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Inception

Stage checklist

Key processes:	Project need Project manager selection Project mandate Environmental mandate BIM mandate
Key objective:	'What is the need?'
Key deliverables:	Project mandate (project initiation document)
Key resources:	Client team Project manager

Stage process and outcomes

Inception is the initial stage of the development process; it is a transition between the client's strategic business decision making and the implementation of a project. The stage confirms a need, either business or social, that requires some form of capital development and concludes with the client making a decision to proceed with a detailed appraisal of the viability of the development.

Principally this is a client-led process, but depending on the nature of the client and the complexity of determining the client's requirements it may involve the services of management consultants or a professional adviser and these may be in-house or external to the client's organisation.

Outcomes:

- Statement of the key business objectives, project mandate and constraints
- Statement of an environmental mandate
- Outline of BIM strategy
- Definition of the project management structure
- Approval to proceed to the feasibility stage
- Appointment of the project manager

The client

Client obligations and responsibilities

The client organisation will need to ascertain what the needs and objectives are that the project is aiming to satisfy and how the project fits in with their strategic objectives.

The client organisation will also need to establish that it has the resources to develop and deliver the project, including articulating 'vision' and the 'need' into tangible strategies and objectives as well as understanding and delivering its responsibilities and obligations as a client. Having determined the degree of their involvement in the development of the project the client will need to review the extent of external support required.

Client project objectives

The main objective at this stage for the client is to make the decision to invest in a construction or development project. The client should have prepared a project mandate (capital expenditure programme) which will evolve into a business case for the project involving careful analysis of its business, organisation, present facilities and future needs. Experienced clients may have the necessary expertise to prepare their project mandate themselves. Less experienced clients may need help. Many project managers are able to contribute to this process. This process will result in a project-specific statement of need. The client's objective will be to obtain a totally functional facility, which satisfies this need and must not be confused with the project objectives, which will be developed later from the statement of need.

A sound project mandate will:

- be driven by needs
- be based on sound information and reasonable estimation
- contain rational processes
- be aware of the risks associated
- contain flexibility
- maximise the scope of obtaining best value from resources
- utilise previous experience
- incorporate sustainability cost-effectively

Client engagement: Internal team

Investment decision maker: This is typically a corporate team of senior managers and/or directors who review the potential project and monitors the progress. However, the team seldom is involved directly in the project process.

Project sponsor: Typically a senior person in the client's organisation, acting as the focal point for key decisions about progress and variations. The project sponsor has to possess the skills to lead and manage the client role, have the authority to take day-to-day decisions and have access to people who are making key decisions.

Client's advisor: The project sponsor can appoint an independent client advisor (also referred to as construction advisor or project advisor or independent client advisor) who will provide professional advice in determining the necessity of construction and means or procurement, if necessary. If advice is taken from a consultant or a contractor, those organisations have a vested interest not only in confirming the client's need, but also in selling their services and products.

The client advisor can assist with:

- project mandate and business case development (see ‘Feasibility’ stage)
- investment appraisal
- designing and planning for sustainability
- understanding the need for a project
- deciding the type of project that meets the need
- generating and appraising options (when appropriate)
- selecting an appropriate option (when available)
- risk assessment (when appropriate)
- advising the client on the choice of procurement route
- selecting and appointing the project team
- measuring and monitoring performance (when appropriate)

The client advisor should understand the objectives and requirements of the client but should remain independent and objective in providing advice directly to the client. Other areas where the client may have sought independent advice include chartered accounting, tax and legal aspects, market research, town planning, chartered surveying and investment banking.

Project manager

Project managers can come from a variety of backgrounds, but all will need to have the necessary skills and competencies to manage all aspects of a project from inception to occupation. This role may be fulfilled by a member of the client’s organisation or be an external appointment.

Project manager’s objectives

The project manager, both acting on behalf of, and representing the client, has the duty of ‘providing a cost-effective and independent service, selecting, correlating, integrating and managing different disciplines and expertise, to satisfy the objectives and provisions of the project brief from inception to completion. The service provided must be to the client’s satisfaction, safeguard his interests at all times, and, where possible, give consideration to the needs of the eventual user of the facility’.

The key role of the project manager is to motivate, manage, coordinate and maintain the morale of the whole project team. This leadership function is essentially about managing people and its importance cannot be overstated. A familiarity with all the other tools and techniques of project management will not compensate for shortcomings in this vital area. Further guidance on the leadership aspect of the project manager’s role has been provided in Briefing Note 1.01 at the end of this section.

In dealing with the project team, the project manager has an obligation to recognise and respect the professional codes of the other disciplines and, in particular, the responsibilities of all disciplines to society, the environment and each other. There are differences in the levels of responsibility, authority and job title of the individual responsible for the project, and the terms project manager, project coordinator and project administrator are all widely used.

It is essential, in order to ensure an effective and cost-effective service, that the project should be under the direction and control of a competent practitioner with a

proven project management track record developed from a construction industry-related professional discipline. This person is designated the project manager and is to be appointed by the client with full responsibility for the project. Having delegated powers at inception, the project manager may exercise, in the closest association with the project team, an executive role throughout the project with appropriate input from the client.

Project manager's duties

The duties of a project manager will vary depending on the client's expertise and requirements, the nature of the project, the timing of the appointment and similar factors. If the client is inexperienced in construction, the project manager may be required to develop his own brief. Whatever the project manager's specific duties in relation to the various stages of a project, there is the continuous duty of exercising control of project time, cost and performance. Such control is achieved through forward thinking and the provision of good information as the basis for decisions for both the project manager and the client. A matrix correlating suggested project management duties and client's requirements is given in Table 1.1.

An example of typical terms of engagement for a project manager is outlined in Briefing Note 1.02. It will be subject to modifications to reflect the client's objectives, the nature of the project and contractual requirements.

The term 'project coordinator' is applied where the responsibility and authority embrace only part of the project, for example, pre-construction, construction and handover/migration stages. (For professional indemnity insurance purposes a distinction is made between project management and project coordination. When the project manager appoints other consultants the service is defined as project management and when the client appoints other consultants the service is defined as project coordination.)

Project manager's appointment

It is advisable to appoint the project manager at the inception stage so that the project manager can advise and become involved in the option appraisal process. This should ensure professional, competent management coordination, monitoring and controlling of the project to its satisfactory completion, in accordance with the client's brief. However, depending on the nature and type of the project and the client's in-house expertise, the project manager could be appointed as late as the start of the strategy stage, but this could deprive them of important background information and is therefore not generally recommended.

Project mandate

The project mandate could be defined as the authority given to the project team to develop and progress the project within given and agreed boundaries, set by the client.

These will include requirements on programme for delivery of the project, the budget and also the requirements for the finished building in terms of function, quality and any particular requirements on performance, such as environmental performances.

Understanding the client need as clearly as possible at the start of the project is fundamental to project success.

The project mandate (also referred to as initial project inquiry (IPI) or project initiation document (PID)) is usually the first document produced to trigger a project. It is not seen as a project documentation but as a pre-project document. However, often the trigger to a project is poor and it is advisable to put together a document, which encapsulated the

Table 1.1 Duties of project manager

Duties*	Client's requirements			
	In-house project management		Independent project management	
	Project management	Project coordination	Project management	Project coordination
Be named in the contract	■		+	
Assist in preparing the project brief	■		■	
Develop project manager's brief	■		■	
Advise on budget/funding/programme/risk management arrangements	■		+	
Advise on site acquisition, grants and planning	■		■	
Arrange feasibility study and report	■	+	■	+
Develop project strategy	■	+	■	+
Prepare project handbook	■	+	■	+
Develop consultant's briefs	■	+	■	+
Devise project programme	■	+	+	+
Select project team members	■	+	■	+
Establish management structure	■	+	■	+
Coordinate design processes	■	+	■	+
Appoint consultants	■	■	■	+
Arrange insurance and warranties	■	■	■	+
Select procurement system	■	■	■	+
Arrange tender documentation	■	■	■	+
Organise contractor prequalification	■	■	■	+
Evaluate tenders	■	■	■	+
Participate in contractor selection	■	■	■	+
Participate in contractor appointment	■	■	■	+
Organise control systems including reporting procedures	■	■	■	■
Monitor progress	■	■	■	■
Manage and monitor meetings	■	■	■	■
Authorise payments	■	■	■	+
Organise communication/reporting systems	■	■	■	■
Provide project coordination	■	■	■	■
Issue health and safety procedures	■	■	■	■
Address environmental aspects	■	■	■	■
Coordinate statutory authorities	■	■	■	■
Monitor budget and changes	■	■	■	■
Develop final account	■	■	■	■
Arrange pre-commissioning/commissioning	■	■	■	■

(Continued)

Table 1.1 (Continued)

Duties*	Client's requirements			
	In-house project management		Independent project management	
	Project management	Project coordination	Project management	Project coordination
Organise handover/occupation	■	■	■	■
Advise on marketing/disposal	■	+	■	+
Organise maintenance manuals	■	■	■	+
Plan for maintenance period	■	■	■	■
Develop maintenance programme/ staff training	■	■	■	+
Plan facilities management and coordinate BIM	■	■	■	+
Arrange for feedback monitoring and post-completion review	■	■	■	+
Investigate BIM implementation	■	■	■	■
Liaise with funding institutions	■	■	■	+
Liaise with ground landlord	■	+	■	+
Liaise on acquisition, valuation, disposal of land	■	+	■	+
Liaise with agents over leasing tenants queries, etc.	■	+	■	+
Liaise with client over move to new premises	■	+	■	+
Liaise coordination with legal agents	■	+	■	+
Advise and manage client's changes	■	■	■	■

Symbols: ■, suggested duties; +, possible additional duties.

*Duties vary by project, and relevant responsibility and authority.

ideas and any basic information that can be identified at this point. Some key questions that may be considered while preparing the project mandate include:

- Is the level of authority commensurate with the anticipated size, risk and cost of the project?
- Is there sufficient detail to allow the appointment of key team members including the project manager?
- Are all the known (internal) stakeholders identified?
- Does the project mandate identify what is necessary for the project to be a success (key success criteria)?

An indicative template for project mandate is outlined in Briefing Note 1.03.

Environmental mandate

Environmental performance and impact may be particularly important to the client. Corporate Social Responsibility plays an important role in the delivery of built environment projects.

Environmental mandate includes requirements for the environmental performance of the building. It may also include requirements on carbon emissions and energy consumption.

In addition, it may also prescribe requirements for environmental impact on the local topography or adjacent area. Lastly it may determine outcomes in terms of the local community, such as providing employment and training opportunities or the use of local supply chain.

An environmental mandate for the project will provide the management framework for the planning and implementation of construction activities in accordance with the environmental commitments of the organisation, the project context, funders, project end users or any other stakeholders.

The environmental mandate will influence key design parameters relating to sustainability, performance and operational technologies.

The environmental mandate should also outline the overall environmental management criteria for the project including what are the key success factors for the projects in terms of environmental management.

BIM mandate

BIM (building information modelling) enables the sharing of information and data between all stakeholders and participants around the whole asset lifecycle. It provides a platform for consistent, structured, perfect data, to enable informed smart decision making at all stages of the project process.

If BIM is to be used on a project, then this should be implemented right from the start. As industry adopts BIM as the normal way of working, this will become standard practice. However for the moment, migrating the project to BIM might occur at any stage. Naturally this has consequences in terms of cost, time, resources required and scale of difficulty.

When BIM is being used, then it is important to establish the drivers for this. If it is client driven, what does the client require of the project BIM?

Is it simply for efficiency of process or will outputs be required at various stages in accordance with COBie (Construction Operations Building Information Exchange) advise, and at handover the model and data sets used for FM/operations and integration with their building management systems?

A Project BIM Execution Protocol (see BIM Protocol – Standard Protocol for use in projects using Building Information Models – CIC/BIM Pro – first edition 2013) must be established to ensure BIM is used to maximum advantage and that the whole team is working together in a consistent manner.

Briefing Note 1.01 Leadership in project management

What is leadership?

Leadership, as a management attribute, has been subjected to a significant amount of attention. Defining simplistically, 'it is the process in which an individual influences other group members towards the attainment of group or organisational goals' (Shackleton¹). Inevitably, there are a wide range of theories and schools of thoughts encompassing this subject (a number of reference documents are listed in the bibliography). The latest discussions tend to focus on transactional and transformational natures of leadership.

Leadership and project manager

The very definition of construction project management implies that within a defined timescale, the project is expected to achieve an agreed set of targets utilising specific resources. This requires not only a very efficient project manager but also an effective project leader who can lead the project team spontaneously, mainly focusing towards the project and motivating the project team members to achieve the targets within the agreed project framework. The key aspects or traits that a successful project manager would require to excel in are motivation, performance appraisal, resource allocation and management, and planning and communication.

What are the traits of effective leaders?

There are a range of theories outlining leadership styles and traits. Broadly, successful leadership traits are characterised in six styles as detailed in the following table.

Leadership styles

Style	Result
Coercive	Leader demands immediate compliance
Authoritative	Leader mobilises people towards a vision
Affiliative	Leader creates emotional bonds and harmony
Democratic	Leaders use participation to create consensus
Pace-setting	Leader expects excellence and self direction from the group
Coaching	Leader develops people for the future

¹ Shackleton, V. (1995) *Business Leadership*. Routledge, London.

The general suggestion² is that the leaders need to understand how the styles relate to their individual competencies and situational requirements so as to identify the most suitable approach.

There are some differences of views on effectiveness of training of leadership skills (are leaders born or made?). However, it is advisable to stress the need for flexibility of the leader – to learn to lead differently depending on the situational and contextual needs; hence, the leaders should learn many styles and learn to diagnose the needs of the context and situation.

Are there any quick wins?

Although different styles and tactics would suit different contexts and situations, the adaptation of the following should enhance effective project management:

- acknowledging positive contribution
- ensuring open communication
- ‘touching base’ with the team members on a regular basis
- sharing praise

² Goleman, D. (2000) Leadership that gets results. *Harvard Business Review*, March–April.

Briefing Note 1.02 Typical terms of engagement: Project manager

Job title: Project manager.

Date effective:

General objective

Acting as the client's representative within the contractual terms applicable, to lead, direct, coordinate and supervise the project in association with the project team.

The project manager will ensure that the client's brief, all designs, specifications and relevant information are made available to, and are executed as specified with due regard to cost by, the design team, consultants and contractors (i.e. the project team) so that the client's objectives are fully met.

Relationships

Responsible and reporting to The client.

Subordinates Practice support staff and secretarial/clerical staff.

Functional Fully integrated working with any project support staff who are not line subordinates:

1. liaison, as required/expedient with relevant client's staff, for example, legal, insurance, taxation
2. full interdependent cooperation with
 - (a) design team and consultants
 - (b) contractors
 - (c) client and other key stakeholders

External Liaison with local or other relevant authority on matters concerning the project. Contact with suppliers of construction materials/equipment, in order to be aware of the most efficient and cost-effective application, and working methods.

- Contact with
1. Client's information and communication technology (ICT) team or other higher technology sources, able to provide expertise on the application of advanced technology in the design and/or construction processes of the project (e.g. communications, environment, security and fire prevention/protection systems).
 2. And preferably, membership of appropriate professional bodies/societies.

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Authority

The definition of the authority of the project manager is a key requirement in enabling him to manage the successful achievement of the client's objectives. The extent must be clearly defined. A distinction should be drawn between the responsibility that the project manager may have which concerns his accountability for different aspects of the project and the authority which will determine the ability of the project manager to control, command and determine the commitment of resources to the project. The full extent of the responsibility and authority vested in the project manager will depend on the terms and duties included in the project management agreement.

The extent of the project manager's responsibility and authority may be balanced, but the two may be unequal. Frequently, the project manager may have extensive responsibility in an area that does not carry commensurate authority, or vice versa.

The authority of the project manager should be defined regarding his obligations to issue instructions, approve limits of expenditure and when to notify the client and seek the instructions of the client in matters relating to

1. the schedule and time taken to complete the project
2. expenditure and costs, including development budget, project cost plan, and financial rewards and viability
3. designs, specifications and quality
4. function
5. contractors' contracts
6. consultants' appointments
7. assignment of contracts or appointments
8. administrative procedures, including issuing or signing of correspondence, certification and other project documentation

The client and the project manager should give careful consideration to the authority that will be necessary to ensure the successful achievement of the client's objectives and, if necessary, establish appropriate lines of authority and communication within the client organisation to facilitate the implementation of agreed procedures.

Detailed responsibilities and duties

1. Analysis of the client's objectives and requirements, assessment of their feasibility and assistance in the completion of project brief and establishment of the capital budget.
2. Formulation, for the client's approval, of the strategic plan for achieving the stated objectives within the budget, including, where applicable, the quality assurance scheme.
3. Generally keeping the client informed, throughout the project, on progress and problems, design/budgeting/construction variations and such other matters considered to be relevant.
4. Participation in making recommendations to the client, if required, in the following areas:
 - The selection of the consultants as well as in the negotiation of their terms and conditions of engagement.

- The appointment of contractors/subcontractors, including the giving of advice on the most suitable forms of tender and contract.
5. Preparation for the client's approval of the following items:
 - The overall project schedule embracing site acquisition, relevant investigations, planning, pre-design, design, construction and handover/occupation stages.
 - Proposals for architectural and engineering services. The project manager will monitor progress and initiate appropriate action on all submissions concerned with planning approvals and statutory requirements (timely submission, alternative proposals and necessary waivers).
 - The project budget and relevant cash flows, giving due consideration to matters likely to affect the viability of the project development.
 6. Finalisation of the client's brief and its confirmation to the consultants. Providing the client with all existing and, if necessary, any supplementary data on surveys, site investigations, adjoining owners, adverse rights or restrictions and site accessibility/traffic constraints.
 7. Recommending to the client and securing approval for any modifications or variations to the agreed brief, approved designs, schedules and/or budgets resulting from discussions and reviews involving the design team and other consultants.
 8. Setting up the management and administrative structure for the project and thereby defining:
 - responsibilities and duties, as well as lines of reporting, for all parties
 - procedures for clear and efficient communication
 - systems and procedures for issuing instructions, drawings, certificates, schedules and valuations and the preparation and submission of reports and relevant documentary returns
 9. Agreeing tendering strategy with the consultants concerned.
 10. Advising the client as necessary on the following items:
 - The progress of the design and the production of required drawings/information and tender documents, stressing at all times the need for a cost-effective approach to optimise costs in construction methods, subsequent maintenance requirements, preparation of tender documents and performance/workmanship warranties.
 - The correctness of tender documents.
 - The prospective tenderers pre-qualified by the design team and other consultants involved, obtaining additional information if pertinent and confirming accepted tenders to the client and the consultants.
 - The preliminary construction schedule for the main contractors, agreeing any revisions to meet fully the client's requirements and releasing this to the project team for action.
 - The progress of all elements of the project, especially adherence to the agreed capital and sectional budgets, as well as meeting the set standards and initiating any remedial action.
 - The contractual activities the client must undertake, including user study groups and approval/decision points.

11. Establishing with the quantity surveyor the cost monitoring and reporting system and providing feedback to the other consultants and the client on budget status and cash flow.
12. Organising and/or participating in the following activities:
 - Presentations to the client, with advice on and securing approval for the design of fabrics, finishes, fitting-out work and the environment of major interior spaces.
 - All meetings with the project team and others involved in the project (chairing or acting as secretary) to ensure
 - an adequate supply of information/data to all concerned
 - that progress is in accordance with the schedule
 - that costs are within the budgets
 - that required standards and specifications are achieved
 - that contractors have adequate resources for the management, supervision and quality control of the project
 - that the relevant members of the project team inspect and supervise construction stages as specified by the contracts
13. Responsible for:
 - preparation of the project handbook
 - achieving good communications and motivating the project team
 - monitoring progress, costs and quality and initiating action to rectify any deviations
 - setting priorities and effective management of time
 - coordinating the project team's activities and output
 - monitoring project resources against planned levels and initiating necessary remedial action
 - preparing and presenting specified reports to the client
 - submitting time sheets and other data on costing and control to the client
 - processes, including required returns and all other relevant information
 - approving, in collaboration with the project team and within the building contract provisions, any sublet work
 - identifying any existing or potential problems, disputes or conflicts and resolving them, with the cooperation of all concerned in the best interests of the client
 - recommending to the client the consultants' interim payment applications and monitoring such applications from contractors
 - monitoring all pre-commissioning checks and progress of any remedial defects liability work and the release of retention monies
 - verifying with the project team members concerned any claims for extensions of time or additional payments and advising the client accordingly
 - checking consultants' final accounts before payment to the client
 - monitoring the preparation of contractors' final accounts, obtaining relevant certificates and submitting them for settlement by the client

- ensuring the inclusion in the contract and subsequently requesting the design team, consultants and contractors to supply the client with as-built and installed drawings, operating and maintenance manuals, and health and safety file, as well as ensuring arrangements are made for effective training of the client's engineering and maintenance staff, that is, facilities management
14. Taking all appropriate steps to ensure that site contractors and other regular or casual workers observe all the rules, regulations and practices of safety and fire prevention/protection. Exercising 'good site housekeeping' at all times.
 15. Participating in the final cost reconciliation or final account of the project and taking such action as directed or required.

Extra-project activities

Participating in informal discussions with own and other practices, as well as the client's staff, on technical details, methods of operations, problem solving and any other pertinent actions relevant to present or previous projects, in order to exchange views/knowledge conducive to providing a more effective overall performance.

The project manager has responsibility for the following areas:

1. Personnel matters relating to his staff, including appraisal/reviews, training/development and job coaching and counselling, as defined by the client and/or project management practice guidelines and procedures.
2. Updating himself and staff in new ideas relating to project management, including management/supervisory skills and practice generally, business, financial, legal and economic trends, the latest forms of contract, planning and Building Regulations, as well as advances in construction techniques, plant and equipment.

Terms of engagement: The services contracts

1. The CIC Consultants Contract Conditions and Scope of Services 2007 (2nd ed. 2011)
2. RICS Project Management Agreement (3rd ed. 1999)
3. APM Terms of Appointment for a Project Manager (1998)
4. NEC3 Professional Services Contract (PSC) (2005)
5. RIBA Form of Appointment for Project Managers (2010–2012 edition)

Briefing Note 1.03 Typical project mandate outline

1. Document and distribution history
2. Purpose: The purpose of this document is to define the project, to form a firm basis for management and the assessment of overall success. Information included in this document will ideally answer the following questions:
 - What is the project aiming to achieve?
 - Why it is important to achieve it?
 - Who will be involved and what are their responsibilities?
 - How and when will it happen?
 - How and what needs to be communicated?

It is essential to obtain a clear view of the final objectives and outcome, as well as constraints and assumptions, that impact on those responsible for the project. This document outlines all of the essentials to form a firm foundation for defining the project, including objectives, outcomes, expectations, scope and time frames.

3. Authority responsible
4. Project background and context
5. Project objectives
6. Financial objective
7. Project outcomes and milestones – what is to be delivered and when
8. Project organisation structure – project management, project team and project board
9. Communications plan – inter- and intra-organisation
10. Initial project plan – activity schedule with resources indicating ownership
11. Project controls – who reports what to whom, when and how
12. Risk analysis – with contingency sums where necessary and or avoid transfer mitigate share accept
13. Project success criteria
14. Associated documents
15. Items out of scope
16. Any other relevant information

Briefing Note 1.04 Project handbook

Introduction

The purpose of the handbook is to guide the project team in the performance of its duties, which are the design, construction and completion of a project to the required specifications within the approved parameters of the contract budget and to schedule. In practice, a project handbook should be concise, clear and consistent with all other contract documentation and terms of engagement. The emphasis should be to identify policies, strategies and the lines of communication and key interfaces between the various parties. It is important that the handbook is tailored to fit the needs of each project. The comprehensive format given here would be too bulky for some projects with the danger of it being ignored.

The handbook is prepared by the project manager in consultation with the project team where possible at the beginning of the pre-construction stage and describes the general procedures to be adopted by the client and the team. It comprises a set of ground rules for the project team. It differs from the project execution plan, which is primarily written for the client and funding partners, in giving a route map through the stages and processes of the project demonstrating financial control and a *modus operandum* to achieve the project objectives.

The handbook is not a static document and it is anticipated that changes and amendments will be required in accordance with procedures as later outlined. Consequently, a loose-leaf format should be adopted to facilitate its updating by the project manager who is the only person authorised to coordinate and implement revisions. Copies of the handbook will be provided to each nominated member of the project team as listed under parties to the project.

Aims of the handbook

The aim of the handbook is to identify responsibilities and coordinate the various actions and procedures from other documents/data already or currently or likely to be prepared into one authoritative document covering as a rule and depending on the nature/scope of project, the main elements and activities outlined in the following sections.

Parties to the project

This section will include the following items:

- A list of all parties involved in the project including those employed by the client as well as their contact details (addresses, phone and fax numbers and email address).

- The name of the project manager responsible for the project together with details of his duties responsibilities and authority.
- Details of other team members and/or stakeholders involved complete with their duties, responsibilities and contact details.
- Organisational charts indicating line and functional relationships, contractual and communication links and any changes to suit the various stages/phases of the project.

Third parties

This section will provide the names and contact details of all legal authority departments, public utilities, hospitals, doctors, police stations, fire brigade, trade associations, adjoining landowners, adjacent tenants and any other bodies or persons likely to be involved.

Roles and duties of the project team

The information provided should be the minimum necessary to facilitate the understanding of the roles of the others involved by each member of the team. The services to be provided are described by reference to standard agreements or contracts with any amendments and additions included. The aim is to ensure that there are no gaps or overlaps.

Project site

Details will be provided of prevailing relevance of arrangements for demolition, clearing and diversion of existing services, hoardings and protection to adjacent areas (e.g. noise pollution).

General administration including communication and document control

The project manager will be responsible for the following items:

- The adequacy of all aspects of project resourcing (staffing, equipment and aids, site offices and welfare accommodation).
- Office operating systems and routines so that the staff know them and are applied consistently and efficiently.
- Providing suitable working accommodation and facilities for members of the project team and for meetings or group discussions.

Action will need to be taken by the project manager in respect of documentation control, storage, location and retrieval; this will affect:

- letters, contract documents, reports, drawings, specifications, schedules, including financial and all specialist fields (e.g. facilities management, technology, health and safety, environmental)
- accessibility for updating
- records for all documents/files and control of their movement
- office security: (1) storage of legal documents (originals and duplicates); (2) entry safeguard, fire and intruder alarms

- retention of documents/files on project completion/suspension: (1) archive storage – legal and contractual time limits; (2) dead files – removals and destruction and their register

All correspondence should be headed by the project title and identified by:

- subject/reference of communication
- addressee's full details
- those parties receiving copies

Each piece of correspondence should refer to a single matter or a series of direct and closely linked matters only. Distribution of copies should be decided on the basis of the subject matter and confidentiality against a predetermined list of recipients. All communications between the parties of the project involving instructions must be given in writing and the recipients should also confirm it in the same manner.

Contract administration

Contract conditions

It is essential that there is an understanding of the terms of all contracts and their interpretation by all concerned. The role of parties, their contribution and responsibilities, including relevance of timescales and client–project manager operating and approvals pattern, will have to be established.

Contract management and procedures

Matters associated with contract management will include forms of contract for contractors/subcontractors; works carried out under separate direct contract; procedures for the selection and appointment of contractors/subcontractors; checklists for design team members and consultants meeting their supervisory and contractual obligations (e.g. inspections and certification); the placement of orders for long delivery components and the preparation of contract documents.

Tender documentation

Design and specifications details to be included; tender analysis and reporting; lists of tenderers and interview procedures; system for the preparation of documents and their checking; award and signature arrangements.

Assessment and management of variations

Extensions of time

- The project manager has the responsibility for ensuring that there is early warning, hence creating the possibility of alternative action/methods to prevent delay and additional costs.
- A schedule should be prepared, stating the grounds for extension, relevant contract clauses and forecast of likely delay and cost.
- The involvement and possible contribution to the solution of problems of other parties affected should be established.
- A procedure will need to be available for extension approval. If relevant, the disputes procedure may be invoked.

Loss and expense

- Applicable procedures are covered under standard or in-house forms of contract relevant to the specific project.

Indemnities, insurances and warranties

Relevant provisions depend on the nature of the project. However, they are usually governed by the conditions specified by the forms of 'model' contracts/agreements issued by professional bodies or those in common use in the construction industry. Typical examples of insurances applicable to construction projects include:

- Contractors' all-risk policies (CAR), usually covering loss or damage to the works and the materials for incorporation into the works; the contractor's plant and equipment including temporary site accommodation; the contractor's personal property and that of employees (e.g. tools and equipment). The CAR policy is normally taken out by the contractor but should insure in the joint names of the contractor and the client (employer). Subcontractors may or may not be jointly insured under the CAR policy.
- Public liability policy – this insures the contractor against the legal liability to pay damages or compensation or other costs to anyone that suffers death, bodily injury or other loss or damage to their property by the activities of the contractor.
- Employers' liability policy – Every contractor will have this either on a company-wide basis, covering both staff and labour, or on a separate basis for the head office and for each site separately.
- Professional indemnity (PI) – The purpose of this is to cover the liabilities arising out of 'duty of care'. Typically, consultants (including the project manager) will require this policy to cover their design or similar liabilities and liabilities for negligence in undertaking supervision duties. In case of a design and build contract, the contractor has to take out a separate PI policy, as designing is not covered by the normal CAR policy.
- Integrated project insurance – Collaborative form of insurance is being increasingly used where all the key parties collectively subscribe to a single insurance policy covering all aspects of the project.

Design coordination

The project brief will be reviewed jointly by client and project manager with the aim of confirming that all relevant issues have been considered. These may include:

- health and safety obligations
- environmental requirements
- loading considerations
- space and special accommodation requirements
- eventual user's needs
- standards and schedule of finishes
- site investigation information/data
- availability of necessary surveys and reports
- planning consent and statutory approvals
- details of internal and external constraints

The project manager will need to seek the client's approval to issue the brief and relevant information to the design team and other consultants. Among the other duties which fall to the project manager are the following:

- Defining the roles and duties of the project team members.
- Responsibility for the drawings and specifications:
 - establishing format (e.g. CAD compatibility issues) sizes and distribution and seeking comments on their content and their timing
 - the issue of tender drawings and specifications
 - advising contractors and subcontractors of the implications of the design
 - setting requirements for (1) shop/fabrication drawings; (2) test data and (3) samples and mock-ups
- Monitoring the production of the outline proposals for the project by:
 - reviewing sketch plans and outline specifications in terms of the brief
 - preparing the capital budget and reconciling this with the outline budget
 - appraising the implications of the schedule
 - effecting reconciliation with the project master schedule
 - finalising the outline proposals making recommendations/presentations to the client and seeking the latter's approval to proceed
- Monitoring progress of the design work at the pre-tender stage by:
 - reviewing with the consultants concerned the client's requirements, brief documentation and their sectional implications
 - agreeing team members' input and identification of items needing client's clarification
 - reviewing with the client any discrepancies omissions and misunderstandings, seeking their resolution and confirming to the team
- Agreement of overall design schedule and related controls.
- Identification of items for pre-ordering and long delivery preparation of tender documents, client's approvals and placement of orders and their confirmation.
- Monitoring production of drawings and specifications throughout the various stages of the project and their release to parties concerned.
- Arranging presentations to the client at appropriate stages of design development and securing final approval of tender.

Change management

- Reviewing with the design team and other consultants any necessary modifications to the design schedule and information required schedules (IRS) in the light of the appointed contractors'/subcontractors' requirements and reissuing revised schedule/IRS.
- Preparing detailed and specialist designs and subcontract packages including bills of quantities.
- Making provision for adequate, safe and orderly storage of all drawings, specifications and schedules including the setting up of an effective register/records and retrieval system.

The project manager must ensure that the client is fully aware that supplementary decisions must be obtained as the design stages progress and well within the specified (latest) dates in order to avoid additional costs. Designs and specifications meeting the client's brief and requirements are appraised by the quantity surveyor for costs and are confirmed to be within the budgetary provisions.

Handling changes will require a series of actions. The project manager will be responsible for these activities:

- Administering all requests through the change order system (see Table 4.4 and Briefing Note 3.13 for checklist and specimen form).
- Retaining all relevant documentation.
- Producing a schedule of approved and pending orders which will be issued monthly.
- Ensuring that no changes are acted on unless formally decided.
- Considering amendments and alterations to the schedules and drawings within the provisions of the applicable contract/agreement.
- Initial assessment of any itemised request for change made by the client taking due account of the effect on time.

Action by consultants in relation to variations will include the following items:

- Securing required statutory/planning approvals and cost-checking revised proposals. Confirmation of action taken to project manager.
- Design process and preparation of instructions to contractors involved.
- Cost agreement procedure for omissions and additions, that is, estimates, disruptive costs, negotiations and time implications.

Site instructions

Site instructions must be issued in writing and confirmed in a similar manner by recipients. Site instructions which constitute variations can be categorised as:

- normal
- special (e.g. concerned with immediate implementation as essential for safety, health and environmental protection aspects)
- extension of time required or predicted
- additional payments involved or their estimate

Site instructions will be binding if they are issued and approved in accordance with the contract provisions.

Cost control and reporting

The quantity surveyor has overall responsibility for cost monitoring and reporting with the assistance of and input from the design team, other consultants and contractors. Action at the pre-construction stage involves the following items:

- The preparation of preliminary comparison budget estimates.
- The agreement of the control budget with the project manager.

- Project budget being prepared in elemental form; the influence of grants is identified.
- The establishment of work packages and their cost budgets.
- Costing of change orders.

Other elements associated with work control are as follows:

- Assessment of cost implications for all designs, including cost comparison of alternative design solutions.
- Value analysis procedures, including cost in use.
- Comparison of alternative forms of construction using data on their methodology and costs.
- Comparison of cost budgets and tenderers' prices at subcontract tender assessment.
- Tenders which are outside the budget and which require an input from the project manager on such matters as:
 - alteration of specifications to reduce costs
 - acceptance of tender figure and accommodating increased cost from contingency; alternatively the client may accept the increase and seek savings from other areas
 - possible retendering by alternative contractors
- Production of monthly cost reports, including:
 - variations since last report, incorporating reasons for costs increase/decrease
 - current projected total cost for the project
 - cash flow for the project: (1) forecast of expenditure; (2) actual cash flow as schedule monitoring device indicating potential overspending and any areas of delay or likely problems.

The report should be agreed with and issued to the project manager who will:

- give advice and initiate action on any problems that are identified
- arrange distribution of copies according to a predetermined list

Planning schedules and progress reporting

Planning is a key area and can have a significant effect on the outcome of a project. The handbook will set out the composition and duties of the planning support team and the appropriate techniques to be used (e.g. bar charts, networks). The planning and scheduling will then follow the steps set out in Briefing Note 3.06:

- Preparation of an outline project schedule, which will include coordination of design team contractors and client's activities then seeking of the client's acceptance.
- Production of an outline construction schedule indicating likely project duration and the basis for determining the procurement schedule.
- Production of an outline procurement schedule including the latest date for placement of orders (materials equipment contractors) and design release dates.

- Modifications if necessary to the outline construction schedule due to constraints.
- Production of the outline design schedule including necessary modifications due to external limitations.
- Preparation of the project master schedule.
- Preparation of a short-term schedule for the pre-construction stage; this will be reviewed monthly.
- Production of a detailed design schedule in consultation with and incorporating design elements from the design team members concerned including:
 - scheme design schedule
 - drawing control schedule
 - client decision schedule
 - agreement by client consultants and project manager
- Reviewing the outline procurement schedule and its translation into one, which is detailed.
- Preparation of a works package schedule.
- Production of schedules for bills of quantities procurement including identification of construction phases for tender documentation and production of tender documentation control.
- Expansion of the outline construction schedule into one, which is detailed.
- Preparation of schedules for:
 - enabling works
 - fitting out (if part of the project)
 - completion and handover
 - occupation/migration (if part of the project)

Progress monitoring and reporting procedures should be on a monthly basis and agreed following consultation with consultants and contractors. Reports will need to be supplied to the project manager who will report to the client.

Meetings

Meetings are required to maintain effective communications between the project manager, project team and the other parties concerned, for example, those responsible for industrial relations and emergencies as well as the client. The frequency and location of meetings and those taking part will be the responsibility of the project manager. Meetings held too frequently can lead to a waste of time whereas communications can suffer where meetings are infrequent. Briefing Note 3.10 contains details of typical meetings and their objectives.

Procedures for meetings include:

- agenda – issued in advance stating action/submissions required
- minutes and circulation list (time limits involved); Briefing Note 3.09 contains examples of agenda and minutes

- written confirmation and acknowledgement of instructions given at meetings (time limit involved)
- reports/materials tabled at meetings to be sent in advance to the chair

Selection and appointment of contractors

The project manager as the client's representative has the responsibility with the support of relevant consultants for the selection and appointment of:

- contractors, for example, main, management, design and build
- contractors, for example, specialist, works, trade.

The various processes associated with this activity are summarised as follows:

- Selection panel appointments relevant to the nature and scope of tender to be awarded. Nomination of a coordinator (contact) for all matters concerned with the tender.
- Establishment of selection/appointment procedures for each stage.

Pre-tender

Pre-tender activities will include the following:

- Assessment of essential criteria/expertise required for a specific tender.
- Preparation of long (provisional) list embracing known and prospective tenderers.
- Checks against database available to project manager, especially financial viability and quality of past and current work; possible use of telephone questionnaire to obtain additional data.
- Potential tenderers invited to complete/submit selection questionnaire; short list finalised accordingly.
- Arrangements for pre-qualification interview including prior issue of the following documentation relevant to the project to the prospective tenderer with interview agenda outline of special requirements and expected attendees to cover:
 - general scope of contract works and summary of conditions
 - preliminary drawings and specifications
 - summary of project master and construction schedules
 - pricing schedule
 - safety, health and environmental protection statement
 - labour relations statement
 - quality management outline
- Tender and reserve lists finalised.

Tendering process

The tendering process includes the following activities:

- Selected tenderers confirm willingness to submit bona fide tenders. Reserve list is employed in the event of any withdrawals and selection made in accordance with placement order.
- Tender documents issued and consideration given by both parties to whether mid-tender interview is required or would be beneficial.

- Interview arranged and agenda issued.

Carry out the following on the receipt of all tenders:

- evaluation of received tenders
- arrangements for post-tender interview and prior issue of agenda
- final evaluation and report
- pre-order check and approval to place order

Safety, health and environmental protection

The handbook should draw attention to the specific and onerous duties of the client and other project team members under the CDM Regulations, and should include procedures to ensure they cannot be overlooked. It is the responsibility of the principal contractor to formulate the health and safety plan for the project to be adhered to by all contractors in accordance with the CDM Regulations and taking account of other applicable legislation. Contractors are required as part of their tender submission to provide copies of their safety policy statement which outlines safe working methods that conform to the CDM Regulations.

Other matters which come within the remit of the principal contractor are as follows:

- The establishment and enforcement within the contractual provisions of rules, regulations and practices to prevent accidents, incidents or events resulting in injury or fatality to any person on the site, or damage or destruction to property, equipment and materials of the site or neighbouring owners/occupiers.
- Arranging first-aid facilities, warning signals and possible evacuation as well as the display of relevant notices posters and instructions.
- Instituting procedures for:
 - regular inspections and spot checks
 - reporting to the project manager (with copies to any consultants concerned) on any non-compliance and the corrective or preventive action taken
 - hazardous situations necessitating work stoppage and in extreme cases closedown of the site

Quality assurance: Outline

This is applicable only if quality assurance (QA) is operated as part of contractual provisions. It is critical for the client to understand the operation of a QA scheme, its application and limits of assurance and the need for defects insurance. Procedures and controls will need to be established to ascertain compliance with design and specifications and to confirm that standards of work and materials quality have been attained. The consultants will review details of their quality control with the project manager. The contractors' quality plan will indicate how the quality process is to be managed, including control arrangements for subcontractors.

Responsibility for monitoring site operation of QA administration and control procedures for the relevant documents will need to be established.

As an alternative to QA, any procedures for the management of quality should be included in the handbook (see under 'Quality management' in stage 3).

Disputes

Procedures for all parties involved in the project in the event of disagreement and disputes are to be specified in accordance with the contractual conditions/provisions which are applicable.

Signing off

Any procedures for signing-off documents should be specified. Signing-off points may occur progressively during stages of the project and be incorporated in a 'milestone schedule'. Details should include permitted signatories and a distribution list.

Reporting

The following reports are examples of what might be prepared.

Project manager's progress report

To be issued monthly and include details of:

- project status:
 - updated capital budget
 - accommodation schedule
 - authorised change orders during the month
 - other relevant matters
- operational brief
- design development status
- cost plan status and summary of financial report
- schedule and progress:
 - design
 - construction
- change/variation orders
- client decisions and information requirements
- legal and estates
- facilities management
- fitting out and occupation/(migration) planning
- risks and uncertainties
- update of anticipated final completion date
- distribution list

Design team's report

Issued monthly and including input from consultants and containing details on:

- design development status

- status of tender documents
- information produced during the month
- change orders/design progress
- information requirements/requests status
- status of contractor/subcontractor drawings/submittals
- quality control
- distribution list

Financial control report

Issued monthly and including:

- reconciliation capital sanction/capital budget
- updated cost plan and anticipated final cost projection
- authorised change orders – effects
- pending change orders – implications
- contingency sum
- cash flow
- VAT
- distribution list

Daily/weekly diary

Prepared by each senior member of the project team and filed in its own separate loose-leaf binder for quick reference and convenient follow-up. Diaries are made accessible to the project manager and typically contain:

- a summary of forward and ad hoc meetings and people attending
- a summary of critical telephone conversations/messages
- documents received or issued
- problems comments or special situations and their resolution
- schedule status (e.g. work package progress or delays)
- critical events and work observations
- critical instructions given or required
- requests for decisions or actions to be taken
- an approximate time of day for each entry
- a distribution list

Construction stage

The handbook will include procedures for the following activities:

- Issuing drawings, specifications and relevant certificates to contractors.
- Actioning the consultants' instructions, lists, schedules and valuations.

- Aspects prior to commencement such as:
 - recording existing site conditions, including adjacent properties
 - ensuring that all relevant contracts are in place and that all applicable conditions have been met
 - confirming that all risk insurance for site and adjacent properties is in force
 - ensuring that all site facilities are to the required standard including provisions for health, safety and environmental protection
- Control of construction work including:
 - reviewing a contractor's preliminary schedule against the master schedule and agreeing adjustments
 - ensuring checks by the main contractor on subcontractor schedules
 - checking and monitoring for all contractors the adequacy of their planned and actual resources to achieve the schedule
 - approvals for subletting in accordance with contractual provisions
 - reporting on and adjusting schedules as appropriate
 - checks for early identification of actual or potential problems (seeking client's agreement to solutions of significant problems)
- Controls for variations and changes (see Briefing Note 3.13).
- Controls for the preparation and issue of change orders (see Figure 4.4 and Briefing Note 3.13).
- Processing the following applications for the client's action:
 - interim payments from consultants and contractors
 - final accounts from consultants
 - final accounts from contractors subject to receipt of relevant certification
 - payment of other invoices
- Making contact and keeping informed the various authorities concerned to facilitate final approvals.
- The design team and other relevant consultants to supervise and inspect works in accordance with contractual provisions/conditions and participate in and contribute to:
 - the monitoring and adjustment of the master schedule
 - controls for variations and claims
 - identification and solutions of actual or potential problems
 - subletting approvals
 - preparation of change orders

Operating and maintenance

The procedures for fitting out should be designed to avoid divided responsibility in the case of failure of parts of the building or its services systems. The procedures to be used in the handbook can be developed by reference to the relevant sections in

stages 5–7. They should include adequate arrangements for the management of any interfaces between contracts or work packages. It is especially vital to have procedures for:

- the transition of commissioning data record drawings and operating and maintenance manuals from one contract to the next
- confirmation that all relevant handover documentation and certification has been completed

Testing and commissioning

Testing and commissioning is part of the construction stage. It is the main contractor's responsibility which is delegated to the services subcontractors. Action is taken in two stages: pre-contract and contract/post-contract.

Pre-contract

Ensuring that the client recognises commissioning as a distinct phase of the construction process starting at the strategy stage:

- Ensuring that the consultants identify all services to be commissioned and defining the responsibility split for commissioning between designer, contractor, manufacturer and client.
- Identifying statutory and insurance approvals required and planning to meet requirements and obtain approvals.
- Coordinating the consultants' and client's involvement in commissioning to ensure conformity with the contract arrangements.
- Arranging single-point responsibility for control and the client's role in the commissioning of services.
- Ensuring contract documents make provision for services commissioning.

Contract and post-contract

Ensuring relevant integration within construction schedules:

- Monitoring and reporting progress and arranging corrective action.
- Ensuring provision and proper maintenance of records, test results, certificates, checklists, software and drawings.
- Arranging for or advising on maintenance staff training, post-contract operation and specialist servicing contracts.

Examples of a checklist and documentation are given in Briefing Notes 7.03 and 7.04.

Completion and handover

The closely interlinked processes of completion and handover are very much a hands-on operation for the project manager and his team. This stage provides the widest and closest involvement with the client. Completion and handover require careful attention because they determine whether or not the client views the whole job as successful.

Completion

Handbook procedures may cover two types of agreement:

- Agreements for partial possession and phased (sectional) completion (if required):
 - access inspections, defects, continuation of other works and/or operation of any plant/services installation material, obstructions or restrictions
 - certification on possession of each phase; responsibility for insurance
- Agreements and procedures associated with practical completion:
 - user/tenant responsibility for whole of the insurance
 - provision within a specified time limit of complete sets of as-built and installed drawings, mechanical and engineering and other relevant installations/services data as well as all operating manuals and commissioning reports
 - storage of equipment/materials except those required for making good any defects
 - access for completion of minor construction works, rectification of defects, testing of services, verification of users' works and other welfare and general facilities

Briefing Note 7.06 provides a typical checklist at the practical completion stage.

Handover

Procedures are needed for the following activities:

- To ensure that handover only takes place when all statutory inspections and approvals have been satisfactorily completed and subsequently to arrange that all outstanding works and defects are resolved before expiry of the defects liability period.
- To provide and agree a countdown schedule with the project team (examples of handover inspections and certificates checklists are given in Briefing Note 7.05).
- To define responsibilities for all inspections and certificates.
- To monitor and control handover countdown against the schedule.
- To control pre-handover arrangements if the client has access to the building before handover.
- To implement the pre-agreed Soft Landing arrangement for a smooth handover and transition (see Briefing Note 1.05)
- To deal with contractors who fail to execute outstanding works or correct defects including the possibility of implementing any contra-charging measures available under the contract. Agree and set up a procedure for contra-charging.
- To monitor and control any post-handover works which do not form part of the main contract.
- To monitor and control outstanding post-completion work and resolution of defects which form part of the main contract.
- To manage the end of the defects liability period and implement relevant procedures.
- To establish arrangements for the final account issuing the final certificate and carrying out the post-completion review/project evaluation report.
- To facilitate a Post occupation evaluation has been undertaken to determine the performance and success criteria of the project.

- To facilitate transfer of information and ownership of BIM from the delivery team to the operation and maintenance team

Client commissioning and occupation

Client commissioning

Client commissioning will involve the following handbook procedures:

- Arranging the appointment of the commissioning team in liaison with the client and establishing objectives (time, cost and specifications) and responsibilities at the feasibility and strategy stages.
- Preparation of a comprehensive commissioning and equipment schedule.
- Arranging access to the works for the commissioning team and client personnel during construction including observation of engineering services commissioning.
- Ensuring coordination and liaison with the construction processes and consultants.
- Preparing new work practice manuals and in close liaison with the client's/user's facilities management team, arranging staff training and recruitment/secondment of additional staff (e.g. aftercare engineer to support the client during the initial period of occupancy).
- Deciding the format of commissioning test and calibration records.
- Renting equipment to meet short-term demands.
- Deciding quality standards.
- Monitoring and controlling commissioning progress and reporting to the client.
- Reviewing post-contract the operation of the building at 6, 9 and 12 months: improvements, defects, corrections and related feedback.

Briefing Note 7.01 contains a relevant checklist.

Occupation

Occupation can be part of the overall project or a separate project on its own. A decision to this effect is made at the strategy stage with the client or user. The separate stages of occupation are set out below. Figure 7.1, Figure 7.2, Figure 7.3 and Figure 7.4 illustrate these procedures graphically and Briefing Note 7.01 provides an example of an occupation implementation plan. Briefing Note 8.01 provides an outline of post-occupation evaluation process which should also include a Post Completion Review to assess the performance and success of the project.

Structure for implementation In order to achieve the necessary direction and consultations, individuals and groups are appointed, for example:

- project executive (client/occupier/tenant)
- occupation coordinator (project manager)
- occupation steering group of a chair, coordinator and functional representatives concerned with the overall direction for:
 - construction schedule
 - technology

- space planning
- facilities for removal
- user representation
- costs and budget outline
- senior representative meeting of a chair (functional representative on steering group), coordinator and senior representatives of a majority of employees concerned with consultations on:
 - space planning
 - corporate communications
 - construction schedule problems
 - technology
- local representative groups chaired by manager/supervisor of their own group concerned with consultation at locations and/or departmental levels in order to ensure procedures for regular communications

Scope and objectives (regularly reviewed)

- Identification of who is to move (project executive).
- Agreement on placement of people in new locations (steering group).
- Decision on organisation of move (steering group):
 - all at once
 - several moves
 - gradual flow
- Reviewing time constraints (steering group):
 - construction
 - commercial
 - holidays
- Identification of risk areas, for example:
 - construction delays and move flexibility
 - organisational changes
 - access problems
 - information technology requirements
 - furniture deliveries and refurbishment
 - retrofit requirements

Methodology

- Listing special activities needed to complete the move, for example:
 - additional building work
 - communications during move
 - provision of necessary services and move support

- corporate communications
- removal administration
- furniture procurement
- removal responsibility in each location/department
- financial controls
- access planning
- Preparation of a task list for each special activity, confirmation of the person responsible and setting the schedule of project meetings.
- Production of outline and subsequently detailed schedule.

Organisation and control

- Steering group establishes 'move group' to oversee the physical move.
- Production of 'countdown' schedule (move group).
- Identification of external resources needed (move group), for example:
 - special management skills
 - one-off support tasks
 - duplication of functions during move
- Reporting to the client external support needs and costs (steering group).
- Preparation of monitoring and regular review of actual budget (steering group), for example:
 - dual occupancy
 - special facilities
 - additional engineering and technology needs
 - planning and coordinating process
 - inflation
 - external resources
 - non-recoverable VAT
 - contingencies

Briefing Note 1.05 Government Soft Landings

Summary

The UK government has identified³ a need to improve value in government construction contracts.

This 'Soft Landing' approach was conceived as a way forward to improve performance of facilities for their users.

The Government Soft Landings (GSL) policy was therefore produced.

Aim

To align the interests of those who design and construct a facility or asset, with those who eventually use it.

Asset management

The aim is to have an introduction period of between three and five years, post-completion (CIOB Stage 8), to confirm satisfactory in-use status of the facility, for its whole life.

To this effect, there is a strong link with BIM.

Development of the GSL

The GSL policy was developed with the assistance of a task group formed from construction and FM suppliers, architects/designers, academics and representatives from industry, local and central government.

It is aligned to the BSRIA Soft Landings Framework (BSRIA BG4/2009) and the BSRIA Soft Landings Core Principles (BSRIA BG 38/2012), later the Cabinet Office produced eight sections for the Government Soft Landings (April 2013 <http://www.bimtaskgroup.org/reprts>).

After GSL initially identified four sections/areas along the project timeline, these eventually have become eight sections, including Planning for aftercare:

1. Introduction
2. GSL Lead and GSL Champions
3. Functionality and effectiveness:

³ The UK Government Soft landings Policy, September 2012 – April 2013, issued by the Cabinet Office – Government Property Unit.

Buildings designed to meet the needs of the occupiers; effective, productive working environments.

4. Capital cost and operating cost

5. Environmental management:

Meet government performance targets in energy efficiency, water usage and waste production.

6. Facilities management:

A clear, cost-effective strategy for managing the operations of the facility.

7. Commissioning, training and handover

Projects delivered, handed over and supported to meet the needs of the end user

8. Planning for Aftercare

The project manager has the responsibility of organising and reviewing the project specific Aftercare Plan, established and approved prior to commencement of details design and construction and further approved by the project sponsor prior to implementation.

Collaborative working

Collaborative working is fundamental to the concept of GSL and it is paramount to obtain key stakeholder engagement at all stages of the process.