

Barrhaven and South Gloucester Transportation Study

Prepared for the Barrhaven Business
Improvement Area Transportation Focus
Group

TROPE Communications
April 30, 2007

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EXECUTIVE SUMMARY

Given the cancellation of the Light Rail Transit (LRT) project to the South Urban Area of Ottawa, (South Nepean [Barrhaven] and South Gloucester/Leitrim), the Barrhaven Business Improvement Area, in cooperation with a number of other community-based groups¹ has determined it must re-examine the area's transportation needs.

In order to have accurate information on which to base its recommendations, this report has analyzed Community Development Plans, Transportation Master Plans, a Transit Attitudinal Survey, Origin/Destination Data, demographic data and other documents as required.

This review is necessary to ensure that these communities have the data and information required to articulate and define their transportation and transit requirements as the city of Ottawa grapples with the future of rapid transit and transportation systems in the region.

Over the next 15 years, the South Urban Area will experience the greatest growth of any region of the city². Community Design Plans (CDPs) have been created for Riverside South, South Nepean Town Centre and South Barrhaven. Two of these areas (Riverside South, South Nepean Town Centre) are envisioned as multi-use transportation/ commercial/residential hubs, with South Barrhaven, to the west, as a satellite, with some, but not all of the attributes of the other two.

Each CDP includes detailed development and road improvements and transit plans. However, the cancellation of the LRT, and most especially, the uncertainty surrounding the design and implementation of the Strandherd-Armstrong Bridge, has changed some of these plans, and have left many others open to question.

As well, while not a development plan itself, the addition of 4000 RCMP employees at the JDSU campus on Merivale and Prince of Wales will add 7% to 8% to projected 2010 daily person trips to and from the region. The impact that these new travellers will have on the transportation system must be taken into consideration when developing and prioritizing transportation projects.

The need to resolve the future of transportation and transit to and within these communities is urgent. The number of Barrhaven residents who travel by car has doubled in the last decade and public transit use has grown at a somewhat faster rate. Growth in South Gloucester is even more pronounced, with auto drivers tripling, auto passengers quadrupling and public transit up by a factor of 20.

Community, transportation and transit planning in Barrhaven and Riverside South were well underway when the LRT project was cancelled. As the LRT was an integral part of

¹ See Appendix A: Focus Group Members

² See page 24, table 9

many of these plans, we cannot simply move ahead with other elements. We now need to re-open discussion and decision making on what we had thought to be a completed process. The more quickly we resolve this, the more quickly we can put the South Urban Area on an environmentally sustainable track with public transit, and reach (and perhaps, exceed) the city of Ottawa target modal split.

In our view, there is no need for this region to go back and restudy issues that have already been examined thoroughly. The needs are well articulated, the transportation improvements and transit routes (if not modes) are defined. We have all the elements in place to proceed without undue delay, especially about road improvements.

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

The Barrhaven and South Gloucester CDPs and TMPs are valid and accurate with respect to transit and transportation requirements. Delayed implementation is neither necessary nor desirable.

Specifically, we recommend the follow actions:

- 1. Proceed immediately with rapid transit along defined routes**
- 2. Build the Strandherd-Armstrong Bridge as a top priority, and include rapid transit lanes.**
- 3. Proceed with other planned road-related improvements**
- 4. Enhance transit and transportation infrastructure to meet needs of Barrhaven's status as an employment centre.**
- 5. Proceed with alternative transit and transportation initiatives**
 - USE VIA LINES AND CAPACITY AS RAIL-BASED ALTERNATIVE SOLUTION**
 - BUILD A SOUTHERN RING ROAD**

OVERVIEW

Project Background

Given the cancellation of the Light Rail Transit (LRT) project to the South Urban Area of Ottawa, (South Nepean [Barrhaven] and South Gloucester/Leitrim), the Barrhaven Business Improvement Area, in cooperation with a number of other community-based groups³ has determined it must re-examine transportation needs. This review is necessary to ensure that these communities have the data and information required to articulate and define their transportation and transit requirements as the city of Ottawa grapples with the future of rapid transit and transportation systems in the region.

The LRT system had become an integral part of community planning, especially in the planned-development areas of South Barrhaven, the South Nepean Town Centre and Riverside South. Its purpose went beyond easing commuter traffic. The LRT was a key strategic element to cultivate vibrant community centres, support planned and responsible growth and to encourage people to shift from private to public transit.

Moreover, the long-planned Strandherd-Armstrong Bridge, linking the South Nepean and South Gloucester communities, is now in abeyance. Part of the issue is that the bridge design included a light rail-transit track-allowance, which is now an unnecessary or, at least, an uncertain, feature. The most recent action to move construction forward has been a city council motion asking staff to investigate and report to council on when the bridge will be built.⁴

Despite the delays and uncertainty surrounding Ottawa transit plans, the transportation needs remain the same, as does the population's desire for an environmentally-sustainable and efficient public transit system, supported by appropriate road and bridge infrastructure. There is no clear direction as to how these transportation goals will be accomplished in these changed circumstances.

Underlying these questions is the recognition that both Barrhaven and South Gloucester/Leitrim, are evolving in complexity, moving from bedroom communities, with infrastructure and service levels appropriate to that characterization, to self-sufficient, *de facto* towns, that have a sustainable balance of mixed residential offerings, long-term employment, community services and inclusive infrastructure within their own boundaries. This is maturation, from suburb to neighbourhood, increases quality of life not only for residents and for businesses in these communities, but also contributes to the city of Ottawa as a whole.

This report will help determine what future steps may be required to serve current and future transportation needs. To do this, it compiles reviews and analyzes existing data, drawn from a number of sources to:

- Describe current transportation patterns

³ See Appendix A: Focus Group Members

⁴ Gloucester-South Nepean Coun. Steve Desroches

- Identify current and future transportation needs
- Describe the current transportation and transit systems
- Identify, when possible, strengths and weakness within those systems
- Determine future plans and initiatives

THE EVOLUTION OF TRAVEL IN BARRHAVEN AND SOUTH GLOUCESTER: 1995 – 2005

HOW MANY PEOPLE ARE TRAVELLING, BY MODE

Barrhaven's growth can be seen from the figure below. While travel by car has doubled in the last decade, public transit use has grown at the somewhat faster rate of 237%.

Table 1 BARRHAVEN TOTAL TRIPS BY TRAVEL MODE 1995 - 2005

TOTAL TRIPS	1995	2005	% INCREASE
AUTO DRIVER	49,230	99,200	202%
AUTO PASSENGER	10,670	21,560	202%
PUBLIC TRANSIT	6740	16,020	237%

Growth in South Gloucester is even more pronounced, with auto drivers trebling, auto passengers quadrupling and public transit up by a factor of 20. However, it should be noted that sample sizes used in the 1995 tables were relatively small, which may have caused some inaccuracies.

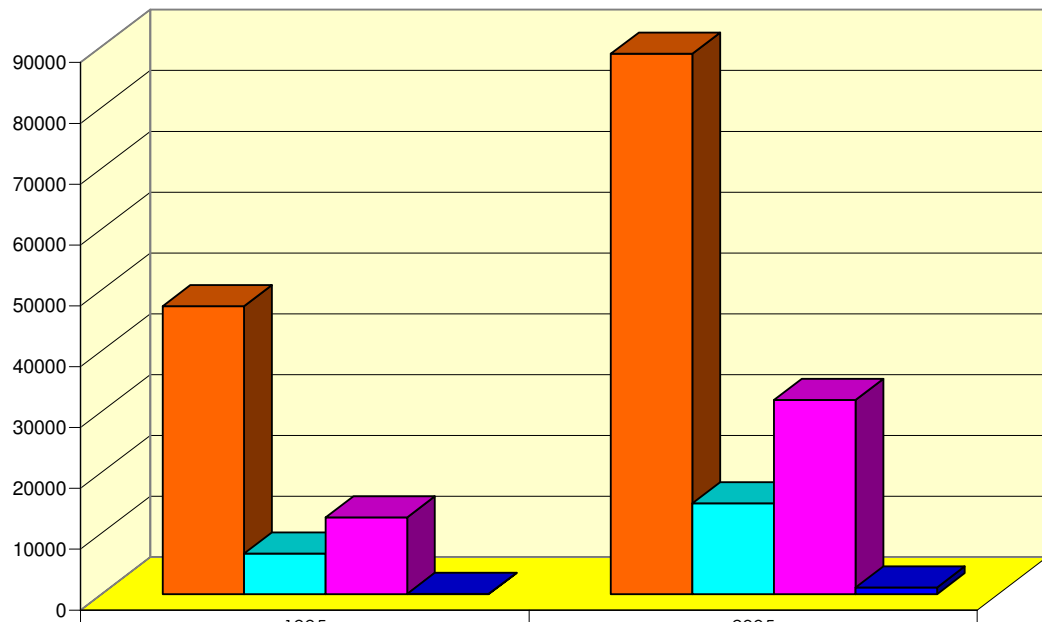
Table 2 SOUTH GLOUCESTER TOTAL TRIPS BY TRAVEL MODE 1995 - 2005

TOTAL TRIPS	1995	2005	% INCREASE
AUTO DRIVER	7,660	21,390	280%
AUTO PASSENGER	950	3,600	378%
PUBLIC TRANSIT	70	1,410	2014%

HOW MODES COMPARE IN BARRHAVEN

In 1995, 81% of travel was by auto, and 11% by public transit. In 2005, 83% of travel was by auto, and 14% by public transit. Residents made 131,740 daily trips in 2005. The largest two groups of AM travellers were those going to work (77%) and to school (13%).

Figure 1 Barrhaven Trips by Mode, 24 hours, 1995 vs 2005

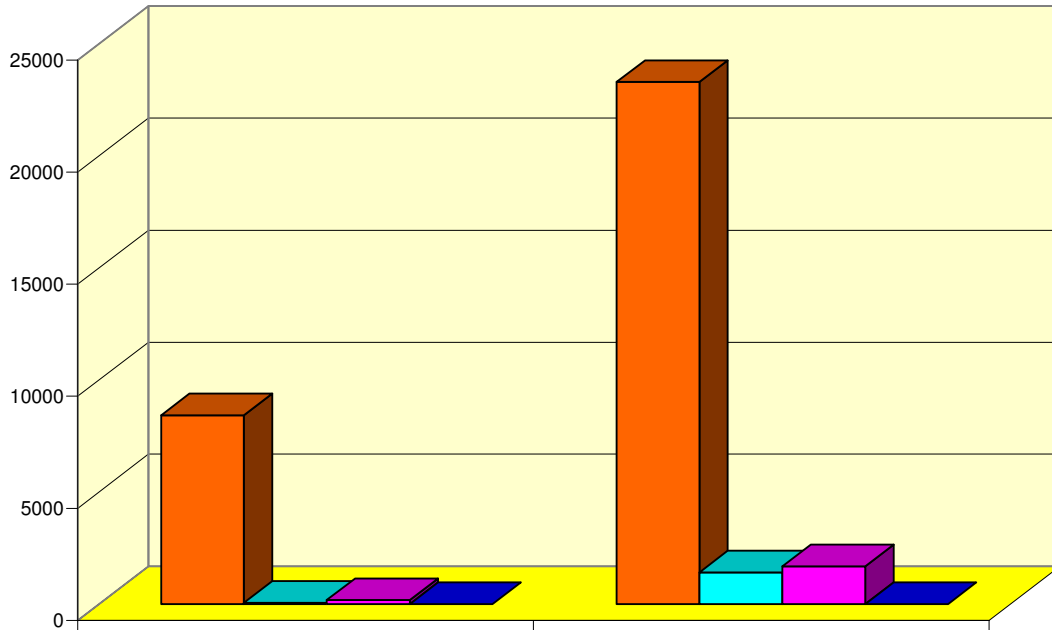


	1995	2005
From/to District AUTO	47310	88850
From/to District PUBLIC TRANSIT	6670	14930
Within District AUTO	12590	31910
Within District PUBLIC TRANSIT	70	1090

HOW MODES COMPARE IN SOUTH GLOUCESTER

In 1995, 96% of travel was by auto, and 1% by public transit. In 2005, 91% of travel was by auto, and 6% by public transit. Residents made 21,330 daily trips in 2005. The largest three groups of AM travellers were those going to work (67%), pick up and drop off (13%) and to school (12%).

Figure2 South Gloucester Trips by Mode, 24 hours 1995 vs. 2005



	1995	2005
From/to District Auto	8430	23,300
From/to District Public Transit	70	1410
Within District Auto	180	1690
Within District Public Transit	0	0

WHERE PEOPLE TRAVEL 1995 vs. 2005

There are some significant differences in where both Barrhaven and South Gloucester residents travel, comparing 2005 with 1995. While similar percentages of Barrhaven residents are travelling to Ottawa Centre or the Inner Areas compared with a decade ago, far more are travelling within South Nepean (29% in 2005 vs. 10% in 1995), fewer to Merivale (14% in 2005 vs. 28% in 1995) and Bayshore/Cedarview (9% in 2005 vs. 19% in 1995). South Gloucester residents trips to Alta Vista have declined (17% in 2005 vs. 23% in 1995) and Hunt Club (10% in 2005 vs. 17% in 1995).

It is difficult to speculate on why this is happening without more data. It might be attributable to people relocating to be closer to work and/or choosing employment based on proximity to their residence. In the case of the growth of destination trips to South Nepean by its residents, the growth neighbourhood schools and commercial or retail employment in the area are likely contributing factors. This in turn, suggests that the evolution of Barrhaven as a self-sufficient community is well underway.

Table 3 Summary of trips from region, AM Peak Period 1995 - 2005

Destination	Barrhaven 2005	Barrhaven 1995	South Gloucester 2005	South Gloucester 1995
Ottawa Centre	10%	11%	12%	4%
Ottawa Inner Area	7%	7%	10%	8%
Ottawa East	2%	1%	1%	3%
Beacon Hill	1%	1%	3%	3%
Alta Vista	8%	8%	17%	23%
Hunt Club	2%	3%	10%	17%
Merivale	14%	28%	9%	9%
Ottawa West	5%	5%	4%	3%
Bayshore / Cedarview	9%	19%	6%	3%
Orléans	1%	0%	2%	-%
Rural East	0%	0%	1%	0%
Rural Southeast	1%	0%	3%	6%
South Gloucester / Leitrim	0%	0%	7%	9%
South Nepean	29%	10%	2%	4%
Rural Southwest	1%	1%	7%	8%
Kanata / Stittsville	6%	3%	3%	0%
Rural West	0%	0%	0%	0%
Île de Hull 1	1%	2%	3%	0%
Hull Périphérie	1%	1%	1%	0%
Plateau	0%	0%	0%	0%
Aylmer	0%	0%	0%	0%
Rural Northwest	0%	0%	0%	0%
Pointe Gatineau	0%	0%	0%	0%
Gatineau Est	0%	0%	0%	0%
Rural Northeast	0%	0%	0%	0%
Buckingham / Masson-Anger	0%	0%	0%	0%

The Evolution of Travel in the Region *Summary*

While the data does not indicate major shifts to public transit use from auto in absolute numbers, there have nevertheless been some significant evolutionary changes in travel patterns the past decade, mostly in the destinations to which people travel. It would be useful to have the ability to match destinations with travel modes. It is reasonable to speculate, given the transit routes and frequencies, that more people would use public transit to travel to Ottawa centre, compared with non-traditional destinations.

We need a better understanding of the reasons people travel to these destinations. This quantifiable data might allow us to identify areas where public transit can be enhanced on non-traditional routes, and perhaps increase the total number of travellers who would use transit.

BARRHAVEN AND SOUTH GLOUCESTER TRAVEL PATTERNS COMPARED TO THE CITY OF OTTAWA

There are significant differences, and interesting similarities when comparing travel patterns of Barrhaven and South Gloucester residents to the city as a whole. Supporting conventional wisdom, both Barrhaven and South Gloucester residents take about the same percentage of daily trips as residents of Ottawa, but both tend to own more vehicles per household, and per person.

Table 4 Comparative Travel Characteristics of Barrhaven, South Gloucester/Leitrim and the city of Ottawa Urban Transit Area. Selected Indicators, as a percentage.

INDICATOR	OTTAWA	BARRHAVEN	S. GLOUCESTER
Daily Trips per person	2.84	2.84	2.75
Vehicles per person	0.53	0.62	0.78
No. persons per household	2.44	2.84	2.41
Daily Trips per household	6.08	6.70	5.44
Vehicles per household	1.30	1.76	1.89

Barrhaven residents use public transit at the same levels as in the city of Ottawa as a whole during peak periods. South Gloucester shows a marked decrease from this with only 8% - 9% of residents of South Gloucester using public transit at AM peak times. This may be an indication that current public transit access is inadequate for the growing population.

Table 5 TRIPS BY MODE, AS A PERCENTAGE

	OTTAWA			BARRHAVEN			S. GLOUCESTER		
	FROM	TO	WITHIN	FROM	TO	WITHIN	FROM	TO	WITHIN
AM PEAK									
AUTO DRIVER	61%	64%	48%	65%	66%	38%	75%	75%	61%
AUTO PASSENGER	8%	11%	11%	8%	15%	13%	9%	10%	12%
PUBLIC TRANSIT	23%	18%	23%	23%	12%	4%	8%	9%	0

Table 6 TRIPS BY PURPOSE, AS A PERCENTAGE

AM PEAK	OTTAWA	BARRHAVEN	S. GLOUCESTER
WORK OR RELATED	74%	77%	67%
SCHOOL	10%	13%	12%
PICK UP/DROP OFF	5%	4%	13%

TRANSPORTATION COMPARISONS SUMMARY

Barrhaven residents share many trip characteristics with residents of the city of Ottawa as a whole. They have similar levels of use of auto and public transit as a percentage of total travel, and tend to travel for the same reasons (work and school being #1 and #2 respectively). By contrast, South Gloucester tends to use more auto, and has a larger percentage of pickup/drop off as a travel purpose (13% compared with 4% in Ottawa and 5% in Barrhaven)

Similar travel patterns between Barrhaven and the city may be attributed to a number of factors. It might be that the level and quality of public transit services and roads have the same level of adequacy in Barrhaven as in Ottawa. Alternatively, it may be that Barrhaven has achieved a density and complexity (of services, demographics, neighbourhood maturity) that mirrors the city as a whole. In the same manner, South Gloucester's heavier reliance on auto may be caused by its relatively early stage of development and, of course, a comparative lack of public transit.

TRANSPORTATION NEEDS

RAPID TRANSIT

The city of Ottawa's 20/20 Growth Management Strategy was designed to ensure that as Ottawa neighbourhoods expanded, the city would retain and strengthen its best qualities, including the need to continue to be green and environmentally sustainable and to be a city of distinct, liveable communities.

Recognizing that appropriately designed transportation infrastructure was an enabler of many of the 20/20 goals, a Transportation Master Plan was created in 2003. Within planned community growth, Ottawa 20/20 envisioned:

- Priority on public transit, walking and cycling
- Public transit as a viable alternative to all residents
- Enhanced travel choices, shorter distances
- Transport demand management
- Limited long-term parking, especially in centers

According to the city of Ottawa, the *Rapid Transit Expansion Study (RTES)* used land use, population and employment forecasts to identify travel demand patterns for rapid transit needs over the next two decades. These travel demand patterns were matched with potential transit corridors and suitable technologies to determine the best fit. The resulting preferred network, comprising of complementary light rail and bus rapid transit corridors (to have been phased in over the next 20 years or more), was approved by city Council in February 2003. The implementation of the rapid transit network, along with transit-supportive land use policies, was to ensure that the city's overall transit modal split target of 30% would be achieved.

The Transportation Master Plan, as well as the specific Transportation Plans that are part to the South Urban Area CDPs, had been carefully crafted to meet the 20/20 economic and societal goals within the transportation context.

The Light Rail Transit system, as part of an expansion of the public transit system, was designed strategically to support these goals, as well as the larger goals of environmental stewardship and smart growth principles.

Community and transit planning in Barrhaven and Riverside South was well underway when the LRT project was cancelled. Road projects, in support of community plans, were at mature levels of planning. However, the LRT was an integral part of many of these plans. We now need to re-open discussion and decision making on what we had thought to be a completed process.

There have already been a number of proposals to replace the original LRT program. Strategically, rapid transit, in whatever form, must work as an integral part of the communities and of the overall transportation network and region. It must help shape the

communities in a positive way. Perhaps most important, it must help convince greater numbers of travellers to forsake their cars for public transit.

There have been numerous studies determining when and why people chose public transit over private vehicle. A recent attitude survey (2005) undertaken by OC Transpo identified a number pertinent to the next iteration of public transit expansion.

According to OCTranspo, the factors affecting people's decisions to use public transit are:

- Gas prices
- Cost of parking
- Frequency of service
- Cost of fares
- Reliability of service
- Total time on transit
- Adequate capacity (getting a seat)
- Availability of continuous journeys (no transfers)

Table 7 OCTranspo Attitude Study: How to Improve OCTranspo Services

Action	Frequent Users%	Casual Users%	Non-Users%
More busses	17.5	15.5	9.3
More routes	8.2	8.1	7.3
Build rail system	9.6	8.5	7.6

Table 8 Agreement that Light Rail is an important part of Ottawa's Transit system

	Overall	Frequent Users%	Casual Users%	Non-Users%
Agree	67.8	74.7	73.9	60.6
Disagree	9.2	8.9	9.2	9.5
Neither agree or disagree	5.6	5.8	4.6	5.7
Don't know/no response	17.4	10.6	12.4	24.1

It should be noted that there is likely always to be a hard core of non-users of transit (31.4%) who will not consider transit to get to work or school under any circumstances. Only 16.6% of casual users share that view.

17.1% of casual users would consider using transit to get to work or school if more routes that are direct are available. This suggests that improvements to transit, including in the South Urban Area, may lead to a greater level of usage.

THE STRANDHERD-ARMSTRONG BRIDGE

There is no debate over the importance of the Strandherd-Armstrong Bridge. It has been "on the table" since 1997. However, the cancellation of the LRT has resulted in the need for a redesign, as the bridge, developed to serve rail, road cyclist and pedestrian traffic, was to have been part of the first phase of the North-South Light Rail Project.

As a result of the cancellation of LRT, both the design and funding, 20% of which was to come from the LRT project must be resolved.

OTHER ROAD PROJECTS

All of the CDPs list a number of prioritized road projects needed to ease congestion and improve access. These are listed in the section of the report, Future Plans and Initiatives.

The next section of the report outlines the plans that had been made until the point of cancellation of the project. These had been based on the Ottawa Transportation Master Plan as well as TMPs developed for South Riverside, South Barrhaven and SNTC.

BARRHAVEN'S CURRENT TRANSIT SYSTEM

Barrhaven is served by four local bus routes, routes 170, 173, 176 and 186, and five express bus routes, routes 70, 71, 73, 76, and 77. These routes go in a general loop, turning on various local streets on their way to and from the nearby Fallowfield Station. Bus 95 runs from both the Strandherd and Fallowfield Stations along the transitway and city roads to Hurdman Station in the east end of Ottawa, a one-way trip of approximately 30 minutes.

The 186 runs from the Fallowfield Station to Manotick, stopping in the growing Stonebridge community before traveling on the lower half of Jockvale before reaching Prince of Wales Drive. The express bus routes follow roughly the same path as their local route equivalents, however also travel down the transitway, with some of the buses going to Trim Station.

Fallowfield Station is both a Park & Ride and a VIA Rail station, and the current end of the Nepean South leg of the Transitway, although an extension to areas further south has been proposed for upcoming years.

On January 2, 2007, OC Transpo opened the Strandherd Transitway Station and Park & Ride lot in Barrhaven. Directly across from the Riocan / Barrhaven Shopping Centre's Wal-Mart & TD Bank, the facility has space for about 330 cars. It was built to help with overcrowding at the Fallowfield Station and meet the increased demand for park and ride spaces in the community.⁵

RIVERSIDE SOUTH'S CURRENT TRANSIT SYSTEM

OC Transpo has two bus routes serving Riverside South. Route 145 (schedule from Riverside South) operates throughout the day and requires a standard fare. This route starts and ends at the Greenboro Transitway/O-Train station, with connections to bus service to downtown and the O-Train. Route 45 (schedule from Riverside South) (schedule to Riverside South) operates during peak hours. It requires a premium fare.

⁵ Wikipedia

FUTURE TRANSPORTATION PLANS AND INITIATIVES

The information below outlines plans as per the draft Transportation Master Plans. While these plans must be reconfirmed, it appears that the largest question still open deals with the replacement to LRT service in the Southeast Corridor (Riverside South).

BARRHAVEN SOUTH TMP

- Barrhaven will be served by two rapid transit corridors to the Town Centre;
- Rapid transit south of the Jock River will be extended along the Greenbank Road Corridor and potentially extend to the urban boundary with a system end park-and-ride facility;
- Local transit service in Barrhaven South will be focussed on the new light rail and transitway stations;
- Local service will be introduced early in development through early-service agreements with area developers; and
- The modal share has already been exceeded in other outlying suburban locations.

BARRHAVEN SOUTH Transportation Master Plan: Transportation Infrastructure Identified in Southwest Sector to be implemented by 2021

Walking, Cycling and Multi-Use Pathways	Rapid Transit Projects	Road Projects
<p>Greenbank Corridor: Reconstruction of pathway through the Greenbelt. Construction of new pathway from Southern Corridor to Hunt Club and Fallowfield to Jock River Corridor.</p> <p>Jock River Corridor: Along Jock River from Highway 416 to Prince of Wales Drive.</p>	<p>Southeast Corridor (LRT): Extension of O-Train corridor from South Keys to Barrhaven Town Centre, serving Leitrim and Riverside South.</p> <p>Southwest Corridor (BRT) Extension of Southwest Corridor from Nepean Sportsplex to Barrhaven Town Centre.</p>	<p>Fallowfield Road: Widen from 2 to 4 lanes from Strandherd Drive to Prince of Wales Drive. Greenbank Road: Widen from 2 to 4 lanes from Malvern Drive to Cambrian Road.</p> <p>Jockvale Road: New 4 lane road from Strandherd Drive (Longfields) to Jock River and widening from 2 to 4 lanes from Jock River to Prince of Wales Drive.</p> <p>Merivale Road: Widen from 2 to 4 lanes from Slack Road to Amberwood Crescent and from Fallowfield Road to Prince of Wales Drive.</p> <p>Prince of Wales Drive: Widen from 2 to 4 lanes from Fisher Avenue to Woodroffe Avenue.</p> <p>Strandherd Drive: Widen from 2 to 4 lanes from Fallowfield Road to Greenbank Road.</p> <p>Widen from 2 to 6 lanes from Greenbank Road to Woodroffe Avenue.</p> <p>New 6-lane road from Woodroffe Avenue to Rideau River.</p>

		Strandherd-Armstrong Bridge: New 6-lane bridge over Rideau River linking Strandherd Drive with Earl Armstrong Road. Woodroffe Avenue: Widen from 2 to 4 lanes from the Nepean Sportsplex to Fallowfield Road and from Stoneway Crescent to Strandherd Drive. New Rideau River Bridge: An additional bridge over the Rideau River has been identified. No location identified to date.
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SOUTH NEPEAN TOWN CENTRE

Of the three areas under investigation, the SNTC is the most transit-centric of all in terms of future development. This reflects its physical position within the "heart" of Barrhaven, linking all local areas together, as well as its community role of providing the focus point of activity for people living and working in Barrhaven.

According to the SNTC CDP, this transit "hub" will be a public transit focal point for the broader community, at which both residents within the Town Centre and transit users transferring from local buses serving nearby residential and commercial areas can access rapid transit services. The transit network will evolve over time as the construction of the rapid transit lines, development within the Town Centre, and development within the surrounding residential and commercial areas occurs.

The grid of arterial, major collector, and collector streets will be built to a design standard that will accommodate convenient regular transit service. Streets must be configured to ensure that bus operations are not delayed by any auto traffic congestion that may occur. This includes avoiding the use of bus bulges where there is on-street parking, avoiding the use of bus bays, and using transit priority signals at busy intersections

RIVERSIDE SOUTH TRANSPORTATION MASTER PLAN⁶

Project Title	Details
Walking/Cycling and Multi-Use Pathways	
Earl Armstrong Road	• River Road to Greenbelt at Leitrim Road, parallel to the Earl Armstrong Road project
Rapid Transit	
O-Train Extension as Light Rail Corridor (Subject to EA)	• South Keys to Riverside South/Leitrim (incl. Airport) • Riverside South to Barrhaven
Roads and Bridges	
New Rideau River Bridge	• Possible 4-lane link from Fallowfield Road to Limebank/Leitrim Roads
Earl Armstrong Road	• Widen from 2 to 4 lanes – River Road to High Road • New 4-lane link from High Road to Albion Road • New 2-lane link from Albion Road to Bank Street (Leitrim Bypass)
Albion Road	• Widen from 2 to 4 lanes – Rideau Road to Lester Road
Bank Street	• Widen from 4 to 6 lanes – Conroy Road to Leitrim Road • Widen from 2 to 4 lanes – Leitrim Road to future Earl Armstrong Road (Leitrim Bypass)
Lester Road	• Widen from 2 to 4 lanes – Airport Parkway to Bank Street
Limebank Road	• Widen from 2 to 4 lanes – River Road to south of Earl Armstrong Road
Riverside Drive	• Widen from 2 to 6 lanes – Limebank Road to Hunt Club Road
New Strandherd-Armstrong Bridge	• New 4/6-lane bridge crossing Rideau River linking Strandherd Drive with Earl Armstrong Road

⁶ Delcan: Riverside South Transportation Update

COMMUNITY PROFILES

BARRHAVEN/SOUTH NEPEAN

Barrhaven is roughly bounded to the north by the Greenbelt, to the east by the Rideau River, to the west by Highway 416, and to the south by the south shores of the Jock River. The area is diagonally bisected by the CN rail tracks.

According to the 2005 Origin/Destination Survey in the National Capital Region, South Nepean (Barrhaven) has a population of 55,790, with 19,660 households and 34,630 vehicles.

According to city of Ottawa statistics, compared with the city as a whole, Barrhaven residents show greater household income and a larger percentage of home ownership. The average household income in Barrhaven is \$98,366 compared with the city of Ottawa at \$75,351. Ninety-three percent of Barrhaven residents own their home, compared to the city's level of 61%.

Barrhaven has seen rapid commercial development over the past decade, with 1.4 million square feet of developed commercial space, an annualized increase of 120,000 per year over the last 10 years.

South Nepean Town Centre

As the Barrhaven community continues to mature, the need to plan for a "town centre" was envisioned in the mid-90s. The South Nepean Town Centre (SNTC), situated north of the Jock River, is being planned as a mixed-use area strategically located adjacent to the future rapid transit network. It will have a mix of land uses in a variety of built forms, such as office, retail, service, institutional and residential. Planning Area 8, located west of the SNTC and abutting the north side of the Jock River, is intended to include a mix of residential and recreational land uses.

A key feature of the South Nepean Town Centre is its role as the area's transportation hub. The transit focus of the South Nepean Town Centre is at the intersection of what would have been the LRT and BRT routes. This transit "hub" was planned as a public transit focal point for the broader community, at which both residents within the Town Centre and transit users transferring from local buses serving nearby residential and commercial areas could access rapid transit services. The transit network was to have evolved over time as the construction of the rapid transit lines, development within the Town Centre, and development within the surrounding residential and commercial areas occurred.

The South Nepean Town Centre's northern boundary is Strandherd Drive, its western boundary is the Kennedy-Burnett Stormwater Management Facility, its eastern boundary is the future extension of Longfields Drive, and its southern boundary is the Jock River.

A long-term plan, created in 1997 and updated in 2004 is designed to develop the town centre based on the following goals

- Compact Urban Form
- High Quality Urban Design
- Mixture of Land Uses
- Diverse Greenspace Network
- Efficient Transportation System
- Anticipation of Growth

Barrhaven South

Another new development is Barrhaven South CDP Study Area, on the southwestern side of Barrhaven. It lies south of the Jock River, east of Highway 416, north of Barnsdale Road and west of Jockvale, Greenbank and the existing Stonebridge Community.

It has been designed:

- A mix of housing that is no more than 60% singles and semi-detached housing, with at least 30% multiples and 10% apartments;
- An overall density for single, semi-detached and townhouses of 29 units per net hectare, as a minimum;
- A land use mix that contributes to achieving a balance of 1.3 jobs per household for the larger South Nepean area;
- A modified grid road network for development; and
- A development pattern that sets a distinctive identity and a variety of building forms and treatments.

Transportation plans done in support of the Barrhaven South CDP envisioned the area being served by both LRT and BRT transit, both along a new transitway on Greenbank Road and hubbing into the South Nepean Town Centre to access its amenities and multi-modal hub.

South Gloucester

Riverside South

The Riverside South Community encompasses a ±1,800 hectare (4,500 acre) area located south of the Ottawa Macdonald-Cartier International Airport and east of the Rideau River). The community was within the former city of Gloucester, which became part of the city of Ottawa through amalgamation in 2001.

Riverside South is part of the larger region of South Gloucester/Leitrim, which has a total population of 9,440, with 3920 households and 7400 vehicles. (2005 ITRANS O/D SURVEY)

Like Barrhaven, residents of South Gloucester enjoy a higher average household income than the city as a whole, with the average annual at \$101,505, vs. Ottawa at \$75,351. According to the city of Ottawa, 96% of residents own their own home, vs. the city level of 61%.

The most significant elements of the Community Design Plan are:

- a rapid transit corridor and associated stations (ultimate technology to be determined through an environmental assessment);
- an open space system that includes parks, linkages and natural features;
- higher densities concentrated around the rapid transit corridor;
- residential areas organized around public spaces and community features; and,
- an employment area that acts as a transition area between the airport lands and the residential areas, as well as proservice to and from Riverside South to downtown

RCMP Relocation

While the relocation of RCMP headquarters to the JDSU Campus on Merivale and Prince of Wales does not qualify as a community development plan, it will none the less have impacts on how the communities develop, especially in terms of the suitability of current and future transportation and transit systems. By the end of the relocation process, about 4,000 employees will be housed at this location. Only 14.4% of those who will be working at this facility currently live in either Nepean or Gloucester. 23.3% live in Orleans, 22.5% in downtown Ottawa and 16% in Gatineau. The relocation is slated for 2010.

Currently, there are just under 100,000 person trips (all modes) per day to, from and within Barrhaven. While we do not have exact numbers, we can assume that the addition of the RCMP employees as commuters could add in the neighbourhood of 8,000 daily person trips by all modes (i.e. 4,000 round trips). This suggests that the relocation would add about 7% to 8% to 2010 person trips to, from and within Barrhaven.

South Urban Area vs. Ottawa population growth

Between 2011 and 2021, the South (which encompasses both Barrhaven and South Gloucester) will show the most rapid growth in both population and household, compared with any other region of the city.

Table 9 Official Plan Projections of Population and Households⁷

	Population			Households		
	2011	2021	% chg.	2011	2021	% chg.
Inside Greenbelt	562,000	588,000	4.6%	257,000	283,000	10.1%
Outside Greenbelt:						
West	132,000	186,000	40.9%	45,000	67,000	48.9%
South	110,000	172,000	56%	36,000	61,000	69.4%
East	111,000	131,000	18.9%	39,000	50,000	28%
Total Urban	915,000	1,077,000	17.7%	377,000	461,000	22.3%
Total Rural	97,000	115,000	18.5%	33,000	41,000	24.2%
Total	1,012,000	1,192,000	17.8%	410,000	502,000	22.4%

COMMUNITIES IN REVIEW SUMMARY

In summary, the South Urban Area will experience the greatest growth of any region of the city. We anticipate that much of this growth will be centred in Riverside South, South Nepean Town Centre and South Barrhaven. Two of these areas (Riverside South, South Nepean Town Centre) are envisioned as multi-use transportation/ commercial/residential hubs, with South Barrhaven, to the west, as a satellite, with some, but not all of the attributes of the other two.

Each of these has detailed development and transportation plans. However, the cancellation of the LRT, and most especially, the uncertainty surrounding the design and implementation of the Strandherd Bridge, has changed some of these plans, and have left many others open to question.

Finally, while not a development plan itself, the addition of 4000 RCMP employees at the JDSU campus will add 7% to 8% to projected 2010 daily person trips to and from the region. The impact that these new travellers will have on the transportation system must be taken into consideration when developing and prioritizing transportation projects.

⁷ Source Delcan: Riverside South Transportation Update, percentages added

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS:

The Barrhaven and South Gloucester CDPs and TMPs are valid and accurate with respect to transit and transportation requirements. Delayed implementation is neither necessary nor desirable. The city of Ottawa and the communities of South Gloucester and Barrhaven have put years of consultation, research, study and planning into the community development plans (CDPs) and transportation master plans (TMPs) that form the basis of smart growth for the South Urban Area. Our review of these documents indicates that they continue to be valid, and an integral part of community life. When implemented, these plans will provide residents with a robust mix of good transportation links, attractive public transit options, schools, parks, cycle and pedestrian paths and mixed-use housing and commercial and retail spaces.

Specifically, we recommend the following actions:

1. Proceed immediately with rapid transit along defined routes

Despite the cancellation of the LRT project, there is no need for this region to go back and re-study issues that have already been examined thoroughly. The *Rapid Transit Expansion Study* (RTES) used land use, population and employment forecasts to identify travel demand patterns for rapid transit needs over the next two decades. The rapid transit routes are defined and should be kept.

Despite the fact that the transit mode is not defined, we can still move forward with a plan that fulfills the same objectives as the LRT, in terms of community expansion, especially for South Riverside and SNTC, which saw the LRT/BRT terminals as a focal point of local activity and development. Alternative solutions can include combinations of BRT and alternative rail solutions. (See recommendation #5)

Please see report sections

- *TRANSPORTATION NEEDS*, pg. 14
- *FUTURE TRANSPORTATION PLANS AND OBJECTIVES*, pg. 17

2. Build the Strandherd-Armstrong Bridge as a top priority, and include rapid transit lanes.

The construction of the Strandherd-Armstrong Bridge has been recommended in many studies at least since 1997 if not earlier. The benefits of this bridge are obvious and urgent. The bridge would alleviate congestion in both the north and south at Hunt Club Bridge and through Manotick and provide a much-needed additional link between communities east and west of the Rideau River. It might provide an especially important link for employees relocated to the new RCMP headquarters at Merivale and Prince of Wales, the majority of whom reside well

to the east and north of the campus, in Orleans, downtown Ottawa and Gatineau. The bridge must be built to accommodate future growth and rapid transit lanes.

3. Proceed with other planned road-related improvements

The Community Design Plans relevant to the study area all include plans for road improvements and expansions for personal vehicular use. These projects should be undertaken as per the implementation plans, to serve the rapidly growing communities.

It is not necessary to delay or ignore required road works while attempting to implement rapid transit. Congestion is already an issue, can be expected to get much worse by the time a transit solution is in place. Roadwork must remain a separate, and urgent, priority.

Please see report sections

- *THE EVOLUTION OF TRAVEL IN BARRHAVEN AND SOUTH GLOUCESTER: 1995 – 2005, pg. 7*
- *TRANSPORTATION NEEDS, pg. 14*
- *FUTURE TRANSPORTATION PLANS AND OBJECTIVES, pg. 17*

4. Enhance transit and transportation infrastructure to meet needs of Barrhaven's status as an employment centre.

Travel within the Barrhaven community is becoming increasingly difficult due to congestion caused by Barrhaven's evolving status as an employment centre. We must ensure that OC Transpo serves the evolving needs of the community. This situation will become more acute with the relocation of RCMP Headquarters in 2010 and the addition of 4000 new employees working in the community.

As Barrhaven evolves, it becomes a region that attracts more "non-traditional" transit needs (for example, AM Peak **to** Barrhaven from other points; local travel **within** Barrhaven to employment, schools, shops, recreation etc.) The OC transit system itself must parallel the growth, through enhanced routes, frequencies and capacity.

Please see report sections

- *BARRHAVEN AND SOUTH GLOUCESTER TRAVEL PATTERNS COMPARED TO THE CITY OF OTTAWA, pg. 13*
- *COMMUNITY PROFILES, pg. 20*

5. Proceed with alternative transit and transportation initiatives

USE VIA LINES AND CAPACITY AS RAIL-BASED ALTERNATIVE SOLUTION

Establish a peak-period pilot project to leverage existing VIA Rail line capacity and infrastructure a rail pilot-project utilizing the Fallowfield Road Station and Cumberland/Orleans as origin/destination hubs. The results of a successful pilot project would justify establishing such a service on a full-time basis.

BUILD A SOUTHERN RING ROAD

A ring road south of the Strandherd-Armstrong Bridge is recommended to reduce the volume of traffic using existing east/west thoroughfares such as Hunt Club Road and the proposed Strandherd-Armstrong Bridge. In cooperation with the province, selection of the preferred route, security the corridor, and protecting the corridor are a high priority.

While this project has been on-again and off-again, it has recently been revisited as a worthy consideration. The former provincial government set up a task force, including Councillors Eastman and Thompson, to begin work on a ring road, looking at a 20-year time horizon.

Appendix: Barrhaven BIA 2007 South Ottawa Transportation Focus Group

Chair, Michel Maillet, Barrhaven Business Improvement Area

Andrea Steenbakkers, Barrhaven BIA

Ken Ross, Barrhaven BIA

Bill Armitage, Stonebridge Community Association

William Natter, West Barrhaven Community Association

Matthew Hough, Riverside South Community Association

Scott Hodge, Riverside South Community Association