

A Brief Recent History of Architectural Services and the Introduction of Risk Management

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Project Risk Management for Architects: A Brief History

Risk Management for Building Projects, to 1999

- Many government agencies adopt formalized ,risk management strategies in building projects as a component of funding approval
- Use risk categorization
 - High level tools



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The Bedford Institute of Oceanography RFP, 2002

RS 10 Risk Management

*"The consultant is to provide **support** to the Project Manager in identifying, documenting and assessing **risks** throughout the project life cycle."*



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The Bedford Institute of Oceanography RFP, 2002

10.1 Risk Management Process

- **Identify risk events** based on past experience and using proposed checklist or other available lists;
- **Qualify/quantify probability of risk event** (Low, Medium, High) and rank or weigh their impact (Low, Medium, High);
- **Prioritize risk events** (i.e. concentrate efforts on risk events with High probability and Medium to High impact);
- **Develop risk response** (i.e. evaluate alternatives for mitigation. ***This is the real added-value of risk management***); and,
- **Implement risk mitigation.**

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PWGSC National Capital Region RFP, Standing Offer Project Management Services for Building Projects, 2002

- Scope Management Services, Schedule Management Services, **Risk Management** etc.
- Proponents
 - Numerous of project consulting, accounting and informatics firms.
 - Few engineering firms
 - Very few architecture firms

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AAFC Guelph RFP, March 2006

- **2.5.2.2 - DELIVERABLES**
 - Review and comment of the feasibility of the Design Concept.
 - Construction Documents
 - Class "A" construction cost estimate.
 - **Risk assessment for the construction phase.**
 - Updated project schedule.

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Standing Offer for Architectural Consulting Services, various locations in Newfoundland and Labrador, 2006

- Public Works and Government Services Canada (PWGSC) is inviting architectural consulting firms to submit offers for Regional Individual Standing Offers (RISOs)
- ... pre-design services, schematic designs, design development, construction documents, tender call, bid evaluation and construction contract award, construction and contract administration and cost construction warranty review services, **risk management** and estimating and cost planning.

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RFP for Development and Construction Advisory Services, Supply Chain Management, Ontario 2005

- In the case of hospitals, public schools and water and sewer systems, the IPFP Framework Principles specifically state that public ownership, control and accountability must be maintained. The Framework also provides guidance for the adoption of Alternate Finance and Procurement (AFP) models, which allow for access to more capital investment and more sophisticated **project risk management.**

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P3 Projects, 2010

- Procurement Agencies formalize Risk Management reporting requirements for Sponsoring agencies
 - Updated **Risk Management Register** required with each monthly progress report.

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Canadian Museum of Immigration at Pier 21, RFP for Architectural and Engineering Design Services, Halifax, September 2013

- A.6 Risk Management
 - See Appendix D for the risks for the Prime Consultant `s attention as excerpted from the full Project Risk Register.
 - The Prime Consultant will be responsible to account for these risks in their work plan.

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Canadian Museum of Immigration at Pier 21, RFP for Architectural and Engineering Design Services, Halifax, September 2013

Risk Register

Date: _____

RISK ID #	DATE IDENTIFIED	DATE OF LAST UPDATE	CAUSE	RISK	EFFECT	RESPONSE	ACTION (owner risk to manage)
1	17-May-13	30-May-13	Due to terms of lease, CMVP must obtain approval from HPA for all design milestones and before releasing tender packages	HPA can take up to 60 days to review and approve drawing packages	resulting in project delays.	Currently 5 days has been allocated to each design milestone for approval. HPA agreed to a 5 day approval period if advanced notice is given.	Monitoring
2	30-May-13	30-May-13	Due to the possible presence of lead paint that was applied in 1928 and 1944	abatement may be required after building assessment	resulting in disruption to the Museum and possible shutdown.	A hazmat test will be conducted to verify the existence of lead paint. The next step will be decided at that point. \$240,000 has been set aside for Haz Mat Response Management.	The Haz Mat Assessment has been awarded to LVMI. MHPM will advise on the results.
7	30-May-13	30-May-13	Due to the existing structure of Pier 21 being classified as a historical property	the area must be preserved and regulations must be followed	resulting in design constraints.	The Project Architect RFP will clearly state this issue and historical property regulations will be attached for their review.	Monitoring
8	30-May-13	30-May-13	Due to the expansion of the museum	it is unknown if the existing electrical	which may result in	Hire an electrical engineer to determine the electrical	Electrical Engineer will assess the system when the Architect Team is

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The Risk Register

- Captures the details of an identified risk
 - Date documented
 - Risk statement and underlying cause
 - Owner of the risk
 - Probability and Impact
 - Prioritize risks (Low, medium, high)
 - Risk Response strategy
 - Cost - % probability x \$ Impact = EMV
 - (Expected Monetary Value)

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The Risk Register

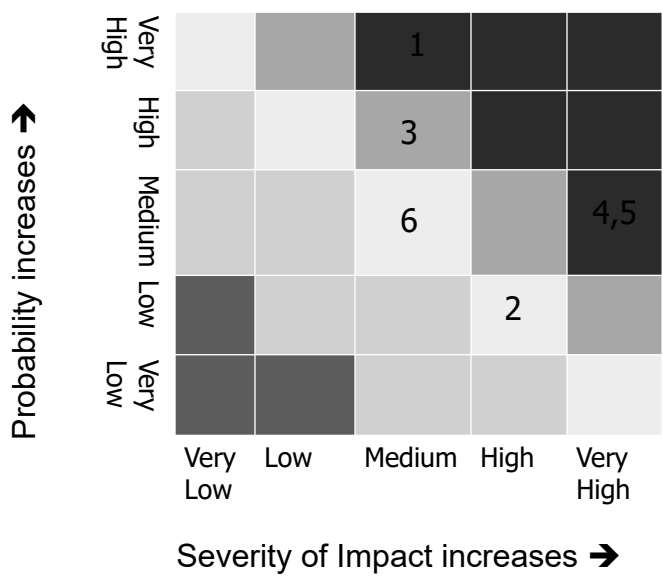
Lp.	The main risks	Owner of risk	Reason/cause	Effect	Risk assessment			Risk response strategy	Cost of strategy
					Probability	Impact	Level of risk		
Designing risk									
1	Lack of acceptance by investor of design proposals	Investor	Delays in approval	Increase in costs due to the suspension of work of the design team	5-40%	50thous-500thous	Low	Market observation, alternative designing solutions	0
2	Delays and difficulties in obtaining opinions and permits	Investor	Delay of designing work, unknown scope of design	Disturbed designing process	5-40%	500thous-2millions	Medium	Earlier diagnosis of the situation in local authorities offices, organization of meetings preceding designing process	500thous.
3	Conflict among designing team members	Designer office	Insufficient flow of information among team members	Disturbed designing process	0-5%	50thous-500thous	Low	Response of a team leader to all form of conflicts - mediation in a team	150thous.
4	Too optimistic assessment of employee workload	Designer office	Approval of unrealistic deadlines for individual work	Delay of designing work	5-40%	50thous-500thous	Low	Proposing for employees to work overtime or ordering of part of work to another designing team	1200thous.
5	Incorrect information from investment/ lack of clear guidelines	Investor	Design may be issued with duplicate error or detected error can generate timing constraints	Verification of errors will increase costs and increase time due to the development of the next revision of design	40-70%	2-5 millions	High	Application to investor for extension of time to complete a design due to additional circumstances	200thous.
6	Staff do not have sufficient knowledge about the subject of design	Designer office	Errors in design	Verification of errors will increase time due to the repeated checks of designing work	5-40%	2-5 millions	Medium	Designing team leader strengthens control over work, providing for employees consultation with an expert	650thous.
Time risk									
7	Acceptance of unrealistic deadlines in contract	Designer office	Faulty contractual provisions	Deterioration of design quality of failure to meet the deadline	40-70%	2-5 millions	High	Employment of new employees or ordering part of work to another party during a contract	1050thous.
Budget risk									
8	Underestimation of design budget	Investor	Budget may not be sufficient to carry out designing tasks	Deterioration of design quality	40-70%	2-5 millions	High	Limiting scope of design to necessary minimum	400thous.

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Risk Prioritization



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**Canadian Museum of Immigration at
Pier 21, RFP for Architectural and
Engineering Design Services,
Halifax, September 2013**

3.2.1 Comprehension of the Scope of
Services

.2 What the Proponent should provide

...

(d) risk management strategy

...

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**PWGSC RFP, Standing Offer for
Architectural Consulting Services AB, SK
& MB, September 2013**

1.4 Summary of Services and
Qualifications

1.4.1 General Services

.2 Each proponent will require
other specialists which will be engaged
as required...

.9 Schedule Management

.10 Risk Management

.11 Acoustic Consultant

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Project Risk Management for Architects: A Brief History	<p style="text-align: center;">PWGSC RFP, Standing Offer for Architectural Consulting Services AB, SK & MB, September 2013</p> <p>2.4 Schematic Design Service</p> <p>2.4.2 Scope and Activities</p> <p>.7 Update the risk analysis and identify any conflicts that will need to be addressed with respect to scope, quality, schedule, cost.</p> <p>.1 Prepare/update risk issues log and participate in the Departmental Representative's Risk Management Plan session.</p> <p style="text-align: right;"><small>Donald Ardiel (c) 2023</small></p>
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Project Risk Management for Architects: A Brief History	<p style="text-align: center;">PWGSC RFP, Standing Offer for Architectural Consulting Services AB, SK & MB, September 2013</p> <p>2.4 Schematic Design Service</p> <p>2.4.3 Deliverables</p> <p>.8 Up-dated Project Procedures Plan including:</p> <p>...</p> <p>.5 Preliminary Risk Analysis</p> <p style="text-align: right;"><small>Donald Ardiel (c) 2023</small></p>
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PWGSC RFP, Standing Offer for Architectural Consulting Services AB, SK & MB, September 2013

2.5 Design Development Service

2.5.3 Deliverables

- .1 Design Development Report complete with coordinated architectural, ...
- .10 Updated Risk Management Plan

"etc., etc., etc."

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Institutional Client, 2015 Contractor Responsibilities - Risk

“The **Weekly Risk Reporting System** (WRRS) is a tool ... analyzing the performance of the service based on risk. ... purpose of the WRRS is to document all risks that occur throughout a service ...”

NO	DATE	RISK CATEGORY	RISK DETAILS	IMPACT TO PROJECT DURATION	IMPACT TO PROJECT COST	PLANNED RESOLUTION DATE	ACTUAL DATE RESOLVED	CLIENT'S PM SATISFACTION RATING	STATUS
1	Identify the date the risk was first identified (i.e. 10/15/2015)	Please identify the party responsible for the risk from the drop down menu.	Please describe the details of the risk occurred: 1. What is the risk? why was it unexpected? 2. What will be done? What is going to minimize this risk? 3. Who is responsible for resolving the issue? 4. What level of impact will this have?	Provide an initial or estimated impact to the project (i.e. 10)	Provide an actual or estimated impact to the project (i.e. 20,000)	Identify the planned resolution date (i.e. 1/15/2016)	Identify the date the risk was resolved (i.e. 1/15/2016)	Select the Client's PM Rating	Identify if the Risk is "Open" or "Closed"
2									
3									

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Risk Reporting Tool

- Date risk first identified
- Risk Category
- Risk Details
 - What is the risk?/Why was it unexpected?
 - What will be done?/What is the plan to minimize this risk?
 - Who is responsible for resolving the issue?
 - from drop down list
 - What kind of impact will it have?

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Risk Reporting Tool

- Impact on project duration
- Impact on project cost
- Planned resolution date
- Actual resolved date
- Client PM's satisfaction rating
- Status

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Risk Reporting Tool Summary Report

NO.	Analysis of Risks (Summary)	Number of Risks	Schedule Impacts (Days)	Cost Impacts (\$)
1	Owner	0	0	\$0
2	Consultants	0	0	\$0
3	Authority	0	0	\$0
4	Contractor	0	0	\$0
5	Unforeseen	0	0	\$0
		0	0	\$0

NO.	Analysis of Risks (Per Category)	Number of Risks	Schedule Impacts (Days)	Cost Impacts (\$)
1	Owner - IT	0	0	\$0
2	Owner - FM	0	0	\$0
3	Owner - IPB	0	0	\$0
4	Owner - User/Client	0	0	\$0
5	Consultants - Architectural	0	0	\$0
6	Consultants - Mechanical	0	0	\$0
7	Consultants - Electrical	0	0	\$0
8	Consultants - Civil	0	0	\$0

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A Value Proposition




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Summary



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