Transport for London

# Schedule 6

# Call-Off Contract

**Framework Agreement:** **GLA 80868-Architecture, Design & Urbanism Panel**
**Lot:** **7b– Transport Design: Underground, Rail and Specialist Infrastructure**

**Call-Off Contract Number:** **GLA 80868 / Task 1055 Embankment Outcome Definitions Study**

**Outline Agreement Number: 4600006450**

**THIS CALL-OFF CONTRACT** is made 30th day of January 2023

**BETWEEN:**

(1) Transport for London (**"the Authority"**); and

(2) 5th Studio Limited, a company registered in England and Wales (Company Registration Number 03373123) whose registered office is at Darkroom, Unit 8 Dale's Brewery, Gwydir Street, Cambridge, CB1 2LJ (**"the Service Provider"**).

**RECITALS:**

A. The Authority and the Service Provider entered into an agreement dated 27th March 2018 which sets out the framework for the Service Provider to provide certain Services to the Authority (**"the Framework Agreement"**).

B. The Authority wishes the Service Provider to provide the specific Services described in this Call-Off Contract pursuant to the terms of the Agreement and this Call-Off Contract and the Service Provider has agreed to provide such Services on those terms and conditions set out in the Call-Off Contract.

**THE PARTIES AGREE THAT:**

## 1. CALL-OFF CONTRACT

1.1 The terms and conditions of the Agreement shall be incorporated into this Call-Off Contract.

1.2 In this Call-Off Contract the words and expressions defined in the Agreement shall, except where the context requires otherwise, have the meanings given in the Agreement. In this Call-Off Contract references to Attachments are, unless otherwise provided, references to attachments of this Call-Off Contract.

## 2. SERVICES

2.1 The Services to be performed by the Service Provider pursuant to this Call-Off Contract are set out in Attachment 1.

2.2 The Service Provider acknowledges that it has been supplied with sufficient information about the Agreement and the Services to be provided and that it has made all appropriate and necessary enquiries to enable it to perform the Services under this Call-Off Contract. The Service Provider shall neither be entitled to any additional payment nor excused from any obligation or liability under this Call-Off Contract or the Agreement due to any misinterpretation or misunderstanding by the Service Provider of any fact relating to the Services to be provided. The Service Provider shall promptly bring to the attention of the Call-Off Co-ordinator any matter that is not adequately specified or defined in the Call-Off Contract or any other relevant document.

2.3 The timetable for any Services to be provided by the Service Provider and the corresponding Milestones (if any) and Project Plan (if any) are set out in Attachment 1. The Service Provider must provide the Services in respect of this Call-Off Contract in accordance with such timing and the Service Provider must pay liquidated damages in accordance with the Agreement of such an amount as may be specified in Attachment 1..

2.4 The Service Provider acknowledges and agrees that as at the commencement date of this Call-Off Contract it does not have an interest in any matter where there is or is reasonably likely to be a conflict of interest with the Services provided to the Authority under this Call-Off Contract.

## 3. CALL-OFF TERM

This Call-Off Contract commences on the date of this Call-Off Contract, or such other date as may be specified in Attachment 1 and subject to Clause 4.2 of the Agreement, shall continue in force for the Call-Off Term stated in Attachment 1 unless terminated earlier in whole or in part in accordance with the Agreement.

## 4. CHARGES

Attachment 2 specifies the Charges payable in respect of the Services provided under this Call-Off Contract. The Charges shall not increase during the duration of this Call-Off Contract unless varied in accordance with the Agreement. The Service Provider shall submit invoices in accordance with the Agreement and the Charges shall be paid in accordance with the Agreement.

## 5. CALL-OFF CO-ORDINATOR AND KEY PERSONNEL

The Authority's Call-Off Co-ordinator in respect of this Call-Off Contract is named in Attachment 1 and the Service Provider's Key Personnel in respect of this Call-Off Contract are named in Attachment 2.

## 6. LIABILITY

For this Call-off Contract, the Service Provider's liability shall be limited to £5,000,000. This limit does not exclude or limit the Service Providers liability for:
Death or personal injury;
Fraud or fraudulent misrepresentation; or
any other liability which, by law, it cannot exclude or limit

## 7. THE DOCUMENTS FORMING THE CALL OFF CONTRACT ARE

- this Call-Off Contract duly executed by the Parties;
- Call-Off Contract Attachment 1
- Call-Off Contract Attachment 2; and
- the following appendices:
    - the Specification - Appendix 1
    - the Proposal - Appendix 2
    - Pricing Schedule - Appendix 3

This Call-Off Contract has been signed by duly authorised representatives of each of the Parties.

**SIGNED** [redacted]

[redacted]

[redacted]

[redacted]

# ATTACHMENT 1

# Services to be provided

## 1. Services to be provided

This Mini-Competition seeks the appointment of a Service Provider to undertake an Outcome Definition Study (ODS) for Embankment station. The goal is to identify the future challenges and opportunities arising from the planned Bakerloo line Upgrade and Extension programmes (BLUE).

Consultants are welcome to partner with other organisations if they feel that they can provide the expertise required to complete the project. Full details of how the partnership would work (governance, project management, etc.) should be provided in the Proposal submission.

A full Specification of the Services required is included within Appendix 1.

## 2. Timetable

Contract Commencement date: 30th January 2023

Call-Off Contract Term: The contract shall terminate on 30 June 2023

The Call-Off Contract may be extended for a further 3 months however any extensions will be at the Employer's own discretion and subject to the appointed Consultants' satisfactory performance, ongoing requirement, and funding availability. This will be confirmed and mutually agreed in writing.

## 3. Liquidated Damages

Amount of liquidated damages per day Not applicable for this Commission.

## 4. Invoices

Address for invoices:

Transport for London
Accounts Payable
14 Pier Walk, North Greenwich, London, SE1 0ES

Electronic format for delivery of invoices by the Service Provider: accountspayable@tfl.gov.uk

All invoices must have TfL's Contract Reference Number, SAP Purchase order number, Service Provider's name and address, a separate calculation of VAT and a brief description of the Services provided.

## 5. Authority Call-Off Co-ordinator

The Authority's Contract Manager is:

[redacted]

The Authority's Procurement Manager is:

[redacted]

## 6. Other information or conditions

Insurance and liability to be held by Service Provider as per the Framework Agreement:

a) Employer's liability insurance to be increased to £5 million per incident;

b) Public liability insurance to be increased to £5 million per occurrence

c) Professional indemnity insurance to be increased to £5 million in the aggregate per annum for the duration of the Call-Off Contract/Agreement and for 6 years after expiry or termination of the Call-Off Contract/Agreement; and

d) Product liability insurance to be increased to £10 million in the aggregate per annum..

## ATTACHMENT 2

## Service Provider's Proposal

### 1. Proposed Solution

5th Studio Limited proposal sets out the technical approach for achieving TfL's objectives.

See Appendix 2 for the full proposal.

### 2. Charges

The tendered total of the Price is fixed at £85,035.00 and shall not exceed this amount in the current scope.

TfL will not reimburse any additional costs for time, input, resource or other without prior written consent from TfL's employing manager.

See Appendix 3 for full breakdown of Charges.

### 3. Key Personnel

The Services Provider's Key Persons are:

| Name | Role | Address | Email | Telephone |
|---|---|---|---|---|
| [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| [redacted] | [redacted] | | [redacted] | [redacted] |
| [redacted] | [redacted] | | [redacted] | [redacted] |
| [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| [redacted] | [redacted] | | [redacted] | [redacted] |
| [redacted] | [redacted] | | | |
| [redacted] | [redacted] | | [redacted] | [redacted] |
| [redacted] | [redacted] | | | |

## APPENDIX 1

# Specification

Transport for London

# ATTACHMENT 1

# OUTCOME DEFINITION STUDY BRIEF

# GLA 80868 TASK 1055

# SPECIFICATION

Version Reference

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# 1. Embankment Bakerloo Line Station Capacity Upgrade

## Introduction

Transport for London (TfL) wishes to commission this Outcome Definition Study (ODS) for Embankment station. The goal is to identify the future challenges and opportunities arising from the planned Bakerloo line Upgrade and Extension programmes (BLUE).

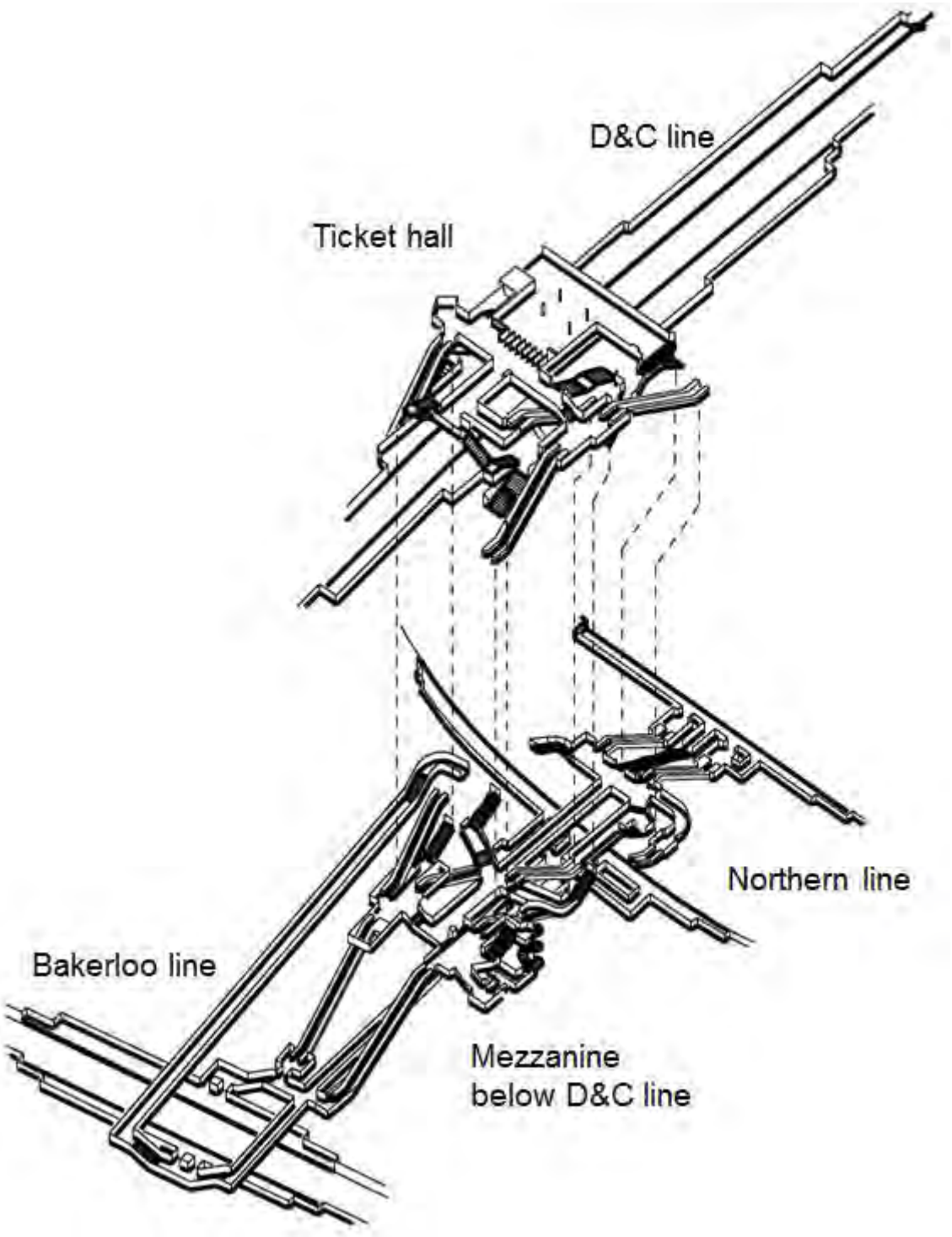
## Site Description

1.1. The existing station comprises one ticket hall, with a northern entry/exit onto Villiers Street and a southern entry/exit onto the Embankment. The station ticket hall has a high volume of footfall partly associated with its use as through route for pedestrians moving between Villiers Street and the Embankment and their respective links onwards to the Hungerford Bridge and Charing Cross National Rail station.

1.2. The Bakerloo Line and Northern Line platforms are accessed by staircase links to a mezzanine located under the District and Circle line platforms, with onwards escalator access to platform / platform over bridge levels for the Bakerloo and Northern lines. The District and Circle lines are accessed by staircases from ticket hall to platform level. There is no Step Free Access provision at Embankment station.

1.3. The station ticket office has closed and the ticket gate line has been reconfigured and upgraded to improve the movement of passengers in and out of the station.

1.4. The location of the station and its axonometric is shown in the figure below.




1.5. Prior to the Coronavirus pandemic Embankment Station experienced a 13% growth in passenger demand between 2008 and 2018 across the total of Access, Egress and Interchange flows, increasing from circa 118,000 passenger movements across a whole weekday to circa 134,000 passenger movements. This growth is commensurate with the wider growth on the Tube network, reflecting London's growing resident and working populations and the operation of more services on the network e.g. the Northern and District and Circle lines have each been upgraded over that period. During 2020 and 2021 the effects of the COVID-19 pandemic have

been evident though reduced demand, however ridership is returning in 2022 and we expect this trend to continue.

Key issues identified for investigation

1.6. Embankment station, owing to its high level of use but constrained ticket hall size and vertical access routes to platforms, has been identified as a station that may require increased management of passenger flows and possibly infrastructure works to ensure it can convey future passenger demand through it. Forecasts to 2041 set out current forecasts for future demand.

1.7. As TfL has been developing the Bakerloo Line Upgrade and Extension Programme (BLUE), the service outcomes and passenger demand flows have been estimated. The impact of running increased services on the Bakerloo line and with higher passenger flows owing to the traffic from the extension has prompted a desire to reinvestigate the future forecast passenger flow conditions in the station.

1.8. This Outcome Definition Study commission is focused on establishing the challenges the future service and passenger flow conditions within the current station infrastructure may generate. Following challenge identification, the approach in turn should then be to consider the options that may address those challenges and meet the requirements set out in this brief.

1.9. The study is being tendered with allowance for a variation to move from the Outcome Definition stage to continue to completion of the Feasibility stage of design.

# 2. Study Scope and Description of BLUE Embankment Requirements

2.1. Currently the BLUE Programme has 2031 and 2041 forecast year demand matrices for the station. The Consultant will need to consider the scenarios of the Upgrade and Extension to Lewisham at 27 trains per hour (tph) and an Upgrade and Extension to Hayes at 27tph. A further scenario of an Upgrade and Extension to Hayes at 36 tph will also need to be considered as a sensitivity test. The AM and PM peak period demand matrices for these scenarios will be provided to the Consultant.

2.2. The Consultant will need to understand current baseline AM and PM demand flows in order to advise an approach to considering how movements in the station and the challenges that they may generate.

2.3. An overview of the requirements for the future operating station, in the event that infrastructure works are required to meet the challenges from future passenger flows in the station are as follows.

| Reference | Project objective | Description |
|---|---|---|
| PR-01 | Increase capacity of the station to support forecast day one (completion of Bakerloo Upgrade and Extension) operations | Capacity of the station is defined as providing an agreed level of service (currently assumed to be no less than Fruin Level of Service C) based on a future forecast demand for 2031 + 35% and 2041 + 35%, with compliance as far as possible in other aspect of the Station Planning Standard. |
| PR-02 | Increase capacity of the station to support long-term forecast demand at the station | Capacity of the station is defined as providing an agreed level of service ((currently assumed to be no less than Fruin Level of Service C) based on a future forecast demand for 2041 + 35%, with compliance as far as possible in other aspects of the Station Planning Standard. |
| PR-03 | Where possible, maintain and aim to improve journey times for passengers | Journey times are measured from the start of the journey within the station. The requirement should consider all the passenger routings. |
| PR-04 | Provide step-free access, egress, and interchange from street to all trains | In order to provide access, egress, and interchange for persons of reduced mobility (PRM) that is compatible with the Equality Act (2010). |
| PR-05 | Optimise operational strategy, taking into account the proximity and potential role of | Includes how the station is operated during normal conditions, degraded operations in addition to during times of congestion and evacuation in end state. |

| Reference | Project objective | Description |
|---|---|---|
| | Charing Cross Underground station | |
| PR-06 | Ensure proposals demonstrate the station will be acceptably safe in case of fire | The project should ensure that the proposed station is acceptably safe for passengers, staff and the emergency services in case of fire based on a future forecast demand for 2031 and 2041 plus an additional 35% |

2.4. The approach for this project is to set out the end state requirements for the station – both for day one service introduction and for assumed long-term demand growth, whilst delivering the requirements listed above. The approach should be accompanied by outline options to illustrate ideas that may achieve the Project Requirements PR-1 to PR-06, with the challenges and opportunities of those concepts clearly articulated. Such outline options need not rely on current infrastructure.

2.5. For each of the day one and long-term demand growth scenarios the Outcome Definition Study (ODS) will need to provide a narrative and illustration of the baseline conditions at the station in the two scenarios provided as this will be critical for the reasoning for the proposed outcomes established by the Study.

# 3. Study Outputs

3.1. The Outcome Definition Study should demonstrate consideration of the challenges and options for addressing each of the station's elements including, but not be limited to:

- vertical capacity
- passageways
- entrance hall(s)
- concourses
- platforms
- barriers and ticket gates
- the role of redundant / disused infrastructure
- other TfL owned assets in the locale (including non-operational)

3.2. The study will be required to show appropriate consideration of the risks and constraints associated with addressing the respective station elements. Risks and constraints do not require resolution at this stage.

3.3. The Consultant, in addressing the Project Requirements PR01 to PR-06 within the scope of the Study should aim to provide answers to the following key questions.

| | |
|---|---|
| Question 1: | Based on LU Station Planning Standard calculations, at what point in demand volume terms do station elements cease to meet the requirements. |
| Question 2: | What impact will the Upgrade and Extension have on the passenger flows within the station, due to the increased train services on the Bakerloo line and the conveyance of more passengers to and from the Bakerloo line through the rest of the station including interchange with the Northern and District & Circle lines. What do the impacts mean in terms of the magnitude of change that would be required to make elements meet requirements (e.g. widen by x metres; increase vertical capacity conveyance of y people per minute etc). |
| Question 3 (A): | What are the alternatives to upgrade or reprovision of the infrastructure, for example operational controls or upgrades to existing infrastructure, to enable the station to meet requirements and serve the passenger movements due to the Upgrade and Extension. |
| Question 3 (B): | What role could Charing Cross Bakerloo and Northern line station play in the potential operational controls answer to this question. |
| Question 4: | What are the options for the upgrade of the existing station elements in situ to make them fit for purpose (e.g. widening existing corridors; expanding existing gatelines etc). |
| Question 5: | What are the options for the reprovision of station elements |

| | |
|---|---|
| | through the delivery of entirely new infrastructure to make the station meet requirements (e.g. delivery of a new ticket hall in a new location, build new tunnelled corridors etc). |
| Question 6: | How does Embankment station currently interact with Charing Cross National Rail station and the passenger journeys it generates. How could this interaction be affected, positively or negatively, by the options identified through addressing the prior questions. |

3.4. Throughout the Study, the Consultant should provide explicit and appropriate regard to Whole Life Costs of the station option proposals. These will not require quantification given the immaturity of the design, however commentary should be provided and the matter discussed as an explicit consideration in discussions, presentations and documentation produced for the Study.

3.5. Following Outcome Definition, the TfL Project Team will further develop the identified options as part of a feasibility study (similar to RIBA 1) in order to develop a preferred option. At this stage the constraints identified in the Outcome Definition Study will provide the established baseline against which design development will undertake trade-offs in order to arrive at a single preferred option.

**Project Requirements PR-01 to PR-06**

3.6. The following tables set out the project requirements and the considerations and work necessary to address them:

| **PR 01** | **Increase capacity of the station to support forecast day one (completion of Bakerloo Upgrade and Extension) operations** |
|---|---|
| Requirement: Stage 1 | Describe and explain the opportunities and constraints to increase the capacity at Embankment Station in order to provide an acceptable Level of Service (current assumption is Fruin Level of Service C) based on passenger demand forecasts for 2031 and 2041.<br>Generate options across station elements and consider with the Client the approach to delivery, including constructability, cost, and programme. |

| **PR 02** | **Increase capacity of the station to support long-term forecast demand at the station** |
|---|---|
| Requirement: Stage 1 | Describe and explain the opportunities and constraints to increase the capacity at Embankment Station in order to provide an acceptable Level of Service (current assumption is Fruin Level of Service C) based on passenger demand forecasts for 2041 + 35%.<br>Generate options across station elements and consider with the Client the approach to delivery, including constructability, cost, and programme. |

| PR 03 | Where possible, maintain and aim to improve journey times for passengers |
|---|---|
| Requirement: Stage 1 | Describe and explain the opportunities and constraints in maintaining and potentially improving free flow journey times for passenger access, egress, and interchange as part of the consideration of addressing the forecast capacity challenges at Embankment Station. Include consideration of the interchange between Embankment station with Charing Cross National Rail station.<br>Generate design options across station elements as per PR01. |

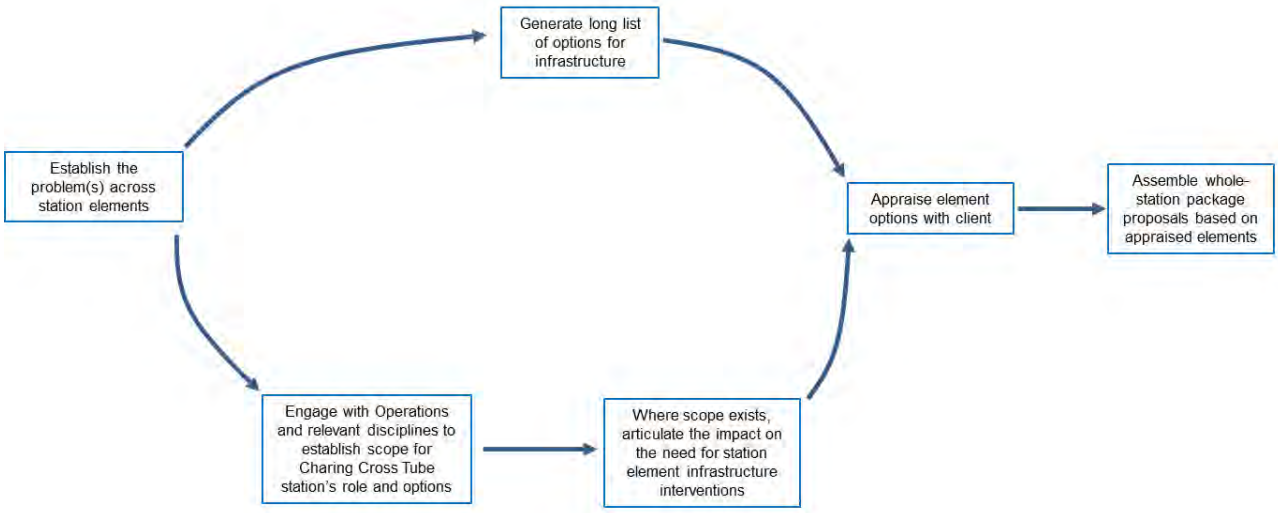
| PR 04 | Provide step-free access, egress, and interchange from street to all trains |
|---|---|
| Requirement: Stage 1 | Describe and explain the opportunities and constraints in providing step free access for passengers using Embankment station.<br>Generate design options across the relevant station elements as per PR01. |

| PR 05 | Optimise operational strategy, taking into account the proximity and potential role of Charing Cross Underground station |
|---|---|
| Requirement: Stage 1 | Describe and explain the opportunities and constraints to optimise the end state operational strategy at Embankment Station with the aim of reducing the need for infrastructure intervention across relevant station elements.<br>The Project Team and Consultant shall work with the LU operations team in order to generate options. |

| PR 06 | Evacuation times should not be worsened beyond existing evacuation times |
|---|---|
| Requirement: Stage 1 | The Study must explicitly demonstrate the challenges associated with achieving a fire compliant design for the whole station in each scenario and describe how this drives the required outcomes from this Study. The project team will need to liaise with the BLUE Programme Fire Engineer(s) to understand the context and impact on the current station's strategy and emergency plans and establish the agreed principles, ensuring these are reflected in the design options for the station elements. Articulate the impacts of achieving this project requirement at the station in the forecast future end state.<br>Assessing this requirement will provide the basis for development and, ultimately, adoption of a credible Fire Strategy endorsed by the LU Fire Engineer and London Fire and Emergency Planning Authority in later stages of design. |

# 4. Study Process and required engagement with TfL disciplines

4.1. The outline study process required is shown in the figure below.




4.2. The Consultant must describe their consideration of this process, how it will be followed, improved on and relayed into the reporting and production of the study outcomes. The Consultant should demonstrate how they will facilitate the engagement and provide suitable materials and environments for workshops and presentation of materials and interaction with the study development by the Client team.

4.3. Throughout the process, the Consultant will need to allow for initially fortnightly meetings with the core Client team in order to:

- Report on progress against the brief and proposal;
- Report emerging project risks and opportunities identified;
- Raise matters needing support or direction from the Client (e.g. facilitating engagement with a Client discipline lead such as Fire Engineering etc.);
- Describe proposed next stages of work, planned process and be open to challenge and shaping those with the Client team input; and
- Test proposed outputs with the core Client team before wider / formal release to the whole Client team for acceptance and contract completion.

4.4. The core Client team disciplines that the Consultant will work with from inception meeting onwards are:

- TfL City & Investment Delivery Planning
- TfL  Engineering
- TfL Capital Delivery
- TfL Commercial

4.5. In addition to the core team, the Consultant will also be required to engage with a range of disciplines listed below and document discussions including actions, decisions and directions and project team. The evidence of this engagement and its

impact on the design development process and the options appraisal must be reflected in the Consultant's reporting. The disciplines are:

- TfL Embankment Station and Charing Cross Station Operations teams.
- TfL Operational Property representatives.
- TfL Engineering (disciplines of Civils (various), Ventilation, Fire, Mechanical and Electrical, Premises and the Built Environment representatives).
- TfL Buses, Highways, Cycling representatives.
- TfL Operational Upgrades representatives.

4.6. The Consultant must allow sufficient time for site visit(s) to Embankment and Charing Cross stations to observe current conditions and the infrastructure first hand. The visits will also provide the opportunity to learn from the staff that operate the station. The Client will endeavour to make CCTV footage of free flow and degraded conditions in the station available to the Consultant, subject to permissions being obtained.

# 5. Study input data

5.1. The following documents are to be supplied to the Consultant at the beginning of this Study:

a) Station Layout Plans;

b) A model of Embankment station in 3D CAD constructed from pointcloud survey data;

c) Latest available passenger data for current day use of the station;

d) Passenger demand forecasts for the AM weekday peak period 2031 and 2041 scenarios;

e) Output Legion ‘heat maps’ of the existing station based on Rolling Origin Destination Survey 2017 weekday AM;

f) TfL Railway Heritage Features for Embankment;

g) Schedule of recorded incidents at Embankment station;

h) Relevant TfL standards and guidelines.

# 6. Study Milestones and Deliverables

6.1. The following table outlines the expected milestones for the Outcome Definition Study. Consultants are encouraged to suggest any changes to this approach and acknowledge milestone dates as part of the tender response.

| Reference | Milestone Description | Consultant Deliverables | TfL Input | Indicative milestone date |
|---|---|---|---|---|
| M-00 | Contract award and release of Study input data | n/a | 1. LU to provide Study input data as per the Outcome Definition Study Brief and organise a site visit with Consultant team | Early December 2022 |
| M-01 | Consultant consults TfL and confirms understanding of problem, project objectives, and Study approach | 1. Presentation to Client Project Team<br>2. Articulation of the opportunities and constraints identified following consideration of the Consultant based on work to date and wider activity with the Client team.<br>3. Recorded stakeholder workshops on station challenges and opportunities<br>4. Site visits completed | 1. Comments on presentation and other materials<br>2. Attendance at workshops<br>3. Review and sign off of Consultant proposals on problems to be addressed | + 4 weeks from M-00 |
| M-02 | Consultant sets out analysis of impact of BLE for scenarios considered and initial thoughts on answers to the key questions, and lines of enquiry for remaining assessment and Study development. This stage includes determining whether there is scope to further consider Charing Cross following initial consideration by the | 1. Presentation to Project Team<br>2. Static demand and congestion and evacuation analysis, as appropriate, to support identified elements<br>3. Proposed next steps and lines of enquiry / required support from Client project team agreed<br>4. Agree scope of next stage concerning Charing Cross station relevance | 1. Comments on presentation and other materials<br>2. Audit of static analysis<br>3. Operations expertise on train service and station operations across Embankment and Charing Cross. | + 3 weeks from M-01 |

| Reference | Milestone Description | Consultant Deliverables | TfL Input | Indicative milestone date |
|---|---|---|---|---|
| | Consultant with the Client team. | | | |
| M-03 | Consultant to propose options on how to modify or introduce suggested elements and demonstrate answers to questions listed in scope of output | 1. Presentation to Project Team<br>2. Architectural sketches of options within each work stream<br>3. Demonstrate consideration of benefits<br>4. Demonstrate consideration of opportunities and constraints<br>5. Demonstrate consideration of public consultation results<br>6. Demonstrate consideration of approach to delivery including constructability, cost, and programme<br>7. Agreement with TfL Project Team on answers to questions and the requirements to set for future station design development, including the decision making process and rationale to justify these outcomes.<br>8. Meetings and workshops as agreed on specific challenges, opportunities or subject areas. | 1. Client team disciplines engagement in options generation stages<br>2. Comments on presentation and other materials by core Client team<br>3. Client team disciplines attendance and input to appraisal process (i.e. workshops, meetings etc) | + 4 weeks from M-02 |

| Reference | Milestone Description | Consultant Deliverables | TfL Input | Indicative milestone date |
|---|---|---|---|---|
| M-04 | Study report submitted to Client | 1. Station element package options<br>2. Study report documenting study approach, design decisions, and recommendations for next stage of design (Stage 2: Feasibility)<br>3. Study Assurance documents | 1. Client team to review report and provide feedback through comments log<br>2. Core Client team to review Consultants recommended station element package options and agree content for draft reporting | + 3 weeks from M-03 |
| M-05 | Study report signed off by Client | 1. Final report<br>2. Comments log with Consultant response describing actions taken | 1. Client team final review and acceptance of final report | + 2 weeks from M-04 |

### Format of deliverables

6.2. The Consultant must provide to the Client:

- 3D CAD models of the station element packages reported in milestone M-04 for review and final proposed option packages at M-05 milestone stage. To LU CAD standards
- Logs of assumptions, risks, comments in MS Excel format
- Final report in Hi-res PDF format with embedded images of station diagrams (existing and options).
- Option appraisal logs in MS Excel format detailing the feedback collected across disciplines.
- Presentations in MS PowerPoint format.

## 7. Study Assurance

7.1. A Consultant's Assurance Plan (SAP) shall be produced by the Consultant in accordance with LU Standard (S1538 A11). The text of the SAP will be a true statement of the Consultant's arrangements to enable TfL to be confident that the requirements set will be met and the necessary evidence provided.

7.2. In order to document the design process, the following documents should be provided by the Consultant with the Study report:

a) Design assumptions register listing all assumptions made during the design process.

b) Decision audit trail: Records of all design decisions made to provide a robust audit trail for any further design development. This shall involve visual mapping such as tree/root and branch/fishbone diagrams. The diagram will demonstrate the options considered, the options parked, and the options progressed. A supporting narrative should be included outlining the methods used to evaluate options (including safety criteria), the record of discussions, and any decisions made.

c) Interface analysis: key interfaces (both internal to TfL and external) for the considered design options should be identified.

d) Static passenger and evacuation analysis: calculations made to inform the design development process should be provided for review by TfL, including a supporting narrative on methods and assumptions.

e) Risk register: key risks for each design option considered should be provided.

f) Affected accommodation: the impact on the current staff accommodation and areas of the existing station as a result of each design option considered should be documented in an appropriate table using the reference number as found in the station plans.

### Design Guidance and Standards

7.3. The Consultant must comply with all relevant and current LU Standards, Guidance, applicable British, European, international standards and associated legislation at the time of the Outcome Definition Study starting date.

7.4. Up to date versions of applicable standards should be used and are expected to be available by the start date of this Study:

7.5. Any subsequent changes to LU Standards will not apply to the design work as part of this Study unless specifically instructed.

### Health, Safety & Environment

7.6. The Consultant will work with the Project Team in supporting TfL's vision for health, safety and the environment: 'Everyone home safely and healthy every day'. Through their design assessment and proposals, the Consultant will ensure the implementation of effective Health, Safety and Environmental (HSE) management to achieve:

a) The delivery of stations, assets and systems that are safe for all to use, safe to maintain, safe to operate and environmentally sound;

b) Safe and environmentally sound construction practices; and

c) Safe and healthy working and passenger environment.

# 8. Study management

### Presentations and Design Reviews

8.1. The Consultant shall schedule and organise presentations and design reviews at key stages of the design development as outlined in the Study milestones. The Consultant will coordinate the timing, location, agenda, and attendance with the Project Manager. The Consultant shall be responsible for chairing, facilitating, capturing minutes, and recording actions.

8.2. The minutes from the presentations and design reviews should be issued formally to the Project Manager no later than 5 working days from when the meeting occurred. Feedback on the minutes will be recorded on a comment log.

### Design Team

8.3. Key staff listed in the tender submission may not be replaced without the agreement of the Client Project Manager and only through the process described in the accepted Consultants' Assurance Plan (SAP) and Terms and Conditions of Contract.

8.4. When a member of the Consultant's team is replaced, the Consultant must notify the Project Manager and demonstrate the level of competency is equal or greater across the team to that before the change and update the SAP accordingly to reflect the change.

### Payment Milestones

8.5. Payment will be made on completion of deliverables required throughout the study period.

### Document Control

8.6. All deliverables both contractual and non-contractual will be issued to the Client core team members as agreed at Inception following contract award.

### Stakeholders and Media

8.7. The Project Team will identify TfL stakeholders to participate in design development meetings and design review workshops, as appropriate. The Consultant shall consider the sensitive nature of the differing and sometimes conflicting priorities of the stakeholders from different parts of the organisation. The core Client team will be the arbiters in the resolution of disputed requirements.

8.8. The Consultant and sub-Consultant's staff shall not discuss, offer comment, nor disseminate any information or assist others in disseminating information to the media or any third parties without the express permission of the Client.

## APPENDIX 2

# Proposal


# ITT SUBMISSION

## TRANSPORT FOR LONDON:

## Embankment Outcome Definitions Study

**Ref: GLA 80868 / Task 1055**

## TECHNICAL PROPOSAL

5th studio

We are very pleased to submit this tender proposal for the Embankment Outcome Definitions Study.

This is submitted by 5th Studio on behalf of a team which has been specifically assembled to respond to the demands of this project.

Please do not hesitate to contact me if you have any

[redacted]

[redacted]

Document produced by:

5th studio with MOTT MACDONALD

Contact:

[redacted]

[redacted]

[redacted]

# Contents



*NOTE: This document is intended for double-sided printing / 'two-page-up' viewing.*

# 1. Understanding and Project Appreciation

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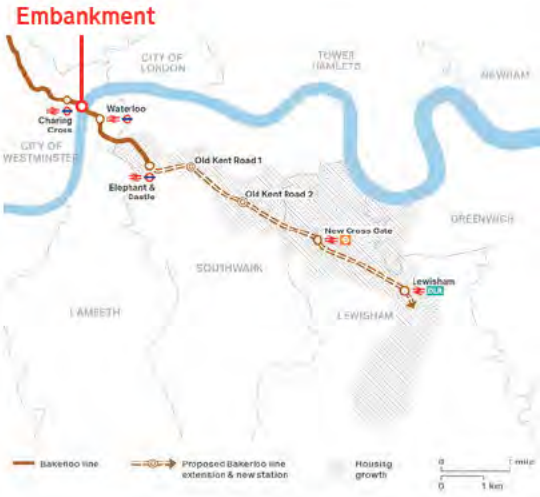


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be carefully considered.

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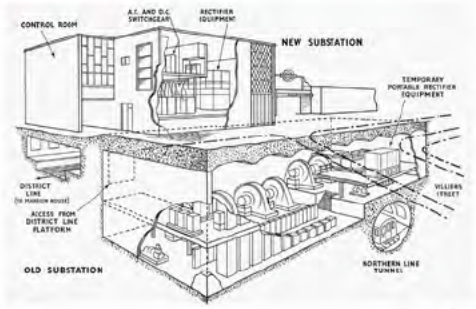


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# 2. Approach and Methodology

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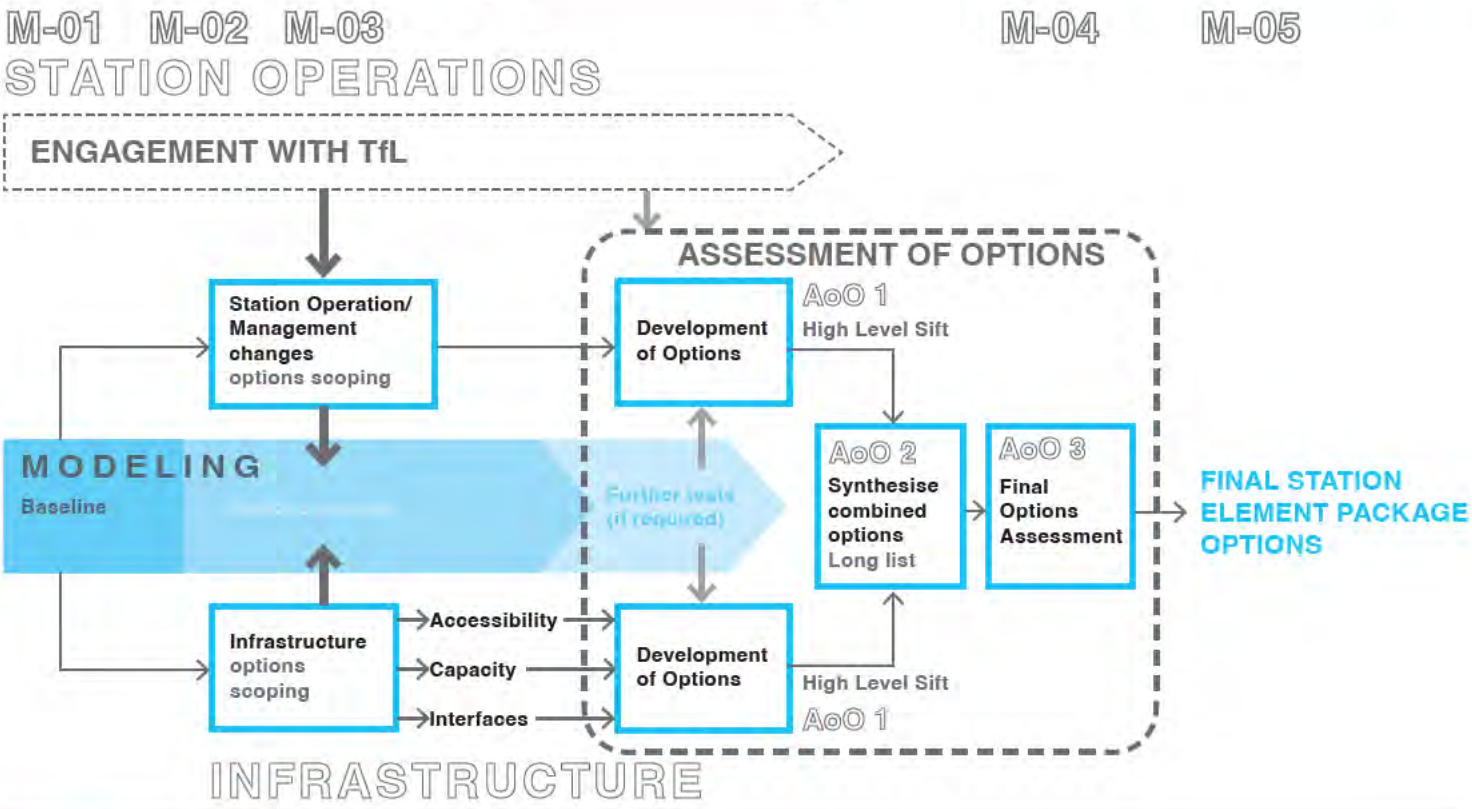
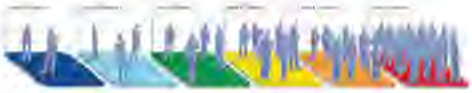
Above: Mott MacDonald have been involved in the proposed improvements to Charing Cross Station and can bring this to bear on the project.

[redacted]

Below: Diagram of the proposed methodology structure



Below: Fruin Level of Service (LoS) Framework



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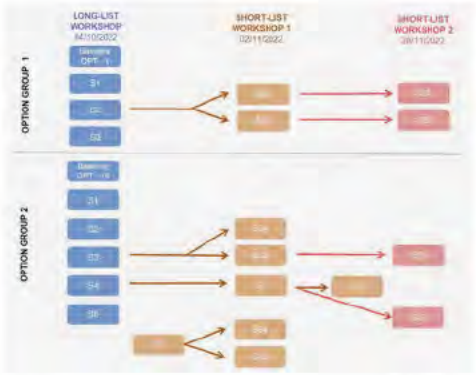


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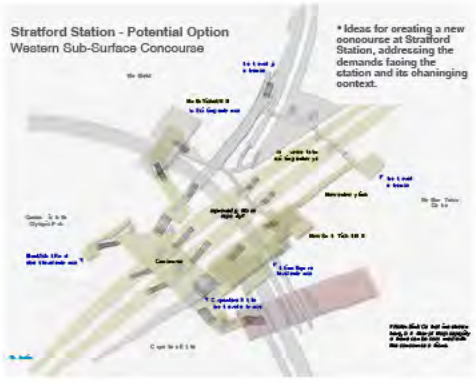


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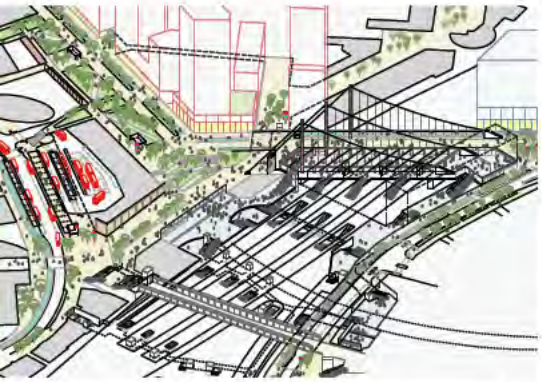

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# 3. Technical capability and experience

[redacted]

5th Studio team

[redacted]

skills and experience

with

to

5th studio

[redacted]

[redacted]

PROJECT LEAD

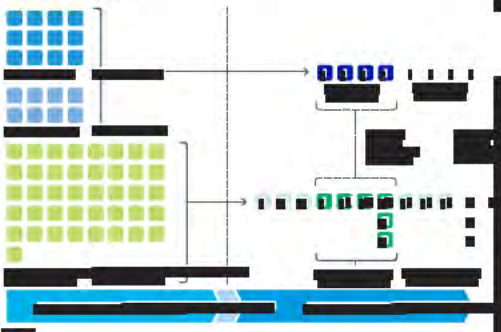
[redacted]

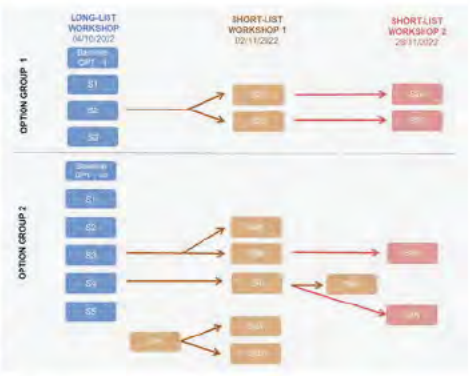
[redacted]

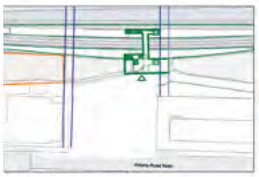
2

eft: A detailed process of options sifting and itera-
ve design development of the short-listed options
as been carried out on our work at Stratford
ation. This projects has involved TfL and Network
ail's teams.

# CASE STUDY / Stratford Station Area UDF & Feasibility Study – LB Newham, London







Option Group 1 S1 MVP Lifts Only


Option Group 2 S3 Land Assembly Entrance South

Above: Extracts from the slides produced for the North Acton Station Development Capacity Study short listing workshops.

[redacted]

[redacted]

MOTT MACDONALD

[redacted]

[redacted]

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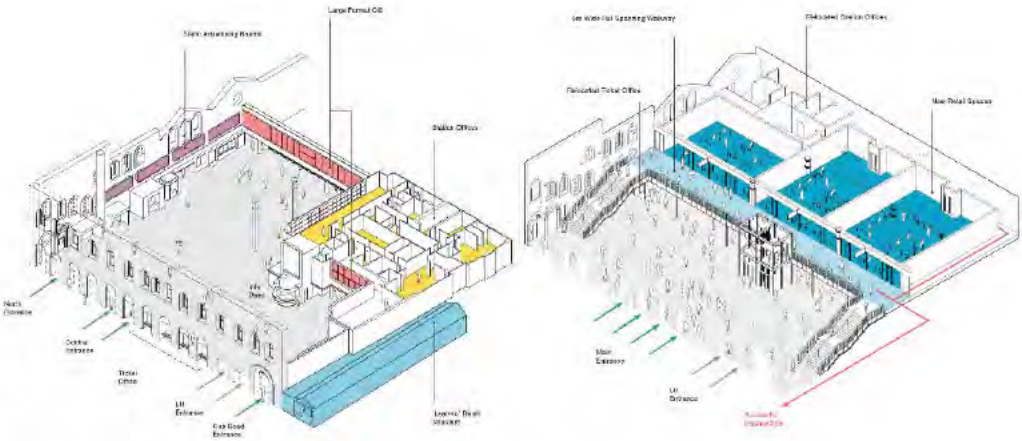
[redacted]

# CASE STUDY / Charing Cross Station Retail Development & Station Transformation

[redacted]


Above: The current concourse environment and the proposed station transformation.

[redacted]



Above: Existing and proposed arrangements of the station concourse

# 4. Project Management

Team Structure

We are delighted to be given the opportunity to tender for this commission and 5th Studio have assembled a very experienced team with design leader 5th Studio supported by Mott MacDonald. This compact team – combining the complementary skills of 5th Studio and Mott MacDonald – have extensive experience working on station projects throughout London of similar scope and scale to the Embankment Options Definitions Study.


Timescales

The methodology and processes employed are aimed at ensuring the design and resultant deliverables are achieved in a logical order that allows collaboration between all parties, progressive assurance and a record of key decisions and mitigates the risks of abortive work.

The Project Manager/Project Lead [redacted] will be in regular contact with the Client throughout the process to provide updates on progress and inform if there is a risk of delays occurring in either programme or deliverables.

The programme has been developed based on the provided requirements. This programme has been structured around the 6 main stages as outlined below:

Above: Team structure, refer to '3. Technical capability and experience' and 'Appendix A - Teams CVs' for more information on our team members' experiences and skills.

| Stages | Start | End |
|---|---|---|
| M-00 – Project Inception | 30/01/2023 | 03/02/2023 |
| M-01 – Existing Station | 30/01/2023 | 27/02/2023 |
| M-02 – Future Scenarios | 27/02/2023 | 20/03/2023 |
| M-03 – Development of Options | 20/03/2023 | 24/04/2023 |
| M-04 – Draft Report | 24/04/2023 | 08/05/2023 |
| M-05 – Final Report | 08/05/2023 | 22/05/2023 |

[redacted]

[redacted]

| | | |
|---|---|---|
| 0.0 | **M-00 Project Inception** | WKC. 30/1/23 |
| | Inception meeting | |
| 1.0 | **M-01 Baseline and Internal Stakeholder Consultation** | 4WKS |
| | Site visit | |
| | Review of work to date and intitial mapping | |
| | Internal Stakeholder workshop | |
| | Presentation to Client Project Team | |
| | Issue technical note for M-01 | |
| | Client team review and sign off | |
| 2.0 | **M-02 Future Passenger Demand Scenarios** | 3WKS |
| | Static demand and congestion and evacuation analysis, | |
| | Internal Stakeholder workshop - operations | |
| | Presentation to Client Project Team | |
| | Issue technical note for M-01 | |
| | Client team review and sign off | |
| 3.0 | **M-03 Development of Options** | 4WKS |
| | Development of long list of options | |
| | AoO Stage 1: High level Option Sifting | |
| | AoO Stage 2: Synthesise combined options | |
| | AoO Stage 3: Final Options Assessment | |
| | Client team review and sign off | |
| 4.0 | **M-04 Study Report Production** | 3WKS |
| | Client team review and sign off | |
| 5.0 | **M-05 Final Outcome Definition Study Report** | 2WKS |
| | Update final report | |
| | Client team acceptance and sign off of report | |

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

## Risks

Risk & Opportunity management is an embedded process within each of our projects and roles and responsibilities are well established.

To reduce the project's exposure to commercial and technical risk and safeguard the interests of TfL we will develop and actively manage a Risk & Opportunity register. This will lead to the following benefits:

- Improvement of decision making
- Planning and assessment of exposure and prioritisation
- Identifying the efficient allocation of budget and resources
- Reducing remedial actions required

5th Studio will compile the risk management plan, which will form the basis of the project risk and opportunity assessment.

## Quality Assurance Processes

5th Studio is committed to a rigorous process of quality management and the highest standards of Professionalism. We have in place clear administrative procedures and systems to assist in delivering a consistent and accountable service throughout the duration of the project.

We operate under accredited quality management standards and we continually seek to innovate above and beyond these measures. Our commitment to quality is also expressed by an expert and highly personalised approach to our work. This approach ensures our Clients receive outstanding service throughout the full life cycle of the project from appraisal, briefing and concept design through to construction, commissioning and evaluation.

We have adopted a formal system for managing the quality of our work. The model employed for this is the International Standard BS EN ISO 9000 family of Quality Management Systems using guidance prepared by the RIBA (The RIBA Quality Management Toolkit) and supplementary guidance from other authoritative sources.

5th Studio has been operating this accredited system since gaining RIBA Chartered Practice status in 2007 - and is a key criteria of our ongoing status as a Chartered Practice. We will seek to bring the highest standard of thought, design and care to every aspect of our work and organisation for the Embankment Outcome Definitions Study.

We maintain honour and mutual respect in our professional approach in relations with Clients, colleagues and collaborators. Throughout the duration of the project we will continually monitor and review our design and procedures in order to sustain and improve our performance, and the service that we give our clients at every level.

We hold design excellence at the very heart of our professional operations, and the numerous design awards that we have won bears testament to this.

As this short statement set outs, we have comprehensive and fully-tested management systems in place in order to minimise project uncertainties and ensure a consistently high standard of design delivery.

Our Quality Management system is purposefully adaptive to ensure that we respond to the particular demands of individual projects. We would develop a specific Project Plan at the outset of the project to ensure that the particular needs and demands of the project are reflected in the management procedures put in place.

Above: 5th Studio regularly host workshops in our London studio's for our public sector clients, enabling detailed reviews of long-lists to collectively arrive at agreed short-listings and preferred scheme options.

***"The work of 5th studio was instrumental in framing the ambition of the NIC final report on Cambridge Milton Keynes Oxford arc. Their work is rigorous, thoughtful and credible and they have been a pleasure to work with."***

Prof. Sadie Morgan Client Commissioner, National Infrastructure Commission describing our work

# 5. Conflicts of Interest

I, as representative of all companies associated with the Applicants' submission, hereby confirm that I do not believe that at the time of the submission there are any interests, relationships or holdings that could potentially result in a conflict of interest.

Whilst we have parallel commissions in the area, we do not believe any pose a conflict of interest, as all our other past and current commissions complement this commission.

I agree that if I become aware of any information that might indicate that this disclosure is inaccurate, I will notify the client promptly on becoming aware of such information and undertake to follow such action(s) as the client may reasonably direct.

5th studio

**Architecture & Urbanism**

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5th Studio is a Limited Company
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VAT No. 711 206 489
5th Studio is a RIBA Chartered Practice

## APPENDIX 3
## Pricing Schedule