Construction
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BAKER & McKENZIE

Variations

A comprehensive overview

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Table of contents

1. Introduction

1.1 General

The purpose of this paper is to consider some of the many issues involving variations that can arise in the course of contract administration. A better understanding of those issues should lead to a more efficient system of contract administration and a reduction in disputes.

The term 'variation' in the context of construction contracts can mean two things, namely:

(a) a 'variation' or change to the contract terms; and

(b) the narrower and well known meaning, that is, a physical 'variation' or change to the work (quantity or quality) required to be carried out under the contract.

This paper will discuss 'variations' meaning a variation to the work required to be carried out under the contract.

Variations in construction contracts are one of the most common causes of disputes between parties.[1] Such disputes often revolve around the following issues:[2]

- Was the work in question within or outside the scope of work?
- Did the parties comply with the procedural requirements under the contract regarding directing and claiming for a variation? and
- What is a fair or reasonable value of the variation work?

Given the issues which may arise in relation to variations, the mere performance of 'extras' or 'variations' may not necessarily give rise to the Principal having a liability to pay for such work. Generally the Contractor will have to demonstrate that the subject work was outside the scope of works and that all procedural requirements were complied with.

In this paper, 'Principal' is used to mean the Owner or Proprietor, 'Contractor' to mean the builder and 'Superintendent' to mean the person in the contract given the role of administering the contract. Different terms may be used when reporting particular cases.

A reference to a 'Section' is a reference to a section in this paper.

The standard forms of general conditions of contract referred to in this document are:

(a) Australian Standards 2124-1992 (**AS 2124**);

(b) Australian Standards 4000-1997 (**AS 4000**);

(c) National Public Works Council, Edition 3 (1981) (**NPWC**); and

(d) Property Council PC-1 1998 (**PC-1**).

[1] John Dorter, *Variations, Building and Construction Law*, September 1990, 156 at 156.
[2] Doug Jones, *Building and Construction Claims and Disputes,* (1st ed, 1996), 59.

2. Scope of works

2.1 General

When the Contractor contracts with the Principal to carry out construction works, the Principal is entitled to the performance of those works in the manner and to the extent prescribed by the contract. Similarly, the Contractor is entitled to the contract sum in the manner and as may be adjusted by the contract. The contract allocates risks, including the cost of performance of that work. Different contracts allocate those risks differently. However, in the standard form construction contracts the original contract sum is usually fixed in relation to an original scope of work.

As a variation is a change to the work (quantity or quality) required to be carried out under the contract, it is essential to be able to clearly identify the work the Contractor is required to perform under the contract in order to determine if there has been a change and the extent of that change.

Standard form construction contracts include provisions which aim to provide details of the work to be performed by the Contractor.

PC-1

Clause 2.1 requires the Contractor to immediately commence to carry out the Contractor's Activities.

The "Contractor's Activities" is defined as all things or tasks which the Contractor, is or may be, required to do to comply with its Contract obligations.

NPWC

Clause 2 provides that the:

> "Works" means the whole of the work to be executed in accordance with the Contract, including all variations provided for by the Contract, which by the Contract are to be handed over to the Principal;
>
> "work under the Contract" means the work which the Contractor is or may be required to execute under the Contract and includes all variations.... and
>
> "The Contract" means... all the documents which constitute or evidence the final and concluded agreement between the Principal and the Contractor....

Under clause 3.2, where payment is on a Lump Sum basis, the Contractor shall execute the work and perform 'his' obligations under the Contract.

AS 2124

Clause 2 provides that:

> "work under the Contract" means the work which the Contractor is or may be required to execute under the Contract and includes variations; and
>
> "Works", means the whole of the work to be executed in accordance with the Contract, including variations provided for by the Contract, which by the Contract is to be handed over to the Principal.

Under clause 3.1, the Contractor must execute and complete all work under the Contract.

AS 4000

Clause 2 and 1 provide:

> The Contractor shall carry out and complete WUC in accordance with the Contract and directions authorised by the Contract.
>
> "WUC" means the work which the Contractor is or may be required to carry out and complete under the Contract and includes variations, remedial work, construction plant and temporary works.

Further, more detailed and technical descriptions of the work to be performed are usually included in the specifications, drawings, bills of quantities and schedules of rates forming part of the contract. Given the often detailed nature of these drawings, specifications and other technical documents and as these documents are often revised leading up to the formation of the contract, inconsistencies between the contract general conditions and the drawings and specifications or between the drawings and specifications often occur.[3] See Section 2.3 for a brief discussion of a case on this issue.

Describing the scope of work in any lump sum design and construct contract, under which the Contractor has an obligation to both design and construct the project (D&C Contract), presents particular difficulties and yet if the work is not described accurately and in some detail, it may present issues when determining whether a particular item of work represents a change to the original scope of work.

Notwithstanding the above, under a D&C Contract, it is usually the case that the scope of work is far less clear due to the nature of the contract. The scope of work is usually based on the Principal's preliminary design. One of the consequences of this is that it is perhaps more difficult to determine if the scope of work has been varied compared to a standard construct only contract. This issue is discussed in Section 3.1.

In *Barter v Mayor of Melbourne,*[4] Chief Justice Stawell defined variations as "works which are not contemplated by the parties at the time of the execution of the contract…..". Thus, the initial critical question in considering the subject of variations is whether or not the performance of an item or process of work is on a proper interpretation of the contract already included in the Contractor's performance.

2.2 Work not expressly included

However, the Contractor not only has an obligation to complete the work as expressly described in the Contract but also other work which, although not described, is necessarily required. This is a 'common sense' rule as aptly demonstrated in the often quoted *Williams v Fitzmaurice*[5] case. In that case, the Contractor undertook to build a house, dry and fit for occupation. The specification expressly noted floor joists but failed to expressly mention flooring. The Contractor argued that the provision of flooring constituted a variation. The Court held that although flooring was not specifically mentioned,

> it was clearly to be inferred from the language of the specification that the plaintiff was to do the flooring and this was necessarily included in the obligation to complete a house dry and fit for occupation.

[3] Doug Jones, *Building and Construction Claims and Disputes,* (1st ed, 1996), 59.
[4] (1870) 1 ALJR 160).
[5] (1858) 157 ER 709.

In *Walker v Council of the Municipality of Randwick*[6] the Court held that works comprising the construction of a concrete retaining wall in a specified position necessarily required the removal of the second half of a sand bank preliminary to the construction of the wall. The plans (which did not form part of the Contract) showed the sand bank to be 1.8 metres wide when in fact is was 3.7 metres wide Rogers J held:

> I take the contract to be an entire contract to build the wall for a fixed price. It was not to remove any given quantity of earth and then build the wall… It is the construction of a concrete retaining wall which is to be preformed in accordance with the plan and specification. The contract is not to perform the work set out in any plan; all work necessarily required for the construction must be done whether set out in the plan or not.

Hudson[7] states:

> It is suggested that wherever it can reasonably be inferred from the contract description that other undescribed work will be necessary to achieve completion or a satisfactory and effective result within the terms of the contractor's express or implied obligations as to design, workmanship and materials, then in the absence of some indication to the contrary the undescribed work will be include in the price.

Notwithstanding the above well established common law principle, many contracts seek to reinforce this principle by including provisions which reflect this general principle. For example, clause 8.1 of NPWC provides:

> Minor items not expressly mentioned in the Contract but which are necessary for the satisfactory completion and performance of the work under the Contract shall be supplied and executed by the Contractor without adjustment to the Contract Sum.

2.3 Inconsistencies in scope of work provisions

Inconsistencies between the different parts of the relevant contract providing details of the work to be performed can provide the basis for variation claim disputes.

Most standard and non standard forms of contract contain provisions for resolving inconsistences and ambiguities in a contract. Some examples are as follows:

AS 2124

Clause 8.1 requires notice to be given to the Superintendent of the inconsistency, ambiguity or discrepancy. The Superintendent is then to direct the Contractor as to the interpretation to be followed.

If compliance with the direction causes the Contractor to incur more or less costs (than could have been anticipated at the time of tendering), the difference is to be assessed by the Superintendent and added to or deducted from the contract sum.

AS 4000

AS 4000 is similar to AS 2124.

Clause 8.1 requires notice to be given to the Superintendent of the inconsistency, ambiguity or discrepancy. The Superintendent is then to direct the Contractor as to the interpretation to be followed.

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[6] (1929) 30 SR (NSW) 84 at page 87.
[7] *Hudson's Building and Engineering Contracts* (10th ed, 1970), 509.

This clause gives flexibility to the Superintendent (compared to clauses stipulating an order of precedence) as they are not constrained by having to follow an order of precedence.

NPWC

Like AS 4000, clause 8.1 requires the Superintendent (on being notified of an ambiguity, discrepancy or inconsistency) to direct the Contractor as to the interpretation to be followed. The clause does not have an express provision entitling the Contractor to be compensated for any additional costs it may incur as a result of the direction. However, the Contractor may attempt to claim on the basis that the direction issued by the Superintendent was a direction to perform a variation.

PC -1

Clause 6.10 of PC-1 expressly refers to ambiguities, discrepancies or inconsistencies between the documents making up the Contract or between the Contract and any Design Documentation. The clause then provides a number of principles which must be followed to resolve the issue as follows:

(a) the order of precedence in the Contract Particulars will apply;

(b) where the ambiguity, discrepancy or inconsistency is between the Contract and any part of the Design Documentation, the higher standard is to prevail but if this does not resolve the ambiguity, discrepancy or inconsistency, the Contract will prevail; and

(c) the Contract Administrator is to instruct the Contractor as to the course to adopt.

Again, the clause does not expressly have provision for the Contractor to claim any compensation as a result of the direction given by the Contract Administrator.

In addition to contract provisions dealing with the resolution of any ambiguities, discrepancies or inconsistencies in contracts, the common law has developed rules regarding the resolution of such issues. Some of these rules are as follows:

(a) the interpretation is to be determined objectively, that is:

> the ascertainment of the meaning which the document would convey to a reasonable person having all the background knowledge which would reasonably have been available to the parties in the situation in which they were at the time of the Contract;[8]

(b) the contract to be considered in context and as a whole (background of the transaction, its aim and the common assumptions of the parties);[9]

(c) clauses will be interpreted against the party who drafted the documents (contra proferentem rule)[10];

(d) a more reasonable interpretation will be preferred in case of ambiguity;[11]

(e) a literal meaning will not be applied if this leads to an absurd result;[12]

[8] *Maggbury Pty Ltd v Hafele Australia Pty Ltd* (2001) 185 ALR 152 at [11].
[9] *Adelaide City Corp v Altermann* (1987) 46 SASR 186
[10] *Maye v Colonial Mutual Life Assurance Society Ltd* (1924) 35 CLR 14, 26-27 although universal application has been doubted *Johnson v American Home Assurance & Co* (1998) 192 CLR 266, 274-275 (Kirby J).
[11] *Lewis Construction (Engineering) Pty Ltd v Southern Electric Authority of Queensland* (1976) 50 ALJR 769.
[12] *Westpac Banking Corp v Tanzone Pty Ltd* (2000) 9 BPR 17, 521.

(f) the express mention of one thing will be read as meaning the exclusion of another;[13]

(g) hand written or especially added clauses will take precedence over the standard form;[14]

(h) crossed out words may be considered;[15] and

(i) where there is a list followed by general words, then the general words will be restricted by reference to the same class of things previously mentioned.[16]

Notwithstanding provisions in contracts setting out the procedure to be followed in case of an inconsistency and the above noted common law rules or principles, disputes may still arise over the particular interpretation of a provision especially given that significant sums of money may be at stake. For example, in *G Hawkins & Sons Pty Ltd v Sabemo Pty Ltd*[17] a dispute arose over the meaning of condition 3 in a letter qualifying the Contractor's tender (which formed part of the contract) and the specification. Giles J said:

> Whether or not condition 3 did modify the specification depends upon the construction of all the provisions in the contract in the circumstances surrounding its making, but at first sight it was intended that condition 3 should have some effect by way of modification of the other documents comprising the contract.

The Court found that condition 3 modified the specification in a way which meant the Contractor could claim compensation for additional excavation work.

2.4 Bills of Quantities and scope or works

Where the contract is a lump sum contract and a bill of quantities is referred to or stated to be a contract document, issues may arise as to the nature and extent of the scope of works if the bill of quantities is incomplete or inaccurate and whether the document is meant to detail the scope of works.

It is because of the many issues that can arise concerning bills of quantities that a "No Dispute Report"[18] in 1990 recommended that bills of quantities not be used in lump sum contracts. That "No Dispute Report" concluded:[19]

> the level of claim/disruption over BQ's [bills of quantities] warranted avoidance of provision of BQ's by principals, and if use was unavoidable, then BQ's be properly executed.

Neither the Department of Defence's suite of contracts nor PC-1 include provisions for bills of quantities, possibly, for the reasons raised in the "No Dispute Report" Report.

Refer to Section 7.4 which further discusses bills of quantities.

3. Variation powers

3.1 Need for variation clause

It would be rare for a construction contract to be performed without some variation to the original scope of work. For example, a variation may be necessary to ensure that the completed works are fit for the purpose for which they were intended, to correct

[13] *Maye v Colonial Mutual Life Assurance Society Ltd* (1924) 35 CLR 14; it is because of this rule that drafts work often provide "including (without limitation)".
[14] *Hobbs Bell Ltd v Pola* (1995) 7 BPR 14, 761; *Rivat Pty Ltd v B&N Elomar Engineering Pty Ltd* [2007] NSWSC 638.
[15] *Centrepoint Custodians Pty Ltd v Lidgerwood Investments Pty Ltd* [1990] VR 411.
[16] *Brighton v Australia and New Zealand Banking Group Ltd* [2011] NSWCA 152.
[17] Unreported, NSW Supreme Court, Giles J, 8 March 1989.
[18] NPWC/NBCC Joint working Party, 'No Dispute: Paper 1 – Risk Allocation (1990) 14 Australian Construction law Newsletter, 8.
[19] Ibid at 117.

poor or inadequate specifications, to comply with changes in law, to cope with unforeseen site conditions, to substitute materials no longer available or to incorporate the latest technology.

Accordingly, variation clauses in construction contracts are essential, as without such clauses Contractors would have no obligation to perform any work which was different to the work described in the contract documents.[20] Further, any insistence by the Principal to vary the works to be performed (absent or outside a variation clause) may provide a basis for the Contractor to claim that the Principal had repudiated the contract.

For example, in *Ettridge v Vermin Board of the District of Murat Bay*[21] the scope of work required the Contractor to erect a vermin-proof fence along a line specified in the contract documents. In the course of performance of the work, the Contractor was directed to depart from the line specified in the contract in certain areas. The Contractor refused. There was no variation clause in the contract. The Court held that, by the Principal insisting that the Contractor depart from the specified line (and withholding payment when the Contractor refused to comply with the direction), the Principal had breached the contract and the Contractor was entitled to refuse to continue to perform the contract and claim a reasonable price for the work completed but not paid for. Napier J held:[22]

> ...the documents in evidence before us do not confer upon the defendant Board any right to insist upon any deviation from the agreed line…and if the Board was insisting upon an interpretation of the contract which would enable it to withhold progress payments if the plaintiff should refuse to follow a line which he was not obliged to follow, then prima facie the plaintiff was entitled to treat this attitude of the defendant as a repudiation of its contract.

The only option available to a Principal to have a variation performed (absent a variation clause) would be to enter into a separate agreement for that work (where the parties would have to agree on the work to be performed and the price and time for completion of that work)[23]. Such a situation puts the Contractor arguably in a more powerful position than the Principal regarding negotiating a price for the variation. Accordingly, a variation clause enables the Principal to direct a variation as a contractual entitlement without the agreement of the Contractor. The extent of any such entitlement is dependent on the content of the subject variation clause and some common law principles.

The rights and obligations of the Principal and the Contractor with respect to variations will depend on the terms of the relevant contract.

3.2 Express power

As noted above, without an express entitlement in a contract to direct a variation, the Principal will have no entitlement to so direct the Contractor. As a result, most construction contracts contain express provisions giving the Superintendent (or the Principal or both) the entitlement to direct variations.

The extent of the Superintendent's (or the Principal's) power to direct the Contractor to vary the works depends upon the specific provisions of the variation clause in the relevant contract.

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[20] *Ashwell & Nesbitt v Allen & Co* [1912] (1912) 2 Hudson's BC (4th Edn) 462 ; *Ettridge v Vermin Board of Murat Bay District* (1928) SASR 124; *Vidovich v Scalzi (*1987) 3 BCL 85 and Hudsons 4th Ed. Vol 2, 462.
[21] (1928) SASR 124; *Chadmax Plastics Pty Ltd v Hansen and Yuncken (SA) Pty Ltd* (1984) 1 BCL 52, 58.
[22] *Ettridge v Vermin Board of the District of Murat Bay* (1928) SASR 124, 131.
[23] *Wren v Emmett Contractors Pty Ltd* (1969) 43 ALJR 213 at 216.

Contract provisions usually define 'variation' widely to give the Superintendent flexibility as to what the Contractor may be directed to perform.

AS 4000

Under clause 36.1 of AS 4000 (construct only), the Superintendent may vary the WUC (work under the contract) by any one or more of the following:

(a) increase, decrease or omit any part;

(b) change the character or quality;

(c) change the levels, lines, positions or dimensions;

(d) carry out additional work; or

(e) demolish or remove material or work no longer required by the Principal.

AS 2124

Clause 40.1 in AS 2124 1992 is very similar to clause 36.1 of AS 4000.

NPWC

Similarly, clause 40.1 of NPWC is similar to clause 36.1 of AS 4000 except that it does not expressly include the demolition or removal of material no longer required by the Principal.

PC-1

Clause 1.1 of PC-1 defines a variation as:

> any change to the Works including any addition, increase, decrease, omission, deletion, demolition or removal to or from the Works.

Hudson[24] considers it unnecessary to make "*rather laborious lists of matters where the power to vary may be exercised' and that all that is required is a power to add, omit or substitute different work (with even the last being covered by a combination or omission and substitution)*". Hudson reasons that this unnecessary 'tendency' is based on older cases where there was a tendency to construe the range of matters as to what may be directed strictly if the language was ambiguous. However, Hudson doubts whether this would be so today.

Notwithstanding express provisions in contracts entitling the Superintendent to direct variations, there is likely to be no implied term that the Principal **must** employ the Contractor to carry out a desired variation.[25] Whilst there are no Australian cases on this point, the Canadian case *Hunkin Conkey Construction v US*[26] did address this issue. During the construction of a dam the encountering of a higher water table meant that additional work was required to overcome this issue. The additional work was not covered by the contract. The government offered the Main Contractor an opportunity to price the work but also obtained prices from other specialist firms. The government and the Contractor could not agree on a price and the government contracted separately with one of the other specialist firms. The Court held that the work had not been provided for under the terms of the contract (as argued by the Contractor) and that the government was not in breach of the contract for not

[24] *Hudson's Building and Engineering Contracts* (12th ed, 2010),509.
[25] Ibid at 793 referring to *Gilbert Blasting & Dredging Co v R* (1901) 7 Can Ex R 221.
[26] [1972] 461 Fed. Rep. 2d 1270 which applied the much earlier case of *Lovell v US* 59 Ct. Cl 494.

directing the Contractor to perform the work. The presence of an "other contractor' clause in the contract was a part of the Court's reasoning process.

D&C Contracts

With respect to D&C Contracts, careful consideration should be given to the variation provisions. For example, as the Contractor is responsible for the design (and therefore liable if the design is not in accordance with the Contractor's contractual obligations), the Contractor should have the ability to unilaterally vary the design. Whereas, the Principal's power to vary the design should be limited.

From the Contractor's perspective it may be appropriate to amend standard form variation clauses which give the Superintendent (and or the Principal) the power to instruct variations and compelling the Contractor to comply with such instructions. Such amendments may require a variation direction to be complied with only where the Contractor agrees to the variation otherwise the Contractor's design may be compromised.

The Principal may also unintentionally, by directing and interfering in the design process, potentially assume some liability for the Contractor's design.[27]

3.3 Express power & the role of the Superintendent

Under construction contracts, it is usual that the Superintendent gives directions regarding variations. As the Superintendent would not generally have an implied authority to vary the relevant construction contract (including the scope of works to be performed), it would be necessary to show that any directions given by the Superintendent to the Contractor to perform a variation were within the Superintendent's express authority.[28]

As can be seen from Sections 3.2, 4.2 and 4.3, the relevant provisions of AS 2124 (clause 40), AS 4000 (clause 36), PC -1 (clause 11) and NPWC (clause 40) all allocate the power to direct a variation to the Superintendent.

However, as it is the Principal which requires the variation, the Superintendent must act as the Principal's agent in carrying out that power. It would seem that as AS 2124, AS 4000 PC - 1 and NPWC all give power to the Superintendent to direct variations, that this would be sufficient authority for the Principal to be bound by what the Superintendent directed in respect of variation.

In *New Zealand Structures and Investments Ltd v McKenzie,*[29] variation claims by the Contractor were resisted by the Owners on the basis that the Engineer had no authority to direct variations in excess of $5,000. The Court held the Engineer had wide powers to direct variations and while the fixed price agreement was intended to limit work described in the contract, this could not prevent payment for variations.

The Superintendent acting as the Principal's agent when directing variations may lead to the Superintendent being in a position of conflict in contracts where the Superintendent is required to act reasonably and in good faith to both parties. See for example, clause 20 of AS 4000 (where the Superintendent is required to act reasonably and in good faith) and clause 23 of AS 2124 (where the Superintendent is required to act honestly and fairly). NPWC does not expressly provide how the Superintendent is to act, therefore, in accordance with *Perini Corp v Commonwealth*

[27] *Cable v Hutcherson Bros Pty Ltd* (1969) 123 CLR 143.
[28] *Ashwell and Nesbit Ltd v Allen & Co* (1912) Hudson's B.C. (4th ed) 462 (C.A.).
[29] [1979] 1 NZLR 515 affirmed by the New Zealand Court of Appeal in *New Zealand Structures & Investments v Mckenzie* [1983] NZLR 298.

(Redfern Mail Exchange Case)[30] the Court may find that the Superintendent in some of its roles is to act in the manner expressly provided for in AS 4000 or AS 2124. Under those contracts, it may not be 'fair' or 'reasonable' to direct the Contractor to perform a particular variation or it may not be 'fair' or 'reasonable' on the Principal that the Contractor perform the particular variation. In such instances the Superintendent will find itself in a difficult situation.

The Superintendent under PC-1 would not face such a conflict as under clause 3.1 of that contract, the Contract Administrator (Superintendent) is to exercise all its functions as agent of the Owner and not as an independent certifier, assessor or valuer.

However, even where contracts include clear provisions dealing with the entitlement of the Principal (and the Superintendent) to direct and value variations and without an express provision requiring such a direction to be, for example, fair and reasonable or given in good faith, courts have demonstrated a willingness to intervene. See, for example, *WMC Resources Ltd v Leighton Contractors Pty Ltd*[31] and *Beaufort Developments (NI) Ltd v Gilbert -Ash (NI)*.[32]

4. Limits on power to direct variations

4.1 General

Clause 40.1 of NPWC also provides that no variation will invalidate the Contract (and many standard form contracts are often amended to include such a provision). However, notwithstanding such provisions and the wide powers given to the Superintendent with respect to directing variations, the common law puts limits on such powers.

In *J&W Jamieson Constructions Ltd v Christchurch City,*[33] the Court quoted Hudson[34] regarding the inclusions in contracts of a clause providing that no variation will vitiate the contract as follows:

> Both the standard forms of contract contain express and perhaps somewhat optimistic provisions that no variations shall 'vitiate the contract'. It is submitted that such a provision cannot as a matter of business efficacy be taken at its face value, and must be subject to an implied limitation of reasonableness.

Where a contract provides that the work under the contract may be varied, an insistence by the Principal that the contractor observe a direction which is not within the scope of the variation power, will, in the circumstances of the case, constitute a repudiation of the contract.[35] It is therefore essential to consider the parameters of any variation power.

4.2 Timing

Based on the common law, in the absence of any express terms covering the period within which the Superintendent is entitled to direct the Contractor to perform a variation, variations may not be directed after the works have achieved practical

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[30] [1969] 2 NSWR 530, 536.
[31] (1999) 15 BCL 49; in this case, the full court of the Supreme Court of Western Australia found that a Principal's power to value variations 'in its sole discretion' was still subject to a requirement to act honestly, bona fide and reasonably (per Ipp J at [46]).
[32] [1998] 2 All ER (HL) 778; In *Beaufort Development*, the House of Lords considered the ability of a Court to review and alter an Architect's certificate including with respect to variations. The case set out the difficulties inherent in such arrangements. If the certificate is final and binding, there is a risk of injustice to the Contractor due to the potential for bias on the part of the Architect or Superintendent, in their capacity as an employee of the Principal (at 786). If the certificate is subject to review by an arbitrator, then it is likely also subject to review by the courts, in the absence of express language to the contrary, and the usefulness of the certificate suffers from a lack of certainty (at 786).
[33] Christchurch High Court, Cook J No A108/82 (8 November 1984).
[34] *Hudson's Building and Engineering Contracts* (10th 1970) 549.
[35] *Wegan Constructions Pty Ltd v Wodonga Sewerage Authority* [1978] VR 67.

completion. In *J&W Jamieson Constructions Ltd v Christchurch City*[36] (***Jamieson***) the Court confirmed that the entitlement in the general conditions of contract for the Architect to direct the Contractor to perform a variation did not remain in force after the certificate of practical completion had been issued. Cook J held:[37]

> When that point is reached (certificate of practical completion has been issued), with all the consequences that result and with the acknowledgment that is to be inferred from the certificate, I am unable to see that it can remain open for the Architect to direct something which would require a change in the work by way of addition, reduction or substitution.
>
> The date for submission by the Contractor of his final account, an account to cover "the whole of the Works, with Variations…" is related to the date of practical completion. To my mind, it would be quite inconsistent with the provisions of the contract generally to interpret clause 25.1 as permitting the direction of variations after the certificate has been given.

The Court in *Jamieson* came to the conclusion it did notwithstanding that the relevant contract did not expressly state that variations could not be directed after practical completion.

Jamieson referred to an earlier English case, *SJ & MM Price v Milner*[38] which was perhaps of some interest in supporting the proposition that variations cannot be ordered after practical completion in the absence of any express provisions unless the Contractor is willing to carry them out.

Commissioners for State Bank Victoria v Costain Australia Ltd[39] illustrates that issues may also arise where a certificate of practical completion has not been issued but where the direction to perform a variation was given after what would have been the date for practical completion but within the time given to the Contractor to complete the works as a result of an earlier extension of time having been granted. The Contractor carried out this variation work before the other yet to be completed work within the unvaried scope of work. The Contractor submitted that the performance of variation work after the date of practical completion must cause delay as no contractual time was left to complete the work.

The Court held there was no automatic entitlement to an extension of time for variations based simply upon the point of time at which the variation direction was issued.

However, most standard form contracts do have express provisions dealing with the period within which the Contractor may be directed to perform a variation.

Clause 40 of AS 2124 expressly provides that the Contractor will not be bound to execute a variation directed after Practical Completion unless the variation is in respect of rectification work referred to in Clause 37 (Defects Liability).

Under clause 36.1 of AS 4000, the Superintendent may only direct the Contractor to carry out a variation before the Date of Practical Completion.

PC-1 does not expressly provide that a variation cannot be directed after practical completion. However, clause 11.2 provides that:

> Whether or not the Contract Administrator has issued a "Variation Price Request" under Clause 11.1, the Contract administrator may at any time prior to the Date of Completion of the Works ……instruct the Contractor to carry out a Variation.

Accordingly, it is likely that variations cannot be directed after the Date of Completion.

[36] Christchurch High Court, Cook J No A108/82 (8 November 1984).
[37] Ibid at 21.
[38] [1968] 206 EG 313.
[39] (1983) 2 ACLR 1.

Clause 40.1 of NPWC provides that the Superintendent may order the Contractor to perform a variation "at any time during the progress of the work under the Contract". "Work under the Contract" is defined to mean the work which the Contractor is or may be required to execute and includes all **variations**, **remedial work**….". It would therefore appear that the Superintendent may direct a variation after Practical Completion.

However, if a variation was directed after Practical Completion under NPWC, it may jeopardise the Principal's entitlement to liquidated damages as there would be no mechanism by which the Superintendent could extend time for performance of the variation, as an extension of time under clause 35.4 is made to the date for achieving Practical Completion and Practical Completion would have already been reached. Additionally, if *Jamieson* could not be sufficiently distinguished, that case may be applied to a similar issue under NPWC to determine that a variation could not be directed after Practical Completion.

4.3 Contractual and other limits on what constitutes a variation

Some provisions in the standard form contracts aim to limit the scope of the variation power.

AS 2124

Under clause 40.1 of AS 2124, the Contractor is only bound to execute a variation which is within the general scope of the contract and, clause 40.2 referring to proposed variations, provides that the Contractor may advise that the variation cannot be effected.

AS 4000

Clause 36.1 limits a variation to that which is of "a character and extent contemplated by, and capable of being carried out under", the provision of the Contract. It is arguable that the variation power in AS 4000 - 1997 is more limited that that under AS 2124.

NPWC

NPWC provides (as noted above) that no variation will invalidate the contract. This therefore gives very broad power to the Superintendent as to the type of 'variations' which may be directed. However, under the common law it is likely that this power may be limited as discussed above in Section 4.1 and below in Sections 4.4 to 4.7.

PC-1

PC-1 defines a variation as:

> Unless otherwise stated in the Contract, means any change to the Works including **any** addition, increase, decrease, omission, deletion, demolition or removal to or from the Works. [emphasis added]

This definition, like NPWC contemplates very broad power regarding the type and size of variation which may be directed. However, like the provision in NPWC it is likely that this power will be limited by the common law.

If the contract does not contain an express limitation on the variation power, the Courts have nevertheless made it clear that a limit does exist. The following cases provide examples of limits placed on variation powers.

4.4 General power

Re Chittick and Taylor, [40] a Canadian case gives some guidelines in considering whether an item or work is or is not a variation or extra. Those guidelines are as follows:

(a) an item specifically provided for in the contract was not an extra;

(b) if the Contractor supplied material of a better quality than the minimum quality necessary for the fulfilment of the contract without any instructions - express or implied - from the Principal to do so, he was not entitled to charge the extra cost as an extra;

(c) if the Contractor did work, or supplied materials not called for by the contract (plans or specifications) without either instructions - express or implied - from the Principal or the consent of the Principal, he was not entitled to charge for this additional work or materials as an extra; and

(d) if the Contractor did work, or supplied materials, not called for by the contract but on instructions - express or implied - of the Principal, he was entitled to charge for such additional work or materials as an extra.

As a general statement as to the scope of a variation power, *Bush v The Trustee of the Town & Harbour of Whitehaven*[41] held that a contractual variation power is not unlimited and that a variation cannot go beyond what was contemplated at the time of the contract and in *Wegan Constructions Pty Ltd v Wodonga Sewerage Authority*[42] (see below for further details) the Court held that a variation instruction must be reasonable.

In *J& W Jamieson Construction Ltd v Christchurch City Council*[43] Cook J observed in relation to the principle that it is a question of construction regarding the extent of a variation power that:

> To my mind, if a variation may fairly be said to be a change to the Works as these described, whether it comprised 'an addition, reduction or substitution of the Works or affects the carrying out of the Works' (to quote the definition) then it is a variation which the contractor is under an obligation to carry out; if it is beyond that it is not.
>
> If the contract is for a single dwelling house, then that is what work is covered by the contract. It is not changing the nature of the contract by ordering variation which would normally be associated with a dwelling house; a second dwelling house would be an entirely different thing.

In *Alexander Thorn v Mayor and Commonality of London*[44] Lord Cairns, in summarising what was or was not a variation, opined that:

> [E]ither the additional and varied work which was occasioned is the kind of additional and varied work contemplated by the contract, or it is not. If it is the kind of additional or varied work contemplated by the contract, he must be paid for it…, If, on the other hand, it was additional or varied work so peculiar, so unexpected, and so different from what any person reckoned or calculated upon, that is not within the contract at all.

In *Wren v Emmet Contractors Pty Ltd,*[45] the Court held that the general power to direct a variation was held not to apply to a direction to perform additional work which had been **expressly excluded** under the contract notwithstanding that the contract contained the usual clause that no variation will vitiate the contract.

[40] (1954) 12 WWR 653.
[41] (1988) 52 JB 392.
[42] [1978] VR 67.
[43] Unreported, Christchurch High Court, 8 November 1984, 42.
[44] (1876) App. Cas. 120 per Lord Cairns at 127.
[45] (1969) 118 CLR 697; 43 ALRJ 213, 215.

In *Wegan Constructions Pty Ltd v Wodonga Sewerage Authority,*[46] the Authority entered into three schedule of rates contracts with Wegan Constructions for the construction of sewers in a development. The issue concerned the third contract which was to construct 19 manholes, with 22 lengths of piping totalling 840 metres. The contract contained a provision which stated that "No variation shall vitiate or invalidate the contract".

The work under the first two contracts was slow due to delays beyond the control of the Contractor. The Authority directed the Contractor to vary the work by increasing the excavation required by 60%, increasing the sewer length from 840 to 1181 metres (40%), increasing the manholes from 19 to 27 requiring 90% more concrete and the number of house connections from 47 to 91. The increases meant the contract price increased from approximately $31,000 to $43,200. The Contractor sought to increase the original contract rates and to apply those increased rates to the variation work. The Engineer rejected this claim. The Contractor terminated the contract.

The Court held:

(a) the amended plans did not constitute a variation permitted by the original contract;

(b) "the test of the reasonableness of a variation is that of objective assessment by an independent by-stander, namely whether the amount of the increase or decrease is such that it would be judged by the by-stander to be reasonable for the Principal to require the Contractor to submit to the increase or reduction of the total sum and so to the increase or reduction of the work involved, and to the performance of the extra or reduced work on the contract terms;[47]"

(c) "what matters can be taken into consideration in assessing reasonableness? An exhaustive definition cannot be attempted. What I have said in the last paragraph indicates my opinion that in the case of an increase the extent of the additional work can be looked at, and not merely the resultant money figure which in most cases will probably only be a measure of the work. Other factors which I would regard as relevant are the past history of the contract, the time at which the variation is ordered, and any changes in circumstances between the date of the contract and the date of the variation;[48]"

(d) the Contractor was lawfully entitled to refuse to perform the remainder of the work under the contract and to stop work;

(e) the Authority's requirement that the Contractor should construct the works in accordance with the plans as redesigned constituted a repudiation of the contract;

(f) the Contractor had not waived this repudiation because it had consented to the variation by carrying out the work under the amended plan for some little time. Lush J held:

> The fact that work was done is not inconsistent with this view, because both parties had full knowledge of the facts and if the outcome was that the intended change could not be made under the variation clause and so not become work under the contract, it would fall to be paid for on a quantum meruit basis…. the Contractor was keeping the question of decision open and the Authority knowing the facts could not claim to have understood them differently. In many cases the fact the work was done would show

[46] [1978] VR 67.
[47] Ibid at 69.
[48] Ibid at 69.

> consent to do it under the contract. On the particular facts of this case it was clear that the plaintiff was not agreeing to do the work as a task covered by and to be paid for under the contract terms.

4.5 Cumulative effect of multiple variations

The cumulative effect of a large number of variations may cause a fundamental change to the works beyond the limits of the power to direct variations. In *J& W Jamieson Construction Ltd v Christchurch City Council*[49] the Contractor argued that the number and nature of the variations directed were of such an extent to be wholly incompatible with the contract. Justice Cook held:[50]

> In determining whether a variation may be directed or not, the first questions must be whether it constitutes a change to the works which are defined as all works covered by the contract documents, and consequently, it must be decided in any particular case what the works are really said to be…
>
> To my mind, if a variation may fairly be said to be a change to the works as they are described, whether it comprises an addition, reduction or substitution to the works or affects the carrying out of the work….then it is a variation which the contractor is under an obligation to carry out; if it is something beyond that, then it is not.

However, in *Jamieson* it appeared the Court was prepared to accept that the large number of questionable variations performed before practical completion could be considered valid variations under the contract as the Contractor had agreed (without objections) to perform those variations.

In *Balfour Beatty Power Construction Aust Pty Ltd v Kidston Goldmines Ltd,*[51] the Contractor argued that variations, representing an increase of some 30% of the contractor's work, collectively had the effect of rendering the work essentially different from the contract. The Court held that it was a matter of construction of the contract whether the work is in fact outside the scope of the contract. This construction must be such as to exclude the extra work performed from its ambit. The Court reasoned that this would be difficult for the Contractor to show if the work actually performed was similar to that require pursuant to the contract regardless of whether there are numerous variations to the works.

4.6 Omitting Work

In *Melbourne Harbour Trust Commissioners v Hancock,*[52] the Principal directed that a significant amount of work be removed from the Contractor's scope of work. The total contract sum was £130,000. The work directed to be removed amounted to some £55,894. The variation clause gave wide powers to the Engineer to omit work as follows:

> The Engineer shall have the power of requiring from time to time the omission of any particular portion or portions of the works of this contract, and of any materials or other matter to be supplied by the contractor, whether such omitted portion or portions may or may not be requisite or necessary to complete the whole of the works, and of deducting the value thereof from the amount of the contract, at rates to be fixed by the Engineer under his hand, whose decision shall be binding and conclusive on all parties; and the contractor shall have no claim for loss, damage, 01' compensation on this account anything herein contained to the contrary notwithstanding.

Notwithstanding the width of the clause, the arbitrator ruled and the High Court held that the clause did not cover omissions which caused a fundamental change to the contract. Rush J stated that:

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[49] Unreported, Christchurch High Court, 8 November 1984.
[50] Ibid at 42 -43.
[51] [1989] 2 Qd 105.
[52] (1927) 39 CLR 570.

> In my opinion, a fundamental alteration such as this was is not within the clause. An alteration which wholly changes the character of the work is not an omission.

Chadmax Plastics Pty Ltd v Hansen & Yuncken (SA) Pty Ltd[53] was a case in which there was a Head Contract for an eight story building for some 7.8 million dollars which provided a schedule of finishes including the application of "wallflex" in a small area. The Head Contractor entered into a subcontract with a subcontractor to supply and apply wallflex. A variation was directed under the head contact whereby the wallflex was to be replaced with a smooth plaster and paint finish. The head contractor sought to pass down this variation to the subcontractor by omitting all wallflex work from its scope of work. This had the effect of deleting all but 1.26 per cent of the work that the Subcontractor was to perform.

It was submitted on behalf of the head contractor that as the third party, through the Architect, had the power under the head contract to make variations to the original works of such a nature as to require the omission of virtually all of the Subcontractor's subcontract work, then, in order to give business efficacy to the complex network of agreements that must be made in order to erect a large city building, the subcontract must be read as containing an implied term that the defendant was not to be liable under it unless and until the defendant was given authority under the head contract to proceed with the subcontract works.

Brebener J held:

(a) the extent of the variation amounted to a virtual cancellation of the subcontract and was not authorised by the subcontract because it was not a variation within the general scope of the agreement;

(b) the omission of the work from the subcontract was a repudiation which was accepted by the Subcontractor;

(c) "No term should be implied into the sub-contract which had the effect of contradicting an express term in it (variations were only permitted "within the general scope)"[54]. See paragraph immediately above for the term sought to be implied; and

(d) "Even if those words had not appeared in the contract ("within the general scope"), I would have held that the power in the defendant to require increases or decreases in or omissions from the sub-contract works or changes in the character or quality of any material or work could not be construed as a power to cancel virtually the whole of the sub-contract works. The contract gave power to make adjustments to the sub-contract works, but not a power to cancel, or virtually to cancel, the sub-contract works. What will amount to a variation, as distinct from a negation, of the sub-contract works is a matter of degree and can only be considered in the circumstances of each individual case".

The above cases which demonstrate the limit on an express variation provision to omit work from the Contractor's scope of work are based on the equitable principle that the Contactor is entitled to perform the whole of the work under the contract.[55]

PSC-1 (the subcontract which backs down obligations from PC-1), provides that no variation directed by the Contractor's Representative is to be regarded as a

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[53] (1984) 1 BCL 52.
[54] Brebener applied *Codelfa Construction Pty Ltd v. State Rail Authority of New South Wales* (1982) 149 CLR 337 and *B.P. Refinery (Westernport) Pty Ltd v. Shire of Hastings* 52 ALJR 20
[55] *Bethlehem Singapore Private Limited v Barrier Reef Holdings Limited* (1987) 1 ACILL 6 (BC8701035); *Carr v JA Berriman Pty Ltd* (1953) 89 CLR 327 and *Commissioner for Main Roads v Reed & Stuart Pty Ltd* (1974) 131 CLR 378, 382.

repudiation of the subcontract, even if the variation requires additional work outside the scope of the Subcontractor's Activities or omits substantial work. This provision aims to protect the Principal from the 'Chadmax' situation. However, such provisions have not been the subject of any judicial consideration and it may be that such provisions will be subject to limits much like other express variation provisions in contracts.

In *Wren v Emmet Contractors Pty Ltd*[56] it was argued that the direction to perform additional work was a defence to the omission of a substantial amount of work. This argument was rejected by the Court.

Based on the above and other cases, if the omission of work constitutes a fundamental breach of contract, the Contractor may elect to rescind the contract and sue for damages or alternatively a quantum meruit for the work done to the date of the rescission.[57] The Contractor would be limited to damages (loss of profits, contributions to overheads etc) in the event the act or omission was not serious enough to be regarded as a fundamental breach.

4.7 Omitting work to give to another contractor

Carr v JA Berriman Pty Ltd[58] established the principle that absent an express provision in the contract, a Principal is not entitled to omit work and give this omitted work to another contractor. The contract required the Builder to construct a factory building on Parramatta Road, Flemington. A clause in the contract provided:

> The Architect may in his absolute discretion and from time to time issue written instructions or written directions…in regard to the …omission...of any work. The Builder shall forthwith comply with all Architect's Instructions.

The Court held that the clause would authorise the Architect, within certain limits, to direct that particular items of work included in the plans and specifications should not be carried out; but it would not authorise him to say that particular items so included should be carried out, not by the Builder with whom the contract was made, but by some other builder or contractor. Such a power could be conferred only by very clear words.

The *Commissioner for Main Roads v Reed & Stuart Pty Ltd*[59] similarly held that a general power to direct the omission of work already promised to the Contractor did not entitle a Principal to deprive the Contractor of the benefit of that work altogether by giving that work to another contractor.

In that case a dispute arose after there was insufficient soil on site to provide the required quantity of top soil on the embankments and elsewhere on the site. The Contract provided a schedule of rates for the supply, haul and spread of top soil. The contract specifications further provided that if sufficient topsoil to meet the requirements of the works could not be obtained within the right-of-way, the Engineer **may** direct the Contractor in writing to obtain topsoil from other approved locations and the excavation and removal of topsoil from such locations shall be under the direction of the Engineer. Clause 18 provided that work could be omitted from the scope of works.

When the shortfall of topsoil manifested itself, the Contractor sought to, but the Commissioner refused to, invoke those provisions of the contract which were

[56] (1969) 118 CLR 697; 43 ALRJ 213, 215.
[57] *Lodder v Slowery* [1904] AC 442.
[58] (1953) 89 CLR 327.
[59] (1974) 131 CLR 378.

designed to deal with that eventuality; instead the Commissioner adopted a quite different course. The Commissioner's Engineer decided that, rather than incur the rate of £3 per cubic yard, he would instead, by the exercise of what he regarded as powers available to him under the contract, arrange for the work of importing topsoil on to the site to be done by a third party, no doubt at cheaper rates.

Stephen J held:

(a) "Were he legally entitled to do so (omit work and give the omitted work to another contractor) it would, I think, run counter to a concept basic to the contract, namely that the contractor, as successful tenderer, should have the opportunity of performing the whole of the contract work";[60]

(b) "Clause 18 is a common enough provision to be found in Engineering contracts and permits of the omission from time to time by the proprietor of portion of the contract works. What it clearly enough does not permit is the taking away of portion of the contract work from the contractor so that the proprietor may have it performed by some other contractor";[61] and

(c) the option available to the Engineer as set out in the specification was either to have the Contractor carry out the work (supply, haul and spread of top soil) or to abstain from any exercise of his power but instead elect under cl. 18, the omissions clause, to omit so much of the work of topsoil placement as may be necessary due to the deficiency of on-site topsoil.

Bethlehem Singapore Private Ltd v Barrier Reef Holdings Ltd[62] held that it makes no difference how large or small the omission of work is, the Owner still has no entitlement to give this omitted work to another contractor.

Notwithstanding the above cases, a Principal may need to omit work (for example because of a financing issue) but subsequently find it is able to have that omitted work performed. Therefore, express provision should be included in contracts to give the Principal the entitlement to omit work and give that omitted work to others.

With the exception of PC-1, none of the standard form contracts have provisions giving the Principal that entitlement. Clause 11.4 of PC-1 provides:

> If a Variation the subject of a Direction by the Contract Administrator omits any part of the Works or a Stage, the Owner may thereafter carry out this omitted work either itself or by engaging Other Contractors.

4.8 Acceleration

Except for PC-1 (see clauses 10.13 to 10.15), the standard form contracts referred to in this paper do not give the Superintendent the entitlement to direct the Contractor to accelerate the Contractor's work (as a variation or otherwise). See for example Section 3.1 of this paper which sets out examples of variation provisions in a number of standard form contracts which provisions do not authorise varying the date for completion earlier than that nominated in the contract (as extended under the contract).

Accordingly, like other forms of variation, without amendments to the standard form contracts to include an express entitlement to direct the Contractor to accelerate the work, the Superintendent will have no such entitlement and the Contractor may justifiably refuse to accelerate its works without being in breach of contract.

[60] Ibid at 382.
[61] Ibid at 383.
[62] Unreported, NSW Supreme Court, Bryson J, 27 October 1987; (1987) 1 ACILL 6.

4.9 Directing a variation for the purpose of correcting defects

Most of the standard form contracts give the Superintendent the power to direct a variation in respect of defective work.

AS 2412

Clause 30.3 provides that with defective work, the Superintendent may direct the Contractor to remove material, demolish the work, reconstruct, replace or correct the material or work or not to deliver the material or work to the site. Clause 30.3 in conjunction with clause 40 ('Variations' which provides that the Superintendent may direct a variation to the Works) means that in all likelihood the Superintendent may vary the work to be performed to rectify the defect as then required by the contract.

AS 2124 is silent as to how a variation to rectify a defect will be valued.

AS 4000

Similar to AS 2124, clause 29.3 provides that the Superintendent (in respect to defects) may direct the Contractor to remove material, demolish the work, reconstruct, replace or correct the material or work or not to deliver the material or work to the site.

Clause 29.4 provides that the Superintendent may direct that the Principal accepts the subject defective work whereupon there will be a deemed variation.

Like AS 2124, AS 4000 does not have an express provision stating how a variation directed in respect of a defect is to be valued.

NPWC

Clause 37.2 requires the Contractor to rectify defects (of the kind referred to in the definition of Practical Completion) as soon as possible.

There are no provisions entitling the Superintendent to direct a variation with respect to defective work.

PC - 1

Clause 9.6 enables the Contract Administrator to direct a Variation to overcome a defect (**Defect Variation**), or any part of it. Clause 9.8 further provides that the Contactor may only claim for the variation if the defect was something for which the Contractor was not responsible.

PC-1 provides a detailed provision as to how a variation to rectify a defect is to be valued. Under clause 9.9, if the Contractor is responsible for the defect the Contractor Administrator will determine:

(A) the value of the Defect Variation assessed as the value of other variations are assessed; and

(B) the cost of rectifying the defect as required by the Contract.

If the value of (A) is greater than (B), the Contract Price will be increased and if the value of (B) is greater than (A), the Contract Price will be decreased.

Of all the standard form contracts referred to in this paper, PC-1 provides the greatest flexibility regarding the application of variations powers to rectify a defect.

5. Pricing or valuing variations

5.1 Contract provisions

Most standard form and bespoke contracts contain provisions setting out how variations are to be valued. The following are some examples of such clauses.

AS 2124

Clause 40.3 requires that variations are to be valued in accordance with the process set out in clause 40.5. That clause states that where the contract provides that a valuation shall be made under clause 40.5, the Principal will pay or the Contractor shall pay the Principal (as the case may require) an amount ascertained by the Superintendent as follows:

(a) If the Contract prescribes specific rates or prices to be applied in determining the value, those rates or prices shall be used;

(b) If Clause 40.5(a) does not apply, the rates or prices in a Priced Bill of Quantities or Schedule of Rates shall be used **to the extent that it is reasonable to use them;**

(c) To the extent that neither Clause 40.5(a) or 40.5(b) apply, **reasonable rates or prices** shall be used in any valuation made by the Superintendent.

Interestingly, this provision further provides that the cost of delay or disruption shall include a reasonable amount for overheads, but nothing in respect to profit or loss of profit.

AS 4000

In AS 4000, clause 36.4(a) simplifies the pricing of variations. It provides that the Superintendent shall price each variation using the following order of precedence:

(a) Prior agreement;

(b) **Applicable rates or prices** in the Contract;

(c) Rates or prices in a priced Bill of Quantities, Schedule of Rates or Schedule of Prices, even though not Contract documents, **to the extent that it is reasonable to use them**; and

(d) Reasonable rates or prices, which shall include a reasonable amount for profit and overheads.

NPWC

Clause 40 provides that variations shall be valued in accordance with the rates in the bill of quantities. **If those rates are not applicable**, new rates shall be set by agreement, or failing such agreement, as determined by the Superintendent.

PC-1

Clause 11.3 sets out the following detailed procedure by which the Contract Price is increased or decreased for variations directed by the Contract Administrator:

(a) where the variation has been the subject of a Variation Price Request, the Contract Price may be increased or decreased by the amount set out in the contractor's notice, if it is agreed by the Owner;

(b) if there has not been a Variation Price Request, or if the adjustment proposed by the Contractor is not agreed, then the variation is priced either:

(i) according to an amount determined by the Superintendent using any rates or prices which appear in the cost schedule or bill of quantities (**to the extent that they are applicable or it is reasonable** to use them); or

(ii) if there are no rates or prices which can be used, the Contract Price will be increased or decreased by a reasonable amount:

(A) agreed between the parties; or

(B) in the absence of agreement, determined by the Contract Administrator.

The above clauses also make provisions for certain other amounts for profit, overheads etc to be added (or deducted) from the determined value of the variation.

The 1990 "No Disputes Report" recommends that the price of variations should be agreed before the variation work is commenced by the Contractor to limit disputes in relation to variations.[63]

5.2 Other Valuation considerations

5.2.1 Rates and Prices included in the Contract

Contracts may include Schedules of Rates or Bills of Quantities (and prices) which as noted above (where the rate or price is **reasonable** and or **applicable**) may be used for valuing variations. Accordingly, such rates or prices will not be used in **all** circumstances. This means that disputes regarding if the rate or price is or is not reasonable or applicable are likely to occur.

Such rates or prices provided in these "schedules" or "bills" are usually composite prices and may include for all manner of costs which might be attributable to undertaking the work. The price will often include the direct cost of labour, plant, materials and subcontracts, together with the cost of supervision and other indirect on-site costs, corporate overheads and profit. However, generally, the Superintendent does not know what is included in a price or rate for the various cost components. To the extent that it is appropriate to use the rates or prices included in the contract for similar work, this may not matter.

The critical issue is therefore determining whether the provided rate or price is applicable or reasonable. The determination of that issue is usually of commercial importance for both the Principal and the Contractor as if the priced item in the "bill" or "schedule" was high or profitable, then the price for a variation (if the same rate is applied) will also be high and profitable and vice versa.

The following are some factors which may be relevant to determine whether particular work is or is or is not work to which the price or rate provided in the contract is or is not reasonable or applicable:[64]

(a) **The stage of the project at which the work is required to be performed**

It may be that by requiring work to be done, at an earlier or later stage than was originally contemplated for that particular type of work, makes it more difficult and expensive, or on the other hand much simpler, than the work contemplated for the bill item;

[63] NPWC/NBCC Joint working Party, *No Dispute: Strategies for Improvement in the Australian and Construction Industry* (1990), 159.
[64] Doug Jones, *Building and Construction Claims and Disputes* (1st ed, 1996), 77-78.

(b) **The quantity of work performed**

Contractors may argue that an increased amount of work introduces elements of difficulty or cost which are not taken into account by the schedule rate or bill price sought to be applied. This is a difficult argument to sustain as most rates or prices are intended to apply to the work notwithstanding the amount of that item which is required to be performed.

Much will depend on the wording of the bill or schedule but, as can be seen from *John Holland (Constructions) Pty Ltd v Bell Bros Pty Ltd*[65] (discussed immediately below), it is not easy to convince a court that it should step outside a particular schedule or bill item for the purpose of pricing a variation or finding that a variation has been ordered, merely because of the amount of work involved.

John Holland (Constructions) Pty Ltd v Bell Bros Pty Ltd concerned a schedule of rates contract based on a bill or quantities which provided that a Subcontractor was to excavate all earth and rock work for the Wungong Dam. The contract expressly stated that the bill of quantities in the contract represented estimates only. The Subcontractor found after the removal of the overburden that the material to be removed from the dam contained far more rock than had been provided for in the bill of quantities and for that reason the removal of rock was "*work so different from that contemplated by the sub-contract that it was not within the sub-contract at all*". It was also discovered that the bedrock was deeply seamed and fractured which required large quantities of bedrock to be excavated until a sound base was reached. The Subcontractor claimed an increase in the quoted rate for the work.

The Court held that the contract, although containing a price based on quantities, remained a schedule of rates contract. Notwithstanding the unexpected quantity of rock to be removed and the unexpected seams and fractures in the bedrock requiring extra excavation, the additional work was work which the Subcontractor had agreed to do by the terms of the contract. The unknown character of the materials was not outside the contemplation of the parties, it in fact being the reason the parties contracted on a schedule of rates basis. The rates provided were therefore found to be "applicable" to use in valuing the work.

In *WMC Resources Ltd v Leighton Contractors Pty Ltd*[66] payment for the works was on a schedule of rates basis. The contract provided that variations were to be valued by the Principal using the schedule of rates or if such rates were not applicable then as agreed between the parties. If the parties failed to agree, then the value was to be determined by the Principal at "its sole discretion".

Justice Anderson considered whether the word "value" meant the Contractor was to be fully compensated. He said:

> The word "value" is used in a special sense in this contract as part of the expression "value of the variation". The word obviously has a meaning which is wider than the primary dictionary meaning: "worth". But to say that it means an amount "which will fully compensate the defendant including an allowance for profit for any additional expense or loss incurred or suffered... " is going too far. That would require the plaintiff to compensate the defendant even for inefficiencies and excesses; and that could not have been intended.

[65] Unreported, Supreme Court of Western Australia, Burt CJ, Wallace and Wickham JJ, 31 July 1980; BC 8000010
[66] Unreported, Supreme Court of Western Australia, Anderson J, 10 September 1998; BC200007616.

In relation to whether the schedule of rates prices should be used by the Principal when using its sole discretion, Justice Anderson said:

> There is no explicit requirement in the contract that the value of variations must be expressed in the form of an adjusted schedule rate, nor that the "adjustment" to the moneys otherwise payable to the contractor must be in the form of an adjustment to the scheduled rates. However, it may be that in all the circumstances, once those circumstances are known, that is the only reasonable construction to place upon the variations provisions.

In relation to limits on the Principal's 'sole discretion' when valuing variations under the contract, Justice Anderson said:

> As often as not, perhaps invariably, a term will be implied into this form of contract, that is, a contract in which the decision of a named person is expressed to be binding and conclusive, to the effect that the named person must act at least **honestly and within power** in making his determination or issuing his certificate: *Campbell v Edwards* [1976] 1 WLR 403 per Lord Denning MR at 407; *Stratford v J H Ashman (NP) Ltd* [1960] NZLR 503, especially at 517; *Baber v Kenwood* [1978] 1 Lloyd's Rep 175 per Sir David Cairns at 181; *Renard Constructions (ME) Pty Ltd v Minister for Public Works* (1992) 26 NSWLR 234.
>
> There is a number of cases which hold that he must also act "**reasonably**": Renard Constructions (ME) Pty Ltd v Minister for Public Works (supra) per Priestley JA and Handley JA; (contra Meagher JA.)
>
> These implied terms that the designated person authorised to conclusively determine contractual rights is bound to act honestly, reasonably and within power are, of course, terms that will be enforced by the tribunal before which rulings by the designated person are challenged, so that if he is found to have been dishonest or to have acted beyond power, his certificate or determination or opinion will not be enforced. This is simply because it will not be a certificate or determination or opinion which is in accordance with the contract: Legal & General Life of Australia Ltd v A Hudson Pty Ltd (1985) 1 NSWLR 314 per McHugh JA at 335-336.

(c) Prolongation of preliminaries

Depending upon how the bill of quantities or the schedule of rates is worded, disputes can arise as to whether the item for particular work includes the on and off site prolongation costs involved in the time taken to execute the varied work. If the preliminaries or prolongation costs are deemed to be included in the rate, excessive delays attributable to the execution of the varied work because of the timing or indeed the quantity of the variation may render the rate inapplicable. On the other hand, where the preliminaries or delay costs are assessed separately from the price of the variation, this factor is less likely to affect the applicability of the rate.

(d) Profitability or otherwise of the rate or price

The Contractor may attempt to argue that the nature or extent of the work means that the rate or price is unprofitable. On the other hand, the superintendent may consider that the rate or price has been "loaded" (see Section 7.4.2) and therefore not "reasonable" or "applicable".

However, given the reluctance of the Courts to interfere in the bargain struck by parties, it is unlikely that such an issue should be taken into consideration when determining if the rate or price is or is not applicable.

One of the chief skills of those in a tenderer's estimates team is to predict which types of work are likely to be the subject of directions for further work, and 'load' the rates for those items, to try to secure an eventual higher profit on the job. See further discussion at Section 7.4.2 below.

Where the variation is a change from work for which prices or rates have been given, adjustment, factoring and extrapolation techniques can be used to derive a reasonable rate. Individual cost components can be separately adjusted to account for the changes in work content. Additional information on the composition of the rate or price may be necessary if an informed decision is to be made.

Where a significant amount of work has already taken place, it may be possible to compare performance, methods and equipment used in the circumstances before the variation. The cost differential may often be determined by this method.

5.2.2 Reasonable rates or prices

Most construction contracts provide that where there are rates or prices included in the contract, they are to be used to the extent that it is reasonable to use them, and when these are not applicable, reasonable rates or prices are to be used.

So, how does the Superintendent decide what are reasonable rates or prices? The Superintendent may seek the advice or assistance of the Contractor. Indeed, in most cases, the Contractor will have submitted rates or prices for the work. These rates or prices may have been accompanied by some explanatory notes which may be relevant.

The Superintendent could also refer to published cost information, seek independent estimates or quotations from others, or prepare its own estimate of the likely cost.

For an individual item of work, it is likely that an estimated cost for the variation may be in error by as much as 100%, depending on the circumstances of the particular contract. Labour productivity is notoriously variable. The execution of variations, by their nature, is not generally well planned and efficiency is often lower than on similar work forming part of the contract.

It should be apparent that it is necessary for the Superintendent to take an active interest in the resources being used by the Contractor if he is to establish a reasonable rate for varied work.

It must be remembered that prices or rates for the execution of variations should include all the risks associated with productivity, plant breakdown, industrial and weather losses, re-work and general site inefficiency. Additional profit on variations may result from better performance than expected, or conservatively negotiated rates. Alternatively, if the variation is not executed efficiently, the Contractor may well lose money.

It may also be applicable to use other contract documents (including schedule of rates or bills of quantities which may not be directly applicable) to determine a reasonable rate. However, the issue which must be considered is, in the absence of any express provision in the contract, what reference (if any) should be made to the bill of quantities or schedule of rates although these may not be directly applicable?

Naturally, if the rates provided in the bill are particularly lucrative, the Contractor will maintain that it is entitled to the bill rate plus an adjustment (maintaining the high margin in his rates). However, if the rates are less than generous, the Contractor will likely argue that the variation, not failing within the bill, should be calculated by reference to day labour rates (or by cost plus).

Duncan Wallace in *Construction Contracts; Principles and Policies of Tort and Contract*[67] wrote the following regarding following or amending quoted prices and rates in contracts:

> Most contracts will not permit the price in question to be re-opened at the suit of either party on the ground that particular prices for whatever reason, were too high or too low or profitable or unprofitable.
>
> But for good reason, because not all variations are ordered in good time or can be absorbed without difficulty into the contract as originally programmed without effecting his critical path; or because site access or other conditions may vary by comparison with the original priced work; or because altered quantities may effect the pricing economics of the contract; nearly all construction contracts do permit departure from the price concept where those special factors are present.
>
> Where this is so however, most contracts, when properly and exactly interpreted will require the special concept of cost comparison to be superimposed upon the applicable contract prices - namely as an addition to (or theoretically, of course, even as subtraction from) the prices in the bill of quantities, resulting from a comparison of the actual costs of the item, as originally priced for, against the actual bill of the item as carried out - in other words, if the price item in the bill or schedule is high or profitable then the resulting adjusted price due to the special character or effect of the particular variation will also be high or profitable and vice versa. Thus, in one US case the variation or "change" was valued by reference to the difference between the contractor's actual cost and original estimated cost, after making an adjustment for the contractor's under estimated bid as well as adjusting for other costs as shown by the record for which the contractor was responsible and which were not adjusted due to the changed conditions.
>
> That case, it is true, concerned the valuation of "changed condition" claim, but the principle is exactly the same in relation to the special cost adjustment for disturbance permitted under most contract variation valuation provisions. In many cases, of course, this refinement may not in practice be important, but in some cases, particularly where unusually high or low bill or schedule prices have been used and the quantities are very large, it may become important. Close examination of the variation valuation provisions needs to be made in all cases, since the above comments reflect only the generality of such provisions in most modern contracts and the variation valuation clauses are frequently very obscurely drafted.

5.2.3 Day works

Determination of a reasonable rate may be most difficult when the variation is for a completely new item of work and there are no similar activities already in the contract. In these circumstances, the Superintendent may use the daywork provisions (if the contract so provides).

The Superintendent has the option of directing work to be undertaken under the dayworks provisions of the contract (eg. clause 41 of AS 2124 and clause 11.5 of PC-1). When the variation is priced using the dayworks provisions, the Principal pays for the actual direct cost of completing the work. The direct cost is paid to the Contractor.

The Principal also accepts all the risks of completing the work. The Contractor is usually compensated for overheads, administrative costs, site supervision, establishment costs, attendance and profit by the addition of a percentage to the direct costs incurred. This percentage is often stated in the Annexure or elsewhere in the contract documents or agreed between the parties.

The agreed percentage in this case should not include a margin for risk as the Contractor is paid for the actual cost of completing the work. However, additional profit on variations priced as dayworks may come from the inclusion of work which rightly forms part of work paid for elsewhere, or from a high percentage addition.

Under daywork rates, there is no incentive for the Contractor to undertake the work efficiently and complete quickly. Dayworks rates are actual costs and not subjected to adjustment for rise and fall. Because payments are made promptly, there are no additional charges for financing the work.

Payment under the daywork provisions is primarily an accounting exercise provided appropriate records are kept by the Contractor and the Principal. If the work is commenced without an agreement that it is to be priced and paid for under the daywork provisions, inadequate records may be kept for subsequent determination of the cost of daywork.

In practice, difficulties may arise in the establishment of appropriate hire charges for construction equipment, particularly standby rates, and in the determination of the wages, allowances and on-costs applicable to labour. Actual wages costs will vary significantly throughout the contract depending on overtime, disability allowances, weather conditions and accommodation provisions.

The charge to cover overheads, administrative costs, site supervision, establishment costs, attendance and profit may be contentious if there is no agreement included in the contract.

5.2.4 Valuation under the contract after performance of the variation

In the instance a variation is performed and the value of that variation is to be determined in accordance with the contract on principles of reasonableness, than such a value can be said to be determined on the basis of a **contractual** quantum meruit[68].

For example, in *Atlantic Civil Pty Ltd v Water Administration Ministerial Corporation*[69], a decision by the referee who ruled that a quantum meruit was available notwithstanding that a valid contract existed was challenged. Giles J said:[70]

> …[A] variation was to be valued in accordance with the schedule of rates so far as applicable or, in the absence of agreement, by determining a reasonable rate or price. No doubt the referee considered that the schedule rates were inapplicable, and when he referred to 'a quantum meruit basis under the contract' I consider that he meant a reasonable sum for the additional work. Thus the referee was not assessing a sum outside and in defiance of the contract, but giving effect to the contract. In my opinion the defendant's submission was based upon a misconception of the report.

5.3 Disputes regarding valuing variations

Notwithstanding the above provisions for valuing variations, the following case illustrates that issues may still arise as to the application of such provisions.

In *Re SC Molineaux & Co. Pty. Ltd. and Board of Trustees of Sydney Talmudical College*[71], the Contractor agreed to erect a synagogue and classrooms at Bondi (the "Works") according to the drawings and specification of the Architect named in the Contract. The issue was whether the only rate which may be allowed for overhead and profit upon variations was nine per cent as set out in the priced bill of quantities.

Condition 9 provided that the valuation of variations unless previously or otherwise agreed shall be met as far as possible in accordance with the following rules:

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[68] Doug Jones, *Building and Construction Claims and Disputes,* (1st ed, 1996), 79.
[69] Unreported, NSW Supreme Court, Giles J, 25 September, 16 October and 30 November 1992.
[70] Ibid at 53.
[71] (1965) 83 WN (NSW) 458.

(a) The priced bill of quantities or, if no such bill of quantities has been provided, appropriate current rates shall determine the value of any variation to which such rates may reasonably apply;

(b) Where there are no appropriate current rates a fair valuation of the variation according to the measurements adopted by the Architect shall be made;

(c) If in the opinion of the Architect the valuation of the variations cannot be ascertained by either of the above methods the Builder upon notification to that effect shall proceed with the works and shall present in such form as the Architect may direct a correct record of the cost of the variations together with evidence supporting the same. The Builder shall not be entitled to any discount on materials other than discount for prompt payment. Any certificate issued to the Builder by the Architect pursuant to this clause shall include reasonable allowance for overhead and profit.

Condition 10 read as follows:

> Any bills of quantities or other statements as to quantities of work supplied to the Builder shall not form nor be deemed to form any part of this contract.

The specification contained a clause which read:

> Bills of quantities - Bills of quantities are issued for the guidance of tenderers and do not form any part of this contract. A full priced copy of the **bill of quantities with all rates shown added and checked is to be deposited by the successful tenderer with the Architect** before signing the contract for checking purposes. Such rates will for schedule rates and will be used for determining the costs of extras, deductions or variations to the contract.

The Builder deposited a priced bill of quantities with the Architect in accordance with that clause as set out in the specification. As that priced bill of quantities was supplied by the Builder (and not supplied **to** the Builder), it was not caught by the provisions of condition 10.

It did, however, by virtue of the operation of the clause in the specification quoted above, form part of the contractual terms agreed upon between the parties and was thus identified as the priced bill of quantities which was referred to in condition 9(a) - in accordance with which, unless there was some previous or other agreement, the valuation of the variations was to be made. A specimen page of the priced bill of quantities provided by the Contractor to the Architect (in accordance with the specification) showed a summary of items for bricklayer, metal worker, carpenter and joiner and the like, each having opposite it a stated sum of money. The items were totalled and the priced bill concluded in the following form:

Total	34,482.80
Add one per cent quantity surveyor's fee	380.00
	34,862.80
Nine per cent	3,137
Tender say	**37,999.00**
	37,926

It was agreed between the parties that the percentage figure of nine per cent was inserted in the priced bill to represent the Contractor's allowance in the total contract sum for overhead and profit, of which eight per cent represented overhead and one per cent represented profit. The Principal argued that this was the rate to be allowed for overhead and profit on the variations except in cases where the Proprietor allowed another rate because the priced bill of quantities as referred to in condition 9(a) was not appropriate to value the relevant variation.

The Contractor argued that the prices in the priced bill of quantities were net prices and contained no profit or overhead and that condition 9 (a) was concerned only with a bill of quantities dealing with prices for materials and costs of labour and did not include overhead and profit. The Contractor argued that, irrespective of which is contained in the earlier part of condition 9, its concluding sentence provided that any certificate issued to the Contractor by the Architect pursuant to condition 9 should include a reasonable allowance for overhead and profit. The Contractor maintained that in arriving at what was a reasonable allowance for profit the figure of eight per cent was not to be disregarded but was to be taken into account in ascertaining what is a reasonable allowance.

The Court held the proper interpretation of condition 9 was as the Principal maintained. Asprey J stated:[72]

> It appears to me that the meaning to be given to condition 9 is plain and that, where the valuation of variations authorised or sanctioned by the Architect have not been previously or otherwise agreed, then, where there is a priced bill of quantities, the valuation shall be made as far as possible in accordance with the priced bill of quantities.
>
> The priced bill of quantities in the present case does contain a stated rate of overhead and profit. The concluding sentence of condition 9, which provides that the Architect's certificate issued to the Builder pursuant to condition 9 shall include "reasonable allowance for overhead and profit", is, in my view, upon the true construction of this agreement, designed to cover those cases in which there has been no agreement between the parties as to rates for overhead or profit, in which case a reasonable allowance must be made by the Architect under those heads.
>
> But, where, as in the present case, the parties have expressly agreed upon such rates, there is neither room nor need for the Architect to fix any other rates.

6. Delays and variations

6.1 General Comments

Gobbo J, in *State Savings Bank of Victoria v. Costain Australia Ltd* (***Constain***)[73] commented on the issue of variations and subsequent delay to the works as follows:

(a) A variation requiring extra work may, but does not necessarily, delay the progress or completion of the works.

> It may be true that in the vast majority of cases performance of a variation for extra work means a retarding of the progress of that part of the works the subject of the variation.
>
> But it is not inevitably so in all cases. Extra work may be of a nature that impinges in no relevant sense on the works. Thus an instruction to supply indoor plants in tubs in a certain lobby may be met without any obstruction of the works... It will depend on the value of the variation, the manner of its performance and a whole range of other circumstances, including the situation at the Site. It is too simplistic to equate an addition to the work in all cases to a retardation of the works or part thereof.

(b) There is no general principle that if the Superintendent orders "extra work" as a variation there must be an extension of time. Nor is it possible to say that in such a case liquidated damages are unenforceable because of the operation of the "prevention" principle.

[72] Ibid at 461.
[73] Unreported Judgement 28 October 1982 Victorian Supreme Court; (1983) 2 ACLR 1.

(c) An appropriate extension of time clause meets the problem of a Contractor directed to do extra work whilst damages for late completion are running against him.

> All that is required is an extension of time clause which is capable of application to the "extra work" variation. Neither on principle nor on the authorities is it necessary to have a clause that is both capable of providing an extension and in fact brings about an extension in every case.

(d) Where there is an obligation on the Builder to pay liquidated damages, the prevention principle **will operate** where the Proprietor does an act, such as ordering extra work, which in the absence of machinery for possible relief increases that liability for damages.

(e) Nor can one say that even where there is such a clause and the extension could be granted after the work was done, until such extension is in fact granted there is no entitlement to liquidated damages.

6.2 Will the variation cause delay?

Variations may (but do not necessarily) delay the progress of the whole of the works or some part of it. As observed in *Costain* (see immediately above), the mere ordering of extra work as a variation of itself does not import delay and consequent entitlement to an extension of time.[74]

Of course, the variation may delay an activity or activities. Variations may be on or off the critical path of the performance of the works. In these circumstances the Contractor may or may not be entitled to an extension of time. Nevertheless, if there is a delay caused by the variation it may cause the Contractor to incur costs which would otherwise not be incurred.

The variation may delay the completion of the works as a whole and, not only delay certain activities, but cause the Contractor to be on the site longer than would otherwise have been the case.

The impact of one or more variations on the Contractor's orderly and economic progress of the works is sometimes difficult to show. The consequences of several individual variations may be cumulative. Multiple variations in succession may have a total effect greater than the sum of the effects of individual variations.

The issue becomes to what extent the "extra cost" of performance due to delay or disruption, if any, caused by the variation can form part of the valuation entitlement. To what extent may the Contractor be compensated for the delay?

6.3 Valuation of variation and the inclusion (or otherwise) of delay costs

This issue must be considered not only in the context of the variation valuation provisions, but in the context of the contract as a whole, including the extension of time provisions and any delay costs provisions.

AS 4000

Variations under AS 4000 are to be priced under clause 36.4. That clause provides that each variation will be priced according to an order of precedence of items which

[74] Ibid.

do not expressly mention time related or delay costs (refer to Section 5.1 for a list of those items).

However, under clause 36.2 (Proposed variation), the Superintendent **may** direct the Contractor is to provide details of any time related costs in respect to a proposed variation. Given that the Superintendent has a discretion as to whether or not it will direct the Contractor to provide such information, such information may not have been provided when a variation is valued under clause 36.4. It is therefore, unclear if the Superintendent is to consider time related costs when valuing a variation under these clauses.

Under clause 39.4 (delay damages) every day the subject of a compensable cause (which includes any act of the Superintendent, including directing the Contractor to perform a variation), the Contractor can claim delay damages pursuant to clause 41.1 (Communication of claims). The Contractor, may therefore, claim time related damages (which may be broader than costs) in respect of a variation under this clause.

The difficulty for the Superintendent is to ensure that the Contractor has not double dipped by claiming time related costs both under clause 36.4 and 39.4.

NPWC

Clause 40.1 of NPWC provides that variations shall be valued in accordance with Clause 40. 2 as follows:

> A variation shall be valued in accordance with the rates included in the Priced Bill of Quantities or Schedule of Rates or in a schedule of prices if and in so far as the Superintendent determines that those rates are applicable to the variation. When the Superintendent determines that [those rates] do not apply to a variation, the rate or price payable for the variation shall be determined by agreement between the Contractor and the Superintendent, but if the Contractor and the Superintendent fail to agree on the rate or price the Superintendent shall determine such rate or price as he considers reasonable or he may direct that the variation shall be carried out as Daywork.

Clause 40.1 does not directly refer to delay or time related costs.

The following cases have concerned whether or not a particular clause enables the Superintendent to consider delay or time related costs when valuing a variation. The subject clauses were similar to clause 40.1 of NPWC.

The High Court of Australia, in *Tuta Products Pty Limited v Hutcherson Bros Pty Limited*[75], considered a variations clause in the following terms which **did not** expressly include delay costs in the valuation procedure:

> No variation shall vitiate the contract, but unless a price therefor shall have previously been agreed, all variations authorised or sanctioned by the Architect shall be valued and the sum involved shall be added to or deducted from the contract sum as the case may be.
>
> In ascertaining such value, measurements and assessments shall be made and supplied by the Builder to the Architect. If the Architect is not satisfied therewith, he may make measurements himself or cause such measurements to be made by a Quantity Surveyor and shall supply the same to the Builder and any fees to be paid for any such measurements shall be added to the Contract Sum. The valuation of such variations unless previously or otherwise agreed shall be made as far as possible in accordance with the following rules:
>
> (a) The priced Bill of Quantities or, if no such Bill of Quantities has been provided appropriate current rates shall determine the value of any variation to which such rates may reasonably apply.

[75] (1972) 127 CLR 253.

(b) Where there are no appropriate current rates a fair valuation of the variation according to the measurements adopted by the Architect shall be made.

(c) If in the opinion of the Architect the valuation of the variations cannot be ascertained by either of the above methods the Builder upon notification to that effect shall proceed with the Works and shall present in such form as the Architect may direct a correct record of the cost of the variations together with evidence supporting the same. The Builder shall not be entitled to any discount on materials other than discount for prompt payment.

Any 'certificate issued to the Builder by the Architect pursuant to this clause shall include reasonable allowance for overhead and profit.

The clause was construed as being concerned with valuation by the measurement of tangible things and not appropriate to a claim for compensation for loss or expense due to delay.

A similar approach was taken by Bray CJ in *Taylor Woodrow International Ltd v Minister of Health*[76] about valuation provisions in another amended E5b form of building contract. His Honour stated:[77]

> In my view these provisions are utterly inappropriate for the assessment of loss or expense arising from delay which might not necessitate any additional work at all, or anything which could be measured or valued by reference to the specifications."

Referring to Clause 24 (the "loss or expense" clause) he said:

> I read clause 24(i)(v) as indicating that there are some claims for loss or expense which should be included in the value of a variation and therefore inferentially that there are some which should not…

It is arguable that Clause 40.2 of NPWC, while not expressed in identical terms, is equally inappropriate to the valuation of delay costs by the Superintendent.

However, clause 35.4 ("Extension of time for Completion") provides in its final paragraph:

> No claim for extra costs incurred by the Contractor by reason of or as a result of or arising from the exercise by the Superintendent of the power to grant or allow any extension of time under this sub-clause shall be entertained by the Principal unless the need for the extension of time was due to **any breach** of the provisions of the Contract by **or any other act or omission** on the part of the Principal, the Superintendent or the employees, professional consultants or agents of the Principal.

It is arguable that the direction to perform a variation is an 'act' of the Superintendent.

The decision of the New South Wales Court of Appeal in *Graham Evans & Co Pty Ltd v SPF Formwork Pty Ltd*[78] appears to support the argument that the effect of clause 35.4 (of NPWC) is to allow recovery of delay costs arising from compliance by the Contractor with a direction from the Superintendent to execute a variation to the Works.

Note, however, that the clause seems to suggest that claims for extra costs due to delays due to variations are to be "entertained" by the Principal rather than the Superintendent. Therefore, is the Contractor required to submit its claim to the Principal and not the Superintendent? If the Contractor were dissatisfied with the Principal's decision in respect of the Contractor's claim under clause 35.4, there is a "dispute or difference arising out of the Contract" for the purposes of clause 45

[76] 19 SASR 1, 9.
[77] Ibid at 9.
[78] (1991) 8 BCL 147; BC9102137.

("Settlement of Disputes") which may then be submitted to the Superintendent for decision under clause 45(a).

There is an element of illogicality in this process for, if the Contractor is dissatisfied with the clause 45(a) decision by the Superintendent, the matter is then submitted to the Principal for decision under clause 45(b), even though it is the initial decision by the Principal under clause 35.4 which gives rise to the " dispute or difference" which is to be resolved by the procedures under clause 45.

AS 2124

Under clause 40 of AS 2124 the Superintendent may direct variations. Clause 40.5(f) provides:

> If the valuation relates to additional costs incurred by the Contractor for delay or disruption, the valuation shall include a reasonable amount for overheads but shall not include profit or loss of profit.

In *Tuta Products Pty Limited v Hutcherson Bros Pty Limited*[79], the Architect was directed by the relevant clause to include an allowance in the valuation of variations for overhead and profit. Stephen J, interestingly in light of the wording of clause 40.2(g) AS 2124-1986, regarded this wording as:[80]

> inappropriate in the case of a claim for compensation for loss or expense due to delay but entirely appropriate when the quantity of work done or material supplied has been altered from that contracted for and which was to be rewarded by the agreed Contract Sum, with its built-in allowance for both overhead and profit.

PC 1

Under clause 11.3 of PC 1, the Contract Administrator is required to increase the Contract Price by **any** reasonable costs and expenses incurred by the Contractor arising from the Variation **delaying** the Contractor.

Under clause 10.5, the Contractor is entitled to claim an extension of time if delayed by an Act of Prevention (which includes the Contractor Administrator directing a variation). It is not clear if the Contractor must have claimed and been awarded an extension of time under clause 10.5 for the Contract Administrator to consider 'reasonable' delay costs under clause 11.3.

However, it is clear that under clause 10.11 (Agreed Damages) the Contractor can only claim delay damages if the Owner has **breached** the Contract. The Contractor could not therefore claim delay costs for a variation under this clause as directing a variation would not be a breach of the Contract.

Arguably, the provisions of PC 1 make it less likely that confusion will result regarding under which clause the Contractor is to claim for its time related costs for a variation (compared to say AS 4000) which may in turn mean fewer disputes and less opportunity for the Contractor to 'double dip'.

6.4 Delay and disruption cost of variations as part of a global claim

Where there have been a significant number of variations directed over a considerable period of time, the Contractor may elect to make a global claim. With such 'global claims' the Contractor seeks to recover all actual costs without proving

[79] (1972) 127 CLR 253.
[80] Ibid at 285.

that performance of variations have been the cause of such costs. Justice Byrnes, in regard to this, said:[81]

> Causation is sought to be inferred rather than proved.

The Contractor must prove that no event for which it was contractually responsible caused any of the costs incurred. Accordingly, it can be deduced that the causes of the Contractor's costs must have been the responsibility of the Principal. The principles regarding such global claims have been established by a number of cases. Where it was not possible to determine the causes of each loss, then it is legitimate for a court to make a 'global' award.[82]

In *J Crosby & Sons Ltd v Portland Urban District Council,*[83] Donaldson J held that where the Contractor had been delayed by a series of events for which the Principal was responsible (eg late possession of the site, suspension of work and variations) which resulted in increased site overhead expenses and loss of productivity of plant and labour, then an arbitrator may make individual awards in respect of those parts of individual items of the claim which can be dealt with in isolation and a supplementary award in respect of the remainder of the claims as a composite whole.

However, in that case the Judge did not accept the accepted standard argument that the arbitrator must arrive at the lump sum award by first ascertaining the individual amounts he finds due under each head of claim because the extent of the extra cost claimed depended upon "*an extremely complex interaction between the consequences of the various events, and it may be difficult or even impossible to make an accurate apportionment of the total cost between the several causative events.*" However, there must be no duplication and if there is any head of claim in the group which does not permit profit, that is, only allows "extra cost or expense", the "global" award must exclude profit.

6.5 Subsequent claims for delay due to multiple variations

Often the Contractor may not realise the extra cost element of the delay and disruption impact of multiple variations. As variations are directed during the progress of the work, the Contractor may submit its claims and the Superintendent may determine the valuation for the individual variations based upon the rates in the contract. The Contractor may also claim and obtain an extension of time. It is only after the work is completed that the delay impact of variations overall may be determined.

Difficult issues arise concerning the basis of the original valuations and whether the valuation included any element of delay cost and whether and on what basis the later claim can be made and valued.

The Contractor may also face a procedural defence that the claim has been made before and time periods for pursuing the claim have not been met.[84]

6.6 Automatic entitlement to EOT if variation preformed after the date for practical completion?

Consider the situation where the Date for Practical Completion under the contract has passed, and the Contractor is still trying to complete. The Contractor is late, liquidated

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[81] Byrne D, Total Costs and Global Claims" (1995) 11 BCL 397 at 410.
[82] *J Crosby and Sons Ltd v Portland Urban District Council* (1967) 5 BLR 121; *Nauru Phosphates Royalties Trust v Matthew Hall Electrical Engineers Pty ltd* (1992) 10 BCL 179.
[83] (1967) 5 BLR 121.
[84] *Commonwealth v Jennings Constructions Ltd* [1985] V.R. 586; (1985) 1 BCL 252.

damages are 'running'. The Principal or the Superintendent wishes to direct a variation. The variation will further delay the Contractor.

Can the Contractor maintain that it is entitled, automatically, to an extension of time?

In *Commissioners for State Bank Victoria v Costain Australia Ltd*[85] a direction to perform a variation was given after what would have been the date for practical completion but within the time given to the Contractor to complete the works as a result of an earlier extension of time having been granted. The Contractor carried out this variation work before the other yet to be completed work within the unvaried scope of work. The Contractor submitted that the performance of variation work after the date of practical completion must cause delay as no contractual time was left to complete the work.

The Court held that under the contract there was no automatic entitlement to an extension of time for variations based simply upon the point of time at which the variation direction was issued and that an entitlement only arose if the variation work delayed the progress of the works. Gobbo J further observed:

> Further, the granting of an extension would almost invariably still find the Builder doing the extra work not in contract time. Thus where an extra that could readily be calculated to take one day to complete is ordered and attracts an extension of one day, it does not mean that this extra is carried out in contract time, for the one day is added to a date for practical completion that may be many months back.

Gobbo J reviewed the authorities and found that none established that upon ordering an item of extra work there was either an extension of time for each item, or if any extension was not granted, then liquidated damages ceased to run.

The weight of authority, he said:

> [T]ends to support the view that an appropriate extension clause meets the problem of a Builder directed to do extra work whilst damages for late completion are running against him.

Furthermore, he said:

> Neither on principle nor on the authorities is it... necessary to have a clause that is both capable of providing an extension and in fact brings about an extension in every case.
>
> So, if the clause is such that it provides the capacity for relief in extra work situations after the Date of Practical Completion, then the principle of prevention will not operate.

6.7 Notification as a condition precedent to make a claim

In *Wormald Engineering Pty Ltd v Resources Conservation Co International*[86] Rogers J held that compliance by the Contractor with the notification provisions in the variation clause of a contract was a condition precedent to the Contractor's entitlement to claim delay costs under the variation clause.

The Contract was an amended AS 2124-1978 which required the Contractor to notify the Superintendent if a variation order was likely to prevent it or prejudice it from fulfilling its obligations under the contract.

The direct cost of the variations had been agreed and paid, but the Contractor later sought to argue that their combined effect led to further increased cost. Rogers J. held that as the Contractor had not notified the Superintendent of this likelihood when the variations were ordered, the claim was barred because it denied the Superintendent the opportunity to reconsider making the variation order.

[85] (1983) 2 ACLR 1.
[86] (1988) 8 BCL 158; (1989) ACLR 28.

See Section 8 for further discussion regarding conditions precedent to claiming for a variation.

7. Is it or isn't it a variation?

7.1 Introduction

The Contractor generally undertakes to complete the work under the contract. In other words, the Contractor undertakes to construct the works as described. What risks the Contractor assumes in respect of this obligation obviously will depend upon the terms of the contract.

The following discussion considers situations where the Contractor must assume the risk (absent a provision providing otherwise), and is unable to rely on the variation clause to claim any compensation for encountering the particular risk.

7.2 Impossible or impracticable design

The Contractor may encounter difficulties in attempting to carry out the works in the manner required by the specifications; to do so may be impracticable or even impossible. This may not be discovered until significant costs have been incurred by the Contractor in the attempt. Such a problem does not arise because of a direction by the Superintendent to vary the works and is, therefore, not compensable under the variation clause.

The following cases illustrate this point.

In *Alexander Thorn v London Corporation*[87] the City of London contracted with Thorn to build a new bridge at Blackfriars. The specification stated that the Contractors were to calculate their own quantities. It also included plans and Sections of the existing bridge. The contract stated that the plans were believed to be correct but the accuracy was not guaranteed, and the Contractor was not to be entitled to charge any extra should the work to be removed prove more than indicated on the plans. The contract further required the Contractor to satisfy itself as to the nature of the ground through which the foundations were to be constructed.

The specification stated:

> The foundations of the piers will be put in by means of wrought iron caissons as shown on drawing number 7. The casing of the lower part of caissons will be left permanently in the work. The upper part, which is formed of buckle plates, is to be removed.
>
> All risk and responsibility involved in the sinking of these caissons will rest with the Contractor and he will be bound to employ divers or other efficient means for removing and overcoming any obstacles or difficulties that may arise in the execution of the works.

The work began in June 1864. However, after the caissons prepared as directed had been used, it was found that they would not resist the external pressure of the water so that the piers of the bridge had to be built independently of them. Time was lost and the labour which had been given to the execution of the original plans was wasted. It was admitted that the work done under the contract had been well done, the contract price was duly paid, and the costs of the extra work rendered necessary by alterations were also paid.

However, the Contractor claimed compensation for the wasted cost of the attempts to execute the original plans on the basis that the Principal had implicitly promised that the works could be built in the manner specified.

[87] 1 App Cas 120 HL(E); (1870) App Cas 120.

The Court held that a Principal does not promise that completion according to the contractual plans and specification is practical or even possible and accordingly, the Contractor was not entitled to the compensation claimed.

7.3 Latent conditions

The risk of encountering latent or unforeseen conditions is a risk of construction borne by the Contractor (absent an express provision in the contract which states otherwise). This is a risk which may eventuate without any change to the original works, or, alternatively, it may eventuate as a result of, or flowing on from, a variation of the works. The Contractor, therefore, cannot rely on a variation clause to claim compensation for encountering adverse, unexpected site conditions

The following cases illustrate this point.

In *Re an Arbitration between Carr and the Shire of Wodonga,*[88] the Contractor agreed to build a bridge for the Principal for a lump sum. The Contractor was to satisfy himself completely as to the site and every circumstance connected with the work and provide for all contingencies.

The Contractor had to sink metal cylinders and fill them with concrete. Plans attached to the specification showed the Principal had sunk bore holes in several places along the line of the proposed bridge but not exactly where the cylinders were to be sunk.

When sinking the cylinders, the Contractor encountered unforeseen obstacles in the form of large logs buried in the river, all of which increased the cost of work by 50%.

The Contractor claimed reimbursement of the extra cost under the "variations" clause as cost of extras or additions to the work.

The Court held the claim for reimbursement failed as:

> There being an unconditional undertaking to sink the cylinders and no countervailing promise... on the part of the Council, the work in respect of which the claims are made cannot be either extras, deviations or alterations within the meaning of the contract.

7.4 Change in quantities in a Bill of Quantities/Schedule of Rates Contract

7.4.1 Bills of Quantities 'variations'

The quantities provided in a bill of quantities usually differ from the quantities actually encountered. Whether a Contractor is entitled to be paid for variations in the bill or quantities will depend on the intention of the parties as determined by the contractual terms.

Where the bill of quantities does **not** form part of the lump sum contract, the Contractor's obligation to perform the works for a lump sum amount will disentitle it from claiming additional payment for increases in the quantities.[89] However, contractual provisions expressly stating the status of a bill of quantities may or may not be enough to overcome the Principal's potential liability in tort and under statute.[90]

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[88] [1924] VLR 56; (1923) 30 ALR 5.
[89] *Re Nuttall and Lynton and Barnstaple Railway Co* (1989) Hudson's BC (4th ed) 279; *Re Ford & Co and Bemrose & Sons* (1902) Hudson's BC (4th ed) 324.
[90] For example, statutory liability for misleading and deceptive conduct under the *Competition and Consumer Act 2010 (*Section 18 of the Australian Consumer Law which is found in schedule 2 to the *Competition and Consumer Act 2010*).

On the other hand, if the bill of quantities has been expressly or impliedly incorporated into the contract to define the works, then the Contractor will ordinarily be entitled to be paid for increases in the quantities as extra work.

In *Patman and Fotheringham Ltd v Pilditch*[91] the Contractor provided that the works were to be done for a lump sum "*according to the plans, invitations to tender, specification and bills of quantities*". The Court held that the bills of quantities were to be regarded as defining the amount of work included in the lump sum price so that if the Contractor was required, in order to complete the work, to do more work than was in the bills of quantities, it was entitled to be paid.

In *Arcos Industries Pty Ltd v The Electricity Commission of New South Wales,*[92] Elcom contracted with Arcos to build a power station under a Schedule of Rates contract.

Clause 2(a) of the General Conditions of Contract provided Elcom was liable to pay the Contractor only for the actual measured quantity of each type of work done at the respective rates set forth in the schedule. The quantities given in the schedules were expressed as being approximate only and not guaranteed by Elcom to be correct.

Clause 11, the variation clause, provided that Arcos was to vary the work by way of addition or omission when authorised by the Superintendent. Without Arcos' approval, the total value of the additions or omissions from the works was not to exceed 10 per cent of the contract price.

During the execution of the works, it was found that the actual quantities of earthworks and concrete works fell short of the quantities that had been estimated in the schedule by more than 10 percent.

Arcos argued that the shortfall in actual quantities was an omission, which had not received approval by Arcos, within clause 1.

The Court of Appeal acknowledged that it may be necessary to give a restricted or qualified meaning to "variations" where the parties use that term with a schedule of rates and unanimously held that the variation clause was concerned only with variations in the nature of the work to be done and not with variations in the quantities which were needed to perform that work and therefore the approval of Acros was not required.

Further, the Court held that the word 'omissions' in the variation clause did not extend to a difference between estimated and actual quantities, arising from a difference between the dimensions and levels of the work as shown on the drawings accompanying the tender and the dimensions and levels of work shown on the actual construction drawings subsequently supplied.

The Court held:

> The reason for having a schedule of rates contract is that the extent of the work cannot at the outset be predicated so that a contract price may be firmly stated.
>
> But variations in the levels and dimensions of the work are integral to a schedule of rates contract. The "total value of the work" can never be determined until the extent of the work has been determined
>
> The levels and dimensions given on these drawings and/or in the specification are intended to give only a general indication of the works. Construction drawings and/or details issued pursuant to the contract may give levels and/or dimensions differing substantially from those

[91] (1904) Hudson's B. C. (4th ed) 368.
[92] [1973] 2 NSWLR 186.

> given in the under mentioned drawings and/or specification. It is emphasised that the contract covers the carrying out of the works shown on the construction drawings and details.

The contract price therefore was to be calculated by multiplying the **actual**, not the estimated, quantity of each item by the agreed rate.

In *Commissioner for Main Roads v Reed and Stuart Pty Ltd*[93] the contract was to be a lump sum contract with the lump sum amount being the grossed up total of various items at estimated quantities and rates and prices in a schedule which was priced by the Contractor. The Contractor priced an item for approximately 49,700 cubic yards of topsoil to be placed in the finished embankments. The specification provided:

> If sufficient top soil to meet the requirements of the Works cannot be obtained within the right of way, the Engineer may direct the contractor to obtain top soil from other approved locations.

The schedule also included a rate only of £3 (with no estimated or grossed up amount) for importing and placing topsoil from outside the site. As it unfolded, there was only 25000 cubic yards of topsoil available on site and the actual amount of topsoil required to be placed in the finished embankments was over 60,000 cubic yards.

The High Court held that the Contractor's overall lump sum price included the placing of any amount of topsoil necessary for the contract requirements, **if it could be taken from the site**, without any increase in the contract sum. However, in the event of topsoil needing to be imported, the Contractor was entitled to be paid the £3 rate for whatever quantity needed to be imported, and whether or not it exceeded the original total estimated quantities of topsoil.

In *In the matter of an Application by Queensland Electricity Commission,*[94] Dowsett J stated:

> There is a fundamental difference between limits of accuracy and limits of permissible variations.
>
> Limits of accuracy concern inaccuracies in estimates of the amount of work involved in a particular, identifiable task. As pointed out by Jacobs P in Arcos Industries, it is of the nature of a schedule of rates contract that the exact amount of work to be performed will not be known with certainty until the work has been completed. Nonetheless, tenders are usually invited and made upon the basis of the range of estimated quantities. In an appropriate case, the Principal or the Contractor may choose to stipulate the limits or accuracy for those estimates. This will depend upon the agreement made by the parties…that is quite a different situation from that with which [the clause in questions] deals. The latter clause is intended to deal with variations in the work to be performed, whereas limits of accuracy relate to the accuracy of the estimates of work agreed to be performed.

Mitsui v Attorney- General of Hong Kong[95]was a Privy Council case which illustrates the willingness of the Courts to conclude that under schedule of rates contracts, the Contractor assumes the risk of dramatically increased quantities compared to those expected and in the contract documents. In that case an item for lining had increased by a factor of eight and steel ribs by a factor of seventy three.

Most standard form contracts expressly deal with this issue by stating the extent to which the bill of quantities is to form part of the contract and if the bill of quantities forms part of the contract, provision is made for adjustments to the contract sum where the actual quantities differ to those specified. For example, clause 2.2 of AS 4000 enables the parties to select either Alternative 1 (where the bill of quantities is to form part of the contract) and Alternative 2 (where the bill of quantities is not to form

[93] [1974] 131 CLR 378.
[94] (1991) 10 BCL 143.
[95] [1986] 33 BLR 1.

part of the contract). Clause 2.4 then provides that the bill of quantities are estimates only. Notwithstanding this, clause 2.5 enables the price for an item to be adjusted (if the adjustment required is more than $400) if the quantity shown in the bill of quantities is more or less. See also clauses 3.2, 3.3, and 4 of AS 2124.

As noted in Section 2.4, PC-1 does not provide for bills of quantities.

7.4.2 Schedule of Rates 'variations'[96]

Many schedule of rates contracts do not differ in any significant way from bills of quantities or other forms of unit price or measured contract in their legal effects. Any problems of interpretation regarding whether work is or is not included in the rate will be the same as in bills of quantities contracts.

Such contracts may be used where there is no finalised scope of works or design available at the time of contracting so that the contract requires the Contractor to do whatever work may be required at the rates and prices in the schedule. This means that 'variations' in the usual sense will not be involved.

However, if the work directed is considered to be sufficiently different to the kind allowed for in the schedule of rates and cannot properly be characterised as necessary ancillary work, some different rate or price may need to be agreed.

Some Contractors, in providing a schedule of rates, may attempt to "load the rates", that is, put a very profitable price on a rate which it assumes will be applicable to likely variations and a low price on rates not likely to be used. For example, the contract in *Sist Constructions v State Electricity Commission of Victoria,*[97] was for a lump sum amount but contained a schedule of rates for the excavation of unsuitable material. The contract, wisely contained a clause protecting the Principal from "loaded rates" as follows:

> If the Engineer is not satisfied the rate in respect of any item is a proper rate, having regard to current prices in the industry for that item, he will, after consultation with the Contractor, fix a rate for such item which will be the rate by which the price will be varied.

Brooking J opined as follows on the practice of "loading rates":

> The need for some contractual provision, either requiring the builder to act reasonably in pricing the bill or empowering the person administering the contract to reject the rates in the priced bill, arises from the notorious practice of those who tender for building and engineering contracts of making what has been described as an unbalanced bid, that is to say, of pricing the bill in a way which, without affecting the amount of the tender, is calculated to ensure to their financial advantage. A tenderer may put down low rates for items where he believes that the "as built" quantities are likely to be less than the billed quantities, and high rates for items where he believes the "as built" quantities will exceed the quantities in the bill. He may also increase his rates for early work and reduce his rates for later work in order to give him a substantial cash flow at an early stage. The practice is also known as "loading" the rates.

In *Bell Bros Pty Ltd v Metropolitan Water Supply, Sewerage and Drainage Board*[98] the Contractor provided rates which did not accurately reflect its costs of performing the work. As a result, the amount claimed by the Contractor did not cover the Contractor's costs. The Court held that the Contractor could not claim the extra costs as a variation and that it would not interfere with the contractual risk allocation.

Also refer to the cases discussed above under "Bills of Quantities" at Section 7.4.1 which also concern issues with schedules of rates.

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[96] *Hudson's Building and Engineering Contracts*, (12th ed, 2010), 789.
[97] [1992] VR 597.
[98] Unreported, Western Australia Supreme Court, Brinsden J, 30 October 1980; (1980) ACLD 343.

7.5 Contractor provides Extra or Better Quality Work

If a Contractor does extra or better quality work without a direction from the Superintendent, can the Contractor claim for the extra work as a variation?

In *Re Chittick and Taylor,*[99] it was held that generally speaking, the answer is no. The Court set out the following general rules:

(a) an item specifically provided for in the contract was not an extra;

(b) if the Contractor supplied material of a better quality than the minimum quality necessary for the fulfilment of the contract without any instructions - express or implied - from the Principal to do so, he was not entitled to charge the extra cost as an extra;

(c) if the Contractor did work, or supplied materials not called for by the contract (plans or specifications) without either instructions - express or implied - from the Principal or the consent of the Principal, he was not entitled to charge for this additional work or materials as an extra; and

(d) if the Contractor did work, or supplied materials, not called for by the contract but on instructions - express or implied - of the Principal, he was entitled to charge for such additional work or materials as an extra.

7.6 The Superintendent directs Work as a Variation which is part of the Original Scope of Work

It would seem that the Contractor would not be entitled to extra payment to do certain work if that work was already formed part of the Contractor's scope of work. By way of illustration, in *Neodox Ltd v Borough of Swinton and Pendlebury*[100]the Engineer prevented the Contractor from excavating pipelines using a machine. The Engineer also directed the Contractor not to lay any pipes until the whole of the trenches had been excavated. The Contractor complied with the Engineer's direction and claimed the additional costs as variations. The Court held that the Engineer's directions could not be regarded as requiring the performance of a variation as the work was already within the Contractor's scope of work.

Hudson's[101] contends that this is so because there will be no consideration for any promise by the Principal to pay for it under the mistaken idea that it was a variation. Also, in most contracts, a direction by the Superintendent to execute certain work expressly stated by it to be a variation (but which forms part of the Contractor's existing scope of works) will not bind the Principal as the Superintendent has no authority to alter the terms of the contract. Accordingly, if a Contractor alleged that a direction was a variation and refused to comply with the direction without a promise to pay for it, and the Superintendent then made such a promise, the Principal would not be liable for such a promise. In *Sharpe v Sao Paulo Ry* James LJ said of such a promise:[102]

> It is perfectly nudum pactum (a promise not legally enforceable for want of consideration). It is a totally distinct thing from a claim for payment for actual extra work not included in the contract.

[99] (1954) 12 WWR 653.
[100] (1958) 5 BLR 38.
[101] *Hudson's Building and Engineering Contracts*, (12th ed, 2010), 806.
[102] (1873) L.R. 8 Ch App. 597 and 608.

7.7 Unintentional variations

7.7.1 Direction to Change the Contractor's Method of Working

Whether the Superintendent has the power to direct the Contractor as to any part of the Contractor's method of working, that is, its method of achieving the final result of the permanent work, will clearly depend upon the terms of the contract.

If the power is not given to the Superintendent in the contract, the Contractor can ignore any direction from the Superintendent to adopt any particular method of working.[103] If the Contractor nevertheless complies, notwithstanding the Superintendent's lack of power, is the Contractor entitled to compensation?

If the contract does give the Superintendent such a power, the question arises as to whether the Contractor must comply with the direction without adjustment to the contract sum in the particular circumstances, for example, where the direction constitutes a variation under the variation clause.

In *Neodox Ltd v The Mayor, Alderman & Burgesses of Borough of Swinton & Pendlebury*[104], Neodox contracted to carry out sewage works and to lay lines of sewers. The rate for laying sewers in the schedule of rates was per lineal foot according to depth and was expressed to be:

> inclusive of all excavation and refilling in all types of strata, timbering of excavations, trenches and headings and special timbering such as close pointed runners driven below the invert of the sewer or other form of approved necessary sheeting if running sand is met with or the nature of the soil demands it, subsoil drains, sumps and pumping as described in clause 1 in specification, lowering and hoisting pipes, etc.

There was no express provision as to the method of excavation to be adopted but timbering was dealt with in clause 6 of the specification as follows:

> All excavations shall be securely timbered with suitable timber or alternative form of sheeting (other than timber) as may be and where necessary, to the satisfaction of the engineer or resident engineer.

Other relevant provisions were:

> Clause 10:
>
> The works shall be carried out under the direction of and to the satisfaction of the Engineer, and the Contractor shall take instructions only from him or his duly authorised representative or representatives.
>
> Clause 18:
>
> All the works shall be executed with the materials specified of the best of their respective kinds, with the best workmanship and in the best manner, to the satisfaction of the Engineer. All materials considered by the Engineer to be unsound, or not in accordance with the specification, shall be immediately removed by the Contractor at his own expense and all work carried out imperfectly or with faulty materials must be immediately removed and properly replaced by the Contractor to the satisfaction of the Engineer. Should the Contractor neglect or refuse to do this, the Engineer shall have power to employ other persons for this purpose and to pay the same out of any monies that may then be or shall become due to the Contractor, or the employers may recover the amount of such expense by action of law.

Neodox intended to excavate half the trenches using an excavator and batter the sides to a slope.

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[103] *Wells v Army & Navy Co-Operative Society* (1902) 2 Hudson's Building Contracts, (4th ed), p 346; (1902) 86 LT 764.
[104] (1958) 5 BLR 34.

The Superintendent prevented it from so doing and his requirements were such as to make the excavator of little use for excavating or backfilling. The Superintendent also required the Contractor not to lay pipes until whole trenches had been excavated from manhole to manhole.

The result was that Neodox wanted to carry out the excavations for the sewers and pipes in one way whereas the Superintendent insisted on them carrying it out in a different way.

The arbitrator found that Neodox's proposed methods were reasonable. Neodex claimed the increased costs as a variation.

Diplock J held that the increased costs were **not** recoverable.

His Honour stated:

> I think that in general, clauses 10 and 18 give to the Engineer the power to determine the method by which work are to be executed, such as the excavation of trenches where there are alternative methods possible; and I think, too, that clause 6 of the specification, on its true interpretation, entitles the Engineer to decide when and where timbering or other forms of sheeting are to be used. His decision as to whether one method or another is satisfactory to him must, of course, be an honest one, but it does not seem to be that the Corporation warrants his competency or skill, or warrants that his decision shall be reasonable.
>
> I do not think that the claimants can claim that the Engineer's decision to require the excavations to be done by a particular method - which the arbitrator has found to be unreasonable - constitutes any breach of contract by the Corporation; nor, indeed, do they put their case in this way. They claim that the Engineer's requirements were a "variation of or addition to the works" within the meaning of clause 20, or an extra within the meaning of clause 21, and that they are accordingly entitled to make an extra charge therefor.
>
> In a contract in which there is no specific method of carrying out particular operations necessary to complete the works set out, and **which provides merely that they shall be carried out under the Engineer's directions and in the best manner to his satisfaction**, I find great difficulty in seeing how a direction by the Engineer intimating the manner in which the operations must be carried out in order to satisfy him can be a "variation of or addition to the works". It seems to me to be no more than what the contract itself calls for, provided only that the Engineer is fair and impartial in making his decision to give such direction.

Diplock J also held that the Corporation did not warrant that the Engineer will act reasonably and is not liable if the Engineer acts unreasonably.

The Contractor had no remedy against the Corporation merely because the Engineer's decision was unreasonable but given honestly, that is, without misconduct.

Two later English cases further demonstrate that whether a direction to alter the sequence or method of work constitutes a variation will depend on the terms of the contract.

In *Kitsons Sheet Metal Ltd v Matthew Hall Mechanical & Electrical Engineers Ltd*[105] clause 20(1) provided that a variation included any alternation of the manner or sequence of working. However, one of the schedules to the contract required that works be carried out "in accordance with the dictates" of the site management team. The Court concluded that the Contractor was entitled to carry out its work in accordance with the program and if the Owner then instructed the Contractor to depart from it is some respect, an alteration of sequence and possibly of manner would occur. However, as the program could only be a guide without contractual effect that none of the instruction which had the effect of altering the manner or sequence of work carried out constituted variations as defined.

[105] (1989) 47 BLR 82; 17 ConLR 116.

In *Yorkshire Water Authority v Sir Alfred McAlpine & Son (Northern) Ltd,*[106] the Contractor submitted a work "method statement" which was called for by the contract and which was found by the Court to have been incorporated in the contract documents by reference in the formal instrument of agreement. An issue arose as to whether the Contractor was entitled to a variation for having to change its sequence of work. The Court held that the issue depended on whether the method statement was a specified sequence of construction and if it was, the Contractor was entitled to be compensated for the change as a variation.

The Owner argued that the "method statement" was no more than a program which the Contract required to submit under clause 14(1) which provided that the Contractor must submit a program to the Engineer for his approval showing the order of procedure in which he proposes to carry out the Works. The Contractor argued that the "method statement" was a specified sequence and method which it was bound and entitled to follow. The Court held that the "method statement" was a specified sequence or method of construction and that a direction to depart from it was a variation.

AS 4000 (clause 32) and AS 2124 (clause 33.1) both provide that the Superintendent may direct in what order and at what time the various stages or parts of the work under the Contract shall be performed. The clauses also provide that if compliance with such a direction causes the Contractor to incur more or less costs, the difference will be valued as a variation.

NPWC (clause 33.3 and 33.4) provides that the Superintendent will have full power to direct in what order and at what time the various stages or parts of the work shall be performed if the Contractor has not provided a construction program under clause 33. Further, the Contractor will only be entitled to compensation for a direction given under clause 33.3 if the direction was due to an act, default or omission of the Principal or the Superintendent.

PC-1 has no such provision and therefore the Contract Administrator would have no entitlement to direct the Contractor to alter the order or timing of the works except for a safety concern under clause 8.16.

7.7.2 Substitutes and options in the specification

Specifications sometimes stipulate a particular brand name of materials or system but allow substitution of materials or products "equal to" or "similar to" that stipulated.

In *Brodie v Corporation of Cardiff,*[107] the contract empowered the Engineer to order variations. It provided that the Corporation was not to be liable for the cost of variations without instructions in writing by the Engineer. The specification required a reservoir to be constructed, the clay puddle to be formed of good, tough, tenacious blue clay. It further stated that clay suitable for the work **could be** obtained at a certain property, but that the Contractor must "*obtain all the clay that will be required of quality equal in every respect to the samples marked 'Clay for Puddle Wall' in the Engineer's office, either from [the nominated property] or elsewhere*".

The Contractor wished to obtain the clay not from the nominated property but from another property, at more attractive rates.

[106] (1985) 32 BLR 114.
[107] [1919] AC 337.

However, the Engineer considered that the alternate clay did not comply with the specification and directed the Contractor to use the clay from the nominated property saying it was the only clay which would meet the specification.

The Contractor maintained the specification gave him an option, and that the direction of the Engineer was a direction to carry out extra work. However, the Engineer refused to give a written direction to the Contractor.

The Contractor agreed to comply and carried out the work. On the completion of the work the Contractor referred the matter to arbitration.

The arbitrator held the Contractor was correct and awarded compensation as if a written variation direction had been given. The House of Lords refused to interfere with the award.

In *State Rail Authority of NSW v Baulderstone Hornibrook Pty Ltd,*[108] Baulderstone Hornibrook (BH) entered into a lump sum contract with the State Rail Authority (SRA) to construct certain road works. The general conditions of contract were in the form of NPWC 3 (1981). The contract price was a lump sum of $3,460,000. The contract documents included as follows:

> Schedule of Amounts
>
> The tenderer shall complete the schedule by inserting its own estimated quantities, rates and amounts for every item in the schedule and the amounts as extended shall on addition, equal the lump sum tender amount.
>
> Rates and prices shown in the Schedule of Amounts shall, where relevant, be used as a basis for computing the value of any variations and will be used by the Superintendent to assist him in assessing the value of work for progress payments."
>
> The "Schedule of Amounts No. 3 - Earthworks" contained the following:

Item	Description	Unit	Quantity	Rate	Amount
Excavation in OTR					
303	- Cut to fill	m3	6,300	6.0	37,800
304	- **Borrow to fill**	m3	24,500	9.8	240,100
307C	Selected material in embankment at bridge abutment (PROVISIONAL QUANTITY)	m3	11,000	15.0	165,000

The Specifications contained the following relevant provisions:

> 1.4 **Source of Fill Material**
>
> The Contractor's attention is drawn to a retardation basin proposed by Campbelltown City Council and located adjacent to Bunburry Curran Creek, which is a possible source of fill for embankments. Conditions of access to this basin site should be ascertained by contacting Mr G Fowler of Campbelltown City Council in the first instance (telephone 046-20 1501).
>
> 2.8 **Selected Materials Zone**
>
> The embankment at each bridge abutment shall be constructed from selected imported material and shall extend as shown on the drawings.

[108] (1989) 5 BCL 117 (Supreme Court of NSW).

3.07 **Embankment Construction**

(a) Extent of Work

Embankment construction shall include the treatment and compaction of 3 materials in the areas upon which embankments are to be placed, placing and compacting the selected material, layer in cuttings and embankments, the placing and compacting of approved material within areas from which unsuitable material has been removed, and the placing and compacting of embankment material in the holes, pits and depressions within the foundation area.

(e) Placing Filling in Embankments

The material for embankments shall be **obtained from the cuttings within the work, except when borrow or imported fill is authorised by the Superintendent**.

(n) Imported Fill

Where imported fill is required to complete the work, the quality of the material shall meet the following requirements...".

Where the Superintendent authorises the Contractor to borrow material from within the road reserve, payment will be made for the material at the schedule rate for cut to fill except where authorised borrow pits within the road reserve are more than two (2) km from the point of authorised delivery, additional payment will be made for haulage at the rate of thirty (30) cents per bank cubic metre for each km in excess of two (2) km with a maximum payment of $2.50 per cubic metre for haulage.

BH requested the Superintendent to nominate borrow pits for the supply of bulk material for embankment construction. The Superintendent declined to permit any borrow from within the road alignment, advising that there was a "possible source of fill material given in clause 1.4 of the Specification". The Contractor imported 36,960 cubic metres of fill and claimed a variation for importing fill.

The Superintendent responded in a letter dated 4 November 1986:

> The tender documents do not indicate the location of any borrowed pits within the road reserve but do include the description of a possible source of fill for embankments.
>
> You may use that location or may choose at your discretion some other source for the necessary fill material. As nothing has changed with respect to fill since the time of tender, we do not agree that its supply is additional work or variation.

The Superintendent maintained that importing fill was not a variation, but nevertheless required the fill to be imported. The Superintendent declined to issue any direction to implement a variation or to value the costs of importing fill. He declined to take the steps contemplated by clause 40 of the General Conditions (that is, making an order and valuing the work).

The Contractor imported fill pursuant to a subcontract it entered into. It claimed $8 per cubic metre for the fill so imported. The Superintendent, and subsequently the Principal, rejected the claim. The procedures contained in clause 45 for the settlement of disputes were invoked. Clause 45 required the Contractor to proceed with the work notwithstanding the existing dispute as to whether the work was a variation or not.

The Court held:

1. The requirement to use imported fill constituted a variation.

   Specification clause **3.07(e) made it clear that embankment fill was to come from cuttings within the work or from borrow or imported fill when**

either borrow or imported fill was authorised by the Superintendent. There was a shortage of material. Material had to come from either borrow or from imported fill. The Superintendent declined to permit borrowed fill. Therefore, fill had to be imported.

Although the Schedule of Amounts made provision for the **pricing of borrow to fill**, it made no provision for imported fill. Specification **clause 1.4** specified a location where imported fill, if it was to be "authorised by the Superintendent" within clause 3.07(e), might be obtained. However, it did not state whether the importation of such fill from that or any other source was within the contract sum.

The Schedule of Amounts totalling the lump sum contract price made it clear that the contract was on the basis that 6,300 cubic metres was to come from "**cut to fill**" and 24,500 cubic metres to come from "**borrow to fill**". If the SRA **wanted imported fill** for general embankment construction to be part of the lump sum price, the Schedule of Amounts should have contained provisions indicating the quantity allowed and the unit price per cubic metre. Accordingly, imported fill for general embankment construction was not included in the lump sum price. The requirement to import fill was thus a requirement to execute additional work within the meaning of clause 40.1(b). The proper quantification of that variation was the reasonable additional cost of importing fill above the cost allowed for borrowed fill.

2. The letter of 4 November 1986 by the SRA was in substance a direction to use imported fill.

3. Even assuming that a direction had not been issued by the Superintendent, the Contractor can still claim a variation for work performed if the work performed was in truth a variation and the Superintendent should have made an order under clause 40. The following statement of Lord Shaw in *Brodie v Corporation of Cardiff*[109] was relevant:

> There are 3 cases to be considered. The **first** case is that of work admittedly within the contract. With regard to that it is of course considered that no order in writing by the Engineer was required. The **second** case is that of work admittedly outside the specified contract work, and consisting of alterations, additions or deviations. With regard to these it is considered that the Contractor is not liable unless an order by the Engineer had been given in writing. The **third** case is that of work with regard to which there is no admission, but on the contrary the parties are at issue upon the question whether the work required by the Engineer is within the contract or is an extra. The fundamental difference involves whether or not a written order is required.

If the facts of the case fell within the third of the above categories, and the work required to be done by the Superintendent was in truth a variation, then the Contractor may claim a variation notwithstanding that the Superintendent had not (but should have) made an order nor valued the work as contemplated by clause 40. The Contractor was not obliged to sue only for breach of contract for the failure of the Superintendent to issue a direction for the performance of the work when work was performed by the Contractor as a variation in the absence of a contractual direction.

7.7.3 Assenting to a Contactor's proposal

In *Simplex Concrete Piles Ltd v The Mayor, Alderman and Councillors of the Metropolitan Borough of St Pancreas*[110] the contract required the Contractor to provide reinforced concrete piles to support a nine story block of flats. A test pile

[109] [1919] AC 337.
[110] (1958) 14 BLR 80.

failed and it appeared that the piles would not be able to support the required loads. The Contractor proposed to the Architect that bored piles at an extra costs of approximately £3,000 should be installed. The Contractor asked the Architect for his "instructions and views as to the extra costs which will be involved". The Architect replied in a letter stating that the Principal " was prepared to accept your proposal that piles supporting Block A should be of the same bored type…"

The Contractor claimed that the letter was an instruction for a variation to the works. The Principal claimed that the letter was no more than a concession by the Architect enabling the contract to preform its obligations under the contract in a manner different form that specified and as such, created no liability on the Principal's part.

The Court held that the letter did more than merely assent to the Contractor's proposal and that the letter was an instruction involving a variation in the design or quality of the works and was one which the Architect was empowered to make under the contract.

7.7.4 Extra work outside the contract - unjust enrichment and frustration

A Contractor who carries out extra work (or radically different work) may be able to prove facts showing a separate implied promise, independent of the variations clause, to pay for the extra work based upon the principle of unjust enrichment or frustration under which the Contractor may claim on the basis of restitution or quantum meruit.

In *Liebe v Molloy,*[111] Molloy engaged Liebe to erect a theatre and hotel in Perth. The contract provided that no works beyond those included in the contract, should be allowed or paid for without an order in writing from the Principal or Architect. The specification also provided that any extra works ordered by the Architect or the Principal would not be paid for unless an order in writing, stating the nature of the works and the amount fixed, was signed by the Architect and endorsed by the Principal. A dispute was referred to an umpire who found that the work was extra, that there were no orders in writing signed by both Architect and Principal, that there were orders in writing issued by the Architect alone for some of the work, and verbal orders for the rest, but that the Principal had knowledge of these extras inferred from the fact that he was constantly at the works and taking an active interest in it.

Griffith CJ delivered the judgment of the High Court, and succinctly stated the law as follows:

> There was a written contract between the parties and these items cannot be brought within its terms in face of the express stipulation that 'no extra shall be paid for unless ordered by an order in writing...' but that stipulation does not exclude altogether the implied doctrine of law that, when one man does work for another at his request, an implied obligation arises to pay the fair value of it. The question therefore is whether, notwithstanding the absence of written orders, the Contractor is entitled to recover these sums, or in other words, whether under the circumstances of the case an implied contract to pay for them is to be inferred...
>
> Now, the only fact found is that the employer had such knowledge as to these works as may be fairly inferred from the fact that he was constantly on the work, and taking an active interest therein. But a further inference must be drawn before a liability to pay arises, namely, that there was an implied contract to pay. It might be inferred, on the one hand, that, having regard to the nature of the works, the fact of the Owner's presence, and the nature of the interest he took, he knew that they were outside the contract, and knew that the Contractor expected to be paid for them as extras. On the other hand, it might be inferred as to all or some of them that he did not know that they were extras, or did not know or believe that the Contractor expected to be paid for them.

[111] (1906) 4 CLR 347.

> An implied contract may be proved in various ways. When a man does work for another without any express contract relating to the matter, an implied contract arises to pay for it at its fair value. Such an implication of course arises from an express request to do work made under such circumstances as to exclude the idea that the work was covered by a written contract. So it would arise from the Owner standing by and seeing the work done by the other party, knowing that the other party, in this case the Contractor, was doing the work in the belief that he would be paid for it as extra work.
>
> If the umpire was of opinion that any of this work was done under such circumstances that the Owner knew that the Contractor was doing the work in the belief that he would be paid for it as extra work, then the umpire might, and probably would, infer that there was an implied promise to pay for it. That is one instance. Again, the Architect might have been expressly authorised by the Owner to order extra work. Under such circumstances it would not be understood by either party that it was included in the lump sum specified in the contract.

The umpire found that the execution of the extra works was insisted upon by Molloy, who asserted that those works were included in the contract price. However, Molloy was told at the time by Liebe that those works were extras and would be charged as such. The Privy Council endorsed the umpire's finding that Molloy's insistence on the works being done gave rise to the inference that there was a promise to pay for the works either as included in the contract price, or if extra, then by extra payment.

Codelfa Construction Pty Ltd v State Rail Authority of NSW[112] concerned a contract between the Commissioner for Railways and Codelfa Construction arose in the following context and had the following features set out in the reasons of Brennan J:[113]

(a) The contract price was payable for all work included in the schedule of rates regardless of its difficulty.

(b) The Contractor was required to provide at his own cost everything necessary for proper completion of the contract.

(c) The Contractor was deemed to have informed himself fully of the conditions affecting the carrying out of the works.

(d) Failure by the Contractor to fully inform himself of all such conditions did not relieve the Contractor of the responsibility "for satisfactorily performing the works as required regardless of their difficulty".

(e) The work was of an inherently noisy nature carried out in close proximity to residential areas.

(f) The contract made specific provision for noise, pollution and nuisance.

(g) The parties entered into the contract on the understanding and basis that the works would be carried out for 3 continuous shifts, 6 days a week, and without restriction on Sundays. This was not a contractual requirement, but the construction period of 130 weeks reflected Codelfa's tender construction program of continuous 6 day per week working. This program was accepted by the site Engineer under the terms of the contract.

(h) It was the view of the SRA, accepted by Codelfa, that no injunction could be granted in relation to noise or other nuisance.

(i) The methods and programs agreed by the parties required that work be continuous for 6 days per week.

[112] (1982) 149 CLR 337.
[113] Ibid staring at page 394.

(j) Neither party foresaw the likelihood or possibility of restrictions being imposed on the hours of work.

(k) The injunctions granted against Codelfa:

(i) prevented the Contractor working continuously for 6 days per week;

(ii) caused delay to the works exposing the Contractor to liquidated damages; and

(iii) required alterations to the program of work at significant added cost.

Applying the formula, set out by Lord Radcliffe in *Davis Contractors Ltd v Fareham Urban District Council*[114] the Court considered whether the circumstances in which performance was required rendered it a thing "radically different than what was undertaken" by the parties? Could it be said that the performance was "not that the Contractor promised to do"?

The Court held that what was required of the Contractor was "radically different" and therefore outside the contract. The reasoning of the Court was as follows:

(a) There are factors pointing in both directions. Clearly the increased difficulty of performance, the delay and increased costs of making changes to the program of work are not of themselves sufficient to frustrate the contract.

(b) In any event, the parties had expressly provided that the risks of increased difficulty (from a failure to fully inform himself), reasonable measures to avoid noise and nuisance and increased costs due to the work proving more difficult were with the Contractor.

(c) However, and more importantly, that allocation of risk was agreed in the context of the following contemplated circumstances and events:

(i) that the performance contemplated and required by the contract necessitated continuous 6 day working;

(ii) that the contemplated schedule of work could not be affected by the grant of an injunction; and

(iii) that the parties, therefore, did not address the contingency of restrictions being imposed on working hours.

(d) Mason J relied on earlier cases for the proposition that a mistaken common assumption at the time of contracting can become a frustrating supervening event when the assumption is proved false:[115]

> The injunction is an supervening event though it does not stem from any alteration in the law.

(e) Mason J had regard to the "contractual setting" and the findings of the arbitrator to link the parties' pre-contractual negotiations with the contract to show that those negotiations reflected the performance contemplated by the contract:[116]

> The submission of the proposed programme of work with the tender, its supersession by the revised programme pursuant to cl.S.6 of the specifications, together with the

[114] [1956] AC 696 at 727-9; [1956] UKHL 3.
[115] *Codelfa Construction Pty Ltd v State Rail Authority of NSW* (1982) 149 CLR 337, 359.
[116] Ibid at 361.

> very provisions of c1.S.6 itself dealing with the construction programme, provide a link between the contract and the antecedent discussions so as to enable us, subject to a consideration of specific provisions in the specifications, to say that the contract contemplated that completion would be achieved within the time stipulated by the method of work already mentioned, it being assumed that it could not be disturbed by the grant of an injunction.

(f) A clause allowing for extensions of time for delays "owing to causes beyond the control or without the fault or negligence of the Contractor" was held not to be intended to apply to the grant of an injunction to restrain a nuisance; such delay "scarcely answers this description[117]". The parties had not, by including this clause, contemplated the supervening event which had occurred.

(g) Specific provision was made for noise, pollution and nuisance and it was contemplated that there might be " restrictions on the working hours of plant or such other measures as approved by the Engineer". The Court considered whether this was an express contemplation by the parties of the events which in fact occurred as follows:[118]

> Do these provisions support the view that Codelfa was undertaking in any event to perform the contract work, even though the method contemplated by the parties might prove to be unlawful or impossible by reason of its amounting to a nuisance and its being restrained by injunction. I do not think that cl.S.8(2)C has such a wide-ranging effect. It involves no subtraction from the language of the provisions to say that it is quite consistent with the contemplated method of work being an essential element of the contract. Indeed, there would be no inconsistency between these provisions and an explicit provision for termination of the contract in the event that the method of work was restrained by injunction. There was plenty of scope for an exercise of the Engineer's power under the second paragraph so long as it did not displace the continuation of that method of work.

Mason J thus read down the general words of the Contract to make them consistent with the basis of the contract bargained for by the parties, that is, the contemplated method of work.

This result, with respect, is consistent with the authorities. There was no elaborate inquiry, no reference was made to comparable fact situations in other cases, the contract was construed with the aid of relevant extrinsic evidence and a general impression gained of what the doctrine requires:[119]

> Performance by means of a two shift operation, necessitated by the grant of the injunctions, was fundamentally different from that contemplated by the contract.

Justice Aickin agreed that the contract had been frustrated and gave reasons similar to those of Mason J. Stephen J agreed with both of them on the frustration issue, as did Wilson J. The question was remitted to the Arbitrator for decision.

If the Contractor does carry out work which is determined to be work outside the contract for whatever reason, such work will be valued on a quantum meruit basis. Deane J in *Pavey & Matthews v Paul*[120] in describing how such an amount is to be determined said such compensation must represent "*fair and just compensation for the benefit which has been accepted*" and " *ordinarily fair and just compensation for the benefit or enrichment accepted will correspond to the fair value of the benefit provided (eg remuneration at a reasonable rate for work actually done or the fair market value of materials supplied)*".

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[117] Ibid at 362.
[118] Ibid at 362.
[119] Ibid at 363.
[120] (1987) 162 CLR 221.

Byrne J in *Brenner v First Artists' Management Pty Ltd*[121] also gave guidance how work outside a contract should be valued as follows:

(a) the fundamental yardstick is what is a fair and reasonable remuneration or compensation for the benefit accepted;[122]

(b) regards should be to the price paid had the benefits been conferred under a normal commercial arrangement;[123]

(c) the enquiry is not primarily directed to the cost to the plaintiff of performing the work since the law is not compensating that party for loss suffered…. the reasonable remuneration for work must have some regard to the cost of its performance;[124]

(d) where the parties have agreed upon a price for certain services to be performed and those services have in fact been performed, but for some reason their agreement is ineffective or is no longer on foot, the agreed price is evidence of the value that the parties themselves put on the services performed and may be received as evidence of the appropriate remuneration, but is not determinative of it;[125] and

(e) in the case where the services are of such kind that it is difficult or impossible to assess the number of hours involved or to itemise the precise services, the court is entitled to make a global assessment or to reduce or increase the remuneration which can be proved with some certainty in order to reflect the fair and reasonable value.[126]

7.8 Variations and Estoppel

Parties to a contract need to be aware of the potential operation of estoppel on the terms of the contract.

The most commonly cited case for the elements of estoppel is *Waltons Stores (Interstate) Ltd v Maher.*[127] That case established that the elements of estoppel are as follows:

(a) a party induced (**inducing party**) the other party to adopt an assumption or expectation;

(b) the other party acted or abstained for acting in reliance on the assumption or expectation;

(c) the inducing party knew or intended the party to do so; and

(d) the other party's action or inaction will occasion detriment if the assumption or expectation is not fulfilled.

Estoppel with regards to variations is well illustrated by the following case.

Update Constructions Pty Ltd v Rozelle Child Care[128]concerned a building contract between Update and Rozelle under which Update promised to execute and complete the Work shown in the Contract Drawings.

[121] [1993] 2 VR 221.
[122] Ibid at 262.
[123] Ibid at 262.
[124] Ibid at 262.
[125] Ibid at 263.
[126] Ibid at 263.
[127] (1988) 164 CLR 387, 428-9.

Clause 6 provided:[129]

> (a) The Builder shall comply with and give all notices required by an Act of Parliament or any regulation or by-law of any local authority or of any public service company or authority which has any jurisdiction with regard to the Works or with whose systems the same are or will be connected, and he shall pay and indemnify the Proprietor against any fees or charges legally demandable under the Act of Parliament, regulation or by-law in respect of the Works provided that the Builder shall not be responsible for any legally demandable fees or charges that are imposed after the date of this Contract.
>
> (b) The Builder, before making any variation from the Contract Drawings or Specification necessary for compliance with sub-clause 6(a) shall give to the Proprietor written notice specifying and giving the reason for the variation and applying for instructions in reference thereto.

Update performed extra works without giving written notice and claimed compensation.

The Arbitrator found an agent had authority to vary the contract on behalf of Rozelle.

From the evidence given, conversation took place between Update and the Agent whereby the latter represented to Update that Update would be paid for the extra works.

Priestley JA stated:

> It seems that at the stage when these conversations took place it was still open to Update to comply formally with cl 6 of the conditions of contract. The acquiescence of Rozelle's agent in Update's proposal, without the requirement of written notice being complied with, led Update to continue with the work without giving written notice. In terms of its contractual obligations, Update's acting in this way was a detriment to itself directly induced by the conduct of Rozelle's agent. Rozelle thus having led Update to act to its detriment by representing (even if indirectly) that the requirement of writing was not being insisted on, should not by the rules of estoppel, later be allowed to rely upon the requirement for written notice as an answer to Update's claim under the contract....
>
> An estoppel arose in the present case when the conduct of Rozelle's agent led Update:
>
> (i) to suppose that the requirement of writing under cl 6(b) would not be enforced, and
>
> (ii) to act to its detriment by both not giving the written notice when it could still have done so, and doing the work; the estoppel being that Rozelle could not after those events rely on the writing requirement in cl 6(b)

His Honour continued:[130]

> One point which seems to me to be basic to the decision in Liebe is that if the work claimed for had been work required by the Contract to be done, then the Builder could not recover for it because he had not complied with the contractual requirements. If, however, the work was work which the Builder was not required to do by the contract ("outside the contract" in the words of the High Court) then, if certain further facts were found, the Builder could recover. It may be that the basis of such recovery would these days be referred to in terms of restitution rather than implied contract.

8. Formal requirements of variation clauses

8.1 What are they?

A variation clause in a construction contract usually requires that the direction to carry out a variation must be in writing.

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[128] (1990) 20 NSWLR 251.
[129] Ibid at 255.
[130] Ibid at 14.

AS 4000

Clause 36.1 provides that the Contractor shall not vary WUC except as directed in writing.

Clause 20 provides that except where the Contract otherwise provides, the Superintendent may give a direction orally but shall as soon as practicable confirm it in writing.

Accordingly, given clause 36.1, a variation direction must be given in writing.

AS 2124

Clause 40.1 provides, among other things, that:

> The Contractor shall not vary the work under the Contract except as directed by the Superintendent under Clause 30.3, 30.4 or 40.1 or approved in writing by the Superintendent under Clause 40.1.

Clause 23 provides, among other things:

> Except where the Contract otherwise provides, a direction may be given orally but the Superintendent shall as soon as practicable confirm it in writing.
>
> If the Contractor in writing requests the Superintendent to confirm an oral direction, the Contractor shall not be bound to comply with the direction until the Superintendent confirms it in writing.

NPWC

Clause 40.1 provides, among other things:

> No variation shall be made by the Contractor without an order by the Superintendent.

Clause 23 provides, among other things:

> Any direction which may be or is given to the Contractor by the Superintendent pursuant to the provisions of the Contract may, unless the Contract expressly provides otherwise, be given either orally or in writing. When any such direction is in the first instance given orally the Superintendent shall as soon as practicable after it is so given confirm it in writing addressed to and issued or given to or served upon the Contractor.

Given that under AS 2124 and NPWC, a variation direction is not required to be in writing, the Principal may be exposed to more claims in respect of variations, including for example, disputes regarding if a variation was or was not directed and the scope of any particular variation.

PC 1

Clause 11.1 provides:

> At any time prior to the Date of Completion of the Works or a Stage…, the Contract Administrator may issue a document titled "Variation Price Request" to the Contractor which will set out details of a proposed variation…

Further, under clause 11.2 the Contract Administrator may direct the Contractor to carry out a Variation (whether or not a Variation Price Request has been issued under clause 11.1) by a written document titled "Variation Order".

PC 1 therefore makes it expressly clear that a variation can only be directed by writing in a prescribed manner.

This is further enhanced by clause 16.1 which provides that if the Contractor considers a direction to constitute a variation (other than a 'Variation Order' under clause 11.2) it must give notice in writing to that effect.

8.2 Failure to comply with procedural obligations

A clause may, on its proper construction, make the obtaining of a written direction to perform work a condition precedent to the Contractor's right to payment under the clause. If so, as a general rule the Contractor will not be entitled to recover payment under the variation clause without a written direction of the Superintendent.[131]

An early case (often relied upon as authority for the proposition that there can be no recovery in the absence of writing) is *The Tharsis Sulphur and Copper Company v McElroy & Sons*[132] (***Tharsis***). Clauses in the contract provided:

(a) This [varying the work under the contract] shall only be done under a written order from the company's Engineer ……; and

(b) The Contractors shall not at their own hand or without a written order from the company's Engineer be entitled to make any such alterations or additions….

Lord Blackburn said:

> it is common enough to have provisions, as are here, more or less stringent, saying that no extra work shall be paid for unless it is ordered in writing by the Engineer; and if such conditions are properly made, and there is nothing fraudulent or iniquitous in the way they are carried out, those conditions would be quite sufficient and effectual.

The Court in *Tharsis* came to the above conclusion notwithstanding that there was a discussion between the Owner and the Engineer and the Contractor to the following effect:

> You have entered into an agreement with the company to do this work and if you cannot do it in the manner specified, you must do it in the best way you can … I do not wish to have the girders thicker; I would rather not; but if you tell me that it will save you a great deal of money and expense, I do not wish to resist it.

The District Road Board and Ratepayers of the Road District of Broadmeadows v Mitichell[133] was another early case heard in the Supreme Court of Victoria. The variation clause provided that "no such alterations or deviations will be allowed or paid for, unless previously authorised in writing by the surveyor".

Stawell CJ held:[134]

> There must be an order in writing and a certificate of completion before any payment.

The contract made clear that in the absence of writing under the hand of the surveyor, there would be no payment.

In *Attorney-General v McLeod,*[135] the headnote provides that "*[w]hen in a building contract orders in writing constitute a condition precedent to the right of payment for extras, such a condition cannot be got over*". The case concerned a dispute as to the entitlement of the Builder to be paid for variations in the absence of writing. Condition

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[131] See *Tharsis Sulphur and Copper Co v M'Elroy & Sons* [1878] 3 A.C. 1040; *Russell v Sa da Bandeira* (1862) 13 C.B. (N.S.) 149; *District Road Board and Rate Payers of the District of Broadmeadow v Mitchell* (1867) 4 WW & a'B (L) 101; *Attorney-General v McLeod* (1893) 14 LR (NSW) 246 at 251; *Forman & Co Pty Ltd v The Ship Liddesdale* [1990] A.C. 190; *Newton v Warden etc of Municipality of Deloraine* (1909) 5 Tas LR 22; *Smyth v R* [1884] 1 NZLR (CA) 80 ; S *C Taverner and Co Ltd v. Glamorgan County Council* (1941) 164 LT 357; *Shaw v Baker* (1885) 19 SALR 69.
[132] (1878) 3 App Cas 1040.
[133] (1867) 4 W&W & a'B(L) 101.
[134] Ibid at 104.
[135] (1893) 14 LR (NSW) 246.

8 of the contract provided that "*no deviations from the drawings of (sic) the specifications will be sanctioned or permitted unless an order in writing signed by the Colonial Architect authorising such deviations, be first obtained*". The Court held:[136]

> The law is too clearly established by numerous decisions to permit of any doubt, that where **orders in writing constitute a condition precedent to the right of payment for extras**, such a condition cannot be got over. [emphasis added]

Forman & Co v The Ship Liddesdale[137]was appealed to the Privy Council from the Supreme Court of Victoria. Clause 8 provided:

> The Contractor shall not make any alteration or deviation from the specification agreed upon, nor shall *he be entitled to make any charge or claim for extras* or for anything whatever beyond the lump sum agreed upon, unless the he obtain the written sanction of the captain or his agents at the time of making such additions or alterations which shall be at a price agreed upon.

Whilst the main issue in the case was one concerning the authority of an agent, the Court found that clause 8 prevented the Contractor from making any claim for extras unless it had a written order as required by that clause.

A number of more recent cases continue to support the principle that the procedures (including that the direction must be in writing) in a contract must be followed regarding claims for variations.

Wormald Engineering Pty Ltd v Resources Conservation Co International,[138] although not directly concerning variations (as the Contractor was paid for its variation work), may be viewed as authority for the requirement of writing as a condition precedent to payment. The Contractor claimed additional costs in associated with the variation over and above costs for which it had already been paid. Clause 23 of the contract required the Contractor to give written notice to the Superintendent after becoming aware of the situation giving rise to extra expense.

Rogers J held that the notice was part of a carefully regulated process which enabled the Superintendent to become aware of such costs thus giving the Superintendent an opportunity to reconsider the direction to carry out the variation. The Contractor had given no notice of the extra costs and was held not to be entitled to such costs.

In *Kitsons Sheet Metal Ltd v Matthew Hall Mechanical and Electrical Engineers Ltd,*[139] the Court was asked to determine whether an order in writing was a condition precedent to a claim for extra payment in respect of work done in executing an alleged variation. Clause 20(2) provided:

> The [plaintiffs] shall make such variations in respect of the [contract] works as may be ordered in writing by the [defendants] …(3) Save as aforesaid the [plaintiffs] shall not make any alteration in or modification to the [contract] works.

The Court was of the opinion that the plaintiff was not entitled to payment with respect to any variation which was not "authorised". This flowed from the terms of clause 21 which provided that "[a]ll **authorised** variations of the [contract] work shall be valued in the manner provided". The payment of any money that was paid in respect of a progress claim that contained a claim for a variation, did not entitle the Contractor to payment thereof unless the variation was "authorised".

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[136] Ibid at 251.
[137] [1900] AC 190.
[138] (1988) 8 BCL 158.
[139] (1989) 47 BLR 82.

In *Al-atabi v Zaidi*[140], the Contractor claimed for providing 'variation advice'. Clause 12 of the contract provided:

> **Procedure for Variations**
>
> Before commencing work on a variation, the Contractor must provide to the Owner a notice in writing containing a description of the work and the price (including GST) to the Owner (sic). If not specified, the price will be taken to include the Contractor's margin for overheads and profit. The notice must then be signed and dated by both parties to constitute acceptance…
>
> Variations shall be subject to the overall conditions of this contract.

The Court rejected the claim on the basis that the work formed part of the contract price. However, McColl JA had said in obiter:[141]

> In order to establish the appellant's entitlement to claim for the sums there set out….the appellant had to establish that the requirements of clause 12 had been satisfied.

The mere fact that the Contractor can show the Superintendent gave an oral order to carry out the extra work, and the work was carried out pursuant to that order, will not of itself entitle the Contractor to payment *(SC Taverner & Co Ltd v Glamorgan County Council*[142] (***Taverner***)). Nor will it constitute a fraud of any sort by the Principal.

The variation clause in the *Taverner* (which was decided solely on a point of law) provided that while the Contractor was bound to execute all variations ordered by the county surveyor, the Contractor was not required to do so if, in its opinion (and it was left to the Contractor to decide), the variation would cause additional expense, without getting an order in writing signed by the clerk of the County Council.

Based on the above, a Contractor may find itself faced with a dilemma. Should the Contractor carry out the work knowing that it may later not be entitled to claim under the variation clause or at all or should the Contractor refuse to carry out the work without a written order? A good discussions on the possible consequences of the Contractor refusing to carry out the direction is contained in *Brodie v Corporation of Cardiff.*[143]

As noted above, under Clause 23 of AS 2124, the Contractor may request the Superintendent to confirm an oral direction in writing, and if such a request is made, the Contractor is not bound to comply with the direction until the Superintendent confirms it in writing.

However, should the contract not contain similar provisions to AS 2124, and should the Superintendent or the Principal refuse to give a variation direction in writing on the basis that the work was considered to form part of the contract works, an arbitration clause in the contract may nevertheless empower an arbitrator to award payment for those works. This would be so notwithstanding the absence of written order, if it is determined that the work were in fact extras.[144] A Contractor would be wise to reserve its right to arbitrate and then carry out the work as to refuse to proceed with the project may put the Contractor in breach of contract.[145]

In *Jones v Dalcon Construction Pty Ltd,*[146] clause 16, the variation clause provided:

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140 [2009] NSWCA 433.
141 Ibid at [2].
142 (1941) 164 LT 35.7
143 [1919] AC 337.
144 *Brodie v Cardiff Corp* [1919] AC 337 followed in *State Rail Authority of New South Wales v Baulderstone Hornibrook Pty Ltd* (1989) 5 BCL 117 Cole J.
145 *Bottoms v Lord Mayor City of York* (1882) Hudson's B. C. (4th ed) 208.
146 [2006] WACA 205

> If the Builder agrees to undertake the variation, the variation shall be in writing and signed by both the Builder and the Owner.

Wheeler JA observed:[147]

> a variation is only a variation in accordance with clause 16 and therefore only capable of being the subject of a claim pursuant to clause 25 when in writing and signed by both parties.

Built Interior Pty Ltd v Three Dinosaurs Pty Ltd[148] concerned a Builder's claim for variations which had not been directed in writing as required by clause 6.7 of the contract. The Court held:

> The type of work involved in the disputed variations claims was very much part and parcel of the overall project. There was nothing to indicate that at any time the parties moved away from viewing the Contract as the complete framework by which their legal rights would be governed. Some of the items may well have qualified as "Variations" within the definition in clause 1.2, but the procedural stipulations in clause 6.7 had not been complied with. This offers no basis for the Builder ignoring the Contract (by suing in restitution) and leaves the Builder far short of proving a case of contractual variation.

8.3 What Constitutes "writing"?

A question may arise whether for the purpose of compliance with a requirement that variations must be directed in writing, or for evidentiary purposes, a particular document constitutes a direction, "in writing".

Various kinds of documents may be "issued" by the Superintendent during the carrying out of the Works. These include not only formal variation orders but also letters, site instructions, memoranda, drawings, minutes of site meetings and certificates. Which of these documents may constitute an order in writing?

This issue can be easily regulated by proper drafting because as a general rule a document will constitute an order in writing if it complies with the requirements of the contract.[149]

8.3.1 Drawing

A drawing may be an order in writing depending on the terms of the variation clause and on what is stated on the drawing. In *Wegan Constructions Pty Ltd v Wodonga Sewerage Authority*[150], Lush J seemed prepared to hold that revised plans issued during construction were directions in writing to vary the Works.

In *Myers v Sarl* [151], a provision that no alterations or additions would be admitted unless directed by the Architect in writing under his hand was held **not** to be have been satisfied by unsigned sketches prepared by the Architects' office notwithstanding that the sketches described the manner in which the extra work was to be done and were furnished to the Contractor by the Architect.

8.3.2 Signage

Broadmeadows District Board v Mitchell, [152] involved a Contract for the construction of a bridge. The Contractor alleged that the construction of the embankment to an altered slope was an 'extra'. The surveyor had put up a "profile" or board to which the embankment was to be constructed, bearing the following words written by the

147 Ibid at [21].
148 [2003] NSWCA 290.
149 (Halsbury's, Vol 4 para. 1176).
150 [1978] VR 67.
151 [1860] 30 LJ QB 9; (1860) 121 ER 457.
152 (1867) 4 WW & AB (L) 101.m

surveyor: "*Height of bank allowing two feet for pitching and metalling*". The County Court judge held this satisfied the requirement of written authorisation.

8.3.3 Payment Certificates

A progress certificate which certifies payment for extra work is not a written order to carry out the work (*Tharsis Sulphur & Copper Company v McElroy & Sons*[153]).

In *Attorney General v McLeod,*[154] a reference to work that had been altered in a progress certificate was also held not to be adequate order.

However, a progress certificate may be "approval or sanction" by the Superintendent. In *Swanson Bros Pty Ltd v Stardawn Investments Pty Ltd,*[155] payment was claimed under the variation clause for extra work done without a written instruction. The Contract provided that "all variations authorised or sanctioned by the Architect" were to be valued and an adjustment made to the contract price. Newton J upheld them as variations as:

> ... all the items in question were authorised by the Architects. And most of them were subsequently sanctioned by the Architects in that all or part of the value or cost thereof was included in claims by Swanson Bros in respect of which progress certificates were given by the Architects.

8.3.4 Letters and Minutes of Site Meeting

A letter or site minute which authorises or directs the Contractor to carry out specific work without stating that the work is an extra or variation may be sufficient (*Bedford v Cudgegong Borough*[156]).

8.4 Recovery in the absence of writing

Contractors have been able to establish an entitlement for compensation for carrying out variation work in the absence of writing (and where writing was required) on the basis of an implied promise to pay, a separate contract having been formed, certification by the Superintendent, waiver and estoppel and by having the Superintendent's assessment that an item of work was not a variation overturned in a subsequent arbitration process.

The following cases discuss situations in which Contractors have attempted to be compensated for performing a variation in the absence of writing. However, as Brooking J and David Bennett QC have observed:[157]

> The principle underlying particular decisions is not always entirely clear, and the situations in which the Contractor may succeed notwithstanding the apparent bar still await authoritative classification.

8.4.1 Implied promise to pay

In *Liebe v Molloy,*[158] an order in writing from the employer or Architect was required to claim for variation work. The Principal had knowledge of extras or variations being performed. Griffiths CJ said:[159]

> The law on the subject may be very briefly stated. There was a written contract between the parties, and these items cannot be brought within its terms in face of the express stipulation that

153 (1878) 3 App Cas 1040 (followed in A-G v McLeod (1893) 14 LR(NSW) 246 at 251-2; for a similar view in NZ, Smyth v R [1884] 1 NZLR 80).
154 (1893)14 LR (NSW) LR 246; [1918] 1 KB 13.
155 Victorian Supreme Court, unreported 8 May1967.
156 (1900) 16 WN (NSW) 142b.
157 Building Contracts (2nd ed), 1980, Butterworths, page 108.
158 (1906) 4 CLR 347.
159 Ibid at 353–354.

> "no extra shall be paid for unless ordered by an order in writing by the Architect indorsed by the employer"; but that stipulation does not exclude altogether the implied doctrine of law that, when one man does work for another at his request, an implied obligation arises to pay the fair value of it. The question therefore is whether, notwithstanding the absence of written orders, the Contractor is entitled to recover these sums, or in other words, whether under the circumstances of the case an implied contract to pay for them is to be inferred.

As his Honour further observed, it might be inferred that – having regard to the nature of the works, the fact of the Principal's presence and the nature of the interest he took – the Principal knew that the works were outside the contract and knew that the Contractor expected to be paid for them as extras. His Honour went on to say:[160]

> When a man does work for another without any express contract relating to the matter, an implied contract arises to pay for it at its fair value. Such an implication of course arises from an express request to do work made under such circumstances as to exclude the idea that the work was covered by a written contract. So it would arise from the Owner standing by and seeing the work done by the other party, knowing that the other party, in this case the Contractor, was doing the work in the belief that he would be paid for it as extra work. If the umpire was of opinion that any of this work was done under such circumstances that the Owner knew or understood that the Contractor was doing the work in the belief that he would be paid for it as extra work, then the umpire might, and probably would, infer that there was an implied promise to pay for it. That is one instance. Again, the Architect might have been expressly authorised by the Owner to order extra work. Under such circumstances it would not be understood by either party that it was included in the lump sum specified in the contract.

The High Court ordered that the award be remitted to the arbitrator for reconsideration as to:[161]

> whether, irrespective of the express terms of the contract, it has been proved to the satisfaction of the umpire that the respondent, by himself or his authorised agent, promised, either expressly or by implication from his conduct, to pay for the works specified in list "C" or any of them as extra works.

Liebe v Molloy was followed by the Queensland Supreme Court in *Michael v Andrews*[162]. At first instance the Court upheld the Principal's claim that there was no written order from the Principal as required by the contract, but also found that the work claimed for was not included in the contract and that the Principal requested the addition of the items during the course of the contract works. Douglas J held that he had the power to draw inferences of fact from facts found by the lower Court and that, although the lower Court had not found that there was a promise to pay, the Principal must be taken to have impliedly agreed to pay a reasonable price for the extras by reason of his request for them.

8.4.2 Separate Contract

If the extras or variations directed fall outside the scope of the variations power, then that extra work or variations will be freed from any provision in the contract requiring that the direction must have been given in writing. In such situations an inference or a promise by the Principal to pay for the extras will be more easily found and a separate contract will arise under which the Principal will be required to pay a reasonable price for the extra work.[163]

In *Thackwray v Winter,*[164] the Principal orally ordered extra work and, in subsequent proceedings, sought to contend that in respect of that work the Contractor had not obtained an order in writing from the Architect as required by the contract. For the Contractor it was argued that because the extras had been ordered by the Principal

160 Ibid at 354-355.
161 Ibid at 355.
162 (1925) 2 QJPR 30.
163 *Wren v Emmett Contractors Pty Ltd* (1969) 43 ALJR 213 at 216.
164 (1880) 6 VLR (L) 128.

himself, although not in writing, the Principal must pay for them independently and that a new contract being thus constituted. The Victorian Full Court refused to disturb the jury's finding for the Contractor on this point saying:[165]

> There is nothing to prevent the employer himself giving directions as to additional works to be executed, or giving orders not opposed to the contract. **The employer might orally make any additional contract he pleased**.

In *Russell v Viscount Sa da Bandeira*[166] the Principal was held liable to pay the proper value of articles supplied by the Contractor after the original contract was completed. This was on the basis that the articles were supplied under a new contract by reason of the completion of the original contract.

In *Wegan Constructions Pty Ltd v Wodonga Sewerage Authority,*[167] the Contractor was able to claim compensation outside the contract as the variations directed were found to be beyond the scope intended by the original contract.

8.4.3 Final certificates

The Superintendent may certify amounts as being due to the Contractor for extra work. If in such circumstances the contract makes the certificate conclusive as to adjustments to the contract sum, the Principal may find himself unable to rely upon the absence of a written order or to otherwise contend that the extra works have not been performed in accordance with the contract or at all.[168] However, as noted above an arbitration clause may be sufficiently wide to allow any such final certificate to be re-assessed.[169]

8.4.4 Waiver

A waiver occurs where a party to a contract voluntary abandons a right. However, the provisions of a contract cannot be waived, only a right to enforce an entitlement may be waived. There is a good discussion of 'waiver' in *Commonwealth of Australia v Verwayen*[170]. In that case Mason J said of waiver:[171]

> According to its strict legal connotation, waiver is an intentional act done with knowledge whereby a person abandons a right by acting in a manner inconsistent with that right:

It may be open to the Contractor to argue that there has been a waiver by the Principal of the requirement that extras be ordered in writing.

What conduct would be sufficient to constitute a waiver of the requirement is, however, not clear. The Contractor in *Bysouth v Shire of Blackburn and Mitcham (No. 2)*[172] found its claim for the payment of certain extras under a road-making contract met with a plea that no written order from the Council was obtained as required by the contract. The facts stated were:

(a) the Engineer orally requested the Contractor to do the works;

(b) the Council paid for certain extras done without written order;

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165 Ibid at 133.
166 (1862) 13 CB (NS) 149 ; (1862)143 E.R. 59.
167 [1978] VR 67.
168 *Goodyear v. Mayor of Weymouth* (1865) 35 LJCP 12; *Laidlaw v. Hastings Pier Co.* (Hudson's B.C. (4th ed.) 13); *Young v. Ballarat East Water Commissioners* [1879] 5 V.L.R. (L.) 503 at 547 (F.C.); *Richards v. May* (1883) 10 QBD 400.
169 *Brodie v. Corp. of Cardiff* [1919] A.C. 337. See further, *Higgins v. Board of Land and Works* (1895) 16 A.L.T. 158 (F.C.)); *Neale v. Richardson* [1938] 1 All ER 753; *Prestige & Co. Ltd v. Brettell* [1938] 4 All E.R. 346 at 354, per Greer L.J and *State Rail Authority of New South Wales v. Baulderstone Hornibrook Pty Ltd* (1989) 5 BCL 117 (Cole J)).
170 (1990) 95 ALR 321.
171 Ibid at 328 relying on *Craine v Colonial Mutual Fire Insurance Co Ltd* (1920) 28 CLR 305 at 326; *Grundt v Great Boulder Pty Gold Mines Ltd* (1937) 59 CLR 641 at 658.
172 [1928] VLR 562.

(c) the Council stood by and saw the Contractor doing these extras without written order and took the benefit thereof; and

(d) the Contractor was induced by these acts and conduct to believe that the Council would not require written orders and therefore acted to his detriment upon that belief.

The Full Court unanimously held that even if the allegations were proved, they did not establish either waiver or estoppel. The view of Irvine C.J. was expressed in these terms:[173]

> It was argued that these facts established either waiver or estoppel. In my opinion they establish neither. They are, at most, representations as to a present intention, such representations may possibly in some cases form a foundation for estoppel, and in other cases amount to an election, but where, as in this case, they are pleaded merely as representations of a party's present intention not to rely upon a condition of his liability in future, unless they amount to a promise, they have no legal effect.

The New Zealand Supreme Court in *Meyer v Gilmer*[174] declined to interfere with the finding that the Principal had waived its right to refuse payment for extras unless ordered in writing where the Principal had ordered the extras personally and was present when the orders for such extras were given orally to the Contractor by the Architect and part of the amount claimed for extras was afterwards paid for by the Principal upon the Architect's certificate for extras.

An express term providing that none of the conditions of contract could be varied or waived except by express consent in writing was effective in the view of the Full Court of New South Wales in *Attorney-General v McLeod*[175] to provide a complete answer to the Contractor's argument that the condition requiring orders in writing had been waived. However, arguably, there is no reason why clauses such as that considered by the Full Court cannot be waived like any other. The High Court reasoned in *Melbourne Harbour Trust Commissioners v Hancock*[176] that a Principal's conduct might be such as to preclude him from relying on the absence of a written notice directing a suspension of works, notwithstanding the presence in the contract of a clause of the kind considered by the Full Court in *McLeod's* case.

8.4.5 Estoppel

Refer to Section 7.8 for a discussion on the issue of estoppel.

8.4.6 Subsequent arbitration

Where a dispute arises as to whether particular work is or is not a variation, the Contractor may perform the work and have the matter referred to arbitration where the arbitrator may be able to step into the shoes of the superintendent and find otherwise. This occurred in *State Rail Authority of NSW v Baulderstone Hornibrook Pty Ltd*[177] and *Brodie v Corporation of Cardiff*[178] (***Brodie***). The relevant facts in *Brodie* in regards to this issue were as follows:

(a) the contract provided, in wide terms, that disputes were to be referred to arbitration and that directions to perform a variation must be in writing;

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173 Ibid at 567.
174 (1899) 18 NZLR 129.
175 (1893) 14 LR (NSW) 246 at 252.
176 (1927) 39 CLR 570) (compare *Bysouth v. Shire of Blackburn and Mitcham (No. 2)* at 579, per Lowe J.
177 (1989) 5 BCL 117.
178 [1919] AC 337.

(b) disputes arose after the Engineer directed the Contractor to perform works in a certain way;

(c) the Engineer refused to confirm or give the direction in writing;

(d) the Contractor carried out the work, claimed for the work as a variation and referred the dispute to arbitration; and

(e) the arbitrator found that the works required were in excess of those specified by the contract and awarded the Contractor compensation.

The House of Lords determined that the arbitrator was empowered to award that the works in question should be paid for as extras despite the absence of orders in writing from the Engineer.

Bibliography

Articles and Books

Bellmore, A., "Variation claims in the absence of required writing" (2010) 26 *Building and Construction Law Journal* 150.

Bailey, I., *Construction Law in Australia* (2nd ed, LBC Information Services), 1989.

Brown, N., "Legal & contractual aspects of work programming: part 2 - compensation for changes to the sequence or manner of work" (1999) 15 *Building and Construction Law Journal* 12.

Burke, T., "Variations in Construction and Supply Contract", 1992.

Davenport, P., "Variations and restitution - a neglected remedy" (1992) 23 *Australian Construction Law Newsletter* 67.

Dorter, J., "Performance" (1999) 15 *Building & Construction Law Journal* 361.

Dorter, J., "Variations" (1999) 6 *Building & Construction Law Journal* 156.

Atkin Chambers, *Hudson's Building and Engineering Contracts* (12th ed, 2010).

Johannsen, H., "Be vigilant with variations" (2004) 96 *Australian Construction Law Newsletter* 45.

Jones, D., *Building and Construction claims and Disputes* (Construction Publications Pty Limited) 1996.

McDonell, A., "Excessive variation work - a risk to be considered" (1990) 13 *Australian Construction Law Newsletter* 50.

Mead, P. & Newell, C., "Schedule of rates contracts - the ability to claim for variations for changes in quantities" (2001) 79 *Australian Construction Law Newsletter* 11.

Megens, P., "Implied terms in building sub-contracts - The death of sub-contractors' prolongation, variation and disruption claims?" (1994) 34 *Australian Construction Law Newsletter* 31.

Riddell, R. & Hale, B., "Appropriation of payments - a cause of action for undocumented variations", *Australian Construction Law Bulletin* (September 2011) 77.

Staugas, J., "Variations", (1995) 11 *Building and Construction Law Journal* 156.

Cases

Al-atabi v Zaidi [2009] NSWCA 433

Alexander Thorn v The Mayor and Commonalty of London (1876) 1 App. Cas. 120

Alexander Thorn v London Corporation 1 App Cas 120 HL(E); (1870) App Cas 120

Arbitration between Carr and the Shire of Wodonga [1925] VLR 238

Arcos Industries Pty Ltd v The Electricity Commission of New South Wales [1973] 2 NSWLR 186

Ashwell & Nesbitt Ltd v Allen & Co (1912) 2 Hudson's BC (4th Edn) 462

Atlantic Civil Pty Ltd v Water Administration Ministerial Corporation Unreported, NSW Supreme Court, Giles J, 25 September, 16 October and 30 November 1992

Attorney-General v McLeod (1893) 14 LR (NSW) 246

Balfour Beatty Power Construction Aust Pty Ltd v Kidston Goldmines Ltd [1989] 2 Qd 105

Barter v Mayor of Melbourne (1870) 1 ALJR 160)

Beaufort Developments (NI) Ltd v Gilbert -Ash (NI) [1998] 2 All ER (HL) 778

Bedford v Cudgegong Borough (1900) 16 WN (NSW) 142b

Bethlehem Singapore Private Ltd v Barrier Reef Holdings Ltd, Unreported, NSW Supreme Court, Bryson J, 27 October 1987

Bell Bros Pty Ltd v Metropolitan Water Supply, Sewerage and Drainage Board, Unreported, Western Australia Supreme Court, Brinsden J, 30 October 1980

Brenner v First Artists Management Pty Ltd [1993] 2 VR 221

Brighton v Australia and New Zealand Banking Group Ltd [2011] NSWCA 152

Broadmeadows District Board v Mitchell (1867) 4 WW & AB (L) 101.m

BP Refinery (Westernport) Pty Ltd v Shire of Hastings (1977) 16 ALR 363

Brodie v Corporation of Cardiff [1919] 1 AC 337

Built Interior Pty Ltd v Three Dinosaurs Pty Ltd [2003] NSWCA 290

Bush v Whitehaven Port & Town Trustees (1888) 52 JP 392

Bush v The Trustee of the Town & Harbour of Whitehaven (1988) 52 JB 392

Bysouth v. Shire of Blackburn and Mitcham (No. 2) [1928] VLR 562

Cable Limited v Hutcherson Bros Pty Ltd (1969) 123 CLR 143

Carr v J A Berriman Pty Ltd (1953) 89 CLR 327

Centrepoint Custodians Pty Ltd v Lidgerwood Investments Pty Ltd [1990] VR 411

Chadmax Plastics Ply Ltd v Hansen & Yuncken (SA) Ply Ltd (1984) 1 BCL 52

Re Chittick and Taylor (1954) 12 WWR 653

Codelfa Construction Pty Ltd v State Rail Authority of New South Wales (1982) 149 CLR 337

Commissioner for Main Roads v Reed & Stuart Ply Ltd (1974) 131 CLR 378

Commissioners of the State Bank of Victoria v Costain Australia Ltd (1983) 2 ACLR 1

Corporation of the City of Adelaide v Altmann (1987) 46 SASR 186

Davis Contractors Ltd v Fareham Urban District Council [1956] 1 AC 696

Ettridge v Vermin Board of the District of Murat Bay [1928] SASR 124

Forman & Co v The Ship Liddesdale [1900] AC 190

G Hawkins and Sons Pty Ltd v Sabemo Pty Ltd, unreported NSW Supreme Court, Giles J, 8 March 1989

Beaufort Developments (NI) Ltd v Gilbert -Ash (NI) [1998] 2 All ER (HL) 778

Graham Evans & Co Pty Ltd v SPF formwork Pty Ltd (1991) 8 BCL 147

Hobbs Bell Pty Ltd v Pola (1995) 7 BPR 14

Hunkin Conkey Construction v US [1972] 461 Fed. Rep. 2d 1270

In the matter of an Application by Queensland Electricity Commission [1986] 33 BLR 1

J&W Jamieson Constructions Ltd v Christchurch City, Christchurch High Court, Cook J, No A108/82 (8 November 1984)

J Crosby & Sons Ltd v Portland Urban District Council (1967) 5 BLR 121

Johnson v American Home Assurance Company (1998) 15 ALR 162

John Holland (Constructions) Pty Ltd v Bell Bros Pty Ltd Unreported, Supreme Court of Western Australia, Burt CJ, Wallace and Wickham JJ, 31 July 1980

Jones v Dalcon Construction Pty Ltd [2006] WACA 205

Kitsons Sheet Metal Ltd v Matthew Hall Mechanical & Electrical Engineers Ltd (1989) 47 BLR 82

Lewis Construction (Engineering) Pty Ltd v Southern Electric Authority of Queensland (1976) 11 ALR 305

Liebe v Molloy (1906) 4 CLR 347

Maggbury Pty Ltd v Hafele Australia Pty Ltd (2001) 185 ALR 152

Maye v The Colonial Mutual Life Assurance Society Ltd (1924) 35 CLR 14

Melbourne Harbour Trust Commissioners v Hancock (1927) 39 CLR 570

Meyer v. Gilmer (1899) 18 NZLR 129

Michael v Andrews (1925) 2 QJPR 30

Myers v Sarl (1860) 121 ER 457

Re S.C. Molineaux & Co. Pty. Ltd. and Board of Trustees of Sydney Talmudical College (1965) 83 WN (NSW) 458

Neodex Ltd v The Mayor, Alderman & Burgess of Borough Swinton & Pendlebury (1958) 5 BLR 34

New Zealand Structures and Investments Ltd v McKenzie [1979] 1 NZLR 515

Patman and Fotheringham Ltd v Pilditch (1904) Hudson's B. C. (4th ed) 368

Perini Corp v Commonwealth (Redfern Mail Exchange Case) [1969] 2 NSWR 530

Qantas Airways Ltd v Joseland & Gilling (1986) 6 NSWLR 327

Rivat Pty Ltd v B & N Elomar Engineering Pty Ltd [2007] NSWSC 638

Russell v Viscount Sa da Bandeira (1862) 13 CB (NS) 149 ; (1862)143 E.R. 59

SC Taverner & Co Ltd v Glamorgan County Council (1941) 164 LT 35.7

Sharpe v Sao Paulo Ry (1873) L.R. 8 Ch App. 597

Simplex Concrete Piles Ltd v The Mayor, Alderman and Councillors of the Metropolitan Borough of St Pancreas 14 BLR 80

Sist Constructions v State Electricity Commission of Victoria [1992] VR 597

State Savings Bank of Victoria v. Costain Australia Ltd (1983) 2 ACLR 1

State Rail Authority of NSW v Baulderstone Hornibrook Pty Ltd (1989) 5 BCL 117

Swanson Bros Pty Ltd v Stardawn Investments Pty Ltd Victorian Supreme Court, unreported 8 May 1967

Taylor Woodrow International Ltdv Minister of Health 19 SASR 1, 9

Thackwray v Winter (1880) 6 VLR (L) 128

Tharsis Sulphur & Copper Company v McElroy & Sons (1878) 3 App Cas 1040

The District Road Board and Ratepayers of the Road District of Broadmeadows v Mitchell (1867) 4 W&W & a'B(L) 101

Thiess Services Pty Ltd v Mirvac Queensland Pty Ltd [2006] QCA 50

Tuta Products Pty Limited v Hutcherson Bros Pty Limited (1972) 127 CLR 253

Taylor Woodrow International Ltd v Minister of Health (1978) SASR 1

Update Constructions Pty Ltd v Rozelle Child Care Centre Ltd (1990) 20 NSWLR 251

Vidovich v Scalzi & Scalzi (1986) 3 BCL 85

Walker v Council of the Municipality of Randwick (1929) 30 SR (NSW) 84

Wegan Constructions Pty Ltd v Wodonga Sewerage Authority [1978] VR 67

Westpac Banking Corporation v Tanzone Pty Ltd [2000] NSWCA 25

WMC Resources Ltd v Leighton Contractors Pty Ltd (1999) 15 BCL 49

Williams v Fitzmaurice (1858) 157 ER 709

Wormald Engineering Pty Ltd v Resources Conservation Co International (1988) 8 BCL 158

Wren v Emmett Contractors Pty Ltd (1969) 118 CLR 697

Yorkshire Water Authority v Sir Alfred McAlpine & Son (Northern) Ltd (1985) 32 BLR 114

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