

Chapter 12

Final Accounts

The term 'final account' is one of the many euphemisms that abound in the construction industry. It is used to represent an accounting process that determines the amount, if any, that is owed by one party to another at the conclusion of a construction contract.

'Final account' is a term that everyone recognises and vaguely understands. However, not everyone is familiar with the final account process or the procedures required by the various forms of contract used in the industry or the role and status of the pricing document (bill of quantities, schedule, etc.) when preparing of the final account.

12.1 Purpose

In practice, several 'final accounts' are necessary in order to determine amounts owing, if any, and to conclude the contract:

- a) The 'official' final account between the employer to the contractor.
- b) Final accounts between the contractor and the many subcontractors who are likely to have been engaged to carry out the work.

Good practice suggests that final accounts, whilst settled at the end of the contract, are started much earlier, as it is always best to conduct site measures at the time and to measure and agree other work, variations and extras to the contract whilst minds are fresh and evidence is easy to establish.

Some of the tasks involved in preparing final accounts include:

- The **remeasurement** of approximate quantities in a lump sum contract.
- The **admeasurement** of work in a measure and value contract.
- The adjustment of the rates or prices for a variety of reasons.
- The **measurement** and valuation of variations to the contract.
- The evaluation of claims and contractual entitlement.

In some cases, where the original contract has changed beyond recognition, the entire project will need to be remeasured as a basis for agreeing the quantum of work carried out and the final amount owing.

The four standard forms of contract referred to in this book take different approaches to the ‘final account’.

12.2 Forms of contract

Few of the usual standard forms of contract use the term ‘final account’ – ICC contracts do – but most employ terms such as *the amount due* (ECC Clause 50), the *final payment* (JCT 2011 SBC/Q Clause 4.15) or *the amount which is finally due* (FIDIC Clause 14.13) instead.

Each contract has slightly different procedures which must be respected.

12.2.1 JCT 2011 SBC/Q

- The contractor provides all necessary documents (Clause 4.5.1).
- The quantity surveyor (for the employer) prepares a **statement** of all adjustments to be made to the contract sum (Clause 4.5.2.2).
- The contract administrator sends a copy of the **statement** to the contractor (Clause 4.5.2).

12.2.2 Engineering and Construction Contract

The ECC does not have a final account or final statement process as such and merely provides that the project manager shall *assess the amount due* (Clause 50).

However, this doesn’t alter the fact that, generally speaking, the process of preparing the final account for an ECC contract pretty much follows well-established industry ‘custom and practice’.

12.2.3 ICC: Measurement Version

- The contractor submits a **statement of final account** to the engineer along with detailed supporting documentation (Clause 60(4)).

12.2.4 FIDIC 1999

- After the works have been taken over (substantial completion), the contractor submits a **statement at completion**, with supporting documents, to the engineer (Clause 14.10).
- After the performance certificate is issued (thereby completing the defects correction period), the contractor submits to the engineer a **draft final statement** with supporting documents (Clause 14.11).
- Once discussions are concluded, and notwithstanding any possible dispute, the contractor submits a **final statement** (Clause 14.11).

12.2.5 Final account statements

Generally speaking, once the amount owing has been calculated, a final certificate, or equivalent, can be issued which signals that all obligations under the contract have been discharged

and that the contract is concluded. The amount is calculated according to express contractual procedures, and although different terminology may be used, they all mean the same thing:

- Collect all relevant information needed to calculate the amount due.
- Prepare a final account statement.
- Certify the amount, if any, owing.

Preparation of the final account statement is done by the quantity surveyor for the employer on some contracts (e.g. JCT), by the project manager (ECC, although there is no 'official' statement) and by the contractor on others (e.g. ICC, FIDIC). Similar procedures apply to subcontract accounts.

Notwithstanding the final certification arrangements in contracts, it is common practice in the industry for the employer (or the employer's representative) and the contractor to sign the final account statement in order to signify that the amount claimed in the final account statement is in full and final settlement of all claims, actions, liabilities, costs or demands under the contract. In some cases, interim final account statements are submitted as well as a final one following FIDIC practice. The idea is to expedite the payment of monies owing to the contractor, thereby helping with cash flow, and to give certainty to the final certification process.

However, where one of the parties decides that it does not wish to be bound by the terms of the final account statement, even when it has been signed, the decisions in *Hurst Stores and Interiors Ltd v ML Europe Property Ltd*. [2004] EWCA Civ 490 and in *YJL London Limited v Roswin Estates LLP* [2009] EWHC 3174 (TCC) have both held that the signed final account statement is not binding and that adjustments can still be made to the final account in accordance with the provisions of the contract.

12.2.6 Final certificate

Once a construction project is completed and patent defects have been corrected, it is normal practice for the contract administrator to issue a final certificate.

Usually, the final certificate is the last act in any construction project unless, of course, there are ongoing legal proceedings or an arbitration or adjudication has arisen out of the contract. In most cases, however, the final certificate determines what sums (if any) are due to the contractor (or employer) and brings to an end the contractor's obligations under the contract.

In order to facilitate issue of the final certificate, most standard contracts require the contractor to supply information to the contract administrator so that the amount to be stated in the final certificate may be calculated. The volume of information is often very substantial, and numbers of lever-arch folders may be required. Subcontract final accounts tend to be much slimmer, often because the subcontractor doesn't understand the process and often due to a lack of information, records, signed instructions, signed daywork sheets, etc.

Included within the information supplied with the final account may be details of claims for the payment of monies to which the contractor/subcontractor believes there is an entitlement.

12.3 Lump sum contracts

12.3.1 The contract bills

A normal lump sum contract with interim payment, such as JCT 2011, is based on an accepted contract sum. The contract sum is the accepted tender figure submitted by the successful contractor which is calculated by totalling the amounts included in the bill of quantities (the contract bills) for:

- Measured items of work.
- Priced preliminaries.

- Provisional sums for defined and undefined work.
- Risk allowances (or contingencies).
- An adjustment item (under NRM2, for last minute changes to the tender figure).

The contract bills are not touched when preparing the final account, and this document is used solely as a point of reference for:

- Rates and prices.
- Provisional quantities.
- Provisional sums.
- Risk allowances.
- Adjustment items.

In some contracts, the contract bills may be replaced by an activity schedule, but the same principle applies – it is a reference document to assist with establishing rates for variations and for the valuation of work executed under defined and/or undefined provisional sums.

12.3.2 The contract sum

The starting point for calculating the final account is the contract sum.

Various ‘accounts’ are then prepared so that the contract sum may be adjusted to cater for everything that has happened from a measurement and financial perspective over the course of the contract. The various accounts include:

- Variation account.
- Daywork account (may be included with the variation account).
- Provisional sums.
- Provisional quantities.

The total of each of these accounts is then added to the contract sum, and the corresponding amount included in the contract bills is deducted. By the process of omitting from and adding to the contract sum, the final total of the contract works is determined.

12.3.3 Changes in quantities

A good deal of measurement is required in the final account process, but there is an important distinction to remember about lump sum contracts:

- Changes in ‘firm’ quantities are treated as variations to the contract and are valued according to the valuation rules for variations contained in the contract.
- Changes in provisional quantities are remeasured but are not measured as variations unless the work concerned has been altered in some way other than in quantity.
- If an item with provisional quantities is changed, other than in quantity – for example, the specification of the item is altered – it will be valued as a variation and the variation rules will apply to its valuation.

Under NEC3, Options B and D, the prevailing method of measurement is stated in the Contract Data, but differences between the actual and billed quantities are a compensation event unless the work is otherwise varied. There is no undertaking in NEC3 that actual quantities shall be measured in accordance with the stated method of measurement nor is this a stated compensation event.

In NRM2 Paragraph 3.3.1, there is no statement that *the rules apply to measurement of proposed work and executed work* such as may be found, for example, in General Rule 1.2 of

SMM7. This may be an oversight, or it may have been a conscious decision by the authors of NRM2 that the JCT 2011 SBC/Q would be the default contract to use with NRM2.

12.3.4 Variations

Each variation is measured according to the applicable rules of measurement and priced according to the rates and prices in the contract bills.

JCT 2011 Clause 5.6.1.3 states that the measurement of variations *shall be in accordance with the same principles as those governing the preparation of the Contract Bills* referred in Clause 2.13. Clause 2.13 concerns preparation of the contract bills, and Clause 2.13.1 refers expressly to the *measurement rules* (i.e. NRM2) pursuant to the JCT August 2012 NRM Update.

Failing this, fair rates may be established to account for changes in the type or nature of work concerned.

12.3.5 Daywork

Daywork is not measured but is priced up at contract rates according to the agreed number of hours spent by each trade on the work, together with the cost of recorded plant used and materials consumed.

12.3.6 Provisional sums

Provisional sums are deducted from the contract sum, and the work carried out is measured from 'scratch' according to the rules of measurement and the contract rates.

This process will result in a 'mini-bill of quantities' for each provisional sum with items priced at contract rates, where possible. There may be an issue with the valuation of a defined provisional sum which was incorrectly described in the bill of quantities.

12.3.7 Provisional quantities

Provisional quantities are a bit different in that the relevant item is remeasured in order to establish the correct and final quantities of work done. Unless there has been a change in the nature or specification of the work, the final account is calculated by deducting the provisional quantity and adding back the final 'remeasured' quantity.

Should the provisional quantity not be a reasonably accurate forecast of the amount of work needed, usual practice is that the contract rates may no longer be applicable and a 'star rate', making a 'fair' allowance for the difference, is agreed. This is the arrangement in the JCT 2011 contract, but where this contract is used in conjunction with NRM2, there are some added complications:

- JCT 2011 refers to 'approximate' not 'provisional' quantities.
- NRM2 includes Paragraph 3.3.8 which deals with 'provisional quantities':
 - 3.3.8.1 Where work can be described and given in a BQ item in accordance with the tabulated rules of measurement, but the quantity cannot be accurately determined, *an estimate of the quantity shall be given and identified as a 'provisional quantity'*.
 - 3.3.8.2 Provisional quantities:
 - a) *shall be subject to remeasurement* when the work has been completed.
 - b) *The 'approximate quantity' shall be substituted by the 'firm quantity' measured.*

- c) *The total price for that item shall be adjusted to reflect the change in quantity.*
- d) *Where the variance between the provisional and firm quantities is <20%, the rate tendered by the contractor shall not be subject to review.*
- e) *Where the variance is ≥20%, the rate can be reviewed to ensure that it is fair and reasonable to the parties.*

Consequent to Paragraph 3.3.8.2, the use of the words *can be* indicates that the contractor has no right under the rules of measurement to a re-rate for significant changes in provisional quantities and that the possibility of a re-rate is purely discretionary. As a consequence, the contractor could be at risk of financial loss, and it might, therefore, be in the contractor's interest to seek relief via the conditions of contract in such circumstances.

Whether the Paragraph 3.3.8.2. rule overrides Clauses 5.6.1.4 and 5.6.2.5 of the JCT conditions is debatable to say the least.

As discussed in Chapter 11, the threshold for revising contract rates is different, and more complex, in the FIDIC 1999 contract, but the general idea is the same as NRM2.

In the ECC, lump sum contracts are based on (usually) contractor-prepared activity schedules, and changes in the Works Information, failure to provide access to the site and instructions to stop work are dealt with via the compensation event procedure. This relies on the accepted programme and 'Defined Cost' to establish the impact of changed resources on the contract sum; there is no 'valuation of variations' arrangement in the ECC.

Subcontract accounts for lump sum contracts should follow the same pattern as the main contract, but if the subcontractor has prepared the final account, there may be a lot of adjustment required to bring the account into line with correct practise. Complications may also arise where the basis of the subcontract is different to that of the main contract (e.g. main contract – lump sum, subcontract – measure and value).

For partial contractor design items and for full contractor design, the contractor is 'stuck' with the quantities that he has prepared at tender stage unless there has been a variation to the contractor design element of the BQ or a change in the employer's requirement in a full design and build contract. In either event, the variation provisions of the relevant contract will take effect.

Provisional, or approximate, quantities in 'firm' bills of quantities are a particular bone of contention with contractors.

This is because some PQSs are prone to inflate these quantities in order to add extra 'contingency' into the bill of quantities.

In Table 12.1, it can be seen that a provisional quantity of 650m³ has been allowed for extra over for excavation in rock. If this quantity is later reduced substantially, the net effect will be:

- The contractor will lose turnover and therefore potential profit and overhead recovery.
- The PQS will have a sum of money available that can either be spent on something else by the architect or given back to the employer as a saving on the contract sum.

Standard forms of contract cater for this situation in different ways in order to provide relief for the contractor and avoid extra-contractual claims against the employer:

- By classifying changes in quantity as a variation, if there has been an accompanying change in the nature or quality of the work, and thereby opening up the possibility of revaluing the relevant bill of quantities rate(s) to a more equivalent or fair rate.
- By providing a mechanism whereby the contractor can request a re-rate which would then be considered at the contract administrator's discretion.
- By establishing a threshold percentage (say, ±20%) against which changes in quantities can be judged:
 - Changes in quantity above the threshold would be considered for rerating:
 - 20% of 650m³ = 130m³
i.e. 'final' quantities of 520m³ (or less) or 780m³ (or more).

- Changes in quantity below the threshold (i.e. 19% change or less) would not be considered for a new rate:
 - $19\% \times 650\text{m}^3 = 123.5\text{m}^3$
i.e. 'final' quantities of no less than 527m^3 or no more than 773m^3 .

Contractors would probably argue that such protocols are 'hit and miss' and that full recovery of loss or expense is never achieved. They might also argue that any system that relies on the contract administrator's judgement or discretion would always be construed in favour of the employer and not the contractor.

Table 12.1 Provisional quantities.

		Qty	Unit	Rate	£	p
	Excavating and filling					
	<u>Site Clearance / preparation</u>					
	Site preparation					
A	Remove topsoil: depth 150mm	1287	m ²			
	<u>Excavations</u>					
	Excavation; commencing level 150mm below original ground level					
B	Bulk excavation; over 2m not exceeding 4m deep	3458	m ³			
	Extra over all types of excavation irrespective of depth					
C	Breaking up; rock [Provisional quantity]	650	m ³			
	Disposal					
D	Excavated material off site	3458	m ³			
	Retaining excavated material on site					
E	Top soil; to temporary spoil heaps; average distance 100m	193	m ³			

12.4 Measure and value contracts

With measure and value contracts, the final account process determines the contract sum, whereas the total of the bill of quantities at tender stage is purely a 'tender total' for the purpose of comparing tenders received.

Where there is an unquantified schedule of rates, there is no tender total and tenders are compared by comparing respective rates, perhaps by using some 'nominal' quantities.

The contract bills (or schedule of rates) are central to the process of determining the final account figure in a measure and value contract as it is the total of the quantities multiplied by the contract rates that determines the contract sum.

Preparation of the final account for a measure and value contract differs in several key ways to that for lump sum contracts:

1. Quantities included in the contract bills at tender stage are admeasured for the final account, that is, increased or decreased according to the final and correct quantities of work done.
2. Where there is a schedule of rates, all the work undertaken is measured (not remeasured or admeasured) according to the rules of measurement stated in the contract.
3. The total of the admeasured bill of quantities or schedule, together with other sums determined in accordance with the contract (e.g. variations), becomes the contract sum or contract price.
4. There are no provisional quantities in a measure and value contract as all quantities at tender stage (if any) are estimated.
5. An increase or decrease in quantities is not a variation unless the work is varied in some other way as well (e.g. change in the kind or quality of work).

In all other respects, measure and value contracts follow equivalent procedures to those for lump sum contracts with regard to:

- The measurement of work in connection with provisional sums.
- The adjustment of rates where changes in quantity invalidate the original rates.
- Variations.
- Daywork.

12.5 Daywork accounts

The daywork method of valuation is a form of cost reimbursement, except that the costs reimbursed are not the actual costs incurred by the contractor (see Chapter 4).

Daywork is also an alternative to the contractor making a 'claim' for damages. This might be a 'contractual' claim based on an express or implied term of the contract or an 'extra-contractual' claim for damages in law. This might arise where, for no fault of his own, the contractor or subcontractor is required to:

- Disrupt normal working in order to investigate something not described in the contract (e.g. existing services).
- Disrupt normal working in order to correct something that would otherwise be a defect in the finished work (e.g. dealing with a soft spot in an excavation, repainting a completed wall damaged by another trade).
- Carry out a minor item of work which is not a measurable item under the standard method of measurement.
- Etc.

It is often misunderstood that:

- Daywork is a method of valuing variations when all else fails.
- Applications for payment on a daywork basis do not necessarily result in payment on this basis.
- Variations are valued according to the valuation rules written into the contract, and daywork is just one of several possible methods of valuation which include the use of BQ rates, adjusted BQ rates and 'fair' rates.

Accordingly, the PQS or the contractor (*vis-à-vis* a subcontract claim) must assess how work should be valued in accordance with the rules written into the contract. Daywork is the 'backstop' to those rules. The rule of thumb is that, where the work involved in a variation cannot be properly valued by measurement, daywork should be used as the means of valuation.

In contracts where the word ‘daywork’ is not used (e.g. NEC3 contracts), the contract administrator/project manager must nevertheless assess the circumstances of an event, and if the contractor deserves compensation for the event, a fair means of payment must be found.

Under NEC3 ECC Option A (priced contract with activity schedule) and Option B (priced contract with bill of quantities), the backstop is the Shorter Schedule of Cost Components (SSCC) which provides a means of valuing work on the basis of ‘Defined Cost’ (i.e. the resources used to do the work) plus a fee (see Chapter 4.13.2).

Daywork is treated as a provisional sum, and consequently, the final account is adjusted by omitting the provisional sum and adding back the ‘daywork account’ compiled by the contractor or by the PQS.

12.6 ‘Final accounts’ under the ECC

For the purpose of determining the final value of the contract works, arrangements under the ECC depend on the Main Option chosen and upon whether the contract is the main ECC or the Short Contract.

12.6.1 ECC Options A and B

- For normal work, the contractor is reimbursed according to the items listed in the activity schedule or bill of quantities, respectively.
- For compensation events, the contractor is paid according to the change in resources resulting from the event compared with those indicated in the accepted programme and accompanying method statements provided that the resource in question is listed in the SSCC.

12.6.2 ECC Options C and D

- For normal work, the contractor is reimbursed according to the items listed in the full Schedule of Cost Components (SCC) for his own work and in accordance with the appropriate subcontract for subcontracted work.
- For compensation events under Options C and D, the contractor is paid according to the change in the target price resulting from the event.

12.6.3 ECC Option E

- For normal work, the contractor is reimbursed according to the items listed in the full SCC for his own work and in accordance with the appropriate subcontract for subcontracted work.
- For compensation events, the contractor is paid according to the change in estimated final cost resulting from the event.

12.6.4 ECC Short Contract

- For normal work and for changes in quantities, the contractor is reimbursed according to the rates listed in the Price List.
- For compensation events, other than changes in quantities, the contractor is paid according to the impact of the compensation event on Defined Cost; this may be forecast or actual depending upon whether the event has already occurred or not.

12.6.5 Defined Cost

There is an added complication in the ECC ‘final account’ arrangements, because the definition of ‘Defined Cost’ varies according to which contract, and which Main Option, is chosen:

- Under the full ECC, ‘Defined Cost’ is variously expressed as:
 - *the cost of components in the Shorter Schedule of Cost Components whether work is subcontracted or not* (Options A and B: Clause 11.2(22)).
 - *the amount of payments due to Subcontractors for work which is subcontracted ... and the cost of components in the Schedule of Cost Components for other work* (Options C, D and E: Clause 11.2(23)).
- Under the ECC Short Contract, Clause 11.2(5) states that *Defined Cost is the amount paid by the contractor for:*
 - *people employed by the Contractor.*
 - *Plant and Materials.*
 - *work subcontracted by the Contractor and*
 - *Equipment* (i.e. construction plant).
- Under Options A and B, Defined Cost is used uniquely for assessing compensation events.
- Under Options C, D and E, Defined Cost is used both for the assessment of compensation events and for reimbursing the contractor for work in progress; the difference is because Options C, D and E are cost reimbursement contracts, whereas Options A and B are priced contracts.

12.6.6 SCC or SSCC

In order to administer this arrangement, the full ECC contract uses either the SCC or the SSCC or both, as appropriate:

- For Options A and B, the shorter schedule only is used.
- For Options C, D and E, the full schedule is normally used, but the short schedule may be used by agreement for assessing straightforward compensation events.

Both the SCC and the SSCC appear at the back of the full ECC – the so-called ‘Black Book’. In each case, definitions of what is included in ‘Defined Cost’ are categorised as follows.

Resource heading	Non-NEC3 equivalent
1. People	Labour
2. Equipment	Plant
3. Plant and materials	Fixed equipment such as HVAC plant and normal building materials delivered to site
4. Charges	Site overheads or preliminaries
5. Manufacture and fabrication	Plant and materials manufactured off-site such as prefabricated units, structures or structural elements
6. Design	The hourly cost of employees providing design services off-site (i.e. it is not a fee percentage)
7. Insurance	Refers to deductions from cost where the contractor has failed to insure in accordance with the contract or has been otherwise reimbursed

There are some differences in the above definitions as between the full and short schedules, but this is at a detailed level which is beyond the scope of this book.

As far as the ECC Short Contract is concerned, neither the SCC nor the SSCC applies. In this case, Defined Cost is the amount paid out by the contractor in accordance with Clause 11.2(5), and the contractor is reimbursed for compensation events:

- By the contractor submitting a quotation or revised quotation.
- By the employer assessing the compensation event and notifying the contractor accordingly.
- By assessing the changes to the contractor's prices on the basis of forecast changes in Defined Cost due to the compensation event (pre-event).
- By assessing the changes to the contractor's prices on the basis of Defined Cost incurred due to the compensation event (post-event).

Under the ECC, data for the calculation of Defined Cost is submitted by contractors at tender stage. This data is written into the Contract Data Part 2 and includes:

- Percentage for people overheads.
- Time charges for equipment (i.e. construction plant) according to a stated list (e.g. RICS or CECA published lists of hourly/weekly rates).
- Percentage adjustments \pm on the rates in the published list.
- Rates for equipment not listed in the published list.
- Hourly rates and overhead percentage for design work.
- And so on.

12.6.7 The fee

In all cases, the contractor is entitled to a fee which is added to Defined Cost. There are two fees that tenderers quote in the Contract Data Part 2:

- *The direct fee percentage.*
- *The subcontracted fee percentage.*

The fee is defined in ECC Clause 52.1 as including *all the contractor's costs which are not included in Defined Cost...* Fees for Options C, D and E also include Disallowed Costs determined by the project manager according to ECC Clause 11.2(25). There is no fee as such under the ECC Short Contract, but the Contract Data refers to a *percentage for overheads and profit* to be added to the Defined Cost for people and a further percentage to be added to other Defined Cost.

12.6.8 Compensation events

The various fees, rates, lists of equipment hire, etc. quoted by contractors at tender stage appear in the Contract Data (Part 2 where the ECC applies), but unlike traditional contracts, there is no provision under the ECC for provisional sums or for estimates of Defined Cost in the bill of quantities against which the contractor prices competitive percentages.

Therefore, bills of quantities prepared under ECC Options B or D do not include provisions for the cost of compensation events in the tender figure as they do in traditional contracts (e.g. contingencies or risk allowances) nor do they appear in the activity schedules prepared by contractors under Options A and C.

The implications of this are twofold:

- Tender figures do not represent the project budget, and employers must understand that compensation events may add considerably to the accepted tender/target figure by the time the final account is prepared.

- Assessing the ‘competitiveness’ of the tendered fee percentages must be done by separate analysis of each of the tenders submitted, and tenderers must understand that their tender figure will be adjusted commensurate to the estimated impact of compensation events.

In this regard, a model tender assessment sheet for ECC Options A and B appears in the ECC *guidance notes* which illustrates how a tender figure may be adjusted in order to compare tenders received. This is done by applying the various tenderers’ fees and other percentages to the difference between the estimated out-turn cost of the project, less the relevant tender figure received, suitably apportioned between the various elements of defined cost (people, equipment, subcontract, etc.).

This analysis could be done by using a separate calculation sheet for each tenderer as suggested in the ECC *guidance notes* or by devising a spreadsheet similar to that shown in Table 12.2. Here, it can be seen that the estimated final account figure, less tender figures received, provides a forecast of compensation events for the contract. The estimated final account figure is exclusive of tendered overhead and other fee percentages.

Table 12.2 ECC tender comparison spreadsheet.

TENDER COMPARISON SHEET									
		Tender							
		A		B		C		D	
Forecast final account		1890000		1890000		1890000		1890000	
Tender Sum		1725898		1709225		1759850		1770956	
Forecast compensation events		164102		180775		130150		119044	
People element	35%	57436		63271		45553		41665	
Equipment element	25%	41026		45194		32538		29761	
Subcontract element	40%	65641		72310		52060		47618	
Tender adjustment									
Tender Sum		1725898		1709225		1759850		1770956	
People overheads	55%	31590		47453		27332		18749	
Equipment adjustment	-15%	-6154		-2260		-3254		-2976	
Additional direct cost		25436		45194		24078		15773	
Direct fee percentage	7.5%	1908		4519		3010		1262	
		27343		49713		27087		17035	
Subcontracted fee percentage	12.5%	65641		72310		52060		47618	
		8205		10847		6508		4762	
ADJUSTED TENDER TOTAL		1761447		1769785		1793445		1792753	
Tender ranking									
Original				2		1		3	
Adjusted				1		2		4	

This forecast provides a means of allocating percentages in order to establish the forecast direct cost for people, equipment and subcontractors. From these figures, the various tendered percentages for people and equipment overheads can be applied which can be summated in order to add the tendered direct fee percentage to the forecast direct cost (i.e. the contractor’s own costs). For the subcontracted element of the forecast of compensation events (i.e. the indirect costs), the tendered subcontracted fee percentage is added to give a total for this part of the calculation.

Once the calculations have been completed, tenders can be compared to see if the tendered overhead percentages and other fees have influenced the tender rankings. In Table 12.2, it can be seen that the original lowest tender (Tender B) is now ranked second and the lowest adjusted tender is Tender A.

With regard to changes in quantity under ECC Option B, a compensation event arises under Clause 60.4 if:

- The difference does not result from a change to the Works Information.
- The difference in quantity causes the Defined Cost per unit of quantity to change **and** (note the 'and').
- The rate in the BQ at the Contract Date multiplied by the final total quantity of work done is more than 0.5% of BQ total at the Contract Date.

As touched on in Chapter 11, there are complications with this clause, but in principle, Table 12.3 illustrates the intended mechanism in relation to an item measured under CESMM4.

Table 12.3 ECC Option B: Change in quantity.

Reference	Item	Quantity	Unit	Rate (£)	Total (£)
E.3.2.5	Excavation for foundations; material other than topsoil, rock or artificial hard material; maximum depth 2–5 m	6900	m ³	3.50	
	Final total quantity	<u>8300</u>	m ³		
	Difference	+1400	m ³	3.50	4900.00

BQ total at Contract Date

£5 000 000

%

$$= \frac{£4900 \times 100}{£5\,000\,000}$$

= **0.098**

NB:

1. In order to warrant a compensation event, there would need to be a demonstrable change in actual cost to the contractor for performing this item of work *and* the percentage would have to be above the 0.5% threshold.
2. Being below the 0.5% threshold, there would be no rate adjustment for this item irrespective as to whether the actual cost per unit quantity had changed.