

Auditor General's Office

Audit Committee Report

2010

***Audit Of Greater Sudbury Transit
Services***

Conventional Transit

Brian Bigger, C.G.A

Auditor General, City of Greater Sudbury

2010 Audit Of Greater Sudbury Transit Services Conventional Transit

Audit Overview

Fieldwork Complete Date:	December 14, 2010
Draft Report Date:	March 2, 2011
Final Report Date:	May 24, 2011
To:	Roger Sauve, Director Transit Services
From:	Brian Bigger, Auditor General
Audit Number:	2010GRTH07A

Summary

Attached is the Auditor General's report entitled "2010 Audit Of Greater Sudbury Transit Services - Conventional Transit". The Auditor General's 2010 Audit Work Plan included a program audit of the City's Transit Services Division. The intent in including the audit of program management and controls in the work plan was to systematically evaluate the quality of stewardship over public funds, and the achievement of value for money in operations throughout the organization. This review is part of a series of program audits intended to provide recommendations for improvement across all programs over a six year period.

The objective of the audit was to evaluate the quality of stewardship and opportunities to enhance value for money in operations through more effective, economical and/or efficient management of Transit Services.

While we recognize the initiatives introduced by the Director of Transit, and the Transit Committee to improve service levels and Citizen's perception of Value for Money, more work is required in order to address the recommendations in this report.

The attached report contains sixteen recommendations along with a management response to each of the recommendations.

Recommendations

The Auditor General recommends that:

1. Recommendations in the attached Auditor General's report entitled "2010 Audit Of Greater Sudbury Transit Services - Conventional Transit" be adopted.
2. This report be forwarded to the City's Transit Committee for information.

Financial Impact

Audit Impacts

Implementing the recommendations contained in this report will strengthen controls. It will also improve management's ability to enhance citizen satisfaction and perceived value for money achieved through Transit operations, and enable future identification of operational efficiencies by management.

Implementing the recommendations in this report will also enhance the quality of information provided Transit Committee and Council's in fulfilling their role in oversight of this program.

As certain fundamental management and performance data was not available during our review, the extent of any resources required or potential cost savings resulting from implementing the recommendations in this report is not determinable at this time.

The following limitations impacted the Auditors ability to conduct further detailed review:

1. Usefulness Of Passenger And Route Data Reporting Capabilities

Since 2007, over \$3 million will have been spent on "leading edge" Farebox and AVL data collection systems. We have been told by management that less than three transit operators in Canada have the data collection capabilities of our Transit systems.

Unfortunately, as of the time of completion of our audit fieldwork in December 2010, no useful reporting capabilities had been developed to facilitate a system wide review for opportunities to improve efficiency, economy or effectiveness of the system.

2. Usefulness Of Fleet Work Order Data

Transit Services supports the cleanliness, maintenance and repair of a fleet of sixty buses with eight full time Mechanics, ten Other Maintenance full time, and four Other Maintenance part time staff. The auditors felt that this might be an area where opportunities to improve efficiency, economy or effectiveness of these essential support services might be found.

Unfortunately, although a work order system does exist, the usefulness of data collected through the system was poor. Work orders categorized as mechanical and safety related repairs only explained the work of approximately three mechanics. All other activities were either not recorded on work orders, or were classified as miscellaneous and did not contribute to an evaluation of value for money.

Comments

The Auditor General's report entitled "Greater Sudbury Transit Services Program Audit" is attached as Appendix 1. Management's response to each of the recommendations contained in this report is attached as Appendix 2.

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Signature

Brian Bigger, Auditor General

Attachments

Appendix 1: Greater Sudbury Transit Services Program Audit

Appendix 2: Management's Response to the Auditor General's Audit of Greater Sudbury Transit Services

Auditor General's Office

Main Report

2010

Audit Of Greater Sudbury Transit Services

Conventional Transit

Brian Bigger, C.G.A

Auditor General, City of Greater Sudbury

This audit was performed by the Auditor General pursuant to section 223.19 (1.1) of the Municipal Act, 2001, S.O. 2001, c.25 in accordance with generally accepted government auditing standards (International Standards for the Professional Practice of Internal Auditing, as set by The U.S. Government Accountability Office).

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EXECUTIVE SUMMARY

Why we conducted this review

The Auditor General's 2010 Audit Work Plan included a program audit of the City's Transit Services Division. The intent in including the audit of program management and controls in the work plan was to systematically evaluate the quality of stewardship over public funds, and the achievement of value for money in operations throughout the organization. This review is part of a series of program audits intended to provide recommendations for improvement across all programs over a six year period.

We followed generally accepted government auditing standards

We conducted this audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Objectives of the review

The objective of the audit was to evaluate the quality of stewardship and opportunities to enhance value for money in operations through more effective, economical and/or efficient management of Transit Services.

A risk based approach was taken

The Auditor General's Office developed a ranking of inherent risks with Transit Management's input to determine the higher risk areas within Transit that were included in the scope of the audit.

Steps in the review

Our audit methodology included the following:

- Reviewed maintenance records, work orders, Operator's circle checks, internal inspection records and MTO inspection reports;
- Reviewed inventory controls and slow moving inventory;
- Reviewed operating expenses for reasonableness;
- Reviewed route planning process and documentation;
- Reviewed customer complaints, driver monitoring, accident log and driver training program;
- Reviewed current facilities in regards to safeguarding of assets;
- Reviewed various contracts such as the Fare Box and Data Collection

System, The AVL Data Collection System, AVL Stop Announcement Data Collection System, U-Pass, Handi Transit, Trans Cab, Transit Information Kiosk, In Transit Café Lease, and Transit and Arena Advertising Contract.

- Conducted interviews with Transit management;
- Reviewed and discussed findings with management.

Additional Transit Related Reports

- 1) **Handi Transit Services**
- 2) **Transit Kiosk and Café Contracts**
- 3) **Transit and Arena Advertising Contract**

Due to the significance of issues surrounding the Handi Transit Contract, as well as the Transit Information Kiosk Contract and the In Transit Café Lease Agreements, and the Auditor General's Office has decided to provide results of their review under separate cover.

As the Transit and Arena Advertising Contract was awarded but not signed at the time of our review, and other departments may be impacted, the Auditor General's Office plans to conduct a more thorough review of this agreement, along with other revenue related contracts in further detail at a later date.

Summary of key issues and recommendations

Communication of business plans, targets and performance measures was lacking

Fleet work order system was not used to manage fleet maintenance and repair cost and productivity

Despite investments in data collection systems, value for money has not been demonstrated

Our review identified the following:

- Business plans, targets and performance measures have not been adequately communicated to Transit Committee and Council in support of strategic decision making and budget deliberations.
- Fundamental work order management systems designed to aid management in the control of fleet costs and productivity were not well utilized.
- Although since 2007, over \$3 million will have been spent on "leading edge" systems designed to collect data by type of rider, by stop (GPS coordinate), and by time of day, staff has been unable to demonstrate that these investments have provided "value for money".

The following report contains sixteen recommendations. The implementation of these recommendations will contribute to improvements in the management of conventional Transit Services offered to the public.

BACKGROUND

Sudbury Transit was established in 1972. On January 1, 2001, the City of Greater Sudbury (the City) was created as a result of amalgamation. As a result, Transit expanded its service to the newly amalgamated areas. The City currently has a population of 160,000 within an area of 3,627 square kilometres, of which approximately 81% is serviced by Greater Sudbury Transit.

Elements of success for safe, reliable and affordable transportation

- **Fleet maintenance and repair**
- **Driver licensing**
- **Driver Training**
- **Scheduling and on time service**
- **Continuous route planning**

Many citizens rely on Transit each day. A successful transit system is one that provides safe, reliable and affordable transportation to its citizens. One key factor in providing safe and reliable transportation is ensuring the vehicles are well maintained, including ensuring that Transit has adequate operating resources to perform the necessary repairs in a timely fashion.

Driver licensing and ensuring there is sufficient and appropriate training for all drivers is imperative to ensure the safety of the City's citizens and employees, as well as to protect the City's assets.

Scheduling also impacts both safety and reliability of the service. Transit needs on time results both consistently and cost effectively. Buses need to follow their published schedules and accommodate the timed transfers, otherwise ridership will be impacted.

Route planning is a key factor in increasing ridership growth. Routes should be designed for optimal customer service with consideration to geographical coverage, minimal duplication of services, convenient transfers and waiting time between transfers, ease of system use, optimization of fleet resources and minimum travel time (directness of routes).

TRANSIT OBJECTIVES

“Public transportation services contribute to the social and ecological health of our community by removing geographic barriers to employment and social service opportunities and by reducing the environmental and

infrastructure costs of transportation.”¹

**Safe, Reliable, and
Affordable**

Greater Sudbury Transit’s objective is to provide safe, reliable and affordable transportation services to over 4.2 million passengers each year.

TRANSIT GOVERNANCE

City Council, Senior Management, Operational Management and staff all play key roles in the delivery of transit service. Council is the owner of the transit service and the administration is accountable to Council for operating the service within approved policy. Understanding and adopting the responsibilities associated with each role will facilitate Council’s approval and oversight role and provide the administration with the direction and flexibility required to achieve the greatest benefit from the City’s investment in transit service.

Role of Council

It is the role of council,

- (a) to represent the public and to consider the well-being and interests of the municipality;
- (b) to develop and evaluate the policies and programs of the municipality;
- (c) to determine which services the municipality provides;
- (d) to ensure that administrative policies, practices and procedures and controllership policies, practices and procedures are in place to implement the decisions of council;
- (d.1) to ensure the accountability and transparency of the operations of the municipality, including the activities of the senior management of the municipality

**Transit’s governance
framework**

There are various documents that are part of Transit’s governance framework.

**Transit Ridership Growth
Strategy (2006)**

The Transit Ridership Growth Strategy and Transit Asset Management Plans were approved by Council in 2006. This document was a requirement by the Ministry of Transportation (MTO) as a condition for provincial gas tax funding. The document further provided Greater Sudbury Transit with

¹ http://www.greatersudbury.ca/cms/index.cfm?app=div_transit&lang=en

opportunities for the future, to promote ridership growth and to help achieve the mobility objectives of the City. In 2006, a Transit Committee was established “to oversee the benefits and improvements that the implementation of the recommendations of the Ridership Growth Strategy and Asset Management Plan will achieve.”²

**The Constellation City
report (January 2007)**

The Constellation City report (January 2007) was a report put together by members of the Community Solutions Team who conducted extensive consultations with residents of the City of Greater Sudbury to identify issues and recommend solutions to City Council.

**The Community Solutions
Team**

**“reviewing ridership
levels, evaluating new
routes and equipment
should be carried out by
Transit”**

Their recommendation was “That the City of Greater Sudbury undertake a full review of transit services and explore the potential for expanded intra-community transit, expansion of Handi Transit and an end to two tier fares. Further, the city should establish an ongoing transit advisory group, using riders from across the entire community.”³ The Community Solutions Team felt that reviewing ridership levels, evaluating new routes and equipment should be carried out by Transit. They suggested that pilot projects be commissioned to review these areas annually.

2007-2008 Business Plans

Transit Services Goal

**Implement the Ridership
Growth Strategy**

In 2006, the Business Plans for 2007-2008 were developed to “establish strategic direction, priorities, organizational improvements and operational strategies”⁴ for various departments within the City. Greater Sudbury Transit developed two goals, one for parking and one for transit. The Transit goal was “To provide a safe and comfortable transportation for the community by implementing the recommendations developed from the Ridership Growth Strategy.”⁵

² http://www.city.greatersudbury.on.ca/cms/index.cfm?app=div_councilagendas&lang=en&currID=7602

³ Constellation City: Building a Community of Communities in Greater Sudbury, Report of the Greater Sudbury Community Solutions Team, January 2007.

⁴ Business Plans 07-08 City of Greater Sudbury

⁵ Business Plans 07-08 Growth and Development Department

TRANSIT ACCOMPLISHMENTS

The Ridership Growth Strategy and Asset Management Plan completed by Entra Consultants in 2006 provided numerous recommendations in regards to the general operations of Transit as well as route planning. Since 2006, Transit has implemented the majority of the report's general operating recommendations as well as some additional initiatives. Some of these initiatives were:

Transit has implemented the majority of the report's general operating recommendations

- 2006 - The new fare box and data collection system (with Smart Card technology capabilities) (This system was to provide enhance cash handling controls, and to collect ridership data by route and time of day) (\$1.7 million investment)
- 2008 - An optional AVL data collection system was also acquired as part of the fare box system. (This system was to provide ridership data by stop location and time of day)
- 2007 - Elimination of the \$2 Trans Cab premium
- 2008 - Produced a new Rider's Guide
- Ongoing conversion of the fleet to 100% low floor accessible buses (will be completed in 2011)
- 2008 - Added bike racks to buses on the Val Caron / Hanmer / Capreol routes
- 2006 - Implemented U-Pass program (\$600 thousand cost / yr according to KPMG estimate)
- Implemented new AVL based Stop Announcement system (\$1.0 million investment to be installed in the last six buses in 2011)
- 2009 - Increased Handi Transit and Trans Cab service on holidays and extended hours for Sunday service.
- Increased number of Handi Transit buses from twelve to fourteen, between 2006 and 2009
- Implemented Youth Summer transit passes 2008

Only a few recommendations related to route planning and analysis from the Ridership Growth Strategy have been implemented

Only a few recommendations related to route planning and analysis from the Ridership Growth Strategy have been implemented. Transit has implemented additional routes within New Sudbury and added some additional service on commuter routes. They also tried an intra valley route for a few years however; this route has since been cancelled due to poor ridership.

Transit has already implemented most of the sustainability measures

Transit systems are essential in meeting mobility needs of citizens. The Canadian Urban Transit Association (CUTA) has developed guidance to help transit systems work towards sustainability. Social inclusion and accessibility is one objective in establishing a sustainable transit system. Some of the measures CUTA uses to determine sustainability are as follows:

- Driver training to improve service for those with disabilities
- Travel training programs for people with disabilities
- Barrier-free vehicles and infrastructure
- Travel information for people with sensory impairments
- Announcement/display of information in vehicles and at stops
- Accessible systems for customer feedback⁶

Transit has already implemented most of these sustainability measures such as driver training, barrier-free vehicles and implementing the stop announcement system.

HISTORICAL PERFORMANCE MEASURES AND OPERATING TRENDS

Oracle Citizen and Business Surveys

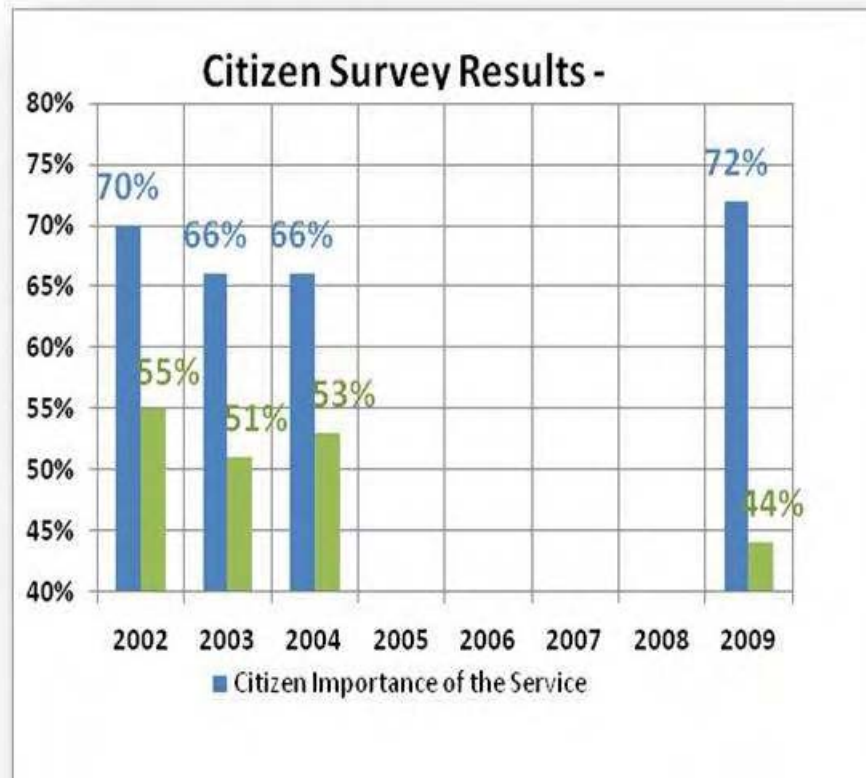
In previous years, Citizen and business surveys have been conducted by the City to gather input on services delivered. The graph below graphically displays the results of these surveys. The Oracle surveys asked citizens to rate the importance of the transit service to them and also how satisfied they were with the level of service currently provided. Although both businesses and citizens

⁶ The Canadian Urban Transit Association (CUTA), Issue paper 36, July 2010

rate the importance of public transit relatively high (72%) and its importance has increased since 2004, the satisfaction with the service (44%) has decreased. From 2004 to 2009, there was a 6% increase in the importance of the service to the citizens and a 9.3% increase in ridership. However, satisfaction decreased by 6%. This may indicate that a citizen's need for transit, impacts ridership more than their satisfaction with the service.

Oracle Survey Results

From 2004 to 2009, there was a 6% increase in the importance of the service to the citizens and a 9.3% increase in ridership. However, satisfaction decreased by 6% over the same time period.



Ontario Urban Transit Fact Book

Each year, CUTA prepares an Ontario Urban Transit Fact Book and an Ontario Specialized Transit Services Fact Book which compiles operating statistics from various Ontario transit systems offering both conventional and specialized transit services.

Greater Sudbury Transit is unique compared to other Ontario cities due to having its citizens dispersed over such a large geographic area. As a result, comparisons of year over year results such as cost per km of service and cost per hour of service, as well as an evaluation of the achievement of transit objectives (safe, reliable and affordable transportation services) and overall

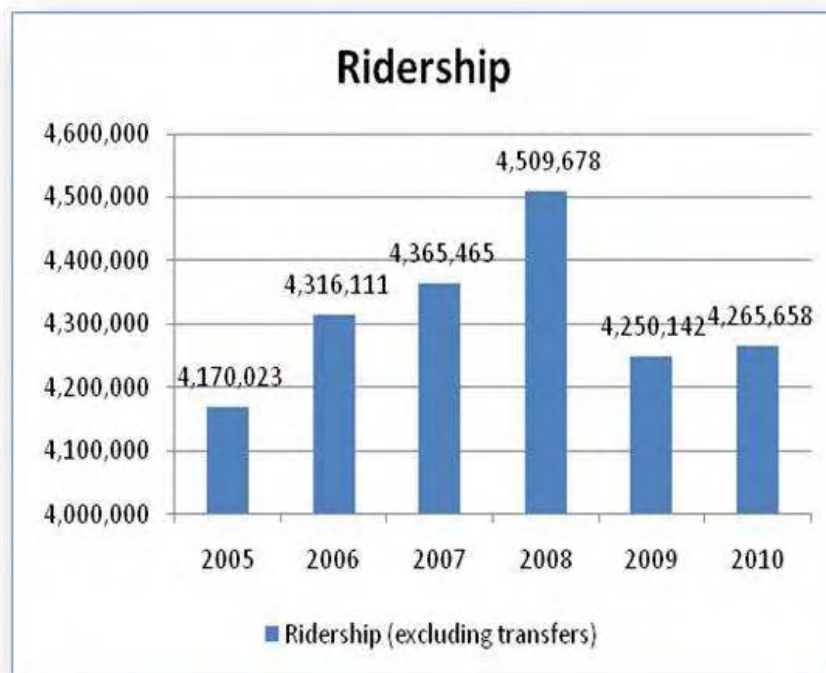
satisfaction within our own Transit system may be the more meaningful to Sudburians than comparisons against other Transit Service Operators.

Statistics provided by Transit management to CUTA over the past five years show the following trends.

Ridership has increased marginally over the past six years but had dropped significantly in 2009. It has rebounded slightly in 2010, yet it remains below 2006 ridership levels.

Ridership Statistics (CUTA)

Ridership was below
2006 levels in 2009,
and 2010.



Fleet Utilization (CUTA)

Canadian Urban Transit Association (CUTA) statistics were relied upon by the auditors as they provide key operational and performance measures. CUTA ridership measures also provide the basis for Gas Tax funding.

CUTA statistics provided by Greater Sudbury Transit show that Transit has reported an increase in its active fleet by six vehicles over the past five years. Although the total number of fixed routes has remained relatively the same, the number of vehicle kilometres driven has increased significantly. This would

indicate that the service on existing routes has increased over the years.

While the number of fixed routes increased by one, the reported number of active vehicles increased by six

While the number of vehicle hours increased by 2.3%, fuel consumption rose by 5.9%

	2005	2006	2007	2008	2009	2005 to 2009 Change
<u>Fleet Statistics:</u>						
Accessible buses	24	31	31	42	47	23
Non Accessible buses	30	27	27	17	13	(17)
Total Active Vehicles	54	58	58	59	60	6
No of Fixed Routes	42	42	42	43	43	1
No of Accessible Routes	22	22	22	24	26	4
Total Vehicle hours	158,457	158,799	156,807	162,227	162,077	2.3%
Total Vehicle km	3,263,779	3,707,151	3,624,240	3,983,691	4,204,964	28.8%
Ave Speed	20.73	23.46	23.03	24.5	25.89	24.9%
<u>Energy Consumption:</u>						
Diesel Ltr.	2,192,963	1,975,200	2,183,181	2,276,623	2,406,864	213,901
Bio Diesel Ltr.	88,191	51,653	42,072	49,224	8,873	(79,318)
Total Fuel Ltr.	2,281,154	2,026,853	2,225,253	2,325,847	2,415,737	5.9%

Transit Employee Stats (CUTA)

While total vehicle hours increased by 2.3%, Total Full Time staff increased by 10%, and Total Part Time Staff increased by 22%.

Bus Operator productivity fell 11.4% from 79% productivity to 70% productivity

	2005	2006	2007	2008	2009	2005 to 2009 Change
<u>Employee Statistics:</u>						
Operators Full time	70	70	72	74	76	6
Operators Part Time	30	32	37	41	41	11
Other Operators full time	4	4	4	4	4	-
Other Operators part time	4	4	4	0	2	(2)
Vehicle Mechanics full time	8	8	8	8	8	-
Other vehicle mtce full time	10	10	10	11	10	-
Other vehicle mtce part time	2	2	4	2	4	2
General and Admin full time	8	8	8	12	12	4
General and Admin part time	4	3	4	2	2	(2)
Total Full Time	100	100	102	109	110	10
Total Part Time	40	41	49	45	49	9
Labour Productivity (operator)	0.79	0.74	0.77	0.74	0.70	-11.4%

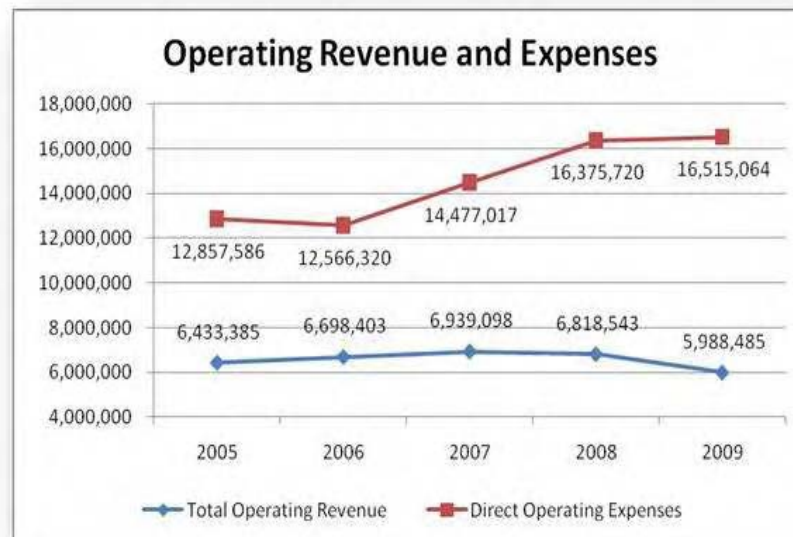
	2005	2006	2007	2008	2009	2005 to 2009 Change
Fares and Costs Per Passenger:						
Average Fare	\$ 1.51	\$ 1.52	\$ 1.55	\$ 1.48	\$ 1.36	-9.9%
Net Dir Oper Cost / Reg Serv Pass	\$ 1.54	\$ 1.59	\$ 1.73	\$ 2.12	\$ 2.49	61.7%
Service Utilization:						
Reg Serv Pass / Capital	32.79	33.93	33.68	34.8	32.79	0.0%
Reg Serv Pass / Rev Veh Hr	26.49	27.69	28.01	27.96	26.35	-0.5%
Amt of Service (Veh hrs/Capital)	1.24	1.23	1.2	1.24	1.24	0.0%
Cost Effectiveness (cost/trip)	3.08	3.14	3.32	3.63	3.89	26.3%
Cost Efficiency (cost/hr)	81.14	85.43	92.32	100.94	101.88	25.6%

Financial and Operational Highlights (CUTA)

The following graph depicts the latest five year trend in regards to operating revenue and direct operating expenses. While operating revenue has declined 7% (approximately \$445,000), direct operating costs have increased 28% (approximately \$3,657,000). As a result, municipal contributions from the general tax levy to Greater Sudbury Transit have been increasing. Although in general, all transit systems are subsidized by the general tax levy, the revenue/cost ratio is a tool Council can use to provide the administration with direction on financial performance expectations.

Operating Revenue and Expense

Operating revenue has declined 7% (approximately \$445,000), direct operating costs have increased 28% (approximately \$3,657,000).



The revenue cost ratio is a performance target which guides the transit organization towards a specific cost efficiency level. If the primary purpose of

Transit is to provide mass transit, then a higher ratio could be expected. On the other hand, if Transit is to be more diverse to satisfy different groups of individuals, a lower ratio may be appropriate. Senior management's role is then to develop the appropriate strategies and business plans to ensure the appropriate revenue/cost ratio that is approved by Council is achieved.

AUDIT RESULTS

A. BUSINESS PLANS, TARGETS AND PERFORMANCE MEASURES SHOULD BE BETTER COMMUNICATED TO TRANSIT COMMITTEE AND COUNCIL

Transit Committee and Council members need to consider program targets, performance measures and operating trends, prior to approving staff's proposed strategic direction and annual budget requests.

The most recent Business Plans documented by Transit Services (2007-2008) were developed in 2006, to “establish strategic direction, priorities, organizational improvements and operational strategies”⁷ for various departments within the City. Greater Sudbury Transit developed two goals, one for parking and one for transit. The Transit goal was “To provide a safe and comfortable transportation for the community by implementing the recommendations developed from the Ridership Growth Strategy.”⁸

Canadian Urban Transit Association (CUTA) statistics were relied upon by the auditors as they provide key operational and performance measures. CUTA ridership measures also provide the basis for Gas Tax funding.

It is not clear that Transit Committee and Council members have had the opportunity to consider program targets, performance measures and operating trends reported by Transit Services staff to CUTA, in approving staff's proposed strategic direction and annual budget requests.

Recommendations:

1. Annual or semi-annual business plans, describing planned initiatives, performance measures and performance targets should be developed, and communicated to the Transit Committee, and Council in support of future strategic

⁷ Business Plans 07-08 City of Greater Sudbury

⁸ Business Plans 07-08 Growth and Development Department

direction and budget deliberations. This is a fundamental element in support of the quality of stewardship over public funds and the achievement of value for money in operations.

B. NEW MEMBERS OF COUNCIL SHOULD BE INFORMED OF U-PASS COSTS

In 2007, KPMG estimated the annual loss in revenue to exceed \$600,000.

In 2007, KPMG did an analysis of the cost of the U-Pass program to the City. It estimated that the “U-Pass program has resulted in a net cost to Greater Sudbury Transit of approximately \$627,000.”⁹ Since the program has now been operating for five years, the potential loss in revenue during this period may be in excess of \$3 million according to the KMPG estimate.

New members of Council should be informed of the costs by staff before being asked to make a decision on renewal of the U-Pass agreement.

Since the U-Pass agreement expires April 30, 2011, and new members of Council have been added, the City has the opportunity to once again, review the goals and direction of the U-Pass program. Understanding the costs of the program and any additional funding requirements, especially considering the City’s current fiscal constraints, will aid Council in making their decision.

History of the U-Pass Program

The U-Pass program was established in September 2006 in conjunction with the Student General Association (SGA) and the L’Association Des Etudiants and Etudiants Francophones de L’Universite Laurentienne (AEF). The U-Pass program provides full time students who are members of these associations unlimited use of Greater Sudbury Transit during the school year, September to the end of April. As part of the agreement Greater Sudbury Transit increased transit service to the University, which is an extra cost to the City. Prior to the U-Pass, students would have had to either purchase a monthly pass or pay regular daily fare to ride the transit buses.

When the U-Pass concept was originally presented to the Council

⁹ City of Greater Sudbury – Transit, UPass Financial analysis, May 2007.

and the public in 2006, the program was to be revenue neutral. At that time, it was determined that in order to be revenue neutral, the U-Pass would be offered to the students at a cost of \$200. However, when the final agreement was signed, the cost of the U-Pass was established at \$135, making the program no longer revenue neutral.

The original agreement expired at the end of the 2007-2008 school year. In May 2008, a three year extension was made, and the cost of a U-Pass was increased by \$10 per student. A further \$5 increase was later added through regular fare increases established by the City's user fee by-law.

Costs Of The U-Pass Program

The cost of the U-Pass for the 2010-2011 school year is \$150

The Auditors estimate that the breakeven point for the U-Pass based on current enrolment numbers is \$225

The cost of the U-Pass for the 2010-2011 school year is \$150. A regular student monthly pass is \$66, or \$528 for the eight month school year. As a result, Laurentian University full time students who are members of the SGA or AEF receive a cost savings of approximately 71% compared to the regular student monthly pass fare. Based on information we were able to attain, we estimate that the breakeven point for the U-Pass based on current enrolment numbers is approximately \$225.

It was believed that offering the U-Pass program would increase ridership. With the program originally thought to be revenue neutral, increasing ridership without affecting the bottom line would be successful for Greater Sudbury Transit's ridership growth initiatives. Offering a U-Pass was also a recommendation made within the 2006 Ridership Growth Strategy and Asset Management Plan. However, they also recommended that the fee be \$200 (back in 2006). City staff believe that the U-Pass program has increased ridership, however, Transit does not have exact passenger count data prior to the implementation of U-Pass.

The U-Pass program has never been revenue neutral since its inception

As the U-Pass program has never been revenue neutral since its inception, there is added cost to the City which is currently funded through gas tax grants. Understanding the total costs of the U-Pass program and the funding requirements enables the municipality to make informed decisions regarding the future of the program including the allocation of grants.

The U-Pass agreement expires April 30, 2011 at which time it can be renewed.

The U-Pass agreement expires

April 30, 2011 at which time it can be renewed.

Recommendations:

2. The U-Pass agreement is up for renewal on April 30, 2011. Therefore, there is an opportunity that before the contract is renewed, the costs and goals of the program can be evaluated. There is the opportunity to decide the direction of the program and whether the program should be revenue neutral, continue to be subsidized by gas tax grants (within the capital plan), or eliminated entirely.

C. INVOICE DETAILS SHOULD BE IMPROVED FOR APPROVAL TRANS CAB BILLS

Four companies provide Trans Cab service

The Trans cab service is offered in the City's outlining areas that are not serviced by a regular transit route. There are currently four companies that provide Trans Cab service within the City of Greater Sudbury. A taxi will both pick a passenger up and drive them to the transfer point so that they can then take a Greater Sudbury Transit bus, or the cab will pick them up at the end of the regular transit route and take the passenger home.

Invoice details vary by Trans Cab provider

Each month the Trans Cab providers bill the City for this service. Details on the bills vary among each company. Some providers list each trip (pick up point and destination) by date. Others will just list the total kilometres driven in the month.

Each day, the Inspectors track the number of Trans Cab rides by company. Other details such as passenger destination are not recorded.

The lack of information in billing makes it impossible to ensure accuracy of the invoices to be paid.

The lack of information makes it impossible to compare the Inspector's records to invoices to ensure accuracy of the invoices to be paid. Transit should be able to verify that the charges they are paying are valid.

Transit should have each Trans Cab provider supply them with

detailed billing each month. Bills should list each trip as well as provide information such as the date, pick up location, destination and number of kilometres driven. The Inspectors should also obtain pick up and drop off locations for each Trans Cab ride and included as part of their current log. Transit management should compare the Inspector's log to the detailed billings by the Trans Cab company before approving the invoice for payment.

Recommendations:

- 3. Additional information should be obtained for each Trans Cab ride so that Transit can verify the accuracy of monthly bills.**

D. EFFORTS TO SAFEGUARD PARTS INVENTORY NEED IMPROVEMENT

Physical controls and accountability over inventory reduce the risk of undetected theft and loss, unexpected shortages of critical items, and unnecessary purchases of items already on hand. These controls improve visibility and accountability over the inventory, which help ensure continuation of operations, increased productivity and improved storage and control of excess or obsolete stock.

It is reasonable to expect that inventory be counted once a year, preferably at year end. Count results should be compared to recorded quantities on hand. Differences should be investigated and adjustments to records made based on results of the physical count. Inventory should be well organized and labelled. Furthermore, descriptions of inventory items within PeopleSoft should accurately reflect the inventory on hand.

A formal annual inventory count is currently not being performed.

A formal annual inventory count is currently not being performed. There is also no segregation of duties within inventory control. The employee who has physical custody of the assets also receives the items, assigns items to work orders and would also perform inventory counts when required. Inventory is currently expensed when it is purchased. Total materials expensed in 2009 were just over \$1 million.

\$78,072 (or 11%) of the \$711,000 total dollar value of parts inventory was counted

Audit randomly chose a sample of 25 items from the inventory listing to perform an inventory count. Total dollar value selected for the test count was approximately \$78,072 (11%) of the total dollar value of the current inventory listing. At the time of the count, total inventory was valued at approximately \$711,000.

Audit noted the following:

17 of the 25 items counted (or 68%) had incorrect quantities

The parts inventory was found to be overstated by \$28,104 (or 36%) of the \$78,072 tested

- 17 items (68%) had the incorrect quantities listed.
- One item overstated the quantity on hand, while 16 items had quantities on hand that were understated.
- The net impact to the value of inventory due to incorrect quantities on hand was an overstatement of inventory of \$28,104 (36%) of the \$78,072 tested.
- Refurbished parts and used parts are going into inventory at the average cost of a new part. This inventory should have a value of the lower of cost of refurbishment or net realizable value, not the cost of a new part.
- Inventory is unorganized in some areas and not well labelled. Therefore, inventory can be misplaced or lost in the warehouse. Difficult to properly track inventory.
- Some of the items could not be located.
- Descriptions of some inventory items in PeopleSoft were not accurate.
- Some items were obsolete.

A proper inventory count should be done with the assistance of CGS Finance staff. Actual quantities determined by the count need to be entered into PeopleSoft so that inventory records reflect actual quantities on hand. Furthermore, management needs to consider the current lack of segregation of duties around inventory. One employee currently looks after the physical custody of the inventory, purchases inventory, signs inventory out to work orders and also performs the receiving function. An inventory count done by a different employee will

Management needs to establish policies and procedures to perform an inventory count

help mitigate the risk associated with the lack of segregation of duties.

Management needs to establish policies and procedures to perform an inventory count. Policies and procedures demonstrate management's commitment to the physical inventory count process and provide all personnel, clear communication and comprehensive instructions and guidelines for the count. Establishing written policies and procedures helps ensure consistent and accurate compliance and application needed to achieve high levels of integrity and accuracy in the physical count process. Policies and procedures also become the basis for training and informing employees.

Rebuilt or salvaged parts should have a different inventory part number than new parts. Having a separate inventory part number will allow management to track a used or rebuilt part to a work order. They can then track the reliability of using rebuilt or used parts compared to new parts. Any rebuilt or used part should also be valued at the lower of the cost of the rebuild, or net realizable value.

Recommendations:

- 4. An annual parts inventory count should be performed with the assistance of CGS Finance staff.**
- 5. Management needs to establish inventory count policies and procedures.**
- 6. Rebuilt or used parts should have a separate inventory part number and also be valued at the lower of the cost of rebuild, salvage, or net realizable value.**

E. COMMERCIAL VEHICLE OPERATOR RESPONSIBILITIES REQUIRE FURTHER ATTENTION (Fleet Work Order Management)

There is significant inherent risk to the City if Commercial Vehicle Operator (CVOR) responsibilities are not well managed.

There is significant inherent risk to the City if Commercial Vehicle Operator (CVOR) responsibilities are not well managed. Compliance with laws and regulations falls directly under the quality of stewardship of public funds and assets. When things go wrong, Ministry

interventions and sanctions can include disciplinary letters sent to the carrier, interviews, audits, and sanctions of fleet limitation, seizure of plates, suspension and/or cancellation of the carrier's operating privileges.

A carrier can receive one of five possible Safety Ratings from MTO audits:

- Excellent
- Satisfactory
- Satisfactory-Unaudited
- Conditional
- Unsatisfactory

The City's CVOR had previously been assessed as "Conditional" within the last 3 years

The Auditors noted that the City's current CVOR Carrier Safety rating is Satisfactory, but had previously been assessed as "Conditional" within the last 3 years. The current rating has been upgraded to satisfactory, however, due to the City's previous safety ratings, the auditors felt it prudent to conduct further review of key CVOR related responsibilities managed within Transit.

Commercial Vehicle Operator (CVOR) responsibilities

According to the MTO, a CVOR operator (carrier) is responsible for the conduct of the driver, the mechanical safety condition of the vehicle, and the shipping of goods or passengers in the vehicle. Carriers are responsible for all the drivers and vehicles in their operation. For example, these responsibilities may include:

- Employing qualified and licensed drivers;
- Monitoring the safety performance of drivers, including hours of service;
- Resolving driver safety issues when they are identified;
- Keeping vehicles in good, safe condition at all times;
- Keeping records on file (e.g. vehicle repairs, kilometers travelled per year, annual inspection reports, etc.)

Keeping Records On File

Ensuring annual/semi-annual inspections are completed

- Ensuring annual/semi-annual inspections are completed; and,

The above framework of responsibilities was considered in our review of work orders, daily vehicle defects reports, and vehicle safety inspections, completed within Transit Services by Transit Services staff.

Work orders are not always being completed for work done by the mechanics

The current work order system does have reporting capabilities for productivity of mechanics. However, since work orders are not being completed for all work performed, the report is not accurate.

Work orders also allow management to track the cost of a repair and productivity of mechanics

Work orders are not always being completed for work done by the mechanics. Work orders should be completed for all work performed. This will ensure a complete work history is maintained for each bus. Old work orders can be reviewed and assist mechanics in identifying trends in repairs for certain buses as well as identify issues in advance in order to perform preventative maintenance rather than have a reactive maintenance strategy. Work orders also allow management to track the cost of a repair and productivity of mechanics. This information can be used to calculate performance indicators. For example, maintenance cost in relation to vehicle kilometres may impact Transit's bus replacement strategy. Furthermore, work orders are a way to formally document that work was performed. This is imperative as some work, such as safety and annual inspections are regulated under the Ontario Highway Traffic Act.

Ensuring Daily Inspections Are Completed

The auditors specifically asked for and tested waybills that contained defects that one would expect to be found on a work order

A daily inspection of each bus is Transit's policy and procedure. When operators perform circle checks on their buses, any defects are to be listed on the waybills. The information on the waybills is to be provided to the mechanics in order for them to investigate and if required, fix the defect. The auditors specifically asked for and tested waybills that contained defects that one would expect to be found on a work order. Examples of defects noted on the waybills tested are:

Only one of the ten waybills tested had a work order related to a defect identified on the waybill during the circle check

- "bus wouldn't drive as often the 4 ways and indicator for lowered front came on",
- "major hesitation from motor when stepping on the gas pedal (after Full release).",
- "won't kneel"
- "Loud clank at front and missing bolt near front left shock";
- "Very little rear breaks";

- “Leaking fluid (red), driver’s side rear”.

However, only one of the ten waybills tested had a work order related to a defect identified on the waybill during the circle check. Since work orders were not completed, the Auditors could not determine whether the defect was checked by the mechanic, and if necessary, the defect fixed.

Six of the ten defects identified on operators waybills were not recorded on the “Daily Vehicle Defect Report”

All defects indicated on a waybill are to be recorded on the “Daily Vehicle Defect Report”. This report is used by the mechanics to identify work that needs to be completed / investigated for each bus. If the defect is not recorded on this report, it may go unresolved. Six of the ten defects identified on the waybills were not recorded on the “Daily Vehicle Defect Report”. For the four defects that were properly identified on the “Daily Vehicle Defect Report”, none had work orders associated with them. It appears that the work was performed, as a mechanic marked “OK” beside the defect on the report indicating that the mechanic either fixed or checked the defect, however, no work order could be found.

If no work order is created, parts inventory controls are impacted

The current work order system does have reporting capabilities for productivity of mechanics. However, since work orders are not being completed for all work performed, the report is not accurate. Completing work orders will allow for accurate reporting of productivity of mechanics and will support proper efficiency analysis to determine the optimum staffing compliment.

Work orders also allow for parts to be signed out of inventory and costed to a job. If no work order is created, parts inventory will be inaccurate and effective management and control over inventory cannot be maintained.

All work performed by the mechanics should be documented on work orders. This will ensure there are complete, accurate records for all work performed on a bus. This will also allow management review matrices such as productivity and costing.

Keeping Records On File –

Completing Work Orders In A Clear and Timely Manner

Work orders are currently completed manually by the mechanics and then forwarded to Administration to enter into the work order system. Mechanics are not entering work orders directly into the system. Furthermore, the Administration staff does not always enter

the work orders immediately into the system.

Work orders should be entered immediately by the mechanics into the work order system rather than being sent to Transit Administration to enter. This will reduce the possible duplication of work as well as improve the timeliness of information in the system. Timeliness of information can assist the mechanic in identifying trends in types of repairs on a particular bus.

Descriptions on work orders are also not always clear or completed accurately

Descriptions on work orders are also not always clear or completed accurately. The Auditors reviewed work orders relating to the semi-annual safety inspections and the annual inspections for 10 of Transit's fleet of 60 buses. Annual and safety inspections are regulated under the *Ontario Highway Traffic Act* R.R.O. 1990. Regulation 611. One annual inspection was performed; however, the work order stated that a safety inspection was done. Another work order stated that the bus was "checked over", yet the annual inspection was completed.

Since annual and safety inspections are regulated under the Ontario Highway Traffic Act, information should be entered in the work order system in an accurate and timely manner

The Auditors could also not find a work order for one annual inspection. Although an inspection sticker was issued, there was no work order to support that the work was completed. For one annual inspection, the work order had not yet been entered into the system even though the inspection was done over a month prior to our testing. Transit Staff later explained that the work order was being held by the material controller in order to process a warranty claim. Since annual and safety inspections are regulated under the *Ontario Highway Traffic Act*, information should be entered in the work order system in an accurate and timely manner.

Work orders are required to determine whether there truly is a cost saving in rebuilding a component

Training should be provided to ensure that there is consistency in entering information on the work orders. Furthermore, work orders should be completed for each rebuild in order for Transit to determine the true cost (time and materials) of a rebuild. These costs should be compared to the price of a new part to determine whether there truly is a cost saving in rebuilding.

Ensuring Annual/Semi-Annual Inspections Are Completed

The *Ontario Highway Traffic Act* R.R.O. 1990. Regulation 611, regulates both the semi-annual safety standards and the annual inspections for buses. Once an inspection is performed, a sticker is placed on the lower right hand corner of the windshield. For buses, the semi-annual safety sticker is valid "for the portion of the inspection

performed in accordance with Schedule 1, until the end of the sixth month after the month of inspection indicated on the sticker”¹⁰. The annual inspection sticker is valid “for the portion of the inspection performed in accordance with Schedule 2, until the end of the twelfth month after the month of inspection indicated on the sticker”¹¹.

From the sample of ten buses, one bus had a safety inspection done a month early and another bus had the annual inspection done a month early

Greater Sudbury Transit has a fleet of sixty buses. A sample of ten buses were tested to ensure both the annual and the semi-annual safety inspections were being completed as required under the Ontario *Highway Traffic Act* R.R.O. 1990. Regulation 611. From the sample of 10 buses, one bus had a safety inspection done a month early and another bus had the annual inspection done a month early. If Transit’s predetermined schedule for inspections are not maintained, there is the risk that a bus will be on the road without a valid sticker. For example, in 2009, one bus had its annual inspection completed in April, one month prior to its scheduled date of May. In 2010, the bus went into the shop for its annual inspection on May 12, according the work order. Therefore, the bus was on the road for twelve days (May 1, 2010 to May 12, 2010) without a valid MTO annual inspection sticker.

Manager of Transit Fleet and Facilities needs to ensure that Transit’s schedule for the semi-annual safety inspections and the annual inspections are adhered to

The Manager of Transit Fleet and Facilities needs to ensure that Transit’s schedule for the semi-annual safety inspections and the annual inspections are adhered to. Furthermore, if an inspection is performed a month early, the schedule should be updated so that the next inspection occurs at the proper interval. Since one bus had a semi-annual safety inspection done one month early in 2010, the Manager of Transit Fleet and Facilities should ensure that the 2011 safety inspection schedule is changed to ensure that the semi-annual safety inspection is done in the proper month.

Recommendations:

- 7. Work orders should be completed for all work performed by fleet mechanics to facilitate cost and productivity management and the achievement of value for money in**

¹⁰ Ontario Highway Traffic Act R.R.O. 1990, Regulation 611, O.Reg. 762/91, s. 1.

¹¹ Ontario Highway Traffic Act R.R.O. 1990, Regulation 611, O.Reg. 762/91, s. 1.

operations.

8. Work orders should be entered accurately and in a timely manner by the mechanics.
9. Additional training is required for those responsible for ensuring all defects from the waybills are reported on the Daily Vehicle Defect Report.
10. The Manager of Transit Fleet and Facilities needs to ensure that the semiannual safety inspections and the annual inspections are completed in the timeframe as regulated under Ontario Highway Traffic Act R.R.O. 1990. Regulation 611.

F. AVL SYSTEM DATA NEEDS TO BE ANALYZED TO DRIVE VALUE FOR MONEY IMPROVEMENTS

AVL Reporting capabilities had not been implemented at the time of the audit

Transit has an Automated Vehicle Locator (AVL) system in most of their buses, yet only the live monitoring functionality is currently being used. Reporting capabilities have yet to be implemented. The AVL system is part of the stop announcement system. The final seven systems will be installed in 2011 with the purchase of the seven new buses.

AVL can be used to benchmark existing bus transit performance and improve on-time performance and service reliability

Research has shown that transit waiting time as opposed to time in the vehicle, has two to three times more impact on the transit decision than the actual travel time

At the time of the audit, the historical reporting functionality

AVL can be a powerful tool. The reporting capabilities can be used to determine what works well and what doesn't for each vehicle and route. AVL can provide continuous updates and can take into consideration random factors such as vehicle breakdown, traffic jams and unexpected emergencies. AVL can be used to benchmark existing bus transit performance and improve on-time performance and service reliability. AVL can also be an important aid to improving rider and driver safety with a better understanding of the relationship between route schedule pressures and bus operating speeds or idle time experienced in meeting route schedule demands. As the degree of predictability increases, benefits for both transit executives and their riders can be realized. Research has shown that transit waiting time as opposed to

had not been enabled.

Reviewing and analyzing historical information can not only aide in route planning and analysis, but can also identify other potential cost savings such as idle time of vehicles.

time in the vehicle, has two to three times more impact on the transit decision than the actual travel time.¹² AVL can also be used for traffic signal priority.

Before Transit accepts final delivery of the AVL system, management should ensure that they receive all the functionality as outlined in the Request for Proposal. This should include the ability to obtain reports of historical information that can be used as part of route planning, scheduling, etc. Transit should also ensure that employees receive adequate training in order to extract and analyze the data from the system.

Recommendations:

- 11. Management should ensure that historical reporting functionality is achieved for the vast amounts of data being collected within the AVL system, and that the usefulness of this data in improving the value for money in operations is demonstrated.**

G. PLANS NEED TO BE DEVELOPED TO ALLEVIATE PHYSICAL CAPACITY CONSTRAINTS AT THE DOWNTOWN TRANSIT TERMINAL

The downtown transit terminal is at full capacity

During peak periods, the downtown transit terminal is at full capacity. During periods of heavy traffic through the downtown, it is difficult for some buses to exit the terminal due to high traffic volume as well as high pedestrian traffic between the terminal and the mall. Changes in current routes may also impact the traffic flow at the downtown transit terminal.

Additional buses cannot be added without expanding the terminal

Additional buses cannot be added without expanding the terminal. The terminal was scaled back from the original design in order to cut costs when it was built. There are very minimal options available if there

¹² Best Practices in Transit, Seattle Mobility Plan, January 2008, 9A-2.

is a need to expand the current terminal.

Future planning may consider recommendations outlined in the Ridership Growth Strategy and Asset Management Plan for additional hubs in the city in order to eliminate any strain on the current transit terminal downtown.

Recommendations:

- 12. In order to alleviate congestion at the downtown terminal, a review of the current facilities and alternatives such as additional hubs in the City, should be completed.**

H. RIDERSHIP GROWTH AND ROUTE ANALYSIS IS OVERDUE

2006 Ridership Growth Strategy and Asset Management Plan

**Many recommendations were
made around route design,
including creating hubs in the
City, route performance
standards and route analysis.**

**Route design and reliability of
buses are key in increasing
ridership**

In 2006, Transit awarded a tender to Entra to do a ridership growth strategy and asset management plan. This study was required by the Ministry of Transportation in order to qualify for provincial gas tax funding. This study also allowed the City to plot a strategy for the future to promote ridership growth. The consultants obtained input from both drivers and management as part of their analysis. Many recommendations were made around route design, including creating hubs in the City, route performance standards and route analysis. The study came up with over 40 recommendations and the report cost the City approximately \$68,000. Approximately 40% of the Entra report's recommendations were implemented (or partially implemented), such as the elimination of the \$2 trans cab fee, providing an intra-valley route, as well as investing in a new Rider's Guide. However, most recommendations regarding route planning and analysis were not implemented.

Route design and reliability of buses are key in increasing ridership. Routes should be designed for optimal customer service with consideration to geographical coverage, minimal duplication of services, convenient transfers and waiting time between transfers, ease of system use, optimization of fleet resources and minimum travel time (directness of routes). All routes should operate on consistent headways throughout the day, with increased frequency on designated routes

during peak operating times. As well, routes should remain unchanged throughout the periods of operation.¹³

There is no central location for documenting requests for additional routes or additional stops

Currently, all requests to add additional routes or additional stops are either received by Transit, a member of Council, or through the Mayor's office, yet there is no current central location for documenting all requests. If a request will result in an additional cost to Transit, the request goes to Council and is presented as a budget option as part of the annual budget process. Other route changes that would not have an impact on Transit's operating budget are presented by management to the Transit Committee for decision.

Ridership Data And Route Analysis

At the time of the audit, only ridership data by route could be obtained, not ridership by stop and time of day. As a result, analysis of stop placement cannot be completed. Current analysis of ridership data appears to be ad hoc while changes to routes appear reactionary. There is currently no detailed analysis or customer surveys that look at demand, in order to plan a long term strategy for ridership.

There are no formal thresholds for minimum ridership per route

Management currently does not have any formal thresholds for minimum ridership per route. Based on the ridership by route data obtained from Transit, ridership decreased 6% between 2008 and 2009, with minimal change in ridership between 2009 and 2010. As a result, ridership in 2010 was below 2006 levels. **Exhibit 1** shows the percentage change in ridership over the past five years.

	2005 to 2006	2006 to 2007	2007 to 2008	2008 to 2009	2009 to 2010
Percentage Change in Ridership	3.4%	1.1%	3.2%	-6.1%	0.4%

Exhibit 1 – Percentage change in ridership over the past five years based on ridership from Ontario Urban Transit Fact Books and Greater Sudbury Transit

Based on ridership data by route, we looked at the change in ridership by route over the past two years. **Exhibit 2** shows the changes in ridership by route over the past two years for routes that experienced a change in ridership greater than 10,000 riders in any given year. The largest decrease in ridership in 2009 came from the New Sudbury

¹³ 2009 Transit Services Design Standards, City of Oakville, 2.2

routes. While some routes have experienced decreases in ridership in each of the past two years (routes 181 and 182), some routes experienced increases in ridership that have brought ridership back up to 2008 numbers (routes 500 and 501).

The largest decrease in ridership in 2009 came from the New Sudbury routes

Route No	Route Name	2008 Ridership	2009 Ridership	2010 Ridership	2008 vs 2009 Change	2009 vs 2010 Change
14	Kathleen / College Boreal	219,997	212,371	177,345	-7,626	-17,477
181	Paris / LoEllen	236,604	220,217	202,248	-16,387	-17,969
182	Ramsey View / Algonquin	201,073	182,862	167,237	-18,211	-15,625
301	Lasalle / Madison	580,291	505,869	498,098	-74,422	-7,771
302	Lasalle / Cambrian	383,916	343,732	344,930	-40,184	1,198
401	Barrydowne / Cambrian	593,182	542,079	541,856	-51,103	-223
500	University via Paris	298,834	277,912	297,074	-20,922	19,162
501	Regent/University	307,608	293,854	304,655	-13,754	10,801
702	Azilda/Chelmsford	167,927	154,982	151,536	-12,945	-3,446
703	Val Caron / Hanmer / Capreol	232,184	214,688	207,951	-17,496	-6,737
819	Copper / Four Corners	192,871	178,620	192,067	-14,251	13,447
940	Gatchell / Copper Cliff	224,390	205,395	205,067	-18,995	-328

Exhibit 2 – Routes with changes in ridership of more than 10,000 riders in any given year

Minimal analysis of ridership data is being performed

Regular route analysis by stop is imperative in order for Transit to meet the demands of citizens

Many factors beyond management's control can impact ridership such as changes in the economy and road construction. Data analysis can aid management in recognizing trends so that decisions, if necessary, can be made in a timely fashion. Currently, minimal analysis of ridership data is being performed, partially due to the inability to obtain detailed information regarding route and/or stop ridership. As a city grows and develops, or if demographics within a neighbourhood change, demand on routes will also change. Therefore, regular route analysis by stop is imperative in order for Transit to meet the demands of citizens. This data can be used to consider some of the Ridership Growth Strategy and Asset Management Plans recommendations in regards to ridership growth and route planning such as direct routes and additional hubs. Management can also use ridership data to set standards for minimum ridership levels or thresholds for adding additional routes and/or buses.

In order to increase ridership, management needs to consider the needs of its citizens

Ridership is based on the needs of the citizens of the city. Therefore, in order to increase ridership, management needs to consider the needs of its citizens in order to provide them with the service they require.

Transit should also consult with the Roads department regarding stop placements in order to attempt to minimize the impact to the

**Management needs to consider
the needs of Handi Transit
riders**

traffic flow throughout the city.

Once passenger count data by stop and time of day is obtained, a detailed analysis of routes can be completed. The Handi Transit provider also has a database of all pick up and drop off locations per ride. This information along with knowledge of pick up and drop off locations of the conventional transit riders can help management plan both stops and routes in order to get citizens to and from their destinations when they require it.

Regular route reviews should be performed since demographics within areas/subdivisions will change over the years. As a result, the demand for transit in an area may also change. Therefore, the route review process should be dynamic and performed regularly in order to place routes where demand is highest.

Once policies for minimum ridership are established. Routes that are around the minimum ridership can be placed on a watch list. Having regular route analysis will allow for routes to be revised/designed for optional customer service with consideration for geographical coverage, minimal duplication of services, convenient transfers and waiting time between transfers, ease of system use and optimization of fleet resources.

Recommendations:

- 13. The needs of citizens must be considered in future route planning and analysis.**
- 14. A formal program of route analysis activities, route planning policies and standards considering such things as ridership demographics, citizen needs and minimum ridership by route need to be established.**

Fare Box Request For Proposal

Passenger count data is a key component in route planning and route analysis. Passenger counts by time of day and by stop will allow management to identify where the demand is. Routes and/or stops with low ridership can be reduced and/or eliminated. This can free up capacity to add additional routes in other areas or increase the

Passenger count data is a key component in route planning and route analysis

frequency of existing routes.

The City purchased the transactional database as an optional feature of the fare box system. As part of the reporting package, the system was to provide passenger count data for each individual bus stop location throughout the day. Since the system was implemented in 2007, (except for a period of time in 2010), passenger count data is being collected however, at the time of the audit, Transit was not able to extract passenger count data by stop location in a way which could be used to analyze ridership by stop location.

At the February 6, 2008 meeting of the Transit Committee, it was announced by the Director of Transit that there was a solution and that by the end of February, the fare boxes should be communicating with the GPS which will allow Transit to obtain stop by stop passenger counts. However, this did not come to fruition.

Stop Announcement Request For Proposal

At the time of the audit, Transit was not able to extract passenger count data by stop location in a way which could be used to analyze ridership by stop location

In 2009, a tender was awarded to Nova Bus through the RFP process for a stop announcement system. This system would be procured over multiple years, of which \$521,000 has been paid as of December 1, 2010, with the last stop announcement system to be installed in 2011. Within the RFP, there was an optional functionality for roadside passenger information. The City included this requirement in the RFP for the stop announcement system.

At the time of the audit, Nova Bus was working with a contractor and Garival in an effort to extract the passenger count data by stop from the fare box system. Although the fare box system started to count ridership by stop, the system went down and stopped collecting this data for most of 2010. Furthermore, no analysis of ridership by stop and by time of day has been done as part of a formal route analysis.

Transit should ensure that since the ability to obtain passenger count data by stop was also included within the second RFP, no additional costs are borne by Transit. Furthermore, Transit should ensure they receive the ability to produce passenger count reports by stop as indicated in the RFP prior to final payment.

Recommendations:

15. Additional costs to acquire the passenger count data by stop

should not be borne by Transit.

I. BETTER MANAGEMENT OF CUSTOMER ACCOLADES, INQUIRIES AND COMPLAINTS IS REQUIRED

Customer accolades, inquiries and complaints are received through the City's 311 System as well as through Transit's inquiry line and the Mayor's office. The City's 311 System operates Monday to Friday from 8:00am to 4:30pm. Transit's inquiry line operates Monday to Friday from 7:30am to 8:00pm and on Saturday's from 9:00am to 5:00pm.

The Transit Information line receives approximately 127 calls per day which amounts to approximately 10 calls per hour, with an average duration of one minute, 76 seconds

Exhibit 3 is a summary of the calls received through the 311 call system as well as through the Transit Information line and the Mayor's office. The Transit Information line receives approximately 127 calls per day which amounts to approximately 10 calls per hour, with an average duration of one minute, 76 seconds. The 311 call system does receive a lower call volume; however, they deal with a larger variety of calls. The Mayor's office received a total of nine calls since the beginning of October regarding Transit.

Annually, 40,000 calls are received directly by an attendant at Transit

Location	Number of Calls	Average Duration (min:sec)	Average # of Calls Per Day
Transit Phone Number (Sept 1, 2010 to Jan 6, 2011)	13,857	1:16	127
311 Call System (Sept 1, 2010 to Dec 31, 2010)	468	0:32	6
Mayor's Office (Oct 1, 2010 to Jan 12, 2011)	9	NA	Less than 1
ESTIMATE Annual # Of Transit Calls	40,000 calls/yr		

Exhibit 3 – Call volume statistics. 311 call system statistics for Transit is for the period September 1, 2010 to December 31, 2010. Transit statistics is for the period September 1, 2010 to January 6, 2011. Mayor's Office is from October 1, 2010 to January 12, 2011

There is no central database or file to track

When an inquiry/complaint is received through the transit line and

inquiries/complaints and their resolution

the information clerk cannot answer the question, information from the call is written down on a piece of paper and forwarded to various Transit management personnel for review. There is currently no central database or file to track inquiries/complaints and their resolution.

Calls received at the Mayor's office are forwarded to Transit. The calls received through the 311 system are either answered directly or documented within the Active Citizen Request system if the call requires further follow-up.

A history for the log of inquiries/complaints is not maintained

With no central database or file, the current system is fragmented and a history for the log of inquiries/complaints is not maintained. Having a history of inquiries/complaints will allow transit to analyze trends and address these trends appropriately. For example, if there are inquiries regarding the timing of a bus on a particular route, or concerns about a particular driver, management can investigate and be proactive in implementing a resolution if necessary. Understanding trends in complaints as well as causes will allow management to develop an appropriate strategy for resolution, whether it be modifications to routes, additional training or campaigns to inform residents of a Transit policy or procedure.

"All complaints submitted by the public shall be reduced to writing by the complainant."

There is no reference on Transit's website on how to make a complaint in writing and who to send it to

If a public complaint is regarding an operator, according to the Collective Bargaining Agreement between the City of Greater Sudbury and the Canadian Union of Public Employees, and its Local 4705 Inside Unit, "All complaints submitted by the public shall be reduced to writing by the complainant."¹⁴ Currently, there is no reference on Transit's website on how to make a complaint in writing and who to send it to. As a result, complaints may not be getting documented.

The "311" Active Citizen Request Centre could be used to log inquiries/complaints

All complaints should be recorded in a database. Management will then be able to review, analyze and resolve complaints pertaining to their area of supervision. There are currently various systems such as e-mail and the "311" Active Citizen Request Centre that can be used to log inquiries/complaints. Furthermore, there should be references on

¹⁴ Collective Bargaining Agreement between the City of Greater Sudbury and Canadian Union of Public Employees, and its Local 4705 Inside (Office, Clerical, Technical, Leisure Programming, Transit Operations, Library, Heritage and Paramedical) Unit, Schedule H:20.

Transit's website on how to make a formal inquiry/complaint in writing.

Recommendations:

16. Consolidated management of citizen feedback similar to the 311 system's Active Citizen Request system should be developed in order to identify opportunities for continuous improvement in satisfaction and value for money.

CONCLUSION

This report contains sixteen recommendations related to improvements in the Conventional Transit Services program.

Our recommendations relate to the need to:

- Improve the quality of performance information provided to the Council in support of program direction, program options and budget deliberations
- Improve the quality of information provided to new members of Council in support of their role in evaluating elements of value for money for the U-Pass program
- Improve Transit's invoice authorization process for Trans Cab services
- Improve Transit fleet parts inventory controls intended to safeguard City assets
- Improve Transit fleet work order processes intended to improve management's ability to evaluate elements of value for money in fleet maintenance and repair
- Improve Transit's use of AVL system data intended to improve management's ability to evaluate elements of

value for money for bus operations

- Improve Transit's use of Fare Box system data intended to improve management's ability to evaluate elements of value for money in ridership analysis and route planning
- Improve Transit's ability to summarize and evaluate on customer inquiries and complaints in support of continuous improvement in satisfaction and value for money

Implementing the recommendations contained in this report will strengthen controls. It will also improve management's ability to enhance citizen satisfaction and perceived value for money achieved through Transit operations, and enable future identification of operational efficiencies by management.

Implementing the recommendations in this report, will also enhance the quality of information provided Transit Committee and Council's in fulfilling their role in oversight of this program.

As certain fundamental management and performance data was not available during our review, the extent of any resources required or potential cost savings resulting from implementing the recommendations in this report is not determinable at this time.

Auditor General's Office

Management Response

2010

Audit Of Greater Sudbury Transit Services

Conventional Transit

Brian Bigger, C.G.A

Auditor General, City of Greater Sudbury

Appendix 2

Management Response: 2010 Audit Of Greater Sudbury Transit Services - Conventional Transit

Rec No	Recommendation	Agree (X)	Disagree (X)	Management Comments: (Comments are required only for recommendations where there is disagreement.)	Action Plan/ Time Frame
1	Annual or semi-annual business plans, describing planned initiatives, performance measures and performance targets should be developed, and communicated to the Transit Committee, and Council in support of future strategic direction and budget deliberations. This is a fundamental element in support of the quality of stewardship over public funds and the achievement of value for money in operations.			Transit will follow the same direction as the rest of the corporation in regards to business plans.	No action required / No time frame
2	The U-Pass agreement is up for renewal on April 30, 2011. Therefore, there is an opportunity that before the contract is renewed, the costs and goals of the program can be evaluated. There is the opportunity to decide the direction of the program and whether the program should be revenue neutral, continue to be subsidized by gas tax grants (within the capital plan), or eliminated entirely. <u>Auditor's Comment</u> <i>The Auditors have noted that the Council is looking for opportunities to save money. As KPMG estimated this program to be operating at a net loss of \$600,000 per year, and that there are four new members on Council at this time in renewal. The Auditors believe that this</i>			All the information provided by the auditor has been presented to the transit committee and council on several occasions since the implementation of the U-Pass program. The auditor states in his opening letter that "Our findings and conclusions are based on a comparison of the conditions as they existed at the time the auditors entered this area". At the time the auditor entered this area council had already vetted this issue on at least four occasions and had clearly decided that the U-Pass was beneficial to the city and the students. A plan to offset the loss in revenue was presented to council and approved. Council has recently approved a new 3 year	No action required / No time frame

Appendix 2

Management Response: 2010 Audit Of Greater Sudbury Transit Services - Conventional Transit

Rec No	Recommendation	Agree (X)	Disagree (X)	Management Comments: (Comments are required only for recommendations where there is disagreement.)	Action Plan/ Time Frame
	<i>background information should be communicated to the new members of Council.</i>			agreement with the students of Laurentian University.	
3	Additional information should be obtained for each Trans Cab ride so that Transit can verify the accuracy of monthly bills.			The RFP for Trans Cab has recently been awarded. Detailed reports will continue to be provided over the term of the contracts.	No action required / No time frame
4	An annual parts inventory count should be performed with the assistance of CGS Finance staff.			The issue of inventory will be considered and dealt with during the transition phase moving from two stockrooms to one at the new transit garage.	To be reviewed / 18 months
5	Management needs to establish inventory count policies and procedures.			The issue of inventory will be considered and dealt with during the transition phase moving from two stockrooms to one at the new transit garage.	To be reviewed / 18 months
6	Rebuilt or used parts should have a separate inventory part number and also be valued at the lower of the cost of rebuild, salvage, or net realizable value. <u>Auditor's Comment</u> <i>During the inventory count, the auditors found a rebuilt generator assembly sitting on the shelf. Audit believes there is benefit in inventorying this large part in order to charge the part to a work order when it is</i>			Likely not practical but will take the recommendation into consideration. In many cases we keep old retired buses for parts until there is no value remaining. Not sure that we should have to inventory every part of an old bus before even knowing if we are even going to use it.	To be reviewed / 18 months

Appendix 2

Management Response: 2010 Audit Of Greater Sudbury Transit Services - Conventional Transit

Rec No	Recommendation	Agree (X)	Disagree (X)	Management Comments: (Comments are required only for recommendations where there is disagreement.)	Action Plan/ Time Frame
	<i>used. This in turn will allow maintenance to track the performance of this rebuilt part compared to the performance of a new part.</i>				
7	<p>Work orders should be completed for all work performed by fleet mechanics to facilitate cost and productivity management and the achievement of value for money in operations.</p> <p><u>Auditor's Comment</u></p> <p><i>Using time cards is not an effective measure of productivity as it will indicate when an employee worked, not what they were working on. Therefore, the auditors recommended using work orders to track productivity and the type of work mechanics were performing.</i></p> <p><i>The Auditors provided management with their findings and recommendations on December 14, 2010. Management provided responses to the auditors on March 23, 2011. At this meeting, Transit management provided the auditors with a productivity report for their mechanics during their test period of January and February 2011 in which they inputted all work orders into the system. The Auditors reviewed their report and noted the following:</i></p> <p><i>In January:</i></p> <ul style="list-style-type: none"> • 1,499 working hours were recorded on work orders. Only 14 Fleet Support employees had time against 			<p>The current work order program was never used to determine productivity. The introduction of this recommendation will result in less productivity and would require more FTE's in order to get the paper work and physical work completed.</p> <p>All work performed by mechanics are covered under time slips.</p> <p>The transit fleet has an "A" classification as audited by the ministry. We will continue to perform our duties as we always have.</p> <p>When we join with fleet in the new building we can perhaps look at different fleet management systems.</p>	To be reviewed / 18 months

Appendix 2

Management Response: 2010 Audit Of Greater Sudbury Transit Services - Conventional Transit

Rec No	Recommendation	Agree (X)	Disagree (X)	Management Comments: (Comments are required only for recommendations where there is disagreement.)	Action Plan/ Time Frame
	<p>them which is less than the current staff compliment of 18.</p> <ul style="list-style-type: none"> There were 147 available working hours per Fleet Support employee in the month. Two Fleet Support employees had 154 hours logged. 1,159 hours were in the "miscellaneous" category. This was the highest number of hours in any category. The second highest hours (96 hours) were in the "breakdown" category. (This is over 1 ½ hours per bus in the month.) For the total hours worked in January, 1,159 hours were for miscellaneous repairs and 340 were for safety or mechanical related repairs (which is equivalent to 2.3 FTEs). Transit Fleet Support was staffed to meet all peaks in demand since no outside repairs were required in January. <p>In February:</p> <ul style="list-style-type: none"> 1,149 working hours were recorded on work orders. Only 12 Fleet Support employees had time against them which is less than the current staff compliment of 18. There were 126 available working hours per Fleet Support employee in the month. Two Fleet Support employees had more than 126 hours logged. 				

Appendix 2

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Rec No	Recommendation	Agree (X)	Disagree (X)	Management Comments: (Comments are required only for recommendations where there is disagreement.)	Action Plan/ Time Frame
	<ul style="list-style-type: none"> 652 hours were in the "miscellaneous" category. This was the highest number of hours in any category. The second highest hours (133 hours) were in the "breakdown" category. (This is over 2 hours per bus in the month.) For the total hours worked in January, 652 hours were for miscellaneous repairs and 397 were for safety or mechanical related repairs (which is equivalent to 3.15 FTEs). Transit Fleet Support was staffed to meet all peaks since no outside repairs were required in February. <p><u>Auditor's Comment</u></p> <p>The City's CVOR has just recently regained it's "A" classification from the MTO. However, in March 2010, the MTO did find a defect during their audit and did downgrade the City's classification.</p>				
8	Work orders should be entered accurately and in a timely manner by the mechanics.			Work orders are currently entered by support staff. It would be unproductive to have mechanics perform this type of work	No action required / No time frame

Appendix 2

Management Response: 2010 Audit Of Greater Sudbury Transit Services - Conventional Transit

Rec No	Recommendation	Agree (X)	Disagree (X)	Management Comments: (Comments are required only for recommendations where there is disagreement.)	Action Plan/ Time Frame
9	Additional training is required for those responsible for ensuring all defects from the waybills are reported on the Daily Vehicle Defect Report.			All proper policies and procedures are in place to ensure that all defects are taken care of. No additional training is required	No action required / No time frame
10	The Manager of Transit Fleet and Facilities needs to ensure that the semiannual safety inspections and the annual inspections are completed in the timeframe as regulated under Ontario Highway Traffic Act R.R.O. 1990. <u>Auditor's Comment</u> <i>Audit verified information with the MTO. They stated that if an inspection was done on April 21, 2009, the sticker would expire on April 30, 2010. If the bus was driven between May 1 and May 12, 2010, then it would be in violation.</i>			All safety inspections are completed within the time frame. This has been confirmed by the MTO.	No action required / No time frame
11	Management should ensure that historical reporting functionality is achieved for the vast amounts of data being collected within the AVL system, and that the usefulness of this data in improving the value for money in operations is demonstrated.			The auditor's statements regarding the AVL system are inaccurate and as such no action is required.	No action required / No time frame

Appendix 2

Management Response: 2010 Audit Of Greater Sudbury Transit Services - Conventional Transit

Rec No	Recommendation	Agree (X)	Disagree (X)	Management Comments: (Comments are required only for recommendations where there is disagreement.)	Action Plan/ Time Frame
	<p><u>Auditor's Comment</u></p> <p>During the course of fieldwork, the Auditors asked for historical information within the AVL system. Audit obtained access to the system, but could not obtain historical information even with assistance of Transit management. Since the completion of the audit on December 14, 2010, a reports has been developed and Transit appears to have been able to extract some historical information from the AVL system.</p>				
12	In order to alleviate congestion at the downtown terminal, a review of the current facilities and alternatives such as additional hubs in the City, should be completed.			<p>Additional hubs and alternative service delivery models have been tested in Sudbury and proven to be ineffective and unsustainable.</p> <p>Changes are being made to the transit terminal to provide better customer service as well as real time information,</p> <p>We have been reviewing the capacity of the transit terminal with our Asset Management department and will make recommendations for changes when required.</p>	Action plan was in place prior to the auditor's recommendation. No additional action is required
13	The needs of citizens must be considered in future route planning and analysis.			In 2011, transit has committed to performing route analysis, including public input sessions for some of the commuter routes. An analysis of the Lively route has already been performed and public feedback has already been obtained.	Action plan was in place prior to the auditor's recommendation. No additional action is required

Appendix 2

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				Further route analysis will continue throughout the year.	
14	<p>A formal program of route analysis activities, route planning policies and standards considering such things as ridership demographics, citizen needs and minimum ridership by route need to be established.</p> <p><u>Auditor's Comment</u></p> <p>We are pleased that Transit has committed to performing a route analysis in 2011. However, it is unclear as to when Transit will undertake a full system review as they plan to wait a period of time after moving to the new garage, which, according to the news release on December 16, 2010, they do not plan to move to the new garage until the summer of 2012.</p>			Accepting the auditor's recommendation will require more manpower to develop, implement and maintain these new policies and standards.	No action required / No time frame
15	<p>Management should ensure that additional costs to acquire the passenger count data by stop should not be borne by Transit.</p> <p><u>Auditor's Comment</u></p> <p>The Transit Services audit was started in the spring of 2010. The completion date of the audit was December 14, 2010. As management indicated, passenger count data was up and running before and after the audit, but not during our audit. During the audit, management advised the Auditors that the system had</p>			No additional funds have ever been required or paid.	No action required / No time frame

Appendix 2

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Rec No	Recommendation	Agree (X)	Disagree (X)	Management Comments: (Comments are required only for recommendations where there is disagreement.)	Action Plan/ Time Frame
	<p>stopped collecting data. As a result, no data was available for us to review. Furthermore, management could not provide us with examples of any analysis they had completed with passenger count data by stop and time of day prior to the system going down. The Auditors conclude that no formal route planning has been done using this information.</p>				
16	<p>Consolidated management of citizen feedback similar to the 311 system's Active Citizen Request system should be developed in order to identify opportunities for continuous improvement in satisfaction and value for money.</p> <p><u>Auditor's Comment</u></p> <p>Throughout the course of the audit, management was either unable or unwilling to provide the auditors with any information indicating that they track <u>all</u> complaints and/or inquiries. Exhibit 5 shows the volume of calls received at the Transit line for which documentation was not provided to the auditor. Understanding the trends in the complaints received as well as categorizing complaints can help management better understand the needs and/or concerns of the citizens as well as develop strategies for resolution.</p>			<p>All public complaints are tracked and monitored acted upon and filed appropriately. The bulk of calls received are for information purpose only. "What time will the bus pass my house"? The remainder of calls is redirected to staff as business calls.</p>	<p>No action required / No time frame</p>