

GUIDE TO RUNNING A SUCCESSFUL PROJECT

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STAGE 1 - PRELIMINARY ENQUIRIES

- Initial project discussion implications should be based on:
 - terms of appointment
 - programme of work
 - cost of project

- Make decision if you would like to take the project considering:
 - office competence in relation to:
 - adequate staff
 - sound equipment
 - flexibility of time
 - other works

 - financial requirements of the project

 - conditions of engagement on the basis of fee payment viability

- Visit and assess the site of the proposed project

STAGE 2 - OFFICE PROGRAMME

- Programming should take account of other work running concurrently and demand on all staff
- Plan for the inevitable contingencies such as illness, holidays and local authority hitches.
- Delays are cheaper for the client before the Quantity Surveyor stage rather than after work has commenced on the site
- Check the jobs likely contract value against the office current insurance cover

Programme phases of the job should include:-

- survey
 - analysis of problem
 - design
 - consents / approvals
 - production / contract drawings
 - quantities
 - tenders
 - supervision
 - defects liability
 - final settlement
-
- Confirm appointment of any of the following project Consultants if required
 - Surveyor
 - Quantity Surveyor
 - Structural / Civil Engineer
 - Mechanical / Electrical Engineer
 - specialists of any kind

STAGE 3 - ARCHITECT'S APPOINTMENT

- A letter of appointment should now be sent to your Client setting out the agreed terms of appointment. The letter will cover:
 - brief confirmation
 - advise on relevant Consultants' terms
 - recommendation of specialists whose services will be needed
 - check on survey status and act accordingly
 - engagement of a Clerk of Works
 - client's obligations to all statutory regulations and obtain consents where necessary e.g. NEMA, relevant local authorities, water and sewerage authorities, etc.
 - draft works' programme
 - check on adjoining owners
 - advise on fees, expenses and payment time
 - appointment of an authorising liaison to act on behalf of a committee client

- Arrange for a site inspection

STAGE 4 - SITE INSPECTION

- Revisit the site to make a detailed inspection inline with the project brief after receiving approval vide formal instructions to proceed with design. The inspection report should include:-
 - site boundaries and access
 - site orientation and surrounding landscape / building
 - existing properties and rights
 - site levels and nature of soil
 - evidence of all existing services
 - names and addresses of adjoining owners / occupants
 - failures in materials used on or near the site
 - nature of the site
- Discuss with local authority on the above findings
- Issue instructions to appointed Surveyor with regard to the above

STAGE 5 - SURVEY

- Investigate the survey being undertaken on site by the qualified Surveyor on the basis of your own (Architect) site inspection notes
- However, in case of works on existing properties, a property inspection report should be prepared by a competent qualified Surveyor detailing:-
 - measured survey of the premises
 - title
 - leasehold or tenancy covenants
 - terms of agreement
 - information on rights of light or easements
 - accurate schedule of defects
- Architect should assess the inspection and check items that may have a bearing on the work to be carried out
- Obtain an estimate of cost and time required for the survey.
- Introduce yourself to adjoining owners and alert them on the impending survey requesting for their co-operation
- Brief Surveyor on the basis of the following:-
 - letters of introduction
 - information on title, rights
 - existing structures
 - accurate levels, boundaries
 - existing services, soil test, trial holes
 - improvement lines
- Plot site inspection information

STAGE 6 - BRIEF / PROBLEM ANALYSIS

- Represents the factual foundation of the whole exercise
- It may be an extended process of extracting and analysing volumes of information as a basis for appraisal and design work
- This stage is a factual record of existing elements set against the new elements required to meet the Client's brief
- The result represents the framework within which design develops. On investigation, it may prove the Client's brief to be incorrect
- To by-pass this process and go straight into design drawings with the desire to solve the problem will inevitably cause trouble later
- A well documented brief / problem analysis forms a reliable core to the proposal in the face of divergent views from a committee Client
- The analysis should essentially be an easily understood document or diagram by the Client. It entails physical sites limitations including:-
 - permissible site coverage
 - maximum and minimum heights
 - boundaries and existing properties
 - light angles to windows
 - rights or easements for previous or existing properties
 - building or improvement line
 - any future development nearby
 - bus stops
 - fire appliances access

- The above are necessary tools to assist you extract the best answers for the particular problem on hand coupled with your later analyses of:-
 - materials
 - costs
 - construction
 - services
 - contract method
 - drawings system

- In summary, site analysis should cover the following:-
 - inspection notes
 - site cover
 - heights, light angles
 - future developments

- This goes hand in hand with preparation of survey drawings after which a thorough check on analysis versus survey versus brief is undertaken
- Finally, seek the Surveyors advice

STAGE 7 - CONSULTANT RECOMMENDATION

- An Architect can tackle minor works and cope with surveys, estimates and structural calculations, services and settlement of final accounts
- However, on a large contract, the Architect role is to recommend to the Client the most suitable Consultant for the work to:-
 - check the works
 - work well and simultaneously with the Consultant
 - trust and act upon his advice
- Ensure that the Consultants you recommend are fully qualified and are compatible with your desired goals
- Discuss the programme and work in general with each Consultant
- Recommend the Consultants to the Client for approval with all their relevant information on the scale of fees
- Appointment should be made as soon as these are approved by the Client
- Summarily, Consultant recommendation includes:-
 - selection for recommendation to Client
 - discussing programme and fees
 - obtaining references
 - lastly, appointment by Client

STAGE 8 - ENGINEER APPOINTMENT

- Client should appoint the Engineer directly
- However, the Client may prefer the Architect to do so. In such a case, written instructions to that effect are important and more so, confirmation of the appointment as “on behalf of the Client”
- Confirm the terms by a letter inclusive of fee basis. A copy of the letter of appointment should be sent to the Client for his records or vice versa when the appointment is made direct
- Arrange an early meeting with the appointed Engineer to discuss:-
 - design proposals
 - soil tests, trial holes positioning and boring on site
 - materials and general construction relative to the fire and loading classification of the building
 - alternative types of Structural system in comparison with Mechanical and other services
 - relative costs of alternative types of Structural systems
 - special conditions
 - submission consents of the Engineer to authorising bodies e.g. Local authorities
 - materials delivery, special plants, access to site and restrictions
 - engineer’s work programme and liaison between both offices
- Engineer should prepare a comprehensive report making clear the principles behind a chosen system most suitable for the project
- Architect to sketch drawings to Engineer

STAGE 9 - QUANTITY SURVEYOR APPOINTMENT

- Should be appointed directly by Client or by Architect “on the Client’s behalf”
- The Quantity Surveyor acts on the Client’s behalf in ultimately keeping the contract under accurate financial control
- Confirm the terms by a letter inclusive of fee basis. A copy of the letter of appointment should be sent to the Client for his records or vice versa when the appointment is made direct
- Discuss with Quantity Surveyor from the outset as early as possible points related to the brief and basic design considerations
- Arrange for Quantity Surveyor to submit a report to accompany your report and design proposals to the Client
- Your discussions should cover the following:-
 - cost of comparative construction methods considering current materials and labour costs
 - different types of contract merits from a cost control view in relation to work and construction methods under consideration
 - time required for Bills of Quantities preparation and format
 - submission date of Bills of Quantities to Contractors for competitive tender or as an estimate as the basis of a negotiated contract
 - method and period for valuations of works as the contract proceeds and the measurement of variations to contract
 - system of checking Contractor’s claims, invoice, wages and timesheets etc under the contract when payment application is submitted
 - form and frequency of interim account statements for payment due to Contractors throughout the contract
 - final account statement form to be agreed with the Contractor on behalf of the Client
- Architect to sketch drawings to Quantity Surveyor

STAGE 10 - SERVICES CONSULTANTS

- A fully serviced building requires involvement of public service work, Mechanical and Electrical equipment that constitute a very high proportion of the overall cost and content of the contract. These will have a fundamental effect on the building form
- Service Consultants are essential where the work is of a complex nature
- Early appointment of these Consultants in such works is necessary for them to advise generally on all items that will affect the ultimate shape and character of the building
- Confirm the terms by letter inclusive of fee basis. A copy of the letter of appointment should be sent to the Client for his records or vice versa when the appointment is made direct
- The Consultants role should include:-
 - determining relative costs of the following alternative systems in consultation with Quantity Surveyor i.e.
 - air-conditioning
 - heating
 - ventilation
 - drainage
 - hot and cold water services
 - electrical installation
 - information communication technology system
 - refuse disposal system
 - document distribution system
 - vertical transportation lifts / escalators, etc
 - other mechanical or specialist services
 - system effects on the structure
 - liaison with Engineer
 - drawings programme
 - arrangement of equipment viewing
- Architect to sketch drawings to services Consultants

STAGE 11 - MURALS OR SCULPTURE

- The Architect has a duty to advise the Client very carefully on the above issue
- The murals or sculpture must emerge as a requirement and be fully integrated into the design
- The principles to govern the selection of the artist to be contracted include - suitability for their particular job in terms of:-
 - position
 - size
 - scale
 - weathering difficulties
 - materials
 - circulation hazards etc

- Seeing samples of their previous work
- Method of working
- Builders work involved
- Programme and fees
- Advise your Client with recommendations, and obtain approval to make the appointment after arranging for him to see samples of the work
- Finally, make your (Architect) own contribution by describing how you feel that it should fit into the character of the building and exactly what you have in mind

STAGE 12 - STATUTORY CONSENTS

- Arrange to visit and discuss work with representatives of local authorities for the area in which the building is situated when the Client's brief is known
- Planning matters and building regulations are discussed with the local planning authority
- Discuss proposals in comprehensive sketch form and modify if necessary around recommendations concerning regulations that apply
- Discussing your proposals at an early stage enables you to know whether the scheme is likely to be approved or not
- Get copies of the appropriate forms of application for approvals
- Approval application check-list:-
 - full address or location of site / property
 - certificate of notice to owners where not the applicant
 - name and address of applicant / owner
 - type of development (new, conversion or change of use)
 - general construction related to the by-laws
 - whether outline or full consent is required
 - present use of site
 - access to highway (new, existing or modified)
 - whether permanent or limited life development
 - description of external building materials and colour
 - all information relative to industrial or commercial use
 - areas – vehicle parking, loading etc
 - drawings in scale
 - drawing showing location plan related to existing buildings, trees and roads
 - natural light and ventilation
 - calculations for structural system
 - water supply and storage
 - sewage disposal systems
 - description, size, inclination and depth of soil and storm water drains

STAGE 13 - DESIGN DRAWINGS

- Drawings should be prepared in basic form to illustrate the principles of the design sufficiently, including external works to enable discussion with:-
 - client
 - **quantity Surveyor**
 - consultants
 - sub-contractors

- The scheme you present is one about which you feel fully confident from a design and technical point of view. Drawings should be to scale with general dimensions only
- Drawings should be prepared with the following in mind:-
 - building regulations and by-laws
 - British standards (BS) or Codes of Practice (CP)
 - Materials behaviour on previous jobs
 - Obtain and check date of suitable alternatives
 - Research organisations

- Before drawings presentation:
 - discuss proposals with Consultants and specialists to check any points on which you have any doubt
 - if necessary check proposals again with local authorities
 - prepare a collection of material samples or illustrations and check before hand that these will be available for use when required

- These should represent firm design proposals based on consideration of the different possibilities
- Advise Client on date of submission, arrange meeting and thereafter, prepare a comprehensive report

STAGE 14 - PRESENTING PROPOSALS

- Design proposals, when submitted to your Client, will include a report and assessment of costs for the work
- The report should state clearly and concisely:-
 - client's original terms of reference / brief
 - your analysis and conditions related to the brief
 - your attitude and approach to different possibilities / problems
 - your firm recommendations and why
 - consultants' recommendations
 - approximate assessment of costs including all professional fees and expenses
- Submit the report based on the above and discuss with Client and thereafter, get consent for instructions to proceed.
- In contracts whereby a Quantity Surveyor or Consultants are not employed, the assessment of building costs should be cross-checked by the same methods on comparable contracts and recently finished contracts on which contract costs are known.

STAGE 15 - INTERIM FEES

- The appropriate percentage fee will be achieved by preparing your accounts to design stage including the following:-
 - list stages of work to date
 - percentage fee on estimated contract cost
 - expenses to date
 - submit to Client

- Abstract office cost analysis for records
- In addition, obtain details from Client where other or tenancy consent are involved.

STAGE 16 - OTHER CONSENTS

- Where a building is to be occupied under lease and once the Client has approved preliminary designs, it is necessary for the Client / Architect to submit drawings to all interested parties for approval
- Design drawings should be accompanied by materials specification or drawings developed and incorporating specification notes similar to those submitted for local authority consents
- The list to whom these should be sent may include:-
 - landlord or lessor
 - insurance company, agents
 - adjoining owners
 - main Architect (where Client has instructed Architect to act for premises on a tenancy in a main building still under construction)
- Inform Client of the results from the above, add to drawings any alterations encountered and submit drawings for statutory consent

STAGE 17 - ADJOINING OWNERS

- From the site analysis, it should be evident what rights or easements an adjoining owner could justifiably claim to enjoy over your site or building
- Consideration must be given to the effect that your building will have on the rights of:-
 - light
 - air
 - access
 - support
 - drainage
 - other essential services to adjoining owner's buildings
- Under the terms of the Building Acts works to a wall, foundations, or to parts of the structure jointly owned by the building owner and adjoining owner, the precise boundary should be established and the acts complied with. This should be in respect of the service of notice of intention to carry out the works according to the type of work.
- Negotiate any settlement and add to drawings if it is a joint ownership, discuss the proposals and thereafter, serve notices with reference to all the above.

STAGE 18 - PARTY STRUCTURE NOTICES

- Works to a party structure require the service of formal notice to the adjoining owners under the terms of the relevant Building Acts. Drawings to accompany the notices should be prepared under the following works categories:-
 - party structure
 - party fence walls
 - intention to build within ten feet and at a lower level than the bottom of the foundations of adjoining owner's building
 - intention to build within twenty feet of the adjoining owner's independent building and to a depth as defined
 - party walls and party fence walls on line of junction of adjoining lands
 - walls or fence walls on building owner's land with footings and foundations projecting into adjoining owner's land
 - selection of a third surveyor

- Architect to write formal notices to adjoining owners and should ensure that:-
 - client is informed of consents, dissents and counter notices
 - dissenting adjoining owners to appoint Surveyors
 - visiting of site with Surveyors

- Nominate a third Surveyor to harmonise arising issues

STAGE 19 - PARTY STRUCTURE SETTLEMENT

- Dissent to a party structure notice is established by an adjoining owner not consenting in writing to the works described in the notice within fourteen days
- After fourteen days, the adjoining owners must either:-
 - agree to use the same Surveyor as the building owner to settle the difference – known as the ‘Agreed Surveyor’
 - nominate his own Surveyor (where he nominates his own Surveyor the two Surveyors must nominate a third Surveyor)
- The following should be noted:-
 - adjoining owner has ten days after request to appoint his Surveyor. Failure to do so gives the building owner’s Surveyor the right to proceed on as agreed Surveyor
 - either Surveyor must act within ten days of written request to select a third Surveyor, or the superintending Architect may act on application from the other Surveyor in selecting the third Surveyor
 - another third Surveyor may be selected if the third (selected) Surveyor does not act within ten days
 - all appointments must be made in writing
 - the agreed Surveyor, or any two Surveyors shall settle by award any dispute relative to the party structure notice
 - the third Surveyor makes the award if no two are able to agree within fourteen days of a request to do so
 - award shall be conclusive and shall include the costs incurred for the works and the award as decided by the Surveyor or Surveyors
 - there is a right of appeal to the country court against the award within fourteen days of its delivery
- Submit final awards, exchange and settle costs
- Agree on periodical inspection on site and on completion
- Always keep your client abreast of all development and add any necessary changes to drawings

STAGE 20 - DRAWINGS PROGRAMME

- Drawings are now prepared for the sole purpose ultimately of conveying information to the people concerned with erecting the building
- It is important you base and relate them to accurate survey drawings following a well pre-planned system of setting down the information
 - the system you adopt avoids ambiguity in interpretation
- In principle, the drawings programme should follow a pattern which absorbs Consultants and other information at the right stage to avoid constant repetition and modification
- Drawings programme should take into consideration
 - reference drawings with emphasis to:-
 - general services calculations
 - public service and Consultant information
 - sub-contracts information
 - construction information with emphasis to
 - materials and constructions methods
 - detailing system and Consultants' information
 - schedule reference system
 - liaison with Consultants
- The final stage is when all information is brought together to form one comprehensive set of contract or production drawings from which quantities will be taken and the work carried out on site

STAGE 21 - CONSTRUCTION / PRODUCTION DRAWINGS

- Develop construction drawings into:-

- key drawings having:-
 - full reference to schedule and details
 - setting out and basis dimensions
 - been read as complementary documents to the Consultants' layout
 - general notation for sub-contracts
 - accurate and comprehensive cross-reference to details, other people's drawings and all scheduled items.
The scales should be chosen accordingly (1:100 or 1:50)
- construction details covering:-
 - isolation, addition and referencing of agreed details
 - materials notation and sketches
- contract drawings developed to represent a statement of agreed information which can be passed to the Quantity Surveyor and finally issued to the Contractor

STAGE 22 - PUBLIC SERVICES

- As soon as the general layout drawings have reached a sufficiently detailed stage to explain proposals, they should be discussed with, or copies sent to the appropriate public service authorities
- You will obtain public services information on:-
 - water: size, materials, depth, position and pressure of existing service, meter pit requirements and materials, water storage requirements/recommendations, arrangements for builder's supply
 - drainage: size, materials and invert levels of existing drains, positions at which storm-water drain and soil drains can be entered, recommendations on materials and construction other than the by-law minimum
 - electricity: capacity, protective material, position and/or depth of existing service, metering arrangements, types of service required, transformer positions, possible amendments or existing requirements
 - gas: size, material, depth and position of existing service, metering requirements
 - telephone: position and/or depth of existing services, recommendation on installation and siting of equipment
 - fire service: size of water services, dry users, lightning conductors etc
 - other general services include: heating, ventilation, plumbing, mechanical services, electrical installation and specialist equipment
- Add above information to drawings and inform Client of quotations or terms.
- Also set quotations aside for Quantity Surveyor and Contractor
- Calculate and liaise with Consultants then analyse and discuss with Client

STAGE 23 - SCHEDULES

- Recurring contract items should be set out in schedule form with each item described and cross-referenced on the appropriate drawing to the position it is to take in the building
- Prepare a draft schedule which has:-
 - doors)
) incorporating lintels and glazing
 - windows)
 - ironmongery
 - sanitary fittings
 - joinery and fittings
 - electrical fittings
 - finishes and decorations
 - furnishings
- Many domestic items may not always be anticipated and may range through such things as:
 - key systems and possibly locks acceptable to their insurers
 - type of glass, considering sound and thermal insulation
 - cleaners' sinks, drinking water points etc
 - joinery finishes, locks on cupboards, adjustable shelving
 - switch systems and metering
 - surface finishes related to the setting of particular areas
 - accommodation of existing and the extent of new furnishing
- Samples and illustrations with alternatives, and with an analysis prepared in conjunction with the Quantity Surveyor of relative costs, should all be available for discussion and be set in accurately comparative form
- Everything that needs your Client's approval must be anticipated and decided upon now, as many of the construction details being prepared in conjunction with these items are dependent upon those being agreed at this stage

STAGE 24 - SUB-CONTRACTORS REPRESENTATIVES

- Technical representatives of suitable firms should be called in to discuss materials or products as early as possible during the development of drawings
- Discuss proposals with Sub-Contractors in respect of:-
 - suitability of materials
 - availability and delivery (how protected in transit)
 - terms of contract
 - time required for quotation preparation and delivery
 - acceptance of their materials by local authorities, conformity with standard specifications etc
 - previous contracts carried out and whether these are available for inspection
 - site access (off-loading arrangements)
 - builders' work or attendance
 - tolerance to which they work
 - drawings required
- Before accepting modification, you must be very sure that a technical 'impossibility' is not merely 'more difficult'. If a technical difficulty is a real one and likely to affect the general character of things, the design should be reconsidered to bring it into conformity with the basic principles.

STAGE 25 - SUB-CONTRACT TENDERS

- Once the contract can be viewed in construction stages or trades, decisions should be made on which items are to be dealt with as:
 - work for which materials are to be supplied and delivered and which will be carried out on the site entirely by the Sub-Contractor
 - work for which materials or items of equipment are to be supplied and delivered only and fixed on site by the general Contractor
- List firms to supply or supply and fix items for Client to approve
- When approval of the list has been received from your Client, it is important that each firm is invited to submit a tender under similar conditions. It is essential, therefore, that:
 - they know the name of the Client on whose behalf you are inviting tenders, and the address of the site
 - they agree to enter into direct contact with the Client for design/performance
 - they are provided with all necessary information on drawings
 - works to be done are clearly defined and accurately described
 - they take into account the appropriate contract discounts in their estimate
 - they are made aware of access to the site and the probable works' dates commencement when Main Contractor is confirmed
 - where possible, given opportunity, should visit the site
 - are aware it is a sub-contract to a main contract and agree to the contract terms under which the main works are to be carried out and that, if successful, the official order will ultimately be placed by the Main Contractor
 - they have a date and time by which the tenders are to be returned to the Architect

- In reply, the Sub-Contractors should give:-
 - at least three copies of their quotation
 - their delivery date from the time of order
 - anticipated time required for the works on the site)
 - a description of builder's works required and attendance) where fixing on site
- Copies of all documents as sent out to each firm should be kept in the office

STAGE 26 - SUB-CONTRACT NOMINATION

- Acknowledge receipt of all tenders immediately. If during the period of tendering, there is a request for extension of time, it must, if granted, be given to all the firms tendering for that part of the work
- Check the tenders arithmetically and then analyse with the Quantity Surveyor under the following:-
 - total figure
 - price per unit of measurement (lineal, area or itemized)
 - percentage discount and compliance with terms of contract
 - delivery
 - length of time on site
 - attendance, builder's work
 - conditions of tender if not in accordance with contract terms given and whether the firm is prepared to amend these to comply
 - closing date for acceptance of tenders
- copies of the sub-contract tenders or these analysis and copies of the warranty document for signature and return if selected, should be sent with recommendations and a request for instructions to nominate the successful firms
- Inform all the firms and copies of the successful tender should be set aside for office records; and for the Quantity Surveyor; and the original given to the general Contractor when eventually appointed
- Subject to acceptance, successful firms will receive the official order for the work through the general Contractor when he is appointed
- Do not officially place the order for the work. The terms of contract between the general Contractor and the Client can only be administered correctly if the Contractor has placed the order, entered into sub-contract and instructed the Sub-Contractor direct
- Drawings to be prepared by a Sub-Contractor should now be prepared and checked as part of the general drawing programme before the main contract is placed
- Samples of all materials being used should be kept in the offices for comparison with the work on the site through the contract's course

- A nominated Sub-Contractor is protected under the JBS contract in case of default in payment by a general Contractor, in which case the Architect may certify direct
- The nominated supplier is not protected in the same way and is regarded as a merchant to the Contractor

STAGE 27 - COST ANALYSIS INFORMATION

- Abstract cost information for general reference under:-
 - sub-contract works:-
 - description
 - unit cost, date
 - location
 - information on firm
 - supply items
 - illustrations
 - cost, date
 - manufacturer's information

- This should work as a fully comprehensive rule of thumb guide on all aspects of construction and should include:-
 - materials
 - components
 - mechanical services
 - specialist equipment or installations of any kind
 - furnishing or internal finishes

STAGE 28 - ALTERNATIVE CONTRACTS

- Consider with Client and Quantity Surveyor the contract terms with the following in mind:-
 - type of contract
 - contract clauses
 - insurances
 - liquidated damages
 - clerk of works
 - selection of Main Contractor
- Inform Client of the alternative contracts which can be used and recommend the type you consider to be most suitable. When a Quantity Surveyor is involved discuss the alternatives with him beforehand
- Depending upon the scope of the work any one of the four main standard forms of building contract may be applicable:-
 - a contract for use without quantities
 - a contract for use with quantities
 - a contract for use without quantities adapted for local authorities
 - a contract for use with quantities adapted for local authorities
- These contracts fall into the category of tendered price or lump sum contracts
- When Bills of Quantities have been prepared, they and not a specifications form part of the contract, but when not used the specification becomes a contract document
- If quantities are not used, extreme care should be taken to ensure that all information is shown on drawings or otherwise described in the specification, and any oversight would normally incur a claim by the Contractor for extra costs
- Variations for the basic forms are:-
 - a contract of the lump sum variety based on approximate quantities, where an early start is necessary on site, the whole job being re-measured on completion

- a lump sum contract plus bonus, where earlier completion than the contract date is of major importance to the Client
 - a lump sum contract with a known Contractor based on a negotiated price arrived at from Bills of Quantities
 - a schedule contract where the Contractor provides a schedule of unit rates at the outset of the contract to enable an immediate start to be made on the site, and where it is not of prime importance that a Client must know the likely overall cost from the beginning. This does not need Bills of Quantities at the outset, though a cost plan should exist to set target costs. The Quantity Surveyor measures the work as the job proceeds and prices in accordance with the original schedule
- Care should be taken on adopted bonus Contract as failure to produce drawings on time gives the Contractor a claim for delay and extension of time which may be passed on to you for having prevented him from earning his bonus by finishing earlier

STAGE 29 - INSURANCES

- The articles of agreement forming part of the contract between the Client and contractor will only state the minimum types of insurance which each is obliged to take out
- Inform the Client of any other risk which may exist and on which he should consult his insurance advisers
- Information required for Client's insurance assessment includes:-
 - likely start and finish dates of the works
 - estimated cost of works and fees
 - building classification for fire and loading
 - security devices, locks, window catches etc.
 - drawings for Client's insurance advisers
 - limit of Contractor's insurance liability
 - arrangements for caretaker or night watchman
 - any arrangements made with adjoining owners
 - 'incidentals' – insurance against risks which would automatically become the liability of the employer where it is proved that the Contractor has taken very reasonable precaution
 - any hoardings, pavement screens, projecting gantries or equipment
 - overtime in premises occupied by other tenants
 - any other risks peculiar to the type or work

STAGE 30 - LIQUIDATED DAMAGES ASSESSMENTS

- Contract completion dates for occupation should be discussed fully with the Client and the Quantity Surveyor before inviting competitive tenders. A fair assessment of the time required for finishing the works including carpeting, curtaining and actual removal time should then be made.
- When a final date is decided, and if no other factors have a bearing, the likely expenditure for failure in contract completion to allow the client to meet this date, must be carefully considered
- Insertion of a contract completion date in the contract document, and from which liquidated damages can run if required, is essential
- Main factors for consideration of liquidated damages include:-
 - length of contract on site in relation to similar contracts in hand or recently finished in your office or by others, preferably in the same vicinity or constructed under like conditions
 - accurately assessed furnishing and removal times
 - sale of present property or settlement of leasehold or tenancy arrangements and terms
 - expenditure or loss incurred through failure to meet realistic programme
- The resultant figure must be factual and not entered as an incentive to complete or a threat to the Contractor
- You should then enter the liquidated damages sum in the documents sent out to tender, together with the date on which the work is to be completed

STAGE 31 - CLEK OF WORKS APPOINTMENT

- There is a distinction between the act of supervision (which can be delegated to the Clerk of Works) and the Architect's overriding responsibility which cannot be delegated (subject, probably, to proof of taking all reasonable precautions in the selection of 'servants' or 'agents')
- Appointment of Clerk of Works includes advertisements or invitations to applicants stating:-
 - location, type of job
 - likely cost and length of contract
 - starting date
- Client should then confirm terms of appointment
- You should introduce yourself to the appointed Clerk of Works with a briefing letter, enumerating the points requiring special attention

STAGE 32 - COMPILING TENDER LIST (MAIN CONTRACTOR)

- Select Main Contractors for competitive tendering list with extreme care and generally in accordance with the following principles.
 - investigate to ensure listed firms are of equal capability, size and reputation
 - selection by Client or you must be made without prejudice
 - are familiar with the firms and their previous works or recommendations sought from a reliable source

- Firms should be asked to submit a list of contracts done with the names and addresses of three of the Architects or Clients from whom references can be obtained (if the firm's work is unknown)
 - client to be fully informed of the system of selection and he must approve the list of Contractors recommended by you
 - client can add to the list, but only in accordance with the principles on which the others were selected
 - client should be warned against canvassing while tendering is in progress
 - client to be well briefed throughout the tendering procedure

- The Contractors should each be asked in good time whether they are prepared to submit competitive tenders. The invited Contractors should be given the following information:-
 - job
 - building owners
 - Quantity Surveyor and Consultants with supervisory duties
 - Site location
 - General description of works
 - Form of contract
 - Proposed date for possession
 - Period of completion of works
 - Date for dispatch of all tender documents

- Date for submission of tender
- This is probable the most important phase in any contract. Any doubts which arise at this time, however slight, must be cleared or the name crossed off the list

STAGE 33 - CONTRACT DRAWINGS

- Check carefully all drawings coming into your office from any source and ensure they tally with your drawings. The sender should be alerted if any discrepancies are noted
- An amended and re-issued drawing should have its amendments clearly noted. The drawing must also be issued to everyone whose work will be affected by the change. Estimates affected by the amendments should be revised
- Instructions should be issued where sub-contract or other drawings need to be revised to follow the amendment and checked again after revision
- At this point, all drawings prepared in your office, or by Consultants, or Sub-Contractors, can be seen as the final contract drawings
- Before issuing these to the Quantity Surveyor for preparation of his Bills of Quantities, a general check through all other information should be made as follows:-
 - read through all files from the beginning to see that instructions given have been incorporated on drawings or, alternatively, will be written into the Bills of Quantities
 - see that all consents have been received and that all terms of consents have been compiled with
 - check against spelling errors, muddled dimensions or notation, discrepancies between one drawing and another or on the schedules
 - ensure that all reference numbers for sub-contract terms or British Standards are correct at the date of issue
- Before regarding the drawings as complete:-
 - go through each item as it is to be used by the Client on completion and correct all inconsistencies
 - go through the drawings as a Quantity Surveyor would check a claim against a loosely specified section of work

STAGE 34 - QUANTITY SURVEYOR BRIEF

- Information required by the Quantity Surveyor for the preparation of his Bills of Quantities but not necessarily shown on the drawings will include:-
 - copies of the consents where clauses need to be incorporated in the Bills and advice on appropriate fees or costs
 - copy of the building owners or agents specification requirements or tenancy conditions
 - details of party settlements or conditions of access to adjoining properties
 - detailed survey of existing site or building with photographs
 - access details to site or any site restrictions
 - all details of the contract terms of agreement, information of the contract form to be used and, after discussion with your Client, all the information on those clauses which make specific arrangements, such as insurance, arbitration and appendix items
 - facilities required if a Clerk of Works is to be employed on site
 - list of Main Contractors
 - copies of all agreed sub-contract or supplier's estimates
- Discuss with your Client the possible need for provisional sums to cover mock-up work or maintenance photograph in the Bills as part of the contract
- Include an allowance in the Bills of Quantities for all required tests on materials during the work's course, and give details of the types of tests and methods to carry them out
- Check the final arrangements for the length of time to be devoted to:-
 - analysis and measurement of all drawings and preparation of Bills by the Quantity Surveyor
 - printing of Bills
 - tendering
 - contract negotiations and approval by Client
 - placing the contract and starting work on site

- Copies of all the following should be sent to the Quantity Surveyor's office until termination of the contract:-
 - copies of all letters
 - copies of instructions and drawings issued from your office
 - any revised quotations or other information in respect of the contract
- This enables him to follow the course of the work and to abstract all relevant information as it affects measurement of the works in progress on the site, or anything else which will affect the final account
- Inform Quantity Surveyor at this stage how many copies of the Bills of Quantities will be required remembering:-
 - client and his agents
 - the contractor
 - the Clerk of Works

STAGE 35 - COMPLETED QUANTITIES

- You should go through the completed draft Bills of Quantities together with the Quantity Surveyor, carefully cross-checking all the drawings and transferring to your drawings, in the form of notes, information which amplifies that already on the drawing
- This ensures that the drawings and Bills of Quantities are complementary and that the man working from the drawing on site is as much aware of specific Bills of Quantities notation as the site agent
- When the Bills of Quantities are printed, send a copy or copies to the Client, as pre-arranged, for his information and records
- When the Client approves the documents and depending upon arrangements made in your preliminary discussions, either instruct the Quantity Surveyor to issue them to Contractors for tenders or prepare the appropriate documents for issuing from your own office

STAGE 36 - FORM OF TENDER

- The documents forming the set to be sent to each of the selected Contractors must be fully informative
- Drawings should be available for inspection by the Contractors in either the Architect's office or the Quantity Surveyor's office
- The form of tender accompanies the issuance of tender documents to Contractors. Tender documents include:-
 - Bills of Quantities / specifications
 - Drawings
 - Tender form
- The form of tender is to be returned to the Architect, or, in some cases, returned direct to the Client

STAGE 37 - PRE-TENDER STATEMENT

- This statement gives all concerned with assessing the tenders the opportunity of seeing immediately the relationship between measured and other work. The contingency sum should also be shown on this statement
- Prepare estimate statement bearing the following:-
 - Original estimated figure
 - Agreed modifications
 - Provisional or prime cost sums
 - Contingency sum
 - Conditions affecting tendering
- Check with Quantity Surveyor and confirm before issuing to Client

STAGE 38 - RECEIPT OF TENDERS

- All tenders should be acknowledge immediately
- Quantity Surveyor to check and analyse all tenders:-
 - arithmetically
 - generally
 - other conditions
- Report to Client on tenders and obtain instructions. Accept successful tender and inform all others
- Ask for Client's instructions to make the appointment on his behalf and prepare the contract documents in accordance with the tender submitted
- When the Contractor has been appointed, the other Contractors should immediately be informed

STAGE 39 - PREPARATION OF CONTRACT DOCUMENTS

- Prepare the contract document as soon as the Client has given approval to the tendering report
- The contract documents will comprise:-
 - where no quantities have been prepared:
 - the form of tender
 - the drawings on which the Contractor tendered
 - the specification on which the Contractor tendered
 - the JBC Articles of Agreement for use without quantities
 - where quantities have been prepared:
 - the principal drawings, or on small jobs, the drawings from which quantities were prepared
 - the priced Bills of Quantities and tender form submitted by the Contractor
 - the JBC articles of agreement for use with quantities
- The documents should be prepared in duplicate so that the Contractor will have a true copy of the originals
- The JBC Articles of Agreement must be completed and all amendments signed by each party to be in tandem with the conditions printed in the Bills of Quantities on which the Contractor tendered
- The execution of a contract is when it is completed by a second party, and the duplicate with a 25p stamp
- The original and duplicate must be compared and inspected by the Revenue Authority and the duplicate stamped to indicate duty paid on the original document
- Drawings and Bills of Quantities or specifications comprising contract documents should all be marked as the contract documents referred to in the Articles of Agreement. They should be signed by each party to the contract and dated
- Prepare all information for Contractor and Clerk of Works

STAGE 40 - PLACING THE CONTRACT

- To programme the works sensibly and set the contract on its feet efficiently, the Contractors must have all the information as soon as the contract arrangements have been settled
- Place the contract with Contractor detailing the following:
 - letter of instruction to take possession of site
 - copies of all contract documents
 - two copies of all drawings for the works including those from Engineers and Consultants for site and Contractor's office
 - two copies of the Bills of Quantities
 - copies of all sub-contract estimates and any drawings, with an instruction that the Contractor should place official – orders subject to acceptance and enter into sub-contract with these firms
 - copies of consents and the notices from the local authorities which are to be submitted throughout the course of work
 - names and addresses of all concerned
- Draw the Contractor's attention to the terms of any party settlements which have been made with adjoining owners
- Ask for a draft programme of works to be prepared and for the Contractor to hold meetings of all Sub-Contractors so that detailed programming can be developed on the basis of this draft as necessary to establish an agreed document
- Make it a specific instruction that every queries, however small, should be referred to the Clerk of Works who has instructions to contact the Architect in all cases, or alternatively, where no Clerk of Works, to refer all queries directly to the Architect's office
- Ask for insurance premium receipts to be submitted for inspection in accordance with contract terms

STAGE 41 - CONTRACT INTERPRETATION

- It is important to inform the Client by letter of the change of role for the Architect on completion of contract arrangements
- The Architect now becomes the arbitrator between Contractor and Client in assessing and taking decisions according to the interpretation of the contract throughout the rest of the work
- To fulfil this role, you (Architect) may possibly at times be acting against the general interests of the Client and, although still technically employed by the Client, he (Architect) is under obligation to administer the contract impartially according to its true intent
- Impartiality particularly applies to such situations as extensions of time for bad weather or other causes beyond the Contractor's control and, in the case of a failure, in interpreting correctly whether the Contractor took every reasonable care in the construction of the work to ensure a sound result
- You have the responsibility to settle contract problems by objectively applying the terms under which the Articles of Agreement were accepted
- It is essential that your Client is forewarned of this obligation as he is, in many cases, rather less willing than the Contractor to accept a decision against him
- It is fair, at this stage, to inform the Client of the approximate amounts which are likely to be included in certificates, and to remind him of the likely dates of presentation of certificates so that he may make banking arrangements accordingly
- Inform the Client that under no circumstances should he instruct the Contractor or any of his men directly

STAGE 42 - CONTRACT STAGE FEES

- A further interim account for fees becomes due on completion of the drawings and the production of information sufficiently developed for the preparation of Bills of Quantities
- The fees account will be based upon the estimated cost of the building in accordance with the agreed scales plus agreed expenses incurred from the date of presentation of the previous accounts and less the fee already received on account
- You submit to Client now
- Abstract office cost analysis for records purpose
- Check and pass on Quantity Surveyor / Consultant's fees accounts. Depending upon the original terms of appointment, they may be presented through your office to the Client

STAGE 43 - CONTRACTOR'S PROGRAMME

- Job programming is a complicated piece of co-ordination of other people's efforts, which on large contracts is often based upon very sophisticated methods of analysis
- Contractor should issue draft programme to:
 - architect
 - consultants
 - clerk of works
 - sub-contractors
- A full site meeting should be called to agree on final programming including:-
 - trade sequences
 - duration of each operating
 - sub-contract operations
 - supplier delivery dates
- At these meeting, it must be recognised that agreement to this programme constitutes assurance to complete on behalf of the representative's company under terms of their sub-contract agreement
- It should also be made clear at these meetings that the orders having been placed by the Main Contractors, the Architect can in no way intervene unless a dispute arises and he is called to do so, and that the Contractors will be responsible for all arrangements with Sub-Contractors.

STAGE 44 - SITE REPORTS

- An awareness of daily site conditions and progress is normally best maintained by adopting an arrangement in which reports are submitted to the Architect's office weekly from the site
- Establish site report system from Clerk of Works or Contractor based on:
 - contractor's / sub-contractor's labour force on site
 - materials delivered to the site and plant delivered or removed
 - labour, plant, or material shortages
 - any delays or stoppage incurred and causes with running totals
 - daily state of weather including temperatures
 - visitors to the site and which day, with meetings noted
 - date on which drawings or information received and notes of any information require
 - notes on general progress related to programme
- It must be signed and dated by the person in charge of the works as a true record of the works for the week
- It is the principal source of information for the maintenance of good progress, and, also, may subsequently be the basis on which claims are negotiated
- It should be copied to Architect and Quantity Surveyor and then periodic summary issued to Client

STAGE 45 - SITE MEETINGS

- A well organised site meeting will do a great deal to:
 - give a renewal impetus to the job by reorganization where delays or difficulties are likely to affect or have affected the programme
 - help to avoid delay or confusion in planning particular operations with all concerned well in advance
 - solve site problems where a number of people are concerned or where cost or delay are involved
- A copy of the Articles of Agreement under which works are being carried out should be kept on site, together with a copy of the contract drawings and Bills of Quantities
- Points of dispute arising throughout the course of the work must be carefully analysed in terms of their compliance with the terms of contract
- Minutes should be taken with decisions recorded and copies of the minutes sent for agreement concerned. These must be factual and not include implications
- Discussions in site meetings include:-
 - record of those attending
 - acceptance of previous minutes
 - items arising from previous minutes
 - progress related to programme
 - labour strength and materials queries
 - drawings received or due
 - sub-contracts
 - financial review
 - any other business
 - date of next meeting (where known)
- Include an 'action' column in the minutes so that there is no confusion as to who is responsible for dealing with each item

STAGE 46 - CONTRACT INSTRUCTIONS

- Establish a day to day instruction procedure and:
 - examine drawings for complications
 - check whether cost is affected in liaison with Quantity Surveyor
 - get Client's approval where cost is involved
 - check Consultants where necessary
- Issue instructions to Contractor in accordance with contract and circulate copies to all concerned
- On the assumption that you have made all your major decisions with the Client before the contract is placed, the running of the contract should involve very little correspondence with the Client direct
- You must, however, inform him of decisions taken from time to time in the course of the work and of any discrepancies, variations or other difficulties. The decisions should be made quite clear to the Client in early correspondence

STAGE 47 - MODIFICATIONS

- Modifications are brought into effect in the form of a normal contract instruction after proper investigation by the Architect
- The file copy of the instruction should be noted with the reason and the authority for modification in order that any extra cost or extension of time is fully recognised
- It is the Architect's duty to advise the Client if the modification is likely to cause considerable more complications than at first evident and to warn him of the possible results before issuing the instructions
- It is essential that a thorough check of all drawings, schedules, Bills of Quantities and site works is made before advising your Client
- The Client should also be warned that an extension of time carries with it an extension of plant hire costs, insurances and, in some cases, preliminaries in the Bills of Quantities; and that liquidated damages, operating from the original date, will now operate from the extended date and may be rather to establish unless the modification is almost inevitable
- Fully investigate pending modifications in view of:-
 - all relevant drawings and Bills of Quantities
 - consultants as necessary
 - contractor, programme, completion
 - sub-contractor as necessary
 - terms of consent
 - quantity surveyor and costs implication
- Give to Client for approval
- Issue instructions to Contractor in accordance with contract and circulate copies as necessary to all concerned.

STAGE 48 - VARIATIONS AND EXTENSIONS

- Any instructions which involve a variation in cost, or which clearly affect the length of time required for the contract, should aim to establish these at the time, in accordance with the terms of contract
- The Quantity Surveyor should price the variation before the instruction is issued. This is an obligation you have to both the Client and the Contractor in administering the terms of the contract
- This procedure ensures that as work progresses, an accurate cost account and time schedule is maintained. It gives you the opportunity of assessing in advance any action which may need to be taken in adjusting time or cost of operations
- Variations in time should not be accounted in terms of cost of preliminaries which are involved until the final settlement of extended time at the point of practical completion
- Subsequent settlements made from time to time should be noted in site meetings and copies distributed
- Where an extension of time is granted in accordance with the appropriate clauses of the Articles of Agreement, the attention of the Contractor and Client should be drawn to the need to extend their respective insurances
- The removal or omission of measured work does not relieve the Client of a possible obligation to pay the percentage profit / turnover which the Contractor could have expected on that section of the work
- In summary, discuss any variations involving extensions with Client/ Quantity Surveyor in view of:-
 - additional costs
 - extra time / insurance
 - other claims
 - all relevant office information

- Ensure that all issues are settled as per the contract terms by those concerned
- Issue instructions to Contractor in accordance with Contractor and circulate copies as necessary

STAGE 49 - SITE PROGRESS PHOTOGRAPHS

- Complete photographic records of the works are advisable throughout the job. They should also be specifically related to such services or other details which will be hidden by later work
- They should be taken at regular intervals to form a comprehensive record of this hidden work, be dated and carefully referenced to the appropriate section of building
- The Architect and Quantity Surveyor should have copies throughout the course of the work and, at the end of the contract, a complete set should be forwarded to the Client for his records and maintenance purposes

STAGE 50 - SITE SUPERVISION

- Visit site frequently to ensure that any defects or unacceptable work is still 'accessible' for further rejection.
- In preparation for routine site inspection:-
 - list items to see and previous instructions issued
 - check works programme
 - check clerk of works reports and previous visit comments
- During the actual site supervision:-
 - deal with the listed items
 - check progress/programmes
 - spot check work
 - assess tests/reports/samples
 - deal with site queries
 - issue instructions as necessary
 - note visit comments in job records
 - arrange site meeting if necessary
- Do not hang about when you have dealt with all you wished to do.
- Do not instruct a workman direct. Instead instruct the site agent or clerk of works, as they are the only people with authority to act upon such instructions under the terms of the contract.
- In accordance with the contract, confirm with the contractor all points arising from the site visit.
- SITE SUPERVISION GUIDE
- Demolition:-
 - property- salvage, clearance underground, sealing services
 - trees

- general- identification, access, removal, protection, programme
- Take over site:-
 - setting out- levels and building setting out, working area confines, spoil deposit
 - notices- check submission to local authority
 - huts, plants and materials- position, roads and circulation, security
 - documents- drawings, programme, bills of quantities, contract copies, names and addresses(local authority, consultants' and sub-contractors')
- Excavation:-
 - conformity with- drawings, bills of quantities, programme
 - site work- safety, adjoining property, spoil deposit, hardcore
- Foundations:-
 - conformity with- drawings, bills of quantities, programme, engineer's report
 - site work- materials and mix, engineer's report
- Drainage:-
 - conformity with- drawings, bills of quantities, programme, statutory requirements
 - site work- materials, samples and tests
- Superstructure carcass
 - conformity in all cases with- drawings, bills of quantities, programme, consultants' details, statutory or other consent requirements
 - concrete- materials, mix, samples, tests, engineer's report
 - steelwork- standards, engineer's report
 - brickwork or block partitions- materials, mortar, workmanship, samples
 - masonry- materials, mortar, workmanship

- roofing- materials, samples, workmanship
 - timber- materials, samples, workmanship and tests, workshop inspection
 - metalwork- materials, samples, workmanship, workshop inspection
 - plastering/ rendering and screeds- materials, mix, workmanship
 - plumbing- external and internal, samples, installations and fittings approval
 - service installations (inspect with consultant)- electrical, gas, heating, hot water, telephone,
mechanical services
- Finishes:-
- floorings, expansion joints, fittings, glazing, painting, polishing, ironmongery
- External works:-
- conformity with- drawings, bills of quantities, programme
 - site works- roads, lighting, ground preparation and levels, walls

STAGE 51 – CERTIFICATE PROCEDURE

- Quantity Surveyor prepares the valuations at the periods and in accordance with the terms and conditions laid down in the contract.
- He reports to the architect for guidance in issuing certificates for payments on account to the contractor.
- The valuation comprises:-
 - the works on site
 - materials delivered to the site but not fixed
 - nominated sub-contractors' and nominated suppliers' invoices
 - daywork sheets where applicable
 - account statement itemised for the principal sums due to the contractor, and noting which sums are included to be passed to sub-contractors for works to-date, and the appropriate retention.
- The statement prepared should be factual and accurate because, in case of disputes arising in future, it can be referred to settle claims.
- Procedure:-
 - contractor prepares interim certificate valuation and presents to quantity surveyor
 - quantity surveyor counter checks the works and materials on site
 - quantity surveyor forwards statement to architect and contractor. He informs sub-contractors included in the statement and requests for receipts
 - architect issues certificate to contractor with notification to client and quantity surveyor
 - contractor submits certificate to client for payment and pays sub-contractors'.

STAGE 52 – MAINTENANCE INFORMATION

- Sub- contractors' should supply instructions for the correct maintenance of their materials or of the works undertaken. These should cover:-
 - flooring materials
 - finishes to all surfaces
 - anything requiring regular maintenance
- Obtain maintenance information from sub-contractors' or suppliers' and compile dossier or charts to include:-
 - maintenance advise
 - names and addresses of sub-contractors' and suppliers'
 - progress photographs
 - guarantees
- Send to client for records
- As well as testing all the equipment and services in the building before handing over to your client, arrange for him or his maintenance staff to be shown the positions of all mains, intake points, distribution boxes, isolation valves etc. and how to operate mechanical services, emergency or fire-fighting equipment.

STAGE 53 - PRACTICAL COMPLETION INSPECTION

- Arrange with Contractor for final inspection and tests as necessary. Invite Client or his representative to attend site tests to be carried out and witnessed by Consultants' technical representatives as necessary
- The Contractor should arrange for the final tests to be carried out on Mechanical and other services either before or during this inspection
- Detailed consideration will need to be given to such things as:-
 - general cleanliness of all surfaces
 - adhesion of plaster, tiles or other applied surfaces
 - completed decorative finish according to schedule
 - screws and fixings secure
 - sign writing or notices completed
 - mechanical and other services tested
 - ironmongery operation, and keys handed over
 - correct light fittings and bulbs
 - electric switch plates on and secure
 - fire-fighting equipment complete
 - sanitary fittings complete, clean and working
 - gully gratings, etc in position
 - doors, windows operating full arc
 - joinery junctions, scribing, etc; finished
- Undertake a general inspection with the Contractors for practical completion occupation
- Finally check escape routes and any other conditions of consents

STAGE 54 - PRACTICAL COMPLETION

- Practical completion is the stage at which a building can be said to be in a state ready for occupation by the Client without inconvenience
- The Architect should insist on absolute completion before the builder leaves the site and before the Client moves in i.e. the building is practically complete pending settlement of the defects at the end of the defects liability period stated in the Articles of Agreement
- Certification of practical completion is certification of completion as far as liquidated damages are concerned
- This certificate has the effect of releasing for inclusion in a complementary interim certificate of payment to the Contractor the agreed proportion of the retention figure as stated in the Articles of Agreement
- Procedure:-
 - confirm agreed date of practical completion to Contractor and arrange with Quantity Surveyor to release 50% retention on statement and prepare final account
 - OR
 - inform Contractor of delay incurring liquidated damages clause and endorse certificate as necessary
 - arrange defects liability inspection date with Contractor and also ask Client to list defects arising in defects period
- When the Contractor has overrun the agreed contract time, including any extension of time granted, he should be informed that, as from that particular date, the liquidated damages clause will come into operation and that the certificate will be endorsed 'subject to whatever may be the rights of the Employer under the liquidated damages clause of the contract', or other similar qualification
- The Architect is not entitled to deduct liquidated damages from a certificate under the conditions of contract, but must in no way prejudice rights of his Client to this claim, and for this reason he should endorse the certificate

STAGE 55 - DEFECTS LIABILITY

- On practical completion of the contract, the date for the defects liability inspection should be decided and the Contractor informed
- Inform your Client of this date and in your letter ask him to note anything defective which arises before that date and which may not be apparent during the actual defects inspection
- Procedure:-
 - inspect the building under the defects liability clause and also obtain Client's list of 'relevant' defects
 - prepare complete schedule of defects and agree dates with Contractor on which he will start and finish the work and instruct him accordingly
 - contractor to deal with work on site
 - on completion of work, a second inspection should be made which goes through the schedule item by item and confirm completion to Contractor
 - copies to Client and Quantity Surveyor
- This inspection is vital as a final certificate cannot be issued unless all defects are remedied
- Instruct the Quantity Surveyor to issue the final statement of account and release the remainder of the retention as soon as the Contractor's liabilities have been certified as complete

STAGE 56 - FINAL CERTIFICATE

- This is an itemized statement prepared by the Quantity Surveyor. It should take into account:-
 - variations to the work as ordered throughout the contract
 - the set original provisional sums or prime cost assessments
 - extensions of time
 - claims
 - contingencies etc

- Procedure
 - quantity surveyor releases signed and agreed copies of final account to the Architect
 - architect issues copy and final certificate to Contractor and notification of certificate to Client
 - contractor presents certificate to Client for payment
 - client's settlement completes contract

- The Architect is to recommend the Client to pay this (final certificate) in settlement of the contract, on condition that he is satisfied the financial statement of account for the total works is a fair interpretation of respective liabilities under the terms laid down in the Articles of Agreement
- If satisfied with the work, the Architect issues his final certificate (marked final) to the Contractor when passing the final account to his Client
- If defects of any kind exist when the final certificate is due, the certificate must not be issued
- The issue of a 'final' certificate assumes that everything is acceptable and relieves the Contractor of further liability
- Signed copies of the account should be sent to both the Client and Contractor

STAGE 57 – FINAL FEES

- Ensure that the consultants submit their final fees to the client and check that they are settled before submitting your own final account for fees to the client.
- Architect's final account should describe the stages through which the contract has passed since submitting his interim accounts and should include all outstanding expenses. It should be noted as the 'final statement of account' for fees.
- Forward the original contract documents to your client for his records.
- Inform him that you intend to keep all other documents relevant to the contract for six years from the date of practical completion where a contract is signed, and twelve years where it is sealed. After this they will be destroyed. Inform the contractor of these arrangements.
- Write a diplomatic letter to your client informing him that this represents the termination of your services for the contract.
- Request for permission to use the photographs or drawings of the work if required for exhibition, publication, or when asked by new clients for illustrations of previous work.

STAGE 58 - RECORDS

- Abstract for office records and easy reference:-
 - full set of progress photographs
 - full set of completed building photographs
 - brief report on the work including the approach to the problem and your recommendations
 - notes on consultants, contractor, sub-contractors and suppliers
 - final analysis of the job in terms of the total cost
 - cost of superficial area
 - length of contract
 - number of assistants, time and costs to the office

STAGE 59 – RECOMMENDATIONS

- Acknowledge good results by individuals on successful completion and hand over of the project.
- It is reasonable to offer to be referee to a firm that has produced a good result, given a good service to the client, or whose liaison throughout the work with all the people involved has assured good progress and sound relations.
- You should also inform a firm if you consider their service to have been bad. The benefit of this local criticism is about the only form of post-mortem open to the building industry.