

Procurement and Contracts

Profession & Business 1

Level 5

Mod Code: M5X01982

Procurement is the process of purchasing goods or services. There are many different routes by which the design and construction of a building can be procured.

The selected route should follow a strategy which fits the long-term objectives of the client's business plan. Considerations are likely to include:

- Speed.
- Cost.
- Quality.
- Specific project constraints.
- Risk.
- Asset ownership.
- Financing.

In 2012, an RIBA member's survey suggested that procurement routes commonly used by respondents were:

- Traditional contract 86%
- Single-stage design and build 41%
- Two-stage design and build 39%
- Management contract 18%
- PFI 10%

A range of possible procurement routes, and short descriptions of them are presented below, along with links to more detailed information.

Admeasurement contract

Admeasurement contracts are commonly used on civil engineering projects.

Rates are provided in the contractor's tender, either as part of the priced bill of quantities, or within a schedule of rates.

Then the actual quantities of work carried out are measured and the rates applied to those quantities.

As a result, the quantities paid for may vary from the original estimate.

Construction management

Construction management is a procurement route in which the works are constructed by a number of different trade contractors.

These trade contractors are contracted to the client but managed by a construction manager.

The construction manager, acts as an agent for the client, administering and co-ordinating the works contracts.

The construction manager is generally appointed early in the design process so their experience can be used to improve the buildability and packaging of proposals as they develop.

Custom build

Custom-build homes are a less 'hands-on' variation of self building in which the prospective home owner works with a developer that can take on the design and construction of the home on their behalf and may help find and acquire a site and arrange finance.

Design and build

Design and build is a procurement route in which the main contractor is appointed to design and construct the works. Design and build can be attractive to clients as it gives a single point of responsibility for delivering the project.

Design and build projects can follow either a single-stage or two-stage tender processes.

'Develop and construct' is a variation on design and build, in which most of the design is completed before the contractor is appointed. This avoids some of the potential problems of design and build, but also misses some of the opportunities.

Design build finance and operate (PPP / PFI / DBO / BOOT)

A single contractor (perhaps a special purpose vehicle (SPV), with design, construction and facilities management expertise as well as funding capability) is appointed to design and build the project and then to operate it for a period of time.

The contractor finances the project and leases it to the client for an agreed period (perhaps 30 years) after which the development reverts to the client.

Variations include: Design Build Operate (DBO) and Build Own Operate Transfer (BOOT).

An example of a design build finance and operate procurement route is Public Private Partnership (PPP), the most common form of which is the Private Finance Initiative (PFI).

Emerging cost contracts

An emerging cost (Time and Materials or T&M) contract is a management contract for works and services where the management contractor is paid direct costs identified in an 'estimate of project costs'.

It is often applied over a certain period of time. This means that design and workmanship should give greater consideration to long-term performance issues.

Emerging cost contracts are often used on projects such as railway infrastructure contracts.

They provide for sophisticated management services along with sub-contracting the construction of the works.

Engineering procurement and construction contract (EPC) / turnkey contract

EPC contracts, sometimes called turnkey contracts are similar to design and build contracts, in that there is a single contract for the design and construction of the project, but generally with an EPC contract, the client has less say over the design of the project and the contractor takes more risk.

Generally, EPC contracts are used on engineering and infrastructure projects, where the aesthetics of design might be considered less important than performance and cost certainty.

Engineering procurement and construction management contract (EPCM)

EPCM contracts are similar to EPC contracts (see above), but the client employs the necessary trade contractors to construct the works.

The 'contractor' acts as a construction manager, managing the trade contractors. Effectively they are performing the roll of a consultant during the construction phase.

Fast-track construction

Typically associated with construction management and management contract projects, fast-track construction overlaps project tasks (such as design and construction) to reduce the overall project duration.

Furniture, fixtures and equipment (FF&E)

FF&E refers to the procurement of Furniture, Fixtures and Equipment. This might be procured separately to the main construction contract, particularly by clients that may already have systems in place for procuring fixed and loose furniture, fittings and equipment, for example schools or hospitals.

It is very important under such circumstances to define which contract every element of FF&E is within. It is also important to ensure that any building work required for installation is identified and procured, that any services required are identified and that installation is properly integrated into the main contract.

Framework agreements

Clients that are continuously commissioning construction work might want to reduce timescales, learning curves and other risks by using framework agreements. Such arrangements allow the client to invite tenders from contracts to be carried out over a period of time on a call off basis as and when required.

Guaranteed maximum price

A guaranteed maximum price (GMP) is a form of agreement with a contractor in which it is agreed that the contract sum will not exceed an specified maximum.

Typically this is a mechanism used on design and build contracts where the contractor has responsibility for completing the client's design and for carrying out the construction works, so they are in a good position to control costs.

Lump sum contract

A lump sum contract is the traditional means of procuring construction, and still the most common form of construction contract.

Under a lump sum contract, a single 'lump sum' price for all of the works is agreed before the works begin.

It is generally appropriate where the project is already well defined when tenders are sought and changes are unlikely. A lump sum contract is not a fixed price. There is more certainty over the final cost, but there are still mechanisms that allow the contract sum to change.

Management contract.

A management contract is one where the works are constructed by a number of different works contractors who are contracted to and managed by a management contractor.

A management contract structure is similar to a traditional contract, however, instead of taking the risk associated with a fixed price, the management contractor is reimbursed the amounts paid to works contractors, and is paid a fee usually in the form of a percentage.

Measured term contracts

Measured term contracts are used where the client has a regular programme of works that they would like to be undertaken by a single contractor.

They are generally used for minor works or for maintenance work.

Measurement contract (re-measurement or measure and value contract)

Measurement contracts (sometimes called 're-measurement' or 'measure and value' contracts) can be used where the design, or type of works can be described in reasonable detail, but the amount cannot.

For example, excavation, where the quantity required is difficult to assess until after the works have begun.

The contract sum cannot be determined when the contract is entered into, but instead is calculated on completion based on 're-measurement' of the work carried out.

Partnering

Partnering arrangements are intended to enable full integration of design, construction and operation.

Partnering arrangements are linked by bi-party contracts and can include contractors, suppliers and specialist designers. Collective and individual incentive schemes for delivery can be included in cost reimbursement and fee payments.

Partnering requires heavy involvement from the client acting as employer and adjudicator of disputes.

Prime cost contract / cost plus contract / cost reimbursable contract

Prime cost contracts are sometimes called cost plus contracts or cost reimbursable contracts.

They might be used where the nature or scope of the work to be carried out cannot be properly defined at the outset, and the risks associated with the works are high.

They are often used where an immediate start on site is required, for example for urgent alteration or repair work.

Tendering proceeds based on an outline specification, any drawings and an estimate of costs. The Contractor is paid the prime cost (the actual cost of labour, plant and materials) and a fee for overheads and profit.

Schedule of rates term contract

This form of contract is normally used when the nature of work is known but cannot be quantified, or if continuity of programme cannot be determined.

In the absence of an estimate, tenderers quote unit rates against a document that is intended to cover all likely activities that might form part of the works. Indicative quantities may or may not be given to tenderers but do not form part of the contract.

Self-build

Self building is an alternative to the traditional model of house building in the UK.

Traditionally, houses are built speculatively by a developer, and then people buy them and move in.

With self building, the prospective home owner instigates the development of the home themselves, whether by purchasing a kit house, employing a design and build contractor, employing consultants (such as an architect) and a contractor, or managing the entire process and ordering all the goods and services required themselves.

Single-stage tender

Single-stage tendering is the traditional route for procuring in the construction industry.

It is used when all the information necessary to calculate a realistic price is available when tendering commences and so the complete contract can be awarded based on tenders received.

Traditional contract (Design-Bid-Build)

The 'traditional' procurement route (sometimes referred to as design-bid-build) is a single-stage, fully designed project where the design is developed in detail by a consultant team working for the client and a contractor is then appointed under a lump-sum construction contract which includes penalties for late completion.

The contractor may have no responsibility for any design other than temporary works.

Two-stage tender

Two-stage tendering is used to allow early appointment of a contractor, prior to the completion of all the information required to enable them to offer a fixed price.

In the first stage, a limited appointment is agreed allowing the contractor to begin work and in the second stage, when more detail is available, a fixed price is negotiated for the rest of the contract.

It can be used to appoint the main contractor early, or more commonly as a mechanism for early appointment of a specialist contractor such as a cladding contractor. It may also be adopted on a design and build project.

Traditional contract

Good for:

- Quality – full design pre tender
- Design flexibility – variations & instructions
- Specialist subcontractors – Named specialist update to standard building contract sbc11
- Design control – through the architect/contract administrator
- Contractor's Designed Portion – such as mechanical and electrical engineering
- Cost – there may be lump sum cost benefits unless are multiple changes made

Traditional contract

Not suited for:

- Time – require full detailed pack pre-tender
- Cost – not a benefit if many changes made
- Incomplete drawings – lead to delay, costs and claims of negligence

Traditional contract

Contract: Standard Building Contract SBC11

- Lump sum payment
- CDM
- Contractor's Designed Portion
- Named subcontractors
- Variations/instructions
- Retention
- Collateral warranties
- Termination provisions
- Pre-agreed alternative dispute resolution procedures.

Design and build

Good for:

- Time – Fast track, overlap of design and construction
- Cost – lump sum / Guaranteed maximum price
- Single point of responsibility – Contractor design and build responsibility
- Has good price certainty
- Easy to arrange changes in the design
- Novation – can benefit quality.
- Low risk for the client
- Variations can be accurately valued

Design and build

Not suited for:

- Quality – cheapest route to meet contract specification can lead to low quality products/build quality.
- Design flexibility – request for changes will have cost/time implications
- Contractor carries risk for construction
- Client exposed to claims for buildability
- Design could affect the buildability of the project

Design and build

Contract: DB11

- Contractor to complete design and carry out the works.
- Lump sum/Guaranteed maximum price
- CDM
- Collateral warranties
- Termination provisions
- Retention
- Pre-agreed dispute resolution procedures

Design and build procurement route

Design and build is a term describing a procurement route in which the main contractor is appointed to design and construct the works, as opposed to a traditional contract, where the client appoints consultants to design the development and then a contractor is appointed to construct the works.

Design and build can be seen as giving a single point of responsibility for delivering the entire project.

Some clients, however, consider it is only appropriate for simple projects, where design quality is not the main consideration.

The contractor can either be appointed to carry out all of the design work, or if the client wishes to have greater influence over the design, a concept design and outline (or performance) specification can be prepared by a consultants employed by the client, and then the contractor is appointed to complete the design and carry out the construction.

The contractor may use their own in-house designers to design the building, or they can appoint consultant designers, or the client's designers can be employed by the contractor to complete the design (either by novation or consultant switch).

If the contractor is appointed at the outset of the project (so that they can contribute to the development of the design from the beginning), they may be appointed through a two-stage process. In the first stage, the contractor is selected on the basis of a fee, preliminaries, overheads and profit.

They then work with the design team (who may be employed either by the contractor or by the client at this stage) to develop the design, on the basis of which a fixed price is negotiated for the second stage; construction, when the design team may be novated to the contractor if the contractor does not already employ them.

Design and build is one of the three procurement routes favoured by the government for publicly-funded projects, as it allows a fully integrated team to work together on the project from the beginning.

Design and build contracts can be awarded on a fixed price, lump sum basis, but price certainty is then dependent on not making any subsequent changes as these could prove to be expensive (as prices charged by the contractor for those changes will not be subject to competition).

It is very important therefore that the client gives a great deal of consideration to the preparation of employer's requirements, and if they have not appointed their own design team, they may wish to appoint independent client advisers to help them do this.

Similarly, if any designers appointed by the client are novated or switched to work for the contractor, the client may then wish to appoint independent client advisers to review contractor's design proposals, administer the contract and monitor works on site.

Design and build contracts include:

- Joint Contracts Tribunal (JCT) DB 16 (also JCT Major project contract and JCT Constructing excellence contract).
- The Association of Consultant Architects ACA/2.
- Government Contracts GC/Works 1 (single stage or two stage) (NB: GC Works contracts are no longer being updated by the government).
- Institution of Civil Engineers (ICE) Design and Construct (this has now been withdrawn in favour of NEC3).
- The New Engineering Contract (NEC) Engineering and Construction Contract NEC3.

Tender processes

A tender is a submission made by a prospective supplier in response to an invitation to tender. It makes an offer for the supply of goods or services.

In construction, the main tender process is generally for the selection of the contractor that will construct the works. However, as procurement routes have become more complex, so tenders may be sought for a wide range of goods and services (for example, on a construction management contract the works are constructed by a number of different trade contractors each contracted to the client) and contractors may take on additional functions such as design and management.

Tender processes

There is also an increasing tendency for suppliers to be aggregated into single contracts, for example, 'integrated supply teams' on public projects may include; the main contractor, designers, sub-contractors, suppliers, facilities managers, and so on.

Irrespective of the nature of the goods or services that are being sought, the process for securing tenders may take a number of different basic forms:

Open tendering

- Open tendering allows anyone to submit a tender to supply the goods or services that are required. Generally, an advert will be placed giving notice that the contract is being tendered, and offering an equal opportunity to any organisation to submit a tender.
- On larger projects, there may then be a pre-qualification process that produces a short-list of suitable suppliers who will be invited to prepare tenders. This sort of pre-qualification process is not the same as selective tendering.
- Open tendering has been criticised for attracting tenders/expressions of interest from large numbers of suppliers, some of whom may be entirely unsuitable for the contract and as a result it can waste a great deal of time, effort and money. However, open tendering offers the greatest competition and has the advantage of allowing new or emerging suppliers to try to secure work.

Selective tendering

- Selective tendering only allows suppliers to submit tenders by invitation. A pre-selected list of possible suppliers is prepared that are known by their track record to be suitable for a contract of the size, nature and complexity required. Consultants or experienced clients may maintain 'approved' lists of prospective suppliers and then regularly review performance to assess whether suppliers should remain on the list.
- Selective tendering can give clients greater confidence that their requirements will be satisfied and should reduce the wasted effort that can be involved in open tendering. It may be particularly appropriate for specialist or complex contracts, or contracts where there are only a few suitable firms. However, it can exclude smaller suppliers or those trying to establish themselves in a new market.

Negotiated tendering

- Negotiating with a single supplier may be appropriate for highly specialist contracts, or for extending the scope of an existing contract.
- It can reduce the costs of tendering and allow early contractor involvement, but the competitive element is reduced, and unless the structure of the negotiation is clearly set out there is the potential for an adversarial atmosphere to develop, even before the contract has been awarded.

Serial tendering

- Serial tendering involves the preparation of tenders based on a typical or notional bill of quantities or schedule of works. The rates submitted can then be used to value works over a series of similar projects, often for a fixed period of time following which the tendering procedure may be repeated.
- Serial tendering can reduce tender costs, and may encourage suppliers to submit low rates to secure an ongoing programme of work.

Framework tendering

- Clients that are continuously commissioning work might reduce timescales, learning curves and other risks by using framework agreements.
- Such arrangements allow the client to invite tenders from suppliers of goods and services to be carried out over a period of time on a call-off basis as and when required.

Framework tendering

- Framework tender documents are likely to include a request for a schedules of rates and time charges and a breakdown of resources and overheads to be applied (including any proposed subcontractor or sub-consultant details).
- One or more suppliers are then selected and appointed. When specific projects arise the client is then able to simply select a suitable framework supplier and instruct them to start work. Where there is more than one suitable supplier on the framework, the client may introduce a secondary selection process to assess which supplier is likely to offer best value for a specific project. The advantage of this process to the client is that they are able instigate a selection procedure for individual projects without having to undertake a time-consuming pre-qualification process. This should also reduced tender costs.

