driver trett DIGEST

Issue 14 | September 2017

Contracts, Claims and Costs

Cover image courtesy of Transport Scotland

DIGEST

Issue 14 | September 2017

Welcome to the Driver Trett Digest

Welcome to the 14th issue of the Driver Trett Digest. The cover of this issue celebrates the opening, this month, of the new Queensferry Crossing over the Forth in Scotland.

Many of our projects involve infrastructure and what better symbol could there be of the current and sustained boom in infrastructure projects than the completion of Scotland's biggest infrastructure project in a generation.

As a member of Driver's global team, I travel widely and have visited major projects all over the world. The issues facing our teams across the globe do vary, as you read this issue you will see many common themes. Infrastructure, for example, is booming in Australia. Our Canadian colleagues are just starting out on the use of adjudication as a method of dispute resolution and many of my colleagues are currently getting to grips with the recently launched 4th version of the NEC form of contract. Those in the UK can explore this topic further during our Autumn seminar series (see P9 for further details) and for readers from the rest of the world, who are keen to know more, why not contact your local Driver Trett office?

We cover a range of cost and valuation issues from the practicalities of third-party funding to the complexities of asset valuation and gauge both a lawyer and an expert's view on the recoverability of costs when pursuing adjudication rulings and litigation judgments.

And finally, another lawyer and expert combo, this time a more relaxed conversation with myself and a fellow Dispute Resolution Board Foundation member, regarding standing dispute boards and their sometimes unrecognised value to the construction process and dispute avoidance.

I hope you enjoy this issue of the Digest. If you'd like to discuss any of the articles, request topics for the future or have any other questions or feedback, please do get in touch.

Paul Battrick
International Managing Director

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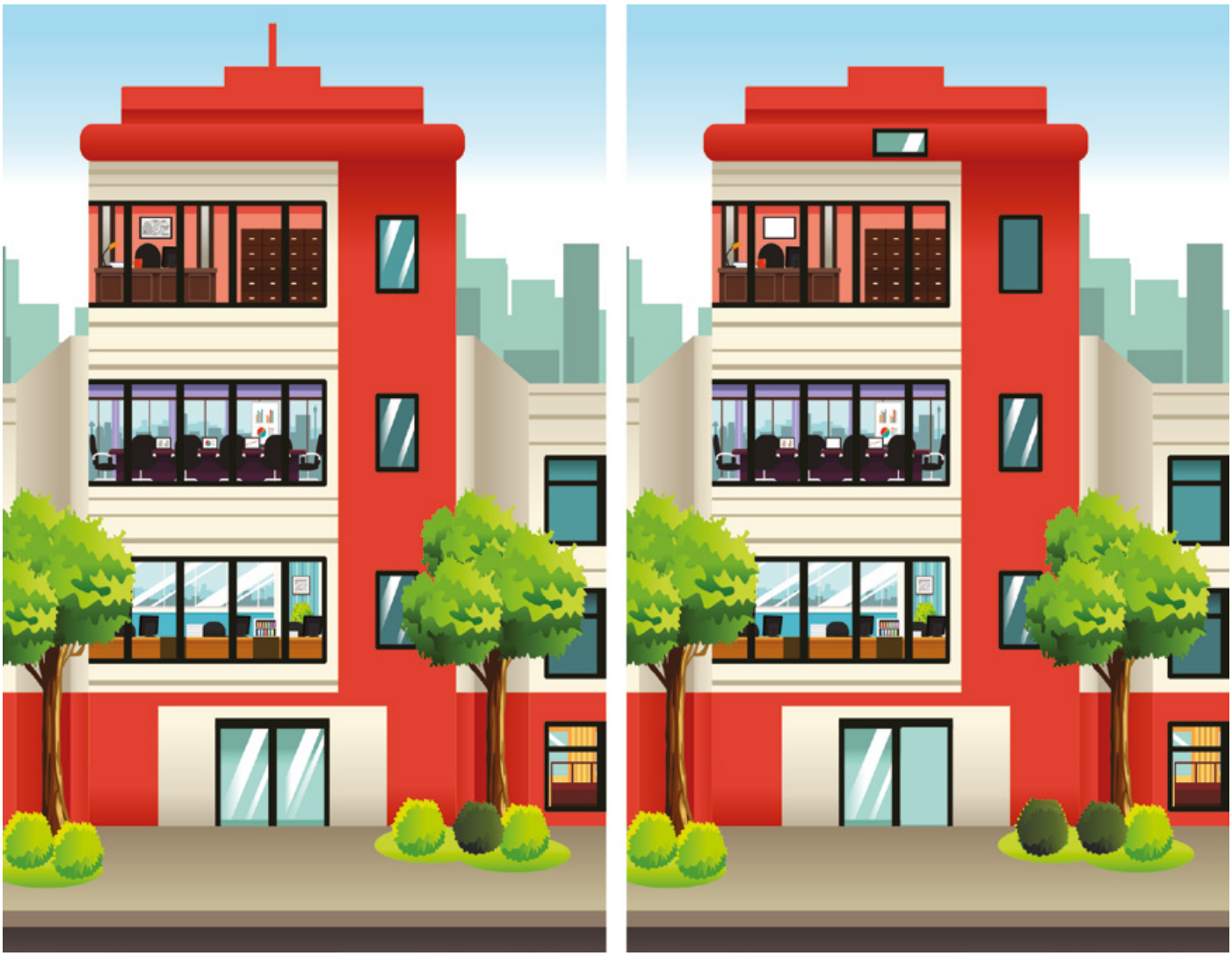

NEC4. So, what's changed?

GARY COWARD – ASSOCIATE DIRECTOR, DRIVER TRETT UK IDENTIFIES SOME OF THE KEY CHANGES IN THE FOURTH EDITION OF THE NEC FORM OF CONTRACTS, ALMOST A QUARTER OF A CENTURY AFTER IT WAS FIRST INTRODUCED.

Since its first publication in 1993, revised in 1995, with the third edition issued in 2005, the use of the NEC suite of contracts has continued to grow and is now the contract form of choice for nearly all government projects in the UK.

Following responses from industry and twelve years of learning, on 22 June 2017, the NEC released the fourth edition with its objectives to, "inspire an increased use in new markets; provide greater stimulus to good management; and support new approaches to procurement that improve contract management".

This article summarises some of the key changes.

New forms of contract

There are four new forms of contract:

- Design build and operate (DBO) form of contract.

The incorporation of this new contract provides an indication of the increasing popularity that the NEC contract is gaining internationally, where traditionally there is a greater demand for DBO contracts. This contract will be an alternative to the FIDIC Gold book.

- Alliancing form of contract (currently in consultative form).

This is a multi-party contract that is for use on large and complex projects. It is a cost reimbursable contract which is based upon an integrated risk and reward model.

- Professional services subcontract.

This will be used on the more complex services procurement projects, where sub consultancy arrangements are required.

- Term services subcontract.

Similar to the professional services subcontract this is seen as a welcome

addition to the NEC suite. Used for the appointment of a subcontractor, for a period of time, to manage and provide a service where the contractor has been appointed under an NEC4 main contract.

Terminology

There appears to have been a desire by the NEC to modify terminology to an existing recognised industry standard. However, I would suggest that appears to have been only partly successful when you read the first two bullet points below, for example.

- Employer is now the Client. Other forms of contract such as JCT and FIDIC use the term Employer!
- The term "undertakings to others" (secondary option clause X8) is used with reference to collateral warranties!
- Risk Register is now Early Warning Register. This aligns with clause 15 and will hopefully eliminate potential confusion with other project risk registers that may exist. Time intervals for Early Warning meetings are now to be stipulated in the Contract Data. In practice this has been happening, but has now been formalised.
- Works Information (clause 11.2(19)) is now the Scope (c 11.2(16)).
- Core clause 4 - Testing and Defects is now Quality Management.
- Core clause 8 - Risks and Insurance is now Liabilities and Insurance.
- A change to gender neutral. For example references to 'he' have been replaced by 'it'.

Contract changes

- A new paragraph has been added to clause 31.3 (the Project Manager's (PM) acceptance of the programme) whereby a Contractor can seek deemed acceptance of the programme if the PM fails in his obligations to notify acceptance or non-acceptance. It is suggested that this has been introduced to deal with the consequence of the PM's failure to act in accordance with his obligations. It is hoped that this will encourage the PM to respond to the programme submission, resulting in a realistic programme that can be used as a good management tool and also reduce the number of disputes relating to which programme should be used for the evaluation of time impacted compensation events.

The costs of preparing quotations in Option A and B contracts are now also permissible.

- The Schedule of Cost Components (SCC) has been rationalised with the use of only one version (full or short) for each contract. There is now only one fee percentage applied to Defined Cost eliminating the arguments of Fee on Fee. For example, the mis-application of subcontract and direct fee percentages. The application of a fee percentage for Working Area overheads and People overheads has been removed, with the relevant items being paid as Defined Cost. Subcontractor costs have also been moved into the SCC. The intention is to make the whole process of establishing cost, and the compilation of Defined Cost and compensation event quotations, more straightforward. There should now be less confusion of where certain costs have been included.
- The Contractor now has to submit an application for payment (clause 50.2) otherwise they won't get paid. In practice this is simply formalising something that already happens, but was silent in NEC3.
- Progressive agreement of Defined Cost (clause 50.9 with Options C to F). This is a Contractor led process enabling it to periodically close out its Defined Cost, an example being its completed subcontractor accounts. This will require an increased level of effort to keep on top of cost records throughout the project. The aim is to encourage progressive agreement and eliminate the quarrelsome audit on disallowed costs months after the project has been completed. The PM has "no later than thirteen weeks" to review.
- Final assessment. The PM assesses and certifies the final amount due "no later than four weeks" after issue of the Defects Certificate (clause 53.1). Failure to do so, will allow the Contractor to issue its assessment (clause 53.2). This is to be "conclusive evidence" (final and binding) unless referred to a dispute by either party within four weeks. The contract uses the word "refers" rather than "notify" to dispute resolution, therefore should the parties fail to agree they will need to have all their documentation ready and in good order, as four weeks to draft a referral may be a challenging time frame. Having said that, this final assessment should be a relatively simple process if the parties have progressively agreed Defined Cost during the life of the project, as is the intention of NEC4.
- Compensation Events. Two new events have been added. Clause 60.1[20] where the PM notifies that a proposed instruction is not accepted. This new clause enables the Contractor to recover its cost of preparing the quotation. Clause 60.1[21] includes for additional compensation events to be agreed between the parties and stated in clause 6 of the Contract Data.
- A new clause 16 introduces the option to share a saving resulting from a Contractor value engineering proposal. This is stated as 50% in the Contract Data but can be agreed. This applies only to an Option A and B contract (clause 63.12), as the cost savings are shared with an Option C for example. Worthy of note is that the costs of preparing quotations in Option A and B contracts are now also permissible.
- A new main option clause W3 for the use of a Dispute Avoidance Board on projects where the Housing Grants Construction and Regeneration Act (HGCRA) 1996 does not apply. This is seen by many as a step towards making the NEC a rival to FIDIC on the international scene.
- Clients can now only terminate "at will" if secondary option X11 is included, as opposed to clause 90.2 in NEC3 "may terminate for any reason".

Other new clauses

Other new clauses incorporated into NEC4:

- 18 – Corrupt Acts. Client may also terminate under new clause 91.8.
- 28 – Assignment.
- 29 – Disclosure.
- X8 – Undertaking to others.
- X10 – BIM.
- X21 – Whole life cost.
- X22 – Early Contractor Involvement.

So, what's changed?

In truth, not a great deal. NEC4 will feel and operate in much the same way as NEC3. There are changes to processes, some subtle, some not so subtle. The NEC refer to it as "evolution not revolution". For the changes to bring about the improvements sought by the NEC, all users should take the time to have a look at NEC4.

Oh, and a bit of advice, you might also want to start updating those Z clauses. ■

"Ready to walk the Reimbursement Maze?"

Recoverable or not recoverable - that is the question?

RICHARD BAILEY – PARTNER, GOODMAN DERRICK EXPLORES THE NUANCES OF RECOVERABLE CONSULTANTS' COSTS AS THEY APPLY TO ADJUDICATION AND ANY ENFORCEMENT ACTIVITY THAT MAY FOLLOW.

One of the biggest issues in adjudication is costs, as they are generally considered to be irrecoverable. Then, when you have got to enforce a decision, you need to brief a solicitor and barrister to pursue the claim at great cost, no matter how simple and straight forward the claim may be.

Following a number of recent court cases this position is changing. In Octoesse LLP v Trak Special Projects Limited [2016] EWCH 3180, the technology and construction court (TCC) held that claims consultants costs could, in limited circumstances, be recovered as a disbursement. In the case of Lulu Construction Ltd v Mulalley & Co Ltd [2016] EWHC 1852,the TCC determined that debt recovery costs under

section 5A(2A) of the Late Payment of Commercial Debts (Interest) Act 1998, as amended by the Late Payment of Commercial Debts (Interest) Regulations 2013, may be recoverable as part of an adjudicator's decision in limited circumstances.

In this article we will primarily focus on the Octoesse case.

Following a successful adjudication in favour of Trak Special Projects Limited ("Trak"), in which the adjudicator decided Octoesse LLP's ("Octoesse") pay less notice, issued under the terms of the JCT Intermediate Building Contract 2011 (IC 1011), was invalid, Octoesse commenced Part 8 proceedings seeking declarations that the adjudicator's award was unenforceable. Mrs Justice Jefford ("the judge") gave judgment in favour of Trak and ordered Octoesse to pay the sums awarded to Trak in the adjudication. Attention then turned to the question of costs.

Trak asked for its costs to be summarily assessed, including the costs of its claims consultant ("Wellesley"). The reason being that counsel had been instructed by Wellesley, on a direct access basis, and Wellesley had conducted the adjudication on behalf of Trak. Hence, as well as counsel's costs, Trak also sought to recover the consultant's costs in connection with considering the claim and evidence, preparing the defence and a witness statement, instructing counsel, liaising with the court, and attendance at court.

Although Octoesse took no issue with counsel's costs, they submitted that the consultant's costs, Wellesley's, were not recoverable under CPR 46.5 (3), as Octoesse were a litigant in person.

Relying on the Court of Appeal's decision in Agassi v Robinson (Inspector of Taxes) (No.2) [2005] EWCA Civ 1507, Octoesse submitted that Wellesley's costs were not recoverable as they were neither work done by the litigant in person, nor disbursements which would have been allowed if made by a legal representative.

The judge said that the costs were recoverable as a disbursement. Coming to this decision, the judge noted that it was in this area of 'specialist assistance' where there was, "a difficult dividing line between what is and is not recoverable". However, the judge was of the view that these two potentially conflicting approaches could be reconciled, "if it is recognised that, in particular circumstances a solicitor might well normally not carry out work himself but rely on a specialist, even though the work in its broad description might be 'solicitors' work'". The judge held that there is unlikely to be a 'one size fits all' in regards to disbursements; as what are regarded as normal solicitors' disbursements may vary according to the nature of the case, reflecting both differing norms in different practice areas and changes in practice.

> The court should not adopt a, "blanket approach" to the assessment of claims consultants' costs ... "they need to be looked at on an item by item basis".

The judge observed that there were distinct features of adjudication which, "can and should" be taken into account in considering what disbursements would be recoverable. The judge gave two reasons for this:

1. In adjudication, parties are often represented by claims consultants or other consultants like Driver Trett. If solicitors are instructed on the enforcement proceedings, particularly where they have not acted in the adjudication, it would be common practice and often necessary, to seek the assistance of the consultants who were involved in the adjudication.
2. Given the abridgement of time limits applied by the TCC in adjudication enforcement cases, it is normal and also necessary for solicitors to seek the assistance of the consultants involved in the adjudication. Because of the accelerated timetable, it would not be realistic to constrain what assistance might be required.

The judge also noted that there had been a number of cases where the costs of claims consultants had been recovered. In particular, NAP Anglia Ltd v Sun-Land Development Co. Ltd [2012] EWHC 51, where Edwards-Stuart J stated that the court should not adopt a, "blanket approach" to the assessment of claims consultants' costs but instead, "they need to be looked at on an item by item basis". He therefore rejected the submission that claims consultants' costs were not recoverable in principle, but considered the relevant question to be whether those costs were reasonably incurred and reasonable in amount.

The judgment concluded that the costs incurred by claims consultants, in assisting a litigant in person, will usually be recoverable in adjudication enforcement proceedings; assuming that the same consultants have represented the party in the adjudication.

However, there was a limit to this. The consultant's costs of liaising with the court and preparing the schedule of costs were not recoverable, because the judge held this was 'solicitor's work' and that it would not require much assistance from the consultant. Furthermore, only half of the time spent instructing and liaising with counsel was recoverable on the basis that, if solicitors were instructed, they would not solely rely on consultants for this, but would carry out some of these tasks themselves.

Therefore, within limits, a consultant who acts for a client in an adjudication can also provide assistance in the enforcement and those costs may well be recoverable.

The second case, Lulu, has been widely touted as a confirmation that the costs of an adjudication can be recovered, however, this is not quite correct. The reality is that the Lulu case is far more limited, as it relates only to a contract where the Late Payment of Commercial Debts (Interest) Act applied, and then only to costs recoverable as debt recovery costs. If the Act does not apply, then section 5A(2A) does not apply. Debt recovery costs in the adjudication were defined as costs connected with an ancillary to the referred dispute, not the costs of the adjudication itself. ■

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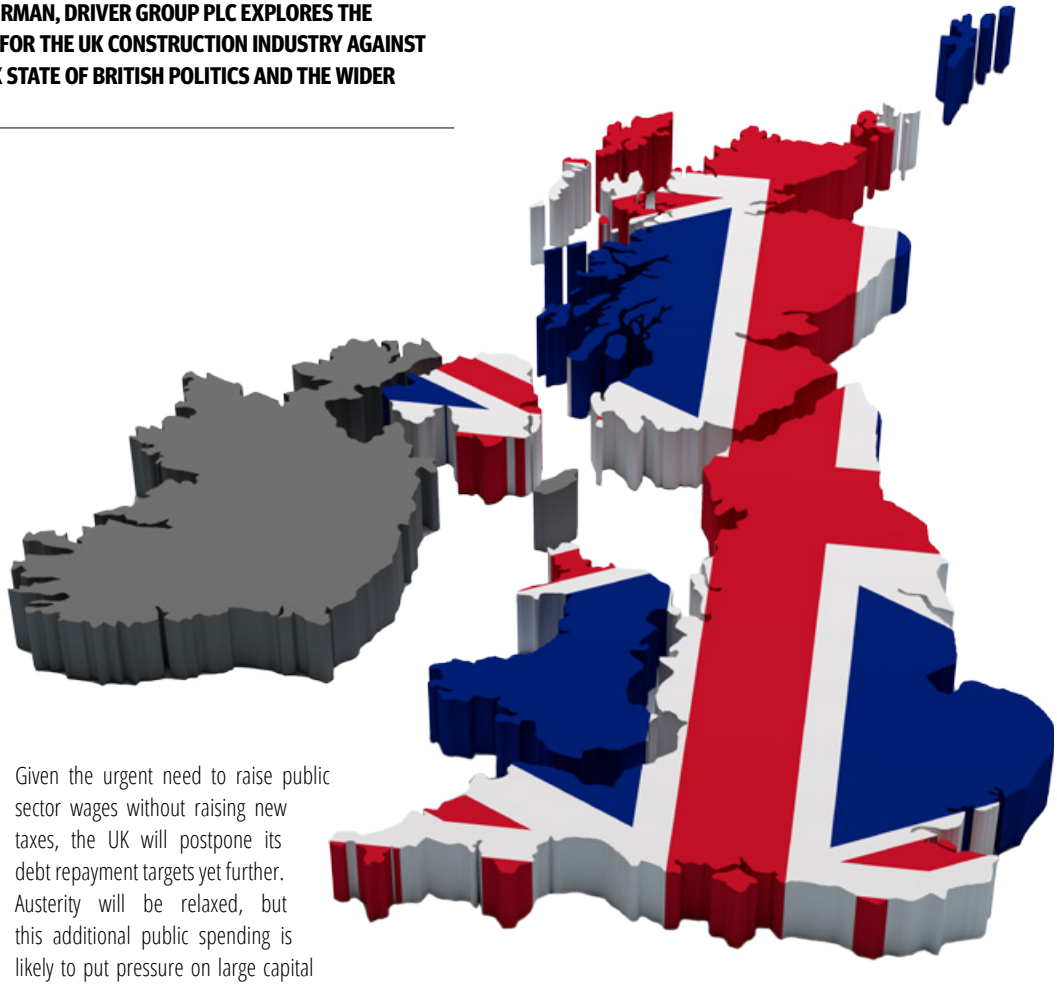
Keep calm and carry on constructing

STEVE NORRIS – NON-EXECUTIVE CHAIRMAN, DRIVER GROUP PLC EXPLORES THE OPPORTUNITIES AND LIKELY FOCUSES FOR THE UK CONSTRUCTION INDUSTRY AGAINST THE BACKDROP OF THE ONGOING FLUX STATE OF BRITISH POLITICS AND THE WIDER ECONOMIC MARKETS.



Almost no-one, including the overwhelming majority of pollsters and pundits predicted the result of the UK General Election on June 8th. Having enjoyed a 21-point poll lead over the opposition Labour party when she called it, the Conservative Prime Minister Theresa May*, not only failed to increase her majority as widely predicted, but saw it disappear altogether. Her campaign was a disaster and her veteran opponent, the Labour Leader Jeremy Corbyn, confounded his many sceptics by appealing to younger voters and promising massive increases in public spending; all of which would be paid for by rich corporations and billionaires. It was a rerun of Bernie Sanders' appeal to US voters. It didn't matter that the economics were incoherent. What he offered was hope and a smile. Mrs May, by contrast, failed to offer either. However, as the leader of the largest party in Parliament and with an agreement between the Conservative and Democratic Unionist parties she has cobbled together a parliamentary majority and remains Prime Minister. Her personal position is seriously weakened and she may or may not survive. But while her own future may be uncertain, it is important to note that the government itself is almost certain to last, quite possibly for its full five-year term. The last thing either the Conservatives or the DUP want is a Corbyn led government.

So, what does this mean for the UK construction industry and infrastructure in general?

Given the urgent need to raise public sector wages without raising new taxes, the UK will postpone its debt repayment targets yet further. Austerity will be relaxed, but this additional public spending is likely to put pressure on large capital projects.

Crossrail and Thameslink will both open in 2018. HS2 will go ahead, as will the new Cambridge-Milton Keynes – Oxford corridor; but Crossrail 2 was notably absent from the Conservative manifesto, amid concerns about the cost and the paucity of private sector contribution.

The Northern Powerhouse remains a catchy idea in search of a serious project. Given significant overspend in control period 5 (CP5) on projects such as Great Western electrification all eyes in the rail industry are now on control period 6 (CP6) starting in 2019, but few new projects of any size are likely to emerge. Highways England is in broadly the same position.

The housing market, particularly in Southern England, remains strong and shows little sign of abating. New commercial development is less confident, amid concern over the outcome of Brexit negotiations and their potential impact on the London financial services market and UK competitiveness generally. That said, sterling's weakness has been a boost to exporters and the recent rise in inflation is predicted to work through the economy in the next year. The UK market remains strong and that same sterling weakness offers foreign investors exceptional value in a fundamentally stable economy.

Brexit, Trump, Macron and now the UK election all mark out a period of global turmoil that is unprecedented in modern times. Cool heads and calm reason need to prevail as never before as the world waits to see what leadership and direction the German people will choose to follow on 24th September 2017. ■

*At the time of writing, Parliament was on summer recess and Mrs May was still in post.

ANDREW AGATHANGELOU – DIALES EXPERT EXPOSES THE VARIED OUTCOMES OF ALTERNATIVE DELAY ANALYSIS METHODOLOGIES, HOW TWO EXPERTS CAN REACH SUCH DEFINITIVE, YET OPPOSITE CONCLUSIONS, AND HOW TO ADDRESS THIS PHENOMENON.

"Alternative Facts"

'Alternative Facts'. So said Kellyanne Conway, Counselor to the US President, during a 'Meet the Press' interview on 22 January 2017, in which she defended the then White House Press Secretary, Sean Spicer's, false statement about attendance levels at Donald Trump's inauguration as President of the United States.

In a recent adjudication, where Diales represented the employer, the contractor's delay expert intimated that we had provided 'Alternative Facts' when interrogating the programme and preparing our expert report.

He essentially stated that we should have reached the same conclusions as him during our assessment, on the basis that both experts used the same baseline programme. He further intimated that, as Diales' conclusions were different from his own, they must be factually inaccurate.

It is a curious position to take, because both parties in any dispute could, in all likelihood, argue that the other expert's report is factually inaccurate, on the basis that the findings are different to their own, despite having access to the same factual evidence. Such arguments are not particularly helpful to the tribunal, because such a statement could apply equally to both experts.

The fact that experts arrive at different conclusions, despite having access to the same contemporaneous information, is a common one. This particularly arises with regard to assessments of delay, because the delay experts are interpreting the factual evidence provided, not producing factual evidence in itself. Moreover, the interpretation of that factual evidence can vary, depending on a range of factors, not least the delay analysis methodology used and the experience of the expert in question.

In such circumstances, delay experts should consider outlining a range of possible answers as to both the cause of delay, and to the extent of delay associated with particular events, rather than being singular and definitive in their stance. Indeed, such an approach could potentially be viewed more favourably by adjudicators and arbitrators because it gives them flexibility in deciding the case in hand, rather than being forced to decide between polar opposite opinions.

That said, providing a range of possible outcomes might be difficult for the instructing lawyer or client to accept, and this would need to be carefully explained. With significant sums of money reliant upon the outcome of the results of the analysis, both parties in dispute will have strongly held views that are definitive, rather than based upon probabilities. Of course, in all of this, the expert should bear in mind that it is their over-riding obligation to be independent and impartial, regardless of who they have been appointed by. An expert's duty is to the court or tribunal, and not to their client.

Back to our case. As the adjudication progressed, it transpired that the contractor's delay expert had not undertaken any independent analysis of his own. Instead he had relied entirely on the programme analysis provided by the contractor who had appointed him.

He had assumed that the programme analysis provided was 'factual evidence', and fully adopted this version of the facts without undertaking any sense checks as to the results or findings. He had relied (either knowingly or unwittingly) on the contractor's 'Alternative Facts' to reach his conclusions.

One would expect that two experts on opposing sides, following the guidance above and working to the same set of factual evidence, would come to broadly the same conclusions. This does not often appear to be the case. This was highlighted in the Society for Construction Law 'Great Debate' held on the 18 October 2005. Four different experts conducted four different types of analysis and, unsurprisingly, arrived at four different conclusions. Having attended this event, the differences appeared to be a result of their respective analyses, rather than differing interpretation of the factual evidence.

This raises the question of whether the courts and tribunals should be more prescriptive regarding the method of analysis and approach to be adopted by both experts. At a recent event held at the London office of Diales, a leading QC stated that in his experience, "it is better for the two opposing experts to meet privately before exchanging their respective reports, without the pressure of their clients and lawyers being present". In the QC's experience, this frequently considerably reduced the differences between the experts, and made the job of the tribunal easier by doing so.

Perhaps the way forward is for meetings between the experts to be more prescriptive in adjudications. Currently, adjudication is not subject to CPR 35. ■

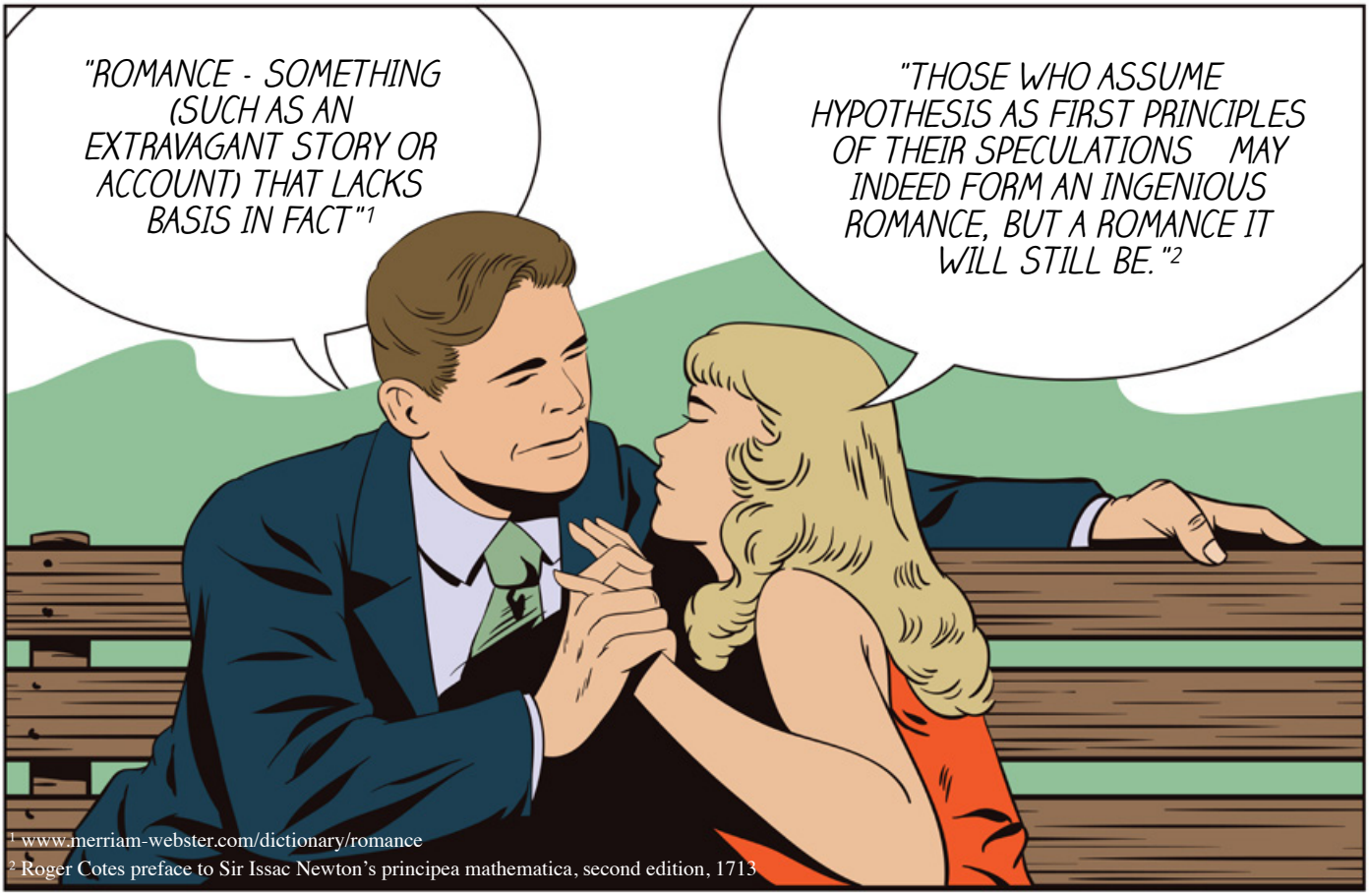
GUIDANCE FOR EXPERTS

Guidance as to the way that independent experts should behave was set out in Ikerian Reefer [1993], in which Judge Creswell stated:

"1. Expert evidence presented to the court should be, and should be seen to be, the independent product of the expert uninfluenced as to form or content by the exigencies of litigation.
2. An expert witness should provide independent assistance to the court by way of objective unbiased opinion in relation to matters within his expertise. An expert witness in the High Court should never assume the role of an advocate."

Guidance is also found within Civil Procedure Rules (CPR) published by the Ministry of Justice. Part 35.3 of these rules state:

(1) It is the duty of experts to help the court on matters within their expertise.
(2) This duty overrides any obligation to the person from whom experts have received instructions or by whom they are paid.



[1] www.merriam-webster.com/dictionary/romance
[2] Roger Cotes preface to Sir Issac Newton's principea mathematica, second edition, 1713

Delay analysis – fact or an ingenious romance?

RICHARD CHAMBERLAIN – DIALES EXPERT, EXPLORES THE ROMANTIC CLAIMS NOTIONS, AND EXTRAVAGANT LENGTHS, THAT SOME CONTRACTORS' CLAIMS APPEAR TO STRIVE FOR.

My first encounter with a construction romance was in 2004, in Romania. At that time, the UK construction industry was enjoying the 'Private Finance Initiative' together with the partnering ethos of Latham and Egan. As a consequence, I was searching for work as a delay and quantum expert, to assist construction projects that were in distress.

A colleague advised me that the Romanian government, with European Union (EU) grants, was investing in its railways, highways and motorways infrastructure, to link Romania to European trade routes. Further, that international contractors were queuing up to tender and execute this work.

Unbeknown to the Romanian government, there was a downside to their investment, which I found emanated from stipulations made by the European banks, specifically:

1. The tendering process was to be competitive and appointment of the contractor was driven by the lowest price.
2. The form of contract was to be Federation Internationale des Ingenieurs-Conseils (FIDIC – Red Book) which places design risk with the employer.
3. The Romanian government would fund the payments for claims and variations to the appointed contractors.

On arrival in Romania, I discovered that contractors had bid at below market prices to win work and then aggressively pursued claims associated with employer risk and related to variations for late drawings, design errors, late expropriation, unforeseen events, substantial changes in quantities, and in fact anything they could think of to recover costs from my client, the government.

These claims were baffling the Romanian government officials and their professional advisors, it was something they had never seen before and, I was told, they believed it was an international plot to take their money. My initial investigation of these claims relied on planning software calculations that were manipulated

to assist in inflating and exaggerating cost.

Both the government officials and the contractors required a quick answer to these claims. The contractors had run out of cash and the government needed to make provision and budget for the probable costs associated with the claims. Unfortunately, the answer was not quick. The stripping of claims was time consuming and, as a result, projects stopped work and terminations were served.

One contractor's belief that the planning software and claim was undeniably correct, forced a dispute to an arbitration in Paris. After the hearing, a factual model was preferred to the claim. The moral of this being that no matter how ingenious a claim, the facts will prevail.

In 2009, I found myself in an arbitration in Rio de Janeiro, Brazil and facing an innovative approach to delay analysis.

The project was the construction of a new blast furnace for an iron and steel factory. The contract was turnkey, the management contractor was German and they had engaged a local mechanical and electrical works contractor to carry out pipework.

I found that the works contractor had bid and won the work below market prices and was seeking to recover his losses with a claim based upon a management tool called 'Quality Assurance' (QA). The history of events to this claim relied upon circa a thousand notices used to record the works contractor's non-conformance (NCRs), which they alleged demonstrated management contractor design deficiency as the cause of delay and disruption to the project.

After investigation, I found the facts to reveal that the works contractor was inefficient, that there were numerous stoppages of work and that the primary cause of this was from labour unrest over low wages.

Interestingly, in the arbitration hearing, the works contractor realised that the witnesses of fact were undermining his case. Consequently, he relied upon the arbitration rules to allow him to not require me to give testimony and to appeal to a higher court.

In 2011, I was invited to assist with a claim settlement related to design, construction, and an upgrade in the production of an existing copper mine in Santiago, Chile. The contract was a bespoke engineering, procurement and construction (EPC), together with engineering, procurement and construction management (EPCM) and it made provision for reimbursable cost.

> Claims were baffling the Romanian government officials and their professional advisors ... I was told, they believed it was an international plot to take their money.

The reimbursable cost rules were reasonable and fair. However, the contractor chose to stretch these rules to inflate and exaggerate costs, allegedly associated with the effects of an earthquake, a rock slope collapse, excessive rock blasting, unforeseen ordnance delays, and delays in tunnel construction by a nominated contractor.

These claims were planned from the first day of work. I found misleading monthly progress reports, selective photographic and works records, all linked to delay events portrayed in the planning software as critical path delay events.

After my investigation into the underlying delay events to the alleged critical path delay events, I prepared an employer's claim based upon a factual delay analysis to demonstrate that the contractor's approach was ingenious, but misleading. On this occasion, the contractor saw sense and a settlement was reached.

In 2012, I was invited to assist in the settlement of claims and disputes in the Middle East. Since then I have been involved in claims and disputes that go back to 2009 and 2010 and related to the effects of global financial meltdown.

I have found that these claims are driven by three factors, namely:

1. The tender risk of underpricing to win construction work and then gambling on trading through into a better market not being realised.
2. The claims being around for too long and negotiation has failed, with the only means of settlement being dispute resolution.
3. Subcontractors with contemporary records pressing main contractors without contemporary records for additional payment to compensate for delay and disruption.

As a consequence of the three factors above, and especially to overcome the lack of contemporary records, I have found that main contractors are reliant upon planning software to act as a substitute for the lack of contemporary records.

In a recent arbitration, I heard the tribunal refer to the planning software approach as 'patchy records' and this gives me confidence that once hypothesis is stripped and the facts are revealed, a tribunal will see through any romantic claim. ■

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Litigation and arbitration finance for construction disputes

CRAIG ARNOTT - MANAGING DIRECTOR, BURFORD CAPITAL LONDON FURTHER EXPLAINS THE PRACTICALITIES OF DISPUTE FINANCING IN CONSTRUCTION DISPUTES. SEE ALSO SEAN HUGO'S EXPLORATION OF THIRD-PARTY FUNDING IN THE MIDDLE EAST, IN ISSUE 13 OF THE DIGEST.

Construction disputes are famously high stakes. In addition to the damage to business outcomes that the underlying disputes may present, parties can quickly spend many millions on legal fees and expenses; as well as technical experts and consultants, if and when those disputes progress through the courts or arbitration. Meanwhile, in their pursuit of resolution, those parties' financial profiles may be significantly impacted - not only because mounting legal costs can drag down balance sheets, but also because pending legal claims may represent hundreds of millions (if not billions) of dollars in captive value that traditionally haven't been counted as assets.

Third-party financing, which seeks to unlock the asset value of pending legal claims, can change this dynamic. Construction disputes are ideal candidates for this specialised and fast-growing area of finance.

What is litigation and arbitration finance?

With litigation and arbitration finance, a third-party financer provides capital that is collateralised by a pending legal claim. In the simplest arrangements, they provide non-recourse capital that can be used to pay for legal fees and expenses, so that a single matter may proceed. In exchange, the financer is entitled to recoup its investment and gain a return from the settlement or damages, should the claim be successful. In more complex models, the financer may provide capital for multiple matters in a portfolio arrangement, including defending matters as well as claims. Capital may be used to pay for legal and expert fees or expenses, or for other business purposes.

Is it suitable for large construction disputes?

Third-party finance can be helpful to parties engaged in construction disputes for a variety of reasons.

In some instances, a construction claimant may simply lack the financial resources to pursue a single, high-stakes matter. Litigation and arbitration finance provides parties with access to capital, without which they might not have the resources to pursue a fair recovery through the courts or arbitral process. It also levels the playing field in 'David vs Goliath' scenarios, where smaller claimants face much better capitalised defendants. Lacking the resources to engage the very best counsel for the full duration of a dispute can put the claimant at a significant disadvantage. Third-party finance removes that obstacle, even when claimants are fully insolvent.

However, litigation and arbitration finance is equally suitable in situations where parties have ample resources to pay their legal bills out of pocket. In many industries, corporations are increasingly using third-party finance by choice, not just necessity. It may simply be a more efficient way to pay for legal costs, whether for respondents or claimants. It also provides a tool to hedge risk, eliminate budget constraints, and monetise pending claims to free capital for other corporate needs.

As such, arbitration finance is particularly important to construction contractors facing disputes. In most cases, any construction company facing a dispute will not only have to absorb legal expenses within existing legal budgets, but must also deal with significant resources being tied up for an indeterminate time. The level of risk within a construction dispute is very high, with significant dependencies on complex technical knowledge as well as significant expense needed to bring the matter to fruition. Here, arbitration finance can support in reducing or eliminating the immediate legal costs of a claim, as well as bearing some or all of the risk associated with bringing the claim in the first place. It can be used to:

- Manage corporate resources by moving legal costs off balance sheets to a third party and therefore reserving cash for other corporate purposes.
- Manage and mitigate the risk because a third-party assumes that risk on the claimant's behalf.
- Improve accounting outcomes, because financing legal fees and expenses and moving risk off of corporate balance sheets represent a more efficient, and far friendlier, approach from an accounting perspective.

> Another consideration is enforceability. A third-party funder must be confident that if the case is successful, the losing party is creditworthy

Appropriate matters

The most obvious factor in determining the suitability of a dispute for outside finance is the likelihood of success. Because litigation and arbitration finance is typically provided on a non-recourse basis, and the financier will lose its investment if the underlying matter proves unsuccessful, third-party financers will look hard at the merits of the claim first and foremost. This means that parties seeking financing should be realistic about the prospect of success and prepared to explain the strength of their factual and legal position.

Beyond this basic criterion, matters suited for financing are high-stakes commercial cases with significant value to the business, in which damages or returns are sufficient to appropriately balance the interests of the client, lawyers, and an outside financier. Pricing varies with risk and investment amounts; meaning the amount provided by the financier, not the size of the claim, may range from as little as $1 million for a single case to as much as $100 million for a portfolio of cases.

Another consideration is enforceability. A third-party funder must be confident

that if the case is successful, the losing party is creditworthy, has the means to pay, or else has sufficient assets located in a favourable jurisdiction for enforcement.

What should parties look for in a finance partner?

Third-party finance is a fast-growing industry that has attracted many new entrants to the field. Parties seeking financing should be careful to perform their own due diligence in seeking out the right fit for their business and their needs.

Two issues are paramount. First, in transactions when some capital is to be paid in the future, claimants must be confident that capital will be available to them at the point when it is needed. Does the financier have its own capital? If the capital must be called, are the capital sources firmly bound to provide it?

Second, even when capital availability is not an issue – such as when all the capital is received up front – claimants need to focus on the size and structure of their finance providers to assess their stability and incentives, and the materiality of the investment to them. This is important because if a transaction is material to the financier, there are inevitably contractual provisions in the arrangement that will, if it comes under pressure, permit the financier to act in a manner that may be inconsistent with the client's interests.

As the largest player in the industry, Burford offers significant experience and expertise, as well as capital, to parties seeking financing for construction disputes. We stand ready to help. ■

HOW CAN PARTIES IN CONSTRUCTION DISPUTES USE THIRD-PARTY FINANCING?

Litigation and arbitration finance can be used in a variety of ways, and the most sophisticated partners will be adept at adjusting models to meet very specific needs:

- Cover fees and expenses to pursue a single high-stakes matter
- Unlock the asset value of a pending claim to provide working capital to the business
- Finance portfolios of pending cases, including both claimant and defence matters, to provide flexible and competitively priced financing for a range of needs.

'Portfolio financing' of multiple matters within a single financing arrangement is a growing area of litigation and arbitration finance.

- A portfolio may range in size from as few as two cases to all of a client's pending matters.
- Terms are typically better because risk is diversified.
- Portfolio financing gives clients the flexibility to seek financing for both claimant and defence matters.
- Capital may be used across matters, where it is needed most.

For companies, portfolio financing is particularly advantageous for managing the impact of arbitration on balance sheets and risk profiles. This can be hugely powerful for publicly traded companies concerned with the negative accounting impact of litigation on earnings.

driver trett

Costs of preparing a claim

JOHN MULLEN – DIALES PRINCIPAL AND QUANTUM EXPERT OUTLINES THE RECOVERABILITY OF THE COSTS OF PREPARING A CLAIM AND THE KEY CONSIDERATIONS FOR SUCCESS.

Claims often include an item for the costs of preparing that claim and for the submissions that preceded it. This might include fees of external consultants along with the costs and expenses of head office staff. However, it is rare that the contractual and factual basis of such an item is considered at anything more than a superficial level. Many claimants include it, either on an assumption of entitlement or for negotiation. Employers and their consultants dismiss it out of hand, often on the assumption that there can be no legal entitlement.

The conventional English law view is that such costs are not recoverable, except in specific circumstances or as 'costs in the action'. This is primarily based on the view that the contractor is only complying with its obligations under the contract. Alternatively, the contract may simply require that the contractor gives notice or makes an application, keeps records, and leaves the architect or engineer to make an ascertainment.

However, in Walter Lilly & Company Limited v Giles Patrick Cyril Mackay and DMW Developments Limited [2012] EWHC 1773 (TCC), Mr Justice Akenhead found that the costs of preparing a claim were admissible under clause 26 of the JCT form of contract, where the claimant succeeded in its liability argument. The factual evidence was such that he was unable to unravel precisely what that consultant actually did, and he could not award any additional fees beyond those

he awarded under the contractor's 'thickening' claim for 'commercial management and extension of time applications'.

The view that, in preparing claims submissions, the contractor is just complying with existing obligations, or doing something it was not obliged to do, depends on the employer or his advisers ensuring that the contractor's entitlements were properly recognised. This gives rise to the possibility of an alternative basis for this item, which relies on a secondary breach by the employer; the contractor's damage being the costs of preparing claims that should not have been required.

A claim on such a basis would depend on establishing:

- A contractual duty on the employer in relation to the claims.
- Failure in relation to those duties.

  And
- That damages resulted.

Also under JCT terms, Croudace -v- London Borough of Lambeth (1986) 33 BLR 20 confirmed that the architect's failure to ascertain, or to instruct the quantity surveyor to ascertain, loss and expense was a breach for which the employer was liable in damages. The judge concluded that, "it necessarily follows that Croudace must have suffered some damage". Croudace's success relied on there being no one to address its claims, but, what if an appointed consultant fails to act reasonably? A further defence to this head of claim is sometimes that the submission was not adequate to enable the consultant to carry out its function. In such circumstances, the following questions might become relevant:

- What does the contract require of the contractor in terms of notice, particulars and/or substantiation?
- Did the contractor comply?
- What does the contract oblige the employer, or contract administrator, to do on receipt?
- Did the contractor put the employer, or contract administrator, in a position to comply?
- If so, did they comply?

Such considerations are often not helped by such as FIDIC Red Book's clause 20.1, setting out the duties of the contractor and engineer in terms that include such subjective terms as:

- "as soon as practicable"
- "should have become aware"
- "as may be necessary"
- "fully detailed claim"
- "full supporting particulars".

Contractors often argue that their submissions were adequate to secure an extension of time, assessment of financial recompense, or even just a payment on account but that they were not given a fair hearing. The potential motives for contractors receiving claims from subcontractors or suppliers for 'domestic' issues to their account are obvious. This may be exacerbated by the quality of many subcontractor and supplier claims. However, for contractors expecting a fair hearing of their claims by the administrator of a main contract, there may be other influences. A common complaint is that engineers considering such as errors, in relation to setting out as a delay event under FIDIC Red Book clause 4.7(a), are in fact being asked to admit their own failures. Internationally, this seems particularly to be made on projects for public sector employers, where the strictures of public finance and audit may mean that engineers fear that any certification of time or money arising from their own failures will have an effect on their fees or even public indemnity (PI) insurance.

In such circumstances, a contractor may have a legitimate complaint that they have been put to unnecessary costs in relation to claims submissions. Since clauses such as FIDIC Red Book 3.1(a) may deem that the engineer is acting for the employer, this may put it in breach of contract. Here, it would be prudent to notify the engineer and the employer of the failure, the actions being taken, the costs arising, and that a claim will follow.

Another popular defence, where the costs of preparing a contractor's claims includes the time and expenses of its own in-house staff, is that their salaries would have been incurred anyway and that no loss of profit or revenue resulted from their being diverted from other activities.

The precedent for the recovery of in-house management time expended in remedying an actionable wrong is Tate & Lyle Food and Distribution Ltd and Another v. Greater London Council and Another 1.W.L.R. Tate & Lyle's management costs were not awarded due to the lack of allocation records, thus emphasising the need to maintain such records. However, since then, several judgments suggest a relaxation of the requirement to prove actual loss.

> ...management costs were not awarded due to the lack of allocation records, thus emphasising the need to maintain such records.

These are summarised in Trustees of National Museums and Galleries on Merseyside, AEW Architects and Designers Limited, and PHIL UK Limited and Galliford Try Construction Limited (trading in partnership as a Joint Venture "PIHL Galliford Try JV) [2013] EWHC 3025 (TCC). The museum relied extensively on the witness evidence of its executive director, including how much time was spent by her and other members of staff, their grades, and salary costs. The judgment summarises recent authorities including Aerospace Publishing Ltd v Thames Water Utilities Ltd [2007] EWCA Civ 3, R + V Versicherung AG v Risk Insurance and Reinsurance Solutions SA [2006] EWHC 42, and Mr Justice Ramsey in Bridge UK Com Ltd v Abbey Pynford Plc [2007] EWHC 728 (TCC). The employees' assessments were accepted, but given their, "relatively general retrospective" nature, a reasonably cautious approach was adopted to quantification. The court also found it sufficient to infer that the diverted staff could have applied their time to activities elsewhere, generating revenue at least equal to their employment costs.

In conclusion, it is suggested that:

- Where a claim is made for the costs of preparing a claim(s) more thought should be given to its basis.
- It may be that it can be made as a head of claim under the contract.
- Alternatively, the circumstances might merit a claim for damages for breach [of contract].
- The costs may include those of in-house staff without proof of loss elsewhere on their time, provided that can be inferred from the circumstances.
- If contemporaneous evidence of allocation and time are not kept, a credible witness statement may suffice, but at the cost of a conservative quantification. ■

driver trett

Damp in listed buildings

SIMON HAY – TECHNICAL DIRECTOR, DIALES TECHNICAL TEAM IDENTIFIES AND ADDRESSES THE RELEVANT CAUSES AND SOLUTIONS FOR DAMP IN BOTH MODERN AND HISTORICAL BUILDINGS.

The conservation approach to historic buildings is to undertake minimal intervention. This does not always suit modern comfort requirements. Damp buildings are a danger to the health of the inhabitants and a threat to building fabric. This is a particular concern for listed buildings.

Humans prefer to live in a relative humidity (RH) range from 30 per cent up to 60 per cent. We use perspiration when we are too hot to cool our bodies. However, perspiration is more effective in lower RH conditions. We perceive the lower rate of evaporation of our perspiration, in higher RH conditions, as uncomfortable or even distressing.

In a damp building our health is adversely affected. Given the UK's stock of older buildings and damp climate, unacceptably high levels of dampness and humidity are unfortunately common. The UK suffers from extremely high levels of childhood asthma and other illnesses associated with the bacteria and spores that thrive in areas of high humidity.

Our listed and historic buildings are also damaged and destroyed by damp. We heat our buildings to a higher temperature than in previous times. Additionally, ventilation by ill-fitting doors, windows and open fires is reduced in the modern era. When the temperature is low and the relative humidity is high, evaporation of water is slow. When relative humidity approaches 100 per cent, condensation can occur on surfaces. This may lead to problems with mould, corrosion, decay, and other moisture-related deterioration. Condensation can be more common than rising damp, and is a particular threat to structural timber and doors and windows.

Damp is not only unsightly and responsible for poor health, it also destroys buildings leading to rot. This occurs in both the obvious materials, such as timber, fabrics, and plaster but also less obviously in accelerated decay of mortar and even stone and bricks. If a stone or clay product is saturated by water in the UK's variable climate, repeated freeze thaw actions may make the face of the block or brick spall off, exposing the less dense and sturdy internal structure. Therefore, damp damages both our health and that of our historic buildings. While we cannot control the climate humidity, we can mitigate many of the harmful effects of damp and condensation.

There is a school of thought, in conservation circles, that non-intervention is the best policy. As both our health and the building fabric of our historic buildings can be damaged or destroyed, we do not believe this is the best course of action. There are a range of non-major intervention techniques which will benefit both the building and the inhabitants, these should be known to a competent professional.

The Building Regulations Approved Document C site preparation and resistance to contaminants and moisture; notes the following, under Section 5: Walls.

"5.2 walls should;

a. Resist the passage of moisture from the ground to the inside of the building

b. not be damaged by moisture from the ground and not carry moisture from the ground to any part which would be damaged by it....

5.4 Any internal or external wall will meet the requirement if a damp proof course is provided."

To rectify damp in a listed building the following works might be considered:

- Inject a new chemical damp proof course.
- Preparation work of bush hammering the wall to provide key.
- Waterproof tanking to a party wall, full height.
- Specialist full height rendering.

This may rectify damp issues but may not be the most suitable solution, as this is not the most sensitive approach.

For a listed building, bush hammering brick walls to prepare the walls for waterproofing depends on the view of the local conservation officer. If the conservation officer objects, grit blasting may be permitted. Chemical injection to listed buildings is normally permitted, as drilling takes place through mortar joints not the masonry units.

If the property has a party wall (a shared wall with the adjoining property), the listed building owner will have to appoint a party wall surveyor to gain agreement with his neighbour to carry out installing a damp-proof course (DPC) and waterproofing of the wall. These actions may force damp to the neighbour's side of the wall causing damage. There is a possibility that damp by being eliminated from one property may affect the neighbour's party wall. The Society for Protection of Ancient Buildings (SPAB) may recommend the installation of an injected damp-proof course if the DPC has British Board of Agrément (BBA) accreditation.

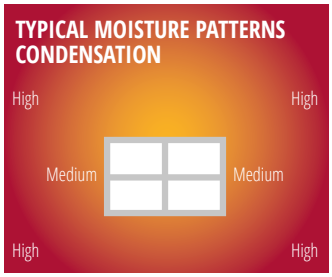
An alternative and preferred treatment for a shared party wall might be a non-permeable, waterproofing under layer of a plastic membrane as part of a proprietary system followed by two coats of lime plaster. This should satisfy both the conservation officer, avoid having to serve a party wall notice, and ensure that the historic fabric is maintained. This alternative process would be more in keeping with a conservation philosophy of minimum intervention. Most importantly, damp which damages both interior finishes and the health of the inhabitants is both contained and the building can be both dry

and also use traditional finishes.

One approach would be to accept that the property is damp but, with heating and occupation, the property will stabilise in use. In this way natural damp is accepted and becomes part of the property. This may be acceptable for the building, but really cannot be acceptable for the health of the inhabitants and may indeed provide fertile conditions for the growth of wet rot with its ensuing issues. Chemical analysis can detect the presence of harmful nitrate and chloride in wallpaper and plaster, which may provide a permanent unacceptable environment.

Absence of a DPC to the ground floor is often normal in historic properties. This leads to rising damp by capillary action drawing salts into and up the wall. Once the plaster is impregnated with the salts, which are part of the damp issue, the plaster becomes hygroscopic. This hygroscopic plaster will permanently attract moisture and therefore remain damp. The only solution is to strip the plaster and re-plaster in the appropriate material. If this is traditional lime plaster, even with decoration, this is the preferred solution. If only a part plaster strip and re-plaster up to 1000mm is undertaken, it is common that a salt line on the junction will be a continuing mar to the finishes. An injected DPC and a re-plaster will be the normal solution.

Condensation has become more common as we heat our houses to higher temperatures. The key tool for investigation is the skilled use of the protimeter which gives a good indication of damp distribution.



> Hygroscopic plaster will permanently attract moisture and therefore remain damp.

If a membrane can be installed over the existing building fabric it gives protection from damp and also improves the thermal performance of the wall. This lessens the possibility of condensation damage. In one case that I was recently involved in, the dispute centred on the cost of the fitted joinery and finished items which were disproportionally much greater than the initial works would have been. This occurred as they were installed over hydroscopic plaster, which subsequently had to be removed, and the finished joinery and decoration had to be reinstalled.

The true cause of dampness is often difficult to diagnose. There are those who are keen to cure 'rising damp', whether or not this is the actual issue. Normally the householder, particularly of a historic property, can help the specialist advisor by knowing the true condition of the house in the varying seasons of the year.

Damp is a threat to both listed buildings and to the people living in the property. It can be caused by leaks, rising damp and condensation. Historic buildings require careful protection and conservation; appropriate solutions should ensure the building is not damaged and that the historic integrity is preserved. ■

driver trett

Breaking up is hard to do

MARK WHEELER – CHIEF OPERATING OFFICER, DRIVER TRETT EXPLAINS THAT WHILST ENDING A RELATIONSHIP CAN BE PAINFUL, TIMELY ENDINGS ARE THOSE THAT ARE MOST BENEFICIAL TO THE PROJECT IN THE LONG TERM.

Projects involve relationships. No one goes into a project planning to have a poor relationship with another party, but the stresses of delivering a large and complex project on time can cause problems. The relationship issues that arise then in turn cause more problems as collaborative working becomes impossible, and relationships that have soured start to cause new issues themselves, point scoring, etc.

No matter how much effort has gone into selecting the best possible team, the top people in the world at what they do, things can still go wrong. Examples of this abound. Along with many others who follow motorsport, I have been surprised and disappointed in equal measure as one of the world's best F1 teams, has partnered with one of the world's best automotive manufacturers and capped off this partnership with arguably one of the world's best drivers. Between them they have more world championships than you can shake a stick at. Coupled with an almost unlimited budget, success was guaranteed. The best of the best expected early results and, after three years at the middle and often the back of the grid, are now rumoured to be considering parting company.

Our construction consultants work on many of the world's largest and most complex projects. The recurring theme of relationships comes up time and time again. Often, after a good start, one or two key issues or problems arise which need to be dealt with. These usually involve dealing with late or incomplete design work, dealing with an unforeseen project risk, or with unexpected client change. The lead staff members from the client's team, the contractor's team, and the key designers can often impress; by following the contract and taking the right approach to working together to resolve the issues. Commercial problems are usually the spark that cause things to go awry. One party feels hard done by or unfairly treated, and the tone of the working environment changes.

Not too long ago, I worked with a great team of engineers on a significant civil engineering project. Innovative methods of remediation were being used to clean up a large brownfield site, before the development phase could begin. Large industrial sites often have secrets under the surface, and those who prepare surveys are often adept at digging in the places least likely, with the benefit of hindsight, to reveal problems. A year into this two-year project, it was clear to all that there were at least two more years yet to go.

The client had a fixed budget, which was somewhat more than the contract value due to a healthy contingency. The contractor had already discovered enough problem issues to exceed the contingency threefold. Relations had deteriorated, with some of the team on site taking a very personal approach to the contract. The client's project manager would sit in his site office and stare across the compound at the contractor's project manager, who would stare back. Each of them had an assistant. Sternly worded contractual correspondence was drafted by each of them and the assistants duly walked back and forth with the envelopes containing these letters, and replies to the letters, and replies to the replies. Each would use increasingly aggressive language in their correspondence and phrases such as "with the greatest respect...", which of course means the exact opposite, started to give way to "...any competent contractor would have known this...", inevitably replied to quickly with a sharp view on how it takes a competent project manager to know a competent contractor when he sees one, etc, etc. I had recommended to the leadership of the parties concerned that a series of workshops be conducted to resolve the issues, and that if the situation did not improve, the people concerned should be replaced with others, who could start afresh. The leadership was reticent to make a change, as it was a complex project and they considered the loss of job knowledge would be detrimental. They were correct to be concerned about that, but it was hard not to see what was already happening as detrimental to everyone.

The client's project manager would sit in his site office and stare across the compound at the contractor's project manager, who would stare back.

At the end of year three, a change was made on both sides, and year four (yes, year four of two!) actually went smoothly, with the account being agreed within three months. What could have been achieved if the change was made a year before, we will never know. The energy that went into all of the harsh correspondence could have been channelled at completing the work sooner, of that I have no doubt.

I am often in the challenging position of knowing both parties reasonably well, and am frequently asked to help resolve issues informally between parties. I would never advise changing a team member unless I thought it absolutely imperative to achieve a better result, but if it does need to be done, sooner is always better than later.

Putting together the best team possible is what everyone strives to do. No matter how much effort goes into that process, no matter how fantastic the parties involved are, this is still not a guarantee of pole position. If things go wrong, there are a number of ways of intervening early to bring things back onto the right course. However, there comes a time when something is not working you have to call it a day. My experience is that when you come to that point, acting quickly is essential. Sticking together to the bitter end, ensures a bitter end.

Breaking up is hard to do. But sometimes you have to do hard things, for the good of the project, and everyone concerned. ■

Notice anything?

MATT MULLINS – SENIOR CONSULTANT, DRIVER TRETT UK REMINDS US THAT A NOTICE IS NOTHING TO BE SCARED OF OR OFFENDED BY, JUST AN ESSENTIAL ELEMENT OF EFFECTIVE CONTRACT MANAGEMENT.

For those of us in the construction industry the old adage of records, records, records will be familiar rhetoric. Yet, when it comes to providing 'notices', are we fulfilling our contractual obligations?

All standard forms of contract place contractual obligations upon each party to provide notices. For most, the requirement to notify for time and money is a given. Whilst we generally know these obligations exist, are we properly notifying in the way that such standard forms require us to do so?

As examples, both the NEC3 and the new NEC4 contracts require that both contractor and project manager provide early warning notices for an increase in price, delay in completion, or matters affecting the performance of the works. Of course, there are many other areas that require notification, least of which relate to notice of events giving rise to the basis of a claim.

Whilst many argue that they diligently follow such obligations, there are few that consider the form and content of such notices with any consistency. There are even fewer of us who actually employ formal vetting of such notification across our companies. For some, there can be a fear that issuing a formal notice will be construed as too adversarial. Therefore, they use terminology that is couched in a 'softly, softly' approach. It is in these circumstances that perhaps the message becomes lost in translation and, as such, it becomes ambiguous whether it maintains the form of a notice. In the digital world, and ever-increasing platforms of communication, the message we wish to deliver does require extra vigilance.

We should never fear issuing notices, and likewise we should not be taken aback when receiving such notices, regardless of subject matter. These notices should be the most basic of mechanisms to provide the parties with an opportunity to come together to help resolve matters before they can escalate. If there are concerns that sending such formal correspondence may disrupt a good working relationship, perhaps an easy remedy to remove the shock of sending the notice would be to verbally advise the other party in advance.

As we now communicate through many platforms the form such notices take can vary. A top tip is to put the word 'notice' in the subject line. This means that regardless of the form of communication, the message being conveyed should never be construed as anything but a notice. The very best advice will always be to follow the expressed obligations of the contract, that set out the form of communications, which of course may be varied by agreement.

> ...there are few that consider the form and content of [such] notices with any consistency.

The content of the notice is also important, as the recipient needs to be clear on the message you wish to deliver. It is important that any notice is clear and concise and, as a minimum, informs the recipient of the contractual provision and the cause giving rise for which the notice is being issued.

A notice, by its own literal definition, is a warning mechanism. There is no need to provide 'war and peace'. The best advice is to keep it factual, to the point, and to submit it within any prescribed timescale; remembering that there may be an obligation to provide detailed particulars within a specified time after a notice has been given. After all is said and done, if more information is required it will be requested soon enough. ■

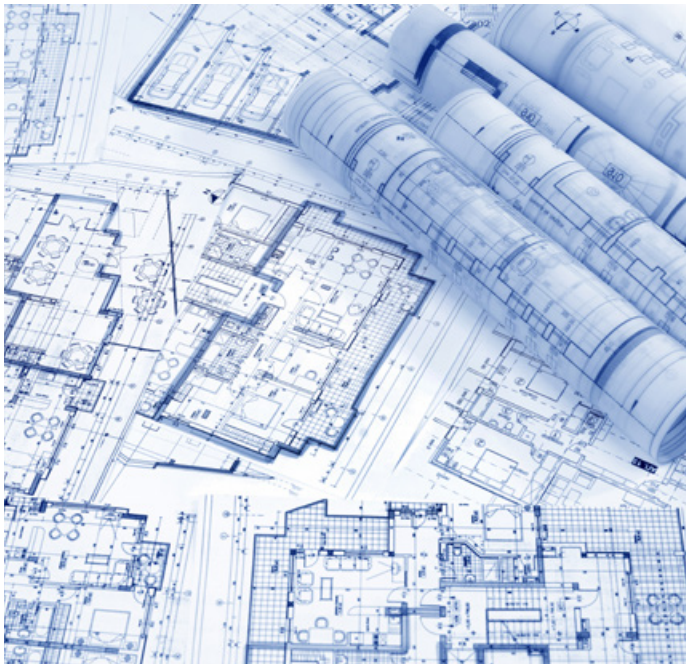
How accurate is the design? (part two)*

STUART HOLDSWORTH, HOOMAN BAGHI AND ROB GRAY - STRUCTURAL ENGINEERS, DIALES TECHNICAL TEAM CONTINUE THEIR DISCUSSION AS TO WHY A LACK OF FOCUS ON ACCURACY CAN BE A KEY FACTOR IN COMPLEX TECHNICAL DISPUTES.

It is implicitly understood that for engineers to achieve numerical accuracy is an absolute requirement when undertaking the design for the various parts of a structure. In this second article*, we explore this theme from the perspective of a structural engineer, and consider the potential consequences of numerical inaccuracies.

It is important to understand the significance and value of the work undertaken by the structural engineer. The cost of structural elements can account for up to 25 per cent of a building project. The resulting consequences of such an error are likely to be out of proportion to the value of the work contributing to it, due to consequential costs such as delays, disruption, and legal fees.

There have been many claims brought against engineers as a result of errors arising from assumptions being made without a proper understanding of the risks. A lack of experience, and poor quality-control, may ensure that the error only becomes obvious at the point of failure (latent), rather than at an earlier stage in the design process, when it might have been possible to mitigate the consequences (patent).



When providing advice in these disputes, we are required to analyse and comment on the assumptions made by structural engineers, and to review the quality of the research undertaken. Sources of information for our review include structural calculations, drawings, specifications, and correspondence. In addition, we consult relevant guidance texts, such as British and European standards, which provide information on good industry practice. After an appraisal of the methods and data used for the design, it usually becomes apparent

1. LOADING

It is unusual for structural engineers to get the scale of a common load action (such as floor loading) wrong. However, it is possible that the patterning and cycling of loads can be incorrectly determined, or that extreme load events can be miscalculated.

Depending on the use or geographical location of a structure, there may be very particular loading requirements to be considered, such as wind, earthquakes, thermal variation, or silo and liquid retaining tank loads. Wind, earthquake, or thermal loads are usually site specific, and need to be evaluated as part of the conceptual stage, early in the development of the design. This can sometimes be difficult, as information on the site conditions may be initially unavailable.

Unlike permanent or changeable loads, which are measurable and predictable, earthquake and wind loadings can be difficult to estimate. It is common practice that, due to their nature and complexity, engineers treat both of these loads with some conservatism. In the case of seismic (earthquake) loads, historic data is used to help predict the magnitude of a future seismic event. The focus of the design is to maintain the structure's integrity during an earthquake of a greater magnitude than predicted. The design should ensure the protection of the occupants, whilst accepting that some damage may occur, such as cracking of materials or settlement of floors.

Temporary structures, either for one-off events, or as an aid to permanent works, can have unique or unusual loads applied to them. Temporary structures are the domain of designers well versed in the specific considerations required, which is an area of expertise that Diales engineers have considerable experience of. There is likely to be greater risk of failure of these structures if the loads are miscalculated, as the margins for error are usually less than for permanent structures.

There are many examples of structures that have failed during construction, or of temporary structure collapses. These incidents are often caused by a misunderstanding of the applied loads, how the structure is supported, or the intended use of temporary works. Unexpected weather conditions may also play a role. One well known example is the collapse of a church in London whilst under construction. The failure was partially attributed to the connections in a truss section being undersized; the designer had not appreciated that the truss would be supporting a greater proportion of the building during construction than in the finished state, and hence the loads it was required to resist would be greater.

*Part One of 'How Accurate is the design?' can be found on page 15 of issue 13 of the Driver Trett Digest

where the errors have occurred. A significant proportion of errors encountered relate to inappropriate loading assumptions, inaccuracies in geometry, and inappropriate analysis methods. These are further discussed in boxes 1-3.

In conclusion

Numerical accuracy, achieved by the structural engineer, is critical to the successful execution of a project. The range and depth of experience of an engineering expert ensures that their technical expertise is sufficient to understand and evaluate areas in which inaccuracies have occurred, and to follow the thought process of the project's structural engineer. It is evident from our investigations of numerous claims brought against structural engineers, that avoiding such errors requires them to carefully consider the potential risks of any assumptions made, and to have a sound understanding of the tools at their disposal.

In addition, the importance of quality control cannot be overstated, as it will help to identify inaccuracies at an early stage. Although computer software allows results to be obtained quickly and cheaply, a 'sense check' must also be carried out to identify any obvious errors, such as incorrect data input, that can be corrected before serious consequences develop. ■

2. GEOMETRY

Understanding and achieving an accurate geometric profile is an essential requirement when constructing a building. The initial geometry of a site is determined by specialist surveyors. As part of the survey, points of reference need to be accurately established and cross-referenced to generate global setting out points. Global setting out points will be defined on survey drawings, with the relevant azimuths (the relationship with the north pole) and plan locations, as a set of coordinates defined against a datum. The architect and structural engineer can then use these points to accurately locate the building and other elements within the site, using a common coordinate system.

Drafting software, such as AutoCAD or Revit, can use these points as a common reference system on drawings. It is therefore essential that the points are all referenced to the same accuracy, and correctly inputted into the drawing. The format for this information within the drawings is typically based upon numeric data using eastings, northings and an elevation, all referenced back to an Ordnance Survey datum.

If this geometric information is not transferred correctly onto drawings, it can lead to substantial errors when construction starts on site. A common example is for the positions of piles being incorrectly identified on drawings. On one project, the incorrect location of piles occurred as a result of erroneous inputting of the initial coordinate system onto the drawing by the draughtsperson. The piling rig placed the piles, positioned from details on the schedule, in a number of positions outside of the site. As the draughtsperson had similarly misplaced the site boundaries, the piles appeared to be correctly located on the drawing, until it became obvious that the foundations were being installed outside of the site perimeter. Data errors had made the issue difficult to identify before it became apparent on site.

Other inaccuracies in geometry can arise from poor communication of information between members of the design team. Building information modelling (BIM) is a useful tool for exchanging information across disciplines. However, at its current level of maturity there is still a considerable lag in data distribution. Each member of the design team works on their own model, sharing it intermittently, with the consequence that other designers could be working on out of date, incorrect information. The complexity of the information generated, as well as the varying level of each designer's expertise in using BIM tools, can lead to difficulties in tracking changes and identifying inconsistencies.

3. ANALYSIS

A fundamental aspect of a successful structural design is choosing an appropriate analysis technique for the task at hand. This is to ensure that the structure not only functions as required, but does so with a reasonable degree of efficiency. An 'over-designed' structure is undesirable, as it will be more expensive than it needs to be and may be unnecessarily complex to construct.

A recent dispute we were engaged on related to the analysis of a portal frame warehouse. The engineer had analysed the structure using 'elastic' techniques, which are generally used if the deflection of the structure is a critical concern. As there were no movement sensitive finishes to the inside or outside of the building, a 'plastic' analysis could have been employed, which - in simple terms - allows the structure to deform. Figures 1 and 2 illustrate the deformations calculated for the same portal frame warehouse structure using these techniques.

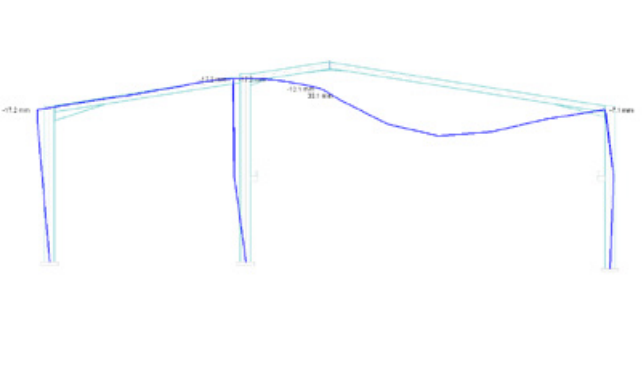


Figure 1 – Plastic analysis, showing deformation of a frame

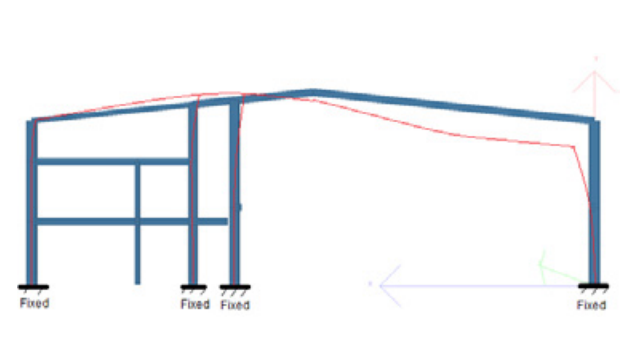


Figure 2 – Elastic analysis, showing deformation of a frame

As a result of this analysis, the steel sections were designed to be of a larger size than if a 'plastic' analysis had been used, resulting in an inefficient design that exceeded the projected cost of the structural frame.

Similarly, structural designers often produce a 'worst-case' design for a particular structural element, and apply these conditions to other (or all) structural elements. This approach is common for complex steel framed buildings with a large number of elements, that would require a considerable amount of computational time to individually analyse. Although this approach speeds up the design process, it creates an inefficient overall design. That said, simplifying the number of sections used, and ensuring that sections of similar sizes and different grades are avoided, usually saves money and is less likely to result in an inconsistently fabricated steel structure. Fabricators will usually ensure that the most production efficient design is used.

A is for apple, adjudication, arbitration and now avoidance

PAUL BATTRICK – DIALES EXPERT AND DAVID BROWN, PARTNER, CLYDE & CO IN PARIS SETTLE DOWN FOR A CONVERSATION ABOUT THE POTENTIAL PROS AND CONS OF STANDING DISPUTE BOARDS.

After discussing if Newcastle United were going to be the best football team in England and if Leicester Tigers would re-gain their position as Europe's premier rugby team, Paul and David recalled their last meeting at the recent Dispute Resolution Board Foundation (DRBF) "Grab the Bull by the Horns!" conference in Madrid. This is how the conversation went.

DB. Well Paul, what did you think of the Madrid conference? You were always pretty sceptical about the benefit of standing dispute adjudication boards as a means of dispute avoidance.

PB. Oh David! You completely misunderstood the points I was making regarding standing boards. I am convinced of their worth, but many of my clients and contacts are not. Their stock comments are always: "Why do we need to waste money when there is not a dispute? Profits are low in the contracting industry and this is just another diluting factor, if indeed we make profits."

In any event an ad-hoc board can be selected such that their talents match the nub of the matter.

DB. I don't think these people get it. It's all about avoidance nowadays.

PB. No. certainly not. There is a lack of understanding concerning the whole process of a standing board. Let's face it, if FIDIC ever gets around to issuing the new Rainbow Suite, and if, as we understand it, the new disputes and arbitration clause will not be amended, then standing boards will become a very, very frequent

occupational hazard and a cost that is unavoidable.

DB. The cost issue is one that is really quite easily swung around. Yes, there is a cost to both parties and yes, it is incurred before a dispute exists or is crystallised; but the standing board is all about dispute avoidance not dispute adjudication, with the potential to go on to arbitration.

PB. David, I agree. The key is to get people thinking about dispute avoidance. Not letting the issue get to the stage of potential trench warfare, when you need a third-party to make a decision for the parties because they cannot reach a decision for themselves or by themselves. I understand that FIDIC are on this path too; the word 'avoidance' may even appear in the dispute clause title.

DB. Thinking on from that, if, on the regular visits of the board, the parties come to an agreement regarding a matter, perhaps with the help of an opinion from the board or just after discussions with the board the parties' make their own agreement. They retain control over their own destiny.

PB. Totally agree. Asking the board for an opinion when there is the slightest whiff of an issue is an excellent way to avoid escalation; as are the discussions and presentations made to the board on a visit.

DB. We must always stress, when talking about this subject, that meetings with a board should never take place without both parties in attendance. Even though some think otherwise, that alleviates any problems of trust.

PB. Control is always a plus point for mediation and it is the same with a standing board. You know, I think that the parties' knowledge that the dispute board will visit every three months, or whatever is agreed, and that the dispute board will receive certain documents regularly is actually promoting both sides to maintain better records.

DB. You and your "records, records, records...". But it's true, I've heard it said many times that the parties' actually meet before boards arrive to agree matters that are on the agenda for discussion.

PB. Now that really is dispute avoidance.

DB. Yes, but matters are still discussed at site.

PB. In Madrid, there seemed to be two camps when discussing the most suitable background for the members of a standing board. Lawyers was one and engineers was the other. Where do you sit, being a lawyer? We see so many arbitral tribunals now that consist of only lawyers, do you think this is the way forward for standing boards?

DB. Well, when it comes to finding a sole dispute board (DB) member I myself prefer to talk in terms of 'construction professionals'. For example, lawyers with plenty of projects experience and an interest in technical issues, or engineers with a good understanding of contractual issues and the impact of the applicable law.

PB. That seems sensible to me. And if we have a panel of three, then I think the best make up is a mix. If you take into account that the visits will take place during the course of the project, it is beneficial to have members who have been brought up in that environment; engineers, quantity surveyors, and the like. But at the helm or the chair, I would like to see a 'hands on' style lawyer – just like you! There will always be matters of interpretation and lawyers are generally superb in this field.

DB. I'll drink to that – if you are buying!

PB. Mmmm, I can't help thinking about the costs [not of your drink]. Three people receiving and reviewing documents, visiting site for say 2 to 3 days, more if you include travelling time, relative to a project lasting perhaps 4 or 5 years. That is a lot of money.

DB. Yes, but there are two issues here. Firstly, what does a bidding contractor put in its tender? I think the tender documents should have a sum included such that every bidder includes the same amount.

> There is a lack of understanding concerning the whole process of a standing board... The key is to get people thinking about dispute avoidance. Not letting the issue get to the stage of potential trench warfare...

PB. And the actual expenditure could be set-off against this amount?

DB. Yes. As an aside, I note some funding agencies such as the Japan International Cooperation Agency (JICA) are seriously backing the use of standing dispute boards.

PB. Back to your second point please!

DB. I know the DRBF are carrying out surveys to establish the costs and benefits of standing boards, so much of the data out there at present is anecdotal or from a very small sample. I suppose if disputes are avoided there will be no data at all in some respects. However, you and I both know how expensive an arbitration can be, so standing boards seem to be a very good project investment.

PB. Yes, for sure. I've sat in a hearing with a tribunal of three, with barristers, lawyers, experts, and parties' representatives, and counted up a cost per hour, per day, per week. The total figure was enormous and the decision out of the parties' hands. Costs are often higher than ten per cent of the amount in dispute and can correspond to a significant proportion of the cost of the project.

DB. That is a good point. The average cost of a standing board is said to be less than one percent of the contract price and, if a matter is resolved without referral to arbitration, around 70% of matters go no further; so, the use of a board is an even better investment. With the right people constituting the board, I always think that their decision is a bit like having your horoscope read, in that you are second-guessing the tribunal's award, but having spent a few million to get it. What a waste of time and effort.

PB. And so disruptive for business too! Well, maybe I will revisit those I know who are sceptical about standing boards.

DB. Having put the world to rights on that topic what shall we talk about now? Brexit...

The mood changed and both David and Paul took a large gulp of their drinks. ■

driver trett

Oral variations

NICOLA HUXTABLE - OPERATIONAL DIRECTOR, DRIVER TRETT UK EXPLAINS THE APPLICATION OF ORAL VARIATIONS, THEIR ENFORCEABILITY AND THEIR FUTURE.

Most of us working within the construction industry are familiar with oral instructions and variations and will accept that although 'not worth the paper they are not written on' they are widely used, and on occasion, unavoidable. The validity of these instructions has been contemplated by the courts since the invention of the wheel and continues to be debated today.

The debate over the issue of oral instructions leads to the question; "can a written contract be varied by an oral agreement where there is a clause within the contract itself prohibiting oral variations"?

So, we have two conflicting positions.

Firstly, in English law, clauses preventing oral variation lead to uncertainty as two parties are always free to agree or vary a written contract orally. Secondly, standard form construction contracts often state that a variation will not be valid unless it is issued in writing. If the variation/ instruction is not valid, the contractor will ultimately not be paid for associated work.

This is where it gets more complicated. The courts have recently had to look at whether a variation, issued orally, actually constitutes an agreement between the parties to both vary the scope of works and vary the terms of the written contract, in that the clause preventing oral variations is not applicable.

It is always good practice to follow up any oral variation or instruction with a confirmation of verbal instruction (CVI), but although a CVI is a written record of what was said, it is not an instruction and therefore does not overcome a condition precedent to payment.

So, what are the courts telling us?

The recent case of ZVI Construction Co LLC v The University of Notre Dame (USA) in England [2016] EWHC 924 (TCC) is concerned mainly with expert determination. However, it does comment upon the issue of whether a clause within a written contract, expressly preventing variations from being effective unless they are in writing and signed by the appropriate person, is enforceable.

In this case, the question was whether the parties could orally agree a provision for expert determination. The court held that the parties had entered into an oral agreement which was effective and did not have to be recorded in writing.

Within the judgment, the court cited two 2016 decisions handed down from the Court of Appeal. Although neither of these cases are construction related, they provide guidance on the relevant issue.

The first case cited is Globe Motors Inc v TRW Lucas Varity Electric Steering Ltd [2016] EWCA Civ 396. A dispute had arisen in this case as to whether the parties could vary the contract to introduce another

party to the agreement, that being a subsidiary of Globe, when a written clause in the original agreement stated that it could only be amended by a written document which was signed by both parties.

The Court of Appeal decided that the parties were within their rights to vary the agreement orally or by conduct, and that if the parties made an agreement, there is no legal reason why it should not be effective solely on the basis that a previous agreement required changes to be in writing.

This decision appears to uphold the English Law principle that parties should be free to contract based upon an assumption of freedom of contract.

The case of MWB Business Exchange Centres Ltd v Rock Advertising Ltd [2016] EXCA Civ 553 applied the same principles, confirming that parties have autonomy to contract on their own terms and as such, an oral variation can be binding regardless of a provision within a written agreement preventing them.

So, what does this mean in practice?

The age old legal principle that parties should be free to agree whatever terms they wish, be it in a formal written contract, an oral agreement, or by conduct, or in the course of dealing, seems to be the approach favoured by the courts today. It would seem to apply, even in the face of attempts to prevent parties from making subsequent agreements in a different form, i.e. orally, when the original agreement was in writing.

Both the courts and the learned people drafting standard form contracts accept that it would be both beneficial and sensible to restrict the parties to a contract, when it comes to varying the terms of that contract. It would certainly provide clarity to the agreement and make the resolution of disputes easier. However, the courts have declared that the fundamental principle of freedom of contract must prevail.

Parties should be free to contract based upon an assumption of freedom of contract.

The difficulty will always be proving what was agreed, when and by whom. As such, it must be the case that clauses within construction contracts, stating that variations and instructions must be in writing to be effective, do have a place in the contract. Having a term such as this in a contract will make it more difficult for the parties to a contract to prove that an oral variation was agreed between them. The question will always be asked as to why the oral instruction was not followed up with a written record? It must be that where a dispute arises, which is referred to an adjudicator, there will be a presumption that there was no intention to vary the contract orally.

So where are we now?

Simply inserting a clause into a contract, which states that a variation will not be effective unless issued in writing, will not prevent an oral variation becoming effective. However, it will always be the case that proving that an agreement was made between the parties orally will be difficult. With the amendments to the Construction Act allowing oral contracts to be adjudicated upon, we may be provided with more construction specific guidance on this issue in the foreseeable future. ■

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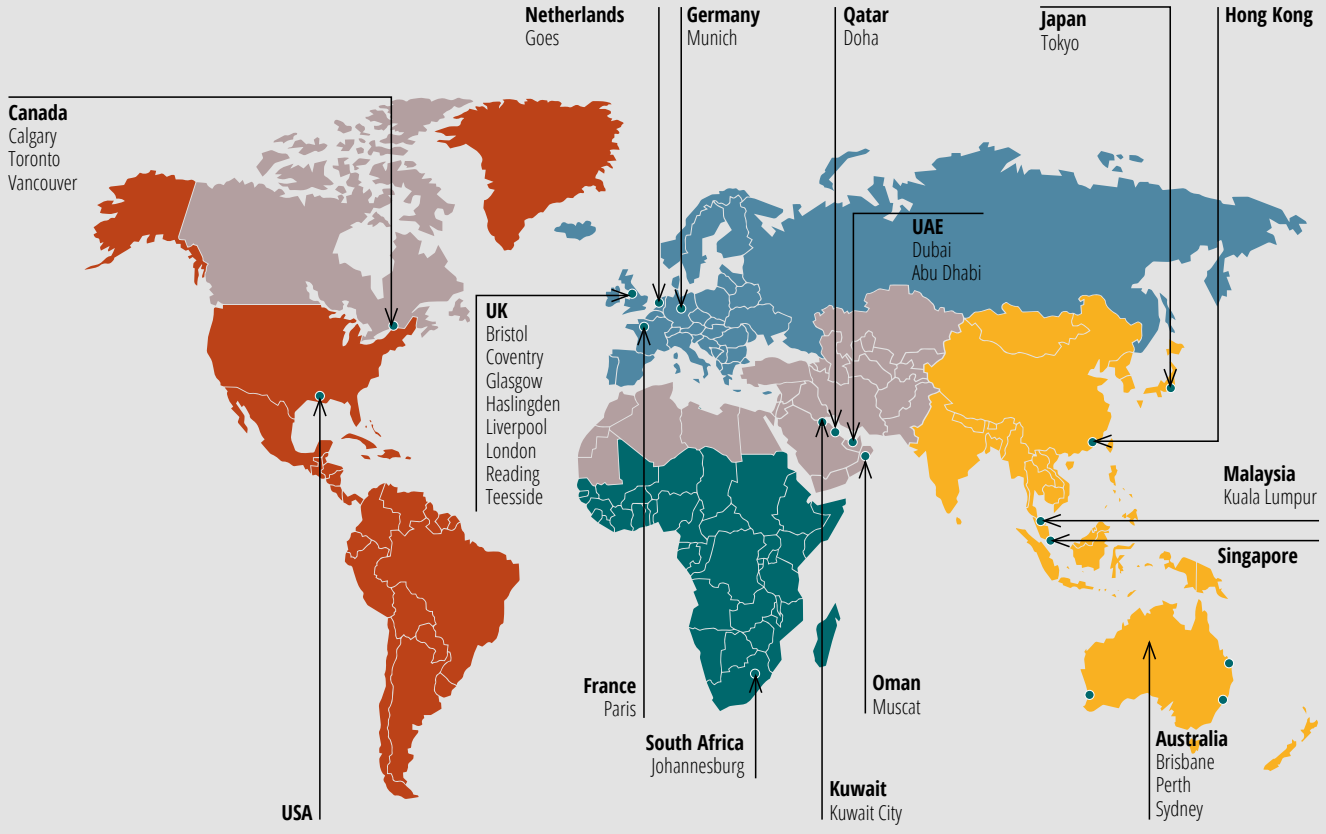


driver trett

Valuing imperfection

GARY RICHARDS – DIALES ASSET VALUATION EXPERT EXPLORES THE IDIOSYNCRASIES OF VALUING AN ASSET AND WHY A COW IS NOT ALWAYS JUST A COW!

As any follower of economics will attest; if all the conditions are met in a perfect market, then the value or price of an asset is determined at the intersection of the demand and supply curves, as a function of the quantity demanded leading to the price or value. Furthermore, most valuation models rely, to a greater or lesser extent, on comparing or by benchmarking against a competitive set. This means that the price of an asset is based on the price of similar assets that have transacted, and then adjusted to arrive at a value or anticipated transaction price. Two of the most fundamental conditions of a perfect market are that all parties within the market have 'perfect knowledge' and that the goods are homogeneous. In the real world, this is rarely the case.

Assets of the same class, or even produced in the same manner, can and often do perform differently. This is commonly seen within the hospitality market, where hotels within a specific location and targeting similar guest profiles perform differently. There are a multitude of reasons for this which are not part of this article, the statement is made merely to highlight that assets can rarely be considered homogeneous. Leading on from this, perhaps the lack of 'perfect knowledge' is the single largest contributor to the differential between the price of a transaction and the value attributed.

Examples of this are many. However, the one most people come across is that the change of use of a particular area can have significant impacts on the value. In recent times in the UK the pressure for increased numbers of houses has led to a number of fields on the outskirts of villages and towns being allocated for residential or mixed-use developments. Naturally, the value of these fields has increased many fold and has created opportunities for speculators and developers.

The matter does become more complex when valuing assets. The recent decline in the international travel industry highlights the point. An aircraft ordered, say two years ago, at an agreed price would have then seemed a fair price, given the anticipated demand for travel. However, the decline in the number of passengers now means that the price agreed two years ago would now seem too high, as the return on investment required would not be achieved unless the demand for travel increases; hence the need for suppliers of aircraft and airlines to review the current industry and adapt accordingly.

Another example I have been involved in was the valuing of a dairy herd. Whilst the price of cattle is well established in most economies, what struck me was the difference in the value of a dairy cow when compared to the sale of cows for beef. The underlying reason was that, over time, the price and quantity of milk resulted in a significantly higher attributable value to the dairy cow compared to the price of a beef cow.

In the above examples, it is clear that the difference between the price an asset is acquired for and its value, is the earning potential of that asset over time. In general, valuers wax lyrical over the time value of money, however, it is equally as important to consider the value of the timing of the acquisition as it is to rely solely on the income generated over time. ■

Driver Trett Hong Kong Annual Cocktail Event

Our Hong Kong office hosted its annual cocktail event at the Hotel LKF by Rhombus on the 22nd June 2017.

John Brells had joined the Driver Trett family only a few days earlier as Asia Pacific's Regional Managing Director, so we were delighted that he was able to attend together with the Head of Diales for Asia Pacific, Matthew Wills. The event was once again a success and we look forward to the next one.

Q&A: The revised Construction Lien Act brings adjudication to Ontario

KEVIN O'NEILL - OPERATIONS DIRECTOR, DRIVER TRETT EASTERN CANADA DISCUSSES WHAT THE REVISED ACT INVOLVES AND THE BENEFITS IT SHOULD DELIVER TO THE ONTARIO CONSTRUCTION MARKET (AND BEYOND...).

On May 31, 2017, the Attorney General, Hon. Yasir Naqvi, introduced legislation in the Legislative Assembly of Ontario to amend the Construction Lien Act. What are the key amendments to the existing Construction Lien Act legislation?

Put simply, they include:

- Introduction of a prompt payment regime.
- Introduction of mandatory adjudication for all construction projects, large and small, across the province.
- Modernisation of the Act to address alternative financing and procurement (AFP) projects (P3s), condominiums, tenant work, etc.
- Technical amendments related to holdback, liens, bonding, and trusts.

What purpose will the prompt payment regime serve?

The new regime is intended to streamline the payment process through all levels of the construction supply chain.

How does it do this?

Payment is due no later than 28 days following receipt of a 'proper invoice'. Any reductions in the amount payable must be identified by the owner in a 'notice of non-payment' within 14 days of the submission of the proper invoice.

What penalties are there if someone still doesn't pay?

Mandatory interest, based on the interest rate set out in the Courts of Justice Act (currently 0.8%), will begin to accrue on the outstanding balance if the amount due is not paid when due (a detailed calculation model is expected in the regulations). The parties are free to contract for interest rate above the statutory rate, but not below.

Does this just apply between owners and main contractors or does it include the wider construction market?

Similar payment structures apply to the payment of subcontractors by contractors, with payment made to subcontractors within seven days of payment by the owner to the contractor. Any disputes which might arise with regard to payment can be quickly referred by either party to an adjudicator.

So, is adjudication common practise in Canada as a whole?

No, currently Ontario contractors and trade contractors' only recourse, outside of termination, is to initiate lien proceedings to pressure payment of outstanding invoices; or to simply accept reduced payment for services. The introduction of adjudication is perhaps the single largest and most sweeping change in the administration of construction contracts in Ontario. Introduced to the UK construction industry some 20 years ago, adjudication provides a quick and enforceable decision to the parties. The new legislation in Ontario borrows heavily from the UK experience.

How does adjudication work in Ontario now?

Following appointment of an adjudicator, the overall process is only 42 days from initiation to decision. The party wishing to refer a dispute to adjudication is to provide a written notice to the other party

Kevin O'Neill

outlining the nature and description of the dispute at hand, the nature of redress sought, and propose an adjudicator from an Authorized Nominating Authority. Within four days the other party must agree to the proposed adjudicator, or an adjudicator will be appointed by the Authorized Nominating Authority in a further three days. The party requesting the adjudication must provide all relevant documents to the adjudicator within five days of appointment of the adjudicator. The adjudicator is free to conduct the adjudication as they determine to be appropriate in the circumstances. The adjudicator shall provide its written determination, with reasons, within 30 days of receiving the documentation. The fees associated with the adjudicator shall be paid equally by the parties.

And how enforceable is the decision?

As in most jurisdictions, the determination by the adjudicator is binding on the parties, although the matter may still be determined afterwards by a court or through arbitration. The adjudication process is thought to provide a less costly and more timely means for contractors, subcontractors, and suppliers to secure their rights to payment for work performed and services delivered; without resorting to the Lien provisions of the Act.

This legislation presently only applies in Ontario, do you see adjudication catching on in the wider Canadian construction market?

The construction industry across Canada is taking a keen interest in Ontario's dive into the adjudication pool, although the result is still uncertain. Will the revisions be successful in improving the flow of funds through the construction supply chain? Will the other provinces and territories update their legislation to follow Ontario's lead? Will a national standard evolve to replace the uneven patchwork of rules and regulations? Only time will tell. Having incorporated the lessons learned from over 20 years of experience with adjudication in the UK and elsewhere, it appears that adjudication will get off to a running start in Ontario.

It would seem that there are still lots of questions to be answered when it comes to measuring the success of adjudication in Ontario, and Canada as a whole – perhaps you could update us further when a significant number of disputes have been suitably resolved?

I'd be happy to, or perhaps one of my West coast colleagues will have more news and feedback if/when adjudication spreads across the country. ■

[Ed note: this Digest has many other adjudication articles covering jurisdictions from Malaysia and the Middle East to the established UK market, visit the Digest archive to brush up on other lessons learned from around the world.]

driver trett

Australia – from energy boom to infrastructure boom

DAVID HARDIMAN – DIRECTOR, DRIVER TRETT AUSTRALIA OUTLINES THE AUSTRALIAN GOVERNMENT'S RESPONSES TO THEIR GROWING POPULATION AND RELATED INFRASTRUCTURE INVESTMENT, HIGHLIGHTING SOME KEY PROJECT COMMITMENTS FOR THE COMING YEARS.

Australia was shielded from the global financial crisis of ten years ago by the continuing strength of the mining and energy sectors. As resource prices fell over more recent years, the construction industry has been sustained by a boom in the construction of residential buildings. Today, any spare capacity arising from the cyclical reduction in the residential work is taken up by what is becoming an infrastructure bonanza across the country.

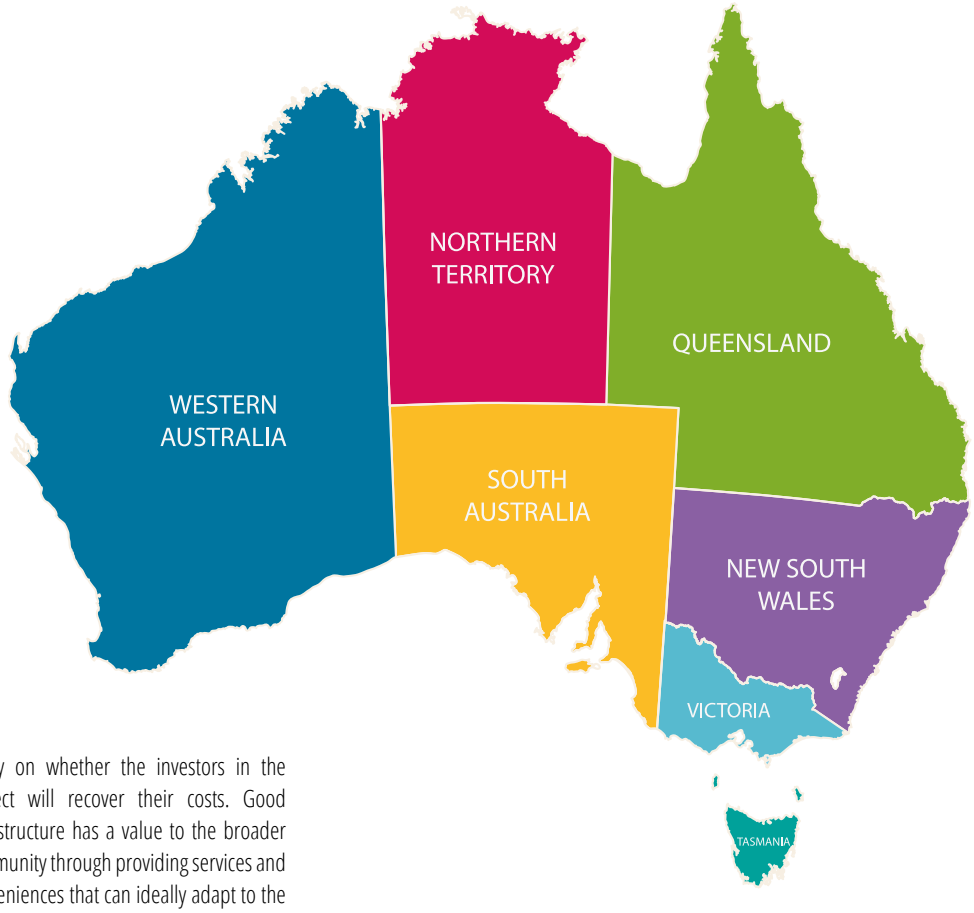
Recent annual spending on infrastructure bottomed out in the 2015-16 financial year. Led by New South Wales and Victoria, the states are setting a fast pace, particularly for road and rail expansion.

New infrastructure projects are sometimes selected with less attention to their real value than on a need to create jobs. In Australia, there are many large potential benefits to be won from important projects catering for the needs of its growing population.

In 1995, the population of Australia was around 18 million, twice that of 40 years before. In June 2016 the population was recorded as being in excess of 24 million. The population is expected to grow by about 400,000 per year, reaching around 36 million in 2050. Although the average population density in Australia is relatively low at around three per square kilometre, in reality, Australia's population is concentrated in four main cities (Sydney, Melbourne, Brisbane and Perth) where almost three quarters of the population growth is expected to occur.

In its main cities, Australia is already seeing trends of increased traffic congestion, inefficient logistics, deteriorating amenities, housing affordability issues, and travel times that impact on the quality of the daily life of the inhabitants.

Infrastructure should not be valued solely on whether the investors in the project will recover their costs. Good infrastructure has a value to the broader community through providing services and conveniences that can ideally adapt to the changing world. Infrastructure can transform local communities, regional economies, and overall national prosperity. These changes may be brought over the design and construction period and the life of the asset. Disadvantaged communities may be regenerated and more equitable and socially sustainable cities created. Private development may occur around the infrastructure even before it is completed. Socially responsible procurement for infrastructure projects leads to job creation, apprenticeships, direct and indirect local employment opportunities, and long-term skills development.



The population is expected to grow by about 400,000 per year, reaching around 36 million in 2050.

The Australian Government has established an ambitious spending programme and one of the world's largest infrastructure pipelines. New infrastructure projects are being stimulated by a move to create appropriate governance on project selection and on risk sharing. The government is establishing the Infrastructure and Project Financing Agency to identify innovative financing solutions and to advise on these. They will provide direct investment and equity participation in socially worthwhile major projects, when the private sector is unwilling to build because the period of return is not short term. The value of the asset can thereby

be recognised as being that to the broader community rather than just to the investor's interest.

In the past, the Federal Government has generally acted only as a funder, especially on those projects where the short-term reward failed to materialise, bankrupting the private investors. An additional benefit to the Federal Government from its investment programme will be greater credit for visible equity participation. In the past, the State Governments have received most of the credit and the project revenue. In time, the government can expect to sell (potentially with a profit margin) all or parts of an asset, once it is operating on a consistently commercially viable basis. It is likely to require the State Governments to commit to reinvest in infrastructure before permitting the sale of state owned assets.

In its last budget, the government made a distinction between 'good debt' (investment on projects offering potential capital returns) and 'bad debt' (recurrent expenditure). It has committed A$70bn for a combination of loans, grants, and equity investments for infrastructure works to 2020-2021. It has established a 10-year allocation that will deliver A$75bn in funding and finance to 2026-2027. Whilst interest rates are low, there is wisdom in locking in long term financing for investment in major growth producing infrastructure assets that also contribute to the generation of better cities, improved social fabric and quality of life. Health and well-being, mobility and development are all intrinsically linked to good infrastructure.

The Federal Government will directly fund rail and road projects across Australia and take full control of building a second international airport to the West of Sydney. It will also expand and upgrade a wide range of crucial roads, railways, supply chain infrastructures, schools and hospitals. Safeguarding electricity supply and its affordability are also recognised as high priorities.

Infrastructure spending is expected to rise to A$33bn in 2018-2019 and then reduce to around A$24bn in 2024-2025. At that time, the infrastructure bonanza may be over and a new cyclical driver for the construction industry will be needed. ■

NEW MAJOR INFRASTRUCTURE COMMITMENTS (VALUES IN AUSTRALIAN DOLLARS)

The government has made a number of high-profile commitments over the coming years. Further details of some of these major projects are outlined below.

Project: WestConnex and NorthConnex (Sydney)
Value: $20bn and $3bn respectively
Outcomes: These projects will relieve traffic congestion by extending the existing motorways from the west and north respectively into the city.
Notes: Improvements are in progress on a number of arterial motorways in Sydney. In addition, a further SouthConnex project is in planning.

Project: Sydney Metro
Value: $12.5bn
Outcomes: A 50km metro which will run high-frequency, driverless trains from Rouse Hill to Bankstown, via a new rail connection through the city centre and a new rail crossing under Sydney Harbour.
Notes: The largest of Australia's new rail projects with the North-West section due to open in 2019.

Project: Inland Rail
Value: $10bn
Outcomes: High-capacity freight link between Melbourne and Brisbane (length 1,700km).
Notes: The project is expected to take pressure off traditional road corridors through regional Australia.

Project: Pacific Highway Upgrade
Value: Estimated $9bn
Outcomes: The highway between Sydney and Brisbane is being upgraded to provide a four-lane, divided road over a distance of over 650km from Hexham in New South Wales (NSW) to Queensland.
Notes: This is the largest road project in NSW. Currently work is active on six separate sections. The completion dates for these range between 2016 and 2020.

Project: Rail Network Upgrade (Victoria)
Value: $5-$6bn
Outcomes: The removal of 50 dangerous and congested level crossings and associated upgrades.

Project: Sydney's Second Airport
Value: $5.3bn
Outcomes: When it opens in 2026, the airport will have a capacity for 10 million passengers a year and a 3.7km runway.
Notes: The site is 51km to the West of the city and development will be accompanied by new rail and road links to join up with a new development under construction to the West of Sydney.

Project: Western Ring Road Upgrade and West Gate Tunnel Project (Melbourne)
Value: $2.25 and $5.4bn respectively
Outcomes: Will relieve traffic congestion in the west of the city.

Project: Brisbane Metro
Value: $1bn
Notes: Planning is underway for the project.

OTHER PROJECTS TO NOTE (VALUES IN AUSTRALIAN DOLLARS)

Brisbane
- A $1.4bn New Parallel Runway project at Brisbane Airport is in progress.
- The Cross River Rail Link to the Commercial Business District at a cost of $5.4bn.

Melbourne
- The $10.9bn Melbourne Metro is in progress. The tunnel contract has recently been awarded.
- The ongoing project of widening the Tullamarine Freeway at a cost of $1.3bn to improve the airport to city road connection.
- A $10bn project for a rail link to the airport is under assessment.

Perth
- A rail freight link, at a cost of $1.9bn, to the industrial areas South of the city has highest priority.
- A new passenger terminal was opened in Perth airport last year.
- The ongoing Forrestfield Airport Link project at a cost of $2.2bn will provide a long awaited rail connection to the airport.

Queensland
- A $1.15bn extension of the existing rail system (Redcliffe Peninsular Line) was opened last year.
- The rail track between Brisbane and the Gold Coast is being duplicated.
- Construction of the $420m second stage of the Gold Coast Light Rail is proceeding.
- A $1.1bn Gateway Motorway Upgrade North.
- A $1.6bn Toowoomba Ranges second crossing (highway).

Meet the experts

HAVING CELEBRATED ITS 5TH ANNIVERSARY EARLIER IN 2017, THE DIALES TEAM CONTINUES TO DEVELOP THE SKILLS AND EXPERTISE OFFERED BY THE TEAM – FROM DELAY, QUANTUM AND TECHNICAL EXPERTS TO ARBITRATORS, ADJUDICATORS AND MEDIATORS AND NEW SERVICES DELIVERING ASSET VALUATION EXPERTISE.

The Digest caught up with three of the most recent additions to the global team to find out more about them and where they perceive the challenges in construction disputes lie in the next decade.

John Brells – Delay Expert, Australia

Richard Chamberlain – Delay Expert, UAE

Simon Richards – Technical Expert, UK

What attracted you to join Diales?

JB: There were a number of things that attracted me to join Diales. In the first instance, it was the people. A significant number of the staff in the Asia Pacific region are people that I had previously worked with in different parts of the world over the last decade. I am looking forward to renewing those friendships and working relationships. Secondly, is the firm's reputation as a provider of premiere expert witness services.

RC: Contracting and its people are my background and my preferred working environment. Quite simply, Diales and Driver Trett are a contractor based consultancy – what's not to like?

SR: I joined Diales to become part of the growing team of technical experts that will enable Diales to enhance its reputation as a leading provider of technical experts in oil and gas.

What has been the highlight of your career so far?

JB: For me there isn't just one highlight, it's the experience of working internationally, with interesting clients, on complex and challenging projects and commissions. Helping our clients to be successful in their ventures is always a highlight.

RC: I was appointed as the expert in an expert determination dealing with a billion-dollar claim and where I facilitated an amicable settlement.

SR: I have not yet reached the pinnacle of my career - I will only see that in the rear-view mirror. I've climbed many peaks to reach where I am but if I were to single out one from the spectrum, I think it would be the conjoining of self-confidence, skill, experience and the demand for my expertise.

> We need to do it better, faster, and more cost efficiently.

What specialisms do you bring to your clients?

JB: My specialist expertise is in delay and disruption analysis. I have been around project controls and planning for my entire career. I am probably dating myself by saying this, but I started planning and scheduling long before Primavera existed!

RC: My experience is practical rather than academic. It is founded on fifteen years of work as a contractor and twenty-five years of running my own engineering and commercial consultancy.

SR: I have an innate understanding of engineering and the application of science. My background in the chemical process industries, and especially in oil and gas, has developed into a comprehensive knowledge of all stages in the lifecycle of a project from conception to operation. I have the skill to identify the root cause of an event and follow this through the design and construction stages. In addition, I have the ability to see the bigger picture at the same time as the detail.

> Quite simply, Diales and Driver Trett are a contractor based consultancy – what's not to like?

What do you see as the biggest challenge in construction disputes over the next decade?

JB: From my perspective, I think it is staying on the cutting edge of technology in all aspects. We are now working in a world of 'big data' and shorter delivery periods. In order to maintain quality deliverables for our clients we need to do it better, faster, and more cost efficiently.

RC: Determining responsibility when the risks associated with design development and design management go wrong.

SR: From my perspective, the challenge is to encourage young people to become engineers in the first place. Then, after sufficient training and experience in their respective fields, to identify and develop those few with potential expert witness skills.

> I have the ability to see the bigger picture at the same time as the detail.

What is your favourite anecdote from your time in construction [keep it brief please]?

JB: I don't really have one specific anecdote that sticks out, well not one that I can tell. Over the past thirty plus years I have built up a quite a repertoire of politically incorrect stories that I could fill this issue with.

RC: A Ukrainian labourer named George, told me, he had been through the Russian Revolution, imprisoned and starved by Bolsheviks, captured and beaten by the Nazi's, interned by the British Army and was now about to buy a terraced house. He smiled and said, "now George is a king".

SR: It never ceases to amaze me how project owners have the ability to award contracts to the least suitable and least qualified contractor. ■

[Ed note: The Digest looks forward to reading more from these experts in future issues]

BYTES

BYTE 1:
KAIZEN FOR CONSULTANTS

Mark Wheeler – Chief Operating Officer, Driver Trett explores the Japanese principle of Kaizen. He outlines how the application of continuous improvement contributes to the success of specific projects or a wider business
http://www.driver-group.com/global/knowledge/articles/

IN THE NEXT ISSUE

The next issue of the Digest, as always, will be covering all industry sectors and include news and articles from around the globe. Please keep an eye on the website www.driver-group.com to keep up to date with ad hoc articles, Digest previews, seminars and training events. The Digest will always aim to be topical and respond to requests and questions from our readers through the articles we publish. If you would like to submit a question or an article request to the Digest team please email marketing@drivertrett.com with DIGEST in the email subject line. We are always pleased to receive feedback from our readers and welcome the opportunity to develop the Driver Trett Digest into a valuable read for those involved in the global engineering and construction industry.

What's new with Driver Trett?

Keep up to date with our latest news and events. For more details of the services and solutions that Driver Trett can deliver, please visit our website **www.drivertrett.com**. Regular news and event updates are made to the website so be sure to visit, or follow us on **https://www.linkedin.com/company/driver-trett** to keep up to date with our latest seminars and news.

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MEET OUR TECHNICAL TEAM

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Diales experts:

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- Understand their duties to the Court and Clients
- Have proven track records in delivering realistic, detailed reports

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- Construction and D&B Contracting
- Oil & Gas Engineering
- Geotechnical Engineering (Land and Marine)
- Seismology

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