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## An Examination of Time Related Issues under the Principle 'Traditional' Irish Forms of Contract

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# AN EXAMINATION OF TIME RELATED ISSUES UNDER THE PRINCIPLE 'TRADITIONAL' IRISH FORMS OF CONTRACT

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*'Time is money'*. – Benjamin Franklin

## Introduction

*'The client expects that effective project management will enable the project's completion, by the time when it is wanted, of a standard and quality that is required and a price that is competitive'* (Chartered Institute of Building, 2002). This quotation taken from the preface to the *Code of Practice for Project Management* identifies timely completion as one of the three principle criteria by which the success of a project is commonly assessed.

Once a decision to build has been reached the client will be anxious to have the building completed as quickly as possible. For many clients early completion may be their overriding priority, for example where the staging of a major sporting event is scheduled, or where a client is attempting to establish a market presence ahead of competitors, or where the client seeks early completion in order to avail of tax incentives. Speedy completion is also crucial in emergency situations such as fire or flood damage, or where stabilisation works are required to support dangerous structures.

Early completion is normally sought on commercial developments. The pressure to achieve early completion intensifies when financing and interest costs associated with acquiring the site begin to mount. Clients will seek the early appointment of a contractor in these situations to progress a fast start-up on site and may favour 'fast track' procurement approaches where the design is developed in parallel with site construction operations. Such approaches, however, are prone to the risk allowing insufficient time to identify or consider more beneficial design options. Occasionally, rushed decisions may lead to abortive working causing a further loss of time. Speedy construction on site often requires accelerated working and/or shift or overtime payments, more intense management presence, and the use of dependable subcontractors and suppliers, all of which add to the cost of the project. In addition, fast-track approaches often rule-out high degrees of cost

certainty, and in many of these cases clients only become reasonably certain of the out-turn cost late in the project.

Clients who prioritise low cost over speed, or who seek high degrees of cost certainty are often subject to longer design periods, where the designs must be substantially completed before tenders can be obtained. Careful thought is required to develop, refine and finalise the scheme designs; this takes time.

Time, therefore, is an extremely important issue in construction. Hughes, Champion and Murdoch (2015) comment that *‘prolonged project durations can be costly and frustrating for clients. Timely completion is of great interest to contractors. If they finish late they will incur extra cost and may suffer liability for delay damages unless the time for completion is extended by excusable events’*.

If the contracting parties do not specify a period for completing the contract, *‘a reasonable time for completion will normally be implied’* (Furst and Ramsey, 2006). Standard forms of contract, however, typically contain comprehensive provisions regarding completion of the contract and other time-related issues. In Ireland, the key provisions relating to time under the Public Works Contract Forms (PW-CF1 v.2.2 January 2017) are primarily set out in Section 9 (*‘Time and Completion’*) with further requirements included in Section 10 (*‘Claims and Adjustments’*) of the Contract. The corresponding provisions in the RIAI Standard Form of Contract (2017), for use on private sector contracts, are set out between clauses 28 and 31. (*‘Dates for Possession and Completion’*, *‘Damages for Non-Completion’*, *‘Delay and Extension of Time’*, and *‘Practical Completion and Defects Liability’*). This study primarily focusses on the time-related issues associated with construction projects. While it is acknowledged that delays can cost clients and contractors substantial sums of money, the question of damages resulting from overdue completion, are outlined, but are not examined in-depth. Readers interested in topic of contractor’s delay, disruption and prolongation claims may wish to refer to a separate study *Contractors’ Claims for Loss and Expense under the Principle ‘Traditional’ Forms of Irish Building Contract* which is available on-line at <https://arrow.dit.ie/beschreoth/31/>

Hughes et al. (2015) identify commencement, progress and completion as key issues associated with the achievement of the timely completion of the contract. These issues are examined in turn.

## **Commencement Issues**

Hughes et al. (2015) comment that the issues at the beginning of the contract involve giving possession of the site to the contractor, the timing of this possession and potential delays to the possession. They caution clients against rushing ‘*too speedy a start [which] may cause extra work and delay, rather than hastening the construction period.*’ They advise that the client’s desire to avoid undue delay needs to be balanced with the likelihood of extra costs resulting from a rushed approach.

### ***Possession of the Site and Commencement of the Works***

Occasionally, the date for granting the contractor possession of the site may be stated in the tender documents. More often however, the tender documentation states that the date for possession is ‘to be agreed’. In this event the start date is fixed by the parties during the negotiations leading up to the formation of the contract.

Section 9 of the public works PW-CF1 Contract requires the Contractor to set a ‘Starting Date’ within 20 (calendar) days of the issue by the Employer of the Letter of Acceptance, (‘the Contract Date’). The Employer’s Representative, must be given a minimum of 15 days prior notice of the Contractor’s proposed Starting Date. This notice period may, however, be reduced by agreement.

PW-CF1 also requires the Contractor to furnish the Employer with the following documents in advance of starting the works:

- the executed Agreement;
- the Bond (if required);
- the Parent Company Guarantee (If required);
- details of the appointment of the Project Supervisor for the Construction Stage;
- the Health and Safety Plan;
- evidence that the Contractor has the necessary insurance in place, and,
- the necessary collateral warranties.

The RIAI Contract is silent on these ‘housekeeping’ matters although effective contract administration suggests that these formalities should also be completed on private sector

projects before commencement on site. In this regard Keane (2001) adds that *‘it is obviously in the interests of all parties to ensure that the site is available (or as much of it as is necessary to allow a start to be made) before the contract is signed and a possession date agreed.’*

Cartlidge (2017) stresses the importance of providing the contractor with prompt access to the site because *‘all other time related events such as interim payments, completion and damages for non-completion, are related to this point.’* In this regard, the Construction Contracts Act (2013), as a general rule, entitles contractors to submit payment claim notices within 30 days of commencing work.

The opening sentence of Clause 28 of the RIAI Contract, *Dates for Possession and Completion*, reads: *‘Possession of the site (or Phased Possession) shall be given to the Contractor on or before the “Date for Possession” (or Dates for Phased Possession) stated in the Appendix.’* This wording opens the opportunity of allowing the Contractor to set up the site in advance of the commencement date and ‘hit the ground running’ so to speak.

#### ***Deferred Possession or Postponement of the Works***

Clause 2 (e) of the RIAI contract authorises the Architect to issue instructions which may postpone *‘any of the work to be executed under the provisions of this Contract’*. Keane (2001) commenting on Clause 28 of the Contract states that if any delay occurs in handing over possession of the site to the Contractor, then the Contractor may become entitled to an extension of time and to compensation for loss and expense arising from the *‘dislocation of the Contractor’s organisation’*. He adds that in assessing the knock-on effects of the postponement, that the Architect should take into account such factors as the time of the year, the curtailment of the Contractor’s ability to obtain other work, the implications for the utilisation of resources and the impact on the Contractor’s budget. *‘The Architect must judge each case on the facts.’*

The Employer’s Representative has similar powers under Section 9.2 of the PW-CF1 contract to ‘suspend’ the Works. Work suspension by the Employer is one of the ‘Delay Events’ and ‘Compensation Events’ set out in Schedule Part 1K (item 3) to the Contract which entitle the Contractor to expend the ‘Programme Contingency’ (see below) or seek an extension of time where the Programme Contingency has been exhausted.

## **Progress of the Works.**

One of the contractor's primary obligations is to complete the works on time. The 'Date for Completion' will be stated in the Appendix to the RIAI Contract, or in the PW-CF1 Contract Schedules. Keane (2001) comments that the Date for Completion will be agreed between the parties, or will be fixed by the tender documents, or will be proposed by the Contractor. Frequently the completion date is set by reference to the commencement date, for example it might be 100 weeks after the commencement date.

One of the difficulties facing contractors stems from unrealistic programme time-frames. Design teams may be prone to optimistic views of project durations and/or be pressurised by clients for completion at the earliest opportunity. Nevertheless, design teams do not have *carte-blanche* in deciding project durations. It is the duty of the Project Supervisor for the Design Process (PSDP) - often the architect - to '*identify hazards arising from the design or from the technical, organisational, planning or time related aspects of the project*' (Health and Safety Authority, n.d.). In carrying out this role, Regulation 11 of the Construction Regulations (2013) requires the PSDP to:

- (a) take account of the general principles of prevention ... in particular –
  - when estimating the time required for completion of a project and, where appropriate, for stages of a project, (Department of Jobs, Enterprise and Innovation, 2013)

The general principles of prevention, noted above, seek to minimise as far as is 'practicable' safety hazards associated with construction. The duty requires *inter alia* that project durations do not represent hazards to site operatives; - they must not be unrealistically short.

The Health and Safety Authority (2015) has this to say on the matter.

When the PSDP is estimating time schedules for the project or phases of the project, consideration must be given to how the timing of the progression of the construction work is calculated so as to ensure worker safety and health is taken into account. The PSDP should consult with the Client and Designers when establishing the timeframe. Both are obliged to co-operate with the PSDP and not to seek that work be completed within unreasonable time frames.

Contractors are required to maintain a satisfactory rate of progress in carrying out the works. Clause 28 of the RIAI Contract requires the contractor to '*regularly proceed with*

*and complete [the Works] on or before the “Date for Completion.”* The corresponding text of PW-CF1 reads *‘proceed regularly and diligently in order to achieve Substantial Completion ... by its Date for Substantial Completion.’* Hughes et al. (2015) commenting on the legal interpretation of similar forms of words suggest that the contractor’s obligation is to *‘proceed continuously, industriously and efficiently with appropriate physical resources so as to progress the works steadily towards completion substantially in accordance with the contractual requirements as to time sequence and quality of the work.’*

Failure to conform to these performance requirements is a serious matter. Clause 33 of the RIAI Contract, *Determination of Contract by Employer*, authorises frustrated employers to threaten to terminate languishing contractors’ employment subject to the issue of a ten working days’ warning notice. If corrective action is not taken by the end of that period to rectify the inadequate performance, the Employer may determine the Contractor’s employment. Section 12.1 of PW-CF1 contains the same sanctions where *‘the Contractor fails to proceed regularly and diligently with the execution of the Works.’* The corresponding warning notice period in PW-CF1 is fourteen calendar days.

The means by which ‘regular’ progress of the works can be assessed is by comparing the contractor’s actual progress against an accepted programme. Contractor’s programmes, however, vary widely in terms of detail, ranging from rudimentary to forensic. Programmes, nevertheless, enable contract administrators to monitor progress and highlight when variances from the planned programme emerge, prompting the need for corrective action to be taken.

Despite the RIAI Contract being silent on the matter of providing a programme, it is normal for the tender documents (such as the Preliminaries section of the Bills of Quantities) to require the contractor to provide one.

Section 4.9 of The PW-CF1 form, on the other hand, requires the Contractor to submit a *‘detailed programme’* ... [that] *‘shall be of a quality that will permit effective monitoring of the Works.’* The level of information to be provided in PW-CF1 programmes is tightly specified. The programme must identify matters such as: dates by which instructions and Employer-supplied items are required, the detailed timing and sequence of construction operations. In particular, there is a requirement to identify critical path activities, float and any flexibility within the programme. Programmes are also required to be updated to show

actual and projected progress. They are also required to identify the workforce and resource estimates required on site. The Employer's Representative may direct that the programme be revised within a fifteen day period and this requirement is enforced through the power to deduct 15% from the contractor's interim payments. The programme may, on individual projects be made a contract document.

Regardless of these requirements, Hughes et al. (2015) explain that contractors typically have '*absolute discretion*' to plan and programme the works as they see fit. They add that regardless of whether a programme is required; that a contractor is not obliged to conform to it, unless it has been made a contract document. They note that this arrangement would be unusual. Knowles (2000) adds that the '*programme is usually intended to be a flexible document. If the contractor gets behind, say due to the insolvency of a subcontractor, he would normally expect to revise the programme in an attempt to make up lost time*'. Knowles considers that this flexibility justifies the reason that '*programmes should not be contract documents.*'

Contractors commonly produce programmes showing early completion of the works. Hughes et al. (2015) add that in these circumstances the contract administrator is under **no** obligation to supply supplementary information to enable the contractor to achieve early completion. While early completion would be welcomed by most clients, the Department of Education and Skills (2012), however, advises Employer's Representatives not to permit contract periods to be reduced if the Contractor proposes a reduced time for completion.

Prudent contractors typically include 'float' periods within their programmes to cover risks which might delay progress or completion on the project. Lester (2006) explains that float is the term '*given to the spare time of an activity*'. Knowles (2000) adds that float provides contractors with flexibility as to the time they may either start or finish various activities. Float can be extremely useful in absorbing delays without affecting the completion date. Knowles however points out that contractors and/or subcontractors are '*given first call on the float time. Should there be any float time left then it may be used by the Architect or Engineer.*' The basic position, therefore, is that float belongs to the contractor rather than to the contract administrator.



## **Completion**

Hughes et al. (2015) explain that most building contracts require the works to be brought to a state of practical completion (RIAI) or substantial completion (PW-CF1) by the date for completion stated in the contract. They note that these terms indicate that the building can be taken over '*in a less than perfect state*' and that this arrangement is beneficial to both parties, commenting that '*delaying the handover of something as complex as a large building for a trivial breach would cause enormous inconvenience.*' On Irish projects Practical / Substantial Completion is documented by the issue of a Certificate of Practical Completion / Certificate of Substantial Completion.

Clause 31 of the RIAI Contract states that:

Practical Completion' means that the Works have been carried out to such a stage that they can be taken over and used by the Employer for their intended purpose and that any items of work or supply then outstanding or any defects then patent are of a trivial nature only and are such that their completion or rectification does not interfere with or interrupt such use.

The corresponding definition of Substantial Completion of the Works is set out in Section 1, '*Definitions*', of the PW-CF1 Contract. The Contractor is required to (i) complete the Works '*so that they can be taken over and used by the Employer for their intended purpose*' and that any defects are acceptable to the Employer or are minor in nature and do not prevent the Works from being used for their intended purpose, (ii) all required tests have been passed successfully, (iii) and (iv) the required documentation and collateral warranties have been delivered to the Employer's Representative, and (v) the Certificate(s) of Compliance with the Building Control Regulations has/have been registered.

### ***Delay in Completion***

Delayed completion is a common problem on construction projects. In 2007 on the initial introduction of the Public Works Contracts, the Department of Finance referred to the findings of the 1998 UK Department of Trade and Industry Report '*Rethinking Construction*' (The Egan Report) which claimed that '*40% [of construction projects] are late.*' While the Department of Finance admitted that '*There are probably no similar statistics for Irish project outcomes,*' the implication of the comment was, nevertheless,

clear - that delivery of Irish construction projects are frequently overdue. Subsequently, the *Report on the Review of the Performance of the Public Works Contract* (GCCC, 2014) revealed that, on average, building contracts experienced schedule overruns of 16.97%.

Delays, however, may arise from many causes. Hackett and Statham (2016) comment that all delays fall into one of three categories:

- those caused by the contractor;
- those caused by events beyond the control of the parties, which they describe as ‘shared risk events’ or ‘neutral events’, and,
- those caused by the employer or his/her representatives.

Standard forms of contract typically contain measures which relieve contractors of the liability for certain delaying events which are either beyond the contractor’s control or are caused by the employer. These delay events are now examined.

#### ***Delays by Contractors***

Hackett and Statham (2016) explain that most delays caused by the contractor arise due to failures to devote adequate labour resources to the project, by failure to procure the necessary materials on time, and/or failure to effectively control the operations of subcontractors. They note that such delays do not entitle contractors to extensions of time.

The general position is that if a contractor fails to achieve practical completion on-time, that this failure constitutes a breach of contract and renders the contractor liable for the financial damages suffered by the employer (see the section *Remedies for Delayed Completion*, below).

#### ***Delays Caused by Events beyond the Control of the Parties.***

Certain risks which may delay completion of building projects are borne by both employers and contractors. Such risks are commonly called ‘neutral’ or ‘shared risk’ events. ‘Neutral’ delay events entitle the contractor to an extension of time but **not** to any additional costs arising from the regular progress being disrupted or to additional costs associated with maintaining a prolonged presence on site. Likewise, in the absence of acceleration measures, the employer will not gain possession of the building at the time originally scheduled. It is said that where these risks eventuate, ‘the loss lies where it falls’.

The RIAI Contract includes five events which may be described as ‘shared risks’, these are: (i) force majeure; (ii) exceptionally inclement weather; (iii) loss or damage to the Works covered by the insurance provisions of the Contract; (iv) civil commotion, local combination of workmen, strike or lockout affecting any of the trades employed upon the Work, and (v) inability of the Contractor to secure essential labour and material resources.

There are four corresponding ‘delay-only’ events included in the PW-CF1 Contract, these are: (i) loss of or damage to the works insured by the contractor; (ii) a weather event; (iii) a strike or lockout affecting the construction industry generally, and, (iv) delay caused by a court order or public authority exercising legal authority for which the contractor is not responsible.

There are also four additional ‘Delay Events’ in PW-CF1 which the employer may elect to treat as a shared risk. These are the so-called ‘optional’ compensation events which caused much controversy when the Public Works Contracts were introduced in 2007. They are: (i) unforeseeable discovery of archaeological or geological items of interest or human remains; (ii) unforeseeable ground conditions; (iii) unforeseeable buried utilities; and, (iv) unforeseeable delay by utility companies in relocating or disconnecting services.

The default arrangement in the current Schedule<sup>1</sup> to the Contract is that these ‘optional’ risks are **not** Compensation Events. If any of these events occur, the Contractor will only be entitled to seek an extension(s) of time. Such extension(s) extend the date for completion and are not subject to the Programme Contingency discussed below.

### ***Delays for which the Employer is Responsible.***

Contractors can, of course, be impeded from completing on time by the actions or inaction of an employer or its agents / representatives. Many of these actions will entitle the contractor not only to extensions of time, but also to reimbursement for loss and/or expense arising from the consequent delay or disruption caused to the construction operations.

## **Grounds for the Adjustment of Time**

Most ‘standard form’ construction contracts include a mechanism for dealing in a

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<sup>1</sup> FTS1 V2.2 09-01-2017 *Tender and Schedule for the Public Works Contract for Building Works Designed by the Employer*

convenient way with unforeseen events which are beyond the control of the contractor and which might delay progress. Contracts, therefore usually include extension of time provisions. In the RIAI Contract these are set out in Clause 30. The corresponding PW-CF1 provisions are regulated by Section 9, with the applicable ‘Delay Events’ being identified in the associated Form of Tender Schedule Part 1K.

At this point it is important to dispel ‘*a common misconception that extensions of time give an automatic right for a claim for loss and expense by the contractor – this is not the case.*’ (Cartlidge, 2017)

The Society of Construction Law’s (2017) *Society of Construction Law Delay and Disruption Protocol*, (referred to below as the SCL Protocol) explains the purpose of extensions of time (EOT) in the following passage.

The benefit to the Contractor of an EOT is to relieve the Contractor of liability for damages for delay (usually liquidated damages or LDs) for any period prior to the extended contract completion date and allows for reprogramming of the works to completion. The benefit of an EOT for the Employer is that it establishes a new contract completion date, prevents time for completion of the works becoming ‘at large’ and allows for coordination / planning of its own activities.

Eggleston (2009) explaining the term ‘at large’ states ‘*that time becomes at large when the obligation to complete within the specified time for completion of a contract is lost. The obligation then becomes to complete within a reasonable time*’. He adds that in most cases<sup>2</sup> time becomes at large ‘*where an act of prevention by the Employer creates a delay and that delay is not covered by an extension of time clause*’; He comments that in such cases ‘*the Employer’s right to deduct liquidated damages is lost but his right to sue for general or unliquidated damages remains intact*’, in these instances the contractor’s entitlement to reasonable time will be recognised in deciding a revised completion date.

Keane (2001) regards Clause 30 of the RIAI Contract as ‘*one of the most significant and perhaps contentious clauses in the contract.*’ He explains that Clause 30, controls the fixing of an extension of the contract period. He argues that while many view this clause as primarily of benefit to the Contractor that ‘*it is also of substantial benefit to the Employer*

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<sup>2</sup> and to a lesser extent (i) where there is no stated time or date for completion (ii) where there is lack of clarity in the provisions for extending time (iii) where the provisions for an extension of time have not been properly administered or have been misapplied; or have not been utilised; (iv) where there has been a waiver of the original time requirements and/or (v) where there has been interference by the Employer in the certification process.

*since in the absence of a specific clause, the liquidated damages [see below] provisions might cease to have effect where the delays or any part of it might be due to some act by the Employer or by his agents'. He concludes, therefore, that 'the clause is to the benefit of the contract itself.'*

Hughes et al. (2015) comment that the time for completion can only be adjusted where the contract permits, adding that if a delay is caused by some event which is not covered by the contract, then the contractor cannot claim more time, nor can the employer insist on giving any more time.

Extensions of time therefore benefit contractors by relieving them of the liability to pay damages for delayed completion due to the occurrence of one or more of the particular risks listed in the contract. Clients also benefit by retaining their right to damages even though the contract period may sometimes be extended because their own failures (acts of prevention) have delayed the contractor.

The matters that entitle contractors to extensions of time have been noted above and are set out in the following Table 1. The Table arranges the various delay events in the RIAI and PW-CF1 Contracts into neutral, optional compensation, and compensation events. These are mapped against each other. Neutral events are not shaded, optional compensation events in the PW-CF1 are lightly shaded, compensation events are more heavily shaded.

It should be noted that item 17 of the Schedule to PW-CF1 relating to incorrect quantities is a 'Compensation Event' only. This event does not entitle contractors to extensions of time.

RIAI Clause 30	PW CF 1 Schedule Part 1 K
(a) Force majeure.	Not applicable
(c) Exceptionally inclement weather	(13) A weather event
(d) Rectifying insured damage	(11) Rectifying insured damage.
(e) Strike etc.	(14) Strike etc.
(h) Inability to secure resources.	Not applicable
	(15) Court order etc.
	(18) Unforeseeable archaeology.
	(19) Unforeseeable ground conditions.
	(20) Unforeseeable buried utilities.
	(21) Delays by utility providers.
(b) Delayed possession.	(8) Delayed possession.
(f) Architect's Instructions.	(1) Change orders.
	(2) Opening up of Works
	(3) Employer suspends the work
	(5) Incorrect setting out information
	(6) Early partial possession.
	(11) Rectifying damage (excluded risk)
(g) Late instructions & information.	(7) Late instructions
(i) Independent contractor delay.	(10) Independent contractor delay.
(j) Employer's breach of contract.	(16) Employer's breach of contract
	(4) Contractor suspends the work
	(9) Delay in providing a Work Item.

**TABLE 1 Delay Events Under Irish Forms Of Contract.**

The various delay events are now examined in more detail.

### *Delay Only Events*

As noted above, delays caused by 'neutral' events relieve the Contractor of the liability to pay damages for late completion. In addition they entitle the contractor to an extension of time but **not** to additional costs arising from the regular progress being disrupted or to additional costs associated with maintaining a prolonged presence on site. The various

delay-only events are as follows.

#### *Force Majeure*

Force majeure is a delay event in the RIAI Contract, but **not** in the PW-CF1 Contract. Hackett and Statham (2016) note that the term is derived from French law and its literal translation is ‘*superior force*’. They explain that in its broadest sense, force majeure would include so-called ‘Acts of God’, war, strikes, weather conditions, epidemics, direct legislative or administrative interference etc. They add that several of these matters would, in any case, be expressly provided for elsewhere in the contract, and that force majeure is included as a ‘catch-all’ heading to cover events not specifically mentioned elsewhere.

Keane (2001) describes force majeure ‘*as something which is outside the control of the parties to the contract and implying the use of force of such strength that the works could be delayed or even stopped.*’ He adds that Government actions such as a curfew, a general strike, or even a prolonged electricity strike might rank as force majeure.

#### *Exceptionally Inclement Weather*

Keane (2001) explains that the Contractor is assumed to have made allowances for both the time of year, and the location of the site when planning the works. He regards two factors as being relevant here. Firstly, the weather must be ‘exceptional’ for the time of year, based on meteorological records for the area. Secondly, the stage which the works might have reached when the ‘exceptional’ weather occurred might be such that no adverse effect would be had on the Contractor’s programme. He adds that if sufficient work were available internally, then an extension of time might not be justified.

The corresponding provision in the PW-CF1 Contract is referred to as a ‘**weather event**’. ‘*A weather event is when in a month between the Starting Date and the Date for Substantial Completion of the Work a weather measurement exceeds the number of days for the same item, the same weather station and the corresponding month in WE 1.0.*’ (Office of Government Procurement, 2017b). In this regard, a ‘weather measurement’ refers to historic weather data published by Met Éireann regarding heavy rainfall, freezing temperatures and strong winds. WE 1.0 refers to the Capital Works Management Framework Guidance Note on Weather Event(s), the Guidance states that:

for extra time to be considered the 90th percentile for a particular event for a month will need to exceed the weather measurement for a month in

the contract.

It continues:

The definition of the 90th Percentile is: The 90th Percentile is the lowest value which has 90% of the sample less than or equal to it. In other words, this may be understood as expressing the notion that a given value was unusual in a 1-in-10 sense, based on actual historical weather conditions. (Department of Finance, 2009).

The glossary to ‘weather events’ in the Schedule Part 1K reads:

If a weather event occurs in a month and there is to be an extension to a Date for Substantial Completion ... the amount of the extension is the lesser of (a) the extension to be made ... and (b) the difference between the weather measurement and number of days for the corresponding item in WE 1.0. No day is counted for more than one weather measurement. (Office of Government Procurement, 2017b)

#### *Remedial Work Covered by Insurance Policies*

Where delay results from an incident covered by works insurance policies, the contractor may become entitled to an extension of time.

RIAI Clause 30 (d) reads: ‘*Loss or damage to the Works or Ancillary Items which is covered by Clauses 21(A) to 26 inclusive of these Conditions.*’ Keane (2001) comments that it would be unusual for an architect to grant an extension of time under the insurance provisions, except for the reinstatement and making good of damage to the Works or Ancillary Items. This would then be deemed to be a variation ordered as an Architect’s Instruction in accordance with Clause 2 of the Contract. It should be noted that the Architect shall consider the conduct of the Contractor if an extension of time is being sought under this heading.

The corresponding PW-CF1 Schedule Part 1K Item 12 reads: ‘*Loss and damage to the Works that is at the Contractor’s risk in accordance with sub-clause 3.2.*’ (Care of the Works).

#### *Strike etc.*

Clause 30 d of the RIAI Contract reads: ‘*by reason of civil commotion, local combination of workmen, strike or lockout affecting any of the trades employed upon the Works.*’ Keane (2001) suggests that this wording includes not only strikes by site operatives but also by



those employed indirectly, such as ‘*employees of transport companies, manufacturers, suppliers, etc.*’ and that unofficial strikes would be covered by the wording. He adds that strikes affecting artists and tradesmen employed directly by the Employer under the current Clause 20 of the Contract, would possibly entitle the Contractor to compensation as well as to an extension of time. Hughes et al. (2015) writing on this issue comment: ‘*Although a ‘go-slow’ or a ‘work-to-rule’ does not constitute a strike, it would presumably be covered by the phrase ‘local combination of workmen’.*’

The corresponding PW-CF1 Schedule Part 1K Item 14, is more restrictive by excluding site-based only strikes. It reads: ‘*a strike or lockout affecting the construction industry generally or a significant part of it, and not confined to the employees of the Contractor or any Contractor’s Personnel*’. Note that this wording does not cover civil commotion and local combination of workmen.

#### *Inability to Secure Resources*

Clause 30 (h) of the RIAI Contract reads: ‘*because the Contractor or any Nominated Sub-Contractor or Nominated Supplier has been unable for reasons beyond the control of the Contractor (or of the Sub-Contractor or Supplier as the case may be) to secure such labour and materials as may be essential to the proper execution of the Works.*’ Keane (2001) comments that architects must assess whether obtaining the necessary materials and/or labour is in fact beyond the control of the contractor and the nominated supply chain. ‘*The Contractor must establish that this was so, and that this problem was unforeseeable at the time of tender.*’ It should also be noted that the particular labour and materials resources must be essential for the works. It also appears that labour and material shortages or (significant) price rises do not normally qualify under this clause. This provision is **not** incorporated in the PW-CF1.

#### *Court Orders etc.*

PW-CF1 Schedule Part 1K Item 15 reads:

Delay to the Works caused by the order or other act of a court or other public authority exercising authority under Law, that did not arise as a result of or in connection with an act, omission or breach of Legal Requirements of the Contractor or the Contractor’s Personnel or a breach of the Contract by the Contractor.

Howley and Lang (2008) comment that these are beyond the power of either party and

therefore are delay only.

### ***Delay and ‘Optional’ Compensation Events’***

As noted above, the Schedule Part 1 K contains four ‘Delay Events’ which the employer may also elect to treat as ‘Compensation Events’, - the so-called ‘optional’ compensation events. The default arrangement is that they entitle the Contractor to an extension(s) of time but *not* to compensation. In this regard, The *Training Manual TM-CC* (NPPPU, 2008) advises Contracting Authorities to adopt a practical approach regarding these risks and, if possible, to deal with them in a separate enabling works contract. The Manual also advises Contracting Authorities that they should allocate these risks to the Contractor when, having completed a thorough assessment, ‘*the Contracting Authority either decides that there is no risk, or that the risk can be easily assessed and priced by tenderers.*’

#### *Unforeseeable Archaeology and the like.*

Item 18 of Schedule Part 1K reads: ‘*An item of archaeological interest or human remains is found on the Site, and it was unforeseeable.*’ Howley and Lang (2008) stress that the discovery of archaeological items must be unforeseeable, adding that if there is evidence of the existence of such items in the Employer’s reports/surveys, that they are then foreseeable. They add that archaeological items are likely to exist in heritage towns, areas of historic interest and the like. Section 13.1 of the Training Manual (NPPPU, 2008) states ‘*The Employer should possibly furnish ... archaeological surveys*’ as part of the Employer’s Works Requirements.

On private sector projects, (RIAI Contracts) the discovery of archaeological objects, fossils and human remains would become the subject of an Architect’s Instruction. As such, this would entitle the Contractor to seek an extension of time and to be reimbursed for losses arising out of the delay due to the discovery.

#### *Unforeseeable Ground Conditions.*

Again, the key word here is ‘unforeseeable’. The wording of Risk Item 19 of the Schedule reads: ‘*The Contractor encounters on the Site unforeseeable ground conditions (not resulting from weather) or unforeseeable human-made obstructions in the ground, other than Utilities.*’ The Training Manual (NPPPU, 2008) advises that ‘*Where excavations are required, the project should be subjected to a carefully designed, executed and accurately*

*documented site investigations under a separate enabling work contract.*’ It should be noted that the under the current PW-CF1 arrangements, inaccurate measurement of groundworks in the pricing document is dealt with in accordance with Risk Item 17, in effect becoming a ‘Compensation Event’. Nevertheless it remains as a ‘Delay Event’ within this Risk Item 19.

#### *Unforeseeable Buried Utilities*

Risk Item 20 reads: ‘*The Contractor encounters unforeseeable Utilities in the ground on the Site*’. The Training Manual (NPPPU, 2008) advises Contracting Authorities that:

Surveys which will be carried out during the preconstruction should identify the location and nature of any utilities traversing the site. In carrying out these surveys particular care should be exercised on existing non Greenfield sites or on public roads to locate such utilities with a degree of certainty.

#### *Delay in Relocating or Disconnecting Utilities.*

Risk Item 20 reads: ‘*Owners of Utilities on the Site do not relocate or disconnect Utilities as stated in the Works Requirements, when the Contractor has complied with their procedures and the procedures in the Contract and the failure is unforeseeable.*’ The Training Manual (NPPPU, 2008) advises that:

Contracting Authorities should adopt a practical approach to the issue of utilities. In some cases, a separate enabling works contract to relocate utilities in advance of the main contract may be advisable.

#### ***Delays Caused by the Employer or his/her Representative(s)***

##### *Delayed possession*

RIAI Clause 30 (b) reads: ‘*because possession of the site was not given in to the Contractor in accordance with the terms of Clause 28.*’ The corresponding provision in PW-CF1 is Schedule Part 1-K Item 8 which reads ‘*The Employer does not allow the Contractor to occupy and use a part of the site in accordance with sub-clause 7.1.*’ (Lands made available for the Works). This matter has been discussed above in the section relating to *Deferred Possession or Postponement of the Works*.

##### *Instructions*

Under most standard forms of building contract, a contract administrator is authorised to issue instructions regarding the various matters relating to the conduct of the contract. In

general, instructions issued for the benefit of a client which do not arise as a result of a default by a contractor, may entitle a contractor to an extension of time.

Clause 30 (f) of the RIAI Contract reads ‘*by reason of Architect’s Instructions given in pursuance of Clause 2 of these Conditions.*’ Keane (2001) points out that six of the nine matters listed in Clause 2 might entitle the Contractor to claim for an extension of time. These matters are: (a) variations, (b) correcting discrepancies between documents, (c) removal of materials, (d) unnecessary opening up for inspection (f) postponement, and (i) any other matters appertaining to the proper execution of the contract.

The Schedule Part 1K to PW-CF1 is more specific in identifying the following risk items as both ‘Delay and Compensation Events’. These correspond to matters which would be constitute Architects’ Instructions issued under the RIAI Contract.

- 1 The Employer’s Representative gives the Contractor a Change Order.
2. The Employer’s Representative directs the Contractor to search for Defects or their cause and no Defect is found, and the search was not required because of a failure of the Contractor to comply with the Contract.
3. The Employer’s Representative directs the Contractor to suspend work under sub-clause 9.2.
5. There is a factual error in information about the Site or setting out information in the Works Requirements. [This does not include an error of interpretation].
6. The Employer takes over part of the Works before Substantial Completion of the Works and any relevant Section.
- 11, The Employer instructs the Contractor under clause 3.2.3 to rectify loss or damage to Risk Items for which the Contractor is not responsible.

Howley and Lang (2008) point out that restrictions may be placed on the Employer’s Representative’s authority to issue change orders. They advise that in the event that the Employer’s Representative exceeds his/her powers that the Contractor should query the instruction. They suggest, nevertheless, that the Employer would be bound by any such instruction(s). They also note in regard to Risk Item 6 that the Contractor has to consent to the partial possession or sectional completion of the Works being taken over where this is not originally provided for in the Contract.

#### *Late Instructions*

The RIAI and, in particular, the PW-CF1 Contracts assume that the design has been comprehensively developed before commencement of the work on site. Nevertheless, gaps

in the information are practically inevitable and queries seeking further information and instructions inevitably arise as the works progress.

RIAI Clause 30 (g) reads: *'because the Contractor has not received in due time necessary instructions from the Architect for which the Contractor has specifically applied in writing'*. Keane (2001) comments that architects must be careful to provide contractors with timely information. He advises architects to require contractors, at the outset of the contract, to provide a Schedule of Information Requirements specifying deadlines for issuing information. He then warns *'These dates must then be met, but architects must also ensure that such timetables are reasonable. Claims for delay and expense under this heading will not be viewed sympathetically by the Employer and might well result in a claim against the Architect.'*

The corresponding Delay Event in the Schedule to PW-CF1 reads *'The Employer's Representative does not give the Contractor an instruction required under sub-clause 4.5.4 [instructions] within the time required under sub-clause 4.11.2 [latest date for Employers to give the required instructions] when the Contractor has asked for the instruction in accordance with sub-clause 4.11.1'*. [The Contractor has to give at least 10 days' advance notice of the date the instruction is required].

#### *Delay by Direct Employees*

Clause 30 (i) of the RIAI Contract reads: *'by delay on the part of other contractors, artists or tradesmen engaged by the Employer in executing work not forming part of this contract.'* Keane (2001) questions whether works to be carried out by Statutory Undertakers would be subject to sub-clause.

The corresponding provision of PW-CF1 reads: *'Employer's Personnel interfere with the execution of the Works on the Site, and the interference is unforeseeable and not in accordance with the Contract.'* Clause 7.6 of PW-CF1 (Other Contractors) permits the Employer appoint independent contractors to carry out specific works identified in the Works Requirements. The *'Contractor shall co-operate with such Employer's Personnel and shall as far as practicable co-ordinate their activities with the execution of the Works.'*

#### *Employer Default*

Clause 30 (j) of the RIAI Contract reads: *'by reason of any act or default of the Employer causing delay in the progress of the Works as provided for in Clause 29(b).'* The

corresponding provision of PW-CF1 Risk Item 16 reads: ‘*A breach by the Employer of the Contract delaying the Works that is not listed elsewhere in table.*’ Two other Risk Items in Schedule 1 Part K may be classified under this general heading. Item 4 reads: ‘*The Contractor suspends the Work in accordance with sub-clause 12.3.*’ This sub-clause refers to situations where the Employer fails to pay the Contractor in accordance with the payment conditions. In addition, Item 9 reads: ‘*The Employer does not give the Contractor a Works Item or other thing as required by the Contract when the Contractor has asked for it in accordance with sub-clause 4.11.1.*’

### **Procedures for claiming an extension of time**

Hughes et al (2015) comment that, in general, extensions of time can only be validly granted if the contract’s procedures are adhered to. They note that certain contracts permit contractual dates for completion to be adjusted by agreement of the parties in certain instances. So, for example, the PW-CF1 Contract permits the Contractor to present a proposal for the use of the Programme Contingency, or for the setting of a new date for completion in the event that a Delay/Compensation Event occurs. They add that in the absence of an agreement, standard form contracts almost universally authorise the contract administrator to unilaterally award an extension and to reschedule the date for completion.

#### ***Procedures under the RIAI Contract.***

Clause 30 of the RIAI sets out the following procedures for claiming an extension of time:

... the Architect shall, as soon as it is possible for the Architect to do so, make a fair and reasonable extension of time for completion of the Works. Upon the happening of any such event causing delay the Contractor shall immediately give notice thereof in writing to the Architect but the Contractor shall nevertheless use constantly his best endeavours to prevent delay and to proceed with the Works. ...

Keane (2001) summarises the procedural requirements of this paragraph as:

- 1 The Contractor is required to immediately to notify the Architect ‘*upon the happening of any such event*’.
- 2 The Contractor must use its ‘*best endeavours*’ to minimise any delay.
- 3 The Architect shall impartially and independently make a fair and reasonable decision regarding an extension as soon as possible.

- 4 The Architect shall consider the conduct of the Contractor where delays are due to matters covered by the insurance clauses.

With regard to immediate notification of delay, Clause 29b (see below) requires the Contractor to notify the Architect within five working days of the occurrence of any delaying event *for which the Employer is responsible*. In this regard, Keane (2001) advises contractors to comply with the five-day notice period requirement, writing that while *'failure to do so might not necessarily deprive the Contractor of his right, but it would be prudent to avoid the risk.'* It is suggested that similar action regarding the 'immediate' notification of delay requirements of Clause 30 would also be prudent.

With regard to the Contractor's duty to use its best endeavours to prevent delay and proceed with the works, Mason, Hayes and Curran (2015) comment that a best endeavours obligation was historically interpreted to mean that a supplier would *'leave no stone unturned'* when attempting to comply with its obligations under a contract. They explain that the UK Courts have found best endeavours to mean a supplier must take:

all those steps in their power which are capable of producing the desired results... being steps which a prudent, determined and reasonable [customer], acting in his own interests, and desiring to achieve that result, would take. (IMB United Kingdom Limited v Rockware Glass Ltd).

They consider this duty as *'a high threshold, particularly as you look at what a customer, acting in its own interest, would do to achieve the desired result, rather than what the supplier, who is subject to the obligation, would do.'* They conclude that a best endeavours obligation probably requires a supplier to take all the reasonable courses of action it can, not just one or more courses of action.

#### ***Procedures under the PW-CF1 Form.***

The procedures relating delays and extensions of time are set out in Sub-clause 9.3 of the Contract. Clause 9.3.1 reads:

If the Contractor becomes aware that work under the Contract is being or is likely to be delayed for any reason, it shall as soon as practicable notify the Employer's Representative of the delay and its cause. As soon as practicable after that, and in any event within 40 working days after the Contractor became aware of the delay, the Contractor shall give the Employer's Representative full details of the delay and its effect on the progress of the Works. But if the Contractor has given notice and details

of the delay under sub-clause 10.3.1 it does not have to give notice or details again under this sub-clause 9.3.1 for the same delay. In any event, the Contractor shall promptly give any further information about the delay the Employer's Representative directs.

This provision requires the Contractor to promptly notify the Employer's Representative of any actual or 'likely' delays from whatever cause, including those for which the Contractor bears the ultimate responsibility. The Contractor is also required to submit full details of the delay effects on the programme within 40 days. The reference to Clause 10.3.1 is **extremely** important as it relates to the procedures regulating contractors' applications for extensions of time and/or making claims for compensation for risk events borne by the Employer. Clause 10.3.1 requires the Contractor to notify the Employer of such claims within 20 days of becoming aware of their occurrence. These notifications must be followed up within a further 20 working days with full details of their cost and schedule implications. Under Sub-clause 10.3.2, failure to comply with these requirements leads to the claim becoming '**time-barred**' and results in dismissal in its entirety. The relevant section 10.3.2 reads:

The Contractor shall not be entitled to an increase to the Contract Sum or extension of time or use of the programme contingency referred to in sub-clause 9.4 [and the Employer shall be released from all liability to the Contractor in connection with the matter].

Sub-clause 9.3.2 sets out the terms under which an extension of time may be awarded. It reads:

If Substantial Completion of the Works or any Section has been, is being or will be delayed beyond the Date for Substantial Completion by a Delay Event and if all of the following apply

1. the Delay Event is not a result of the Contractor's or Contractor's Personnel's act or omission or the Contractor's breach of the Contract
2. the Contractor makes all reasonable efforts to avoid and minimise the delay
3. the Contract does not provide otherwise

then, subject to this sub-clause 9.3, sub-clause 9.4 and clause 10, there



shall be an extension to the Date for Substantial Completion of the Works and any affected Section equal to the amount of the delay beyond the Date for Substantial Completion caused by the Delay Event taking into account only Site Working Days. The Contractor and the Employer's Representative shall follow the procedure in clause 10

This sub-clause authorises the Employer's Representative to grant an extension of time for ***Delay Events*** on condition that the Contractor is not at fault, and makes reasonable efforts to avoid or minimise the delay and its negative effects, and that the contract does not provide otherwise. Wren (2014) suggests that wording '*or will be delayed*' in the opening sentence obliges the Employer's Representative to concede an extension on '*the preponderance of probabilities rather than on proof positive after the event*'. Wren commenting on the requirement to take 'reasonable efforts to avoid and minimise the delay' supports the contention that these do not '*extend to a contractor being obliged to add extra resources or to work outside of its planned working hours.*' Extensions relate to *Site Working Days*' and are subject to compliance with the procedures set out in Clause 10 (Claims and Adjustments).

Clause 9.3.3 provides that the length of an extension of time may subsequently be revised. The sub-clause reads:

The Employer's Representative may, at any time, revise a determination of an extension to the Date for Substantial Completion of the Works or any Section, but shall not bring those dates forward except by agreement with the Contractor under sub-clause 9.5 when work has been omitted

The sub-clause permits the Employer's Representative retrospectively to increase an inadequate extension of time in the light of actual events. It appears however, that once an extension has been awarded, that the revised date for completion cannot subsequently be brought forward. The exception to this rule is where a Change Order is instructed which omits work from the Contract. In these circumstances a reduction in time may be negotiated with the Contractor in accordance with sub-clause 9.5.

It should be noted that sub-clause 9.3 relates to Delay Events only. As such, it applies only to the shared / neutral risks and to the 'optional' compensation risks which the Employer has not elected to be 'Compensation Events'. However, all of the 'Compensation Events' included in the Schedule part 1K, with the exception of Item 17 (inaccurate quantities) are also Delay Events. In situations where any of these combined Compensation / Delay Events

delay completion of the project, the Contractor must apply for an extension of time (and reimbursement) in accordance with the provisions of Clause 10 of the Contract. Delays caused by Compensation Events are subject to the Programme Contingency (see below).

Delay Events listed in the Schedule Part 1K which are **not** Compensation Events are not subject to the Programme Contingency. This indicates that delay only events, such as a weather event, entitles the contractor to full and immediate extension of time resulting from that event. Where a project incorporates a 'cautious' Programme Contingency it is possible, if not probable, that contractors may complete within the original contract period despite the delay occurring.

#### *The Programme Contingency*

Sub-Clause 9.4 of the PW-CF1 Contract deals with the 'Programme Contingency'. The inclusion of a Programme Contingency within the Public Works Contracts was widely seen as a radical innovation and a particularly controversial feature when the contracts were first introduced in 2007. The mechanism builds additional 'float' into the contract period and contract sum for delays arising from risk events borne by the Employer which would otherwise entitle the Contractor to seek extensions of time and reimbursement of loss and expense caused by such delays.

Sub-Clause 9.4.1 sets out definitions for the various terms used in the formulae to calculate the extension of time and associated compensation. Sub-Clause 9.4.2 deals with the Contingency itself. It reads:

The Contractor has included in the initial Contract Sum and shall include in its programme a contingency for delays to the Date for Substantial Completion of the Works caused by Compensation Events.

The Programme Contingency covers the various **Compensation Events** set out in the Schedule part 1K. The Employer will state in the Schedule the number of days for the contingency to be included within the Contractor's programme.

Blankar (2010) comments that the Contractor must 'factor in' the Programme Contingency within the overall programme. He explains that where an employer has set an overall construction period of 24 calendar months including a Programme Contingency of 60 working days (i.e. 3 calendar months), that '*if there is no extension of time granted the Contractor must complete the project within 21 months as the last three months belong to*

*the Employer. The Contractor's programme must show this time at the end of the programme where there is no activity'. The Training Manual (NPPPU, 2008) remarks that the Programme Contingency is 'not to be confused with contractor's float time'.*

#### *Operation of the Programme Contingency*

The Program Contingency for PW-CF1 comprises two time thresholds. Sub-clause 9.4.3 describes the operation of the formulae. It reads

The programme contingency is applied to derive extensions as follows

1. Unless delay exceeds the first threshold, there are no extensions
2. If delay exceeds the first threshold but is less than or equals the sum of the first threshold and twice the second threshold, extensions equal half of the result obtained by subtracting the first threshold from delay
3. If delay is more than the sum of the first threshold and twice the second threshold, extensions equal delay minus the first threshold minus the second threshold

This can be expressed by the following rules:

Rule 1 if  $D \leq T_1$  then  $E = 0$

Rule 2 if  $T_1 < D$  but  $\leq (T_1 + 2T_2)$  then  $E = (D - T_1) \div 2$

Rule 3 if  $D > (T_1 + 2 T_2)$  then  $E = D - T_1 - T_2$ .

Where  $D$  is the delay,  $T_1$  is the first threshold  $T_2$  is the second threshold and  $E$  is the extension of time. The Contract, itself, sets out the following example of the operation of the programme contingency.

For example, if the first threshold ( $T_1$ ) is 20 Site Working Days and the second threshold ( $T_2$ ) is 30 Site Working Days

- if delay ( $D$ ) is 10 Site Working Days, the Contractor would be entitled to no extensions, applying rule 1
- if delay ( $D$ ) is 28 Site Working Days, the Contractor would be entitled to 4 Site Working Days' extensions, applying rule 2
- if delay ( $D$ ) is 38 Site Working Days, the Contractor would be entitled to 9 Site Working Days' extensions, applying rule 2
- if delay ( $D$ ) is 90 Site Working Days, the Contractor would be entitled to 40 Site Working Days' extensions, applying rule 3.]

#### **Extract 1 PW-CF1 Programme Contingency**

By extending this example, the Programme Contingency covers delays of up to 80 Site

Working Days at which point Contingency becomes exhausted and the Contractor would be entitled to 30 Site Working Days' extension by applying Rule 2.

Sub-Clause 9.4.4 clarifies that the Programme Contingency does not apply to sectional / phased completion nor to Delay Events that are not Compensation Events. Sub-Clause 9.4.5 requires that contractors must apply to avail of the Programme Contingency and where successful the Employer's Representative must notify the Employer and Contractor as to how much of the Programme Contingency has been expended.

The Department of Education and Science (2009) *Design Team Procedures* advises employers that '*the 1st and 2nd thresholds for Site Working Days delay should be a reasonable estimation of the likely lower and higher limits of actual valid delay events, the first being the lower and the second the higher. In general the sum of the 1st and 2nd thresholds should not exceed 10% of the contract duration.*' The 'Minor', PW-CF5 Contract, on the other hand, contains a single threshold Programme Contingency. The Department advises that this threshold should be a reasonable estimation of the likely number of days delay due to compensation events and '*should not exceed 5% to 10% of the contract duration*'.

## **Remedies for Delayed Completion**

The general position outlined above is that if a contractor fails to complete the works on-time that the contractor will become liable for damages suffered by the employer. Conversely, where a contractor is delayed because of actions or inactions of an employer / employer's representatives, the contractor will become entitled to seek reimbursement for the consequential loss and expense.

### ***Remedies for Contractor Delays***

Hughes et al. (2015) note that the failure of the contractor to complete on time is '*backed up by legal sanctions*'. On most standard form contracts the employer's remedy will be the award of liquidated damages. Sometimes, nevertheless, damages may have to be proven in the absence of a liquidated damages mechanism.

Keenan (2008) explains that the principles of liquidated damages as follows.

The parties to a contract may agree in the contract itself that, in the event of a breach of contract, damages shall be fixed at a certain sum or to be calculated in a certain

manner. Such *liquidated damages* will only be enforced by the courts if it is a genuine pre-estimate of loss, and not merely a penalty to secure performance. An amount could be held to be a penalty where the specified sum is extravagant compared with the conceivable loss, where the same sum is to be paid irrespective of the nature of the breach or number of breaches, or where the specified sum is greater than the money debt due under the contract. In such cases, the penalty intends to frighten a party into compliance with the terms of the contract, and will be void and unenforceable.

The consequences of late completion by the contractor are dealt with in Clause 29(a) of the RIAI Contract and Section 9.8 of the Public Works Contract.

Clause 29(a) of the RIAI Contract reads:

(a) If the Contractor fails to practically complete the works by the Date for Completion stated in the Appendix or within any extended time under Clause 28 or 30 of these Conditions and the Architect certifies in writing, on simultaneous notice to the Employer and the Contractor that in the Architect's opinion the same ought reasonably so to have been completed the Contractor shall pay or allow to the Employer the sum named and at the rate stated in the Appendix as "Liquidated or Ascertained Damages" for the period during which the said works shall so remain or have remained incomplete and the Employer may deduct such damages from any money due or to become due to the Contractor under this Contract.

Keane (2001) explains that in order for the liquidated damages provision to operate, the following conditions must be complied with:-

- *'There must be a completion date stated in the appendix.*
- *The Architect must certify that, in his opinion, the Works should have been completed by that date or by any extended date.*
- *The Architect must have adjudicated on any Contractor's claims for an extension of time.'*

Hughes et al. (2015) add that the clause must not be a penalty, any specified contract procedures have been complied with, and the employer has not waived the right to deduct liquidated damages.

Under the RIAI Contract the Architect is required to issue a formal notification *simultaneously* to both the Employer and the Contractor. This notification is often<sup>3</sup> referred to as a non-completion certificate. Damages become applicable from the date of this

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<sup>3</sup> such as in JCT SBC 11 (Hughes et al. 2015),

notification / certificate.

The corresponding damages provisions of the PW-CF1 Contract is at section 9.8. It reads:

If the Works do not reach Substantial Completion by the Date for Substantial Completion of the Works, the Contractor shall pay the Employer [and the Employer may deduct from payments to the Contractor] liquidated damages calculated at the rate stated in the Schedule, part 1G, for the period from the Date for Substantial Completion of the Works to the date of substantial completion of the Works.

While this wording may not require a non-completion certificate *per se* there is a clear implication that a judgement has been made that the contractor has entered into a period of culpable delay. It should be noted that under both of the Irish forms of contract examined above that the employer *may* deduct the liquidated damages due under the contract. It appears that Irish employers do not exercise this discretionary right as a matter of course.

Keane (2001) in commenting on liquidated damages clauses such as Clause 29(a) of the RIAI Contract comments that these are sometimes inaccurately described as “penalty clauses”, but warns against using this term. He describes the essence of a penalty as a *‘payment of money stipulated as in terrorem of the offending party; whereas the essence of liquidated damages is a genuine covenanted pre-estimate of damage’*. He adds that *‘The law does not approve of penal conditions.’*

Keane also notes that where contracts include a liquidated damages provision that the complainant can recover the stated amount even if the actual loss is less. He adds that where the actual loss is more than the stated amount that the complainant can only recover the agreed amount.

### ***Contractors’ Remedies***

Under the RIAI Contract, potential delays are envisaged as arising from delayed possession of the site under Clause 28, employer-related delays under Clause 29 and several of the ten events listed in Clause 30 and discussed above.

Clause 29(b) relates the consequences of employer-related delays. It reads:

If any act or default of the Employer delays progress of the Works then the Contractor shall within five working days of the Act or default give notice in writing to the Architect to this effect and any time lost from this cause shall be ascertained and certified by the Architect and the Employer shall pay or allow to the Contractor such damages as the Contractor shall have incurred by the delay.

Keane (2001) comments that this clause ‘*allows the Contractor to recover any loss caused by delays caused by the actions of the Employer, (including of course any actions of the Employer’s Agents), and provides for extensions of time where appropriate.*’

Five of the issues listed in Clause 30 of the RIAI Contract authorise the Architect not only to grant an extension of time, but may also entitle a contractor to claim for consequential loss and expense<sup>4</sup>. Similarly, PW-CF1 Contract includes for a range of matters which are both ‘Delay Events’ and ‘Compensation Events’<sup>5</sup>. These events are shaded in Table 1 above.

In the event that any or several of these matters delay the Contractor, the Contractor may apply to use part, or all, of the Programme Contingency, and will be granted a partial extension of time where the first threshold of the Programme Contingency is exceeded and a full extension when the Programme Contingency is exhausted. The Contractor in these instances will also become entitled to seek reimbursement of extra cost arising from the delay. On private sector contracts employing the RIAI Contract, the Contractor is required to prove these extra costs. On public works contracts, PW-CF1 sets a default arrangement whereby the Contractor is reimbursed at daily rates tendered by the Contractor. Less frequently, the Employer’s Representative may opt to require the Contractor to prove their additional costs. In this regard the Programme Contingency may be seen as a mechanism designed to ‘buy out’ employer or design team led delays.

As noted above, the topic of contractor’s delay, disruption and prolongation claims are not examined here, but are the subject of a separate study *Contractors’ Claims for Loss and Expense under the Principle ‘Traditional’ Forms of Irish Building Contract* which is available on-line at <https://arrow.dit.ie/beschreoth/31/>

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<sup>4</sup> (i) failure to grant possession of the site (as Clause 28); (ii) performance of Architect’s Instructions; (iii) late instructions; (iv) delays due to independent contractors engaged by the Employer and, (v) employer default under Clause 29(b)).

<sup>5</sup> (i) change orders; (ii) unnecessary opening up of compliant work; (iii) employer instigated work suspension; (iv) justified work suspension by the contractor; (v) inaccurate setting-out information; (vi) early employer occupation of part of the work; (vii) late instructions; (viii) failure to grant possession of the site; (ix) failure to provide a Work Item; (x) delays due to the Employer’s Personnel working on the Site; (xi) rectifying damage insured by the Employer, and, (xii) Employer’s breach of the Contract.

## **Assessing Delay**

Birkby and Brough (1993) comment that where a contract administrator has received a valid notification of delay that the administrator must then decide whether an extension of time (or use of the Programme Contingency in the context of PW-CF1) should be awarded. They note that assessing delays involves *‘subjective judgements, and the contract administrator must act reasonably and fairly as between the employer and contractor.’* The contract administrator must be *‘methodical and systematic’* in forming and justifying his/her assessment of the particular delay(s). They also stress that assessing delays and extensions of time is an independent and separate matter, to the closely related issue of evaluating loss and expense claims.

### ***Timing of the Contract Administrator’s Award.***

The contract administrator is required to decide whether to grant an extension of time, and if so, to decide on the length of any such extension. In the absence of specific contractual terms dealing with issue, this decision may be made either (a) at the time the delay event occurs, (a prospective extension) or (b) when the implications of the delaying event have become clear (a retrospective extension).

‘Prospective’ approaches require the contract administrator to make a prompt assessment of the likely delay to the completion date, and to award an appropriate extension. This ‘proactive’ approach has the advantage of providing the contractor with a clear revised completion date to work towards, thereby aiding the reprogramming of the works. This approach may be criticised on the grounds that the full effects of the delay event often cannot be immediately established. Consequently, the extension (if any) may be inadequate, or indeed, may be unnecessary.

‘Retrospective’ assessment adopts a wait-and-see approach which permits the administrator to benefit from hindsight to reveal what programme impacts actually took place. This approach permits the administrator to wait until nearer the scheduled completion date in order to assess whether any additional time is, in fact, needed or justified. This approach, however, may encourage ‘dithering’. Procrastination may impede corrective measures from being implemented in good time. Where this happens, employers may be shocked if a ‘surprise’ extension of time is awarded during the final stages of the



project timetable, particularly where the grounds for such extensions also give rise to a contractor's financial claim.

The SCL Protocol (2017) provides guidance on this matter and discourages the practice of 'wait and see' in assessing extensions of time. Core Principle 4 of the Protocol states:

The parties should attempt so far as possible to deal with the time impact of Employer Risk Events as the work proceeds ... . Applications for an EOT should be made and dealt with as close in time as possible to the delay event that gives rise to the application. A 'wait and see' approach to EOT is discouraged. Where the Contractor has complied with its contractual obligations regarding delay events and EOT applications, the Contractor should not be prejudiced in any dispute with the Employer as a result of the CA failing to assess EOT applications. EOT entitlement should be assessed by the CA within a reasonable time after submission of an EOT application by the Contractor. The Contractor potentially will be entitled to an EOT only for those events or causes of delay in respect of which the Employer has assumed risk and responsibility (called in the Protocol Employer Risk Events) that impact the critical path.

It should be noted that in this context 'Employer Risk Events' includes the 'neutral' events listed in the particular contract. The final sentence of this extract is important. It notes that unless an employer risk event delays progress on *critical* activities, it is not relevant and no extension of time need be considered.

#### *The RIAI Contract*

As noted above in the section '*Procedures under the RIAI Contract*' the architect is required to make a decision '*as soon as possible*'. The Contract, therefore, accommodates both 'prospective' and 'retrospective' approaches. Keane (2001) comments that the timing of the decision is determined by whether the delay results from the contractor's or the employer's actions. He comments:

... where the default has been caused by an act of the Contractor, then the Architect may delay his decision on an extension of time until the Works have been completed, even though the Date for Completion has passed. This is allowed so as to give the Architect the opportunity to see how the remaining works are completed, and to enable him to reach an overall view. ... On the other hand, if the delay has been caused by an act of the Employer and perhaps more importantly, his agents, then ... the Architect must decide on the extension before the completion date set out in the appendix.

#### *The PW-CF1 Contract*

Clauses 9.3.1 and 10.3.1 of PW-CF1 Contract, as noted above, contain strict procedures which must be observed by contractors in seeking extensions of time. Sub-clause 10.5

*Employer's Representative's Determination* of the Contract favours a 'prospective' approach towards the award of extensions of time. Sub-clause 10.5.1 requires the Employer's Representative to (i) direct the Contractor to provide additional information within a further 10 working days<sup>6</sup>; or, (ii) agree to the Contractor's proposals regarding the use of the Programme Contingency and/or extension of time; or, (iii) make his/her own determination regarding the use of the Programme Contingency and/or extension of time; or (iv) reject the Contractor's application.

Sub-clause 10.5.2 provides the Employer's Representative with the discretion to award an extension of time on his/her own initiative for Compensation Events which are Employer's risk items, even if the Contractor does not seek an extension for such breach(es).

Sub-clause 10.5.3, provides that if the Employer's Representative fails to deal with the Contractor's application within the 20 day deadline that it is deemed that the ER has, in effect, dismissed the Contractor's application.

Sub-clauses 10.5.4 provides that an Employer's Representative's determination is final and binding unless the Contractor rejects the determination and refers it to the Contract's dispute resolution procedures (Clause 13) within 28 days. Similar procedures apply in Sub-clause 10.5.5 in the more unlikely event of the Contractor disputing the Employer's Representative's recording of the Contractor's extension of time proposals correctly.

Regardless of the apparent binding nature of Employer's Representative's decisions in Sub-clause 10.5.4 above, Sub-clause 9.3.3 provides that '*The Employer's Representative may, at any time, revise a determination of an extension to the Date for Substantial Completion of the Works or any Section ...*' The remainder of the Sub-clause clarifies that the Employer's Representative cannot bring completion dates forward except where work has been omitted and the consent of the Contractor has been obtained for such a request.

### ***Records***

Accurate information is crucial in determining extension of time awards. It has been said that there are three essentials in successful extension of time negotiations, records, records and records. The SCL Protocol's (2017) first core principle recommends that:

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<sup>6</sup> The Employer's Representative must respond to the supplemental information within 10 further days and cannot call on the Contractor to provide further information and/or proposals.

Contracting parties should reach a clear agreement on the type of records to be kept and allocate the necessary resources to meet that agreement. Further, to assist in managing progress of the works and to reduce the number of disputes relating to delay and disruption, the Contractor should prepare and the Contract Administrator should accept a properly prepared programme showing the manner and sequence in which the Contractor plans to carry out the works. The programme should be updated to record actual progress, variations, changes of logic, methods and sequences, mitigation or acceleration measures and any EOTs granted. If this is done, then the programme can be more easily used as a tool for managing change and determining EOTs and periods of time for which compensation may be due.

While it is the contract administrator who decides on extension of time claims, the evidence showing how the delaying events affected the programme generally is provided by the contractor. ‘He who asserts must prove’ is the principle here. Claims should therefore be properly documented by appropriate contemporaneous records taken at the time the relevant work was executed. Poor and/or conflicting records complicate and may delay the resolution of extension of time applications, and occasionally lead to disputes between the parties. The quality and effectiveness of record-keeping among contract administrators and contractors, however, is variable and sometimes falls (far) short of the ideal. The SCL Protocol (2017) highlights that *‘good record-keeping requires an investment by both parties in time, cost and commitment by all participants. ... adequate resources must be allocated by all relevant parties to ensure the records are produced, checked and stored.*

The Protocol identifies the typical records required to substantiate extensions of time and claims. These are broadly classified as *‘(a) programme; (b) progress; (c) resource; (d) costs; (e) correspondence and administration, and, (f) contract and tender documents’*. The Protocol recommends that records falling within category (b)-(d) should set out the facts only and offer no opinion.

Of the various records, the ‘as-built’ programme, which documents actual progress, is perhaps the most significant in assessing extensions of time. Birkby and Brough (1993) comment:

Unless there is a clear picture of how the work is actually being executed, it is virtually impossible to make any decision concerning progress or causes of delay. An as-built programme often has to be put together by both parties after completion to establish what actually happened; even then, it is difficult to establish with any certainty when any activity actually began and ended. It is essential to compile the as-built construction programme as the works progress.

The SCL Protocol (2017) supports this approach and recommends that *‘records relevant*

*to progress and delay and disruption must be generated contemporaneously as the works progress, and not afterwards’.*

The RIAI Contract, apart from the Contractors’ delay notice requirements, is generally silent in relation to the matter of records. No doubt, however, the Contractor will be anxious to provide additional details to corroborate, or indeed, challenge the Architect’s assessment of the circumstances.

As noted above, PW-CF1, Sub-clause 4.9 requires contractors to provide and update a highly detailed programme. Sub-clause 4.10 complements these provisions in requiring the Contractor to issue detailed progress reports at monthly intervals to the Employer’s Representative which include reports relating to resourcing, delay and Compensation Events (cost) and *‘anything else relevant to a progress report that the Employer’s Representative directs’.*

### ***Assessing the delay***

Birkby and Brough (1993) note that extensions of time should be awarded on a *‘calendar day’* basis and should be *‘the length of delay to the completion of the contract which is considered fair and reasonable by the contract administrator’.* They add that contracts generally *‘do not provide for an extension of time per se for trade or public holidays, or for that matter, weekends. These calendar events have to be considered in relation to the period of delay in which they fall.’* They illustrate these principles in the following diagram. For example if a contractor’s standard working week is Monday to Friday with a half day on Saturday and a five working day delay commences on a Monday, the period of delay would be five calendar days (Figure 1). However if the same 5 day delaying event commences on, say, a Thursday, (Figure 2). *‘five working days are lost but this translates into six and a half calendar days’.* This principle also extends into official holiday periods (Figure 3), where a delay occurring immediately before a holiday period can result in an activity originally scheduled for completion before the holiday period being prevented from being completed until after the holiday.

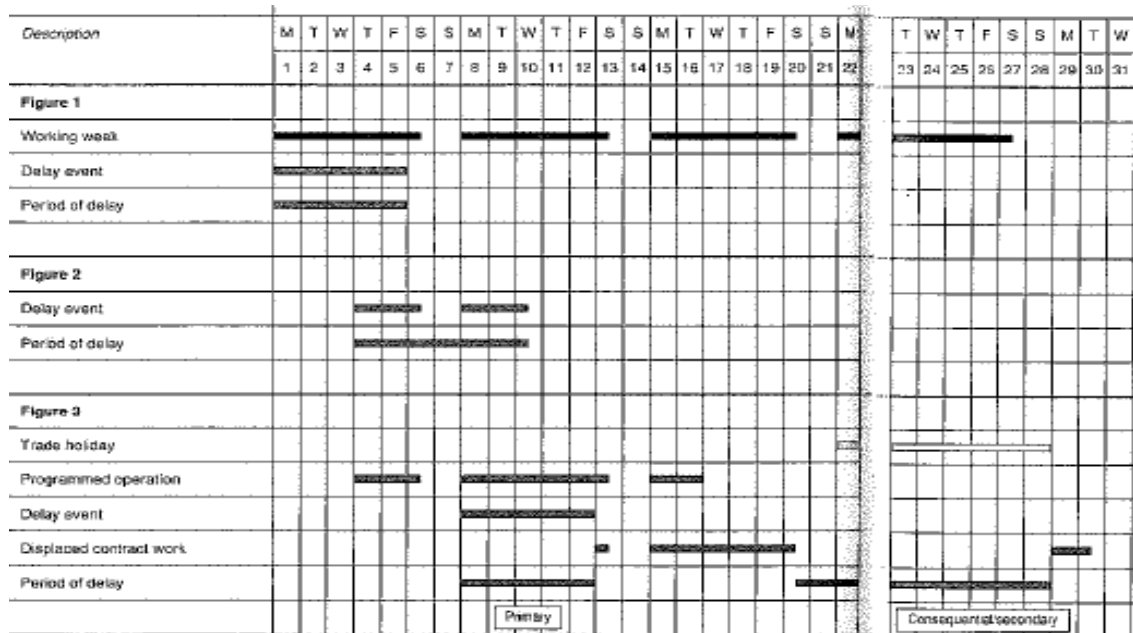


Figure 1 – Effect of Delay Events on Programme Durations (source Birkby and Brough)

## Early Completion of the Works

The date for the completion of the works cannot be brought forward by the employer or architect without the consent of the contractor, *unless* there are provisions in the contract allowing this. As noted above contractors from time to time complete their works ahead of schedule and employers usually welcome this outcome. Indeed, provision is sometimes made between employers and contractors for bonus payments to be made in the case of early completion. Such bonus arrangements are not provided for in RIAI contract but may be envisaged by the value engineering provisions contained in PW-CF1.

Nevertheless Clause 9.5 of PW-CF1 provides that the Date for Substantial Completion may be reduced *by agreement* if a change order reduces the scope of the works. ‘*If there is no agreement there shall be no reduction*’.

## Acceleration

Kwakye (1998) describes acceleration as ‘*expediting production pace to meet the original or revised contract completion dates*’. Acceleration measures may be appropriate where progress falls behind schedule or where the client desires the project to be completed within a shorter period. The cost of acceleration may be substantial and often requires careful resequencing of the works. Birkby and Brough (1993) remark that simply employing more

labour can ‘*be counter-productive, particularly when work has to be carried out in relatively confined spaces*’. They conclude that ‘*The cost of acceleration makes it a last resort in most cases*’.

Where progress falls behind schedule, a contractor may unilaterally decide to accelerate the works in order to avoid becoming liable to pay damages. In these instances the contractor absorbs the additional costs.

Occasionally acceleration is requested by employers where a contractor becomes entitled to an extension of time, thereby frustrating the client’s objective of completing within the original schedule. In these instances contractors may agree to accelerate the works in order to complete within the original programme or, indeed, to achieve an earlier completion date. In this event the architect or employer’s representative may instruct the contractor to accelerate the works and the contractor will be reimbursed for the additional costs involved.

Birkby and Brough (1993) comment that the cost of acceleration measures may be agreed before an instruction is issued. This approach provides greater clarity regarding costs than the alternative approach of accounting for the acceleration costs on completion of the works. The RIAI and PW-CF1 Contracts are both silent about acceleration *per se*. However, in connection with PW-CF1 a proposal to accelerate the works may form part of a value engineering proposal in accordance with clause 4.8 and/or a ‘Proposed Instruction’ under clause 10.4, both of which envisage pre-priced acceleration rates.

## **Concluding Discussion**

The forgoing review indicates that timely completion of a construction project is an important goal for both clients and contractors. Construction projects, however, are risky ventures. Hughes et al. (2015) point out that risks are inevitable and cannot be eliminated. They can, however, be transferred through appropriate wording in the clauses of a contract. They argue that one of the primary functions of construction contracts is to allocate particular risks between the parties in order to identify who bears the consequences should a particular risk come to pass. This review identifies that many factors can adversely affect project programmes and result in delays and disruption to the planned work sequence. Late completion is a common problem and is one which is likely to lead to a (substantial) loss for clients, or contractors, or indeed both.

The basic requirement relating to time under both forms of contract is that the contractor must complete the works within the contract period. Nevertheless, both the RIAI and PW-CF1 Contracts contain provisions whereby extensions of time may be awarded if particular risk events occur. Table 1, above, identifies the various time-related risks which are allocated to the Employer within these two Contracts.

Where the Contractor is responsible for delaying completion, both Contracts provide the sanction of liquidated damages for the period for which the Contractor is in culpable delay. In cases of serious delay or failure to progress the works, the Employer has the option to suspend/determine the Contractor's employment. Where a delay risk event allocated to the Employer occurs, the Contractor may seek an extension of time or apply to expend the Programme Contingency. Several of these risks are classified as 'compensation events'.

There is much common ground between the RIAI and PW-CF1 contracts on the general objective of achieving completion within a particular timeframe. It is apparent, however, that each Contract adopts fundamentally different stances and provisions to achieve this objective.

It may be said that the RIAI Form primarily seeks to aid the Architect in optimising the quality of the end-product. This is, of course, laudable, and is a key objective of many building clients. The Contract accommodates the evolving and somewhat unpredictable nature of the design and construction processes, and recognises the necessity for variations in the fine-tuning of design decisions during the construction phase.

Some might argue, however, that this flexibility comes at the expense of time and cost objectives and that the RIAI Contract terms tolerate inadequate pre-contract planning and allow projects to advance to construction stage on the basis of incomplete designs. In this regard, poor design-team discipline, late decision-making, late information and/or instructions and extensive variations are common causes of delays. Contending with the unexpected (Murphy's Law) is also a real concern on many construction projects.

With regard to the Contractor's management of construction operations, the RIAI Contract is generally silent on this matter and does not specifically call for particular documentation such as a programme or progress reports. The Contractor is generally free to organise and progress the works in the manner it sees fit, provided that satisfactory progress is maintained on site. The Architect, nevertheless, has the authority to instruct the Contractor

to change a work sequence, but this is likely to expose the Employer to claims seeking additional money.

The above commentary may suggest that the RIAI Contract adopts ‘a soft touch’ approach in regulating the performance of time-related contractual obligations. The success of soft touch regulation, however, is reliant on the professionalism and due diligence of all the project participants, in the belief that all participants should gain from preventing and minimising delays.

The ‘Traditional’ procurement approach, on which both the RIAI and PW-CF1 contracts are based, is, however, often characterised by difficult if not adversarial working relationships, where competing and conflicting priorities are evident among the project participants. Most notably clients generally seek to complete projects at minimum cost while contractors seek to maximise profit margins. Competitive tendering procedures pressurise contractors to submit keen prices in order to secure contracts. Poor profit margins, or indeed below-cost-tendering strategies, in turn, force contractors to seek further reimbursement opportunities by capitalising on shortcomings in the contract documents and/or inefficient management performance. The goodwill and co-operation necessary for soft-touch regulation is likely to evaporate under these pressures, making win-win outcomes unlikely. Cost and time disputes and over-runs are entirely predictable in these instances.

Prior to 2007, public sector building contracts were typically carried out on the basis of the Government Departments and Local Authorities (GDLA) Form of Contract. This contract form was closely modelled on the RIAI Contract, to which it was similar in most respects. However, Government dissatisfaction with the performance of such contracts prompted the Department of Finance to introduce the current suite of Public Works Contracts.

The first of the stated objectives of the Public Works Contracts, on their introduction, was to *‘Move towards greater cost certainty at contract award stage and ensure as far as practicable that the accepted tender prices and the final cost are the same.’* This objective was to be achieved by *‘Award[ing] contracts on the basis of a lump-sum fixed-price ...’* and rebalancing risk allocation within the contracts (NPPPU, 2008).

In rebalancing its risk allocation, PW-CF1 prioritises cost certainty over design flexibility. The Contract is more ‘managerial’ in its approach to achieving the project outcomes of



timely completion, within budget, to the required quality standards. The Contract contains a number of provisions designed to improve time management during the contract. In this regard, the objective of providing a complete design at tender stage is a key factor in facilitating timely project completion by reducing the incidence of requests for information on site and their associated delay claims. Nevertheless, compliance with the Capital Works Management Framework pre-contract award procedures requiring a fully developed comprehensive design to be completed before tenders can be sought is time consuming. It is possible, if not probable, that the more flexible conditions contained in the RIAI contract may facilitate overall shorter development programmes.

### ***Consistent Time-Management Outputs***

The PW-CF1 requirements regarding the provision of up-to-date detailed programmes and progress reports under Sub-clauses 4.9 and 4.10 has been commented upon above. These measures require a consistent standard of information to be provided by the Contractor. Prompt, and better information enables the Contractor and the Employer's Representative to more effectively monitor progress on site and identify potential blockages. Variances (slippages) can be quickly identified within the programme and appropriate action taken to remedy the problem at an early stage. The discipline of reporting progress, in itself, is a driver to conform to the agreed programme and strengthens the Employer's Representative's ability to influence the Contractor to better control the process and lead to fewer delays being experienced on site.

### ***The Programme Contingency***

The Programme Contingency is perhaps the most controversial of the management procedures and risk-avoidance mechanisms contained within the PW-CF1 Contract. The Construction Industry Federation (CIF) (2017), for example describe the mechanism as '*complex*', '*unusual*' and '*confusing*'. On first reading, this mechanism appears to support the timely completion of projects by incorporating a prescribed float period within the overall programme. In this regard, if the worked example in Sub-clause 9.4.3 suggests standard practice, and/or the guidance provided by The Department of Education and Science (2009), noted above, is followed, - then that float might be described as '*cautious*' at the very least. Contractors in response to such contingency provisions might well regard the need to build (costly) float into their programmes as being unnecessary.

Howley and Lang (2006) comment that the rationale for the Programme Contingency is to *'provide the Employer the opportunity to 'buy out' a number of days delay'*. The CIF (2017) add that its apparent purpose is to *'bring a greater degree of certainty to costs associated with delay'*. The Federation argues, however, that *'Delay thresholds are frequently excessive'* and that because the contingency bears *'little correlation between periods specified for the ... thresholds and the actual level of delay likely'* that contractors are *'tempted'* to *'ignore'* or under-provide for delay contingencies in tendering for public sector contracts. The Federation had previously commented that *'The practice of having unrealistic extended programme thresholds encourages experienced and competent contractors to under price for such thresholds in the knowledge that the delay periods will not be utilised'* (CIF, 2013). Hussey (2009) points out that *'the tenderer who succeeds is likely to have nominated a very low sum for his daily cost'* and argues that the mechanism will *'hugely discourage the making of claims'* He regarded the Programme Contingency as the most *'innovative and ingenious of all the provisions contained in the contract'*.

The practical effect of this is that where the Programme Contingency is called upon, that the Contractor is likely to lose money for delays caused by the Employer or its agencies. Contractors are unlikely to accept such losses without complaint and are likely to pursue these losses by other means. The CIF (2017) regards this outcome as *'inequitable'* and *'unsustainable'* and recommends that overall contingencies should be *'a maximum of 5% of the contract duration'*.

The Society of Chartered Surveyors Ireland (SCSI) (2014) claimed that the contractors' commercial approach to pricing the Programme Contingency enables employers to *'take an unfair advantage'*. They commented that excessive Programme Contingencies relative to the contract period promotes inefficiency by *'prompting design teams/employers to use up the contingency where there might not otherwise be a delay'*. The Society called for the Programme Contingency to be removed from the contract at the time.

The need for (substantial) Programme Contingencies where a comprehensive design is provided at contract award stage has led some to question whether the mechanism delivers value for money. Critics might argue, that it needlessly prolongs the duration of the project, thereby adding unnecessary cost where delays are not experienced on site. From the contractor's perspective, however, avoiding the need to avail of the Programme

Contingency represents actual cost savings thereby providing a direct incentive to complete the project promptly.

Regardless of these mechanisms, the *Report on the Review of the Performance of the Public Works Contract* (GCCC, 2014) revealed that, on average, building contracts experienced schedule overruns of 16.97%. The Report commented that *'there is a need for contracting authorities to exercise greater control in the management of time on construction projects. The immediate target is to get time over-runs down to single digit figures.'*

### ***Time Bars***

If it may be said that the RIAI adopts a 'soft touch' attitude to the regulation of notice requirements, it may also be said that PW-CF1 adopts a more 'hard-line' response. Of particular note in this regard is the inclusion of strict deadlines and time-bars relating to delay and compensation claims. The Office of Government Procurement (2014) justified the inclusion of the early delay warning requirements, notice periods, and time-bars in the Contracts as *'prudent budgetary measures so that a contracting authority is aware of progress and cost exposure on a project and are included to ensure that the exchequer does not receive an unpleasant surprise upon completion of the contract'*.

The measures, however, were criticised by sections of the construction professions and industry representative bodies. The SCSi (2014) submission to the Review of the GCCC Public Works Contracts viewed the time-bars as procedures which *'deprive the contractor of his costs, in circumstances where he fails to observe an extensive list of requirements that are somewhat difficult to understand and difficult to comply with entirely.'* Mulgrew (2018) reports that the SCSi recommended that these provisions should be simplified and should reflect the situation where in the event the contractor fails to meet these simpler requirements, it is not prevented from utilising this clause but is only prejudiced due to this failure.

Indeed, the wording of the notice provisions in Sub-clause 10.3.1 *'If the Contractor considers that under the Contract there should be an extension of time ... or should have become aware'* is open to different interpretations by Employer's Representatives and Contractors. Mulgrew (2018) argues that *'it is possible for a Contractor to claim that he only became aware of his overall delay claim well after the events leading to it as the Delay Events only arose because of the cumulative effect of a number of events.'* Cunningham

(2014) noted the SCSI's concerns regarding retrospective claims being lodged a considerable time after the event. He reported that the Society argued that contractors can, in effect, store up claims, release them all at once, thereby ambushing the Employer's Representative and making it almost impossible for him/her to respond comprehensively within the required twenty days' timeframe.

### ***Employer's Representative's Determination***

Clause 10.5, *Employer's Representative's Determination* deems that if the Employer's Representative fails to act in time that the Contractor is not entitled to an extension of time. The Construction Industry Federation (2017) argue that this clause is one of '*the most unfair and unreasonable clauses in the contract, as it allows the Contractor to effectively be penalised for the ER's inaction*'. The Federation infers that an effect of this Sub-Clause is to incentivise the Employers Representative not to take action. The Federation argues that the clause should be revised to state that '*failure by the ER to take action results in an entitlement to the contractor to an adjustment to the contract sum, programme contingency and an EOT*'.

### **Summary**

Timely delivery of construction projects is an important priority for most building clients, particularly for those operating in the private sector. Construction projects, however, rarely run like clockwork and schedule overruns are commonplace. This study has reviewed various issues regarding time-management by contract administrators and quantity surveyors on 'traditionally' procured building contracts, with specific reference to the Irish RIAI and PW-CF-1 Contracts. The review examines commencement, progress and completion issues related to these contracts. These included the setting of programme durations, the consequences of delays caused by events beyond the control of the contracting parties, and those for which either the contractor or employer are responsible. The study then examines various grounds which may entitle a contractor to seek an extension of time, and the procedures governing this process. A discussion addresses the question as to whether the RIAI and PW-CF1 contract terms are effective in securing the timely completion of building contracts and reports industry concerns regarding various time-related terms incorporated in these contracts.

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