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1. Introduction

The purpose of this Guide is to provide a convenient summary of the context and the framework within which University capital building projects are planned and executed and of the process that starts with perception of a need and ends with review of a completed project. It is intended primarily for the departments and the divisions of the University on whose behalf projects are executed, but it is hoped that it will be helpful also to others concerned with projects.

All building works are subject to statutory and regulatory control. The Oxford Local Plan 2001-2016 sets out the framework for the City Council’s land-use policies. The University and the Colleges have contributed greatly to the city’s architectural richness. As in its academic work, the University seeks to achieve the highest standards in conservation and development of its estate.

The University’s programme of capital building projects is substantial. At 1 August 2008, the gross internal area of the University’s functional estate was approximately 550,000 square metres, an increase of 50% over 20 years. In 2007/08, there were 54 active projects and total expenditure was £82m. In order to manage the programme, control the associated risks, achieve value for money, satisfy funding requirements, ensure compliance with statutory and regulatory requirements, and make proper preparation for use and maintenance of premises, Council requires all capital building projects to be planned and executed within a single framework.

Section 2 describes the University framework and explains how projects are planned and funded. Section 3 outlines the statutory and regulatory context. Section 4 summarises the responsibilities of some of the parties involved in a project. Section 5 outlines the phases of a project. Section 6 gives information about the roles of consultants and contractors and outlines procurement methods. Section 7 contains pointers to documents referred to in the text.

2. University framework

2.1 Strategies and the Capital Plan

Departments and divisions periodically refine their academic and service strategies, and those strategies inform development of the University’s estate. Strategy VII (Space) in the University’s Strategic Plan for 2008/09 to 2012/13 specifies seven particular priorities for the development of the estate. Briefly, these concern: (a) making best use of available teaching facilities; (b) improving the overall condition of buildings and providing appropriate facilities through renewal, refurbishment, redevelopment, and disposal; (c) providing the means to achieve the objectives of the libraries and museums; (d) completing specific master-planning exercises and then implementing the plans; (e) improving the integration of college and University estates planning; (f) extending the stock of residential housing; and (g) reducing the environmental impact of the University’s activities.

The demand within the University for capital building projects generally exceeds the resources that are available, in particular land and funding. A process of coordination and competition is therefore needed to determine which projects can be brought to fruition. Each department articulates its aspirations and ranks its needs, each division determines intra-divisional priorities, and PRAC and Council determine inter-divisional priorities.¹

¹ For brevity, the term ‘department’ is used to refer to any academic department or faculty or any service unit, and the term ‘division’ to the corresponding parent body in the University’s governance structure.

² the Planning and Resource Allocation Committee

³ For ease of reading, this Guide treats the case when a project has a single sponsoring department; when a project involves more than one department, the process is modified in ways that are generally obvious.
The University’s Capital Plan lists the capital building projects (and other capital projects) that Council has decided should be developed and, if resources are available and other constraints are satisfied, carried to completion. The Plan is updated regularly. At a moment in time, it records for each project what work has been approved (for instance, proceed to planning permission or proceed to completion) and what expenditure has been approved for that work, including the sources of funding. Every project is subject to a series of progress reviews by those responsible for managing it, and large projects are subject in addition to reviews by PRAC and Council at various stages.

2.2 Financial Regulations

The primary purpose of the University’s Financial Regulations is to ensure the proper use of University financial resources in a manner that meets the University’s requirements for accountability, internal control, and management of financial risk, and satisfies any legal or financial obligation laid down by HM Revenue and Customs, HEFCE, or any other government agency.

Section 4.2 of the Regulations states that all non-research projects (capital or revenue) must be appraised, implemented, and monitored in accordance with the University’s Project Guide.

Section 1.5.1 specifies the authorities of office-holders to commit the University in contract. The Vice-Chancellor and Registrar each have authority in relation to any and every form of contract. The Director of Finance has authority in relation to contracts dealing with sales, purchases, investments, borrowings, commercial activities, research contracts, and the formation and operation of subsidiary, associated, and spin-out companies. The Director of Research Services has authority in relation to research and research-related contracts. The Director of Estates has authority in relation to contracts for the design, demolition, construction, alteration, repair, and maintenance of buildings. The Land Agent has authority in relation to contracts for the sale, purchase, leasing, licensing, and charging of real property. The Director of Legal Services has authority in relation to instruction of external lawyers. Heads of Division have authority in relation to contracts in the ordinary course of activities of their Divisions. Heads of Budgetary Units have authority to sign contracts that are in the course of the ordinary business of their Units and that involve only the funds over which they have delegated control. (Heads of Budgetary Units do not have authority to enter into any contract that falls within the remit of the Director of Finance, the Director of Research Services, the Director of Estates, the Land Agent, the Director of Legal Services, or Heads of Division.)

Section 1.5.2 specifies the financial limits on the authority to commit to levels of expenditure and the associated reporting requirements. For capital project expenditure there are four cases:

(1) If the project does not require University Capital Funding and the commitment is less than £500k, the Head of the Department sponsoring the project can approve the expenditure provided overall budgetary limits approved by PRAC are not exceeded.

(2) If the project does not require University Capital Funding and the commitment is less than £1m, the Head of the Division concerned can approve the expenditure provided overall budgetary limits approved by PRAC are not exceeded.

(3) If the commitment is less than £4m, PRAC can approve the expenditure on the recommendation of the Capital Steering Group (CSG). If the commitment is more than £1m, PRAC must report its decision to Council.

(4) For any project where the commitment is over £4m, Council can approve the expenditure on the recommendation of PRAC, acting in turn on the recommendation of CSG.
2.3 Funding

Funding for a capital building project normally comes from one or more of the following sources: general University funds, OUP, HEFCE, other grant-making bodies, benefactors, and departmental and divisional reserves. In the case of a refurbishment project, there is sometimes a capitalised contribution from recurrent funding allocated to the Estates Directorate for repairs and maintenance. The University has a Capital Fund. It is managed with the aim of achieving some capital growth but also ensuring that cash is available when it is needed. Section 1.5.2 of the Financial Regulations defines ‘University Capital Funding’ as those funds set out in the University’s Capital Plan including funds from OUP, HEFCE, and the University’s Capital Fund.

2.4 Consideration of proposals

Council determines the process by which proposals for capital building projects are considered. As explained in section 5, the first phase of a proposed project ends in consideration of a proposal to conduct a feasibility study, the second phase is execution of the study, and the third phase culminates in consideration of a project proposal. The precise means by which a feasibility proposal or a project proposal is considered depends on the scale of what is proposed and how it is envisaged that it will be funded. In addition to Council itself, PRAC, CSG, the Buildings and Estates Subcommittee (BESC), and the Divisional Boards take decisions or make recommendations relating to proposals. The University services most involved in the process are the Estates Directorate, the Finance Division, and the Planning and Resource Allocation Section (PRAS).

Purely for convenience in describing the process, projects are grouped into four categories and the following terminology is used:

(a) a **small intra-divisional project** is a project that requires no University Capital Funding and whose total cost is less than £1m;

(b) a **large intra-divisional project** is a project that requires no University Capital Funding and whose total cost is at least £1m;

(c) a **PRAC-approval project** is a project that requires University Capital Funding and whose total cost is less than £4m;

(d) a **Council-approval project** is a project that requires University Capital Funding and whose total cost is at least £4m.

The procedure used to consider a feasibility proposal or a project proposal is as follows.

(a) A proposal relating to a small intra-divisional project is considered in accordance with the procedures of the Division concerned and the financial limits set out in the Financial Regulations (see section 2.2).

(b) A proposal relating to a large intra-divisional project is first considered in accordance with the procedures of the Division concerned. If approved, it is then considered by CSG, which makes a recommendation to PRAC. If the cost of the project is less than £4m, PRAC decides whether to approve the proposal and reports its decision to Council. If the cost of the project is at least £4m, PRAC makes a recommendation to Council, which decides whether to approve the proposal.\(^4\)

\(^4\) The involvement of University committees ensures that the risk to the University as a whole is managed appropriately.
(c) CSG makes a recommendation to PRAC on a proposal relating to a PRAC-approval project and PRAC decides whether to approve the proposal. If the expenditure will exceed £1m, PRAC reports its decision to Council.

(d) CSG makes a recommendation to PRAC on a proposal relating to a Council-approval project. PRAC in turn makes a recommendation to Council, which decides whether to approve the proposal.

An approval to conduct a feasibility study will specify the permitted expenditure and the sources of funding. An approval following consideration of a project proposal can take several forms. It might permit the whole project to be carried out and specify the permitted expenditure and the sources of funding. Alternatively, the approval might permit further work to be carried out, for instance a scheme design to be drawn up, and specify the permitted expenditure and the sources of funding for that further work. Another possible outcome is for approval to be given to pursue fund-raising activity with the aim of bringing the project to fruition if that activity is successful.

Each project has a ‘passport’ that records the major decisions relating to the project. The passport is maintained by PRAS and is presented to committees when the project is reviewed or approval is sought to proceed to a further stage.

2.5 Allocations of sites and buildings

Allocation for University purposes of a site whose area exceeds 1,000 square metres or of a building whose total floor space exceeds 600 square metres is by means of approval of a resolution by Congregation; submissions for approval are forwarded by BESC to PRAC and then to Council. PRAC has delegated authority to approve, on the recommendation of BESC, allocations of sites and buildings below those thresholds. BESC itself has delegated authority to allocate floor space of up to 300 square metres. Divisional Boards have authority to reallocate floor space of up to 150 square metres provided the Director of Estates confirms that there are no high-priority bids for the kind and quantity of space in question from outside the Division.

In estimating the time required to meet a need, for instance to create accommodation for a new initiative or to refurbish facilities for a research group, it is necessary to bear in mind the timetables of the University’s planning and approval processes, the possible need to acquire land or buildings, the requirement to obtain all necessary consents (for instance planning), and the time needed to arrange and execute design and construction works. Further, a project sometimes involves a series of departmental relocations, each of which may be constrained by other factors. There is a shortage of space into which departments can move temporarily as the University’s functional estate is normally fully occupied and land and buildings for lease in Oxford are in short supply. Effective planning is achieved through regular interaction between departments, divisions, and the main services involved in planning in general and estates and capital planning in particular.

2.6 Committees and services

Council

Council is responsible to Congregation for the academic policy and strategic direction of the University, for the financial health of the institution, and for ensuring that all risk associated with the governance of the institution is recognised, assessed, and managed.

PRAC

Among the responsibilities of PRAC are to prepare and update annually the University’s five-year plan, informed by the plans of the Divisions and the services, to advise Council on the use of capital funds, and to consider advice from BESC on allocation of land and property in the functional estate.
CSG

CSG reviews feasibility proposals and proposals for capital projects on behalf of PRAC. It ensures in particular that plans use appropriate financial assumptions and space standards, have the approval of the relevant bodies, and are consistent both with the capital priorities of the division in question and with the Capital Plan.

BESC

BESC is responsible to PRAC for management and maintenance of the functional estate, except for matters that are the responsibility of Divisions, CSG, or other bodies. In particular, BESC: advises PRAC on the allocation of land and property in the functional estate; oversees the repairs and maintenance programmes undertaken by the Estates Directorate; makes recommendations to PRAC concerning the strategic development of the functional estate, taking into account institutional plans and environmental, planning, and heritage issues; and oversees the initiation and management of all major projects. The functional estate is defined as all University-owned, leased, or ‘embedded’ land and property occupied by University bodies.

Divisional Boards

Among the duties of the Divisional Boards are the development of strategic plans covering academic, financial, and physical-resource issues that affect their constituent units.

Estates Directorate

The Estates Directorate is responsible for managing University capital buildings projects and ensuring that they are brought to fruition. The Directorate interacts with departments and divisions to understand their needs and aspirations, advises on how they might be met, contributes to the planning process, participates in the groups that manage projects, appoints and oversees the work of project managers, design consultants, and building contractors, and ensures that statutory and regulatory requirements are met. The Directorate is also responsible for managing use of space and for repairs and maintenance, and throughout a capital building project attention is given to how a new or refurbished building will be used, serviced, and maintained. The Directorate maintains comprehensive records on all University buildings on its estate-management system Planon.

Planning and Resource Allocation Section (PRAS)

PRAS is responsible for coordinating the University’s planning activity, including that relating to capital building projects. PRAS provides the secretariat for PRAC and CSG.

Finance Division

The Finance Division is involved in financial planning for the programme of capital building projects and financial administration of projects including accounting, making payments, and claiming funds. Four parts of the Finance Division have specialist roles: the Land Agent’s Office is responsible for sale, purchase, leasing, licensing, and charging of real property by the University; the Purchasing Department works with the Estates Directorate to ensure that the University achieves value for money in purchase of goods and services; the Tax Section advises on the VAT and other taxation aspects of capital buildings projects; and the Insurance Office arranges insurance protection for University properties.

Development Office
The Development Office supports activities intended to assist in raising funds for capital building projects.

**Legal Services Office**

The Legal Services Office supplies legal advice in relation to capital building projects, including in respect of major benefactions, site acquisition, planning, insurance, tax, and construction and equipment procurement. The Office instructs specialist law firms where the necessary resources are not available in-house.

**Safety Office**

The general provisions of the Health and Safety at Work etc. Act 1974 impose a duty on all employers to ensure, as far as is reasonably practicable, the safety of their employees at work by maintaining safe plant, safe systems of work, and safe premises, and by ensuring adequate instruction, training and supervision. The University is also bound by the Act to ensure the safety of all other persons who might be affected by the University’s work activities. The University’s Health and Safety Management Committee determines the health and safety management strategy and policies necessary for the University to discharge its legal obligations regarding health and safety. The Safety Office advises on matters relating to health and safety, including the design, operation, and maintenance of buildings.

**Security Services (OUSS)**

OUSS advises on the security aspects of the design of new buildings and alterations to existing buildings. Such advice is important not only in protecting University property but also in satisfying insurance requirements. Security of a construction site is normally the responsibility of the main contractor, but works may be needed to maintain the security of neighbouring buildings.

**Computing Services (OUCS) and Telecommunications Department**

OUCS advises on development of the University’s primary computing infrastructure including the network backbone and its external connections. The Telecommunications Department advises on telecommunications cabling standards.

### 3. Wider context

All building works are subject to statutory and regulatory requirements (see 3.1-3.6). The Oxford Local Plan 2001-2016 sets out the framework for the City Council’s land-use policies (3.7). Environmental sustainability considerations have a significant and growing impact on how University buildings are designed, constructed, and used (3.8).

#### 3.1 Planning

Any proposed new building or change to the external appearance or use of an existing building normally requires planning consent from the local planning authority, which in most cases is Oxford City Council. Any application for planning consent relating to a capital building project must be approved by BESC and made by the Estates Directorate. The Director of Estates has delegated authority from BESC to submit non-contentious applications relating to minor works; the Director must report any such application to BESC. The Chairman of BESC is able to approve other applications between meetings of BESC following consultation with the parties involved and the Director of Estates; any such action must be reported to BESC.
3.2 Listed buildings

The List of Buildings of Special Architectural or Historic Interest is compiled by the Department for Culture, Media, and Sport under the provisions of the Planning (Listed Buildings and Conservation Areas) Act 1990. Each listed building is classified as Grade I (exceptional interest), Grade II* (particularly important and more than special interest), or Grade II (special interest). Listed building control is a type of planning control intended to prevent unrestricted demolition, alteration, or extension of a listed building without the express consent of the local planning authority or the Secretary of State.

3.3 Building control

The Building Regulations are made under powers provided in the Building Act 1984. Among other things, the Regulations specify the notification procedures that must be followed when building works are undertaken and requirements for aspects of building design in consideration of health and safety, energy conservation, and access to and use of buildings. The Estates Directorate advises whether building control approval is required, and if it is arranges for it to be obtained. Building control approval includes consideration of fire safety and the University Fire Officer must be involved in the process.

3.4 Health and safety

University Policy Statement S7/08 relates to the Construction (Design and Management) Regulations 2007 and forms part of the University’s Safety Policy. The CDM Regulations focus attention on the planning and management of construction projects and are intended to reduce risks to those who build, use, and maintain buildings. The Regulations specify duties of clients, CDM coordinators (who are consultants employed by clients), designers, contractors, and workers. They apply to (a) new building constructions, (b) new services installations, (c) alterations, maintenance, and renovations of buildings and services, (d) site clearance, and (e) demolition, and they cover planning, design, management, and execution of activities associated with (a)-(e).

In addition to consideration of fire safety as part of building control, the University Fire Officer must approve any proposal for a new building, an extension, or an alteration to a floor layout before any work commences. The Safety Office must approve any proposed building work in a laboratory or an animal facility before it commences.

3.5 Asbestos

The Control of Asbestos Regulations 2006 prohibit the importation, supply, and use of all forms of asbestos. They also include a ‘duty to manage asbestos’ in non-domestic premises. This involves in particular keeping a written record of the location and condition of asbestos-containing materials, assessing the risk of exposure to them, and putting into effect a plan to manage the risk. The Safety Office and the Estates Directorate ensure that the University’s obligations are discharged.

3.6 Site waste management plans

The Site Waste Management Plans Regulations 2008 are intended to improve the efficiency of use of building materials and to reduce fly-tipping. A client intending to carry out a construction project with an estimated cost of more than £300k must create a site waste management plan before work begins and must update it as the project proceeds. All waste transactions must be recorded. The plan should be reviewed at the end of the project and any deviations from planned arrangements should be recorded. The Estates Directorate ensures that the University meets its obligations.

3.7 The Oxford Local Plan 2001-2016
The Plan sets out the policies and proposals for future development and land use in Oxford for the period to 2016. The objective of the Plan is to promote measures to improve the local environment and to meet the needs of local communities. The Plan is implemented by Oxford City Council acting as Local Planning Authority in determining planning applications. The Planning and Compulsory Purchase Act 2004 requires all decisions on planning applications to be made in accordance with the Local Plan (or its replacement) unless material considerations indicate otherwise.

3.8 Environmental sustainability

The University’s Environmental Sustainability Policy, which was approved by Council in 2008, concerns the impacts of University activities in relation to energy, greenhouse gases, water, sustainable buildings, travel, waste, sustainable purchasing, and biodiversity. The procedures and processes followed during a capital building project should ensure that due account is taken of the likely environmental-sustainability impacts of the project. The Estates Directorate has prepared a Sustainable Buildings Guide for the University. It is issued to design teams and guides them in considering the potential environmental impact of designs. In addition, there are an increasing number of statutory environmental requirements associated with the design, construction, and use of buildings. Sustainability workshops are run for major projects and sustainability is considered at each project review point. Consultants and contractors must ensure compliance with statutory requirements. Several methods have been developed for assessing the likely environmental performance of new buildings during the design stage. They are applied from early in a project and guide improvement to the overall performance of the design. The most commonly used is the Building Research Establishment Environmental Assessment Method (BREEAM). Most University capital building projects are assessed using this method with a grading of ‘very good’ required and ‘excellent’ desirable. Oxford City Council has policies relating to environmental impact and a system for grading designs. If a design does not meet the required standards, it is likely that planning permission will be refused. For substantial projects, specialist consultants may be engaged to supplement the Estates Directorate’s specialist environmental-sustainability team.

4. Roles and responsibilities

Capital building projects vary widely in scale, complexity, procurement method, and cost. This diversity is reflected in the different structures and processes employed to bring individual projects to fruition. The summaries in this section and the next do not attempt to capture all of the associated variety but rather to convey the life of a project in general terms.

All capital building projects are procured and managed by the Estates Directorate. Projects are initiated and overseen by BESC. In addition, PRAC and Council review progress on major projects.

4.1 Feasibility steering groups and project sponsor groups

A project normally stems from identification of a need by a department. This prompts a discussion between the department and the division about the relationship between the need and departmental and divisional priorities and circumstances, and a discussion between the department and the Estates Directorate about how the need might be met. A Feasibility Steering Group (FSG) comprising representatives of the department, the division, and the Directorate is formed to develop a proposal to conduct a feasibility study. The FSG ensures that the department’s wishes are clearly defined and articulated and that other relevant factors are noted. If the feasibility proposal is approved, the FSG oversees the work of the project manager who is appointed by the Directorate to manage the design consultants engaged to carry out the study, and ensures that the study explores appropriate options.

The feasibility study may form the basis for a subsequent project proposal, developed by a Project Sponsor Group (PSG). If the proposal is approved, the PSG is appointed by BESC to oversee the
project. The composition of a particular PSG depends on the project, but among its members are a nominee of the department, a nominee of the division, and the Director of Estates or the Head of Capital Projects. A PSG may have other members, for instance a principal investigator or a person nominated by a benefactor.

A PSG is responsible for managing a project on behalf of the University. This includes responsibility for financial control of the project within the approved budget and for ensuring that the outcome satisfies the needs of those who will occupy and maintain the premises. The formal responsibilities of PSGs are set out in the Standing Orders for Functional Buildings and Sites.

4.2 Departmental project representatives

The department on whose behalf a project is being undertaken nominates a departmental project representative who serves as the primary point of contact with the department for the design team. For smaller projects, the departmental representative is usually also the departmental nominee on the PSG. In the case of a larger project, it is common for the departmental representative to report to the PSG and for the departmental nominee on the PSG to be the Head of the department.

When choosing its project representative, the department bears in mind the nature of the project and hence the experience required, the time commitment involved, the possible need to release the person concerned from other duties, and the requirement for the representative to be able to achieve consensus within the department and speak on behalf of the department in matters relating to the project. Depending on the complexity of the task and other constraints, the department may wish to engage outside assistance, for instance of a logistics specialist if the project will involve relocations. In the case of a large project, the department may wish to engage a person within the University who has experience of a similar project. The associated costs should be borne in mind when preparing the project proposal.

4.3 Project managers

The project manager (PM) is formally appointed by the Director of Estates and reports to the Head of Capital Projects. The PM is either a member of Estates Directorate staff or is supplied by a project-management consultancy. The selection of the PM takes into account the characteristics of the project and the general project workload. The PM is appointed at the feasibility stage and normally continues to the project itself. The PM assists the PSG in managing the project. The responsibilities of a PM are set out in detail in the Estates Directorate’s Handbook for Capital Building Projects. A brief general outline follows.

In conjunction with the Head of Capital Projects, the PM is responsible for selecting and procuring the services required for the project. The PM works closely with the departmental representative to establish the project brief and translate it into a preliminary specification that is refined as the project progresses. The PM devises the programme for the project’s various stages so that statutory approvals are achieved and construction work can proceed. The PM guides the PSG in considering options for procuring the construction work. The PM may act as the Contract Administrator for the building contract, in which case the PM is responsible for issuing formal notices. The PM is responsible for implementing a change-management process so that the PSG can ensure that costs stay within budget. The PM places orders and authorises payments. The PM makes regular reports to the PSG, the headlines from which are incorporated in regular capital project reports to BESC. At the end of the project, the PM ensures that documentation required for the management of the building and its integration into the estate is delivered. The PM maintains the project’s electronic and paper records. The PM ensures that stage sign-offs and final project reviews are conducted and that lessons learned from the project are recorded.
5. The phases of a project

A project can be viewed as having nine phases. Sections 5.1-5.9 outline, for each phase in turn (a) the purpose, (b) the main tasks to be performed, (c) the deliverables, and (d) the approvals required in order to proceed to the next phase. Most of the phases correspond to one or more Work Stages in the RIBA Outline Plan of Work. The earlier phases elaborate on RIBA Work Stages A and B to accord with the University’s planning process. The phases are: (1) initiation, (2) feasibility, (3) project proposal, (4) outline design, (5) scheme design, (6) detail design and contractor appointment, (7) construction, (8) occupation, and (9) review.

The content of some of the phases depends on the contractor-procurement method chosen (see section 6.3). For the purposes of this section, it is assumed that the method chosen is Two-Stage Design and Build. The time required for individual phases can vary greatly from one project to another. It can be influenced by a range of factors including the scale and complexity of the project, the number of departments with an interest in it, the procurement method, planning and other statutory requirements, and availability of funding.

Execution of a project is governed by the Financial Regulations and by the Standing Orders for University Functional Buildings and Sites. A project is subject to regular review by those directly responsible for managing it. This involves in particular maintenance of the project’s risk register and scrutiny of updated expenditure statements by the Project Sponsor Group. In addition, BESC receives regular reports on all projects, and PRAC and Council review progress on major projects. Further, officers of the Estates Directorate review progress at the end of each phase in preparation for the building being occupied, serviced, and maintained. The project manager maintains two records that are of particular importance: the project execution plan, which contains a detailed plan of work and a route-map for later stages of the project; and the project control sheet, which is a collection of reports and approvals and core project administration information.

5.1 Initiation

Purpose

To explore how a need identified by a department might be satisfied, to express requirements and constraints in a project initiation document that can serve as the basis for further work, and to secure approval and funding to carry out a feasibility study.

Tasks

The department informs the division and the Estates Directorate of its need. The department and the division discuss how the need relates to the academic (or service) strategies and the estates strategies of the department and the division, how any capital costs might be funded, and any potential impact on the department’s income and expenditure. The division might conduct a detailed examination of the financial implications of satisfying the need, taking account of the circumstances of the department and the division.

The Feasibility Steering Group (FSG) is formed. It comprises a representative of the department, a representative of the division, and a representative of the Estates Directorate.

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5 Royal Institute of British Architects

6 These phase names are intended to be easily intelligible. Several are different from the more technical names of RIBA Work Stages and the names used in the Capital Building Projects Handbook.
The project manager (PM) is appointed by the Estates Directorate. The PM in consultation with the FSG determines the funding required for a feasibility study and makes a preliminary estimate of the order of cost for the project as a whole.

The department, the division, the Estates Directorate, PRAS, and the Finance Division identify possible sources of funding for the feasibility study.

The PM in consultation with the FSG compiles the Project Initiation Document (PID). This outlines the academic or service strategy, the estates strategy, and the budgetary implications that form the basis for the study (PID Part A), the Feasibility Expenditure Approval (FEA) form (PID Part B), which sets out the funding requested for the study, and further technical information (PID Part C).

When the FSG has approved the PID, the project passport is created and the proposal to conduct the feasibility study (comprising Parts A and B of the PID) is put forward for consideration in accordance with the procedure described in section 2.4.

**Deliverables and approvals**

The project initiation document must be approved by the FSG.
The FEA form must be signed by the head of department, the head of division, and the Director of Estates.
CSG and PRAC as appropriate must approve the feasibility proposal in accordance with the procedure described in section 2.4.

**5.2 Feasibility**

**Purpose**

To investigate via a feasibility study how the need set out in the project initiation document might be satisfied, to identify one or more options, and to estimate the costs of implementing those options.

**Tasks**

The Finance Division executes the Oracle Financials set-up procedure for the feasibility study.

The PM arranges for the feasibility team (architect, mechanical and electrical engineer, and so on) to be appointed. This may be done within framework agreements. The appointments are for the feasibility study, but fees may also be quoted for further work in anticipation of the possibility that a subsequent project proposal might be approved.

The PM informs all relevant parties within the University that the feasibility study is being undertaken and collates their comments.

The feasibility team carries out the feasibility study in consultation with the FSG and others as appropriate and prepares the feasibility report. The report sets out options and may sketch preliminary designs and initial cost estimates.

**Deliverables and approvals**

The feasibility report must be approved by the FSG and OUED.

**5.3 Project proposal**

**Purpose**
To develop and present a project proposal, to identify funding for the project or determine a funding strategy, and to obtain approval for the project to be included in the University’s Capital Plan and for further work to be done.

**Tasks**

The Project Sponsor Group (PSG) is formed.

The departmental member of the PSG compiles the project proposal with assistance from the other members of the PSG, the PM, the Estates Directorate, the Finance Division, and PRAS. The proposal covers (i) academic (or service) case, (ii) estates case, (iii) capital funding case, and (iv) budgetary implications. Parts (i) and (ii) are textual, while parts (iii) and (iv) are numerical and involve completion of various forms, including the Project Expenditure Approval (PEA) form and part 1 of the Project VAT Review (PVR) form. The latter is used by the VAT team to provide VAT advice, including whether it would be beneficial to conduct the project via Oxford University Fixed Assets Ltd (OUFAL).

The project proposal thus explains how the project will contribute to achieving departmental, divisional, and University strategic goals, how the project relates to the University’s estates strategy, what the capital cost of the project is expected to be and how it is proposed that it will be funded, and how any revenue costs arising as a result of the project will be funded. In the case of a new building, the proposal contains in particular an estimate of the additional maintenance costs that will arise from the project, based on an approximate area rate for a similar existing University building.

Some building projects have a major equipment element, for instance accommodation of scientific instruments. In such cases, in order to ensure coherence between the building-related and equipment-related parts of the project, the PSG is appropriately constituted to oversee the whole project, and all parties concerned must agree the funding strategy.

When the PSG has approved the project proposal, it is put forward for consideration in accordance with the procedure described in section 2.4.

If the project proposal is approved, the project is included in the University’s Capital Plan; and if appropriate, a case is prepared for consideration by the OUFAL Board.

If the project is approved, the PSG is appointed by BESC and the Finance Division sets up the project account on Oracle Financials.

**Deliverables and approvals**

The project proposal must be approved by the PSG.

The PEA must be signed by the head of department, the head of division, the Director of Estates, and any other parties that would contribute funding to the project.

The PVR must be approved by the VAT Team and, if relevant, by OUFAL.

CSG, PRAC, and Council as appropriate must approve the project proposal in accordance with the procedure described in section 2.4.

If relevant, the proposal must be approved by the OUFAL Board.

**5.4 Outline design**

**Purpose**

To prepare and obtain approval of a report (corresponding to RIBA Stage C) containing an outline design and a preliminary cost plan.
Tasks

The PM arranges for the design team to be appointed. The team may be carried over from the feasibility study with appointment possibly based on a fee quotation given at that time, or there may be a fresh tender process. The composition of the team depends on the nature of the project. With the advice of the team, the PSG begins to consider what the most appropriate contractor-procurement method would be. Starting from the feasibility report, the architect considers aesthetic aspects of the design and draws up a space plan for the building, taking account of the department’s wishes, site issues, statutory requirements, and Local Plan considerations. The team prepares the full outline design, which includes outline proposals for structural systems and building-services systems and outline specifications. The team must take account of the design philosophies of the Estates Directorate and the Safety Office, which state requirements and preferences relating to work on University buildings. In this and subsequent phases, the design team develops the site waste-management plan and carries out the required work relating to sustainability and energy conservation. The team prepares the Stage C report.

Deliverables and approvals

The Stage C report must be approved by the PSG and OUED.

5.5 Scheme design

Purpose

To prepare and obtain approval of a report (corresponding to RIBA Stage D) containing a scheme design that finalises the project requirements and a precise cost plan. To prepare applications for planning permission and listed building consent if required.

Tasks

The design team develops the outline design into a scheme design, which is a scheme statement of the University’s requirements, including those relating to functional layouts, structural systems, and building-services systems. The team refines the outline specifications and the cost estimates and ensures compliance with Building Regulations. The team, led by the architect and in conjunction with OUED officers, interacts with the local planning authority and prepares planning submissions if required. The team prepares the Stage D report. Under the Two-Stage Design and Build option, the main contractor is normally appointed at some point during Stage D following a tender exercise. The contractor and the design team develop an understanding of the likely programme and construction costs.

Deliverables and approvals

The Stage D report must be approved by the PSG and OUED. Planning and listed building consent applications, if required, must be approved by BESC.

5.6 Detail design and contractor appointment

Purpose

To prepare the University’s requirements, to agree the second-stage contract price, and to enter into a contract for the works.

Tasks
The design team in consultation with the contractor develops the scheme design to a detail design and working drawings that form the University’s requirements. The subcontractor packages are developed and tendered. The stage-one tender and the schedule of agreed subcontractor costs form the basis for the stage-two contract negotiations. The PSG reviews the contractor’s proposal against the Stage D cost plan, the further design work completed, and any remaining design-development uncertainty. If the PSG determines that the contractor’s proposal is acceptable, the second-stage contract is entered into. Depending on the circumstances, the University’s design team may be novated to the contractor to carry out any remaining design development. Alternatively, the design team may oversee further design work by design consultants engaged by the contractor. The contractor may begin enabling works and work on early packages but in such a way that should the second-stage contract negotiation fail, the works can be handed over. If the second-stage negotiation does fail, the construction contract is tendered and an alternative contractor is appointed.

**Deliverables and approvals**

The University’s requirements must be approved by the PSG and OUED.

### 5.7 Construction

**Purpose**

To execute the construction contract to practical completion.

**Tasks**

The PSG determines the process by which any question of possible variation to the construction contract is to be considered. The site is handed over to the contractor. The contractor and subcontractors carry out the works. The PM works alongside them and reports regularly to the PSG. The PSG monitors progress and expenditure. The PM collates documents associated with and arising from the works, including health and safety files, Building Regulations certificates, operation and maintenance manuals, testing and commissioning certificates, and completion reports. The design consultants carry out regular inspections of the works, draw up a snagging list, and if appropriate report to the PM that a certificate of practical completion can be issued. The building manager receives training on the building’s systems. The PM ensures that all pre-handover inspections are undertaken and that all requirements related to practical completion are met.

**Deliverables and approvals**

The Director of Estates must approve the works for practical completion. The Safety Office must approve the provision and function of life safety systems prior to occupation.

### 5.8 Occupation

**Purpose**

To bring the building into operation, to remedy any defects in the construction, and to conduct an initial review of the project.

**Tasks**

When a certificate of practical completion is issued, the works are handed back to the University and the University assumes responsibility for insurance (if it has not already done so). The building is brought into service and the department occupies it. On practical completion, half of the retention (a proportion of the contract sum) is released to the contractor and the defects-liability period begins. The contractor remedies snags during that period and the remainder of the retention is released at the
end of it provided the required certificates of making good are issued. The PSG undertakes a post-project evaluation during the defects-liability period. At the end of that period, the Finance Division ensures that funding is received, that the project’s finances are reconciled, that any unspent funds are transferred to appropriate accounts, that the final project accounts are drawn up, and that the project is closed down on Oracle Financials. The Estates Directorate adds planned maintenance data to Planon. The PM ensures that the electronic project record is completed and passes all project documents to the Estates Directorate’s archive.

Deliverables and approvals

The PSG and the Director of Estates must approve the project’s final accounts. The PSG must approve the post-project review report. BESC must consider the post-project review report.

5.9 Review

Purpose

To review the project and draw any conclusions that can assist the University in future projects.

Tasks

After the end of the defects-liability period, the Estates Directorate arranges a post-occupancy review. The review considers whether the project has satisfied the need that was identified at the outset of the project and whether planning and execution of the project were satisfactory. The report also discusses any noteworthy matters that arose during the project.

Deliverables and approvals

The PSG must approve the post-occupancy review report. BESC must consider the post-occupancy review report.

6. Consultants, contractors, and procurement

6.1 Consultants

A wide range of professional services is needed to carry out a capital building project. It is essential that roles and responsibilities are clearly defined and that there is good coordination among the members of the professional team. Depending on the specific skills required for a project and availability, some of the roles are performed by University staff and others by specialist consultants and contractors. Almost every project will require several specialist design consultants.

The University has Framework Agreements for provision of certain services. These agreements were established through formal tender exercises. They are general appointment contracts that allow services to be procured from certain consultants for specific projects on the basis of information provided by the consultants in the framework tendering exercises and project-specific requirements. Such agreements allow the University to reduce costs, develop productive long-term relationships with consultants informed by mutual understanding, and ensure consistent performance or address performance difficulties if they arise.

Design consultants

The principal design consultant is the Architect, who leads the design team through the project’s various stages. Primary responsibilities of the Architect are the aesthetic appearance of the building,
obtaining statutory approvals, and designing an efficient and effective space layout that meets the needs of the client department. The University has a small panel of architects, selected via a tender process, who may be invited to bid for smaller refurbishment projects. But the University does not have a general Framework Agreement for architects. Rather, a wide range of architects is employed, with individual appointments taking account of architectural style, relevant experience, and ability to lead the design team so that the different disciplines are fully coordinated and the completed design is delivered on time and within budget. The Architect is appointed through a tendering process and the final selection may involve an architectural competition.

Most projects also require a Civil/Structural Engineer and a Services Engineer. Their role is to develop, with the Architect, optimal engineering designs that respond to the evolving architectural vision. From early in the project, both engineering disciplines develop a range of possible designs that are then reviewed by the design team with due regard to cost and programme implications. The Civil/Structural Engineer advises on the structural form of the building, materials, underground drainage, and compliance with construction standards. The Services Engineer designs the mechanical and electrical services, which can include heating and cooling systems, water supplies, electrical supply, lighting and power, fire protection, and above-ground drainage. The Services Engineer normally negotiates with the service-supply companies about connections to new buildings. Coordination between the structure and the services distribution is critical and is a joint responsibility of the Civil/Structural and Services Engineers.

Some projects require also more specialist expertise, such as Fire Consultants, Acoustic Consultants, Cladding Consultants, and Highways Engineers. Integration of the work of such specialists is the responsibility of the Architect and they are often appointed as sub-consultants of the Architect. The design consultants normally have a continuing responsibility beyond the design stage, including site inspections during the construction phase and final sign-off at practical completion of the construction. The consultants are also required to provide accurate as-built record drawings and associated operational and maintenance information.

**Quantity surveyors (cost consultants)**

The Quantity Surveyor (QS) is an independent cost advisor to the client of a project. The QS is appointed at the feasibility stage to give order-of-cost budgets for the proposed development. The QS works with the design team to prepare more accurate cost estimates for the construction as the design becomes more detailed. The QS is active in tendering for the construction work, in particular coordinating the tender information and analysing the returns from a financial perspective. During the construction phase, the QS is responsible for valuing the work as it proceeds so as to verify the amount payable to the contractor on a monthly basis. The QS negotiates with the contractor over the cost of any variations and recommends the final-account figure on completion. Throughout the project, the QS provides cost information to assist the client’s decision-making, particularly when there are alternative courses of action or changes are proposed. On occasion, the QS rather than the Project Manager may serve as the Contract Administrator.

**CDM coordinators**

Under the CDM Regulations[^7], the client is required to appoint a CDM co-ordinator who is responsible for making arrangements for managing the health and safety aspects of the development. This includes checking the competence of the design team, reviewing the design from ‘buildability’ and ongoing-operational perspectives, and ensuring that health and safety information relating to sites and buildings is available to the design team and that health and safety plans, both pre- and post-construction, are prepared to appropriate standards. The CDM Coordinator also ensures that a health

[^7]: Construction (Design and Management) Regulations; see section 3.4
and safety file is produced at the end of the project for use by those responsible for maintaining or modifying the building.

Planning consultants

Most construction projects undertaken by the University require formal planning approval, and projects involving listed parts of the estate require also listed building consent. In straightforward cases, the Architect with the advice of the Estates Directorate will handle the negotiation with the local planning authority and the subsequent submissions. In more complex or sensitive cases, a Planning Consultant may be engaged to advise the project team from an early stage on Local Plan constraints and to lead the early discussions with the local authority. The Planning Consultant prepares the formal planning application, including the design and access statement and any other supporting documentation. The Planning Consultant may recommend further specialist support from for example an Ecology Consultant or an Archaeological Consultant.

Approved inspectors

To ensure compliance with Building Regulations, either the members of the design team submit their designs and calculations to the local authority for approval or the client employs an Approved Inspector. The Inspector has a legal obligation to ensure compliance with the Regulations. On large projects, the inclusion of an Inspector in the project team is helpful in developing designs that are both efficient and compliant. The University Fire Officer must be involved in meetings with the Fire Authority arranged by the Inspector or the design team.

6.2 Contractors

Main contractors

Construction on major capital building projects is done through a Main Contractor appointed via a tendering process. As explained in section 6.3, under some contractor-procurement options, the main contractor also provides construction advice during the design phase. The formal contract between the University and the main contractor consists of a University standard precedent based on the JCT\(^8\) suite of contracts with amendments drafted by the University’s construction lawyers. Under the contract, the main contractor is responsible for completing the building works to the agreed design and specification within a fixed period known as the contract programme. When the site is handed to the main contractor, it assumes responsibility for security and safety on the site and insurance of the building as it is being built. During the construction period, the University’s quantity surveyor assesses the value of the works completed and determines the monthly payment due to the contractor. When the works are completed, a Certificate of Practical Completion is issued by the contract administrator and the University resumes responsibility for safety, security, and insurance. At practical completion (PC) there are likely to be some minor outstanding works (snags). These are scheduled by the design team and should be completed by the main contractor in a timely manner. At PC, all record information and the Health and Safety file, including the operations manual, must be made available to the University. Any necessary training of the building management team should be completed before PC. The year after PC is the Defects Liability Period and during this time the contractor is expected to rectify any defects that become apparent. At the end of the 12 months, provided no defects remains un-rectified a Making Good Defects certificate is issued and the final payment is made to the main contractor. Any defect that shows itself after this point is a latent defect. The main contractor is responsible for rectifying genuine latent defects that come to light. If necessary, the University has recourse to legal action under the contract, provided the problem shows itself within 12 years (normally) from PC.

\(^8\) Joint Contracts Tribunal; see section 6.3
Subcontractors

Although the University’s contract is with the main contractor, most of the physical work is done by subcontractors. Some main contractors do have the capability to undertake elements of the construction using their direct labour, but that is rare. The main contractor usually provides the specialist management expertise, site-engineering knowledge, and support services needed to undertake a project. Subcontractors are companies separate from the main contractor who generally specialise in the supply and installation of certain elements of the building, such as foundations, roofing, or mechanical and electrical services, the last normally being the largest subcontract package. The main contractor normally selects subcontractors via a tender process, and under the University’s preferred two-stage procurement method (see section 6.3), this is normally done jointly with the University’s project team. Some specialist subcontractors, particularly cladding and specialist-foundation subcontractors, are consulted during the design stage because they need to take on the detail design work on those elements. When subcontractors do carry out elements of the detail design, the University obtains a design warranty from them.

6.3 Procurement

Procurement is the process by which goods and services are obtained. Procurement of suitable consultants and contractors is crucial to the success of a project. The Standing Orders for Functional Buildings and Sites specify requirements and authorities relating to tendering and award of contracts.

Consultant procurement

Selection of an architect is normally based on the outcome of a design competition and fee proposals. Interaction with potential appointees during the selection process is vital. The ability to lead the design team, to work collaboratively, to provide high-quality team members, and to understand the University’s (sometimes complex) objectives is often at least as important as the initial design proposals. For other engineering design disciplines, consultants are appointed either through a framework agreement or via a separate tender exercise. When selected, consultants are formally appointed using the University’s standard letters of appointment. These documents ensure in particular that the University and the consultants are covered by the consultant’s insurance arrangements.

Construction procurement

There are several different ways in which construction can be procured. It is necessary to consider the most appropriate method for a particular project from an early stage in the process because some methods require early involvement of construction professionals. The Estates Directorate and the project team evaluate the options for the project and make a recommendation to the PSG and if necessary BESC. The different methods allocate risk and responsibility in different ways.

There are several standard families of construction contract, including the ICE (Institution of Civil Engineers), the NEC (New Engineering Contract), the FIDIC (International Federation of Consulting Engineers), and JCT (Joint Contracts Tribunal). Some are used for particular types of work; for instance, the ICE contract is frequently used for highway works. The University normally uses the JCT suite of contracts for its construction projects. It comprises a range of standard-form contracts for works of different kind, value, and scope. The University’s construction lawyers have created a suite of standard amendments to the JCT standard form contracts, and these are included in all University project contracts. The purpose of the amendments is to ensure that the contracts provide sufficient protection for the University.

Procurement options
There are six main procurement options: Traditional Lump Sum, Traditional Lump Sum (Two Stage), Design and Build, Design and Build (Two Stage), Management Contract, and Construction Management. Important factors when weighing the options are matters relating to the programme, the complexity of the building design, the complexity of the construction, the need to ensure effective transfer of risk, and the need to retain sufficient flexibility to be able to respond to changes in requirements. Detailed review of options is often structured by the following considerations:

(i) The procurement option and the packaging of the various elements of the development should provide a good degree of cost security before there is any contractual commitment. In general, the cost of any works that remain unsecured when contractual commitment is made should be minimised and any inherent risk should be balanced against the potential to achieve reduction in overall construction costs.

(ii) Security of the programme is normally important and the procurement option may need to allow for a phased handover. The option should allow sufficient time for production of high-quality, comprehensive design information so as to avoid unnecessary cost risk in tendered prices and to allow effective value engineering before contract commitment.

(iii) It is usually necessary to be able to respond to changes in client needs as design proceeds.

(iv) A high-quality outcome is normally required, so the option must allow the University to influence and control the appearance and the quality of the building.

(v) Risks specific to the construction process should be transferred to the contractor and should be clearly identified to avoid unnecessary cost premiums.

(vi) The option should achieve value for money but also, as noted above, cost security.

(vii) Many University projects are complex and benefit from an option that allows early involvement of specialist contractors or suppliers.

**Traditional Lump Sum**

The main contractor is appointed following a competitive tendering process based on measured bills of quantities using fully developed and coordinated specifications and drawings provided by the design team. The main contractor sublets elements of the work to subcontractors. Any variations to the design are valued on the basis of the tendered rates in the bills of quantities. Alternatively, tenders may be obtained solely on the basis of specification and drawings (‘without quantities’) and in that case the mechanism for pricing variations is different.

The main benefits of the Traditional Lump Sum option are ability to control costs and influence design. All of the tenders are based on the same detailed design information, the bills of quantities provide detailed pricing information and hence aid cost control, the University has total control over the design and the quality of work through the project team, and there is no early commitment to a single contractor.

The main disadvantages are that time may be 'lost' because it is necessary to complete the design before the contract is let, the University does not benefit from contractor expertise during the design phase, the University may be exposed to additional costs and claims if the tender design is insufficient or changes during construction or if the contractor is disrupted by the client or the professional team, and the arrangement can promote an adversarial working environment.

**Traditional Lump Sum (Two Stage)**
Early in the design process, the University invites competitive tenders based on preliminaries plus overheads and profit, possibly with a schedule of rates against measured approximate quantities for the various elements of construction works. The successful contractor is appointed for the first stage to assist development of the design by providing construction and ‘buildability’ advice. During the first stage, the price for the second-stage construction works is negotiated based on the tendered information and a joint open-book tendered sub-contract figure. Other aspects of the two-stage option are similar to the Traditional Lump Sum option.

The main additional benefit of the Two-Stage Traditional Lump Sum option is the integration of construction expertise at an early stage. The main disadvantage is that protracted second-stage negotiation can diminish the benefits of early appointment and can affect the ability to achieve the most competitive price.

**Design and Build**

Competitive tenders are obtained on the basis of a detailed statement of the University’s requirements. The form of those requirements can vary from a simple performance specification and sketch scheme drawings to full working drawings. The contractor may be required to employ the University’s professional team, excluding the Quantity Surveyor and the CDM Coordinator, for the construction phase. The tenders are fixed lump sums and the price changes only if the University’s requirements change.

The Design and Build option offers cost and performance certainty provided the University’s requirements do not change. Competitive tenders are obtained. Responsibility is clearly defined and lies wholly with the contractor, which aids coordination between design and construction teams and reduces the risk of disputes. The contractor’s resources and expertise in planning and ‘buildability’ are available during design, and provided the University’s requirements are adequate, design and some construction can proceed in parallel.

Drawbacks of the option are that it can be difficult to compare tender submissions if the University’s requirements are relatively open, and post-contract variations will carry cost penalties because there is no solid basis for accurate independent valuation of them. The specification may suffer as contractors seek to offer the lowest price. The University has no direct control over the contractor’s performance, and so careful monitoring is necessary.

**Design and Build (Two Stage)**

The contractor is selected through a first-stage tender process, normally at RIBA Stage D, to secure construction expertise during the work on the scheme design. The tender criteria are preliminaries plus overhead and profit, relevant experience, and the quality of the team offered for the project. The scheme design is then tendered to the subcontract market on an open-book basis. The second-stage contract figure is negotiated based on the first-stage tender and the subcontract tenders, and it includes a risk premium for any outstanding design-development work. The Design and Build contract is then placed with the contractor, with the University’s requirements being the jointly developed design. The University’s design consultants are normally novated to the contractor at this stage to oversee the remaining phases of the project and carry out any further design work required. Novation introduces a potential conflict of interest for the University’s design consultants, which is addressed in the novation agreement.

The additional benefits of the Two-Stage Design and Build option are early availability of ‘buildability’ and planning expertise, assistance in managing information relating to timing and quality of design, and potential to sub-let subcontracts early if the programme requires it.

The main drawback is the early commitment to a single contractor and the associated possibilities of delay over the second-stage tender and indeed that a re-tender exercise may be required.
Management contracting

A Management Contractor is appointed on the basis of a competitively tendered lump sum management fee to work alongside the professional team and manage the construction process. The Management Contractor tenders and organises direct subcontracts for packages of work on an open-book basis as the professional team develops the design. Although the Management Contractor is responsible for the programme, the preliminaries, and the quality, the construction-cost risk remains with the University.

The Management Contracting option offers clear definition of responsibility, control over design and quality, and some flexibility to make changes. It allows early-stage integration of design and construction expertise, promotes cooperation between designers and contractors, and permits some early construction works.

Drawbacks are that the University retains cost risk, there is a lack of price certainty until all of the works are tendered, and the Management Contractor is not responsible for design management.

Construction Management

A Construction Manager is appointed by tender as part of the professional team to manage the construction process. The professional team and the Construction Manager develop the design, and the Construction Manager organises subcontracts for packages of work that are placed by the University. To avoid duplication, it is necessary to define the services required and the management fee carefully.

The Construction Management option offers a single point of contact for the University and the design team, control over design and quality, and some flexibility to make changes. It allows early-stage integration of design and construction expertise and permits some early construction works.

Drawbacks are that the risk, including in respect of any disputes, lies mainly with the University, and that there is a lack of price certainty until all of the works are tendered.

The University’s preferred procurement option

The University’s preferred option is Design and Build. There are substantial benefits in transferring design and construction risk to the contractor at the right moment. The timing depends on the complexity of the project and the degree of control that is required. For more complex new-build projects where design certainty is required and the University’s requirement may change as the design evolves, Two-Stage Design and Build offers risk transfer after full development of a design that has benefitted from integration of construction expertise.

For smaller projects where the design can be completed at a relatively early stage, there is often commercial benefit in adopting the single-stage Traditional Lump Sum option and assuming the design-development risk. This option is particularly appropriate for refurbishment projects and works to listed buildings where a contractor’s premium for taking design-development risk (deriving from uncertainty) may be substantial. It may be advantageous for the University to manage a collection of such risks.

Both Management Contracting and Construction Management leave the bulk of the risk with the client rather than transferring it to contractors who are better placed to manage it. These options have become less used in the industry over time and are rarely employed by the University. Oxford University Fixed Assets Ltd (OUFAL)

The treatment of value added tax (VAT) on capital building projects is complex. The VAT team in the Finance Division provides specialist advice to the project team on how to take advantage of VAT opportunities. For many projects, the University will be liable to pay VAT on design costs and construction costs. But if, to give an example, a new building is to be used solely for charity-funded research, the payments to the main contractor may be zero-rated. This does not apply, however, to the payments to the design consultants. OUFAL is a wholly owned subsidiary company. The University is able to enter into a single design-and-build contract with OUFAL and thereby save VAT on consultants’ fees to the same degree as on contractor’s fees.

7. References and directory

University framework

Strategic Plan 2008/09 – 2012/13
http://www.admin.ox.ac.uk/pra/planningcycle/strategicplan.pdf

Financial Regulations
http://www.admin.ox.ac.uk/finance/finregs_08.shtml

University Policy Statement S7/08
http://www.admin.ox.ac.uk/safety/ups0708.shtml

Environmental Sustainability Policy
http://www.admin.ox.ac.uk/estates/environment/envpol08.pdf

Standing Orders for University Functional Buildings and Sites
http://www.admin.ox.ac.uk/estates/oxonly/greybk05.shtml

Wider context

Oxford Local Plan 2001-2016
http://www.oxford.gov.uk/planning/localplan.cfm

Oxford City Council
http://www.oxford.gov.uk/

List of Buildings of Special Architectural of Historic Interest
http://www.culture.gov.uk/what_we_do/historic_environment/3330.aspx/

Building Regulations
http://www.communities.gov.uk/planningandbuilding/buildingregulations/

Construction (Design and Management) Regulations
http://www.hse.gov.uk/construction/cdm.htm

Control of Asbestos Regulations
http://www.hse.gov.uk/asbestos/regulations.htm

Site Waste Management Plans Regulations
http://www.opsi.gov.uk/si/si2008/uksi_20080314_en_1

Royal Institute of British Architects Outline Plan of Work