

# How to Claim EOT The Evidence & Analysis

by

**Belden Premaraj**

Messrs. Belden

# The Evidentiary Burden

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All the Crowd would shout back

*“Yes, yes, we believe you.”*

But as the trapdoor snapped open,  
the Crowd would yell

*“But you ain’t got no proof...  
and given that the burden of proof is on you,  
you can hang”*

# Cause to Effect

## *“Proxima Causa”*

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*“Causes are spoken as if they were as distinct from one another as beads in a row or links in a chain, but – if this metaphysical topic has to be referred to- it is not wholly so. The chain of causation is a handy expression, but the figure is inadequate. Causation is not a chain but a net. At each point influence, force, events precedent and simultaneous, meet, and the radiation from each point extends infinitely.”*

*Lord Shaw of Dunfermline,  
Leyland Shipping v Norwich Union Fire Insurance Society*

# *Proxima Causa*

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*“The test is what an informed person in the building industry (not the man in the street) would take to be the cause ....”*

**Judge Bowsher QC**

**P&O Developments Ltd v The Guy’s and St.  
Thomas’s NHS Trust**

# The Work Program

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- Impacted Work Program
- A Scientific & Reasonable Method of Proof!
- Best Evidence Rule
- The Standard of Proof = Burden of Proof
- What is the Legal View? - Commentaries

# John Barker Construction Ltd v London Portman Hotel Ltd

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*“the SO must:-*

- 1. Apply the rules of the contract;*
- 2. Recognise the effects of constructive change*
- 3. Make a logical analysis, in a methodical way, of the effect of the developer’s time risk events on the contractor’s programme;*
- 4. Calculate, rather than make an impressionist assessment of, the time taken up by events”*

**Mr. Recorder Toulson QC**

# CPN Impact

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## Critical Path Network Impact Assessment Accepted & Proven Method

- Henry Boot (Construction) UK Ltd v Malmaison Hotel (Manchester) Ltd
- Aoki Corp v Lippoland (Singapore) Pte Ltd
- Fischbach & Moore Int Corp.

# Henry Boot (Construction) UK Ltd v Malmaison Hotel (Manchester) Ltd

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*“The Respondent was entitled to respond to the claim both by arguing that variations, late information and so on relied on by the Claimant did not cause any delay because they were not on the critical path....”*

# Aoki Corp v Lippoland (Singapore) Pte Ltd

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*“Without going into the full detailed methodology by which extension of time applications are evaluated, I wish to point out that the process of verifying and evaluating such applications require time. Further, in assessing the question of delay, one has to consider whether the alleged event relied on by the contractor falls on the critical path. Briefly, the critical path comprises the sequence of activities in a construction program in which a delay would have the effect of prolonging the overall completion period of the project”*

**Justice, Warren LH Khoo**

# CPN Impact

## Not in all Cases

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Has the Contract indirectly removed CPN

Best Evidence – Not challenged on CPN

- WB Construction Mountains Community Hospital [2005] WL
- Helena Assoc. LLC v EFCD Corp (New York)[2008] – used commonsense
- London Underground v Citylink [2007] (20 year replacement EPC project)
- Stop Speed Holdings v Conlay Construction

# An Adequate As-Planned Work Program

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- Is it Adequate to later substantiate an EOT Claim?
- What does Adequate mean?
- What standard of work program is required by the Contract?

# An Adequate Work Program

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- Henry Gantt's bar Charts w/o CPM?
- Software Program with CPM?
- Software Program with CPM & Float?
- Software Program with CPM & Float & Resource Allocation?
- How Detailed Should the Program be?

# How Detailed?

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- General Activities?
- Sub-activities & trades?
- Location Sequencing details?
- Co-ordination & Interface details?
- Information Lead Time details?
- 3<sup>rd</sup> party or SO approval details?
- Supply lead time details?
- Free-Issue lead time details?
- Temporary Works detailing?

# How Detailed?

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- Resource Sequencing details?
- Multi-level or multi-trade CPM?
- Logic Links
  - Physical Links (Start-Finish of Activity)
  - Resource Links (Start-Finish due to Resource)
  - Contractual Links (Start-Finish due to Approvals)
  - Strategic Links (Start-Finish with Floats)

# Logic Checks & Approval

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## Manipulated As-Planned Program!

- As-Planned CPN Logic – Ensure it is logical?
- Hidden Floats
  - Sequential Works that can be carried out in Parallel
  - Unidentified Floats
  - Exaggerated late completions of activities
- Exaggerated early completion of activities

# Logic Checks & Approval

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- Omitted Free Issue delivery dates
  - danger of un-realized lead time
  - leaving it to implications
  - Star trek scheduling
- Unrealistically early Free Issue delivery dates
- Omitted Contractual Logic dates
  - Information
  - Approvals
  - Reviews

# Approval of As-Planned Program

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- Contractual Document – more weight
- Non-Contractual Document – still evidentiary tool but with less weight
- Approval only on logic!
- Approval but with mitigation obligation (re-scheduling non CPN works)!
- Cuts both ways - Contractor also bound by logic.

# Approved As-Planned

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- If program is contract document:
  - Impossible to follow : risk of Employer  
Yorkshire Water Authority v Sir Alfred McAlpine & Sons 32 BLR 114
- Obligation to Mitigate (reschedule): reduces risk
- Contractor culpable actions can change program : then all risks switches

# Ascon Contracting Ltd v Alfred McAlpine (Isle of Man) Ltd

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*“I do not accept [the contractor’s] attempts to disown the logic links in its own program”*

**John Hicks QC**

# Float

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- Does it affect the assessment of EOT?
- Date of Completion Critical Path Activities cannot have float unless:-
  - Contractor planned early completion
- Contractor Planned Early Completion
  - If delayed to Contracted Date of Completion
  - No EOT, no loss & expense, Productivity Loss?

# Float

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- Free Float (Finish – Start Activity to Activity Float)
- Total Float (Activity to Date of Completion Float)
- Is there a distinction between critical floats and non-critical floats?

# Float

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- Critical Float
  - minimum planning time required
  - minimum procurement, fabrication & delivery time required
- Non-critical float
  - time safety factor
- Critical float should be identified differently
- Temporary Works Detailing with a critical path to the Permanent Works

# Float

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- Non-Critical Float can be considered when assessing likely delays (i.e.. it can reduce truly prospective assessment)
- However, when assessing actual delays retrospectively, non-critical float that belongs to Contractor cannot be used to avoid or reduce the EOT
  - Aoki Corp v Lippoland (Singapore) Pte Ltd
  - The Royal Brompton Hospital NHS Trust v Frederick Alexander Hammond & Ors

# Aoki Corp v Lippoland (Singapore) Pte Ltd

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*“Delay to activities falling outside the critical path may be absorbed by the “float time” allowed in the program so that the activity will not affect the completion date. There may be further complications where there are concurrent delays or multi-event delays attributable to different factors in which case the architect has to assess the critical cause of the delay and make due allowances, if any, when evaluating the length of extension to be granted.”*

Justice, Warren LH Khoo [1995]

# Aoki Corp v Lippoland (Singapore) Pte Ltd

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*“The suggestion in the last sentence of the passage quoted above to the effect that delaying factors outside the critical path program might be absorbed by the “float time” allowed in the critical path program might not be consistent with the basic position at law that the contractor is entitled to have the time initially allowed him by the contract to complete the works initially comprised in the contract, and any “float time” which he has within that over-all time is his for him to use to make up for any delays on his part in executing the works. It is arguable that the float time is in principle not available for accommodating variations and delays emanating from the employer or other delay events in respect of which the contractor is entitled to extension under the contract.”*

**Justice, Warren LH Khoo [2000]**

# The Royal Brompton Hospital NHS Trust v. Frederick Alexander Hammond and Others

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*“Under the JCT conditions, as used here, there can be no doubt that if an architect is required to form an opinion then, if there is then unused float for the benefit of the contractor (and not for another reason such as to deal with p.c. or provisional sums or items), then the architect is bound to take it into account since an extension is only to be granted if completion would otherwise be delayed beyond the then current completion date. This may seem hard to a contractor but the objects of an extension of time clause are to avoid the contractor being liable for liquidated damages where there has been delay for which it is not responsible, and still to establish a new completion date to which the contractor should work so that both the employer and the contractor know where they stand. The architect should in such circumstances inform the contractor that, if thereafter events occur for which an extension of time cannot be granted, and if, as a result, the contractor would be liable for liquidated damages then an appropriate extension, not exceeding the float, would be given.”*

**Judge Humphrey Lloyd**

# The Royal Brompton Hospital NHS Trust v. Frederick Alexander Hammond and Others

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*“What has to be established is the date when the information was actually needed, its absence on that date and the consequences of its absence in terms of time or money (probably both). The Court of Appeal rejected AA’s earlier case. Aldous LJ said:*

*“79. Mr Bartlett placed the blame upon Brompton for the way that the judge dealt with the timing claim independently from the quality claim. He went on to submit that the findings of fact were conclusive on the issue. I do not agree. I believe that Mr Edwards-Stuart is correct in his submission that clause 5.4 is a term which must be construed as imposing an obligation to provide the drawings when necessary in the sense that the drawings must be provided when actually necessary as opposed to when they were perceived to be necessary. No doubt in most cases the perceived need of a contractor will coincide with actual need, but this may not be such a case. ...”*

**Judge Humphrey Lloyd**

# Float & Ownership Belongs to Contractor

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- EOT granted if float affected by delaying event?
- Only when the extent of the float used up results in the non-critical activity impacting the Completion Date because it caused a shift of the CP?
- But if it belongs to the Contractor, why show it in the as-planned work program?
- Silence on ownership but with float indicated in work program, should it not belong to Project by implication.

# Float & Ownership Belongs to Project

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- Either party may use the float period without liability for EOT
- First to use benefits
- Encourages the Contractor never to bother with early start
- Early start and delays occur : loss of productivity, efficiency & idling, not claimable?

# Float & Ownership Belongs to Employer

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- Contractor must progress by early start and early finish unless delayed by Employer culpable event
- Some Contracts gives right for Employer to instruct early start or otherwise, Contractor can use the float (Employer's option)
- If early start would have reduced effect of Employer culpable delay, it is to be taken into account

# Properly Updated Baseline Work Program

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- Work Programs & their contractual implications are not written in stone
- A work program is a living document on the progress and it must be updated to reflect the actual progress at any given time
- Actual Delays causing Actual Impacts is what the law is concerned with, not hypothetical based on the baseline work program (wishful as-planned at the commencement of the works)

# Updating the As-Planned WP

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- When Contractor wishes?
- When Delay Event is perceived by SO?
- When progress is found to be in variance?
- When Contractor claims or notifies of EOT?
- Any time wished and instructed by the SO?
- Periodical?
- Monitored Updating & Logic Re-checking?

# Monitored & Re-checking?

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- Avoid Manipulation!
- Misleading Updates due to automatic update
- Failure to reflect actual mitigation
- Failure to reflect accurately any variation impact (omission or addition)
- Allows accurate impact assessments at the appropriate time
- Pro-Contractor because claim is certain
- Pro- Employer because extent of liability is also certain

# Actual Impact at the time when the Delay Occurs

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- Failure to reliably update the baseline work program is not reflective of actual impact
- Purported updated as-planned work program that was misleading as to the actual situation at site cannot be relied on
- Actual progress can change the critical path
- Must reflect the actual progress and conditions existing immediately prior to the occurrence of the delay event

# Actual Impact at the time when Delay occurs

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- Must reflect whether contractor's actual progress is such that the supposed impacted as-planned works were at that time in fact ready to be carried out as-planned
  - Great Eastern Hotel Company Ltd v John Laing Construction Ltd
  - Royal Brompton hospital NHS Trust v Fredrick A Hammond [No.7] [2001] 76ConLR 148
  - Henry Boot Construction (UK) Ltd v Malmaison Hotel (Manchester) Ltd [1999]

# The Need for A Properly Updated WP

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- Kemron Environmental Services Corp
- WG Yates & Sons Construction Co
- The Gasman Corp
- Motherwell Bridge v Micafil
- Gasing Heights Sdn Bhd v Pilecon Building Construction Sdn Bhd [2000] 1 MLJ 621

# Great Eastern Hotel Company Ltd v. John Laing Construction Ltd.

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*“From November of 1997 [the management contractor] seriously unreported [sic] the delays on a monthly basis occurring to the project, against the master program. The most flagrant example according to the [the employer] occurred in December of 1998 when the recovery program... was presented. [The management contractor] reported a 20 weeks delay as against 34 assessed by he experts. During October of 1997 to February of 1998 inclusively a 5 month period, [the management contractor] reported monthly delays to the project of 8 weeks only. Alterations were made to the updated copies of the master program, which had the effect of showing that no further critical delays were occurring during that reporting period, when in fact because of [the works contractor’s] performance the delay to the temporary roof and the consequential effects were much greater.”*

# Great Eastern Hotel Company Ltd v. John Laing Construction Ltd

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*“...in my judgment there is no doubt that [the management contractor] did deliberately submit incorrect information on the delay and the causes of the delay. It translates to causal effect... I accept that had [the management contractor] accurately reported delays and faced up to them there would have been little difficulty reorganizing the contract before trade contracts commenced, so that they were properly coordinated in accordance with the actual progress of the project... I accept that is one of the key skills which a [management contractor] is supposed to bring to a project, and that their failure to properly report progress meant that they were unable to do this, and [the employer] and the professional team were not in a position to push [the management contractor] to do so. In consequence [the employer] was exposed to the inevitable claims for prolongation, delay and disruption as a direct consequence of [the management contractor’s] breaches.”*

**H.H.J. Wilcox**

# Royal Brompton Hospital NHS Trust v. Frederick A Hammond

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*“In order to make an assessment of whether a particular occurrence as affected the ultimate completion of the works, rather than just a particular operation it is desirable to consider what operations, at the time the event with which one is concerned happens, are critical to the forward progress of the works as a whole. On the evidence of [the experts] the establishment of the critical path of a particular construction project can itself be a difficult task if one does not know how the contractor planned the job. Not only that, but the critical path may well change during the course of the works, and almost certainly will do if the progress of the works is affected by some unforeseen event.”*

**Judge Humphrey Lloyd**

# Henry Boot Construction (UK) Ltd v. Malmaison Hotel (Manchester) Ltd

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*“[the employer] denies that the Works were delayed by the matters alleged by [the contractor], and asserts that [the contractor’s] analysis of delay is ‘misconceived and flawed’... In short, [the employer] says that the events relied on by [the contractor] did not in fact delay progress of the Works for various reasons. These include the fact that [the contractor’s] assessment of delay was based on a revised program which ignored the true state of the works at the date of the issue, the part of the work affected by the [employer’s time risk events] was not on the critical path, and the fact that ‘[the contractor’s] delay analysis does not take into account any culpable delay on its part or actual delay on its part or actual progress at the time of the events relied upon.”*

## Henry Boot Construction (UK) Ltd v. Malmaison Hotel (Manchester) Ltd

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*“I accept the submissions of [counsel for D]. It seems to me that it is a question of fact in any given case whether a [employer’s time risk event] has caused or is likely to cause delay to the works beyond the completion date in the sense described by Colman J. in the Balfour Beatty case.”*

**Dyson J.**



# Kemron Environmental Services Corp

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*“[the contractor] could not begin work until its... design was approved and it submitted its second design within a reasonable period of time after [the employer] improperly disapproved its first design. The only evidence which suggest that [the contractor] might not have been delayed is found in its revised project schedule. However, in as much as it is apparent that the schedules were not updated to reflect contemporaneous events and the record contains no relevant explanations, we find them to be inherently unreliable for purposes of determining the number of days [the contractor] was delayed.”*

**The Appeal Board, USA**

# W. G. Yates & Sons Construction Company

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*“Based on [the contractor’s] failure to segregate the steel work performed after 26 March 1993 into structural steel and miscellaneous steel work, [the contractor’s] failure to provide an updated work schedule for the period after 3 October 1992, and [the contractor’s] own (site diary) entries characterizing much of the work performed after 26 March 1993 as ‘misc steel work’ and structural steel for shops B and the contractor, pumphouse, and administrative offices we conclude that the erection of the structural steel, i.e. the truss erection and fill-in steel, was substantially completed on 26 March 1993 when the [contractor’s supervisor] left the site; and that the work after 26 March did not follow a single critical path but ran through a number of different activities including masonry, carpentry, skin, metal decking and roofing... [the contractor’s] contention that a study was performed from which it was determined it took 4 men 10-11 hours to change one splice plate segment is at best questionable... We conclude the alleged study is nothing more than generalized unsupported self serving opinion testimony which we have held does not reach the level of credible proof.”*

**The Appeals Board, USA**

# The Gasman Corporation

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*“...neither [the contractor] nor its expert ever modified the CPM schedule to reflect [the contractor’s] change in the logic regarding erection of steel. The schedule’s usefulness in evaluating the alleged slab ‘delay’, therefore, is limited... [The] CPM schedule must be current to evaluate project... whether a ‘change’ affects critical path must be determined on basis of conditions existing immediately prior to its occurrence... [The] CPM schedule must reflect actual performance to be reliable basis for evaluating delay.”*

# L&C Europa Contracting

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*“In no instance, has [the contractor] attempted to identify and track the allegedly delayed work in the daily reports and account for the delay period. Only the (pre-construction planned program) is in evidence. There are no updated (program) in the record that might demonstrate the relationship of the alleged delays to other work at the site, or the timing and impact of alleged delays on overall completion of the contract. The record does not permit segregation of any delays caused by [the contractor] and/or delays extending over unexplained gaps in [the contractor’s] on site performance. ....With respect to the nature of the proof offered by [the contractor] generally, [the contractor] for the most part relies on general, unspecific and conclusive testimony that was not credible.”*

# Motherwell Bridge v Micafil

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*“This tends to confirm the conclusions which I had in any event reached which is that Mr. Pye’s approach should be accepted both in relation to extension of time under the contract and..... The recent impacted delay analysis included in the Scott schedule meant that the final reception test concluded milestone was delayed from 13.11.1998 to 9.2.1999, a period of 13+ calendar weeks. The delay to the completion of the works was such that Mr. Pye’s evidence is that MBST were entitled to an extension of time of not less than 44 weeks.”*

**Judge John Toulmin CMG QC**

# Balfour Beatty Construction Ltd v The Mayor & Burgesses of Lambeth

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*“the foundation must be the original program (if capable of justification and substantiation to show its validity and reliability as a contractual starting point) and its success will similarly depend on the soundness of its revisions on the occurrences of every event, so as to be able to provide a satisfactory and convincing demonstration of cause and effect. A valid critical path (or paths) has to be established both initially and at every later material point since it (or they) will almost certainly change”*

# McAlpine Humberoak Ltd v McDermott International Inc

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*“the Judge dismiss the Defendant’s approach to the case as being a retrospective and dissectional reconstruction by expert evidence of events almost day by day, drawing by drawing, TQ by TQ and weld procedure by weld procedure, design to show that the spate of additional drawings which descended on McAlpine virtually from the start of the work really had little retarding or disruptive effect on its progress. In our view, the Defendant’s approach is just what the case required.”*

**Llyod L.J.**

# Progress Reports

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- Daily & Monthly Reports?
- But are the Contents Adequate?
- Are the Veracity of the Reports intact?
- Probative Value? 
- Minutes of Site Meetings?
- Correspondence?

# Contents of the Progress Report

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Apart from the Normal Information:-

- Affect of the Weather on the Work Condition?
- Works Performed – Cross Referred to WP?
- The Measure of the Works Done?
- Time Spent by Resources & Down/Idle Time?
- Reason for Down/Idle Time?
- Resource Transfers & Reasons?
- Mitigation Steps?

# Contents of the Progress Report

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- Materials Received?
- Variation, Rectification, Inspection, Re-opening Works Identified?
- Works affected by RFI (Information & Inspection) Identified?
- Delays & Disruptions Identified & Reasons
- Resources affected by Delays & Disruptions Identified?
- Accidents & Site Visits?
- Corroboration = Progress Photographs or Videos

# Veracity of the Reports

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- Approved/Agreed? – COW/ PM/Consultants?
- Contemporaneity? – daily & prepared daily?
- Neutrality? – Favourable & Adverse
- Formal & Consistent – Format & Process?
- First Hand Recorder – Not hearsay? Weight?
- Security? Multiple Copies?
- Distributed & Unchallenged?
- Consistency with other Documents? External & Internal

# Veracity of the Reports

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- Legible Handwriting?
- Information within contradictory?
- Photographs not labeled?
- Photograph location not identified?
- Date & time of photograph not identified?
- Sub-contracted Works : no records?

# Method of Impact Analysis

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## Forensic Scheduling

- Impacted As-planned Method (modeled)
- As-Planned v As-Built Method (observational)
- Snapshot Time Impact Method (observational)
- Collapsed As-Built Method (modeled)
- Windows or Slicing Method (modeled)

Q. of Details & Sophistication

# Impacted As-Planned

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- Treats the As-Planned Non-Updated Program as written in stone
- Critical Path never changes
- Can be based upon updated as-planned programs although it could reveal delays by Contractor
- Ignores the actual happenings in the site except for the delay events claimed
- Assumption that Contractor has been perfect with zero problems and exactly on schedule but for the claimed event
- Even so, why not updated? If not obliged? Some factual evidence of Contract inefficiency will destroy the method
- Concurrent delays ignored

# As Planned v As-Built

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- Comparison of As-Planned & As-Built with some identification of what caused the delay
- Ignores critical path changes
- Superficial method
- Fails to consider knock-on effects
- Concurrent delays are ignored
- Ignores re-sequencing or accelerations

# As Planned v As Built

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- Sunshine Construction & Engineering Inc v US  
64 Fed Cl.346 [2005]
  - Used actual updated reflective as-planned schedules
- SAE/American, GBSCA No.12710, 98-2BCA
  - Used accurate look-ahead programs
- City Inn v Shepherd Construction [2007]
  - Rejected collapsed as-built
  - Accurate as-planned schedules existed
  - All contractors delays identified : concurrent

# Collapsed As-Built

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- Rebuilds Program using actual as-built
- Re-creates the critical path : the actual as-built
  - but does it on the reverse: from completion to commencement
  - Remove alleged delays to show return to as-planned
  - Ignores mitigation or re-scheduling or concurrent delays
- Donohue Construction Comp, ASBCA No.47310, 98-2 BCA

# Time Impact Method

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- Danger if it ignores some actual facts
- Need to be aware of actual progress when relevant delaying event actual impact being considered
- Prior delays could have been recovered
- Prior delays could have actually had lesser impact than projected on program
- Total Retrospective: Modified Time Impact (Discounts on Mitigated Earlier As-Built Completions)

# McAlpine Humberoak Ltd v McDermott International Inc

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*“the Judge dismiss the Defendant’s approach to the case as being a retrospective and dissectional reconstruction by expert evidence of events almost day by day, drawing by drawing, TQ by TQ and weld procedure by weld procedure, design to show that the spate of additional drawings which descended on McAlpine virtually from the start of the work really had little retarding or disruptive effect on its progress. In our view, the Defendant’s approach is just what the case required.”*

**Llyod L.J.**

# Time Impact Analysis

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If no inaccuracies : best method

- Bell BCI Co v US, 81 Fed Cl 677
- Mirant Asia-Pacific Construction (HK) Ltd v Ove Arup Partners Int. Ltd. [2007] EWHC 918
  - Weekly or Monthly windows on updated programs
  - Watershed or Snapshot : Less Reliable
- AEI Pacific Inc, ASBCA No.53806, 08-01 BCA
  - choose some events & not others : unreliable

Skanska Construction UK Ltd (formerly  
Kvaerner Construction Ltd) v Egger (Barony)  
Ltd

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*“It is evident that the reliability of Mr Pickavance's sophisticated impact analysis is only as good as the data put in. The court cannot have confidence as to the completeness and quality of the input into this complex and rushed computer project.*

**Judge David Wilcox**

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# Leighton Contractors (Asia) Ltd v Stelux Holdings Ltd

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*“If Leighton was still working on the substructure when it requested tender information from Stelux, the information could not then have been necessary. Due to Leighton’s own substantial delay, there was ample time for the information to be provided much later, even after the original program date. On the facts found by the Arbitrator, the tender information can neither have been “necessary” when requested by Leighton nor out of “due time” when provided by Stelux.”*

**Hon. Reyes J**

# Leighton Contractors (Asia) Ltd v Stelux Holdings Ltd

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*“In the actual circumstances of the case, looking prospectively from the time of Stelux’ initial failure to provide information, Stelux’s failure could not have be causative of delay. The late information could not cause actual delay, having regard to the state of the works at the time when the information ought to have been furnished originally”*

**Hon. Reyes J**

# Leighton Contractors (Asia) Ltd v Stelux Holdings Ltd

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*“The Arbitrator found against Leighton on actual delay. She further held that, given Leighton’s pleaded case and the facts as found by her, she did not have to concern herself with “likely delay” under cl.23. In those circumstances, it is not surprising that the Arbitrator found time slice methodology of little help. Stressing prospective delay regardless of actual delay, time slice methodology would have been of limited relevance.....”*

**Hon. Reyes J**

# Leighton Contractors (Asia) Ltd v Stelux Holdings Ltd

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*“The analysis pressed by Mr. Menyhart (Leighton’s expert) focused on the prospect of delay resulting from an event at a given time, regardless of whether in retrospect the event had actually caused delay. The Arbitrator rejected Mr. Menyhart’s analysis entirely. In contrast, the Arbitrator found the evidence of Mr. Foan (Stelux’s expert) more helpful. He also used “time slice” methodology. But his approach was different in focus. The Arbitrator observed that Mr. Foan “does not consider off-site delays until they affect “on-site” activities and then only to the extent that they do....”*

**Hon. Reyes J**

# Water Lilly v Giles Patrick

## Mackay [2012] EWHC 1773

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- The debate on prospective or retrospective delay analysis is sterile because both approaches should produce same result if done properly
- Court or arbitrator has advantage of reviewing EOT retrospectively knowing what actually happened and cannot ignore it because it is actual despite whatever the expert may say.
- Court or arbitrator must make decision based on evidence both from the expert and actual.

# Water Lilly v Giles Patrick Mackay [2012] EWHC 1773

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- Snagging is an inevitable feature of complex projects and time taken for snagging is not delay caused by the contractor unless it is excessive

# Expert Analysis

## Daubert Test

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Daubert v Merrell Dow Pharmaceuticals Inc,  
509 US 579 [1983]

- Can be tested against facts objectively
- Not purely subjective conclusions
- Analysis method: subject to peer review & publication
- Known potential rate of error in method
- Existence of standards & controls
- Generally accepted in scientific community

“International Recommended Practice no.29 R-03, Forensic Schedule Analysis, TCM Framework [2007]”

- It is not an exact science
- Accuracy = quality of data + accuracy of assumptions + accuracy of subjective judgments
- Schedules : tool but not necessarily accurate on causation or responsibility

# Arbitrator

## Cannot Ignore Actual

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- Harrison Western Corp & Franki-Denys Inc (JV)  
ENGBCAA No.5556
  - Contractual required method : prospective snapshot was not accepted
  - Actual mitigated effects/other later delays were considered
- Clark Construction Group Inc, GAOCAB  
No.2003-1
  - US Board of Contract Appeals performed their own windows analysis

# Concurrent Delays

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*“Can’t separate the wheat from the chaff”*

- True Concurrent Delay
  - Contractor culpable and Employer culpable events commence at the same time to the same critical item of work and has the same delaying effect
- Concurrent Delaying Effect
  - Distinct Delays to distinct items of works which can be sequential but both result in the same critical overall delayed period

# Concurrent Delays

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- Sequential Delays but resulting in some shared delay period
  - Prospective Time Slice Delay Assessment, chances of concurrent delays slim in terms of dominance
  - But at the time of the shared delay period, both equally material
  - If not concurrent then one party can benefit even when at culpable fault (LAD or Loss & Expense)

# Concurrent Delays

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- “But For” test does not apply
  - SMK Cabinet Hili Modern Electrico Pty Ltd [1984] VR 391
- “Dominant” test does not apply
  - H. Fairweather & Co Ltd v London Borough on Wandsworth 36 BLR 106
- “Equal Causative Potency” test applies
  - Steria Ltd v Sigma Wireless Communications Ltd [2008] BLR 79
- Question of Fact – What is Fair & Reasonable

# Water Lilly v Giles Patrick Mackay [2012] EWHC 1773

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- Where there is concurrent delay, City Inn Ltd v Shepard Construction Ltd [2010] BLR 473 suggestion that there should be an “apportionment” where possible is inapplicable
- The EOT clauses envisage where there is a Relevant Event and it causes a delay to the completion date, full EOT will be granted. It does not envisage apportionment.

# Water Lilly v Giles Patrick Mackay [2012] EWHC 1773

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- Claims Consultants documents are not legal advise privilege even if the claims consultants use legally qualified personnel.
- Preferably appointed under services rendered by a lawyer – then legal privilege attaches.

# SCL Protocol

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- Agree on Analysis Method
- Agree on Expert to perform analysis
- Immediate reference to dispute resolution when EOT not agreed
- Non-Critical Floats to belong to Project
- Contract to stipulate ownership of float
- Sequential delay events with a concurrent effect period should be treated as concurrent delay = x dominant delay