

# Cambridge Eastern Access

## STRATEGIC OUTLINE BUSINESS CASE

### Part 3: COMMERCIAL CASE



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# PART 3 | Commercial Case

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## 1.0 Overview

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This section provides an overview of the requirements for the Commercial Case.

## 1.1 Requirements of the Commercial Case

- 1.1.1 The purpose of the commercial dimension of the business case is to demonstrate that the recommended option will result in a viable procurement and a well-structured deal between the public sector and its service providers.
- 1.1.2 Demonstrating a viable procurement strategy requires an understanding of the marketplace, knowledge of what is realistically achievable by the supply side and research into the procurement routes that will deliver best value to both parties.
- 1.1.3 Putting in place a well-structured deal requires a clear understanding of the services, outputs and milestones required to be achieved and of how the potential risks in the Design, Build, Funding and Operational (DBFO) phases of the scheme can best be allocated between the public and private sectors and reflected in the charging mechanism and contractual arrangements.
- 1.1.4 The challenge for the public sector is to be an 'intelligent customer' and to anticipate from the outset how best public value can continue to be secured during the contract phase in the face of inevitable changes to business, organisational and operational requirements.
- 1.1.5 This Commercial Case forms the third of the five cases which together comprise the Strategic Outline Business Case for the Cambridge Eastern Access project.

## 1.2 Structure of the Commercial Case

- 1.2.1 The DfT's guidance document, '*The Transport Business Case: Commercial Case*', outlines the areas to be covered as part of the Commercial Case. At this Strategic Outline Business Case Stage, the following are required to be demonstrated:
  - **Chapter 2 | Output Based Specification**  
Summarises the requirements of the tendering process, in terms of the outputs to be provided from the process. A full specification will be provided later as part of the Outline Business Case.
  - **Chapter 3 | Procurement Strategy**  
Detail procurement/purchasing options including how they will secure the economic, social and environmental factors outlined in the economic case.

## 2.0 Outputs and Procurement Objectives

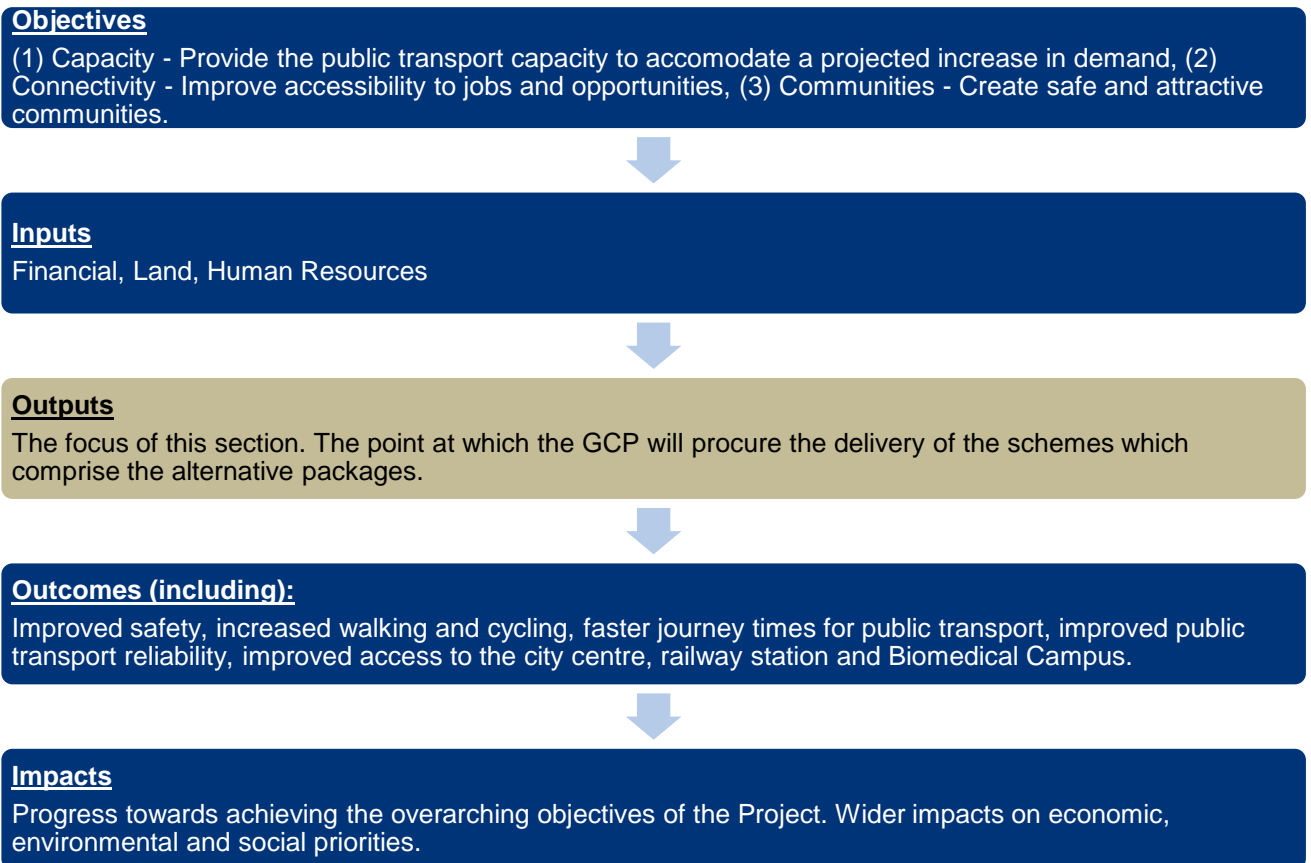
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This section provides an overview of the Cambridge Eastern Access scheme outputs and the objectives which will underpin the procurement process.

## 2.1 Overview

2.1.1 The purpose of this section is to summarise the required outputs of the Cambridge Eastern Access Phase A2 hybrid and Phase B1 packages. The outputs represent the schemes which the Greater Cambridge Partnership will procure through a commercially tendered process to secure best value for local communities. [Figure 2.1](#) illustrates the stage in the delivery of the project at which this procurement will be required.

Figure 2.1: Cambridge Eastern Access Process Model



## 2.2 Outputs & Interventions

2.2.1 The packages which are recommended to be delivered in the short term (Package A2-Hybrid) and medium term (Package B1) are detailed in [Table 2.1](#) and [Table 2.2](#) respectively.

Table 2.1: Package A2-Hybrid Schemes

| Ref    | Schemes   |
|--------|---|
| ITS.01 | Reconfiguration of all signals to manage/control flow along Newmarket Road & wider network. |
| JC.02  | Reconfiguration of Elizabeth Way Roundabout, including the removal of Subway.               |
| JC.03  | Reconfiguration of the Newmarket Road & Coldham's Lane junction.                            |
| JC.05  | Signalisation and reconfiguration of the Newmarket Road & Barnwell Road junction.           |
| JC.07  | Reconfiguration of the Newmarket Road & Ditton Lane junction.                               |
| BS.01  | Increase the frequency of existing P&R services.  |
| BS.03  | Provide new service from P&R to Addenbrookes hospital and the Biomedical Campus.            |
| BL.02  | Remove inbound bus lanes.   |
| BL.05  | New outbound bus lane between Elizabeth Way and the Leper Chapel.                           |



| Ref   | Schemes   |
|-------|---|
| AT.01 | Provision of continuous segregated inbound cycle lane along Newmarket Road.     |
| AT.02 | Provision of continuous segregated outbound cycle lane along Newmarket Road.    |
| AT.03 | Promotion of Park and Cycle from the P&R site.                                  |
| HW.01 | Additional lane(s) on Newmarket Road to east of Airport Way junction.           |
| JC.09 | Signalisation of the junction of Newmarket Road and Airport Way.                |
| JC.10 | Signalisation and Reconfiguration of Quay Interchange                           |
| PR.02 | Relocation of Park and Ride to south of Newmarket Road and east of Airport Way. |

Table 2.2: Package B1 Schemes

| Ref   | Schemes  |
|-------|--|
| BW.04 | Online - between Park and Ride and A14.  |
| BW.11 | Offline (south) - between Coldham's Lane and P&R via Marshall's Airport (east of runway).  |
| BG.02 | Bus Gate on Mill Road (at bridge over rail line).  |
| BS.02 | New bus service between the station, Mill Road, Cambridge East and the Park and Ride.  |
| PR.02 | Relocation of Park and Ride to south of Newmarket Road and east of Airport Way.  |
| AT.04 | Provide a new foot-cycle bridge(s) over the rail line and Coldham's Lane to link the existing Tins cycle path with the airport site.                         |
| AT.06 | Provide new cycle lanes along Coldham's Lane between the airport site and the Sainsbury's roundabout and enhance existing cycle provision along Brooks Road. |
| AT.07 | Provide a new off-carriageway foot-cycle link from the airport site to connect into the Chisholm Trail via Barnwell Road and Coldham's Common.               |

## 2.3 Procurement Objectives

2.3.1 Cambridge Eastern Access is one of several projects (C2C – Cambridge to Cambourne, CSET – Cambridge South East Transport and Waterbeach to Cambridge) that form part of CAM Phase 1 and as such the commercial objectives for Cambridge Eastern Access need to support and align with the objectives of CAM Phase 1, which are noted below:

- Achieve cost certainty, or certainty that the Cambridge Autonomous Metro (CAM) Phase 1 can be delivered within the funding constraints.
- Minimise preparation costs in relation to scheme design.
- The scheme will be delivered within construction design standards that are defined within the contract.
- Obtain contractor input to risk management and appraisals, including mitigation measures, to capitalise at an early stage on opportunities to reduce construction risk and improve outturn certainty thereby reducing risks to a level that is as low as reasonably practicable.
- Engagement with contractors and stakeholders throughout planning to scheme delivery.

2.3.2 In order to demonstrate alignment with the objectives of CAM Phase 1 and support delivery of the scheme outcomes, the Commercial Case must achieve specific objectives. The primary objectives of the Cambridge Eastern Access Commercial Case are to:

- **Cost Certainty** – Achieve cost certainty and that both Phase 1 and Phase 2 can be delivered within the funding constraints.
- **Preparation Costs** – Minimise preparation costs in relation to scheme design and construction delivery.
- **Programme Efficiency** – Achieve an efficient delivery programme that enables start on site in 2022 and completion between 2025 and 2030.
- **Project Knowledge** – Maintain project knowledge to support scheme design and successful rebuttal of any project challenge. The knowledge of the scheme and associated issues and constraints, generated through the development of the SOBC, is seen as an asset and will help enhance quality of delivery and achievement of programme.

- **Minimise Risk** – Obtain contractor input to risk management and appraisals, including mitigation measures, to capitalise at an early stage on opportunities to reduce construction risk and improve outturn certainty, thereby reducing risks to a level that is as low as reasonably practicable.
- **Deliverability** – Engagement with contractors and stakeholders, throughout planning to scheme delivery, to support development of robust, buildable and deliverable proposals.
- **Ensure Quality** – Ensure the Greater Cambridge Partnership (GCP) receives a quality finished product for such a significant intervention in the city. Quality encompasses a range of factors, including:
  - System performance and reliability, which underpin the economic case.
  - Construction quality.
  - Safety and compliance with statutory obligations, including environmental obligations.

2.3.3 These are the criteria by which procurement strategies and methods have been assessed and the subsequent sections detail the results of this assessment.

## 3.0 Procurement Strategy

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This section provides an overview of how the GCP will deal with its procurement processes, outlining a blueprint through which suppliers, products and services can be identified effectively within timeframe and budget constraints.

## 3.1 Overview

3.1.1 This section provides insight into the procurement options for the Cambridge Eastern Access scheme and is an integral part of the project management process. The procurement strategy has been designed to ensure:

- **Value for money:** The GCP is under a duty to secure value for money in all its transactions.
- **Compliance with legislation:** A wide variety of UK legislation and regulations apply.
- **Avoidance of fraud and corruption:** Procurement must be visible and tightly controlled to limit potential fraud and avoid any suggestion of corruption.
- **The promoting / procuring authorities' vision and ambitions:** Procurement contributes directly to the delivery of the GCP's vision and long-term ambitions.
- **Objectives:** The Commercial Case objectives are fulfilled.
- **Flexibility:** Allow for future schemes, development, innovation and new technology, ensuring the GCP is not locked into long-term agreements.

## 3.2 Tendering Procedure

3.2.1 The Public Contracts Directive 2014 issued by the European Union was implemented in the UK through the Public Contracts Regulations 2015. Cambridgeshire County Council as the public authority responsible for procuring the Cambridge Eastern Access scheme on behalf of the GCP, are required to comply with these regulations. The regulations describe several options for procurement processes for contracts and the criteria that determine which of these options can be applied. The options given are:

### Open Procedure

- 3.2.2 Bids for the contract are received from any applicant who fulfils certain minimum criteria. This procedure requires a fully developed scheme design and proposal and may result in the receipt of numerous bids. This procedure allows an unlimited number of interested parties to tender against defined parameters.
- 3.2.3 There are no restrictions (e.g. pre-qualification) on the parties who are permitted to tender, meaning that some parties may not be suitable to carry out the work. This procedure is straightforward and transparent but can attract numerous potential bidders (which will require a greater degree of assessment and resource requirements).
- 3.2.4 It also takes considerable time and resource, as well as limiting time for Early Contractor Involvement (ECI), and buildability input from the contractor.

### Restricted Procedure

- 3.2.5 Applicants are required to submit a pre-qualification application from which a short list of the most suitable applicants is drawn up. Bids are invited only from those applicants on the short list. This is a two-stage procedure.
- 3.2.6 The first stage allows the contracting authority to set the minimum criteria relating to technical, economic and financial capabilities that the potential bidders must satisfy and suppliers are alerted to express an interest to a contract opportunity by obtaining and submitting a Selection Questionnaire which is used to establish such aspects as their capability, experience and suitability.
- 3.2.7 The second stage involves shortlisted suppliers which meet the selection criteria being invited to tender. All tenders are evaluated in line with the methodology and award criteria set out in the tender documentation.

### **Competitive Dialogue Procedure:**

- 3.2.8 This may be used where the needs of the contract cannot be met with readily available solutions and the Open or Restricted procedures are not considered suitable. In this case applicants are short listed but the solution for the scheme is developed with the applicants, at which point a reduced number of applicants are asked to submit a final tender.
- 3.2.9 This procedure is appropriate for complex contracts where contracting authorities are not objectively able to define the technical means capable of satisfying their needs or objectives; and / or are not objectively able to specify the legal and/or financial make-up of a project.
- 3.2.10 This is a multi-stage procedure. The first stage is a pre-qualification to select the potential bidders to participate in the dialogue. In the second stage the contracting authority enters a dialogue with the potential bidders to identify and define the means best suited to satisfying their needs.
- 3.2.11 Any aspect of the contract may be discussed, including technical requirements for the works to be delivered and the commercial / contractual arrangements to be used. The dialogue may be conducted in successive phases with the remaining bidders being invited to tender.
- 3.2.12 By the end of the dialogue phase the contracting authority's requirements will have been determined such that the scheme can be tendered. In the final stage, the remaining bidders from the dialogue phase are invited to tender for the scheme.

### **Competitive Procedure with Negotiation:**

- 3.2.13 This relatively new procedure is intended to be used where minimum requirements can be specified but negotiations with bidders may be needed to improve the initial tenders. The grounds for using this procedure are as follows:
- Where needs cannot be met without adaptation of readily available solutions.
  - Where the contract includes design or innovative solutions.
  - Where the requirement is complex in nature, in its legal and financial makeup or because of its risks.
  - Where the technical specifications cannot be established with sufficient precision.
  - In the case of unacceptable/irregular tenders.
- 3.2.14 Within this procedure, bidders initially submit tenders based on the information issued by the contracting authority. The contracting authority is then able to review the tenders it has received and negotiate with the bidders, following which the tenders will be resubmitted. This procedure may therefore be useful where the requirements are well developed initially and full tender documents can be produced, but it is felt that there may be advantage in retaining the ability to hold negotiations if there are certain aspects which bidders raise.

### **Summary**

- 3.2.15 This scheme is likely to be procured using the Restricted Procedure because it will be possible to publish a well-defined tender package for bidders to price against. The Restricted Procedure also has defined timescales for each stage which will allow GCP to ensure that the tenders can be received by the dates required by the overall project programme. A Direct Award is unlikely to be justified and an Open Tender Procedure has potential to attract multiple submissions with a protracted length of time required to evaluate tenders.
- 3.2.16 Whilst the Restricted Procedure is the likely procurement procedure, this will not be confirmed until Outline Business Case (OBC) and / or Full Business Case (FBC) stage following further consideration of the procurement procedures available.

### 3.3 Procurement Options – Infrastructure

3.3.1 The desired balance of risk is a key influence in the choice of procurement route. The key criteria for risk are interdependent and often in tension:

- Time (speed or certainty of completion date).
- Cost (price level or cost certainty).
- Quality (functionality and performance).

3.3.2 Time and cost will directly influence the procurement option and quality will be partly addressed through the tendering procedure. A pre-qualification process, based on the assessment of references and evidence of competence, will ensure the selection of appropriate companies that have demonstrated the necessary skills and experience to undertake the work. The following procurement routes have been considered:

#### Option 1 – Traditional Contract

3.3.3 For this option, a designer would be appointed to complete a full detailed design. A tender would then be undertaken based on the detailed design. The appointed contractor would be responsible for construction only. A successful traditional contract requires certainty of buildable design information and that adequate time is made available to prepare the detailed design and provide the contractor with sufficient construction information. Consequently, for this method to be truly effective, full documentation needs to be in place before the contractor can be invited to tender.

3.3.4 The traditional arrangement allows close control of the design process by the GCP. However, as the construction contract is awarded based on the completed design, there is limited opportunity for the successful contractor to influence the design to reduce risks and cost. Although contractor input can be brought in during the design stage, it may not be relevant as the same contractor may not undertake construction.

3.3.5 This form of contract can also limit the contractor’s ability to use innovative construction methods which could result in savings and increased performance of the finished scheme. Separate contracts between the GCP and the parties providing the design and construction results in risks from any issues arising from the design resting, at least initially, with the client. [Table 3.2](#) summarises the key points assessed for this option.

Table 3.2: Advantages and Disadvantages of a Traditional Contract

| Advantages  | Disadvantages   |
|---|---|
| <ul style="list-style-type: none"> <li>• Scope, anticipated costs and risk profile are well established prior to tender leading to more consistent tender returns.</li> </ul> | <ul style="list-style-type: none"> <li>• Design risk remains with GCP.</li> </ul>   |
| <ul style="list-style-type: none"> <li>• No delay to scheme progression.</li> </ul>   | <ul style="list-style-type: none"> <li>• Design progressed without input from contractor that will deliver construction stage, buildability and phasing issued may not be assessed appropriately leading to redesign, cost increase and delay.</li> </ul> |
| <ul style="list-style-type: none"> <li>• Allows for competitive tender.</li> </ul>  | <ul style="list-style-type: none"> <li>• Requires strong technical expertise not available within GCP to deliver value for money.</li> </ul>  |
| <ul style="list-style-type: none"> <li>• Comparable in programme terms with design and build.</li> </ul>  | <ul style="list-style-type: none"> <li>• There is limited resource within GCP to manage a detailed design.</li> </ul>   |
| <ul style="list-style-type: none"> <li>• High client control over specification and quality.</li> </ul>   | <ul style="list-style-type: none"> <li>• There are significant design interfaces between the various work elements to be managed.</li> </ul>  |
| <ul style="list-style-type: none"> <li>• GCP has more control over the contractor’s work sequences and traffic management.</li> </ul>   | <ul style="list-style-type: none"> <li>• GCP exposed to delay risks associated with design interfaces.</li> </ul>   |
| <ul style="list-style-type: none"> <li>• GCP have complete control over all design decisions.</li> </ul>  | <ul style="list-style-type: none"> <li>• To be effective, it requires the scheme to be fully designed before tenders are sought - this may result in an extended pre-tender period.</li> </ul>  |

| Advantages  | Disadvantages  |
|---|--|
| <ul style="list-style-type: none"> <li>Familiarity among contractors and consultants - the roles and responsibilities are well understood.</li> </ul> | <ul style="list-style-type: none"> <li>The fragmented design and construction process and responsibility can lead to disputes, for example in respect of whether construction defects are really design defects or whether they are construction defects.</li> </ul>               |
| <ul style="list-style-type: none"> <li>GCP retains responsibility for and control of the design team.</li> </ul>                                      | <ul style="list-style-type: none"> <li>There is the potential for over-design and/or over-engineering.</li> </ul>  |
| <ul style="list-style-type: none"> <li>There is direct reporting by the design team to GCP to ensure that quality control is maintained.</li> </ul>   | <ul style="list-style-type: none"> <li>The contractor is not involved in the design process and therefore is not required to 'buy in' to the design.</li> </ul>  |
| <ul style="list-style-type: none"> <li>There is certainty of price (if the work is fully designed in advance).</li> </ul>                             | <ul style="list-style-type: none"> <li>GCP retains responsibility for the design team performance.</li> </ul>  |
|   | <ul style="list-style-type: none"> <li>A contractor may price the work to win the job rather than providing a price that properly reflects the work to be carried out. This can encourage a claims culture if the submitted price was too low because of market forces.</li> </ul> |

### Option 2 – Design and Build Contract

- 3.3.6 Under this option GCP would submit for tender the design developed during the statutory processes and pass it to the contractor to tender the detailed design and construction. A single stage design and build contract places the design and construction in one package. The contract is awarded based on a cost for the design and construction of the works, based on a design.
- 3.3.7 This arrangement offers an incentive for the contractor to ensure that the design is buildable and can facilitate a quicker start on construction as work can commence before the design is complete, so long as it is sufficiently advanced. However, as the contractor must estimate the cost at tender stage based on preliminary design information, there is a risk that the actual cost for construction is different with the potential for contractual claims and disputes.
- 3.3.8 This method of procurement involves the contractor being responsible for the design as well as construction. It can be suitable for cost certainty and fast track construction. This approach is not suitable where the client brief is developing, or for very complex projects.
- 3.3.9 The main contractor takes responsibility for both design and construction and will use either in-house designers or employ consultants to carry out the design. The main contractor has a direct influence over the design process and as such takes on the associated risks. To ensure that the client obtains what they are seeking in respect of a finished project it is essential that the client specifies exactly what is required and checks that this is matched by what the contractor offers to provide.
- 3.3.10 Therefore, although it is not necessary for full documentation (including the design) to be in place before the contractor can be invited to tender, for carrying out the work it is important that the client's brief and requirements are clearly set out.
- 3.3.11 The design and build procurement approach is popular as the liability for both the design and the build is with the contractor and there is less chance of liability for a defect falling in the gap between design and construction. [Table 3.3](#) highlights the key advantages and disadvantages of the Design and Build Option.

Table 3.3: Advantages and Disadvantages of a Design and Build Contract.

| Advantages  | Disadvantages  |
|---|--|
| <ul style="list-style-type: none"> <li>Risks can be transferred to the contractor.</li> </ul>   | <ul style="list-style-type: none"> <li>Contractor risks are higher and may raise the price of the contract. This particularly relevant at early stages as the risk profile of the scheme is more uncertain.</li> </ul>   |
| <ul style="list-style-type: none"> <li>Less scope for variations in design compared with traditional tender.</li> </ul>   | <ul style="list-style-type: none"> <li>Potential variation and challenge to existing design by appointed contractor.</li> </ul>  |
| <ul style="list-style-type: none"> <li>Detailed design will be progressed with input to buildability and construction phasing.</li> </ul>   | <ul style="list-style-type: none"> <li>GCP has less control and influence over design matters.</li> </ul>  |
| <ul style="list-style-type: none"> <li>No delay to scheme progression and option to retain OBC team to provide continuity of delivery.</li> </ul>   | <ul style="list-style-type: none"> <li>Inflexibility. There is only limited scope for the client to make changes to their requirements once the client's requirements and contractor's proposals have been agreed.</li> </ul>  |
| <ul style="list-style-type: none"> <li>Tender would be undertaken with more developed design information leading to more consistent tender returns.</li> </ul>  | <ul style="list-style-type: none"> <li>Design quality. As it is often perceived that the contractor is driven by price rather than by design standards, the design and build procurement route is not always the appropriate route to use where a high-quality design is required, unless a robust specification is included within GCP's requirements.</li> </ul> |
| <ul style="list-style-type: none"> <li>Speed of delivery from concept to completed project. In its simplest form, design and build allows work on site to begin earlier (that is before the design is fully complete) than under traditional forms of contract.</li> </ul>      | <ul style="list-style-type: none"> <li>The question of the quality achieved can be an issue because of the lack of control that the client has over the designer. The designer acts for the contractor not for GCP.</li> </ul>   |
| <ul style="list-style-type: none"> <li>Single point responsibility. The contractor is responsible for the design and the construction; Therefore, the GCP should have a single point of responsibility.</li> </ul>  |  |
| <ul style="list-style-type: none"> <li>Acceptance of design. As the contractor is responsible for the design and the construction, the contractor and the supply chain are involved in the production of the design to be used, and hence 'buy in' to that design.</li> </ul>   |  |
| <ul style="list-style-type: none"> <li>Cost certainty, as the contractor can use their experience and expertise in providing a design that allows them to buy goods and services at the best buying margins.</li> </ul>   |  |
| <ul style="list-style-type: none"> <li>Unless a contract states otherwise, the law implies a duty of fitness for purposes on a design and build contractor. This is more onerous than the normal duty of 'reasonable skill and care' imposed on a design consultant.</li> </ul> |  |
| <ul style="list-style-type: none"> <li>Complex design interface risks lie with the contractor, who is best able to manage them.</li> </ul>  |  |
| <ul style="list-style-type: none"> <li>Greater scope for private sector innovation.</li> </ul>  |  |



### Option 3 – Early Contractor Involvement Two-Stage Design and Build Contract

- 3.3.12 Early Contractor Involvement (ECI) is a derivative of design and build but is used when engaging the contractor at an earlier time is seen to be advantageous to the GCP. ECI is suited to projects that are not fully defined and where the contractor’s knowledge and specialism is required to help develop the design.
- 3.3.13 This form of contract allows supplier engagement at an early stage of a project in order to draw in industry experience at the design and preparation stages. ECI contracts remain an option for major transport infrastructure schemes where there is significant scope for input from the supply chain.
- 3.3.14 Their knowledge and abilities to influence project decisions will have maximum impact in terms of project timing, quality and cost. In adopting this approach careful consideration of the choice of contractual conditions is required to ensure that appropriate clauses are in place at key milestones in the development of the design.
- 3.3.15 The timing of the appointment of the contractor in the project development is important; the design should be sufficiently developed to enable estimates and assumptions to be prepared and the client brief sufficiently developed. ECI is not suitable where the brief and scope of the works is fully defined or for repetitive or maintenance related work.
- 3.3.16 It is a collaborative form of contract, which brings the contractor into the project team early, with the team working together through the design and construction phases. This provides benefits of ensuring that the contractor can use his experience in the design phase to reduce overall project risk and ensure buildability. However, there are some significant differences compared with the single stage approach that provides a greater level of cost control and certainty.
- 3.3.17 Although the contract is awarded for design and construction, the process is divided into two parts, the first phase covering the detailed design and consents process, with construction as a second phase. There is a presumption that the scheme will be delivered as a single package but there is no guarantee that the contractor will move directly from detailed design to construction.
- 3.3.18 This would be conditional on satisfactory performance and agreement of a construction target price. The contract will give ownership of the design to GCP so that if a target price cannot be agreed, it may be used to re-tender the construction.
- 3.3.19 The ECI two stage approach also mitigates against cost and programme overruns as there is much greater certainty over the design and understanding of the risks at the point the construction target price is agreed (when the detailed design is sufficiently advanced).
- 3.3.20 Developing this understanding can result in a longer contract period, but one that is likely to be more realistic as to cost and risk. A situation where construction commences before a design is sufficiently advanced would also be avoided. The advantages are like those of design and build but can also provide the following as shown in [Table 3.4](#).

Table 3.4: Advantages and Disadvantages of an ECI Two-Stage Design and Build Contract.

| Advantages   | Disadvantages  |
|--|--|
| <ul style="list-style-type: none"> <li>Benefits in assisting clients where there are complex design and buildability issues to be overcome at the preparatory stage of the scheme.</li> </ul>  | <ul style="list-style-type: none"> <li>Less cost certainty at tender stage and variations and changes to the scope of work made by the client at a late stage can be expensive.</li> </ul> |
| <ul style="list-style-type: none"> <li>Bringing the contractor’s experience to the project at key stages to influence the design. There is an increase in the scope for innovation as contractors can contribute to the development of the project.</li> </ul> | <ul style="list-style-type: none"> <li>Increased cost in contract management resources to administer the contract process.</li> </ul>  |
| <ul style="list-style-type: none"> <li>High quality when all parties can contribute to the design at an early stage and health and safety risks are effectively managed.</li> </ul>  | <ul style="list-style-type: none"> <li>Each party has different interests at the design stage which can lead to conflict or delay.</li> </ul>  |

| Advantages   | Disadvantages  |
|--|--|
| <ul style="list-style-type: none"> <li>• Creation of an early design and development team, adopting a partnering approach, with increased transparency and therefore reduced risks and increased shared responsibility limiting the reasons for litigation.</li> </ul> | <ul style="list-style-type: none"> <li>• Although rates would be market tested, the target cost for the main construction works would be negotiated rather than competitively tendered.</li> </ul> |
| <ul style="list-style-type: none"> <li>• Allows for early supplier engagement on a partnering basis.</li> </ul>  |  |
| <ul style="list-style-type: none"> <li>• Contractor is better placed to manage risk, having been involved from an early stage in the design process.</li> </ul>  |  |
| <ul style="list-style-type: none"> <li>• Allows for the incorporation of supplier skills and knowledge within the early stages of design.</li> </ul>   |  |

#### Option 4 – Design, Build, Operate and Maintain Contract

- 3.3.21 In a Design, Build, Operate and Maintain (DBOM) arrangement, the private sector party is responsible for designing, building, operating and maintaining the project. Where major capital works are to be included in a contract with operational requirements, the suggested approach involves the authority procuring a consortium (building contractor and operator) that will take the lead and take on the risk in the design, construction and the operation of the new facility.
- 3.3.22 Consortia bid for the contract, which is normally a long-term contract of 15 plus years and between them, deliver an optimum solution (in terms of design, construction and operation) balancing capital costs and revenue costs. [Table 3.5](#) highlights the key advantages and disadvantages of the DBOM Option.

Table 3.5: Advantages and Disadvantages of a DBOM Contract.

| Advantages  | Disadvantages   |
|---|---|
| <ul style="list-style-type: none"> <li>• Suitable where private sector is better placed to manage maintenance (or O&amp;M) risks.</li> </ul>  | <ul style="list-style-type: none"> <li>• Limited transfer of risk during construction as funding provided progressively.</li> </ul>   |
| <ul style="list-style-type: none"> <li>• Improved incentive to introduce innovation and encourages reduction in long term life cycle costs as some of the asset lifecycle risk is transferred to the contractor.</li> </ul> | <ul style="list-style-type: none"> <li>• Long-term nature of contracts prevents the flexibility required by GCP to allow for future innovation and new technology.</li> </ul>   |
| <ul style="list-style-type: none"> <li>• Contractor warrants design including 'fitness for purpose'.</li> </ul>   | <ul style="list-style-type: none"> <li>• Risk of cost overruns and time delays is difficult to mitigate for GCP as liquidated damages associated with design and build may not provide as much incentive for the private sector to complete the works on time and on budget.</li> </ul> |
| <ul style="list-style-type: none"> <li>• There is a single point of accountability.</li> </ul>  | <ul style="list-style-type: none"> <li>• Limited meaningful transfer of risk with no capital at risk.</li> </ul>  |
| <ul style="list-style-type: none"> <li>• Offers a lower risk of cost overruns as the price is determined upfront for the period of the contract, including capital and O&amp;M costs.</li> </ul>                            | <ul style="list-style-type: none"> <li>• Tends to have longer tender periods than the other models as it is necessary to evaluate operation and maintenance risks.</li> </ul>   |
| <ul style="list-style-type: none"> <li>• As a result of a greater emphasis on achieving an efficient whole of life costing, the DBOM model provides an improved scope for design and construction innovation.</li> </ul>    | <ul style="list-style-type: none"> <li>• GCP has a residual exposure to support the project should budget overruns occur.</li> </ul>  |
| <ul style="list-style-type: none"> <li>• The risk allocation regime and contractual structure associated with this model provides incentives to achieve on time completion.</li> </ul>                                      |   |

#### Option 5 – Management Consulting

- 3.3.23 This method of procurement is suitable for fast track and/or complex projects that have a developing brief. It is less suitable where cost certainty before starting construction is required and where the client wishes to

transfer risk to the contractor. It is not considered that this method is suitable for further consideration for the Cambridge Eastern Access scheme.

3.3.24 Further, procurement options involving private finance have not been considered as:

- Public funding has already been identified and is available, there is therefore no need; and
- The size of the scheme does not warrant the expense of establishing a private finance model.

## 3.4 Procurement Option Assessment – Infrastructure

3.4.1 To compare the five procurement options, levels of cost, time and quality certainty have been considered and rated as high, medium or low certainty levels for the project as shown in [Table 3.6](#). At this stage of the process (SOBC), a preferred procurement option has not been selected but will rather be determined at OBC and / or FBC stage.

Table 3.6: Initial Comparison of Procurement Options.

| Procurement Option                      | Level of Certainty |                 |                 |
|---|--------------------|-----------------|-----------------|
|   | Cost               | Time            | Quality         |
| Traditional Contract                    | • Medium - High    | • Medium - High | • High          |
| Design and Build Contract               | • High             | • High          | • Medium - High |
| ECI Two-Stage Design and Build Contract | • Medium           | • Medium        | • High          |
| DBOM Contract                           | • High             | • High          | • Low - Medium  |
| Management Contracting                  | • Low              | • High          | • Medium - High |

## 3.5 Procurement Option Assessment – Services

3.5.1 The operation of the current bus services along the Newmarket Road corridor is largely on a commercial basis. With regard to the new public transport services which are expected to operate on the proposed Cambridge Eastern Access infrastructure, it is not the intention of the GCP to be directly involved in their procurement and control as that is not within GCP's powers.

3.5.2 The Local Transport Authority (LTA) that has the relevant powers is the Cambridgeshire & Peterborough Combined Authority (CPCA). The CPCA Mayor's Strategic Bus Review concluded that further work was required including procurement and completion of a Business Case to assess different delivery model options. Following completion of this latter piece of work, the CPCA Mayor was expected to decide on the future preferred option for delivering bus services in early 2021. That process has been delayed by Covid-19 but the CPCA Mayor has indicated that he is still pursuing a franchise model.

3.5.3 As the GCP awaits the Mayor’s final decision, the potential public transport operating models currently available for the Cambridge Eastern Access project have not yet been identified but will be developed further in light of the Mayor’s decision within the OBC and / or FBC stages. The following issues and key questions will however be contemplated within any further consideration:

- Available operating models for providing services.
- Appetite in the market to engage with those models.
- Impact and influence on fares and patronage.
- Risks.
- Commercial implications of objectives for clean high-quality transport such as high frequency services operated by high quality electric vehicles.

## 3.6 Procurement Option Assessment – Maintenance

3.6.1 Table 3.7 sets out and summarises the potential procurement options for the maintenance of infrastructure, with the advantages and disadvantages of each option.

Table 3.7: Advantages and Disadvantages of Potential Procurement Maintenance Options.

| Option  | Advantages  | Disadvantages  |
|---|---|--|
| Employer Managed / Maintained In-House                              | <ul style="list-style-type: none"> <li>• Employer has full control.</li> <li>• “Value for money” solutions can be applied.</li> </ul>   | <ul style="list-style-type: none"> <li>• Requires in-house capabilities (resources, infrastructure, equipment).</li> </ul>   |
| Employer Management of Approved Supplier(s)                         | <ul style="list-style-type: none"> <li>• Employer retains control over maintenance remedies.</li> </ul>   | <ul style="list-style-type: none"> <li>• Delays in co-ordination of activities.</li> <li>• Employer has less control over “value for money”.</li> </ul>  |
| Employer Term Maintenance contract. Managing Agent Contractor (MAC) | <ul style="list-style-type: none"> <li>• Fully managed by MAC(s) who are experienced in maintenance.</li> <li>• Reduction of employer risk.</li> </ul>  | <ul style="list-style-type: none"> <li>• May not be as cost effective as options 1 and 2.</li> <li>• Employer has little control over maintenance operations.</li> <li>• Employer should monitor quality of maintenance to protect the asset.</li> </ul>   |
| Extension of construction contract Defects Liability Period         | <ul style="list-style-type: none"> <li>• Continuity of contractor involvement.</li> <li>• Contractor familiarity with assets.</li> <li>• Advance agreement and allocation of costs.</li> <li>• Reduction of employer risk.</li> </ul> | <ul style="list-style-type: none"> <li>• May not be as cost effective as options 1 and 2.</li> <li>• Employer has little control over maintenance operations.</li> <li>• Employer should monitor quality of maintenance to protect the asset.</li> </ul>   |
| Bus Service Operator Maintained                                     | <ul style="list-style-type: none"> <li>• Operator able to manage maintenance operations to mitigate disruption to level of service.</li> <li>• Reduction of employer risk.</li> </ul>   | <ul style="list-style-type: none"> <li>• Operators may be inexperienced in maintenance of infrastructure.</li> <li>• May not be as cost effective as options 1 and 2.</li> <li>• Employer has little control over maintenance operations.</li> <li>• Employer should monitor quality of maintenance to protect the asset.</li> </ul> |
| Management company Joint Venture (Employer / Operator / MAC)        | <ul style="list-style-type: none"> <li>• All parties have a common interest in maintaining assets.</li> <li>• Employer has input into maintenance management.</li> </ul>  | <ul style="list-style-type: none"> <li>• More difficult to set up contract.</li> <li>• Decisions may take longer.</li> </ul>   |
| Management company Joint Venture (Employer/Operat                   | <ul style="list-style-type: none"> <li>• Employer and operator incentivised to protect assets.</li> <li>• Contractor has familiarity with assets.</li> </ul>  | <ul style="list-style-type: none"> <li>• More difficult to set up contract.</li> <li>• Decisions may take longer.</li> </ul>   |

| Option                        | Advantages  | Disadvantages |
|-------------------------------|---|---------------|
| or/ Contractor) - Fixed Price | <ul style="list-style-type: none"> <li>• Advance agreement and allocation of costs.</li> <li>• Operator incentivised to provide high level of service.</li> </ul> |               |

3.6.2 It should be noted that the option decided upon will depend to an extent on the arrangement used for the operation of the bus service, which is yet to be determined, as noted above.

## 3.7 Procurement to Date

3.7.1 Procurement to date has solely been the commission of consultants Tetra Tech (formerly WYG) to identify and prepare the preliminary scheme and Strategic Outline Business Case. No contractors have yet been commissioned for delivery of the physical infrastructure, vehicles or services.

## 3.8 Procurement Timescales

3.8.1 Timescales for the procurement process will be developed within the Outline Business Case for the Cambridge Eastern Access scheme. This will set out projected timescales for the procurement of infrastructure, vehicles and services.

## 3.9 Procurement Frameworks

3.9.1 This section sets out the in-principle strategy for procurement of consultant and contractor services to deliver the Cambridge Eastern Access scheme. Consultant services extend to design and advisory services to the GCP and contractor services include construction of the scheme.

3.9.2 The highways industry uses several recognised procurement methods for delivering civil engineering and highway schemes. Each procurement method can be used for selecting a Service Provider. Several procurement methods, in this instance Frameworks, will be further considered at the OBC and FBC stages.

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