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Managing Project Risk and Conflict: A Project Lawyer's "Front-End" Perspective

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Ron is a partner of Jutras Greco Heard LLP, a boutique law firm focused on "front-end" services for construction and commercial projects; i.e., project structuring, risk allocation, contracts, and claims analysis and avoidance. Ron and his partners have significant experience on projects of all sizes, in Canada, the US and abroad, and in a variety of industries, including building, infrastructure, transportation, oil & gas, forest products, pharmachem, manufacturing, consumer products, mining, and power (thermal, hydro, cogen, nuclear). Based on that experience, the firm strongly believes that early risk identification and analysis, business deals that address the risks, contracts that clearly articulate the deal, and ongoing risk management, are the best ways to avoid claims and increase profits. Before establishing Jutras Greco Heard LLP, Ron worked in-house for 7 years with AMEC (formerly, AGRA), one of the world's largest engineering and construction companies, where he most recently served as Vice President, Commercial & Legal. Before joining AMEC, Ron practiced construction law (both front-end and claims matters) at Osler, Hoskin & Harcourt in Toronto for 7 years. Ron is a part-time lecturer on engineering law at the University of Guelph. He is registered as a Professional Engineer in Ontario.

INTRODUCTION

There are no TV shows about lawyers who make deals. It's much more entertaining to watch people litigate: courtroom tactics, secret documents, deception, intrigue.

Real life litigation is not very entertaining: cost, delay, public disclosure, cost, delay, opportunity cost of staff, soured relationships, more cost, more delay, explaining basic concepts over and over again, provisions in financial statements, auditors' inquiries, even more cost, even more delay, and, just when there seems to be a small light at the end of the never-ending tunnel, the litigation starts a whole new life through various routes of appeal. Interesting characters, and the odd bit of intrigue might appear from time to time, but any entertainment value is generally offset by the litigation costs that continue to mount and the bitter taste of the lingering problem.

Real life construction litigation is even less entertaining. The usual problems are complicated by other factors, including huge volumes of documents, multiple parties, and technical issues that are difficult for the lawyers, judges and arbitrators to understand.

The focus of this article is to discuss how the practical identification and management of risk, starting at the "front end" of a project and continuing throughout its execution, can create an environment where the likelihood of litigation or arbitration is significantly reduced. It won't make for good TV, but it may be of some value in at least stimulating further discussion about how to maximize profits by reducing the likelihood of claims and disputes.

CONTENTS

1. RISK AND CONFLICT ARE MANAGED (ONE WAY OR ANOTHER) ON EVERY CONSTRUCTION PROJECT

Every construction project has risk and creates conflict.

While "risk" has many definitions, most of us think of it as the chance or hazard of a bad consequence. Even the most straightforward construction project presents significant "chances or hazards of bad consequences", given the complex requirements of proper design and construction within the context of a schedule.

Conflict arises on projects for many reasons. Every project is a complex challenge; every complex challenge has many solutions and many paths to each solution; and, each project participant wants to find a solution and a path that will maximize its profit. Add to this the strengths and weaknesses of human behavior, and conflict is inevitable.

Like all other project challenges, risk and conflict must be managed. The specific management strategies are unique to each project; however, there are two general approaches:

The Front End Approach. Potential risks and conflicts are identified and analyzed before the participants have started to rely on each other, are negotiated among the participants (in connection with risk transfer tools like insurance), are documented clearly, and are monitored as the work progresses to identify (and resolve) deviations at the earliest possible time.

This approach requires an initial investment of time and money, and, depending on how risks and conflicts materialize, a further investment as the work proceeds to completion.

This approach also gives participants an opportunity to set their profit and contingency requirements based on a reasonable understanding of the risks that they have assumed. (There are of course many other factors that drive profit and contingency levels, including market conditions, the immediate needs or circumstances of each participant, project profile, etc.)

This approach is imperfect: not all risks can be anticipated, deviations won't always come to light when they should, personalities and principles can always interfere with rational behavior, etc.

The Back End Approach. Other than obvious issues that are easily identified and impossible to ignore, risk and conflict are dealt with as they arise. Usually this approach is taken on the basis that serious risks and conflicts will not materialize, or on the basis that, "if they do, I will win the battle."

If the risks and conflicts don't materialize (which is possible), then the project participants have

saved the initial investment required by the Front End Approach; however, the profit and contingency levels will not likely match the risk allocation that is ultimately determined, which may be good or bad for any given participant.

If the risks and conflicts do materialize, then the management of them will be a more difficult job than if the Front End Approach were used. For example:

- subject to the opportunities that ongoing relationships bring, all of the participants will take entirely self-interested positions:
  - now that the contracts have been awarded, any incentive to act rationally in order to "win the job" is gone
  - the ability to adjust profit and contingency to reflect assumption of risk is gone
  - every dollar lost hits the bottom line
- the dispute is more likely to continue beyond the completion of the project
- external processes and personalities (e.g., courts or arbitrators, and litigators) may be introduced, adding cost and reducing control

Which approach is best? On one level, the answer is easy: who could legitimately argue that it's better to "keep the blinkers on, be optimistic, and rely on relationships to solve problems"? On the other hand, it is quite important to be mindful of the cost of perfection (or more accurately, attempted perfection). There is a tricky balance to be maintained in using the Front End Approach wisely. Risk analysis, legal input and other components of the Front End Approach have a direct impact on the bottom line. There is no scientific formula for the cost benefit analysis. In fact, an important part of the Front End Approach is making judgments about the degree and scope of front end analysis that is appropriate. If those judgments are good, and the analysis and implementation is effective:

- planned costs should be minimized, because:
  - the primary driver for each project participant is to maximize profit
  - rational and thorough front end analysis and negotiation should lead to the most efficient allocation of profit and contingency among the project participants
- unplanned costs should be minimized, because:
  - the likelihood of unplanned events is reduced
  - unplanned events should be identified sooner, and will therefore be less costly to address
  - dispute resolution costs should be minimized
- the project duration should be shorter with less schedule disruption and uncertainty
- "relationship costs" should be minimized
- the participants should retain more control (in cost, time and privacy) over the resolution of their disputes

Given the unique character of every project, it is impossible to propose a specific procedure to apply the Front End Approach; however, the balance of this paper provides an overview of some practical techniques and risk issues (many of which are deserving of their own paper (or book!)) to be considered in implementing a Front End Approach to managing project risk and conflict.

2. FUNDAMENTAL PRINCIPLES OF MANAGING RISK

There are four fundamental principles of managing risk:

Identification. This requires a determination (irrespective of responsibility) of what unplanned events can occur that will have an impact on the otherwise planned execution of the work. Obviously, each project has its own set of particular circumstances. For illustrative purposes, certain "Typical Project Risk Issues" are discussed in the Appendix (see the center pages of this report).

Allocation. Once the risks are identified, they need to be allocated among the various project participants. Typically the project owner draws certain initial lines of risk allocation. These may be very clear lines that will not change, or may be broad lines of risk allocation that get focused and altered (in varying degrees) during a negotiation process. A critical part of the allocation process is for each participant to consider and understand how it will handle the risks that it assumes, e.g., avoidance measures, impact mitigation measures, risk transfer to others (including insurance possibilities), pricing adjustments, etc. The Risk Matrix is discussed in section 5 below as a tool to facilitate tracking of risk allocation.

Documentation. The agreed risk allocation must be properly documented in clear and meaningful contracts and other relevant documentation.

Ongoing Management. Each participant must manage the risks that it owns. The Risk Register is discussed in section 8 below as a tool to facilitate ongoing management of the risks.

3. IDENTIFYING RISK: LIST OF TYPICAL PROJECT RISK ISSUES

For illustrative purposes, the list set out in the Appendix assumes that a contractor has been selected by an owner to perform a domestic design/build project on a lump sum basis. There are a variety of issues (that require some sort of risk analysis and are not dealt with in this paper) to be considered before reaching this point, including: the most appropriate method of project delivery (e.g., design/build v. design then build); the most appropriate method of contractor qualification and selection; and, the most appropriate price structure.

The list set out in the Appendix is generic and is not comprehensive. There are two reasons for this. First, every project has a unique character that needs specific analysis. Second, a comprehensive and useful list of risks requires the input of a variety of people with different perspectives on the project and different areas of expertise (see further discussion on this issue in section 10).

The list is also somewhat artificial. It tries to address issues from the perspective of various participants, when in fact an "owner's risk list" or a "contractor's risk list" or a "lender's risk list" would each be different. While most of these issues are common project risks to be allocated, some are specific or of sole interest to one or more participants, e.g., the financial wherewithal of the owner, the deal among coventurers in a joint venture, etc.

The list is divided into two primary categories: project structure and project execution

4. ALLOCATING RISK

Once risks are identified, they need to be allocated. There are many variations to the risk allocation process. At one extreme, owners (or their lenders) may dictate both risk identification and allocation, refuse to discuss anything further, and eliminate from consideration those potential project participants who refuse to accept their position. At the other extreme, an integrated task force (with a wide range of project participant representation) might spend a considerable amount of time and resources identifying risk and defining a suitable process for negotiation and allocation. Many factors will influence the path of risk allocation for any given project, including the size, character and dynamics of the project, the project participants, market conditions, etc.

If one accepts the general principle that a proactive approach is preferable such that it will allow participants to create plans, solutions and drivers that reflect their desire to maximize profit, then one should accept the principle that a negotiated risk allocation will produce a better result than an imposed risk allocation. For example, I may be able to cut my contingency if I'm able to shed certain risks that I have no control over and are better assumed by someone else. Or, a creative insurance solution may allow me to assume a difficult risk at a marginal cost.

Sometimes those who are in a position to dictate risk allocation will do so simply because they can. There is nothing inherently incorrect in this approach, as long as it comes with a realization that it may come with a cost: either the other participant(s) will price the risk, or perhaps worse, the other participants won't price the risk.

It is important to note that risks are often allocated to more than one participant. For example, the basic principle may be that a contractor accepts subsurface risk and transfers primary responsibility to a subcontractor; however, both the subcontractor and the contractor may have liability caps and/or exculpatory provisions that leave both the owner and the contractor with residual risk. Similarly, when risks are transferred to insurers, there are typically gaps in coverage, limits on coverage, and deductibles, all of which leave elements of the risk with other participants.

5. THE RISK MATRIX TOOL

The Risk Matrix tool does not allocate risk; it is simply a format to record (in summary form) a risk allocation (either proposed or agreed) that exists at any point in time. The Risk Matrix is useful to assist in the planning and execution of the risk allocation. It may be used internally (in different or similar forms) by individual project participants, or there may be a "project matrix" that is used commonly by several participants to help articulate positions and track negotiations.

A Risk Matrix is a simple tool. Like many simple tools, it is both useful and dangerous. It is useful as a quick reference and presentation aid; in the preliminary stages of risk identification and allocation negotiation, the Risk Matrix is much less cumbersome than draft contractual language. It is dangerous because it is summary in nature, and some might not recognize or accept that it must ultimately be replaced by comprehensive contractual language that thoroughly articulates the agreed risk allocation, including all of its subtleties.

The Risk Matrix itself can vary in complexity. Figure 1 shows a simple format.

6. PROJECT DOCUMENTATION

The absence of thorough and comprehensive project documentation has a dramatic effect on both the likelihood and cost of project disputes. Some may complain about the length or quality of project documentation; however, few will argue that participants are better off without it, and most will agree that the higher the quality of the documentation (i.e., the more closely and specifically that it reflects the intentions of the parties) the better.

There are three general categories of documentation: the Pre-contract Documents, the Contract Documents, and the Other Project Records.

The Pre-contract Documents are typically short contracts, letters of intent or MOUs (memoranda of understanding). Practically, these documents should articulate the expectations that exist between two or more project participants until the contract is awarded and negotiated. The parties to the documents should also decide whether it is enough for them to rely on expectations and business relationships. If not, they need to make sure that the documents are binding contracts that express those expectations as rights and obligations between the parties.

The Contract Documents (as they exist between two or more project participants) should com-

prehensively define the contractual rights and obligations as between those participants, including the risk allocation. There are numerous pitfalls to be avoided in respect of the Contract Documents, including:

- failure to put them in place in a timely manner, in reliance on the Pre-contract Documents (or no contracts at all)
- failure to achieve a clear and comprehensive expression of the risk allocation and other elements of the deal. In this regard, it is essential that the lawyers and others who participate in drafting the documents understand the project and the risk allocation that is agreed. It is also important to define the various documents (including version) that comprise the contract (an obvious but often overlooked action), and to define how conflicts in the documents are resolved
- failure to express the Contract Documents as the entire agreement, and to do everything possible to avoid a scenario where the law allows other documents or oral agreements to alter what was thought to be the deal
- failure to properly "flow down" provisions through the various participants in the construction pyramid

The Other Project Records are wide ranging in scope, value and ownership. It is beyond the scope of this paper to do anything other than express some basic principles:

- those who write Project Records should write them as if all of the records will be available to the other parties if a dispute ends up in litigation or arbitration
- records should be easily and quickly retrievable (project web sites are excellent facilitators)
- important decisions and conversations should be recorded in writing
- records should be used for timely recording of objective information, and not create a paper war (creative minutes of meetings are perhaps the best example of potential abuse)

7. HANDOVER FROM THE DEALMAKERS TO THE PROJECT EXECUTION TEAM

The best dealmaking team is one that includes individuals who will be responsible for project execution. These are the people who will best understand the difficulties that will be faced on the job, and have a big personal stake in seeing that they are properly addressed. Put in a less positive but similar vein: don't let the project execution team get into a position where they can conveniently blame "someone else's deal" for their project woes.

All of the project execution players can't negotiate the deal, so it is essential that those people have a clear understanding of the deal: how risks are allocated, how the contracts work, key issues and risks that must be monitored carefully, etc.

Typically, a formal handover meeting, where the "dealmakers" and others (e.g., the estimators) explain the deal and its foibles to the execution team, is a very valuable investment of time.

8. ONGOING MANAGEMENT: THE RISK REGISTER TOOL

The various project management tools and techniques available and utilized to manage risk and keep projects on track are beyond the scope of this paper. One simple concept is to:

- articulate how each risk (or the most significant risks) are going to be managed
- decide which individual is going to manage each risk
- regularly monitor and hold accountable the progress of the individuals

In this regard, a Risk Register does not manage risk, but is simply a format to record (in summary form) the techniques proposed and individuals appointed to manage the risk. It may be used internally (in different or similar forms) by individual project participants, or there may be a "project register" that is used commonly by several participants to help monitor the ongoing management of risk.

Figure 2 shows a sample form of Risk Register.

1.	SCOPE				
No	**Risk/Obligation**	**Owner**	**Contractor**	**Insured?**	**Comments**
	Obtain Permits				
	Provide construction facilities at site, incl. services				
	Adequacy of lay-down areas				
	Delays				
	Satisfy specified Performance Guarantees				
	Satisfy Specified Schedule Guarantees				
	Intellectual Property Indemnity				
	Provision of spare parts				
	Perform Expansions of the Facility				
	Etc.				
2.	**PRICE**				
No	**Risk/Obligation**	**Owner**	**Contractor**	**Insured?**	**Comments**
	Changes in Taxes				
	Currency				
	Etc.				
3.	**LIABILITIES**				
4.	**DELAYS**				
5.	**SITE CONDITIONS**				
6.	**ETC., ETC.**				

SAMPLE RISK MATRIX FORMAT — EPC PROJECT

Figure 1

9. CONFLICT MANAGEMENT

Project conflict is inevitable. Project conflict is also healthy. It usually arises when participants are seeking to maximize their profit. While this motivation is not inherently beneficial to all of the project participants, it may lead to creative and groundbreaking ideas and solutions that allow others to improve their profits.

Project conflict without management is very unhealthy, and will likely lead to serious illness (litigation) or death (participation in a trial or arbitration hearing).

The objective of conflict management is rational compromise. While this objective can't always be achieved, it is important to make sure that swift and sensible processes are available to the participants to assist, and not hinder, conflict management. Some of the techniques to be considered include:

Timely Communications. Many healthy conflicts sicken with the passage of time. Human nature frequently contributes to delays in confrontation and conflict resolution, e.g., I really don't want to deal with that today; let's wait, maybe it will all go away; the time isn't right to let my superiors know that there's a problem. Unfortunately, delayed confrontation often leads to harder positions and further conflict. Astute managers will encourage and motivate their staff to identify and bring forward conflict and potential conflict as soon as possible.

Project Culture. Partnering retreats, mission statements and plain old discussion about attitudes, mutual respect and open communications are obviously signs of good intentions; however, the benefits from these approaches are only reaped when the rubber hits the road, i.e. when difficult problems arise, the leadership on all sides is prepared to behave in a manner that is consistent with the good intentions. A good project culture can be a powerful force in managing conflict.

Swift Decisions/Input from Project Dedicated Neutrals. There are various forms of project dedicated neutrals. Dispute Review Boards are one example. The concept is that the project participants recognize that disputes will arise, and engage a neutral party at the outset of the project to play a role in resolving disputes. That role can vary, as the participants may agree: providing an opinion, acting as a mediator, providing a binding decision, etc. The project participants typically share the costs of the project dedicated neutral. This approach to managing conflict brings several benefits, including speed, and a decision-maker or advisor that not only has familiarity with the project and the industry, but also the participants' respect (i.e., the participants have agreed ahead of time that this individual or group will add value to the resolution of their disputes). Also, it may be that the "threat" of a speedy and binding decision will lead the participants to rational compromise; one never knows what a "judge" is going to decide.

Early Senior Management Involvement. Once again, human nature can get in the way of dispute resolution; those that are too close to the dispute often need to be removed from it. A contractual requirement for early escalation to senior management has two benefits. First, the "threat" of the requirement sometimes encourages rational compromise. Second, senior management may be more likely to see the conflict without its baggage and in a bigger context that is more conducive to rational compromise.

Mediation. Analogous to Project Dedicated Neutrals, mediators can be very effective in providing respected opinions that motivate people to reach rational compromise.

Arbitration. If arbitration becomes relevant, the participants are typically beyond the point of rational compromise and have failed in their attempts to manage conflict. A comparison of arbitration and litigation is beyond the scope of this paper. Generally, arbitration provides an opportunity to have more control over the process (including the speed of the process), and provides privacy.

10. THE ROLE AND PLACE OF EXTERNAL ADVISORS IN THE "FRONT END APPROACH"

What role should lawyers and other construction professionals play in the front end management of risk and conflict? The answer depends on many factors, including the experience and capability of the particular project participant who may want some assistance, the experience and capability of the advisor, and what the project participant wants.

Effective management of risk and conflict has to start with those who know the most about scope and project execution. The best people to contemplate, understand and start to address the things that might interfere with success are those who know the most about what the goal is and how to accomplish it. However, risk management is a different kind of analysis, starting with attitude: thinking about what can go wrong is a very different exercise than spelling out how to get the job done. Objectivity can be a problematic factor. Human nature sometimes makes it difficult for those who have their heart and soul invested in scope and execution solutions to fully identify and explore the potential problems.

There is also the issue of expertise. There are insurance, legal, financial and other disciplines that are often important to creative and effective risk management solutions. Relying on "professional advice" given by those outside the relevant discipline is risky business; trouble frequently lurks when lawyers start doing work breakdown structures, and non-lawyers start modifying indemnities.

Provided that the scope of their retainer is clear and their costs are acceptable, external advisors should be able to add value in many circumstances:

- Construction professionals (including claims consultants that have worked on countless projects with significant conflict and claims), can add objective analysis and/or specific expertise (e.g., a computerized risk analysis effort).
- Insurance professionals are essential to understanding not only the scope of coverage but also the creative insurance solutions that are available.
- Experienced "Front End" project lawyers can assist in analyzing, negotiating and articulating deals, provided they have the experience and expertise to:
  - understand the details of the project and the essence of the business deal
  - understand and participate in identifying the risk issues
  - understand and participate in the risk allocation (including finding creative solutions).
  - articulate the deal in clear language.

The most important factor in deciding how external advisors can assist, is what the particular project participant wants. Put another way, the participants are trying to make profit, and the cost of legal and other analysis must reflect competitive (i.e. successful) profit margins. The "place" of the advisors is to tell their clients what can be done at what cost, to listen to what the client wants done, and to respect the client's budget. Advisory services are not "all or nothing"; Cadillacs, Volkswagens and scooters all serve a purpose in a given circumstance. Rather than presume that legal or risk analysis or other services will cost too much, project participants should have an open and direct discussion with advisors, and agree upon what (if any) services can add value at a cost that is acceptable within the parameters of the profit margins. Like all project costs, external advisors must be carefully managed.

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RISK: OWNER CAUSES DELAY (GENERALLY)			**RESPONSIBLE: J. SMITH** **REVIEW: MONTHLY**
CONTRACTUAL ALLOCATION	7.6 If owner is late, contractor must: • mitigate • advise owner of impact prior to impact taking effect		
	7.5 Owner will allow revisions to the schedule		
	8.2 Owner will pay reasonable additional costs		
	No provision to change Target Cost or Target Price		
	2.1 B.10 Owner has various obligations		
	4.3.2 Owner liable for delays by its personnel and contractors		
	3.3 Contractor is obliged to schedule and co-ordinate with others (owner's personnel and owner's contractors)		
	7.7 Contractor can't proceed with work if it discovers errors, inconsistencies or omissions in materials provided by owner		
AVOIDANCE ACTIONS	Contractor must find a way to increase the Target Cost and Target Price by the amount of the additional costs caused by owner delay, i.e., the costs should be paid anyway, and the Contractor should be entitled to preserve its ability to meet the Target Cost and Target Price thresholds		
Risk Priority	Probability: [1-5]	Impact: [1-5]	Priority
IMPACT	**MITIGATION**		
	CONTRACTUAL RELIEF	**INSURANCE RELIEF**	**OTHER**
Additional Costs	2.1 Owner to pay time and material costs		
	2.3 Owner to pay scoping costs of changes in the work authorized by Change Order or Change Directive		
Fixed Price	2.1 Owner to pay proportionate increase in Fixed Price		
Contractor Fee	2.2 Increase pro rata to total value of net additional work authorized by Change Order or Change Directive		
	3.2.1 Request changes to Target Cost, Target Price and Milestone Schedule		
Claim by Owner	N/A		
Claim by third party	N/A		

SAMPLE RISK REGISTER FORMAT — EPC PROJECT.

Figure 2

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