



OFFICE OF THE
City Auditor

Traffic Shortcutting Audit

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The Office of the City Auditor conducted
this project in accordance with the
*International Standards for the
Professional Practice of Internal Auditing*

Traffic Shortcutting Audit Table of Contents

Executive Summary	i
1. Introduction	1
2. Background	1
2.1. What is Traffic Shortcutting?	1
2.2. What Is a Traffic Calming Measure?	2
3. Audit Objective, Scope and Methodology	4
4. Observations	5
4.1. Risk-Based Process	5
4.2. Understanding Objectives (Phase 1)	5
4.3. Risk Identification (Phase 2)	10
4.4. Risk Assessment (Phase 3)	11
4.5. Risk Response (Phase 4)	14
4.6. Monitoring and Reporting (Phase 5)	17
4.7. Addressing Traffic Shortcutting Proactively	20
5. Conclusions	21
6. Appendix A – CTMP Process Steps	22

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Executive Summary

Neighbourhood streets are intended to primarily serve local traffic needs. However, with increasing pressures on Edmonton's arterial road system, drivers are more and more frequently infiltrating neighbourhood streets. The purpose of this audit was to assess how the City of Edmonton currently manages traffic shortcutting and to identify opportunities for improvement.

The City of Edmonton's 2003 Community Traffic Management Plan Guidelines (CTMP) provide general guidance for addressing traffic shortcutting, but it does not include clear expectations, accountability, and authority for managing traffic shortcutting. We also found that Edmonton could learn from measures implemented by other municipalities.

The transparency of the processes to identify and direct issues of traffic shortcutting could be improved. The responsibilities for minor and community-wide traffic shortcutting issues are currently divided between two groups. This creates a lack of clarity on who is responsible for managing traffic shortcutting issues within the City.

Opportunities exist to better assess and prioritize neighbourhood shortcutting issues. The current CTMP requires significant effort on both the part of the City and Communities to conduct evaluations and assessments. There are many neighbourhood traffic shortcutting issues that have not been assessed and prioritized.

Opportunities exist for the City to provide a more effective and coordinated response to the management of traffic shortcutting issues. Transportation Services has implemented the 2003 CTMP Guidelines on selected projects; however, current program needs are not as high of a funding priority as Communities would like.

The current process does not adequately address monitoring and reporting of the City's responses to traffic shortcutting. Citizens' comments highlight perceived issues with the transparency and effectiveness of the City's current processes.

Based on these observations, we recommended that the City develop a Community Traffic Management Policy that sets out expectations, accountability, and authority for managing traffic shortcutting issues. We also recommend that a single group be responsible for the management of neighbourhood traffic shortcutting issues. This includes developing new processes to identify, assess, respond, and report on traffic shortcutting issues.

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Traffic Shortcutting Audit

1. Introduction

The Office of the City Auditor (OCA) *2015 Annual Work Plan* included an audit of Traffic Shortcutting, which was identified by citizens and members of City Council as an area of growing concern. It should be noted that in 2014, the Transportation Committee had also directed Administration to look into potential changes to the Traffic Shortcutting guidelines in place at that time.

Neighbourhood streets are intended primarily for local traffic needs; however, with increasing pressures on Edmonton's arterial road system, drivers are increasingly infiltrating neighbourhood streets. The purpose of this audit was to assess how the City of Edmonton currently manages the risk of traffic shortcutting and to identify opportunities for improvement.

2. Background

2.1. What is Traffic Shortcutting?

By definition, traffic shortcutting occurs when drivers deviate from arterial roads and use local or collector roads as alternate routes to move between destinations. The driver has no origin or destination within a neighbourhood, but uses the route through the neighbourhood as a means to get to his or her destination.

Traffic shortcutting itself is not illegal, but some of the associated behaviors often accompanying traffic shortcutting are illegal. Drivers' primary intention in shortcutting is to save time. As such, speeding is not uncommon by drivers who shortcut through neighbourhoods. Additionally, drivers may fail to properly yield or stop at intersections in a further attempt to save time. As traffic shortcutting routes become known to drivers, the traffic volume along these routes can increase significantly.

Although there is a perceived benefit to the driver, traffic shortcutting can have a negative impact on the quality of life within a neighbourhood. Following is a summation of some of the potential quality of life or livability impacts:

- Lack of feeling safe and secure within a neighbourhood
- Deterrent from use of walking and cycling due to safety concerns, particularly for children and seniors
- Decreased interaction of residents within neighbourhood
- Loss of community identity
- Increased air and noise pollution from increased traffic volume

2.2. What Is a Traffic Calming Measure?

Traffic calming measures are mostly physical measures designed to minimize access for through traffic and make neighbourhood roads undesirable as shortcuts.

Physical traffic calming measures typically include control measures such as physical obstructions, roadway closures, one-way roadways, traffic circles, and regulatory changes such as turn prohibitions. Following are some examples of traffic calming measures that have been implemented within Edmonton.

Figure 1 – Curb Extensions



Extending the curb into the roadway to narrow the lane width forces drivers to reduce vehicle speed and also reduces the crossing distance for pedestrians, lowering exposure.

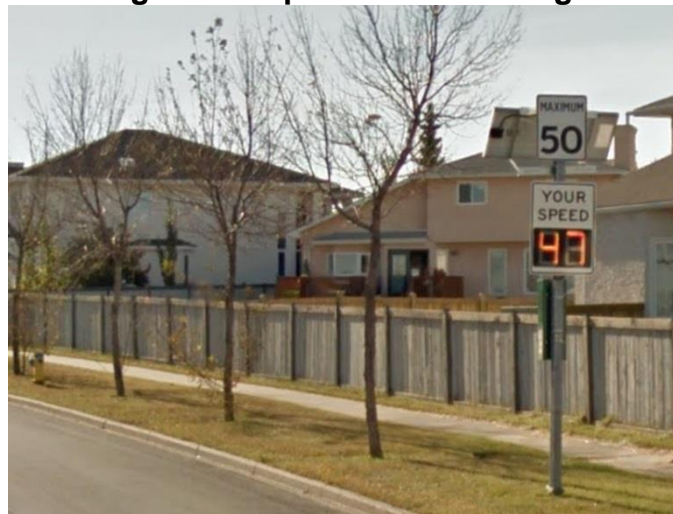
Figure 2 – Chicanes



Using multiple curb extensions, generally at least three in succession, to narrow the roadway forces drivers to reduce vehicle speed.

Other measures used for traffic calming include enforcement, and educational measures, such as reducing speed limits near schools and vehicle-activated signs, which react with a message if they detect a vehicle exceeding a pre-determined speed.

Figure 3 – Speed Feedback Sign



Provides drivers with a visual reminder of their speed when they are driving near or over the speed limit.

2.2.1. Transportation Services Structure

On an ongoing basis, the City's Transportation Services Department identifies neighbourhood traffic shortcutting concerns. The Transportation Planning and Transportation Operations Branches have primary responsibility to identify and address traffic shortcutting issues and related impacts (such as excessive speed and increased neighbourhood traffic volumes).

Transportation Planning

The Transportation Planning Branch develops long-term plans and policies to guide all modes of transportation in Edmonton. The Sustainable Transportation section within this Branch works to encourage and support sustainable transportation options like cycling, walking, and ridesharing. Sustainable Transportation also manages and implements programs that address the transportation system's impact on the community such as traffic shortcutting.

Transportation Operations

Transportation Operations is responsible for the daily operation of Edmonton's road network, ensuring that pedestrians, cyclists, public transit, and motorists can move safely and efficiently in the city.

The Traffic Operations section within this Branch designs and manages Edmonton's traffic signals and streetlights to optimize traffic flow for all road users, with an emphasis on transit and goods movement. Traffic Operations also manages traffic-related bylaws (including the Traffic Bylaw and Speed Bylaw), traffic signing, and on-street traffic control (including temporary approvals and detours for construction projects or special events).

The Office of Traffic Safety works to reduce the frequency and severity of traffic collisions on Edmonton's roads by analyzing collision and other traffic data. It works primarily with Edmonton Police Services, Transportation Planning, and Traffic Operations to develop education, engineering, and enforcement programs. These programs include community safety programs, speed management initiatives, photo enforcement, and red light/intersection safety camera programs. The Office of Traffic Safety evaluates traffic data to manage local traffic, reduce speed, deter risky driver behaviour, and reduce collisions.

3. Audit Objective, Scope and Methodology

Audit Objective

The audit objective for this project was to determine if the City has adequate processes to effectively manage traffic shortcutting issues. In order to conclude on this objective, we tested the following criteria:

- The City uses a risk-based process to address traffic shortcutting.
- The City has clearly-defined guidance on how to address traffic shortcutting.
- The process to address traffic shortcutting is being applied as intended.
- The process is effective in addressing traffic shortcutting.

Scope

The scope of this audit included a review of guidance and processes to address traffic shortcutting within the City of Edmonton. Our primary focus was within the Transportation Planning and Transportation Operations Branches given that they are the areas primarily responsible for addressing the risk of traffic shortcutting.

We reviewed information related to traffic shortcutting reduction efforts from year 1993 to present date.

Methodology

In order to achieve our audit objectives, we performed the following work activities:

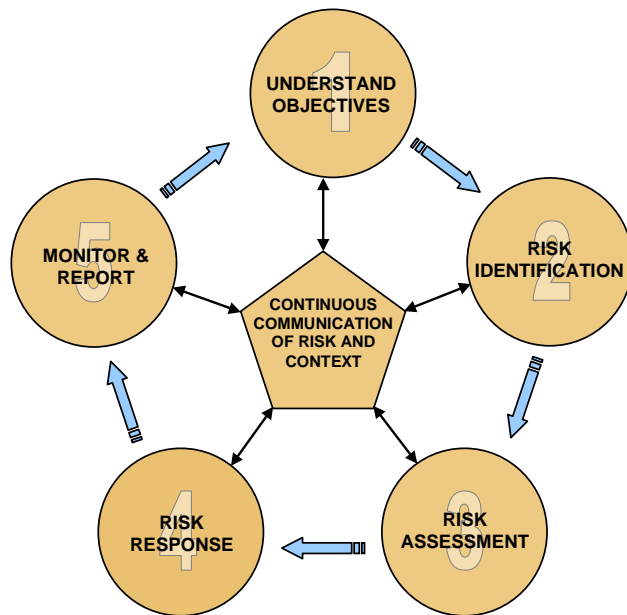
- Identified and documented City processes relating to traffic shortcutting.
- Analyzed City guidance and processes to understand how traffic shortcutting issues are identified, assessed, mitigated, monitored, and communicated to stakeholders.
- Identified the City's resources and efforts to address traffic shortcutting issues.
- Selected and analyzed traffic shortcutting projects for effectiveness.
- Consulted with City staff and citizens to assess the reasonableness of the City's process.
- Assessed the compliance with the City's current process and available criteria.
- Conducted research with other municipalities on their policies and processes to address traffic shortcutting.

4. Observations

4.1. Risk-Based Process

Figure 4 is an example of a risk management model that we used in this audit to assess the effectiveness of the City’s traffic shortcutting processes. In the next five sections of the report, we will discuss each element of this model and how these elements are applied to the City’s traffic shortcutting processes.

Figure 4 – Risk Management Model



Phase 1	Understand the organization’s objectives, strategic direction
Phase 2	Identification of risk events and impacts
Phase 3	Systematic assessment of risks against established criteria and setting priorities
Phase 4	Implementation of actions to address risks identified as priorities
Phase 5	Establish a monitoring and reporting process, evaluate effectiveness of decisions, and recommend revisions

4.2. Understanding Objectives (Phase 1)

We examined the City’s existing objectives and the strategic direction relating to the management of traffic shortcutting.

4.2.1. Corporate Strategic Direction

“The Way We Move” and “The Way We Live” are two of the City’s Master Plans that provide guidance on how Edmonton intends to meet current and future transportation needs. Within “The Way We Move” and the “The Way We Live” are several relevant goal statements that support the need to address a risk such as traffic shortcutting.”

“The Way We Move” acknowledges that neighbourhoods should be designed to encourage community-friendly traffic behaviour and minimize speeding and shortcutting. Furthermore, the plan states that the City will appropriately mitigate the impacts of the transportation network on existing and future residential communities. Specific strategic actions to address traffic shortcutting include:

- Undertaking Community Traffic Management Plans to address community shortcutting traffic issues and related symptoms.
- Addressing isolated incidents of speeding and shortcutting traffic within communities through education, enforcement, and engineering.
- Addressing traffic safety at schools with the support of partnerships through education, engineering, and enforcement.
- Reviewing new Neighbourhood Structure Plans to ensure that the designs encourage community-friendly traffic patterns.

4.2.2. Existing City Policy & Guidelines

A policy is a governance tool that is intended to help align expected behaviour with the needs of stakeholders. A guideline is intended provide direction on how a process should be conducted. Both policies and guidelines are intended help solve problems and mitigate risks.

The City of Edmonton has no City Policy relating to traffic shortcutting or traffic management; however, there is a related guideline. The first Community Traffic Management Plan (CTMP) process was developed in 1999 by the Transportation Services Department to address traffic issues in Edmonton neighbourhoods in a comprehensive, consistent, and equitable manner. In 2003, City Council approved the revised guidelines, *Public Participation Guidelines for the Community Traffic Management Process* (Guidelines). One of the most significant changes between the two documents was the need to incorporate further public participation into the development of a CTMP.

The CTMP process is a community-led process to address significant traffic issues such as non-local shortcutting traffic, higher than expected traffic volumes, and excessive vehicle speeding. The key outcome of the CTMP process is a detailed neighbourhood transportation plan that identifies traffic management measures to address the identified traffic shortcutting issues. The plan, if approved by the community and City Council, generally requires significant capital funding to implement.

The 2003 CTMP Guidelines classify transportation issues into two categories: minor and community-wide. However, both Traffic Operations and Sustainable Transportation have indicated that although the CTMP Guideline defines minor and community-wide issues, differentiating these issues is very difficult. Furthermore, they have indicated that as solutions are applied even to minor issues, the issue often becomes community-wide.

1. Minor Issues - Minor or localized issues are issues that impact a small area of a community, which are primarily dealt with outside of the community traffic management planning process. For example, requests for signage changes at local intersections may be resolved without the involvement of the community.

2. Community-Wide Issues - The second category includes major, or more complex community-wide issues, or solutions to minor issues that impact a community on a broader scale. These issues are dealt with in a more comprehensive manner through the development of a community traffic management plan. Traffic shortcutting in a community with parallel roadways will require extensive community involvement to determine solutions that do not exceed the level of inconvenience the community is willing to tolerate without negatively impacting stakeholders on adjacent roadways.

4.2.3. City of Calgary – Issue-Based Approach

As part of this audit, we met with staff from the City of Calgary's Transportation Planning group to discuss their current strategies and approach to managing traffic shortcutting. Within Calgary, one traffic team (Liveable Streets) manages all traffic shortcutting and traffic calming.

In 2010, Liveable Streets initiated a strategic change to managing traffic shortcutting issues. They had observed that traffic shortcutting issues were managed more effectively at a localized level than at a neighbourhood level. The public engagement process for localized issues was limited to a smaller group of residents who were directly impacted by proposed traffic calming measures. Similar to Edmonton's experiences, Calgary staff indicated that community-wide issues usually take two or three years to fully address and often lead to little meaningful changes since developing community-wide consensus was very difficult. Another challenge identified with the community-wide approach was that because the process took so long, the scope of the project would often expand.

Prior to 2010, the Liveable Streets team was delivering one or two community-wide programs per year. From 2011 to 2014, the Liveable Streets team delivered 8 to 10 programs per year using the issues-based approach. The team indicated that they found that the new process is more efficient, avoids scope creep, and delivers timely solutions.

The City of Calgary makes extensive use of their 311 Call Centre in identifying traffic shortcutting issues. Once a traffic shortcutting issue is identified, the Transportation staff leads a citizen through an application process. The purpose of this application process is to gain a better understanding and to quantify the issue so that it can be prioritized. In order for an application to proceed, the Community Police liaison and the Ward Councillor must also support it. Each application remains active for up to three years, after which point it is closed.

4.2.4. Municipalities Survey

We performed an online scan of information to see how other cities are addressing traffic shortcutting concerns, and have provided a summary of findings for selected cities.

As shown in Table 1, Edmonton is the only city in our analysis without a traffic shortcutting or traffic calming policy. Currently, Transportation Services is conducting

two pilot CTMP projects intended to provide a basis for creating a Community Traffic Management Policy that could replace the existing Council-approved CTMP Guidelines.

All the cities reviewed require some sort of Expression of Interest, which confirms neighbourhood support for traffic management changes. However, the specific requirements differ for each city. Edmonton, Halifax, and Toronto each require a certain percentage of residents and/or households to sign the Expression of Interest, whereas Calgary does not have a minimum resident interest level. Halifax and Toronto generally only require a percentage of residents living on the impacted street (and up to one block away) to sign the petition. Edmonton predominantly defines the area of concern as the entire community. This greatly increases the entrance requirements and reduces the number of communities that qualify to enter the program. Calgary does collect petition information; however, they use the level of support as a factor in prioritization of projects instead of as a requirement to enter the program.

Table 1 – Cities Comparison

Comparative Points	Edmonton, AB	Calgary, AB	Halifax, NS	Toronto, ON
1. Policy	No Policy (Guidelines)	Yes	Yes	Yes
2. Expression of Interest (EOI)	Yes	Yes	Yes	Yes
3. EOI Requirements	Petition, minimum 25% of households within area of concern	Councillor, Calgary Police, Community	Petition, minimum 50% on street	Petition, minimum 25% of area of concern ¹
4. Basis of Volume evaluation	Land use in area	By road classification	Not Disclosed	By road classification
5. Trial period	Yes	No	Yes	No
6. Council approval	Yes	Ward Councillor only	Yes	Yes
7. Dedicated operational budget	No	Yes	Not Disclosed	Yes
8. Dedicated capital budget	No	Yes	Not Disclosed	Yes

¹ – Usually applied in practice as the street in question plus, one block around that street.

Calgary and Toronto do not evaluate volume issues on the basis of land use calculations, but instead compare actual volumes to expected amounts according to road classification (local, collector, etc.). Calgary and Toronto also do not make use of a trial testing period, opting to make permanent changes once an approach is finalized. In discussions with Calgary, cost and time savings were identified as the primary reason for this. Currently Calgary requires only the Ward Councillor approval for traffic management changes.

Finally, both Calgary and Toronto have funded operating and capital programs to specifically address traffic shortcutting issues. As shown, Edmonton does not currently have dedicated operating or capital funding to address traffic shortcutting.

In conclusion, we have observed that the City of Edmonton guidance on how to address traffic shortcutting can be improved. Although the 2003 CTMP Guidelines exist, they are limited in establishing clear expectations, accountability, and authority for managing traffic shortcutting issues. Additionally, an opportunity exists to learn from measures implemented by other municipalities.

Recommendation 1 – Traffic Management Policy

The OCA recommends that Transportation Services develop a Traffic Management/Traffic Shortcutting Policy that sets out expectations, accountability, and authority for the City's management of traffic shortcutting issues.

Management Response

Accepted

Action plan: Because the 2003 CTMP Guidelines have been approved by Council, the City Clerk's Office has advised that any update to the Guidelines will need to be advanced to Council for approval as a City Policy.

City Council has directed Administration to pilot an amended CTMP process in the communities of Prince Charles and Pleasantview, and additionally, to consider amending the current CTMP process to make the entrance requirements less onerous for communities. Transportation Services will be responding to these motions of Council in October of 2015, with the intent that the amendments form the basis of a new Community Traffic Management Policy.

Planned Implementation Date: October, 2015: Report to Council on possible amendments to the CTMP Process; Q2 of 2016: Policy brought to Council for consideration / approval; timeline will allow for stakeholder consultation to inform the Policy development.

Responsible Party: Director, Sustainable Transportation

To Close: Approved City Policy for Community Traffic Management posted on City website and available to guide the development and implementation of future community traffic management plans.

4.3. Risk Identification (Phase 2)

We examined how the City currently identifies various traffic shortcutting issues and their impacts.

4.3.1. Citizen's First Contact

Neighbourhood traffic issues, such as traffic shortcutting, are brought to the attention of the Transportation Services through a variety of processes.

The 311 Contact Centre provides citizens with several choices of accessing Edmonton information and services including on-line, telephone, e-mail, in person, or by mail. 311 relies heavily on the script developed with the business area to direct requests to the correct business areas. 311 also provides a mobile application, which appears user friendly; however, our review found that it contained limited instructions on how to submit requests regarding traffic shortcutting.

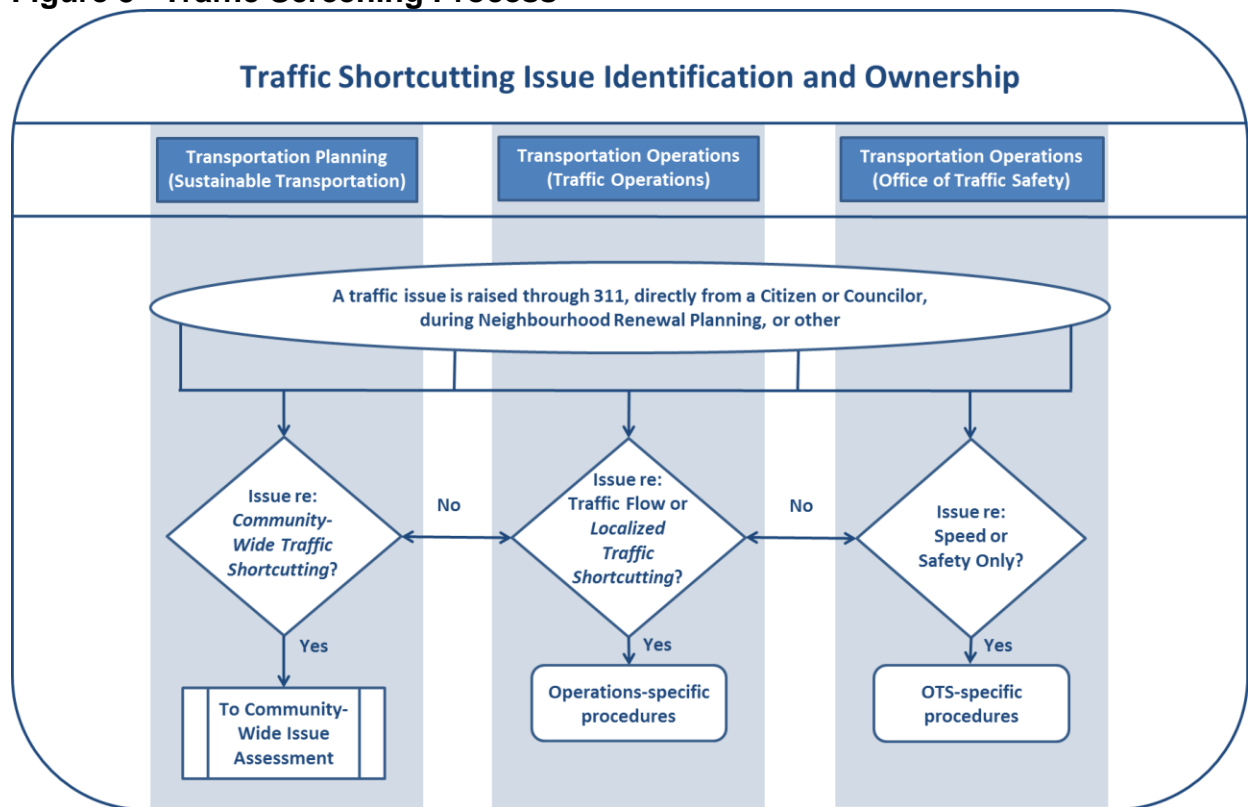
The business areas within Transportation Services, such as Sustainable Transportation, Traffic Operations, and OTS, receive concerns directly from citizens and Councillors regarding traffic shortcutting via e-mail, and phone call. The Transportation Services web site also includes a web page, *Report a Problem and Requests*, that provides contacts for reporting concerns regarding potholes, parking, signs, signals, and lighting, sidewalk repairs, etc. However, there is no information on this page addressing neighbourhood traffic concerns such as traffic shortcutting.

4.3.2. Traffic Issues Screening Process

After a traffic issue is first identified, it must be screened so that it can be directed to the area or areas that have the responsibility to manage it. This is particularly difficult for an issue such as traffic shortcutting because of its many characteristics. The traffic issue may be either a minor or community-wide issue and often involves parallel concerns of speeding, safety, and community impacts.

Figure 5 illustrates how a traffic issue is currently screened internally so that the appropriate business area responds. As shown, community-wide traffic shortcutting issues identified by OTS and Traffic Operations are directed to Sustainable Transportation and become part of the CTMP Evaluation Process.

Figure 5 –Traffic Screening Process



In conclusion, we observed that an opportunity exists to improve the transparency of the processes to identify and direct issues of traffic shortcutting. Ownership of a traffic shortcutting issue is currently fragmented, in part due to the City’s current CTMP process of separating responsibility of minor and community-wide traffic shortcutting issues. We recommend that the ownership of managing traffic shortcutting be centralized with a single point of contact in the City (see Recommendation 2).

4.4. Risk Assessment (Phase 3)

We examined the City’s processes that systematically assess and prioritize traffic shortcutting issues.

4.4.1. Minor Issues Assessment – Traffic Operations

Traffic management issues received by Traffic Operations are documented and managed in a spreadsheet. Traffic Operations staff respond directly to citizens on how their issue will be addressed by e-mail or phone call.

We obtained the Traffic Operations issue-tracking sheet, which covered a 10-year period (March 2005 - March 2015). We analyzed this tracking sheet to determine how many traffic shortcutting issues were identified, not including back alleys. We noted that there were approximately 106 issues logged, which equates to an average of almost 1 per month over that timeframe. Although these traffic shortcutting risks have been identified (Phase 2), there is not a documented process or criteria to evaluate and assess their significance.

Traffic Operations has indicated that there is a lack of clarity on what constitutes a local traffic shortcutting issue. Furthermore, in many cases a local issue becomes community-wide when traffic management changes are made, so these issues are directed to Sustainable Transportation.

4.4.2. Community-Wide Issues Assessment – Sustainable Transportation

When a traffic shortcutting issue is identified to Sustainable Transportation, it must be evaluated to determine if it meets the requirements for a CTMP. The CTMP Guidelines specify the evaluation criteria that determine the need and priority for a CTMP. The criteria must be considered prior to a project being brought forward to Council for selection.

1. Average Traffic Speeds

Speed data is provided through a speed survey which is typically conducted by the Strategic Monitoring Group within Transportation Planning. If data analysis shows that neighbourhood traffic speeds are consistently above the posted limit, with 85th percentile speeds at least 7 km/hr over the posted speed limit, then further review is conducted. In other words, at least 15% of drivers are travelling at least 7 km/hr over the posted speed limit.

2. Daily and/or Peak Volumes

The next criterion looks at actual neighborhood traffic volumes and compares these with expected traffic volumes based on adjacent land uses. The expected neighbourhood traffic volume is compared to the actual traffic volume data and a determination is made as to whether or not traffic volumes are excessive and require further attention.

3. Shortcutting Volume

The intent of this exercise is to determine that drivers are in fact shortcutting through the neighbourhood. This step typically involves tracking vehicle license plates (during peak hours) at all entry and exit points to the neighbourhood to determine whether at least 40% of traffic passed through the community without stopping at a neighbourhood destination.

4. Expression of Interest

The expression of interest is an important step to determine if community support exists for a CTMP. An expression of interest is a community-driven process whereby representatives of at least 25% of households in the area of concern must sign to indicate support for the community to enter into the CTMP process.

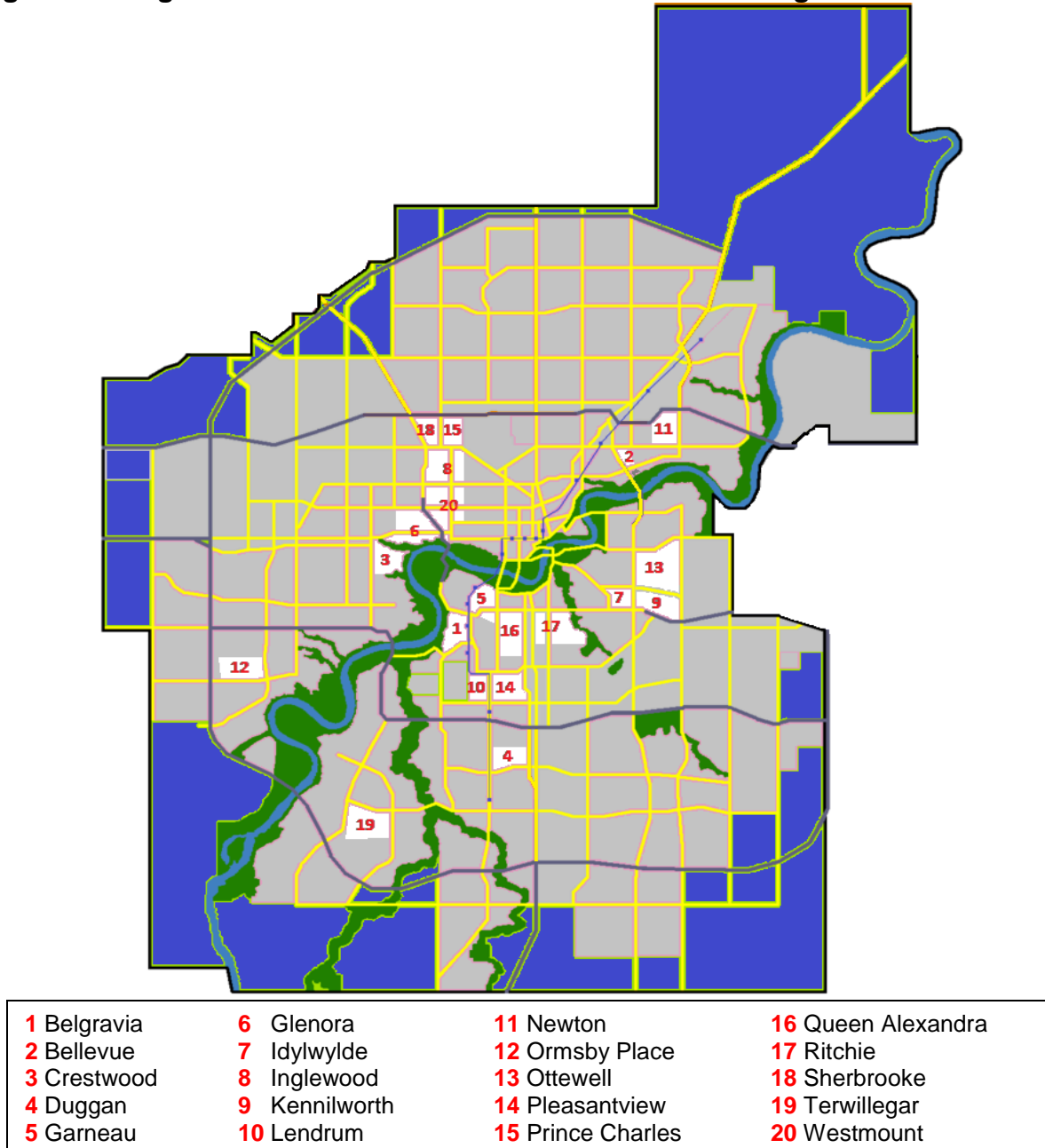
Sustainable Transportation will formally request Council approval of a CTMP study after all four technical criteria are considered. As shown, the current CTMP evaluation process can require considerable resources from both the City and citizens.

4.4.3. Current Community-Wide Traffic Shortcutting Areas of Concern

We asked Sustainable Transportation to identify neighbourhoods that have expressed concerns with Traffic Shortcutting issues. Figure 6 shows the 20 neighbourhoods that have identified community-wide traffic shortcutting concerns. Pleasantview and Prince

Charles neighbourhoods are currently working through the CTMP process. The remaining 18 neighbourhoods, although identified as having potential traffic shortcutting issues, have not been fully evaluated or prioritized.

Figure 6 - Neighbourhoods with Identified Traffic Shortcutting Concerns



We believe that opportunities exist to better assess and prioritize neighbourhood shortcutting issues. The current CTMP process requires significant effort on both the part of the City and the affected communities to conduct evaluations and assessments. As previously discussed, there are significant numbers of neighbourhood traffic shortcutting concerns that are currently not assessed and prioritized (see Recommendation 2).

4.5. Risk Response (Phase 4)

We examined the City's implementation of actions to address risks identified as priorities and the resulting assignment of resources.

4.5.1. Speed and Safety Concerns – OTS Response

The most common concern regarding traffic shortcutting is that of safety due to speeding within neighbourhoods. The Office of Traffic Safety's role is to address speed and safety in neighbourhoods, which may include the implementation of traffic calming measures. OTS has indicated that the objective of its program is not to specifically address traffic shortcutting, but to address speed and safety concerns.

OTS's first course of action is to evaluate the concern through data collection and review of traffic volume and speeds. Once a speeding issue is confirmed, OTS uses a progressive approach to improving safety through education, enforcement, and engineering.

- **Education** - Education is aimed at raising awareness of the speeding issue among neighbours and outside traffic. Tools employed include community signs, neighbourhood pace cars, and digital speed signs.
- **Enforcement** - Enforcement of speed laws is implemented if education is not deemed effective. OTS will work with the Edmonton Police Service to deploy either photo radar or manned speed enforcement units.
- **Engineering** – Lastly, engineering is used to address persistent speeding or safety issues. OTS will work with Traffic Operations and Engineering Services to deploy physical measures to reduce speeding in the area. These measures may include vertical deflections (raised crosswalks, speed tables, etc.), or horizontal deflections (curb extensions, roundabouts, chicanes, etc.). Traffic Operations has indicated that due to the significant costs, few physical measures have been installed in the past few years.

4.5.2. Minor Issues Response – Traffic Operations

Traffic Operations designs and manages Edmonton's traffic signals to optimize traffic flow for all road users, with an emphasis on transit and goods movement. The majority of the City's concerns received regarding traffic management issues are directed to this Section.

We reviewed their issue identification worksheet to determine how minor shortcutting concerns had been addressed. Of the 106 issues logged, we observed that only limited action was taken to address these issues. There were a variety of reasons provided for not addressing these issues, such as road classification capacity not being exceeded, limitations of grid-designed neighbourhoods, impacts of road changes to others, and the legality of traffic shortcutting.

In discussions with citizens, we found that many have requested additional stop signs or adjustments to traffic signals to slow or deter traffic. Traffic Operations indicated that they do not install traffic signs or signals for the purpose of addressing traffic

shortcutting, as they are only installed for the purpose of improving safe and efficient flow of traffic. However, they do consider adjusting signal timing for the purposes of removing an incentive to shortcut.

4.5.3. Community-Wide Issues – Sustainable Transportation Response

Once Council has approved a community for a CTMP, the next steps include a comprehensive process to identify and implement community-supported solutions. Appendix A highlights the key steps in completing the CTMP process as indicated in the Guidelines. A typical CTMP process can be expected to take between two and three years from start to completion.

City Council is engaged three times in the process:

- 1) Approval of the CTMP study;
- 2) Approval of a trial implementation of traffic management measures; and,
- 3) Approval of permanent implementation of traffic management measures.

The current CTMP Guidelines focus on extensive public participation. As shown in Appendix A, the community is contacted several times during this process. The community is usually first engaged through a public open house to identify traffic-related concerns in the neighbourhood, including traffic shortcutting. Under the current process, the community is then surveyed up to three times as part of the CTMP process:

- 1) Preference of traffic management options to address the most significant traffic issues;
- 2) Support for the trial test; and,
- 3) Support for changes to the trial plan and/or support to make the changes permanent.

The CTMP Guidelines currently set a voting threshold of 60% support from at least 30% of the community respondents. Finally, after permanent implementation, the community is surveyed again for satisfaction with the changes.

4.5.4. Prince Charles - Application of CTMP

We reviewed the work completed on the Prince Charles CTMP as a recent case study, to evaluate if Transportation Services is complying with the approved CTMP process. Prince Charles is a residential neighbourhood in northwest Edmonton. Residents have expressed concerns regarding speeding, high traffic volumes, and traffic shortcutting.

CTMP Evaluation

During CTMP evaluation, speed testing was conducted and 3 locations out of 7 tested showed 85th percentile speeds exceeding 7 km/hr more than the speed limit. Sustainable Transportation indicated that volume testing and traffic shortcutting testing was not conducted as excessive traffic volumes had been observed and traffic shortcutting was confirmed in a previous evaluation. An Expression of Interest with 25% support from households in the area and a letter of Community League support was also received.

CTMP Process to Date

In 2013, City Council approved the CTMP process for the Prince Charles neighbourhood. Working with the wider community, several traffic management measures have been identified.

As part of the Prince Charles CTMP, Council approved a pilot project to test changes to the Guidelines. A Community Traffic Committee was established to represent and make recommendations during the trial testing without a formal vote from the Community or City Council. Sustainable Transportation has indicated that learnings from this project will provide a basis for the creation of a Community Traffic Management Policy to replace the existing Council-approved Guidelines.

Next Steps in the CTMP Process

Sustainable Transportation has developed a trial plan for trial traffic management measures targeted for implementation in July of 2015. Transportation Services is planning to collect traffic data and assess the outcomes of the measures in the spring of 2016. Significant public engagement will also be carried out through both formal and informal mechanisms, throughout the duration of the trial, to gain an understanding of the community's comfort and support of the trial traffic management measures.

Overall, we believe that this project demonstrates that the Administration is complying with the approved 2003 CTMP Guidelines.

4.5.5. CTMP Program Funding

Sustainable Transportation has indicated that their program currently does not have designated resources to manage the CTMP evaluation process or complete CTMP projects. In 2009, the Capital Budget Program for CTMP projects was cancelled. In 2012 operational funding for one Project Lead position to manage the CTMP process was eliminated.

The two current CTMP's, Prince Charles and Pleasantview, are being managed by Sustainable Transportation with existing staff that have been moved from other projects. Capital costs for the trial management measures (typically \$50,000 to \$100,000) for these projects are being sourced from other transportation capital projects. Following Council's approval of permanent traffic management measures, a special request will be made for capital funding. Permanent traffic management measure costs are estimated at \$500,000 to \$2,000,000 per neighbourhood.

Sustainable Transportation currently estimates, based on the ongoing work in Prince Charles and Pleasantview, that two full-time positions would be needed to undertake community traffic management work in up to four communities at any one time.

We believe there are opportunities for the City to provide a more effective and coordinated response to the management of traffic shortcutting. Transportation Services has demonstrated compliance with the 2003 CTMP Guidelines on selected projects however lack of funding exists to meet current program needs (see Recommendation 2).

4.6. Monitoring and Reporting (Phase 5)

We examined the City's monitoring and reporting process relating to traffic shortcutting, including how prioritized risks are responded to and, based on their results, the identification of revisions to existing processes.

4.6.1. History of CTMP Projects

Table 2 provides a comprehensive history of CTMP projects and associated results beginning in 1993 when the CTMP Guidelines were first approved.

Table 2 - History of CTMP Projects

Community	Year Started	Year of Perm. Constr.	Year Closed	Results
Argyll/Hazeldean/Ritchie	1992	1994	1995	Traffic calming measures implemented.
Boyle Street/McCauley	1992	1994	1995	Traffic calming measures implemented; cost \$600k.
Norwood/Alberta Avenue	1993	1995	1995	Addressed as localized issues.
Pleasantview	1993	1995	1995	Traffic calming measures: speed humps, curb extensions; cost \$250K.
Strathcona	1995	N/A	2000	Proposal not supported by community.
Central McDougall/ Queen Mary Park	1995	1999/2000	2000	Community supported traffic calming measures.
Abbottsfield	1996	1997	1998	Addressed as localized issues.
Crestwood	1996	2001	2002	Curb extensions and traffic circle implemented; cost \$400K.
Bonnie Doon	1997	1999	2000	Traffic calming measures implemented.
106 Street (Empire Park /Pleasantview/ Allendale/ Queen Alexandra	1998	N/A	N/A	Proposal not supported by community.
76 Avenue (Ritchie/King Edward Park)	1998	N/A	2001	Community support withdrawn after trial implementation.
Westwood	1999	2001	2001	Proposal not supported by community.
Prince Charles	2000	2002	2002	Traffic calming measures installed; cost \$350K. 2005 data follow-up showed moderate decrease in traffic speed and volume.
Garneau	2001	N/A	N/A	Initial Proposal not supported by community.
144 Avenue	2001	N/A	2002	Proposal not supported by community.
West Meadowlark	2002	2005	2006	Traffic calming measures installed; curb extensions.
New CTMP Guidelines (2003)				

Strathearn	2004	2005	2006	Proposal not supported by community.
Holyrood	2004	2005	2006	Proposal not supported by community.
No CTMP's approved between 2005 and 2012				
Prince Charles	2013	TBD	TBD	Trial approved for 2015.
Pleasantview	2013	TBD	TBD	Trial approved for 2015.

As shown in Table 2, since 1993, only eight of eighteen CTMP's resulted in the implementation of permanent traffic management measures. Two CTMP approved projects that were initiated under the CTMP process were later addressed as localized issues. Eight of the CTMP projects identified were not supported, either following the initial proposal stage or after trial testing.

In 1995, Pleasantview had fully completed the CTMP process, with construction of permanent traffic management measures estimated at \$250,000. Similarly, Prince Charles had fully completed the CTMP process in 2002, with construction work estimated at \$350,000. In 2013, both Prince Charles and Pleasantview were approved for another CTMP process. The approval of these two neighbourhoods is consistent with the CTMP Guidelines, which requires that a 5-year period must exist between CTMPs.

Also as shown in Table 2, Transportation Services did not initiate any CTMP projects from years 2005 to 2012. We consulted with Sustainable Transportation to explain this gap in activity, and a lack of funding was identified as the primary reason.

Prior to 2001, we observed that Transportation Services provided an Annual Status Report to City Council, with a prioritized listing of neighbourhoods for traffic planning work. After 2001, a major shift appeared in the program whereby only selected projects were reported to City Council and the Annual Status Report was no longer provided.

4.6.2. Citizen Concerns

We met individually with citizens from several communities to discuss how well the current City processes are addressing their concerns relating to traffic shortcutting. The citizens we met with either had existing traffic concerns or had already engaged in a CTMP process. Additionally, we attended community workshops and met with the Edmonton Federation of Community Leagues. Following is a high level summary of comments we heard:

The current process lacks transparency

- At the very least, they would like to know that the City is doing something to address their concerns.
- The greatest concerns are not knowing where to go to for information, who to talk to, and feeling like they have been passed between City departments.
- Perception that the City attends community consultations for show, to listen because they have to, but weren't willing to consider anything citizens put forth.
- It isn't clear whom to contact regarding traffic shortcutting.

- Citizens are provided varying traffic volume criteria for local and collector roads, which is seen as the City’s excuse for not addressing shortcutting concerns.

The process is ineffective in addressing traffic shortcutting

- The CTMP process appears to be confusing.
- The City needs to be more aggressive with traffic management measures to be successful in addressing traffic shortcutting.
- Addressing traffic shortcutting issues should be a collaborative approach with the City and the Community partnering; the two groups should not be as adversarial as they seem to be.
- The primary concern is that traffic shortcutting and speeding are sometimes made worse by operational changes such as one-way roads and signal changes.
- The City is reluctant to put up traffic signs to slow or deter traffic in our neighborhoods.
- We went through the CTMP process and it was too lengthy, resulting in general fatigue with the process.

Citizens’ comments highlight some of the perceived issues with the transparency and effectiveness of the CTMP process, and ways that the City addresses traffic shortcutting. Many citizens were unclear as to who within the City was responsible for addressing their traffic shortcutting issues.

We believe an opportunity exists to improve the monitoring and reporting on how the City is responding to traffic shortcutting. The lack of reporting and communication to City Council has resulted in lost opportunities to assess the effectiveness of the current processes and program. Based on these observations and the processes for identifying, assessing and responding to traffic shortcutting concerns, we recommend the following:

Recommendation 2 – Centralize Risk Ownership

The OCA recommends that Transportation Services centralize ownership for the management of neighbourhood traffic shortcutting issues including :

1. Establishing a single point of contact within the City for traffic shortcutting issues.
2. Implementing a transparent and systematic process to identify, assess, and prioritize traffic shortcutting issues both community-wide and minor.
3. Communicating the priorities and resource requirements of these issues to both Council and the Public.

Management Response

Accepted

Action plan: Administration concurs that the current “intake” procedures for citizens and communities with traffic shortcutting concerns can be confusing, with multiple points of entry, and that identification of a single point of contact will enhance customer experience and timeliness of response.

Additionally, having one group within Transportation Services responsible for the intake and evaluation of requests for community traffic management will help to ensure that

the Community Traffic Management Policy is consistently and systematically applied, and that prioritization of communities requesting Council approval to enter into a CTMP process will follow from a transparent evaluation process that is communicated to both City Council and communities / citizens.

Upon approval of a new City Policy for Community Traffic Management, it is the intent of Administration to return to annual reporting to City Council with recommendations for future community traffic management processes, including justification of Administration's recommended priorities based on both technical evaluation and community input. Reporting will include clear identification of the anticipated timelines and required resources.

Planned Implementation Date: Transportation Planning is prepared to become the "one point of contact" for citizens and communities with traffic shortcutting concerns effective immediately; however, it is noted that currently no operating resources have been allocated to this work, and that funds for staffing and data collection / evaluation will need to be reallocated from other Branch projects.

Annual reporting will commence shortly after approval by Council of the City's Community Traffic Management Policy; anticipated Q3 of 2016 and annually thereafter.

Responsible Party: Director, Sustainable Transportation

To Close: First annual report on the Implementation of the City's Community Traffic Management Policy received by City Council.

4.7. Addressing Traffic Shortcutting Proactively

During our fieldwork, we also identified initiatives that relate to how the City is proactively addressing certain traffic shortcutting risks.

Transportation Coordination Committee

The Transportation Coordination Committee (TCC) was launched to better align transportation programs and projects at a neighbourhood level. Several program areas in Transportation Services, Community Services, and Sustainable Development Departments are represented at the TCC.

One of the initiatives of this Committee is to coordinate efforts with the Neighbourhood Renewal Program to consider various neighbourhood issues such as traffic shortcutting. TCC's goal is to initiate collaboration about two or three years ahead of the Neighbourhood Renewal Program work so as to not impact scheduling. This lead-time is required because public consultation is needed to understand how issues such as traffic shortcutting are impacting neighbourhoods.

Neighbourhood Speed Reduction Project

On October 6, 2009, the Transportation and Public Works Committee gave approval to OTS to commence work on the residential road Speed Reduction Pilot Project. The

primary objective of the pilot project was to investigate the effect on traffic safety of lowering the posted speed limit from 50 km/h to 40 km/h. During the course of the pilot project, photo enforcement was in place to enforce the newly-posted speed limit. The analysis of the pilot project focused on the impact on speed, volumes, collisions, and the perception of traffic safety.

The results of the speed and traffic analysis indicated that both the traffic speeds and volume were reduced after the implementation of the new residential speed limit. An analysis of collision data in the treated communities showed an overall reduction in collision frequency and severity, and the traffic volume was reduced by 4%. Although not specifically intended to address traffic shortcutting, the results suggest that this program was successful in mitigating many of the impacts of traffic shortcutting.

In 2012, City Council approved Policy C566, allowing neighbourhoods to be considered for 40 km/hr speed reduction if at least 67% of a community supports it. To date three communities (Ottewell, Woodcroft, King Edward Park) have been selected for permanent speed reduction.

5. Conclusions

In this audit we assessed the City's processes to determine if they are adequate to effectively manage traffic shortcutting issues. We identified and assessed the City's traffic shortcutting processes against the elements of a typical risk management model.

We observed that two processes (minor and community-wide) are used to address traffic shortcutting. Processes deployed by OTS address the symptoms of traffic shortcutting such as speeding, but are not intended to specifically address traffic shortcutting issues. These two processes follow risk-based processes.

We reviewed the City's guidance on traffic shortcutting and also researched traffic shortcutting practices of other municipalities. We concluded that the City's guidance is not clearly defined and an opportunity exists to better define expectations, accountability, and authority. We concluded that Transportation Services is complying with current processes, but there is an opportunity to improve.

We do not believe the current processes are effectively addressing traffic shortcutting. We observed that ownership of traffic shortcutting issues is not clearly understood. One outcome of this lack of clarity is that many of the major neighbourhood traffic shortcutting issues are not being appropriately assessed and prioritized. Since 2003, only four CTMP projects were initiated. A review of the history of completed CTMP projects shows that communities as a whole do not support many of the proposed traffic management measures. Citizens have also expressed concerns regarding the transparency and effectiveness of the City's processes.

The Office of the City Auditor thanks the citizens and the staff within Transportation Services who participated in this audit.

6. Appendix A – CTMP Process Steps

