PROVINCIAL GAS TAX TRANSIT MASTER PLAN STEERING COMMITTEE

REPORT 06-004

Wednesday, May 3, 2006
4:00 p.m.
Council Chambers
Hamilton City Hall
71 Main Street West, Hamilton

Present: Councillors B. McHattie (Chair), B. Bratina, P. Bruckler, and T. Whitehead

Absent with regrets: Councillor M. Ferguson, illness
J. Dawson, alternate
K.L. De La Cruz

Also present: D. Hull, and A. McLaughlin, Transit Division
T. Horzelenberg Capital Planning and Implementation Division
B. Hollingworth, I.B.I. Group and I. Bediou, Clerk’s Office

THE PROVINCIAL GAS TAX TRANSIT MASTER PLAN STEERING COMMITTEE PRESENTS REPORT 06-004 TO THE PUBLIC WORKS, INFRASTRUCTURE AND ENVIRONMENT COMMITTEE AND RECOMMENDS:

1. Transit Asset Management Plan (Item 5.1)
   That the Transit Asset Management Plan, attached as Appendix “A” hereto, be approved and a copy be forwarded to the Province.

2. Transit Ridership Growth Strategy (Item 5.2)
   That the Transit Ridership Growth Strategy, attached as Appendix “B” hereto, be approved and a copy be forwarded to the Province.

PWIE– June 5, 2006
3. Discounted Transit Pass Sub-Committee

(a) That a Discounted Transit Pass Sub-Committee be established to consider creating an employee or neighbourhood transit pass in order to promote transit ridership.

(b) That the following members be appointed to the Discounted Transit Pass Sub-Committee:

   Daryl Bender
   Heather Donison
   Daniel Rodrigues
   A representative from Hamilton Health Sciences

(c) That the following resource staff be assigned to the Discounted Transit Pass Sub-Committee: Trevor Horzelenberg and Andy McLaughlin.

FOR INFORMATION:

(a) Declarations of Interest

None declared.

(b) Minutes

The Minutes of the April 5, 2006 Provincial Gas Tax Transit Master Plan Steering Committee were approved. A typo was noted in the time of adjournment.

(i) Business arising from the Minutes:

1. Taxi Scrip Program (Added Item)

The Steering Committee received input from the Advisory Committee for Persons with Disabilities with respect to the staff report entitled Taxi Scrip Program – Monthly Purchase Cap (City Wide), dated April 3, 2006 which was referred by the Steering Committee at its last meeting. The Advisory Committee presented the following recommendations:

   (aa) That the recommendation to use gas tax funds to permit a taxi scrip enhancement to increase monthly allocation of taxi scrip to $120 be endorsed and that the subsidy be increased to 60% ($72).

   (bb) That the taxi scrip enhancement referred to in the above motion remain in effect until consultation has taken place with the Advisory Committee for Persons with Disabilities.

A discussion followed and the Committee members indicated that they required further information.

PWIE– June 5, 2006
On a motion (McLean/Bratina) the proposed recommendation was referred to staff to prepare a report and make a presentation at the next meeting to explain about the taxi scrip program. The Committee requested that staff outline how much would be charged to the gas tax funds as a result of the proposal and the availability of the gas tax funds and to also include, for comparison, the fare of a wheel chair accessible taxi.

(c) Information Only Items

(i) Membership Update (Verbal) (Item 4.1)

Chair McHattie introduced the new member, Mr. Daniel Rodrigues. He advised the Steering Committee that Ms. Laura McMillan of the Catholic School Board has agreed to attend as a representative from the education sector.

(ii) CUTA (Item 4.2) and Metro’s Magazine – BRT 25 (Item 4.3)

The Chair advised the Committee members that Items 4.2 and 4.3 were for their information.

(d) STAFF PRESENTATIONS

(i) Draft Final Transit Asset Management Plan (Item 5.1)

(ii) Draft Final Transit Ridership Growth Strategy (Item 5.2)

Brian Hollingworth made a PowerPoint presentation of the proposed Transit Asset Management Plan and Ridership Growth Strategy as was outlined in the reports. He thanked everyone who submitted comments.

It was noted that no funds will be committed through these plans at this stage.

The Committee discussed various issues which included the connection of these plans to the Peak Oil Report, whether McMaster University should be included on the terminal list, the types of shelters being considered, the technologies available to create a transit planner, the advantage of implementing a 12 year life span for the buses, and the need to emphasis the need for area rating.

It was suggested by Councillor Whitehead that the members receive a copy of the Peak Oil Report.

(e) Amendments 2005/2006 Provincial Gas Tax Guidelines (TR06-02) (City Wide) (Item 5.3)

Don Hull referred to the above information update and indicated that the recent changes to the guidelines now allow funds to be used to offset fare increases.
The Committee received the staff information update.

5.4 Service Level Review – Heritage Green (No copy)

Andy McLaughlin made a PowerPoint presentation on the service level review that was undertaken of the Heritage Green area. He indicated that this is an example of what is involved.

He explained that a survey was conducted - 5,700 questionnaires were mailed and 675 responses were received. Through analysis of the comments received, staff prepared diagrams of proposed service improvements.

The Committee discussed the presentation and commented on the proposed routes, the use of community buses, and the possibility of imposing development charges on the malls to help finance the improved transit services.

The Committee received the staff presentation.

(f) Discussion Items

(a) Employee Pass (Item 6.1)

Daryl Bender spoke to this Item and the Committee agreed to establish a sub-committee dealing with ways to encourage more transit use by employees and other residents as recommended in Item 3 of this report.

(b) Visioning Session – Proposal (Item 6.2)

Staff distributed a draft agenda for the visioning session which will be scheduled in June. Various comments were made by Committee members concerning allotting time to establish values, the need to move quickly with proposed improvements, the 60 second sales pitch, and whether to make proposals for beyond 2007.

Staff were directed to bring forward sample criteria for the visioning session and a matrix to the next meeting scheduled for June 7, 2006.

The Committee received the verbal presentation.

(g) New Business

The Chair requested that staff provide copies of the proposed legislation establishing the Greater Toronto Transportation Authority and a summary of the Federal Budget as it pertains to transit at the next meeting.
(h) Adjournment

There being no further business, the meeting adjourned at 6:00 p.m.

Respectfully submitted,

Councillor B. McHattie, Chair
Provincial Gas Tax Transit Master Plan
Steering Committee

Ida Bedioui,
Legislative Assistant
May 3, 2006
# TABLE OF CONTENTS

1. **SUMMARY** ........................................................................................................................................... 1  
   Summary of Existing Assets ......................................................................................................................... 1  
   Summary of Major Initiatives and Priority Areas ....................................................................................... 1  

2. **CONVENTIONAL TRANSIT FLEET** ................................................................................................. 2  
   2.1 Fleet Average Age ................................................................................................................................. 3  
   2.2 Vehicle Replacement Cycle .................................................................................................................. 4  
   2.3 Maintenance Practices ......................................................................................................................... 5  
   2.4 Vehicle Procurement Plan .................................................................................................................... 5  
      2.4.1 Vehicle Size ..................................................................................................................................... 6  
      2.4.2 Fuel Technology ........................................................................................................................... 6  

3. **ACCESSIBLE TRANSIT (D.A.R.T.S) FLEET** .................................................................................. 7  
   3.1 Vehicle Maintenance ............................................................................................................................ 8  

4. **CAPITAL INFRASTRUCTURE** ........................................................................................................... 8  
   4.1.1 Mountain Transit Garage and Administrative Facility ..................................................................... 8  
   4.1.2 Terminals and Loops ....................................................................................................................... 9  
   4.1.3 Bus Stops and Shelters ................................................................................................................... 9  

5. **TECHNOLOGY** ..................................................................................................................................... 11  

6. **FINANCIAL PLAN** ........................................................................................................................... 11  

List of Exhibits

- Exhibit 2.1: Hamilton Street Railway Fleet List - March 2006 ................................................................. 3  
- Exhibit 2.2: Age Profile Conventional Transit Fleet .................................................................................. 4  
- Exhibit 2.3: Vehicle Acquisition Plan: 2006–2015 .................................................................................... 6  
- Exhibit 3.1: Accessible Transit (D.A.R.T.S) Bus Fleet Summary .............................................................. 8  
- Exhibit 6.1: Transit Reserves Allocation (Preliminary) ............................................................................ 1
1. SUMMARY

SUMMARY OF EXISTING ASSETS

This report outlines the City of Hamilton’s plan for maintaining and renewing its transit assets. The assets covered by this Plan consist of the following as of December 31, 2005:

- 204 urban transit buses for the conventional transit service, Hamilton Street Railway
- 64 vehicles for the D.A.R.T.S. specialized transit system
- 500 passenger shelters
- 2,100 bus stops
- 19 bus loops and focal point terminals
- 1 transit operations and maintenance facility
- various equipment for vehicle maintenance
- various operational hardware and software

The estimated value of these assets is $162 million based on a report prepared for the City of Hamilton by UMA/AECOM in November 2005 entitled “2005 Life-Cycle State of the Infrastructure Report on Public Works Assets”.

SUMMARY OF MAJOR INITIATIVES AND PRIORITY AREAS

The City is eligible to receive approximately $11.8 million in gas tax funding annually commencing in 2007. Under the 2005/06 Provincial gas tax funding guidelines, up to 50% may be utilized for operational purposes. Depending on the portion to be allocated for operational improvements, approximately $5.9 million would be available for investment in capital purchases, in addition to the municipal contribution. Recently, the province has announced its intention to remove the current restrictions on operating vs. capital expenditures; however, this plan generally respects the current 50/50 split.

Based on a review of existing assets, cost-benefits analysis conducted in recent years by the City and an estimation of transit expansion needs, this report recommends a number of key priorities for maintaining, improving and expanding transit assets. These priorities, which are aimed at improving the attractiveness and efficiency of the transit system, include the following:

- Accelerated replacement of the bus fleet to move from an 18 year bus life to a 12 year life. Although this requires significant initial capital investment, the long term benefits in terms of reduced maintenance costs are positive and will allow the city to mitigate future anticipated extraordinary cost increases including fuel and bus parts. An added benefit is that new buses are more attractive and produce fewer emissions than buses.
built a decade ago. It is the intent to introduce new buses to the proposed bus rapid transit corridors as part of a marketing strategy for transit. This is described in more detail in the Transit Ridership Growth Plan.

- Purchasing new buses to facilitate service expansion objectives, with the goal of adding at least 5 buses to the system in each of the next 10 years. This is considered a minimum for service expansion needs. Over time, it is anticipated that significantly more funds beyond the Provincial gas tax funds will be required to achieve these expansion targets, particularly when operating costs are considered.

- Expansion of the accessible transit fleet in conjunction with other measures to help accommodate a growing demand for accessible transit.

- Expansion of bus storage and maintenance facilities.

- Expansion and upgrade of transit terminals including those at Eastgate Mall, Downtown, Mohawk College, and elsewhere.

- Investments in technology to improve transit vehicle tracking, fare collection, passenger information and data collection.

- Targeted investment of any surplus gas tax funds into features to expand and promote Bus Rapid Transit, together with investments from other sources.

It is noted that the proposed recommendations contained in this plan represent an initial list of possible actions that will be taken by the City transit division to maintain and improve its assets. The specific details of the recommendations may evolve over time based on more detailed cost-benefit studies, pending plans for expanding the transit system (which are being developed as part of the City’s Transportation Master Plan process) or the pace at which new technologies become available.

2. CONVENTIONAL TRANSIT FLEET

The conventional transit fleet of 204 buses includes 3 high-floor articulated (18m/40 foot) diesel buses, 46 high-floor 12.2m (40 foot) diesel buses, 3 high-floor 12.2m CNG buses, 148 low-floor CNG and diesel powered 12.2m buses and 4 small (7.6m/26 foot) buses used in community bus service as summarized in Exhibit 2.1.

75% of the fleet (152 vehicles) is now low-floor and accessible and this is set to increase to 84% in 2006.
2.1 Fleet Average Age

The average age of the transit fleet is 8.86 years which is consistent with the industry target average age of 9 to 10 years for an 18-year life cycle which has been the basis for vehicle replacement. There are currently 23 vehicles beyond the 18-year life target and further 13 that will reach this age by the end of 2006 as illustrated in Exhibit 2.2.

Maintaining the 9 to 10 year average age target based on the 18-year replacement cycle requires the purchase of an average of 11 vehicles each year representing a capital funding requirement of $5.5 million. The City has been inconsistent in its pattern of vehicle replacement as evidenced by the lack of purchases in 2000, 2001 and 2004 while purchasing more than twice the required annual replacement vehicles in 1999, 2002, 2003 and 2005. This sporadic pattern of vehicle replacement is largely the result of the loss of provincial capital funding for transit vehicles in 1998 and municipal restructuring in 2000. The introduction of the Ontario Vehicle Transit Program (OVTP) in 2001 and the availability of gas tax funding has provided a renewed opportunity for the City to reinvest in its public transit vehicle fleet.

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**Exhibit 2.1: Hamilton Street Railway Fleet List - March 2006**

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<th>Year Made</th>
<th>Make</th>
<th>Model</th>
<th>Bus Series</th>
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2.2 Vehicle Replacement Cycle

The City’s transit division has traditionally followed the industry guideline and previous Ontario government policy of replacing transit vehicles largely on the basis of an 18-year life cycle. However, a recent study conducted by City concluded that moving to a 12 year lifecycle offers operating cost savings sufficient enough to offset increased capital cost after full implementation is achieved. Short term operating cost savings are realized through the elimination of the bus rebuild program while long term operating costs savings are realized through reduced engine and transmission repairs and other maintenance savings. City Council has endorsed the recommendation to move to a 12 year life-cycle and has committed to providing $1.5 million per year until the 12 year life cycle is achieved.

With 52 buses currently over 12 years of age, it is estimated that the 12-year replacement cycle would require the purchase 17 buses per year, based on the current fleet total of 200 full size buses and a target of achieving the 12 year lifecycle for the full fleet in 10 years. This compares to a purchase requirement of 10-11 buses per year to maintain an 18 year lifecycle. It may be beneficial to accelerate the replacement of buses in the short term to speed up the transition to a 12 year lifecycle by leveraging other funds such as the federal gas tax, or drawing more heavily on the provincial gas tax funds for this purpose.

Additional vehicles to meet the long term ridership growth plan would be additional to this replacement plan as discussed further in Section 2.4.
2.3 Maintenance Practices

HSR vehicles are currently maintained by City staff at the Mountain garage according to established mileage-based intervals with all work recorded in the City’s maintenance-management system.

Maintenance of the HSR bus fleet consists of two main activities:

1. Daily cleaning and fuelling and periodic, more comprehensive, interior cleaning of each bus; and
2. A scheduled maintenance and repair program.

The daily vehicle cleaning activity consists of interior cleaning and sanitizing, removal of litter, sweeping floors, wiping seats, interior fittings, fuelling, checking and replenishing fluid levels, emptying fareboxes and downloading electronic data. The periodic, comprehensive interior cleaning consists of washing walls, floor, ceiling, doors, fittings, windows, seats, coach operator’s compartment and removal of graffiti.

The maintenance and repair program consists of pre-scheduled service/inspections which are time-based. The service/inspection intervals are set at monthly intervals with three levels of increasingly detailed work carried out at each interval – A, B and C. A complete inspection of the vehicle is carried out at each interval with engine oil and filters changed and defects corrected. All work undertaken, time spent and parts and materials used is recorded on a work order. The work order information is then entered into a computerized information system. This system is used to determine and prompt the maintenance staff when to bring buses in for service and inspection.

2.4 Vehicle Procurement Plan

To meet the City’s transit ridership growth targets and serve expansion objectives outlined in the Transit Ridership Growth Plan, it is estimated that the Transit Division will need to expand its fleet by at least five buses per year starting in 2006 through to 2015. Together with the annual fleet renewal program, the total vehicle requirement is estimated to be 220 vehicles over the next 10 years for replacement and expansion. Exhibit 2.3 summarizes the combined vehicle procurement plan for both replacement and service expansion purposes.
### Exhibit 2.3: Vehicle Acquisition Plan: 2006–2015

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<td>Total</td>
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<td>22</td>
<td>22</td>
<td>220</td>
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</tbody>
</table>

R – Replacement (assumes 12 yr lifecycle)  E - Expansion

### 2.4.1 VEHICLE SIZE

For its conventional transit service, the City has purchased predominantly 12.2m long buses. The 12.2 m vehicle is the industry standard and represents the most economical vehicle for the majority of transit service applications, considering all-day loading patterns and durability. Future vehicle purchases will likely continue to emphasize the use of 12.2 m buses although active consideration is being given to the purchase of up to 20 articulated buses to alleviate capacity issues on key routes (e.g. Beeline, University). Articulated vehicles would be ideally suited for the transition towards a full Bus Rapid Transit system, which is a key feature of the Transit Ridership Growth Plan and City-wide Transportation Master Plan.

For the purposes of the asset management plan, articulated buses will be considered for purchase in the years 2006 to 2009 as replacements for 12.2m buses in those years.

### 2.4.2 FUEL TECHNOLOGY

The City began purchasing compressed natural gas-fuelled (CNG) buses for environmental reasons in 1991. However, the business and environmental case for CNG has been eroding as diesel technologies have improved significantly in recent years, including the availability of ultra low sulphur fuels and hybrid diesel engines. Due to the higher cost of CNG vehicles and increasing costs for maintenance and refuelling infrastructure, the City made a business decision to return to diesel technology for its most recent (2005) bus purchases. These vehicles meet the stringent Canadian and US emissions standards which took effect in October 2004. Diesel-fuelled vehicles will also meet the even more stringent 2007 emissions standards when equipped with after-treatment technology.
However, the reduction of vehicle exhaust emissions and greenhouse gas emissions remains a priority with the City. The emerging new vehicle propulsion technology in the industry, which offers further reductions in exhaust emissions levels as well as improved fuel economy, is hybrid (diesel-electric) drive. While still relatively new, this technology is gaining acceptance and operational experience. Several Canadian transit systems, including the Toronto Transit Commission, have recently purchased vehicles with this technology. However, there is a cost premium of approximately $200,000 per vehicle compared to the standard diesel/hydraulic transmission technology. Although both the provincial and federal governments are encouraging the purchase of this technology and have issued policy statements in this regard, the subsidy envelope has not been expanded accordingly. Nevertheless, recognizing the environmental benefits and cost savings in fuel, the City is actively considering the purchase of this vehicle technology commencing in 2006. In March 2006, an RFP was issued to solicit bids for replacement buses. In order to explore the cost of advanced technologies, the RFP included the full spectrum of bus sizes and engine/fuel/propulsion technologies.

In the longer term, recognizing potential energy constraints, the City of Hamilton may decide to move to electric trolley buses, or other grid-connected vehicle types. This decision is considered beyond the scope of the current Asset Management Plan.

3. ACCESSIBLE TRANSIT (D.A.R.T.S) FLEET

There are 64 vehicles in the City’s accessible transit fleet (D.A.R.T.S) as summarized in Exhibit 3.1. These vehicles are operated by D.A.R.T.S. under contract to the City. The City has a program to replace 9-10 vehicles each year based on an approximate life cycle of 7 years. The estimated cost of each small bus is $200,000 while the accessible vans cost approximately $75,000.

The City is currently studying the lifecycle costs and benefits of high floor (lift-equipped) buses vs. low floor (ramp equipped) buses, which will impact the capital costs of future accessible transit fleet purchases.
Exhibit 3.1: Accessible Transit (D.A.R.T.S) Bus Fleet Summary

<table>
<thead>
<tr>
<th>Fleet #</th>
<th>Qty</th>
<th>Manufacturer</th>
<th>Model</th>
<th>Year</th>
<th>Length</th>
<th>Seats</th>
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<tbody>
<tr>
<td>942 – 945</td>
<td>4</td>
<td>Ford/Overland</td>
<td>ELF</td>
<td>1999</td>
<td>26 ft</td>
<td>16</td>
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<tr>
<td>946 – 960</td>
<td>13</td>
<td>Ford/Overland</td>
<td>ELF</td>
<td>2001</td>
<td>26 ft</td>
<td>13</td>
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<tr>
<td>961 – 963</td>
<td>3</td>
<td>Ford/Overland</td>
<td>ELF</td>
<td>2002</td>
<td>26 ft</td>
<td>13</td>
</tr>
<tr>
<td>964 – 983</td>
<td>20</td>
<td>Ford/Overland</td>
<td>ELF</td>
<td>2003</td>
<td>26 ft</td>
<td>13</td>
</tr>
<tr>
<td>800</td>
<td>1</td>
<td>Ford/Overland</td>
<td>ELF</td>
<td>2003</td>
<td>26 ft</td>
<td>13</td>
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<tr>
<td>990 – 992</td>
<td>3</td>
<td>Ford</td>
<td></td>
<td>2000</td>
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<tr>
<td>996 – 997</td>
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<td>Ford</td>
<td></td>
<td>2000</td>
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<td>501 - 509</td>
<td>9</td>
<td>Ford</td>
<td>Glaval</td>
<td>2005</td>
<td></td>
<td>11</td>
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<tr>
<td>510 – 518</td>
<td>9</td>
<td>Ford</td>
<td>ELF</td>
<td>2004</td>
<td></td>
<td>13</td>
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<tr>
<td>TOTAL</td>
<td>64</td>
<td></td>
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</table>

It is expected that demand for accessible transit will increase in the coming years and as a result the accessible transit fleet will need to be expanded. Detailed estimates of expansion needs will need to be prepared. It is expected that some of the growth in demand for D.A.R.T.S. services may be accommodated to some extent through the use of accessible taxis and vans thereby reducing the future capital funding requirement for vehicles.

3.1.1 VEHICLE MAINTENANCE

As with the conventional fleet, D.A.R.T.S. vehicles are maintained at the Mountain garage, but maintenance is performed by D.A.R.T.S staff.

4. CAPITAL INFRASTRUCTURE

The City’s transit infrastructure includes the Mountain Transit Garage (bus storage, maintenance and storage) and adjacent Administrative Facility on Upper James Street. D.A.R.T.S also has a separate facility on this site. Other infrastructure includes 19 bus loops and focal point terminals, 2,100 bus stops and 500 passenger shelters.

The following section reviews the status of these facilities and future repair and expansion plans.

4.1.1 MOUNTAIN TRANSIT GARAGE AND ADMINISTRATIVE FACILITY

This facility was opened in 1988 and is the head office for the transit organization integrating all functional activities. It is attractive and of modern design, is based on a proven functional layout common to a number of other transit facilities in the province and serves the needs of the transit organization well.
The facility has a design capacity of 250 standard 12.2m transit buses comprised of 220 buses in the storage area and 30 buses in the maintenance, vehicle servicing and circulation areas. A circulation ring road is available outside the building for staging purposes, although this is not the intended use of this space. Funding has been allocated for 2006 to address short-term safety issues and to expand external staging areas.

The HSR fleet of 204 buses and D.A.R.T.S. fleet of 66 buses operate from the Mountain Transit centre. In the last four years, the conventional fleet has expanded by 8 buses while the D.A.R.T.S fleet has gone from 49 buses to 66 buses. As a result, the facility is functionally at capacity. The City is looking at ways to increase the capacity of the Mountain Transit centre, or moving some of its functions to a separate facility.

The transit building itself is in good physical condition. There is an on-going program to renew various vehicle mechanical systems and components (hoists, ventilation) and this has contributed to the good physical condition of the facility. Never the less, expansion and improvement of the staging area, service area and administrative area is required over the next few years.

In particular, to meet fleet conventional transit growth projections, expansion of the facility by at least 50 vehicles will be required by 2015.

4.1.2 TERMINALS AND LOOPS

The City has 19 loops and terminals located throughout the transit service area for the purposes of either providing a turn-around (loop) for vehicles at the end of a route or as a focal point to facilitate passenger transfers between multiple routes at major activity centres. Several of the existing focal point terminals are scheduled for re-construction or up-grading over the next 5 years. These include the McMaster University, Mohawk and Meadowlands facilities. Expanded terminals are planned at Heritage Green and Eastgate as well as in the downtown area. A study is currently underway to determine the location and layout for a new downtown terminal.

Additional loops and terminals may be required as future service plans are confirmed following the completion of the proposed comprehensive transit operational review commencing later in 2006.

4.1.3 BUS STOPS AND SHELTERS

Bus Stops

There are approximately 2,100 bus stops around the city. These are distinctive signs that provide a clear indication both of where transit service exists but also where users can access transit service. Specific information about routes and schedules are posted at key locations, such as major transfer points or key trip generators. Litter containers and benches are also provided at many locations and the City has a program for increasing the number of stops so-equipped.

To meet accessibility requirements for both the City’s accessibility plan as well as the provincial Accessibility for Ontarians with Disabilities Act (AODA), the City will gradually up-grade all bus stop locations with concrete pads/curb cuts to permit wheelchair access to conventional transit services.
Appropriate specifications have been developed in this regard. There is an annual operating budget for the maintenance and up-grading of bus stops including construction of concrete landing pads.

**Shelters**

There are currently 500 shelters at bus stops throughout the city, which represents a coverage rate of approximately 1.4 shelters per 1000 population or 24% of bus stops with shelters. The City is in the 5th year of a 15 year contact with Viacom which covers the maintenance, replacement and expansion of shelters. The contract with Viacom includes the addition of 15 shelters per year until 2015 at which time there will be 650 shelters in the city. Viacom also maintains and cleans all shelters. Shelters meet the City's accessibility standards and include customer amenity features such as a bench and route and schedule map display. The City is intending to maintain the current shelter/population ratio until 2015.

As a method for managing its on-street assets, GPS technology is available to create computer-based maps and document the location of all bus stops and shelters. This database can help manage on-street furniture such as benches, signs and waste receptacles.
5. TECHNOLOGY

Fare Technology

The fare collection equipment used for the conventional fleet is an electronic, registering farebox and support system manufactured by Cubic Systems and acquired in 1988. This equipment is life-expired and must be replaced within the next 2 years. The City is also involved in the provincially-sponsored Fare Card Project, a Greater Toronto Area (GTA) initiative, to adopt smart card technology and facilitate inter-regional as well as local travel by transit. This system, once finalized, will result in the replacement of HSR’s fare collection equipment with new fareboxes and smart card equipment.

Automated Passenger Counters (APCs)

APCs are installed on all HSR buses and provide both the operations and service planning groups with valuable information pertaining to passenger loads and activities at stops. This equipment is life-expired and will be replaced in 2007.

Automatic Vehicle Location System/GPS/Radio Communications

The conventional transit system’s Automatic Vehicle Location (AVL) system and control centre is scheduled for replacement over the years 2006 – 2010. The current AVL system is aging and significant software/hardware upgrades are required.

Similarly, upgrades are planned for the D.A.R.T.S Automatic Vehicle Location, GPS and Mobile Data Terminal (MDT) systems. $500,000 was approved in 2006 for these upgrades.

6. FINANCIAL PLAN

With regard to gas tax funding, Hamilton is projected to receive approximately $11.8 million annually when the full 2 cent allocation is fully implemented after October 2006. Under 2006 guidelines, up to 50% of the gas tax funding may be applied to operations-oriented initiatives designed to increase transit ridership after 2006. The remainder can be applied to capital items for the purpose of increasing transit ridership and would include buses for service expansion, additional shelters and a smart-card based fare collection system and terminal improvements. The Province recently announced that the OTVP program will remain in effect, for replacement buses only, for a five year period until 2010. The OTVP contributes 1/3 of the capital cost of new accessible transit buses. Funding for transit projects from the federal government has been announced; however, the specifics and availability of funding has not been confirmed.

Exhibit 6.1 summarizes the plan for investing and allocating the provincial gas tax funding (Transit Reserves) over the period 2006 to 2014 which is the extent of current City and Transit Division planning. Approximately, half of the $11.8 million in available funds would be directed toward operations-related investments to grow transit ridership each year while the remainder would be invested annually in capital replacement and improvement projects.

The allocation of spending on specific projects in the medium to long term will evolve based on further studies, including the planned comprehensive route review discussed in the Transit Ridership Growth Plan. It is the intent to make the expansion of Bus Rapid Transit a key priority for the City to grow ridership, and as a result, all un-allocated funds that have not been assigned to specific projects have been assigned for this purpose.
### Exhibit 6.1: Transit Reserves Allocation (Preliminary)

**Planned Transit Gas Tax Reserve**

<table>
<thead>
<tr>
<th></th>
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<td>201,449</td>
<td>12,877</td>
<td>(181,353)</td>
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<td>ATS Service Level Enhancement Proposed (policy)</td>
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<td>Transit Bus Pass Program</td>
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<td>2006 Budget - COW Amendment to offset Fare Increase</td>
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<td>Fare Card Capital Project</td>
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<td><strong>Total Capital $</strong></td>
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<td><strong>Total Capital %</strong></td>
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<td>49.9%</td>
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<td>(2,490)</td>
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<td>(2,294,321)</td>
<td>(570,975)</td>
<td>384,530</td>
<td>201,449</td>
<td>12,877</td>
<td>(181,353)</td>
<td>(127,660)</td>
<td>(72,356)</td>
</tr>
</tbody>
</table>

* Allocation subject to further review and service planning.
City of Hamilton

TRANSIT RIDERSHIP GROWTH PLAN

FINAL REPORT
MAY 2006
# TABLE OF CONTENTS

EXECUTIVE SUMMARY ....................................................................................................................1
  Development of Plan ..................................................................................................................... 1
  Planning Context ............................................................................................................................. 1
  Guiding Principles ......................................................................................................................... 2
  Summary of Major Initiatives and Priority Areas ....................................................................... 2

1. INTRODUCTION ...........................................................................................................................4
  1.1 Background and Objectives ........................................................................................................ 4
  1.2 Time Horizons ............................................................................................................................. 4
  1.3 Planning Framework ................................................................................................................... 5
    1.3.1 VISION 2020 ...................................................................................................................... 5
    1.3.2 Growth Related Integrated Development Strategy ............................................................ 6
    1.3.3 Transportation Master Plan ............................................................................................... 6

2. CONTEXT .......................................................................................................................................9
  2.1 Historical Transit Context ........................................................................................................ 9
  2.2 Population and Employment .................................................................................................... 9
  2.3 Demographics .......................................................................................................................... 10
  2.4 Economic Development .......................................................................................................... 10
  2.5 Travel Demand Characteristics ............................................................................................... 10
  2.6 Transit Service Characteristics ............................................................................................... 11
  2.7 Transportation Targets ........................................................................................................... 13
  2.8 Energy Considerations ............................................................................................................ 14
  2.9 Financial Context .................................................................................................................... 14

3. STRATEGIES FOR CONVENTIONAL TRANSIT ...................................................................15
  3.1 Growth Management ............................................................................................................... 15
    3.1.1 Strategy A.1 – Support Nodes and Corridors Growth Concept ........................................... 15
TABLE OF CONTENTS (CONT’D)

3.1.2 Strategy A.2 – Make Transit Service a Pre-requisite for any Greenfield Development.................................................................17

3.2 Urban Design and Site Planning................................................................................................................................................................. 17

3.2.1 Strategy B.1 – Promote Intensification Around Transit Nodes and Corridors........................................................................17

3.2.2 Strategy B.2 – Requirements for New Communities.................................18

3.3 System Capacity..................................................................................................................................................................................................19

3.3.1 Strategy C.1 – Increase Service Frequencies........................................19

3.3.2 Strategy C.2 – Develop Bus Rapid Transit System .................................20

3.3.3 Strategy C.3 – Expand Articulated Bus Fleet ........................................21

3.4 Service Design and Delivery ..........................................................................................................................................................................22

3.4.1 Strategy D.1 – Connect Nodes with Express Bus Routes .......................22

3.4.2 Strategy D.2 – Route Re-Structuring .........................................................23

3.4.3 Strategy D.3 – Improve Connections to Inter-regional Transit/passenger Rail ........................................................................................................23

3.4.4 Strategy D.4 – Facilitate Park and Ride......................................................24

3.4.5 Strategy D.5 – Improve Intermodal Accessibility....................................24

3.4.6 Strategy D.6 - Introduce Transit Priority in Selected Corridors ......25

3.4.7 Strategy D.7 - Improve Weekend and Shopping Services ..................25

3.4.8 Strategy D.8 – Expand Service to Outlying Areas and Emerging Employment Areas .................26

3.4.9 Strategy: D.9 – Mitigate Impacts of Fare Increases on Selected Populations .................................................................27

3.5 Marketing and Education................................................................................................................................................................................27

3.5.1 Strategy E.1 – Increase Profile of Transit on Public Agenda.................28

3.5.2 Strategy: E.2 – Expand and Promote Student/employer Pass Programs........................................................................................................28

3.5.3 Strategy: E.3 – Data Collection and Market Research..........................29

3.6 Evaluation and Performance Measures for Conventional Transit..............29

3.6.1 Service Evaluation and Measuring Performance ..................................29

4. SPECIALIZED TRANSIT ..................................................................................................................................................................................31

4.1 Specialized Transit Strategies...........................................................................................................................................................................31

4.1.1 Strategy F.1 – Fleets and Facilities ..........................................................31

4.1.2 Strategy F.2 – Community Partnerships .................................................32
TABLE OF CONTENTS (CONT’D)

4.1.3 Strategy: F.3 – Scheduling and Dispatch Functions ..................................................32
4.1.4 Strategy F.4 - Service Delivery .................................................................................33

List of Exhibits

Exhibit 1.1: Planning Context ................................................................................................5
Exhibit 1.2: Statement of Transportation Objectives and Guiding Principles from the
Transportation Master Plan (Phase 2) ..................................................................................7
Exhibit 1.3: Transportation Master Plan Policy Themes .......................................................8
Exhibit 2.1: Existing Transit System .....................................................................................12
Exhibit 2.2: Summary of Conventional Transit Service Characteristics (2004 vs. 1994) ........12
Exhibit 2.3: Transportation Targets (Transportation Master Plan Phase 2) ..........................13
Exhibit 3.1: Nodes and Corridors Concept .......................................................................16
EXECUTIVE SUMMARY

DEVELOPMENT OF PLAN

The City of Hamilton Transit Ridership Growth Plan represents the efforts of a large number of people. Specifically, in order to facilitate and guide the development of the Growth Plan and Asset Management plans, City Council established a Provincial Gas Tax and Transit Master Plan Steering Committee. Membership for this Steering Committee was established through an open call to citizens in September 2005. The role of the Steering Committee, which includes representatives from Council as well as Hamilton Street Railway (HSR), is to prepare a Transit Master Plan; prepare the Transit Growth and Asset Management Plan, and to provide continuing advise and recommendations to the public works and environment committee on how to allocate the provincial gas tax revenue funding. A sub-committee of the larger Steering Committee was established to develop detailed recommendations to include in the Ridership Growth Plan and Asset Management Plan. IBI Group was retained in February 2006 to work with the Task Force and to prepare the actual plans.

During the development of the plans, the Steering Committee met three times to discuss, among other agenda items, the Ridership Growth Plan and Asset Management Plan. The sub-committee met two times to provide input into the plans. It is envisioned that the Steering Committee will continue their role in advising the City on transit issues throughout 2006, helping to establish priorities for the allocation of gas tax funds to specific projects identified in this ridership growth plan.

PLANNING CONTEXT

The City of Hamilton Transit Ridership Growth Plan comes at an opportune time as transit is set to become a major area of focus for the City. At the time of developing the Ridership Growth Plan, the City was in the midst of completing a Growth-Related Integrated Development Strategy (GRIDS), which will “identify the most ideal places for growth and the type of growth based on environmental priorities, social issues, economic opportunities and population studies as well as to identify strategies to fund the servicing of these areas”. GRIDS is an integrated planning process to identify a broad land use structure, associated infrastructure, economic development strategy and financial implications for the growth options for the City of Hamilton over the next 30 years.

As part of the integrated development strategy, long range plans are also being prepared for transportation and other city services. The Transportation Master Plan comprises of three phases. The first phase involved the development of a transportation model to predict future transportation demands and needs. The second phase focused on the development of 23 policy papers in the following areas: Travel Demand, Urban Development, System Performance, Infrastructure Planning and Infrastructure Financing. The Policy Papers were endorsed by Council on November 24, 2004. Phase 3, currently underway, will develop transportation options and associated infrastructure to serve future growth based upon the results of the policy work performed in Phase 2 and the land use scenarios developed through the broader GRIDS study.
Increasing transit ridership through investments in transit services and implementation of transit supportive land use and transportation policies is a key priority for both GRIDS and the Transportation Master Plan. Similarly, there is a recognition that promoting new economic opportunities is a key component for all planning activities in Hamilton, and transit can help play a part in this.

GUIDING PRINCIPLES

The preparation of this Transit Ridership Growth Plan marks an important turning point for transit in Hamilton. Gas tax funds received from the Province will help HSR and the City move from a cost-cutting mode to an expansionary mode. Yet, it is important to recognize that the gas tax funds are just a starting point if transit is to regain the prominence it had a decade ago and if the City is to achieve the goals and policies that are set out in the Transportation Master Plan for reduced automobile dependence. *It is imperative that gas tax funds are applied to much needed transit improvements, and not used alleviate municipal responsibilities for transit.*

Through discussions with the TRGP/TAMP sub-committee, some key themes or guiding principles emerged including:

- The need to improve services and safety for existing riders so they become ambassadors for transit;
- The need to make transit a viable alternative for more people throughout the city, including areas currently not served or underserved by transit;
- Adoption of strategic approach that considers transit’s role in the larger transportation, social, economic and environmental context, including the ability for transit to facilitate the City’s growth management objectives and policies for a more balanced transportation system;
- The need to pursue initiatives that are cost-effective with high visibility, and those that improve the image of the transit system; and,
- The benefits of marketing the transit system as an important city service and one that requires attention to position Hamilton for future economic success, community well-being, affordability for passengers and environmental sustainability.

SUMMARY OF MAJOR INITIATIVES AND PRIORITY AREAS

This plan identifies and describes a number of strategies under five major initiative areas for conventional transit as well as specific strategies for Specialized Transit.

It is noted that the strategies contained in this plan represent an initial list of broad strategies for increasing transit ridership and additional details, costing information and phasing plans will be developed for each of the actions through subsequent planning processes and further study.

Highlights of the strategies that City of Hamilton will pursue to increase transit ridership include:

- Overseeing major changes to the way future development is planned and designed, including strategies to promote more compact mixed use development in not only key transit corridors but throughout the City;
• A focus on improving existing transit corridors by increasing the frequency of bus services, which has the benefit of providing much needed capacity while at the same time increasing the attractiveness of the services by reducing wait times;

• Expanding transit services to areas were service does not exist, or is limited;

• Expanding and renewing the transit fleet and improving customer amenities;

• Embarking on a major City initiative to establish Bus Rapid Transit in an east-west and a north-south corridor, building on the success of the Beeline;

• Conducting a route-restructuring study to reduce duplicative services, identify new routes to serve existing and future growth areas, including employment areas, and establish a new layer of express-type services to connect major nodes throughout the City;

• Implement a marketing campaign to raise the level of awareness and regard for transit among Hamilton residents and politicians, and the need for significant increases in the level of funding for basic service improvements.

• Working with Universities and major employers to assess ways to improve the transit for their respective uses, in combination with increasing the attractiveness and use of employee buses passes.

• Continued preservation and expansion of specialized transit services to address the current unmet demand and forecast increase in demand for accessible transit.
1. **INTRODUCTION**

1.1 Background and Objectives

In October 2004, the Province of Ontario announced its intention to invest a portion of provincial gasoline tax revenues (two cents a litre) in public transit. The goal of this investment is to ensure that local public transportation ridership increases through expansion of public transportation capital infrastructure and service levels.

In order to continue receiving gas tax funding, municipalities must develop a transit ridership growth plan and have it approved by Council and submit it to the Ministry of Transportation (MTO) by March 31, 2006. Municipalities receiving gas tax funding are also required to report annually to the province on how dedicated gas tax funds are being used to build transit ridership.

As outlined in the *Guide to Preparing a Transit Ridership Growth Plan* issued by MTO, the main objective of the ridership growth plan is to develop and put in place key strategies to achieve ridership growth, in order to focus municipal efforts and identify the ridership growth initiatives most suitable for the individual municipality. Accordingly, this plan identifies a range of strategies that are required for the City of Hamilton to successfully increase transit ridership, including:

- Growth management initiatives incorporating *transit-supportive land use planning* principles;
- **Urban design and site planning measures** to encourage and facilitate transit use;
- Measures to *increase system capacity* to accommodate ridership growth;
- Measures to *improve service design and delivery* and *safety*;
- **Marketing and education** initiatives.
- Measures to *improve specialized transit*.

A key component of the ridership growth plan is to identify performance measures that will provide a basis for future progress reports and updates to this plan.

1.2 Time Horizons

This ridership growth plan includes strategies for three time horizons:

- **Short Term** - 2006-2009 corresponding to the City’s budget cycle requirements.
- **Medium term** – 2010-2015 corresponding to the City’s 10-year capital and operating plan timelines.
- **Long Term** – 2015-2031 corresponding to the City’s Longer Term Growth Management Plan and Transportation Master Plan horizons.
1.3 Planning Framework

Following the amalgamation of six constituent municipalities in 2001, the City of Hamilton has been consolidating and updating its long range planning documents, ultimately leading to the adoption of a new Official Plan. This work has been undertaken in an integrated fashion under the umbrella of “Building a Strong Foundation”. The overall planning framework, and the relationship between various activities, is outlined in Exhibit 1.1. Several activities provide context for the Ridership Growth Plan, or will be impacted by the recommendations of the Ridership Growth Plan as discussed below.

Exhibit 1.1: Planning Context

1.3.1 VISION 2020

City of Hamilton’s Vision for Sustainability – Vision 2020 – provides an overall context to all planning activities in the City. The Vision highlights the need to guarantee access for all residents to all of the city’s activities, be they employment, education, health, or leisure, and it recognizes that participation in these activities is contingent upon a safe and efficient transportation system.

The recently re-approved Vision 2020 stipulates that Hamilton’s residents should have access to and be able to choose from a variety of transportation modes. The Vision also recognizes that a significant proportion of the City’s residents, for reasons including age, physical ability or finances, are unable to operate a personal vehicle, and therefore that ownership of a vehicle should not be a prerequisite for participation in the City’s life. It recognizes the importance of transit and non-motorized transportation modes such as walking, cycling and roller-blading because they allow for a reduction in greenhouse-gas emissions, they are affordable, and directly contribute to the health of
those who partake in them, contributing to the overall well-being of the City. Although the Vision emphasizes sustainable modes, it does not presuppose that personal vehicles will be replaced in the near future, as these are essential to the functioning of the City and its economic development.

1.3.2 GROWTH RELATED INTEGRATED DEVELOPMENT STRATEGY

The Growth Related Integrated Development Strategy, or GRIDS, is a made-in-Hamilton smart growth strategy. The purpose of GRIDS is to identify the ideal places for growth and type of growth based on environmental priorities, social issues, economic opportunities and population studies as well as to identify strategies to fund the servicing of these areas.

The GRIDS project will recommend a strategy to accommodate a projected population of up to 660,000 and 80,000 additional households by 2031. To provide for balanced population, household and employment growth, a minimum of 2,500 acres (more than 1000 hectares) of additional employment lands are required to accommodate projected employment growth.

1.3.3 TRANSPORTATION MASTER PLAN

The City of Hamilton’s new Transportation Master Plan will mark the first comprehensive update of transportation policy in Hamilton since municipal amalgamation in 2001. A major effort was undertaken as part of Phase 2 in the Transportation Master Plan process to harmonize and update the transportation-related policies of the former Region of Hamilton-Wentworth and its constituent municipalities. This policy analysis step was intended to:

- Consider significant transportation policy directions established by former area municipalities;
- Reflect the broad role and mandate of the new City of Hamilton; and,
- Address new challenges and opportunities that have emerged over the last few years, including financial sustainability.

The main role of TMP policies is to shape long-term plans by identifying objectives, principles and preferred outcomes. They also guide (rather than specify) day-to-day operational and spending decisions. TMP policies typically have a long-term horizon (e.g. 20 years), and are intended to remain in force without review or amendment (unless dictated by significant changes in circumstance) for five to ten years.

In general, policies work indirectly. They are brought to life through day-to-day Council decisions and other mechanisms such as annual budgets, long-range financial plans, implementation strategies for individual transportation programs, Environmental Assessment processes and guideline documents.

As part of the development of policies under Phase 2, the nine directions for GRIDS were translated into an integrated policy framework for the TMP, which reflected a more direct expression of transportation issues. This requirement led to the development of a Statement of Transportation Objectives and Guiding Principles for the TMP that, like a vision statement, is a marker of intent. It can remain relevant in the face of inevitable short-term shifts in political, economic or social context.
The Statement of Transportation Objectives and Guiding Principles is presented in Exhibit 1.2. Many of these policies are directly transferable to the ridership growth plan developed herein. (Note: these principles are presented here for context only and were not refined for the purpose of the TRGP).

**Exhibit 1.2: Statement of Transportation Objectives and Guiding Principles from the Transportation Master Plan (Phase 2)**

<table>
<thead>
<tr>
<th>Objective</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective 1</td>
<td>Offer safe and convenient access for individuals to meet their daily needs</td>
</tr>
<tr>
<td>Principle 1(a)</td>
<td>Transportation facilities and services should be safe, secure and barrier-free</td>
</tr>
<tr>
<td>Principle 1(b)</td>
<td>Each transportation mode should have an adequate level of service</td>
</tr>
<tr>
<td>Principle 1(c)</td>
<td>Non-travel alternatives and shorter trips should be encouraged</td>
</tr>
<tr>
<td>Objective 2</td>
<td>Offer a choice of integrated travel modes, emphasizing active transportation, public transit and carpooling</td>
</tr>
<tr>
<td>Principle 2(a)</td>
<td>Alternatives to single-occupant vehicle travel should be practical and attractive</td>
</tr>
<tr>
<td>Principle 2(b)</td>
<td>Transportation facilities and services should be continuous and seamlessly integrated</td>
</tr>
<tr>
<td>Principle 2(c)</td>
<td>The health benefits of active lifestyles should be recognized and promoted</td>
</tr>
<tr>
<td>Objective 3</td>
<td>Enhance the liveability of neighbourhoods and rural areas</td>
</tr>
<tr>
<td>Principle 3(a)</td>
<td>Transportation facilities should reflect and complement their community context</td>
</tr>
<tr>
<td>Principle 3(b)</td>
<td>Noise and other undesirable impacts of traffic on residential areas should be minimized</td>
</tr>
<tr>
<td>Objective 4</td>
<td>Encourage a more compact urban form, land use intensification and transit-supportive node and corridor development</td>
</tr>
<tr>
<td>Principle 4(a)</td>
<td>Investment in transit-supportive land uses should be encouraged by quality public transit services and facilities</td>
</tr>
<tr>
<td>Principle 4(b)</td>
<td>Transportation facilities should meet current needs while remaining adaptable to those of the future</td>
</tr>
<tr>
<td>Principle 4(c)</td>
<td>Zoning, urban design and parking management strategies should minimize land consumed by automobile travel</td>
</tr>
<tr>
<td>Objective 5</td>
<td>Protect the environment by minimizing impacts on air, water, land and natural resources</td>
</tr>
<tr>
<td>Principle 5(a)</td>
<td>The use of greenspace for new infrastructure should be minimized</td>
</tr>
<tr>
<td>Principle 5(b)</td>
<td>Transportation technologies and behaviours should reduce energy consumption and air emissions</td>
</tr>
<tr>
<td>Principle 5(c)</td>
<td>The impacts of surface water runoff from transportation facilities should be minimized</td>
</tr>
<tr>
<td>Objective 6</td>
<td>Support local businesses and the community’s economic development</td>
</tr>
<tr>
<td>Principle 6(a)</td>
<td>The efficiency of goods movement to, from and within the city should be maximized</td>
</tr>
<tr>
<td>Principle 6(b)</td>
<td>Businesses and institutions should remain accessible to employees and visitors</td>
</tr>
<tr>
<td>Objective 7</td>
<td>Operate efficiently and be affordable to the City and its citizens</td>
</tr>
<tr>
<td>Principle 7(a)</td>
<td>Maximum value should be extracted from existing facilities and services</td>
</tr>
<tr>
<td>Principle 7(b)</td>
<td>Decisions should take into account the life-cycle costs of transportation facilities and services</td>
</tr>
<tr>
<td>Principle 7(c)</td>
<td>Transportation funding opportunities involving other governments, the private sector and individual users should be considered</td>
</tr>
</tbody>
</table>

Policies to support and guide the Transportation Master Plan were developed for 23 subject areas, including transit. While policies are tailored to each subject area, four themes were prominent in most of the policies, as illustrated in Exhibit 1.3. Individual policy papers can be viewed on the City of Hamilton website under: [http://www.gridsmasterplans.com/English/Policy-Papers.html](http://www.gridsmasterplans.com/English/Policy-Papers.html).
Two policy papers are of particular relevance to this ridership growth plan:

- Transportation Targets and Transit Strategy
- Accessibility.

Other papers such as Energy Use and Greenhouse Gas Emissions, New Technologies, Walking and Cycling, Level of Service and Parking also include policies that affect transit ridership.

Key policies from the Transportation Targets and Transit Strategy Paper are listed below. In the policy papers, each major policy is supported by a series of specific actions.

- *Increase transit service levels on an incremental basis, in conjunction with other policies to improve the viability of transit, with a goal of increasing annual transit ridership per capita by at least 5% per year. Direct service level increases to corridors and routes that have the potential to generate increased transit ridership in a cost-effective manner.*

- *Ensure that all residents and employees of the City of Hamilton to have access to the transit system.*

- *By 2011 or sooner, establish a transit priority network in an east-west corridor between McMaster University and EastGate Square and in one or more north-south corridors between Central Hamilton and Hamilton Mountain. By 2021 or sooner, upgrade these corridors to operate as Bus Rapid Transit facilities in dedicated lanes or corridors.*

The Provincial Gas Tax revenues will help the City of Hamilton realise these actions.
2. CONTEXT

2.1 Historical Transit Context

The municipal transit system in Hamilton is known as Hamilton Street Railway (HSR). HSR’s roots go back as far as 1874 when the first horse-drawn streetcars were established. By 1886, the HSR fleet had expanded to 8 open and 14 closed cars. In 1894, the system was carrying almost 3 million passengers per year\(^1\). Since the late 19th century, HSR has undergone seen numerous technology changes including:

- Use of Horse-draw streetcars – 1874 – 1893
- Operation of a Funicular – 1892 – 1936
- Use of electric streetcars – 1892 – 1951
- Use of trolley coaches – 1950 – 1992
- Use of motor buses – 1926 – present\(^2\)

In recent years, HSR has lead the way with new technologies such as natural gas vehicles and low floor buses. Prior to that the City had electric trolley buses. HSR prides itself on providing the best possible service to its customers.

The City of Hamilton is also provides Accessible Transit Services through DARTS. DARTS works under contract to the Accessible Transit Services (ATS), a section of the Transit division of the City of Hamilton. ATS is responsible for the overall delivery of Para-Transit Services to the citizens of Hamilton and registration for D.A.R.T.S. must be made through ATS.

2.2 Population and Employment

The City of Hamilton is home to about half a million people representing about 4.3% of Ontario’s population in 2001. Because Hamilton is now an amalgamation of several former municipalities, its population ranks it as the third largest City in Ontario. Approximately two-thirds of Hamilton residents currently live in the area defined by the former City of Hamilton, with the remainder living in Ancaster, Dundas, Glanbrook, Flamborough and Stoney Creek. Population in these latter areas is generally concentrated in developments surrounding the older town centres such as Ancaster and Waterdown, though these areas are currently experiencing rapid growth.

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\(^1\) Based on information contained in Industrial Hamilton, a Trail to the Future, Hamilton Street Railway, http://collections.ic.gc.ca/industrial/hsr-history.htm

\(^2\) Based on information from various sources including 2003/2004 HSR Transit Guide
Employment trends in Hamilton have not mirrored those of population in that total City employment actually declined slightly (-1%) between 1991 and 2001. The largest declines occurred in Central Hamilton, the Bayfront Area and the Downtown. Some of these loses were off-set by increases in employment in Ancaster, Dundas, Stoney Creek and the South Mountain.

Over the next 20-30 years, the City of Hamilton will see some significant changes in population and employment. By 2031, the City of Hamilton’s population is expected to grow to 660,000, or by approximately 30%. Future employment will depend on several factors, but current forecasts are that employment will grow by at least 19% by 2021. A large majority of employment growth will occur in areas such as Ancaster, Flamborough and Glanbrook, which currently do not hold a large portion of Hamilton’s jobs. The Downtown is also expected to recover and see increases in employment.

2.3 Demographics

Like several other cities in Ontario, Hamilton is experiencing a significant shift in demographics. Since 1996, there has been a decline in the number of middle-age persons and an increase in the number of older persons. Between 1996 and 2001, the number of people 75 years and older increased by 21%. These trends are expected to continue as the baby-boomers get older and retire.

Based on available information, it is projected that the transportation disabled population will increase by 33 percent during the period from 2001-2021 (approximately 2 times the rate of population growth).\(^3\)

2.4 Economic Development

The City of Hamilton’s Economic Development Strategy recognizes change in Hamilton’s business communities and has targeted key industry clusters in response to changes in the economic environment including: Traditional Sectors (Advanced Manufacturing, Agriculture/Food and Beverage Processing, Port Related Industry/Business), Emerging Clusters (Aerotropolis, Biotechnology and Film), and Non-Traditional Clusters (Tourism & Arts, Downtown).

Transit has a key role in the promotion of the Economic Development Strategy, particularly with respect to supporting the downtown as well as newly emerging employment lands (i.e. aerotropolis, McMaster Innovation Centre, and the Glanbrook industrial park).

2.5 Travel Demand Characteristics

On an average day, residents of Hamilton make a total of approximately 1 million trips, or 2.5 trips for every person over 11 years of age. Approximately 81% of trips made by residents stay within

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\(^3\) Extracted from the TransAccess database, a comprehensive database developed by Transport Canada and used for the purposes of this paper to derive the number of transportation disabled persons in the City of Hamilton.
the City of Hamilton; however, this figure has been declining since 1986 when 86% of trips stayed within the City.

Like many other Canadian cities over the past two decades, the City of Hamilton saw a significant increase in the use of automobiles with corresponding decreases in the use of transit. Between 1986 and 2001, local transit went from handling 12% of morning peak period trips to 6%. Most of this was due to increases in the use of automobiles, which now handle about 85% of daily trips (driver and passenger combined). Part of decline in transit is a result of service cut-backs, but a large part is demographics, and the continuing suburbanization of the population, combined with higher levels of out-commuting from Hamilton.

2.6 Transit Service Characteristics

The HSR currently provides regular fixed route bus services in the former City of Hamilton, Dundas, Ancaster and Stoney Creek, while little or no service is currently provided in Flamborough or Glanbrook. The bus system is characterized by a small number of hubs, with most buses either originating in the downtown core, or at one of several key suburban activity locations (Lime Ridge Mall, McMaster University, Eastgate Square etc.) The HSR has approximately 200 standard buses in active service. Exhibit 2.1 provides an illustration of the existing transit system.

The City of Hamilton also operates a specialized para-transit service for aged or disabled persons, DARTS, that uses a fleet of lift equipped vans and contracted taxi services where appropriate. In addition GO Transit provides inter-regional bus and rail services, which are presently focused on the downtown GO Transit Terminal.

Transit service outside the former city of Hamilton is limited. Only two municipal (HSR) lines run through each of Ancaster and Dundas, and these have limited service on weekends. In Glanbrook and Stoney Creek, arrangements have been made with local taxicab services to connect riders from areas beyond the bus service area with bus lines 27, 2, 10, 55, and 55A.

Part of the reason for the limited service in some former municipalities is a result of what is known as area rating. Historically, municipalities could opt out of transit services or receive lower transit service level with the result being lower property taxes. This practice is being reviewed by the City of Hamilton, starting with the establishment of an area rating committee. Addressing the issue of area rating is an essential requirement prior to any expansion of services to ensure equity among taxpayers.
Due to financial constraints, the major theme of transit in Hamilton over the past decade has been cost-efficiency as shown in Exhibit 2.2. Despite reducing service hours and increasing fares, HSR has managed to retain about the same level ridership it had in 1994. However, HSR has lost out on the opportunity of growing transit ridership with population growth.

### Exhibit 2.2: Summary of Conventional Transit Service Characteristics (2004 vs. 1994)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>1994</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Area Population</td>
<td>401,500</td>
<td>436,000</td>
</tr>
<tr>
<td>Conventional transit fleet size</td>
<td>172</td>
<td>198</td>
</tr>
<tr>
<td>Conventional transit service hours</td>
<td>740,576</td>
<td>623,560</td>
</tr>
<tr>
<td>Revenue Passengers</td>
<td>20,662,000</td>
<td>20,627,826</td>
</tr>
<tr>
<td>Annual Passenger trips per capita in transit service area</td>
<td>51</td>
<td>47</td>
</tr>
<tr>
<td>Total Operating Cost</td>
<td>$55,752,700</td>
<td>$49,402,000</td>
</tr>
<tr>
<td>Revenue Cost/Ratio</td>
<td>40%</td>
<td>57%</td>
</tr>
<tr>
<td>Average Fare</td>
<td>$1.04</td>
<td>$1.33</td>
</tr>
</tbody>
</table>
2.7 Transportation Targets

Targets for transportation demand have been established through the Phase 2 Policy Papers of the Transportation Master Plan. These targets reflect long standing direction of the City of Hamilton to reduce its environmental impacts while increasing mode choice and accessibly for its residents.

These strategic targets, summarized in Exhibit 2.3, have direct implications for public transit, namely:

- An increase in transit’s share of daily trips from 5% in 2001 to 12% by 2021.
- An increase in annual transit trips per capita (city-wide) from 40 in 2001 to between 80 and 100 in 2021.

Exhibit 2.3: Transportation Targets (Transportation Master Plan Phase 2)

<table>
<thead>
<tr>
<th></th>
<th>Current Situation (based on 2001 data)</th>
<th>Potential Near Term Scenario (based on a goal of reducing auto vehicle-kilometres by 10% compared to 2001)</th>
<th>Potential Long Term Scenario (based on a goal of reducing auto vehicle-kilometres by 20% compared to 2001)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated daily vehicle kilometres of travel by Hamilton residents</td>
<td>4.8 million km</td>
<td>4.3 million km</td>
<td>3.8 million km</td>
</tr>
<tr>
<td>Share of daily trips made by single-occupant drivers</td>
<td>68%</td>
<td>58%</td>
<td>52%</td>
</tr>
<tr>
<td>Share of daily trips made by using municipal transit</td>
<td>5%</td>
<td>9%</td>
<td>12%</td>
</tr>
<tr>
<td>Share of daily trips made by using walking or cycling</td>
<td>6%</td>
<td>10%</td>
<td>15%</td>
</tr>
<tr>
<td>Annual transit rides per capita (City-wide) (1)</td>
<td>40</td>
<td>60</td>
<td>80-100</td>
</tr>
</tbody>
</table>

(1) Based on total residents within City boundaries, including residents outside primary service areas. Excludes GO Transit ridership.
2.8 Energy Considerations

Citizens and politicians in the City of Hamilton are very concerned about the rising cost of energy and potential shortages in supply. Council recently commissioned a report to look into this issue and a report entitled “Hamilton: Electric City” was presented on Council on April 28, 2006. One of the key recommendations is that Hamilton should significantly increase its investments in energy efficient transit systems, specifically electrically powered transit vehicles.

While the exact form of transit technology will be established in the Transportation Master Plan, the strategies outlined in this ridership growth plan are consistent with the long term goal of significantly reducing Hamilton’s dependence on fossil fuels.

2.9 Financial Context

The initiatives and strategies contained in this ridership growth plan will be implemented through funding from the Provincial gas tax together with the City of Hamilton’s operating and capital budget and available funds from the federal government. It is recognized that gas tax revenues are to support increased municipal transportation expenditures as opposed to increasing or replacing current levels of funding. In other words, all gas tax spending must be incremental to baseline spending towards increasing transit ridership. A key focus of the gas tax funds should be directed to capital expenditures; the current guidelines are that operating expenditures should be limited to a maximum of 50%; however, recent announcements have suggested this restriction may be lifted.

Based on a funding level of 2 cents per litre, the gas tax allocation for the City of Hamilton is $11.8 million. Given that the City is in the midst of preparing a Transportation Master Plan, which will establish infrastructure needs over the next 30 years including transit, it is difficult to provide an overall context for City expenditures. However, one of the key themes of the Transportation Master Plan is to provide a balanced transportation network and it is expected that the emphasis on transit will increase significantly compared to the current situation. Currently, transit (HSR) accounts for about 4% of the municipal budget while accessible transit accounts for 2%.

The remainder of this report provides a long list of strategies and actions to increase transit ridership. Some of these initiatives will be funded through the gas tax reserves, while others, such as the full development of a Bus Rapid Transit System, will require additional funding.

One of the priorities of the Provincial Gas Tax and Transit Master Plan Steering Committee will be to establish initial funding priorities.

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5 Based on data obtained from 2004 Operating and Capital Budget Report, Appendix 1-1
3. STRATEGIES FOR CONVENTIONAL TRANSIT

This chapter describes a range of strategies that will be adopted to increase conventional transit ridership. Strategies have been categorized according to the following main initiative areas:

- A - Growth management;
- B - Urban design and site planning;
- C - System capacity;
- D - Service design and delivery;
- E - Marketing and education;
- F - Specialized transit.

For each initiative area, a number of specific strategies and actions are identified together with an indication of their timing, where applicable. Many of these strategies will require further work to determine their costs and timing. The Provincial Gas Tax and Transit Master Plan Steering Committee has been established to provide input into establishing priorities. In addition, the Transportation Master Plan will include recommendations, timing and costs for major infrastructure items. A major activity for HSR in the coming year will also be the development of a comprehensive route review/restructuring study. Until such a study is complete, the exact costs of service improvements are difficult to assess.

3.1 Growth Management

3.1.1 STRATEGY A.1 – SUPPORT NODES AND CORRIDORS GROWTH CONCEPT

As discussed previously, the City of Hamilton is currently in the process of completing a growth strategy for the City, referred to as GRIDS. Five options are being considered to accommodate future growth:

- Option 1: No Residential Expansion;
- Options 2 to 4: Appropriately Distributed Development (three different options);
- Option 5: Nodes and Corridors.

All options reflect the requirements of Places to Grow and the Greenbelt legislation, including the target of accommodating 40% of all new households within the existing urban area through intensification.

From a transit perspective, Option 1 and Option 5 are most supportive of transit as they have the highest concentration of development in areas with the highest transit potential. For example, trips originating in the Downtown and Central currently display a transit mode split that is more than double the City-wide average. While both Option 1 and Option 5 are generally the most supportive of transit, Option 5 is considered to have a higher potential for transit in that it concentrates development around nodes and corridors where there is already high transit service levels (e.g. Downtown, McMaster, Eastgate Mall) or where transit services could be designed to operate...
efficiently and cost-effectively. However, the nodes and corridors concept could also be adopted for a no urban boundary expansion option. As a result, the preferred strategy from a transit perspective is to support the adoption of a nodes and corridors concept. This could involve combinations of the above growth options. Exhibit 3.1 provides a preliminary illustration of the nodes and corridors concept.

Actions to support this strategy are as follows:

- Identify and prioritize key nodes and corridors through the GRIDS process and subsequent Official Plan process;
- Implement changes to zoning to permit increased density and mixed-use development in transit corridors;
- Establish incentives for more compact development adjacent to transit nodes/major stops.

Exhibit 3.1: Nodes and Corridors Concept
3.1.2 STRATEGY A.2 – MAKE TRANSIT SERVICE A PRE-REQUISITE FOR ANY GREENFIELD DEVELOPMENT

There are several areas outside of the existing urbanized area of Hamilton that have been designated for residential or commercial growth (i.e. Waterdown, Binbrook, Glanbrook, SCUBE, Aerotropolis). Depending on the preferred growth option, there may also be an expansion of the urban boundary. In order to ensure that transit achieves its full potential, the City should require that new developments are transit-supportive. Ideally, new development would occur concurrently with the extension of transit into the new development.

Actions to support this strategy have been identified in the Transportation Master Plan Policy Papers (Urban Development and Land Use and Urban Design) and can be further re-enforced in the new Official Plan. A key recommended policy is to promote the integration of transit plans into the design of neighbourhood and secondary plans to achieve a distance of approximately 400 metres or a five minute walk between 90% of residential units and transit stops.

Specific actions proposed as part of this Ridership Growth Plan are as follows:

- Adopt policies that encourage development along existing transit routes, and discourage development beyond transit service, or require that developers contribute to the cost of extending existing transit services.
- Use the CMHC Tool for Estimating Greenhouse Gas Emissions from Urban Travel (or similar tool) to quantify the impacts of new development proposals.
- Require “sign-off” from the Director of Transit for all Official Plan amendments to ensure that transit considerations have been taken into account in development applications.

3.2 Urban Design and Site Planning

3.2.1 STRATEGY B.1 – PROMOTE INTENSIFICATION AROUND TRANSIT NODES AND CORRIDORS

The concept of a nodes and corridors development option must be supported by policies to promote more compact and mixed-use development around transit stations, nodes, and major corridors. Policy 2 of the Urban Structure and Land Use Paper completed for Phase 2 of the Transportation Master Plan is to “Focus development in targeted nodes and corridors serviced by transit, to reduce the need for additional infrastructure development. Intensify uses and activities in these areas.” It has a number of supporting actions including:

- “Identify key nodes and corridors for intensification and insure that zoning within these areas allows for more compact, higher density, and mixed use development.
- Encourage the development of employment in Hamilton concurrently with housing to ensure employment options within the city;
- Consider allowances for higher density development adjacent to proposed higher-order transit corridors;
- Match road character to existing and future land use to promote economic development and minimize land use conflicts;
- Create recognisable centres through the location public facilities and civic spaces at the heart of nodes.
- Promote the inclusion of office, retail, and entertainment at transit stops;
- Encourage public participation to identify appropriate forms of growth within the urban environment.”
Specific actions proposed as part of this Ridership Growth Plan are as follows:

- Adopt above policies for new Official Plan.
- Through the zoning by-law, require that all new development in designated nodes and corridors meet minimum densities (suggested target of 30 units per hectare).
- Include provisions for reduced parking standards within designated transit nodes and corridors, while respecting the fact that some parking is required for marketing reasons. (Note: The City of Hamilton is currently preparing a new parking by-law that will encourage more transit-supportive standards).
- Develop transit oriented guidelines for targeted nodes and corridors and/or secondary plans for development areas, particularly areas that are located adjacent to proposed Bus Rapid Transit Corridors.

3.2.2 STRATEGY B.2 – REQUIREMENTS FOR NEW COMMUNITIES

The choice of path to reach a bus stop, access to vehicle parking, or walking to a park are affected by the functional relationship of buildings to their environment not only at the scale of the building itself, but also at the scale of an entire site, or an entire segment of the street, and must be considered at each of these scales. The City of Hamilton Site Plan Guidelines (September 2003) incorporate the latest principles of urban design and are supportive of transit. Additionally, the Urban Design Paper prepared for Phase 2 of the Transportation Master Plan includes the following policies:

- “Create a continuous grid road network that allows pedestrian, cyclists and transit vehicles to move efficiently through communities.
- Develop key nodes and links as higher-density, transit-supportive and pedestrian-friendly areas and corridors.
- Design streets to create a pedestrian and transit supportive environment. Streets should provide mobility to all modes concurrently, with emphasis on active transportation modes and transit.
- Require that all new developments to conform to established local (Secondary Plan) pedestrian-supportive urban design guidelines.”

To further re-enforce the above policies, this Ridership Growth Plan proposes the following actions:

- Elevate role of HSR in development review process.
- Train staff in all city departments on transit-supportive guidelines.
- Make it mandatory that all traffic impact studies include a plan as to how the project will address transit and Travel Demand Management, or discusses alternatives to reduce car use.
3.3 System Capacity

3.3.1 STRATEGY C.1 – INCREASE SERVICE FREQUENCIES

Presently, HSR provides approximately 1.43 annual vehicle service hours per person within the transit service area, a measure of transit service levels. This generates approximately 47 annual revenue passengers per capita (rides per capita). In order to achieve the targets set by the Transportation Master Plan, as well as Vision 2020, it will be necessary for HSR to significantly increase service levels. It is estimated that a level of 80-100 rides per capita would require a doubling of existing service levels.

One of the key priorities for increasing service levels is to increase transit frequencies. Increasing service frequencies achieves two objectives:

- Provides increased system capacity, which is a requirement for many of HSR’s major routes, both in the peak period and the off-peak period; and,
- Increases the attractiveness of transit by reducing wait times.

Lines in the downtown area such as the King or Barton services run every seven to ten minutes. Lines on the mountain tend to run every 15 minutes during peak hours and every 20 to 30 minutes off peak. Other lines that serve a specific clientele, such as the University line, tend to run every 15 minutes during peak and every half an hour off-peak, with reductions in service when activity at the destination is reduced.

This strategy would involve expanding service frequencies in order to attract additional ridership and to address system capacity issues. Service level increases would be established through a comprehensive review of existing routes, and following a review of potential route restructuring opportunities.

Specific actions include:

**Short term**

- **Conduct comprehensive review of existing routes to assess priorities for service increases**
- **Reduce headways for Beeline from 10 minutes to 7.5 minutes and expand service to off-peak hours to expand role as BRT service**

**Medium Term**

- **Improve service frequencies on mountain routes, in conjunction with route-restructuring**
- **Continued system-wide service increases**

**Longer Term**

- **Annual service level increases to meet target of 80-100 rides per capita and 12% transit mode share**
3.3.2 STRATEGY C.2 – DEVELOP BUS RAPID TRANSIT SYSTEM

The long-term goal for Hamilton is to develop full bus rapid transit in an east-west corridor and a north-south corridor utilizing a combination dedicated transit lanes (where physically possible) and transit priority measures, in conjunction with high capacity, modern buses, advanced information systems and fare collection and enhanced transit stops/stations. The BRT network would be supported by land use policies that encourage more compact and mixed-use development around transit nodes and corridors.

Building on the concept of the existing Beeline, the BRT system would provide faster travel times between major origins and destinations allowing transit to compete with the private auto. Experience in other jurisdictions indicates that BRT can have a significant impact on attracting new transit riders. For example, a report for Transport Canada on the 98 B-Line Bus Rapid Transit System from Richmond to Vancouver found that 25% of current transit users changed their mode of travel to using the 98 B-Line service with 31% of the trips on the 98 B-Line being new transit trips.

Short term

- Finalize corridor selection (under TMP)
- Introduce articulated buses on BeeLine
- Develop off-board payment systems
- Develop image and marketing program for BRT
- Establish staff responsibility for planning, design and implementation
- Initiate Individual Environmental Assessment for E-W and N-S corridors

Medium Term

- Construct BRT system components (physical improvements to accommodate dedicated transit lanes, station stops, terminals)
- Increase service levels in BRT corridors
- Initiate marketing and promotion
- Design and implement feeder services

Longer Term

- Increase degree of segregation between cars and buses, while ensuring access for commercial vehicles and emergency vehicles.
- Continued increase in frequencies

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Investigate conversion of BRT to electric power trolley bus or LRT

3.3.3 STRATEGY C.3 – EXPAND ARTICULATED BUS FLEET

There are several routes that experience high load factors as they enter and exit the downtown core. These include the Beeline, King, Delaware and University routes. For example, in the morning peak period, the University route operates at 92% capacity as it passes Caroline Street. Similarly, the King route is at 97% capacity as it passes West Avenue in the PM peak hour. At McMaster University, load factors often exceed capacity during peak periods. If transit riders cannot get on a bus because it is full, or longer distance riders cannot get a seat, this is a disincentive to use public transit.

One way of addressing transit capacity shortfalls is to introduce articulated buses, which provide approximately 70% more capacity than a conventional 40 foot bus. Currently, HSR has three 60 foot articulated buses in its fleet that are used on the University Route, but these are approaching 25 years old. This strategy would involve eventually replacing all of the buses on the King (13 buses) and Beeline Express (12 buses) and the University routes (3 buses) with new articulated buses. A staging strategy would be to introduce articulated buses on the Beeline as part of the development of an expanded BRT network.

The benefits of articulated buses are that significant increases in system capacity can be achieved without increases in labour costs. Passenger satisfaction is enhanced due to reduced crowding. However, articulated buses should not be used to off-set necessary increases in service frequencies.

Short term

- Replace 3 existing articulated buses with newer versions
- Purchase 12 new articulated buses for use on the Beeline Express service
- Look at ways to market articulated buses in conjunction with BRT, potentially with a unique look.

Medium Term

- Expand articulated fleet as required based on load factors
- Expand garage capacity/equipment to accommodate articulated buses.

Longer Term

- Evaluate system capacity requirements and assess feasibility for conversion to LRT in east-west corridor
3.4 Service Design and Delivery

3.4.1 STRATEGY D.1 – CONNECT NODES WITH EXPRESS BUS ROUTES

The nature of travel patterns in Hamilton has changed over the past few decades with a number of significant nodes emerging besides the traditional downtown node. This strategy involves connecting Hamilton’s five existing major nodes (Downtown, McMaster, Eastgate, Lime Ridge, and Meadowlands) and at least three additional nodes (Mohawk, Heritage Green and the Waterfront) and possibly a Stoney Creek Node and an East Mountain node, with limited stop express-type services. These services would complement the proposed BRT services in the King/Main and Upper James Street corridors. This strategy is also consistent with the preferred GRIDS option of implementing a Nodes and Corridors land use and transportation strategy.

Defining features of a node should be that it is a “location of interchange for major transit/transportation services” and it is “a focal point for local transit services.” An underlying philosophy should be that if you can get to a node, you can get anywhere on the transit system.

This new layer of transit services will help HSR to compete with the private automobile for some major trip linkages (provided total journey times are similar). It also has the benefits of distributing some transit trips away from congested transit corridors. The new services may allow households to reduce their auto-ownership. For example, a student currently living on the mountain and travelling to McMaster would have less need for a car if these point-to-point services were introduced.

Actions required to implement the express route concept are as follows:

**Short term**

- Complete comprehensive service review to define new express routes, including analysis of McMaster student residential locations
- Identify options for establishing a transit hub at Mohawk College
- Institute a “Gore to Shore” transit service between the downtown and the waterfront during summer months.

**Medium Term**

- Implement land use policies to encourage nodal development
- Introduction of peak period express services from:
  - Lime Ridge to McMaster via Meadowlands
  - Lime Ridge to Eastgate via Heritage Green

**Longer Term**

- Gradual increase in service levels in express corridors
- Expansion of express services to off-peak times
3.4.2 STRATEGY D.2 – ROUTE RE-STRUCTURING

At the present time, most of the current mountain routes are oriented towards the downtown core in a north-south fashion. Conversely, most routes in Lower Hamilton are oriented in an east-west fashion. This makes it difficult to travel in the secondary direction of travel.

A potential strategy would be to re-orient some of the mountain routes to provide better east-west travel while also restructuring services to reduce the number of buses heading down the mountain. Currently, most mountain routes go downtown and as a result there is a perception that there is excess service between the escarpment and the downtown. Even more important is the trip times for some origin-destination pairs that are short according to straight line distance but excessive in terms of transit travel times. A challenge with this option is that it would mean that passengers would need to transfer buses. The impacts associated with this could be mitigated by providing a high frequency “trunk service” in the Upper James to Downtown corridor with timed connections to east-west routes. Additional considerations to improve transfer area (i.e. providing weather protection, wheelchair access, snow clearing, etc.) would also be required.

Benefits include reduced travel times for east-west travel on the mountain and north-south travel in the lower City, improved access to shopping destinations (Lime Ridge and Meadowlands) and potentially cost savings due to route-restructuring.

Implementing actions include:

**Short term**
- Investigate options for new terminal on top of the escarpment, including potential terminal at Mohawk College
- Complete comprehensive review of route current structure

**Medium Term**
- Establish BRT service in the downtown to South Mountain corridor with connections to Mohawk and Limeridge, with a branch to Hamilton Airport, thereby providing frequent north-south service to connect with east-west routes.

**Longer Term**
- Implement BRT on one or more of Linc, Stone Church Road or Rymal Road, including dedicated lanes.

3.4.3 STRATEGY D.3 – IMPROVE CONNECTIONS TO INTER-REGIONAL TRANSIT/PASSENGER RAIL

The two main intercity transit hubs in the Hamilton area are the Downtown GO Centre and Aldershot Station in Burlington. The downtown GO Centre is well served by HSR while Burlington Transit operates a route between downtown Hamilton and Aldershot. The City is currently undertaking a study to establish the location for one or more new passenger rail stations (VIA Rail) in Hamilton with a James Street location and East Hamilton location being two of the options. The Provincial Growth plan also identifies a future intercity transit service to Niagara Region. As intercity
passenger transit options in Hamilton expand, so to will the need for dedicated local transit services to these hubs.

Providing direct and convenient local transit service to intercity transit facilities will allow Hamilton residents to access these facilities without relying on the private automobile. Once people are in their cars, there is a tendency just to continue on rather than transferring to intercity transit.

Proposed actions to improve connections to inter-regional transit include the following:

- Define location of future intercity passenger rail stations through TMP.
- Investigate options for transit between Waterdown and Aldershot station
- If VIA established at Liuna Station, implement two-way transit service on James Street between Hamilton GO Centre and New VIA station

3.4.4 STRATEGY D.4 – FACILITATE PARK AND RIDE

There are presently no dedicated park-and-ride lots for HSR services, although many informal opportunities such as Meadowlands, Lime Ridge mall and Eastgate mall exist. Establishing dedicated parking facilities for transit riders near major transit terminals would encourage people from outerlying areas to transfer to HSR for the remainder of their journey.

Most of the actions required to foster park and ride near transit can be completed in the short term. The Transportation Master Plan may also identify other opportunities.

- Identify formal P&R locations
- Update transit map to show parking areas
- Establish formal park and ride at Mountain transit terminal
- Establish formal P&R at/near Meadowlands

3.4.5 STRATEGY D.5 – IMPROVE INTERMODAL ACCESSIBILITY

HSR can play a role in promoting more active transportation including walking and cycling. In particular, transit can help reduce barrier effect created by the escarpment for cyclists. Although the distance between the mountain and the downtown is relatively short, many cyclists are likely discouraged by the significant climb, and lack of direct connections.

This strategy would involve various measures to allow transit riders to carry-out portions of their trips by active transportation. Building on the experience of other transit properties including Ottawa, Grand River Transit and the Toronto Transit Commission, HSR could install bike racks on some or all of its buses. This has potential cost implications, however, since the racks increase the length of buses slightly (about 10-20 cm), which means that fewer buses may fit in the maintenance garage. There are also concerns about loading and unloading times, but these issues have not been significant in other cities where bike racks have been installed.

In order to promote intermodal connectivity and active transportation, HSR could:

- Install bike lockers at major transit hubs (Lime Ridge, Eastgate and McMaster)
Install bike racks on mountain buses

A related, and potentially more effective option for overcoming the barrier effect of the escarpment would be to construct a Funicular adjacent to James Mountain Road to facilitate pedestrian and bicycle access over the escarpment in the area where such a system once existed. Alternatively, or in addition, and easterly location in the Ottawa Street or Gage Street corridor could also be considered. While it is beyond the scope of this ridership growth plan to determine the technical feasibility of a funicular (but within the scope of the Transportation Master Plan), it is noted that this could contribute to economic development and could be marketed as a package of initiatives aimed at reducing automobile dependence.

3.4.6 STRATEGY D.6 - INTRODUCE TRANSIT PRIORITY IN SELECTED CORRIDORS

Transit priority can help to minimize delays to transit travel times, while reducing the number of vehicles required to provide a given service. While congestion in Hamilton is not as significant as places like Toronto or York Region, transit priority may provide benefits in some corridors:

- James Street and John Street (affecting the Barton route and mountain routes)
- King Street between Wellington Street and James Street, as well as the whole Beeline corridor.
- selected locations on the mountain approaching the escarpment

Transit priority would be a key feature of the proposed BRT system, ultimately leading to fully dedicated transit lanes.

Implementing transit priority may require significant resources to equip buses with transponders and to upgrade signal controllers to provide for additional functionality.

Implementing actions include:

**Short term**

- Conduct route-by-route travel time analysis using AVL or on-board surveys to identify congested areas
- Upgrade AVL system software
- Analyse driver input on problem areas

**Medium Term**

- Implement transit priority in King Main corridor and James Street/John Street corridor, as well as the Upper James Corridor

**Longer Term**

- Implement dedicated transit lanes in BRT corridors

3.4.7 STRATEGY D.7 - IMPROVE WEEKEND AND SHOPPING SERVICES

With the changing nature of demographics in Hamilton, including an aging population, there will be an increasing demand for weekend services. There is also a need to provide access for youth who do not have access to cars yet want to access shopping. A large percentage of new service
requests to HSR are for increased weekend, evening or mid-day service within the outlying areas of the City.

At present, the following routes have limited or no weekend service:

- 43 - Stone Church
- 51 - University
- 52A - Dundas Local
- 9 - Rock Gardens
- 16 – Ancaster
- 5 Delaware (West Hamilton-Meadowlands)

This strategy would involve phased increases to improve weekend service where justified based on a service review. Primary actions include:

- Complete comprehensive transit review and identify options for extending weekend/off-peak services, including service to areas not presently served;
- Conduct surveys in affected areas to determine market demand (some surveys have already been completed);

3.4.8 STRATEGY D.8 – EXPAND SERVICE TO OUTLYING AREAS AND EMERGING EMPLOYMENT AREAS

As noted previously, there is currently no transit service in Flamborough or Glanbrook. While this has not been a significant issue in the past as these areas are primarily rural settlements, the need for transit to areas such as Waterdown is growing as development is rapidly occurring. Similarly, there is a growing need to connect employment areas such as the airport with transit. Access for employees is a major issue in attracting and retaining employees. If it is to be developed as planned, the Glanbrook Industrial Park will also require transit services.

One of the challenges with extending services to new areas is that these routes tend to have low cost-recovery ratios, at least in the short term. In the face of limited budgets, trade-offs need to be made between extending services to new areas vs. addressing capacity issues on existing routes. Another major challenge is the area rating system. In order to pay for new services, taxes for residents in new transit areas would need to be increased, something that is politically challenging. The City is slowly tackling this issue. One viewpoint is that all residents of Hamilton benefit to some extent from the environmental, social and economic impacts of transit, and should therefore share the costs of transit services. There may also be opportunities to work with major employers in the outer areas who would benefit in terms of improved access for employees.

Disregarding the issue of area rating, several actions are required to improve services to outlying areas.

Short term

- Work with existing/potential employers to assess need for transit; for example conduct a travel survey of Hamilton Airport staff and work with these employers to promote use of employee buses passes.
- Continue to explore options to overcome or eliminate the current area rating system.
Medium Term

- Extend transit service to Waterdown and the airport
- Explore options for neighbourhood transit shuttles or expanded trans-cab services.
- Provide transit shuttle between Waterdown and Aldershot, potentially as a joint service with Burlington and/or GO Transit.
- Facilitate park-and-ride from outer areas (Strategy D.4)

Longer Term

- Extend North-South BRT to South Mountain, and to existing emerging/employment areas

3.4.9 STRATEGY: D.9 – MITIGATE IMPACTS OF FARE INCREASES ON SELECTED POPULATIONS

For many Hamilton residents, the cost of transportation is a significant concern. Persons with limited incomes are the most vulnerable when it comes time to increase transit fares, and in some cases the cost of transit may limit a persons ability to get to their job. Transit fares are even a important consideration for people with high disposable incomes, particularly when compared with the costs of taking transit with the often lower cost of parking.

This strategy focuses on mitigating transit fare increases for persons with limited incomes, which includes some seniors. Implementing actions include:

- Maintaining the practice of allowing persons with mobility devices to travel free on conventional transit.
- Explore the feasibility of free fares for seniors in the off-peak periods, where the marginal cost of handling additional passengers is less.
- Explore other options that may reduce the cost of transit for persons with limited incomes.
- Work with major employers to expend bulk transit pass purchases, with the objective being to get employers to subsidize employee transit passes. Current initiatives by the federal government may increase the attractiveness of this measure.

3.5 Marketing and Education

In the past few year’s HSR has been cautious about it marketing efforts due to the fact that the transit system is strained in several areas and simply cannot handle more passengers. During the development of this plan, there was a clear direction provided by the TAMP/TRGP sub-committee that HSR should first ensure that its services are expanded to handle more passengers before trying to attract new riders to the system, the reason being that if a passenger has a poor experience on transit, it is difficult to get them to ride again.

Accordingly, the marketing and education strategies identified in this section are aimed at improving the image of transit as well as marketing transit as a solution some of the City’s current or emerging issues such as high transportation costs, air quality and congestion.
3.5.1 STRATEGY E.1 – INCREASE PROFILE OF TRANSIT ON PUBLIC AGENDA

Based on user polls, the City continually receives top marks on its delivery of transit services. The transit page on the City’s website is also one of the most frequently accessed pages. However, in terms of getting attention as a major City issue, transit has not been successful to date. One of the reasons for this is that unlike waste collection, water and sewer services, there are fewer direct impacts of cutting back transit services on the majority of Hamilton residents; 95% of residents do not use transit on a daily basis. However, the indirect impacts of reducing transit service levels are felt by the whole population in terms of congestion, air quality, reduced economic development, reduced health, etc.

This strategy would attempt to “re-brand” transit as an essential service to address the City’s environmental, social and economic issues. Transit would become a household issue and a key topic of debate in the upcoming elections. This type of marketing strategy would require a strategic and phased approach and would be timed with the introduction of service improvements such as initial BRT improvements and expanded service to outerlying areas.

Marketing initiatives can also help in terms of attracting funding from senior levels of government.

Key short term actions include:

- **Hire a Public Relations firm to develop a transit market/image strategy**
- **Require senior staff and political representatives to “try transit” so they are more aware of the issues**
- **Develop a ‘moniker’ for the expanded BRT system similar to approaches used in York Region (VIVA) and Brampton (Accellride)**
- **Pursue a full page feature in Hamilton Spectator describing current initiatives and future plans for the transit system. A regular column on transit, similar to some other papers in the GTA would also be ideal.**

3.5.2 STRATEGY: E.2 – EXPAND AND PROMOTE STUDENT/EMPLOYER PASS PROGRAMS

HSR currently has in place a number of discount pass programs.

- The Employer Commuter Pass (EC Pass) program offers discounted transit passes to employers who purchase bulk bus passes for their staff.

- McMaster University students are entitled to unlimited travel using HSR, upon presentation of valid student identification proving that they are enrolled, as the purchase of a HSR pass is included in their student fees.

- Tiger Cat fans can use their game day ticket to ride to and from the stadium.

These programs are important as they are seen as helpful in weaving transit into a community. They also make it harder for the city to cut services since pass-holders grow to expect a certain level of transit. One of the challenges has been providing enough transit demand to satisfy pass-holders.

It is proposed that, together with service level increases facilitated by the gas tax funding and other funding, aggressive campaigns be initiated to grow the employer pass and student pass program. This would include the following actions:
3.5.3 STRATEGY: E.3 –DATA COLLECTION AND MARKET RESEARCH

Understanding existing and potential transit markets is a pre-requisite for increasing transit ridership. HSR currently uses fare collection technology that includes passenger counters, but this technology does not keep track of origins and destinations. HSR also undertakes selected market research studies, for example HSR recently undertook a survey of Heritage Green Residents to determine the interest in improving transit routes/services. The City is also working with the Province on the GTA-Hamilton Transit Smart Card Project. If adopted for Hamilton, the Smart Card would significantly increase the level of information available to HSR on transit system use and activity patterns.

In addition to the above initiatives, possible actions to improve market research information include:

- Prior to comprehensive route review, conduct on-off counts on all routes to establish key origin-destination linkages
- Contract a market research firm to conduct a telephone survey of residents attitudes towards transit and potential system changes (this could be implemented prior to, or as part of campaign to improve image of transit as discussed above)
- Continue to collect information from drivers, transit users groups and the general public.

3.6 Evaluation and Performance Measures for Conventional Transit

Designing transit services (routes and schedules) that meet the varied travel needs of consumers takes extensive planning and evaluation to ensure that they will be successful. An effective transit service planning process consists of three main elements:

- The use of service standards and route planning guidelines as the basis for planning and delivering the transit services and as the basis for evaluating the performance of the services;
- The preparation of a Five-Year Service Plan; and,
- The preparation of an Annual Service Plan,

3.6.1 SERVICE EVALUATION AND MEASURING PERFORMANCE

Fundamental to the service review process and to evaluating transit service needs, service requests, and to the on-going management of the transit services, is the maintenance of an accurate record of the transit service being provided. This information is then used to measure performance. The following information and statistics will be compiled and utilized to measure and evaluate the performance of the transit services.
• Travel time and cost implications for the travelling public
• Total annual ridership
• Transit modal share
• Passengers carried, by route or service, daily, monthly and annually
• Revenue-hours operated (amount of service provided)
• Buses required to provide the service by time of day
• Service level by time of day
• Cost to provide the service by route
• Revenue (fares) distributed by route
• Net cost by route
• Ridership per revenue hour
• Revenue/cost ratio (percentage of revenue versus cost to provide service)
• Impacts on auto accessibility and goods movement.
4. SPECIALIZED TRANSIT

The City of Hamilton’s (Public Works Department) Transit Division’s Accessible Transportation Services (ATS) is responsible for administering the City’s programs to ensure accessibility to transportation services for persons with disabilities. It is based on the “Family of Services” concept of utilizing a variety of different services to accommodate the range of transportation needs of the (elderly and) disabled community. The “Family of Services” includes the following components:

D.A.R.T.S. Service: Advanced booked, door-to-door transportation is provided for registered customers under contract to the City. Ambulatory trips may be accommodated by sub-contract with Veterans Transportation (sedan taxi service), dependent on schedule availability of D.A.R.T.S. vehicles.

Taxi Scrip Service: All persons with disabilities who qualify for ATS are registered for the Taxi Scrip Program. Taxi Scrip provides customers with a 40% saving on the metered rate charged by taxi companies, with the remainder subsidized by the City. The customers book all trips directly with the taxi company.

Accessible Low Floor Buses (ALF): This service promotes an alternative means of accessible travel for persons with disabilities utilizing the existing (conventional transit) services provided by HSR. ALF - Accessible Low Floor buses are operating on several different routes in the Hamilton area. On weekdays, certain routes only operate ALF buses, while on weekends all routes operate ALF buses. The goal of HSR is to continue purchasing these buses so that in the future most routes will be operated using low floor buses.

Trans-Cab, Trans-Link and Seniors Supermarket Charters are some of the other HSR services that provide improved accessibility for specific market segments.

4.1 Specialized Transit Strategies

In the past few years, DARTS has implemented a number of improvements, including the overhaul of all internal business processes, enhanced driver training, new corporate communication policies, improvements to the telephone system and a bus performance monitoring program.

The following strategies build on the Accessibility Policy Paper Prepared under Phase 2 of the Transportation Master Plan.

4.1.1 STRATEGY F.1 – FLEETS AND FACILITIES

For the foreseeable future, a large portion of specialized transit trips will be accommodated on D.A.R.T.S. Demand for specialized transit will continue to increase substantially over the next 20 years and it is important to ensure that the Accessible Transit System keeps pace with this demand. This includes expanding the dedicated accessible transit bus fleet, as well as ensuring that conventional transit buses are able to accommodate persons with transportation disabilities. Actions include:
4.1.2 STRATEGY F.2 – COMMUNITY PARTNERSHIPS

The structure of D.A.R.T.S. services is changing because of a number of externalities including shifts in provincial policy and funding scenarios (including the legislative/regulatory environment), impacting on program delivery by several agencies and organizations in Hamilton. There is a need to develop more partnerships with social service agencies (e.g. community living associations), the medical community (hospitals and long term care facilities in general, and dialysis specialties) and others in order to address group and agency services including the continuity of access to programs and services. Such partnerships will allow a more equitable distribution of the financial burden between customers (or users or clients), agencies, and taxpayers. Specifically, opportunities exist to:

- embrace the concept of mobility management in order to bring a more holistic perspective to transportation service delivery;
- promote group/agency service;
- offer charter type services tailored to meet specific travel needs and requirements; and
- provide service on a cost recovery basis for program related customer group/agency service.

It is important to preserve the integrity of D.A.R.T.S. services for those individuals who have little or no alternate modes of travel. D.A.R.T.S. is by definition, shared-ride, public transit for those unable to use accessible conventional HSR transit services. Building on the partnership concept or a collaborative approach to mobility management, there exists an opportunity for D.A.R.T.S. and HSR management to assume responsibility for the facilitation of agency or program specific transportation.

- Continue discussions with community-based organizations and programs in an effort to better coordinate client or program specific transportation needs. This would include expanding the current concept of ad-hoc working groups to address specific issues.
- Expand database of existing community-based agency transportation resources and agency specific needs.
- Enhance partnerships with community based organizations for the development and administration of a travel training program for the City’s residents.
- Facilitate the preparation of an Accessible Transit Guide, articulating “how to use” instructions for the use of fixed route transit including planning and scheduling a trip, recognition of routes, an understanding of responsibilities and expectations of operator assistance, etc. Ensure that travel training is promoted during registration process.

4.1.3 STRATEGY: F.3 – SCHEDULING AND DISPATCH FUNCTIONS

In January, 2004 ATS installed a computerized dispatch computer scheduling system. This system allows staff to create the trip schedules for D.A.R.T.S for the start of each day reflecting bookings received for that day. Even with this new system, the ability to produce schedules that provide as
many rides as possible as efficiently as possible is a challenging undertaking. Accordingly, the recommended action for this strategy is to:

- Continue to maintain and improve the current computerized scheduling system and associated real-time communications with D.A.R.T.S vehicles.
- Implement pilot project to test the use of Global Positioning Systems (GPS) and Mobile Data Terminals (MDTs) for D.A.R.T.S vehicles to facilitate automatic real-time vehicle location and enhanced communication.
- While ensuring fair access to all individuals, explore the opportunities to use the internet to supplement the current telephone registration system to provide alternative booking options for eligible registrants.

4.1.4 STRATEGY F.4 - SERVICE DELIVERY

As discussed previously, demand for accessible transit services will continue to grow in the coming years. In particular, depending on eligibility standards, the growth in registrants with cogitative disabilities could increase substantially. Another area where there is a growing need for specialized transit is for dialysis patients. In order to meet the growing and varied demand for specialized transit, ATS will need to explore new and innovative service delivery approaches.

One potential alternative to expand options to the disabled community would be to capitalize on the existing infrastructure already in place for private taxi companies. Similar to what is happening in other cities, taxi companies are provided incentives to make a portion of their fleet accessible. Taxi companies can then provide “demand-responsive service” to supplement regular D.A.R.T.S service.

- Prepare an up-to-date 10 year forecast of the demand for specialized transit based on current/planned eligibility criteria.
- Together with the City ODA Committee, continue to review and confirm policies on services hours and services areas.
- Implement pilot project to demonstrate the use of accessible taxis.
- Pursue dialogue with City by-law officials regarding provision of accessible taxis in City licensing requirements.
- Investigate the feasibility of providing dedicated fixed route or semi-fixed route accessible transit services in corridors with regular, predictable demand.
- Work with the Province and the health care industry to collectively design a transportation strategy for dialysis patients.