Tan Wai Kok (formerly trading as TWK Skill Engineering Works) v Hart Engineering (Pte) Ltd [2005] SGHC 215

Case Number : Suit 27/2005

Decision Date : 16 November 2005

Tribunal/Court : High Court

Coram : Lai Siu Chiu J

Counsel Name(s) : Molly Lim SC (Wong Tan and Molly Lim LLC), Diana Lim and Chia Choy Ping (Leong Chia and Lee) for the plaintiffs; Rabi Ahmad (Rabi Ahmad and Co) for the defendant

Parties : Tan Wai Kok (formerly trading as TWK Skill Engineering Works) — Hart Engineering (Pte) Ltd

Building and Construction Law – Damages – Damages for defects – Building subcontract for supply and installation of sprinkler systems and pipes – Contractor refusing to pay subcontractor – Subcontractor counterclaiming for costs of rectifying defective works, costs of materials requisitioned and for overcharging – Whether counterclaim made out

Building and Construction Law – Equitable remedies – Estoppel – Subcontractor accepting periodic payments with deductions – Lack of protest by subcontractor to deductions – Whether subcontractor estopped from making claim for wrongful deductions

16 November 2005 *Judgment reserved.*

Lai Siu Chiu J:

The facts

1 Tan Wai Kok ("the plaintiff") is the sole proprietor of TWK Skill Engineering Works, which carries on the business of mechanical and engineering works. Essentially, the plaintiff is involved in installing fire sprinkler systems. Hart Engineering (Private) Limited ("the defendant") is involved in the design, manufacture and installation of fire-fighting and fire safety equipment and systems. At the material time, the plaintiff worked for the defendant as a subcontractor, supplying and installing sprinkler systems and the pipes for discharging water.

2 The contracts which the defendant subcontracted to the plaintiff and which are the subject of these proceedings were the following projects:

(a) Agilent;

(b) Ang Mo Kio ("AMK");

(c) Caterpillar;

(d) the wafer-fab factory and car park of Chartered Semiconductors Manufacturing Ltd ("CSM");

(e) UIC Building;

(f) Mandarin Hotel;

(g) Raffles City;

(h) Simsville; and

(i) Sembawang camp ("Sembawang").

3 There was a dispute over payment arising out of the subcontract works. The defendant did not pay the balance of the plaintiff's invoices for his subcontract works, alleging that the plaintiff owed the defendant for materials the plaintiff had requisitioned and which should be set off against the plaintiff's claims. The defendant further alleged that the plaintiff was liable for the cost of rectifying defective works which he had failed to make good. The defendant also alleged it had been overcharged and/or it had overpaid the plaintiff in some instances.

4 Initially, the plaintiff as well as his company, TWK Skill Engineering Works Pte Ltd ("the company"), sued the defendant in Suit No 857 of 2003 ("the Suit"). The company was incorporated in March 2002 and the plaintiff had purportedly assigned to it his claim against the defendant. However on the first day of the trial, on a preliminary point raised by the defendant, I ruled that the assignment from the plaintiff to the company was invalid and dismissed the company's claim. Although the plaintiff was named as the first plaintiff in the Suit, he had claimed no reliefs against the defendant. Consequently, the Suit could not continue with the plaintiff as the only suing party.

5 However, as the defendant had a counterclaim against the plaintiff in the Suit, I ordered the counterclaim to be tried. After a day's cross-examination of the defendant's first witness for the counterclaim, counsel for the defendant informed me that the counterclaim had been reduced to $28,264.72. Consequently, I ordered that the same be transferred to the Magistrates' Courts.

6 The plaintiff commenced these proceedings in January 2005. As the counterclaim in these proceedings mirrored the defendant's counterclaim in the Suit, the court ordered, after various interlocutory applications and appeals therefrom, that the defendant discontinue its counterclaim in the Suit and that its original Defence and Counterclaim in these proceedings be restored. At a pre-trial conference on 15 April 2005, it was ordered that the documents and Affidavits of Evidence-in-Chief filed in the Suit be taken as filed in these proceedings.

The pleadings

7 In the Statement of Claim, the plaintiff claimed sums totalling $724,745.40 against the defendant made up as follows:

	Project	Amount
(a)	Agilent	$186,797.06
(b)	Sembawang	$200,672.00
(c)	Caterpillar	$105,192.46
(d)	Raffles City	$ 70,085.00
(e)	CSM wafer-fab	$ 55,944.25
(f)	CSM car park	$ 26,326.00
(g)	Mandarin Hotel	$ 79,728.63

The plaintiff's above claims related to works orders ("WOs") issued by the defendant and for additional and/or variation works orders (collectively referred to as "VOs") which were disputed by the defendant.

8 The plaintiff alleged that the defendant had wrongfully deducted sums totalling $298,567.31 for materials which were supposedly requisitioned by the plaintiff. The third and final item of the plaintiff's claim was retention moneys due from the defendant amounting to $118,129.89 which had been wrongfully withheld. The three items claimed by the plaintiff totalled $1,141,442.60. I should point out that by the time the trial concluded, the parties had revised the figures of both the claim and counterclaim and had made various concessions to one another.

9 In the Defence, the defendant denied owing the plaintiff the sum of $1,141,442.60. It also denied that it had made wrongful deductions for material requisitions.

10 The defendant relied on various clauses in the terms and conditions contained in the WOs issued to the plaintiff to assert it was not liable for the alleged VOs save where the defendant had issued WOs. The defendant further alleged that the plaintiff's claims for VOs were false and/or fraudulent. By submitting such false and/or fraudulent claims, the defendant contended that the plaintiff had dishonestly obtained payment or attempted to obtain payment.

11 The defendant averred that it was entitled to withhold and deduct from the plaintiff's progress payments, the cost of sprinkler pipes that it had supplied to the plaintiff for the projects at Agilent, Mandarin Hotel and Sembawang. The defendant asserted it had incurred a further $79,788.51 on the plaintiff's behalf for various other charges and expenses.

12 The defendant pleaded that the plaintiff's VOs contained claims that were already included in the subcontracts awarded by the defendant. The plaintiff was also not entitled to claim for abortive works or rectification works by way of VOs.

13 The defendant alleged that there was a conspiracy between the plaintiff and its ex-employees v*iz* Chan Chee Pong, its divisional manager Ong Beng Yeow and site engineers Tan Kian Peng and Zaky ("collectively the conspirators") to defraud the defendant. The defendant asserted that Chan Chee Pong and Ong Beng Yeow had wrongfully instructed and/or allowed Tan Kian Peng and Zaky to approve and sign whatever inspection and/or completion forms that were given to them by the plaintiff or his representatives without verifying the authenticity and/or accuracy of such claims.

14 The defendant alleged that the conspirators falsely represented and/or induced the defendant to believe that the plaintiff would be paying the charges pertaining to equipment and materials requisitioned by the plaintiff as well as other charges when the conspirators knew or ought to have known that the plaintiff did not intend to do so. The defendant raised the plea of estoppel in relation to the deductions disputed by the plaintiff.

15 The defendant further alleged that the plaintiff used pipes of a lower or cheaper grade than that contracted for in the Sembawang project. In addition, the plaintiff claimed to have supplied and installed 14,702 sprinkler heads when the "as built" drawings for Sembawang confirmed that the plaintiff supplied and installed only 7,121 sprinkler heads. Further, the plaintiff had only requisitioned 7,300 sprinkler heads for the project.

16 Consequently, if the defendant was found to be liable for the sum claimed of $1,141,442.60, the defendant asserted it was entitled to set off the sum of $495,699.54 by way of its counterclaim for:

(a) the cost to rectify defective works;

(b) the cost of materials requisitioned; and

(c) overcharging.

The evidence

The plaintiff's case

17 Three of the defendant's ex-employees whom it had labelled conspirators testified for the plaintiff. The first was Chan Chee Pong ("Chan") who was the defendant's senior manager and executive director until he resigned from the defendant's services. Chan[note: 1] oversaw all seven projects subcontracted to the plaintiff. He was in fact the plaintiff's key witness besides the plaintiff. It was Chan who introduced the plaintiff to the defendant. The plaintiff's other witnesses were Ong Beng Yeow, Tan Kian Peng and Kenny Liu while Tan Boon Ngee, a professional engineer, was his expert witness.

18 In his written testimony (by way of two affidavits), Chan deposed that prior to the dispute in question, the parties had a very good relationship and each adopted a "give and take" attitude towards the other so much so that sometimes, the plaintiff commenced works required by the defendant without even waiting for the issuance of a WO. The plaintiff would also carry out variation works before the issuance of WOs for such works by the defendant.

19 Chan added that it was the defendant's practice to allow assigned staff such as site and/or project engineers and/or supervisors to give oral instructions on site to subcontractors regarding VOs and to acknowledge completion of each stage of work done by the latter. He defended the plaintiff on the switch from galvanised steel pipes to cheaper steel pipes for the Sembawang project, explaining it was done on his instructions and the project only called for the cheaper steel pipes.

20 Chan deposed that rectification of the plaintiff's defective works for the AMK project was carried out by Xin Ning Construction & Engineering Contractor. For Simsville car park, the repainting of pipes was carried out by the plaintiff, Soon Yan Engineering Pte Ltd ("Soon Yan") and Compact Engineering ("Compact"). Chan testified that he had agreed with the plaintiff that the latter would not be charged for the repainting works done by Soon Yan and Compact.

21 Chan excused the plaintiff's defective works for the CSM project on the basis that it was a rush job. He testified that if the plaintiff failed to rectify defective works or failed to rectify defective work on time, the plaintiff would engage another subcontractor to do the necessary rectification and back charge the costs to the plaintiff. Back charging would usually take place at the end of the subcontractor's job. To back charge the plaintiff immediately upon defects being discovered or upon material requisitions being made would cause him cash-flow problems and he might not be able to pay his workers. That would increase the risk of the plaintiff not finishing the project which would in turn delay the project and expose the defendant to liquidated damages imposed by the owner or main contractor. Consequently, it was the defendant's practice to back charge the plaintiff and other subcontractors upon completion of projects and before final accounts were taken. As there would be retention moneys withheld by the defendant, Chan was confident that there would always be sufficient sums to set off the back charges owing by the plaintiff.

22 As for deductions for material requisitions ("MR"), Chan supported the plaintiff's stand that no deductions should be made for the defendant's supply of epoxy paint, unistruts (special brackets),

underground pipes, scissors lifts (special staging) and installation of extinguishers, claiming these items were excluded from the plaintiff's quotations. Part of the plaintiff's dispute with the defendant centred on who should pay for the use of scissors lifts and unistruts.

23 Chan asserted that the defendant's allegation of fraud and conspiracy against him and other ex-employees of the defendant was unfounded. He pointed out that the practice was for the plaintiff to submit progress claims to the defendant's site engineers for verification and signing after which Ong Beng Yeow ("Ong") as the divisional manager would approve the claims. The claims would then be submitted to the defendant's managing director Gn Chiang Yam for payment; any payment above $5,000 required the managing director's signature. Chan denied he had instructed the defendant's site engineers (Tan Kian Peng and Zaky) to approve and sign whatever inspection or completion forms that were submitted by the plaintiff without verification. Chan further denied he had instructed the site engineers to comply with whatever demands made by the plaintiff or the plaintiff's supervisor and not to raise complaints on the plaintiff's defective works. Chan said he was proud of the fact that during his 11-odd years with the defendant, he had taken charge of 30–40 projects in none of which liquidated damages were imposed. That, he claimed, attested to his diligence in discharging his duties to the defendant.

24 Chan deposed that the plaintiff was entitled to claim VOs for major additional or variation works caused by poor co-ordination by the defendant's engineers, or if extra works were necessitated through no fault of the plaintiff. He relied on his site staff for confirmation that variation works had been done by the plaintiff over and above those reflected in WOs. Once he received such confirmation, Chan would arrange for the issuance of WOs to the plaintiff to cover the works carried out in the VOs. In cross-examination, however, Chan conceded that approval of the plaintiff's inspection forms *per se* did not give the plaintiff the right to claim for VOs nor did it form the basis of payment by the defendant for VOs claimed.

25 Contrary to the defendant's case that the plaintiff's subcontracts were quantity-based, Chan deposed that the plaintiff was never paid based on re-measurement of "as built" drawings when he was with the defendant. This was because when there was concealed piping on site running above the ceiling boards (especially for the Agilent and Mandarin Hotel projects), it was practically impossible to measure the exact length and diameter of pipes that had been laid and to count the number of sprinkler points installed. Further, if the plaintiff was instructed to remove sprinkler points, the removal works would not be captured in "as built" drawings. Similarly, in the case of relocating sprinkler points, the "as built" drawings would only show the relocations where the sprinkler points were installed but not the original locations from which the sprinkler points were removed. Dismantling and reinstatement of sprinklers due to poor or lack of site-co-ordination would not be shown in the "as built" drawings. In other words, "as built" drawings would capture the final works carried out but would not show the works done by the plaintiff from the commencement of the project until completion.

26 As for MR deductions claimed by the defendant, Chan confirmed that sometimes the plaintiff would order materials through the defendant, which cost the defendant would deduct from the price stated in WOs. However, the plaintiff would also have his own materials. Sometimes the plaintiff recycled materials where the project involved an existing building. (In cross-examination, however, realising the serious implications involved if the plaintiff used recycled materials, Chan changed his testimony and said he meant that the plaintiff used surplus, and not recycled, materials).

27 Chan described as "highly misleading" the defendant's allegation that the plaintiff had claimed double (14,702) the actual number (7,121) of sprinkler heads he had installed for the Sembawang project. Chan pointed out that the four WOs for Sembawang provided for 7,260 sprinkler points to be

installed. Every sprinkler point must have a sprinkler head. The plaintiff's VOs however stated he had been instructed to supply labour and tools for 7,351 new sprinkler heads. The defendant had confused the works for the supply of sprinkler points with those for sprinkler heads.

28 Although he acknowledged that Ong had a brother (Ken Ong) who worked for the plaintiff as foreman, Chan contended there was nothing wrong with the appointment as the defendant had insinuated; Ong had checked with the defendant and he (Chan) had confirmed it was alright for Ken Ong to be so appointed.

29 Chan asserted that the reason the defendant did not pay the plaintiff on his various claims was due to its cash-strapped position, citing the Asian financial crisis in 1997 which he said affected construction firms in Singapore (including the defendant) and which worsened in 2001. It was for this reason that the defendant started finding fault with the plaintiff as an excuse to avoid and/or delay payment.

30 A main plank of the defendant's case against the plaintiff (and Chan) rests on a meeting between Chan and his fellow directors on 25 January 2002 at which Gn Chiang Yam ("Gn") was present. Gn claimed that Chan had admitted his misdeeds at this meeting. This was denied by Chan who said that on Gn's demand for an explanation as to why no back charges were made against the plaintiff for the AMK, CSM and Simsville projects, he had explained that back charges would eventually be made and deducted after completion of the projects. On the following day, Gn indicated that the defendant's board of directors wanted Chan to leave but Gn himself wanted Chan to stay on and assume other responsibilities. Chan declined Gn's offer as he did not want to work under someone who was his contemporary (a senior manager, Phay Teck Chuan). Chan offered to resign instead. Gn agreed and Chan left the defendant's services in March 2002.

31 In the course of cross-examination, Chan revealed that the defendant had incurred costs in rectifying the plaintiff's defective works for the AMK, CSM and Simsville projects which were completed in 2001 and 2002. In fact, just for the CSM project alone, Chan's memorandum dated 25 January 2002 instructed the defendant to back charge $113,705[note: 2] to the plaintiff for rectification works carried out by J Keart Engineering Pte Ltd ("J Keart"), Xin Ning Construction & Engineering Contractors and Nicholl Engineering (S) Pte Ltd. Chan admitted that this was the first time he had back charged the plaintiff for the CSM project. Chan explained that the plaintiff's failure to rectify was due to lack of manpower as the plaintiff could not spare workers who were occupied with other projects of the defendant.

32 Chan said he assessed the plaintiff's variation claims based on rates and quantities, verification by the defendant's site engineers and whether the defendant had a "budget" to make payment. If not, he would negotiate a commercial settlement with the plaintiff. No payment would be made to the plaintiff without WOs which Gn, not he, was authorised to issue. Save for projects that were not completed (*viz* Agilent, Caterpillar, CSM and Mandarin Hotel) at the time he left the defendant, Chan had finalised the accounts for the other projects subcontracted to the plaintiff where there was no dispute.

33 Chan had replaced Soon Yan with the plaintiff for the CSM job (on the recommendation of Ong) a couple of weeks after Soon Yan had started work even though the latter was the preferred subcontractor of the main contractor M&W Zander. He testified the defendant was under tremendous pressure whilst Soon Yan had insufficient workers and its progress was slow. Chan said he chose the plaintiff because unlike other subcontractors, the plaintiff had sufficient manpower to carry out the work. The plaintiff also made use of the defendant's foreign workers. (Another subcontractor chosen by Chan to do work for the defendant (at HDB Hub) was Total Engineering whose owner is the

plaintiff's younger brother and which business was a spin-off from the plaintiff's firm).

34 The dispute between the plaintiff and the defendant on MR deductions centred on scissors lifts and special scaffolding and/or staging provided by the defendant that was back charged to the plaintiff. A scissors lift refers to a self-operated platform that can be raised to any height while special staging is aluminium scaffolding that is erected to a particular height and is used in wafer-fab plants. Although the plaintiff's quotation for the CSM project dated 31 July 2000[note: 3] specifically excluded the supply of scissors lifts, Chan had instructed the defendant's accounts department to charge the plaintiff for the cost of special staging supplied by the defendant, as the item was not the same as scissors lifts. Chan agreed that the defendant was also entitled to charge the plaintiff for the use of scissors lifts for low ceiling works. He explained that the exclusion clause in the plaintiff's quotation would apply to high ceiling works (above 6m) that necessitated the use of scissors lifts. However, if the plaintiff chose to use scissors lifts for low ceiling works (below 4m) for his own convenience, he would be charged for the supply. Unfortunately, Chan could not tell whether the plaintiff used scissors lifts for high or low ceiling works although in re-examination he estimated that 70% of the work for CSM involved ceiling heights above 4m. Neither could the plaintiff prove that the special stagings which he used related to ceiling works above 6m in height.

35 Another item excluded from the plaintiff's quotation for the CSM project was the supply of unistruts. Unistrut was a brand of supporting system which comprised of nuts, screws, fasteners and clamps used for soffits, hangers and cantilevers. The plaintiff disputed the defendant's back charge as relating not to the supply of the unistrut system proper but to parts that could form such a system.

36 Chan said it was his practice to back charge the plaintiff first whenever there was doubt whether an expense item should be borne by the plaintiff or the defendant. He would then resolve the issue with the plaintiff when accounts for the project in question were finalised. If the plaintiff satisfied him then that the items supplied were not part of a unistrut system, the charges would be withdrawn by the defendant. For the CSM project, however, accounts were not finalised with the plaintiff because Chan left the defendant's services before the project was completed.

37 Another bone of contention between the parties centred on a purchase requisition dated 28 November 2000 issued by the defendant against the plaintiff for payment of $70,000 to Soon Yan for the latter's work before the plaintiff took over the CSM project. Chan testified that Ong and he approved the form as it had been agreed with the plaintiff that the latter would pay the amount to take over the subcontract from Soon Yan.

38 In the course of Chan's cross-examination, it appeared that the plaintiff had invoiced the defendant for transporting sprinkler heads for the Sembawang project even though the supply was requisitioned from the defendant and the supplier (Central Spraysafe Company Pte Ltd) delivered the goods to site. The plaintiff's invoice dated 13 November 2001 for $52,837[note: 4] also included the cost of the sprinkler heads.

39 In cross-examination as well as re-examination, Chan confirmed that the plaintiff should bear the following items back charged by the defendant:

(a) special brackets provided by Basler & Hofmann for the CSM project	$11,438.33
(b) repair to damage from water leakage at UIC Building	$1,957

(c) payment to insurers for damage to third party's computers at UIC Building $2,500

(d) cost of T-shirts for the plaintiff's workers for the Mandarin Hotel project. $2,268.06

40 Kenny Liu ("Liu") is a director of J Keart, which company carried out work for the defendant between 1998 and 2002. His sole-proprietorship, SK Prime Engineering & Construction, also did work for the defendant (for the AMK project). Liu[note: 5] testified that J Keart supplied labour (charged at a daily rate) and tools to the defendant for the CSM project. However, he could not say whether the work carried out by his company was for rectification of defective works or for VOs, although the invoices issued to the defendant stated they were for defective works, pursuant to WOs issued by the defendant.

41 Liu was equally vague during cross-examination. However, for the defendant's WO No 19063 for $64,450, he was able to say that it was for relocation done by his company of 1,000 sprinkler points installed by the plaintiff for the CSM project, although he could not recall the reason therefor. Liu revealed that his company sued the defendant for the work done. The parties reached a settlement on the claim before this trial. Liu said his company was paid upfront $160,000 on his claim ($230,000) and it was agreed that J Keart would be paid another $20,000 so long as the defendant recovered at least $1.00 of the back charges from the plaintiff. On further questioning by counsel for the defendant, Liu agreed that he had discounted $20,000 on his claim on condition that the defendant recovered the same amount from the plaintiff to pay him.

42 Ong[note: 6] was the former divisional manager of the defendant until he left in February 2002. In his written testimony, Ong deposed that the plaintiff had been engaged as the defendant's subcontractor since 1997 after he joined the defendant in 1992. (Indeed, Ong revealed that the plaintiff undertook the most projects for the defendant as compared with other subcontractors). Ong oversaw all 11 projects which formed the subject of these proceedings. Ong confirmed that his brother Ken Ong was the plaintiff's foreman, a fact known to the defendant and their clients and to which they raised no objections. Ong's evidence-in-chief essentially corroborated Chan's testimony (save on one aspect which I will address below at [45] and [46]). Indeed, Ong's affidavit made specific reference to certain paragraphs in Chan's affidavit. Consequently, I prefer to look at the evidence adduced from Ong under cross-examination.

43 In cross-examination, Ong revealed that he and Chan selected subcontractors for the defendant based on:

(a) the number of workers the subcontractor had;

(b) the subcontractor's relationship with the defendant's client/customer;

(c) whether the subcontractor had jobs from other fire-protection companies; and

(d) the subcontractor's suitability for the job.

44 For the 11 projects involved in this dispute, the plaintiff worked exclusively for the defendant even though none of the customers concerned had requested for the plaintiff's services. In the case of the CSM project, Ong had pushed for the plaintiff to replace Soon Yan because:

(a) Soon Yan had outstanding work for the defendant's projects which were at a crucial

stage; and

(b) Soon Yan did not meet the employer's manpower requirements,

whereas the plaintiff had just completed the UIC Building project and had no other major project in hand. The plaintiff replaced Soon Yan even though prior to the CSM project, the plaintiff had no experience in installing fire protection systems in wafer-fab plants and he did not have all the necessary equipment, unlike Soon Yan, which had undertaken two similar projects previously for the same employer (M&W Zander).

45 Questioned on his choice of the inexperienced plaintiff over the experienced Soon Yan, Ong defended himself on two grounds: (a) M&W Zander was a valuable client of the defendant; and (b) as semi-conductor wafer-fab projects were on the increase, Chan and he felt the defendant should train more of its subcontractors for such projects. The defendant was also concerned that the friendly relationship between M&W Zander and Soon Yan may result in the former employing Soon Yan directly, thereby by-passing the defendant. It is noteworthy that this evidence directly contradicted the testimony of Chan and Ong that Soon Yan was removed from the CSM project due to the dissatisfaction of M&W Zander with Soon Yan's progress. Ong's testimony is also absurd (as counsel for the defendant pointed out) because Soon Yan was previously engaged to do fire-protection services for two wafer-fab plants of which the employer was M&W Zander.

46 Contrary to Chan's testimony, Ong denied the plaintiff had in his and Chan's presence agreed to pay Soon Yan $70,000 for taking over the CSM project. He maintained his denial even when shown the defendant's purchase requisition form where he had written "Bill to TWK" to back charge this sum to the plaintiff. Ong further denied that his brother's position as the plaintiff's foreman was the reason, or at least a factor, for his appointing the plaintiff as subcontractor for the CSM and other projects. Ong also disagreed with Chan's testimony that he (Ong) had instructed site engineers to sign the plaintiff's inspection and completion forms, claiming it was done on Chan's instruction. Ong disclaimed knowledge of whether the plaintiff was absent from site most of the time for the projects although he agreed that his brother, Ken, was on site for the CSM project.

47 Ong was questioned at length on the accuracy of the "as built" drawings to reflect the actual work done by the plaintiff (especially for the Mandarin Hotel project). He supported Chan's evidence that such drawings would not capture all the work done by the plaintiff, particularly in relation to VOs.

48 When it was pointed out to him that the plaintiff did not object to MR deductions from the progress payments, Ong disagreed. He said the plaintiff "made a lot of noise" but the accounts department (from whom the plaintiff collected his cheques if not done for him by Ong) had no power to entertain the plaintiff's objections. However, Ong did not check the MR deductions made by the defendant's accounts department nor did he (or Chan) inform the latter of the plaintiff's objections to the deductions.

49 Ong testified it was the defendant, not the plaintiff, who was responsible for missing and damaged items relating to staging rented for the CSM project. Shown the fax from the renter (E&M Access) to the defendant dated 28 March 2001 which contained handwriting to the effect that the plaintiff would be back charged for the damaged and missing items, Ong said he had not seen the fax previously and did not recognise the handwriting. In any case, the plaintiff did not use the staging exclusively. However, Ong was responsible for reducing the renter's claim from $45,014.40 to $20,000.

50 Next, I move to the evidence of Tan Kian Peng ("Tan") who was the defendant's senior project manager until he left in June 2002. Tan's written testimony was essentially a repeat of Chan's

and Ong's. He also denied the defendant's allegation of conspiracy. Consequently, it is more fruitful to look at the evidence adduced from him in cross-examination, in relation to the Agilent and Caterpillar projects that he oversaw.

51 Tan[note: 7] agreed that "as built" drawings would be fairly accurate (80% to 90%) of the actual work done by the plaintiff on site, even in instances where remeasurement of the plaintiff's work was not possible or practicable. He revealed that although he was supposed to check the plaintiff's work and rectifications, he was sometimes too busy to do so because of the other three projects then under his charge. It was obvious that Tan did not (even if he verified the plaintiff's works) satisfy himself that the inspection forms he signed (sometimes months later) related to genuine VOs and not to abortive works for which the plaintiff could not validly claim. He admitted that the inspection forms were not 100% accurate.[note: 8] In one instance that comment was an understatement; counsel for the defendant had drawn Tan's attention to an inspection form[note: 9] dated 23 May 2002 that Tan appeared to have signed on 6 June 2002. Tan's unconvincing explanation was that he may have written the month wrongly and when pressed as to when he left the defendant's employment, he said he could not recall the actual date.

52 Even if he checked the plaintiff's work at site, Tan revealed he did not verify it against "shop" or "as built" drawings to make sure it was carried out in accordance therewith; neither did he measure the lengths of the pipes laid by the plaintiff. In this regard, it is noteworthy that Tan was the person who checked the "as built" drawing[note: 10] prepared for the Agilent project.

53 As with Ong, when counsel showed Tan evidence (by way of drawings) which proved the plaintiff had claimed in excess of the pipes he had actually installed, Tan sidestepped the issue by professing ignorance of the diameter of the pipes that were installed, giving the excuse that if those pipes were above the contracted 50mm in diameter, the plaintiff was entitled to claim extra. He did concede, however, that if the plaintiff's claims for VOs were erroneous either in terms of rates or quantities, the defendant was entitled to reject the claims. Tan further agreed that if the defendant had doubts on the validity of the plaintiff's claims, it could verify against "as built" drawings, provided such drawings were accurate; he agreed the drawings were a reliable yardstick for assessing the plaintiff's VOs.

54 Like Ong, Tan had a poor memory when it came to the issue of back charges billed to the plaintiff. He could not remember the type of, nor whether the plaintiff requested, the materials reflected in the defendant's MR documents. He disclaimed knowledge on the basis that it was Chan and Ong, not he, who dealt with the plaintiff on this issue. He could not recognise the signatories of the defendant on the MR forms.

55 In re-examination, Tan testified that one method he used to verify the plaintiff's work (contractual and rectification) was to see whether the defendant's employer called him. If there were no calls and/or complaints, it meant that the work was done. I cannot imagine anyone, let alone the defendant, accepting this method as a reliable means of checking the plaintiff's contract and rectification works. This evidence reflected poorly on Tan.

56 The plaintiff[note: 11] testified after Tan. He was in the witness stand far longer than necessary because of his vague and sometimes contradictory evidence. He was clearly not the person in charge of works subcontracted from the defendant. I have no doubt that person was Ken Ong but Ken Ong did not testify.

57 The plaintiff only conceded during cross-examination that he was liable for foreign workers' levy and repatriation costs of the defendant's workers that he utilised (provided there was proof), but

not for scissors lifts that he used in the Sembawang and Agilent projects. He admitted he had settled accounts with the defendant in March or April 2002 for the CSM project on the basis of $1,768,399 being his total claim. However, the plaintiff denied he had agreed to a deduction of $92,950 for defective works that he had failed to rectify. The defendant had relied on an undated document[note: 12] which the plaintiff admitted signing and which set out the following statement of account:

DESCRIPTION	QTY	UNIT RATE	AMOUNT
1) Sprinkler	16860	$60.00	$1,011,600.00
2) 65mm pipe	3272	$30.00	$98,160.00
3) 100mm pipe	4478	$45.00	$201,510.00
4) 150mm pipe	3860	$65.00	$250,900.00
5) 200mm pipe	264	$80.00	$21,120.00
6) 50mm GI pipe	1626	$28.00	$45,528.00 $1,628,818.00
		Add. Works Order 17935	$21,980.00 $1,650,798.00
		Additional work	$117,601.00 $1,768,399.00
		Defect Work	($92,950.00) $1,675,449.00
		Lodging	($4,949.96) $1,670,499.04
		Insurance	($48,000.00)
		Total balance to TWK	$1,622,499.04

58 According to the defendant, below the above statement, the plaintiff had handwritten as follows and then signed:

> Above everything in order only defect work of $45,000 will revert after discussing with J Keart by 04/04/02

The plaintiff denied writing the above comment. He alleged it was written by the defendant's administrative manager Chong Lai Yee ("Chong"). He had told Chong he needed to verify the figure of $92,950 when she had asked him to sign the statement. She then inquired and he had said he could deduct at best $45,000 from the $92,950. He further disputed his liability for the sum of $4,949.96 incorporated in the above statement. The figure related to two items of damage at the CSM site that the main contractor had billed to the defendant, who invoiced the plaintiff in turn. He also disputed the insurance amount of $48,000. It related to the excess sum borne by the main contractor on an insurance claim for damage to works at the CSM project caused by a sprinkler pipe leak on 7 July 2001, which had been charged to the defendant by the main contractor.

59 It was difficult at times to understand the plaintiff's testimony as he alternately admitted and disputed the defendant's back charges. He denied his workers were liable for the damaged and missing stagings used in the CSM project, contending other subcontractors also made use of the equipment. Although the defendant had documentary evidence to support this item, the plaintiff maintained he was not liable for charges relating to his workers' usage of special staging, despite the fact that the cost thereof was not excluded from his quotation for the CSM project.[note: 13] He explained he was forced to use special staging only because the defendant provided insufficient scissors lifts on site. He added that he was not allowed to bring in his own scaffolding as an alternative.

60 The plaintiff denied that his VOs were due to his poor work co-ordination with other trades. He contended that his workers installed sprinklers according to instructions and drawings given by the defendant's site engineers. If there were clashes with other trades or services, they were either unavoidable or due to inaccuracies in the drawings which he had relied on.

61 However, for the Caterpillar project, the plaintiff conceded that the defendant had supplied him with materials valued at $35,965. For the Sembawang project, he denied he had overcharged by $30,784 on his claim of $52,837 for the cost of sprinklers even though he had only installed 7,351 sprinkler heads at a cost of $3 per piece or a total cost of $22,053. He claimed the difference (which he said was $29,404 when it should be $30,784) went to labour, transport charges and the cost of valves which the defendant failed to supply to him.

62 The defendant had the same complaint for the Agilent project (which the plaintiff also denied), where the plaintiff charged $32,246 for supplying 3,422 sprinkler heads supposedly at $9.00 per head when the unit cost of "Viking" sprinkler heads was US$1.90 or S$4.00 and the total cost should only have been $13,688 (I should point out that in re-examination, the plaintiff explained that the difference of $5.00 [$9.00 – $4.00] was for transport and installation). The plaintiff also denied that he had overcharged the defendant for the length of pipes he had installed for the Agilent project. The defendant pointed out that the plaintiff had requisitioned 408m of 200mm sprinkler pipes from the defendant, but charged for installing 1,223m. The plaintiff claimed he only requisitioned about 87% of his requirements from the defendant and that he had other pipes which he stored in a rented container. He claimed he had also used recycled pipes with Ong's permission, although he had charged the defendant for new pipes.

63 As for the fact that he installed black steel pipes instead of galvanised steel pipes for the Sembawang project, the plaintiff corroborated Chan's testimony that it was done with the defendant's knowledge. Indeed, the plaintiff was told by Zaky to make the change before he prepared his quotation. That was a factor in the reduction of the price he quoted.[note: 14] He conceded, however, that he could not claim for installing pipes which were less than 65mm in diameter. However, because of site constraints, the plaintiff claimed he had to install 65mm pipes instead of 50mm pipes contracted for. The plaintiff also claimed to have installed more pipes than Tan had testified to, alleging that the "as built" drawings[note: 15] did not accurately reflect his installation. Ultimately,

however, the plaintiff conceded he had made an excessive claim for 80mm pipes for the Sembawang project.

64 In relation to his claim for $1,265[note: 16] for the Raffles City project, the plaintiff claimed he had installed ceiling boards on or about 23 April 2001 (which was outside his usual scope of works) because he was asked to do so by Chan and which work was checked by "Sunny" of the defendant.

Defective works

65 For the Mandarin Hotel project, the plaintiff denied he had failed to rectify the defective flow switches, claiming he did not carry out work on the floor where the defective switches were installed. He denied he had failed to carry out work on the 19th floor. For the Caterpillar project, the plaintiff agreed (after considerable prevarication) that he did not rectify such defects as leaking sprinkler pipes and points. However for the AMK, CSM, Simsville and UIC Building projects, the plaintiff denied his works were defective. For the AMK project, he pointed out that he only carried out work at Park 1 whereas the defects were found at Park 2. For the CSM project, the plaintiff recalled that at the request of the defendant's site engineer, Normi, he had released his workers to make good the defects. Moreover, the defendant did not inform him about the rectification works carried out by other contractors until he met Gn to settle accounts. Consequently the plaintiff disputed the defendant's back charges for rectification works, which figures he claimed kept changing.

Material requisitions

66 The plaintiff revealed in re-examination that he refused to accept the defendant's back charges for MR because there was no evidence of delivery of such materials to site, by way of delivery orders signed by his workers. He did not accept delivery orders signed by the defendant's site representatives as he could not be certain that they had checked the quantity actually delivered against what was stated in the delivery orders.

The defendant's case

67 The defendant's main witness was its managing director Gn[note: 17] whose testimony largely formed the basis of the defendant's defence and counterclaim. In the course of his cross-examination, Gn, like the plaintiff, made concessions and admitted various items (elaborated below) set out in the Statement of Claim. Gn agreed with counsel for the plaintiff that it was Chan, not he, who was in overall charge of the plaintiff's works for the projects in question although Chan would report back to him on the status quo. However, Gn stressed that it did not mean that he (Gn) closed his eyes and left everything to Chan. Although it was not the norm, Gn agreed (mainly in relation to VOs) that sometimes the plaintiff carried out work for the defendant first before a WO was issued to him.

68 Counsel attempted to suggest to Gn (who denied it) that the defendant's refusal and/or inability to pay the plaintiff's claim was due to his company's cash-flow problems (alluded to by Chan), pointing out that Gn was the majority shareholder (89%) of the shares in the defendant's parent company, HD Universal Pte Ltd, and charges had been registered against his company, according to a BizNet search on his company.[note: 18] Gn also disagreed that the defendant's payment of the plaintiff's claims was dependent on the defendant's budget for a particular project. Gn also disputed Chan's testimony that the defendant reduced the plaintiff's quotation for the CSM project by $200,000 (from $1.7m) so that the defendant had a "buffer" for VO claims.

69 Gn revealed that in March 2002, the plaintiff had visited him, handed over a large number of

documents (which Gn saw for the first time) and demanded payment. Gn asked for time to verify the plaintiff's claims as by then, Chan, Ong and Tan had left the defendant's services. However, before he could do so, the plaintiff sued. Even then, the defendant wanted to settle the plaintiff's claims amicably but the latter was not prepared to meet with Gn. Gn admitted he did offer the plaintiff $200,000 but it was not on a "take it or leave it" basis as the plaintiff had alleged. Gn had proposed the sum as a quick settlement of all the plaintiff's claims.

70 Gn disagreed that the plaintiff was not paid based on measurements or on the "as built" drawings for the various projects. He pointed out that the accounts with the plaintiff on the CSM project were settled (see [57] above) based on remeasurements, which proposal in fact came from the plaintiff. Consequently, the plaintiff should not object to being paid based on "as built" drawings for the Agilent project which came after the CSM project. Although he objected, the plaintiff himself relied on drawings for his VO claims.

71 Gn explained it was not possible to gauge the plaintiff's VOs by reference to the defendant's own VO claims to the main contractor or employer. This was because most times the plaintiff's VO claims formed part of the defendant's contract works which were usually agreed on a lump sum basis.

72 Gn revealed that the retention moneys for all the projects had been released to the defendant by the time of the trial. Pressed by counsel for the plaintiff why he had failed in turn to release the retention moneys due to the plaintiff, Gn explained it was because the defendant intended to set off those sums against the amounts in the counterclaim.

73 The defendant called two witnesses to rebut the plaintiff's denial on settlement of accounts for the CSM project. In her written testimony, Chong, the defendant's former purchasing manager, deposed that she met the plaintiff together with Ow Kok Wah Michael ("Ow") several times to discuss his defective works in the CSM project. Chong[note: 19] asserted that at a meeting in March 2002, the plaintiff admitted liability for the defects. She, Ow and the plaintiff then went through the documentary evidence relating to the costs the defendant had incurred in engaging other subcontractors to rectify the defective works the plaintiff had failed to rectify.

74 Chong added that she and Ow could not agree with the plaintiff on the claims and VOs he had submitted for the CSM project. Eventually, the plaintiff agreed that all his WOs and VOs for the project be measured by reference to "as built" drawings. Chong and Ow then discovered that the plaintiff's alleged VOs were not borne out by the "as built" drawings – *ie*, his claims were excessive and unjustified. Consequently, she and Ow assessed the plaintiff's entire claim (to which he agreed) at $1,768,399 (inclusive of VOs of $117,601). The other figures set out in the account referred to in [57] above were also agreed to by the plaintiff. Chong clarified that the figure of $4,949.96 was wrongly described as lodging expenses; it was actually an expense incurred by the defendant to repair damage caused by the plaintiff's foreign workers. The plaintiff had at the meeting indicated he needed to verify with J Keart on the sum of $45,000 that the defendant had paid on his behalf for rectification works. Hence the handwritten note in [58] above. Chong pointed out that the $45,000 was over and above the sum of $92,950 stated in the account as "defect work".

75 However, instead of reverting to the defendant by 4 April 2002 as stated in the handwritten note, the plaintiff wrote to the defendant on 8 April 2002[note: 20] reneging on his agreement; he reiterated his previous claims and asked for verification of the defendant's MR deductions. By then, the defendant had already disbursed $1,712,454.75 to the plaintiff and/or to other parties on the plaintiff's behalf and/or on materials requisitioned at the plaintiff's request. Consequently, Chong wrote on the defendant's behalf to the plaintiff on 18 April 2002, stating his figures were incorrect. She then reiterated the accounts she had agreed with him at their March meeting. Chong deposed

that until his letter dated 8 April 2002, the plaintiff did not at any time raise objections to the defendant's deductions for MR and equipment hired at his request and for his use, be it for the CSM or any other projects.

76 When she testified, the defendant's finance manager Tan Lay Peng ("Josephine") went further to say that whenever the plaintiff visited the defendant's accounts department to collect his progress payments, he neither objected to nor disputed the MR deductions made by the defendant from those payments. Josephine[note: 21] affirmed that she made the MR deductions on the instructions of Ong and Chan. She said it was Chan who instructed her (by his memorandum dated 25 January 2002) to withhold payment of $113,705 from the plaintiff for expenses which the defendant had incurred in engaging several other subcontractors to rectify the plaintiff's defective works for the CSM project.

77 One of the subcontractors engaged by the defendant to rectify the plaintiff's defective works was Xin Ning Construction & Engineering Contractors ("Xin Ning") whose sole-proprietor Goh Keng Hock[note: 22] testified he was engaged by the defendant to rectify the plaintiff's works for the AMK and CSM projects.

78 Ow[note: 23] was the defendant's site manager for the CSM project. He corroborated Chong's testimony that the plaintiff had settled accounts and had reached agreement with the defendant for that project in his presence. In his written testimony, Ow exhibited a list of the defects relating to the plaintiff's works as issued by the main contractor M&W Zander in November 2000. Ow deposed he had passed the list to the plaintiff and had also verbally instructed the latter on several occasions to rectify the defects.

79 However, the plaintiff ignored his instructions. Ow then informed Chan who said he (Chan) would deal with the matter. The plaintiff still did not rectify the defects despite Chan's intervention. Ow deposed he had no alternative but to engage J Keart, Xin Ning and Nicholl Engineering to rectify the plaintiff's defective works. Contrary to the plaintiff's claim in his letter dated 3 May 2002 responding to Chong's letter dated 18 April 2002 (at [75] above), Ow testified that the works carried out by other subcontractors at the CSM site were not VOs but were rectifications of the plaintiff's defective works which he had failed to do.

The expert testimony

80 As stated earlier at [17], Tan Boon Ngee ("Boon Ngee") was the plaintiff's expert witness while the defendant's expert was Teh Eng Aun ("Teh"). Both experts are professional engineers. Boon Ngee[note: 24] visited the Sembawang site for the purpose of preparing his report for the plaintiff whilst Teh[note: 25] visited both Agilent and Mandarin Hotel (on 31 August 2004) for the purpose of preparing his report for the defendant.

81 Both experts viewed the three projects long after they had been completed. Consequently, particularly for Boon Ngee (in the case of the Sembawang project), the experts would not know for certain to what extent the three projects involved dismantling and relocation of sprinklers as the plaintiff claimed. That caveat would apply equally to the other projects which neither expert inspected.

82 I should mention that in the course of the trial, the parties informed the court that they would consult the main contractor of the Agilent project, Bescon Consulting Engineers Pte Ltd ("Bescon"), to verify whether the plaintiff installed 282m of new 200mm diameter pipes. Unfortunately, the consultation proved of little assistance as Bescon could only refer to one of its "as

built" drawings as evidence of the plaintiff's works, which drawing was not part of the evidence before the court.

The final dispute

8 3 When trial commenced, counsel for the plaintiff informed the court that the defendant (whose counsel confirmed the same) had admitted a total of $528,302.56[note: 26] for the three items that formed the plaintiff's claim. As the trial progressed, the defendant made other concessions. Similarly, the plaintiff made various concessions either in his testimony or through his counsel in the course of the trial.

84 The end result was that the plaintiff agreed to the following deductions:

(a) he had been overpaid by the defendant in the sums of $28,429 and $9,202 respectively for the Mandarin Hotel and Sembawang projects;

(b) he had double-counted $34,556.96 in retention moneys in his claims for the Agilent, Caterpillar and Mandarin Hotel projects; and

(c) he had overclaimed $39,412 for the Mandarin Hotel project.

85 The plaintiff admitted the following sums in the counterclaim:

(a) cost of hire for scissors lift in the Sembawang project	$1,442.00
(b) cost of MR as follows:	
(i) Mandarin Hotel	$325.14
(ii) Caterpillar	$59,364.80
(iii) Agilent	$206.00
(iv) Foreign workers (levy, lodgings and repatriation costs)	$14,160.00
(v) Omission of works on19th storey of Mandarin Hotel	$13,910.00
Total:	$89,407.94

86 On its part, the defendant admitted to the following:

(a) wrongful deduction of MR	$37,567.61
(b) retention sums	$84,041.43
(c) VOs for the Raffles City project	$24,040.00
(d) VOs for the CSM car park project	$21,174.00

	Total:	$166,823.04

87 As for the remaining projects, the defendant admitted liability for work done and VOs claimed by the plaintiff in the sum of $90,862.62 as assessed by its expert Teh,[note: 27] with the following breakdown:

(a)	Agilent	$70,399.02
(b)	Sembawang	$996.00
(c)	Raffles City	Nil
(d)	Caterpillar	$8,046.00
(e)	Mandarin Hotel	$11,421.60
Total:		$90,862.62

88 The defendant disputed the plaintiff's VOs in the following sums:

(a)	Agilent	$93,093.98
(b)	Sembawang	$71,676.00
(c)	Caterpillar	$25,099.15
(d)	Raffles City	$71,115.00
(e)	CSM carpark	$5,152.00
(f)	Mandarin Hotel	$529.40
	Total:	$266,665.53

The findings

89 I begin by making observations on the various witnesses who testified, starting with the plaintiff's. Chan was the most credible of the plaintiff's witnesses, although it was also clear whose side he was on. In his dealings with the plaintiff (which the plaintiff confirmed), Chan adopted a "give and take" attitude, preferring a compromise rather than a confrontation with the latter, whenever they had disagreements. It would seem that neither side stuck strictly to their legal rights, be it for the actual works carried out under WOs or VOs or MR or back charges. Hence the following standard terms in the WOs issued by the defendant to the plaintiff were never strictly adhered to, in the time when Chan was in overall charge of the defendant's projects:

Clause 1

The amount of contract will be as stipulated in the Works Order. Any subsequent variation works will follow suitable rate as determined herewith & approved in writing by Hart Engineering Pte Ltd.

Clause 12

> Where the works stipulated in the Works Order forming part of an existing main contract, then unless otherwise stated in the Works Order, the terms of payment shall be in accordance with the terms in the main contract and the contractor will be paid within 30 days after we received payment.
>
> Clause 15
>
> The contractor shall have no claims against Hart Engineering Pte Ltd for any abortive or alteration works due to or as a result of site coordination problem.

This can be seen from the fact that sometimes, the plaintiff was issued a WO by the defendant only after he had commenced, or even completed, a project.

90 The defendant had sought to rely on the minutes of a meeting held on 25 January 2002 to show that Chan had mismanaged the projects which were under his charge. Chan disputed this, pointing out in re-examination that it was not a meeting of the board of directors as Gn claimed in his testimony, but a board meeting of HT Universal Pte Ltd, the parent company of the defendant. I do not put too much store on what transpired at that meeting, in the light of my observation in [97] below.

91 As for Ong, his answer was often "no comment" or "can't remember" during cross-examination. This was done to side-step answering questions that would put the plaintiff in a bad light or incriminate the plaintiff and/or himself. Ong repeatedly would not commit himself and had to be pressed for his answers on matters which had a bearing on the outcome of this case. I cite as an example his refusal to agree with counsel that part of the plaintiff's claim for the Mandarin Hotel project (claim for 120m of pipes when only 59m were installed) was unjustified. Even when he agreed with counsel that the plaintiff was responsible for certain items of damage, Ong would not admit that the defendant's back charges pertaining to those items were justified.

92 It is noteworthy that in his written testimony, Ong revealed that he would collect cheques from the defendant on behalf of the plaintiff (and other subcontractors), a service which to say the least is quite extraordinary, above and beyond his duties as a project manager, particularly when he described it as an obligation.[note: 28] When she testified, Josephine revealed that whilst Ong sometimes did collect progress payments for other contractors, he almost always collected payments for the plaintiff. Although he denied the suggestions made by counsel for the defendant, I am certain that the plaintiff was a front for Ong to obtain subcontracts from the defendant, that Ken Ong managed the CSM and other projects for Ong, and Ong collected cheques on the plaintiff's behalf from the defendant because he had a share in those payments. That would explain Ong's reluctance to agree to the plaintiff's liability for back charges even where he had signed the defendant's purchase requisition form, as in the case of the $70,000 payment due to Soon Yan for the CSM project. Ong was most certainly instrumental in taking away that subcontract from Soon Yan and passing it to the plaintiff.

93 Any doubts that I may have with regard to Ong's pivotal role in the plaintiff's business and his own personal interest therein was dispelled when counsel for the defendant questioned the plaintiff on how he managed to obtain the defendant's MR form for the Sembawang project[note: 29] for $52,837 that had not even been signed by Gn. This was the defendant's internal document, which fact the plaintiff did not dispute. The plaintiff's unconvincing answer that he could not recall who had given the document to him cannot be believed in the light of the fact that Ong's and Zaky's signatures appeared in the form, and the plaintiff's assertion that he had been chasing the defendant for a WO which never materialised. I found Ong to be an unreliable witness who was totally biased in the

plaintiff's favour; I therefore reject his testimony *in toto*.

94 Tan had revealed in cross-examination that Ken Ong and he were friends before he joined the defendant and it was Ong who recommended Tan to Chan for employment. Ken Ong joined the plaintiff's services in 1998 after which the plaintiff secured subcontracting work from the defendant. After Tan and Ong left the defendant's employment, they both worked for the same company (Deluge Fire protection (SEA) Pte Ltd) with Ong as Tan's superior. It could not have been a coincidence that when they were with Deluge, the plaintiff did subcontract work for that company. Neither was it a coincidence that soon after Chan left the defendant's services, the plaintiff ceased doing work for the defendant.

95 Whatever doubts I had that Ong and/or his brother actually ran the plaintiff's business were dispelled when the plaintiff took the stand. He was hopelessly ignorant of what went on at site (which he visited infrequently because of his business at Batam) with regard to the various projects subcontracted from the defendant. His testimony was not only inconsistent and contradictory but at times incoherent. Further, it was Ow's unchallenged testimony that Ken Ong was present when he (Ow) and Chong discussed settlement of defective works and accounts for the CSM project. Why would a lowly foreman be a party to such discussions unless Ken Ong was more than just a foreman?

96 Due to my earlier observations on Ong and Tan, I cannot accept the plaintiff's inspection forms as proof that the plaintiff's original and rectification works had been (satisfactorily) completed and that VOs were carried out. Those forms were self-serving and unreliable, as they emanated from Ken Ong and were handed to Ong, and/or to Ong's colleagues or subordinates (including Tan and Zaky) for signature. Moreover, the completion forms were often not contemporaneous documents, according to Tan's own testimony. In addition, regardless of the actual work involved, the completion forms invariably described the work done as additional or variation works. I note that for the Raffles City project, the plaintiff did not even have completion forms to support his claim. Indeed, he had no evidence whatsoever to support his claim for installation of ceiling boards at Raffles City, a job that was completely unrelated and outside his usual scope of works.

97 It was unreasonable of the plaintiff to expect that every claim he put forward and which was allegedly supported by a completion form signed by any one of the conspirators would be paid without verification, as was suggested by his counsel to Gn and in her closing submissions. I use the word "conspirators" in a loose sense to refer to the four persons so named in the Defence (see [13] above). Although I accept the plaintiff's closing submission that the defendant's allegation of fraud and conspiracy has not been made out, I had in court commented that the conspirators had a cosy relationship with the plaintiff as, in reality, that was the situation. From the evidence adduced, in maintaining that cosy relationship, it seems to me that the conspirators often did not act in the defendant's best interests. I therefore treat the evidence of the plaintiff's witnesses who were former employees of the defendant with the greatest circumspection; they were unduly sympathetic to the plaintiff.

98 As stated earlier, counsel for the plaintiff had in cross-examining Gn suggested (and subsequently submitted) that the defendant failed to pay the plaintiff due to its own cash-flow problems. I reject this contention in the light of the fact that the defendant advanced payments to the plaintiff for the Caterpillar project, an assertion which counsel for the plaintiff did not challenge.

99 I find that the plaintiff did settle accounts in March 2002 with Chong on the CSM project (see [57] above) but subsequently did a *volte-face* probably because Ken Ong and/or Ong did not agree with the concessions he had given to the defendant. I have no doubt that it was Ken Ong or Ong himself who drafted the plaintiff's letter dated 8 April 2002 (see [75] above), as well as other letters

to the defendant. They probably prepared the plaintiff's quotations for the various projects as well.

100 It is telling that the report of the plaintiff's expert Boon Ngee assessed his work for the Sembawang, Agilent and Mandarin Hotel projects based on "as built" drawings. Indeed, for the Sembawang project, Boon Ngee wrote to the plaintiff's solicitors on 27 September 2004 to confirm that from his site inspection on 24 September 2004, he found the "as built" drawings to be generally in order. Boon Ngee had assessed the unit rates of work of the plaintiff to be reasonable and observed in two instances (the Agilent and Raffles City projects) that the plaintiff claimed at a rate lower than the defendant's unit rate. However, apart from his one site inspection (of Sembawang), Boon Ngee did not take any measures to verify the quality or quantity of the plaintiff's works. It was clear from his oral testimony that his report was premised on the fact that what was told to him by the plaintiff was correct. I found his report superficial and of little assistance.

101 Teh's report on the other hand was far more comprehensive and thorough. While Boon Ngee (according to his own testimony) only relied on information and drawings provided by the plaintiff to prepare his report, Teh referred to (a) tender drawings; (b) "as built" drawings and (c) the defendant's work orders. Teh had found that some of the plaintiff's charges were excessive.

102 Recognising (as the plaintiff contended) that the Agilent and Raffles City projects involved existing buildings with existing sprinkler systems and "as built" drawings would only reflect the final site condition and not the actual quantity of work done, Teh measured the total "as built" quantities of the plaintiff's work and compared the same with the specific areas mentioned in the VO claims. In so doing, he was able to assess a great deal of the plaintiff's claims. For purposes of his assessment, Teh disregarded:

(a) claims made by the plaintiff for works which were within his original scope of works or which were abortive in nature or were incidental to his works (on the basis that it was industry practice to provide for the risk of site co-ordination problems and abortive works in tendering and/or quoting for mechanical and engineering works which tend to be very complicated in nature);

(b) claims submitted by the plaintiff that were not substantiated by the necessary drawings, plans or documents or which had insufficient details provided;

(c) the inspection forms as they did not appear to have been signed when the works were completed but in batches at a much later date.

103 Teh made the following findings in his report:

(a) some of the works claimed by the plaintiff (including VOs) were non-existent and could not be identified from either "as built" drawings or site inspections;

(b) very little or no effort had been made by the plaintiff to provide a clear explanation as to how and why many of his works (for VOs) turned out to be abortive;

(c) in many instances involving dismantling, relocation and reinstallation of sprinkler works, the plaintiff did not provide details at all as to the exact location of such works;

(d) the completion forms were signed merely as a regularisation exercise rather than to maintain a true record of the works carried out by the plaintiff.

Accordingly, Teh concluded that the plaintiff was only entitled to the sums set out in [87] above. He applied the rates in the WOs for his assessment and where there were none, Teh used market rates.

104 I should point out that there was a divergence of views between the two experts *vis-à-vis* "as built" drawings. Teh disagreed with Tan's testimony that "as built" drawings would only be 80% accurate. Teh estimated "as built" drawings to be 95% accurate as otherwise they would not serve any purpose. Boon Ngee had testified it was not mandatory to submit "as built" drawings to the relevant authorities, in particular the Fire Safety Bureau ("FSB"). Teh disagreed, pointing out that the need for at least 95% accuracy in "as built" drawings was precisely because of the need for submission to the FSB, in order to obtain a Fire Safety Certificate (together with the temporary occupation permit) once a building was completed. The building owner would run a risk if a check by the FSB revealed discrepancies between the actual fire protection system installed in the building and the "as built" drawings which were submitted to the FSB.

105 One further observation I would make on the "as built" drawings in the defendant's exhibits is, that the defendant's draftswoman Tang Sow Chun[note: 30] testified she had prepared the same based on instructions given to her by site engineers (including Tan) who would check her work thereafter.

106 I find that the plaintiff had expressly agreed with Chong to be and was paid based on remeasurement of the "as built" drawings for the CSM project. Although Chong could not recollect other events, she was very clear on what transpired at her meeting with the plaintiff in relation to settling the accounts for CSM. I do not doubt that Chong spoke the truth. She had left the defendant's employment (in October 2002), more than two and a half years before this trial.

107 Despite his counsel's submissions to the contrary, the plaintiff was also paid for his other works based on "as built" drawings. I note that the plaintiff's quotations for the various projects made reference to specific drawings. Further, his admission that he had overclaimed $39,412 for the Mandarin Hotel project was again based on "as built" drawings. That being the case, it did not lie in the plaintiff's mouth to say it was never agreed between the parties that he would be paid based on "as built" drawings. I also accept Teh's evidence that "as built" drawings would be at least 95% accurate and they would be a reliable yardstick to measure the plaintiff's works and VO claims.

108 I reject the submission of plaintiff's counsel that it would be grossly unfair to pay the plaintiff based on "as built" drawings and that the defendant would be unjustly enriched thereby. Neither do I accept the plaintiff's submission that a VO necessitated by the owner's requirement would be paid for by the owner. Gn had testified that the defendant's contracts with WOs to the plaintiff were not necessarily back-to-back with the defendant's contracts with the project owner. Often, the defendant's contracts with the owners were on a lump sum basis. Unjust enrichment was not part of the plaintiff's pleaded case in any event. Notwithstanding my finding that the completion forms evidencing VOs are unreliable, I am prepared to award the plaintiff an extra 10% for his works based on Teh's assessment so as to compensate him for any abortive and/or additional works.

109 Based on Chan's evidence, I find that the plaintiff had indeed agreed to pay $70,000 to Soon Yan as a condition for taking over the CSM project. In this regard, I reject counsel's argument (while cross-examining Gn on 20 July 2005) and the plaintiff's submission that the plaintiff had already given a massive discount ($190,088) on his quotation (dated 31 July 2000)[note: 31] when he reduced it from $1,789,033 to $1,598,945. It would therefore not have been cost effective for him to carry out the works if he was asked to absorb Soon Yan's charge as well as MR amounting to $257,116.11. I reject this submission. As I pointed out to counsel, every employer or main contractor would seek to cut down the quotation of a contractor or supplier. No one would be so foolish as to accept any

quotation at face value. Negotiations and the reduction of quotations are part and parcel of the building industry. It is naïve to argue that such an exercise must mean the plaintiff cannot be asked to absorb other costs which subsequently arose and which were chargeable to him. Neither do I accept the non-legal argument that the defendant would make a massive and unfair profit at the expense of the plaintiff as a result.

110 I am also satisfied from the evidence (particularly from the plaintiff's own cross-examination) that the plaintiff is liable to the defendant for MR and other deductions for the CSM and other projects as follows:

CSM		$
(a)	provision of scissors lift	35,001.54
(b)	provision of special staging	72,738.70
(c)	cost of staging lost and/or damaged	20,867.80
(d)	provision of special brackets	64,613.94
Agilent		
Equipment (see [38] above) supplied by Central Spray Safe		866.26
Mandarin Hotel		
(a)	T-shirts	2,268.06
(b)	Rectification of ceilings and hoardings damaged by the plaintiff	3,352.33
(c)	Rectification cost of flow-switches wrongly installed	2,200.00
Sembawang		
Equipment		408.91
UIC Building		
(a)	claim for water damage	1,957.00
(b)	insurer's claim for water damage to computers	2,500.00
Total:		$206,774.54

I accept Josephine's testimony that whenever the plaintiff collected his progress claims from the accounts department, he did not raise any objections to the deductions made therefrom for MR. I disbelieve Ong's testimony that when he (Ong) collected payments for the plaintiff, the latter "made a lot of noise" over those deductions. If that was indeed true, I wonder why Ong did not convey the plaintiff's objections to Gn, whose signature was required on every cheque exceeding $5,000, or for that matter, to his immediate superior Chan. The defendant had pleaded estoppel as part of its

defence. I accept that the ingredients of estoppel have been made out against the plaintiff for the following reasons:

(a) he accepted periodic payments from the defendant less MR deductions without protest;

(b) the defendant continued to pay him on that basis;

(c) in so doing, the defendant acted to its detriment when the plaintiff did a *volte-face* by suing to recover the MR deducted.

It would be highly inequitable to now allow the plaintiff to recover the MR deducted by the defendant.

111 I also disbelieve the plaintiff's claim that the MR he requisitioned from the defendant was much less than the quantity of sprinkler points and pipes he invoiced the defendant because he either used recycled or surplus materials or he had his own supply of materials. The plaintiff did not produce one iota of evidence to support his contention. If the plaintiff had indeed used recycled materials for the Agilent project, he would have perpetrated a fraud on the defendant as well as the project's owner, with serious implications. Accordingly, the defendant succeeds in its case that the plaintiff overcharged for the Sembawang and Agilent projects.

112 As for the plaintiff's defective works, I accept the testimony of Ow as well as that of the representatives of J Keart (Liu) and Xin Ning (Goh Keng Hock), that there were defects in the CSM and AMK projects which the plaintiff failed to rectify, despite repeated requests from the defendant. There is no better evidence than Chan's own memorandum dated 25 January 2002 (see [76] above) to Josephine to deduct $113,705 from the plaintiff's claims for the rectification costs incurred by the defendant for defects in the CSM project.

113 I note from the defendant's closing submissions that it claimed two other sums for the CSM project, *viz* $49,478.63 for insurance excess and $5,098.46 for damage caused by the plaintiff to ceiling grids, hanger rods and gratings.[note: 32] As accounts had been settled in accordance with the statement in [57] above, the two figures were already subsumed in that settlement and no further claims can be made, save for the unresolved payment to J Keart. Moreover, it seems to me that the insurance excess sum had been included in the statement but was rounded down to $48,000.

114 The defendant is entitled to be reimbursed $45,000 or the actual sum (whichever is the higher) paid to J Keart to rectify the plaintiff's defective works for the CSM project. The defendant should also be reimbursed for the sums paid to Xin Ning and Nicholl for rectification of the plaintiff's defective works at AMK, but not for the CSM project.

115 I accept Gn's testimony that the plaintiff supplied inferior pipes for the Sembawang project; I disbelieve Chan's explanation that it was done with his knowledge and consent. Accordingly, the defendant is entitled to a refund of $45,000.

116 As the defendant's expert Teh had conceded the plaintiff's claim of 3,422 sprinklers for Agilent at $9.00 each, I am allowing this claim (which should be $30,798.00, not $32,246.00). Consequently, Teh's assessment for Agilent (see item (a) in [87] above) is increased to $101,197.02 ($70,399.02 + $30,798).

117 According to the "as built" drawings, the plaintiff had only installed 7,121 sprinkler heads instead of 14,702 as he had claimed for the Sembawang project. Consequently, the defendant need

only pay the plaintiff for installation of 7,121 sprinkler heads. In this regard, I reject Chan's testimony (see [27] above) where he tried to draw a distinction between installation of sprinkler *heads* and sprinkler *points*. I had questioned Goh Keng Hock at length on this issue and I am satisfied that installation of a sprinkler *point* in order to be complete includes installation of a sprinkler *head*. Consequently, it was dishonest of the plaintiff to split installation of sprinkler points and sprinkler heads into two jobs and make a double claim.

118 In the plaintiff's closing submissions, counsel attempted to shift the burden onto the defendant to disprove the plaintiff's VOs failing which it was argued that those claims should be allowed. I am not prepared to reverse the burden of proof. If the plaintiff could not persuade me he had proved his VOs by the inspection forms, then his claim must fail. As I had found the inspection forms to be unreliable at [96] above, the plaintiff's claim for VOs is hereby rejected. Further, bearing in mind cl 15 (see [89] above) in the defendant's WO, the burden was on the plaintiff to prove that the works in his VOs were not abortive or alteration works due to or as a result of site co-ordination problems. As he had failed to discharge the burden, his claim fails.

The decision

119 Although I had indicated to counsel that I would only determine liability for this suit, most of the figures for the claim and counterclaim were quantified and where admissions were made by the parties, the figures were also quantified. To recapitulate, the figures admitted by the defendant are as follows:

(a) acceptance of the plaintiff's claims based on Teh's assessment (see [87] above)	90,862.62
(b) wrongful deduction of MR	37,567.61
(c) VOs for the Raffles City project	24,040.00
(d) VOs for the CSM car park project	21,174.00
(e) Installation of Viking sprinklers at Agilent	30,798.00
(f) retention sums	84,041.43
Sub-total	$288,483.66
Add: my award of 10% of Teh's assessment (see [108] above)	9,086.26
Total:	$297,569.92

120 At the commencement of the trial, the parties had agreed that the defendant owed $528,302.56 on the plaintiff's claims. After taking into account the admissions of overpayment (see [84] above) by the plaintiff and on the counterclaim (see [85] above) plus the defendant's revised concessions in [119], the net figure owed to the plaintiff by the defendant is $373,090.04 made up as follows:

Sum admitted:	528,302.56
Add:	297,569.92

Sub-total		825,872.48
Less: (a)	overpayments and double-counting	(111,599.94)
(b)	counterclaim admitted	(89,407.94)
(c)	further MR deductions in [110]	(206,774.54)
(d)	refund for inferior pipes for Sembawang	(45,000.00)
Balance:		$373,090.04

121 The figure $373,090.04 is by no means final. I had allowed recovery by the defendant of the costs of rectification that were incurred on the plaintiff's behalf for the AMK project as well as J Keart's charges for the CSM project. Further adjustments would have to be made to the sums awarded to both parties as I have only concentrated on the major items of dispute in the claim and counterclaim. I further note that there is also a discrepancy between the figures used by the parties for the admitted sums as well as in my calculations.

Conclusion

122 I anticipate that the parties will encounter difficulties in drawing up the judgment for both the claim and the counterclaim as the figures set out earlier do not represent the final sums of either. Consequently, I give the parties liberty to apply.

123 I would also need to hear further arguments on the issue of costs which I am reserving, in the light of the plaintiff's submission requesting for costs thrown away for the Suit (see [4] above). The plaintiff had complained that the defendant reduced its original counterclaim to $28,264.72 on the first day of trial and caused the plaintiff to vacate the remaining trial dates for the Suit. Subsequently, however, the defendant reinstated the original counterclaim when it was transferred to the Magistrates' Courts. It then discontinued that action and revived the original counterclaim (with different figures) in these proceedings, rendering redundant the work done by the plaintiff for the counterclaim in the Suit.

Supplemental Judgment

1 December 2005

Lai Siu Chiu J:

124 Pursuant to the direction contained in my Judgment dated 16 November 2005 ([2005] SGHC 215), the parties appeared before me to finalise the figures for both the claim and the counterclaim and to present arguments on costs.

125 After hearing the parties, I quantified the judgment sums as follows:

(a)	the plaintiff's claim	$602,371.47
(b)	the defendant's counterclaim	$349,219.48

126 The breakdown for the plaintiff's award of $602,371.47 is shown as follows:

Admitted sum at commencement of trial:			$528,302.56
Add			
(a)	wrongful deduction of MR	$37,915.47	
(b)	VOs for Raffles City project	$20,320.00	
(c)	award of 10% of Teh's assessment	$9,086.26	
(d)	installation of Viking sprinklers at Agilent	$30,798.00	
		$98,119.73	
Less:			
MR already included in the sum of $528,302.56		($24,050.82)	$74,068.91
Total:			$602,371.47

127 The sum of $349,219.48 awarded for the counterclaim comprised the following:

(a)	overclaim for Sembawang project		$5,683.00
(b)	overclaim for Agilent project		$67,133.00
(c)	defective works for CSM project		$92,950.00
(d)	insurance excess claim		$48,000.00
(e)	rectification cost for damage caused by plaintiff		$4,949.96
(f)	rectification cost for AMK project		$9,841.25
			$228,557.21
Add			
(a)	overpayment for Mandarin Hotel		$39,412.00
(b)	hire of scissors lift for Sembawang project		$1,442.00
(c)	costs of MR for:		
(i)	Mandarin Hotel	$325.14	
(ii)	Caterpillar	$59,364.80	
(iii)	Agilent	$206.00	$59,895.94

(d)	foreign workers' levy, repatriation, lodgings	$14,160.00
(e)	rectification of ceiling and hoardings in Mandarin Hotel	$3,352.33
(f)	rectification cost for flow switches wrongly installed	$2,200.00
(g)	sum agreed with defendant in the course of trial	$200.00
		$349,219.48

128 The end result of setting off the counterclaim sum against the claim amount meant that the defendant has to pay the plaintiff a sum of $253,151.99.

129 On the issue of costs, Miss Lim for the plaintiff submitted that costs should follow the event while Mr Ahmad for the defendant argued that as both sides had succeeded on their respective claim and counterclaim, the fairest order would be for each party to bear its own costs.

130 Whilst it is true that both parties succeeded in their respective claims, it is equally true that both sides also failed to succeed in all the claims put forward either in the Statement of Claim or in the Counterclaim. Consequently, taking into consideration the arguments put forth by counsel, I thought the fairest order for costs would be to award the plaintiff 75% of its costs to be taxed but with full disbursements and to the defendant 50% of its costs to be taxed but with full disbursements. Accordingly, I so ordered.

[note: 1]PW1.

[note: 2]See AB737.

[note: 3]See AB733.

[note: 4]See 2AB105.

[note: 5]PW2.

[note: 6]PW3.

[note: 7]PW4.

[note: 8]N/E 198.

[note: 9]See 2AB227.

[note: 10]See D4.

[note: 11]PW5.

[note: 12]See AB116.

[note: 13]At AB732-733.

[note: 14]See AB28-29.

[note: 15]Exhibited in D4 to D6.

[note: 16]At 2AB141.

[note: 17]DW1.

[note: 18]See P2.

[note: 19]DW3.

[note: 20]See AB111.

[note: 21]DW4.

[note: 22]DW6.

[note: 23]DW5.

[note: 24]PW6.

[note: 25]DW8.

[note: 26]NE4.

[note: 27]See 3AB451-606.

[note: 28]N/E 149.

[note: 29]See 2AB107.

[note: 30]DW7.

[note: 31]At 2AB166-167.

[note: 32]See exhibit D6.