



CITY OF KINGSTON
INFORMATION REPORT TO COUNCIL

Report No.: 06-159

TO: Mayor & Council

FROM: G. Laubenstein, Chief Administrative Officer

RESOURCE STAFF: Carolyn Downs, City Clerk

DATE OF MEETING: June 6, 2006

SUBJECT: Assessment of the Grand Theatre Redevelopment Project

EXECUTIVE SUMMARY:

In early May, information was provided to members of Council that it was anticipated that the Grand Theatre Renovation Project was going to come in over budget. As a result of this, I hired the firm of KPMG to conduct a review of the processes implemented. KPMG have completed this assessment, and a copy of the report is attached as Schedule Pages. As a result of this review, staff will be reviewing and implementing the recommendations where appropriate, and bringing forward to the relative standing committee the suggested policy changes, where required.

RECOMMENDATION: This report is for information purposes only.

A handwritten signature in black ink, appearing to be "G. Laubenstein", is written over a horizontal line.

Glen Laubenstein, Chief Administrative Officer

APPENDICES TO REPORT #06-259

June 6, 2006

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OPTIONS/DISCUSSION:

The Grand Theatre Redevelopment Project was approved by Council with an initial budget of \$6.5 million. As a result of changes, the initial budget was amended and in August of 2005 was approved at \$9.83 million. The project has now been reported to have an anticipated cost of \$14.4 million.

I retained the ~~firm~~ of KPMG to conduct an assessment of the project management processes that existed and make any recommendation for improvement of these processes.

EXISTING POLICY/BY LAW:

N/A

NOTICE PROVISIONS:

N/A

ACCESSIBILITY CONSIDERATIONS:

This report can be provided in alternate formats.

FINANCIAL CONSIDERATIONS:

To be reviewed by staff and brought forward at a later date.

CONTACTS:**DEPARTMENTWOTHERS CONSULTED AND AFFECTED:**

- Commissioner Beach, Sustainability and Growth;
- Commissioner Segsworth, Public Works and Emergency Services;
- Commissioner Hunt, Finance and Corporate Performance;
- Commissioner Thurston, Community Development Services;
- Commissioner Leger, Corporate Services;
- Jim Keech, President Utilities Kingston

EXHIBITS ATTACHED:

KPMG – Assessment of the Grand Theatre Redevelopment Project – Draft May 25, 2006



**Assessment of
The Grand Theatre Redevelopment Project**

**Report
May 25, 2006**

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Executive Summary

Introduction

The Grand Theatre Redevelopment Project was approved by Council with an initial budget of \$6.5 million. As a result of scope changes, the initial budget was amended and in August of 2005 was approved at \$9.83 million. The project is now reported to have an anticipated cost of \$14.4 million. KPMG was retained by the CAO's office to undertake an assessment of the project management processes in place and to make recommendations for improvement.

Findings

Overall, project controls in place for the management of the Grand Theatre Redevelopment Project need to be improved to provide senior management and Council with the assurance that leading practices in project management will be adopted. Some key project management controls normally adopted in projects of this nature were not applied in this case.

Notwithstanding our concerns about the project management practices, inquiries of key project participants and our review of documentation have indicated that the cost over-runs are generally attributed to factors beyond the control of the project management. The risk of such over-runs could have been better understood and communicated; however, short of significant scope changes early-on in the project and a relatively insignificant amount of additional work completed in Phase 1 that could not have been competitively tendered, it appears unlikely that the project could have been managed to its approved budget.

At this stage of the project, there appears to be little room to effect significant cost reductions without a fundamental change in the project objective, such as abandoning the redevelopment. We have not explored the implications such fundamental changes would entail.

Consultations with other senior management at the City engaged with large capital projects have indicated that the project management processes employed for the Grand Theatre Redevelopment were unique to this project. In addition, the project itself is unique among the so-called group of seven as it alone involves the substantial reconstruction of a heritage structure. Thus, it appears that there is little basis in our work for inferring similar concerns with respect to the management of other projects. We recommend that the project management processes in place for each large project be reviewed by management to help ensure that they are sufficiently robust to meet management's objectives and expectations.

Summary of Key Recommendations

1. The project budgeting process would benefit from a more rigorous due diligence process at the project planning stage. Any limitations in the due diligence should be clearly communicated and the related budgetary risks quantified and communicated. The Finance function should be involved in the preparation and monitoring of the budget.
2. A risk-based approach should be adopted for the planning and approval of major projects. This approach would require the identification of principle project execution risks and would require the development of an appropriate risk mitigation plan for review and approval at the Senior Management and Council level. In addition, ongoing project monitoring should incorporate regular risk management updates.

3. Project scheduling should be considered at the City level, and even at the community level, to help ensure that priority projects do not compete with each other for limited City staff, contractor and fundraising resources.
4. A Project Management Committee should be established with cross-departmental representation based on the project management skills required, including senior level leadership from the City, the Project Manager and potentially other key contractors. More than an advisory or consultative committee, the Project Management Committee would have the authority to act, delegated in the form of a formal mandate, and would be held accountable through regular reporting to the project sponsor. The Project Management Committee would review, approve and communicate all material change order requests and regularly review progress (Project Master Schedule), risk management, budgeting and quality control reports. In this way, the Project Management Committee could be the main source of regular communication on status to senior management and Council.

Limitations and restrictions of our report

The assessment was carried out employing techniques based on consultation with individuals involved in the management of the project, both City employees and others. The consultation results were supplemented with a review of selected project documentation. Our procedures employed do not constitute an audit and we express no audit opinion on project management controls. We relied on information and representations from management and others. We also relied on management and others for the completeness of background information supplied.

KPMG's findings and report are confidential and intended solely for internal use in this matter. The report is not intended for general use, circulation or publication and any use of KPMG's report for any purpose other than as outlined above, without KPMG's prior written permission in each specific instance is prohibited. KPMG assumes no responsibility or liability for any costs, damages, losses, liability or expenses incurred by anyone as a result of the circulation, reproduction or use of or reliance upon KPMG's reports contrary to this paragraph.

Background

The Focus Community Strategic Plan for the City of Kingston, undertaken in 2000, identified twelve priority areas to guide Council in its planning for the community through to 2010. Council adopted seven of the twelve areas for immediate action and directed that the remaining five be dealt with over the life of the plan.

In a series of Prioritization Workshops in 2004, the current Council developed its strategic priorities and direction for the City's management for the period 2005 through 2007. Building on the priority areas established in the Focus Kingston Community Strategic Plan, Council identified seven initiatives for its term in office, as follows:

- The Ravensview Sewage Plant Upgrade
- The Large Venue Entertainment Centre
- The Multi-Plex
- Widening of John Counter Boulevard
- Redevelopment of the Grand Theatre
- Market Square
- K&P Trail

The redevelopment of the Grand Theatre ~~was~~ planned to bring the theatre up to modern standards. The building, which dates from 1902, has experienced a number of transformations over the years, but was acknowledged to be in need of updating and renovation to meet current standards for the comfort and safety of both audiences and performers as well as to enhance the functionality and visual appeal of the theatre.

The initial estimate for the Grand Theatre project came in at \$6.5 million and this formed the basis for the initial Council approval in 2004. An expanded scope and more detailed estimate resulted in Council approval of a further \$2.5 million in March of 2005 bringing the approved budget to \$9 million. Finally, in August in August 2005 Council approved an additional \$830,000 for an enhancement to scope related to the Cultural Spaces Grant, bringing the amount approved by Council to **\$9.83** million. By April of 2006 total anticipated costs had risen to \$14.4 million.

In light of escalating costs for the Grand Theatre project, the Chief Administrative Officer of the City of Kingston retained KPMG in May 2006 to assist with gaining a better understanding of the project management processes in place for the Grand Theatre Redevelopment Project and to help answer some questions of broader concern with respect to controls operating in the management of major projects generally.

Objectives and Scope

The objective of this engagement is to provide an independent and objective assessment of the effectiveness of the controls over the planning and implementation of the Grand Theatre Redevelopment Project ("GTRP").

The assessment is directed towards answering the following key questions:

- Why did the overrun occur?
- What changes are necessary to prevent reoccurrence?
- What leading practices should be adopted to help ensure that internal controls over other capital projects are not compromised?
- What options might be available to bring the project back on budget?
- What lessons can be drawn that might be relevant for other capital projects planned?

Our work included consultation with management and staff connected with the GTRP, other key individuals from the City of Kingston, and a review of documentation provided. The information obtained from these sources allowed us to assess the key issues facing this project.

Our work was limited to, and our observations and recommendations are based on consultations conducted with management and staff responsible for managing the GTRP and other selected individuals. The scope of our engagement was, by design, limited, and therefore the findings and recommendations should be considered in the context of the procedures performed. In this capacity, we were not acting as auditors and accordingly our work did not result in the expression of an opinion and does not constitute an audit engagement. We relied on information and representations of management and others and on management for the completeness of background information provided.

KPMG's findings and report are confidential and are intended solely for internal use in this matter. The report is not intended for general use, circulation or publication and any use of KPMG's report for any purpose other than outlined above, without KPMG's prior written permission in each specific instance is prohibited. KPMG assumes no responsibility or liability for any costs, damages, losses, liability or expenses incurred by anyone as a result of the circulation, reproduction or use of or reliance upon KPMG's reports, contrary to this paragraph.

Our Understanding of the Nature of Municipal Construction Projects

Construction projects can create significant exposure for municipalities that are not fully aware of the risks. Failure to understand risk can result in excessive cost, project delay, and quality issues. Architects, engineers and contractors are typically rewarded for quality, meeting budget, and holding costs, and other issues that are important to the project owner. However, independent project controls are needed to help ensure that the owner's interests are protected. Even if a project management firm is retained to oversee or monitor construction, project controls are necessary to help ensure that the underlying cost and schedule data are sufficient and reliable; the on-site construction status is observed and documented; and the architects, engineers, and contractors address technical issues.

The management of construction project activity in the municipal sector has been traditionally characterized by an emphasis on standard methods of delivery for all types of projects. Consistent with other sectors, many complex construction projects completed within the municipal sector have been completed with substantial cost and timing over-runs, inappropriate project outcomes, and significant secondary effects in terms of disruption and frustration of operational and strategic activity. As a result, project delivery methods have been refined, however, the process has often become exceedingly complex and presents demanding managerial challenges.

Risk Assessment

Municipal construction projects have a number of distinguishing features which in aggregate, are not commonly found in private sector projects, such as:

- Commencement, progress and conclusion of projects may rely upon the authority of Council which is not only the sponsor of the project but which often retains the power of veto;
- Project function is invariably to support an operational activity or to meet a service need to be of benefit to a large body of users;
- Many of the benefits sought are of a non-financial nature; equally the risk impacts extend beyond financial damage into operational disturbance, loss of service or amenity, user dissatisfaction, and disruption of strategic planning processes;
- A very broad range of procurement methods and techniques may be employed;
- Success criteria are many and varied, often particular to a stakeholder's perspective, and are commonly of a non-financial, qualitative nature relating to such matters as functional satisfaction, aesthetic merit, environmental improvement, or hazard removal; and
- The project cycle is conducted within the public domain and is subject to formal review and evaluation by Council and informal scrutiny by stakeholders and interested parties.

The impact of these features is to create a project culture in which the majority of risk outcomes have causes and effects beyond the scope and terms of reference of the project itself. It is evident that the impact of municipal construction project risks extends beyond the current projects and into the general operational activities of the municipality and its constituency. These impacts may include:

- Project cost over-runs causing deferment or cancellation of other projects within the same budgeting period;
- Project timing over-runs causing operational difficulties due to delayed availability of new or improved facilities or services, or due to changed operational practices now incompatible with facilities created;
- Project performance criteria not fully achieved, resulting in inadequate operational support, user dissatisfaction, or perpetuation of hazardous or unacceptable conditions; and
- Perceived inadequate project performance causing erosion of stakeholder confidence in project delivery service to the disadvantage of other projects.

In addition to these risk impacts inherent in municipal construction projects, the following risks have been identified as common to construction project planning and execution in general:

- Project planning, scheduling, budgeting, forecasting and reporting formats may not support operational, project and financial management;
- Unclear or multiple channels of direction from the project sponsor and management can produce excessive requirements and scope creep;
- Budgets may not reflect the total cost of the project and may not factor in human resources requirements such as adequate staffing with competent individuals;
- Ineffective project management systems may hamper project monitoring and construction oversight;
- Design errors or project delays can result in excessive change-order costs, claims, disputes, and budget management issues;
- Design and construction quality defects can cause unmet occupant requirements, remedial charges and excessive lifetime maintenance costs;
- Inaccurate financial records and reports, as well as loose monitoring of Contractor financial controls, can result in costly practices such as duplicate payments and overcharges.
- Budgets may not reflect timing and amount of associated funding and potential user fees;
- Budgets and actual expenditures may not be prepared at the same level of detail and may not provide adequate support for financial analysis; and
- Changes in workflow may not be easily adapted in budgets and forecasts.

Summary of Work Conducted

KPMG assessed the construction project planning processes and practices adopted on this project against criteria under three key categories: 1) the effectiveness of project management and governance processes and practices; 2) budgetary control and cost management policies, procedures and guidelines; and 3) the ongoing due diligence and monitoring by management with respect to the project.

KPMG conducted the following key steps:

1. Engagement kick-off meeting

KPMG met with representatives of management to confirm the assessment objective, scope, deliverables and anticipated timing. During this meeting, we obtained a brief update on the GTRP overall status as well as confirmed our selection of representatives for the consultation process described below.

2. Consultation of key project participants:

To further our understanding of the conduct of the project, consultations were held with selected representatives of the City's project management team and other select individuals not directly involved with the project. The list of consultations conducted is set out in Appendix 1.

3. Review of project history:

KPMG reviewed various project documents from initiation to date. See Appendix 2 for a summary of documents reviewed.

Based on the information provided from the above documentation review and consultation process, KPMG analyzed the data and compared the results to leading practices to identify deficiencies as noted in this report.

Findings

Project Management and Governance

■ Project Risk Management

Observations

A review of the Project Risk Management and Response Plan indicated that many project-specific construction risks were identified, however, other higher-level, corporate and/or resource risks that one would have expected to be identified for a renovation project in a building of this nature, were not identified. Some examples of omissions include:

- Risks inherent within renovation projects of older buildings;
- Risk of the lack of dedicated City resources with relevant project management experience;
- Risk that the tenders may exceed the estimated budget;
- Risk that staff turnover may lead to a loss of project memory, resulting in a lack of understanding of the project scope and objective and ability to move forward on a timely basis;
- Risk of limited oversight of senior management based limitations in availability and/or expertise;
- Risk of limitation of qualified local contractors; and
- Risk that additional fundraising may be constrained due to competing projects.

In addition, it became clear from our consultations that the Project Risk Management and Response Plan was not broadly communicated and it was not regularly updated. Other consultations identified that broad risk management practices are not consistent across the City. Consultations indicated that there is also a lack of in-house experience in broad risk management to support the effective identification and management of business risk.

It was clear from our consultations that certain execution risks were identified and mitigation measures were put into place. For example, the phased approach to the construction tendering process was a significant mitigation measure to help ensure that the construction planning in Phase 2 considered scope and requirement changes learned as a result of the demolition work in Phase 1.

Business risk management helps enable a consistent approach to the communication, monitoring and reporting of key risks and related actions.

Issue

Key project risks are not being formally identified and clearly communicated. In addition, risks are not analyzed, reported and managed in a transparent manner and to the extent necessary for some of the higher risk projects. Business risk management is not about avoiding risk, it is about being aware of your risk through timely risk identification and communication and applying and monitoring risk mitigation measures that are consistent with the level of risk and the level of the City's risk tolerance.

In addition, a business risk management approach can clearly define risk management responsibilities and accountabilities that may help prevent a project governance breakdown (especially on large, multi-phase, multi-year projects). The integration of risk identification and risk management actions between all parties creates an overall picture of the project's risk profile and how risks are being mitigated. In addition, the communication and monitoring of key risks and key mitigation measures can be used as a major communication and governance tool.

Recommendation

The City should develop a Business Risk Management Plan for high risk projects that communicates management's understanding of objectives, related risks, mitigation, monitoring and reporting. The Business Risk Management Plan should identify the key risks, the related controls to mitigate the risk and the potential inter-dependencies of risks. The Plan should identify the individual responsibility for risk control to increase accountability. This Plan should be summarized into a reporting tool that clearly highlights the key risks and related actions to be taken. This report should form the basis of the regular and transparent reporting of major risks and monitoring practices to key management and Council. It is likely that the summary report could take the form of identifying key risks, the correlated mitigation measures, and any other related actions and/or changes in risk throughout the project life cycle.

A project may be determined to be higher risk because of its nature (e.g., unique to the City), size, timing, profile and/or as a result of limited information. These are only a few of the indicators that could be used to identify a "high risk" project. Ultimately the City should define and communicate consistent criteria for the determination for high risk projects. In addition, the format for a business risk management plan can vary; however, it should include the following elements: summary of risks, measurement of risk (likelihood and impact), current and future risk mitigation, time of expected actions and responsible individual.

Ultimately, the preparation of a business risk management plan is not about identifying high risk projects for cancellation as many high risk projects may also provide substantial benefit. The role of the plan is to communicate the risks so that more informed decisions can be made in regards to the project and its risk management. For example, for certain projects risk mitigation measures may include: increased monitoring by key City officials, increased monitoring by Finance, increased clarity of communication and related roles with respect to approval of changes, and more robust budget reporting (mater budget report) and monitoring.

2. Planning and Resource Allocation

Observations

The city has seven major projects underway at the present time. Consultations revealed that the projects are in competition with each other for the City's scarce resources, consultants, contractors and funding (both from the City and through fundraising).

Issues

While we applaud the City for following through on its initiatives related to infrastructure and recreation and culture and undertaking such significant projects, the volume of projects may have some detrimental effects on management resources. Consultations revealed that there may be a lack of available staff with project management experience to champion these projects successfully, due to the concurrent initiatives, and Management's current workload.

In addition, the availability of local contractors may also be reduced. It should be noted that the Project Manager of the Grand is now also responsible for the Multiplex. In addition to the Management issues noted above, the lack of availability of City Managers and/or contractors may result in higher than expected costs.

Recommendation

The City should consider scheduling its initiatives on a staggered basis with other initiatives that are dissimilar in nature to reduce competition, and help ensure that City staff are able to devote the time needed to effectively carry out the work.

3. Quality Process

Observations

While the project manager and architects demonstrated that they did employ a quality control process in their organizations, it does not appear that the City asked for formal reporting of quality control measures or otherwise monitored adherence to quality control standards.

While some contracted parties were required to specify their quality control procedures in their proposals, it appears that the City did not adopt a formal project Quality Control Plan to monitor compliance and follow-up on any project quality deficiencies identified.

Issue

The lack of Quality Control Plans may result in insufficient, inadequate or irregular reporting on quality monitoring from contractors to the City and may reduce their accountability for quality during the project. In addition, although there are many parties reviewing and assessing the work performed against plan specifications, there does not appear to be one third party responsible and accountable for the overall project quality monitoring and reporting on a timely and regular basis.

Recommendation

Responsibility for quality should be assigned rather than assumed. The City should introduce mandatory and regular reporting against an approved Contractor quality assurance plan for all significant contracts. Responsibility for this type of reporting should be assigned to the Contractor as one of the contract requirements and should be enforced by the City. Clear direction should be addressed in the tendering documents that regular quality control reporting will be a mandatory condition of any contract award. In addition, a Contractor prepared quality assurance plan should be a mandatory document requirement before construction proceeds, similar to the detailed construction work plan.

Addressing the quality control issue in the tendering stage for all key players in the project will allow potential Contractors to determine if they are indeed able to comply with quality reporting requirements. An additional benefit to this process is the ability of the City to fairly and objectively preclude those firms without a quality control process, from bidding on City projects until such a time as quality control is viewed to be as important to the contractor as it is to the City. Regular quality reports should be directed to the Project Manager(s) and the Project Management Committee.

4. Potential Stakeholder Conflicts

Observation

A key risk identified in municipal construction projects and validated through consultations from this project, is that the commencement, progress and conclusion of projects may involve stakeholders in addition to the direct sponsor of the project. The GTRP involves many stakeholder groups from the general residents, to the Friends of the Theatre and to the Fundraisers/Sponsors. Consultations identified that an ad-hoc advisory committee had been established to assist with discussions on scope and design enhancements. This committee provided feedback on options being considered related to scope and needs and was not formed to deal with issues related to the construction and related structural matters. In the case of this renovation, it appears that these stakeholders may have had views on the scope and timing of the renovation that were not entirely consistent with those of the direct sponsor (the City) and may have unduly influenced the increased scope and tight timing of the renovation.

Issue

These potential conflicts amongst stakeholders increased the risk that the objectives of the direct sponsor (the City) would not be achieved.

Recommendation

We recommend that the clearance process for changes in scope and changes in the timetable be formally managed, monitored and approved.

A key element to such a clearance process would be a formation of a formal Project Management Committee chaired by a senior City official, likely the Commissioner. The Project Management Committee should have cross-departmental representation based on the project management skills required and should have representation from the Project Manager and senior level leadership. More than an advisory or consultative committee, the project management committee would have the authority to act, delegated in the form of a formal mandate, and would be held accountable through regular reporting to the project sponsor. The Project Management Committee would review, approve and communicate all material change order requests and regularly review progress (Project Master Schedule), risk management, budgeting and quality control reports.

In this way, the Project Management Committee could be the main source of regular communication on status to senior management and Council and this process would help ensure that all significant changes are discussed and considered by key City officials in a forum that is open and transparent, before these changes are accepted. In this way, potential conflicts between stakeholders can be discussed in a transparent way and ultimately key project decisions can be made by the City.

Budgetary Control and Cost Management

1. Budgeting Process

Observations

The following observations related to the capital budgeting process and related timelines for the GTRP were noted during our review:

- The Finance function within the City of Kingston had limited involvement in the capital budgets.
- The due diligence related to the original cost estimates was limited:
 - The original cost estimate of \$6.5 million, that was approved by Council in 2004, was based on a “preliminary” cost estimate completed in 2002 and supported by only a limited scope needs assessment.
 - The Class C cost estimate completed by the architects on January 4, 2005 was based on needs assessment that **was** also limited in scope, generally based only on elements of visual inspection.
- Council decisions were sometimes based on information that was not the most complete information available at the time of the decision:
 - The Council approval of an additional \$2.5 million on March 1, 2005 was based on budgeted costs that included “preliminary estimates” that did not meet the definition of Class C. In addition, other more refined “Draft” Class B estimates were available at the time, but were not provided. These Class B estimates had an increased cost of over \$1 million over the Class C estimates provided to Council.
- Decisions were made by individuals with limited communication and, potentially questioned authority:
 - Consultations identified that the Manager, Cultural Services Division was advised, in writing, of the “preliminary” nature of the additional costs by the architects and the architects recommended that more work be done to more accurately estimate the costs related to additional scope items. The architects were advised by the Manager that there was not sufficient time or need to improve the precision of these cost estimates.
 - In addition, it appears a decision was made by the Manager, Cultural Services Division to include some structural work in the Phase 1, limiting the potential for scope reductions in the remainder of the project lifecycle.
- Budget revisions and estimates are difficult to reconcile and budget communication is not sufficiently complete or timely:
 - Although not requested to do so, on April 5, 2005 the Architects prepared a Draft Class B estimate for other scoped items which was over \$1.5 million higher than the original “preliminary” construction estimate.
 - Final Class B estimate (all scope areas included) were calculated to be about \$1 million above budget on May 25, 2005. These issues were not communicated to Council in August, 2005, when they were asked to approve the additional **\$0.83** million scope increase related to obtaining a \$2 million Cultural Spaces grant.

Actual Phase 1 tender and revised Class A estimate for Phase 2 further increased the construction budget by about \$0.7 million and a further \$1.77 million was estimated for contaminated soil removal. This was discussed with the Commissioner on December 7, 2005 and a decision was made to tender Phase 2 under the full scope. At this point, the Commissioner was aware that the project budget estimates were substantially over the approved budget.

- On April 5, 2006, it was identified that the Phase 1 actual costs were higher than budgeted by \$0.46 million as a result of general conditions and foundation remedial work. In addition, it was estimated that, based on Phase 1 actual costs and Phase 2 tendered cost, the total construction cost would be substantially higher. The latest cost estimate for the entire project has identified a revised project budget of \$14.4 million.

Issues

The limited scope of the due diligence performed in the needs analysis study left the City vulnerable to significant cost deviations from budget as a result of the nature of the project, the age of the building, and related risks. As a result, given the limited nature of the due diligence performed, there should have been greater discussion on the risk with respect to accepting the needs analysis study as the basis for the budget. Additional work should have been performed to more accurately predict the associated costs with respect to the renovation of an older building. Although well-thought out pre-planning activities cannot remove all risks, they can reduce the unexpected outcomes of the project. It should be noted that this risk was partly mitigated by the phased approach to the renovation that allowed for the second phase to be tendered after the demolition was completed in Phase 1 and a greater knowledge of the structure and environments was obtained.

Based on our consultations it became evident that there was limited involvement/control/communication exercised by Finance and other key City officials over the budget and related changes. This is a critical control to help ensure: a sufficient constant flow of financial information to Finance, an independent review and critique of budgets, and monitoring and communication of budget over-runs to management to help ensure proper approval exists for future expenditures. The Finance function and other senior City officials should be actively involved in the budgeting process and related monitoring of budgets.

As a result of the limited governance exercised over the project and incomplete budget information, there was not a consistent and/or formal approval process followed for changes in budget and/or project scope. An apparent and recurring trend was evident where cost estimates were presented that were over budget; certain scoped in items were scaled back to move the project closer to budget and eventually the descope items would be reincorporated into scope.

Limited and, sometimes incomplete, information was provided to Council and key City officials with respect to revised budgets and scope. At various times, information provided to Council and key City officials included earlier budget estimates than those currently available and did not clearly present the total magnitude of projected cost over-runs. In addition, information was less than adequate on the cost estimates because the needs assessment and related due diligence was sufficiently limited to mostly visual inspection.

Overall there was a lack of clarity' around the precision and related risks with respect to the cost estimates that were provided. Based on our consultations there appears to have been some confusion around what the classification system of costs meant. Some understood that as the cost estimates improved, the costs would decrease. In reality it is the precision that improves as the cost estimates move from Class C to Class A, with costs often increasing. This lack of understanding is further exasperated by the numerous changes in scope, differing formats and sources of budgets and lack of centralized reconciliation and communication of budget changes.

Recommendations

Sufficient pre-planning activities should be undertaken to first determine the viability of a project and consider potential risks before any significant work is to be done. Sufficient due diligence with respect to the structural, environmental and needs should be undertaken in advance of the approval of the project so that more appropriate/accurate cost estimates can be provided and related information used for decision-making validated. The preliminary budget for a potential project should be sufficient to adequately cover the cost and related risks of the project. Appropriate pre-planning will help ensure a better understanding of the scope of the project and provide better assurance for the project budget. In addition pre-planning considerations should be clearly identified in the Risk Management Plan and related roles, responsibilities and accountabilities for these activities should be clearly defined. Where this pre-planning is not possible and/or practicable, the risks should be clearly communicated and an appropriate contingency provided. Although it cannot be determined whether outcomes would have been different had such due diligence been performed, it is clear that this information would have supported more informed decision-making with respect to the approval of the project and related project scope and timing at the outset of the project.

The process, format and responsibilities for creating, revising and communicating a Master Project Budget should be defined and implemented. In addition, Finance should lead or have significant involvement in the creation and maintenance of this budget. Communication should be clear with respect to the precision of any cost estimates that clearly identifies the nature of the information and its related risk of change.

In addition to increasing the clarity of responsibilities with respect to the change order, reporting and budgeting process, it is important to clarify the communication and approval process for key decisions. Decisions related to the addition of structural elements within the Phase 1 tender limit the cost/benefit of changing certain scope items later and therefore have a significant impact on the ability of the City and Council to manage the project cost.

2. Change Orders

Observations

Our experience with large construction projects, in particular those projects which have failed, has overwhelmingly indicated that a lack of rigor surrounding change orders and the validation of additional costs is one of the most significant factors affecting the potential failure of capital projects.

Issue

At the present time, consultations have identified that the responsibility and process for reviewing and approving change orders with respect to the Grand Theatre renovation is unclear. In addition, it is important to help ensure that there is independent review of change orders as there may be potential conflict between the project manager and/or architects, whose compensation may be based on a proportion of the contract fees.

Recommendation

The City should define a clear change order process that is communicated and acted on for this renovation project. The process should identify the communication, analysis and authorization requirements for change orders.

Ongoing Due Diligence and Monitoring

1. Project Planning and Scheduling

Observation

A review of leading practice in construction planning and development indicates that another critical success factor for successful project management is schedule control, which includes the existence and regular update of a clearly defined Master Project Schedule including all tasks to be undertaken by the Sponsor, Consultants, Architects and staff. Due to the size, timing and nature of this project, a Master Project Schedule as a tool for a more rigorous approach to project scheduling may have been prudent.

Issue

Without the support of a rigorous Master Project Schedule, that is regularly revised and communicated projects with many changes to scope and timing may become excessively difficult to manage.

Recommendation

The City should consider incorporating the use of a Project Master Schedule that includes the following items:

- *All tasks, including approval steps to be undertaken by the City;*
- *All tasks of Consultants/Architects related to the submission and approval of all deliverables as per the contracts;*
- *Construction schedule;*
- *Key milestones; and*
- *Critical decision points.*

Accompanying the Project Master Schedule should be documented schedule processes, procedures and management systems. The Contractor should provide an electronic copy of the base building schedule to enable project management to monitor the critical path. Monthly meetings should be held to review progress on the base building schedule. The schedule could also be reviewed at weekly construction meetings. The Schedule should be clear and comprehensive enough to provide a regularly updated picture of project status to all parties.

2. Reporting

Observation

Although the Project Manager maintained significant documentation, it is unclear what was done with that documentation. There was reporting on project status, change orders, cost logs, etc. to the Manager of the Grand Theatre, but consultations identified that much of the reporting may not have progressed beyond the Manager. It does not appear, for example, that the Commissioner received any regular, formal reporting on the project until October 2005 when the Project Manager and the Theatre Manager identified the escalating costs of over-runs, at the time, to be in the order of \$1 million. In addition, reporting to Council was limited to earlier requests for budget and there appears to have been insufficient reporting to Council on project status and potential cost over-runs.

Issue

The lack of reporting to senior City management is likely as a result of the informal organizational framework applied to the project and lack of clarity of roles and responsibilities. Project status reporting from the Manager, Cultural Services and then from the Manager, Grand Theatre was identified to be insufficient to allow the City to understand the potential extent of the project issues. Not until the budget over-runs were identified to be in excess of \$1 million was the Commissioner advised of the significant extent of the potential cost over-runs. Consultations also revealed that the culture within the City appeared to be that “once a project was awarded and budget approved, reporting doesn’t need to be rigorous.”

Consultations further revealed that the budget reporting was difficult to understand and interpret. The project budget was often broken down with only certain sections provided, such as, construction only. Where more segmented information was provided, the linkages and impacts between certain budget issues appears to have led to false comfort in the numbers. As identified above, it was also evident that Finance was not consulted in the budgeting and reporting process and often the numbers recorded by Finance were inconsistent with those recorded by the Project Manager. Ultimately, consultations identified that the information for decision-making was untimely, confusing and inconsistently communicated. As a result, decisions appear to have been made at the wrong levels and/or with insufficient information.

Recommendation

We recommend that the Project Manager provide the Commissioner, Council, and other key project team members with complete reporting that includes actual expenditures and commitments on a timely basis and complete in a manner that is consistent period over period. This would help ensure that users could easily track the changes from one month to the next. This regular reporting should include updates on the project risks and management mitigation, changes in the Master Budget and the Master Project Schedule. This reporting could be facilitated by the implementation of the Project Management Committee as described in a previous recommendation.

3. Communication

Observations

Consultations revealed that although the Project Manager has remained consistent throughout the life of the project there has been lack of continuity related to the City official responsible for the project. These staff changes have led to confusion over responsibilities and accountabilities and other information gaps. The management of the project was initiated by the former Manager, Cultural Services who has since left the City. Consultations identified that the Manager's hands-on approach included minimal oversight by the Commissioner, little if no interaction with other departments, and often minimal communication of project status other than to the immediate project team. The former Manager also enlisted the Special Projects Co-ordinator, experienced in project management, to assist in monitoring the effectiveness of the Project Manager.

Consultations revealed that communication between the Commissioner and the Project Manager and Theatre Manager has been limited and informal. It appears that communication within the project team and upwards to senior management was informal and inconsistent as well. In addition, the Project Managers of the other seven priorities are not seen to be working together. An example provided was the application for the \$2 million Cultural Spaces Grant. The former Project Manager applied and received the grant, however, the government is limited in its approval of these grants and therefore the City will not benefit from another grant in the near future. Consultation by the Manager with other City Managers on who could make the best use of the grant may have been in the better interest of the City. Overall it appears that communication and coordination within the project team and between senior members of the other priorities was identified to be insufficient.

In addition, consultations identified inconsistent views on the objectives of the project – some believe that the project should be “done right” and in a short timeframe – with cost not the main focus. Others believe that cost containment should be the main focus.

issues

The project has suffered from too many players and a lack of accountability. Large, complex and “risky” projects need added and consistent oversight to help ensure the project remains on plan and monitoring of the outsourced project manager. In addition, consultations revealed that the management practices entail limited oversight if the project management is contracted out.

Lack of communication on a formal and informal basis can affect the achievement of the project's objectives, understanding of project scope and any changes required. Communication of issues needs to occur early on and include complete information to all members of the team.

Recommendations

There needs to be effective oversight and communicate to help ensure that the project remains on track and that the project manager is acting in the best interests of the City. This oversight could be effectively accomplished through the establishment of a Project Management Committee (as identified in a previous recommendation) likely chaired by the Commissioner in charge of the project. In addition to supporting the effective completion of the project, this committee will further support the continuity of information related to the renovation.

Appendix II: List of Consultations Conducted

Participant	Date	Interviewed by
Karen Killeen, Manager, Grand Theatre	M M: 13 20 3	Len Anderson
Walter Fenlon, Member -Advisory Committee and Co-chair Fundraising Committee		
Lucas Smith, Project Manager		
Rick Downes, City Counsellor		
Fred LaFlamme, Co-chair - Fundraising Committee	Fri. May 12, 2006	Brian Bost
Mark Fluhrer, Director - Culture and Recreation		
Gerry Shoalts, Principal, Shoalts and Zaback Architects Ltd.		
Antra Rose, Consultant, Diamond and Schmitt Architects Inc:		
Lance Thurston Commissioner of Community Development Services		
Mark Segsworth Commissioner, Public Works and Emergency Services	Wed. May 17, 2006	Marianne Avarello
Jim Keech President, Utilities Kingston		
Cynthia Beach Commissioner, Growth and Sustainability,		
Mike Richardson Special Projects Co-ordinator - Public Works and Emergency Services		

Appendix 2 – List of Documentation Reviewed

Grand Theatre reports to Council – 2001-2005
Confidential memo dated: April 28, 2006 re: Review of the Grand Theatre Redevelopment Project
Several memos and e-mails detailing project status, strategy to manage cost escalations
Cost control logs
Project Plans
Reports from various contractors on specific work undertaken and results
Several architect's letters detailing additional fees
Several memo's from MHPM detailing reviews undertaken and contingency planning
Review of Class B costing and Class B estimate
Business case
Change orders
Phase I and II project tendering
RFP's and contracts for the services of the project manager, design team, and contractors
Needs Analysis Study RFP and report – 2002
Status Reports
Project Minutes