
CITY OF SASKATOON Sidewalk Program

Key internal controls are either in place or being developed to reduce risks associated with the construction, maintenance, repair and replacement of sidewalks. We recommend additional controls in some areas.

June 2009

Report Highlights

City of Saskatoon Sidewalk Program

Purpose of the Audit

The objective of this audit was to determine if adequate internal controls are in place and consistently applied to reduce risks associated with the construction, maintenance, repair and replacement of sidewalks.

What Internal Audit Recommends

- Complete inventory and condition rating on all sidewalks;
- Complete development of service level standards;
- Complete development of Standard Working Procedures;
- Implement a computer-based system to automatically generate work orders at the appropriate time and to monitor service level compliance.
- Examine the possibility of combining inspection activities in Public Works Branch and Strategic Services Branch in the interest of achieving economies of scale.
- Implement “outstanding” and “in-progress” recommendations from prior audit report.

What Internal Audit Found

This audit focused specifically on risks related to new sidewalk design and construction, and sidewalk repair and maintenance.

With regard to new sidewalk design and construction, we conclude that adequate internal controls are in place to minimize risks that could impact worker/public safety and public liability, public accessibility, the cost of sidewalk construction, and the quality of sidewalk construction.

With regard to sidewalk repair and maintenance, we conclude that additional internal controls are required to minimize risks that could impact public safety and public liability, the cost of sidewalk maintenance and repair, and the quality of maintenance/repair work. Infrastructure Services is, and has been, taking steps to implement an appropriate control framework to address these risks – e.g. inventorying and rating the condition of all public sidewalks, developing service level standards, and developing Standard Working Procedures.

With regard to our March 2002 audit report, we note that the City is not yet in a position to fully implement 3 of the 15 audit recommendations:

- Reporting annually on the amount of sidewalk infrastructure that does not meet condition standards and the associated cost of rehabilitation, restoration, or replacement.
- Implementing a capitalization model for sidewalk infrastructure.
- Implementing a system to monitor sidewalk conditions over the long term to determine the appropriateness of current construction standards.

Full implementation of the prior audit recommendations is not possible until all of the City’s sidewalks have been inventoried and rated.

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Chapter 1 – Introduction and Background

Introduction

The corporate audit plan included provision to conduct an audit of the City's Sidewalk Maintenance Program.

Background

The Infrastructure Services Department is responsible for the construction, maintenance, repair and remediation/replacement of public sidewalks. There are approximately 1,375 kilometers of sidewalks within the City of Saskatoon.

The Public Works Branch is responsible for the repair and maintenance of existing sidewalks as well as the replacement of smaller sections as required.

The Construction & Design Branch oversees the design and construction of sidewalks in both areas being developed by the City and areas being developed privately. The Branch is also responsible for the construction of public sidewalks in subdivisions being developed by the City. The private sector is responsible for the construction of public sidewalks in areas of private land development.

The objective of the Sidewalk Maintenance Program is to maintain City sidewalks in a safe condition for pedestrian traffic and to reduce/eliminate personal injury claims.

Program resources for 2009 includes an operating budget of \$782,800, and a sidewalk preservation capital budget of \$200,000. Funding is also included through other capital projects (e.g. Project 626 – Land Dev't – Subdivision Warranty; Project 631 – Traffic Safety Improvements; Project 2162 – Streetscaping).

Table 1: Public Works Branch Operating Budget 2007-09

Expenses	2007 (actual)	2008 (actual)	2009 (budget)
Staff Compensation	\$388,400	\$398,600	\$478,100
Operating Costs	\$268,600	\$277,000	\$320,200
Cost Recovery	(\$9,400)	(\$1,800)	(\$15,500)
Program Total	\$647,600	\$673,800	\$782,800

Introduction and Background, cont'd

Audit Objective

The objective of the audit was to determine whether adequate internal controls are in place and consistently applied to reduce risks associated with the construction, maintenance, repair and replacement of sidewalks.

Acknowledgements

Robert Prosser & Associates Inc. wishes to extend special thanks to the A/General Manager of Infrastructure Services, Roadways Section Manager, Strategic Services Branch Manager, Construction & Design Branch Manager and their staff for providing information, attending meetings throughout the audit process, and reviewing our audit findings.

Chapter 2 – New Sidewalk Design & Construction

Introduction

The City of Saskatoon eventually assumes responsibility for maintaining all public sidewalks within City limits regardless of which developer completed the sidewalk construction. For that reason, the Infrastructure Services Construction & Design Branch has been assigned the responsibility of managing all projects related to the design and construction of public sidewalks. Where a private developer owns the land being developed, an engineer within the Branch is designated to oversee and ensure the sidewalk design and construction process goes smoothly.

With regards to the management of sidewalk inventory as a whole, the Infrastructure Services Strategic Services Branch has been assigned the responsibility for managing the life cycle of sidewalks which includes completing and maintaining a condition assessment of all sidewalks.

Assuming each Branch meets their objectives and fulfills their responsibilities, risks associated with sidewalks throughout the City should be significantly reduced limiting public injury and related liability.

Adequate internal controls are in place for minimizing risks that could impact worker and public safety, and public liability.

We assessed internal controls related to the following risk events:

- Public access to the work area;
- Design and/or construction standards that fail to meet legitimate safety requirements;
- Construction that fails to meet design and/or construction standards;
- Poor construction practices.

Key controls implemented to manage these risk events include:

- **Agreement with Private Developer:** Agreements with Private Developers include the following:
 - A statement requiring the Developer to “put up such barriers, lights or other protection for persons and property as will adequately protect the public or any person in the neighbourhood and maintain same during the course of construction”;
 - A statement requiring the Developer to “indemnify and save harmless the City with respect to any action commenced against the City

New Sidewalk Design & Construction, cont'd

as a result of any act or omission of the Developer in relation to the Developer's obligations set out in the agreement";

- A statement requiring the Developer to provide the City with proof of general liability insurance with a minimum per occurrence coverage prescribed by the City.
- **Agreement with Contractors:** Agreements with Contractors include the following:
 - A statement providing a City Engineer with authority to stop the progress of the work whenever in his opinion such stoppage may be necessary to ensure the safety to life;
 - A statement requiring the Contractor to indemnify and save the City harmless from any and all claims which arise from the Contractor's obligations under the Contract where bodily injury or death is caused;
 - A statement requiring the Contractor to maintain general liability insurance acceptable to the City and to provide a copy of the insurance policy to the City prior to the commencement of any work;
 - A statement requiring the Contractor to provide the City with evidence of compliance with all requirements of the Worker's Compensation Act;
 - A statement requiring the Contractor to comply with the Occupational Health Act and Regulations;
 - Statements requiring the Contractor to maintain, control and safeguard traffic within and immediately abutting the project, including signs, barriers, warning lights, etc.
- **City Liability Insurance:** The City also carries public liability insurance to protect itself from damages resulting from public injury.
- **Current Design and Construction standards:** Sidewalk design and construction standards provide a consistent benchmark with respect to the development of sidewalks throughout the City. Recent revisions to design standards were made through consultation with a local engineering firm. These revisions involved research of industry standards and surveys of other cities.
- **Requirement to follow applicable standards:** Contracts

New Sidewalk Design & Construction, cont'd

and servicing agreements relating to City sidewalk development and construction clearly disclose the requirement for the City's design and construction standards to be followed. These details are also referenced through the tendering process each hired contractor must go through.

- **Requirement for a Performance Guarantee Bond.** The City requires that all contractors hired by the City carry a performance bond. Those that do not provide proof of a performance bond through the tendering process will not be hired for sidewalk construction. If the bid of a contractor is not accepted the performance bond is returned to the contractor. The bond is used to ensure proper performance and execution of all contractual work.
- **Routine inspections of new sidewalk development.** Inspectors within the Construction & Design Branch are responsible for inspecting new sidewalk development throughout the critical stages of the construction process (e.g. proof rolling, pouring, etc.). This is the case with both City neighbourhood development and in privately developed areas. Established inspection guidelines and practices provide valuable documentation to support the quality of construction in each area.
- **Review and retention of inspection documentation:** With respect to both City and private sidewalk development, inspection documentation is prepared in order to support the acceptance or rejection of the completed work. Once the documentation is complete it is sent, along with the daily progress reports, to the Project Engineer and retained on file at the Construction & Design Branch until being archived.
- **Daily Progress Reports:** Inspectors for City developed land keep a log of daily activities called a "daily progress report" which is submitted to each Project Engineer as a daily update. The daily report also acts as a documentation of activities surrounding the development of sidewalks.
- **Construction Completion Certificate requirements:** In order for private developers to officially complete the construction of sidewalks and pass the responsibility of maintaining this asset over to the City, they require the issuance of a Construction Completion certificate. The two year sidewalk warranty period commences once this certificate has been issued and ends once a "final acceptance inspection" is complete and all deficiencies cleared. At that point in time a Final Acceptance Certificate is issued, placing the responsibility of maintaining the asset with the City through Infrastructure Services.

Adequate internal controls are in place for minimizing risks that could impact public accessibility.

We assessed internal controls related to the following risk events:

- Design and/or construction standards that fail to meet legitimate accessibility requirements;
- Construction that fails to meet design and/or construction standards.

Key controls implemented to manage these risk events include:

- **Design and Construction Standards:** The City's design and construction standards are developed based on industry standards, involving the input of a panel of engineers and the final approval of the General Manager of Infrastructure Services. A recently revised (i.e. 2008) "New Neighbourhood Design and Development Standards Manual" includes specific accessibility requirements for the design and construction of sidewalks in all new neighbourhoods.

The most recent neighbourhood design established for the University Heights and Evergreen area of Saskatoon includes both a bicycle and pedestrian plan. Per management, these plans are in line with the current design standards focused on accessibility concerns of the public.

The City's accessibility standards are provided to developers and contractors.

- **Requirement to follow applicable standards:** Contracts and servicing agreements relating to City sidewalk development and construction clearly disclose the requirement for the City's design and construction standards to be followed.
- **Accessibility Advisory Committee:** There is an advisory Committee established to develop a plan to address accessibility issues that exist within the City of Saskatoon's services, facilities and infrastructure. This committee consists of five members of Community as well as two City Councillors, the Community Services Manager and Facilities Branch Manager. Responsibilities of the Committee are very wide spread, although they focus on addressing accessibility issues and concerns through reporting to the Strategic Services Branch on a regular basis. The Strategic Services Branch relies, in part, on the Advisory Committee for timely and critical information in making decisions regarding sidewalk accessibility.
- **Accessibility considered during sidewalk replacement.** With regards to established neighbourhoods throughout the City, consideration is given to sidewalk accessibility requirements (e.g. ramps, grading, etc.) when replacing

New Sidewalk Design & Construction, cont'd

sidewalks (e.g. capital replacement or utility cuts).

- **Requirement for a Performance Guarantee Bond.** The City requires that all contractors hired by the City carry a performance bond. Those that do not provide proof of a performance bond through the tendering process will not be hired for sidewalk construction. If the bid of a contractor is not accepted the performance bond is returned to the contractor. The bond is used to ensure proper performance and execution of all contractual work.
- **Routine inspections of new sidewalk development.** Inspectors within the Construction & Design Branch are responsible for inspecting new sidewalk development throughout the critical stages of the construction process. This is the case with both City neighbourhood development and in privately developed areas. Established inspection guidelines and practices provide valuable documentation to support the quality of construction in each area.
- **Review and retention of inspection documentation:** With respect to both City and private sidewalk development, inspection documentation is prepared in order to support acceptance or rejection of the completed work. Once the documentation is complete it is sent, along with the daily progress reports, to the Project Engineer and retained on file at the Construction & Design Branch until being archived.

Adequate internal controls are in place for minimizing risks that could impact the cost of sidewalk construction.

We assessed internal controls related to the following risk events:

- Design and/or construction standards that exceed legitimate requirements;
- Contractor rates that exceed market rates;
- Damage to sidewalks during development of new subdivisions.

Key controls implemented to manage these risk events include:

- **Established Design Standards:** The City's design standards have been developed by the Strategic Services Branch to ensure consistency of sidewalk development throughout the City. Recent revisions were made to these standards based on the City's objectives, industry standards and other municipality best practices.
- **Established Construction Standards:** Sidewalk construction standards have been developed through the Construction & Design Branch. All contracts and servicing agreements include a clause referring to the City's

New Sidewalk Design & Construction, cont'd

construction standards which are available publicly through the City's website. Recent revisions to design standards were made through consultation with a local engineering firm. These revisions involved research of industry standards and surveys of other cities.

- **Requirement to follow applicable standards:** Contracts relating to City sidewalk development and construction clearly state the requirement for the City's design and construction standards to be followed. These details are also referenced through the tendering process each hired contractor must go through.
- **Sidewalk Development is tendered:** The construction of sidewalks within the City developed areas is contracted out through a regular tendering process. Per policy, the City is required to select the lowest evaluated bid and has the option of rejecting all bids. Material requirements and construction standards are stated very clearly within the tendering documentation to ensure all bidders understand what is required.
- **Project Managers are assigned to each City neighbourhood development:** Project managers within the Construction & Design Branch, are assigned to each neighbourhood being developed by the City, and are responsible for ensuring construction standards are followed and for managing concerns such as cost of construction.
- **Routine inspections of new sidewalk development.** Inspectors within the Construction & Design Branch are responsible for inspecting new sidewalk development throughout the critical stages of the construction process. This is the case with both City neighbourhood development and in privately developed areas. Established inspection guidelines and practices provide valuable documentation to support the quality of construction in each area.
- **Review and retention of inspection documentation:** With respect to both City and private sidewalk development, inspection documentation is prepared in order to support acceptance or rejection of the completed work. Once the documentation is complete it is sent, along with the daily progress reports, to the Project Engineer and retained on file at the Construction & Design Branch until being archived.
- **Construction Completion Certificate requirements:** In order for private developers to officially complete the construction of sidewalks and pass the responsibility of maintaining this asset over to the City, they require the issuance of a Construction Completion certificate. The two year sidewalk warranty period commences once this

New Sidewalk Design & Construction, cont'd

certificate has been issued and ends once a “final acceptance inspection” is complete and all deficiencies cleared. At that point in time a Final Acceptance Certificate is issued, placing the responsibility of maintaining the asset with the City through Infrastructure Services.

Adequate internal controls are in place for minimizing risks that could impact the quality of sidewalk construction.

We assessed internal controls related to the following risk events:

- Design and/or construction standards that fail to meet legitimate quality requirements;
- Construction that fails to meet design and/or construction standards.

Key controls implemented to manage these risk events include:

- **Current Design and Construction standards:** Sidewalk design and construction standards provide a consistent benchmark with respect to the development of sidewalks throughout the City. Recent revisions to design standards were made through consultation with a local engineering firm. These revisions involved research of industry standards and surveys of other cities.
- **Agreements with Contractors and Private Developers:** Contracts and servicing agreements relating to City sidewalk development and construction clearly state the requirement for the City’s design and construction standards to be followed. These details are also referenced through the tendering process each hired contractor must go through.
- **Soil testing:** Measurements are taken (e.g. soil sampling, grade, water table, etc.) throughout the design and construction phases to determine whether the implemented construction standards meet the necessary requirements for each project. A variety of locations throughout the City have different soil, creating the need for a different approach when establishing the proper base to support each sidewalk. Testing allows the project manager determine whether current standards will be appropriate.
- **Project Managers:** The City appoints project managers to oversee/monitor development of sidewalks on City-owned land development and privately-owned land development. The project managers monitor compliance with quality standards.
- **Submission of data:** Project managers and inspectors ensure measurable data is submitted, based on specific “engineering metrics”, at very specific points in the design and construction process. These requirements allow the

New Sidewalk Design & Construction, cont'd

Construction & Design Branch to ensure the proper design and construction standards are being met.

- **City Inspectors are assigned to each project.** Inspections are completed with respect to both City and private sidewalk development on a regular basis. The Construction & Design Branch has designated inspectors assigned to analyze sidewalk development throughout the critical stages of development, reducing the risk that construction standards will not be met.

Recommendations

That information be received.

Chapter 3 – Sidewalk Repair & Maintenance

Introduction

The Public Works Branch assumes responsibility for ongoing maintenance and repair of all sidewalks constructed on City-owned land, immediately following construction. After a period of approximately two years subsequent to construction, responsibility for the repair and maintenance of sidewalks constructed by private developers is transferred to the Public Works Branch. The intention is to transfer all sidewalk infrastructure in like new condition in order to minimize the impact of additional sidewalk inventory on the regular maintenance and inspection process budget.

The City's Strategic Services Branch has been assigned responsibility for managing the life cycle of City sidewalks (e.g. costs, design, etc.). As a part of this role a rating system for tracking sidewalk inventory and completing a condition assessment exists. The intention of this rating system is to maximize the useful life of all City sidewalks through managing the life cycle of that infrastructure (e.g. setting priorities for repair & replacement, obtaining the proper funding, etc.).

Additional internal controls should be considered for minimizing risks that could impact public safety and public liability.

We assessed internal controls related to the following risk events:

- Public access to the work area;
- Poor maintenance and repair practices;
- Inspection frequency, maintenance and repair service level standards that fail to meet legitimate requirements;
- Failing to meet inspection frequency, maintenance, and repair service level standards;
- Inappropriate inspection rating standard;
- Not following inspection rating standard or errors in applying rating standards;
- Delays in identifying sidewalks in need of repair;
- Delays in performing maintenance and repair work;

Key controls implemented to manage these risk events include:

- **Safe Work Practices:** Safe work practices have been established with regards to all equipment used within the sidewalk maintenance program in order to ensure safety of both staff and the public.

Sidewalk Repair & Maintenance, cont'd

- **Inspections:** Public Works Branch conducts inspections of sidewalks based on the resources available and required workload. The intention is to inspect high priority areas (e.g. business districts, schools, senior's complexes, etc.) on an annual basis while the rest of the City receives an inspection through a regular rotation (e.g. 7-8 years). Inspections result in the assignment of repairs and maintenance (e.g. grinding, asphalt overlay, etc.). Where sidewalks are deemed to be a risk to the public, work crews are sent out immediately for repairs.
- **Work Site Barriers:** Standard practice involves blocking off public access to work areas as determined necessary.
 - **Grinding:** work is temporary and very little is done to block pedestrians from the area;
 - **Magcrete:** barricades are used to keep the public out of the immediate work area. Barricades are removed once work is complete.
 - **Replacement:** gates and barricades are setup while work is being completed.
- **Supervision:** The Supervisor of each crew is responsible for ensuring the proper precautions (i.e. safety measures) are taken for each project and for ensuring standard work procedures are followed. Poor work practices can result in poor maintenance & repair, therefore placing the public at risk of injury if the sidewalk should fail.
- **Standard Work Procedures:** Standard work procedures have been established for some activities relating to sidewalk repair & maintenance. Public Works intends to establish standard work procedures for all sidewalk activities.
- **Networking:** Discussions with other cities help to determine which repair methods, products and techniques work the best (e.g. magcrete, grinding, etc).
- **Training:** Staff are provided training on the use and safety protocol of each piece of equipment and on standard work procedures.
- **Insurance:** The City carries relevant insurance to cover potential claims resulting from sidewalk hazards. The City and its employees are also protected/covered under the Workers Compensation Act and regulations.

In addition to the safety measures noted above, proper construction of sidewalks is critical to providing safe City sidewalks. Internal controls noted in Chapter 2 (e.g. construction

Sidewalk Repair & Maintenance, cont'd

standards, construction inspections, etc.) are important in achieving this objective.

Additional controls in the next section, once fully implemented, will also contribute to reducing risks related to worker/public safety and public liability – in particular, Complaint System and Sidewalk Rating System.

Additional internal controls should be considered for minimizing risks that could impact maintenance and repair costs.

We assessed internal controls related to the following risk events:

- Maintenance and repair service level standards that exceed legitimate requirements;
- Repair and/or maintenance work that exceeds service level standards;
- Inspection frequency standard that fails to meet legitimate requirements;
- Failure to meet inspection frequency standards;
- Inappropriate inspection rating standard;
- Not following inspection rating standard or errors in applying rating standards;
- Delays in identifying sidewalks in need of repair;
- Delays in performing maintenance and repair work;
- Damages to sidewalks.

Key controls implemented to manage these risk events include:

- **Crew Supervisors:** As part of their duties, Crew Supervisors are responsible for ensuring maintenance and repair work is carried out properly.
- **Maintenance Management System:** Public Works has a Maintenance Management (MMS) system which has the capability of providing detailed information with respect to costs incurred for specific activities or projects. Reports are generated by Public Works comparing actual to budgeted maintenance and repair costs.
- **Inspections:** Public Works Branch conducts inspections of sidewalks based on the resources available and required workload. The intention is to inspect high priority areas (e.g. business districts, schools, senior's complexes, etc.) on an annual basis while the rest of the City receives an inspection through a regular rotation (e.g. 7-8 years). Inspections result in the assignment of repairs and maintenance (e.g. grinding,

Sidewalk Repair & Maintenance, cont'd

asphalt overlay, etc.)

- **Inspection Supervision:** Experienced supervisors are in charge of the sidewalk inspection program. They are responsible for determining whether R&M is required.
- **Complaint System:** Public Works Branch maintains a complaint system, Work Request Registry (WRR), which allows the public and city staff to report issues or concerns with regards to City sidewalks. Complaints are followed up with inspections which drive maintenance and repairs as required.
- **Sidewalk Rating System:** Strategic Services Branch has implemented a sidewalk rating system with the intention of creating and maintaining an inventory of the entire network of City sidewalks. Included in this initiative is the process of completing a condition assessment on all sidewalks, establishing relevant service levels and completing repair, maintenance and replacement of sidewalks based on that information. Condition assessment inspections are intended to assist in identifying sidewalks in need of repair. Training with respect to rating sidewalks and a developed manual help to ensure sidewalk maintenance is documented properly.
- **Recovery for Damages:** The City seeks reimbursement for public damage to City sidewalks were accountability for the damage can be assessed.

Per discussions with the Strategic Services Branch, the matter of establishing sidewalk maintenance service levels will be addressed in the fall of 2009. Once established, the service levels will be implemented within the sidewalk maintenance program.

The rating system established by the Strategic Services Branch is not currently linked to the Public Works Branch sidewalk repair and maintenance program and, therefore, does not currently drive repair & maintenance work. It is used as a tool to determine the need for sidewalk replacement or rehabilitation. However, the intent is to also use it to identify repair and maintenance requirements. Per management, approximately 85% of the City sidewalks have been inventoried, while only 20% +/- have been rated.

Both the Strategic Services Branch and the Public Works Branch have sidewalk inspection activities. There may be economies of scale by combining these activities into one Branch.

Poor quality design and construction can also impact ongoing

Sidewalk Repair & Maintenance, cont'd

sidewalk maintenance and repair costs. Internal controls for minimizing risks related to the construction of sidewalks are discussed in Chapter 2.

Additional internal controls should be considered for minimizing risks that could impact the quality of sidewalk repair and maintenance.

We assessed internal controls related to the following risk events:

- Maintenance service level quality standards that fail to meet legitimate requirements;
- Not meeting maintenance and repair service level quality standards.

Key controls implemented to manage these risk events include:

- **Qualified Workers:** Staff are hired with experience and/or provided appropriate training.
- **Standard Work Practices and Operating Procedures:** A combination of safe work practices and standard operating procedures provide sidewalk crews clear instructions on how to properly maintain and repair sidewalks.
- **Supervision of Staff:** Supervisors are relied upon to ensure that sidewalk repairs are completed properly and in a timely manner. There is a Supervisor responsible for all work completed onsite.

Strategic Services is in the process of developing service level standards for sidewalk repair and maintenance.

Both Public Works and Strategic Services have sidewalk inspectors. There may be opportunities to achieve economies of scale by combining the two inspection units and inspection programs.

Recommendations

1. That Strategic Services complete the condition assessment of all City sidewalks.

Sidewalk Repair & Maintenance, cont'd

2. That Strategic Services complete the development of service level standards for sidewalk repair and maintenance.
3. That the development of sidewalk maintenance and repair service levels standards involve input from each of the relevant branches within Infrastructure Services (i.e. Strategic Services, Public Works & Construction & Design).
4. That once service level standards have been developed, Infrastructure Services implement a computer-based system to generate work orders at the appropriate time and to monitor compliance with the standards.
5. That Public Works complete the development of all Standard Working Procedures.
6. That management examine the possibility of combining the sidewalk inspection activities in Public Works Branch and Strategic Services Branch, in the interest of achieving economies of scale.

Management Response

1. *Agree*
2. *Agree*
3. *Agree*
4. *Agree*
5. *Agree*
6. *Agree*

Chapter 4 – Status of Prior Audit Recommendations

The last audit of the Sidewalks Maintenance Program was completed in March 2000 and included 15 audit recommendations. Per the subsequent follow-up audit in October 2002, 8 of the 15 audit recommendations were either outstanding or partially implemented.

Although not included as an objective in the Terms of Reference for the current audit, we undertook to follow up on the status of outstanding and in-progress audit recommendations from the previous Follow-up Audit Report.

RECOMMENDATIONS	CURRENT STATUS (Per 2009 Audit)
<p>3. That management report annually to senior management on the amount of sidewalk infrastructure that does not meet condition standards and the associated cost of rehabilitation, restoration, or replacement.</p>	<p>Outstanding – The previous follow-up audit included a revised target date of February 28, 2003. The assessment of sidewalk condition is approximately 20% complete. Completion of this assessment is necessary before management can report on the overall cost of rehabilitation, restoration, and replacement. Strategic Services intends on providing City Council a report establishing sidewalk service levels in early 2010. Once services levels are established, sidewalk condition standard reports will be compiled.</p>
<p>4. That management work towards implementing a capitalization model for the sidewalk infrastructure.</p>	<p>In Progress – The previous follow-up audit included an implementation target date of July 2007. Implementation of this recommendation requires a full inventory of all of the City sidewalks and related condition assessments. Approximately 85% of the sidewalks have been inventoried and 20% have been rated. With regards to meeting the Public Sector Accounting Board (PSAB) requirements to capitalize and amortize all significant tangible assets, Strategic Services will have all sidewalk inventory documented and inventoried by March 31, 2010.</p>
<p>9. That management implement controls to ensure the accuracy and completeness of sidewalk maintenance data in the maintenance management system.</p>	<p>Implemented – MMS data is available through Public Works, breaking down work completed into specific activities such as concrete grinding, replacement, magerete, etc. Information is pulled from the MMS system regularly to produce reports for supervisors and management to review. An annual “close out” report is generated, summarizing the work accomplished for the year and comparing actual to planned expenditures for each activity. One Supervisor of Roadways is delegated responsibility for entering all relevant information into the MMS system. That Supervisor reviews his/her own data entry to ensure information is complete and accurate.</p>
<p>11. That response times for sidewalk complaint resolution (from initial response to completion of repair) be developed and monitored.</p>	<p>Implemented – The Work Request Registry (WRR) manages all complaints, tracking when they were issued, what the results were and when they are closed out.</p>

Status of Prior Audit Recommendations, cont'd

RECOMMENDATIONS	CURRENT STATUS (Per 2009 Audit)
<p>12. That the annual volume and types of sidewalk complaints be tracked and monitored.</p>	<p>Implemented – The Work Request Registry (WRR) manages all complaints, tracking when they were issued, what the results were and when they are closed out. The system is capable of tracking and monitoring the annual volume of sidewalk complaints by descriptor. However, the descriptors will have to be updated once condition assessments have been completed on all sidewalks (i.e. December 2017).</p>
<p>13. That management develop response time standards for completion of sidewalk replacement projects, and implement procedures to monitor the time taken to complete the total sidewalk replacement from concrete breakout to asphalt patching.</p>	<p>Implemented – The previous follow-up audit included a revised target date of October 31, 2002. No formal response time standards have been established although per discussions with Public Works management and supervisors, that sidewalk replacement projects typically are slated as a one week project. Sidewalk replacement generally involves excavation, pouring of the new sidewalk, forming, patching and landscaping.</p>
<p>14. That management investigate sidewalk construction standards in other cities, and utilize this information in their review of Saskatoon’s sidewalk construction specifications.</p>	<p>Implemented – Sidewalk Design & Construction standards have been implemented and revised since the prior audit and follow-up took place.</p>
<p>15. That a system be implemented to monitor sidewalk conditions over the long term to determine the appropriateness of current construction standards.</p>	<p>In Progress – The previous follow-up audit included a revised target date of December 31, 2007. Strategic Services has inventoried approximately 85% of the City’s sidewalks. Rating standards have been developed and have been applied to 20% of the sidewalks. Strategic Services plans to have procedures in place to evaluate sidewalk construction standards and repair strategies by the end of 2010.</p>

Chapter 5 – Implementation Plan

	Recommendations	Management Response	Implementation Date
1.	That Strategic Services complete the condition assessment of all City sidewalks.	<i>Agree</i>	December 2017
2.	That Strategic Services complete the development of service level standards for sidewalk repair and maintenance.	<i>Agree</i>	June 2011
3.	That the development of sidewalk maintenance and repair service levels standards involve input from each of the relevant branches within Infrastructure Services (i.e. Strategic Services, Public Works & Construction & Design).	<i>Agree</i>	June 2011
4.	That once service level standards have been developed, Infrastructure Services implement a computer-based system to generate work orders at the appropriate time and to monitor compliance with the standards.	<i>Agree</i>	January 2012
5.	That Public Works complete the development of all Standard Working Procedures.	<i>Agree</i>	May 2010
6.	That management examine the possibility of combining the sidewalk inspection activities in Public Works Branch and Strategic Services Branch, in the interest of achieving economies of scale.	<i>Agree</i>	October 2010
7.	As per prior audit recommendation #3, noted as “outstanding”, that management report annually to senior management on the amount of sidewalk infrastructure that does not meet condition standards and the associated cost of rehabilitation, restoration, or replacement.	<i>Agree</i>	March 2010
8.	As per prior audit recommendation #4, noted as “in progress”, that management work towards implementing a capitalization model for the sidewalk infrastructure	<i>Agree</i>	March 2010

Implementation Plan, cont'd

	Recommendations	Management Response	Implementation Date
9.	As per prior audit recommendation #15, noted as “in progress”, that a system be implemented to monitor sidewalk conditions over the long term to determine the appropriateness of current construction standards.	<i>Agree</i>	December 2010