

**Review of Infrastructure Stimulus Funding –
Opportunities Exist to Improve
Controls over Construction Projects**

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EXECUTIVE SUMMARY

Timely, targeted and temporary stimulus to the Canadian economy

During 2009, the federal and provincial governments committed funds to provide a timely, targeted and temporary stimulus to the Canadian economy with the intent to protect Canadians during the global recession.

In September 2009, City Council approved project costs for the Infrastructure Stimulus Fund (ISF) and Recreational Infrastructure Canada Program (RInC-REC) programs totalling over \$675 million.

Audit included in the 2010 Audit Work Plan

The Auditor General's 2010 Audit Work Plan included a review of controls over the City's economic stimulus program and projects funded through inter-governmental agreements with the federal and provincial governments.

Objective of the review

The objective of this review was to assess the effectiveness of practices implemented to ensure that adequate oversight, internal control, performance measurement and reporting systems are in place to support the management and administration of the City's stimulus program.

Key areas for improvement

While processes and controls were in place relating to the overall management of the stimulus program as well as the quality assurance and financial management of construction, our review identified the following areas where processes could be further improved and controls strengthened when engaging in intergovernmental partnerships and agreements.

Managing the Stimulus Funding Program

- Enhance documentation of exceptions and amendments of inter-governmental contribution agreements
- Consider additional measures of program performance and reporting of outcomes
- Implement prioritization framework for capital projects

Maintaining Adequate Quality Assurance and Financial Control

- Strengthen monitoring of decentralized divisional procurement
- Improve quality assurance practices
- Strengthen monitoring of extra work

Our report includes 11 recommendations related to opportunities to strengthen internal controls over management of inter-governmental agreements, and award and management of construction contracts.

BACKGROUND

Infrastructure Stimulus Fund (ISF)

The 2009 Federal Budget "Canada's Economic Action Plan" established a \$4 billion Infrastructure Stimulus Fund (ISF) to provide funding towards the rehabilitation or construction of provincial, territorial, municipal and community infrastructure projects. The \$4 billion was allocated on a per capita basis for projects in each Canadian province and territory.

The investment was funded through a one-third federal, two-thirds City commitment to create local jobs and improve infrastructure. Eligible project categories for local governments included water and wastewater, public transit, roads and bridges, solid waste management, disaster mitigation, brownfield redevelopment, ports and airports, municipal buildings and recreation and culture.

Recreational Infrastructure Canada Program (RInC-REC)

Canada's Economic Action Plan also provided funding of \$500 million for the Recreational Infrastructure Canada Program in Ontario and the Ontario Recreation (RInC-REC) programs that were matched in the 2009 Provincial Budget "Confronting the Challenge: Building Our Economic Future". These programs provided \$195 million for recreation infrastructure projects.

The RInC-REC investment is funded through a one-third federal, one-third provincial and one-third City commitment towards recreation infrastructure projects. Eligible projects under this program included the rehabilitation or new construction of arenas, gymnasiums, swimming pools, sports fields, parks, fitness trails and bike paths, tennis, basketball, volleyball or other sport-specific courts, or multi-purpose facilities with physical recreation activity as their primary purpose.

Eligibility criteria

To be eligible for ISF or RInC-REC funding, projects were required to meet the following criteria:

- Project incrementality
- Project readiness
- Project merit
- Financial leverage
- Endorsement

A detailed explanation of the eligibility criteria is included as Exhibit 1.

Original funding submission for streetcars

The original ISF application submitted by the City at the end of April 2009 requested that Toronto's entire allotment of stimulus funding be dedicated to the purchase of a fleet of streetcars scheduled for delivery between 2011 and 2018. After the federal government rejected the submission because it did not meet the eligibility criteria, the City was allowed to apply for stimulus funding again, in July 2009, even though the application deadline had passed.

Expedited application process took place during the 2009 strike

The City had approximately three weeks to select and submit applications for projects to receive stimulus funding. The selection and submission process took place during the 2009 labour disruption.

***Approved budget
for stimulus
projects***

City Council on September 30, 2009 approved project costs for the ISF and RInC-REC programs totalling \$676 million. Since that time, \$28 million in projects have been cancelled. Projects were cancelled because staff identified through ongoing monitoring of the status of projects that they could not be completed by the prescribed completion date or conflicted with work in the immediate vicinity of the project.

A further \$3 million in projects has been removed due to duplication with RInC-REC funded projects. During 2010, the federal government and City Council approved the addition of projects totalling \$11 million to the overall City ISF program.

**Table 1 – Approved ISF and RInC-REC Funding
(in millions)**

Program	Total Eligible Cost	Cost Sharing		
		Federal	Provincial	City / Other
ISF	575.1	192.8	2.3	380.0
RInC-REC	80.3	20.7	20.6	39.0
Total	655.4	213.5	22.9	419.0

Additionally, the City, on behalf of the Toronto Community Housing Corporation (TCHC), also received approval towards \$30 million in infrastructure stimulus projects. These projects were fully funded by the federal and provincial governments, TCHC, and other third party funding arranged by TCHC, with no net cost to the City.

***Spending and
projections***

Spending by the City at the end of the first year of the two-year program was significantly lower than findings of the Auditor General of Ontario¹ in his 2010 Annual Report which indicated about 16%, of the total \$3.1 billion in stimulus funds committed by the Federal and Ontario governments, had actually been spent.

The comparably lower spending rate in Year 1 can be attributed to the late approval of stimulus projects, where it was not possible for the City to take advantage of the 2009 “good weather” construction season for most projects. Consequently, the bulk of work was left to be completed in the 2010 construction season.

¹ http://www.auditor.on.ca/en/reports_en/en10/307en10.pdf

Table 2 – Total Stimulus Project Spending on Stimulus Projects to December 31, 2010 (in millions)

Program	Total Eligible Cost	Year 1 Spending <i>Apr. 1, 2009 – Mar. 31, 2010</i>		Year 2 Spending <i>Apr. 1, 2010 – Dec. 31, 2010</i>	
	\$	\$	%	\$	%
ISF	575.1	23.4	4%	232.0	40%
RInC-REC	80.3	2.0	3%	35.1	44%
Total	655.4	25.4	4%	267.1	41%

Despite the late start for many construction projects, staff anticipate the majority of projects will be substantially complete or will incur the majority of project costs prior to the March 31, 2011 or October 31, 2011 deadlines.

Table 3 – Project Completion Projections and Funding Recovery for Nine-month Period Ended September 30, 2010

Program	Per cent of projects that will be complete by March 31, 2011	Per cent of eligible program funding that will be received
ISF	85%	79%
RInC-REC	99%	85%

Source: from the Capital Variance Report to Council

Deadline extension for stimulus projects

On December 2, 2010, the Government of Canada announced a one-time extension to the funding deadline for infrastructure projects under stimulus programs. The deadline was extended from March 31, 2011 to October 31, 2011.

Table 4 – Deadline Extensions Granted for Project Completion

Program	Projects granted an extension		Value of projects <i>(in millions)</i>	
	#	%	\$	%
ISF	92	18%	361.1	64%
RInC-REC	25	20%	53.4	67%

AUDIT OBJECTIVES, SCOPE AND METHODOLOGY

Audit Work Plan

The Auditor General's 2010 Audit Work Plan included a review of controls over the City's economic stimulus program and projects funded through inter-governmental agreements with the federal and provincial governments.

Objective of the review

The overall objective of this review was to assess the effectiveness of practices implemented to ensure that adequate oversight, internal control, performance measurement and reporting systems are in place to support the management of the City's stimulus program.

The specific objectives of the audit were to determine whether:

- Efficient and effective administrative processes were implemented to ensure stimulus projects were selected in a timely and reasonable manner
- ISF and RInC-REC projects were effectively monitored to avoid unnecessary delays
- Program goals were achieved and the public benefits of the stimulus program were reported in a clear, accurate, transparent and timely manner
- Adequate quality assurance and financial controls were implemented to mitigate risks within accelerated processes and to ensure stimulus funds were used for authorized purposes.

Period under review

The primary focus of this review was on water, transportation, and parks, forestry and recreation programs which comprise over 50% of the total value of stimulus projects approved.

Exhibit 2 summarizes approved stimulus funded project costs by City program, and agency, board and commission.

Our review covered the period July 1, 2009 to December 31, 2010.

Audit methodology

Audit methodology included the following:

- review of reports issued by the Auditor General of Canada, the Auditor General of Ontario, and the Federal Parliamentary Budget Officer
- review of staff reports to City Council and committees
- review of the ISF and RInC-REC funding guidelines and federal–recipient and provincial-recipient contribution agreements
- review of City policies and procedures
- interviews with staff in various City divisions
- examination of documents and records for a sample of 37 ISF projects and 12 RInC-REC projects
- other procedures deemed necessary.

Compliance with generally accepted government auditing standards

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

AUDIT RESULTS

A. MANAGING THE STIMULUS FUNDING PROGRAM

A.1 Process to Amend Intergovernmental Contribution Agreements

Accountability framework

The approval of ISF projects was announced on September 11, 2009 and a formal contribution agreement was signed on September 16, 2009. Similarly, the approval of RInC-REC projects was announced on July 7, 2009 followed by the formal contribution agreement being signed on January 27, 2010.

These contribution agreements are an important part of the accountability framework for City stimulus funding. Staff advised that language found in the final agreements is the prerogative of the federal or provincial governments.

Language found in the final agreements is the prerogative of the federal or provincial governments

It may be typical practice that amendments, exceptions, and interpretations of inter-governmental agreements be dealt with informally through discussion with federal and provincial staff and Ministers. However, to protect City interests, these discussions should be followed by written confirmation from the stakeholders and amendments to contribution agreements.

Interpretations or exceptions have been made to the terms and conditions specified in the contribution agreements which have not been formally documented in amendments and authorized by the appropriate Minister, in writing. For example,

Exemption approved for \$1.8 million in projects commenced prior to project approval

- According to the ISF Contribution Agreement, ineligible costs associated with a project will not be reimbursed under the Infrastructure Stimulus Fund. Ineligible costs include costs incurred prior to the project approval date, as indicated in writing to the applicant by the federal and provincial minister.

Construction on several ISF projects, with total cost just over \$1.8 million, commenced and were completed prior to ISF project approval.

Staff advised that a verbal agreement was obtained allowing costs for these projects to be claimed and furthermore that Infrastructure Canada has a record of this decision. Ministerial approval has subsequently been confirmed.

Province rejected all suggested amendments to the Contribution Agreement

The RInC-REC Contribution Agreement specifies more stringent bonding requirements than those currently mandated by the City. In particular, bonding is required for all construction projects greater than \$150,000. Whereas, the City only requires bonding for projects greater than \$250,000. Prior to receiving the Agreement, staff proceeded in accordance with normal City practice.

For transparency purposes, the inconsistency was reported and amendments to this standard condition of the contribution agreement was sought. However, according to staff, Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) rejected all agreement amendments suggested by the City, explaining that the agreements were standard across Ontario.

City RInC-REC funded projects with construction contracts valued between these two thresholds could be considered not compliant with the standard RInC-REC Contribution Agreement.

- According to the ISF Contribution Agreement, project cost overruns in excess of amounts approved are ineligible to be claimed against ISF funding.

The City was allowed to bundle similar projects for the purposes of offsetting projects with actual costs exceeding the approved budget with those where actual costs were less than budget. A federal Infrastructure Canada compliance audit identified and recommended the City obtain explicit agreement for the bundling of projects.

Staff advised that an amendment to the ISF funding agreement was not required by the federal government and that the assignment of an ISF project number for the bundling of projects evidences acceptance of the change.

Without explicit written approval of contribution agreement amendments the City risks a Ministry claim of non-conformance with ISF agreement terms and conditions.

Recommendation:

- 1. City Council request the City Manager, in consultation with the City Solicitor, ensure**
 - a) exceptions, amendments, or interpretations of program guidelines and grant and contribution agreements are clearly documented**
 - b) City practices not consistent with agreement terms and conditions are approved by Council as required, and reported to the appropriate federal or provincial Minister in order to ensure transparency.**

A.2 Measuring Program Performance and Outcomes

Regular reporting of current claim and progress information

The City regularly submits reports on current claim and progress information to the federal and provincial governments as required by the contribution agreements.

City relies on the federal and provincial governments to specify performance measures

As the recipient of significant inter-governmental funding, the City relies on the federal and provincial governments to specify required performance measures to report. Accordingly, the City would then collect supporting data for these measures for the duration of the program.

Performance measures and a methodology for measurement were not well defined in the stimulus funding program guidelines and contribution agreement schedules. For example,

ISF Guidelines did not contain any formal requirements for reporting job creation

- The ISF Contribution Agreement and ISF Guidelines do not contain any formal requirements for reporting outcomes or performance metrics related to the economic objectives of the stimulus program, and in particular, job creation.

RInC-REC guidelines for calculating job creation finalized mid-way through the program

- The RInC-REC Contribution Agreement specifies that information on job creation be reported to the Ministry for each project on a quarterly basis. However the agreement did not provide a methodology to consistently calculate job creation statistics. Mid-way through the stimulus funding period, the Province formalized and changed the process for determining the number of jobs created.

City regularly reports publicly on the status of the ISF and RInC-REC programs

The City regularly reports publicly on the status of the ISF and RInC-REC programs through the Budget Committee Capital Variance Reporting process. Reports include information on the approved funding and actual expenditures related to stimulus projects.

From a public-reporting perspective, the City has not established any additional measurable objectives and criteria for evaluating the effect of the funding on the City's overall capital program. Given the City's significant capital investment of over \$415 million towards the stimulus program, it is reasonable to expect the City itself establish and report on measurable objectives beyond how well the City maximized the available federal and provincial funding.

Additional performance measures that could be reported by the City to demonstrate the overall effect of the accelerated capital investment may include the qualitative and quantitative impact and improvements to:

- State of good repair backlog as well as enhancement and growth related projects
- Current and future debt levels
- Service delivery.

Recommendation:

- 2. City Council request the City Manager report publicly on the stimulus overall program effects on improving City infrastructure assets and capital program.**

A.3. Prioritization of Projects Receiving Stimulus Funding

Each program within the City and its Agencies, Boards, Commissions and Corporations (ABCCs) as summarized in Exhibit 2 used their own criteria for identifying and prioritizing capital projects to be put forward for stimulus funding.

City-Wide Framework Needed to Prioritize Capital Projects

Funds not necessarily directed to greatest need

Typically, an envelope of capital funding is allocated to program areas taking into account Council priorities, broader corporate needs, and whether budgets are rate or tax funded. Program areas are then accountable for prioritizing projects within their allocated capital funding envelopes.

Because there is no formal City-wide ranking or prioritization framework at the project level, it is possible that funds will be directed towards projects where there is not the greatest need. For example,

- Transportation Services received a stimulus funding envelope which enabled the paving and rehabilitation of City Transportation facilities. It is unclear whether these projects would be of comparable or higher priority to state of good repair projects in other program areas.
- Even within a given funding envelope, certain projects were not in the existing 10-year capital plan or were significantly advanced ahead of other necessary state of good repair projects which were scheduled for earlier completion in the capital plan.

Given the inadequate funding available to address both the growing state of good repair backlog and the demand for enhancement and growth-related projects, it is important that a City-wide prioritization be established to ensure resources are directed towards high priority projects.

***Issue identified
previously in 2005
and again in 2009***

This issue was previously identified in our 2005 review of Facilities and Real Estate maintenance and again in our 2009 review of the Parks Forestry and Recreation capital program. In response, the Financial Planning Division developed, as part of the 2011 Capital Budget Submission Guidelines and Instructions, a ranking tool to assist program areas in prioritizing capital projects to ensure that the best capital expenditure alternatives are selected and that these capital investment decisions are integrated with City strategic plans.

While standardized ranking tools have been developed and are available for use by City Programs, it has not been mandated that these tools be used. Consequently, this process has not yet been implemented in practice by all City divisions and ABCCs.

A lack of a transparent prioritization process to support decisions made in putting forth some of these projects heightens the risk that the City will be unable to demonstrate that the selection process was open and fair, and that political considerations did not come into play.

Scale of Capital Projects

***Stimulus projects
ranged from
\$15,000 to \$40
million in value***

Projects submitted for ISF funding ranged anywhere from \$15,000 to \$40,000,000 in value and projects submitted for RInC-REC funding ranged anywhere from \$39,600 to \$15,114,000.

Exhibit 3 presents the proportionate distribution of the values of the approximately 520 projects approved for ISF funding and 120 projects approved for RInC-REC funding.

- 73 per cent of projects are valued at less than \$500,000 yet comprise less than 10 per cent of the City's overall ISF program. While 2.5 per cent of the projects comprise over 40 per cent of overall ISF spending.
- 77 per cent of projects are valued at less than \$500,000 yet comprise less than 25 per cent of the City's overall RInC-REC program. While 7 per cent of the projects comprise over 50 per cent of overall spending related to recreational infrastructure.

City allowed to submit bundled claims for 400 projects

Subsequent to initial approval of ISF projects, the City was allowed to group approximately 400 like Transportation and Water projects with values ranging from \$15,000 to \$9 million into eight more manageable bundles with total value between \$2 million and \$40 million. For example, the City was allowed to submit claims against a single bundle for Lead Water Service Replacement rather than for example 194 individual projects. However, the City was still required to submit project progress for each project within the bundles.

Efficiencies could have been gained by proposing larger projects at the same construction site

Projects proposed did not always contemplate efficiencies which could be gained by completing larger projects comprised of different work at the same construction site at the same time.

- For example, one project that cost a total of \$3.14 million included only \$780,000 in ISF approved water service replacement work. The more expensive water main replacement work was not part of the ISF project application. In this case, only portions of the construction work were funded through stimulus, even though the entire project may have been eligible had an application for the larger scope of work been submitted.
- In another example, after the approval of a stimulus project, a consultant was retained to undertake the detailed design and engineer's estimate for the project. Based on design work completed, the work was expanded from a small \$104,000 road resurfacing project which received \$34,667 in ISF funding to an almost \$800,000 road reconstruction project which received no additional funding.

The submission of a fewer number of larger scale projects rather than a large number of smaller value projects could potentially have reduced the unfunded overhead cost and staff time related to administration of the program, including application process, claims and reporting requirements, and financial audits.

Recommendation:

- 3. City Council request the City Manager ensure the City-wide prioritization framework for capital projects is complied with as part of the annual and long-term financial planning process. The project ranking be considered as part of the City's overall capital program funding allocation.**

B. MAINTAINING ADEQUATE QUALITY ASSURANCE AND FINANCIAL CONTROL

Controls expected to be operating effectively despite abbreviated timing

The majority of stimulus projects were required to be completed by March 31, 2011, with some projects receiving a seven-month extension to October 31, 2011. The short time frame for project completion called for balance between the need for appropriate planning, due diligence, and the need for expedient execution.

At the outset of our review, staff indicated that existing processes and controls continued to operate regardless of the abbreviated timelines. Accordingly, our sample review of 49 stimulus projects, of varying nature, size, and complexity, focused on whether existing quality and financial controls continued to operate effectively.

B.1 Enhance Monitoring of Decentralized Divisional Procurement

Rosters

Rosters used to efficiently award work under \$500,000

City procurement procedures allow professional, consulting, and other (e.g. skilled trades or materials and labour) services with a total purchase price per assignment not greater than \$500,000 to be awarded to suppliers through an established roster. Through the issuance of a competitive call, vendors are evaluated and a subset of suppliers selected for the roster.

During the audit, construction work on 18 per cent of the projects reviewed was awarded through the use of established vendor lists.

Improved monitoring and oversight over decentralized purchasing needed

The primary benefit of using a roster list is that they generally reduce the time and effort for tendering and award of numerous similar assignments. However, the use of rosters can pose a risk to open, fair, and transparent procurement because responsibility for significant purchasing activities are decentralized to divisional staff who may not have sufficient experience and knowledge in acceptable procurement practices. Accordingly, the Purchasing and Materials Management Division (PMMD) plays a crucial role in providing effective monitoring and oversight of roster use.

Our review of the documentation retained related to these rosters indicates that although PMMD staff reviewed each award recommendation submitted by Divisions, monitoring is not being performed with sufficient frequency as required by PMMD procedures. In particular, no quarterly audits by PMMD buyers of roster files were performed to ensure appropriate processes and procedures were being followed and incidents of non-compliance are identified and reported.

Task Order Contracts

Purchasing procedures need updating to address task order contracting

Purchasing procedures have not been updated to include the engagement of multiple contractors through a single tender invitation, where the value of the work awarded is significant. Existing City procurement procedures only deal with the award of work through an established roster where the total purchase price per work assignment does not exceed \$500,000.

Process enabled staff to expedite completion of projects

The audit included a review of the awarding of work (referred to as “task orders”) to multiple contractors through a single tender invitation. In particular, two separate tender calls, were issued which allowed the City to select up to six of the lowest qualified bidders for each tender to perform water main, sanitary and storm sewer work over a 24-month term. Individual task order work assignments ranged up to \$8.5 million in value and the anticipated cumulative expenditures of work awarded through these tenders was \$32.3 million and \$50.4 million. Staff report that this process enabled them to reduce their timelines by approximately twelve months and significantly decrease administrative activities.

Up to \$20 million in work can be awarded to each individual contractor

Each contractor selected by the City was required to execute a “general services contract.” Task orders could then be issued by the City to the contractors for all or part of any work listed in the tender call. The value of work to be awarded under each general services contract would be determined by the number of task orders with a maximum cumulative amount per contractor not to exceed \$20 million. The award of the general services contract and each subsequent task order award were approved by the Bid Committee.

Basis for assignment of task orders not clearly documented in purchasing files

The rationale for assignment of task orders were found to be compliant with criteria outlined in tender documents but were not clearly documented in individual files. Criteria outlined in the call documents for assignment of task orders subsequent to initial award included considerations such as contractor availability, past performance and ability to meet timelines.

The criteria are especially important when addressing time sensitive projects, however they could be enhanced by adding cost considerations, including unit priced items and non-unit priced items. We found some staff did consider unit pricing when assigning task orders but did not document the impact of cost in awarding the work.

Policies and procedures for multiple award procurement needed

In order to strike a balance between achieving the benefits of competition and retaining contractors satisfying performance requirements, policies and procedures for multiple award procurement should include:

- In addition to such considerations as vendor availability, performance and ability to meet project timelines, price and value evaluations as additional criteria for assigning Task Orders
- Retention of documentation in procurement files demonstrating the use of defined criteria and due consideration affording each qualified contractor a fair opportunity to make an offer for the orders and have that offer considered fairly
- Caution regarding including additional activities and materials that have the potential, actual or perceived, to be outside the original scope or intended use of these arrangements.

Recommendations:

- 4. City Council request the Director, Purchasing and Materials Management Division, direct staff to comply with existing policies and procedures requiring periodic audits of the use of rosters.**
- 5. City Council request the Director, Purchasing and Material Management Division, modify existing purchasing procedures to encompass multiple award purchases. Such procedures to include:**
 - a) The evaluation of cost as an additional criteria for the assignment of all task orders**
 - b) The requirement for documentation in each task order file in support of vendor choice for order assignment**
 - c) Guidelines for task orders, defining limitations on the inclusion of activities and materials not included in the initial competitive call and General Services Contract.**

B.2. Quality Assurance Practices Can Be Improved

Although the expedited design and construction timelines associated with stimulus funded projects posed a risk that the quality of work could suffer as a result of the rush to finish before the deadline, there was no indication that expediency was achieved at the cost of quality.

However opportunities for improvement exist. These opportunities for improvement are areas in which the Auditor General has identified concerns and recommendations in previously issued audit reports.

Concerns regarding controls over the quality of work have been raised in a number of prior audit reports

Over the past ten years, the Auditor General has issued a number of reports related to construction contract reviews including:

- Contract Management Procedures – Transportation Services Division, Works & Emergency Services Department, 2001
- Contract Management Issues, 2005
- Management of Construction Contracts – Reconstruction of Queensway Eastbound Lanes, 2006
- Management of Construction Contracts – Leaside Bridge Structure Rehabilitation Contract, 2007
- Management of Construction Contracts – Toronto Water and Sewer Emergency Repair Contracts, 2007
- Toronto Zoo Construction Contracts Review – Tundra Project, 2010

All of these reports identified concerns and recommendations relating to controls over managing and testing the quality of work performed by contractors.

Hiring of Inspection and Testing Agencies

Inspection and testing agency is hired by the contractor

Construction contracts used by the Parks, Forestry and Recreation Division include cash allowances of varying amounts to pay for inspections and testing such as soil compaction, concrete strength, and structural steel inspection. Contractors directly engage third-party engineering consulting agencies, approved by the City, to conduct required inspections and tests.

This practice of having the agency hired and paid for by the contractor may impair inspector independence and the integrity of the testing process in appearance, if not in fact. However, in some cases the cost of a fully independent process may outweigh the benefit it provides in protecting the City's interests. For example, small scale projects which pose limited risks to the City.

Improve Monitoring of Third-Party Testing

Improve process for tracking third-party testing

There is evidence that third-party inspections and material testing is being performed and results are being discussed with contractors.

However, processes to track and ensure all necessary inspections and tests have been conducted, and unsatisfactory results have been addressed can be improved. For example, in 2 of 14 Transportation Services projects, there is no documentation to demonstrate that all necessary testing has been performed.

Actions taken in response to failed tests are not documented

The level of documentation retained is not sufficient to demonstrate that actions taken to respond to failed test results are adequate. For example, a number of failed asphalt test results were retained in the construction file for 3 of 14 Transportation Services project reviewed. However, there was no notation or documentation indicating the decision making process and rationale for why no further action was needed. Similarly, in 1 of 15 Parks, Forestry, and Recreation project reviewed, follow up on exceptions identified during inspections was not documented in project files.

Other Quality Assurance Practices Not Consistently Performed

Documentation retained to demonstrate performance of quality controls is inconsistent

Additional attention should be paid to ensuring consistent compliance with operating procedures related to:

- Weight verification – Random verification of material weight delivered to construction sites is not performed consistently and in accordance with operating procedures. For example, the required random verification of weight was not performed on 6 of 14 Transportation Services projects reviewed. Staff indicated that in some cases access to weigh scales on weekends is limited and therefore verification procedures were not performed. In other cases, the volume of materials used at a single location is not significant enough to require weight verification. No exceptions to weight verification protocols are currently specified in operating procedures.

- Deficiency lists – Documentation to demonstrate final inspection and resolution of deficiencies can be improved. For example, deficiency lists were not prepared for 10 of 14 Transportation Services projects. Even though required by operating procedures, staff advised that preparation of deficiency lists prior to substantial performance or prior to completion is not normal practice for Transportation Services because deficiencies are ordinarily resolved immediately at the time work is being performed. Similarly, resolution of issues identified in deficiency lists were not documented in 3 of 15 Parks, Forestry and Recreation projects.

Recommendations:

- 6. City Council request the General Manager, Parks, Forestry and Recreation, in consultation with the City Solicitor review the risks, benefits, and costs of inspection and testing agency hiring practices with a view to establishing criteria for determining when the City, its consultant, or its contractor should hire and pay the agency.**
- 7. City Council request the General Manager, Transportation Services and General Manager, Parks Forestry and Recreation, ensure all staff managing construction projects, sufficiently document actions taken to respond to test results failing to meet specifications.**
- 8. City Council request the General Manager, Transportation Services and General Manager, Parks, Forestry and Recreation, establish and implement procedures to ensure staff adhere to quality assurance procedures including:**
 - a) Materials testing and inspections**
 - b) Final inspections and deficiency lists**
 - c) Weight verification.**

Additional training be provided regarding the level of documentation retained to demonstrate compliance with policies and procedures.

B.3. Need for Enhanced Monitoring of Extra Work

Observations regarding extra work and change orders have been included in previous reports

A risk associated with stimulus funded projects is the increased likelihood of rushing through the design phase of projects. This could lead to extra or additional work requiring the issuance of change orders during the construction phase. There is no indication that an unusually high quantity or value of change orders on construction projects resulted from accelerated project timelines. However, we noted improvements can be made to the process for managing extra work.

Many of the construction-related audit reports previously released by the Auditor General included observations and recommendations relating to controls over managing extra work and change orders.

Documentation supporting extra work needs improvement

Divisional definition of extra work varies

Most City divisions have adopted similar practices for managing extra work in their respective procedure manuals. However, the definition of what constitutes extra work may vary slightly from division to division. On the stimulus projects reviewed, these practices have not always been followed and the extent of documentation retained in support of extra work was inconsistent.

Change directives not consistently authorized

In particular, change directives and/or RFQ are not always appropriately authorized and/or issued prior to work being completed. For example, 2 of 14 Transportation Services, 1 of 15 Parks, Forestry and Recreation Projects, and 3 of 6 transportation projects managed by Technical Services reviewed, included examples where authorization was not documented prior to the extra or additional work being completed.

Process for Managing Extra Work Not Yet Implemented

Transportation Services rolled out its Road Operations Contract Inspection Manual in early 2010. This manual specified procedures and controls over contract changes due to extra or additional work.

***Lack of adherence
to Road
Operations
Control Inspection
Manual***

Staff did not adhere to the change order process as described in the Road Operations Control Inspection Manual. For example, change orders were not issued for extra or additional work charged against contingency in 9 of 14 Transportation Services projects reviewed.

Furthermore, change orders are not implemented for variances from estimated quantities included in contract documents, some of which are significant. Instead, Transportation Services contracts include general provisions where variances in quantity of work to be done and/or material to be supplied by the Contractor will be at the unit prices stated in the Tender.

According to staff, it is not practical to estimate quantities in an accurate manner because Transportation Services undertakes maintenance work at multiple locations under each contract. Therefore, Transportation Services, unlike Technical Services, does not require a change directive and a change order be issued for items where actual quantities exceed estimates. Consequently, there is no formal process for monitoring and authorizing variances which impact contract costs.

Recommendations:

- 9. City Council request the City Manager direct appropriate divisions to ensure staff managing construction projects adhere to operating procedures requiring payments against contingency be supported by change orders. Further, that change directives, RFQ issued by divisions, and/or change orders be approved by the appropriate signing authority prior to commencement of extra or additional work.**
- 10. City Council request the General Manager, Transportation Services, provide additional training regarding procedures for managing extra work in accordance with the Road Operations Contract Inspections Manual.**

- 11. City Council request the General Manager, Transportation Services, establish procedures for review of significant variances from estimated quantities and approval in accordance with signing authorities. Such procedures to include issuance of change directives and change orders be required for variances exceeding acceptable tolerances.**

CONCLUSION

This report presents the results of our review of the effectiveness of practices implemented to ensure that adequate oversight, internal control, performance measurement and reporting systems are in place to support the management and administration of the City's stimulus program.

Addressing the recommendations in this report will further improve and strengthen controls when engaging in intergovernmental partnerships and agreements. In addition, the implementation of recommendations in this report will continue to reaffirm to staff the importance of controls over the quality assurance and financial management of construction projects.

Eligibility Criteria

To be eligible for stimulus funding under the Infrastructure Stimulus Fund (ISF) or Recreational Infrastructure Canada Program in Ontario and the Ontario Recreation (RInC-REC) programs, projects were required to demonstrate the following:

- **Project incrementality** – Work to be undertaken is an incremental construction activity that would not otherwise have been constructed by March 31, 2011 without stimulus funding. For example, funding could be used to allow a project to proceed that would not otherwise be built, or could be used to accelerate a project planned for future years so that it can be completed by March 2011. The City was required to attest, in conjunction with their project application, that this criterion was met.
- **Project readiness** – Project is construction-ready and likely to be substantially completed by March 31, 2011. The City was required to provide information in the project application to support this determination.
- **Project merit** – Extent to which the proposed work was needed to maintain the safety and prolong the economic life of assets. For projects involving the rehabilitation of existing assets, benefits could include: public health and safety, energy efficiency, accessibility, and/or extending the economic life of the asset consistent with sound asset management principles. For projects involving new construction, benefits could include: adding new public infrastructure for which there is a demonstrable need, replacing an existing asset that has reached the end of its useful life, but is still needed to provide public services, or improving the energy efficiency, accessibility, safety or quality of public infrastructure in a community.
- **Financial leverage** – In addition to a federal and/or provincial contribution, project funding would be cost-shared with the City of Toronto.
- **Endorsement** - Prior to final approval of funding, projects must be duly authorized or endorsed by City Council. Projects are supported by Toronto City Council through their approval of the City's long term Capital Program.

Exhibit 2

Project Cost and Funding Summary by Program

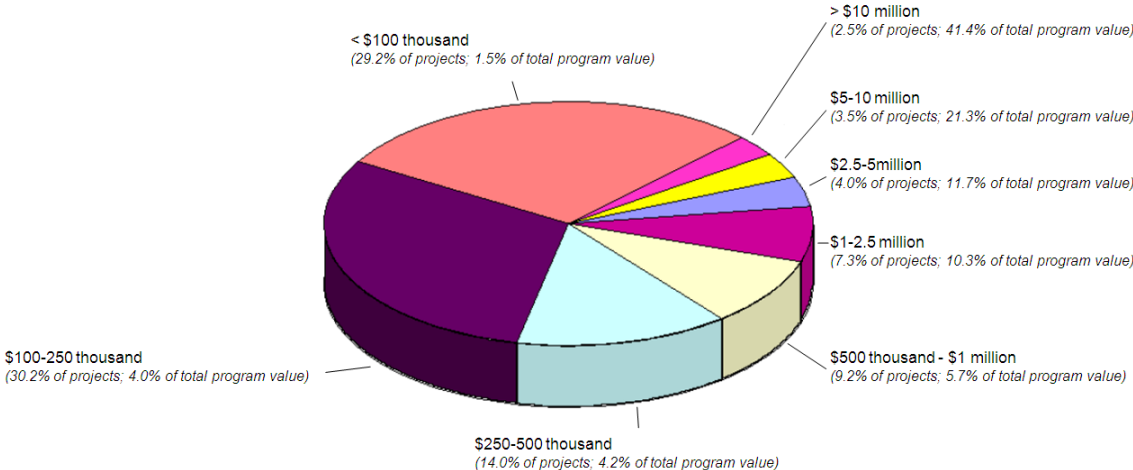
The following summarizes by City Program, and Agency, Board and Commission the project cost approved for stimulus funding by the federal and provincial governments.

	Total Eligible Cost	Funding		
		Federal	Provincial	Municipal Contribution
Infrastructure Stimulus Fund (ISF):				
Tax Levy Programs and ABCs				
Children' Services	5.397	1.799		3.598
Economic Development, Culture and Tourism	1.270	0.424	-	0.846
Emergency Medical Services	13.853	4.618	-	9.235
Parks, Forestry and Recreations	12.454	4.237	-	8.217
Transportation Services	82.538	27.513	-	55.025
Facilities and Real Estate (F&RE)	3.229	1.076	-	2.153
F&RE - Father Henry Carr	4.000	1.000		3.000
Sustainable Energy Plan	1.765	0.588	-	1.177
Exhibition Place	27.370	9.123	-	18.247
Toronto Public Library	13.260	4.420	-	8.840
Toronto Police Service	55.119	18.373	-	36.746
Yonge Dundas Square	0.200	0.067	-	0.133
Toronto Transit	193.267	64.422	-	128.845
Total Tax Levy - ISF	413.722	137.660	-	276.062
Rate Programs				
Solid Waste Management	11.048	3.683	-	7.365
Toronto Water	170.522	56.841	-	113.681
Total ISF	595.292	198.184	-	397.108
Recreational Infrastructure (RInC-REC)				
Parks, Forestry and Recreation	57.019	13.987	13.987	29.046
Transportation Services	23.267	6.660	6.660	9.947
Total RInC	80.286	20.647	20.647	38.993
Total ISF and RInC-REC	675.578	218.831	20.647	436.101

Source: Table 2 of the City Manager's report to City Council "City of Toronto Stimulus Projects" dated September 23, 2009.

Distribution of ISF Projects

The 520 projects submitted for ISF funding ranged anywhere from \$15,000 to \$40,000,000 in value.



Distribution of RInC-REC Projects

The 120 projects submitted for RInC-REC funding ranged anywhere from \$39,600 to \$15,114,000 in value.

