Engineering and Construction Services
Response to Phase Two: Construction Contract Change Management
Controls Should be Strengthened

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Chief Engineer and Executive Director

June 28, 2019
MISSION: “To build safe and sustainable infrastructure that enhances the quality of life for the people of Toronto”

VISION: “Be an industry leader in delivering municipal infrastructure engineering services with integrity and pride”

VALUES:
Service: responsive, cooperative, fair and professional in dealings with our stakeholders
Stewardship: responsibly balance economic, social and environmental needs in the delivery of our mandate
Commitment: to collaboration, organizational excellence, accountability, respect
ECS Services and Operations

**ACTIVITIES**

- Create safe and sustainable municipal infrastructure
- Provide engineering design and construction services to in-house clients:
  - Transportation Services
  - Toronto Water
  - Solid Waste Management Services
  - TTC
- Conduct condition assessments and rehabilitation planning for bridges and the Gardiner Expressway
- Undertake engineering review of development applications and proposals for works by third parties, such as Metrolinx

**SERVICES**

- Municipal Infrastructure Construction
- Engineering Information
- Engineering Review and Acceptance
ECS Accomplishments in 2018

• Delivered over $578 M in capital projects

• Completed 2,015 development application circulations

• Completed all legislated bridge condition assessments (677 total in 2018):
  • 348 discrete spans along the elevated portion of the F.G. Gardiner Expressway
  • 286 bridges and culverts along City roads
  • 43 vehicular bridges within City parks

• Reviewed 6,032 third party application circulations:
  • 241 for transit expansion
  • 5,791 full stream utility applications
Audit Findings

- ECS appreciates the Auditor General’s review of our operations
- Acknowledgement that
  - “Changes during construction can occur in large and complex construction contracts”
  - ECS “has good guidelines”
ECS Actions

• Review done on contracts that were completed between 2013 and 2017

• ECS is continuously enhancing its policies, procedures, practices and training:
  • Provided mandatory training by subject matter experts including change management
  • Revised the ECS Capital Works Procedures Manual and Field Services Manual to incorporate up to date best practices
  • Currently working with Legal Services and Purchasing and Materials Management to update City contract documents to ensure compliance with the new Construction Act
Audit Findings

• There is no industry standard for the value of change orders as a percentage of construction cost

• Reasons for change orders are numerous; those identified by Auditor:
  • Unforeseen site conditions
  • Errors and omissions in drawings, designs and contract documents
  • Poor quantity estimates
  • Contractor claims
  • Scope changes requested by client divisions
  • Discovery of toxic substances requiring proper disposal
  • Utility conflicts
Example A: Major Roads Contract

- ECS employee involved with the project is no longer employed at the City.
Example B: Basement Flooding Contract

- ECS initiated a review of the contract and change orders prior to the start of the Audit

- This contract is still being investigated by ECS management in consultation with Legal Services, and by the Auditor General

- NO monies claimed on the unauthorized work have been paid
ECS Concurs with Audit Recommendations

- Refer to the Management Response in the Auditor General’s Report: ECS is in agreement with all four Recommendations

- ECS is taking corrective action by way of:
  
  a) Enhancing staff training and strengthening the performance planner process to capture compliance with stated procedures and protocols

  b) Improving records management protocols within the Division’s Project Tracking Portal system
ECS Concurs with Audit Recommendations

• ECS is taking corrective action by way of:

  c) In collaboration with Legal Services, instituting a cost recovery mechanism for design errors and omissions by professional services consultants

  d) Advancing the Professional Services Performance Evaluation Tool in collaboration with PMMD and Legal Services

  e) Instituting an internal project audit framework
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