

Managing Risks and Disputes in Construction – March 2017

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1. **INTRODUCTION**

- 1.1 It is trite but true to say the best way to manage a dispute is not to have one. Construction projects, however, abound with potential areas for dispute.
- 1.2 There are numerous risks on construction projects that may give rise to disputes. Participants need to evaluate these when getting involved in a new project. Areas of potential risk include (non-exhaustively):
 - The parties:
 - Are they financially sound? Is the project adequately financed?
 - What is their reputation to work with? Are they cooperative / litigious?
 - Are the parties motivated to get the job done?
 - Who are the individual people on the job? What are their qualifications and experience on projects of a similar nature?
 - Project unknowns what are the unknowns on the project that could impact time and cost? For example:
 - Ground conditions (particularly subsurface conditions);
 - o Weather;
 - Supply chain availability of long lead items; availability of specialist subcontractors;
 - Gaps in design documentation
 - Site issues are there any site-related issues that might delay the project?
 - Access to site;
 - o Greenfield or brownfield;
 - Availability of services (power, water) to the site.
 - Project requirements are there project requirements that increase the likelihood of disputes? For example:
 - Tight timeframes (add this to significant unknowns and you have a high level of risk);
 - Buildability is the design well understood / does it contemplate standard construction techniques or does the project involve innovative design and / or construction techniques that are unfamiliar? (Add this to gaps in design documentation and you have a high level of risk.)
 - Regulatory and related risks that may cause unanticipated delays. For example:
 - Are health and safety requirements particularly onerous on this project / is this a particularly dangerous project?
 - Are there potential environmental contamination / clean-up issues?
 - Are there heritage site / cultural issues?
 - Any other permit-related issues?



1.3 These risks present themselves in one way or another to all parties on the project – whether Principal, Contractor, Consultant or Subcontractor. In order to minimise the likelihood of disputes down the line, these need to be recognised, evaluated and managed at all stages of the construction project.

2. PRE-COMMENCEMENT STAGE OF THE PROJECT

Understand the Parties and their Roles

- 2.1 An obvious risk for any construction project is the financial solvency of the key parties and their ability to handle risk. It is important to know the financing of a developer is secure, and conversely it is important for a Principal to know the Contractor has the financial and personnel depth to be able to cope with allocated risks.
- 2.2 Parties also need to understand the other parties' level of sophistication and attitude towards risk. Some principals are less comfortable than others with managing risk and there may be differences between domestic projects, international projects in developed countries, and developing country projects.
- 2.3 Each party should evaluate the other parties in terms of expertise and attitude.
 - This not only includes assessing whether the Contractor, Subcontractors and any Consultants are a good fit for the project, but also extends to matters such as – Is the Principal litigious or known to be adversarial towards contractors? Does the Principal's project management team, whether internal or external, have sufficient experience in managing projects of this nature?
 - Principals may wish to include in the contract a term requiring that key personnel identified in the Contractor's tender documents will actually be used on the project.
 - Contractors may push back against such clauses they can be hard to satisfy, given that contractors typically tender for multiple projects on the assumption they will not get all of them. However, the strictness of the requirement can be mitigated by providing that key personnel may be replaced by personnel with equivalent qualifications and expertise approved by the Principal or its project manager (such approval not to be unreasonably withheld).
- 2.4 Parties should understand the structure of the transaction and the relationship between players (typically Principal, Contractors, Consultants, Subcontractors/Consultants and Engineer/Project Manager). Most commonly, the primary contract will be between Contractor and Principal, but in recent decades there has been a movement towards more collaborative project structures.¹ These can involve:
 - Partnering arrangements, where the partners agree to act in good faith and for the good of the project as a whole.² Any adversarial aspects to the relationship are intended to be removed and replaced with harmonious teamwork, working towards mutual goals.³
 - Alliancing, which places all the parties delivering the project in a collective team-based contractual arrangement with the principal.
 - Joint ventures, in which each partner is jointly and severally liable to the principal, so if one goes out of business, the consequences fall entirely on the other.
 - Long term Public Private Partnerships (PPPs), between at least one public and one private sector entity, normally for the construction of infrastructure assets.⁴ Once the infrastructure is in place, the private sector entity which carried out the work is effectively paid through the collection of income streams, like tolls on a constructed road, for a certain concession period.
- 2.5 The parties must understand the role they and the other participants are playing.
 - The first consideration will be each party's responsibility in relation to the other party or parties with which it is contracting.
 - Thought also needs to be given to how the role fits within the wider construction project. For example, is the Contractor expected to cooperate with or even have some oversight over other contractors engaged

⁴ http://www.treasury.govt.nz/statesector/ppp/guidance/model-and-policy/ppp-public-model-and-policy-sep15.pdf



John Walton and John Bellhouse *Risk-Avoidance, Transfer, Acceptance or Management*, BuildLaw, Issue No 16 December 2012, at page 8.
 ² Ibid.

³ Khekale, Futane *Management of Claims and Disputes in Construction Industry* at page 852; available at <u>https://www.ijsr.net/archive/v4i5/SUB154227.pdf</u>.

directly by the Principal? Who is taking on ultimate responsibility for design? Is that separate from the party responsible for construction?

Understand the Project – Minimise the Unknowns

- 2.6 First and foremost, there needs to be clear and complete design documentation.
- 2.7 If the contract is build-only, this should be provided *before* the Contractor takes on the project. The Contractor needs to ensure so far as is possible:
 - no ambiguities or inconsistencies across the documentation;
 - no buildability issues;
 - pricing risks from incomplete design documentation are minimised.
- 2.8 The parties should allow sufficient time for tenders.
 - Although there is invariably pressure to commence and complete the project as fast as possible, it is in the interests of both Contractor and Principal that the Contractor has sufficient time to properly assess the project and the scope of works and make a considered tender.
 - It is also prudent for a Contractor to assess the feasibility of meeting whatever performance times are required by the Principal and deal with any unrealistic time expectations at the outset.
- 2.9 Unforeseen site conditions are one of the most significant risk factors in construction projects in New Zealand.⁵
 - To reduce this risk, the parties should obtain geotechnical information, information on site contamination and information on any sub-ground utilities up front.
 - If these are thoroughly investigated at the pre-bid stage, the bids will be properly informed and the Principal will be less exposed to the risk of the Contractor claiming for changed conditions further down the track.
- 2.10 The parties should identify and plan for regulatory compliance matters up front.
 - If these matters are overlooked, the cost and potentially timing of the project may be seriously impacted by the sudden need to address, say, environmental constraints, or obtain certain permits, which could have more easily been dealt with earlier.
 - Contractors have reported environmental compliance is a particular issue as the cost and delays often run beyond any risk contingency added to the tender.⁶
- 2.11 Conducting a pre-tender risk analysis designed to identify the risks on the project and inviting tenderers to comment may be a useful step.
 - How contractors price risks differs between theory and practice. Theoretically, risks are priced through contingency margins. Research, however, suggests that in practice contractors tend to undercut risk so as to outbid competitors.⁷
 - While there are models which may be used to price certain risks, multiple empirical studies have shown these are rarely used, and contractors tend to favour experience and intuition.⁸
 - Notwithstanding, a project where risks are thoroughly identified and investigated at the pre-contract stage, has a better chance of being properly priced and avoiding disputes down the line.
- 2.12 Finally, the parties should conduct buildability reviews (including whether adequate time has been allocated for the works). These reviews are critical to fleshing out any gaps in the design documentation and sequencing before construction commences.

 ⁷ Taylor, S and Mbachu, J (2014) *Profiling and mitigating risks in construction contracts* Proceedings of the 4th New Zealand Built Environment Research Symposium (NZBERS). Auckland, New Zealand, 14 November. ISSN 2324-1829 (online) at page 4.
 ⁸ Ibid at page 2.



 ⁵ Taylor, S and Mbachu, J (2014) *Profiling and mitigating risks in construction contracts* Proceedings of the 4th New Zealand Built Environment Research Symposium (NZBERS). Auckland, New Zealand, 14 November. ISSN 2324-1829 (online) at page 8.
 ⁶ Ibid at page 12.

- Principals may wish to consider a contractual provision where the Contractor having had the opportunity to review and comment on the design undertakes that the contract works can be constructed. This puts the risk of buildability on the party best able to carry it the builder and gives that party an incentive to review the design thoroughly and identify any buildability problems up front, which is to everyone's advantage down the line.
- Buildability reviews are also used in early contractor involvement (ECI) procurement ⁹projects, which use a two-stage process, under which the Contractor is involved collaboratively at the outset to input its construction expertise for the benefit of the initial design stage. ECI projects tend to be more expensive for the Principal up-front but can significantly reduce the cost to the project down the line.

Understand the Contract – Clear and Appropriate Contractual Risk Allocation

- 2.13 Any uncertainties that cannot be eliminated should be clearly allocated under the contract.
- 2.14 A good guiding principle is that risk should fall on the party best able to control it. All contracting parties have an interest in reducing risk, but to transfer risk without analysis of that risk and who is best positioned to bear it is seldom sensible and will frequently give rise to dispute down the line.
 - For example, a Contractor who is pressured into accepting an inappropriate risk may not properly allow for it in their pricing and planning for the project. If that risk eventuates, you might see inflated claims and/or delays / reduction in the quality of the work, all of which will give rise to disputes. This is in no-one's interest.
 - It may be appropriate to share risk, or even for the Principal to retain risk. Principals should consider that a
 more expensive but completed project is frequently preferable to an incomplete / defective project and a
 contractual right to claim against a financially strapped contractor.
- 2.15 Conducting a pre-tender risk assessment and a baseline allocation of risk, inviting tenderers to comment on this and then factoring those comments into the final contractual structure is a useful method of achieving a sensible and balanced risk allocation.
- 2.16 It should go without saying that it is important to read the documents that comprise the contract and understand the ways in which they allocate risk.

Ways in which Contracts Allocate Risk

- 2.17 Some of the main contractual methods of allocating / addressing risk include:
 - Contractual tags
 - Contingency allowance
 - Limitation of liability clauses
 - Clauses addressing extensions of time and liquidated damages
 - Shifting risk to another party (indemnity or insurance)
 - Bonds and retentions
 - Painshare / gainshare provisions

Contractual tags and conditions

- 2.18 This is the favoured means for a Contractor to deal with unwanted risks.¹⁰
 - It places the risk back on the Principal or at least opens the matter to negotiation.
 - The downside for the Contractor is that the more tags there are, the less attractive the bid becomes.
- 2.19 Prior to bid submittal, a prudent Contractor should get experienced team members to assess project risks, and then reasonably allocate which risks, in their view, are appropriate for which side to bear in the particular project

¹⁰ Ibid at page 11.



 ⁹ For a discussion of ECI see Steven Francis and Lydia Kiroff *Attitudes and Perceptions towards Early Contractor Involvement Procurement* at http://unitec.researchbank.ac.nz.

situation. The Contractor then has some reasoning for its bid to justify why it has shifted some allocations by way of tags.

- 2.20 That said, some Principals will not accept *any* tender with tags or conditions and may require tenderers to remove them for their tender even to be considered. Whilst this will shift the risk back to the Contractor, it may result in:
 - higher priced bids and/or
 - poorly prepared or pressured Contractors with inadequate means to cope with the risk if it ever eventuates.
- 2.21 This last point is a recipe for disputes.

Contingency

- 2.22 Having a proper project contingency allowance is important to deal with Contractor allocated risks in construction projects.
 - Changes will occur during the course of any project's construction, whether that be from the Principal changing its mind, discovered gaps being plugged in the design documentation, or unforeseen matters.
 - If the Contractor has an appropriate contingency allowance apportioned at the outset, it is more likely extra work can be carried out with minimal delay to the project and with reduced risk of dispute.
- 2.23 In a highly competitive market, contingency can be one of the first items reduced. While this is understandable, both Contractors and Principals should be alert to the importance of proper contingency allocation as a means of reducing cost increases, delays and disputes down the line.

Limitation of risk through limitation of liability clauses

- 2.24 Contractual limitation of liability (LOL) clauses capping liability and/or excluding certain types of loss are an important means of managing risk.
 - Most commonly these are used by Consultants or subcontractors who have a limited role and are paid an amount that is relatively small in relation to the cost of the project as a whole.¹¹
 - However, they are also part of the risk allocation on complex multi-party projects and turnkey projects where the contractor is responsible for all the engineering, procurement and construction.
- 2.25 For LOL clauses excluding certain types of loss, it is prudent to itemise which losses are to be excluded, as, for example, in clause 17.6 of the FIDIC Silver Book:

Neither Party shall be liable to the other Party for loss of use of any Works, loss of profit, loss of any contract or for any indirect or consequential loss or damage which may be suffered by the other party in connection with the Contract.

The parties should bear in mind that if the clause is ambiguous the *contra proferentem rule* may be invoked. The courts will determine what loss is excluded by reference to the specific contract.^{12 13 14}

- 2.26 If the principal is a "consumer" for the purpose of the Consumer Guarantees Act 1993 (CGA), any clauses which purport to contract out of the minimum remedies in the CGA will be ineffective.
 - A "consumer" is defined in the CGA as "a person...who acquires from a supplier goods or services of a kind ordinarily acquired for personal, domestic or household use or consumption."¹⁵
 - Goods or services may be "ordinarily acquired for personal, domestic or household use or consumption" so long as it would not be extraordinary or idiosyncratic for them to be acquired for such use.¹⁶

¹⁶ *Nesbit v Porter* [2000] 2 NZLR 465 at 473.



¹¹ See for example IPENZ/ACENZ clauses 10 (excluding liability indirect, consequential, special loss and loss of profit) and 11 (capping liability at 5x the fee with a maximum limit of \$500,000).

¹² See also clauses 10 and 11 of IPENZ/ACENZ in the case of Consultants.

Oceania Furniture Ltd v Debonaire Products Ltd HC Wellington CIV-2008-485-1701, 27 August 2009 and Star Polaris LLC v HHIC-Phil Inc [2016] EWHC 2941 (Comm) (17 November 2016).

Previously it had been argued "consequential loss" in all cases meant losses under the second limb of Hadley v Baxendale (1854) 9 Exch 341.

¹⁵ Section 2.

- Accordingly if a person has acquired services of a kind ordinarily acquired for personal, domestic or household use or consumption, they will be a consumer unless they acquire the goods or services "for the purpose of resupplying them in trade; or consuming them in the course of a process of production or manufacture; or in the case of goods repairing or treating in trade other goods or fixtures on the land."¹⁷
- There is a limited ability to contract out of the CGA where both parties are "in trade".¹⁸
- 2.27 If an exclusion clause is part of a standard form consumer contract, it may also run afoul of the unfair contract terms provisions in the Fair Trading Act 1986 (FTA).
 - Any action would need to be taken by the Commerce Commission, which may apply to the court for a
 declaration that a term in a standard form consumer contract is an unfair contract term.¹⁹
 - Broadly speaking, in determining whether a contract is a "standard form", the court would take into account
 whether one party has most or all of the bargaining power, and has presented a contract containing an unfair
 term to the other party as a fait accompli, without opportunity to negotiate.²⁰
 - As to whether a particular term in a consumer contract is unfair, the court will look at the entire contract and transparency of the term in issue, and must be satisfied that term:²¹
 - Would cause a significant imbalance in the parties' rights and obligations arising under the contract; and
 - \circ $\,$ Is not reasonably necessary in order to protect the legitimate interests of the party who would be advantaged by the term; and
 - Would cause detriment (whether financial or otherwise) to a party if it were applied, enforced or relied on.
 - A term that limits one party's right to sue another party is listed as an example in the FTA of the kind of term that, if in a consumer contract, may be an unfair contract term.²²
 - That said, limitation or exclusion clauses are not necessarily unfair contract terms, and it is a matter of balance. For any given consumer project caps or exclusions should only be used to the extent appropriate to protect the Contractor's legitimate interests.
- 2.28 Contractual limitation clauses will likely be ineffective against third parties suing in tort.
 - This may include any third party beneficiaries (TPBs) of the construction contract (under the Contracts (Privity) Act 1982) were they to choose also to sue under a parallel duty in tort, unless there is some mechanism by which notice of the limitation clauses is given to the TPBs.
 - For example requiring the TPB to sign an acknowledgement they are aware of and accept the limits in the contract itself.
- 2.29 Lastly, we caution the bidding project team needs to be across the difference between insurance and limiting liability. Occasionally the concepts of insurance and liability are conflated, with the party presuming that just because insurance is set at a certain amount, liability is correspondingly capped, notwithstanding no LOL clause doing this.

Liquidated damages (LDs) for not completing on time

2.30 If the Contractor does not complete the project on time, the Principal will suffer losses associated with not being able to use the works as contemplated. Because these types of losses may be difficult to quantify and prove, and in order to provide certainty for both parties, most construction contracts contain a liquidated damages clause. This entitles the Principal to be compensated for Contractor-caused delays to the contractual completion date at a daily or weekly rate (with no other damages recoverable).²³

¹⁷ Section 2, refer definition of "consumer".

¹⁸ Section 43.

¹⁹ Section 46H.

²⁰ Refer section 46J(2).

²¹ Section 46L.

²² Section 46M.

²³ See for example NZS 3910:2013 at 10.5.1 to 10.5.3.

- 2.31 Liquidated damages clauses remove uncertainty to the benefit of both Principal and Contractor:
 - The Principal does not have to go to court to prove its actual loss.
 - The Contractor has certainty and a cap to its liability to the Principal for delay related damages.
- 2.32 A liquidated damages clause is not a penalty clause. Historically, courts have not enforced clauses requiring penalty payments. Rather, LDs are intended to be a genuine pre-estimate of the likely losses of the Principal in the event of late completion by the Contractor.
- 2.33 Recently, in the *Cavendish* case, the UK Supreme Court has said that a party may have a legitimate interest in charging the breaching party an amount beyond the amount of compensation for actual loss.²⁴ While declining to abolish the rule against penalties, the Court recast the test as whether the pertinent provision imposes a detriment on the contract-breaker out of all proportion to any legitimate interest of the innocent party in the enforcement of the primary obligation (the breach of which entitles the innocent party to liquidated damages).²⁵
 - Neither of the two appeals in Cavendish related to liquidated damages for delay under a construction contract.
 - It is not yet clear the extent to which this will be applied in New Zealand or in England in the construction context.
- 2.34 The question for the court is whether the contractual function of the clause in question is penal or compensatory (or possibly protects some other legitimate interest of the party enforcing it). This is to be determined objectively as at the time the contract was made.
 - Many contracts include express language that the parties agree that the amount is a genuine pre-estimate. This is helpful but not necessarily conclusive. It may be prudent to go further and document the basis of the calculation and provide that information to the Contractor in advance.
 - If there is a substantial discrepancy between the level of damages stipulated in the contract and the level of damage which is likely to be suffered by the Principal in the event of a delay, this may suggest the clause is penal in nature. However, this is a guideline only and may not be the sole factor to be considered, particularly in light of Cavendish.
- 2.35 In the construction context, courts are increasingly prepared to enforce LD clauses in arms length contracts between commercially sophisticated parties.

Shifting risk to another party - contract (indemnity) or insurance

- 2.36 Contractual indemnities are an important tool in achieving contractual allocation of risk.²⁶
- 2.37 An indemnity is a complete transfer of risk for the scope of the indemnity, provided the party giving it has the financial capacity to meet any claim. This is an important qualification. If the party is not good for the money, then its indemnity is worthless. It is accordingly important to ensure:
 - The party giving the indemnity has the financial wherewithal to satisfy the indemnity; and/or
 - The party has insurance that may apply if the indemnity is called on.
- 2.38 Insurance is a mechanism to enable a party to transfer some or all of a risk it has under the contract to a third party insurance company. This serves two purposes.
 - It provides the insured party with a degree of certainty as to the cost of bearing a given contractual risk; and
 - It provides the other contracting party with some confidence that the insured party is good for the money should the risk eventuate.
- 2.39 However, there are limitations to insurance cover that mean there is frequently a gap between the contractual risk the party bears and the cover it has for that risk. In particular:

²⁶ See, for example, NZS 3910:2013 7.11 to 7.14.



²⁴ Cavendish Square Holding BV v Talal El Makdessi; ParkingEye Limted v Beavis [2015] UKSC 67.

²⁵ *Cavendish* at [31]-[32], [152], [255].

- Policies will have 'excepted risks' and carve outs / exclusions for which there is no coverage; and the
 insured's actions may vitiate the coverage entirely (for example concealing material information from the
 insurer).
- Even if the loss itself is covered, the payout may not equate to the level of loss the insured will need to
 cover the deductible or excess itself; and the cover will have a cap which is the maximum the insurer is
 obliged to pay.
- Even if the cover would (other things being equal) meet the level of loss, the pay-out may be reduced if there are LOL clauses capping the exposure of the insured party to the type of loss in question. (This is likely to occur in contractual claims, but may not occur in tort claims).
- 2.40 The parties need to ensure that all involved in the project have adequate insurance (both in terms of type and level) in light of the risks that each is taking.
 - Prudently, parties will seek proof of insurance held by way of the policies themselves or where there are confidentiality issues certificates of currency. The former is strongly to be preferred as it allows the uninsured party to assess any policy exclusions for itself.
 - Sometimes a party may request its interests be noted on the other party's insurance policy. The benefit of
 this depends on the particular policy's terms (another reason to be able to read the policy). In some policies,
 all the 'noting' will achieve is that the insurer will waive its rights of subrogation against that party. (That said,
 subrogation is useful to remove, as it is highly detrimental to contractual relations to have the insured party
 be paid out, and then the insurer sue the other members of the project in the insured's name!)
 - Alternatively, a party may request to be named an "additional insured" for the purpose of another's policy, which means they are an equal insured. Again, however, it is prudent to read the policy so as to know, for example, whether the policy permits the additional insured to recover notwithstanding a breach by the primary insured.
- 2.41 Types of insurance found in the construction context include:
 - Professional Indemnity (PI) insurance for professional services i.e. where an element of design or consulting is involved in the work to be provided by a party. It is normally provided by Consultants; sometimes Contractors will have PI that covers any design work they undertake. PI does not cover Contractor errors and omissions in the construction work itself;
 - Public Liability insurance which is directed to covering injury or third party property damage arising from the works;
 - Contract Works insurance which is directed to damage to the subject property / project itself;
 - Plant insurance which is directed to damage to heavy machinery and equipment used on the project;
 - Motor Vehicle insurance; and
 - Errors and Omissions (E&O) insurance which provides cover for contractors' non-design related mistakes which have caused financial loss as opposed to physical damage to the contract works. This type of insurance is not readily available in New Zealand and few contractors carry it.
- 2.42 One of the biggest gaps between risk of loss and insurance cover lies in the lack of E&O insurance.
 - While this is not normally a significant problem during the course of the project itself, it is a huge problem when dealing with third party tort claims for negligent construction down the line.
 - This has been demonstrated in the leaky building crisis. In such cases, typically builders are found to be 60% to 80% liable. Yet these are the very parties without insurance, putting them at risk of insolvency and the other parties at risk of having to bear a disproportionate share of liability and not infrequently of going insolvent themselves.
 - A combination of limitation of liability clauses found in most Consultant contracts and/or frequently unrealistically low levels of PI insurance mean that these are unlikely to plug the gap.
 - This gap underscores the importance of thoroughly investigating the solvency and the expertise of the other parties to the Contract and the project.

Bonds and Retentions



- 2.43 Retentions and bonds are a method of addressing the risk that the other party will not perform their contractual obligations or perform them negligently. Primarily they are used as a device to ensure the Contractor will remedy any defective workmanship.
- 2.44 Retentions are where the Principal withholds a certain percentage from progress payments due under the Contract (usually in the 5% to 10% range). In a normal contract 50% of retentions are released on achievement of practical completion with the remainder on final completion at the end of the defects liability period.
- 2.45 In addition to, or instead of, retentions, the Principal may require the Contractor to provide a bond at the outset of the contract. Usually this is a performance bond,²⁷ but other bonds for example an advance payment bond can be sought. A bond is a form of security usually issued by a bank, surety company or insurer and often in the region of 2.5% 10% of the contract price. Bonds given by the Principal are also possible, but very unusual, and so this section of the paper focusses on Contractor bonds.
 - Broadly, bonds can be classed into conditional bonds (which require proof of breach by the Contractor, say by poor performance) and on-demand bonds (which do not require such proof).²⁸
 - For the former, theoretically once the Contractor is in breach, the Principal may make a call on the bond and be entitled to payment of its losses by the surety directly. That said, the condition (e.g. poor performance) is likely to be disputed by the Contractor, necessitating recourse to a potentially in-depth dispute procedure, before the Principal can be compensated per the bond.
- 2.46 It has been argued that typical bonds are set too low to cover losses, and should be higher than the usual ceiling of 10% of the contract price.²⁹ That said, bonds are expensive for Contractors to procure so there would likely be significant push back.

Pain / gain share clauses

- 2.47 This type of clause provides that both the financial impact of overruns and the financial benefits of cost savings are shared between the parties.
 - In theory, the Contractor is actively motivated to finish a project to standard but also with cost savings.
 - These clauses work best where the target cost of the project is understood by all, based on a complete scope and set of information and is set at a realistic but incentivising level.
 - Depending on the particular circumstances, a Contractor may be resistant to such a clause on the basis it is required to share savings gained from its performance which would perhaps otherwise be its alone.
- 2.48 Ultimately, there is no one size fits all for contractual allocation of risk. The important thing is that risks are (i) recognised and assessed, (ii) allocated among the parties (iii) in such a manner that the party bearing each risk has a reasonable shot at being able to cope with the risk if it eventuates.

3. STRATEGIES FOR AVOIDING / MANAGING DISPUTES DURING THE PROJECT

3.1 During the project, strategies for avoiding disputes and managing any that arise include having and following clear contractual lines of authority and decision-making, implementing procedures and documentation that track decision-making, and early identification of problems.

Clear contractual lines of authority and decision-making

- 3.2 All projects need clear lines of authority and decision-making.
 - It is best practice to create an organisation chart for every project which identifies key personnel (and relevant contact information), what the lines of authority are, and the level of designated authority that each person holds.
 - This information should be incorporated into the contract.

Walton, J Bonds, encouraging people to do what they said they would BuildLaw - Issue No 14 June 2012.



²⁷ See, for example, Schedule 3 of NZS3916:2013.

²⁸ Walton, J Bonds, encouraging people to do what they said they would BuildLaw – Issue No 14 June 2012.

Managing performance – well documented processes and procedures

- 3.3 As part of the process of mitigating risk at the outset, the parties should have satisfied themselves that each of them has personnel on the project with appropriate qualifications and experience.
- 3.4 For the duration of the project, the parties should manage ongoing performance by implementing well documented processes and procedures. These might include:
 - Regular project, site and subcontractor meetings, minuted with action items assigned to particular persons and with documented follow up;
 - Maintaining comprehensive and ordered records:
 - Of any Contractor requests for information or instructions, together with any response and related correspondence;
 - Of contract instructions these should be filed along with the document trail leading up to them;
 - Of the variations process (including, for each variation, who it originated from, the reason, cost, approval, and EOT if any);
 - Of any inactions, failures or delays and associated costs.
 - Regular written reporting on quality control; and
 - Some kind of "peer review" from within the business, so that a non team member who is appropriately
 experienced can 'check in' on the project from time to time, to ensure it is being advanced and managing
 appropriately.
- 3.5 For the most part, mitigating risks of performance issues requires good processes and management by <u>both</u> by the project administrator (Engineer to the Contract / Architect / Project Manager) and the Contractor.
- 3.6 Some performance management requirements can be built into the contract. For example, the contract may include:
 - A clause requiring monthly written confirmation by both the Contractor and the Consultant that work undertaken in the preceding month is in compliance with the design and Building Act 2004;
 - A detailed specification of what must be provided for Practical Completion to be certified; and
 - A form of Early Warning Register, whereby the Contractor and Project Manager are required to tell each other as soon as one is aware of some matter that could increase cost, delay completion (or meeting a milestone), and/or impair performance of the works.³⁰ This information may feed into an overall Risk Register for the project. This is a way to encourage information sharing and ideally these issues would be resolved at regular project meetings.
- 3.7 Do not rely on another party to keep a copy set of everything. Parties may go out of business, inadvertently throw out or delete material, or lose materials through accident (e.g. storage area being flooded) or natural disasters.
- 3.8 The Building Act 2004 has a ten year longstop limitation period for construction claims, so parties should retain project records (electronically if possible) for at least 10 years post completion. This includes a copy of the contract and material relevant to it.

Address problems and disputes promptly

- 3.9 If any problem arises on the project, no matter how seemingly low level or minor, it should be promptly addressed. Do not sit on the inevitable disputes / issues that will arise. If not identified early and given attention contemporaneously, a potential dispute may snowball into a claim.
- 3.10 In order to achieve early identification:
 - The project team should be familiar with the contract. The contract documents should be clear and complete so that everyone understands their respective rights and responsibilities.

With possible contractual 'penalties' for a failure to do so, like a compensation event for the contractor, i.e., where some money is payable due to the failure of the other party to notify, causing loss.



³⁰

- Regular meetings should be scheduled to discuss relevant matters, and identify where anything has gone awry (for example pre-scheduled meetings with consultants during design; regular Project Control Group meetings; regular meetings between the Contractor and Subcontractors). In this way, potential disputes may be dealt with routinely before they germinate.
- If an issue arises, say with an outstanding variation, all the documentation should be immediately available to build a chronology of what has (and has not) occurred.
- 3.11 If the project is plagued by multiple issues, it may be sensible to organise additional subsets of documentation, one per issue. The subset may include:
 - an internal report from the project team as to what the issue is,
 - a chronology, and
 - copies of all relevant documentation like correspondence, minutes, notices to contractor, etc.
- 3.12 If an issue is identified early, it should be addressed by the appropriate level personnel within and (where necessary) outside the project team.
 - The project team needs to be trained on what levels of issues need to be escalated internally to someone more senior to manage.
 - There should also be triggers for obtaining legal advice of:
 - In-house counsel,
 - External counsel.
 - Obtaining the appropriate level of legal advice earlier rather than later can help prevent potential disputes ballooning into claims / litigation. It will also save costs in the long run, by allowing the business to make a commercial decision on what steps to take.
 - The dispute process in the contract should be initiated in a timely manner, where it is clear matters are not going to be resolved by a simple discussion between the parties.
 - A dispute process can occur while the project is continuing to be performed.
- 3.13 It cannot be over-emphasised that if a potential dispute is 'sat on' or ignored, the risk of its escalating into a claim significantly increases.

4. DECIDING WHAT RESOLUTION APPROACH YOU WANT

- 4.1 Too frequently the dispute resolution provisions of a construction contract comprise a boilerplate clause which is included with little thought as to its suitability for the project and particular parties.
- 4.2 But disputes are a fact of life on construction projects. Ideally, potential issues will be identified and resolved early, yet dispute clauses are commonly invoked. It is therefore important to have a considered contractual dispute resolution mechanism. Below we discuss the broad types of dispute resolution clauses and their potential benefits and drawbacks.

Engineer Determination (NZS3910 / 3916)

- 4.3 NZS3910 and NZS3916 are forms of contract for construction, and design and build (respectively), which provide for a contract administration role entitled "Engineer to the Contract". Title notwithstanding, the Engineer is not expected to hold a CPEng. Most commonly, the Engineer will have a QS or construction project management background.
- 4.4 The Engineer is engaged by the Principal, but is empowered to make certain decisions which may bind both Principal and Contractor. In this decision-making role, the Engineer is to act independently of either contracting party, fairly and impartially.
- 4.5 Under the NZS contracts, disputes between the contracting parties are in the first instance referred to the Engineer who must make a formal decision within a prescribed timeframe. Subject to rights to adjudication, mediation and arbitration, the Engineer's decision is final and binding.



- 4.6 FIDIC provides for a similar system of Engineer determinations in the case of EOT and payment claims.³¹
- 4.7 The main benefits of an Engineer's determination are:
 - It is made by someone with experience in construction matters;
 - It is made by someone who is already familiar with the contract and the project in question;
 - It is quick; and
 - It is low cost.
- 4.8 The main downsides to an Engineer's determination are:
 - Because the Engineer is the person who certifies various entitlements under the contract (such as to EOTs and payment)³² the Engineer may already have formed an opinion on the dispute or, indeed, the dispute may have arisen from the Engineer's own actions.
 - Notwithstanding the Engineer's duty to act fairly and impartially, contractors sometimes perceive the Engineer to be aligned with the Principal.
 - The Engineer may also be influenced by personal likes and dislikes as a result of working on the project.
 - The Engineer can only address disputes between the contracting parties concerning the contract.
- 4.9 Overall, however, the Engineer can provide a useful and relatively inexpensive first-level option for resolving Principal / Contractor disputes.

Adjudication under the Construction Contracts Act 2002

- 4.10 In New Zealand parties to a "construction contract" have a statutory right to adjudication under the Construction Contracts Act 2002 (CCA. The parties cannot contract out of this.³³
- 4.11 Often adjudication is explained as the "quick and dirty" method of dispute resolution. It is used for speedy and confidential resolution to sticking points that will allow money to keep flowing.
- 4.12 The dispute will be decided:
 - "On the papers" i.e. without an oral hearing,
 - Using strict timeframes for notice of adjudication, appointment of adjudicator, claim, response and any reply.
- 4.13 The adjudicator is normally a member of a specialist industry dispute resolution group (such as the Building Disputes Tribunal). The Act allows 20 working days after the response is received by the Adjudicator to determine a dispute (with a further 10 allowed if reasonably required).³⁴ The Building Disputes Tribunal reports that most adjudications are resolved less than six weeks after being initiated.³⁵
- 4.14 Adjudication does not preclude the parties continuing to pursue the dispute in another contractually agreed forum.³⁶ However, in the period between the adjudicator's decision and the ultimate resolution of the underlying dispute in whatever forum the parties have chosen, the parties must conduct themselves as per the adjudication decision.
 - So, if the adjudicator determines the Principal must pay an amount to the Contractor, the Principal must pay that amount.

³⁶ Section 26 of the Construction Contracts Act 2002.



³¹ See for example FIDIC Conditions of Contract for Plant and Design-Build for Electrical and Mechanical Plant and for Building and Engineering Works, Designed by the Contractor at clause 20.1. The decision must be made in accordance with clause 3.5, which provides for "fair" determinations by the Engineer.

³² Refer clause 12.2.

³³ There is an exception in the case where parties have agreed to refer the dispute to arbitration, and the arbitration is: an international arbitration; or covered by the provisions of the Protocol on Arbitration Clauses (1923); or covered by the provisions of the Convention on the Settlement of Investment Disputes between States and Nationals of Other States and is an arbitration to which the Arbitration (International Investment Disputes) Act 1979 applies (section 25(3)).

Section 46 of the Construction Contracts Act 2002. The adjudicator may also take such further time that the parties agree.

³⁵ http://www.buildingdisputestribunal.co.nz/ADJUDICATION.html.

- In that situation, payment related risk is transferred from the Contractor to the Principal.
- This mechanism is designed to ensure that funds continue to flow.
- 4.15 The main benefits of adjudication are:
 - The determination is normally made by someone with experience in construction matters;
 - The determination is made by an independent person rather than someone who is contractually aligned with one of the parties or themselves has potential liability in connection with the project (such as the Engineer);
 - It is quick;
 - It is low cost;
 - It provides interim finality, while still allowing substantive disputes to proceed in another forum; and.
 - From the Contractor's perspective, it tends to shift payment related risk from the Contractor to the Principal.
- 4.16 The main downsides of adjudication are:
 - Since disputes are decided on the papers, it is not best-suited for claims that may turn on credibility of conflicting evidence;
 - It is less well-suited to multi-party disputes;
 - The respondent frequently complains of being ambushed while the complainant has plenty of time to prepare its claim prior to submitting a notice of adjudication, once the notice is submitted very tight timeframes to respond kick in.
- 4.17 Not surprisingly, the core use of adjudication is for payment claim disputes, because of the clear advantage of swift resolution. Adjudication can be used for other disputes including whether there has been a breach of any term of the construction contract (whether express or implied).³⁷ That encompasses claims for breaches of standard of care clauses / negligence.
- 4.18 Notwithstanding its ambit, adjudication is best used for disputes that:
 - Require rapid resolution even if on an interim basis (like payment claims and EOT claims); and/or
 - Depend primarily on documentary evidence, rather than "he said / she said" versions of events.
- 4.19 Adjudication is less attractive as a means of resolving claims relating to defects and that a standard of care has been breached, as these types of claim tend to require testing of evidence and can involve detailed expert input (both as to the standard and quantum). This makes these disputes less suitable for an "on the papers" approach following strict and short timeframes.
- 4.20 As can be seen an Engineer's determination and adjudication sit in a similar space in terms of providing quick and inexpensive first port of call dispute resolution options.
 - Adjudication is the more attractive in terms of interim finality and providing an independent tribunal not involved in the dispute.
 - Adjudication is strongly preferable if there is any question that the Engineer may have acted improperly or in breach of his or her obligations.
- 4.21 It will seldom make sense to have *both* an adjudication *and* an Engineer's determination of the same dispute. Since adjudication is a statutory right, parties to a contract providing for Engineer's determination as the first stage in a multi-tiered dispute resolution process might consider agreeing that:
 - If adjudication proceedings are commenced, no referral to the Engineer for formal decision on the issue will be made (and any existing referral will be discontinued); and
 - The parties will treat the next stage in the dispute resolution process as being triggered by dissatisfaction with the adjudication determination.

³⁷ Section 25 of the Construction Contracts Act 2002.



Expert Determination

- 4.22 The parties may agree to submit their dispute to an "expert" who will consider the submissions and issue a written determination. The parties can agree whether that will be binding or not.
- 4.23 The main benefits of expert determination are:
 - The determination is normally made by someone with experience in construction matters;
 - The determination is made by an independent person rather than someone who is contractually aligned with one of the parties or themselves has potential liability in connection with the project (such as the Engineer);
 - It is quick;
 - It is low cost;
 - Binding expert determination provides finality.
- 4.24 The main downsides of expert determination are:
 - Unlike in a court proceeding or an arbitration, there are no rules or procedures that an expert must follow in making his or her determination to ensure both parties have a fair opportunity of presenting their views and that the expert does not take into account irrelevant matters;
 - In binding expert determination there is no appeals process in case the expert gets things seriously wrong;
 - Experts are not necessarily well suited to deciding matters where there is disputed factual evidence.
- 4.25 The downsides highlight the risks inherent in binding expert determinations, making this seldom a dispute resolution mechanism of choice. Expert determination can, however, be very useful as a non-binding advisory process in disputes relating to technical issues and, in this way, is more frequently employed.
 - For example, as part of the Engineer review stage of the dispute resolution procedure under NZS 3910 / 3916, the Engineer and the Contractor (with the consent of the Principal) may refer a dispute (or issues in a dispute) to an agreed expert to make a recommendation to the Engineer.

Litigation versus Domestic Arbitration

- 4.26 Arbitration is the primary alternative to litigation for the purposes of providing a full-fledged evidentiary dispute resolution procedure resulting in a binding determination (subject to any appeal or application to set aside).
- 4.27 Arbitration in New Zealand is governed by the Arbitration Act 1996. The schedules to this Act contain rules of procedure and spell out rights of review / appeal.
- 4.28 Whether to provide for litigation versus arbitration in a dispute clause is a matter of weighing the benefits:
 - Time: Litigation is normally more time consuming than arbitration.
 - Cost: Subject to finality issues, both processes are relatively expensive, since (in New Zealand) the arbitral
 process is typically similar to litigation and arbitrator costs are higher than court costs.
 - Finality: Arbitral awards are more likely to be final i.e., are less subject to review / appeal than court decisions.
 - There is no power to review an award on the factual merits.
 - Although clause 5 of Schedule 2 to the Arbitration Act permits appeal on issues of law, the parties can contract out of this.
 - The parties cannot contract out of the Schedule 1 right to apply to have an arbitral award set aside for certain fundamental flaws in the arbitral process such as breach of the principles of natural justice (Schedule 1, article 34).
 - Ease of Joining Parties: Litigation is preferable in multiple party cases where there are frequently parallel claims in contract and tort, unless you have back to back arbitration clauses whereby all parties to the project agree to resolve disputes relating to the project in one consolidated arbitration proceeding.
 - Privacy and Confidentiality: In contrast to court proceedings, arbitrations are private and confidential.



- Note, that in the preliminary stages of proceedings, before the open trial window, the detail of judicial proceedings is not typically subject to public scrutiny.³⁸
- One of the downsides to confidentiality is that arbitral awards are not published and so can only set precedents by way of judicial determinations on appeal on issues of law (if allowed).
- Tribunal with expertise: Judges are accustomed to evaluating expert evidence but nonetheless New Zealand does not have specialist judges in construction disputes. In arbitrations you are able to select specialists if you choose. Having said that, there is always the danger that a specialist may form his / her own opinion based on own expertise and be less open to a contrary view.
- Consumers: Arbitration agreements are only enforceable against consumers if the agreement is contained in a separate written agreement entered into after the dispute has arisen.³⁹ So an arbitration agreement in a residential construction contract may ultimately prove unenforceable.
- 4.29 There is something of a trend to adopt arbitration as a dispute resolution mechanism instead of litigation. While arbitration frequently may be the right choice, it is important to weigh the relative benefits of each option and decide which is best suited to resolve the types of dispute you are likely to encounter. For example, because of the prevalence of multi-party disputes in construction matters, you should carefully weigh whether the other benefits of arbitration outweigh its disadvantages from the perspective of ease of joinder of additional parties.

International Arbitration

- 4.30 International construction arbitrations are relatively rare in New Zealand.
- 4.31 However, where a construction contract has parties from multiple jurisdictions, arbitration offers a relatively well understood alternative to potentially litigating in a foreign court.
 - Many countries are party to the New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards so arbitral awards can be readily enforced.
 - The New York Convention states seven exclusive grounds for refusing recognition of an international arbitration award.
 - The Convention otherwise mandates that a signatory state "shall recognise arbitral awards as binding".
 - Note any particular enforcement requirements of the countries in which you will need to enforce the award, e.g., filing fee based on percentage of award (e.g., Italy); will awards of interest be enforced?; limitation periods for enforcement..
 - By contrast, enforcing a foreign judgment will depend upon the particular legislation that applies and what protocols and treaties there are between New Zealand and the foreign jurisdiction.⁴⁰
 - Parties tend to be unfamiliar with the procedure / courts of foreign jurisdictions and accordingly distrust them or feel disadvantaged. Rightly or wrongly parties tend to believe the domestic entity will have a home court advantage.
 - Arbitration by contrast gives the parties some level of control over who the arbitrators are (and their independence) and the procedures to be followed.
 - International arbitration also offers the same advantages as domestic arbitration in terms of confidentiality and the ability to appoint a tribunal with expertise.
- 4.32 Parties to a contract contemplating international arbitration should make sure their arbitration clause in broad terms and expressly covers all disputes including disputes over jurisdiction and arbitrability. In addition, the clause should cover at least the following:

⁴⁰ For example, is the jurisdiction one to which the Reciprocal Enforcement of Judgments Act 1934 applies? Australian judgments are dealt with under the Trans-Tasman Proceedings Act 2010.



³⁸ While the public has a general right to access the "formal court record" at any time (including the parties' names and any judgment, order or minute of the court), this does not include pleadings such as the statement of claim, or affidavits and other evidentiary material. Rule 3.3 of the District Court, Rules 2014 and Rule 3.7 of the High Court Rules. Full access to pleadings and evidentiary material is only available during the open trial window. See DCR 3.5; HCR 3.9.

³⁹ Arbitration Act, section 11(1)

- The governing law of the arbitration clause:
 - Alternatively in your general clause stating the governing law for the contract, specify that this shall also apply to the arbitration clause;
- Language of the arbitration if in a foreign language you should require arbitrators to be fluent in that language;
- Place the arbitration is to be held:
 - courts of seat of arbitration may have to make rulings about tribunal's jurisdiction; if contract is unclear as to law governing arbitration then procedural issues likely be dealt with under law of seat of arbitration;
- Number of arbitrators and how the arbitrators are to be appointed including what organisation can appoint if the parties cannot agree:
 - Possibly consider agreeing in advance and incorporating into your clause a person who will be a default arbitrator/ non-party arbitrator if the parties cannot subsequently agree;
- What rules of arbitration are to be followed?
 - This will be influenced by where you have decided to arbitrate. For example, if the arbitration is to be in New Zealand then the Schedules to the Arbitration Act provide rules of procedure to which the parties can agree; if your seat of arbitration is Singapore, you may want the Singapore International Arbitration Centre (SIAC) rules.
 - Alternatively, you may want to consider using some internationally recognised rules, e.g., International Chamber of Commerce. ICC, in particular, can draw on its National Committees to identify local arbitrators.
 - If you want an international ad hoc arbitration (i.e., without involvement of an arbitral institution like ICC or SIAC) then the UNCITRAL (United Nations Commission on International Trade Law) rules are an option.
- Helpful Hint: If you have picked an arbitral institution, go to the website and check their model arbitration clauses. Some institutions suggest model clauses for specific situations SIAC has model clause of contracts involving the People's Republic of China; UNCITRAL has a model clause of ad hoc arbitrations.
- 4.33 You should also consider how your rules of arbitration handle the following (you may want to expressly provide for these matters in your clause):
 - What availability is there for interim relief?
 - Can there be appeals and, if so, what can be appealed?
 - Confidentiality provisions do your rules provide the desired level of confidentiality?
 - What discovery is to be provided?
 - What provisions are there for legal fees and costs?
- 4.34 Sometimes in international contracts, particularly with government owned enterprises, very little flexibility may be given as to dispute resolution mechanisms. For example, when contracting with a Saudi entity to perform contracts in Saudi Arabia, your contract with the Saudi principal will almost certainly be governed by Sharia law and subject to enforcement in the Sharia courts of that country. In these circumstances, if you are the head contractor, one option to consider is having any joint venture partner and subcontractor contracts include identical arbitration clauses agreeing to arbitrate in a neutral geographical location outside Saudi Arabia under an agreed governing law (NZ, Australian, etc.) and set of rules for international arbitration. That way, even though you may have little control over how direct disputes with the client are handled, you have a more familiar law and mechanism for determining how any "pain" arising from that will be distributed among the other parties and how disputes among those other parties among themselves will be handled. This model presupposes a single lead entity contracting with the foreign national client and then separately contracting with all other parties.
- 4.35 In terms of managing the actual international arbitration itself, consider the following
 - Obtain the right level of expertise both in arbitrator selection and counsel



- If English is not the first language, make arrangements for an interpreter to be available;
- Make sure you have reporters engaged to record oral evidence (cross examination etc) will need to be fluent in the language of the arbitration. Where witnesses speak in a foreign language (i.e. different to that of the arbitration), you may also want to have a reporter fluent in the language spoken by the witness take down their oral evidence as a check for the translator.
- If witnesses are located in different time zones fly them in sufficiently early to enable them to recover from any jet lag;
- Try to keep it simple and focus on documentary evidence that backs up witness testimony. Since evidence
 is frequently provided by written briefs of evidence, when drafting these, try to make sure that the key
 elements of each witness's evidence are backed up by documents.

Mediation

- 4.36 Mediation is a form of confidential negotiation facilitated by a neutral third party mediator, who has no decision making authority.
 - It is often a stepping stone in a multi-tiered dispute resolution clause.
 - It is most effective at a late stage of the dispute process, once all the evidence is in and the parties are on the brink of trial.
 - Clauses that require mediation before proceeding to arbitration are frequently not helpful as the parties simply entrench. The dispute may not be sufficiently investigated for the parties to be willing to make compromises. Moreover, if the mediation fails, one party may have gained a tactical advantage by assessing the other's witnesses.
- 4.37 Mediation can always be voluntarily entered into between parties to a dispute and is more likely to work if all parties choose to participate. Rather than contractually obliging parties to mediate at an early stage, it may be more productive to leave mediation to the decision of the parties as they approach a hearing in whatever dispute forum they choose.

Multi-Tiered Process

- 4.38 It is routine to come across contracts with multi-tiered dispute resolution clauses. They prescribe a number of escalating steps (often starting with party to party discussions), and usually a low step has to fail before the parties can move onto the next. The NZS contracts are an example of this type of process.
 - If the parties have a strong working relationship and good documented processes, a multi-tiered process may well work, as disputes could be resolved at the lower levels.
 - However multi-tiered clauses can also add to delay and cost.
 - Mediation is normally treated as a lower tier step in such a process as explained above, this is typically not helpful. It may also be effectively pointless if there is clearly one party 'in the wrong', and that party will simply gain a tactical advantage.

Dispute Resolution Boards

- 4.39 A Dispute Resolution Board (DRB) consists of one or more independent persons who are created by contract and tasked with assessing project disputes. The parties can elect whether their determinations are binding or non-binding.
- 4.40 The DRB will normally be selected for the members' technical expertise or dispute resolution skills (engineering, architectural, quantity surveying and even legal). Most DRBs are three person boards but a single person DRB is sometimes used on smaller projects.
- 4.41 DRBs are most helpful if the board is:
 - Formed at the very beginning of a project to then resolve disputes during the life of the project;
 - Given an active monitoring role, whereby the board routinely visits the site and meets with the respective parties. That way, it can identify and determine issues before they have chance to balloon into disputes.



- 4.42 DRBs used in this manner are an extremely useful tool for dispute avoidance and preventing dispute escalation.
- 4.43 The obvious drawback is that maintaining a DRB, particularly one with an active up-front role, can be expensive. A DRB process is perhaps best suited to more major projects.⁴¹

⁴¹ For a more detailed explanation and analysis of dispute boards, see the DRBF Practices and Procedures Manual available at <u>http://www.drb.org</u>. This describes the benefits and pitfalls of DRB and suggests guideline procedures for using DRB. See also N Gillies Rebuilding New Zealand: A Case for Dispute Boards Arbitrators & Mediators Journal, December 2014, Vol 33, No 2.

