;
- determine the likely development scenarios, including timing and phasing, for each site;
- establish 3 or 4 phases within the study horizon for the purposes of defining development stages for the overall complex;
- following traffic generation and assignment, identify the internal and external transportation system requirements related to each development site and stage;
- recommend the transportation solutions for the ultimate development scenario, as well as an infrastructure staging plan, a TDM plan, and any required limitations on development;
- prepare a study report, including recommendations; and
- meet with/present to the Community Steering Committee, Transportation Committee and Council, as required, during the study.

### **3 Methodology**

The methodology followed to complete the study captures all of the aforementioned study requirements. Details regarding the community involvement and analysis approach are described next.

#### **3.1 Community Involvement**

An important element of the study was involvement by representatives of the local communities. These are shown in Figure 2. Community involvement was facilitated through the formation of a Public Advisory Committee (PAC), which consisted of community association representatives and other local residents. The community associations involved in the study were as follows:

- modification and upgrades to the existing north-south roadway along the west side of the NDMC; and
- a new internal east-west roadway along the north side of the former Rideau Veterans site.

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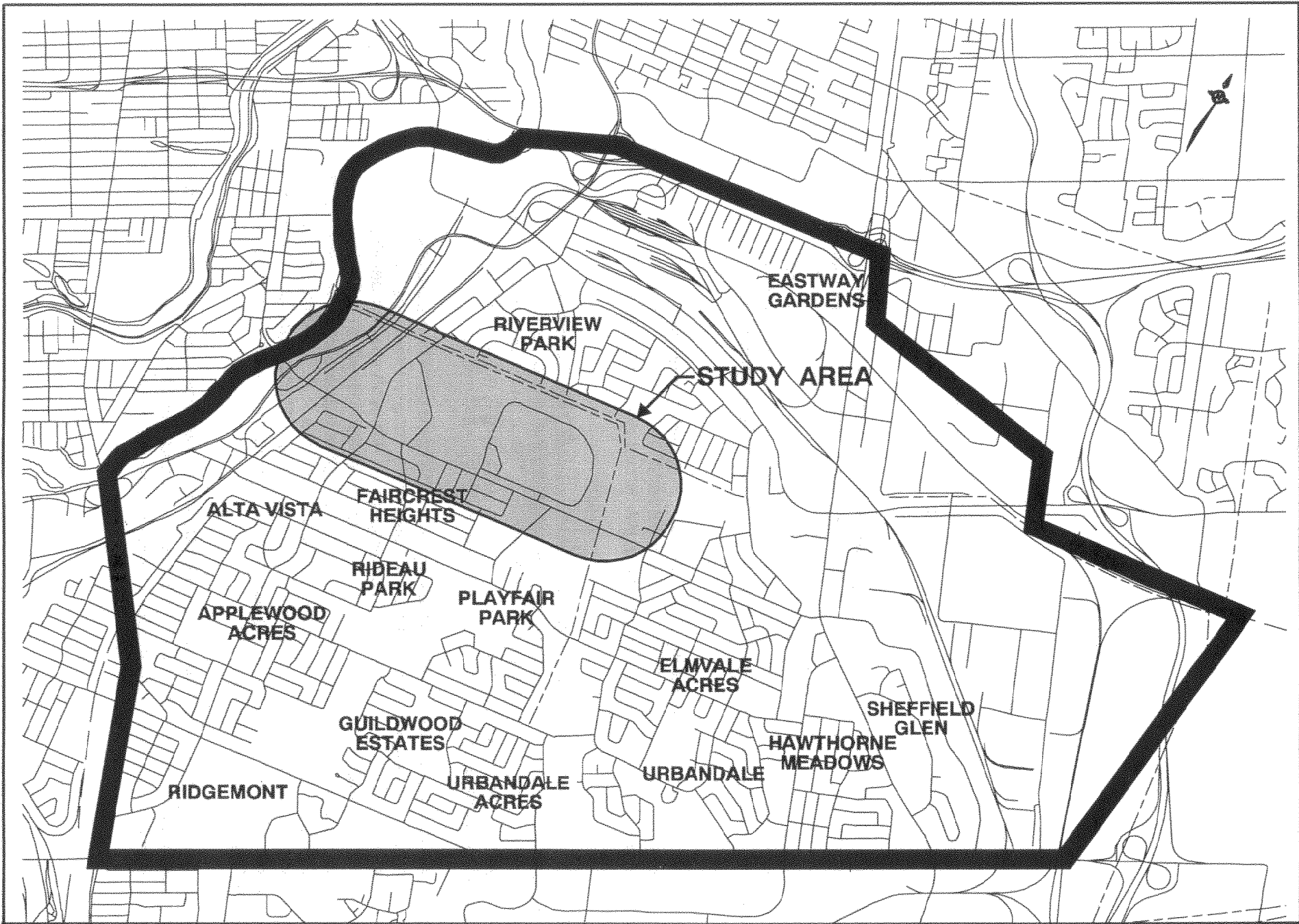


Figure 2: Study Area Surrounding Communities

- Faircrest Heights Community Association;
- Canterbury Community Association;
- Riverview Community Association; and
- Alta Vista Community Association.

The PAC met several times over the course of the study with Regional staff and the Consultant to discuss progress and findings.

### **3.2 Analysis Approach**

The key deliverable of this study is a transportation strategy to accommodate a series of redevelopment options. To this end, a logical and defensible project analysis approach was derived – the major tasks of which are outlined as follows.

**Task 1 – Identify the development potential of individual sites.** Representatives of each site/facility were contacted to determine their anticipated development plans over the next 15 years. Development phasing was categorized according to one of four time horizons: 0 to 3 years; 4 to 5 years; 6 to 10 years; and 11 to 15 years. Each facility was then given an opportunity to confirm these data and where appropriate, was requested to provide additional insight on how the proposed development may impact traffic generation.

**Task 2 - Determine existing conditions.** The necessary data was obtained to determine the existing conditions of the transportation network. These data included intersection volumes, screenline counts, signal timing plans, road geometry and transit ridership to the Complex.

**Task 3 - Identify candidate transportation network improvements.** A number of transportation network improvements were identified that could be introduced at various milestones along the development time frame. These network improvements would modify the existing traffic distribution patterns and target relief to those intersections operating poorly as a result of increased site or background traffic.

**Task 4 – Compute site traffic and assign it to the transportation network.** This step involved determining the required network staging to accommodate the increased traffic loading from various combinations of development. Although specific developments, or combination of developments, were incrementally loaded based on a the time horizons identified in Task 1, the basis for triggering the possible network improvements identified in Task 2 was the resultant number of new vehicle trips (i.e., a variety of development combinations may trigger the need for improvements). Problematic intersections were identified and then mitigated using appropriate network improvements, thus defining the Draft Transportation Strategy.

**Task 5 – Identify ways to accommodate/maximize the walk, cycle and transit components of travel.** A variety of measures were identified to encourage travel by the more environmentally friendly modes to and from the Complex.

**Task 6 – Compose recommendations and review with the PAC.** The Draft Transportation Strategy and resultant recommendations were taken to the Public Advisory Committee (PAC) for review and subsequent modification.

**Task 7 – Prepare final report.** The final report was prepared and delivered to the Client.

**Task 8 – Presentation to Transportation Committee.** A presentation will be made to the Region's Transportation Committee that provides an overview of the study's objective and approach, as well as the resultant recommendations.

## 4 Site Development

Identifying the proposed development plans for the individual sites, as well as determining the current zoning allowances and land use designations from the Regional Official Plan, represents Task 1 of the Project Methodology. The following is a list of those sites considered:

- Canadian Blood Services
- Canadian Dental Association
- Canadian Medical Association
- Canadian Pharmacists Association
- CHEO and Research Institute
- Conference Board of Canada
- General Hospital and Eye Institute
- Immaculate Heart of Mary Catholic Church
- Life Sciences Technology Park
- National Defence Medical Centre
- Ottawa Children's Treatment Centre
- Perley and Rideau Veterans Health Care Centre
- Regional Cancer Centre
- Rehabilitation Centre
- Rideau Veteran's Site
- Ronald McDonald House
- Rotel
- Transalta
- University of Ottawa

### 4.1 Current Zoning Allowances

According to the Regional Official Plan (ROP), the majority of the study area is designated as "Major Institutional Area". The only exception is the Rideau Veterans Site, which is designated "Residential Area". "Major Institutional" uses include, but are not limited to hospitals, post-secondary educational facilities, jails and detention centres, major health care complexes and related research facilities. In addition, headquarters for non-profit organizations are permitted on the lands immediately adjacent to Alta Vista Drive.

With respect to zoning, "Major Institutional" permits a broader range of uses than just major institutions. For example:

- community centre;
- community health and social services centre;
- court house correctional centre;
- library;
- museum
- park;
- parking lot;

- cultural, social and counseling centre;
- day care;
- ecclesiastical residence;
- emergency services;
- hospital;
- place of worship;
- post-secondary educational institution;
- retreat home;
- school; and
- utility installation

In addition, the zoning for the Life Sciences and Technology Park permits laboratories and research and development centres.

#### 4.2 Proposed Development Plans

All health care facilities and agencies within the study area were contacted by the Study Team to provide their individual developments plans over the next 15 years. The results are provided in Table 1, while the location of each site proposing expansion (10 of the 19 agencies indicated expansion plans) is shown in Figure 1.

It should be noted that much of the stated development is contingent upon successful funding applications to the Government of Ontario; therefore all of the development plans proposed below may not be realized in the stated time horizon. Also, no feedback was provided on development plans beyond the 10-year time horizon. For this reason, the development plans were classified into three potential phases: Phase 1 – 0 to 3 years; Phase 2 – 4 to 5 years; and Phase 3 – 6 to 10 years.

**Table 1: Summary of Site Development (page 1 of 4)**

Site / Facility	Development Plans
Canadian Blood Services	<p><i>Phase 1 (0 to 3 years):</i> n/a  <i>Phase 2 (4 to 5 years):</i> n/a  <i>Phase 3 (6 to 10 years):</i> n/a</p> <p>Only an increase in parking supply is planned.</p>
Canadian Dental Association	<p><i>Phase 1 (0 to 3 years):</i> n/a  <i>Phase 2 (4 to 5 years):</i> n/a  <i>Phase 3 (6 to 10 years):</i> n/a</p> <p>No development plans at this time.</p>
Canadian Medical Association (CMA)	<p><i>Phase 1 (0 to 3 years):</i> 112,000 ft<sup>2</sup> office  <i>Phase 2 (4 to 5 years):</i> n/a  <i>Phase 3 (6 to 10 years):</i> 112,000 ft<sup>2</sup> office</p> <p>Two new office buildings are planned, each of equal footprint size. Phase 1 would be used to accommodate the existing staff that is currently housed off-site (250), as well as some of the 225 staff currently residing in the existing on-site building. Phase 2 would be used to accommodate any subsequent growth (space for about 400 staff). Approximately 75% of CMA employees arrive/depart during the peak hours, while the balance arrive/depart throughout the day.</p>
Canadian Pharmacists Association	<p><i>Phase 1 (0 to 3 years):</i> n/a  <i>Phase 2 (4 to 5 years):</i> n/a  <i>Phase 3 (6 to 10 years):</i> n/a</p> <p>No development plans at this time.</p>

**Table 1: Summary of Site Development (page 2 of 4)**

Site / Facility	Development Plans	
Children's Hospital of Eastern Ontario (CHEO) and Research Institute	<i>Phase 1 (0 to 3 years):</i> <i>Phase 2 (4 to 5 years):</i> <i>Phase 3 (6 to 10 years):</i>	113,500 ft <sup>2</sup> hospital 30,000 ft <sup>2</sup> laboratories and offices n/a  The Phase 1 expansion of the CHEO site consists of a West Addition (66,000 ft <sup>2</sup> three-level addition), an East Addition (72,000 ft <sup>2</sup> three-level addition), and removal of 24,500 ft <sup>2</sup> of existing portables. The new structures will provide additional space to house a variety of outpatient services, clinics, and staff services. New staffing as a result of the expansion is expected to be minimal and no new programs will be introduced. However, an 18-20% increase in outpatient activity is anticipated by year 2003.  Phase 2 of the expansion will provide additional space for laboratories and offices.
Conference Board of Canada	<i>Phase 1 (0 to 3 years):</i> <i>Phase 2 (4 to 5 years):</i> <i>Phase 3 (6 to 10 years):</i>	n/a n/a n/a  No development plans at this time.
General Hospital and Eye Institute	<i>Phase 1 (0 to 3 years):</i> <i>Phase 2 (4 to 5 years):</i> <i>Phase 3 (6 to 10 years):</i>	240,000 ft <sup>2</sup> hospital n/a n/a  The detailed Phase 1 expansion plans of the Ottawa General Hospital are presented in a July 1999 Report prepared by Maxgroup (Ottawa General Hospital Proposed Hospital Expansion Transportation Planning Analysis). The Maxgroup report addressed the potential impact of the Ottawa-Carleton Health Services Restructuring Report (August 1997) calling for the closing of certain hospitals and service increase at those hospitals remaining open.
Immaculate Heart of Mary Catholic Church	<i>Phase 1 (0 to 3 years):</i> <i>Phase 2 (4 to 5 years):</i> <i>Phase 3 (6 to 10 years):</i>	n/a n/a n/a  No development plans at this time.
Life Sciences and Technology Park	<i>Phase 1 (0 to 3 years):</i> <i>Phase 2 (4 to 5 years):</i> <i>Phase 3 (6 to 10 years):</i>	100,000 ft <sup>2</sup> office and laboratory 120,000 ft <sup>2</sup> office and laboratory 150,000 ft <sup>2</sup> office and laboratory  The development of the Life Sciences and Technology Park will be phased over a 10-year period.
National Defense Medical Centre (NDMC)	<i>Phase 1 (0 to 3 years):</i> <i>Phase 2 (4 to 5 years):</i> <i>Phase 3 (6 to 10 years):</i>	100 additional staff n/a 914,760 ft <sup>2</sup> office, labs, clinic, retail (assumes redevelopment of NDMC site) 196,020 ft <sup>2</sup> office (excludes 60,000 ft <sup>2</sup> noted as part of Rideau Veteran's Site)  In the short term, the NDMC has plans to increase their level of staffing at the existing medical facility by 100 persons. However, development plans also exist for the lands immediately adjacent to this site. Details of these plans are described in the Alta Vista / Smyth Road Planning Study dated August 1996.



**Table 1: Summary of Site Development (page 3 of 4)**

Site / Facility	Development Plans
Ottawa Children's Treatment Centre (OCTC)	<p><i>Phase 1 (0 to 3 years):</i> 46,500 ft<sup>2</sup> clinic  <i>Phase 2 (4 to 5 years):</i> n/a  <i>Phase 3 (6 to 10 years):</i> n/a</p> <p>The proposed expansion will facilitate existing programs – no new programs are being introduced at this time. The OCTC offers outpatient services only (i.e., no beds) and patients range in age from infancy to 19 years (with physical disabilities). A moderate increase in activity of between 2 and 3% is anticipated for the next year. Current staffing of the OCTC is estimated to be about 90 employees, while new staffing as a result of the expansion is expected to be minimal. Regular weekday hours of operation are between 8 AM and 5 PM.</p> <p>The OCTC has submitted a proposal to the Ministry of Community and Social Services to coordinate community visits – the program is presently run by four other agencies and the successful proposal would bring all of them under the OCTC umbrella. Since the program is community-based, no increased activity to the site with the exception of an occasional meeting.</p>
Perley and Rideau Veterans' Health Centre	<p><i>Phase 1 (0 to 3 years):</i> n/a  <i>Phase 2 (4 to 5 years):</i> n/a  <i>Phase 3 (6 to 10 years):</i> n/a</p> <p>No development plans at this time.</p>
Regional Cancer Centre	<p><i>Phase 1 (0 to 3 years):</i> n/a  <i>Phase 2 (4 to 5 years):</i> 85,000 ft<sup>2</sup> hospital  <i>Phase 3 (6 to 10 years):</i> n/a</p> <p>An expansion of the existing facility is planned during Phase 2.</p>
Rehabilitation Centre	<p><i>Phase 1 (0 to 3 years):</i> 27,400 ft<sup>2</sup> hospital  <i>Phase 2 (4 to 5 years):</i> n/a  <i>Phase 3 (6 to 10 years):</i> n/a</p> <p>An increase in outpatient activity, as well as a modest increase in staff levels, is anticipated as a result of the proposed Phase 1 expansion. The total hospital bed count will remain relatively unchanged. An additional 120 parking spaces will be provided to accommodate the increased activity that will result from the expansion. The expansion plans also call for an outdoor courtyard that will help facilitate a new type of rehabilitation program being introduced. Current staffing is approximately 330 persons, of which 250 are estimated to be on site at any one time. Regular hours of operation are between 8AM and 6PM.</p>
Rideau Veteran's Site	<p><i>Phase 1 (0 to 3 years):</i> 60,000 ft<sup>2</sup> office; 117 residential units; and 121 retirement units  <i>Phase 2 (4 to 5 years):</i> n/a  <i>Phase 3 (6 to 10 years):</i> n/a</p> <p>No development plans at this time.</p>
Ronald McDonald House	<p><i>Phase 1 (0 to 3 years):</i> n/a  <i>Phase 2 (4 to 5 years):</i> n/a  <i>Phase 3 (6 to 10 years):</i> n/a</p> <p>No development plans at this time.</p>
Rotel	<p><i>Phase 1 (0 to 3 years):</i> n/a  <i>Phase 2 (4 to 5 years):</i> n/a  <i>Phase 3 (6 to 10 years):</i> n/a</p> <p>No development plans at this time.</p>
Transalta	<p><i>Phase 1 (0 to 3 years):</i> n/a  <i>Phase 2 (4 to 5 years):</i> n/a  <i>Phase 3 (6 to 10 years):</i> n/a</p> <p>No development plans at this time.</p>

**Table 1: Summary of Site Development (page 4 of 4)**

Site / Facility	Development Plans
University of Ottawa	<p><i>Phase 1 (0 to 3 years):</i> 16,000 ft<sup>2</sup> educational and library</p> <p><i>Phase 2 (4 to 5 years):</i> n/a</p> <p><i>Phase 3 (6 to 10 years):</i> 50,000 ft<sup>2</sup> educational and library</p> <p>The proposed expansion of this facility is expected to result in a marginal increase in the number of staff and students (estimate perhaps 15-20 new staff, less than 100 new students). As most students of this campus use OC Transpo service, few new vehicle trips to and from the site are anticipated. Phase 1 of the expansion will consist primarily of lecture and laboratory space, while Phase 2 of the expansion will be more research intensive.</p>

The Official Plan and zoning would permit the uses listed in Table 1 except offices not directly tied to a hospital or laboratory. For example, the offices listed against CHEO and the Life Sciences Technology Park would have to be for people working in the laboratories and not for a separate research facility or some other associated use that is not part of the hospital. The offices proposed for the Canadian Medical Association are permitted by the zoning. The potential NDMC office development would require an Official Plan Amendment as well as re-zoning. In all cases, where re-zoning or an Official Plan Amendment is required, the development must be assessed against a number of criteria including transportation capacity

It is important to note the each individual site will be required, when appropriate, to conduct a detailed Traffic Impact Study (TIS) as part of their site development approval process. These TIS's will provide much greater detail of the proposed site plan, and its implications for the adjacent transportation network (i.e., infrastructure requirements and location) than is presently possible at this stage of the planning process. These TIS's will also address, in more detail, the potential role of more environmentally friendly modes of travel (walking, cycling and transit).

## 5 Transportation Analysis Strategy

The Transportation Analysis Strategy represents Tasks 2 through 4 of the Analysis Approach. Each of these tasks is described in more detail in the following Sections 5.1 through 5.3.

### 5.1 Existing Traffic Conditions

The most recent traffic volumes (1999) and signal timing plans were obtained from the Region for the key study area intersections. These data, in combination with the existing geometry, were used to determine intersection volume-to-capacity ratio (v/c) and level-of-service (LoS). Data on historical background traffic growth and transit ridership were also considered. The most current traffic counts at study area intersections are included in Appendix A and summarized in Figure 3.

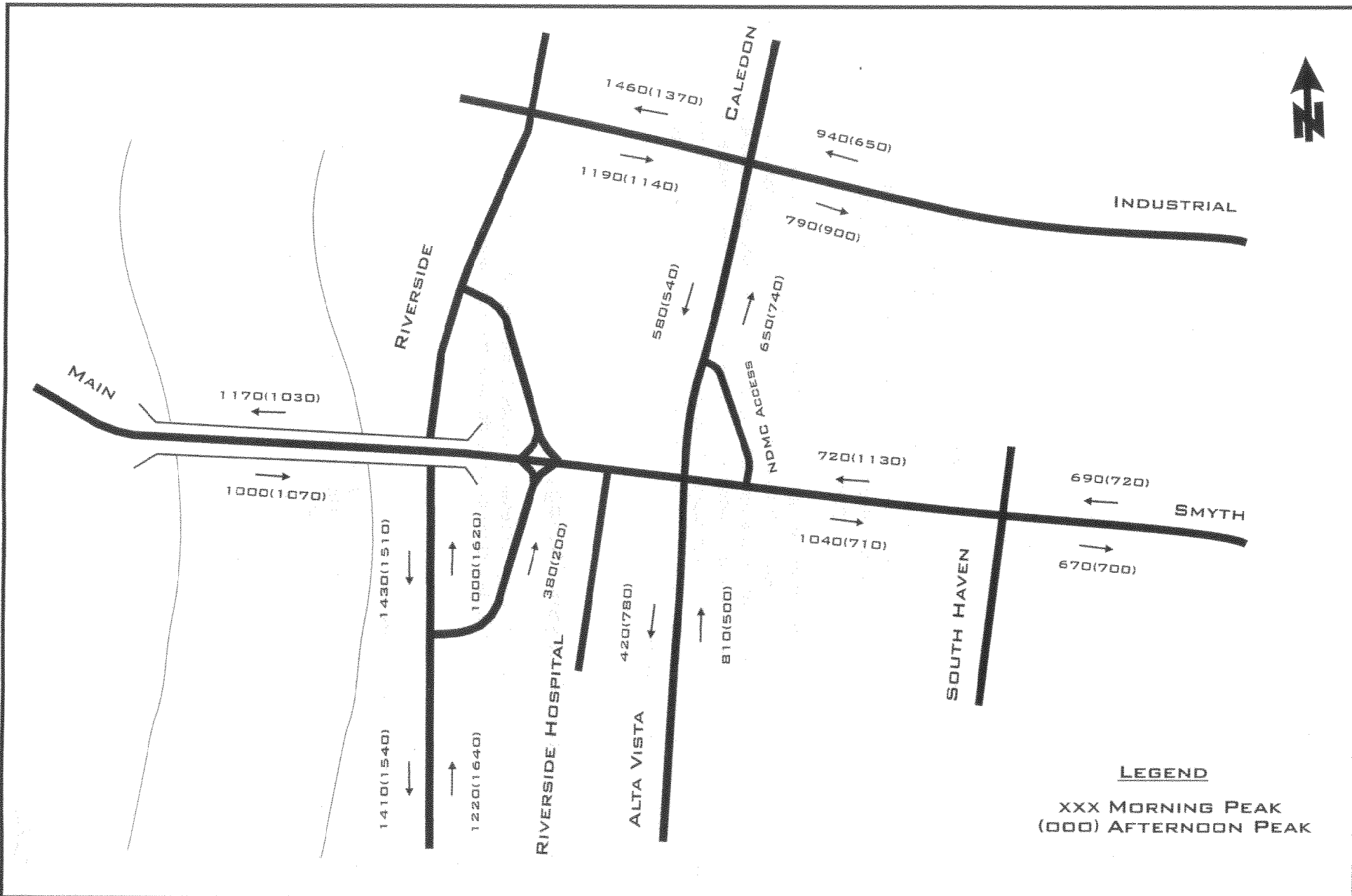


Figure 3: Existing Peak Hour Traffic Volumes

### 5.1.1 Existing Intersection Level-of-Service

Table 2 lists key study area intersections and the existing v/c ratio and level-of-service of their worst movement during the AM and PM peak hours. The analysis is based upon 1999 traffic volume counts and signal timing plans as provided by the Region, as well as existing intersection geometry as confirmed by site visit. The software analysis package SYNCHRO was used to estimate the v/c ratios (analysis sheets are included as Appendix B). Note that the intersections of the NDMC Access Road with both Smyth Road and Alta Vista Drive are presently STOP controlled.

During the AM peak hour, the analysis indicates a poor level-of-service at the intersections of Alta Vista/Industrial (WBL movement) and Riverside/Smyth (south ramp; SBL movement). All other area intersections operate at LoS D or better. During the PM peak hour, the analysis indicates a poor level-of-service at the intersections of Riverside/Industrial (SBL and WBR movements) and Riverside/Smyth (south ramp; SBL movement). All other area intersections operate at LoS D or better. These results are consistent with field observations of these intersections.

**Table 2: Existing V/C and LoS at Area Intersections**

Intersection	AM Peak Hour		PM Peak Hour	
	V/C	LoS	V/C	LoS
Riverside and Industrial	0.82	D	0.95	E
Alta Vista/Caledon and Industrial	1.15	F	0.80	C
Alta Vista and NDMC Access	N/A	N/A	N/A	N/A
Riverside North Ramp and Smyth	0.53	A	0.83	D
Riverside South Ramp and Smyth	0.98	E	1.03	F
Riverside Hospital and Smyth	0.42	A	0.34	A
Alta Vista and Smyth	0.73	C	0.81	D
NDMC Access and Smyth	N/A	N/A	N/A	N/A
South Haven/CHEO and Smyth	0.77	C	0.63	B
General Hospital and Smyth	0.86	D	0.60	A
Roger Guindon and Smyth	0.42	A	0.31	A
Botsford/Dauphin and Smyth	0.66	B	0.46	A

### 5.1.2 Historical Background Traffic Growth

Background traffic growth on the area road network was assessed by analyzing historical traffic data gathered at several key area intersections and road segments. These data, in the form of intersection turning movement volumes and screenline counts for the past 10 years (if available), were provided by the Region. The impact of assessing different time horizons; including 1, 2 and 8-hour peak periods, and daily totals, was also considered. Linear regression was performed on each time series of approach and exit volumes to determine the average annual historical growth rates.

The results of the analyses are illustrated in Figure 4 and indicate that a "flat" growth rate has prevailed on area roads. However, for the purposes of this study, a growth rate of 1.0% per annum was assumed to serve as a conservative estimate of background traffic growth on which to superimpose future site development traffic. Details of the analyses can be found in Appendix C.

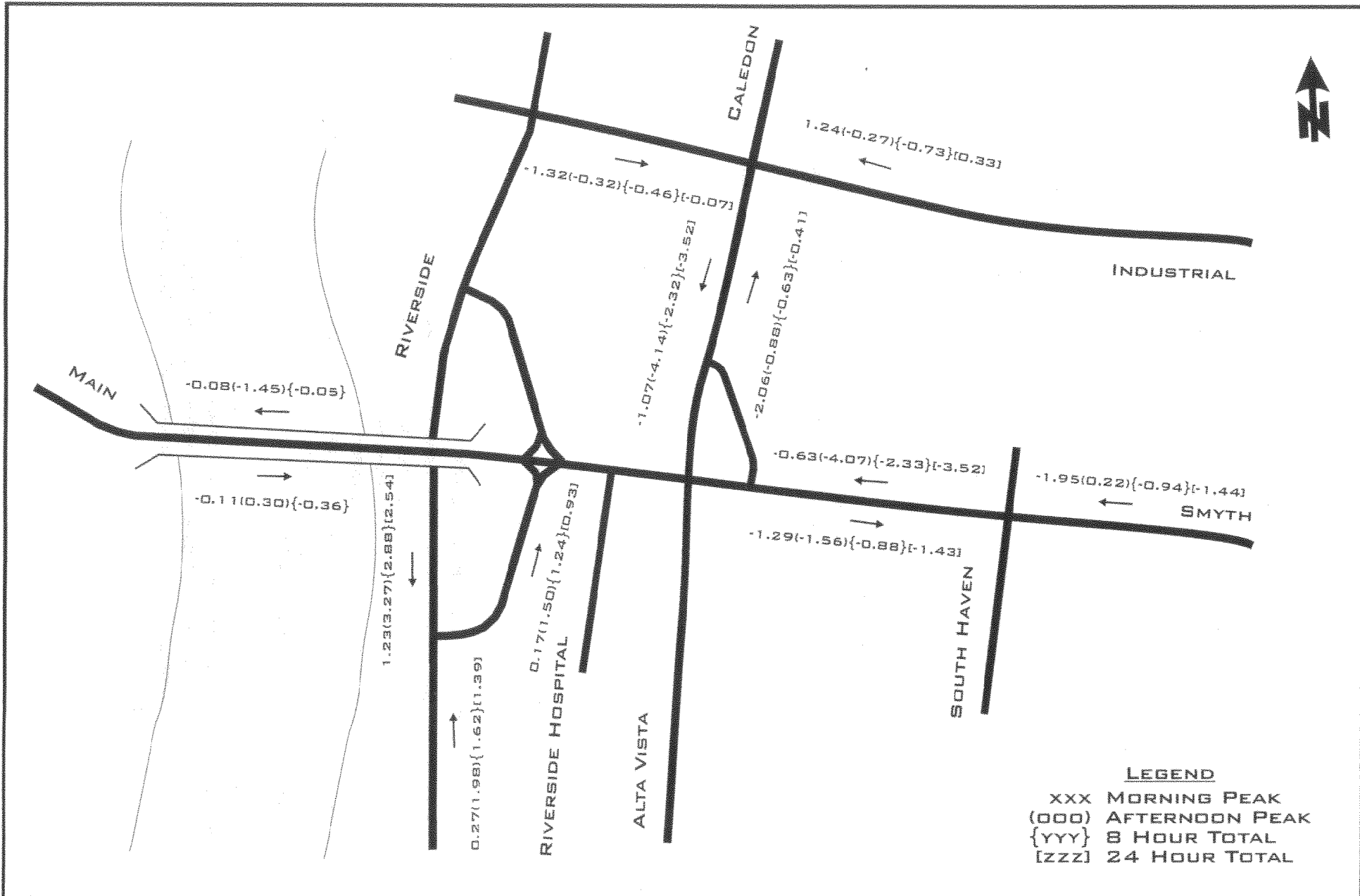


Figure 4: Historical Average Annual Growth Rates

### 5.1.3 Transit Service

Presently OC Transpo service to the Hospital Complex is provided by three routes: *Route 16* (Lincoln Fields Station to Hospital Complex via Downtown), *Route 85* (Bayshore Shopping Center to St. Laurent Station) and *Route 110* (Billings Bridge Station to Hospital Complex). To varying degrees, each route make use of the Transitway system along portions of their route. However, the combination of delays arising from traffic congestion on the non-Transitway section of the routes, the circuitous nature of the Hospital Ring Road on which the three routes currently travel, as well as the difficulties in scheduling compatibility with the employment shift changes at the various sites/facilities comprising the Complex, likely has resulted in under utilization of transit as the choice for trip-making to the site.

An estimate of the existing transit modal share to the site was derived using a combination of recent OC Transpo data (Winter 2000) for those routes servicing the complex and vehicle counts into and out of the complex. The transit modal share was computed by dividing the peak hour boardings/alightings by the total number of person trips to the site. The number of person trips attributable to passenger vehicles was derived based upon vehicle occupancy data gathered at the screenline established at the Smyth Road Bridge. At this location vehicle occupancy was found to be approximately 1.3 persons per vehicle, which resulted in a transit modal share to the site of 15% (applicable to both directions in both peak periods). This analysis is summarized in Table 3.

**Table 3: Computation of Existing Transit Modal Share**

Count	AM Peak Hour		PM Peak Hour	
	<i>Inbound</i>	<i>Outbound</i>	<i>Inbound</i>	<i>Outbound</i>
Vehicle person trips (pass/h) <sup>1</sup>	1658	497	572	1422
Transit passenger trips (pass/h) <sup>2</sup>	294	73	99	256
Total person trips (pass/h)	1952	570	671	1678
Transit Modal Share	15.1%	12.8%	14.8%	15.3%

1. Derived based on 1999 RMOC peak hour traffic counts at Smyth Rd / Southaven Pl and Smyth Rd/General Hospital and 1998 RMOC screenline counts of passenger vehicle occupancy crossing the George McIlraith Bridge (Smyth Rd).  
 2. Data provided by OC Transpo (average weekday peak hour between Jan 4, 2000 and April 21, 2000).

## 5.2 Potential Transportation Network Improvements

A number of potential network improvements were identified prior to conducting the detailed transportation analysis. Many of the improvements considered in this study were recommendations that emerged from previous studies including the City of Ottawa Concept Plan. It was envisioned that the network improvements would be introduced at various stages of development, the timing of which could only be determined after the number of vehicle trips associated with each new development were computed and assigned to area roads.

The following road network improvements were considered, and are illustrated conceptually in Figure 5:

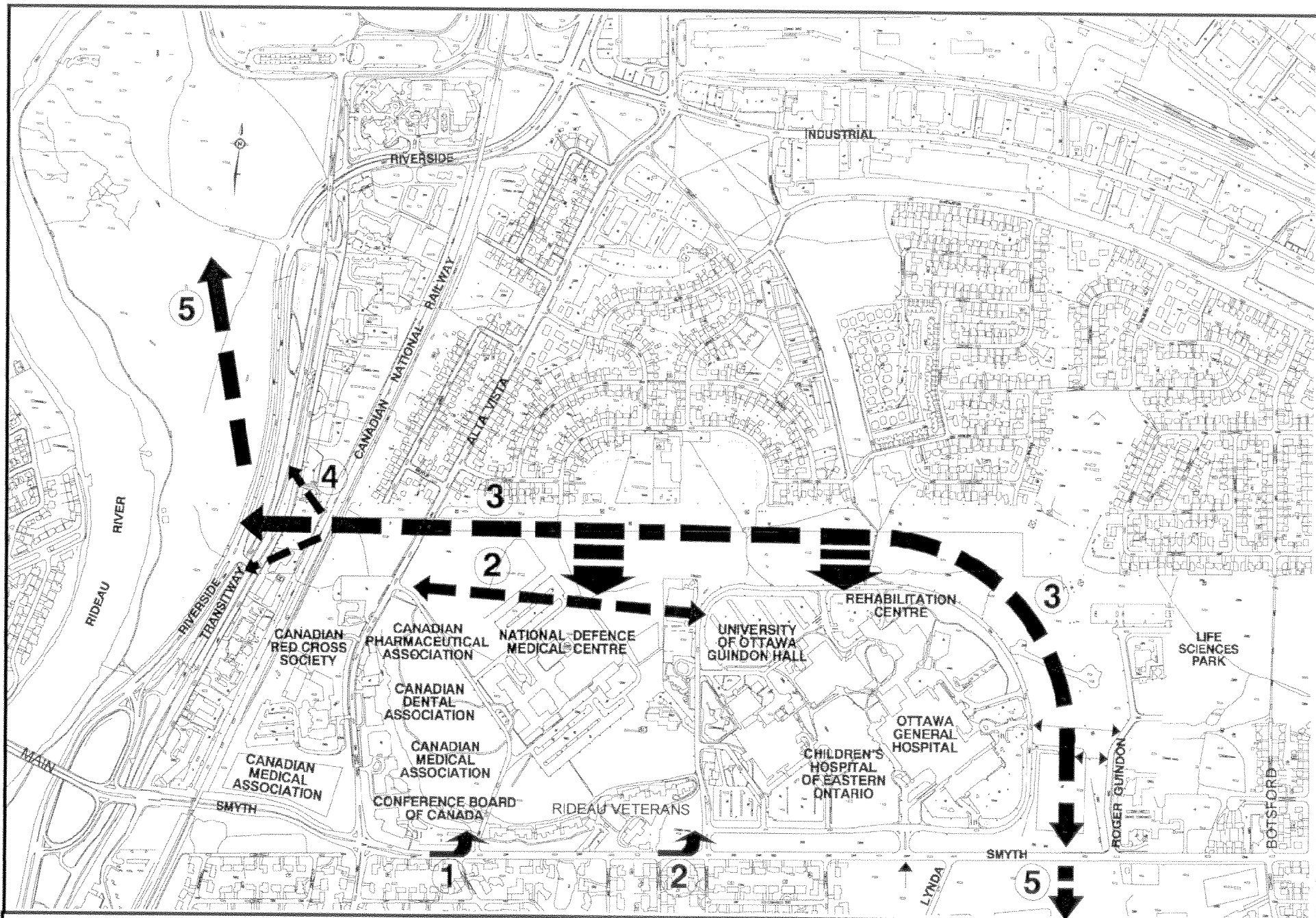


Figure 5: Potential Transportation Network Improvements

**Improvement No. 1:** *Add traffic signals and an eastbound left-turn lane at the NDMC Access Road intersection with Smyth Road.* The NDMC Access Road approach of this intersection is currently stop-controlled. As a result of the proposed development of the Rideau Veterans Site, traffic signals were recently recommended and approved at this location to accommodate site traffic.

**Improvement No. 2:** *Provide a road link to/from Alta Vista Drive and the Hospital Ring Road through the NDMC site.* This road link would provide vehicle access to the Complex from Alta Vista Drive and subsequently remove some traffic loading from the two existing Smyth Road access points to the Complex. The alignment of the existing NDMC Access Road with Alta Vista Drive would be altered such that it would intersect with the proposed road link. The intersection of the link with Alta Vista Drive would require traffic signals and a southbound left-turn lane. Note that the requirement for this public road would not necessarily be tied to any development proposal for the NDMC lands specifically.

In addition to the above-noted road link, *provide an eastbound left-turn lane at the CHEO site access (South Haven Place) with Smyth Road.* This companion improvement would improve eastbound left-turn performance at this intersection as well as enhance vehicle and pedestrian safety.

**Improvement No. 3:** *Provide a road link in the Alta Vista Parkway corridor extending from Smyth Road to Riverside Drive.* This improvement represents the first phase of the Alta Vista Parkway. It would improve traffic conditions on portions of Smyth Road, Alta Vista Drive and Industrial Avenue. Access to this facility would be provided to/from the existing Hospital Ring Road, and the road link noted by Improvement No. 2 would be superceded by this higher-class facility. Whether the above-noted (Improvement No. 2) connection to Alta Vista Drive remains is dependent on whether the Alta Vista Parkway intersects with Alta Vista Drive at grade or is grade-separated.

**Improvement No. 4:** *Provide bus ramps from the Transitway to the above-noted Improvement No. 3.* Currently the Southeast Transitway runs parallel to Riverside Drive and the provision for direct ramp access from the facility would improve transit service to the Complex. Although the construction of the bus ramps would most likely be completed in conjunction with the construction of the Alta Vista Parkway (Phase I), their impact on transit modal share may not be realized immediately (given the discretionary trip-making behaviour of the target users). It is for this reason that the assessment of this particular improvement should be addressed independently.

**Improvement No. 5:** *Extend the Alta Vista Parkway to the Queensway in the north (Phase II) and to Conroy Road in the south (Phase III).* This improvement represents the completion of the full Alta Vista Parkway and would result in a significant redistribution of traffic within Southeast Ottawa. Traffic on Alta Vista Drive, Smyth Road, Main Street and St. Laurent Boulevard would be reduced, as would cut through traffic on collector streets in the Alta Vista and Canterbury communities.



### **5.3 Site Traffic**

The next task in deriving the transportation strategy was to generate the vehicle trips for each development and distribute and assign them to the road network. An EXCEL spreadsheet was developed that computed projected traffic volumes based upon the combination of existing traffic volumes, growth of background traffic and new site-generated traffic. An efficient analysis platform was required given that unique trip distribution and assignment patterns were required for each development site and road network modification. Beginning with the existing road network, traffic from the development sites was incrementally loaded onto the system until intersection failure, at which point road network modifications were considered. This process of incremental loading and network mitigation continued until all trips were assigned to the system – the result being the Alta Vista / Smyth Transportation Strategy that is presented in Section 6. A brief description of traffic generation, trip distribution, modal share and traffic assignment is presented next.

#### **5.3.1 Traffic Generation**

A list of candidate trip generation rates was compiled for each of the developments identified. The rates were obtained from a variety of sources, including the TRANS Trip Generation Manual, the ITE Trip Generation Manual (6<sup>th</sup> Edition) and first principles.

The changing nature of the health care industry, as well as the varying services offered by individual facilities, precipitated an in-depth review of the activities currently on-going or proposed at each site. Consideration was given to the type of service being provided, changes in staffing and programs, and the dynamics of the current site traffic. A thorough understanding of the site traffic issues was required such that sound judgement could be applied in determining the most appropriate set of trip generation rates. Therefore, further consultation occurred with many of the site/facility contact persons to discuss details of their proposed expansion plans relative to traffic generation. To the extent possible, rates based on local Ottawa conditions (i.e., as noted in TRANS Manual) were implemented. However, given that no comprehensive trip generation for local hospitals and clinics presently exists, the rates in the ITE Manual were often referenced. In some cases the applicability of these rates was verified using first principle calculations. The most appropriate of the candidate trip generation rates (for both the AM and PM peak hour) was used to compute the two-way site generated traffic for each development. Directional splits were then applied in order to differentiate between inbound and outbound traffic.

Table 4 summarizes the results of the trip generation analysis. It was estimated that, as a result of all the new development proposed for the site over the next 10 years, approximately 3,000 additional vehicle trips (two-way total) would be generated in both the AM and PM peak hours. This represents an approximate 200% increase over existing site traffic. Additional details regarding traffic generation can be found in Appendix D.

**Table 4: Summary of Traffic Generation**

Site / Facility	Independent Variable	Phase	AM Peak Hour Vehicle Trips			PM Peak Hour Vehicle Trips		
			IN	OUT	TOTAL	IN	OUT	TOTAL
Canadian Medical Association	250 new employees (112,000 ft <sup>2</sup> office)	1	125	17	142	26	126	152
	400 new employees (112,000 ft <sup>2</sup> office)	3	187	25	212	35	172	207
CHEO and Research Institute	66,000 ft <sup>2</sup> hospital on west side (1st)	1	70	26	95	20	64	84
	72,000 ft <sup>2</sup> hospital on east side (2nd)	1	75	28	102	22	69	91
	Remove 24,500 ft <sup>2</sup> portables	1	-32	-12	-44	-9	-28	-37
	30,000 ft <sup>2</sup> laboratories and offices	2	39	8	47	7	42	49
General Hospital and Eye Institute	240,000 ft <sup>2</sup> hospital	1	220	85	305	110	245	355
Life Sciences Technology Park	100,000 ft <sup>2</sup> office and laboratory	1	113	23	136	20	113	133
	120,000 ft <sup>2</sup> office and laboratory	2	132	27	160	23	132	155
	150,000 ft <sup>2</sup> office and laboratory	3	161	33	194	28	159	187
NDMC	100 additional staff	1	23	8	31	8	21	29
	Block 4 457,380 ft <sup>2</sup> office, labs, medical clinic, retail, etc	3	427	87	514	71	401	472
	Block 5 418,176 ft <sup>2</sup> office, labs, medical clinic, retail, etc	3	395	81	476	66	372	438
	Block 6 196,020 ft <sup>2</sup> office (less 60,000 ft <sup>2</sup> noted in RVS)	3	210	29	238	39	192	232
Ottawa Children's Treatment Center	15 new employees (46,500 ft <sup>2</sup> hospital)	1	7	7	14	8	11	18
Regional Cancer Centre	85,000 ft <sup>2</sup> hospital	2	85	31	116	25	79	104
Rehabilitation Center	27,400 ft <sup>2</sup> hospital	1	35	13	48	10	31	40
Rideau Veteran's Site	60,000 ft <sup>2</sup> office	1	109	15	124	25	122	147
	117 residential units	1	18	53	70	61	33	94
	121 retirement units	1	9	11	20	17	13	30
University of Ottawa	16,000 ft <sup>2</sup> educational and laboratory	1	23	5	27	4	25	29
	50,000 ft <sup>2</sup> educational and laboratory	3	62	13	74	11	64	75
<b>Totals</b>			<b>2,490</b>	<b>612</b>	<b>3,103</b>	<b>627</b>	<b>2,456</b>	<b>3,083</b>

### 5.3.2 Trip Distribution

Since there are a variety of land-uses at the complex that serve both the local community and the broader Region, and given the staging potential of the various road network improvements, several traffic distribution patterns were employed. The various distribution patterns were derived using existing traffic volumes at the site entrances and at adjacent intersections, as well as Regional demographics. The trip distribution pattern assumed to represent existing conditions is presented Table 5.

**Table 5: Existing Trip Distribution Pattern**

Inbound/ Outbound Trip Distribution	Riverside North		Main West	Riverside South	Industrial East	Alta Vista South	Smyth East
	Via Smyth Rd	Via Alta Vista Dr					
Broad-Based	5%	10%	23%	10%	2%	10%	40%
Office	5%	20%	25%	10%	10%	10%	20%

This distribution pattern was modified, as appropriate, to reflect the sequential additions to the road network. For example, following the completion of the first phase of the Alta Vista Parkway (i.e., connect Smyth Road to Riverside Drive), the proportion of total broad-based trips to/from Riverside Drive north was increased from 15% to 20%. Details regarding the trip distribution analysis can be found in Appendix E.

### 5.3.3 Transit Modal Share

As noted previously, the current transit peak hour modal share to/from the site was determined to be approximately 15% based on current data. This value is less than the current Regional goal of 20% overall as stated in the Official Plan.

The impact of improving the Complex's transit modal share to 25% was assessed by reducing all site-generated traffic (i.e., existing and proposed traffic) appropriately. The assessment was completed as a one-time impact, although it is recognized that the expected increases (and benefits) in transit modal share will only be realized gradually. These increases can be realized through a combination of:

- a better integrated on-site road system that allows more efficient bus routing;
- development and/or upgrading of strategically located on-site transit stops (preferably weather protected and integrated into buildings);
- provision of on-site transit information booths to assist in educating employees and visitors of the transit options and service;
- provision of bus-ramp and pedestrian connections from the proposed Alta Vista Parkway to the Southeast Transitway (Improvement No. 4); and
- provision of bus/HOV lanes on the proposed Alta Vista Parkway (Improvement No. 3 and No. 5).

### 5.3.4 Traffic Assignment

Local knowledge and professional judgement were used to determine traffic assignment that could emerge as a result of site development and modifications to the road network. Consideration was given to the trip distribution pattern, existing turning movements, and

the location of the individual site access points to the local road network. As modifications were introduced to the road network, background traffic was re-assigned. For example, following the completion of the first phase of the Alta Vista Parkway (i.e., connect Smyth Road to Riverside Drive), those vehicle destined for Riverside Drive North from Smyth Road East would clearly make use of the new Parkway link. This shift would result in lower volumes on portions of Smyth Road, Alta Vista Drive and Industrial Avenue within the study area.

## 6 Transportation Analysis Findings

In this section, the findings of the *Transportation Analysis Strategy* are summarized in terms of the phasing requirements of the major transportation infrastructure and of the secondary local road network modifications that will benefit the overall transportation system operation. Approximate costs to construct the transportation network modifications are also provided. As well, a summary of specific measures that could improve walking, cycling and transit to the area is also provided.

### 6.1 Infrastructure Phasing Requirements

For each set of projected volumes, the analysis tool SYNCHRO was used to determine the intersection v/c ratio and level-of-service. Mitigation measures, consisting of the potential transportation network improvements identified in Section 5.2, were considered when the most critical intersection movement exceeded the Region's guideline v/c of 0.90 (LoS D or better). In some cases, the mitigation measure associated with each improvement could not "accommodate" the 0.90 v/c guideline at all study area intersections simultaneously. In such instances, the guideline was relaxed so long as the worst intersection movement was at, or slightly above, capacity (i.e., v/c = 1.0).

Table 6 identifies the transportation system improvements required to "accommodate" the various levels of proposed site development. The required improvements relate to the identified phasing, or any alternative phasing that results in similar traffic generation.

As many of the mitigation measures have implications on the structure of the transportation network, and consequently the traffic distribution and assignment of both existing and new site traffic, the projected turning volumes at each intersection often varied noticeably from one scenario to the next. As an example, provided in Appendix F are projected volumes and the associated level-of-service at the intersection of Smyth Road and Alta Vista Drive for each scenario considered in deriving the transportation strategy. A more detailed analysis of the development phasing options, including all intersection v/c and level-of-service values, are also presented in Appendix F.

**Table 6: Required Transportation Network Improvements**

Phase	Proposed Development	Required Improvements
1	<i>Additional Peak Hour Trips: AM 355 / PM 420</i> <ul style="list-style-type: none"> <li>Phase I of CMA</li> <li>Rideau Veteran's Site</li> </ul>	<ul style="list-style-type: none"> <li>Add traffic signals and eastbound left-turn lane at the NDMC Access Road intersection with Smyth Road (already approved)</li> </ul>
2	<i>Additional Peak Hour Trips: AM 715 / PM 750</i> <ul style="list-style-type: none"> <li>General Hospital/Eye Institute</li> <li>Rehabilitation Centre</li> <li>Children's Treatment Centre</li> <li>Phase I of CHEO/Research Institute</li> <li>Phase I of Life Sciences/Tech.</li> <li>Phase I of NDMC (new staff only)</li> <li>Phase I of University of Ottawa</li> </ul>	<ul style="list-style-type: none"> <li>Add temporary public driveway link from Alta Vista Drive to the Hospital Ring Road (traffic signals and a southbound left-turn lane will be provided at the intersection with Alta Vista Drive). Note that the link is a requirement in advance of Phase 4 development (i.e., Phase II of NDMC development).</li> <li>Add an eastbound left-turn lane at Smyth Road and the CHEO site access.</li> </ul>
3	<i>Additional Peak Hour Trips: AM 800 / PM 775</i> <ul style="list-style-type: none"> <li>Regional Cancer Centre</li> <li>Phase II of CHEO/Research Institute</li> <li>Phase II of Life Sciences/Tech.</li> <li>Phase II of University of Ottawa</li> <li>Phase II of CMA</li> </ul>	<ul style="list-style-type: none"> <li>Provide the 1<sup>st</sup> section of the Alta Vista Parkway (AVP) from Smyth Road to Riverside Drive, with the appropriate hospital complex connections to the AVP.</li> </ul>
4	<i>Additional Peak Hour Trips: AM 1230 / PM 1140</i> <ul style="list-style-type: none"> <li>Phase II of NDMC</li> </ul>	<ul style="list-style-type: none"> <li>An increased level of transit ridership is realized as a result of providing bus ramps from the Transitway to the AVP link and on-site transit supporting measures as previously described.</li> </ul>
5	<i>No further development</i>	<ul style="list-style-type: none"> <li>Completion of the AVP from the Queensway to Conroy Road.</li> </ul>

## 6.2 Local Network Improvements

In addition to the major network modifications identified previously, the following localized improvements should also be pursued, at the appropriate time and through appropriate jurisdiction, to improve traffic distribution, intersection operation and transit service within the study area:

- make the Hospital Ring Road a public road to facilitate the provision of public road connections to the surrounding road network;
- connect the temporary surface parking lot located east of the Hospital Ring Road to Roger Guindon Avenue (to be constructed this year as a condition on the parking lot lease agreement);
- provide a public road connection from the Hospital Ring Road to Roger Guindon Avenue (this is an interim connection that would be revisited during the Alta Vista Parkway EA); and
- re-configure Lynda Lane and the General Hospital / Smyth Road intersection.

## 6.3 Transit Service and Ridership Improvements

In terms of transit, the aforementioned network improvements in combination with more aggressive TDM plans and other infrastructure initiatives as detailed in the ensuing paragraphs should result in a transit modal share much greater than the existing 15%.

The first network improvement to benefit transit service to the Complex would be the provision of the link from Alta Vista Drive to the public Hospital Ring Road. This link, in conjunction with future transit route changes (i.e., Route 85), would eliminate some of the circuitous routing that is presently experienced accessing the site. The completion of Phase I of the AVP (between Smyth Rd and Riverside Dr) would also be very advantageous to improved transit service as a convenient direct link to the existing Transitway for both buses and pedestrians from the local community would be provided. Furthermore, it is also important to note that the Alta Vista Parkway, as presented in the Regional Official Plan, proposes to have one general purpose lane and one HOV/transit lane per direction.

Beyond these infrastructure improvements, transit user comfort on-site could be improved by providing weather-protected transit hubs and transit information kiosks where users are able to comfortably wait for buses and transit-related information can be made available. Logical locations for such hubs include the General Hospital, CHEO and NDMC (assuming re-development). Encouraging employers in the study area to take part in programs, such as 'Smart Commute' and 'Ecopass', is another potential measure to be promoted. Similar efforts have been successful in promoting increased transit usage to major employment sites elsewhere in the Region (i.e., Nortel Networks).

In addition to the foregoing, there are two other infrastructure concepts, that if feasible, would improve transit service and ridership to both the campus and to the adjacent Rideauview Park neighbourhood. These are;

- the immediate provision of a pedestrian link from Rideauview Park across or under the CNR tracks to the Abbey Transitway Station; and
- the development of a centrally located transit-only spine road running east-west through the middle of the Hospital campus.

As the physical feasibility and cost of these two concepts has not been studied or determined, further study of these concepts should be undertaken as soon as possible. The feasibility of a centrally located transit-only link must be addressed in the upcoming expansion plans of the General Hospital and CHEO.

#### **6.4 Walking and Cycling Improvements**

Throughout the development of the individual sites, it will be important that there are measures taken towards encouraging more on-site walking and cycling and that these measures are compatible with the facilities provided on the adjacent sites and the neighbouring community. Connectivity between sites should be maintained, and employers should be encouraged to provide safe and secure bicycle parking and good locker/shower facilities. An example is the recently approved Rideau Veterans Subdivision that will be providing:

- traffic control signals to safely accommodate both vehicles and pedestrians;
- a widened curb lane through the area of intersection improvement to better accommodate cyclists;
- 2.0m sidewalks where possible through the area of intersection improvement; and
- a number of pedestrian pathways linking the subdivision's road system to the adjacent land parcels and with the off-site pedestrian systems.

## 6.5 Preliminary Costing

Table 7 presents the preliminary cost estimates for the infrastructure improvements recommended based on the analysis. Detailed study of each facility would be required to provide more definitive cost estimates.

**Table 7: Preliminary Cost Estimates**

Transportation Network Improvement	Cost (\$)
Traffic signals and EBL lane at Smyth Rd / NDMC Access intersection	\$200,000
EBL lane at Smyth Rd / South Haven Pl intersection	\$150,000
Road link between Alta Vista and Hospital Ring Road	\$1,200,000
AVP Phase I (between Smyth Rd and Riverside Dr , including bus ramps to Transitway)	\$25,000,000
Adoption of the Hospital Ring Road	\$200,000
Connection between Hospital parking lot and Roger Guindon	\$50,000
Connection between Hospital Ring Road and Roger Guindon	\$100,000
Reconfigure Lynda Lane, Hospital Entrance and Smyth Road	\$300,000
<b>Subtotal</b>	<b>\$27,200,000</b>
AVP Phase II (between Riverside Dr and Nicholas St)	\$25,000,000
AVP Phase III (between Conroy Rd and Smyth Rd)	\$20,000,000
<b>Subtotal</b>	<b>\$45,000,000</b>
<b>Total</b>	<b>\$72,200,000</b>

Note that prior to any construction occurring for the Alta Vista Parkway, Phases 3 and 4 of the Class EA Process must first be completed at an approximate preliminary cost estimate of \$800,000.

## 7 Recommendations

Based on the foregoing analysis and consultation, the study recommendations are as follows:

1. Negotiate the adoption of the Hospital Ring Road as a public road of the new City of Ottawa;
2. Ensure that at the time of each individual site plan approval that appropriate infrastructure be put in place as a condition of development to enhance the attractiveness of walking, cycling and transit to, and within, the Complex. This may be accomplished by:
  - improving connectivity between sites;
  - providing safe and secure bicycle parking; and
  - providing good locker and shower facilities
3. Initiate the negotiations with NDMC for the construction of an on-site road link between Alta Vista Drive and the Hospital Ring Road, along with a signalized intersection at Alta Vista Drive and the provision of a southbound left-turn lane;

4. Provide the following local transportation network modifications, at the appropriate time and through the appropriate jurisdiction:
  - a connection between the General Hospital temporary parking lot and Roger Guindon Avenue (to be constructed this year as a condition on the parking lot lease agreement);
  - an interim connection between the Hospital Ring Road and Roger Guindon Avenue (prior to the construction of the Alta Vista Parkway); and
  - reconfigure Lynda Lane and the General Hospital / Smyth Road intersection to create an appropriate intersection with respect to access, safety and capacity.
  
5. Throughout the development of the subject sites, measures should be taken towards providing high quality and efficient transit service by:
  - providing on-site transit hubs at major development sites (General Hospital, CHEO, NDMC) to increase transit user comfort and to disseminate transit-related information; and
  - consulting and encouraging employers in the study area to take part in programs such as 'Smart Commute' and 'Ecopass'.

In addition, further study should be undertaken to determine the feasibility of a centrally located transit-only spine road running east-west through the middle of the campus.
  
6. Undertake further study to determine the feasibility of a pedestrian link from Rideauview Park across or under the CNR tracks to the Abbey Transitway Station.
  
7. To ensure the timely delivery of the section of the Alta Vista Parkway between Smyth Road and Riverside Drive (with links to the Hospital Ring Road), and the ramps to the Southeast Transitway, appropriate funds need to be identified in the five year Budget of the new City of Ottawa to complete the Environmental Assessment Study of the Alta Vista Parkway between Conroy Road and the Queensway.