



Johnson Street Bridge

Risk Registry Update | July 19, 2012



Project Risk Management

- Planning
- Identifying
- Analysis
- Response Planning
- Reviewing and Updating

Objective: Identify risks associated with the delivery of the Project and decrease the likelihood and impact on the Project budget, schedule, scope and quality.

Risk Categories

Provides a structure that facilitates systematic identification of risks

1. Strategic
2. Planning
3. Design
4. Financial/economic
5. Procurement
6. Political
7. Community
8. Organizational

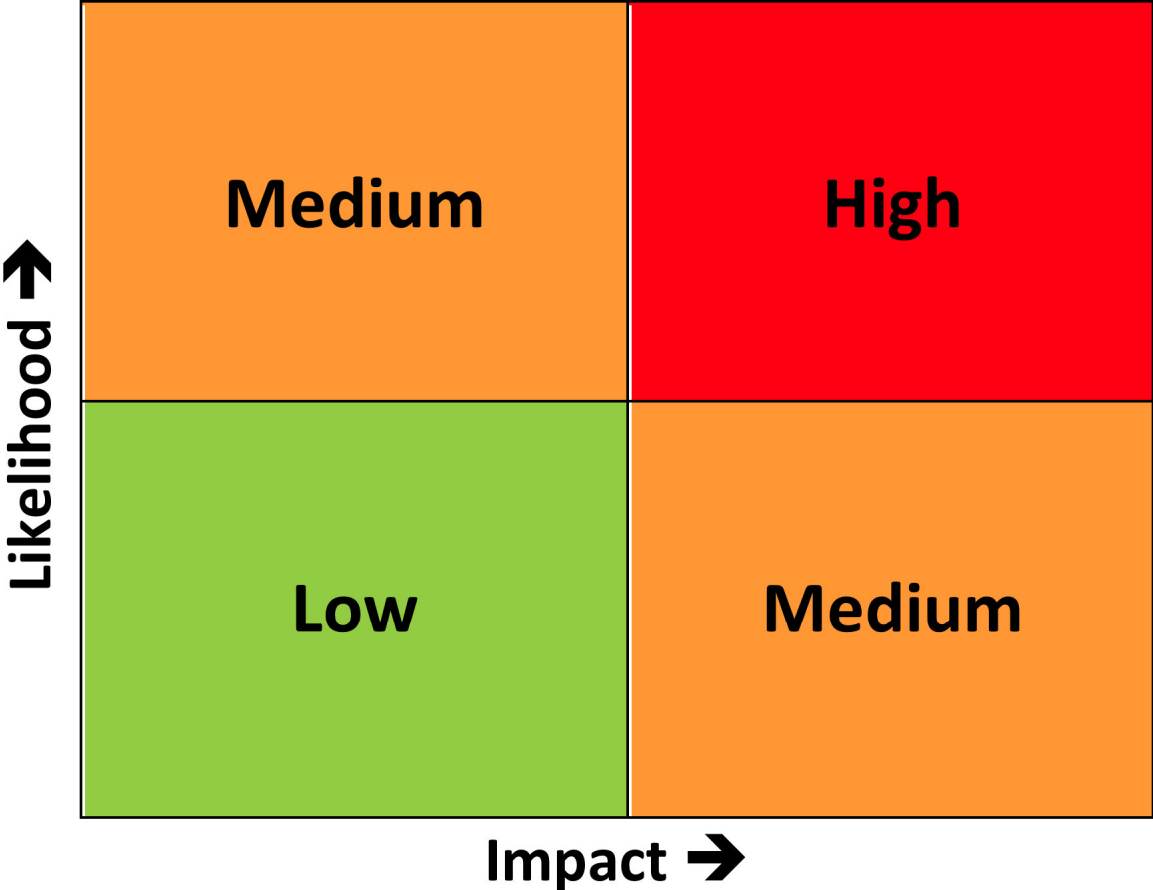
Risks may be:

- Process-related
- Cost-related
- Technical risks
- External risks

Risk Assessment

Each risk is assessed based on the likelihood of occurrence, and on the impact of the risk on the cost, time/schedule, scope of work and quality of the Project

Risk Matrix



Risk Matrix

Risk “rating” helps to guide risk responses

High risks



Priority Action



Aggressive response strategies

Low Risks



Put on “watch” list

Risk Responses

Planned risk responses must be:

- Appropriate to the significance of the risk
- Cost-effective to meet the challenge
- Realistic
- Agreed upon by the Project Team
- Owned by a responsible person on the Project Team
- Timely

There may be more than one response. Each response may be time-bound over the duration of the project.

Risk Response Strategies

- Avoid: change the Project Plan so that the risk is eliminated (eg. Extend the construction schedule to allow for fish window restrictions)
- Transfer the risk to another party (eg. fixed-price contract, project insurance, performance bonds, warranties, guarantees)
- Mitigate: reduce the likelihood/impact of a risk (eg. Conduct more tests to better understand contaminated soil risk; include redundancy in design for more reliability in critical areas)
- Accept where there are no suitable changes to the Project Plan, and there are no suitable risk responses (eg. Provide contingency funding for undetermined fish habitation enhancement requirements, yet to be determined utility costs)

Risk Registry

Risk Description	Likelihood	Impact	Risk Level	Responsible Person	Risk Response
	0 = Low 4 = High				
Contaminated soil	4	2	Med	JS	<ol style="list-style-type: none"> 1. Soil sample program to identify soil contamination. 2. Develop contaminated soils management plan. 3. Design to encapsulate in fill areas if permitted.
Scope changes resulting from adjacent developments	2	2	Med	DK/JM	<ol style="list-style-type: none"> 1. Coordination with developers during planning phases of adjacent projects. 2. Negotiate scope changes with developer to cover any additional costs to Project. 3. Disclosure in contract of adjacent projects.

Risk Registry Update

- Review Project assumptions and plans
- Has the risk assessment changed? Can the risk be “retired”?
- Are there new risks?
- Update the risk registry to reflect changes
- Update Project Plans as required

Risk Review – February 2011

Risk	Mitigation Strategies
1. Steel prices are affected by global economic drivers	1. Secure steel prices as early as possible by retaining sop fabricator on the design-assist team
2. Market conditions for construction may change	2. Secure general contractor as early as possible to work with the design-assist team
3. Competing projects draw resources and contractor interest away from this project	3. Same as above
4. Actual site conditions vary significantly from expected	4. Undertake additional geotechnical work to determine the extent and condition of harbour bedrock
5. Significant delay in utility relocations	5. Work towards cooperative and coordinated work with external utilities

Risk Review – July 2012

Risk	Mitigation Strategies
6. Realistic accuracy of estimates	<ol style="list-style-type: none">1. Include a requirement for indicative pricing during the procurement phase2. Include a design optimization phase during procurement to allow cost management
7. Designer/contractor disputes over design optimization result in change orders	<ol style="list-style-type: none">1. Provide clear contract terms on the optimization process and assigned risk2. Connect the designer/City and Contractor/City contracts regarding design optimization3. Develop a robust collaborative meeting process as part of the proposal development phase