

Calgary Transit Funding and Fare Strategy

**Calgary Transit
2011 June**

Calgary Transit Funding and Fare Strategy

Summary

Calgary Transit has identified the need to amend the current fare strategy in order to seek a balance between funding a more attractive transit service while keeping transit service within the financial means of all Calgarians.

The Municipal Development Plan (MDP) and Calgary Transportation Plan (CTP) rely on expanded and more attractive transit services playing a key role to achieve a more compact and sustainable city. Over the next 30 years, to achieve these goals, Calgary Transit service hours must continue to increase by about 150 percent supporting a 60 percent population growth (reaching 1.75 million) to achieve a target of 3.7 hours of service per capita. As well, funds are required to provide higher quality, customer focused transit services.

The current fare strategy and fare pricing policies are based on transit revenues from fares and a modest amount from other sources to pay at least 55 percent of transit operating costs with the balance being a municipal contribution, mainly from property taxes.

In recent years, Calgary Transit has experienced difficulties in achieving a 55 percent revenue / cost (R/C) ratio. In recent years and into the foreseeable future, factors affecting a lower R/C ratio include:

- declining growth in ridership,
- the need to serve an expanding geographic area,
- operation of new capital infrastructure,
- higher costs for labour, parts and materials / fuel,
- demand for higher quality services (safety, security, cleaning and maintenance),
- increased frequency of repairs to aging vehicles, and,
- the level of discounts provided to some fare types and services.

As a result, since 2007, the average cost of providing a transit trip has risen by 23 percent. During this time the average fare paid by transit customers has only increased by 12 percent. While fare prices for adult and youth customers have increased during this time overall fare prices have not increased sufficiently to cover increasing costs. About 25 percent of transit customers (youth, senior citizens and low income adults) pay fares that are less than 55 percent of the average cost of a trip. The price for senior citizen transit fares has not increased since 1995 and a low income transit fare was introduced in 2005. The annual value of the subsidized transit passes for seniors and low income adults is about \$35 million.

Other transit revenue has decreased. In 2010, the Provincial government cancelled a \$2.3 million operating subsidy program that had been used to partially fund the senior citizen transit fare discounts. As well, the daily charge for park and ride, eliminated in 2011 April will result in a loss of approximately \$4 million in revenue for 2011 while the new reserved parking program is currently generating very modest revenues.

Metrics that compare Calgary Transit operations with other comparable Canadian transit systems show that Calgary Transit provides an effective and efficient service based on the nature of the city being served and the ridership levels on most routes. These data also show that Calgary's fare prices, on average, are lower than many Canadian transit systems while Calgary's R/C ratio is comparable to these cities mainly due to a modest level of service per capita and high ridership on key routes including the CTrain.

A revised transit fare strategy is required as a key component of a near term and long term funding plan for Calgary Transit. Changes to fare pricing and discount levels combined with a strategy to reduce the R/C ratio are recommended in order to achieve the required funding. The new electronic fare payment system to be introduced in mid 2012 will provide opportunities for more innovative fares and increased fare revenue. As well, opportunities for other sources of operating revenue should be explored. In the short term, municipal tax rate targets for 2012-2014 will make it difficult for Calgary Transit to meet expected service hour increases and service quality improvements without significant fare increases.

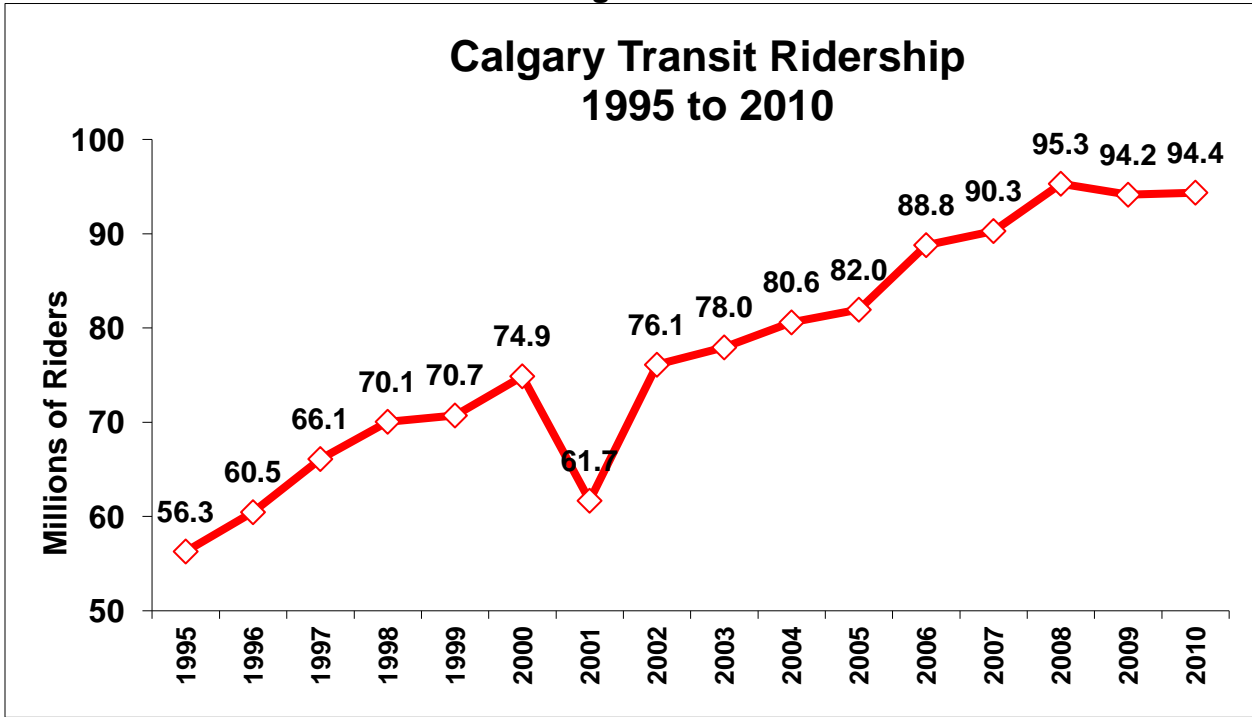
1. Introduction

In the past 16 years, Calgary Transit has seen transit ridership increase at a pace of about 1.5 times the rate of population growth (56% ridership versus a 39% population increase). During this time, Calgary Transit has responded with an expanded service network including LRT extensions, new BRT routes plus regular and accessible transit services. Transit service hours have increased by 78% during this period.

This phenomenal growth has fuelled increased public desire for continued investment in transit services and facilities. Input to Imagine Calgary and PlanIt Calgary planning processes led to a MDP and CTP that are heavily reliant on significantly improved transit services to serve a more compact and sustainable urban form. Policies contained within these documents require that transit service be more frequent, offer better coverage and expand as the city grows. As well, it is expected that there will be a higher quality of service to make transit a more attractive travel choice. This will be achieved through continued capital investments in new facilities and increased operating costs for customer services including automated passenger information, electronic fares, passenger amenities, plus increased costs to achieve improved reliability, maintenance, cleaning, safety and security. A summary of these objectives is provided in Appendix 1.

Public transit is an essential cornerstone in the plans for a sustainable future for Calgary. To ensure that this plan is achieved, there must be a balance between required expenditures and the funding of service. This report provides an overview of the current transit fare strategy and identifies the need to modify current practices related to the funding of transit service in order to achieve these goals.

Figure 1



2. Overview of Current Fare Strategy and Funding

In 2010 the annual operating cost for Calgary Transit bus and CTrain services was \$277.5million¹. Funding to operate this service comes from three sources:

- Fares paid by transit riders or customers
- Other revenues i.e. the sale of advertising space, parking revenues, and fines.
- City of Calgary annual operating budget (supported mainly by property taxes)

The amount of funding, or subsidy provided by the City of Calgary is based on a Council approved fare strategy that requires that at least 55 percent of operating costs be funded from customer fares and other revenues².

Fares are paid by transit users through the sale and collection of various fare media. A fare structure, approved by Council, provides fare pricing for these media which include passes, tickets, cash, day passes plus other charges. Fare media pricing is based on an established formula of discounts based on the type of fare (cash, tickets, passes) and transit customer groups (adult, youth, senior, etc)

Finally, other Council approved policies influence the pricing of transit fares. The basis for this fare strategy, other related Council policies and fare pricing is discussed in this section.

2.1 Fare Strategy

2.1.1 Revenue / Cost Ratio

Calgary's 55 percent revenue / cost ratio (R/C ratio) was established by City Council as a funding strategy in 1999. The basis for this strategy is related to the key objectives and societal benefits that are achieved by the transit system.

The rationale for subsidizing transit service is to recognize the social, environmental and economic benefits that all members of society realize from this service and to price the service so that it is an attractive alternative for urban travel. The universal societal benefits realized from transit service include:

- providing mobility for those unable to transport themselves,
- allowing most members of society to participate in economic and social activities;
- reducing the environmental impacts associated with urban travel (land consumption, greenhouse gas emissions, consumption of resources, etc) by attracting people to use transit rather than private automobiles,
- reducing the cost of urban travel for individuals (cheaper travel),
- significantly reducing the cost of transportation infrastructure (roads and parking), and,
- support for a more compact, walkable and sustainable city.

It is common practice for most transit systems throughout the world to offer a service that is subsidized by society. An R/C ratio is commonly used to measure the split between revenues from transit fares (plus other revenue) versus the total system operating cost. Currently, the cost of capital infrastructure and replacement costs are

¹ Does not include Access Calgary

² Transportation Department Report to The Committee of the Whole - C99-86 Calgary Transit Fare Strategy, 1999 November 15.

not included in this percentage³. For Calgary, this fare strategy policy means that less than half the cost of providing transit service is subsidized by Calgary property taxes and other City revenues. Therefore, a significant portion of transit revenues must be paid through the sale of passenger fares.

Appendix 4 provides comparative R/C data from major transit systems in Canada and the world. It is interesting to note the range of subsidies provided. In Canada, R/C ratios in this comparison vary between 67% (Toronto) and 32% (Regina). World-wide examples range from 9% (Austin, Tx) to 149% (Hong Kong). Calgary falls within the 50th percentile compared to major Canadian cities and in the 66th percentile when compared to 47 cities world-wide.

2.1.2 Other Fare Policies

Calgary's fare system allows transit customers to travel throughout the city with the payment of a single fare. This is commonly referred to as a "flat" fare system. Once a fare is paid, the customer may travel to any destination via any combination of transit routes or vehicles within a specified time period. With an annual, monthly, day or Upass (see fare descriptions in Appendix 2) a customer has the ability for unlimited travel during the period for which the pass is valid. Customers who pay for a single ride using either cash or tickets when boarding a bus or who purchase a single ride ticket from an LRT Ticket Vending Machine (TVM) may obtain a paper transfer from a bus operator when they board a bus to enable them to transfer to connecting buses or CTrains. With a transfer, customers may travel in any direction, including making a return trip as long as they board the last transit vehicle within a 90 minute period from when the transfer was issued or the fare was paid (on LRT).

Customers using Access Calgary, a division of Calgary Transit that provides shared ride, door-to-door transportation for persons with disabilities, also accepts Calgary Transit fares (except the annual senior citizen pass).

Some cities, such as Vancouver, have a zone based fare system that charges a higher fare for longer travel distances or travel from one zone to another. Zone based transit fares are usually based on distinct geographic or political boundaries where more than one supporting jurisdiction is involved. Some transit systems have experimented with transit fares that are based on time of day (e.g. higher prices for peak period travel) but there are no current time based fare systems in Canada. Calgary Transit service is extended to all parts of Calgary and, by design, Calgary's transit system relies on customer transfers between modes for many trips – e.g. use of both bus and LRT to complete a journey. Zone and time-based fares have been considered in the past but have not been adopted due to issues related to administration logistics, costs, technology, and public support.

³ If depreciation costs were included the R/C ratio would be about 37%

2.2 Supporting Policies

The following Council approved policies also guide transit user fees and pricing.

2.2.1 User Fee Policy

The City of Calgary "User Fees and Subsidies Policy, CFO010", approved by Council in 2008 April, provides policies for user fees charged by various City business units. Key aspects of this policy include:

- Full costs, including capital should be used to calculate fees charged by business units.
- Pricing of services should take into account market analysis and potential revenues, societal benefits, budget needs and consistency in how discounts are offered to various customer groups.

This policy will require Calgary Transit to review its R/C ratio to include capital costs, capital grants, amortization of assets, and department and corporate overheads into the user fee cost formula. Calgary Transit is in alignment with the remaining aspects of the User Fee and Subsidies Policy. The Calgary Transit 2012-2014 budget is anticipated to be in full compliance with this policy.

2.2.2 Fair Calgary Policy

Fair Calgary Policy CSPA034, approved by City Council in 2006 November (amended in 2008 November), addresses the social elements of The City's triple bottom line strategy. Principles of fairness form the core of the policy. These principles cover broad social areas served by City business. A "fairness filter framework" is a tool provided through the policy to assess differential fees and discounts to determine if they are appropriate. This review found that the Calgary Transit annual senior citizen transit passes provide a disproportionate discount to senior citizens in relation to other City services and other transit systems.

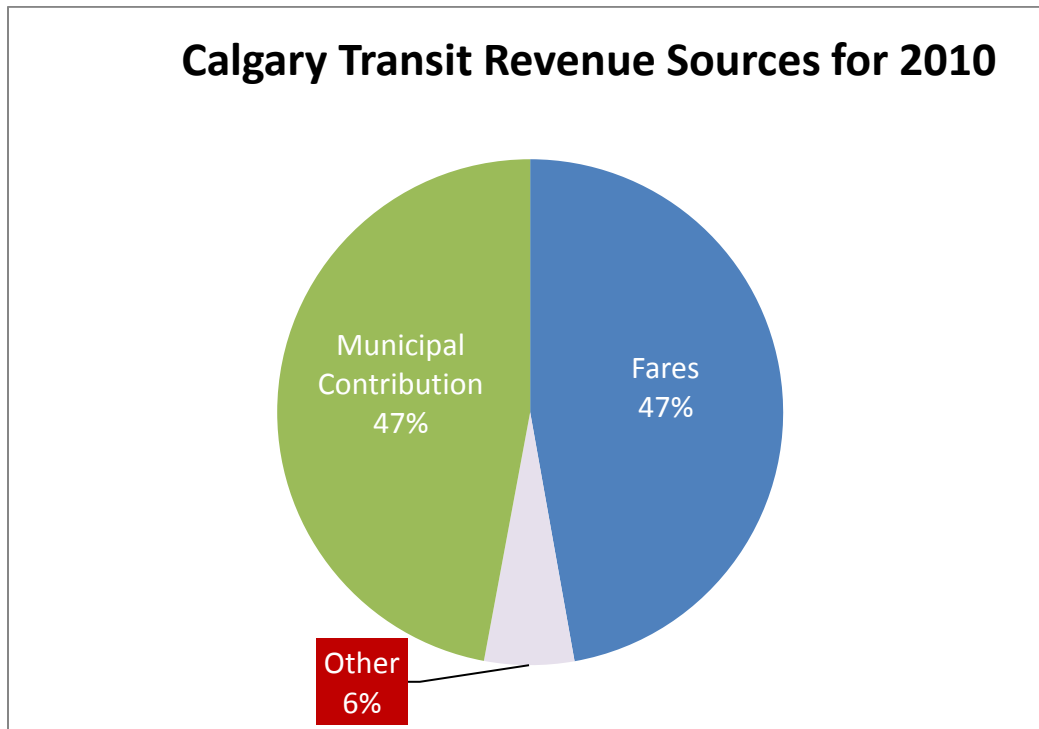
3.0 Calgary Transit Revenues

For 2010, Calgary Transit's operating cost (excluding Access Calgary) was \$277.5 million. Figure 2, illustrates the breakdown of Calgary Transit funding sources that supported the 2010 transit operating budget. Revenues included:

- Fares (47%)
- Other revenues (6%) including:
 - Sale of advertising space
 - Parking revenues
 - Fines
 - Recoveries, scrap sales, other charges

The following section describes transit fare media and transit customer fare categories that make up Calgary's fare structure. This fare structure follows Council approved fare policies that were last reviewed and adjusted in 1999⁴ although several new fare categories have been approved and added since then.

Figure 2



3.1 Fare Media

Calgary Transit offers three types of fare payment media, or options - cash, pre-paid printed tickets and passes (annual, monthly and day passes). These fare media are common to most transit systems. Descriptions of these fare media options are provided in Appendix 2.

⁴ Ibid

Calgary Transit fare media includes

- cash (exact change),
- tickets (books of 10 or single ride),
- day pass,
- monthly pass,
- Upass for students at major post secondary schools
- annual senior citizen pass, and,
- special event passes sold to event organizers.

Table 1 shows that the most commonly used fare media option is the monthly pass sold to adult and 'youth' customers. Pre-paid fares (passes and tickets) are used for 91% of all transit trips and account for 83% of total fare revenues. The use of cash fares has declined significantly in recent years.

**Table 1
Fare Option Use**

Fare Type	Percent of Ridership	Percent of Revenue
Cash	11%	18%
Tickets	16%	26%
Monthly Pass	48%	46%
Monthly Pass – Low Income	3%	2%
Upass	7%	6%
Annual Seniors Pass	7%	<1%
7 th Ave Free Fare Zone	8%	0%
Other (charter, contract)	<1%	<1%

3.2 Transit Customer Categories

For the purpose of transit fare pricing, several long standing transit customer categories are used. Similar to the fare media, these customer categories are common among many transit systems.

Most Calgary Transit customer fare categories are based on age as described below. Exceptions to this are the adult low income pass and the post secondary Upass. More detail on customer categories is provided in Appendix 2.

- Adult - persons over age 14 who are not attending school,
- Low Income Adult - age 18 and over who meet established low income qualifications,
- Youth - age 6 to 14 plus over 14 with valid high-school identification,
- Child - under age 6,
- Senior Citizen - Calgary residents age 65 or older,

In 2011 March, the SPC on Community and Protective services reviewed recommendations contained within a Community and Neighbourhood Services report that recommended criteria for setting age based discounts by City of Calgary business

units⁵. Administration was directed to report back in 2012 January with more clarity regarding possible changes related to age based and income based subsidies particularly as they pertain to senior citizens.

3.3 Fare Pricing and Discounts

It is common practice in Calgary and most other transit systems to price transit fares based on a series of discounts related to both the fare media and customer categories (see Canadian comparisons in Appendix 3). The pricing of fares is intended to reflect:

- The cost of collecting and handling fares (highest cost is for cash),
- The level of convenience provided to transit customers,
- Discounted pricing that rewards more frequent transit use,
- Discounts for those who are in need of special subsidies and not able to pay a full fare,
- The ability of the fare option pricing schedule to support the fare strategy i.e. generate sufficient revenue to meet the R/C target.

The 1999 Council approved fare policy⁶ established fare discount guidelines which recommended that all fare discounts be defined as percentages based on the adult cash fare. The direction from this policy should only require the setting of the adult cash fare and then all other fares would be adjusted based on the approved levels of discounts for each fare. The approved discount structure, shown in Table 2, includes the Low Income adult monthly pass which was added as a new fare category in 2005. Typically, Calgary Transit's fare pricing structure is established with the approval of each three year business plan based on current policies. Fare changes are then confirmed with each annual transit operating budget. A summary of recent fare price changes is provided in Appendix 4.

Table 2 shows that current (2011) discounts offered for most fare types are higher than the approved fare structure guidelines.

Table 2
Approved Pricing Relationship for Fare Options

Fare Type	Policy Discount vs Adult Cash Fare	2011 Discount vs Adult Cash Fare
Adult cash	0%	0%
Adult ticket books (10)	8%	13%
Adult monthly pass (based on 42 trips / month)	21%	22%
Low Income monthly pass (added in 2005)	50% of Adult Pass	56%
Youth cash	30%	36%
Youth ticket books (10)	40%	46%
Youth monthly pass (42 trips / month)	51%	53%

Note: The adult cash fare price is not tied to the average cost of providing a transit trip.

⁵ CPS2011-14, Fair Calgary Policy – Review of Tax Supported Age-Based Differential Fees.

⁶ C99-86 – Calgary Transit Fare Strategy – Phase 1, 1999 November

3.4 Charge for Park and Ride

Calgary Transit operates and maintains 40 parking lots with approximately 14,590 parking spaces for Calgary Transit customers CTrain stations along major bus routes. While not a transit fare, revenues have recently been generated from the charge for park and ride spaces in recognition that this service is in high demand, in limited supply and with significant operating costs.

In 2002, a reserved parking program was established at the Fish Creek Lacombe LRT station for up to 20% of the lot. In 2009 March, a daily \$3 parking fee was introduced at all park and ride lots. The charge for parking at non-LRT lots was discontinued in 2009 December. The \$3 daily charge in LRT station parking lots was eliminated at the end of 2011 March and a reserved parking program was implemented with up to 50% of the spaces in each lot available for \$70 per month.

Costs associated with the operation of these lots are part of Calgary Transit's operating budget. For 2011, costs for park and ride are estimated at \$4 million with estimated revenues of \$1.8 million. In 2012, the parking revenues are estimated to be about \$1 million. Parking costs not covered by revenues are paid from the Calgary Transit operating budget and therefore impact the R/C ratio.

3.5 Future Electronic Fare System

In 2012, Calgary Transit will replace most of its paper based fares (tickets and passes) with an electronic system based on "smart cards" or stored value cards and automated fare validation equipment on all buses and CTrain platforms. This system is being introduced to provide customers with a much greater level of convenience for purchasing and using transit fares. Based on experience in other cities, electronic fares will make transit use more attractive for frequent and infrequent users. As well, the electronic media will allow Calgary Transit to provide enhanced customer services such as lost card protection, ability to purchase and load fares on their smart cards via on-line services (no more trips to buy a bus pass) and to receive customized information updates on transit services. Ultimately, it is intended that the card can be used to access and pay for other City services or private sector purchases.

During the introductory period, no changes to the current fare structure are contemplated. This will allow existing customers and occasional transit users to become accustomed to the new fare media and equipment. However, in future years there is potential to offer increased fare system flexibility and new fare payment / pricing options designed to make transit more attractive. New distance or destination based fares, weekly or annual transit passes, multiple trip discounts, integrated regional service fares plus new pricing strategies are possible options. These possibilities will be investigated and analyzed to determine how transit fares can be packaged to make the services more attractive and potentially generate increased ridership and revenues. Ultimately, however, the fare structure related to the electronic media must continue to support the Calgary Transit fare strategy and other related policies.

4.0 Transit Funding Issues

Calgary Transit revenues are not keeping pace with the cost of providing service. Despite a relatively aggressive R/C ratio, strong ridership levels, an approved methodology for setting fare prices, annual increases to most fares (see Appendix 4) and growth in advertising sales.

Since 2003 Calgary Transit has achieved its R/C ratio target in five out of eight years as shown in Table 3. During the years when the R/C ratio exceeded 55% there were significant increases in ridership with modest increases in operating costs. In the past three years the R/C ratio has fallen below 55% either due to lower revenues and/or higher costs. Adjustments have been made to reduce costs, including service reductions.

Since 2007, annual budgets have relied more on increased municipal support rather than reducing service to cover the slower growth in revenues. Additional challenges have also been created by recent swings in fuel costs and a loss, in 2010, of the \$2.3 million annual operating subsidy from the Province of Alberta (used to offset the cost of the annual senior citizen pass discounts). For 2011, parking revenues will be much lower than 2010. While ridership is increasing, it is not matching the growth seen in previous years. As a result, the R/C ratio for 2011 is tracking towards 51%

Table 3
Revenue Cost Ratio Summary

Year	2003	2004	2005	2006	2007	2008	2009	2010
R/C Ratio	57%	55%	55%	58%	57%	54%	54%	53%

Figure 5 shows how the cost of providing transit service is increasing at a faster pace than total revenues (most of which comes from fares). This is due to a combination of escalating labour and materials costs (parts, fuel, etc) combined with the cost of improved services such as safety and security, cleaning and maintenance. Since 2007, the average cost to provide a passenger trip has increased by 23 percent while the average fare has only risen by 12 percent and this is reflected in the declining R/C ratio.

Figure 5



4.1 Transit Fare Discounts

For 2010, the average cost to provide a customer trip was \$2.98. Table 4 shows the level of discount provided to the users of each fare option based on the cost of their trips. As well, the table shows the percentage of ridership and fare revenue associated with each fare option.

Table 4
Fare Revenue, Ridership and Discounts by Fare Type

2010 Fare Types	Percent Fare Revenue	Percent Ridership	Percent Discount vs Avg. Trip Cost (\$2.98)
Adult Fares	78%	61%	37%
Cash Fare	15%	9%	8%
Single Tickets	1%	<1%	8%
Ticket Books	24%	14%	19%
Day Pass	<1%	<1%	31%
Monthly Pass @ 42 trips / month	36%	34%	49%
Low Income Pass @ 42 trips / month	2%	2%	68%
Youth Fares	14%	17%	63%
Cash Fare	2%	1%	41%
Single Tickets	<1%	<1%	41%
Ticket Books	2%	2%	50%
Day Pass	<1%	<1%	55%
Monthly Pass @ 42 trips / month	10%	14%	66%
Post Secondary - Upass	7%	7%	NA
Senior Annual Pass	1%	7%	96%
Other (contracts, charters)	<1%	<1%	8%
7th Avenue LRT Free Fare Zone	0%	8%	100%

These data show that about 25 percent of transit customers receive fare discounts that exceed 55 percent of the average trip cost – i.e. low income adults, seniors, and youth. It should be noted that the Upass price is negotiated with post secondary schools and an agreed amount, based on observed ridership is paid to Calgary Transit by the institution (see description of the Upass program in Appendix 2).

A significant challenge to Calgary Transit's ability to fund an adequate level of transit service that meets customer desires is the generous level of discounts that are offered to a significant number of transit customers. In setting previous budgets, Council has directed Calgary Transit to absorb lower levels of revenue from some fare or customer categories and to accommodate this within the annual transit operating budget. Table 2 showed that higher than approved discounts are being provided to most the key fare

options. These discounts are directly impacting Calgary Transit's ability to meet the revenue / cost ratio target of 55%

4.1.1 Low Income Fares

It is acknowledged that there is a need within the community to provide low income individuals with financial assistance to enable them to use transit services that take them to work, shopping, medical appointments or allow them to take part in social / recreational opportunities. Table 5 shows that the annual value of these subsidies provided by Calgary Transit is approximately \$35 million. This table is provided only to indicate the value of the subsidy and it is not suggested that if full fares were charged to these groups that there would be this level of increased revenue. Past research has indicated that without these discounts, many of these individuals would travel less using other fare options or they would not travel at all.

These substantial subsidies are provided to approximately 36,000 Calgarians and are supported in part by other Calgary Transit customers who pay a higher fare to offset lower revenue from others. These subsidies directly impact Calgary Transit's ability to fund adequate transit service levels and to meet the R/C target. This is essentially an income support program and it is questioned whether Calgary Transit is the correct business unit to be offering it. Therefore, it is suggested that these programs should be reviewed. It is noted that the Senior Citizen annual pass program is currently being reviewed by Community and Neighbourhood Services and Calgary Transit.

Table 5
Value of Subsidized Transit Passes
for Seniors & Low Income Calgarians

Pass Type	2011 Projected Revenue (millions)	2011 # of Passes Sold	Value of Passes @ \$90 / month (millions)	Value of Subsidy (millions)
Low Income Adult	\$3.1	77,909	\$7.01	\$3.9
Low Income Senior – Annual - \$15	\$0.18	11,900	\$12.85	\$12.67
Senior - Annual -\$35	\$0.63	17,908	\$19.34	\$18.71
Totals	\$3.91	107,717	\$39.2	\$35.28

5.0 Comparison to Canadian Transit System Fares

Appendix 3 provides a comparison of Calgary Transit financial and fare data with other comparable Canadian transit systems. The upper portion of the table provides 2009 data as reported to the Canadian Urban Transit Association (CUTA) while the lower portion of the table shows 2010 data from individual transit systems. Also included in Appendix 3 is a graph that shows the range of R/C ratios from a sample of world-wide cities. Appendix 5 provides additional performance and financial metrics that compare Calgary Transit with other similar Canadian transit systems.

Observations from these data include:

- Calgary's transit fares are generally similar to other major Canadian cities in relation to most fare and customer categories.
- Calgary's average fare of \$1.40 (2009) is lower than four of the nine comparable cities.
- Calgary's prices for cash and ticket fares are generally in keeping with the price in most other cities. However, Calgary's price for adult monthly passes (34% of total ridership) is considerably lower than many other large transit systems.
- The most significant discount is provided to seniors who make up 7% of the ridership and whose fares cover only 4% of the cost of their trips.
- The other significant discount is provided to the 7% of annual ridership who use the 7th Avenue free fare zone.
- Calgary is in the upper two-thirds when comparing R/C ratios from a sample of world-wide transit systems.
- Calgary Transit's service area is second only to Vancouver.
- Calgary Transit provides a safe, effective and efficient service.

6.0 Options to Increase Transit Funding

The Municipal Government Act (MGA) currently provides Calgary with two options to increase the operational funding for improved transit service:

- increasing user fees – i.e. fare revenues (meet the current R/C ratio)
- increasing local tax payer support (a lower R/C ratio)

6.1 Increase Fare Revenues / Decrease Fare Discounts

There are opportunities to increase fare revenues (user fees) by adjusting the current fare pricing and discounts. To do this, the level and nature of some existing fare discounts must be addressed to provide a more equitable sharing of the cost of providing service among the various transit users. Adjusting discounts for day passes, monthly passes, and annual senior's passes could have a positive impact on fare revenues without having a negative impact on transit ridership. However, increasing fares should be viewed carefully since this can impact financially disadvantaged Calgarians and make transit less attractive for those who currently do not use the service on a regular basis.

6.2 Review Park and Ride Charges

The park and ride user fee program could be expanded to charge for parking in either a greater percentage of LRT lots since this is an added convenience with the proven ability to generate additional revenue to offset costs. A review of the reserved parking revenue program will be presented to Council in 2011 November.

6.3 Utilize the Capabilities of the Electronic Fare System

The electronic fare collection system (smart cards) will be introduced in 2012. This will allow for implementation of new fare pricing options such as distance based fares. As an example, it may be feasible to charge lower fares for short distances such as travel within the downtown and attract trips that are not already being served. Other fare structure changes are possible with the EFC and these will be reviewed.

6.4 Adjust the R/C Ratio

The current R/C ratio of 55% could move towards a lower target – such as 50% or 45%. Several other Canadian transit systems operate with much higher tax payer support than Calgary. For 2010, to achieve a 55% R/C ratio, Calgary Transit would require an additional \$6 million in annual fare revenue. To move to a 50% or 45% R/C ratio would require an additional contribution from general City revenues of \$8 and \$23 million respectively.

Since most transit customers also pay property taxes in some manner, relying on higher fares or higher property taxes to support improved transit service will continue to see transit users paying a higher share of the associated costs. However, lowering the R/C ratio may be more palatable to transit users and keep transit fares reasonable.

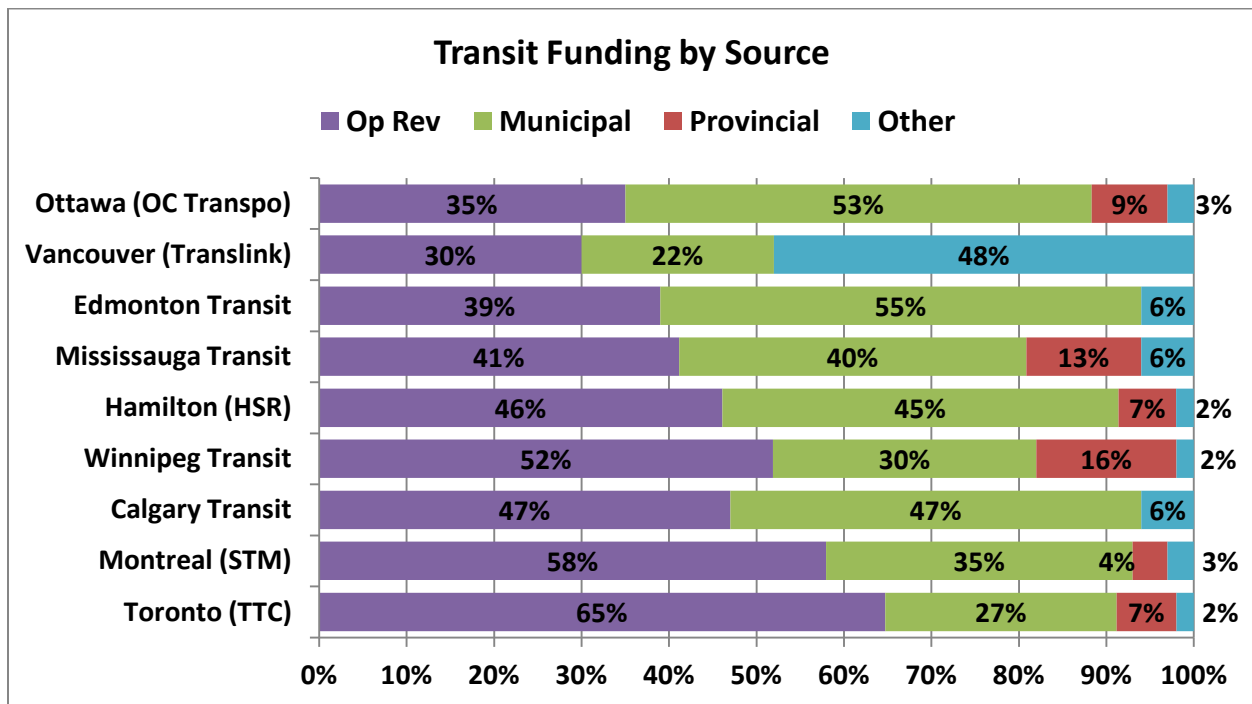
6.5 Explore Alternate Sources of Funding

Alberta is the only province in Canada that does not provide some level of financial support for transit operations. Transit funding support for transit systems in other provinces is shown in Figure 6.

A change to the MGA that would permit Calgary (including the Calgary Regional municipalities) to obtain funds from other means of taxation or user fees should also be explored. In British Columbia, gasoline taxes specifically devoted to municipal transit and roadway operating costs have been implemented. TransLink, which provides transit service to Metropolitan Vancouver, charges a per litre gasoline tax that results in a much lower operating cost contribution from fares (30%) and municipal taxes (22%). The City of Victoria B.C. also receives a 3.5 cent per litre gas tax to support transit service operations. This type of funding support mechanism is only one example of potential alternate funding means to explore for providing improved transit services.

Changes to Calgary’s taxation flexibility form part of a broader negotiation between The City and The Province. Administration will therefore explore the possibility for funding from the Provincial government to support transit operations or seek the ability for Calgary to enact additional forms of tax or user fees to help fund transit service and other transportation services.

Figure 6



7.0 Conclusion

The information presented in this report shows that Calgary Transit has had difficulty in recent years achieving the 55% R/C ratio target set by Council. This situation is caused by fare pricing that has not kept pace with the higher costs of providing service.

Calgarians expect higher quality transit services and recently approved land use and transportation plans are based on achieving significant improvements in the level and extent of transit services. To address these goals, significant transit service improvements and support facilities must be funded.

Changes to the current funding model and / or fare structure are required to enable the provision of a sustainable transit service that meets expectations.

There are several actions possible that will permit Calgary Transit to achieve a more sustainable funding strategy for transit operations. It is suggested that a combination of the following actions be incorporated into future transit operating budgets:

- a) Continue to increase service levels to serve and attract ridership,
- b) Reduce fare discounts to achieve a 55% revenue/cost ratio;
- c) In future budget cycles, shift towards a lower revenue/cost ratio to ensure that the value of increasing benefits of transit to the community are recognized and that fares do not rise to the point where the service is not an attractive alternative for choice users;
- d) Reduce discounts for some fares without creating a barrier to those with lesser abilities to pay;
- e) Utilize the new electronic fare system (mid 2012 implementation) to offer additional payment options and examine the feasibility of a revised fare structure using Electronic Fare Collection to attract ridership and increase revenues;
- f) Continue to charge for services that provide premium service for some users; and
- g) Explore alternatives for funding and administration of low income transit fares.

8.0 Comments

A draft of this report was circulated to members of Council and the Mayor's office. Two open house feedback sessions were held and several one-on-one meetings occurred to discuss the report findings and draft recommendations. A summary of these comments is provided in Appendix 6.

Appendices

Appendix 1

Transit Service Objectives

In recent years, Calgary Transit has experienced considerable ridership growth. There were significant increases in new service hours, particularly from 2007 to 2009 but in 2010, Calgary Transit was directed to reduce service by 21,000 hours. Despite an overall trend of increasing service funding, the amount of new service added has not been sufficient to keep pace with city growth (both population and geographic). New service hours have been mainly devoted to providing additional capacity on existing routes to address crowded conditions. Consequently, transit service has not been extended to a number of new communities and transit service outside of weekday peak periods on many bus routes is not attractive or even available in some communities. For 2011, increased transit service hours have allowed significant investments in increased off peak services and new routes.

The recently approved MDP and CTP strive to move the city towards a more compact and sustainable urban form. These plans recognize that this will require an improved level of transit service along key transportation corridors and to future compact, mixed use nodes. The Primary Transit Network is a new concept that will see either a single route or a combination of transit routes along these corridors providing at least a combined 10 minute frequency, 15 hours per day, 7 days per week. This level of service along with the right land use mix will enable people to live along this network and work, shop and play without needing a car. This service target was recently achieved with service added in 2011 March on the three CTrain lines and the Centre Street North bus routes. This represents approximately 15% of the Primary Transit Network completed and while this is an encouraging start, the remaining 85% will require a higher level of investment.

Achieving this higher level of service on the extensive Primary Transit Network will not happen immediately. It will require consistent increases in transit service together with strategic allocation of resources in areas where ridership potential is high. At the same time, increases in basic services for new communities are also required, particularly in those areas that are being designed to be more transit supportive.

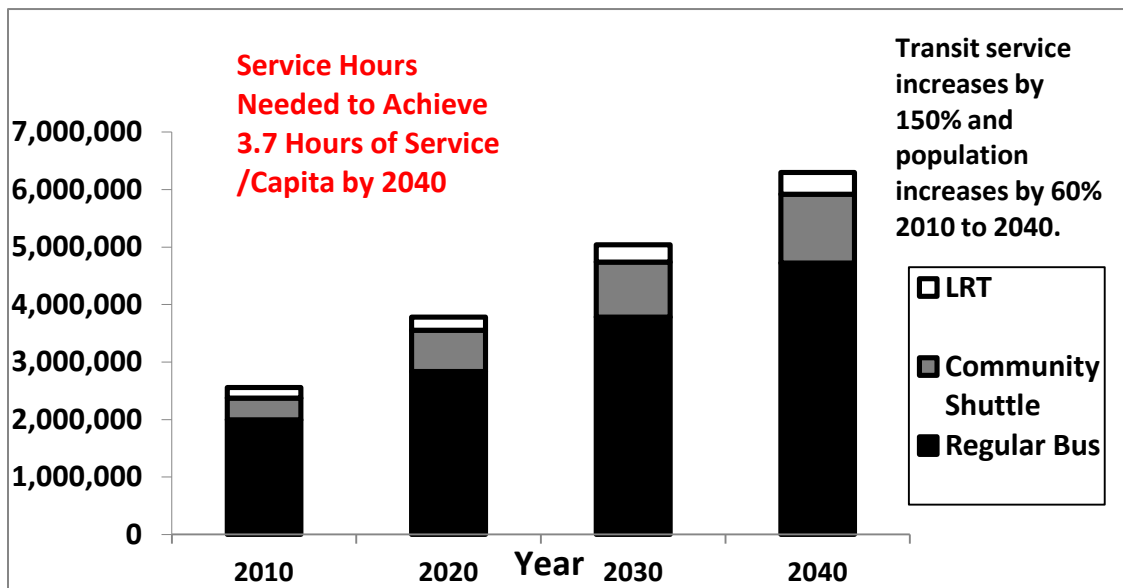
Increased transit service funding will also be required to support new capital projects such as West LRT, extensions to existing LRT lines, and new Bus Rapid Transit (BRT) routes and facilities.

Therefore, to achieve the kind of transit service required to meet the vision of Calgarians, and to support MDP and CTP goals, Calgary Transit will need to increase transit service hours at a faster pace than population growth and geographic expansion.

Currently Calgary Transit provides an annual average of 2.4 hours of transit service per capita and this is lower than other major Canadian cities (see Metrics in Appendix 4). The CTP sets a target of 3.7 hours of transit service per capita by 2040. This represents a 150% increase in the current level of service to serve a 60% increase in Calgary's population. Figure A shows the levels of service by service type (LRT, bus, community shuttle) required to move toward this target at ten year horizons. On an annual basis, this requires a consistent annual increase of approximately 120,000

annual service hours – slightly less than was added in 2011 but higher than the average increase over the past six years (99,000). More aggressive service increases will be required to achieve a more attractive transit service at a faster pace.

Figure A
Projected Transit Service Hours to Achieve CTP Objectives
(2010 – 2040)



In addition to higher service frequencies and extensive transit coverage, Calgarians are also demanding a higher quality of transit service so that use of transit is a much more attractive alternative to the use of private cars. In response, a number of quality of service enhancements such as upgraded safety and security staffing, cleaning and maintenance improvements, electronic fares and real time passenger information systems have been recently implemented or are planned to begin in the very near future. All of these initiatives will require increased levels of funding.

Figure B illustrates many of the key aspects that require continued attention to achieve a higher quality of transit service.

Figure B

Transit Service Focus



Appendix 2

Calgary Transit Fare Media – Fare Options

A description of current Calgary Transit fare media or fare options is provided below.

Cash

Cash is the highest priced fare option for both adult and youth fare categories historically due to higher handling costs associated with this medium. Cash is also viewed as the base fare used to calculate other fare discounts. Bus customers may pay by cash by inserting exact change in the fare box as they enter the bus. Bus operators do not carry change but can issue a voucher that can be submitted by the customers for a refund in the event of overpayment. LRT customers may purchase a single ride ticket using cash (coins) from a Ticket Vending Machine (TVM) located at all CTrain stations. A ticket is printed from a TVM that indicates the date and time of purchase, location, and the type of fare (i.e. Adult or Youth) as selected by the customer at time of purchase. The ticket is to be carried as proof of fare purchase for the entire length of the trip and is treated the same as a transfer when the customer switches from one vehicle or route to another.

Tickets

Tickets were introduced in 1981 as a more convenient means than cash of paying transit fares since a customer may purchase multiple rides with a single transaction. Transit tickets are sold by a variety of Calgary Transit approved vendors either in books of ten or as single tickets. Ticket books are discounted to reflect the purchase of multiple rides. Single tickets are priced the same as cash fares and were created to allow merchants near transit stops to sell transit tickets instead of absorbing the cost of making change. Each ticket is valid for one ride. When boarding a bus, a ticket is deposited into the fare box and the customer may request a transfer (see below) to permit continuation of the journey on connecting routes. When using the CTrain, a ticket must be validated (stamped with date, time and location) in a TVM. CTrain customers must then carry the validated ticket as proof of fare purchase for the entire trip. On the CTrain, a Peace Officer may request the ticket to determine if a fare has been paid. If transferring from one route to another the validated ticket is presented to the bus operator as proof of a paid fare.

Transfers

Transfers are paper slips issued by bus operators to customers paying their fare using cash or tickets upon boarding to permit customers to transfer from one route to another during the course of a trip. Transfers are "cut" by the operator to indicate the time of issue which allows the customer to travel in any direction and board any route (bus or CTrain) within a 90 minute time period. A validated ticket may also be used as a transfer within 90 minutes of the time stamped on the ticket. About 50% of transit customers make at least one transfer during the course of a trip.

Monthly Passes

Monthly transit passes are valid for one calendar month as shown on the face of the paper pass. The pass entitles the holder to unlimited rides on transit for that month. As the pass does not identify the user, it is transferable (adult to adult, youth to youth). Customers may purchase passes through The City Online Store, at the Calgary Transit Customer Service Centre or at participating sales merchants. When boarding a bus, the pass is presented to the bus operator and when riding the CTrain if requested it is presented to a by-law officer as proof of fare payment. For the purpose of pricing the monthly pass, it is assumed that the customer will take at least 42 rides per month. Surveys have found a much higher use (over 50 rides per month) since monthly passes are transferable - often among family members.

In 2007, Revenue Canada implemented an income tax credit to monthly pass users. Customers may submit their expired passes or proof of payment to claim this credit.

Day Pass

Day passes provide customers with unlimited rides in a single day. Day passes may be purchased at Calgary Transit vendors and from CTrain TVMs. When travelling via CTrain the pass must be validated at a TVM and carried as proof of fare purchase for the entire trip. If transferring from the LRT to the bus, the validated pass is shown to the bus operator as proof of a paid fare when boarding.

Show 'n' Go Pass

These specialty passes are sold to organizers of special events, conferences or trade shows. These passes are priced on the basis of \$6 per day for the duration of the event.

Universal Transit Pass (Upass)

A universal transit pass is currently available for post secondary students at five major schools. The Upass allows students at these institutions to pay a much lower fare based on a four-month semester transit pass. "Upass" was established in 2001 and is a contractual agreement between the post secondary school and Calgary Transit. The premise of Upass is that Calgary Transit will collect the same amount of fare revenue from a universal charge to all students as it would if individual students were to purchase an adult monthly pass.

The price of the Upass has been determined through ridership counts and surveys to determine the percentage of students travelling to each school via transit. An estimate is then made of the annual revenue that would come from this usage and this amount is then shared among the entire student body. To be eligible, all students must contribute to the program and it is recognized that not all students use transit for school travel.

Initially, the universal pass price was voted on by each student body. Subsequent pass prices have been negotiated with the administration of each school. Currently the Upass is available to students at the University of Calgary, SAIT, Alberta College of Art, Mount Royal University and Saint Mary's University College and is based on approximately 30% student use of transit for school travel. Surveys have also found that there is a much higher use of transit for other types of travel by these students. SAIT has extended the Upass to staff on the basis that, similar to students, all staff pay

into the program. Upass is advantageous to post secondary schools as a means of encouraging the use of transit and reducing auto access to schools thereby reducing costs for parking.

Upass has not been offered to small schools or schools with less than 1,000 students or those with very high transit use among students.

Senior Citizen Annual Pass

Historically, significant transit fare discounts have been extended to senior citizens in Calgary. Calgary residents, age 65 or older are eligible to purchase an annual Senior Citizen Transit Pass. The annual pass is currently priced at \$35 per year. A reduced rate of \$15 per year is available for low income senior citizens with 2010 incomes for singles of \$18,745 and couples \$28,530. First time applicants must apply at the Calgary Transit Customer Service Centre.

The senior citizen transit pass program began in 1970 and the price and eligibility criteria have not been adjusted since 1995 when the \$15 pass for low income seniors was introduced. In 2010, annual senior's transit pass sales totalled 29,808 (11,900 at \$15 and 17,908 at \$35). These figures are very similar for the past 5 years.

During the past ten years, there has been considerable study of this program since it is recognized as a very generous subsidy. In 2007, the annual value of the subsidy was calculated to be approximately \$9.4 million based on a survey of seniors. Fair Calgary Policy CSPA034 that provides fairness principles and a fairness filter framework for use by all City business units has found that the annual senior citizen transit passes provide a disproportionate discount to senior citizens in relation to other City services and other transit systems. The income eligibility for the reduced rate (\$15) senior's pass differs from other City low income subsidies. Administration believe the eligibility requirements should be aligned. We anticipate adopting the broader City eligibility requirements will increase the number of Calgarians eligible for a reduced rate seniors pass as well as low income pass.

A comparison of senior's fares charged by other Canadian transit systems is provided in Appendix 2.

Low Income Adult Pass

A transit pass for low income adult Calgarians, under age 65 was created 2005. When the Low Income Adult Pass was established it was to be priced at 50% of an adult monthly pass. Currently, the discount is higher (56%) since this price relationship has not been supported in recent transit budgets. The criteria to qualify are based on an individual's receipt of Federal GST subsidies and on using 75% of the low income cut off value established by the federal government. This income eligibility criterion differs from other City low income subsidy programs. Proof of income requires presentation of a Canada Customs and Revenue Agency "Notice of Assessment" or "Notice of Reassessment" form. Applicants must apply annually at the Calgary Transit Customer Service Centre.

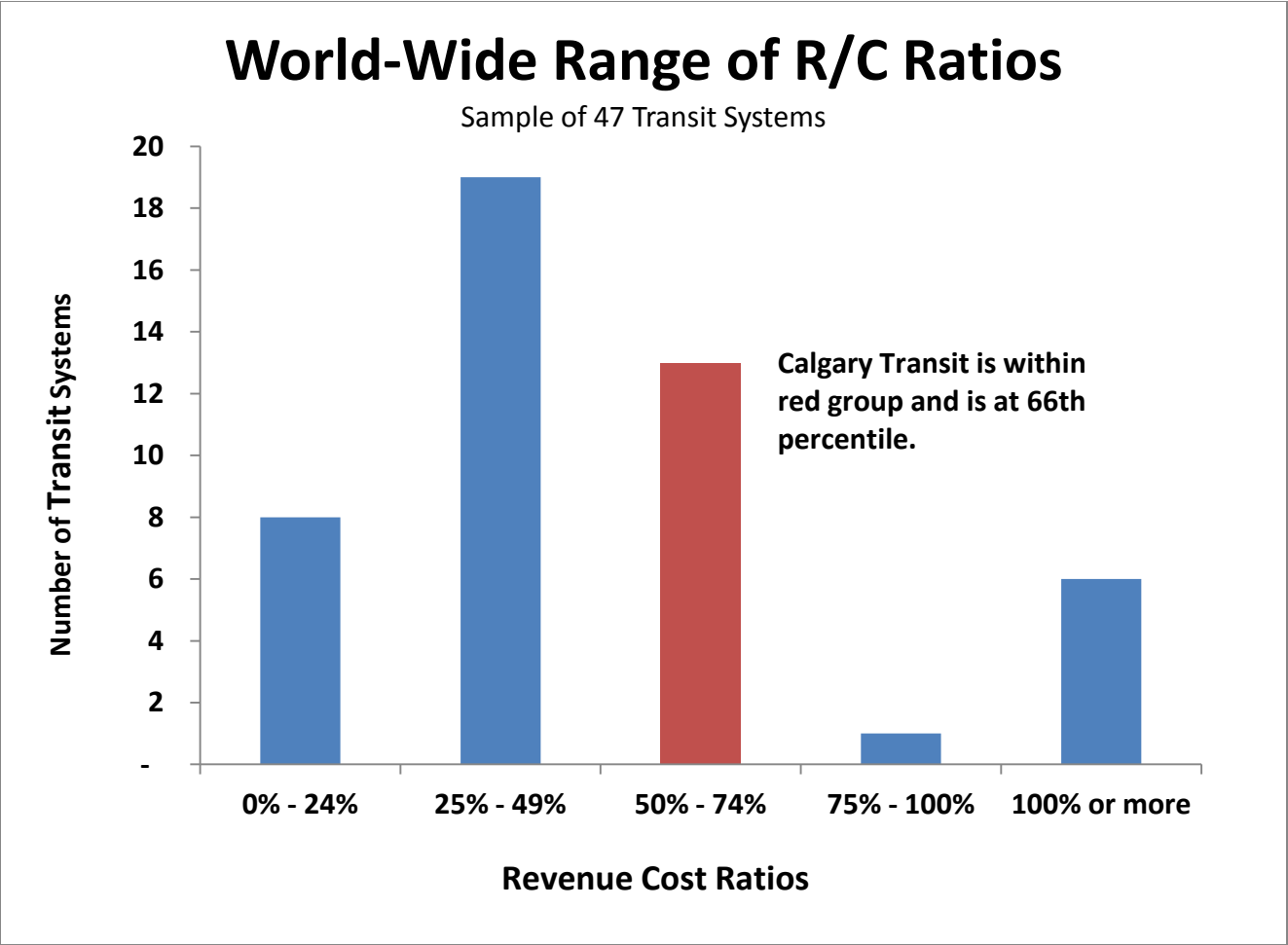
Charge for Parking

In 2002, a reserved parking program was established at the Fish Creek Lacombe LRT station for up to 20% of the lot. In 2009 March, a daily \$3 parking fee was introduced at all park and ride lots. The charge for parking at non-LRT lots was discontinued in 2009 December. This program generated increasing net revenues that totalled \$4.9 million in 2010. The \$3 daily charge in LRT station parking lots was eliminated at the end of 2011 March and a reserved parking program was implemented with up to 50% of the spaces in each lot available for \$70 per month. If this program becomes fully subscribed within the next few years, it could generate approximately \$4 million per year. Currently there are approximately 1,000 customers paying for reserved parking or about 17 percent of the potential reserved parking supply. For 2011, the program is producing very modest revenues and does not cover the overall cost of operating and maintaining park 'n' ride lots.

Appendix 3

Fare Comparison to Other Canadian Transit Systems (2009 & 2010 Data)

	Calgary, AB	Edmonton, AB	Ottawa, ON	Montreal, QC	Winnipeg, MB	Vancouver, BC ⁴	Hamilton, ON	Mississauga, ON	Toronto, ON	Regina, SK
2009 Data										
R/C Ratio	54%	44%	43%	56%	61%	48%	50%	47%	67%	32%
Average Fare	\$1.40	\$1.27	\$1.40	\$1.20	\$1.43	\$1.89	\$1.50	\$1.91	\$1.77	\$0.75
Annual Operating Cost(millions of dollars)	\$268.4	\$207.9	\$276.3	\$841.1	\$106.0	\$747.5	\$64.5	\$126.6	\$1,287	\$20.0
Annual Ridership(millions)	94.2	68.5	83.2	382.8	43.9	187.9	20.9	29.5	471.2	7.6
2010 Data		Red text denotes values higher than Calgary								
Adult Cash	\$2.75	\$2.75	\$3.25	\$2.75	\$2.35	\$3.75	\$2.55	\$3.00	\$3.00	\$2.50
Adult Tickets (per ticket price)	\$2.40	\$2.20	\$2.50	\$2.21	\$2.05	\$3.15	\$2.00	\$2.40	\$2.50	\$2.00
Adult Monthly Pass	\$90.00	\$81.50	\$91.50	\$70.00	\$74.00	\$110.00	\$87.00	\$107.00	\$121.00	\$62.00
Adult Day Pass	\$8.25	\$8.25	\$7.00	\$7.00	N/A	\$9.00	\$9.00	N/A	\$10.00	\$7.00
Youth Cash	\$1.75	\$2.75	\$1.60	\$1.75	\$1.85	\$2.50	\$2.55	\$3.00	\$0.75	\$2.00
Youth Tickets (per ticket price)	\$1.50	\$1.93	N/A	\$1.20	\$1.40	\$1.70	\$1.65	\$1.65	\$0.55	\$1.50
Youth Monthly Pass	\$54.25	\$63.25	\$73.25	\$38.75	\$50.00	\$46.50	\$71.00	\$101.00	N/A	\$47.00
Youth Day Pass	\$5.25	\$8.25	\$7.50	\$7.00	N/A	\$7.00	\$9.00	N/A	\$10.00	\$7.00
Seniors Annual Pass	\$15.00 / \$35.00	\$49.50 / \$114.50	\$395.00	N/A	N/A	N/A	\$205.00	\$414.00	N/A	\$202.00



These data represent farebox recovery rates for 47 transit systems in Canada, United States, Asia, and Europe compiled between 1991 to 2007.

Source: “Transit Farebox Recovery and US and International Transit Subsidization: Synthesis”, Washington State Department of Transportation, October, 2009.

Appendix 4

Calgary Transit Fare History

	2005	2006	2007	2008	2009	2010	2011
Adult Fares							
Cash / Single Ticket	2.00	2.25	2.25	2.50	2.50	2.75	2.75
Day Pass	5.60	5.60	6.75	6.75	7.50	8.25	8.25
Ticket Book	17.50	19.50	19.50	21.00	23.00	24.00	24.00
Monthly Pass	70.00	70.00	75.00	75.00	83.00	85.25	90.00
Low Income Monthly Pass	35.00	35.00	37.50	37.50	41.50	41.50	40.00
Youth Fares							
Cash / Single Ticket	1.40	1.40	1.50	1.50	1.75	1.75	1.75
Day Pass	3.60	3.60	4.50	4.50	5.25	5.25	5.25
Ticket Book	12.00	12.00	13.00	13.00	15.00	15.00	15.00
Monthly Pass	40.00 / 47.00	47.00	47.00 / 50.50	50.50	50.50 / 52.50	52.50 / 54.25	54.25
Senior's Annual Transit Pass ²	15.00 / 35.00	15.00 / 35.00	15.00 / 35.00	15.00 / 35.00	15.00 / 35.00	15.00 / 35.00	15.00 / 35.00
NOTES:							
(1) Shaded cells denote price change							
(2) Seniors annual pass - subsidized pass / non-subsidized pass - last price adjustments in 1995							

Appendix 5

Calgary Transit Metrics

With Benchmarking to

Comparable Canadian Transit Services

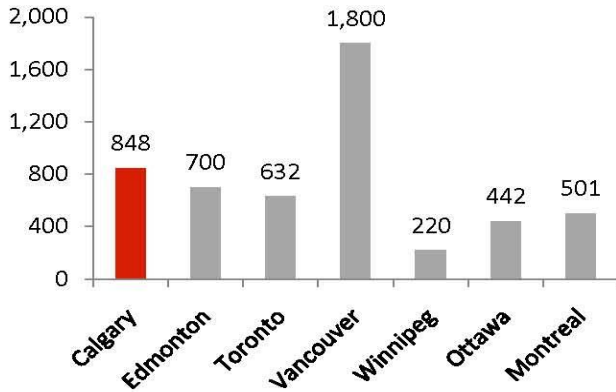
The data in these graphs compares productivity and financial data for Calgary Transit in comparison with 6 transit systems in Canadian cities as compiled by the Canadian Urban Transit Association – CUTA. Data is for 2009 which is the most recent published information.

These data show that, in comparison Calgary Transit provides an effective and efficient service. Calgary's large geographic service area, second only to Vancouver's, contributes significantly to the operating cost per passenger. More compact cities such as Toronto, Montreal and Winnipeg achieve greater levels of service effectiveness and efficiency on a per capita basis.

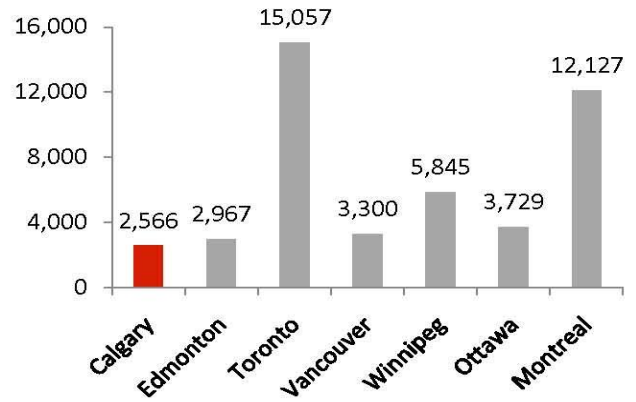
The productivity of Calgary Transit service (passengers per hour) is reasonably good in comparison to some Canadian cities but not as good as others. The more efficient systems are generally those with much smaller, higher density service areas. On the revenue side, Calgary Transit current fare structure with significant discounts for some fare types and categories results in lower revenues on a per customer basis than some of the other major Canadian transit systems.

Service Considerations

Service Area

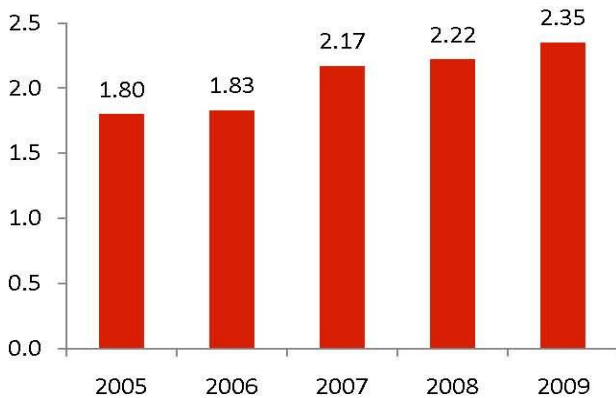


Vehicle Hours / Sq. Km.

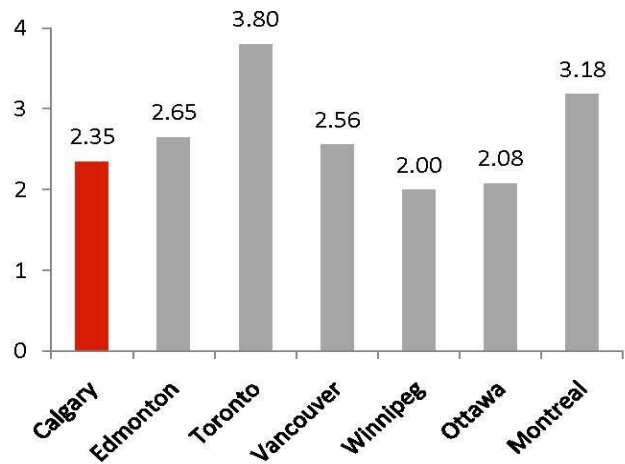


Revenue Vehicle Hours per Capita

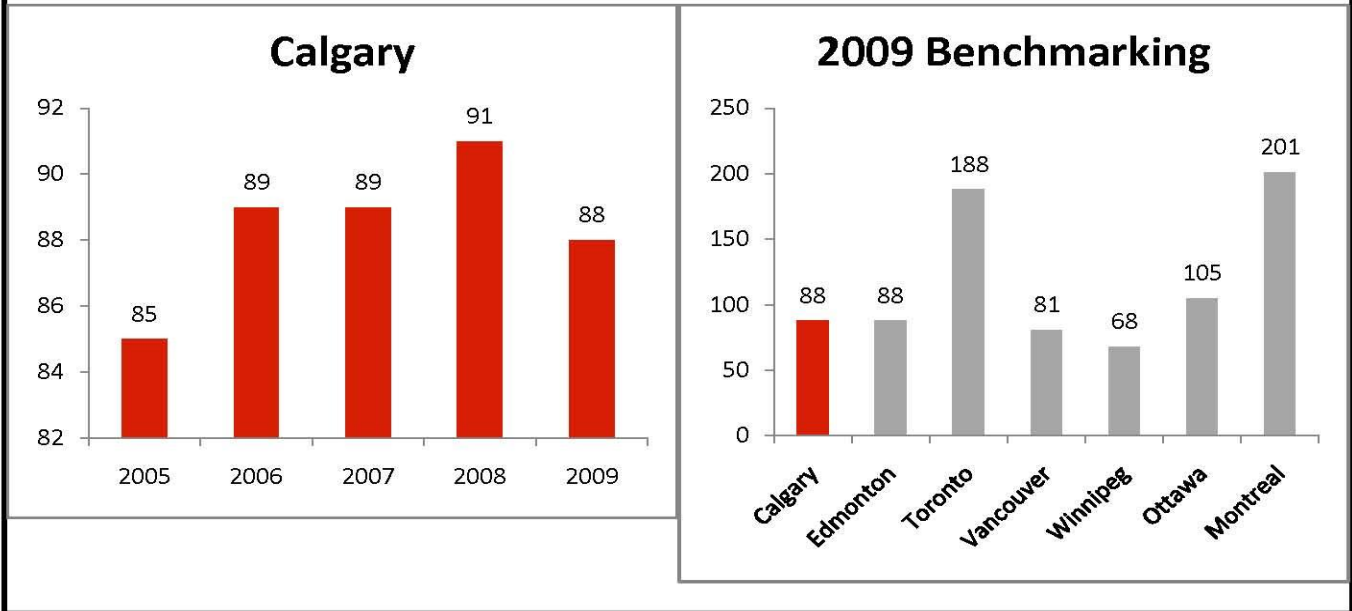
Calgary



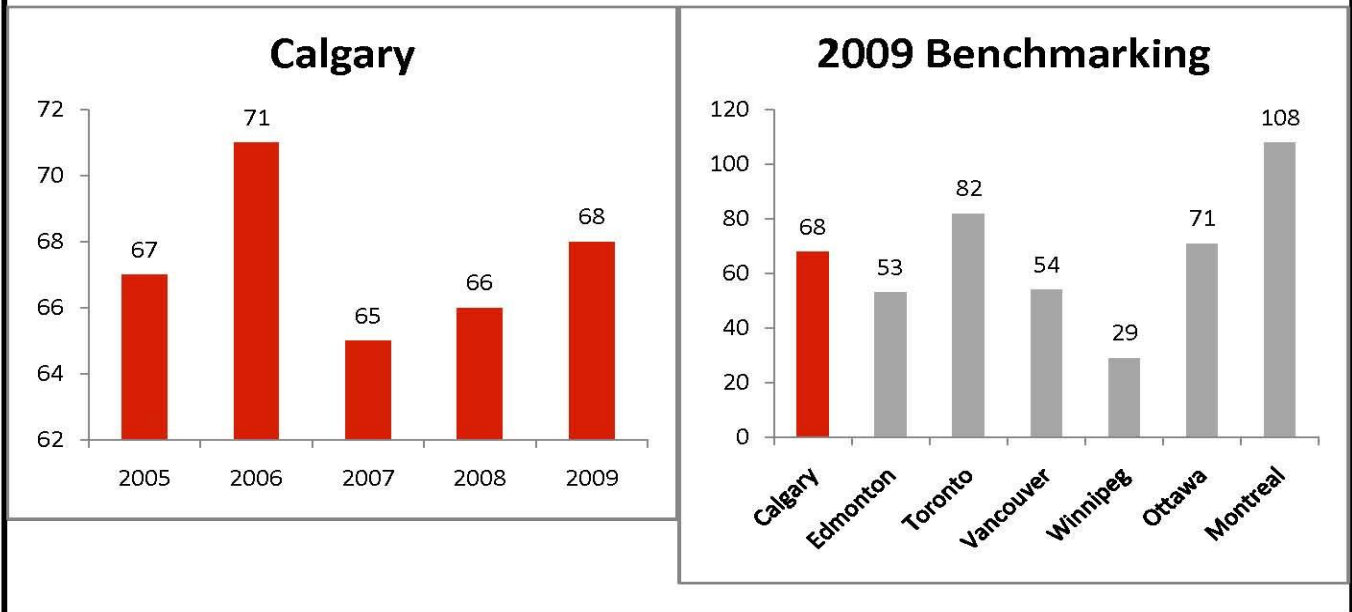
2009 Benchmarking



Trips per Capita

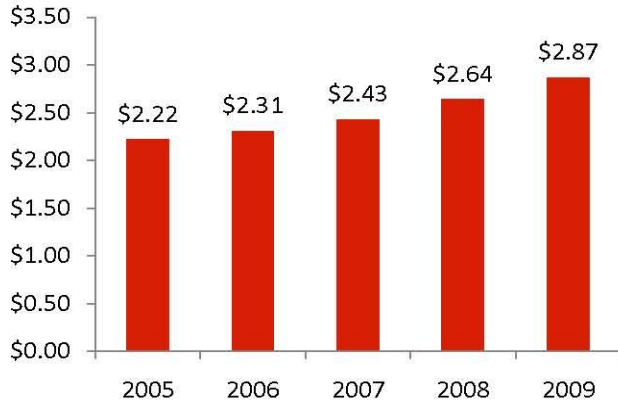


Boarding Passengers per Revenue Vehicle Hour

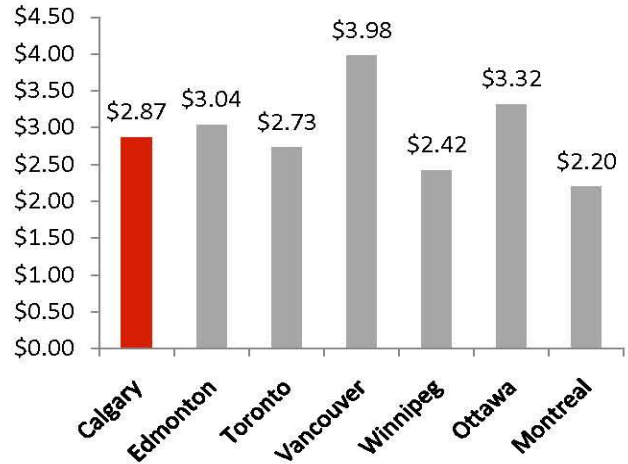


Total Cost per Trip

Calgary

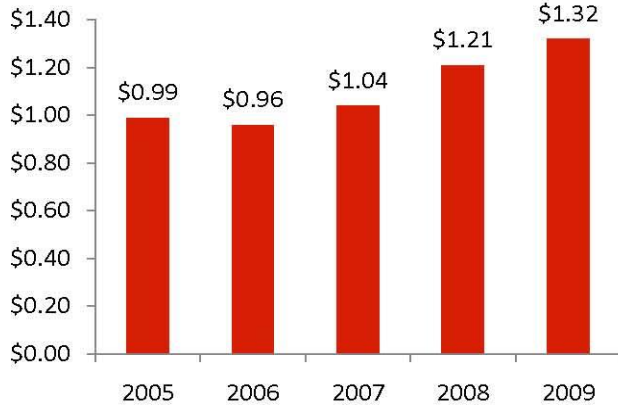


2009 Benchmarking

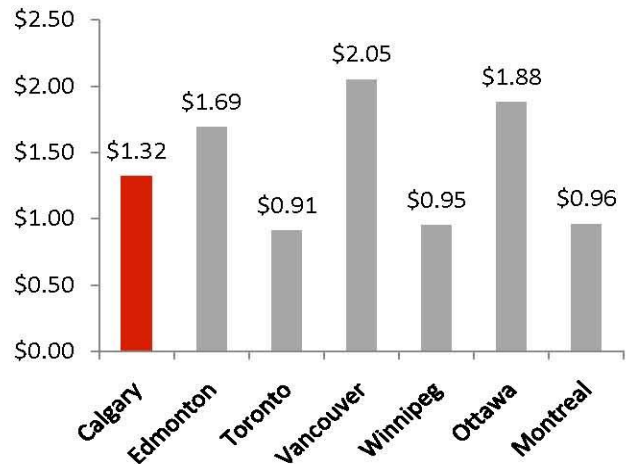


Net Cost per Trip

Calgary

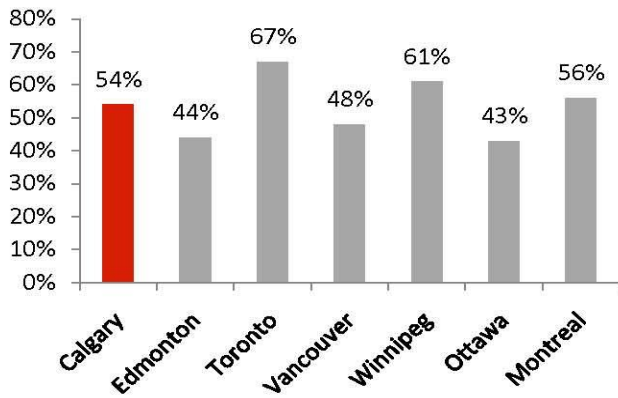


2009 Benchmarking

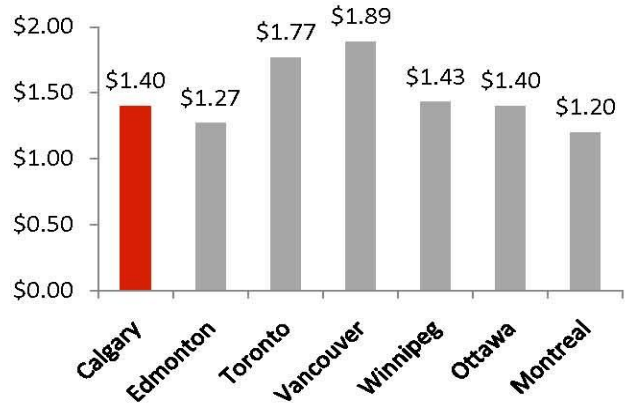


Funding Transit

R/C Ratio - 2009



Average Fare - 2009



Appendix 6

Feedback from Council

The following is a compendium of comments and feedback provided by Aldermen, Aldermanic Assistants and representatives from the Mayor's office during the two "open house" sessions held on 2011 June 8 and 15 and during one-on-one meetings.

- There was general appreciation for the problem and agreement that there are no easy solutions. There was agreement that there would need to be "tough" decisions made to address the issue of transit service funding.
- There was some support the concept of moving away from the 55% R/C ratio to place less reliance on fares to support transit operating costs. Some felt the change should happen immediately (next annual budget) others supported a gradual move away from this target.
- It was noted that a 3% change in the R/C ratio was equivalent in funding required to a 1% change in property taxes.
- There was general agreement with the need to decrease discounts for some fare options. In particular, the discount on ticket books was questioned.
- There was concern expressed with increasing the price of transit fares since we are trying to encourage transit use.
- There was interest expressed in revisiting the charge for parking program in response to the financial impact of reducing the parking revenues.
- There was significant discussion regarding senior citizen passes. Most agreed with the need to reduce or eliminate the discounts offered to senior citizens.
- It was generally agreed that Calgary Transit is not ideally suited to administer the low income transit pass and that perhaps this should be funded and administered by those who have the knowledge and skill to assist those in need of income based assistance. There was a suggestion to examine the concept of establishing a central fund for low income support programs.
- There was interest in learning more about alternate funding options similar to those in British Columbia.