role of Hong Kong as a trade port and regional financial and services centre. The industry embraces all the construction activities of major infrastructures and real estate properties including new construction, repairing and alterations of any existing structures and involves different stakeholders such as real estate developers, professionals, academics, contractors, workers, and Government officials. The level of construction output closely correlates with overall GDP performance and, in percentage terms, the share of contribution made by the construction industry to the overall GDP has been in the stable range of 5 to 6 per cent. The percentage of gross value of construction works to GDP has increased since 2008.[3] It stands at 6.6% in 2011. With infrastructure projects being implemented, the gross value of construction work performed increased from HK$99.6 billion to HK$128.5 billion from 2008 to 2011. The construction expenditure forecast for the years 2013/14 to 2026/27 also expect a positive and continuing growth.[4]

1.005 The construction industry is also a major employer in Hong Kong, and possesses a vast diversity of personnel, ranging from managers and professionals to technical and administrative staff and site labour. At its peak in 1998, the number of persons in the construction industry was 309,500. In recent years, some 6 to 9 per cent of the local workforce is engaged in the construction industry.[5]

(b) Construction activities

1.006 Local construction activities can be broadly divided into three areas. One is represented by the public housing projects undertaken by the Housing Authority. These were a major backbone to the whole construction industry during the boom years in the 1990s. However, with the Hong Kong Government's change in public housing policy, the scale of construction activities in this area has dropped but is expected to grow again. The second area is represented by the public sector work commissioned by the Hong Kong Government itself, by authorities such as the Hong Kong Airport Authority and other entities like the Mass Transit Railway Corporation. Construction activities in this area have been and remain the key columns of support in the industry. Last are the private sector construction projects that are undertaken by property developers. These activities have consistently accounted for about half the gross value of construction work in recent years.

(c) Problems in the construction industry

1.007 Obviously, as with its counterparts elsewhere, the Hong Kong construction industry is not without its inherent problems. The Report of the Construction Industry Review Committee of 2001, titled "*Construct for Excellence*", provided a concise summary of the problems facing the Hong Kong construction industry, as follows:

[3] The percentage of gross value of construction works in the private sector has remained fairly steady since 2005. The increase in the percentage since 2008 has been mainly from the public sector.

[4] See figures from Hong Kong Construction Industry Council, http://www.hkcic.org, viewed 1 August 2018.

[5] See statistics from Hong Kong Census and Statistics Department, http://www.censtatd.gov.hk viewed 1 August 2018 for details.

> *"There are, however, a number of shortcomings in the industry's operations and in the quality of its products. Local construction activities are labour-intensive, dangerous and polluting. Built products are seldom defect-free. Construction costs are comparatively high. The industry is very fragmented and is beset with an adversarial culture. Many industry participants adopt a short-term view on business development, with little interest in enhancing their long-term competitiveness. There is a tendency to award contracts to the lowest bidders and delivery programmes are often unrealistically compressed. Accountability is undermined by the prevalence of non-value adding multi-layered subcontracting and lax supervision. An inadequately trained workforce also impairs the industry's ability to adopt new technologies and to cope with new challenges."*[6]

1.008 To the general public, construction activities in the past come with both poor safety and pollution to the environment. From time to time, serious site accidents are in the headlines or frustrating images of the damage that construction work has caused to a neighbouring landscape or stream hit the television screens. Highly labour-intensive construction methods that have been employed for decades are still being widely used without much updating. A majority of the structural elements are still designed using traditional reinforced concrete, requiring labour to fix steel bars on site prior to pouring concrete. The input and investment for research and development in the construction industry is generally low among the local entities. The crossover between the academic and the industrial sectors has been very limited. Construction costs fluctuate substantially with the supply of skilled labour or plants and are comparatively high in the regional area. The wages of skilled labour can be a determining factor to the overall construction costs in peak times. Considerations for buildability and life cycle cost are normally not the focus in the design phase of projects. The use of design-and-build contracts is still a new thing to many local practitioners and entities. Under the existing practice, direct communication between the design team and the frontline contractor is rare when the project is under design. A not uncommonly shared perception is that construction projects frequently result in poor quality, delayed completion and overrun budgets. Over the years, incidences of quality issues on construction works from time to time hit the headlines of the media. The industry is also highly fragmented with an ingrained adversarial culture. There may be several levels of subcontracting but there is seemingly no actual value and benefit brought to the project by such multi-layer subcontracting. Plenty of these subcontractors are small and medium in size, and it may come as no surprise that some of them are even, in effect, a company run by a single individual. Cash flow is obviously the lifeblood of the construction industry and non-payments and claims become an experience of daily life for all involved in construction projects. The traditional contractual arrangements in a construction project have been said to normally come with the habitual disputes bred of strained relationships and mutual suspicion.

[6] The Provisional Construction Industry Co-ordination Board (PCICB) was formed in September 2001 to spearhead industry reform and to pave way for the early formation of the statutory coordinating body, i.e. the Hong Kong Construction Industry Council established on 1 Feb 2007 for taking over the work of PCICB. See http://www.hkcic.org for details.

3. Nature of Construction Work

(a) Unique characteristics of construction projects

1.009 The laws governing construction projects are the same laws that apply in other spectrums of substantive matters. Yet, construction work has certain unique characteristics of its own.

1.010 To start with, construction work is highly technical in its nature. Even for those in the industry, every trade in the team has varying levels of understanding and individual areas of focus for the same item of work and, as such, everyone's experience and point of view may be unique. Furthermore, construction projects often last longer than other one-off commercial transactions. Indeed, a construction project usually lasts for years, and uncertainty and changes obviously arise during its lifespan. This results in a continuing relationship among those involved, which is subject to external influence, and can, in itself, be a crucial influence on the behaviour and culture of the personnel in handling matters arising from the construction work. More importantly, the respective rights and obligations of those involved in a construction project are governed by a contractual web formed by a series of separate and, often, independent, contracts, each involving different parties and having dissimilar content. The relative risks of those involved rely heavily on a balanced allocation via this contractual web. Within this web, many management systems, each with competing interests and priority, are also in operation. Moreover, construction work is executed by humans and machines in a complex system of activities and resources. Since these humans and machines may be involved with other construction projects at the same time, the system of activities in different projects may overlap.

(b) Unique approach to problem solving

1.011 As construction is a field requiring the practical application of technology, there are certain features of construction work that call for a different mindset from that which outsiders might consider common.

1.012 Firstly, in many instances, there is no one right solution to an engineering problem. The choice among different options is affected by both tangible factors, such as costs and time, and intangible factors, such as aesthetical matters and environmental concerns. From time to time, it is necessary to resort to professional judgment in the decision-making process. Secondly, those involved in the construction industry are satisfied with simplification or approximation in applying theories to practice. For example, the concept of 'factor of safety' is widely adopted in various aspects of engineering design, and empirical formulae derived from experiments and physical or computer modelling is also commonly used in the design process for large-scale construction. Thirdly, as said by Lord Wright in *Liesbosch, Dredger v SS Edison*[7] and referred to with approval by Lord Denning in *SCM (United Kingdom) Ltd v WJ Whittall & Son Ltd*[8]:

[7] [1933] AC 449.
[8] [1971] 1 QB 337.

> "[I]n the varied web of human affairs the law must abstract some consequences as relevant not perhaps on the grounds of pure logic, but simply for practical reasons".

1.013 Likewise, in approaching problems, construction people are all too familiar with practical reasons, and the use of pure logical induction and deduction in the analysis of a state of affairs in the construction setting may not be sufficient or meaningful.

1.014 Also, it should be always remembered that construction work is a unique production and no two projects are truly the same.

4. Processes in Construction Projects

(a) Phases of construction

1.015 A typical construction project goes through several phases in a linear manner. The construction processes are very complex and stretch from the concept of development to the operation and disposal of the completed work. In gist, these include the formulation phase, the planning phase, the design phase, the construction phase, the use management phase and the disposal phase.

1.016 At the formulation phase, the owner requirements are examined. These cover three key elements: scope, budget and schedule, and also the crucial matter of whether the project is in need at all. The planning phase of the project follows, where preliminary design is based on the project definition as formulated by the owner. Up to this stage, various studies may be needed to assist the decision on what the nature and scope of the project is, and whether, and/or how, the project should go ahead. These studies may include a cost-benefit analysis, a preliminary feasibility study, a feasibility study and another detailed study.

1.017 The next phase is the design phase where detailed design is carried out. Plans and specifications of the project are developed and worked out in detail.[9] The complete set of contract documents is usually produced during this phase, although concurrent amendments and redefinition of the project may still be going on, and even extend into the construction phase. Estimates obtained earlier are refined based on the detailed design and, once approved, the finalised design is put to the intended bidders for tender or quotation. The bid package commonly includes a number of documents apart from the design drawings and specifications. The construction phase starts after the tender is accepted and the contractor is requested to commence the work. When the project is completed, the work is handed over to the owner or the relevant entities and the use management phase or maintenance phase starts. From then on, the construction project is put to full use, till it is subsequently replaced or otherwise disposed of years, if not decades, later.

1.018 Thus, the overall construction process is broken into discrete steps, each of which is normally understood to independently add value to the final product, i.e. the completed work as a whole. This visualises the construction process as a series of

[9] The more popular use of procurement methods in Hong Kong such as Design-Build-Operate, Public-Private-Partnership, etc. has modified the phases of construction in some projects.

steps of transformation, as in the production industry, and the focus of management is on the optimisation of each and every discrete operation, with a view to achieving an optimised condition as a whole. The lowest price for each operation, order, contract or purchase is expected to inevitably lead to the lowest overall project costs. This is the common management mindset among many entities in the construction industry.

(b) Determining value in construction projects

1.019 However, this approach to the construction process may risk losing sight of the non-value-adding activities in the construction processes. These may appear in the form of sums spent on non-value-generating activities such as inspection, testing, disputes, transport and movement. A lot of such non-value-generating activities are found in construction projects. In recent years, taking the benchmark from the production industry, a theory of lean construction has emerged: changing the perspective and focus in the management of construction projects. This calls for a perception of the construction industry as a service provider. Production in the construction industry is performed by a combination of trades that need to be oriented towards generating value to the overall project. This asks for a new view as to what the true value of the output is, and an ongoing attempt to maximise value and minimise waste at the same time.

5. Trend and Development

(a) Global reforms

1.020 In recent years, there have been considerable interest around the world in looking for ways to reform the construction industry. In the United Kingdom, following the 1998 report of Sir John Egan, entitled "*Rethinking Construction*", various movements are underway to change the culture and establish best practices in the construction industry. Likewise, drive for change can also be seen in South Africa. Following the publication of a white paper in 1999, entitled "*Creating an Enabling Environment for Reconstruction Growth and Development in the Construction Industry*", the Construction Industry Development Board was set up in 2001 by legislation to provide strategic leadership in the growth, development, and transformation of the South Africa construction industry. In Australia, the Royal Commission into the Building and Construction Industry published a 23-volume report in 2003 for the overhaul of the Australian construction industry.

1.021 On the legislative side, there are also worldwide movements to address one of the key causes of problems in the construction industry—non-payment. In the United Kingdom, there is the Housing Grants, Construction and Regeneration Act 1996, making adjudication mandatory in many construction contracts and dealing with the problem of non-payment to contractors. Likewise, legislation addressing construction issues can be found in Australia (New South Wales Building and Construction Industry Security of Payment Act 1999) and in New Zealand (Construction Contracts Act 2002). There are also the ones in Singapore (Building and Construction Industry Security of Payment Act 2005) and in Malaysia (Construction Industry Payment and Adjudication Act 2012).

(b) Developments in Hong Kong

1.022 Hong Kong cannot and has not been an exception in the call for reform to the construction industry.

1.023 Back in the 1990s, the Hong Kong Government commissioned a consultant study to look at issues arising from its form of the standard conditions of contract. In the private sectors, discussion for the renewal of the now popular version of the standard form of contract for use in building works had also been ongoing. In 2000, a government committee, the Construction Industry Review Committee (CIRC), was also set up to look for ways to modernise the Hong Kong construction industry and improve on procurement, quality and safety. The 2001 report of the committee, entitled "*Construct for Excellence*", has now become a roadmap for the reform of the construction industry in Hong Kong.

1.024 The CIRC has submitted 109 recommendations that are, apart from raising the level of quality and cost-effectiveness, designed to inculcate a new culture of excellence and to inject impetus for change. These recommendations are intended to foster a culture of quality among all participants in the industry. In the context of procurement, it is observed that best value for the overall project does not necessarily equate to the lowest initial tender price, and the focus should be shifted to achieving value in construction procurement. To accomplish this, it is naturally necessary for efforts to be put into the nurturing of a professional workforce at all levels. To address the issues of relatively high construction costs, measures are recommended to build an efficient, innovative and productive industry. Obviously, there are also further drivers toward safer workplaces and an environmentally responsible industry.

1.025 The CIRC also recommended the setting up of a statutory industry body, the Construction Industry Council, to forge consensus on strategic issues and to sustain the momentum for continual improvement, by taking firm ownership of the reform programme. It was intended that the primary tasks for the Construction Industry Council would be to generate consensus on long-term strategic matters affecting the industry as a whole; to communicate the needs and aspirations of the industry to the Hong Kong Government; and to serve as the main channel for the Hong Kong Government to seek industry feedback on construction-related issues.

1.026 Based on these recommendations, the Provisional Construction Industry Coordination Board (PCICB) was established on 28 September 2001 to spearhead industry reforms and to propagate a new culture of change. The Hong Kong Construction Industry Council was established on 1 February 2007 to take over the work of PCICB. Committees on construction site safety, procurement, environment and technology, subcontracting and manpower training and development have been set up to implement improvement measures. The progress on the implementation of the recommendations is subject to periodic review and is published on the internet.[10]

1.027 Among these changes, there are two areas in particular that should be highlighted. First, the call for good contracting practices in construction contracts is on the rise.

[10] For details, see http://www.hkcic.org viewed 12 Feb 2011.

2. Express Terms

(a) General principles

5.004 Where a contract is made orally only, the ascertainment of its terms is a mere question of fact as to what the parties said. In *Smith v Hughes*,[3] the court was invited to decide whether there was an oral contract of sale of "good oats" or "good old oats". In *Statoil ASA v Louis Dreyfus Energy Services LP*,[4] the court decided that a settlement agreement was found superseded by an oral agreement made during a telephone conversation.

5.005 Yet, whether the parties have reached agreement on the terms is not determined by evidence of the subjective intention of each party. It is largely determined by making an objective appraisal of the exchanges between the parties.[5] As per Blackburn J[6]:

> "If, whatever a man's real intention may be, he so conducts himself that a reasonable man would believe that he was assenting to the terms proposed by the other party, and that other party upon that belief enters into the contract with him, the man thus conducting himself would be equally bound as if he had intended to agree to the other party's terms."

5.006 For construction contracts in Hong Kong, quite a number of those subcontracts are still made orally, notwithstanding that millions of dollars are in issue. Such cases give rise to heated disputes as to what the express terms of the contracts are. It may well be noticed that the resolution of these disputes normally takes place some years after the incident of contract and perhaps with some of the personnel involved having already left the picture. This is what happened in *Grand Choice Construction Co Ltd v Dillingham Construction (HK) Ltd*,[7] where dispute arose between the main contractor and the subcontractor in relation to an expansion project for the Hong Kong International School, where it was alleged that the provisions of the main contract were expressly agreed to be binding on the subcontractor and payment to the subcontractor would

[3] (1871) LR 6 QB 597. In *Kowloon Development Finance Ltd v Pendex Industries Ltd* [2013] HKEC 704, the Hong Kong Court of Final Appeal remarked:

> "22. Some commentators have expressed surprise that a party might find that, as a result of rectification on grounds of mutual mistake, he is bound by a contract which is not only different from the terms of the final document but is one which, subjectively, he never intended to agree to. That is what happened in the Chartbrook case. But Chartbrook was by no means the first time that this had happened: see, for example, *George Cohen Sons & Co. Ltd v Docks and Inland Waterways Executive* (1950) 84 Ll L Rep 97 . Objective interpretation of contractual agreements is a fundamental principle of the common law. In *Daventry District Council v Daventry & District Housing Limited* [2012] 1 WLR 1333 , Toulson LJ (as he then was) expressed some sympathy with these academic comments on Chartbrook. However, he also quoted the well known passage from the judgment of *Blackburn Jin Smith v Hughes* (1871) LR 6 QB 597, 607, which is the classic statement of the principle of objective interpretation…"

[4] [2008] All ER (D) 116. See also *Eshed Diam (HK) Ltd v Siam Color Gems & Jewelry Ltd* [2017] 3 HKLRD 308.

[5] *Shogun Finance Ltd v Hudson* [2003] 1 WLR 1371. It should be noted, however, that the objective test is subject to the limitation that it does not apply in favour of a party who knows the truth. See also *Inspiring Investments Ltd v Chun Hu Hing* [2018] HKEC 1109 *Etacol (Hong Kong) Ltd v Sinomast Ltd* [2007] HKEC 113. See further *Hamid (t/a Hamid Properties) v Francis Bradshaw Partnership* [2013] BLR 447.

[6] *Smith v Hughes* (1871) LR 6 QB 597 at 607.

[7] (unrep, HC Con List 13 of 1989). See also its Court of Appeal decision *Grand Choice Construction Company Limited v Dillingham Construction (HK) Limited* [1991] HKEC 64.

be upon receipt of payment by the main contractor from the employer. As one of the people involved in the subcontract had left the main contractor, the court had to deal with the matter based on what it was alleged that he said or agreed without hearing from him. In the circumstances, the court held that no such express terms had been incorporated into the contract. Likewise, in the case of another context of *Professional Associates v Polytek Engineering Co Ltd*,[8] for example, an architect firm had to claim for its fees for service provided to a subsequently abandoned hotel project based on an oral contract, since the joint-venture company for the project had not been formed before the project was abandoned.

5.007 In *Taigo Ltd v Kwok Kwai Chuen Simon t/a Jade Top Design & Engineering Co*,[9] the Hong Kong Court of Appeal was asked to decide whether there was agreement on oral terms for payment to be made after approval by the quantity surveyor of the metal parts of a racking system and locking pins, the final measurement of the weight of metal parts actually delivered, and the completion of whole of the building projects. There were contracts, written in Chinese, between the parties, providing for payment to be made within 30 days of invoice. The court observed that these alleged oral terms undermined, entirely, the written terms of the contracts and evidence of the alleged oral contract would be inadmissible. In *Hung Hing Engineering Co Ltd v Hung Wai Ming*,[10] there was a claim for unpaid balance of purchase price due under 12 invoices for goods sold and delivered. The issue for determination was whether there was any express or implied term that the payment of purchase price was to be subject to the supply by seller of the original manufacturer's certificates. The suggestion of such an express term and implied term was rejected by the court on the evidence.

5.008 The issue of express oral terms may also arise from collateral contracts or oral variations to existing contracts.[11]

5.009 Where a contract is, or appears to be, reduced in writing, the court will not normally look beyond the writing to determine what the express terms are. Neither of the parties is allowed to put forward extrinsic evidence, i.e. evidence external to the document such as what was said or intended at the time of the contract, to vary or qualify the written document. This rule that parol evidence cannot be given to contradict the terms of a written agreement is known as the parol evidence rule.[12]

[8] [1986] HKLR 20.

[9] [2005] HKCU 933. See also *Tai Ying Fat v Sun Fook Kong Construction Ltd* [2011] HKEC 930 and *Venco Engineering Ltd v Tai Fong Engineering Hong Kong Co Ltd* [2007] HKEC 1737.

[10] [2017] HKEC 870. See also *SNE Engineering Co Ltd v Chim Kee Machinery Co Ltd* [2016] HKEC 710, *Shun Tat Engineering (HK) Ltd v Harvest Time Engineering Ltd* [2016] HKEC 394 and *Leung Wan Kee Shipyard Ltd v Dragon Pearl Night Club Restaurant Ltd* [2015] HKEC 1813.

[11] *Hung Hing Engineering Co Ltd v Hung Wai Ming* [2017] HKEC 870, *Chan Shun Kei v Hong Kong Construction (Hong Kong) Ltd* and *Fung Cheung formerly trading as Cheung Kee Construction Co v Kwan Lee Construction Co Ltd* [1995] HKEC 217.

[12] See *Leung Wan Kee Shipyard Ltd v Dragon Pearl Night Club Restaurant Ltd* [2015] HKEC 1813 and *Cheer Giant International Ltd v Wo Ming Engineering Ltd* [2007] HKEC 777. See also *Wai Kam Chiu v Chim Siu Fan* [2008] HKEC 1071, where Hon Cheung JA noted at para 18 that:

> "In a number of older cases it was stated that evidence of such a contract or warranty must not contradict the express terms of the written contract. However, more recently, the courts have admitted evidence to prove an overriding oral warranty or to prove an oral promise that the written contract will not be enforced in accordance with its terms."

5.010 In *Consort Engineering Co Ltd v Leung Wai Ying alias Tommy Leung trading as Kin Ming Company*,[13] in respect of a written subcontract between a main contractor and an electrical works contractor, a statement made to the main contractor after the signing of the subcontract that low voltage work would not be included was found to be extrinsic evidence and, as such, could not be accepted as part of the subcontract. Another illustration of the operation of the parol evidence rule is in the case of *Yeung Wai Hon v Ho & Partners Architects Engineers & Development Consultants Ltd*,[14] where supervisors employed to work on a construction project, with their written contracts requiring them to work "up to the substantial completion day of the project" claimed that the true agreements reached by the parties orally were that the respective contracts were all for a fixed term, i.e. up to the tentative substantial completion date. The court held that the parol evidence rule prevented such alleged oral agreements from being taken into account in finding out the agreements between the parties. However, an exception to this rule is collateral contract. As noted in *Paul Y Management Ltd v Eternal Unity Development Ltd*,[15] the parol evidence rule only applies where the parties to an agreement reduce it to writing, and agree or intend that the writing shall be their agreement. It has no application until it is first determined that the terms of the parties' agreement are wholly contained in the written document. Whether the parties did so agree or intend is a matter to be decided by the court upon consideration of all the evidence relevant to this issue. Thus, even though the parties intended to express the whole of their agreement in a particular document, extrinsic evidence may nevertheless be admitted to prove a contract or warranty collateral to that agreement.[16] The reason is that the parol agreement neither alters nor adds to the written one, but is an independent agreement. Such evidence is certainly admissible in respect of a matter on which the written contract is silent.

5.011 The rule also applies to cheques which are in nature an unconditional order to the bank for payment. In a leading case concerning the bounced cheques of *SY Chan Ltd v Choy Wai Bor*,[17] the defendant issued a cheque, drawn in favour of the plaintiff. However, the defendant later countermanded payment and the cheque was not honoured. When the plaintiff commenced action to recover the sum due, the defendant denied the contract on the terms of the cheque and argued that there was an oral agreement between the parties that the cheque would not be presented for payment at all. Such extrinsic evidence was held inadmissible to prove that the terms of payment differed from those expressed in writing on the cheque.

[13] [2002] HKEC 542.

[14] [2002] HKLRD 425.

[15] [2008] HKEC 1359. In this case, the Hong Kong Court of Appeal allowed the appeal against the grant of summary judgement in respect of a loan agreement that was only one of the agreements entered into between the parties.

[16] *Wai Kam Chiu v Chim Siu Fan* [2008] HKEC 1071.

[17] [2001] 3 HKLRD 145. See also *Luks Industrial Co Ltd v Ocean Palace International Holdings Ltd* [2017] HKEC 131, *China Finance & Assets Management Ltd v Lafe Properties (Hong Kong) Ltd* [2015] HKEC 300, *Li Xinghao v Lau Pun* [2013] HKEC 688, *Lam Tai Kwan v Lo Wai Kit* [2007] 1 HKLRD 367 and *Mightfort Engineering (HK) Ltd v Chester Construction Co Ltd* [2006] HKEC 1123. See further *Savills (Hong Kong) Ltd v Kit Wang Group (China) Ltd* [2016] HKEC 1216.

5.012 This rule is not confined to oral evidence but extends to cover extrinsic matter in writing such as drafts, preliminary agreements and letters of negotiations.

5.013 The operation of the parol evidence rule is subject to several important exceptions. Extrinsic evidence is admissible to prove that the contract is invalid for reasons such as misrepresentation, mistake, lack of consideration or *non est factum*.[18] Extrinsic evidence is also admissible to prove collateral agreements or warranties, to establish custom or trade practice or to aid construction of the contract. In *Smith v South Wales Switchgear Ltd*,[19] the purchase note for the annual maintenance work at a factory stated that it was to be subject to "our General Conditions of Contract 24001 obtainable on request", but there were three versions of such conditions of contract all numbered 24001. No request was made. When a dispute arose as to which version was incorporated into the contract, if at all, the court took into account evidence regarding the version that was reasonably expected to be supplied if requested and held that a reference in a contractual document to the contract being subject to general conditions "available on request" was sufficient to incorporate into the contract the terms contained in the current edition of such conditions.

5.014 There can be further complications, where a contract is made partly orally and partly in writing. It is not always easy to decide whether the parties have or have not intended to reduce their agreement to the precise terms of a written agreement. An oral contract collateral to a written agreement with the sole effect being to vary or add to the terms of the written contract is viewed with suspicion by the law and it must be strictly proved. Not only the terms of such contracts, but the very existence of an intention to contract on the part of all parties involved muse be clearly shown. This approach to collateral contract has been applied by the Privy Council in *Universal Dockyard Ltd v Trinity General Insurance Co Ltd*[20] and also by the Hong Kong Court of Appeal in *Bank of India v Surtani Murlidhar Parmanand t/a Ajanta Trading Corp.*[21] In *Man Keung Co Ltd v Prosperity Machinery Manufacturers Ltd*,[22] the court rejected the suggestion that there was a collateral contract whereby in consideration of the buyer's entering into the contract with the seller, the seller agreed that the goods supplied under the contract would be of the British Standard and that the seller would supply a certificate to show that the goods complied with the British Standard. The court observed that, even if there were discussions regarding British Standard at the time of

[18] In *Cheer Giant International Ltd v Wo Ming Engineering Ltd* [2007] HKEC 777, the defendant asserted that, as he did not understand English, he was not aware that the content of the contract was not in line with their verbal agreement. The court rejected this defence, noting that:

> "This is, in effect, a claim of *non est factum*. In considering such a plea in the case of *Wing Hang Bank Ltd v Liu Kam Ying* [2002] 2 HKC 257, Ma J, as he then was, rejected such a plea, coming from a man of full age and capacity on the basis that if he did not read the terms, that was negligent on his part and the defence of *non est factum* was unavailable." See also *Chow Mee Yee Millie v Hong Kong Mediation Service Ltd* [2012] HKEC 221.

[19] [1978] 1 WLR 165. See *Robinson v PE Jones (Contractors) Ltd* [2012] QB 44. See also *DBS Bank (Hong Kong) Ltd v Yue Li (HK) Engineering Ltd* [2014] HKEC 1597 and *Glory Duty Investment Limited v Secretary for Justice* [1999] HKCFI 189.

[20] [1989] 2 HKLR 160. See also *Greatland Property Consultants Ltd v Charis Patria Ltd* [2017] 1 HKLRD 313, *Huang Mucai v Cheng Zhen Shu* [2012] HKEC 1269 and 安保工程有限公司 v 嚴海文經營文華電器工程公司 [2012] CHKEC 271.

[21] [1994] 1 HKC 7.

[22] [2006] HKDC 422.

contract, the parties did not intend to create a contractual relationship as such by way of a collateral contract and that, if the parties had wanted a contract for the supply of goods meeting the British Standard, they would have done so by expressly stipulating such requirement in the purchase orders.

5.015 In *Chan and Wong Ltd t/a Luen Wah Machine Welding & Iron Works v Vicform Co Ltd*,[23] a collateral, oral agreement regarding settling the contract price with a lesser payment in a sale and purchase contract of stainless metal doors was rejected. In *Brilliant (Man Sau) Engineering Ltd v Prosperity Construction and Decoration Ltd*,[24] the court refused to find an oral agreement and a collateral guarantee in relation to payment of refurbishment works to a hotel to the sub-subcontractor.

5.016 The terms of a contract may be contained in more than one document. The parties may purport to incorporate one document in another by express reference. For example, this may occur where there is a clause in the conditions of contract incorporating the terms in the bills of quantities into a construction contract. In this regard, the general rule is that the terms of a contract must be brought to the attention of the other party before the contract is formed. As in *Olley v Marlborough Court Ltd*,[25] a notice on the wall of a hotel room seeking to absolve the hotel from liability for theft was ineffective, as the notice was at the reception desk before entering the room. Yet, where a contract is in writing, a failure to actually read its terms and conditions does not, in itself, make those terms and conditions inapplicable. In some types of standard contracts, they may belong to a class of terms and conditions which a party receiving them will expect to be contractual conditions.[26]

5.017 In *A Davies & Co (Shopfitters) v Old (William)*,[27] the main contractor's order was mainly typewritten on a standard printed form and below the signature were the words "this order is subject to the terms and conditions set forth overleaf". One of the various printed conditions overleaf stated that the main contractor was not to be liable to the nominated subcontractor to pay any moneys, which had not been paid by the employer. The nominated subcontractor accepted the order for work to be done in accordance with the tender. On the employers becoming insolvent and not paying for certain work done by the nominated subcontractor, the main contractor successfully denied that it was obliged to pay the nominated subcontractor under the terms of the contract. However, where what is in issue is

[23] [2006] HKEC 1244. See other examples as *Tung Kee Garden Horticulture Ltd v Wong Wang Tat t/a Tsui Park Garden* [2007] HKEC 1540 and *Leyland Engineering Ltd v Winfast Engineering Ltd* [2006] HKEC 1727. See also *Wealthy Gate Architects & Associates Ltd v The SYW Trustee Holdings Corporation* [2006] HKEC 627.

[24] [2006] HKEC 1244. See also *BSC Interior Contract and Engineering Co Ltd v Shinta Ltd* [2008] HKEC 1601 and the Hong Kong Court of Appeal decision in *BSC Interior Contract and Engineering Co Ltd v Shinta Ltd* [2009] HKEC 1740.

[25] [1949] 1 KB 532. See also *Hung Hing Engineering Co Ltd v Hung Wai Ming* [2017] HKEC 870 and *Orient Technologies Ltd v A Plus Express (HK) Ltd* [2004] 4 HKC 72.

[26] See the decision in the case of *Flying Transportation (Macau) Ltd v Pacific Air Freight (Hong Kong) Ltd* (unrep, HCA No 6187 of 2000) where it clearly accepts that "freight forwarding contracts and airway bills are documents of a class which a party receiving them would expect there were contractual conditions". In such situations, it is no answer for defendants to say that they did not read either the notice drawing their attention to the conditions or the conditions themselves, since, if a businessman chooses to conduct himself without knowing the terms of his contract, that is his problem. See also *Federal Express Pacific Inc v Tung Sau Kam* [2008] HKEC 467.

[27] (1969) 113 SJ 262.

of a particularly extraneous or wholly unusual nature, there needs to be reasonable effort to bring such conditions to the notice of the other party. In this case, whether or not sufficient notice has been given is a question which also involves broad considerations of fairness and reasonableness, having regard to the nature and effect of the conditions and the circumstances relied upon as constituting notice that the contract is to contain a condition of such a nature and effect. For instance, in the case a holidaymaker required to sign a long small print document in order to hire a family car at an airport, if the relevant document proved on close reading to contain a provision of an extraneous or wholly unusual nature, it is possible that other arguments can also be advanced, such as that the nature or effect of the document had been impliedly misrepresented.

5.018 In *Interfoto Picture Library Ltd v Stiletto Visual Programmes Ltd*,[28] a delivery note stating that there was to be a holding fee of £5 per photograph per day for transparencies not returned in time was held as not forming part of the contract.

5.019 In the context of the construction industry, there is a whole list of express terms that are of particular relevance since they are not uncommonly incorporated into such contracts for a variety of reasons and purposes. These include exemption or exclusion clauses, liquidated damages clauses, time bar clauses and forfeiture clauses.

(b) Exemption clauses

5.020 Exemption clauses are an integral part of commercial contracts which regulate business dealings. Commercial contracts are negotiated between parties capable of looking after their own interests and of deciding how risks inherent in the performance of various kinds of contract can be most economically borne, generally by insurance.

5.021 With the use of standard form contracts, such commercial agreements can be regarded as a formalised system of delineating rights and duties, with exemption clauses performing the role of assigning and allocating understood and recognisable risks, with a view that the other party concerned should take necessary precautionary measures.

5.022 An exemption clause may purport to limit or reduce the otherwise obligation toward a party, for example, by limiting liability to wilful neglect or default or by binding a purchaser of property to take it up on an "as-is" basis irrespective of the errors of descriptions previously given. An exemption clause may purport to exclude or restrict the right of a party in case of a breach of contract, for example, by taking away the right to rescind the contract. Also, an exemption clause may exclude or limit the duty towards the full indemnity of the loss, for example, by limiting the amount of damages recoverable.

[28] [1989] QB 433. See *DBS Bank (Hong Kong) Ltd v Sit Pan Jit* [2017] HKEC 298, *Lee Yuk Shing v Dianoor International Ltd* [2016] HKEC 1139, *Links Internatioinal Relocations Ltd v Swift Christopher Lee* [2013] HKEC 1678 and *Kowloon Development Finance Ltd v Pendex Industries Ltd* [2013] HKEC 704.

5.023 For exemption clauses to be effective, they must be clear and unambiguous. In *Photo Production Ltd v Securicor Transport Ltd*,[29] for a modest charge, the defendant contracted with the plaintiff to provide a night-patrol service at the plaintiff's factory. An employee of the defendant who had been satisfactorily employed by them for some three months deliberately started a small fire in the factory and the fire got out of control and burned down the factory. Although the starting of the fire was deliberate, it was not intended to destroy the factory. The contract contained an exemption clause excluding liability on the defendant for default of any employee of the defendant unless such default could have been foreseen and avoided by the exercise of due diligence on the part of the defendant. The exemption also excluded the liability for any loss suffered through fire or any other cause except being solely attributable to the negligence of the defendant's employees acting within the cause of their employment. Before the House of Lords, it was held that the exemption clause was effective in excluding the defendant from liability. This decision was reached through consideration of the wording of the clause and the surrounding circumstances, including the very modest charge for the service. Thus, whether an exclusion clause is apt to exclude or limit liability is a matter of construction of the contract and, generally, parties to a contract, when they bargain on equal terms, should be at liberty to apportion liability in the contract as they see fit. In *Goodlife Foods Ltd v Hall Fire Protection Ltd*,[30] it was held that an exclusion clause in the standard terms of a specialist fire suppression contractor was not particularly unusual or onerous and had, in any event, been reasonably brought to the other party's attention.

5.024 In the Hong Kong Court of Final Appeal case, *Bewise Motors Co Ltd v Hoi Kong Container Services Ltd*,[31] there was an exemption clause excluding liability otherwise

[29] [1980] AC 827. In construing an exclusion or limitation clause the court is not entitled to create ambiguity where none fairly exists on a proper reading of the clause and this is so even if the exclusion deprives the contract of an underlying liability which is central to the performance of the contract. However, one must not lose sight of the much broader general principle of construction as stated by Lord Hoffmann in *Jumbo King Ltd v Faithful Properties Ltd & Ors* [1999] 4 HKC 707. Construction of a document is not a game with words. It is an attempt to discover what a reasonable person would have understood the parties to mean. This involves having regard, not merely to the individual words they have used, but to the agreement as a whole, the factual and legal background against which it was concluded and the practical objects which it was intended to achieve. The overriding objective in construction is to give effect to what a reasonable person rather than a pedantic lawyer would have understood the parties to mean. Therefore, if in spite of linguistic problems the meaning is clear, it is that meaning which must prevail. The contract must be construed as a whole to ascertain the meaning of each clause. Another principle of construction which one must bear in mind is that the contract of carriage is to be construed *contra proferentem*. See *Maintek Computer (Suzhou) Co Ltd v Blue Anchor Line* [2013] HKEC 467, *Dragon Pearl Night Club Restaurant Ltd v Leung Wan Kee Shipyard Ltd* [2011] 1 HKLRD 117 and *Parshad v Chit Hing Construction Engineering* [2011] 1 HKLRD 217. See also *Kudos Catering (UK) Ltd v Manchester Central Convention* [2013] EWCA Civ 38, *Apollo Engineering Ltd v James Scott Ltd* [2012] CSIH 88 and *BSkyB Ltd v HP Enterprise Services UK Ltd (formerly t/a Electronic Data Systems Ltd)* [2010] BLR 267.

[30] 178 ConLR 1. It was further held that, in the light of the parties' equal size and bargaining power and the option of paying for insurance to reinstate liability for otherwise excluded losses, it was not unreasonable within the meaning of the UK Unfair Contract Terms Act 1977.

[31] [1998] 2 HKLRD 645. In this case, Bohkary PJ adopted the view of Taylor LJ in *Circle Freight International Ltd v Medeast Gulf Exports Ltd* [1988] 2 Lloyd's Rep 427 at 433:

> "... it is not necessary to the incorporation of trading terms into a contract that they should be specifically set out provided that they are conditions in common form or usual terms in the relevant business. It is sufficient if adequate notice is given, identifying and relying upon the conditions and they are available on request. Other considerations apply as if the conditions or any of them are particularly onerous or unusual."

See also *Mozard (HK) Co Ltd v Dachser Hong Kong Ltd* [2018] HKEC 1292, *Lau Chi Wing v Ng Ka Hi* [2011] HKEC 360 and *Mau Wing Industrial Ltd v Ensign Freight Pte Ltd* [2009] 5 HKLRD 240.

than for wilful neglect or default in the contract for the delivery of cars to be shipped in containers. The cars were stolen from the container depot due to negligence. It was held that, given the plain meaning of the clause, there was no compelling reason to depart from this construction, as there was no resulting absurdity or countervailing rules or principles of law. Under the circumstances, even the expectations of honest men were not permitted to be used as a tool of construction.

5.025 Thus, in a contractual setting, the effectiveness or otherwise of an exemption clause, especially involving a commercial contract where there is no inequality of bargaining power, is purely a matter of its construction.[32]

5.026 The effectiveness of operation of exemption clauses is controlled by legislation in certain areas.[33] The key legislation in Hong Kong is the Control of Exemption Clauses Ordinance (Cap.71) and the Unconscionable Contracts Ordinance (Cap.458). In relation to business liability, s.7 of the Control of Exemption Clauses Ordinance prohibits the exclusion or restriction of liability for death or personal injury resulting from negligence and requires all exclusion or restriction of other liability for negligence to satisfy the requirement of reasonableness. The reasonableness test, as detailed in s.3 and Sch.2 of the Control of Exemption Clauses Ordinance, requires the consideration of factors such as relative bargaining power, the inducement given to agreement, the notice of the terms and the extent of exclusion or restriction intended by the clause. Likewise, in a more general context, under s.5 of the Unconscionable Contracts Ordinance,[34] in respect of a contract for the sale of goods or supply of services in which one of the parties is the consumer, the court may refuse to enforce the contract or any part of it or limit its application where the court finds the contract or any part of the contract to have been unconscionable under the circumstances relating to the contract at the time it was made.

[32] See the Hong Kong Court of Final Appeal decision in *Carewins Development (China) Ltd v Hecny Shipping Ltd* [2009] 5 HKC 160; [2009] 3 HKLRD 409. As remarked by Ribeiro PJ:

> "The correct approach in this context was summarised by Lord Wilberforce in *Ailsa Craig Fishing Co Ltd v Malvern Fishing Co Ltd*, in the following terms: 'Whether a clause limiting liability is effective or not is a question of construction of that clause in the context of the contract as a whole. If it is to exclude liability for negligence, it must be most clearly and unambiguously expressed, and in such a contract as this, must be construed *contra proferentem*. I do not think that there is any doubt so far. But I venture to add one further qualification, or at least clarification: one must not strive to create ambiguities by strained construction, as I think that the appellants have striven to do. The relevant words must be given, if possible, their natural, plain meaning.' ... Two related aspects of the principle so expressed should be underlined. First is the emphasis it lays on the requirement that the exempting words be devoid of any ambiguity, with the clause being construed against the person relying on the exemption. Secondly, the principal stresses the need to construe the clause in the context of the contract as a whole, taking into account its nature and object. As Lord Wilberforce pointed out in the Suisse Atlantique case, the principle is "that the contractual intention is to be ascertained ... not just grammatically from words used, but by consideration of those words in relation to commercial purpose ..."

[33] See *Chau Kei Man Rayman v Chaters Auction Ltd* [2018] 3 HKC 225, *Wong Lung v Chinese University of Hong Kong Employees' Credit Union* [2016] HKEC 2421, *Max Components Ltd v Cyclo Transportation Co Ltd* [2012] 3 HKLRD 151, *Parshad v Chit Hing Construction Engineering* [2011] 1 HKLRD 217, *May Tik Decoration Co Ltd v Ronacrete (Far East) Ltd* [2009] HKEC 670. See also *Yau Hing Machinery Ltd v Kin Shing Construction Co Ltd* [2008] HKEC 1421, in relation to exemption clauses in an agreement for rental of machines. See, however, *Fairlite Industries Ltd v Fosroc Hong Kong Ltd* [2008] HKEC 397.

[34] See *Shum Kit Ching v Caesar Beauty Centre Ltd* [2003] 3 HKC 235.

5.027 In determining whether a contract or part of a contract is unconscionable under the circumstances relating to the contract at the time it was made, s.6 of the Unconscionable Contracts Ordinance (Cap.458) entitles the court to regard factors similar to those in the Control of Exemption Clauses Ordinance (Cap.71) regarding reasonableness.[35]

5.028 As to the interaction of exemption clauses and the statutory control in practice in the construction industry regarding defects, a term which excludes all liability for damages and merely provides for a limited defects correction obligation for a short period following the completion of the contract will usually be found not to satisfy the reasonableness test laid down in the Control of Exemption Clauses Ordinance (Cap.71),[36] as supported by a number of decisions including *Rees Hough Ltd v Redland Reinforced Plastics Ltd*[37] where the repair obligation only applied if defects were notified within three months of delivery; *Charlotte Thirty Ltd v Crocker Ltd*,[38] where the warranty period was six months; *Edmund Murry Ltd v BSP International Foundations Ltd*,[39] where the repair or replacement was to be within six months of delivery; and *British Fermentation Products Ltd v Compare Reavell Ltd* [1999] BLR 352, where condition 11 of the Model Form of General Conditions Form C (1975 edition) was upheld despite a limitation of remedies to making good within 12 months after delivery because other conditions protected the purchaser. The overall requirement is for the court to look at all the circumstances prevailing at the date of the contract and take an overall view as to the term's reasonableness.[40] Thus, a party's knowledge of the existence of the exemption during the negotiations and an ability to take legal advice as to the meaning and extent of the exclusion before committing itself to the contract are factors that may tell against a court finding a term to be unreasonable. Ordinarily, negotiated terms will not be held to be unreasonable when negotiated by businesspeople. In *African Export-Import Bank v Shebah Exploration and Production Co Ltd*,[41] in relation to a contract for syndicated loans, it was held that, where commercial parties had used an industry model form as the basis for a complex financial contract, executed after the usual process of negotiation, it would require cogent evidence to raise a case that the contract was made on the written standard terms of one of those parties within the UK Unfair Contract Terms Act. Yet,

35 In deciding whether a contract or part of a contract was unconscionable or not for the purpose of s.5 of the Unconscionable Contracts Ordinance (Cap.458), the court must have regard to all circumstances relevant to that issue and also take into account the factors set out in s.6(1)(a)(e) of the Unconscionable Contracts Ordinance (Cap.458) as appropriate. See *Chau Kei Man Rayman v Chaters Auction Ltd* [2018] 3 HKC 225.

36 See *Chau Kei Man Rayman v Chaters Auction Ltd* [2018] 3 HKC 225, *Max Components Ltd v Cyclo Transportation Co Ltd* [2012] 3 HKLRD 151 and *May Tik Decoration Co Ltd v Ronacrete (Far East) Ltd* [2009] HKEC 670. See also *Mostcash plc and others v Fluor (No 2)* [2002] All ER (D) 154 (Apr).

37 (1984) 2 Con LR 109.

38 (1990) 24 ConLR 46. See also *Goodlife Foods Ltd v Hall Fire Protection Ltd* (2018) 178 ConLR 1.

39 (1992) 33 Con LR 1.

40 In determining whether the relevant exclusion is fair and reasonable, regard is to be had to the circumstances which were, or ought to reasonably have been, known by the parties when the contract was made. Thus, a party's knowledge of the existence of the exclusion during the negotiations and an ability to take legal advice as to the meaning and extent of the exclusion before committing itself to the contract may however be factors which can tell against a court granting relief.

41 [2016] 2 All E.R. (Comm) 307.

as in *Watford Electronics Ltd v Sanderson CFL Ltd*,[42] a term is capable of being held unreasonable, even if it has been negotiated, if it is so unreasonable that its meaning and effect cannot properly have been understood.

(c) Liquidated damages clauses

5.029 Parties to a contract may agree beforehand what sum shall be payable by way of damages in the event of breach. For example, a contractor agrees that it will pay HK$1,000 a day every day when the work remained unfinished after the contractual date for completion.

5.030 For a liquidated damages clause to be valid, it cannot be in truth of the nature of a threat in *terrorem*, i.e. acting as a mere security to the promisee that the contract will be performed. In such a situation, whatever label being given, the stipulated sum becomes a penalty. Thus, whether a clause is one for liquidated damages or one for a penalty is of prime importance as to its legal validity in effect. The distinction between them depends on the intention of the parties, which should be gathered from the whole of the contract: if the intention is to secure performance of the contract by the imposition of a fine or penalty, then the sum specified is a penalty; but if the intention is to assess the damages for breach of contract, it is liquidated damages. As remarked in *Dunlop Pneumatic Tyre Co v New Garage and Motor Co*,[43] the label of "penalty" or "liquidated damages" that the parties affixed to the clause, though not to be disregarded in total, was not conclusive and the court still looked behind the label to see whether the sum stipulated was a genuine forecast of the probable loss. Thus, whether a sum stipulated is a penalty or not is a question of construction to be decided upon by the terms and inherent circumstances of each particular contract, judged at the time of the making of the contract.[44] In *Dunlop Pneumatic Tyre Co v New Garage and Motor Co*, the plaintiff supplied tyres to the defendant under an agreement by which the defendant bound itself to sell such tyres in a stipulated manner only and to pay

42 [2001] BLR 143. In the judgment of Chadwick LJ, it was remarked:

> "Where experienced businessmen representing substantial companies of equal bargaining power negotiate an agreement, they may be taken to have had regard to the matters known to them. They should, in my view be taken to be the best judge of the commercial fairness of the agreement which they have made; including the fairness of each of the terms in that agreement. They should be taken to be the best judge on the question whether the terms of the agreement are reasonable. The court should not assume that either is likely to commit his company to an agreement which he thinks is unfair, or which he thinks includes unreasonable terms., Unless satisfied that one party has, in effect, taken unfair advantage of the other — or that a term is so unreasonable that it cannot properly have been understood or considered — the court should not interfere."

See *Elvanite Full Circle Limited v AMEC Earth & Environmental (UK) Limited* [2013] EWHC 1191 (TCC) and *Astrazeneca UK Ltd v Albemarle International Corp* [2011] 2 CLC 252.

43 [1915] AC 79. See, for example, *Ip Ming Kin v Wong Siu Lan* [2013] HKEC 816, *Artman Creation (HK) Ltd v Parallel Promotion Ltd* [2011] HKEC 363 and *Chow Keev Transway Construction & Engineering Ltd* [2006] HKEC 2314.

44 See, for example, *Chow Kee v Transway Construction & Engineering Ltd* [2006] HKEC 2314. The material time is not at the time of the breach. See also *Trustees of Ampleforth Abbey Trust v Turner & Townsend Management Ltd* (2012) Con LR 115, *Azimut-Benetti SpA v Healey* [2011] 1 Lloyd's Rep 473, *Hall v Van Der Heiden* [2010] EWHC 586 (TCC) and *Public Works Commissioner v Hills* [1906] AC 368 and *Webster v Bosanquet* [1912] AC 394.

£5 by way of liquidated damages for every tyre sold or offered in breach of such an agreement. Various variants on that have developed in construction cases.[45]

5.031 The case of *Robophone Facilities Ltd v Blank*[46] explains the function and purpose that a liquidated damages clause can serve. That case concerned a rental contract for telephone recording machines with a clause providing that if the rental agreement was terminated the hirer was to pay all outstanding accrued rentals due and "also by way of liquidated or agreed damages a sum equal to 50 per cent of the total of the rentals which would thereafter have become payable". This was held, by a majority of two to one in the Court of Appeal in England and Wales, to be valid as a liquidated damages clause, since the figure of 50 per cent was supported by calculation as estimates of loss and *damage*. In his judgment Diplock LJ observed that:

> "It is good business sense that parties to a contract should know what will be the financial consequences to them of a breach on their part, for circumstances may arise when further performance of the contract may involve them in loss. And the more difficult it is likely to be to prove and assess the loss which a party will suffer in the event of a breach, the greater the advantages to both parties of fixing by the terms of the contract itself an easily ascertainable sum to be paid in that event. Not only does it enable the parties to know in advance what their position will be if a breach occurs and so avoid litigation at all, but if litigation cannot be avoided, it eliminates what may be the very heavy legal costs of proving the loss actually sustained which would have to be paid by the unsuccessful party. The court should not be astute to descry a "penalty clause" in every provision of a contract which stipulates a sum to be payable by one party to the other in the event of a breach by the former."

5.032 It may be noted, as in this case, that a liquidated damages clause may be of particular help in saving costs since it often arises in situations where proof of damage is extremely complex, difficult or expensive.

5.033 The onus of showing that such a stipulation is a penalty clause lies upon the party who is suing upon it.[47] The terms of the clause may themselves be sufficient to give rise to the inference that it is not a genuine estimate of damage likely to be suffered but is a penalty. It will be held to be a penalty if the sum stipulated for is extravagant and unconscionable in amount in comparison with the greatest loss that could conceivably be proved to have followed from the breach.[48] This inference is yet rebuttable on evidence to the contrary. In *Clydebank Engineering and Shipbuilding Co Ltd v Don Jose Ramos Yzquierdo y Castaneda*,[49] the question of time of delivery of torpedo boat destroyers to be built was of utmost importance since the government of Spain at the time was in the position that very significant interests might be jeopardised if its maritime strength was not adequate to meet the contingencies with which it was threatened. The defendant itself named a sum of £500 per week and the bargain was closed on these terms. The defendants were thus placed in the position that, whatever the actual damage was, only £500 a week could be claimed against them. Taking into account the background, the House of Lords held that the clause was not a general penalty clause, but a specific agreement that sums of money, graduated according to time, were to be paid as penalties for delays in delivering these vessels.

[43] *Bramall & Ogden Ltd v Sheffield City Council* (1983) 29 BLR 76. See also *Avoncroft Construction Ltd v Sharba Homes (CN) Ltd* (2008) 119 Con LR 130. See further *Cavendish Square Holding BV v Makdessi* [2016] AC 1172.

[46] [1966] 1 WLR 1428. See *Ip Ming Kin v Wong Siu Lan* [2013] HKEC 816. See also *Seng Sun Development Co Ltd v Hong Kong Resources Investment Co Ltd* [2009] HKEC 1332, where the court upheld liquidated damages for late delivery at RMB100,000 per month. See further *Cavendish Square Holding BV v Makdessi* [2016] AC 1172.

[47] *Seng Sun Development Co Ltd v Hong Kong Resources Investment Co Ltd* [2009] HKEC 1332.

[48] *Clydebank Engineering and Shipbuilding Co v Don Jose Ramos Yzquierdo y Castaneda* [1905] AC 6. See also *Yan Ho Chiu v Charmgold International Ltd* [2006] HKEC 622.

5.034 Indeed, it seems impossible to lay down an abstract rule as to what would render a clause so extravagant and unconscionable that it would become a penalty. An obvious point of reference may be the greatest loss that could possibly follow from the concerned breach. For instance, as illustrated in *Kemble v Farren*,[50] if a party is in breach of an obligation to pay a certain sum of money and it is agreed that, if it fails to do so, it is to pay an even larger sum, then this larger sum is a penalty. This is because the damage arising from such a breach is capable of exact definition.

5.035 In *Webster v Bosanquet*,[51] it was held that, where a contract provided that on breach thereof a specified amount should be paid "as liquidated damages and not as a penalty", its true construction had to have regard to the particular circumstances of the case and not be such as to render it unconscionable and extravagant. It was also held that where it was impossible at the date of contract to foresee the extent of uncertain injury which might be sustained by its breach or the cost and difficulty of proving it and the stated amount was reasonable, it should be recovered as liquidated damages. That case concerns a liquidated damages clause covering damage arising from a breach of an agreement to sell a crop of Ceylon tea at a fixed price over a ten-year period.

5.036 As a rule of thumb, if there is only one event upon which the stipulated sum is to be paid, that sum is liquidated damages. In *Law v Local Board of Redditch*,[52] a contract for the construction of sewerage works provided that the works should be completed in all respects by a specified date and required, if in default of such completion, the contractor to pay a sum of £100 and £5 for every seven days during which the works should be incomplete after the said date as and for liquidated damages. It was held that such sums were payable on a single event only, which is the non-completion of the works, and, as such, they were to be regarded as liquidated damages, not as penalties.

[49] [1905] AC 6. See also *Imam-Sadeque v Bluebay Asset Management (Services) Ltd* [2013] IRLR 344, *Hill v Stewart Milne Group* [2011] CSIH 50 and *Tandrin Aviation Holdings Ltd v Aero Toy Store LLC* [2010] 2 Lloyd's Rep 668.

[50] (1829) 6 Bing 141. See *Ip Ming Kin v Wong Siu Lan* [2013] HKEC 816. See also *Tandrin Aviation Holdings Ltd v Aero Toy Store LLC* [2010] 2 Lloyd's Rep 668.

[51] [1912] AC 394.

[52] [1892] 1 QB 127. See further *Cavendish Square Holding BV v Makdessi* [2016] AC 1172.

5.037 In his Court of Appeal judgment Lopers LJ remarked that:

> "There is a canon of construction which has been referred to by the Master of the Rolls, according to which, if the sum is payable on the happening or non-happening of one event, it is to be regarded as liquidated damages; but if, on the other hand, it is payable on the happening of several events, some of which would entail very trifling damage, then it is to be regarded as a penalty."

5.038 In Hong Kong, the legal position of liquidated damages clauses has been considered in *Philips Hong Kong Limited v The Attorney General of Hong Kong*.[53] In the case, the plaintiff contractor was engaged by the Hong Kong Government for the design, supply, testing, delivery, installation and commissioning of the approach roads and tunnels as part of a major highway project. The plaintiff's contract was one of seven interlinking contracts for the highway project and the contract contained flow charts that identified as key dates interfaces with other contracts. If these key dates were not met by a contractor, then the contract specified a liability to pay liquidated damages to the government at a daily rate. The government's approach to liquidated damages was by calculating them using a formula to ascertain what was anticipated would be the value of interfacing contracts. Further, the whole of the contract work was required to be completed within a specified time and if this was not met, the contract provided that the contractor was required to pay additional liquidated damages also at a daily rate. The contract was in a standard form and clause 29 of the contract provided that:

> "If the Contractor shall fail to complete the Works or any Section thereof or shall fail to achieve a Specified Degree of Completion within the time prescribed by Clause 27 or extended time, or shall fail to complete or shall unduly delay the Tests on Completion then the Contractor shall pay to the Employer the sum or sums stated in the Appendix to the Form of Tender as liquidated damages for such default and not as a penalty for every day or part of a day which shall elapse between the time prescribed by Clause 27 or extended time, as the case may be, and the date of completion of the Works or the relevant Section thereof or the relevant Specified Degree of Completion."

5.039 The contractor initiated proceedings in court seeking to obtain a ruling of the Court on the preliminary issues as to the validity of the liquidated damages clauses and clause 29. The court pointed out that the purpose of liquidated damages clauses was to enable contracting parties to know for the one party the extent of its protection in the event of breach by the other and to enable that party who might subsequently be in breach to quantify in advance the extent of its liability for such breach. It was held that an approach to liquidated damages clauses by the court which would defeat their purpose should not be adopted, except possibly in the case of situations where one of the parties to the contract was able to dominate the other as to the choice of the terms of the contract.

[53] [1993] 1 HKLR 269. See also *M&J Polymers Ltd v Imerys Minerals Ltd* [2008] 1 All ER (Comm) 893 and *Alfred McAlpine Capital Projects Ltd v Tilebox Ltd* [2005] BLR 271. See further *Cavendish Square Holding BV v Makdessi* [2016] AC 1172.

5.040 It was also observed that in order to establish that a provision was objectionably penal, it would normally be insufficient to merely identify situations where the application of the clause could result in a larger sum being recovered by the injured party than its actual loss. Indeed, it seems clear that, so long as the sum payable in the event of non-compliance with the contract is not extravagant, having regard to the range of losses that could reasonably be anticipated that it would have to cover at the time the contract was made, it can still be a genuine pre-estimate of the loss that would be suffered and so a perfectly valid liquidated damage provision. It was also considered that the use in argument of unlikely illustrations could therefore not assist a party to defeat a provision as to liquidated damages. It was also recognised that there could be difficulty where the range of possible loss is broad, and where it should be obvious that in relation to part of the range, the liquidated damages were totally out of proportion to certain of the losses which might be incurred. The reason was that those losses could result in the liquidated damages not being recoverable and the court had to carefully balance between too stringent a standard and the express agreement of the parties, without leading to undesirable uncertainty, especially in commercial contracts.

5.041 In the case of *Cavendish Square Holding BV v Makdessi*,[54] the UK Supreme Court seemingly refocused the law and held that, in determining whether a contractual provision was penal, the true test was whether it was a secondary obligation which imposed a detriment on the contract-breaker out of all proportion to the innocent party's legitimate interest in the enforcement of the primary obligation.[55] That case concerned clauses in a share sale agreement which restricted competition by the seller of the shares and stipulated a reduced price in the event of default on its part. Therefore, generally speaking, a clause which provides for payment of a specified sum, in place of common law damages, in the event of breach is enforceable if it does not exceed a genuine attempt to estimate in advance the loss which the claimant would likely suffer from a breach of the obligation in question and the court is to consider whether the impugned provision is a secondary obligation which imposes a detriment on the contract-breaker out of all proportion to any legitimate interest of the party in the enforcement of the primary obligation.[56]

5.042 Liquidated damages mean that it shall be taken as the sum which the parties have by the contract assessed as the damages to be paid, whatever may be the actual loss and damage in case of a breach of contract. Liquidated damages should therefore represent a genuine pre-estimate of such loss and damage that will be caused to one party if

[54] [2016] AC 1172. See *Gray v Braid Group (Holdings) Ltd* 2016 SLT 1003 and *Richards v IP Solutions Group Ltd* [2017] IRLR 133. See also *Merit Act Ltd v Chubb Hong Kong Ltd* [2018] HKEC 1721 and *Leung Wan Kee Shipyard Ltd v Dragon Pearl Night Club Restaurant Ltd (No 2)* [2016] 1 HKLRD 657

[55] It was held that the purpose of the law relating to penalty clauses was to prevent a claimant recovering a sum of money in respect of a breach of contract committed by the defendant which bore little or no relationship to the loss actually suffered by the claimant as a result of the breach. In this regard, it was considered that the penalty rule regulated only the remedies available for breach of a party's primary obligations, not the primary obligations themselves. That concept provided the whole basis of the classic distinction in law between a penalty and a genuine pre-estimate of loss, the former being essentially a way of punishing the contract-breaker rather than compensating the innocent party.

[56] *Merit Act Ltd v Chubb Hong Kong Ltd* [2018] HKEC 1721, *Force Way Engineering Ltd v Incorporated Owners of Grand Court* [2017] HKEC 2746 and *Leung Wan Kee Shipyard Ltd v Dragon Pearl Night Club Restaurant Ltd* (No.2).

indicators and monitoring the schedule for and the effectiveness of improvement. Third, there is a need for steps that ensure full involvement of the work force in implementing the quality management system installed. Another feature that quality management systems bring to construction contracts is the generation and maintenance of contemporaneous written records. In resolution of construction disputes, whether by way of litigation, arbitration or mediation, it is common experience that contemporaneous records of the subject matter are of much greater force and value. The operation of quality management systems requires the documentation of all processes that affect the delivery of quality and of records that such processes were carried out as planned. Thus, depending on the subject matter of a dispute, these quality records can become a valuable source of information and evidence that can help to resolve the dispute.

17.004 The concept of quality has evolved to a stage that is very far away from where it once was. In relation to quality, the world is no longer what it used to be. Although ISO 9000 is an international standard, it is derived from a British Standard and its use was and is more widespread in the United Kingdom than elsewhere. Other countries have different approaches, for example peer review in the United States, appointment of a *prufingenieur* in Germany and the use of an independent checker for decennial insurance in France. Even in the United Kingdom, the implementation of quality management systems has not been made an express statutory requirement for contractors or designers in construction. In any event, to stipulate that a designer and contractor will operate quality management systems operated within the framework of ISO 9000 only involves a couple of lines in the contract, with words to the effect that the contractor shall operate a certified quality management system.

(c) Common law approach to quality

17.005 In contrast, the common law regarding quality has traditionally evolved from a simple and typical commercial transaction of sale of goods. The principal means by which quality will be ensured is through testing and inspections. There is no specific regard for any quality system to operate. Even in construction contracts, the approach in Hong Kong up until now has plainly been to treat quality systems separate from primary contractual obligations. In most standard forms of contracts in Hong Kong, the contractual requirement for requiring the contractor and its subcontractors or suppliers to have installed and in operation a typical ISO 9000 quality management system is only found in special conditions of the contract or a requisite requirement in the tendering stage. In the United Kingdom, the continuing move for reform in the construction industry, benchmarked by the reports of Sir Michael Latham entitled "Constructing the Team" and of Sir John Egan entitled "Rethinking Construction",[2] has grown, raising quality systems in the context of contracts to the status of a framework that operates for ensuring compliance and avoiding defects as far as possible, with the dual aims of forestalling non-compliance of quality requirements and providing

[2] For likewise development in other jurisdictions, please visit the websites of the Royal Commission into the Building and Construction Industry at http://www.royalcombci.gov.au for Australia or of the Construction Industry Development Board at http://www.cidb.org.za for South Africa; and the NZ Construction Industry Council at http://www.nzcic.co.nz for New Zealand.

more immediate remedies in case of such non-compliance. In this context, quality management systems are a device for preventing disputes from escalating.

17.006 Similar cultural and mindset changes are going on in Hong Kong. In the report of the Construction Industry Review Committee, entitled "Construct for Excellence" released in 2001, there is a call for fostering a quality culture in the Hong Kong construction industry so that everyone is committed to achieving excellence rather than merely meeting the minimum acceptable standards. Recommendations made there are being implemented, with progress monitored by the then Provisional Construction Industry Coordination Board and now the Construction Industry Council, the details of which are at http://www.hkcic.org/.

(d) Engineer's and architect's duties in quality control

17.007 The general duties of the engineer or architect as provided in typical construction contracts include watching and inspecting the work, testing and examining the material[3] and workmanship.[4] These duties are usually expressly stated to be delegable to the resident team on site. There is, however, no exact definition of these duties and industry standards and specifications are the standards against which these tests, inspections and examinations are measured. In *Gibson v Skibs A/S Marina & Orkla Grube A/B*,[5] it was held that examination meant a more thorough and scientific process than inspection and inspection[6] meant something less than examination but more than a mere casual glance, calling for careful and critical looking with the naked eye but no more than that. Testing and inspection are directed toward checking against defects, and it is the outcome of such testing and inspection that is important. The process of testing and inspection is obviously rigorous throughout and further powers of investigation, by extra testing or inspection, are commonly provided, whether by the industry standard or the specifications, where a defect is observed in the initial outcome. In *McGlinn v Waltham Contractors Ltd (No.3)*,[7] it was held that an engineer's or architect's duty to make periodic inspections required her or him to tailor the frequency and duration of inspections to the nature of the works going on at the site from time to time; and that, depending on the importance of the particular element

[3] See, e.g. *Merton LBC v Crowe* (1980) 18 BLR 1; *Michael Hyde & Associated Ltd v JD Williams & Co Ltd* [2001] PNLR 233; and *Hammersmith Hospitals NHS Trust v Troup Bywater & Anders* [2000] EnvLR 343. See also *So Kai Hau v YSK2 Engineering Co Ltd* [2013] HKEC 676.

[4] See, e.g. *Corfield v Grant* (1993) 29 ConLR 58 and *Victoria University of Manchester v Hugh Wilson* (1984) 2 ConLR 43. See also *Florida Hotels Pty Ltd v Mayo* (1965) 113 CLR 588 and *Rowlands v Collow* [1992] 1 NZLR 178.

[5] [1966] 2 All ER 476. In *Paterson v Lees* (1993) SLT 48, it was remarked that "[a] person who is competent to carry out any work is a person who has the knowledge and ability necessary to perform it properly". See also *Re Wing Fai Construction Co Ltd* [2004] 3 HKLRD 357.

[6] Inspection is a lesser responsibility than supervision. See *Jameson v Simon* (1899) Session Cas 1211; *Sutcliffe v Chippendale and Edmonson* (1982) 18 BLR 149 at 162; and *Corfield v Grant* (1992) 29 ConLR 58.

[7] [2008] Bus LR 233. As an analogy, in *Smith v South Eastern Power Networks plc* [2012] BLR 554, where the fires had all started as a result of resistive heating problems in cut-out assemblies but there was no evidence that a careful routine visual inspection would have revealed impending problems, owners of residential and retail properties had failed to establish that any breaches of tortious duty by electricity distributors, such as failing to routinely inspect or replace cut-out assemblies, had caused fire damage to their properties. See also *Red Star Pub Co (WRII) Ltd v Scottish Power Ltd* (2016) GWD 24-451, *Cometson v Merthyr Tydfil CBC* [2014] EWHC 419 (Ch) and *Liberty Syndicate Management Ltd v Campagna Ltd* (2011) 27 Const LJ 275.

or stage of the works, the inspecting professional could instruct the contractor not to cover up the relevant elements of the work until they had been inspected.[8]

17.008 Hence, the outcome of testing and inspection in construction contracts is of particular importance in at least three ways. First, it reveals whether or not a defect is present; second, it entitles the contractor to follow on with the works after the testing and inspection for a prior stage is passed; third, it triggers the operation of further procedures to follow in investigating compliance, in bringing about remedial proposals or in entitling rejection by the employer. Yet, testing and inspection does not guarantee finding out of quality defects. In *Lafferty v Newark and Sherwood DC*,[9] it was held that the hole that suddenly opened up in the garden in the garden could not be discovered by reasonable inspection.

(e) Contractor's obligation to fix defects

17.009 The obligations of a contractor in relation to defects are principally governed by the contractual provisions and the exact scope of obligation differs depending on when the defects come to light.

17.010 During the defects liability period, whether as designated or extended, the position is undoubtedly different. The contract contemplates that after the time of practical completion, the employer shall have the use of the works for the purpose for which they were built. If the contractor gives possession to the employer of works that do not comply with the terms of the contract because of latent defects of workmanship or materials, the employer may sustain consequential damage that cannot be recompensed by the contractors simply making good the defects. The employer may have been deprived of the profitable use of the works or the defects may have resulted in damage to the employer's plant or goods in the works. Yet, during the construction stage, the contractor may have a continuing duty to rectify defects found in the work. This can come from common law or under the express provision of the contract. It was recognised in *Lintest Builders Ltd v Roberts*[10] that a contractor had a continuing duty during construction, and not only upon completion, to do the work with all proper skill and care. In *Tomkinson v The Parochial Church Council of St Michael*,[11] it was

[8] While it is incumbent on the inspecting engineer or architect to keep adequate records of all inspections, the engineer or architect does not guarantee that her or his inspection will reveal or prevent all defective work, and it is thus not appropriate to judge an engineer's or architect's performance by the result achieved. See *Consarc Design Ltd v Hutch Investments Ltd* [2002] PNLR 31.

[9] [2016] HLR 13. See *Brown v Department for Regional Development* [2014] NIQB 126.

[10] (1978) 10 BLR 120. See however *Kaye Ltd v Hosier & Dickinson Ltd* [1972] 1 WLR 146 and also *Guinness plc v CMD Property Developments Ltd (formerly Central Merchant Developments Ltd)* (1995) 76 BLR 40.

[11] (1990) 6 ConstLJ 319. In *Rice v Great Yarmouth Borough Council* [2003] TCLR 1, the UK Court of Appeal, dealing with the alleged repudiatory breach of a maintenance contract, remarked:

> "... parallels with building contracts, in the number and variety of the obligations involved and the varying gravity of the breaches which may be committed, some of which may be remediable and some not."
>
> In *Sutcliffe v Chippendale and Edmundson* (1971) 18 BLR 157, it was remarked that, in relation to whether an employer was justified in terminating a contractor's employment, it was highlighted that there might come a point where the defect or the status of the defects became too serious to be treated as a temporary disconformity, whether they were numerous and frequent or not. See also *Adkin v Brown* [2002] NZCA 59. See further *A Workshop Communications Ltd v Tam Heung Man* [2018] HKEC 299 and *Eu Asia Engineering Ltd v Wing Hong Contractors Ltd* [1991] HKEC 72. See further *Valilas v Januzaj* [2015] 1 All E.R. (Comm) 1047.

suggested that the employer had a right to call for the rectification of defective work at the time it was done. For the purpose of statutory limitation, the presence of this right during the construction stage of the project may help to prevent time from running from the date when defective work was being carried out.[12] In *Strathclyde Regional Council v Border Engineering Contractors Ltd*,[13] it was observed that time for the limitation period did not start running at the date when defective work was carried out and that the contractual obligation to remedy any defect arising in the course of the contract, which was specifically provided for in that contract, could not reasonably coexist with a breach that had crystallised to the extent of forming a basis for an action for damages. In *P & M Kaye & Hosier v Dickinson*,[14] which is considered in *Eu Asia Engineering Ltd v Wing Hong Contractors Ltd*,[15] it was recognised by Lord Diplock that, during the construction period it might, and generally would, occur that from time to time some part of the works done by the contractor would not initially conform with the terms of the contract either because it was not in accordance with the contract drawings or the contract bills or because the quality of the workmanship or materials was below the standard required by the contract. It was further observed that the contract placed upon the contractor the obligation to comply with any instructions of the architect to remedy any temporary disconformity with the requirements of the contract and, if it were remedied, no loss would be sustained by the employer unless the time taken to remedy it resulted in practical completion being delayed beyond the date of completion designated in the contract. Obviously, in that event the only loss caused would be the employer being kept from using its building from the date on which it was agreed that it should be ready for use, whereby liquidated damages would become payable. Lord Diplock refused to treat temporary disconformity of the contract as a breach that entitled the employer to damages and said:

> *"Upon a legalistic analysis it might be argued that temporary disconformity of any part of the works with the requirements of the contract even though remedied before the end of the agreed construction period constituted a breach of contract for which nominal damages would be recoverable. I do not think that makes business sense. Provided that the contractor puts it right timeously [sic] I do not think that the parties intended that any temporary disconformity should of itself amount to a breach of contract by the contractor."*

[12] Indeed, any deficiencies in construction, design, inspection, manufacture or supply of materials must be referable to dates before construction of the centre was completed. As a general rule, however, the defaults of contractors and others attract no legal liability until at least the date of practical completion of the works, and more plausibly until the date on which a final certificate is issued. See *AMN Group Ltd v Gilcomston North Ltd* (2008) SLT 835.

[13] (1998) SLT 175. See *Huntaven Properties Ltd v Hunter Construction (Aberdeen) Ltd* (2017) GWD 14-229 and *AMN Group Ltd v Gilcomston North Ltd* (2008) SLT 835.

[14] [1972] 1 WLR 146. See *Mariner International Hotels Ltd v Atlas Ltd* (2007) 10 HKCFAR 1. See also *Guinness Plc v CMD Property Developments Ltd (formerly Central Merchant Developments Ltd)* (1995) 76 BLR 40. In *Oxford University Fixed Assets Ltd v Architects Design Partnership* (1999) 64 Con LR 12, it was held that a final certificate in relation to the contractor's obligations over defective blockwork under a 1980 JCT form of contract precluded the employer from proving any such liability on the contractor's part.

[15] [1991] HKEC 72. See also *Onway Engineering Ltd v Chinney Construction Co Ltd* [2005] HKEC 1880, *Pamax Ltd v Cross Max Interiors Ltd* [2008] HKEC 532 and *De Chang Fulfilment Ltd v Manley Toys Ltd* [2013] HKEC 742.

17.011 As highlighted in *Accurate Contractors & Renovators Co v Incorporated Owners of Beverley Heights,*[16] failure on the part of the contractor to remedy defective work may usually affect the contractor's extent of otherwise entitlement to the contract sum. In *Force Way Engineering Ltd v Incorporated Owners of Grand Court,*[17] it was held that the employer was entitled to engage a replacement contractor to carry out the rectification works and sought compensation from the contractor in case of defective or outstanding works.

(f) Contractor's obligation to use materials and carry out work as specified

17.012 In respect of contractual obligations, a common framework in standard forms of construction contracts provides that the contractor is obliged to carry out its work with specified material and workmanship in the way stipulated in the contract. That usually will, by itself, set out the various testing and inspections that the work has to go through, by reference to industry standards or specifications.[18] The employer, via the engineer or architect, is further conferred with a power to direct the carrying out of further testing and inspections and the contractor is required to provide support for these, though the expenses so incurred, if not otherwise provided for in the contract, are normally borne by the employer.[19] Since construction work is carried out in various stages and each stage may cover up the work already carried out in prior stages, there are also express provisions in the contract prohibiting covering up or putting out of view any work without the approval of the engineer or the architect and affording full opportunity for the engineer or the architect to examine and measure such work before it is covered up or put out of view. In practice, prior to the execution of the next stage of work, the contractor is normally required under the system set up on the site to notify the resident team of the engineer or the architect and to obtain the team's approval before proceeding on to the next stage of work.

(i) *Contractor's obligation for care and protection of work*

17.013 After the work is completed, there is usually a contractual obligation for the care and protection of the work. Thus, the contractor still bears the risk of the completed

[16] [2012] HKEC 1643.

[17] [2017] HKEC 2746. See also *Rainbow More Ltd v Incorporated Owners of Arcadia* [2018] HKEC 1150, *Tung Ngar Air-Condition & Steel Holdings Ltd v Shing Hin Catering Group Ltd* [2017] HKEC 2054 and *Chun Wo Building Construction Ltd v Metta Resources Ltd* [2016] HKEC 1803.

[18] See, for example, *May Tik Decoration Co Ltd v Ronacrete (Far East) Ltd* [2009] HKEC 670, where it was found that the supplier of tile adhesive materials had warranted compliance with the standards the British Standards Institute. See also *Kar Ming Engineering Co Ltd v Pacific Marble & Granite (HK) Ltd* [2015] HKEC 2260, *Eden Connections Design & Engineering Co v Ayash Omer* [2011] HKEC 1467 and *Fairlite Industries Ltd v Fosroc Hong Kong Ltd* [2008] HKEC 397.

[19] See, for example, *Secretary for Justice v Chong Kui (Group) Co Ltd* [2009] HKEC 190, where acceptance of the materials was subject to testing and inspections. See also *Wong Chuk Kin v Millennium Engineering Ltd* [2007] HKEC 1521 and *Nippon Kanzai Centre Co Ltd v Ho Biu Kee Construction Engineering Co Ltd* [2006] HKEC 2341. As stressed in *Able Contractors Ltd v Wui Loong Scaffolding Works Co Ltd* [2012] HKEC 858, the proof of breach rests on he who affirms not he who denies. It therefore lies upon the party who substantially asserts the affirmative to prove the issue. See also *V Shapes Moulders Ltd v Pacific Dunlop Garments Ltd* [2011] HKEC 757.

work, until or unless it has been handed over.[20] The issue of the practical or substantial completion certificate equates the commencement of the maintenance or defects liability period, within which the contractor is under the express contractual stipulation to rectify any defects found or to complete the outstanding work. The length of the maintenance or defective liability period may vary according to the nature of the project and this gives the employer the right to rely on contractual remedies for getting the defects corrected, rather than necessitating recourse to external dispute resolution processes. Within the maintenance or defects liability period, the contractor is obliged to carry out rectification or outstanding work in compliance with the instruction of the engineer or the architect. All such rectification work is to be carried out by the contractor at its own expense if it is in the opinion of the engineer or architect that such work is due to the use of materials or workmanship not in accordance with the contract or to other default of the contractor.[21] If the contractor refuses to perform accordingly, the employer may, after reasonable notice being given, have such work carried out by its own or arranged labour and the employer is empowered to recover the associated costs from the contractor. Fair wear and tear is normally excepted from the definition of defects for this purpose.[22] Prior to the end of the maintenance or defects liability period, the engineer or the architect is often conferred with the power to order the contractor to have such investigation of the cause of any defect, imperfection or fault carried out, whether by the contractor or by the employer's own labourers. At the expiry of the maintenance or defects liability period, the engineer or architect is required to issue a certificate to that effect, signifying that all defective and outstanding work has been made good.

2. Defects in Design, Materials and Workmanship

(a) Scope and extent of the contractor's obligations

17.014 The general principles governing implied terms are dealt with in chapter 5 of this book.[23] Specific to the issue of quality in construction projects, the obligations of a contractor toward the employer are controlled by both the express terms and the implied terms of the contract.[24] Generally speaking, the scope and extent of the contractor's

[20] As remarked in *Woon Lee (HK) Co Ltd v Holyrood Ltd* [2010] HKEC 1236, the fact that a defect may not be evident at the time of handover does not relieve the contractor from responsibility for poor workmanship. See also the Hong Kong Court of Appeal decision in *Woon Lee (HK) Co Ltd v Holyrood Ltd* [2011] HKEC 528 and *Sun Crown Trading Ltd v Holyrood Ltd* [2012] HKEC 324. See further *Sun Crown Trading Ltd v Holyrood Ltd* [2012] HKEC 324.

[21] Yet, the mere fact that an item does not meet the satisfaction of the employer does not relieve the employer from the burden of establishing that the matter is a defect which is the responsibility of the contractor. See *Woon Lee (HK) Co Ltd v Holyrood Ltd* [2010] HKEC 1236. See also the Hong Kong Court of Appeal decision in *Woon Lee (HK) Co Ltd v Holyrood Ltd* [2011] HKEC 528.

[22] As illustrated in *Teaman Design Ltd v Lakco Packaging Ltd* [2014] HKEC 1670, the dividing line may sometimes be not easy to draw.

[23] See also s.5 of the Supply of Services (Implied Terms) Ordinance (Cap.457). See *Pang Yau Shing Glendy v Sano Engineering Ltd* [2016] HKEC 234, *Maintek Computer (Suzhou) Co Ltd v Blue Anchor Line* [2013] HKEC 467 and *Chok Yick Interior Design & Engineering Co Ltd v Lau Chi Lun* [2010] HKEC 967.

[24] See *Sandra Christelle v Professional Property Care (HK) Ltd* [2018] HKEC 2485, *Pang Yau Shing Glendy v Sano Engineering Ltd* [2016] HKEC 234, *Fairlite Industries Ltd v Fosroc Hong Kong Ltd* [2008] HKEC 397 and *Chok Yick Interior Design & Engineering Co Ltd v Lau Chi Lun* [2010] HKEC 967.

obligations depend on the nature of the work undertaken.[25] This obligation imposed on the contractor is generally a continuing duty throughout the stages of construction works. This covers persons to whom the contractor has delegated the work.[26]

(b) Design

(i) *Definition*

17.015 Design has been described as including the choice of quality or description of work materials and components, as well as the dimensional or structural design of the final permanent work or product—so that the legal responsibilities arising from it may involve a wide range of concepts of structural soundness, durability, safety, working life, quality, suitability, amenity, ease of maintenance and satisfactory performance after completion.

(ii) *Standard of reasonable care and skill*

17.016 Generally speaking, as noted in *Greaves and Company (Contractors) Ltd v Baynham Meikle*,[27] the law does not usually imply a warranty that a professional will achieve the desired result, but only a term that the professional will use reasonable care and skill.[28] Therefore, surgeons do not warrant that they will cure the patient; nor do solicitors warrant that they will win the case. In the case of *George Hawkins v Chrysler (UK) Ltd and Another*[29], engineers were employed to design and select new floors for showers and changing rooms to be used by workers in a foundry and to supervise the installation. A worker slipped on the floors and was injured. A case was brought against the engineers alleging that they were in breach of an implied warranty that the floor surface would be fit for its purpose. It was observed that the engineers were not supplying anything and they were described as designing the shower area. Yet, so far as the floor was concerned, the court was of the view that what they did was to give professional advice as to its suitability and, hence, their function was purely advisory and not in supplying any chattel.

[25] See *Chok Yick Interior Design & Engineering Co Ltd v Lau Chi Lun* [2010] HKEC 967, where a subcontractor for tiling work and painting waterproof material was held not liable for the water leakage as there was no implied guarantee in the contract. See also *Kar Ming Engineering Co Ltd v Pacific Marble & Granite (HK) Ltd* [2015] HKEC 2260.

[26] See *Stag Line Ltd v Tyne Shiprepair Group Ltd (The Zinnia)* [1984] 2 Lloyd's Rep 211 and *Norta Wallpapers (Ireland) Ltd v John Sisk and Sons (Dublin) Ltd* (1978) 14 BLR 49.

[27] [1975] 3 All ER 99. See *Midland Bank Trust Co Ltd v Hett Stubbs & Kemp* [1979] Ch 384; *CFW Architects v Cowlin Construction Ltd* (2006) 105 ConLR 116; and *Platform Funding Ltd v Bank of Scotland plc (formerly Halifax plc)* [2009] QB 426. See also *Happy Dynasty Ltd v Wai Kee (Zens) Construction & Transportation Co Ltd* [1998] 1 HKLRD 309 and *A Pub (HK) Co Ltd v Tang Yuk Lun* [2008] HKEC 1929.

[28] *Young and Marten Ltd v McManus Childs Ltd* [1969] 1 AC 454. There is however nothing to prevent a person who provides professional services from assuming an absolute obligation in relation to a particular aspect of its work, as highlighted in *Platform Funding Ltd v Bank of Scotland plc (formerly Halifax plc)* [2009] Q.B. 426. See also *ARB v IVF Hammersmith Ltd* [2018] 2 WLR 1223, *Trebor Bassett Holdings Ltd v ADT Fire & Security Plc* [2012] BLR 441 and *Salkeld Investments Ltd v West One Loans Ltd* [2012] EWHC 2701 (QB). See further *Ng Chiu Mui v Robertsons* [2014] HKEC 1803.

[29] (1986) 38 BLR 36. See *Trebor Bassett Holdings Ltd v ADT Fire & Security plc* [2011] BLR 661.

As to the standard expected, in the classic case of *Bolam v Friern Barnet Hospital Management Committee*,[30] McNair J said: 17.017

> "…where you get a situation which involves the use of some special skill or competence, then the test as to whether there has been negligence or not is … the standard of the ordinary skilled man exercising and professing to have that special skill. A man need not possess the highest expert skill; … it is sufficient if he exercises the ordinary skill of an ordinary competent man exercising that particular art."

In *Zhuang PP Holdings Ltd v Lam How Mun Peter*,[31] the *Bolam* test was applied to a claim against the property valuation surveyor. The court summarised the law and remarked: 17.018

> "… The *Bolam* test has been sanctioned by long usage. It is of general application to any person exercising or professing a particular skill and is not confined to the medical profession which was at issue in that case. The application of the standard requires there to be a body of professional practice or opinion to which to refer in assessing the conduct of the defendant criticised. The test as adapted to the surveying profession has been stated by Stephen Brown LJ in *Nye Saunders & Partners v Alan E Bristow*, (1987) 37 BLR 97 at 103 to be whether there was evidence that at the time a responsible body of surveyors would have taken the view that the way in which the subject of the inquiry had carried out his duties was an appropriate way of carrying out the duty and would not hold him guilty of negligence merely because there was a body of competent professional opinion which held that he was at fault. If there are conflicting opinions from different bodies of the profession and if the surveyor's way of carrying out the duty accords with the opinion of one of those bodies, he is absolved of liability.
>
> 25. In course of time, the courts have made inroads into what used to be the exclusive realm of the professionals. In *JD Williams & Co Ltd v Michael Hyde & Associates Ltd*,[32] after reviewing the authorities, Ward LJ held at 830 that the Bolam test has been held not to apply under three circumstances.
>
> 26. Firstly, in *Bolitho And City and Hackney Health Authority*, [1997] 3 WLR 1151, Lord Browne-Wilkinson stressed that the court has to be satisfied that the exponents of the body of opinion relied upon can demonstrate that such opinion has a logical basis. If it can be demonstrated that the professional opinion is not capable of withstanding logical analysis, the judge is entitled to hold that the body of opinion is not reasonable or responsible.

[30] [1957] 1 WLR 582. See however *Bolitho (Deceased) v City and Hackney Health Authority* [1998] AC 232 and *Robbins v Bexley LBC* [2014] BLR 11. See also *Allied Trust Bank Ltd v Edward Symmonds* (1994) 22 EG 116, where it was remarked that a surveyor who adopted in respect of a wholly private transaction a method of valuation prescribed for valuations that were to be made public was not criticised for having acted in accordance with such guidance provided by the RICS Statement of Asset Valuation Practice. See further *So Kai Hau v YSK2 Engineering Co Ltd* [2013] HKEC 1894.

[31] [2009] HKEC 1340. See also *J&A Developments Ltd v Edina Manufacturing Ltd* [2006] NIQB 85.

[32] [2000] Lloyd's LR 823. See also *Royal Brompton Hospital NHS Trust v Hammond (No.6)* (2000) 76 ConLR 131.

27. Secondly, in *Nye Saunders & Partners*, Stephen Brown LJ held that where the evidence of the expert amounted to no more than an expression of his personal opinion as to what he would or would not have done in the circumstances, the judge was entitled to take the view that such evidence falls short of constituting evidence of a responsible body of architects: see also *Midland Bank Trust Co Ltd and another v Hett, Stubbs & Kemp (a firm)* [1978] 3 WLR 167. In effect, in such a case, the initial criteria for the application of the *Bolam* test are not met.

28. Thirdly, in *Gold v Haringey Health Authority* [1988] QB 481 at 490, Lloyd LJ held that if the giving of advice required no special skill, then the *Bolam* test should not apply. In other words, where it is not necessary to apply any particular expertise to decide whether the defendant has failed to exercise the skill and care expected of an ordinary member of the surveying profession, there is no room for application of the test. "

17.019 Here, reasonable skill and care is usually assessed by reference to established practice; and it is clear that perfection is not required.[33] Yet, if the standard demonstrated has fallen below that expected of a professional practice, this may be regarded as not exercising reasonable care and skill. In *Scott v EAR Sheppard Consulting Civil and Structural Engineers Ltd*,[34] an engineer had been negligent in failing to advise the prospective purchasers of a house that its external walls were tilting to such a degree that industry guidance could consider the property's condition as dangerous and requiring demolition.

(iii) *Standard of fitness for purpose*

17.020 In certain circumstances, however, professionals may be under an obligation to attain a fit-for-purpose standard, as illustrated by the case of *Samuels v Davis*,[35] which concerned the supply of dentures by a dentist. It was held that there was an implied condition in the contract that the dentist would supply dentures that were reasonably fit for the purpose for which they was intended. In such a situation, the normal professional standard of reasonable skill and care was deemed to be insufficient. Accordingly, despite the general implied obligation of reasonable skill and care, it can be seen that if a professional person, as part of her or his services, contracts to deliver a chattel, her or his liability is raised to that of fitness for purpose. This concept is related to the implied obligations imposed by the law of the sale of goods.

17.021 In *Independent Broadcasting Authority v EMI Electronics Ltd and BICC Construction Ltd*,[36] the contractor was employed to construct a television mast, and it subcontracted

[33] *Secan Ltd v Personal Representative of Wong Ping Wai* [2003] HKEC 749.

[34] [2016] EWHC 1949 (TCC). In this case, the complete lack of concern on the part of the engineer as to the degree of tilt had fallen below the standard expected of a structural engineer.

[35] [1943] 1 KB 526. See *Salkeld Investments Ltd v West One Loans Ltd* [2012] EWHC 2701 (QB). See also *Lee v Griffin* [1861] 30 LJ QB 252 on contracts for the sale of goods.

[36] (1980) 14 BLR 1. See also *MT Hojgaard A/S v E.ON Climate and Renewables UK Robin Rigg East Ltd* [2017] BLR 477, *Hunt v Optima (Cambridge) Ltd* [2014] BLR 613 and *Baylis Farms Ltd v RB Dymott Builders Ltd* [2010] EWHC 3886 (QB).

out its design. The mast collapsed in bad weather after three years. Lord Scarman remarked in the UK House of Lords judgement:

> "… in the absence of a clear contractual indication to the contrary, I see no reason why one who in the course of his business contracts to design, supply and erect a television aerial mast is not under an obligation to ensure that it is reasonably fit for the purpose for which he knows it is intended to be used."

17.022 In *Trebor Bassett Holdings Ltd v ADT Fire & Security Plc*,[37] it was noted that the design and installation of a bespoke system could not be equated with a supply of goods that attracted the express requirements of good quality and reasonable fitness for purpose. In that case, a supplier of a tailor-made fire suppression system for a factory which manufactured confectionery was found to have been responsible for a fire because of a breach of its contractual and tortious duties. The court remarked that a system specification document should not be construed as a guarantee of the system's success.

(iv) *Design-build and turnkey contracts*

17.023 Clearly in design-build or turnkey contracts, one of the key roles of the contractor is to manage and provide the design based on the client brief.[38] The design is normally subcontracted out to a specialist design team that works in coordination with the design-build contractor to produce a design that fits the requirements of the employer. The role that the design-build contractor has in such an arrangement is more involved and choices as to the structural form, materials used or construction methods are all within the ambit of its responsibilities. It should however be noted that some commonly used standard forms of contract for design-build contracts may contain provisions that dilute the contractor's design liability to that of a professional, that is, one of reasonable skill and care. In traditional construction contracts, the role of the contractor in design is less obvious. The employer prescribes the materials or standard of workmanship. The contractor is required to work to the design supplied by the employer. The subcontractors or even suppliers may also be nominated or designated by the employer. However, there are still certain elements of design involved on the part of the contractor, particularly where temporary works are involved.

17.024 Where the contractor undertakes a design, it usually bears the obligation to provide a design that meets the requirements of the employer, i.e. one that fits the purpose for which it is supplied. Whether such a design obligation is duly discharged is measured against the suitability of the work and materials chosen for the intended purpose.

17.025 The idea behind a turnkey contract stems from the name itself; all that an employer has to do is to turn the key to the front door and start using the building. Likewise, the term design-build contract covers package contracting, the all-in-one service, the

[37] [2012] BLR 441. See *Howmet Ltd v Economy Devices Ltd* (2014) 157 ConLR 1 and *United Central Bakeries Ltd v Spooner Industries Ltd* (2013) GWD 30-608.

[38] There are other variations to these, such as a design, build, finance and operate as in *UK Highways A55 Ltd v Hyder Consulting (UK) Ltd* [2013] BLR 95. See also *Pamax Ltd v Cross Max Interiors Ltd* [2008] HKEC 532.

development and construction and turnkey contracting. Package contracting is an abbreviated version of design-build. In a design-build contract, the contractor is the key person and all communication passes one to one, i.e. between the contractor and the employer. The scope of responsibilities of the contractor is wide, and the contractor is responsible for independent consultants employed to assist it and for any mistakes caused by miscommunication between itself and the consultants. Also, the contractor also bears responsibility for ensuring that the materials used are fit for purpose and also bears liability for the design of the project, as illustrated in *Independent Broadcasting Authority v EMI Electronics and BICC Construction Ltd*.[39] In this case, it was accepted, under the circumstances, that there would be an implied obligation to ensure that the television aerial mast would be reasonably fit for the purpose for which the designer knew it was intended to be used,[40] in the absence of a clear contractual indication to the contrary.

17.026 In the classic case of *Hancock v BW Brazier (Anerley) Ltd*,[41] it is indicated that, where a purchaser buys a house from a builder who contracts to build or complete it, there is a threefold implication that the builder will do her or his work in a good and workmanlike manner; that he or she will supply good and proper materials; and that it will be reasonably fit for human habitation. Also, as explained in the Irish case of *Norta Wallpapers (Ireland) Ltd v John Sisk & Sons (Dublin) Ltd*,[42] where it concerned the liability of a contractor for defective design of roof lights in a factory, such an approach was supported by the fact that there was a chain of contracts. Those lights had been designed and supplied by a subcontractor chosen by the employer. It was remarked by Henchy J that:

> "In all cases of supply and installation by a subcontractor I conceive the law to be that, unless the particular circumstances give reason for its exclusion, there is implied in the contract a term to the effect that the contractor will be liable to the employer for any loss or damage suffered by him as a result of the goods, materials or installations not being fit for the purpose for which they were supplied. The basis for this rule is that, while the contractor is thus made primarily liable, he will be able, under the subcontract, to have recourse, by third party procedure or otherwise, against the subcontractor for an indemnity in respect of the contractor's liability to the employer."

[39] (1980) 14 BLR 1. See *Lexmead (Basingstoke) Ltd v Lewis* [1982] AC 225 and *Elvanite Full Circle Ltd v AMEC Earth & Environmental (UK) Ltd* [2013] EWHC 1191 (TCC). See also *Woon Lee (HK) Co Ltd v Holyrood Ltd* [2010] HKEC 1236 and [2011] HKEC 528. See further *MT Hojgaard A/S v E.ON Climate and Renewables UK Robin Rigg East Ltd* [2017] BLR 477, *Hunt v Optima (Cambridge) Ltd* [2014] BLR 613 and *Baylis Farms Ltd v RB Dymott Builders Ltd* [2010] EWHC 3886 (QB).

[40] See, for example, *Whitecap Leisure Ltd v John H Rundle Ltd* [2007] All ER (D) 122 (Jun), where the defendant was found negligent in relation to cable tow for water-skiers supplied by it when the plaintiff was placing reliance upon the engineering expertise of the defendant and the fact that the equipment supplied and installed was not fit for its purpose (such purpose being well known to the defendant).

[41] [1966] 1 WLR 1317. See *Sun Crown Trading Ltd v Holyrood Ltd* [2012] HKEC 324. See also *Saga Cruises BDF Ltd v Fincantieri SpA* (2016) 167 ConLR 29, *Mul v Hutton Construction Ltd* [2014] BLR 529, *Harrison v Shepherd Homes Ltd* (2011) 27 Const LJ 709, *Alderson v Beetham Organisation Ltd* [2003] 1 WLR 1686 and *Raymond Construction Pte Ltd v Low Yang Tong* (1998) 14 ConstLJ 136.

[42] (1977) 14 BLR 49. See also *Greater Glasgow Health Board v Keppie Henderson & Partners* (1989) SLT 387.

17.027 In *South West Water Services Ltd v International Computers Ltd*,[43] failure in delivering the corresponding software in time in a turnkey contract for a computer system entitled the owner to rescind the contract, even if there was nothing wrong with the hardware installed. In *Wu Yin Fai v Ng Kam Tong*,[44] it was held that the renovation contract for a house was undertaken as a design-build contract and, as such, the staircase was built in breach of contract. In *OBS (Nominees1) v Lend Lease Construction (Europe) Ltd*,[45] the court held a contractor liable for the failure of toughened glass used to clad a central London office block, where the breakages were caused by the contractor's breach of its contractual obligations to heat soak all of the glass in accordance with European Standard and to use good quality materials that were fit for purpose.

(v) *Fit for purpose when the work is designed by a contractor*

17.028 Thus, it may be appropriate to imply into a construction contract a term that the structure to be erected will, when completed, be reasonably fit for its intended purpose, but that will be so only if and insofar as the structure is to be designed by the contractor. The existence of the term in that type of case was explained by Lord Denning MR in *Greaves & Co (Contractors) Ltd v Baynham Meikle & Partners*.[46] However, it is clear from the decision of the Court of Appeal in England and Wales in the case of *Lynch v Thorne*[47] that there is no such implied term in a case in which the contractor undertakes to build to a particular specification already, at the date of the relevant contract, devised by or on behalf of the employer, and it must follow that there is no such implied term if the contractor agrees to build in accordance with plans or specifications to be produced in the future by others.[48] In *Bellefield Computer Services v E Turner & Sons Ltd*,[49] May LJ pointed out that:

> "There is a blurred borderline between architectural design and the construction details needed to put it into effect. Borderlines of responsibility

[43] [1999] BLR 420.

[44] [2004] HKEC 273.

[45] (2017) 174 ConLR 105.

[46] [1975] 1 WLR 1095. See also *ARB v IVF Hammersmith Ltd* [2018] 2 WLR 1223, *Trebor Bassett Holdings Ltd v ADT Fire & Security Plc* [2012] BLR 441 and *Salkeld Investments Ltd v West One Loans Ltd* [2012] EWHC 2701 (QB). See further *Ng Chiu Mui v Robertsons* [2014] HKEC 1803 and *A Pub (HK) Co Ltd v Tang Yuk Lun* [2008] HKEC 1924. See *Trebor Bassett Holdings Ltd v ADT Fire & Security Plc* [2012] BLR 441.

[47] [1956] 1 WLR 303. See also *Chan Yeuk Yu v Church Body of the Hong Kong Sheng Kung Hui & Anor* [2001] 1 HKC 621 and *Lee Yuk Sum & Another v Lead Bright Ltd* [2004] HKEC 796. See further *North Midland Building Ltd v Cyden Homes Ltd* [2018] EWCA Civ 1744 and *BP Gas Marketing Ltd v La Societe Sonatrach* (2016) 169 ConLR 141.

[48] This is, however, to be read subject to *MT Hojgaard A/S v E.ON Climate and Renewables UK Robin Rigg East Ltd* [2017] BLR 477. In that case, it was held that, where a contract contained terms which required an item to be produced in accordance with a prescribed design and to comply with prescribed criteria, and literal conformity with the prescribed design would inevitably result in the product falling short of the prescribed criteria, it did not necessarily follow that the two terms were mutually inconsistent. It was remarked that the courts were generally inclined to give full effect to the requirement that the item as produced complied with the criteria, on the basis that even if the employer had specified the design, the contractor could be expected to take the risk if it agreed to work to a design which would render the item incapable of meeting the criteria to which it had agreed.

[49] [2002] EWCA Civ 1823. See *Holding & Management (Solitaire) Ltd v Ideal Homes North West Ltd (formerly Broseley Estates Ltd)* (2004) 96 ConLR 114 and *Linklaters Business Services (formerly Hackwood Services Co) v Sir Robert McAlpine Ltd* [2010] BLR 537.

cannot be defined in the abstract. A carpenter's choice of a particular nail or screw is in a sense a design choice, yet very often the choice is left to the carpenter and the responsibility for making it merges with the carpenter's workmanship obligations. In many circumstance[s], the scope of an architect's responsibility extends to providing drawings or specifications which give full construction details. But responsibility for some such details may rest with other consultants, e.g. structural engineers, or with specialist contractors or subcontractors, depending on the terms of their respective contracts and their interrelationship. As with the carpenter choosing an appropriate nail, specialist details may be left to specialist subcontractors who sometimes make detailed 'design' decisions without expecting or needing drawings or specifications telling them what to do. In appropriate circumstances, this would not amount to delegation by the architect of part of his own responsibility. Rather that element of composite design responsibility did not rest with him in the first place."

17.029 Therefore, where there is a design decision made by a contractor, there is an obligation on the part of the contractor that the element designed will be reasonably fit for its intended purpose.

(vi) *Employer's reliance on contractor's skill*

17.030 However, before the contractor may be held responsible for these elements, it seems from the case of *Lynch v Thorne*[50] that the employer must prove that he had relied on the skill and judgment of the contractor. In the case of *Myers v Brent Cross Service Co*,[51] which concerns car repair, it was observed as a statement of principle that a person contracting to do work and supply materials warranted that the materials which he used would be of good quality and reasonably fit for the purpose for which he was using them unless the circumstances of the contract were such as to exclude any such warranty. This statement of principle has been approved by the House of Lords in the case of *Young and Marten Ltd v McManus Childs Ltd*.[52] Applying this principle in the Scottish case of *Greater Glasgow Health Board v Keppie Henderson & Partners*,[53] in respect of a heat distribution system installation, it was held that there was no warranty on the part of the contractor that the materials

[50] [1956] 1 All ER 744. In this case, the plaintiff agreed to purchase from the defendant builder a plot of land with a partially erected dwelling house on it and the defendant undertook to complete the dwelling house in accordance with the plan and specifications annexed to the agreement. It subsequently appeared that water penetrated into the house through a nine-inch wall built in accordance with the plan. The plaintiff's claim based on implied warranty was rejected by the Court of Appeal. See also *Tung Kee Garden Horticulture Ltd v Wong Wang Tat* [2007] HKEC 1540. See *Trebor Bassett Holdings Ltd v ADT Fire & Security Plc* [2012] BLR 441 and *Harrison v Shepherd Homes Ltd* (2011) 27 Const LJ 709. See further *North Midland Building Ltd v Cyden Homes Ltd* [2018] EWCA Civ 1744 and *BP Gas Marketing Ltd v La Societe Sonatrach* (2016) 169 ConLR 141.

[51] [1934] 1 KB 46. See also *Goldswain v Beltec Ltd (t/a BCS Consulting)* [2015] BLR 300, *Savoye v Spicers Ltd* [2015] BLR 151, *Mouchel Ltd v Van Oord (UK) Ltd* (2011) 135 Con. L.R. 183, *Rotherham MBC v Frank Haslam Milan & Co Ltd* (1996) 78 BLR 1; *Gloucestershire CC v Richardson (t/a WJ Richardson & Son)* [1967] 3 All ER 458; and *Stewart v Reavell's Garage* [1952] 2 QB 545.

[52] [1969] 1 AC 454. See also *Rutherford v Seymour Pierce Ltd* [2010] IRLR 606 and *Trebor Bassett Holdings Ltd v ADT Fire & Security Plc* [2012] BLR 441.

[53] (1989) SLT 387.

or the system would be suitable for the job since the selection of materials for their suitability for the job was not left to the contractor. Therefore, no such warranty should be implied unless it was in all the circumstances reasonable. Where no reliance is placed on the contractor in respect of a designed element, it seems that there would not be an implied obligation in relation to the fitness for purpose of the design, as noted in the Australian case of *McKone v Johnson*.[54] In another Australian case, *Frank Davies Pty Ltd v Container Haulage Group Pty Ltd (No.1)*,[55] concerning the lease of a forklift truck to be used for stacking containers, the purpose for renting the truck was made known in such a way as to indicate that the defendant was relying on the supplier's skill and judgment in relation to the capabilities or suitability of the truck. It was held that, unless excluded by some provision to the contrary, there was an implied promise by the supplier to the defendant that the truck was reasonably fit for the purpose identified.

17.031 Thus, if a contractor takes up a design role or selects materials for the work, there is generally an implied term that the work and materials will be suitable for their purpose; conversely, a contractor who is provided with plans and specifications to work is generally only required to work to these plans and specifications in a workmanlike manner and is not liable to the employer for any defects in the design.

(vii) *Contractor's duty to warn*

17.032 Nonetheless, there are cases where the contractor may be under a duty to warn the employer about any defects or deficiencies in the design supplied to it for the work if such defects or deficiencies may result in defects in the work. That duty to warn may continue even after the work has been completed, as illustrated in *Stag Line Ltd v Tyne Ship Repair Group Ltd, The Zinnia*.[56]

17.033 In the Canadian case of *Brunswick Construction Ltd v Nowlan*,[57] a contractor was employed to build a house in accordance with the plans prepared by an engineer without supervision, but dry rot developed in the roof because of a lack of ventilation. A majority of the Supreme Court of Canada held that a contractor of this experience should have recognised defects in the plans, which were so obvious to the architect subsequently employed by the employer. The employer, having no supervising architect, was taken to have relied on the skill and attention of the contractor and, as such, the contractor was under a duty to warn the owner of the danger inherent in executing the works in accordance with the plans. In *Equitable Debenture Assets Corporation v Moss*,[58] it was held that a contractor engaged to construct a new office

[54] [1966] 2 NSWR 471.

[55] (1989) 98 FLR 289.

[56] [1984] 2 Lloyd's Rep 211. See *Plant Construction Ltd v JMH Construction Services Ltd* [2000] BLR 137, where a duty to warn of a design defect in an installation contract was found against a contractor; and *Aurum Investments Ltd v Avonforce Ltd (In Liquidation)* (2000) 78 ConLR 115, where no duty to warn towards a contractor was found on the part of an excavation subcontractor as the contractor was then advised by structural engineers.

[57] (1974) 21 BLR 27. This case is considered in *Sunnyside Nursing Home v Builders Contract Management* (1986) 2 ConLJ 240 and *Norwich Union Life Insurance Society v Covell Matthews Partnership* (1987) SLT 452.

[58] (1984) 1 ConLJ 131. See also *Victoria University of Manchester v Hugh Wilson & Lewis Womersley (A Firm)* (1984) 2 ConLR 43 and *Department of National Heritage v Steensen Varming Mulcahy* (1988) 60 ConLR 33.

block had a duty to warn the employer of design defects of which the contractor knew. The relevant defects in that case were in curtain walling to the building, which was designed, supplied and fixed by a subcontractor. It was observed that, if on examining the drawings or as the result of experience on site, a contractor formed the opinion that in some respects the design would not work, or would not work satisfactorily, it would have been absurd for them to have carried on implementing it just the same. Therefore, in order to give efficacy to the contract, the term requiring a contractor to warn of design defects as soon as it comes to believe that they exist is to be implied in the contract in these circumstances. In *Victoria University of Manchester v Hugh Wilson & Lewis Womersley (A Firm)*,[59] it was again held that there was an implied term in a main contract requiring the contractor to warn the employer of defects in design which it believed to exist, where the defects were in tiled cladding to the buildings which had been installed by nominated subcontractors.

17.034 On the other hand, in *University of Glasgow v Whitfield*[60] a contractor employed to construct an art gallery with leakage problems was facing a claim for contribution or damages either for its negligence in the construction of the gallery or its failure to warn the employer or the architect of defects in the design of which the contractor knew or ought to have known. As to the issue whether the contractor owed the employer a duty of care to warn against defects in design, it was held that no such duty existed in tort. It was also observed that where there was a detailed contract, there would be no room for the implication of a duty to warn about possible defects in design, as in *Lynch v Thorne*.[61] When referring to those cases such as *Equitable Debenture Assets Corporation v Moss*[62] and *Victoria University of Manchester v Hugh Wilson & Lewis Womersley (A Firm)*,[63] where a duty to warn was found, these were regarded as situations where there was a special relationship between the parties where the contractor by its contract undertook to achieve a particular purpose or function.

17.035 Further, in the case of *Oxford University Press v John Stedman Design Group*,[64] there was a contract to construct a warehouse designed and built for the storage and distribution of books. There were defects in a topping on the floors laid by a subcontractor. Another subcontractor had designed the substructure and provided the steel reinforcement for the floors. A series of claims arose among all involved, and a question in those proceedings arose as to whether the main contractor was under a duty to warn the employer that the floor design was defective. The court observed that there was no basis for implying such a duty to warn as no reliance was placed

[59] (1984) 2 ConLR 43. See *Plant Construction Plc v Clive Adams Associates (No.2)* [2000] BLR 137. See also *Cleightonhills v Bembridge Marine Ltd* [2013] CILL 3289, where a duty to warn was owed by a contractor to boatyard operator for a faulty platform designed and built that collapsed.

[60] (1988) 42 BLR 66. See *Tesco Stores Ltd v Norman Hitchcox Partnership Ltd* (1997) 56 ConLR 42 on the corresponding duty of the architect. See also *John G Sibbald & Son Ltd v Johnston* (2014) GWD 19-372.

[61] [1956] 1 WLR 303. See also *So Kai Hau v YSK2 Engineering Co Ltd* [2018] HKEC 2142 and *Artlane Design Consultants Ltd v Chan Wen Mee May* [2009] HKEC 1142.

[62] (1984) 1 ConLJ 131. See *Victoria University of Manchester v Hugh Wilson & Lewis Womersley (A Firm)* (1984) 1 ConLJ 162 and *Department of National Heritage v Steensen Varming Mulcahy* (1998) 60 ConLR 33.

[63] (1984) 2 ConLR 43. See *Murphy & Sons Ltd v Johnston Precast Ltd (formerly Johnston Pipes Ltd)* [2008] All ER (D) 114 (Dec). See also *So Kai Hau v YSK2 Engineering Co Ltd* [2018] HKEC 2142.

[64] (1990) 34 ConLR 1. See *Murphy & Sons Ltd v Johnston Precast Ltd (formerly Johnston Pipes Ltd)* [2008] All ER (D) 114 (Dec). See also *So Kai Hau v YSK2 Engineering Co Ltd* [2018] HKEC 2142.

on the judgment of the main contractor, unless it was a defect which might give rise to danger to the safety of persons or damage to some property other than that which was the subject matter of the design defect. It was added that, in matters of design, whether a design was sound or otherwise was very much a matter of skilled judgment and there was room for differences of opinion about the suitability of a design or a particular aspect of it. Thus, it was regarded unreasonable for a contractor to be obliged to raise with its employer matters of design for which it had no express contractual responsibility and where the employer has commissioned the design from an expert.

(viii) *Analysis of implied terms dependent on express terms*

17.036 Therefore, the starting point of any analysis of implied terms in a construction contract must be its express terms. In this regard, the test of implied term has been restated by the UK Supreme Court in *Marks & Spencer plc v BNP Paribas Securities Services Trust Co (Jersey) Ltd*,[65] where Lord Neuberger, re-affirmed the traditional approach with the 5 conditions enunciated in *BP Refinery (Westernport) Pty Ltd v Shire of Hastings*,[66] and referred to Lord Hoffmann's observations in *Attorney General of Belize v Belize Telecom Ltd*,[67] as being a characteristically inspired discussion rather than authoritative guidance on the law of implied terms. Referring to *Marks & Spencer plc v BNP Paribas Securities Services Trust Co (Jersey) Ltd*, Lord Hughes said, in *Ali v Petroleum Co of Trinidad and Tobago*,[68] that the law has authoritatively been restated by the Supreme Court in that case that:

> "A term is to be implied only if it is necessary to make the contract work, and this it may be if (i) it is so obvious that it goes without saying (and the parties, although they did not, ex hypothesi, apply their minds to the point, would have rounded on the notional officious bystander to say, and with one voice, "Oh, of course") and/or (ii) it is necessary to give the contract business efficacy. Usually the outcome of either approach will be the same. The concept of necessity must not be watered down. Necessity is not established by showing that the contract would be improved by the addition. The fairness or equity of a suggested implied term is an essential but not a sufficient pre-condition for inclusion. And if there is an express term in the contract which is inconsistent with the proposed implied term, the latter cannot, by definition, meet these tests, since the parties have demonstrated that it is not their agreement."

17.037 Thus, subject to the express terms, there will normally be an implied term that the contractor will perform her or his contract with the skill and care of an ordinarily competent contractor in the circumstances of the actual contractor. In this regard, the factual extent of the performance that this term requires will depend on all relevant circumstances and it may vary enormously. In particular cases, circumstances may include consideration of the size, nature and details of the works; the experience and

[65] [2016] AC 742.

[66] (1977) 180 CLR 266.

[67] [2009] 1 WLR 1988.

[68] [2017] ICR 531. See *Eternal Billion Industrial Ltd v RCL Semiconductors Ltd* [2018] HKEC 1900 and *UOB Kay Hian Futures (Hong Kong) Ltd v Lai Lawrence* [2018] 2 HKC 192.

perceived expertise of the contractor; relevant elements of the relationship between the contractor and the employer and of their respective relationships with others, for example, architects, engineers, surveyors, contracts managers, clerks of works, subcontractors, local authority building inspectors and so forth; and crucial details of the particular parts of the works and other facts which give rise to the question as to whether the contractor fulfilled the obligation that the implied term imports.

17.038 In respect of the duty to warn, it seems that the court has embraced a positive implication of a duty, which would appear to reflect a leaning towards a good faith principle even though not recognised explicitly as such. This may even be regarded as an extended arm of the general duty to cooperate where the contractor is with knowledge or reason to suspect that the design is defective.[69]

(c) Materials

(i) *Specification of materials*

17.039 Construction contracts usually define in detail the materials to be used by the contractor for the work. The types of materials to be used are normally detailed in the drawings, specifications or bills of quantities. The requirements may be given in the form of specified standards that the materials used need to meet or the methods of construction that should be adopted or avoided. Alternatively, the specifications may be given in the form of the specified performance that the item of work needs to achieve. These are sometimes referred to as performance specifications. In practice, the requirements of individual items of work may be governed by specifications in both forms. Take storm water drainpipes as an illustration. Apart from the specifications as to the pipe features, in terms of materials or strength, there are also specifications governing how the jointing together of each section of the pipes should take place. In addition, the finished pipeline is also commonly smoke-tested before it is covered up.

(ii) *Quality control measures*

17.040 To ensure quality, quality control measures such as testing and inspection are adopted. Such testing and inspection normally takes place prior to the materials being used for the work. Sometimes further or other testing and inspection are required after an individual item of work is completed and prior to the commencement of the following item. The way in which testing and inspection are to be carried out, including the sampling methodology; the nature and conduct of the tests and inspection; and the follow-up procedure in case of a defective outcome, are contained in the industry standard or the specifications.

17.041 While it is usually a term of construction contracts, by implication if not expressly, that the contractor will supply materials of good quality, this is not invariably so, in particular if the contractor has been directed by the employer to enter into a contract with a third party to obtain particular materials on terms that exclude or limit liability for defects.

[69] Contrast with *J Murphy & Sons Ltd v Johnston Precast Ltd* [2008] EWHC 3024. See also *Balmoral Group Ltd v Borealis (UK) Ltd* [2006] 2 Lloyd's Rep 629 and *Mouchel Ltd v Van Oord (UK) Ltd* (2011) 135 Con LR 183.

(iii) *Application of implied warranty as to quality of materials*

17.042 As a general rule, where a contractor supplies materials, there are implied warranties that the materials so supplied are reasonably fit for the purpose for which they are to be used and that they are of good quality. This is illustrated in the cases of *Young & Marten v McManus Childs*[70] and *Gloucestershire County Council v Richardson*.[71] These warranties correspond closely to that in the Sales of Goods Ordinance (Cap 26). These warranties are, of course, subject to express terms or intentions of the parties to the contrary. In *Rotherham Metropolitan Borough Council v Frank Haslam Milan & Co Ltd*,[72] cracks appeared in the ground floor slab of a new office building, constructed over the top of a number of cellars, in a city centre site. These cracks were due to the unsuitable nature of the fill used around the foundations. The contractor was engaged to execute the works and did so according to the specification, contract drawings and bills of quantities as prepared by the employer. Part of the works so specified was the provision and placing of certain fill material to the level of the underside of the ground floor slab, except in the basement area. There was provision in the contract for samples of this fill material to be provided to the architect for testing and approval or rejection, if necessary. The steel slag used by the contractor as fill material expanded and caused heaving of the floor and cracking of the reinforced concrete slabs. It was known to specialist organisations that steel slag was not inert and should not be used in confined spaces because of its tendency to expand; this was not, however, known to the parties at the time of contracting. The employer contended that the steel slag supplied was not of merchantable quality, since the steel slag was in fact unsuitable and the contractor had effectively had a choice as to what material to use. The employer also contended that the steel slag was not fit for the purpose, since it was clearly not suitable as fill in confined spaces. The court observed that there were specifications as to the type of hardcore material made by the employer's architect and engineer which contained the grading and sulphate content of fill material, and that any freedom of choice regarding material selection was present only where the architect felt no further specification was necessary. Further, the court was of the view that the architect was right to regard himself as more expert than the contractor, who did not have any special material selection experience, and that the contractor was indeed obliged to provide the hardcore as specified. In the circumstances, the court held that the contractor was not liable.

17.043 Thus, where a person is contracted to do work and supply material, they give an implied warranty that the material is fit for the purpose for which it is used, unless such warranty is excluded by the circumstance of the contract. The critical question in relation to the obligation of a contractor over the materials used is whether the

[70] [1969] 1 AC 454. See *Incorporated Owners of Greenville Gardens of Shiu Fai Terrace v Win-Tech Engineering Co Ltd* [2004] HKEC 902. See also *Goldswain v Beltec Ltd (t/a BCS Consulting)* [2015] BLR 300, *Savoye v Spicers Ltd* [2015] BLR 151, *Trebor Bassett Holdings Ltd v ADT Fire & Security Plc* [2012] BLR 441 and *Rutherford v Seymour Pierce Ltd* [2010] IRLR 606.

[71] [1969] 1 AC 480. See *S&W Process Engineering Ltd v Cauldron Foods Ltd* [2005] EWHC 153.

[72] (1996) 59 ConLR 33. See also *Wu Yin Fai v Ng Kam Tong* [2004] HKEC 273, where it was remarked:

> "At its lowest level, design involves the choice of appropriate materials and working methods, where not specified in the contract. At another level, design includes determination of the detailed physical characteristics of the building or works to comply with stated requirements or performance criteria."

circumstances show that the employer does or does not rely on the contractor's skill and judgment. As a general rule, where the efficacy of a building or other object depends upon a designer, it is the designer who may be expected to bear the responsibility for ensuring the suitability of the components incorporated into it. Where designers rely on those who have specialist skills, their reliance may show or suggest that they are abrogating that responsibility in relation to matters within the purview of the specialist. For this, it is necessary to consider the facts of each case, to determine just who relied on whom and for what.

(iv) *Circumstances where warranty of fitness may not apply*

17.044 In situations where the employer instructs the contractor to use or obtain specified materials, whether from a designated or nominated source, it would seem that the employer is not relying on the skill and judgment of the contractor in selecting the choice of such materials. Hence, the implied warranty of fitness that the materials are fit or suitable for the purpose may have no operation and, when such materials turn out to be unfit, the employer cannot hold the contractor liable for breach of such a warranty. This is illustrated in the cases of *University of Warwick v Sir Robert McAlpine*[73] and *Independent Broadcasting Authority v EMI Electronics Ltd and BICC Construction Ltd*.[74] In respect of nominated subcontractors or supplies in most standard forms of construction contract, there is no express acceptance by either the employer or the contractor of liability for the quality of the nominated materials. The contractor must however comply with the instructions of the engineer or the architect. He or she must accept the nomination in respect of certain subcontractors and nominated suppliers. No nominated subcontractor, however, can be employed if the contractor makes reasonable objection to it or if, inter alia, the subcontractor will not enter into a subcontract indemnifying the contractor against claims for negligence of the subcontractor and for obligations in respect of the subcontract as those for which the contractor is liable in respect of the main contract. These words seem to make it clear that the contractor is accepting liability in respect of work done by the nominated subcontractor. The situation with regard to nominated suppliers, however, is noticeably different. There is no veto on the ground of the contractor's reasonable objection, nor on the ground of the nominated supplier refusing to indemnify the contractor. Thus, for materials provided by nominated suppliers, they have been selected, without giving the contractor any right to express views, by the employer's own expert architect who has decided that the nominated goods are suitable for the purpose and who has made the preliminary arrangements with the suppliers either before or during the main contract. The contractor is simply instructed to obtain its supplies from the nominated supplier. All the circumstances of such nomination appear to exclude any reliance on

[73] (1988) 42 BLR 1. See also *Tung Kee Garden Horticulture Ltd v Wong Wang Tat* [2007] HKEC 1540. See further *Mouchel Ltd v Van Oord (UK) Ltd* (2011) 135 Con LR 183.

[74] (1980) 14 BLR 1. See *MT Hojgaard A/S v E.ON Climate and Renewables UK Robin Rigg East Ltd* [2017] BLR 477, *Hunt v Optima (Cambridge) Ltd* [2014] BLR 613, *Baylis Farms Ltd v RB Dymott Builders Ltd* [2010] EWHC 3886 (QB) and *Lexmead (Basingstoke) Ltd v Lewis* [1982] AC 225. See also *Incorporated Owners of Greenville Gardens of Shiu Fai Terrace v Win-Tech Engineering Co Ltd* [2004] HKEC 902 and *Wu Yin Fai v Ng Kam Tong* [2004] HKEC 273.

the contractor's skill and judgment. In *Mouchel Ltd v Van Oord (UK) Ltd*,[75] it was held that the issue of the suitability of a particular kind of sand as backfill for a seabed trench in terms of providing protection from erosion and restoring the seabed to its original profile and condition was a matter of design and not suitability of materials and, hence, this issue in the circumstances was excluded by contract from the scope of a sub-contractor's work. In *SSE Generation Ltd v Hochtief Solutions AG*,[76] in a contract for the design, build and commissioning of a hydroelectric scheme, there was a catastrophic collapse occurred in a substantial section of the tunnel which resulted in closure of the power station for a protracted period, and significant and costly remedial works. It was found the cause of the collapse to have been insufficient shotcrete and rock bolts being provided where there were poor rock conditions and this constituted a non-conformity with the works information, i.e. a defect, which existed at the time the tunnel was taken over, rendering it at the risk of the contractor under that contract.

17.045 On the other hand, the warranty of good quality may still render the contractor liable to the employer for materials supplied via nominated or designated subcontractors or suppliers, notwithstanding that there has not been any lack of care or default on the part of the contractor. The expression "good quality" means reasonably fit for the purpose for which this material is ordinarily used. As a general rule in such contracts, there is an implied warranty that the goods supplied will be of good quality, unless the particular circumstances of the case show that the parties intended otherwise.

(v) *Consideration of parties' intentions*

17.046 Therefore, to find the intention, one must consider the express terms of the contract and any admissible surrounding circumstances. In *Gloucestershire County Council v Richardson (Trading As W J Richardson & Son)*,[77] the contractor was employed under a contract in RIBA form to erect a building and to supply concrete columns to be ordered from suppliers nominated by the employer. The columns so supplied were examined and passed by the architect and the consulting engineers. When supplied, the columns had defects, which were not detectable but which became manifest soon after some of the columns were incorporated in the building. Faced with this, the architect gave instructions to stop all work on the perimeter of the columns and, in response, the contractor gave notice of termination on the ground that the work had been delayed for more than one month by reason of the architect's instructions. The

[75] *Mouchel Ltd v Van Oord (UK) Ltd* (2011) 135 Con LR 183. It was remarked that, where the parties had in their contract agreed that liability should be excluded then there was no possibility for that liability to be imposed by an implied term. Indeed given the express provisions in this case, the court did not consider that there was any room for an implied term as to fitness for purpose. See also *MT Hojgaard A/S v E.ON Climate and Renewables UK Robin Rigg East Ltd* [2017] BLR 477.

[76] 2018 SLT 579. In the contract, 'defect' was a defined term in the parties' contract and its meaning was given as a part of the works which was not in accordance with the works information (referred to as a limb one defect), or a part of the works designed by the contractor which was not in accordance with inter alia the contractor's design which had been accepted by the project manager (a limb two defect). A major dispute had been whether the collapse was a result of a defect in the design or construction and if so, whether the selection of an optional clause M restricted the contractor's liability only to use reasonable skill and care in the design aspects of the work as opposed to design and build something fit for purpose.

[77] [1969] 1 AC 480. See also *MT Hojgaard A/S v E.ON Climate and Renewables UK Robin Rigg East Ltd* [2017] BLR 477.

architect on behalf of the employer authorised the contractor to accept the supplier's quotation, which substantially limited the suppliers' liability in the event of the columns being defective. The employer sued the contractor for damages for wrongful repudiation. The court held that the contractor was entitled to terminate the contract in the circumstances as it did. It was observed that the architect indeed nominated the supplier to provide the columns upon the terms, which he instructed the contractor to accept, that the supplier should not be liable for any delays, defects or deficiencies whatever. Hence, the court was of the view that it is difficult to see how in law or as a matter of common sense or justice the contractor could be held liable upon some implied obligation for the failure of the supplier to deliver the goods. It should also be highlighted that, in this case, the design, materials, specifications, quality and price of the columns were all fixed without involvement of the contractor and the contractor did not even have a right to object to such a nomination, and hence, to insist on a proper indemnity. In contrast, in *Young & Marten Ltd v McManus Childs Ltd*,[78] in similar factual settings, it was said that, had the parties been aware that the tile manufacturer would only sell on terms which excluded a warranty of quality on its part, that would have been sufficient to exclude the implications of a warranty between the contractor and the subcontractor. The reason for this must be that the contractor would understand that, in such circumstances, the subcontractor would not itself give a warranty of quality. No warranty would therefore be implied notwithstanding that the attitude of the manufacturer would of itself make the contractor the more anxious to obtain the warranty of his subcontractor.

17.047 Another illustration of this can be found in the Australian case of *Helicopter Sales Pty Ltd v Rotorwork Pty Ltd*,[79] which concerned a helicopter lost by reason of a latent defect in a bolt which had occurred in the manufacture of the bolt. The bolt had been manufactured by the manufacturer of the helicopter, and had been fitted in the course of the regular servicing of the machine by a wholly owned subsidiary of the owner. It was a term of the servicing contract that in maintaining the aircraft, the service company would conform to the civil aviation department requirements, inter alia, that replacement parts used would only be obtained from the manufacturer's authorised distributor. The service contract required the service company to obtain from the manufacturer's authorised distributor in Australia a duly certified release note in respect of all such replacement parts. Such a note had been obtained in respect of the parts, which included the defective bolt, stating that the goods had been inspected and tested and that they complied with specification. It was accepted that the service company would not have been able to carry out the scientific tests necessary to ensure the absence of latent defects in replacement parts supplied to it, and that it had no means of ensuring compliance with the manufacturer's design requirements as these were confidential documents not disclosed by the manufacturer. The owner sued the service company, which joined the manufacturer's authorised distributor as a third party. It was held that there was no warranty of quality in these circumstances in relation to the bolt.

[78] [1969] 1 AC 454. See also *MT Hojgaard A/S v E.ON Climate and Renewables UK Robin Rigg East Ltd* [2017] BLR 477 and *Trebor Bassett Holdings Ltd v ADT Fire & Security Plc* [2012] BLR 441.

[79] (1978) 48 ALJR 390.

17.048 It may be noted that, regarding repair or maintenance contracts, it was also observed by Lord Reid in *Young & Marten v McManus Childs*[80] that less cogent circumstances may be sufficient to exclude an implied warranty of quality where the use of spare parts is only incidental to what is in essence a repairing operation where the customer's main reliance is on the skill of the contractor, rather than in a case where the main element is the supply of an article, the installation of which is merely incidental.

(d) Workmanship

(i) *Obligation to exercise proper skill and care*

17.049 In construction contracts, whether as stated in the form of contractual provisions or not, the contractor is subject to the usual obligations to do the work with all proper skill and care. This obligation is sometimes expressed as one to do the work in a good and workmanlike manner.

(ii) *Distinction from warranty of materials*

17.050 The comparison between the warranty as to workmanship with that as to materials was considered in the Scottish case of *Greater Glasgow Health Board v Keppie Henderson & Partners*.[81] A distinction was made between a warranty as to workmanship, where there is an implied warranty that due skill and care will be used, and a warranty as to materials, that they are free from any defect and are of the requisite quality. Thus, the warranty as to the materials extends to latent defects that due care and skill would not have detected.

17.051 The workmanship obligation can therefore be deemed to be an agreement to supply services, whereas the supply of materials is related to the sale of goods, and therefore is subject to a fitness for purpose implied term.

(iii) *Determination of degree of skill required*

17.052 The standard of workmanship may be defined in considerable detail in the contract with reference to the industry codes, guides and standards. In deciding what degree of skill is required, the court can take into account all the circumstances of the contract. In *Harmer v Cornelius*,[82] the warranty as to workmanship given by a man employed to do work which requires skill was that he undertook to possess and to exercise reasonable skill in the art he professes.

17.053 Thus, the obligation is one to use the degree of skill that is to be expected from professionals carrying out the work they have undertaken to do. In *Samake Construction Co Ltd v Incorporated Owners of Lai Wan Building*,[83] for instance, in a job for removing old drains, holes, old spikes and brackets were left on the wall

[80] [1969] 1 AC 454. See also *Wai Sing Engineering Co v Walsunion Industries Ltd* [2003] HKEC 11; *May Tik Decoration Co Ltd v Ronacrete (Far East) Ltd* [2009] HKEC 670, and *Secretary for Justice v Chong Kui (Group) Co Ltd* [2009] HKEC 190. See also *Trebor Bassett Holdings Ltd v ADT Fire & Security Plc* [2012] BLR 441.

[81] (1989) SLT 387. See *Artlane Design Consultants Ltd v Chan Wen Mee May* [2009] HKEC 1142.

[82] (1858) 5 CB (NS) 236.

[83] [2001] HKEC 1509. See *Force Way Engineering Ltd v Incorporated Owners of Grand Court* [2017] HKEC 2746. See also *Bolam v Friern Barnet Hospital Management Committee* [1957] 1 WLR 582; *Bolitho (Deceased) v City and Hackney Health Authority* [1998] AC 232; and *Allied Trust Bank Ltd v Edward Symmonds* (1994) 22 EG 116.

from where the old pipe work used to be. In finding that the work was not carried out in a workmanlike manner, the court took into account the situation that, if the old spikes were not removed, they would rust and cause damage to the concrete, leading to structural damage to the building caused by the loosened and exposed concrete, thereby giving a reason for the issue of a building order.

(iv) *Duty to warn of design defects*

17.054 The duty as regards workmanship may be extended to a duty to warn of design defects of which the contractor is or ought to be aware as in *Lindenberg v Canning*.[84] In that case, the contractor was engaged orally to carry out preliminary demolition works in a block of flats and was given a plan prepared by the developer's surveyor. The plan erroneously showed the nine-inch internal walls, including a chimneybreast, as non-load bearing and the contractor started to demolish these walls without propping the ceiling. The developer contended that the contractor was in breach of an implied contractual term in the agreement that he would do the work with skill and care and in a good and workmanlike manner, and that it was negligent to demolish obviously load bearing walls without propping. The court held that it was an implied term of the contract that, in carrying out its work, the contractor should exercise the care to be expected of an ordinary competent contractor and that so obviously an important structural feature as the chimney breast wall being indicated as non load-bearing should by itself have caused the contractor to have grave doubts about the plan. Thus, where the contractor should have realised that the nine-inch walls were load bearing, it should have proceeded with the very greatest caution or, at the very least, should have raised doubts with the developer's surveyor. The court then held that the contractor had 25 per cent liability.

17.055 In *Barclays Bank v Fairclough Building Ltd*,[85] a contractor who sprayed asbestos roofs with high pressure hoses, contaminating a building, notwithstanding that this happened under the direct supervision of the employer's architects, was found in breach of a contractual obligation to do the job in a workmanlike manner for failing to use due care and skill to appreciate the inadequacy of the method and to advise and warn.

(v) *Production of final result*

17.056 Certainly, under the warranty as to workmanship, a contractor is expected to carry out the work in a way that complies with the building regulations and safety laws. This builds on the general theme that, unless the contract expressly stipulates to the contrary, the contractor is entitled to choose its own methods of working; the duty of the engineer or architect is normally confined to stipulating the final permanent result required.[86]

[84] (1982) 62 BLR 147. See *Force Way Engineering Ltd v Incorporated Owners of Grand Court* [2017] HKEC 2746. See also *Imperial Chemical Industries Ltd v Merit Merrell Technology Ltd* (2017) 173 ConLR 137, *Pickard Finlason Partnership Ltd v Lock* [2014] EWHC 25 (TCC) and *Plant Construction Ltd v JMH Construction Services Ltd* [2000] BLR 137.

[85] (1995) 76 BLR 6. See also *Mueller Europe Ltd v Central Roofing (South Wales) Ltd* [2013] EWHC 237 (TCC) where it is highlighted that it is well established that a party in breach of a contractual provision which does not depend on a failure to exercise reasonable care cannot reduce that liability by an apportionment to take account of the negligence of the other party.

[86] See also *Smith v South Eastern Power Networks Plc* [2012] BLR 554.

3. Defects and Acceptance

(a) Defects

(i) *Generally*

17.057 A defect generally means that some of the work or materials fail to follow or comply with the stipulated requirements of the contract. By definition, a defect is a breach of the contract. Obviously, subject to the limitation legislation, the contractor is liable for the defective work done by it even after the completion of the work. Most construction contracts confer a power on the engineer or architect to direct the removal and replacement of defective work. Also, common standard forms of construction contracts do further provide for the engineer or architect to order the testing and inspection of work carried out as the work progresses. Thus, the fact that such defective work has been covered up is not material, save as to the liability for the expenses concerned. A defect here often refers to the symptom that surfaced rather than the cause that has to be investigated.

(ii) *Principle of complete performance*

17.058 The general principle at common law is that a contractor, who contracts to carry out work for a price, is required to complete the work before the entitlement to pay arises.[87] There is thus an obligation for entire and complete performance. The doctrine of substantial performance evolves into the concept of substantial completion or practical completion in standard forms of construction contracts, which in turn ties itself to the commencement of the maintenance period or, now more commonly known, the defects liability period. It is usual to further link the releases of retention money to the final discharge of the repair obligation at the expiry of that period. Also, either expressly or impliedly, the liability to pay for work done by common sense is necessarily confined to such work that is properly carried out in accordance with the contract, affording a defence by way of set-off or counter-claim for the expenses or damages consequential upon the repair. The exact wording used to define what defects are to be made good or whether the contractor is entitled to be reimbursed for defects not caused by its breach differs among the standard forms of contracts and each case has to be looked at on its own.

(iii) *Defects detected at substantial completion*

17.059 Defects detected at the time of substantial completion or practical completion, are usually listed out in the defects list that accompanies the certificate of substantial completion or practical completion. There is no definition of these terms in the standard forms of construction contracts. Yet, it should be noted that, as in *Hoenig v Issacs*,[88]

[87] *Ibmac v Marshall (Homes)* (1968) 208 EG 851 and *Sumpter v Hedges* [1898] 1 QB 673.

[88] [1952] 2 All ER 176. See *Force Way Engineering Ltd v Incorporated Owners of Grand Court* [2017] HKEC 2746. See also *San Fai Construction & Decoration Engineering Ltd v Tsang Fuson* [2008] HKEC 209, where, in relation to the construction of a village house, it was remarked:

> "Imperfection in the works, assuming that it existed, does not necessarily entitle the employer to refuse to pay the contractor. In an action on a construction contract for a lump sum payable on completion, the employer cannot repudiate liability to pay on the ground that the work, though substantially performed, is in some respects not in accordance with the contract. The employer is liable to pay subject to any deduction for cost of rectifying defects and omissions."

employers cannot refuse to pay contractors merely because a few defects and omissions are left over. In considering this, it is normal to take into account the purpose of the work overall, the nature and extent of the defects and the costs and difficulties for rectifying the defects, as illustrated in the cases of *Kiely & Sons v Medcraft*,[89] *Bolton v Mahadeva*[90] and *Technistudy Ltd v Kelland*.[91] During the maintenance period or defects liability period, the employer is usually entitled to call for the contractor to physically return to the site, in order to repair or to make good defects that surface, at the cost of the contractor.

(iv) *Defects detected prior to substantial completion*

17.060 If defective work or materials are detected prior to the completion or handover, the contractor can be required to make good such defects. The concept of temporary disconformity mentioned in *P & M Kaye & Hosier v Dickinson*[92] has been critically questioned in subsequent cases: *Lintest Builders Ltd v Roberts*[93] and *Surrey Health Borough Council v Lovell Construction Ltd*.[94] Indeed, in *Sutcliffe v Chippendale & Edmondson (A firm)*,[95] it was observed that a contractor who continued with the defective work after notice could be held to have evinced an intention not to be bound by the contract, constituting a repudiation that entitled the employer to bring an end to the contract.

17.061 Notwithstanding the duty to rectify on the part of the contractor, in everyday situations in construction works the option to demolish and rebuild may not be realistic or acceptable to the parties. Defects with adverse financial or time implications to a project may sometimes be abused as a bargaining factor. Hence, in many standard forms of construction contracts, there are express provisions in the contract to equip the employer with certain powers to deal with the situation. These include the powers to stop work and investigate; to order further testing and inspection; to direct the removal or replacement of defects; to vary the work; to accept the defective work with an appropriate adjustment in the contract price; and to declare the work as substantially completed leaving the defects to be made good during the maintenance period or defects liability period. Also, there may be other justifications for using express provisions in the contract to deal with the situation and outline consequences when defects are found. For instance, in *Fairclough Building Ltd v Rhuddlan Borough Council*,[96] it was held that, following the termination of

[89] (1965) 109 SJ 829. See also *H Dakin & Co v Lee* [1916] 1 KB 566.

[90] [1972] 1 WLR 1009. See *Tang Hong Far East Co Ltd v Yiu Sai Hoi* [2018] HKEC 1819 and *Mariner International Hotels Ltd v Atlas Ltd* (2007) 10 HKCFAR 1. See also *McGlinn v Waltham Contractors Ltd* (2007) 111 ConLR 1.

[91] [1976] 1 WLR 1042. See also *Giles (Electrical Engineers) Ltd v Plessey Communications Systems Ltd* (1984) 29 BLR 21.

[92] [1972] 1 WLR 146. See also *Mariner International Hotels Ltd v Atlas Ltd* (2007) 10 HKCFAR 1 and *McGlinn v Waltham Contractors Ltd* (2007) 111 ConLR 1.

[93] (1978) 10 BLR 120. See also *Guinness plc v CMD Property Developments Ltd (formerly Central Merchant Developments Ltd)* (1995) 76 BLR 40.

[94] (1988) 42 BLR 30. See *W Lamb Ltd (t/a Premier Pump & Tank Co) v J Jarvis & Sons plc* (1998) 60 ConLR 1.

[95] (1971) 18 BLR 149. See also *Rice v Great Yarmouth BC* The Times, 26 July 2000; *Surrey Heath BC v Lovell Construction Ltd* (1988) 42 BLR 25; *Adkin v Brown* [2002] NZCA 59; and *Eu Asia Engineering Ltd v Wing Hong Contractors Ltd* [1993] HKLY 839.

[96] (1985) 30 BLR 26. See *CIB Properties Ltd v Birse Construction Ltd* [2005] BLR 173.

a nominated subcontractor's employment in a contract in the JCT 1963 Standard Form, the cost of putting right the nominated subcontractor's defective work should have been borne by the employer and, in the absence of express provisions to that effect, the employer could not charge the contractor with the cost of the remedial work. In that case, the contractor objected to the renomination of the subcontractor, inter alia, on the ground that the remedial work left over by the originally nominated subcontractor had not been covered. The JCT 1980 standard form has been amended to make it clear that the employer is entitled to a credit from the main contractor in respect of sums certified and paid for work, which subsequently proves to be defective, in such situations.

(b) Acceptance

(i) *Periodic checks and approval of work*

17.062 As the work progresses, the employer, via the engineer or the architect, may be asked from time to time to approve the further proceeding of the work and to accept the work carried out. Interim payment is also effected for work carried out at designated intervals.

17.063 The first principle is that the employer does not necessarily accept the work done merely by resuming occupation or by continuing in possession of the land, as in *Munro v Butt*.[97] The position seems to be the same notwithstanding that the possession is made after there had been an objection to the materials and workmanship at the time the work was in progress. Yet, in special circumstances, the conduct of the employer may amount to an acceptance of the work done and this will give rise to an obligation on its part to pay. In the Canadian case of *Tannenbaum & Downsview Meadows Ltd v Wright-Winston Ltd*,[98] the builder of a housing project was entitled to terminate a contract with the owner of the adjoining land since the owner failed to build a pumping station to serve both the properties. Instead, the builder built a pumping main that cut into the sewer constructed by the adjoining owner. The court observed that, though the owner did not perform an essential term of the contract thus entitling the builder to terminate the contract, the obligations under the contract were not discharged until the builder terminated the contract. In the circumstances, the court held that, in accepting the benefit of such work, the builder was liable to pay the agreed sum less the cost of the pumping station.

(ii) *Liability for defects extends past receipt of full payment*

17.064 The employer is certainly not prevented from complaining of defects in the work even though the price has been paid in full, as in *Davis v Hedges*.[99] In *Mondel v*

[97] (1858) E&B 738. See *Lau Leung Wood v Standard Oil Co of New York* (1906-7) 2 HKLR 192. See also *Benedetti v Sawiris* [2014] AC 938 and *Cleveland Bridge UK Ltd v Multiplex Constructions (UK) Ltd* [2010] EWCA Civ 139.

[98] (1965) 49 DLR (2d) 386.

[99] (1871) LR 6 QB 687. See *Multiplex Constructions (UK) Ltd v Cleveland Bridge UK Ltd* (2006) 107 ConLR 1 and *Mellowes Archital Ltd v Bell Projects Ltd* (1998) 87 BLR 26. See also *Kwan Hung Sang Francis v Hong Kong Exchanges and Clearing Ltd* [2012] 1 HKLRD 546.

Steel,[100] a ship owner was allowed both to plead a diminution of the price for defective work in an action brought by the ship builder and to sue the ship builder separately for loss of the use of the ship during repairs. In *Moss v London & North West Railway Co*,[101] the payment of 90 per cent of the price did not create an estoppel against the deduction for the cost of the defective work. In *Whitaker v Dunn*,[102] the mere knowledge of defects at the time when the work was done did not prevent the employer from later complaining of the defects.

17.065 Thus, even if the employer has accepted the work and the liability to pay arises, it may claim a set-off or bring a separate action for consequential damages in respect of the defective work. It should be noted that, in most construction contracts, the work is sometimes expressly to be done to the satisfaction of the employer, or the engineer or architect on its behalf.

17.066 In the classic case of *Gilbert-Ash (Northern) Ltd v Modern Engineering (Bristol) Ltd*,[103] it was held that interim payment and certification did not impose a finality, even for the interim period, as to acceptance of the work done. Also, the interim valuation of work done has to mean a valuation of the work properly done. The same principle applies between a contractor and a subcontractor, as in *Acsim (Southern) Ltd v Danish Contracting and Development Co Ltd*.[104]

(iii) *Defective materials approved by the employer*

17.067 Construction contracts commonly provide that materials or samples have to be submitted for approval before the work can proceed on a full scale. Where the approval is given, the employer may be bound by it if the submitted materials or samples do not, to the knowledge and notice of the employer or the engineer or architect, comply with the specified requirements. In *Adcock's Trustee v Bridge Rural District Council*,[105] the contractor was not liable for the bricks used for manholes, supplied in conformance

[100] (1841) 8 M&W 858. See *Hung Fung Enterprises Holdings Ltd v Agricultural Bank of China* [2009] HKFC 115 where it was remarked:

> "...where an action was brought for an agreed price of a specific chattel sold with a warranty or a work which was to be performed according to contract, the defendant was allowed to plead by way of defence in reduction of the claim that the chattel, by reason of non-compliance with the warranty, or the work in consequence of the non-performance of the contract, was diminished in value."

See also the Hong Kong Court of Appeal decision in *Hung Fung Enterprises Holdings Ltd v Agricultural Bank of China* [2012] 3 HKLRD 679. See further *Sports Technology (Asia) Ltd v Claridge House Ltd* [2006] HKEC 954; *Safeway Stores Ltd v Interserve Project Services Ltd (formerly Tilbury Douglas Construction Ltd)* (2005) 105 ConLR 60; *Henry Boot Construction Ltd v Alstom Combined Cycles Ltd* [2005] BLR 437; *Multiplex Constructions (UK) Ltd v Cleveland Bridge UK Ltd* (2006) 107 ConLR 1; and *Econet Satellite Services Ltd v Vee Networks Ltd (formerly Econet Wireless Nigeria Ltd)* [2006] 2 All ER (Comm) 1000.

[101] (1874) 22 WR 532.

[102] (1887) 3 TLR 602. See *H Dakin & Co v Lee* [1916] 1 KB 566 and *Forrest v Scottish County Investment Co Ltd* 1914 2 SLT 348.

[103] [1974] AC 689. See *Henry Boot Construction Ltd v Alstom Combined Cycles Ltd* [2005] 1 WLR 3850, *W&JR Watson Ltd v Lothian Health Board* 1985 SC 352 and *Vickers v Lynn & Jones* [1981] CLY 188. See also *Smart Essence Development Ltd v Hong Kong Housing Authority* [2016] HKEC 951, *Pilecon (Hong Kong) Ltd v Mightyton Ltd* [1993] 2 HKLR 435 and *Wong Chuk Kin v Millennium Engineering Ltd* [2007] HKEC 1521.

[104] (1989) 47 BLR 55. See *Mellowes Archital Ltd v Bell Projects Ltd* (1998) 87 BLR 26; *Macob Civil Engineering Ltd v Morrison Construction Ltd* [1999] BLR 93; and *Multiplex Constructions (UK) Ltd v Cleveland Bridge UK Ltd* (2006) 107 ConLR 1.

[105] (1911) 75 JP 241. See *Department of National Heritage v Steensen Varming Mulcah* (1998) 60 ConLR 33.

with the approved sample and specifications, that failed to keep out water. In this case, no defect of a concealed type is concerned.

17.068 The nature of power to approve differs with the actual wording used in the contract. As illustrated in *Leedsford Ltd v City of Bradford*,[106] contract documents, and particularly specifications, frequently reserve the right to approve the use of alternative materials by the engineer or architect. An insistence on the use by the contractor of specified materials and a consequent failure to approve alternatives generally would not entitle the contractor to recover the additional cost incurred where the specified materials are more expensive than the proposed alternative. The specifications in *Leedsford Ltd v City of Bradford* provided for the use of artificial stone to be obtained from a designated source or "other approved firm". It was held that these words entitled the architect to insist on the named source without giving reasons. In *J Crosby & Sons Ltd v Portland Urban District Council*,[107] the specification provided that the pipes were to be manufactured by either one of two named sources. The engineer insisted on one whereas the contractor wished to supply from another. It was held that the wording conferred an option on the contractor to choose the pipe it preferred and an insistence by the engineer on one of the named sources amounted to a variation.

17.069 Yet, in respect of approval of defective work, it seems that no issue or waiver or estoppel arises in general unless the approval is an express one and is made with full knowledge of the defect.

4. Maintenance and Certificate

(a) Scope of maintenance period

17.070 The maintenance period or defects liability period starts on substantial completion or practical completion, when the employer enters upon the site and takes possession. It has the accompanying effects of terminating any further accrual of liquidated damages for delayed completion and of releasing in full or in part the retention money. Such a period comes to an end upon the issue of a certificate by the engineer or architect in accordance with the contract, certifying the making good of defects has been completed.[108]

(b) Whether the certificate is considered conclusive as to acceptance

17.071 The effect of the certificate, whether it is termed maintenance certificate or final certificate,[109] has been the subject of many cases. The gist of the dispute is whether the

[106] (1956) 24 BLR 45.

[107] (1967) 5 BLR 121. See also *How Engineering Services Ltd v Lindner Ceilings Floors Partitions Plc* (1999) 64 ConLR. See further *Wong Chuk Kin v Millennium Engineering Ltd* [2007] HKEC 1521.

[108] Subject to the provision in the contract, a maintenance certificate issued is usually not conclusive evidence on the quality of the work completed. See however *Loundonhill Contracts Ltd v John Mowlem Construction Ltd* (2001) 80 ConLR 1.

[109] See *Wong Chuk Kin v Millennium Engineering Ltd* [2007] HKEC 1521 regarding interim certificates.