RIBA stage E

E 1 UNDERTAKE STAGE E TECHNICAL DESIGN AND CO-ORDINATION

1. DEFINITION

The RIBA Outline Plan of Work 2007 (amended 2008) defines Stage E as ‘Technical Design’, “Preparation of technical design(s) and specifications sufficient to co-ordinate components and elements of the project”

2. PURPOSE

The purpose of Stage E technical design and co-ordination is to develop the design to a stage where approval and agreement can be gained from the Project Board to proceed to Stages F, G and H, production information and tendering procedures.

Specifically it will include:

- Development of the approved Stage D Scheme Design, incorporating detailed information from the other consultants (e.g. structural, M&E etc.)
- Revised cost estimate
- Application for Building Warrant
- Preparation of a Stage E Report for sign off by the Project Board

3. PROCEDURE

The quality and clarity of the tender documentation is integral to the reliability of the tendered construction costs and ultimately the successful outcome of the project.

3.1 REVIEW

The regular Project Team meetings, instigated at the beginning of Stage D and arranged by the Project Management Team, will be continued.

Refer to procedure D1 undertake Stage D Design

These meetings, the following will be undertaken:

- Regular design reviews to coordinate the interface between individual elements of the design
- Value engineering exercises if required to ensure the design is progressed in accordance with project cost parameters
- Review of the construction drawings produced by the Design Team
3.2 DEVELOPMENT OF STAGE D DESIGN

The Design Team will develop the Stage D Design and outline specifications ensuring proposed phasing of works (if any) and the build strategy for the project are taken into account.

Typically this will involve the following:

- Confirming the functional relationships, areas, principal building systems and specialist systems (if any)
- Compiling detailed technical data relevant to the brief and each design option for analysis
- Identifying and preparing a schedule of all regulations and standards applicable to each of the proposed design solutions
- Establishing room data sheets for every room

Refer to procedure E2 Complete Room Data Sheets

The design deliverables for this stage will typically be under the following headings:

- Architectural
- Structural
- Mechanical and electrical engineering
- Health and Safety

Information produced will include:

- Site plan (1:500)
- Floor plans (1:100/1:50)
- Sections (1:100/1:50)
- Elevations (1:100/1:50)
- Operational flow diagrams
- Schedule of Accommodation
- Outline Specifications
- Risk Assessment

3.3 DEVELOPMENT OF FULL SPECIFICATION

The Design Team will produce a full specification of materials and workmanship. This ensures contractors are able to return comparable tenders and the price will reflect the construction quality required by the college.

3.4 CONSULTATIONS WITH BUILDING CONTROL

Although the submission for Building Warrant may be made at a later stage, the Design Team will undertake consultations with local Building Control officers before tender information is completed to ensure that all considerations are taken into account in the design.

3.5 PROJECT COSTS AND RISK ASSESSMENT

The QS will update the Project Costs and the Risk Register. At this stage the Design Team are also required to produce a summary of the residual construction risks that will form part of the tender and this will feed into the Risk Register.
3.6 STAGE E REPORT
At the end of Stage E, the Design Team will submit a Stage E report, recording the work undertaken during this stage. The QS will also prepare a Stage E cost report, which may be included the Design Team report or stand alone as separate report.

Refer to Procedure E7 Complete Stage E Report and submit for Project Board approval

4. OUTPUT

- Completed Stage E design
- Completed and approved Stage E report Project file ref: L.6.01
- Completed and approved Stage E cost plan Project file ref: L4.01