A simple approach to the procurement of capital projects

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Denham Procurement & Sourcing Solutions

Denham Procurement & Sourcing Solutions is a specialist procurement consultancy formed in 2014;

- Interim Procurement Support
- Business Cost Reduction
- Contract, Cost & Lease Negotiations
- Demand, Project and Move Management
- Procurement Efficiency Reviews
- Public Sector Bid Writing and Support
- Sourcing of Goods & Services

About Simon Denham

Simon's specialist area of procurement is capital projects and FM services. Experience;

- Procurement Director for Top 50 Construction Business.
- Four years overseas – $500m Four Seasons Resort, Hospitals and Roads.
- Five years at Plymouth University as Head of Procurement and Project Director for Capital Programme.
- Formed Denham Procurement & Sourcing Solutions in 2014. Interim roles, including Balfour Beatty Crossrail / CP6 & Hinkley, Kier, McCarthy and Stone and Hampshire Council.

Procurement Strategy and Soft Market Testing

- How many procurement managers prepare detailed procurement strategies when considering the procurement of a strategic capital project?
- How procurement managers undertake soft market testing and post project lesson's learnt workshops to ensure you are considering all options to obtain best value? Or that the market will bear your risk profile?
- A well thought through procurement strategy will enable procurement and the estates department to consider their options for achieving best value, programme and quality. It will also enable early consideration of procurement routes, frameworks options, BREEAM, ITT drafting and scoring criteria, insurances, cost control and procurement of enabling works, fit out and FF&E. Most importantly consideration of design development stage and the appointment of consultants.

Design Development / Procurement of Contractor

TRADITIONAL

Suitable for most projects, especially complex projects and projects where functionality is a prime objective. Less suitable for fast-track projects.

The client develops the business case for the project, provides a brief and budget and appoints a team of consultants to prepare a design, plus tender documents. The client appoints the contractor to construct the works to the design, by the completion date and for the agreed price. Usually much of the work is sub-contracted but the contractor remains liable. The consultants administer the contract on behalf of the client and advise on aspects associated with design, progress and stage payments which must be paid by the client. **The separation of the contractor from the design can mean missed opportunities for contractor or specialist contractor to input.**

This strategy is a low risk option for clients who wish to minimise their exposure to the risks of overspend (not to be confused with best value), delays or design failure. However, the exposure to risk will increase where the design phase is rushed, where unreasonable time targets are set or where tender documents are not fully completed.

Design Development / Procurement of Contractor

DESIGN & BUILD

This methods of procurement involves the contractor taking responsibility for the design as well as construction. Suitable for most projects including faster track. Less suitable for projects with an uncertain or developing client brief and/or extremely complex projects.

The main contractor takes responsibility for both design and construction and will use their preferred design team and specialist sub-contractors to carry out the design.

The Design and Build method speeds up the programme and enables the contractor to input at an early stage. However, the client commits to the cost of construction, as well as the cost of design , much earlier than with the Traditional approach. Risk is shifted to the contractor under this method. Changes made by the client during design can be expensive as they affect the design and construction, rather than just design team costs – also at this point you are already in contact: i.e. past the stage where competition exists.

The contractor tenders against a client brief and will often follow an initial concept design (RIBA Stage will vary) prepared by the clients professional team. The design will be developed by the contractor and the works will be completed, usually for a fixed price. Tendering is more expensive so it carries more risk for the contractor than the Traditional approach. Tender lists will probably be shorter than for Traditional contracts.

Design Development / Procurement of Contractor

DESIGN & BUILD – SINGLE STAGE

The client professional team is employed to develop the design to a RIBA Stage that allows acceptable levels of client functionality or cost certainty. The procurement strategy identifies the RIBA Stage at which the tender will be issued, this will usually be during the Design Phase – RIBA Stage C (2 – Concept), D (3- Developed Design) or E (4 – Technical Design). The contractor will finish off the design and construct. The client may choose to 'novate' their client team or ask that the contractor identifies and employs their own. The client may choose to retain their design team as 'Technical Advisors'. The level of assistance from Technical Advisors team will depend on budget, complexity, contractor or contractor team, level's of in-house capability – especially with regard to quality control.

If good quality information, with few omissions or errors, is issued to the contractor and post contract changes are managed this is a highly effective method of delivering a project with high levels of value for money.

High levels of cost certainty during design and construction, especially for clients who have encountered problems agreeing a cost plan with the contractor or controlling costs in the second stage of the tender

Mitigates the need for tough negotiation in the later stage of agreeing a contract sum with the contractor in a 2-stage collaborative process

Risk of encouraging adversarial behaviour and when tendered on incomplete information can provide illusory promise of competitive pricing and cost certainty. Project Team must be capable and managed so as to complete properly a design to the level of detail intended under the contract.

Design Development / Procurement of Contractor

DESIGN & BUILD – SINGLE STAGE (Continued)

Advantages: Cost certainty – early commitment on price, risk allocation – clear statement of risk allocation, avoidance of cost escalation during second-stage tendering – contractor not given opportunity to revisit pricing, competitive pricing – full scope of works is priced in competition, cost of tendering – pricing documents by the employer simplify the bidding process (BoQ), collaborative working – a complete and well documented design provides a clear demarcation of design and construction responsibilities, contractor influence over the selection of specialists and ability to consider alternative construction methods and buildability, overall speed of project – timescales are known and there should be less opportunity for extended negotiation during the tender period than with a two-stage approach

Disadvantages: Firm prices only as good as quality of information provided – changes introduced by the client or design team will undermine the certainly achieved with a lump sum price, second stage tendering helps the contractor understand the design and use of provisional items provide the contractor with a 'second stage' pricing opportunity, more resource intensive for contractor and lower chance of winning, limited opportunity for client to influence the selection of specialist contractors.

Design Development / Procurement of Contractor

DESIGN & BUILD – TWO STAGE

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 a fixed price is negotiated for the contract. It can be used to appoint the main contractor early. A two-stage tender process may also be adopted on a design and build project where the employer's requirements are not sufficiently well developed for the contractor to be able to calculate a realistic price. In this case, the contractor will tender a fee for designing the building along with a schedule of rates that can be used to establish the construction price for the second stage tender.

The basis of the appointment for the first stage may include: a preconstruction and construction programme, method statements, detailed preliminaries including staff costs, agreed overhead and profits, a schedule of rates to be applied to the second stage tender – by obtaining prices for work packages from sub-contractors or suppliers on an open book basis, agreed fees for design and other pre-construction services, CV's for proposed site and head office staff, tendering of any packages that can be broken out and defined, agreed contract conditions to be applied to the second stage construction contract. There is no obligation to proceed to the construction contract.

In theory, this early involvement of the contractor should improve the buildability and cost certainty as well as creating a better integrated project team and reducing the likelihood of disputes.

Design Development / Procurement of Contractor

DESIGN & BUILD – TWO STAGE (Continued)

Ideally the second stage negotiation is a mathematical exercise using the pricing criteria agreed in the first stage agreement. In reality there will be some items not previously considered, around which negotiations will ensue. Often the deliverables are watered down from the original offer. Two stage tendering enables the client to transfer design risk to the contractor, however the client inevitably loses leverage as the contractor becomes embedded in the team and competition is less of a threat.

Advantages: Flexible approach to awarding contracts as it allows participation of prospective bidders in the definition of the technical specification and scope of work, preferred bidder is more likely to have a good understanding of the requirement which should reduce risk during delivery, prospective bidders are able to make suggestions for improvements to the scope of works through their clarification discussions, a financial proposal is submitted only after reaching agreement on the technical specifications and scope of work, a contract is negotiated on the basis of the agreed technical specifications and scope of work, more certainly regarding the qualifications of the preferred bidder.

Disadvantages: Extended procurement lead-time due to two stage submission process, second stage negotiations with the highest ranked bidder can prove difficult and protracted, significant risk of price escalation and negotiations becoming adversarial in the second stage, once a contractor is selected for negotiations competition is lost and this has a high likelihood of negatively impacting the price for the client.

Appointment of Consultants

- Procurement by Project
- Procurement by University
- Frameworks

Key Consideration;

- On board to provide assistance with Procurement Strategy?
- Appointment of Lead Consultant – Architect or Project Manager?
- Ability to appoint in stages?

Routes to Market

- Procurement by Project
- Procurement by University
- Frameworks

Key Consideration;

- Route to market will depend, to a certain extent on procurement strategy and design development.
- Most Government frameworks are Two-Stage, in my experience not best value for smaller projects – up to £8-10m depending on geographic location.
- Fit for purpose design development, specification and award criteria to get best bids from market.

Achieving Best Value - Examples

Example 1: Plymouth University - Marine Building (Circa £19M Project Value). Project Director.

- Enabling works tendered and undertaken separately to reduce cost and programme risk to main works. Also to maximise programme, demolition undertaken whilst design and tendering undertaken.
- Single Stage Design & Build at RIBA Stage D (3 – Developed Design). Specialist equipment and research areas designed to RIBA Stage E+/F (4 – Technical Design).
- Specialist wave making, simulator and laser equipment procured by university prior to building design and procurement. Also installed by specialist equipment provider which in turn reduced OH&P to main contractor (more management by client).
- Specialist equipment designer joined design team and generic spaces designed around specialist equipment / research areas.
- ITT tender included 'wish list' for contractor pricing and value engineering opportunities. A number of value engineering items accepted which funded items on wish list.
- All FF&E procured by the client.
- Significant saving over budget achieved.

Achieving Best Value - Examples

Example 2: Peninsula Dental Social Enterprise – Exeter Dental School (Circa £4M Project Value). Consultant

- Refurbishment of office building into Dental School. Single Stage Design & Build at RIBA Stage D (3 – Developed Design).
- Specialist equipment – dental chairs, cabinetry and x-ray - procured by university during contractor design element building. As Marine Building, installed by specialist equipment provider(s). Whilst required more management and co-ordination by client, zero VAT on circa £800k, reduced contractor OHP. Most importantly, ensured that client achieved best value on specialist equipment after tender exercise and enabled them to enter into maintenance and warranty direct with manufacturer.
- Specialist equipment manufacturers attended design and site meetings to ensure co-ordination of services and programme.
- All FF&E procured by the client.

Achieving Best Value - Examples

Example 3: Coventry University – Faculty of Humanities Building (Circa £80m Project Value). Consultant.

- Demolition of existing building and new build /refurbishment of Faculty of Health Building. Built Refurbishment and new build highly complex which involved multiple people and equipment moves.
- Two Stage Design & Build at RIBA Stage B ((1 – Preparation). University tender, project value and risk meant that Two Stage Tender the only viable option. Early contractor involvement needed.
- Key considerations in ITT were early contractor involvement whilst ensuring that the contractor did not dilute the design and to ensure that costs could be managed.
- During clarification stage, contractors asked to declare all third party rebates and retrospective discount arrangements. Also to declare where there was profit-on-profit by using internal businesses to deliver elements of the work.
- During ITT stage all FF&E removed from scope and changed to 'procured by the client'. Enabled client to have better control over quality of supply, achieve better value and have direct warranties etc.
- Also, prior to tender, insurance levels revised as 'arbitrary' insurance levels requested were above and beyond those of most Tier 1 contractors – meaning that any successful contractor would have to procure additional and costly insurance or may not be able to bid.

Requirements of Procurement Team – IN MY VIEW

- Provide procurement strategy for Professional Team.
- Provide assistance in defining procurement strategy for Contractor.
- Liaise with legal representatives regarding contracts and requests for contract amendments by professional team or contractor. Procurement of concessions.
- Reviewing design documents to identify areas which may constrain a contractor's ability to deliver best value for money options. Sole specification of materials, products, and services during defects/warranty period – lifts, revolving doors, boilers etc.
- Assisting with the derogations list to ensure that cost certainty is maximised. Particularly important if tendered price is above or below construction budget.
- Ensuring that large scale projects maximise opportunities for engagement with student population and student experience.

Requirements of Procurement Team – IN MY VIEW

- Provide assistance in ensuring that requirements of the project are placed in the correct Group to deliver best value for money v risk management.

Group 1 – Items supplied and fixed under the terms of the contract and included in the works cost. Generally large items of plant and equipment that are permanently installed/wired-in. Excluded from this group are items subject to late selection due to considerations of technological change and specialised equipment items best sourced by procurement (subject to OHP and fees).

Group 2 – Items which have implications in respect of space/construction/engineering services and are installed under the terms of the contract but are procured by the client under direct arrangements and funded out of the separate equipment budget, along with Group 3 items. They include the items described above as being excluded from Group 1 equipment (not subject to OHP and fees – except management and labour).

Requirements of Procurement Team – IN MY VIEW

Group 3 – Items which have implications in respect of space/construction/engineering services and are purchased and delivered/installed directly by the client, e.g. furniture, research equipment, servers. Like Group 2 equipment they are funded from the separate equipment budget (not subject to OHP and fees).

Group 4 – Items which may have storage implications but otherwise have no impact on space or engineering services and are purchased by the client from normal revenue budgets. Laptops, desktops, copiers, instruments, consumables.

- Maximise opportunities to deliver VFM and assist with scoring 'cost'.
- Procure additional services – Surveys, Technical Advisors, BREEAM, Legal Services, CoW, Critical Friends, Commissioning Engineers etc.
- Sustainability in design, delivery and occupancy.
- Undertake Post Project Review / Lessons Learnt!

Thanks and Questions?

Thanks to Emma and Don!

Happy to answer any questions, or feel free to give me a call or drop me an email if you would like any further information.

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