

QUALITY PLAN



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Section 2 – The Quality System

GENERAL

The quality system established by LJJ Ltd has been devised to ensure that all functional activities are carried out with demonstrable and efficient means of control and are intended to ensure that a working environment is created within which :-

- a) High quality professional work is consistently carried out thereby reducing the likelihood of mistakes being made or remedial work being required, and leading to a high level of client satisfaction.

There is personal involvement in, and acceptance of, responsibility for the quality of work by everyone in the Company's employ, ensuring that the Company's business objectives and business goals are achieved.

- b) Particular care is taken to ensure that interfaces with clients are sensitively and systematically managed. This interaction is considered to be a crucial element of the quality of the work executed by the Company and much of the emphasis of the Company's quality system has been geared to ensuring that these interactions are managed in a consistent and professional manner.
- c) All the quality system elements, requirements and provisions adopted by the Company are fully, though simply, documented in a systematic and orderly manner.
- d) The quality system is designed to create a satisfactory framework of management control within which good management is clearly visible and its perception fostered especially whenever there is an opportunity for personal contact with potential or existing clients.

Section 3 – Managing Invitations To Tender

MANAGEMENT SYSTEM

The Receipt of an Enquiry

- a) On receipt of an enquiry or invitation to tender the Estimating Director will briefly review the content to decide whether it is inappropriate to proceed further with the enquiry and therefore that it should be discarded OR alternatively whether it should be progressed further. In the event it is decided not to proceed a ‘regret’ letter will be instigated explaining to the client the reason for this decision.
- b) Should the enquiry be progressed, in the first instance the Estimating Director will take out a ‘Q’ number to uniquely identify the tender which will be recorded in the enquiry register.
- c) The Estimating Director will carry out a detailed appraisal of the enquiry which will typically cover but not be restricted to the following:-
 - description of the works including its nature and scope
 - programme and its effect upon work load
 - any special insurances, warranties or bonds involved
 - type of work and approximate value
 - any special requirements including design where applicable

Note: When an enquiry has significant design content and is therefore classified as “design and build” the Estimating Director will discuss with the Design Manager to establish a “Design Build Team”, which may involve engaging an external consultant.

- d) Normally, for potentially large value projects a tender settlement meeting will be convened with the relevant directors in advance of the date for submission, to enable the figures to be reviewed.

Post Decision Activities

- a) Whatever the result of the Company’s submission (i.e. win or lose) on receipt of the information the Estimating Director will update the Enquiry Register.

If the submission is unsuccessful the Estimating Director will copy and retain such documents as are associated with the estimate that are deemed to have a continuing usefulness with the Company. All the tender documentation will in any case be retained for a short period, in case the original client or an alternative client expresses further interest.

- b) When one of the Company’s submissions is successful the estimator(s) will structure the tender documentation including any amendments and computer printouts. These will be transferred to the appropriate Contract Manager(s) at a formal “Handover Meeting”.

Section 4 – Design and drawings

DESIGN PROCEDURES

The arrangements described in this Quality Plan encompass the activities carried out managing the design and development stages of a design/build project.

The arrangements will apply whether the design project is client initiated (via an invitation to tender for a design and build contract) or whether the Company is engaged by a client or main contractor to design and develop an installation that will comply with the client's own concepts.

The scope of activities specifically addressed in this Quality Plan include:-

- the procedures to be applied by the design staff whether the work is to be completed in-house or whether it is to be subcontracted
- the preparation of a conceptual design for tender purposes
- progressing a detailed design project
- arranging the hand-over of responsibility to contract management and dealing with the management of drawings and any subsequent design changes.

Calculations

Calculations will normally be completed by a competent and qualified design engineer using computer software, though from time to time it will be necessary to carry out certain calculations manually.

For computing calculations – the normal computer software used internally by the Company for calculations will be the “Hevacomp” design packages, though a number of alternative packages may be made available for specialised use. The hard copy data sheets and results sheets generated will be retained in the appropriate design file, and the electronic data will be allocated a unique reference and be stored on the main server.

For Manual Calculations – standard calculation sheets will be used and these will be completed in a legible manner incorporating all of the relevant information required to enable the calculations to be checked and reviewed. The completed sheets will be retained in the appropriate design file.

Production, Issue and Revision of Drawings

Design drawings will normally be prepared by a design consultant or design engineer in pencil from or as a sketch. These conceptual designs will normally be reviewed by the Design Manager, estimator or contracts manager, whichever is deemed to be most appropriate prior to their being handed over to a CAD operator enabling detailed design drawings to be prepared.

From time to time the design engineer may choose to design directly using the CAD package and thereby generate the detailed design drawings himself.

Section 4 – Design and Drawings (Continued)

Each drawing produced will be allocated a unique number consisting of the contract number (e.g. C1250) followed by a suffix identifying the discipline (E – electrical, M – mechanical or BW – builders' work) and a sequential number (e.g. C1250/E/01).

Review

Each drawing will be checked and signed by the responsible design engineer and reviewed by the most appropriate Director, estimator or contracts manager before being released or issued for approval or use. According to the type and size of project a drawing may progress through a number of stages of development during its life cycle including:-

- working drawings
- drawings for approval
- drawings for construction
- as installed drawings

Revisions

When comments are received which are deemed to be outside the scope of the original brief these will be drawn to the attention of the appropriate Director will be reviewed with the client before any amendments to the design and therefore to the drawings is progresses.

Should a variation to a design be formally requested the appropriate director will review the impact on programme and should the variation be progressed the relevant drawings will be updated, allocated an appropriate revision number and be re-issued.

A drawing issue and schedule sheet identifying the scheduled requirements will be created for every design project and will be updated every time a drawing is issued. The Master Issue sheets will be retained in a Master File and a photocopy of the latest version will be attached to the design drawing stick and copied to the relevant contract managers.

MANAGING INCOMING DRAWINGS AND DATA

Incoming drawings

All incoming drawings associated with a design project will be initially recorded on receipt using the appropriate Incoming Drawing Register before being passed to the relevant Contract Manager.

An incoming Drawing Register will be created for each design and/or contract and will be retained in a Master File together with the distribution sheets.

Copies of all drawings will be filed in an appropriately marked box file or on a stick whichever is most appropriate. All superseded drawings will be suitably marked, removed from the current drawing storage facility and placed in a superseded drawings' box file.

Section 4 – Design and Drawings (Continued)

Incoming Computer Disks

All incoming computer disks will, on receipt, be passed to the Technical Author and recorded on the incoming drawing issue sheet. The details of the disk and its receipt will be recorded, using the Incoming Disks Register. The disk will then be loaded into the Company's database for the CAD operator to load.

The CAD operator will review the content and delete any unnecessary information before incorporating the relevant electronic information onto the main server. The disks themselves will be filed within a plastic wallet in a master lever arch file.

Receipt of e-mail

Information received by e-mail will be printed out and the hard copy will be recorded as if it were an incoming drawing. It will then be actioned and filed in the appropriate Design File. If it is appropriate then the data contained in the e-mail will be filed on the main server in the same way as data received on disk.

Design Project Files

For each multi-discipline design project a mechanical and electrical design project file will be maintained. Every project file will be subdivided into the same subsections to provide for ease of filing and rapid retrievability.

The structure of the design project files, which may be contained in one or several files according to the size and complexity of the design project and the quantity of the records, will be as follows:-

- letters in
- letters out
- minutes of meetings
- requests for information
- design change notes
- design specification
- design calculations
- CDM/QA
- Suppliers and sub-contractors

Section 5 – Contract Management

ORGANISING THE ACTIONS FOLLOWING RECEIPT OF AN ORDER

As soon as a client indicates to the Company, either in writing or verbally, that a tender has been accepted the Director will acknowledge the client's response and ensure that a unique contract number is allocated.

The Managing Director will inform the Estimating Director of the order and he will arrange for the Enquiry Register to be updated, a contract Initiation Form to be initiated and the tender documentation to be structured in compliance with the standard contract files.

The Estimating Director will make arrangements for, and if possible, chair a Handover Meeting, which will normally include the Estimators, nominated Contracts Manager(s) and if the contract is a design/build project the Design Manager may also attend the Handover Meeting.

At the Handover Meeting the Estimating Department will transfer all the relevant documentation and data to the Contracts Manager(s) and/or Design Manager.

The Estimating Director will ensure the minutes of the Handover Meeting are taken, the Master Set being retained by the Estimating Director, the other copies being distributed to attendees on a need-to-know basis.

Pre-Contract Meeting with the Client

On potential contract award it is normal practice to be invited to a Pre-Contract Meeting and the Estimating Director, in preparing for that meeting will ensure that the various preparatory actions have been taken and that Company's representatives nominated to attend the meeting are suitably informed.

Initiating and Progressing the Programme of Work

Following the Pre-Contract Meeting at which the fine-tuning of the contract requirements can expect to have been settled, the client will normally issue the formal contract documents.

In order that the management of LJJ contracts is conducted consistently and methodically the Company has provided a number of standard documents that are used by the Contacts Managers at the appropriate stage in planning and progressing the project. The project will be handed across to the project team utilising the standard documents and issue of the site safety packs and first aid kit. The issue of the site safety packs generates the Health & Safety file which amongst other documents contains the project details, method statements, risk assessments, COSHH details and COSHH assessments. These will be maintained and updated by the contract managers as the project progresses.

At the appropriate time and in accordance with the agreed arrangements, the Contracts Manager will appoint a foreman or supervisor. It is important to note that for many projects it will not be normal for a site office and site filing systems to be required or established. The Contract Manager(s) will in such circumstances retain all of the relevant documentation and co-ordinate the generation and build-up of the contract files themselves.

Section 5 – Contract Management (Continued)

Work on site will commence according to the programme and will progress in accordance with the contract. The Contracts Manager will ensure that a Site Dairy (to record all significant happenings or events) ITQ Book, Daywork Book, Scaffold Register, PAT Testing Register and Tool Box Talk Register are initiated and used by the site foreman.

The Contract Manager(s) or other individuals nominated by the Managing Director will be required to cost out changes to the original contract requirements and, it is appropriate, client approval will be sought before the variation is actioned. When approved, copies of such changes will be fully documented.

The Contract Manager(s) will individually oversee the progress of those aspects of the project, for which they are responsible. They will visit the site on a regular basis, and liaise with the on-site personnel responsible for progressing the work and will oversee the progress of work on a day-to-day basis.

The Commercial Director will oversee the Contract Manger(s) to ensure that the procurement of subcontractors, goods and materials falls within the time-scales identified on the contract programme.

The Buyer as directed by the Commercial Director will be responsible for the procurement of goods and materials, the hire of plant, tools and equipment. The Contract Manager(s) will oversee the work, supervise the subcontractors and verify that completed work is to specification. The Commercial Director will oversee the Contract Manager(s) who will co-ordinate the delivery to site of goods and materials and on-hire plant/equipment ensuring that goods and equipment are checked on receipt and will pass Invoices and Delivery Notes to the Accounts Department for checking and payment.

The Contract Manager(s) will assess the value of the completed work as it is progressed, liaising with the site staff and client's representatives as appropriate to agree the interim valuations.

Managing subcontractors (including suppliers of goods and materials)

After the notification of the contract award the Contract Manager(s) using information provided by the Estimator(s) will discuss and agree which elements of work are to be subcontracted.

If necessary the arrangements will be discussed before or at the Handover Meeting, allowing the relevant Contract Manager(s) to start to plan and progress subcontract requirements in advance of start-on-site, and utilising those individuals or organisations included on the preferred suppliers list.

The Contract Manger(s) will, when it is practical, prepare an appraisal or comparison document detailing the subcontract requirements conditions and scope of works and prepare a "procurement schedule" specifically identifying long-lead-time items.

The necessary arrangements will be made by the Contract Manager(s) to facilitate access by the subcontractor's to site and to monitor their work.

The Contract Manager(s) will value the work, as interim valuations and progress the payment of the subcontractor's invoice by forwarding the data to the Commercial Director for approval using the relevant standard document(s).

Section 5 – Contract Management (Continued)

The Commercial Director will review the performance of the various subcontractors and suppliers at the end of their contract. When it is appropriate, (e.g. their performance is especially good or spectacularly bad) a Supplier's or Subcontractor's Performance Report will be completed and passed to the Office Manager for record purposes.

If a subcontractor or supplier has been used "on-probation" on the project and their performance has been such that it is appropriate, the Company should use them again then a Supplier's or Subcontractors when Performance Report will be raised to justify the subcontractor's inclusion on the List of Preferred Subcontractors/Suppliers.

Any shortcoming in performance will be dealt with by the appropriate Commercial Director and may lead to a subcontractor or supplier being cautioned or removed from the Company's preferred list following a consideration of the circumstances. This decision will normally be subject to endorsement by the Managing Director.

Monitoring Progress and Contract Review

The Contract Manager(s) will progress the programme of work as efficiently as possible reporting progress to the appropriate Director. This careful monitoring of the management of each contract will be exercised throughout its life-cycle to ensure, so far as is practical, that the contract management provides for client satisfaction, safety, punctuality and profitability.

A contract review will take place each month with the contracts manager and appropriate Director(s). To regularise the structure and format of these reviews, standard documents will be used as the agenda and also as the reporting mechanism.

Quality of Works

Prior to commencing the works, the Contracts Manager(s) will review the construction drawings and specification with the proposed site foreman to ensure that all parties are fully acquainted with the specification/drawing intent.

The site foreman or supervisor will ensure the works are installed in-line with the contract specification and monitor daily the quality and standard of workmanship.

The Contracts Manager at his regular site visit to review programme etc, will inspect the works to ensure that quality and workmanship are at the necessary standards.

In addition, it is company policy during the construction works, that a director of the company visits site to review progress, quality and client relationships.

Contract Cost Control

The original tender is broken down into various cost codes in line with the company's M&E groupings.

On contract award, a hand over meeting takes place with the designated contracts manager and estimators to review all the tender documents and changes leading up to the contract award.

Section 5 – Contract Management (Continued)

Contract target sheets are prepared and coded in-line with the estimates. As materials are ordered against the various codes, the target sheet is updated on a fortnightly basis to give the Contracts Manager an accurate picture on the costs.

In addition, the labour spend planned in line with the contract programme is prepared using company standard labour control sheets. These sheets are to be updated every 2/4 weeks subject to the fast track nature of the contract and this information is incorporated into the contract target sheet which is reviewed by the Directors at the monthly contracts meetings.

Completing the project and closing out the files

The Contract Manager(s) will, using an agreed “snagging list”, liaise with the client vis-à-vis the rectification of any defects, and will also liaise with the client during the contractual maintenance period so that all retentions, in due course, are released.

At the end of the contract subject to any outstanding defect liability the Contract Manager(s) will arrange for the Contract Records to be closed out by checking them for completeness, arranging for them to be stored, awaiting archiving and if it is appropriate, eventual destruction.

The appropriate Director will review with the Contract Manager(s) the Company’s overall performance, so far as the management of each contract is concerned so that any lessons may be learned and future performance improved.

THE CONTRACT FILING SYSTEM

During the management of a contract a range of records will be generated and therefore, to maintain a consistency of approach, the Company has adopted a simple multi-section filing system that will be used with all contracts. The Company’s policy will be to establish files in this format as soon as a contract has been awarded and for this format to be retained during the life of the contract.

The following Contract File Structure will be established and maintained:-

a) File 1

- Section - letters in
- Section - letters out
- Section - minutes/notes of meetings

b) File 2

- Section 4 - orders (now saved electronically)
- Section 5 - take-off sheets for ordering
- Section 6 - suppliers’ correspondence (to and from) including quotations all retained in alphabetical order (A-Z)

Section 5 – Contract Management (Continued)

c) File 3

- Section 7 - schedule of rates, bills of quantities and variations filed under a 1-20 index
- Section 8 - valuations
- Section 9 - minor project design calculations and quality assurances records
- Section 10 - enquiry/tender documentation

Note 1 Large projects may require an expansion of the files and in particular a duplication (or sub-division) of files 1 and 2

Note 2 On large projects or specific design projects a separate Design file will be created and held by the Design Department.