

**PRODIGIOUS PROCUREMENT MANAGEMENT ON
ROBBINGTON GROUPS CONSTRUCTION PROJECT IN
ENGLAND**

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ABSTRACT:

Robbington leisure place is a dynamic leisure group that is constantly seeking to expand its business forward. They are one of the largest operators of horseracing; they stage 20 percent of all racing fixtures held each year. Robbington is proposing to make significant improvements to their flagship racecourse at Hamchester to meet the St Dredger Stake scheduled for mid - September 2010. The improvement includes construction of grandstand, an exhibition centre, and construction of a new hotel facility and casino. This paper deals with a critical analysis and evaluation of this proposed Robbington Racecourse project from design to construction. The report started with the strategy briefing of Robbington's Trust, to the stakeholder management and appraisal of procurement system so as to select the best route that will deliver the project at the stipulated time. Series of procurement method were carefully considered, ranging from Traditional method to Management Contracting. Traditional method would have been suitable for either phase of the project. But because the detailed design must be completed before construction work commences on site which may cause a longer project completion and time is paramount in the project but Design and Build method will allow early commencement of construction work on phase one due to the overlapping of design and construction work which makes the whole project time reduced. Management contracting method will also allow early commencement of work at the phase two and due to the highly innovative hotel facility and some level of complexity, which will be managed by the skilled management team. After careful consideration and assessment of Robbington's objectives and suggestion from two (2) procurement path decision chart after (Bennett and Grice) and (Skitmore and Marsden) for phase one and phase two, the Design and Build method was adjudged the best procurement option for phase one and Management Contracting method for phase two.

Key Words: Robbington, Procurement, Construction, Design and Build

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1.0 PROJECT SCENARIO:

Robbington Leisure plc is seeking to redevelop and expand its racecourse at Hamchester that hosts the St. Dredger Stakes scheduled for 2010 and 2011 respectively. The redevelopment and expansion of the Hamchester racecourse has been structured in a way that would allow the racecourse to meet the oncoming event. The trust decided that the redevelopment should be in two phases, phase one and phases two, because the time for redevelopment is limited. According to trust the redevelopment must be priority due to time. The phase one is actually where the event that will be fixture would take place and commence, phase one works must commence as fast as possible, while phase two commences after or during the phase one works but if there is a separate contractor the work may commence simultaneously provided phase one meet the specified time while phase two meets the later specified time. The phase one must be completed within twenty months, as failure to achieve this, the 2010 St. Dredger Stake, scheduled for mid-September will not return to Hamchester and will result to a great loss to Hamchester/Robbington leisure plc. The phase two should also be completed within twelve months after the completion of phase one, and must be operational for the 2011 St Dredger meeting in mid-September or the hotel facility will not be used to accommodate the horseracing competitors and the spectators that will lodge in the rooms. This may delay the activities because the competitors will have to lodge somewhere else which may be far from the venue. Consequently, getting there on time may be a challenge since some of the competitors may be coming to the event for the first time.

1.1 STRATEGY FOR EFFECTIVE BRIEFING:

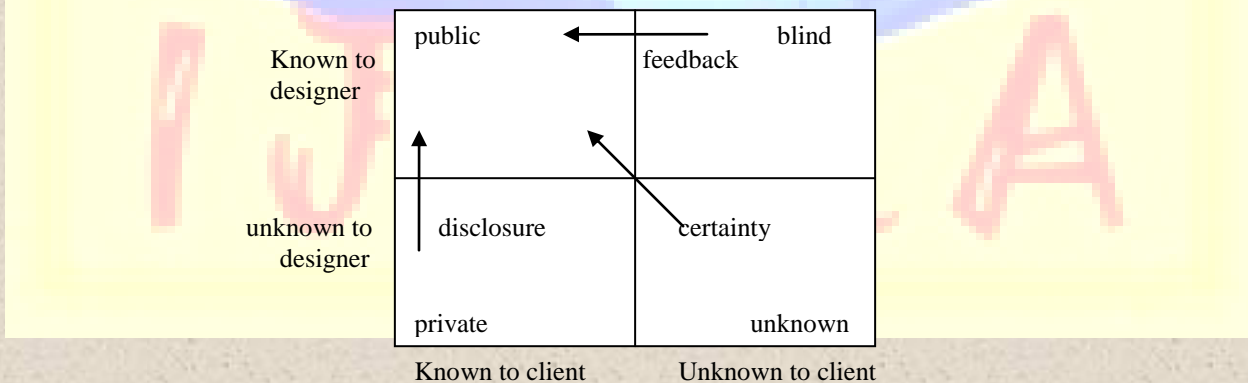
The briefing problem is an action of turning the client's desire for a facility into a clear brief; it is a process of defining the project mission and turning it into a brief against which resources can be mobilised. (Winch, 2002). The need for an effective brief in the construction execution has been increasing over the year. Clients are seeking a better way of turning their need into the facility. The need to turn the client requirement into the facility brings about the need to employ strategy for an effective briefing. The players that will be involved in gathering the strategy

briefing are clients, facility users, project manager, design team, public interest and the briefing consultant.

Information flows between these parties under very high level of uncertainty. The probability of misunderstanding is high and can only be intense by frequent iterations around the problems. (Winch, 2002)

Information can be classified as being public (information is available and understood by client and designers); private (information is known to client but not communicated or understood to designers); blind (known to designers but not communicated or understood to client); unknown (not known by designers and client-uncertainty in project mission).

According to Barrett and Stanley (1999) information can be managed by using the johari window.



The strategies to be used for effective briefing are disclosure and feedback. Feedback is the process by which the design team communicates with the client concerning likely design solution, hence move the client from blind to share as indicated in the arrow. Disclosure is the process by which client gives information to the design team, allowing it to share information that has been held privately as indicated by vertical arrow. Winch (2002) pointed out the strategy that will be used under these two processes, they are;

Work with the same design team used on previous project. The client is experienced with having done previous development in the past racecourse project. The design team that was used in those past development will be employed, this is because there will be greater trust between

the parties involved compared to using new design team. There will be clearer communication and understanding of what the parties want since the team is familiar with the client, the parties have been working together. The problem of understanding the way in which other parties deal with problem and assigning solution will be explained through acquired knowledge. The design team will be appointed; it will not be by competitive tendering.

Use of visualisation technique. The task of the designer is to turn the needs of the client into visual form in a sketch; this is because the client will articulate its needs in form of text. Professionals will be employed to produce artists' impressions. The sketches express in visual form the thought of the designer; these sketches are fast to produce and save time and are at the same time quite cheap to produce. The visual sketch will be produced in 3D model or alternatively produced using 3D graphics in virtual reality system. There will be visit to other Robbington's racecourses so as to get more insight of the requirement; the designer will get more inspiration when similar facilities are visited. Furthermore, there will be arrangement for joint visit to other Robbington's racecourses between the client representatives and the design team. This is because joint visit offers additional advantage that the informal interaction between the client and the design team during the visit, there is opportunity to build more trust and will jointly see the need that will be incorporated in the new development that was not seen in the visited facilities. Additionally, client representative will visit other racecourses with similar facilities so as to gain more insight to how their own facilities might work effectively.

Involvement of facility users. Hyams (2001) suggested that there are two types of building users; employees and volunteers. Employees of the client organisation will be given the task of participation in the briefing. The volunteers who are unconnected to the users include the horse riders, trainers etc. Employees and volunteers are both important. The users of the facility will be involved in the briefing stage. The need to involve the user is very important, because the client does not really have a full understanding of the business processes to fully articulate the needs of the users of the facility. The user needs to be involved in the briefing; the method that will be used will range from the use of questionnaires which will be distributed to employees and

volunteers of the client organisation. The users will also be given active role when generating the briefing and design process.

2. **BRIEFING:**

2.1 **Statement of Intent**

To develop the existing Robbington's racecourse at Hamchester, to meet the oncoming St. Dredger Stakes.

2.2 **Statement of Work**

Design works

- The design of a new grandstand;
- Design of a new 120-bed hotel facility and casino;

Construction works

Phase 1 includes:

- demolition of the existing grandstand;
- construction of a new 5-storey grandstand with capacity of up to 60,000 to include conference and exhibition centre;
- refurbishment of two existing stands circa;
- road works and car parking with 6,000 spaces;
- landscaping and drainage;
- other miscellaneous external works;

Phase 2

- construction of new 120-bed hotel facility and casino

2.3 **Scope of Work**

The project is quite moderately complex project which is to include race competitor and spectators' facilities such as grandstands, hospitality or facilities for competitors, such as pit lanes and garages, paddocks and stables, conference and exhibition centre, stands circa, hotel facility and casino to meet all British racecourse standards and guidelines, and fit to international standards.

2.4 Role Statement

To redevelop and expand the existing Robbington racecourse so as to provide platform for entertainment to the city of Hamchester and all human race that will be interested in the activities that will take place at the racecourse and also to meet the oncoming St Dredger Stakes event.

2.5 Activities

The client is aiming to ensure its venue is capable of operating 365 days a year and this will require a wide range of activities which include:

- horse racing;
- horse riding;
- jump racing;
- banquets;
- exhibitions;
- wedding and parties;
- lodging;
- bazaars;
- sport centre;
- golf;
- flying and hot air balloons;

- land yachting;
- Christmas parties.

2.6 Drafting requirement

The Robbington racecourse is situated in a pleasant West in the central part of Hamchester with some impressive scenery hills around it. The 55 acres site is characterized by large numbers of trees at some side of the site, with cold winter and mild to cool summers. The soil type is sandy loams. Robbington racecourse site is a famous site with some other building of importance around it; the Hamchester tower, golfers at the adjacent course. The design must ensure that spaces are fully utilized and well structured to the standards for the services and environmental comfort. The weather and the soil type should be considered as well, to take advantage of the site location by designing aesthetically pleasant facilities.

2.7 Risk factor

The key risks that may affect the project are:

- The client lay importance on flexibility in design of the phase one of the project which may cause variation;
- High quality and performance expectations of the trust;
- The present economic situation in Britain may cause unavailability of sufficient amount of skilled labour;
- lack of communication between project team especially in phase two; but in phase two the risk may be reduced due to the in-house expertise that will be employed;
- If the administrative government departments delay the approval of the project, it may result in late completion of the project;
- Due to economic situation there is tendency that the price of construction materials will be constantly increasing;
- If cost estimates are not prepared completely, it may cause increase of the budget;

- Poor management competency of subcontractors employed;
- Changing of construction programs can also cause a delay to the project;
- Because of the present economic situation there may be a lack of sufficient managers and professionals.

2.8 Project Objectives and Criteria of Success.

Project Primary Objectives

- *Time for completion*

Time is most paramount in the phase one of the project. It must meet the oncoming St. Dredger Stake, which has been scheduled for the venue. Failure to meet planned date will be a great loss, lack of capability to the Trust of Robbington leisure plc. The phase one of the projects must be completed no later than the specified date must result in total completion on or before planned end date. The phase two should be completed on time so as to be in operation, but the client will allow very strong reasons if not completed at the stipulated time provided the budget is not exceeded high.

- *Within Budget*

Robbington trust has stated the sum of money that has been allocated for the project and given a summary of intended expenditures along with proposals for how to meet them. The whole project is that both phases should be completed without exceeding the client expenditures. However, due to the present economic crisis in the country, reasonable increase will only be accepted in phase two of the project. Failure to complete the work within the client budget will reduce profits and the return on the capital invested and this can lead to a serious financial outcome for the client

- *Quality, functionality and performance*

In both phases one and two, the client is aiming at quality design for the project. The client is considering the cost and impact of the design over the whole life of the project and wants to get

the best whole-life value for money. Also, the client wants the project fit to international standards since people all over the world will be competitors or spectators. The robustness of the furniture, fittings and finishes must not be left out.

Project Secondary Objectives

- ***Sustainability***

The client wants a project that meets the need of the present citizen as well as foreigners without compromising the ability of the future generations. Also, the client wants the natural resources to be used prudently without waste and the environment well protected. The development must affect the economy in a positive way by providing the employment opportunity for the local community. According to the client, both phases must be put into consideration and should satisfy the needs of the community.

- ***Health and safety of both human and horse***

The health and safety of the human and horse are paramount to the client in the phase one of the project. The client wants a facility that will not have any negative impact on the competitor, horse and spectators. To avoid the use of materials that can be harmful to human and horse, also at the phase two safety of human should be considered.

- ***Innovative design with high technology***

The demand for innovative design was suggested during the meeting with the client. The client mentions that due to the nature of the business (with people all over the world visiting the events) he will want the facility of high standard with sophisticated fittings. The hotel must be innovative with creative design-- something unique that has never existed before.

- ***Bear less or no risk***

The risk must be minimized, the client made it clear that risk must be avoided or minimized in the phase one of the project. Risk that may arise from construction matter or the design has been delayed at the government department during approval process, management of the construction

or any other risk that may arise. However, the trust accepts possibility to share some reasonable risk that may occur in the phase two of the project.

- ***Whole life running cost of project***

The trust wants the costs of acquiring the facilities including consultancy, design and construction costs, and equipment, the costs of maintaining the facilities over its whole life to its disposal-that is, the total ownership costs of both the grandstand and the hotel facility to be fully considered while designing and constructing, as well as the selection of the materials to be used for construction. (www.ogc.gov.uk)

- ***Alteration in future***

Robbington leisure plc is constantly expanding in all aspect of its business and wants a flexible facility at the phase one of the project that can easily adapt to future expansion over the coming years, because they have plans of redeveloping into a multi-purpose complex to include a shopping mall, office and apartment suites. But at the phase two there will not be any major expansion over the year.

- ***In-house expertise***

Robbington Trust will want to use their in-house expertise on the phase one of the project. But if occasion demands a more specialist role, that the in-house expertise cannot meet, their will need to consult with other expertise. At phase two any other expertise can handle the construction of the hotel and casino.

3. PROJECT STAKEHOLDERS:

3.1 Stakeholders

Project stakeholders are individuals or groups who have a stake in, or expectation of the project's performance. They include the client, project manager, designers, contractors, suppliers, users, funding bodies and the community at large. (Newcombe, 2003)

3.2 Stakeholder Analysis

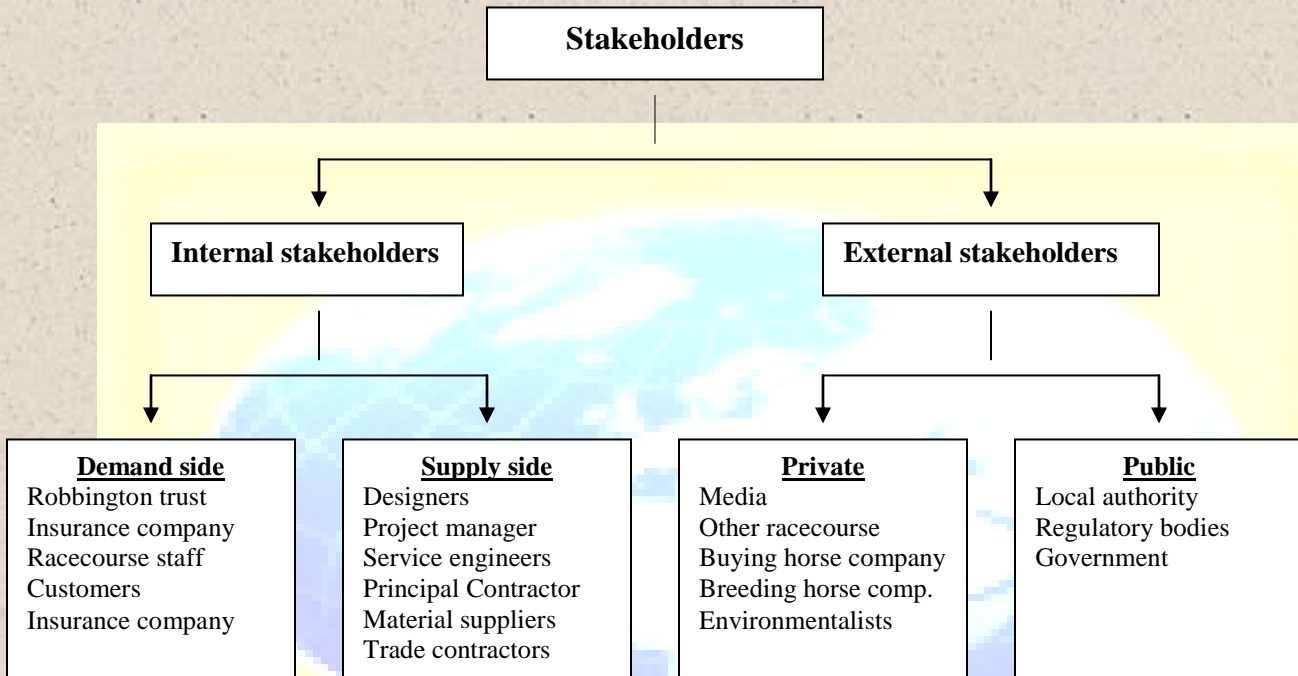
Stakeholder analysis gives us the opportunity to identify those parties that the project influences, or the parties which are influenced by the project, and their impact on the project. This analysis is done by:

1. identify the project stakeholders
2. identify stakeholders objectives and impact assessment
3. assess of stakeholder power and interest level
4. assess of stakeholder power and predictability
5. How the stakeholders might interact with each other and the project's managers and professionals to affect the chances for success of a proposed project strategy (Cleland, 1986).

3.3 Identification of Project Stakeholders

The client is Robbington trust. This trust is secondary client, its expenditure on constructing facilities is a small percentage of their turnover, and its facilities are necessary in order to undertake a special business activity, just like the St Dredger Stakes event. The client also has relevant experience of the construction of this type of facilities, with established access to construction expertise either in-house or externally. The entire fund is provided by the trust-- they are private investor. Other stakeholders have been classified into internal and external stakeholder.

Internal stakeholders are the people who are in a legal contract with the client, while external stakeholders are people that have a direct interest in the project. Internal stakeholders can be broken down into demand and supply side while external stakeholders could also be broken down into private and public. The chart below shows the classification. (Winch, 2002)



Stakeholder Identification (Winch, 2002)

3.4 Stakeholder Objectives and Impact Assessment

The table below shows the different stakeholders, their objectives, impact assessment and the strategies of reducing the obstacles that may occur in the project.

Stakeholders	Objectives in project	Estimated Project Impact	Strategies of obtaining support/ Reducing obstacles
Robbington 's trust	To meet time, budget Quality assurance.	A	Avoid variation Carryout feasibility studies to be sure of the cost of the project Early decisions and clear decision making process.

Estate manager	To ensure the project makes quick progress so as to meet the oncoming event.	A	Ensure an effective communication between the trust and the estate manager.
Staff (Users)	Fit for the purpose Easy maintenance Work and in return get salary/ wages.	A	Allow staff to be involved in the design development and in the decision making on how to achieve the objectives of the project.
Design team	Develop the design Buildability design Get money and build their work profile.	A	Fully detailed project brief and ensure that there is good communication between the trust, estate manager and the design team so that information get to the team quick without delayed.
Service engineers	Install facilities for camera, telephony, and wireLAN, Audio visual. Acoustics/ sound cable infrastructure Make profit.	B	Use specialist service engineers with good work experience and always check the progress of work to ensure quality materials are installed.
Media	Get advert, radio, and television production. Publicize the racecourse and get wages.	C	Keep inform about the progress of the project and let them know when they will be needed.
Community; Include competitor and spectators	Seek employment Entertainment and relaxation.	B	The community should be consulted during decision making process. And have their opinions taken into consideration. Be involved in the design development.

Government	<p>Statutory regulation and all the racecourse</p> <p>Guidelines are met.</p> <p>The impact in the community.</p> <p>Good to create jobs.</p>	A	<p>Ensure design meet all regulatory standards.</p> <p>Client should use their influence to facilitate quick approval of the project.</p>
Contractor	<p>Successful construction, build work profile and experience.</p> <p>Make profit</p>	B	<p>Locate where the main risk have to be manage.</p> <p>Good communication between team and well planned information</p>
Material suppliers	<p>To build good relationship, with client and supply material and make profit</p>	B	<p>Skilled and experienced suppliers to deliver the project.</p> <p>Effective relationship with suppliers in other to get quality resources at reasonable price.</p>
Insurance company	<p>To ensure the project is well constructed and protected.</p>	C	<p>Keep inform about the progress of the project.</p>
Breeding racehorses companies	<p>To breed more horses that may be needed when the racecourse is completed. Registering racing colours, directing the trainers and also to make profit.</p>	C	<p>Give tangible information about the progress of the work. This should be done before the completion of the project so as to know actual number of horses that may be need.</p>
Buying and owning of racehorses companies	<p>Supplying of racehorses to the racecourse and to make profit.</p>	C	<p>Give tangible information on before the completion of the project so as to know actual number of horses that may be need.</p>
Other racecourse (competitors)	<p>To compete with the racecourse so as to be the most prefer racecourse in the UK.</p>	C	<p>Ensure the racecourse is well constructed with quality material and the introduction of new skills for the trainers</p>

Overseas racecourse organisation	May need to be aware that there is this racecourse in the UK.	C	Keep inform about the racecourse so that if there is any international competition, it may be schedule for the venue.
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Stakeholder Analysis Matrixes

A---Extremely important,

B--- Fairly important,

C --- Not very important.

3.5 Assess of Stakeholder Power and Interest Level.

The table below shows the level of power and interest of the stakeholder in the project.

POWER	LOW	A Minimal Effort -Community /customers - Media - Breeding racehorse company - Buying and Owning racehorse - Other racecourse -Overseas racecourse organisation	B Keep Informed -Contractor - Supplier - local authority
	HIGH	C Keep Satisfied -Regulatory bodies -insurance company -Robbington(Developer)	D Key Player -Designers - Racecourse Staff -Service Engineers
		LOW	HIGH
LEVEL OF INTREST			

Stakeholder Mapping, Power and Interest Matrix (Newcombe, 2003)

Box A. Minimal Effort little interest in the project activity and low power to influence the project

- The community at large including customers has little influence on the project. The project manager needs little effort on the community.
- Media and other racecourse (competitors) have low influence in the activity of the project. Minimal effort will be required
- The breeding and buying racehorse company is to be informed about the progress of activity of the project. The effort should be little.
- Overseas racecourse will also require little effort from the trust of Robbington racecourse.

Box B. High power with high interest in the project-keep. Inform

- The contractor and the supplier have interest in the project, but have low power to influence the activity of the project. They need to be keep informed
- The local authority upon approval of the project has little power to influence the project, but have high interest in the project. Keep informed.

Box C. High power with low interest in the project- keep. Satisfy

- Robbington trust is the developer. Needs to be kept satisfied of the progress of the activity of project
- The insurance company has little interest in the activity of the project. Once their interest is retaining hence needs to keep satisfied.

Box D. high power with high interest in the project-key player

- The designers and service engineer need to be carefully managed, because they are the key players in the project.
- Racecourse staff (user) got high power and great interest in occupying the facilities. Should be treated with respect-- they are key players.

3.6 Assess of Stakeholder Power and Predictability Level.

The table below shows the level of power and predictability of the stakeholder in the project.

POWER	LOW	A Few Problem -Contractor -Suppliers -Media -Local authority -Buying and Owning racehorse -Competitors -Overseas Racecourse Org.	B Unpredictable But Manageable -Community
	HIGH	C Powerful But Predictable -Robbington Trust -insurance company	D Greatest Danger or Opportunity -Designers -Racecourse Staff/users -Service Engineers
		HIGH	LOW

Stakeholder Mapping, Power and Predictability Matrix (Newbombe, 2003)

Box A- few problem-highly predictable with low power

- The contractor will build what the design team has designed. To the project manager the contractor will be of a little threat.
- Supplier is of little threat because there is opportunity for continuity of the work and supply in another project.
- Media have low interest in the project and highly predictable, little threat will want more adverts in future.
- The local authority has few problems: once they have approved the project, they will not have power to influence the project.

- Buying of racehorse, other racecourses (competitors) and overseas racecourse organisation are few problems with low interest in the project activity.

Box B. Unpredictable but manageable, low predictable with low power

- The general community does not have direct influence in the project but their attitude to the development is unpredictable as work progresses.

Box C. Powerful but Predictable, high power with high predictability

- Robbington trust is the developer which has high power and predictability. Have power to enforce what they want.
- Insurance company will be powerful because of the investment of money in the project, but is relatively predictable.

Box D. Greatest danger or Opportunity, high power with low predictability

- Designers and service engineers appear to be the greatest danger, because the quality and nature of their work is unknown.
- Racecourse staff/users are potential danger, because of their power to withdraw from the project and are unpredictability.

(Newcombe, 2003)

4. PROCUREMENT METHODS:

Procurement is the acquisition of goods, works and services which meets the customers and service users' needs, whilst ensuring value for money throughout the life of the project including disposal. (nottinghamshire.gov.uk)

Speed

The speed of completion is most paramount to the client. The facility must be completed on or before the stipulated planned date. All the significant phases of the project must take place no later than their specified dates, must result in total completion on or before planned finish date.

Traditional method

- Suitable for client who wants to monitor the stipulated time for the project. Good for both private and public clients.

Design and build method

- Suitable for clients (private) who want get there investment return fast, without delay. Mainly commercial project.

Management contracting

- Eligible for private clients--to reduce disruption to existing facility so as to minimise the duration of the project.

Price Certainty

The trust has stated the sum of money that has been allocated for the project and given a summary of intended expenditures along with proposals for how to meet them. The project must be completed without exceeding the client expenditure.

Traditional method

- Since this method involves tendering, design would have been prepared. This allows a high price certainty.

Design and build method

- There will be an established cost since the whole project is handled by a consultant. The price would have been stated at the onset.

Management contracting method

- It is unlikely that there will be guarantee of firm contract price before the work actually starts on site. The decision to go ahead usually has to be taken on the basis of an estimate on project information.(Cox and Clamp, 2003)

Flexibility

Robbington leisure plc is constantly expanding in all aspect of its business and wants a flexible facility that can easily accommodate changes for future expansion over the coming years, because they have plans of redeveloping into a multi-purpose complex-- to include a shopping mall, office complex and apartment suites. Variation, once the project has begun on site will be minimized. But there may be variation at the hotel facility because new ideals or thought may come why the construction works commences on site.

Traditional method

- Since this method involves tendering, design would have been prepared flexibility will be least possible.

Design and build method

- Both design and construction is undertaken by a team, the variation will be minimized.

Management contracting method

- If the variation is controllable the management team will manage it.

Quality

The trust of Robbington has laid importance on the quality level of the facilities and everything possible must be done in order to ascertain good quality. The client considers the cost and impact of the design over the whole life of the project and wants to get the best whole-life value for money. The client wants the facilities fit to international standard.

Traditional method

- This method has high quality of work. The design must be completed before construction work commences thus the quality of work is high. Both design work and construction is undertaken by a separate team who are expertise in their team.

Design and build method

- This method is suitable for the project that requires early commencement and completion of project. The whole project is handled by one contractor which will affect the quality level of the construction project, due to the early completion.

Management contracting method

- Eligible for project that needs high quality of workmanship because of its skilled management team.

Complexity

The project is quite complex due some level of complexity ranging from demolition of the existing grandstand; construction of a new 5-storey grandstand with capacity of up to 60,000 to include conference and exhibition centre; refurbishment of two existing stands circa; road works and car parking with 6,000 spaces; landscaping and drainage; and hotel design and constructions..

Traditional method

- This method is suitable project that are not too complex project, because of the expertises that will undertake the construction works are expertise.

Design and build method

- The design and construction team are separate, which make it suitable for simple and moderate project, not suitable for very complex facility.

Management contracting method

- The method is best for complex project due to the skill management consultant employed for the management work.

Responsibility

The project team responsibility can be decided by the client, and this responsibility will be decided depending on the type of contract the client chooses. The responsibility varies depending on the type of client.

The trust of Robbington wants a single point responsibility to handle the construction of phase one, but phase two may not necessary be one responsibility, will not want to take major risk

Traditional method

- In tradition method the client employs the architect or the engineer to produce the design and the architect or engineer will take the full responsibility for the whole work. In this method the responsibility is given to the consultant.

Design and build method

- This method provides a single point contract and responsibility by the contractor. Therefore the contractor is solely responsible for failure in the design or the construction. In short, the client has only one person to deal with if the project is faced with any problems. (Ramus, 1996)

Management contracting method

- In management contracting the client will have to select the management consultant who will be responsible for the management of the activities at the construction site.

Price Competition

Competition in building procurement is involved at every stage in the building process, as building designers used to compete on quality of service, reputation and fees; building constructors will compete on price, specialists and subcontractors need to ensure that competition is always available, if desired (Tumer, 1990)

Traditional method

- There is greater cost certainty and the cost can be monitored at all stages of the project.

Design and build method

- This method gives price for the project and the date the project will be completed.

Management contracting method

- There is uncertainty price at the start of the project but when the management team handled the project the cost is effectively controlled.

5. **PROCUREMENT STRATEGY AND JUSTIFICATION:**

One of the principal reasons for the construction industry's poor performance is the inappropriateness of the procurement systems that have been chosen for the construction projects. (Hashim, 1996)

5.1 Phase one (1)

Design and Build Method

The design and build method of procurement was adjudged the best method for phase one because it will give the best value for money (and judging from the nature of the client and nature of the project). Design and build method will be the best route for phase one of the project.

5.2 Phase two (2)

Management Contracting Method

Management contracting method was adjudged the best procurement method for phase two of the project due to the high demand of highly innovative hotel facility with good quality workmanship due to the skilled management team. The problem of complexity of the facility will be managed by the skilled team. Last minute decision can be made and there is flexibility for change. And it will give value for money. Management contracting will be best method for phase two of the project

5.3 Value for Money

Value for money is the combination of time, whole-life cost and quality to meet the client and user needs.

Time

Time is most paramount to the client. The racecourse must meet the upcoming St. Dredger Stake that has been scheduled for the venue. Time must be adequately planned from the design process to construction stage. If the time is not sufficient for the design stage it may affect the quality and cost of the project. Timing must be planned in a way that will identify the vital works to be done and then the works where flexibility may be available. (Morledege, 2006)

Design and build method allows overlapping of the design and construction. The construction commences on site while design is still created, thereby reduce the time frame of having to wait for design to be completed before work commencement on site. With management contracting the time is fully managed by skilled management team.

Whole-life Cost

The design and build method will give whole-life cost since the project will be completed on time with good quality, whereby reducing the possibility of the client spending more than budget envisages. In management contracting method due to the skilled workmanship there is high quality facility and flexibility for alternation during construction. Since there is high quality, the maintenance cost will be reduced. There will not be need for consistent repair of the fixture, furniture and equipment because they are of good quality.

A Good Quality

Facility must result from good design. Without good design there will not be good quality facility. The importance of quality design cannot be ignored. Quality design is a combination of functionality - how useful the facility is in achieving its purpose; impact - how well the facility

create a sense of place; and build quality - performance of the completed facility.
(www.ogc.gov.co.uk)

In design and build method there is greater responsibility implicit and this provides motivation for high quality and proper performance (Bennett, 2003). Management contracting there is high level of specialisation that allows fast tracking of the project with high quality workmanship.

Size of the project

Size of the project is another reason for the selection of the strategies. The size of the project could be justified in term of the budget, area and level of accommodation, for example, the hotel facility rooms should be 120bedrooms with casino facility, the management contracting method of procurement is best suitable for such large project, that require high specialisation of work skills due to the level of expertise that are employed in this type of contract. But the design and build method will be best suit for the grandstand design and construction due to the size, it is relatively large so thus not need more larger contract compare to the hotel facility.

The level of complexity

The hotel design and construction, there will be need for expertise to be involved in the design and construction, the client is aiming for innovative hotel facility and this will require the need of experience designers and engineers, the management contract is best suit when expertise is needed. The complexity is also considered together with the size of the facility. Due to the combination of the size and the complexity of the facility the management contracting will be the best option.

Also, judging based on the following points;

- The nature of client;
- The nature of the project.

In view of getting value for money, judging based on the nature of the client and the nature of the project, Design and Build method of procurement was adjudged the best method for the redevelopment of phase one. Management contracting method was adjudged the best for the construction of a new hotel facility and casino in phase two.

5.4 Risks of Management Contracting Method

The risk that was identified is that the client must give a good quality brief to the design team as the design will not be complete until the client has committed significant resources to the project (Morledge, 2006). The project manager and the brief consultant will ensure that all the necessary information is provided by the client during the brief process. Also, the client is experienced and with adequate resources to facilitate the project.

6. CONCLUSION AND RECOMMENDATION:

The increasing complexity of buildings, the need for greater financial management, the need to reduce design and construction periods and the increasing burden of contract administration have put pressure on the clients to seek alternative approaches to the traditional method.(Hashim,1996). This proposal recommends the use of design and build method of procurement as the strategy for the delivery of the phase one of the project since it will deliver the complete project in time so as to meet the St Dredge Racecourse schedule for September. And there is a fixed cost of the project right from the onset of the contract so as to be sure the budget that has been stated is met. There will be high quality and proper performance of the facility to meet client requirement. The design and build organisation will manage many of the risks that the client might otherwise be responsible for.

In this proposal it is also recommended to use management contracting method of procurement as the strategy for the delivery of the phase two of the project due to the high level of specialization of the management team, which enables effective delivery of the hotel facility and casino with high standard quality and with good workmanship skills of the management team. Best suit for project where early completion is desirable. A last minute decision can be

made and there is flexibility for change since the client may need some change in the facility during construction.

In this report the Stakeholder of the project have been identified and carefully accessed, in order to know their interest, impact and influence on the project. But this may not be enough to have the project meet the need of the community effectively. It is therefore recommended that the public, the race trainers, racehorse riders, the racecourse workers and all other interest group should be consulted for further investigation so as to really know what they want (that was not found in the existing racecourse). All this information gathered will then be incorporated into the new development.

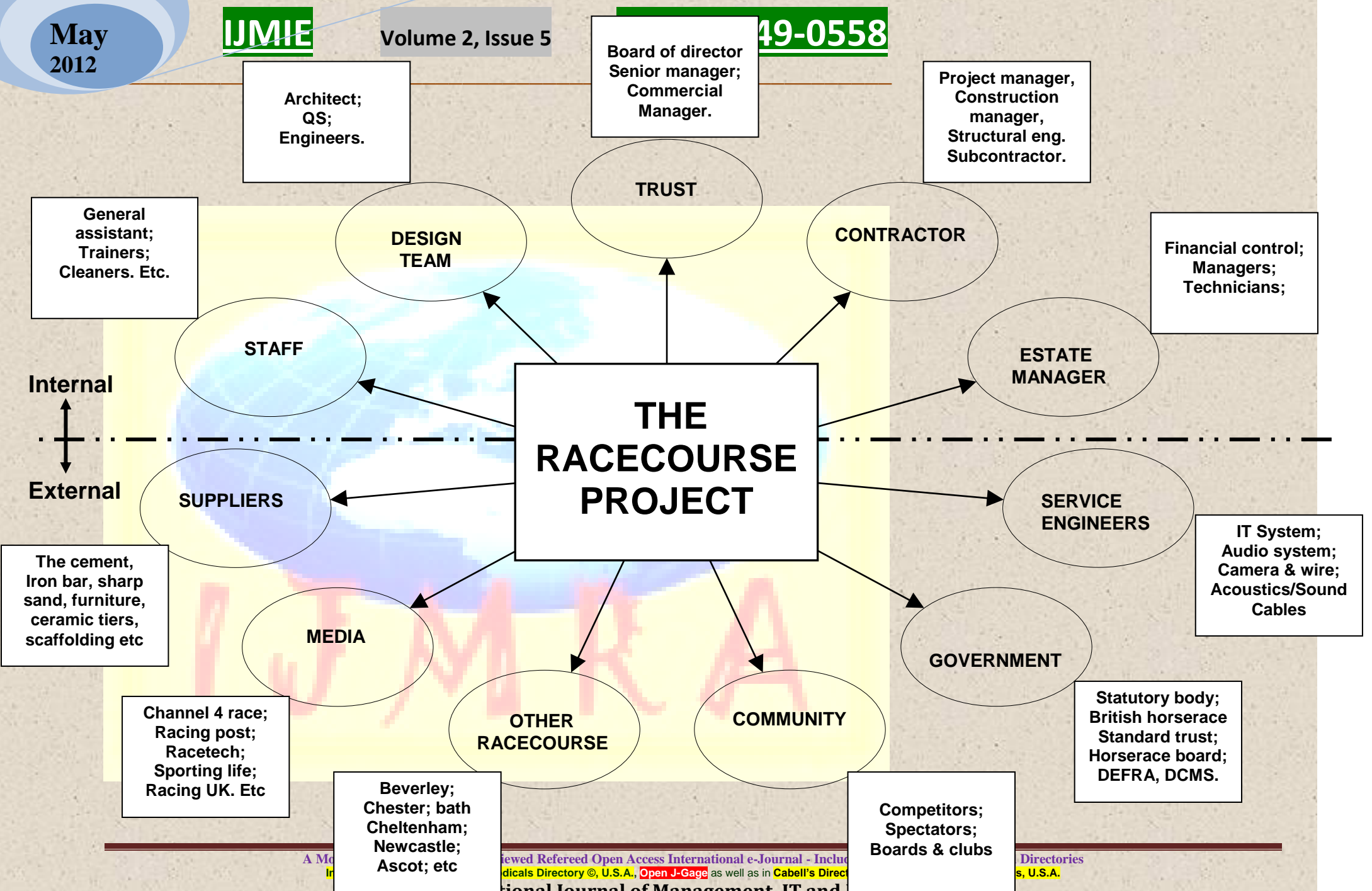
7. REFERENCES:

- Alhazmi, T. and McCaffer, R. (2000) *Project Procurement System Selection Model*, Journal of Construction, Engineering and Management. Vol. May/June 126 Issue 3
- Bennett, F.L. (2003) *The Management of Construction- A project life cycle approach*, Oxford. Butterworth Heinemann publishing. Pp 12-30
- Bertelsen, S. and Koskela, L. (2003) *Approaches to Management Complexity in Construction Production*, pp. 65-71
- Cleland, D.I. (1986) *Project Stakeholder Management*, Project Management Journal, 17(4) and 36-45
- Cox, S. and Clamp, H. (2003) *Which Contract? Choosing the appropriate building contract*, Third edition. London. RIBA Enterprises.
- David, H. (2001) *Construction Companion to Briefing*, RIBA Publications.
- Derek, H.T.W. & Steve, R. (2008) *Procurement System- A cross industry project management perspective*, 1st edition. Taylor & Francis Publishing.
- Hashim, M. (2006) *Factors Influencing the Selection of Procurement System by clients*. <http://eprints.utm.my/716/> [accessed 9/11/08]

- Lock, D. (2003) *Project Management*, Eight edition. Gower Publishing. Pp 3-17 and 573-582.
- Love, P. *et al.*, (1998) *Selecting A Suitable Procurement Method for a building project*, construction management and economics issue 2. Volume, 16 221- 233
- Masterman, J.W.E. (2002) *An Introduction to Building Procurement Systems*, 2nd Edition. London, Spon Press.
- *Method for a Building Project*. Journal of Construction Management and Economics. Volume 16, Issue 3, 221-233.
- Morledge, R. *et al.*, (2006) *Building procurement*, Oxford. Blackwell publishing.
- Murdoch, J. and Hughes, W. (1996) *Construction contracts*, 2nd edition. Norwich, E & FN Spon publishing.
- Newcombe, R. (2003) *From client to project stakeholders: a stakeholder mapping Approach*, Journal of construction management and economics. Volume 16, issue 2.
- Smith, N.J. (2002) *Engineering Project Management*, 2nd edition. Blackwell Publishing, Pp. 10-14,127-135 and 264-276.
- The Aqua Group (2007) *Guide to Procurement, Tendering and Contract Administration*, Blackwell Publishing. Pp. 57-70
- Turner, A. (1990) *Building Procurement*, 2nd edition. New York, Macmillan press
- Winch, G.M. (2002) *Managing construction projects*, 1st edition. United Kingdom. Blackwell publishing. Pp. 66-85 and pp.206-216
- Wood, G. and Fortune (2008) *Procurement in construction and property*, Procurement module.
- <http://www.aintree.co.uk> Aintree racecourse [accessed 12/11/08]
- <http://www.ascot-co.uk> Ascot racecourse [26/10/08]
- <http://www.ayr-racecourse> Ayr racecourse [26/10/08]
- <http://www.bath-racecourse> Bath racecourse [14/11/08]

- <http://www.brighton-racecourse> Brighton racecourse [14/11/08]
- <http://www.chester-racecourse> Chester racecourse [06/11/08]
- <http://www.nothinghamshire.gov.uk> Procurement policy [accessed 3/11/08]
- <http://www.ogc.gov.uk> Procurement policy overview of NHS [accessed 2/11/08]





Appendix 1: Stakeholder Analysis Context Diagram of Robbington Racecourse Project.

Client's Priority Questions	Client's Priority Essential Desirable Do without	5 4 3 2 1	Procurement Method											
			Traditional				Design and Build				Management			
			Sequential		Accelerated		Direct		Competitive		Develop and Construct		Management Contracting	
			Utility	Score	Utility	Score	Utility	Score	Utility	Score	Utility	Score	Utility	Score
Time: Is early completion required?		5	10	50	50	250	100	500	90	450	60	300	100	500
Cost Is a firm price needed before any commitment to construction is formed?		4	90	360	40	160	100	400	100	400	90	360	20	80
Flexibility Are variations necessary after Work has begun on site?		1	100	100	90	90	30	30	40	40	80	80	90	90
Complexity Does your building need to be highly specialized, technological advanced or highly serviced?		3	40	120	20	60	10	30	40	120	100	300	100	300
Quality Is high quality important?		4	100	400	60	240	40	160	40	160	70	280	90	360
Division of responsibility Is single – point responsibility wanted? Is direct professional Responsibility wanted?		3 3	30 100	90 300	30 100	90 300	100 10	300 30	100 10	300 30	70 50	210 150	30 70	90 210
Risks Is transfer of responsibility for The consequence of slippages Important?		4	30	120	30	120	80	320	100	400	70	280	30	120
Certainty Is completion on time important? is completion within budget Important?		5 4	50 30	250 120	30 30	150 120	100 100	500 400	90 100	360 400	70 50	350 200	90 70	450 280
Total Rank Order				1910 5th		1580 6th		2700 1st		2560 2nd		2290 4th		2470 3rd

APPENDIX 2a: Procurement System Selection Chart, after Bennett and Grice (phase 1)

Client's Priority Questions	Client's Priority Rating (Scale 1-20)	Rationalised Priority Rating	Procurement Method											
			A		B		C		D		E		F	
			Negotiated Traditional		Competitive Traditional		Competitive Develop and Construct	Negotiated Design and Build		Competitive Design and Build		Management Contracting		
			Unity Factor	Result	Unity Factor	Result		Unity Factor	Result	Unity Factor	Result	Unity Factor	Result	
Speed: How important is early completion to the success of your project?	20	0.2061	40	8.244	10	2.061	60	12.366	100	20.61	90	18.54	110	22.671
Certainty Do you require a firm price and/or strict completion date for the project before you can commit yourself to proceed with construction?	18	0.1855	30	5.565	30	5.565	70	12.985	100	18.55	100	18.55	10	1.855
Flexibility To what degree do you foresee the need to alter the project in any way once it has begun on site?	6	0.0618	110	6.798	110	6.798	40	2.472	40	2.472	40	2.472	90	5.562
Quality Level What level of quality, aesthetic appearance do you require in the design and workmanship?	17	0.1752	110	19.27	110	19.27	80	14.016	40	7.008	40	7.008	90	15.768
Complexity Does your building need to be highly specialized, technological advanced or highly serviced?	14	0.1443	100	14.43	100	14.43	70	10.101	50	7.215	50	7.215	110	15.873
Risk avoidance and responsibility To what extent do you wish one single organisation to be responsible for the project; or to transfer risk of cost and time slippage?	18	0.1855	30	5.565	30	5.565	70	12.985	100	18.55	100	18.55	10	1.855
Price Competition Is it important for you to choose your construction team by price competition, so increasing the likelihood of a low price?	4	0.0412	20	0.824	110	4.532	80	3.296	10	0.412	80	3.296	40	1.648
Total Rank Order	97			60.69 5th		58.221 6th		68.221 3rd		74.817 2nd		75.63 1st		65.232 4th

APPENDIX 2b: Procurement System Selection Chart, after Skitmore and Marsden (phase 1)

Client's Priority Questions	Client's Priority Essential Desirable Do without	5 4 3 2 1	Procurement Method											
			Traditional				Design and Build				Management			
			Sequential		Accelerated		Direct		Competitive		Develop and Construct		Management Contracting	
			Utility	Score	Utility	Score	Utility	Score	Utility	Score	Utility	Score	Utility	Score
Time: Is early completion required?		4	10	40	50	200	100	400	90	360	60	240	100	400
Cost Is a firm price needed before any commitment to construction is formed?		3	90	270	40	120	100	300	100	300	90	270	20	60
Flexibility Are variations necessary after Work has begun on site?		3	100	300	90	270	30	90	30	90	40	240	80	240
Complexity Does your building need to be highly specialized, technological advanced or highly serviced?		4	40	160	20	80	20	80	10	40	40	160	100	400
Quality Is high quality important?		5	100	500	60	300	40	200	40	200	70	350	90	450
Division of responsibility Is single – point responsibility wanted? Is direct professional Responsibility wanted?		1 3	30 100	30 300	30 100	30 300	100 10	100 30	100 10	100 30	70 50	70 150	30 70	30 210
Risks Is transfer of responsibility for The consequence of slippages Important?		2	30	60	30	60	80	160	100	200	70	140	30	60
Certainty Is completion on time important? Is completion within budget Important?		4 4	50 30	200 120	30 30	120 120	100 100	400 400	90 100	360 400	70 50	280 200	90 70	360 280
Total Rank Order				1980 4th		1600 5th		2160 2nd		2080 3rd		1980 4th		2490 1st

APPENDIX 3a: Procurement System Selection Chart, after Bennett and Grice (phase 2)

Client's Priority Questions	Client's Priority Rating (Scale 1-20)	Rationalised Priority Rating	Procurement Method											
			A		B		C		D		E		F	
			Unity Factor	Result	Unity Factor	Result	Competit ive Develop and Construc t Unity Factor	Result	Unity Factor	Result	Unity Factor	Result	Unity Factor	Result
Speed: How important is early completion to the success of your project?	18		40		10		60		100		90		110	
Certainty Do you require a firm price and/or strict completion date for the project before you can commit yourself to proceed with construction?	17		30		30		70		100		100		10	
Flexibility To what degree do you foresee the need to alter the project in any way once it has begun on site?	14		110		110		40		40		40		90	
Quality Level What level of quality, aesthetic appearance do you require in the design and workmanship?	20		110		110		80		40		40		90	
Complexity Does your building need to be highly specialized, technological advanced or highly serviced?	17		100		100		70		50		50		110	
Risk avoidance and responsibility To what extent do you wish one single organisation to be responsible for the project; or to transfer risk of cost and time slippage?	12		30		30		70		100		100		10	
Price Competition Is it important for you to choose your construction team by price competition, so increasing the likelihood of a low price?	10		20		110		80		10		80		40	
Total Rank Order														

PENDIX 3b: Procurement System Selection Chart, after Skitmore and Marsden (phase 2)

