



Office of the Auditor General

Audit of Ottawa Light Rail Transit (OLRT) Stage 1 Contingency Fund

**Tabled at Audit Committee
November 24, 2020**

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Table of Contents

Executive summary	1
Detailed audit report	3
Introduction	3
Background and context	3
Audit findings and recommendations	7
Appendix 1 – List of acronyms, abbreviations and terms	11
Appendix 2 – About the audit	12
Appendix 3 – Recommendations and management responses	15
Acknowledgement	17

Executive summary

This audit examined the operating and governance activities involved in reviewing, approving and processing draw requests related to the Ottawa Light Rail Transit (OLRT) Stage 1 Contingency Fund (“Contingency Fund”). This audit was intended to give City Council reasonable assurance that the Contingency Fund was used for the purposes approved by City Council.

In December 2012, a \$100M multi-project contingency fund was approved by City Council to cover possible cost changes associated with the OLRT Project (\$2.13B), the Highway 417 Widening Project (\$226M) and the OLRT Transition (\$63M). The City Treasurer was delegated the authority to approve draws with respect to the Contingency Fund while the City Manager and the Deputy City Manager, Planning and Infrastructure were delegated the authority to approve program changes to other aspects of the OLRT project that required funding from the Contingency Fund such as integrated station entrances or property settlements.

Conclusion

The Contingency Fund was used for its approved purpose. We found adequate processes in place to review, approve and monitor the expenditure of these funds. However, we found that the criteria for changes which require the consent of the Mayor and Ward Councillor were broadly defined. Consent may not have been obtained in a consistent manner so that similar situations may have been handled differently. There is an opportunity to clarify these criteria in the delivery of the Stage 2 Project.

Findings

Our audit focused on three key objectives related to the Contingency Fund: obtaining appropriate approvals, the use of funds for Council approved purposes and spending within approved limits.

Every Contingency Draw Approval¹ (CDA) we examined was reviewed and approved by all members of the Contingency Management Committee (CMC). The CMC included the City Treasurer or the properly delegated Deputy City Treasurer for each CDA. As

¹ CDA is a form submitted to the CMC for funding request against the Contingency Fund.

the Treasurer was delegated the authority to approve draws, we found that appropriate approvals were obtained for draws against the Contingency Fund.

Based on the December 11, 2013 Confederation Line Delegated Authority Council Approval, draws related to significant changes to Council approved OLRT project designs also require consent from the Mayor and Ward Councillor. Two of our sample draws were clearly related to significant changes in project design and we found that the required consents were obtained. We found however that the definition of what constitutes a significant change in design was not adequately defined. As such, there was a risk of inconsistent application of this requirement.

We reviewed billing statements and agreements for each CDA we tested and we found that information supported the CDA descriptions that the CMC had approved. These CDAs all pertained to unforeseen cost changes or property settlements. As the purpose of the Contingency Fund was to address unforeseen cost changes associated with property and utility relocation matters during the OLRT construction, we concluded that the use of funds was consistent with the Council approved purposes.

Lastly, we found that actual spending for each CDA sample we tested was within the approved limit. As of the end of our testing in May 2020, the total amount spent (\$88.6M) and the total funding commitment (\$99.9M) did not exceed the \$100M Contingency Fund limit. Based on the status of the Stage 1 Project and the information known at the time of the audit, City staff informed us that they were not expecting further additional funding requirements from the Contingency Fund.

Recommendation

Although appropriate approvals were obtained for draws against the Contingency Fund, a significant change to the design was not defined and documented. Additional guidance defining significant changes to the approved designs should be provided, if the same process is to be implemented for Stage 2.

City management response

Management agreed with the audit's recommendation.

For the detailed management response, including planned actions and target dates, see Appendix 3 in the detailed audit report.

Detailed audit report

Introduction

The Audit of the Ottawa Light Rail Transit (OLRT) Stage 1 Contingency Fund was included in the 2019 Audit Plan of the Office of the Auditor General, approved by Council on April 24, 2019.

Background and context

On December 19, 2012, Council approved the “Design, Build, Finance and Maintenance” of OLRT Stage 1. This included the approval of the \$100M multi-project contingency fund to cover unforeseen changes and costs associated with the OLRT Project (\$2.13B), the Highway 417 Widening project (\$226M) and the OLRT Transition (\$63M). For OLRT Stage 1, Council also approved the following delegations of authorities:

- a. The City Manager to negotiate, amend and approve the Project Agreement;
- b. The Deputy City Manager for Planning and Infrastructure to approve modifications to the original designs with consent from the Mayor and Ward Councillor; and
- c. The City Treasurer to approve the project funding.

The OLRT Stage 1 Confederation Line was headed by the Executive Steering Committee (ESC), which was accountable to Council and provided oversight and coordination of the OLRT project.

Project scope changes during the project were either funded through capital funds or through the Contingency Fund, as per the diagram below.

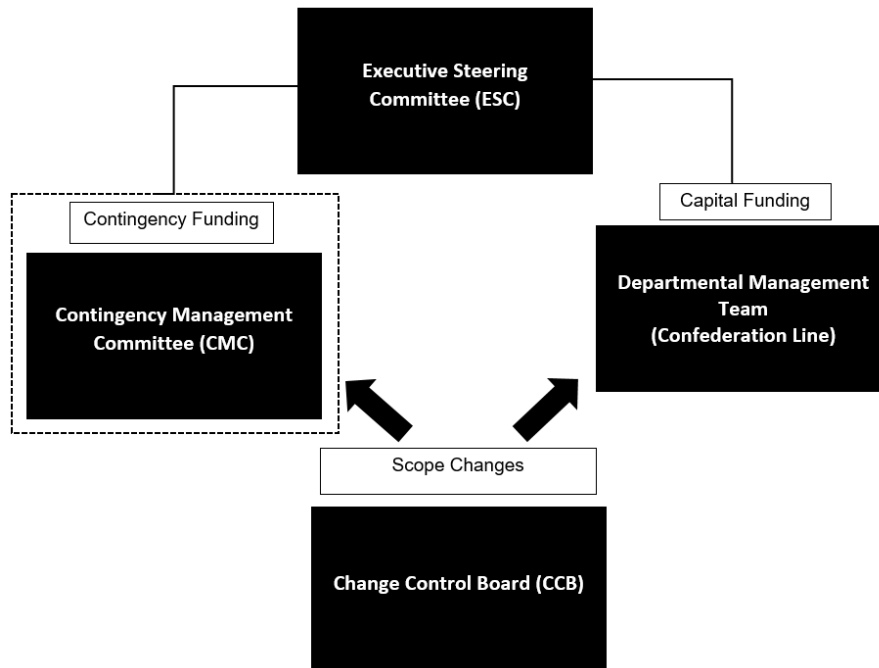


Figure 1: Funding sources for project scope changes

Contingency Management Committee (CMC)

On May 12, 2015, Council was notified via a memo from the Director, Rail Implementation Office (RIO) that the CMC had been established by City staff to ensure that the Contingency Fund, including scope changes and risks are properly managed and accounted for. City staff granted the CMC the authority to review and approve all draws against the Contingency Fund. The CMC was comprised of the City Treasurer, the City Manager, and the Deputy City Manager, Planning and Infrastructure. In the City’s 2016 organizational realignment, the role of Deputy City Manager was eliminated. The newly created General Manager, Transportation Services Department included oversight of the O-Train Construction Service Area, and therefore that position assumed the former Deputy City Manager’s role on the CMC.

Change Control Board (CCB)²

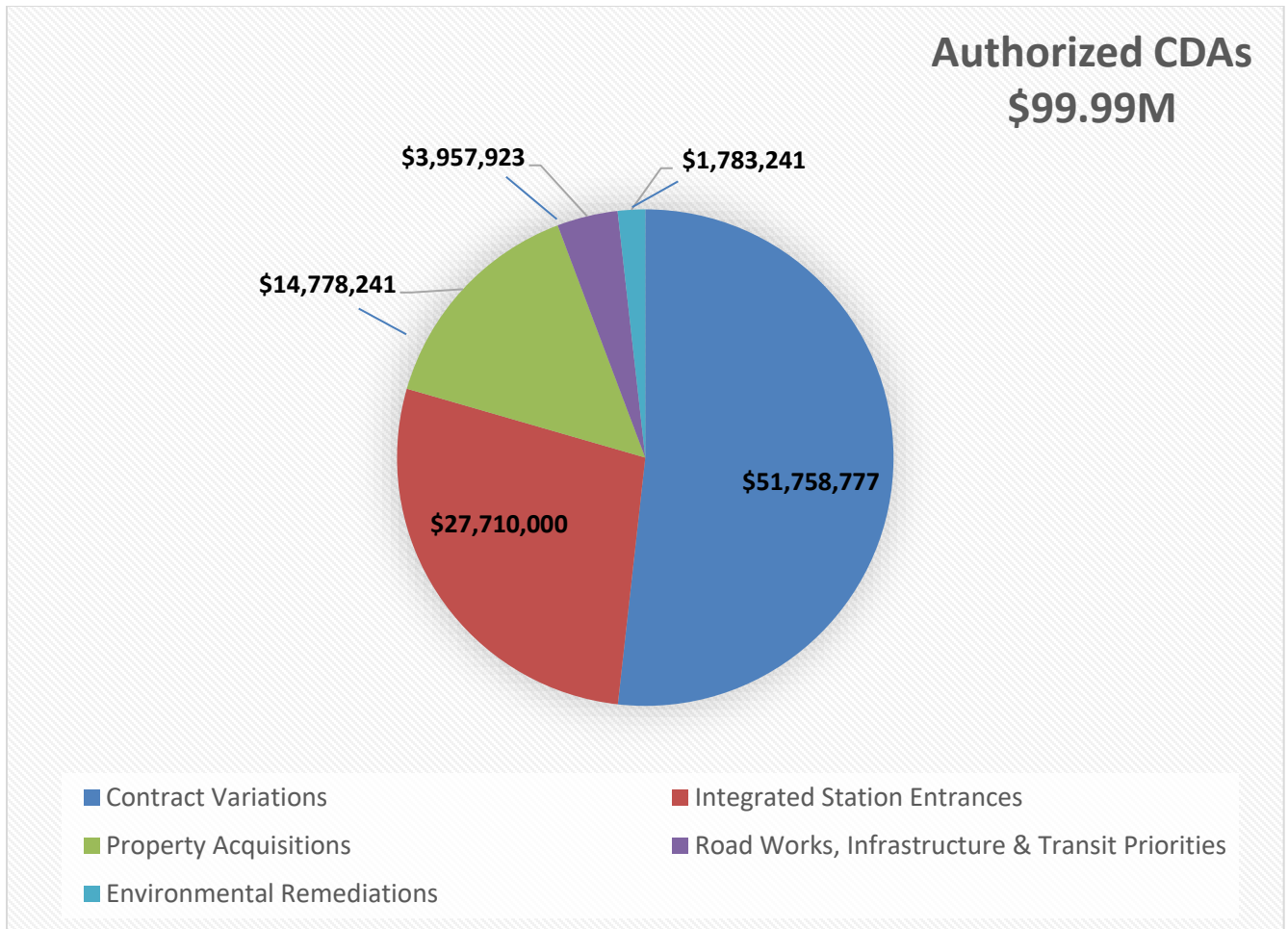
As part of the OLRT project, the CCB was established as part of the scope change management process to review all proposed changes. The CCB was responsible for

² The CCB consists of the Director (Rail Implementation Office), Chief Light Rail Design & Construction, Chief Light Rail Systems and Operations Integration, Manager of Light Rail Program Management, Contracts Manager and Lead of Project Controls.

reviewing all proposals for project changes, engaging relevant subject matter experts, determining the funding sources and facilitating the appropriate approvals. CMC’s approval was only required for changes that required funding from the Contingency Fund; all other change requests approved by the CCB were funded by other means such as the OLRT Project Budget (\$2.13B).

Contingency Draw Approvals (CDA)³

As described in a March 31, 2020 memo to Council, 81 draw requests were approved by the CMC from the Contingency Fund. Below is a breakdown of the amounts approved by purpose.



Source: CMC Presentation dated March 31, 2020.

Figure 2: Breakdown of CDAs by purpose

³ CDA is a form submitted to the CMC for funding request against the Contingency Fund.

Of the total CDAs approved, approximately \$88.6M was spent as of the end of March 2020 when our audit testing concluded.

Table 1: Breakdown of the Contingency Fund by commitment and CDA count

Purpose	Description	Amount authorized (\$M)	Number of CDAs
Contract Variations	Changes to project agreement specifications	51.76	58
Integrated Station Entrances	Integrating the station entrances with the existing infrastructure	27.71	3
Property Acquisitions	Property settlements and related injurious affections	14.78	6
Road works Infrastructure & Transit Priorities	Issues related to road works infrastructure and transit as part of OLRT implementation	3.96	7
Environmental Remediations	Remediation of environmental issues discovered during OLRT construction	1.78	7
	TOTAL approved CDAs	99.99	81

Audit findings and recommendation

Audit objective 1: Appropriate approvals for draws

Authority of the CMC

Based on the Council approved December 2012 “Design, Build, Finance and Maintenance” of OLRT Stage 1 delegation of authority, the City Treasurer had the authority to approve draws with respect to the Contingency Fund. The same delegation granted both the City Manager and the Deputy City Manager⁴, Planning and Infrastructure the authority to approve program changes to other aspects of the OLRT Stage 1 project, some of which required funding from the Contingency Fund. For operational purposes, City staff created the CMC, consisting of the City Treasurer, City Manager and Deputy City Manager, Planning and Infrastructure, and gave it responsibility to review and approve expenditures against the Contingency Fund and ensure that risks and cost changes were managed and accounted for.

We expected to find that all CDAs and their relevant supporting documentation had been reviewed and approved by all members of the CMC, but particularly the Treasurer as that position had been delegated financial authority by Council. We selected and tested a sample of 16 CDAs (see Appendix 2 for details on our sample selection). We found that all 16 had been reviewed and approved by the CMC. We found that the first four CDAs were signed by the Deputy City Treasurer on behalf of the City Treasurer. By-Law 2009-195 granted the Deputy Treasurer all the powers and duties of the City Treasurer. As such, the approvals were valid even if not personally signed by the City Treasurer.

Conclusion

We found that appropriate approvals were obtained for draws against the Contingency Fund.

⁴ As a result of a city-wide re-organization in 2016, the Deputy City Manager, Planning and Infrastructure role was eliminated. The role of the Deputy City Manager, Planning and Infrastructure within the CMC was assumed by the General Manager, Transport Services after re-organization.

Consent Report from Mayor and Ward Councillor

On December 11, 2013, City Council granted the Deputy City Manager for Planning and Infrastructure the authority to approve significant changes to Council-approved designs of the OLRT with the consent of the Ward Councillor and the Mayor. The original design approved by Council was included in the “Design, Build, Finance and Maintenance” of OLRT Stage 1 as Appendix 1.

We expected to find consent reports from the Mayor and applicable Ward Councillor for significant changes to the original designs requiring contingency funding. Based on the CDA samples we examined, there were two CDAs that were, for what we believed, to be significant design changes. One of these was for integrated station entrances which affected the original designs of Rideau, Lyon and Parliament stations. The other CDA was for Rideau Transit Group (RTG) variations that included an extra elevator at LeBreton (Pimisi) Station, which was deemed a change to the original station design. In both cases, consent reports were obtained.

We found that the original designs approved by Council were mainly broad descriptions of the stations’ proximities, integration to existing structures, interconnection to transit systems, requirements for passenger flows and areas for pedestrians and cyclists. They did not include technical details of the stations. In determining the significance of proposed changes, the CCB evaluated the changes based on the Project Agreement and the Scope Change Management framework. If the CCB determined that the variation significantly changed the original designs, consent reports were sought. As the descriptions of the designs were broad, so were the criteria for what was considered a significant design change.

The criteria that the CCB used to determine if a change was significant, was laid out in the Scope Change Management framework. A change would be deemed by the CCB to be significant if it changed the original design elements affecting:

- Accessibility;
- Station architecture;
- Capacity;
- Locations;
- Public art commitments; and
- Passenger safety and security.

In our view, further definition of these criteria could have been helpful.

Conclusion

Consent reports from the Mayor and Ward Councillors were appropriately obtained for changes to original designs that the CCB deemed to be significant. However, defining what constitutes a “significant change” would help ensure consistent application and interpretation if a similar process is used for the OLRT Stage 2 project.

Recommendation 1 – Define and document what constitutes a significant change to approved designs

The Director of Rail Construction Program should provide more guidance on what is considered a “significant change” to the approved design and document such guidance for consistent application and determination when consent from the Mayor and Ward Councillor is required.

(Refer to Appendix 3 for management responses)

Audit objective 2: Use of funds consistent with Council-approved purpose

The Contingency Fund was created to address unforeseen cost changes associated with property and utility relocation matters, change orders on the bundled Highway 417 contract or costs required to provide alternative transit services during the construction period. As such, we expected to see that funding requests and actual usage of funds were contingent in nature and consistent with the purpose of the Contingency Fund.

As discussed above, we selected and tested a sample of 16 CDAs (see Appendix 2 for details on our sample selection). We reviewed the reason for each draw request and the related supporting information presented to the CMC and compared the information to the purpose of the Contingency Fund. We found that all 16 requests for contingency draws were used for activities and cost changes that were consistent with the purpose of the Contingency Fund.

Conclusion

We found that the monies and commitments drawn from the Contingency Fund were used for purposes consistent with the Contingency Fund.

Audit objective 3: Spending within approved limits

Given the role of the CMC to review, approve and monitor draws from the Contingency Fund, we expected to see that overall spending and commitments were within the fund's \$100M budget. Furthermore, we expected to see that actual spending for each draw was within the amount approved by CMC.

We found that the total spent as of March 31, 2020 was \$88.6M and the total commitment was \$99.9M. Neither exceeded the \$100M Contingency limit

When CDAs were prepared, management attempted to set aside the maximum likely expected cost for the required work. This was done to minimize the risk that the overall fund would be overcommitted or overspent. Upon completion of the work related to each individual CDA, any unused monies were in effect returned to the Contingency Fund.

Based on a comparison of approved draw documentation, the general ledger and monthly financial reports, we found that actual spending did not exceed the amounts approved for any of the 16 draws we selected and tested. Staff indicated that spending against approved draws was monitored by the Project Management Branch within Transportation Services (formerly the Rail Implementation Office) and presented to the CMC on a periodic basis.

Conclusion

We found that actual amounts spent and/or earmarked for project activities were within the Contingency Fund limit.

Appendix 1 – List of acronyms, abbreviations and terms

The Audit of the OLRT Stage 1 Contingency Fund refers to the following acronyms, abbreviations and terms.

CCB: Change Control Board

CDA: Contingency Draw Approval

CMC: Contingency Management Committee

OAG: Office of the Auditor General

OLRT Stage 1 Project: Ottawa Light Rail Transit (OLRT) Project is comprised of multiple related projects such as the delivery of 12.5 km of new electric light rail transit (LRT) running from Tunney's Pasture to Blair via a downtown transit tunnel and the highway 417 widening project.

RIO: Rail Implementation Office. RIO oversees and provides guidance to the OLRT Stage 1 Project, integrates monitors and controls the interdependencies among the projects.

RTG: Rideau Transit Group is a joint venture consortium undertaking the contractual work of the OLRT Stage 1 Project. RTG was tasked to design, build, finance and maintain OLRT Stage 1 Project.

Scope change: Pertains to a variation, addition, reduction, substitution, omission, modification, deletion, removal or other change to the whole or any part of the OLRT Stage 1 Project Scope, including in relation to the whole or any part of the Highway Work, the Works or Maintenance Services.

Appendix 2 – About the audit

Audit objectives and criteria

The overall objective of this audit was to provide Council with reasonable assurance that Stage 1 OLRT Contingency Fund was used for its approved purposes. This overall objective was comprised of the following three audit objectives:

Audit objective 1

Assess if the appropriate approval(s) was obtained for draws made from the OLRT Contingency Fund.

Criteria:

- The Treasurer and the two other Contingency Management Committee (CMC) members approved the Contingency Fund draws;
- For any draws related to changes to Council approved OLRT project designs, consent from Mayor and Ward Councillor (or Finance and Economic Development Committee, if required) was obtained; and
- All approved draws were recorded and only approved draws are funded from the Contingency budget.

Audit objective 2

Assess whether the OLRT Contingency Fund was only used for Council approved purposes.

Criteria:

- The documentation provided to the CMC for draw approval indicated a purpose that was consistent with the Council's approval; and
- Funds approved by the CMC were actually used for the purposes indicated on the documentation that was originally provided to the CMC.

Audit objective 3

Assess if amounts drawn were within the approved limits.

Criteria:

- The total actual amounts drawn do not exceed \$100M; and
- Actual spending on individual approved draws did not exceed amounts approved by the CMC.

Scope

The scope of the audit included all operational and governance activities of the teams involved in reviewing, approving and processing draw requests from the Stage 1 OLRT Contingency Fund. Only draws from the Contingency Fund were included in our scope. The audit did not assess whether other OLRT projects were eligible for contingency funding.

Audit approach and methodology

The audit was designed and conducted in accordance with the requirements of the City's Audit Standards to ensure that sufficient and appropriate audit procedures were conducted, and evidence gathered to provide reasonable assurance of the accuracy of audit findings and conclusions, as they existed at the time of the audit.

The audit methodology included the following activities:

- Interviews with key staff from the CMC and the CCB who were involved in reviewing and approving draw requests from the OLRT Contingency Fund;
- Review of the OLRT Project Agreement, Governance process documents, relevant by-laws and reports to Council;
- Walkthroughs and observation of processes and activities related to CDA approval and project scope changes; and
- Testing of selected sample draw requests from the OLRT Contingency Fund for compliance with established guidelines, policies and procedures.

The monetary unit sampling was the primary technique used to select the draw requests for testing. Monetary unit sampling results in samples where higher value items have a proportionately higher chance of being selected. Our initial sample size of 15 draws yielded a value of \$68.3M. An additional judgmental sample draw with a value of \$14.5M was selected as the value of this draw increased significantly after our initial

sample selection. As a result, or final sample size was 16 with a total value of \$82.8M, or 83 percent of the total value of draws as of March 31, 2020.

The audit plan was finalized in December 2019, and the audit fieldwork was substantially completed by May 2020.

Appendix 3 – Recommendation and management response

Table 2: Recommendation, management response and target date

OAG recommendation	Management response	Target date
<p>Recommendation 1 – Define and document what constitutes a significant change to approved designs</p> <p>The Director of Rail Construction Program should provide more guidance on what is considered a “significant change” to the approved design and document such guidance for consistent application and determination when consent from the Mayor and Ward Councillor is required.</p>	<p>Management agrees with this recommendation and it has been implemented.</p> <p>As part of the delivery of the Stage 2 Project, staff will seek consent from the Mayor and applicable Ward Councillor(s) for proposed variations potentially funded by the Contingency Fund that constitute a significant change or deviation from the March 2019 City Council-approved technical design of the O-Train Confederation Line and Trillium Line extensions (ACS2019-TSD-OTP-0001, document 5).</p> <p>Significant changes to the technical design are defined as changes that could impact the expectation of nearby communities and the customer experience of the future systems, including:</p> <ul style="list-style-type: none"> • A geographical change to the location of the alignment and stations; • A major change to the structure or architecture of a station (i.e. increase or reduction in size and/or floor space, number of floors, entrance location, 	<p>Immediately.</p>

OAG recommendation	Management response	Target date
	<p>removal, change or addition of accessibility features, removal, change or addition of public art, etc.); and</p> <ul style="list-style-type: none"> • A major change to the connection points into the stations resulting from a geographical change to the alignment and/or station locations (Multi-use paths, sidewalks, etc.). <p>As per the March 2019 report to Council, the City’s Executive Steering Committee will retain oversight over the execution of the Stage 2 Project and all contingency draws made under delegations of approval provided by Council. Furthermore, as per the approvals provided, staff will seek approval from Council should additional funding be required for the Stage 2 Contingency Fund.</p> <p>In order to communicate these definitions to the City Stage 2 Change Control Board and staff, an internal circulation was sent from the Director, Rail Construction Program to all staff in September 2020.</p>	

Acknowledgement

The team responsible for this audit, comprised of Marlon Perez, Abhishek Gangwal and Sarah Parr from the Office of the Auditor General (OAG), under the supervision of Ed Miner, Deputy Auditor General and the direction of Ken Hughes, Auditor General, would like to thank those individuals who contributed to this project, and particularly, those who provided insights and comments as part of this audit.

Original signed by:

Auditor General