# Alliance Contracting Removing The Boundaries For Infrastructure Delivery

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#### 1 ABSTRACT

This paper presents some of the issues confronting the infrastructure delivery industry in Australia. It postulates that industry is calling out for more relationship based contracts and through a précis of the key characteristics of relationship contracting and the alliance contracting strategy, it shows how the construct of alliances can largely eliminate the long term structural issues affecting the industry and minimise the impact of current pressures.

## 2 INTRODUCTION

The Infrastructure development industry is facing a number of challenges, some because of long term practices and some because unprecedented levels of demand for design construction and project management services.

Relationship contracting and in particular the alliance contracting strategy can relieve the pressure of the short term demands on the industry and set the foundation for longer term structural improvement in the way the industry works. Relationship contracting eliminates, or at least significantly reduces, the risk of claims and disputation between the parties through the use of inclusive and collaborative legal and commercial arrangements. These arrangements enable the parties to work together in an open and generative manner and to strive to achieve the business goals of everyone in the relationship.

This paper outlines the issues confronting the industry in Australia and some of the causal factors. Relationship contracting is introduced and the alliance contracting strategy is dealt with in more detail. The constraints to the wider adoption of the alliance approach are presented and the relationship between value for money and the alliance approach is shown.

The content of this paper is founded on first hand experience and the results of contemporary industry research. It is not an exhaustive expose on alliance contracting, but it shows how the alliance approach can help the Australian infrastructure industry deal with the issues it is facing today.

# 3 CURRENT ISSUES IN INFRASTRUCTURE DELIVERY IN AUSTRALIA

#### 3.1 Shortage of skilled resources

The construction and infrastructure industry in Australia is experiencing an acute shortage of skilled professional and trade resources. In a recent survey of the pressure points in the Australian construction industry commissioned by the Australian Constructors Association (ACA), 115 of the 183 industry respondents cited the shortage of skilled resources as the single most critical challenge confronting the industry (Blake Dawson, Waldron 2006). Skilled personnel have either left the industry or joined the mining industry. The egress has been attributed in part to the project by project employment practices adopted by the industry. Another finding was there are inadequate numbers of students taking up construction related courses at the tertiary or trade levels. These factors along with the current resources boom has meant design consultants and construction companies are finding there is no longer a pool of experienced people available to choose from when they win a project.

# 3.2 Inappropriate risk allocation

Principals in Australia have a tendency to transfer whatever risks they can onto the contractors, who in the past have accepted them and promptly passed them onto their subcontractors. This practice passes risk down the supply chain to parties who are not equipped to manage them and when risk events do materialise the whole project can be put in jeopardy.

Inappropriate risk allocation is a major contributor to the high level of disputes that has plagued the construction industry for the last two decades (Whiteley 2004).

## 3.3 Use of inappropriate contracting strategies

Principals in Australia do not select contracting strategies that are appropriate for the project (Blake Dawson Waldron 2006). They simply rely on past experience and apply the same strategies they used on previous projects with little or no regard as to whether they adequately deal with project risks, scope changes, constraints (time, cost, resources) or enable the most effective relationships to develop between the parties. This practice does nothing to reduce the high levels of disputation in the industry.

## 3.4 Retention of staff

Construction companies are finding it increasingly difficult to retain staff. Experienced professionals and tradespeople are being attracted to the mining industry, primarily because the mining companies are able to offer higher salaries and better employment conditions. The shortage of skilled resources has contributed to this situation.

There is also a movement of staff within the industry itself. The boom conditions have made it difficult for organisations to secure staff for their projects through normal channels, leading to an increase in poaching.

## 3.5 Poor project definition

The skills and resource shortage is having an impact on client organisations' capacity to prepare clear, concise and complete tender documentation. Clients and their consultants are finding it difficult to attract suitably qualified staff to properly develop projects and to prepare project documentation. They are putting tender documents to the market that are incomplete or contain unreliable information. This makes it difficult for tenderers to properly assess the project's risk profile and to therefore submit robust and reliable tenders, especially when they are given limited time to prepare tenders.

Inadequate project development and poor documentation is forcing clients to issue addenda and variation requests and contractors cited clients' propensity to continually change their requirements during the tender phase of a project as a major pressure point (Blake Dawson Waldron 2006)

## 3.6 Industry capacity

The construction industry in Australia has until recently been highly competitive. Contractor's margins have not adequately covered the risks they have been accepting and a number of major companies have failed or have sold their interests to larger organisations. This is affecting competition resulting in low numbers (in some cases none) of tenders being submitted for infrastructure projects. This has resulted in a far from competitive market and upward pressure on infrastructure delivery costs.

## 3.7 Summary of industry issues

The foregoing issues are creating stress in the relationships between clients and constructors in Australia. The industry experiences high levels of disputation on contracts and these have an adverse impact on the delivery of major projects (Blake, Dawson Waldron 2006; Whiteley 2004).

The industry is calling for more inclusive forms of contracting arrangements. They want designers brought in earlier to assist in scoping projects and constructors and clients to work together to better allocate and manage risk. In short the industry is calling for more relationship based contracting arrangements.

#### 4 RELATIONSHIP CONTRACTING

# 4.1 Definition

Relationship contracting is a contracting approach that enables the parties to work together in an open and transparent non adversarial legal and commercial framework.

Relationship contracting is not a particular form of contracting, it is a term applied to a range of contracting strategies that create a legal and commercial framework that enables the parties to work together to achieve mutually beneficial outcomes.

#### 4.2 Attributes

Relationship Contracts have attributes that clearly differentiate them from more conventional contracting strategies. Clients in Australia have traditionally used adversarial forms of contract that transfer most project risk onto the contractor. These forms of contract generally do not enable open communication between the parties and compliance is sought through the application of penalties written into the legal agreement.

Relationship Contracts are open and non adversarial contracting arrangements that provide the parties with the flexibility and incentive to work together to deliver optimal commercial outcomes for all parties. They are based on the principles of equity, trust, respect, openness, no dispute and no blame.

These principles are written into the legal agreement, which is generally jointly developed by the parties. The legal and commercial framework not only enables the parties to work together to achieve the project objectives, it rewards all parties for achieving better than expected outcomes. There are disincentives to perform poorly and if the project performs poorly, all parties share the losses.

# 4.3 Application of Relationship Contracting in the Road Industry

Road agencies in all mainland states of Australia are adopting the principles of relationship contracting to deliver their infrastructure projects. These road agencies adopted project partnering in the early 1990's and started to adopt the alliance approach in the mid 1990's. The Queensland Department of Main Roads was the first to use the alliance contracting strategy and has successfully completed projects with an aggregate value of over \$1 billion dollars using the alliance approach. In Western Australia we currently have alliance projects with a combined value of \$750 million in various stages of development and execution. The alliance approach has also been used by the Road Transport Authority in NSW and Vic Roads, the Victorian road authority, with both reporting excellent project outcomes.

# 5 ALLIANCE CONTRACTING FOR MAJOR INFRASTRUCTURE PROJECTS

#### 5.1 What is an alliance

There are various definitions of alliancing and these definitions refer to the two types of alliances, namely, project alliances and strategic alliances. Project alliances are formed for single projects and are dissolved when the project is completed. Strategic Alliances are longer term arrangements and are used to deliver a program of projects or carry out certain operational functions of a business, eg operations and maintenance. Strategic alliances can also be formed with key suppliers or subcontractors.

The following definition is a generic definition that applies to both Project Alliances and Strategic Alliances.

"Alliances are incentive based relationship contracts in which the parties agree to work together as one integrated team in a relationship that is based on the principles of equity trust, respect, openness, no dispute and no blame. In alliances all parties are bound to a risk/reward scheme where they all share savings or losses, depending on the success or otherwise of the project".

Defining characteristics of an alliance are:

- The alliance is an integrated "virtual organisation" comprising the client and other parties;
- The alliance carries and manages project risk;
- The alliance is based on the principles of equity, trust, respect, openness, no dispute and no blame;
- The parties co-locate and work together as a seamless integrated team;
- The alliance is governed by an Alliance Board that comprises senior executive managers from each party;
- The business goals of the parties and the alliance are aligned;
- The shared risk, no litigation and open book nature of the alliance agreement;
- All issues and disputes are resolved within the alliance on a unanimous basis;
- There is a pro-active relationship development and maintenance process, and;
- All parties either win together or lose together.

In essence, an alliance aims to create one united and integrated project organisation and team that:

- Jointly shares and manages all risks associated with the project or service being provided;
- Assumes collective responsibility for delivering the project objectives;
- Uses a common and integrated suite of management systems;
- Has an integrated organisation structure, and
- Is founded on a culture that is based on the principles of equity, trust, respect, openness, no dispute and no blame.

#### 6 FEATURES OF AN ALLIANCE CONTRACT

#### 6.1 The nature of the alliance agreement

Alliances are characterised by the Legal and Commercial Framework created by the alliance agreement. The alliance agreement is a non adversarial contract that is based on the principles of equity, trust respect, openness, no dispute and no blame.

The nature of the alliance is defined in the alliance agreement. The legal and commercial framework embodied in the agreement enables open communication to occur between all parties, the joint management and mitigation of risk and contains provisions that eliminate the need or ability of the parties to resort to claim and counter claim behaviours.

The commercial framework of project alliance agreements is structured in a way that assigns collective financial responsibility and liabilities to the parties. Below is background information on some of the key commercial provisions contained in alliance agreements.

# 6.2 Payment arrangements for the non owner parties

The non owner parties are paid all actual direct costs and a fee, (profit and overhead), on a monthly basis. Alliances generally aim to be cash neutral. To achieve this, arrangements are put in place to ensure the non owner parties are paid actual direct costs as an when they become payable so they do not have a negative cash flow at any time in the life of the alliance.

## 6.3 Insurance regime

The alliance approach enables tailored insurance policies to be developed that both meet the project's specific requirements and save on premium and deductible costs. The client generally provides general liability insurance, construction and works insurance and professional indemnity insurance.

However the nature of alliance contracts makes obtaining some insurances, particularly professional indemnity insurance, difficult and complex. The features of the alliance approach such as an integrated team, joint decision making, the principle of no blame and open communication can nullify the risk allocation, indemnity and right to sue provisions that generally underpin insurance arrangements. Now that the alliance approach has a successful track record in Australia, alliance specific professional indemnity insurance policies are becoming available.

# 6.4 Risk management

Unlike conventional contracts, in an alliance contract, all risk is carried by the alliance with the party best able to control the risk managing it. The fundamental alliance principle of no blame underpins risk management in alliances. If a risk event occurs, the focus is on mitigating impact of the risk and not apportioning blame. The experience in Australia is that where major risk events have occurred on alliances, the alliances have responded to the event by jointly seeking and implementing remedial action. The focus on solving the problem has led to extraordinary achievements by these alliances and the projects' have gone on to deliver outstanding outcomes, dispute free.

#### 7 VALUE FOR MONEY

Alliances suffer from a value for money paradox and are perceived as being soft because they lack the tension of price competition in the selection process. When examined more closely and when the value for money principles employed are understood, the alliance approach is a robust and sensible approach that not only improves all aspects of project delivery, it eliminates claims and disputes.

Value for money is a difficult concept to define because it means different things to different people and different organisations. Prior to award of an alliance contract, it is difficult to demonstrate value for money as there are no universal objective measures of value.

In alliances value for money is achieved by focussing the efforts of the alliance on achieving the business objectives of the principal and the non owner parties. This is done by establishing a legal and commercial framework that provides the transparency, flexibility and incentives for the parties to work together to deliver better than what was previously considered best practice. The processes set out below contribute to the value for money outcomes that are consistently being delivered by alliances.

## 7.1 Alliance partner selection process

The alliance partner selection process is structured to both select the partners that are best able to deliver the outcomes needed to achieve the project objectives and to establish the foundations of the alliance relationship.

The selection criteria do not include price but they do include value assurance, competence (of the organisations and individuals), team and corporate culture and commitment to the alliance. A commitment to innovation and demonstrated means of ensuring innovation are also an important consideration. The proponents are assessed against their ability to carry out the project as well as their cultural fit/compatibility with the client's team and organisation. The partner selection process commences with a desktop evaluation of written submissions, and is followed by an intense schedule of interactive interviews and workshops.

The commercial negotiations centre around the level of profit and overhead that will apply to costs, the risk reward scheme and the definition of costs. The client contemporaneously undertakes an audit of the proponent's financial and project records to assure itself the profit and overhead sought by the proponent is consistent with margins it routinely achieves in the open market.

# 7.2 Alliance governance

Alliances are governed by a Board that comprises senior executive managers from the parties to the alliance. The Board is the final arbiter in the alliance and all decisions of the Board must be unanimous. The board and its governance framework enable issues to be resolved before they damage relationships and results. The Board generally meets monthly and as well as providing strategic leadership it ensures the alliance has the resources and support it needs to achieve the alliance's objectives.

## 7.3 Open book nature of alliances

Alliances are totally open book and all parties have equal and unfettered rights of audit. This ensures all parties are able to receive real time and accurate information on the alliances performance.

Clients also see real cost of construction and the impacts of risk events and client initiated changes. Clients are also able to get a much better understanding of the intrinsic cost of their asset.

# 7.4 Approach to risk management and risk reward schemes

Risk is dealt with in the legal and commercial framework and the basic principles that apply are that risk is carried by the party best able to control it and managed by the alliance as one integrated entity. The effective and efficient management of risk is driven through the risk reward scheme.

The risk reward scheme (outlined in section 7.7) drives the parties to achieve the outcomes they have committed to achieve. The commitments are written into the alliance agreement and the amount of profit and overhead paid to the non owner parties is affected by the achievement or otherwise of these commitments.

# 7.5 The way the target cost is estimated

A common criticism of alliances is that because the target cost is jointly estimated by the alliance it is most likely inflated.

The target cost in alliances is in fact based on market competition and the actual production rates achieved on similar projects. In alliances, the intent is to develop the target price that will enable the alliance to deliver the outcomes the client is seeking and that includes an appropriate allowance for risks and contingencies. The process seeks to eliminate the need for contractors to submit a lean and mean price (that is driven down by cost competition) in order to secure the contract. Unlike conventional contracts the whole target cost estimate and estimating process is open book, and in alliances the final project cost can not be pushed up by the contractor through the imaginative application of claim and variation clauses as they do not exist in alliance agreements. When estimating the target cost in an alliance, better than "business as usual" production rates and prices will be used because of the open and intelligent approach to risk management and project management.

# 7.6 Integrated project team

The integrated team approach enables the collective resources and expertise of all of the parties, including the client, to have unfettered input into the design, construction and management of the project. The diversity of experience adds to the alliance's ability to innovate, which has been demonstrated time and again on alliances carried out in Australia. It also adds value as there is no duplication of resources and communication between designers, constructors and the client is instantaneous.

# 7.7 Innovation and risk reward arrangements

The risk reward regime is fundamental to an alliance. The core principle of a risk/reward scheme is that all parties either win together or lose together. Risk reward schemes need to ensure the parties are rewarded if they achieve better than expected outcomes against the project objectives or conversely they are all penalised if the project outcomes are worse than expected.

The purpose of the risk reward scheme is to direct the efforts of the alliance towards delivering value for money through the pursuit of innovation. Risk reward schemes are designed to drive costs down and to encourage outstanding performance against non cost objectives;

The inherent logic for a risk/reward regime is:

Exceptional performance  $\Rightarrow$  Exceptional return (Better than expected results)

Poor performance 

→ Poor return (Worse than expected results)

A properly structured risk reward scheme will drive innovation throughout the whole life of the alliance and encourage the partners to make the alliance work. Performance is measured against mutually agreed cost and non cost objectives and for the risk and reward scheme to be effective these objectives need to be pertinent to the project.

# 7.8 The non adversarial and collaborative nature of the alliance agreement

The terms and conditions of the alliance agreement are issued to the proponents in draft form with the Request for Proposals and they are finalised through an open and collaborative process during the selection process. Alliance agreements do not include punitive clauses, but they are structured in a way that enables the parties to work together and to resolve issues within the alliance as they arise. They specifically write out the option for the parties to engage in disputes or resort to litigation, except in limited circumstances.

## 7.9 Flexibility to add value at cost

Alliance agreements enable a client to address its changing requirements and add to the scope of the project without exposing itself to inflated variation rates and delay and disruption costs. The client only pays the actual direct cost of the work required to incorporate the change and does not pay the administrative costs normally associated preparing, negotiating and disputing variation claims.

# 7.10 The inherent nature of the alliance approach

The alliance approach is a systems based holistic approach that by its very nature enables individuals in the alliance to focus their minds and hearts on achieving outstanding outcomes. People who have worked in alliances routinely state the project was the highlight of their career and that they were motivated by the positive energy in the alliance and the whole team's focus on performing well (Whiteley 2004).

The legal framework enables parties to operate on a best for project basis without having to worry about protecting their own self interest. This unlocks the true potential of organisations and removes wasted effort.

The dynamic between personal motivation and corporate freedom to act on a best for project basis is a solid base from which to deliver value for money for all parties and stakeholders.

#### 7.11 When is it appropriate to use an alliance

The alliance contracting strategy is not appropriate for all projects and it is recommended a structured contracting strategy selection process is undertaken to determine if the alliance approach is suitable for the project. The alliance approach is suitable for projects that face significant time, cost, technical, and construction or stakeholder challenges. Projects that will benefit from or need innovation to achieve the objectives and projects that are in brown field sites are also suitable.

## 8 CHALLENGES FACED IN APPLYING ALLIANCES

# 8.1 Market challenges

The construction industry operates in a market where the lowest bidder is normally selected and is then engaged under an adversarial risk transfer contract. Undertaking projects is a high risk venture and the way contracts are normally created and administered does not effectively deal with the risk confronting the contractors and clients alike. This ineffectiveness creates high levels of disputation and mistrust between clients and contractors, which adversely affects the efficiency and business outcomes of clients and contractors. Despite these problems, which have been widely reported and acknowledged, industry seems reluctant to accept relationship contracting as a means of dealing with such issues.

# 8.2 Lack of pricing structure

The notion of awarding a contract without first obtaining a competitively tendered price is sometimes a major cause of concern for company Boards, Governments and those who are ultimately accountable for ensuring that infrastructure is delivered for the "best price". In reality the alliance approach has a robust process for estimating the cost of the project and dealing with changes and it provides more certainty and predictability of price and other project requirements.

# 8.3 The perception alliancing is a soft approach

There is perception alliances are soft arrangements and contractors take advantage of clients. The numerous successful alliances show that this is not the case and in fact both the client and contractors do well in alliances. The perception of softness is completely wrong and is possibly driven by the belief among some clients that they give up control of their project. The truth is, the client actually has more control and flexibility in an alliance and is able to get the project they want for the actual cost of the project. In alliances, clients are not exposed to having to pay inflated variation rates for desired or needed changes, and do not suffer the consequences of artificially low tender prices which inevitably lead to high claims and costly disputation.

## 8.4 Opportunities

Alliancing presents the construction industry with a way of overcoming many of the problems it faces. The encouragement and building of better relationships alliancing promotes through the pursuit of mutual goals and objectives and the use of collaborative relationship based contracts is likely to turn what is now a tough industry in Australia into one where working environments are motivating, supportive and rewarding. This better working environment could attract new people into the industry and keep people from leaving the construction industry and moving into the resources sector. This is relevant in the current market where clients and contractors are not fully able to capitalise on the opportunities the boom offers because they are unable to secure or keep skilled people. The efficiencies offered by alliancing such as the elimination of duplicated resources, more efficient administration and communication can only improve the long term performance of the construction industry.

## 9 FEATURES OF SUCCESSFUL ALLIANCE CONTRACTS

The success of an alliance is usually measured against the outcomes it achieved. Successful alliances in Australia have delivered outstanding outcomes for the all parties. This success has resulted from the unconditional commitment to the alliance and the alliance contracting strategy by the organisations and individuals in the alliance, committed leadership by the alliance board and management team, a highly motivated and cohesive project team, best practise project management and the full application of the alliance principles of equity, trust, respect, openness, no dispute and no blame across all levels of the alliance. Successful alliances work together to jointly solve all issues and setbacks even when it means putting the alliance interests ahead of company interests.

## 10 CONCLUSION

The alliance contracting strategy is a way of improving the productivity of the infrastructure development industry in Australia and alliances undertaken so far have delivered excellent to outstanding outcomes. It brings clients and industry together and there is evidence of it improving relationships within the industry. Through improved relationships, all sides of industry will be better able to work together to eliminate the causal factors behind the issues challenging the industry today.

There is evidence relationship based contracting strategies are now becoming more widely used and it remains to be seen if relationship contracting will enable the industry to improve its overall performance in delivering infrastructure projects and being the catalyst for lasting improvement.

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