



Royal Docks Capacity Enhancement Custom House Station

2014 - 077

Design & Build

Lump Sum Contract with Activity Schedule

Docklands Light Railway Limited and [REDACTED]

THIS CONTRACT AGREEMENT is made the day of 2016

1. In this Contract Agreement, unless the context otherwise requires, words and expressions shall have the same meaning as set out in the *conditions of contract*.
2. The *conditions of contract* are the NEC Engineering and Construction Contract Option A: Priced Contract with Activity Schedule (Third edition June 2005 with amendments June 2006 and April 2013) together with Schedule 1 Amendments to Conditions of Contract and the Schedule 1 Z Clauses.
3. This contract shall mean this document and the following documents which are hereby incorporated into and shall comprise this contract
 - 3.1 the *conditions of contract* (including, for the avoidance of doubt, the Amendments to Conditions of Contract, as set out in Schedule 1 to this document),
 - 3.2 the Contract Data Part One,



- 3.3 the Contract Data Part Two,
 - 3.4 the Employer's Works Information,
 - 3.5 the Site Information,
 - 3.6 the Activity Schedule
 - 3.7 the *Employer's* letter of acceptance
4. The several documents forming this contract are to be taken as mutually explanatory of one another. In the event of any ambiguity they shall be construed in the order set out in Clause 3 of this Contract Agreement.
5. The *Contractor* Provides the Works in accordance with this contract.
6. The *Employer* pays the *Contractor* for complying with his obligations to Provide the Works the amount due in accordance with this contract.

This Contract Agreement has been executed as a deed and delivered on the date stated at the start of this Contract Agreement.

Executed as a Deed and delivered for and on behalf of **Docklands Light Railway Limited** (the *Employer*) on the date above by:

(signed)

(name of Director)

(signed)

(name of Director / Company Secretary)

Signed and delivered as a deed for and on behalf of [REDACTED] (the *Contractor*) on the date above by:

(signed)

(name of Director)

(signed)

(name of Director / Company Secretary)

Index of Annexures to Form of Agreement

Annexure 1 – *conditions of contract*

Annexure 2 – Contract Data

Annexure 3 – Prices

Annexure 4 – Employer's Works Information

Annexure 5 – Site Information

Annexure 6 – Parent Company Guarantee

Annexure 7 – Form of Collateral Warranties

Engineering and Construction Contract

This contract should be used for the appointment of a contractor for engineering and construction work, including any level of design responsibility

Option A: Priced contract with activity schedule

An NEC document

June 2005

OGC endorsement of NEC3

OGC advises public sector procurers that the form of contract used has to be selected according to the objectives of the project, aiming to satisfy the *Achieving Excellence in Construction* (AEC) principles.

This edition of the NEC (NEC3) complies fully with the AEC principles. OGC recommends the use of NEC3 by public sector construction procurers on their construction projects.

NEC is a division of Thomas Telford Ltd, which is a wholly owned subsidiary of the Institution of Civil Engineers (ICE), the owner and developer of the NEC.

The NEC is a family of standard contracts, each of which has these characteristics:

- Its use stimulates good management of the relationship between the two parties to the contract and, hence, of the work included in the contract.
- It can be used in a wide variety of commercial situations, for a wide variety of types of work and in any location.
- It is a clear and simple document – using language and a structure which are straightforward and easily understood.

NEC3 Engineering and Construction Contract is one of the NEC family and is consistent with all other NEC3 documents. Also available are the Engineering and Construction Contract Guidance Notes, Flow Charts and Options A, B, C, D, E and F.

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SCHEDULE OF OPTIONS

	One of the following dispute resolution Options must be selected to complete the chosen main Option.
Option W1	Dispute resolution procedure (used unless the United Kingdom Housing Grants, Construction and Regeneration Act 1996 applies).
Option W2	Dispute resolution procedure (used in the United Kingdom when the Housing Grants, Construction and Regeneration Act 1996 applies).
	The following secondary Options should then be considered. It is not necessary to use any of them. Any combination other than those stated may be used.
Option X1	Price adjustment for inflation
Option X2	Changes in the law
Option X3	Multiple currencies
Option X4	Parent company guarantee
Option X5	Sectional Completion
Option X6	Bonus for early Completion
Option X7	Delay damages
Option X12	Partnering
Option X13	Performance bond
Option X14	Advanced payment to the <i>Contractor</i>
Option X15	Limitation of the <i>Contractor's</i> liability for his design to reasonable skill and care
Option X16	Retention
Option X17	Low performance damages
Option X18	Limitation of liability
Option X20	Key Performance Indicators (not used with Option X12)
	The following Options dealing with national legislation should be included if required.
Option Y(UK)2	The Housing Grants, Construction and Regeneration Act 1996
Option Y(UK)3	The Contracts (Rights of Third Parties) Act 1999
Option Z	<i>Additional conditions of contract</i>
Note	Options X8 to X11, X19 and Y(UK)1 are not used.

CORE CLAUSES

1 General

Actions 10

- 10.1 The *Employer*, the *Contractor*, the *Project Manager* and the *Supervisor* shall act as stated in this contract and in a spirit of mutual trust and co-operation.

Identified and defined terms 11

- 11.1 In these conditions of contract, terms identified in the Contract Data are in italics and defined terms have capital initials.

- 11.2 (1) The Accepted Programme is the programme identified in the Contract Data or is the latest programme accepted by the *Project Manager*. The latest programme accepted by the *Project Manager* supersedes previous Accepted Programmes.

(2) Completion is when the *Contractor* has

- done all the work which the Works Information states he is to do by the Completion Date and
- corrected notified Defects which would have prevented the *Employer* from using the *works* and Others from doing their work.

If the work which the *Contractor* is to do by the Completion Date is not stated in the Works Information, Completion is when the *Contractor* has done all the work necessary for the *Employer* to use the *works* and for Others to do their work.

(3) The Completion Date is the *completion date* unless later changed in accordance with this contract.

(4) The Contract Date is the date when this contract came into existence.

(5) A Defect is

- a part of the *works* which is not in accordance with the Works Information or
- a part of the *works* designed by the *Contractor* which is not in accordance with the applicable law or the *Contractor's* design which the *Project Manager* has accepted.

(6) The Defects Certificate is either a list of Defects that the *Supervisor* has notified before the *defects date* which the *Contractor* has not corrected or, if there are no such Defects, a statement that there are none.

(7) Equipment is items provided by the *Contractor* and used by him to Provide the Works and which the Works Information does not require him to include in the *works*.

(8) The Fee is the sum of the amounts calculated by applying the *subcontracted fee percentage* to the Defined Cost of subcontracted work and the *direct fee percentage* to the Defined Cost of other work.

(9) A Key Date is the date by which work is to meet the Condition stated. The Key Date is the *key date* stated in the Contract Data and the Condition is the *defects date* stated in the Contract Data unless later changed in accordance with this contract.

(10) Others are people or organisations who are not the *Employer*, the *Project Manager*, the *Supervisor*, the *Adjudicator*, the *Contractor* or any employee, Subcontractor or supplier of the *Contractor*.

(11) The Parties are the *Employer* and the *Contractor*.

(12) Plant and Materials are items intended to be included in the *works*.

(13) To Provide the Works means to do the work necessary to complete the *works* in accordance with this contract and all incidental work, services and actions which this contract requires.

(14) The Risk Register is a register of the risks which are listed in the Contract Data and the risks which the *Project Manager* or the *Contractor* has notified as an early warning matter. It includes a description of the risk and a description of the actions which are to be taken to avoid or reduce the risk.

(15) The Site is the area within the *boundaries of the site* and the volumes above and below it which are affected by work included in this contract.

(16) Site Information is information which

- describes the Site and its surroundings and
- is in the documents which the Contract Data states it is in.

(17) A Subcontractor is a person or organisation who has a contract with the *Contractor* to

- construct or install part of the *works*,
- provide a service necessary to Provide the Works or
- supply Plant and Materials which the person or organisation has wholly or partly designed specifically for the *works*.

(18) The Working Areas are those parts of the *working areas* which are

- necessary for Providing the Works and
- used only for work in this contract

unless later changed in accordance with this contract.

(19) Works Information is information which either

- specifies and describes the *works* or
- states any constraints on how the *Contractor* Provides the Works

and is either

- in the documents which the Contract Data states it is in or
- in an instruction given in accordance with this contract.

(20) The Activity Schedule is the *activity schedule* unless later changed in accordance with this contract.

(22) Defined Cost is the cost of the components in the Shorter Schedule of Cost Components whether work is subcontracted or not excluding the cost of preparing quotations for compensation events.

(27) The Price for Work Done to Date is the total of the Prices for

- each group of completed activities and
- each completed activity which is not in a group.

A completed activity is one which is without Defects which would either delay or be covered by immediately following work.

(30) The Prices are the lump sum prices for each of the activities on the Activity Schedule unless later changed in accordance with this contract.

**Interpretation and
the law 12**

- 12.1 In this contract, except where the context shows otherwise, words in the singular also mean in the plural and the other way round and words in the masculine also mean in the feminine and neuter.
- 12.2 This contract is governed by the *law of the contract*.
- 12.3 No change to this contract, unless provided for by the *conditions of contract*, has effect unless it has been agreed, confirmed in writing and signed by the Parties.
- 12.4 This contract is the entire agreement between the Parties.

Communications 13

- 13.1 Each instruction, certificate, submission, proposal, record, acceptance, notification, reply and other communication which this contract requires is communicated in a form which can be read, copied and recorded. Writing is in the *language of this contract*.
- 13.2 A communication has effect when it is received at the last address notified by the recipient for receiving communications or, if none is notified, at the address of the recipient stated in the Contract Data.
- 13.3 If this contract requires the *Project Manager*, the *Supervisor* or the *Contractor* to reply to a communication, unless otherwise stated in this contract, he replies within the *period for reply*.
- 13.4 The *Project Manager* replies to a communication submitted or resubmitted to him by the *Contractor* for acceptance. If his reply is not acceptance, the *Project Manager* states his reasons and the *Contractor* resubmits the communication within the *period for reply* taking account of these reasons. A reason for withholding acceptance is that more information is needed in order to assess the *Contractor's* submission fully.
- 13.5 The *Project Manager* may extend the *period for reply* to a communication if the *Project Manager* and the *Contractor* agree to the extension before the reply is due. The *Project Manager* notifies the *Contractor* of the extension which has been agreed.
- 13.6 The *Project Manager* issues his certificates to the *Employer* and the *Contractor*. The *Supervisor* issues his certificates to the *Project Manager* and the *Contractor*.
- 13.7 A notification which this contract requires is communicated separately from other communications.
- 13.8 The *Project Manager* may withhold acceptance of a submission by the *Contractor*. Withholding acceptance for a reason stated in this contract is not a compensation event.

**The Project Manager
and the Supervisor 14**

- 14.1 The *Project Manager's* or the *Supervisor's* acceptance of a communication from the *Contractor* or of his work does not change the *Contractor's* responsibility to Provide the Works or his liability for his design.
- 14.2 The *Project Manager* and the *Supervisor*, after notifying the *Contractor*, may delegate any of their actions and may cancel any delegation. A reference to an action of the *Project Manager* or the *Supervisor* in this contract includes an action by his delegate.
- 14.3 The *Project Manager* may give an instruction to the *Contractor* which changes the Works Information or a Key Date.
- 14.4 The *Employer* may replace the *Project Manager* or the *Supervisor* after he has notified the *Contractor* of the name of the replacement.

Adding to the Working Areas 15

- 15.1 The *Contractor* may submit a proposal for adding an area to the Working Areas to the *Project Manager* for acceptance. A reason for not accepting is that the proposed area is either not necessary for Providing the Works or used for work not in this contract.

Early warning 16

- 16.1 The *Contractor* and the *Project Manager* give an early warning by notifying the other as soon as either becomes aware of any matter which could

- increase the total of the Prices,
- delay Completion,
- delay meeting a Key Date or
- impair the performance of the *works* in use.

The *Contractor* may give an early warning by notifying the *Project Manager* of any other matter which could increase his total cost. The *Project Manager* enters early warning matters in the Risk Register. Early warning of a matter for which a compensation event has previously been notified is not required.

- 16.2 Either the *Project Manager* or the *Contractor* may instruct the other to attend a risk reduction meeting. Each may instruct other people to attend if the other agrees.

- 16.3 At a risk reduction meeting, those who attend co-operate in

- making and considering proposals for how the effect of the registered risks can be avoided or reduced,
- seeking solutions that will bring advantage to all those who will be affected,
- deciding on the actions which will be taken and who, in accordance with this contract, will take them and
- deciding which risks have now been avoided or have passed and can be removed from the Risk Register.

- 16.4 The *Project Manager* revises the Risk Register to record the decisions made at each risk reduction meeting and issues the revised Risk Register to the *Contractor*. If a decision needs a change to the Works Information, the *Project Manager* instructs the change at the same time as he issues the revised Risk Register.

Ambiguities and inconsistencies 17

- 17.1 The *Project Manager* or the *Contractor* notifies the other as soon as either becomes aware of an ambiguity or inconsistency in or between the documents which are part of this contract. The *Project Manager* gives an instruction resolving the ambiguity or inconsistency.

Illegal and impossible requirements 18

- 18.1 The *Contractor* notifies the *Project Manager* as soon as he considers that the Works Information requires him to do anything which is illegal or impossible. If the *Project Manager* agrees, he gives an instruction to change the Works Information appropriately.

Prevention 19

- 19.1 If an event occurs which

- stops the *Contractor* completing the *works* or
- stops the *Contractor* completing the *works* by the date shown on the Accepted Programme,

and which

- neither Party could prevent and
- an experienced contractor would have judged at the Contract Date to have such a small chance of occurring that it would have been unreasonable for him to have allowed for it,

the *Project Manager* gives an instruction to the *Contractor* stating how he is to deal with the event.

2 The *Contractor's* main responsibilities

Providing the Works	20	20.1 The <i>Contractor</i> Provides the Works in accordance with the Works Information.
The <i>Contractor's</i> design	21	<p>21.1 The <i>Contractor</i> designs the parts of the <i>works</i> which the Works Information states he is to design.</p> <p>21.2 The <i>Contractor</i> submits the particulars of his design as the Works Information requires to the <i>Project Manager</i> for acceptance. A reason for not accepting the <i>Contractor's</i> design is that it does not comply with either the Works Information or the applicable law.</p> <p>The <i>Contractor</i> does not proceed with the relevant work until the <i>Project Manager</i> has accepted his design.</p> <p>21.3 The <i>Contractor</i> may submit his design for acceptance in parts if the design of each part can be assessed fully.</p>
Using the <i>Contractor's</i> design	22	22.1 The <i>Employer</i> may use and copy the <i>Contractor's</i> design for any purpose connected with construction, use, alteration or demolition of the <i>works</i> unless otherwise stated in the Works Information and for other purposes as stated in the Works Information.
Design of Equipment	23	<p>23.1 The <i>Contractor</i> submits particulars of the design of an item of Equipment to the <i>Project Manager</i> for acceptance if the <i>Project Manager</i> instructs him to. A reason for not accepting is that the design of the item will not allow the <i>Contractor</i> to Provide the Works in accordance with</p> <ul style="list-style-type: none">• the Works Information,• the <i>Contractor's</i> design which the <i>Project Manager</i> has accepted or• the applicable law.
People	24	<p>24.1 The <i>Contractor</i> either employs each key person named to do the job stated in the Contract Data or employs a replacement person who has been accepted by the <i>Project Manager</i>. The <i>Contractor</i> submits the name, relevant qualifications and experience of a proposed replacement person to the <i>Project Manager</i> for acceptance. A reason for not accepting the person is that his relevant qualifications and experience are not as good as those of the person who is to be replaced.</p> <p>24.2 The <i>Project Manager</i> may, having stated his reasons, instruct the <i>Contractor</i> to remove an employee. The <i>Contractor</i> then arranges that, after one day, the employee has no further connection with the work included in this contract.</p>
Working with the <i>Employer</i> and Others	25	<p>25.1 The <i>Contractor</i> co-operates with Others in obtaining and providing information which they need in connection with the <i>works</i>. He co-operates with Others and shares the Working Areas with them as stated in the Works Information.</p> <p>25.2 The <i>Employer</i> and the <i>Contractor</i> provide services and other things as stated in the Works Information. Any cost incurred by the <i>Employer</i> as a result of the <i>Contractor</i> not providing the services and other things which he is to provide is assessed by the <i>Project Manager</i> and paid by the <i>Contractor</i>.</p>

25.3 If the *Project Manager* decides that the work does not meet the Condition stated for a Key Date by the date stated and, as a result, the *Employer* incurs additional cost either

- in carrying out work or
- by paying an additional amount to Others in carrying out work

on the same project, the additional cost which the *Employer* has paid or will incur is paid by the *Contractor*. The *Project Manager* assesses the additional cost within four weeks of the date when the Condition for the Key Date is met. The *Employer's* right to recover the additional cost is his only right in these circumstances.

Subcontracting 26

26.1 If the *Contractor* subcontracts work, he is responsible for Providing the Works as if he had not subcontracted. This contract applies as if a Subcontractor's employees and equipment were the *Contractor's*.

26.2 The *Contractor* submits the name of each proposed Subcontractor to the *Project Manager* for acceptance. A reason for not accepting the Subcontractor is that his appointment will not allow the *Contractor* to Provide the Works. The *Contractor* does not appoint a proposed Subcontractor until the *Project Manager* has accepted him.

26.3 The *Contractor* submits the proposed conditions of contract for each subcontract to the *Project Manager* for acceptance unless

- an NEC contract is proposed or
- the *Project Manager* has agreed that no submission is required.

The *Contractor* does not appoint a Subcontractor on the proposed subcontract conditions submitted until the *Project Manager* has accepted them. A reason for not accepting them is that

- they will not allow the *Contractor* to Provide the Works or
- they do not include a statement that the parties to the subcontract shall act in a spirit of mutual trust and co-operation.

Other responsibilities 27

27.1 The *Contractor* obtains approval of his design from Others where necessary.

27.2 The *Contractor* provides access to work being done and to Plant and Materials being stored for this contract for

- the *Project Manager*,
- the *Supervisor* and
- Others notified to him by the *Project Manager*.

27.3 The *Contractor* obeys an instruction which is in accordance with this contract and is given to him by the *Project Manager* or the *Supervisor*.

27.4 The *Contractor* acts in accordance with the health and safety requirements stated in the Works Information.

3 Time

Starting, Completion and Key Dates 30

- 30.1 The *Contractor* does not start work on the Site until the first *access date* and does the work so that Completion is on or before the Completion Date.
- 30.2 The *Project Manager* decides the date of Completion. The *Project Manager* certifies Completion within one week of Completion.
- 30.3 The *Contractor* does the work so that the Condition stated for each Key Date is met by the Key Date.

The programme 31

- 31.1 If a programme is not identified in the Contract Data, the *Contractor* submits a first programme to the *Project Manager* for acceptance within the period stated in the Contract Data.
- 31.2 The *Contractor* shows on each programme which he submits for acceptance
- the *starting date*, *access dates*, Key Dates and Completion Date,
 - planned Completion,
 - the order and timing of the operations which the *Contractor* plans to do in order to Provide the Works,
 - the order and timing of the work of the *Employer* and Others as last agreed with them by the *Contractor* or, if not so agreed, as stated in the Works Information,
 - the dates when the *Contractor* plans to meet each Condition stated for the Key Dates and to complete other work needed to allow the *Employer* and Others to do their work,
 - provisions for
 - float,
 - time risk allowances,
 - health and safety requirements and
 - the procedures set out in this contract,
 - the dates when, in order to Provide the Works in accordance with his programme, the *Contractor* will need
 - access to a part of the Site if later than its *access date*,
 - acceptances,
 - Plant and Materials and other things to be provided by the *Employer* and
 - information from Others,
 - for each operation, a statement of how the *Contractor* plans to do the work identifying the principal Equipment and other resources which he plans to use and
 - other information which the Works Information requires the *Contractor* to show on a programme submitted for acceptance.
- 31.3 Within two weeks of the *Contractor* submitting a programme to him for acceptance, the *Project Manager* either accepts the programme or notifies the *Contractor* of his reasons for not accepting it. A reason for not accepting a programme is that
- the *Contractor's* plans which it shows are not practicable,
 - it does not show the information which this contract requires,
 - it does not represent the *Contractor's* plans realistically or
 - it does not comply with the Works Information.

The programme 31

- 31.4 The *Contractor* provides information which shows how each activity on the Activity Schedule relates to the operations on each programme which he submits for acceptance.

**Revising the
programme 32**

- 32.1 The *Contractor* shows on each revised programme
- the actual progress achieved on each operation and its effect upon the timing of the remaining work,
 - the effects of implemented compensation events,
 - how the *Contractor* plans to deal with any delays and to correct notified Defects and
 - any other changes which the *Contractor* proposes to make to the Accepted Programme.
- 32.2 The *Contractor* submits a revised programme to the *Project Manager* for acceptance
- within the *period for reply* after the *Project Manager* has instructed him to,
 - when the *Contractor* chooses to and, in any case,
 - at no longer interval than the interval stated in the Contract Data from the *starting date* until Completion of the whole of the *works*.

**Access to and use
of the Site 33**

- 33.1 The *Employer* allows access to and use of each part of the Site to the *Contractor* which is necessary for the work included in this contract. Access and use is allowed on or before the later of its *access date* and the date for access shown on the Accepted Programme.

**Instructions to stop or
not to start work 34**

- 34.1 The *Project Manager* may instruct the *Contractor* to stop or not to start any work and may later instruct him that he may re-start or start it.

Take over 35

- 35.1 The *Employer* need not take over the *works* before the Completion Date if it is stated in the Contract Data that he is not willing to do so. Otherwise the *Employer* takes over the *works* not later than two weeks after Completion.
- 35.2 The *Employer* may use any part of the *works* before Completion has been certified. If he does so, he takes over the part of the *works* when he begins to use it except if the use is
- for a reason stated in the Works Information or
 - to suit the *Contractor's* method of working.
- 35.3 The *Project Manager* certifies the date upon which the *Employer* takes over any part of the *works* and its extent within one week of the date.

Acceleration 36

- 36.1 The *Project Manager* may instruct the *Contractor* to submit a quotation for an acceleration to achieve Completion before the Completion Date. The *Project Manager* states changes to the Key Dates to be included in the quotation. A quotation for an acceleration comprises proposed changes to the Prices and a revised programme showing the earlier Completion Date and the changed Key Dates. The *Contractor* submits details of his assessment with each quotation.
- 36.2 The *Contractor* submits a quotation or gives his reasons for not doing so within the *period for reply*.
- 36.3 When the *Project Manager* accepts a quotation for an acceleration, he changes the Prices, the Completion Date and the Key Dates accordingly and accepts the revised programme.**

4 Testing and Defects

Tests and inspections 40

- 40.1 The subclauses in this clause only apply to tests and inspections required by the Works Information or the applicable law.
- 40.2 The *Contractor* and the *Employer* provide materials, facilities and samples for tests and inspections as stated in the Works Information.
- 40.3 The *Contractor* and the *Supervisor* each notifies the other of each of his tests and inspections before it starts and afterwards notifies the other of its results. The *Contractor* notifies the *Supervisor* in time for a test or inspection to be arranged and done before doing work which would obstruct the test or inspection. The *Supervisor* may watch any test done by the *Contractor*.
- 40.4 If a test or inspection shows that any work has a Defect, the *Contractor* corrects the Defect and the test or inspection is repeated.
- 40.5 The *Supervisor* does his tests and inspections without causing unnecessary delay to the work or to a payment which is conditional upon a test or inspection being successful. A payment which is conditional upon a *Supervisor's* test or inspection being successful becomes due at the later of the *defects date* and the end of the last *defect correction period* if
- the *Supervisor* has not done the test or inspection and
- the delay to the test or inspection is not the *Contractor's* fault.
- 40.6 The *Project Manager* assesses the cost incurred by the *Employer* in repeating a test or inspection after a Defect is found. The *Contractor* pays the amount assessed.

Testing and inspection before delivery 41

- 41.1 The *Contractor* does not bring to the Working Areas those Plant and Materials which the Works Information states are to be tested or inspected before delivery until the *Supervisor* has notified the *Contractor* that they have passed the test or inspection.

Searching for and notifying Defects 42

- 42.1 Until the *defects date*, the *Supervisor* may instruct the *Contractor* to search for a Defect. He gives his reason for the search with his instruction. Searching may include
- uncovering, dismantling, re-covering and re-erecting work,
 - providing facilities, materials and samples for tests and inspections done by the *Supervisor* and
 - doing tests and inspections which the Works Information does not require.
- 42.2 Until the *defects date*, the *Supervisor* notifies the *Contractor* of each Defect as soon as he finds it and the *Contractor* notifies the *Supervisor* of each Defect as soon as he finds it.

Correcting Defects 43

- 43.1 The *Contractor* corrects a Defect whether or not the *Supervisor* notifies him of it.
- 43.2 The *Contractor* corrects a notified Defect before the end of the *defect correction period*. The *defect correction period* begins at Completion for Defects notified before Completion and when the Defect is notified for other Defects.

43.3 The *Supervisor* issues the Defects Certificate at the later of the *defects date* and the end of the last *defect correction period*. The *Employer's* rights in respect of a Defect which the *Supervisor* has not found or notified are not affected by the issue of the Defects Certificate.

43.4 The *Project Manager* arranges for the *Employer* to allow the *Contractor* access to and use of a part of the *works* which he has taken over if they are needed for correcting a Defect. In this case the *defect correction period* begins when the necessary access and use have been provided.

Accepting Defects 44

44.1 The *Contractor* and the *Project Manager* may each propose to the other that the Works Information should be changed so that a Defect does not have to be corrected.

44.2 If the *Contractor* and the *Project Manager* are prepared to consider the change, the *Contractor* submits a quotation for reduced Prices or an earlier Completion Date or both to the *Project Manager* for acceptance. If the *Project Manager* accepts the quotation, he gives an instruction to change the Works Information, the Prices and the Completion Date accordingly.

Uncorrected Defects 45

45.1 If the *Contractor* is given access in order to correct a notified Defect but he has not corrected it within its *defect correction period*, the *Project Manager* assesses the cost to the *Employer* of having the Defect corrected by other people and the *Contractor* pays this amount. The Works Information is treated as having been changed to accept the Defect.

45.2 If the *Contractor* is not given access in order to correct a notified Defect before the *defects date*, the *Project Manager* assesses the cost to the *Contractor* of correcting the Defect and the *Contractor* pays this amount. The Works Information is treated as having been changed to accept the Defect.

5 Payment

Assessing the amount due 50

- 50.1 The *Project Manager* assesses the amount due at each assessment date. The first assessment date is decided by the *Project Manager* to suit the procedures of the Parties and is not later than the *assessment interval* after the *starting date*. Later assessment dates occur
- at the end of each *assessment interval* until four weeks after the *Supervisor* issues the Defects Certificate and
 - at Completion of the whole of the *works*.
- 50.2 The amount due is
- the Price for Work Done to Date,
 - plus other amounts to be paid to the *Contractor*,
 - less amounts to be paid by or retained from the *Contractor*.
- Any tax which the law requires the *Employer* to pay to the *Contractor* is included in the amount due.
- 50.3 If no programme is identified in the Contract Data, one quarter of the Price for Work Done to Date is retained in assessments of the amount due until the *Contractor* has submitted a first programme to the *Project Manager* for acceptance showing the information which this contract requires.
- 50.4 In assessing the amount due, the *Project Manager* considers any application for payment the *Contractor* has submitted on or before the assessment date. The *Project Manager* gives the *Contractor* details of how the amount due has been assessed.
- 50.5 The *Project Manager* corrects any wrongly assessed amount due in a later payment certificate.

Payment 51

- 51.1 The *Project Manager* certifies a payment within one week of each assessment date. The first payment is the amount due. Other payments are the change in the amount due since the last payment certificate. A payment is made by the *Contractor* to the *Employer* if the change reduces the amount due. Other payments are made by the *Employer* to the *Contractor*. Payments are in the *currency of this contract* unless otherwise stated in this contract.
- 51.2 Each certified payment is made within three weeks of the assessment date or, if a different period is stated in the Contract Data, within the period stated. If a certified payment is late, or if a payment is late because the *Project Manager* does not issue a certificate which he should issue, interest is paid on the late payment. Interest is assessed from the date by which the late payment should have been made until the date when the late payment is made, and is included in the first assessment after the late payment is made.
- 51.3 If an amount due is corrected in a later certificate either
- by the *Project Manager* in relation to a mistake or a compensation event or
 - following a decision of the *Adjudicator* or the *tribunal*,
- interest on the correcting amount is paid. Interest is assessed from the date when the incorrect amount was certified until the date when the correcting amount is certified and is included in the assessment which includes the correcting amount.
- 51.4 Interest is calculated on a daily basis at the *interest rate* and is compounded annually.

Defined Cost 52

- 52.1 All the *Contractor's* costs which are not included in the Defined Cost are treated as included in the Fee. Defined Cost includes only amounts calculated using rates and percentages stated in the Contract Data and other amounts at open market or competitively tendered prices with deductions for all discounts, rebates and taxes which can be recovered.

The Activity Schedule 54

- 54.1 Information in the Activity Schedule is not Works Information or Site Information.
- 54.2 If the *Contractor* changes a planned method of working at his discretion so that the activities on the Activity Schedule do not relate to the operations on the Accepted Programme, he submits a revision of the Activity Schedule to the *Project Manager* for acceptance.
- 54.3 A reason for not accepting a revision of the Activity Schedule is that
- it does not comply with the Accepted Programme,
 - any changed Prices are not reasonably distributed between the activities or
 - the total of the Prices is changed.

6 Compensation events

Compensation events 60

60.1 The following are compensation events.

(1) The *Project Manager* gives an instruction changing the Works Information except

- a change made in order to accept a Defect or
- a change to the Works Information provided by the *Contractor* for his design which is made either at his request or to comply with other Works Information provided by the *Employer*.

(2) The *Employer* does not allow access to and use of a part of the Site by the later of its *access date* and the date shown on the Accepted Programme.

(3) The *Employer* does not provide something which he is to provide by the date for providing it shown on the Accepted Programme.

(4) The *Project Manager* gives an instruction to stop or not to start any work or to change a Key Date.

(5) The *Employer* or Others

- do not work within the times shown on the Accepted Programme,
- do not work within the conditions stated in the Works Information or
- carry out work on the Site that is not stated in the Works Information.

(6) The *Project Manager* or the *Supervisor* does not reply to a communication from the *Contractor* within the period required by this contract.

(7) The *Project Manager* gives an instruction for dealing with an object of value or of historical or other interest found within the Site.

(8) The *Project Manager* or the *Supervisor* changes a decision which he has previously communicated to the *Contractor*.

(9) The *Project Manager* withholds an acceptance (other than acceptance of a quotation for acceleration or for not correcting a Defect) for a reason not stated in this contract.

(10) The *Supervisor* instructs the *Contractor* to search for a Defect and no Defect is found unless the search is needed only because the *Contractor* gave insufficient notice of doing work obstructing a required test or inspection.

(11) A test or inspection done by the *Supervisor* causes unnecessary delay.

(12) The *Contractor* encounters physical conditions which

- are within the Site,
- are not weather conditions and
- an experienced contractor would have judged at the Contract Date to have such a small chance of occurring that it would have been unreasonable for him to have allowed for them.

Only the difference between the physical conditions encountered and those for which it would have been reasonable to have allowed is taken into account in assessing a compensation event.

(13) A *weather measurement* is recorded

- within a calendar month,
- before the Completion Date for the whole of the *works* and
- at the place stated in the Contract Data

the value of which, by comparison with the *weather data*, is shown to occur on average less frequently than once in ten years.

Only the difference between the *weather measurement* and the weather which the *weather data* show to occur on average less frequently than once in ten years is taken into account in assessing a compensation event.

(14) An event which is an *Employer's* risk stated in this contract.

(15) The *Project Manager* certifies take over of a part of the *works* before both Completion and the Completion Date.

(16) The *Employer* does not provide materials, facilities and samples for tests and inspections as stated in the Works Information.

(17) The *Project Manager* notifies a correction to an assumption which he has stated about a compensation event.

(18) A breach of contract by the *Employer* which is not one of the other compensation events in this contract.

(19) An event which

- stops the *Contractor* completing the *works* or
- stops the *Contractor* completing the *works* by the date shown on the Accepted Programme,

and which

- neither Party could prevent,
- an experienced contractor would have judged at the Contract Date to have such a small chance of occurring that it would have been unreasonable for him to have allowed for it and
- is not one of the other compensation events stated in this contract.

60.2 In judging the physical conditions for the purpose of assessing a compensation event, the *Contractor* is assumed to have taken into account

- the Site Information,
- publicly available information referred to in the Site Information,
- information obtainable from a visual inspection of the Site and
- other information which an experienced contractor could reasonably be expected to have or to obtain.

60.3 If there is an ambiguity or inconsistency within the Site Information (including the information referred to in it), the *Contractor* is assumed to have taken into account the physical conditions more favourable to doing the work.

**Notifying
compensation events 61**

61.1 For compensation events which arise from the *Project Manager* or the *Supervisor* giving an instruction or changing an earlier decision, the *Project Manager* notifies the *Contractor* of the compensation event at the time of giving the instruction or changing the earlier decision. He also instructs the *Contractor* to submit quotations, unless the event arises from a fault of the *Contractor* or quotations have already been submitted. The *Contractor* puts the instruction or changed decision into effect.

61.2 The *Project Manager* may instruct the *Contractor* to submit quotations for a proposed instruction or a proposed changed decision. The *Contractor* does not put a proposed instruction or a proposed changed decision into effect.

61.3 The *Contractor* notifies the *Project Manager* of an event which has happened or which he expects to happen as a compensation event if

- the *Contractor* believes that the event is a compensation event and
- the *Project Manager* has not notified the event to the *Contractor*.

If the *Contractor* does not notify a compensation event within eight weeks of becoming aware of the event, he is not entitled to a change in the Prices, the Completion Date or a Key Date unless the *Project Manager* should have notified the event to the *Contractor* but did not.

- 61.4 If the *Project Manager* decides that an event notified by the *Contractor*
- arises from a fault of the *Contractor*,
 - has not happened and is not expected to happen,
 - has no effect upon Defined Cost, Completion or meeting a Key Date or
 - is not one of the compensation events stated in this contract

he notifies the *Contractor* of his decision that the Prices, the Completion Date and the Key Dates are not to be changed.

If the *Project Manager* decides otherwise, he notifies the *Contractor* accordingly and instructs him to submit quotations.

If the *Project Manager* does not notify his decision to the *Contractor* within either

- one week of the *Contractor's* notification or
- a longer period to which the *Contractor* has agreed,

the *Contractor* may notify the *Project Manager* to this effect. A failure by the *Project Manager* to reply within two weeks of this notification is treated as acceptance by the *Project Manager* that the event is a compensation event and an instruction to submit quotations.

- 61.5 If the *Project Manager* decides that the *Contractor* did not give an early warning of the event which an experienced contractor could have given, he notifies this decision to the *Contractor* when he instructs him to submit quotations.

- 61.6 If the *Project Manager* decides that the effects of a compensation event are too uncertain to be forecast reasonably, he states assumptions about the event in his instruction to the *Contractor* to submit quotations. Assessment of the event is based on these assumptions. If any of them is later found to have been wrong, the *Project Manager* notifies a correction.

- 61.7 A compensation event is not notified after the *defects date*.

Quotations for compensation events 62

- 62.1 After discussing with the *Contractor* different ways of dealing with the compensation event which are practicable, the *Project Manager* may instruct the *Contractor* to submit alternative quotations. The *Contractor* submits the required quotations to the *Project Manager* and may submit quotations for other methods of dealing with the compensation event which he considers practicable.

- 62.2 Quotations for compensation events comprise proposed changes to the Prices and any delay to the Completion Date and Key Dates assessed by the *Contractor*. The *Contractor* submits details of his assessment with each quotation. If the programme for remaining work is altered by the compensation event, the *Contractor* includes the alterations to the Accepted Programme in his quotation.

- 62.3 The *Contractor* submits quotations within three weeks of being instructed to do so by the *Project Manager*. The *Project Manager* replies within two weeks of the submission. His reply is

- an instruction to submit a revised quotation,
- an acceptance of a quotation,
- a notification that a proposed instruction will not be given or a proposed changed decision will not be made or
- a notification that he will be making his own assessment.

- 62.4 The *Project Manager* instructs the *Contractor* to submit a revised quotation only after explaining his reasons for doing so to the *Contractor*. The *Contractor* submits the revised quotation within three weeks of being instructed to do so.

62.5 The *Project Manager* extends the time allowed for

- the *Contractor* to submit quotations for a compensation event and
- the *Project Manager* to reply to a quotation

if the *Project Manager* and the *Contractor* agree to the extension before the submission or reply is due. The *Project Manager* notifies the extension that has been agreed to the *Contractor*.

62.6 If the *Project Manager* does not reply to a quotation within the time allowed, the *Contractor* may notify the *Project Manager* to this effect. If the *Contractor* submitted more than one quotation for the compensation event, he states in his notification which quotation he proposes is to be accepted. If the *Project Manager* does not reply to the notification within two weeks, and unless the quotation is for a proposed instruction or a proposed changed decision, the *Contractor's* notification is treated as acceptance of the quotation by the *Project Manager*.

**Assessing
compensation events** 63

63.1 The changes to the Prices are assessed as the effect of the compensation event upon

- the actual Defined Cost of the work already done,
- the forecast Defined Cost of the work not yet done and
- the resulting Fee.

The date when the *Project Manager* instructed or should have instructed the *Contractor* to submit quotations divides the work already done from the work not yet done.

63.2 If the effect of a compensation event is to reduce the total Defined Cost, the Prices are not reduced except as stated in this contract.

63.3 A delay to the Completion Date is assessed as the length of time that, due to the compensation event, planned Completion is later than planned Completion as shown on the Accepted Programme. A delay to a Key Date is assessed as the length of time that, due to the compensation event, the planned date when the Condition stated for a Key Date will be met is later than the date shown on the Accepted Programme.

63.4 The rights of the *Employer* and the *Contractor* to changes to the Prices, the Completion Date and the Key Dates are their only rights in respect of a compensation event.

63.5 If the *Project Manager* has notified the *Contractor* of his decision that the *Contractor* did not give an early warning of a compensation event which an experienced contractor could have given, the event is assessed as if the *Contractor* had given early warning.

63.6 Assessment of the effect of a compensation event includes risk allowances for cost and time for matters which have a significant chance of occurring and are at the *Contractor's* risk under this contract.

63.7 Assessments are based upon the assumptions that the *Contractor* reacts competently and promptly to the compensation event, that any Defined Cost and time due to the event are reasonably incurred and that the Accepted Programme can be changed.

63.8 A compensation event which is an instruction to change the Works Information in order to resolve an ambiguity or inconsistency is assessed as if the Prices, the Completion Date and the Key Dates were for the interpretation most favourable to the Party which did not provide the Works Information.

63.9 If a change to the Works Information makes the description of the Condition for a Key Date incorrect, the *Project Manager* corrects the description. This correction is taken into account in assessing the compensation event for the change to the Works Information.

63.10 If the effect of a compensation event is to reduce the total Defined Cost and the event is

- a change to the Works Information or
- a correction of an assumption stated by the *Project Manager* for assessing an earlier compensation event,

the Prices are reduced.

63.12 Assessments for changed Prices for compensation events are in the form of changes to the Activity Schedule.

63.14 If the *Project Manager* and the *Contractor* agree, rates and lump sums may be used to assess a compensation event instead of Defined Cost.

**The *Project Manager's*
assessments**

64

64.1 The *Project Manager* assesses a compensation event

- if the *Contractor* has not submitted a quotation and details of his assessment within the time allowed,
- if the *Project Manager* decides that the *Contractor* has not assessed the compensation event correctly in a quotation and he does not instruct the *Contractor* to submit a revised quotation,
- if, when the *Contractor* submits quotations for a compensation event, he has not submitted a programme or alterations to a programme which this contract requires him to submit or
- if, when the *Contractor* submits quotations for a compensation event, the *Project Manager* has not accepted the *Contractor's* latest programme for one of the reasons stated in this contract.

64.2 The *Project Manager* assesses a compensation event using his own assessment of the programme for the remaining work if

- there is no Accepted Programme or
- the *Contractor* has not submitted a programme or alterations to a programme for acceptance as required by this contract.

64.3 The *Project Manager* notifies the *Contractor* of his assessment of a compensation event and gives him details of it within the period allowed for the *Contractor's* submission of his quotation for the same event. This period starts when the need for the *Project Manager's* assessment becomes apparent.

64.4 If the *Project Manager* does not assess a compensation event within the time allowed, the *Contractor* may notify the *Project Manager* to this effect. If the *Contractor* submitted more than one quotation for the compensation event, he states in his notification which quotation he proposes is to be accepted. If the *Project Manager* does not reply within two weeks of this notification the notification is treated as acceptance of the *Contractor's* quotation by the *Project Manager*.

**Implementing
compensation events**

65

65.1 A compensation event is implemented when

- the *Project Manager* notifies his acceptance of the *Contractor's* quotation,
- the *Project Manager* notifies the *Contractor* of his own assessment or
- a *Contractor's* quotation is treated as having been accepted by the *Project Manager*.

65.2 The assessment of a compensation event is not revised if a forecast upon which it is based is shown by later recorded information to have been wrong.

65.4 The changes to the Prices, the Completion Date and the Key Dates are included in the notification implementing a compensation event.

7 Title

The <i>Employer's</i> title to Plant and Materials	70	
	70.1	Whatever title the <i>Contractor</i> has to Plant and Materials which is outside the Working Areas passes to the <i>Employer</i> if the <i>Supervisor</i> has marked it as for this contract.
	70.2	Whatever title the <i>Contractor</i> has to Plant and Materials passes to the <i>Employer</i> if it has been brought within the Working Areas. The title to Plant and Materials passes back to the <i>Contractor</i> if it is removed from the Working Areas with the <i>Project Manager's</i> permission.
Marking Equipment, Plant and Materials outside the Working Areas	71	
	71.1	The <i>Supervisor</i> marks Equipment, Plant and Materials which are outside the Working Areas if <ul style="list-style-type: none">• this contract identifies them for payment and• the <i>Contractor</i> has prepared them for marking as the Works Information requires.
Removing Equipment	72	
	72.1	The <i>Contractor</i> removes Equipment from the Site when it is no longer needed unless the <i>Project Manager</i> allows it to be left in the <i>works</i> .
Objects and materials within the Site	73	
	73.1	The <i>Contractor</i> has no title to an object of value or of historical or other interest within the Site. The <i>Contractor</i> notifies the <i>Project Manager</i> when such an object is found and the <i>Project Manager</i> instructs the <i>Contractor</i> how to deal with it. The <i>Contractor</i> does not move the object without instructions.
	73.2	The <i>Contractor</i> has title to materials from excavation and demolition only as stated in the Works Information.

8 Risks and insurance

Employer's risks 80

80.1 The following are *Employer's* risks.

- Claims, proceedings, compensation and costs payable which are due to
 - use or occupation of the Site by the *works* or for the purpose of the *works* which is the unavoidable result of the *works*,
 - negligence, breach of statutory duty or interference with any legal right by the *Employer* or by any person employed by or contracted to him except the *Contractor* or
 - a fault of the *Employer* or a fault in his design.
- Loss of or damage to Plant and Materials supplied to the *Contractor* by the *Employer*, or by Others on the *Employer's* behalf, until the *Contractor* has received and accepted them.
- Loss of or damage to the *works*, Plant and Materials due to
 - war, civil war, rebellion, revolution, insurrection, military or usurped power,
 - strikes, riots and civil commotion not confined to the *Contractor's* employees or
 - radioactive contamination.
- Loss of or wear or damage to the parts of the *works* taken over by the *Employer*, except loss, wear or damage occurring before the issue of the Defects Certificate which is due to
 - a Defect which existed at take over,
 - an event occurring before take over which was not itself an *Employer's* risk or
 - the activities of the *Contractor* on the Site after take over.
- Loss of or wear or damage to the *works* and any Equipment, Plant and Materials retained on the Site by the *Employer* after a termination, except loss, wear or damage due to the activities of the *Contractor* on the Site after the termination.
- Additional *Employer's* risks stated in the Contract Data.

The Contractor's risks 81

81.1 From the *starting date* until the Defects Certificate has been issued, the risks which are not carried by the *Employer* are carried by the *Contractor*.

Repairs 82

82.1 Until the Defects Certificate has been issued and unless otherwise instructed by the *Project Manager*, the *Contractor* promptly replaces loss of and repairs damage to the *works*, Plant and Materials.

Indemnity 83

83.1 Each Party indemnifies the other against claims, proceedings, compensation and costs due to an event which is at his risk.

83.2 The liability of each Party to indemnify the other is reduced if events at the other Party's risk contributed to the claims, proceedings, compensation and costs. The reduction is in proportion to the extent that events which were at the other Party's risk contributed, taking into account each Party's responsibilities under this contract.

Insurance cover 84

- 84.1 The *Contractor* provides the insurances stated in the Insurance Table except any insurance which the *Employer* is to provide as stated in the Contract Data. The *Contractor* provides additional insurances as stated in the Contract Data.
- 84.2 The insurances are in the joint names of the Parties and provide cover for events which are at the *Contractor's* risk from the *starting date* until the Defects Certificate or a termination certificate has been issued.

INSURANCE TABLE

Insurance against	Minimum amount of cover or minimum limit of indemnity
Loss of or damage to the <i>works</i> , Plant and Materials	The replacement cost, including the amount stated in the Contract Data for the replacement of any Plant and Materials provided by the <i>Employer</i>
Loss of or damage to Equipment	The replacement cost
Liability for loss of or damage to property (except the <i>works</i> , Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the <i>Contractor</i>) caused by activity in connection with this contract	The amount stated in the Contract Data for any one event with cross liability so that the insurance applies to the Parties separately
Liability for death of or bodily injury to employees of the <i>Contractor</i> arising out of and in the course of their employment in connection with this contract	The greater of the amount required by the applicable law and the amount stated in the Contract Data for any one event

Insurance policies 85

- 85.1 Before the *starting date* and on each renewal of the insurance policy until the *defects date*, the *Contractor* submits to the *Project Manager* for acceptance certificates which state that the insurance required by this contract is in force. The certificates are signed by the *Contractor's* insurer or insurance broker. A reason for not accepting the certificates is that they do not comply with this contract.
- 85.2 Insurance policies include a waiver by the insurers of their subrogation rights against directors and other employees of every insured except where there is fraud.
- 85.3 The Parties comply with the terms and conditions of the insurance policies.
- 85.4 Any amount not recovered from an insurer is borne by the *Employer* for events which are at his risk and by the *Contractor* for events which are at his risk.

If the *Contractor* does not insure 86

- 86.1 The *Employer* may insure a risk which this contract requires the *Contractor* to insure if the *Contractor* does not submit a required certificate. The cost of this insurance to the *Employer* is paid by the *Contractor*.

Insurance by the *Employer* 87

- 87.1 The *Project Manager* submits policies and certificates for insurances provided by the *Employer* to the *Contractor* for acceptance before the *starting date* and afterwards as the *Contractor* instructs. The *Contractor* accepts the policies and certificates if they comply with this contract.

- 87.2 The *Contractor's* acceptance of an insurance policy or certificate provided by the *Employer* does not change the responsibility of the *Employer* to provide the insurances stated in the Contract Data.
- 87.3 The *Contractor* may insure a risk which this contract requires the *Employer* to insure if the *Employer* does not submit a required policy or certificate. The cost of this insurance to the *Contractor* is paid by the *Employer*.

9 Termination

Termination 90

- 90.1 If either Party wishes to terminate the *Contractor's* obligation to Provide the Works he notifies the *Project Manager* and the other Party giving details of his reason for terminating. The *Project Manager* issues a termination certificate to both Parties promptly if the reason complies with this contract.
- 90.2 The *Contractor* may terminate only for a reason identified in the Termination Table. The *Employer* may terminate for any reason. The procedures followed and the amounts due on termination are in accordance with the Termination Table.

TERMINATION TABLE

Terminating Party	Reason	Procedure	Amount due
The <i>Employer</i>	A reason other than R1–R21	P1 and P2	A1, A2 and A4
		P1, P2 and P3	A1 and A3
	R1–R15 or R18	P1 and P3	A1 and A2
	R17 or R20	P1 and P4	A1 and A2
The <i>Contractor</i>	R21		
	R1–R10, R16 or R19	P1 and P4	A1, A2 and A4
	R17 or R20	P1 and P4	A1 and A2

- 90.3 The procedures for termination are implemented immediately after the *Project Manager* has issued a termination certificate.
- 90.4 Within thirteen weeks of termination, the *Project Manager* certifies a final payment to or from the *Contractor* which is the *Project Manager's* assessment of the amount due on termination less the total of previous payments. Payment is made within three weeks of the *Project Manager's* certificate.
- 90.5 After a termination certificate has been issued, the *Contractor* does no further work necessary to Provide the Works.

Reasons for termination 91

- 91.1 Either Party may terminate if the other Party has done one of the following or its equivalent.
- If the other Party is an individual and has
 - presented his petition for bankruptcy (R1),
 - had a bankruptcy order made against him (R2),
 - had a receiver appointed over his assets (R3) or
 - made an arrangement with his creditors (R4).
 - If the other Party is a company or partnership and has
 - had a winding-up order made against it (R5),
 - had a provisional liquidator appointed to it (R6),
 - passed a resolution for winding-up (other than in order to amalgamate or reconstruct) (R7),
 - had an administration order made against it (R8),
 - had a receiver, receiver and manager, or administrative receiver appointed over the whole or a substantial part of its undertaking or assets (R9) or
 - made an arrangement with its creditors (R10).

- 91.2 The *Employer* may terminate if the *Project Manager* has notified that the *Contractor* has defaulted in one of the following ways and not put the default right within four weeks of the notification.
- Substantially failed to comply with his obligations (R11).
 - Not provided a bond or guarantee which this contract requires (R12).
 - Appointed a Subcontractor for substantial work before the *Project Manager* has accepted the Subcontractor (R13).
- 91.3 The *Employer* may terminate if the *Project Manager* has notified that the *Contractor* has defaulted in one of the following ways and not stopped defaulting within four weeks of the notification.
- Substantially hindered the *Employer* or Others (R14).
 - Substantially broken a health or safety regulation (R15).
- 91.4 The *Contractor* may terminate if the *Employer* has not paid an amount certified by the *Project Manager* within thirteen weeks of the date of the certificate (R16).
- 91.5 Either Party may terminate if the Parties have been released under the law from further performance of the whole of this contract (R17).
- 91.6 If the *Project Manager* has instructed the *Contractor* to stop or not to start any substantial work or all work and an instruction allowing the work to re-start or start has not been given within thirteen weeks,
- the *Employer* may terminate if the instruction was due to a default by the *Contractor* (R18),
 - the *Contractor* may terminate if the instruction was due to a default by the *Employer* (R19) and
 - either Party may terminate if the instruction was due to any other reason (R20).
- 91.7 The *Employer* may terminate if an event occurs which
- stops the *Contractor* completing the *works* or
 - stops the *Contractor* completing the *works* by the date shown on the Accepted Programme and is forecast to delay Completion by more than 13 weeks,
- and which
- neither Party could prevent and
 - an experienced contractor would have judged at the Contract Date to have such a small chance of occurring that it would have been unreasonable for him to have allowed for it (R21).

**Procedures on
termination 92**

- 92.1 On termination, the *Employer* may complete the *works* and may use any Plant and Materials to which he has title (P1).
- 92.2 The procedure on termination also includes one or more of the following as set out in the Termination Table.
- P2 The *Employer* may instruct the *Contractor* to leave the Site, remove any Equipment, Plant and Materials from the Site and assign the benefit of any subcontract or other contract related to performance of this contract to the *Employer*.
- P3 The *Employer* may use any Equipment to which the *Contractor* has title to complete the *works*. The *Contractor* promptly removes the Equipment from Site when the *Project Manager* notifies him that the *Employer* no longer requires it to complete the *works*.
- P4 The *Contractor* leaves the Working Areas and removes the Equipment.

**Payment on
termination** 93

- 93.1 The amount due on termination includes (A1)
- an amount due assessed as for normal payments,
 - the Defined Cost for Plant and Materials
 - within the Working Areas or
 - to which the *Employer* has title and of which the *Contractor* has to accept delivery,
 - other Defined Cost reasonably incurred in expectation of completing the whole of the *works*,
 - any amounts retained by the *Employer* and
 - a deduction of any un-repaid balance of an advanced payment.
- 93.2 The amount due on termination also includes one or more of the following as set out in the Termination Table.
- A2 The forecast Defined Cost of removing the Equipment.
- A3 A deduction of the forecast of the additional cost to the *Employer* of completing the whole of the *works*.
- A4 The *direct fee percentage* applied to any excess of the total of the Prices at the Contract Date over the Price for Work Done to Date.
- 93.3 The amount due on termination is assessed without taking grouping of activities into account.

DISPUTE RESOLUTION

Option W1

Dispute resolution procedure (used unless the United Kingdom Housing Grants, Construction and Regeneration Act 1996 applies).

Dispute resolution W1

W1.1 A dispute arising under or in connection with this contract is referred to and decided by the *Adjudicator*.

The *Adjudicator* W1.2

(1) The Parties appoint the *Adjudicator* under the NEC Adjudicator's Contract current at the *starting date*.

(2) The *Adjudicator* acts impartially and decides the dispute as an independent adjudicator and not as an arbitrator.

(3) If the *Adjudicator* is not identified in the Contract Data or if the *Adjudicator* resigns or is unable to act, the Parties choose a new adjudicator jointly. If the Parties have not chosen an adjudicator, either Party may ask the *Adjudicator nominating body* to choose one. The *Adjudicator nominating body* chooses an adjudicator within four days of the request. The chosen adjudicator becomes the *Adjudicator*.

(4) A replacement *Adjudicator* has the power to decide a dispute referred to his predecessor but not decided at the time when the predecessor resigned or became unable to act. He deals with an undecided dispute as if it had been referred to him on the date he was appointed.

(5) The *Adjudicator*, his employees and agents are not liable to the Parties for any action or failure to take action in an adjudication unless the action or failure to take action was in bad faith.

The adjudication W1.3

(1) Disputes are notified and referred to the *Adjudicator* in accordance with the Adjudication Table.

ADJUDICATION TABLE

Dispute about	Which Party may refer it to the <i>Adjudicator</i> ?	When may it be referred to the <i>Adjudicator</i> ?
An action of the <i>Project Manager</i> or the <i>Supervisor</i>	The <i>Contractor</i>	Between two and four weeks after the <i>Contractor's</i> notification of the dispute to the <i>Employer</i> and the <i>Project Manager</i> , the notification itself being made not more than four weeks after the <i>Contractor</i> becomes aware of the action
The <i>Project Manager</i> or <i>Supervisor</i> not having taken an action	The <i>Contractor</i>	Between two and four weeks after the <i>Contractor's</i> notification of the dispute to the <i>Employer</i> and the <i>Project Manager</i> , the notification itself being made not more than four weeks after the <i>Contractor</i> becomes aware that the action was not taken
A quotation for a compensation event which is treated as having been accepted	The <i>Employer</i>	Between two and four weeks after the <i>Project Manager's</i> notification of the dispute to the <i>Employer</i> and the <i>Contractor</i> , the notification itself being made not more than four weeks after the quotation was treated as accepted
Any other matter	Either Party	Between two and four weeks after notification of the dispute to the other Party and the <i>Project Manager</i>

(2) The times for notifying and referring a dispute may be extended by the *Project Manager* if the *Contractor* and the *Project Manager* agree to the extension before the notice or referral is due. The *Project Manager* notifies the extension that has been agreed to the *Contractor*. If a disputed matter is not notified and referred within the times set out in this contract, neither Party may subsequently refer it to the *Adjudicator* or the *tribunal*.

(3) The Party referring the dispute to the *Adjudicator* includes with his referral information to be considered by the *Adjudicator*. Any more information from a Party to be considered by the *Adjudicator* is provided within four weeks of the referral. This period may be extended if the *Adjudicator* and the Parties agree.

(4) If a matter disputed by the *Contractor* under or in connection with a subcontract is also a matter disputed under or in connection with this contract and if the subcontract allows, the *Contractor* may refer the subcontract dispute to the *Adjudicator* at the same time as the main contract referral. The *Adjudicator* then decides the disputes together and references to the Parties for the purposes of the dispute are interpreted as including the Subcontractor.

(5) The *Adjudicator* may

- review and revise any action or inaction of the *Project Manager* or *Supervisor* related to the dispute and alter a quotation which has been treated as having been accepted,
- take the initiative in ascertaining the facts and the law related to the dispute,
- instruct a Party to provide further information related to the dispute within a stated time and
- instruct a Party to take any other action which he considers necessary to reach his decision and to do so within a stated time.

(6) A communication between a Party and the *Adjudicator* is communicated to the other Party at the same time.

(7) If the *Adjudicator's* decision includes assessment of additional cost or delay caused to the *Contractor*, he makes his assessment in the same way as a compensation event is assessed.

(8) The *Adjudicator* decides the dispute and notifies the Parties and the *Project Manager* of his decision and his reasons within four weeks of the end of the period for receiving information. This four week period may be extended if the Parties agree.

(9) Unless and until the *Adjudicator* has notified the Parties of his decision, the Parties, the *Project Manager* and the *Supervisor* proceed as if the matter disputed was not disputed.

(10) The *Adjudicator's* decision is binding on the Parties unless and until revised by the *tribunal* and is enforceable as a matter of contractual obligation between the Parties and not as an arbitral award. The *Adjudicator's* decision is final and binding if neither Party has notified the other within the times required by this contract that he is dissatisfied with a decision of the *Adjudicator* and intends to refer the matter to the *tribunal*.

(11) The *Adjudicator* may, within two weeks of giving his decision to the Parties, correct any clerical mistake or ambiguity.

Review by the *tribunal* W1.4

(1) A Party does not refer any dispute under or in connection with this contract to the *tribunal* unless it has first been referred to the *Adjudicator* in accordance with this contract.

(2) If, after the *Adjudicator* notifies his decision a Party is dissatisfied, he may notify the other Party that he intends to refer it to the *tribunal*. A Party may not refer a dispute to the *tribunal* unless this notification is given within four weeks of notification of the *Adjudicator's* decision.

(3) If the *Adjudicator* does not notify his decision within the time provided by this contract, a Party may notify the other Party that he intends to refer the dispute to the *tribunal*. A Party may not refer a dispute to the *tribunal* unless this notification is given within four weeks of the date by which the *Adjudicator* should have notified his decision.

(4) The *tribunal* settles the dispute referred to it. The *tribunal* has the powers to reconsider any decision of the *Adjudicator* and review and revise any action or inaction of the *Project Manager* or the *Supervisor* related to the dispute. A Party is not limited in the *tribunal* proceedings to the information, evidence or arguments put to the *Adjudicator*.

(5) If the *tribunal* is arbitration, the *arbitration procedure*, the place where the arbitration is to be held and the method of choosing the arbitrator are those stated in the Contract Data.

(6) A Party does not call the *Adjudicator* as a witness in *tribunal* proceedings.

Option W2

Dispute resolution procedure (used in the United Kingdom when the Housing Grants, Construction and Regeneration Act 1996 applies).

Dispute resolution W2

W2.1 (1) A dispute arising under or in connection with this contract is referred to and decided by the *Adjudicator*. A Party may refer a dispute to the *Adjudicator* at any time.

(2) In this Option, time periods stated in days exclude Christmas Day, Good Friday and bank holidays.

The *Adjudicator* W2.2

(1) The Parties appoint the *Adjudicator* under the NEC Adjudicator's Contract current at the *starting date*.

(2) The *Adjudicator* acts impartially and decides the dispute as an independent adjudicator and not as an arbitrator.

(3) If the *Adjudicator* is not identified in the Contract Data or if the *Adjudicator* resigns or becomes unable to act

- the Parties may choose an adjudicator jointly or
- a Party may ask the *Adjudicator nominating body* to choose an adjudicator.

The *Adjudicator nominating body* chooses an adjudicator within four days of the request. The chosen adjudicator becomes the *Adjudicator*.

(4) A replacement *Adjudicator* has the power to decide a dispute referred to his predecessor but not decided at the time when his predecessor resigned or became unable to act. He deals with an undecided dispute as if it had been referred to him on the date he was appointed.

(5) The *Adjudicator*, his employees and agents are not liable to the Parties for any action or failure to take action in an adjudication unless the action or failure to take action was in bad faith.

The adjudication W2.3

(1) Before a Party refers a dispute to the *Adjudicator*, he gives a notice of adjudication to the other Party with a brief description of the dispute and the decision which he wishes the *Adjudicator* to make. If the *Adjudicator* is named in the Contract Data, the Party sends a copy of the notice of adjudication to the *Adjudicator* when it is issued. Within three days of the receipt of the notice of adjudication, the *Adjudicator* notifies the Parties

- that he is able to decide the dispute in accordance with the contract or
- that he is unable to decide the dispute and has resigned.

If the *Adjudicator* does not so notify within three days of the issue of the notice of adjudication, either Party may act as if he has resigned.

(2) Within seven days of a Party giving a notice of adjudication he

- refers the dispute to the *Adjudicator*,
- provides the *Adjudicator* with the information on which he relies, including any supporting documents and
- provides a copy of the information and supporting documents he has provided to the *Adjudicator* to the other Party.

Any further information from a Party to be considered by the *Adjudicator* is provided within fourteen days of the referral. This period may be extended if the *Adjudicator* and the Parties agree.

(3) If a matter disputed by the *Contractor* under or in connection with a subcontract is also a matter disputed under or in connection with this contract, the *Contractor* may, with the consent of the Subcontractor, refer the subcontract dispute to the *Adjudicator* at the same time as the main contract referral. The *Adjudicator* then decides the disputes together and references to the Parties for the purposes of the dispute are interpreted as including the Subcontractor.

(4) The *Adjudicator* may

- review and revise any action or inaction of the *Project Manager* or *Supervisor* related to the dispute and alter a quotation which has been treated as having been accepted,
- take the initiative in ascertaining the facts and the law related to the dispute,
- instruct a Party to provide further information related to the dispute within a stated time and
- instruct a Party to take any other action which he considers necessary to reach his decision and to do so within a stated time.

(5) If a Party does not comply with any instruction within the time stated by the *Adjudicator*, the *Adjudicator* may continue the adjudication and make his decision based upon the information and evidence he has received.

(6) A communication between a Party and the *Adjudicator* is communicated to the other Party at the same time.

(7) If the *Adjudicator's* decision includes assessment of additional cost or delay caused to the *Contractor*, he makes his assessment in the same way as a compensation event is assessed.

(8) The *Adjudicator* decides the dispute and notifies the Parties and the *Project Manager* of his decision and his reasons within twenty-eight days of the dispute being referred to him. This period may be extended by up to fourteen days with the consent of the referring Party or by any other period agreed by the Parties.

(9) Unless and until the *Adjudicator* has notified the Parties of his decision, the Parties, the *Project Manager* and the *Supervisor* proceed as if the matter disputed was not disputed.

(10) If the *Adjudicator* does not make his decision and notify it to the Parties within the time provided by this contract, the Parties and the *Adjudicator* may agree to extend the period for making his decision. If they do not agree to an extension, either Party may act as if the *Adjudicator* has resigned.

(11) The *Adjudicator's* decision is binding on the Parties unless and until revised by the *tribunal* and is enforceable as a matter of contractual obligation between the Parties and not as an arbitral award. The *Adjudicator's* decision is final and binding if neither Party has notified the other within the times required by this contract that he is dissatisfied with a matter decided by the *Adjudicator* and intends to refer the matter to the *tribunal*.

(12) The *Adjudicator* may, within fourteen days of giving his decision to the Parties, correct a clerical mistake or ambiguity.

Review by the *tribunal* W2.4

(1) A Party does not refer any dispute under or in connection with this contract to the *tribunal* unless it has first been decided by the *Adjudicator* in accordance with this contract.

(2) If, after the *Adjudicator* notifies his decision a Party is dissatisfied, that Party may notify the other Party of the matter which he disputes and state that he intends to refer it to the *tribunal*. The dispute may not be referred to the *tribunal* unless this notification is given within four weeks of the notification of the *Adjudicator's* decision.

(3) The *tribunal* settles the dispute referred to it. The *tribunal* has the powers to reconsider any decision of the *Adjudicator* and to review and revise any action or inaction of the *Project Manager* or the *Supervisor* related to the dispute. A Party is not limited in *tribunal* proceedings to the information or evidence put to the *Adjudicator*.

(4) If the *tribunal* is arbitration, the *arbitration procedure*, the place where the arbitration is to be held and the method of choosing the arbitrator are those stated in the Contract Data.

(5) A Party does not call the *Adjudicator* as a witness in *tribunal* proceedings.

SECONDARY OPTION CLAUSES

Option X1: Price adjustment for inflation

Defined terms X1

- X1.1 (a) The Base Date Index (B) is the latest available index before the *base date*.
(b) The Latest Index (L) is the latest available index before the date of assessment of an amount due.
(c) The Price Adjustment Factor is the total of the products of each of the proportions stated in the Contract Data multiplied by $(L - B)/B$ for the index linked to it.

Price Adjustment Factor X1.2

If an index is changed after it has been used in calculating a Price Adjustment Factor, the calculation is repeated and a correction included in the next assessment of the amount due.

The Price Adjustment Factor calculated at the Completion Date for the whole of the *works* is used for calculating price adjustment after this date.

Compensation events X1.3

The Defined Cost for compensation events is assessed using the

- Defined Cost current at the time of assessing the compensation event adjusted to *base date* by dividing by one plus the Price Adjustment Factor for the last assessment of the amount due and
- Defined Cost at *base date* levels for amounts calculated from rates stated in the Contract Data for employees and Equipment.

Price adjustment X1.4

Each amount due includes an amount for price adjustment which is the sum of

- the change in the Price for Work Done to Date since the last assessment of the amount due multiplied by the Price Adjustment Factor for the date of the current assessment,
- the amount for price adjustment included in the previous amount due and
- correcting amounts, not included elsewhere, which arise from changes to indices used for assessing previous amounts for price adjustment.

Option X2: Changes in the law

Changes in the law X2

- X2.1 A change in the law of the country in which the Site is located is a compensation event if it occurs after the Contract Date. The *Project Manager* may notify the *Contractor* of a compensation event for a change in the law and instruct him to submit quotations. If the effect of a compensation event which is a change in the law is to reduce the total Defined Cost, the Prices are reduced.

Option X3: Multiple currencies

Multiple currencies X3

- X3.1 The *Contractor* is paid in currencies other than the *currency of this contract* for the items or activities listed in the Contract Data. The *exchange rates* are used to convert from the *currency of this contract* to other currencies.
- X3.2 Payments to the *Contractor* in currencies other than the *currency of this contract* do not exceed the maximum amounts stated in the Contract Data. Any excess is paid in the *currency of this contract*.

Option X4: Parent company guarantee

Parent company guarantee X4

- X4.1 If a parent company owns the *Contractor*, the *Contractor* gives to the *Employer* a guarantee by the parent company of the *Contractor's* performance in the form set out in the Works Information. If the guarantee was not given by the Contract Date, it is given to the *Employer* within four weeks of the Contract Date.

Option X5: Sectional Completion

Sectional Completion X5

- X5.1 In these *conditions of contract*, unless stated as the whole of the *works*, each reference and clause relevant to
- the *works*,
 - Completion and
 - Completion Date
- applies, as the case may be, to either the whole of the *works* or any *section* of the *works*.

Option X6: Bonus for early Completion

Bonus for early Completion X6.1

The *Contractor* is paid a bonus calculated at the rate stated in the Contract Data for each day from the earlier of

- Completion and
- the date on which the *Employer* takes over the *works*

until the Completion Date.

Option X7: Delay damages

Delay damages X7

X7.1 The *Contractor* pays delay damages at the rate stated in the Contract Data from the Completion Date for each day until the earlier of

- Completion and
- the date on which the *Employer* takes over the *works*.

X7.2 If the Completion Date is changed to a later date after delay damages have been paid, the *Employer* repays the overpayment of damages with interest. Interest is assessed from the date of payment to the date of repayment and the date of repayment is an assessment date.

X7.3 If the *Employer* takes over a part of the *works* before Completion, the delay damages are reduced from the date on which the part is taken over. The *Project Manager* assesses the benefit to the *Employer* of taking over the part of the *works* as a proportion of the benefit to the *Employer* of taking over the whole of the *works* not previously taken over. The delay damages are reduced in this proportion.

Option X12: Partnering

Identified and defined X12

terms X12.1

(1) The Partners are those named in the Schedule of Partners. The *Client* is a Partner.

(2) An Own Contract is a contract between two Partners which includes this Option.

(3) The Core Group comprises the Partners listed in the Schedule of Core Group Members.

(4) Partnering Information is information which specifies how the Partners work together and is either in the documents which the Contract Data states it is in or in an instruction given in accordance with this contract.

(5) A Key Performance Indicator is an aspect of performance for which a target is stated in the Schedule of Partners.

- Actions** X12.2
- (1) Each Partner works with the other Partners to achieve the *Client's objective* stated in the Contract Data and the objectives of every other Partner stated in the Schedule of Partners.
 - (2) Each Partner nominates a representative to act for it in dealings with other Partners.
 - (3) The Core Group acts and takes decisions on behalf of the Partners on those matters stated in the Partnering Information.
 - (4) The Partners select the members of the Core Group. The Core Group decides how they will work and decides the dates when each member joins and leaves the Core Group. The *Client's* representative leads the Core Group unless stated otherwise in the Partnering Information.
 - (5) The Core Group keeps the Schedule of Core Group Members and the Schedule of Partners up to date and issues copies of them to the Partners each time either is revised.
 - (6) This Option does not create a legal partnership between Partners who are not one of the Parties in this contract.

- Working together** X12.3
- (1) The Partners work together as stated in the Partnering Information and in a spirit of mutual trust and co-operation.
 - (2) A Partner may ask another Partner to provide information which he needs to carry out the work in his Own Contract and the other Partner provides it.
 - (3) Each Partner gives an early warning to the other Partners when he becomes aware of any matter that could affect the achievement of another Partner's objectives stated in the Schedule of Partners.
 - (4) The Partners use common information systems as set out in the Partnering Information.
 - (5) A Partner implements a decision of the Core Group by issuing instructions in accordance with its Own Contracts.
 - (6) The Core Group may give an instruction to the Partners to change the Partnering Information. Each such change to the Partnering Information is a compensation event which may lead to reduced Prices.
 - (7) The Core Group prepares and maintains a timetable showing the proposed timing of the contributions of the Partners. The Core Group issues a copy of the timetable to the Partners each time it is revised. The *Contractor* changes his programme if it is necessary to do so in order to comply with the revised timetable. Each such change is a compensation event which may lead to reduced Prices.
 - (8) A Partner gives advice, information and opinion to the Core Group and to other Partners when asked to do so by the Core Group. This advice, information and opinion relates to work that another Partner is to carry out under its Own Contract and is given fully, openly and objectively. The Partners show contingency and risk allowances in information about costs, prices and timing for future work.
 - (9) A Partner notifies the Core Group before subcontracting any work.

- Incentives** X12.4
- (1) A Partner is paid the amount stated in the Schedule of Partners if the target stated for a Key Performance Indicator is improved upon or achieved. Payment of the amount is due when the target has been improved upon or achieved and is made as part of the amount due in the Partner's Own Contract.
 - (2) The *Client* may add a Key Performance Indicator and associated payment to the Schedule of Partners but may not delete or reduce a payment stated in the Schedule of Partners.

Option X13: Performance bond

Performance bond X13

- X13.1 The *Contractor* gives the *Employer* a performance bond, provided by a bank or insurer which the *Project Manager* has accepted, for the amount stated in the Contract Data and in the form set out in the Works Information. A reason for not accepting the bank or insurer is that its commercial position is not strong enough to carry the bond. If the bond was not given by the Contract Date, it is given to the *Employer* within four weeks of the Contract Date.

Option X14: Advanced payment to the *Contractor*

Advanced payment X14

- X14.1 The *Employer* makes an advanced payment to the *Contractor* of the amount stated in the Contract Data.
- X14.2 The advanced payment is made either within four weeks of the Contract Date or, if an advanced payment bond is required, within four weeks of the later of
- the Contract Date and
 - the date when the *Employer* receives the advanced payment bond.
- The advanced payment bond is issued by a bank or insurer which the *Project Manager* has accepted. A reason for not accepting the proposed bank or insurer is that its commercial position is not strong enough to carry the bond. The bond is for the amount of the advanced payment which the *Contractor* has not repaid and is in the form set out in the Works Information. Delay in making the advanced payment is a compensation event.
- X14.3 The advanced payment is repaid to the *Employer* by the *Contractor* in instalments of the amount stated in the Contract Data. An instalment is included in each amount due assessed after the period stated in the Contract Data has passed until the advanced payment has been repaid.

Option X15: Limitation of the *Contractor's* liability for his design to reasonable skill and care

The *Contractor's* design X15

- X15.1 The *Contractor* is not liable for Defects in the *works* due to his design so far as he proves that he used reasonable skill and care to ensure that his design complied with the Works Information.
- X15.2 If the *Contractor* corrects a Defect for which he is not liable under this contract it is a compensation event.

Option X16: Retention

Retention X16

X16.1 After the Price for Work Done to Date has reached the *retention free amount*, an amount is retained in each amount due. Until the earlier of

- Completion of the whole of the *works* and
- the date on which the *Employer* takes over the whole of the *works*

the amount retained is the *retention percentage* applied to the excess of the Price for Work Done to Date above the *retention free amount*.

X16.2 The amount retained is halved

- in the assessment made at Completion of the whole of the *works* or
- in the next assessment after the *Employer* has taken over the whole of the *works* if this is before Completion of the whole of the *works*.

The amount retained remains at this amount until the Defects Certificate is issued. No amount is retained in the assessments made after the Defects Certificate has been issued.

Option X17: Low performance damages

Low performance damages X17

X17.1 If a Defect included in the Defects Certificate shows low performance with respect to a performance level stated in the Contract Data, the *Contractor* pays the amount of low performance damages stated in the Contract Data.

Option X18: Limitation of liability

Limitation of liability X18

X18.1 The *Contractor's* liability to the *Employer* for the *Employer's* indirect or consequential loss is limited to the amount stated in the Contract Data.

X18.2 For any one event, the liability of the *Contractor* to the *Employer* for loss of or damage to the *Employer's* property is limited to the amount stated in the Contract Data.

X18.3 The *Contractor's* liability to the *Employer* for Defects due to his design which are not listed on the Defects Certificate is limited to the amount stated in the Contract Data.

X18.4 The *Contractor's* total liability to the *Employer* for all matters arising under or in connection with this contract, other than the excluded matters, is limited to the amount stated in the Contract Data and applies in contract, tort or delict and otherwise to the extent allowed under the *law of the contract*.

The excluded matters are amounts payable by the *Contractor* as stated in this contract for

- loss of or damage to the *Employer's* property,
- delay damages if Option X7 applies and
- low performance damages if Option X17 applies.

X18.5 The *Contractor* is not liable to the *Employer* for a matter unless it is notified to the *Contractor* before the *end of liability date*.

Option X20: Key Performance Indicators (not used with Option X12)

- Incentives**
- X20.1 A Key Performance Indicator is an aspect of performance by the *Contractor* for which a target is stated in the Incentive Schedule. The Incentive Schedule is the *incentive schedule* unless later changed in accordance with this contract.
 - X20.2 From the *starting date* until the Defects Certificate has been issued, the *Contractor* reports to the *Project Manager* his performance against each of the Key Performance Indicators. Reports are provided at the intervals stated in the Contract Data and include the forecast final measurement against each indicator.
 - X20.3 If the *Contractor's* forecast final measurement against a Key Performance Indicator will not achieve the target stated in the Incentive Schedule, he submits to the *Project Manager* his proposals for improving performance.
 - X20.4 The *Contractor* is paid the amount stated in the Incentive Schedule if the target stated for a Key Performance Indicator is improved upon or achieved. Payment of the amount is due when the target has been improved upon or achieved.
 - X20.5 The *Employer* may add a Key Performance Indicator and associated payment to the Incentive Schedule but may not delete or reduce a payment stated in the Incentive Schedule.

OPTION Y

Option Y(UK)2: The Housing Grants, Construction and Regeneration Act 1996

Definitions	Y(UK)2	
	Y2.1	(1) The Act is The Housing Grants, Construction and Regeneration Act 1996. (2) A period of time stated in days is a period calculated in accordance with Section 116 of the Act.
Dates for payment	Y2.2	The date on which a payment becomes due is seven days after the assessment date. The final date for payment is fourteen days or a different period for payment if stated in the Contract Data after the date on which payment becomes due. The <i>Project Manager's</i> certificate is the notice of payment from the <i>Employer</i> to the <i>Contractor</i> specifying the amount of the payment made or proposed to be made and stating how the amount was calculated.
Notice of intention to withhold payment	Y2.3	If either Party intends to withhold payment of an amount due under this contract, he notifies the other Party not later than seven days (the prescribed period) before the final date for payment by stating the amount proposed to be withheld and the reason for withholding payment. If there is more than one reason, the amount for each reason is stated. A Party does not withhold payment of an amount due under this contract unless he has notified his intention to withhold payment as required by this contract.
Suspension of performance	Y2.4	If the <i>Contractor</i> exercises his right under the Act to suspend performance, it is a compensation event.

Option Y(UK)3: The Contracts (Rights of Third Parties) Act 1999

Third party rights	Y(UK)3	
	Y3.1	A person or organisation who is not one of the Parties may enforce a term of this contract under the Contracts (Rights of Third Parties) Act 1999 only if the term and the person or organisation are stated in the Contract Data.

Option Z: *Additional conditions of contract*

Additional conditions of contract	Z1	
	Z1.1	The <i>additional conditions of contract</i> stated in the Contract Data are part of this contract.

SHORTER SCHEDULE OF COST COMPONENTS

An amount is included only in one cost component and only if it is incurred in order to Provide the Works.

People 1	<p>The following components of the cost of</p> <ul style="list-style-type: none"> • people who are directly employed by the <i>Contractor</i> and whose normal place of working is within the Working Areas, • people who are directly employed by the <i>Contractor</i> and whose normal place of working is not within the Working Areas but who are working in the Working Areas and • people who are not directly employed by the <i>Contractor</i> but are paid for by him according to the time worked while they are within the Working Areas.
11	<p>Amounts paid by the <i>Contractor</i> including those for meeting the requirements of the law and for pension provision.</p>
Equipment 2	<p>The following components of the cost of Equipment which is used within the Working Areas (including the cost of accommodation but excluding Equipment cost covered by the percentage for people overheads).</p>
21	<p>Amounts for Equipment which is in the published list stated in the Contract Data. These amounts are calculated by applying the percentage adjustment for listed Equipment stated in the Contract Data to the rates in the published list and by multiplying the resulting rate by the time for which the Equipment is required.</p>
22	<p>Amounts for Equipment listed in the Contract Data which is not in the published list stated in the Contract Data. These amounts are the rates stated in the Contract Data multiplied by the time for which the Equipment is required.</p>
23	<p>The time required is expressed in hours, days, weeks or months consistently with the list of items of Equipment in the Contract Data or with the published list stated in the Contract Data.</p>
24	<p>Unless the item is in the published list and the rate includes the cost component, payments for</p> <ul style="list-style-type: none"> • transporting Equipment to and from the Working Areas other than for repair and maintenance, • erecting and dismantling Equipment and • constructing, fabricating or modifying Equipment as a result of a compensation event.
25	<p>Unless the item is in the published list and the rate includes the cost component, the purchase price of Equipment which is consumed.</p>
26	<p>Unless included in the rate in the published list, the cost of operatives is included in the cost of people.</p>
27	<p>Amounts for Equipment which is neither in the published list stated in the Contract Data nor listed in the Contract Data, at competitively tendered or open market rates, multiplied by the time for which the Equipment is required.</p>

Plant and Materials	3	The following components of the cost of Plant and Materials.
	31	Payments for purchasing Plant and Materials, delivery to and removal from the Working Areas, providing and removing packaging and samples and tests.
	32	Cost is credited with payments received for disposal of Plant and Materials unless the cost is disallowed.
Charges	4	The following components of the cost of charges paid by the <i>Contractor</i> .
	41	A charge calculated by applying the percentage for people overheads stated in the Contract Data to people item 11 to cover the costs of <ul style="list-style-type: none"> • payments for the provision and use in the Working Areas of water, gas and electricity, • payments for buying or leasing land, compensation for loss of crops or buildings, royalties, inspection certificates, charges for access to the Working Areas, facilities for visits to the Working Areas by Others and • payments for equipment, supplies and services for offices, drawing office, laboratories, workshops, stores and compounds, labour camps, cabins, catering, medical facilities and first aid, recreation, sanitation, security, copying, telephone, telex, fax, radio, CCTV, surveying and setting out, computing, and hand tools not powered by compressed air.
	42	Payments for cancellation charges arising from a compensation event.
	43	Payments to public authorities and other properly constituted authorities of charges which they are authorised to make in respect of the <i>works</i> .
	44	Consumables and equipment provided by the <i>Contractor</i> for the <i>Project Manager's</i> and <i>Supervisor's</i> office.
	45	Specialist services.
Manufacture and fabrication	5	The following components of the cost of manufacture and fabrication of Plant and Materials, which are <ul style="list-style-type: none"> • wholly or partly designed specifically for the <i>works</i> and • manufactured or fabricated outside the Working Areas.
	51	Amounts paid by the <i>Contractor</i> .
Design	6	The following components of the cost of design of the <i>works</i> and Equipment done outside the Working Areas.
	61	The total of the hours worked by employees multiplied by the hourly rates stated in the Contract Data for the categories of employees listed.
	62	An amount for overheads calculated by multiplying this total by the percentage for design overheads stated in the Contract Data.
	63	The cost of travel to and from the Working Areas for the categories of design employees listed in the Contract Data.
Insurance	7	The following are deducted from cost <ul style="list-style-type: none"> • costs against which this contract required the <i>Contractor</i> to insure and • other costs paid to the <i>Contractor</i> by insurers.

Royal Docks Capacity Enhancement

Custom House Station

2014 - 077

Conditions of Contract

Annexure 1

SCHEDULE 1

AMENDMENTS TO CONDITIONS OF CONTRACT

The Core clauses, Main Option A clauses and the Secondary Option clauses are amended as follows:

- | | |
|-----------------|--|
| Clause 11.2(1) | At the end insert: "Neither the Accepted Programme, nor any method statement attached to the Accepted Programme, form part of the <i>Works Information</i> ". |
| Clause 11.2(4) | Delete and substitute: "The Contract Date is the date of the Contract Agreement." |
| Clause 11.2(5) | At the end of first bullet point insert: "the <i>Contractor's</i> obligations under this contract or".

In the second bullet point after "the applicable law" insert the words "or all applicable licences and approvals". |
| Clause 11.2(11) | After <i>Employer</i> insert "(which expression includes its successors in title and permitted assigns)". |
| Clause 11.2(17) | In the first sentence, after "organisation" insert "including, without limitation any sub-consultant"

In the first bullet point, after "install" insert "or design". |
| Clause 11.2(19) | In the first line delete the word "either".

In the first bullet point after <i>works</i> delete "or" and insert "and/or". |
| Clause 11.2 | Insert the following new definitions |
| “(34) | Background IPR means IPR owned by the <i>Contractor</i> or a Subcontractor or other third party and which is not vested in or not assigned to the <i>Employer</i> pursuant to clause 22.1. |
| (35) | Not Used. |
| (36) | Cessation Plan means a plan agreed between the Parties or determined by the <i>Employer</i> pursuant to clause 94 to give effect to a |

Declaration of Ineffectiveness.

- (37) Not Used
- (38) The **Contract Agreement** is the document executed by the *Employer* and the *Contractor* under which the *Contractor* has agreed to Provide the *Works*.
- (39) **Contract Information** means (i) this contract in its entirety (including from time to time agreed changes to this contract) and (ii) data extracted from invoices submitted by the *Contractor* which consists of the *Contractor's* name, the expenditure account code, the expenditure account code description, the SAP document number, the clearing date and the invoice amount.
- (40) **Declaration of Ineffectiveness** means a declaration of ineffectiveness in relation to this contract made by a Court of competent jurisdiction pursuant to Regulation 47(k) of the Public Contracts Regulations 2006 (as amended) or Regulation 45(k) of the Utilities Contracts Regulations 2006 (as amended) .
- (41) **Dispute** means any dispute, controversy or claim arising out of or in connection with this contract.
- (42) **Holding Company** means any company which from time to time directly or indirectly controls the *Contractor* where “control” is as defined by Section 1124 of the Corporation Tax Act 2010.
- (43) **Indirect Subcontractor** means any subcontractor or subconsultant of whatever tier beneath any Subcontractor appointed in relation to the *works*.
- (44) **Insolvency** means (in the case of a company or partnership) the making of a winding-up order against it, the appointment of a provisional liquidator, the passing of a resolution for winding-up (other than in order to amalgamate or reconstruct without insolvency), the making of an administration order against it, the appointment of a receiver, receiver and manager, or administrative receiver over the whole or a substantial part of its undertaking or assets, or the making of an arrangement with its creditors or (in the case of an individual) the presentation of a petition for bankruptcy, the making of a bankruptcy order against him, the appointment of a receiver over his assets or the making of an arrangement with his creditor.

- (45) **IPR** means intellectual property rights including patents, trade marks or names, service marks, trade names, design rights (in each case whether registered or unregistered), copyright (including rights in computer software and databases), moral rights, rights in know-how, rights in domain names, rights in passing off, database right, rights in commercial or technical information, any other rights in any invention, discovery or process and any other intellectual property rights, (including any professional, manufacturer's or supplier's warranties and/or indemnities) in each case whether registered or unregistered, and including applications for the grant of any such rights and all rights or forms of protection having equivalent or similar effect anywhere in the world.
- (46) **Notice of Adjudication** means any notice given by a party to the Dispute to the other party or parties thereto requiring reference of a Dispute to the *Adjudicator* in accordance with clause W2.1. The Notice of Adjudication includes
- the nature and a brief description of the Dispute,
 - details of where and when the Dispute arose, and
 - the nature of the redress which is sought.
- (47) **Prevention Event** has the meaning ascribed to that term in clause 19.1.
- (48) **Senior Representative** means a representative of a Party at senior executive level.
- (49) **A Statutory Requirement** is
- any Act of Parliament
 - any instrument, rule or order made under any Act of Parliament
 - any regulation or bylaw of any local authority or of any Statutory Undertaker which has any jurisdiction with regard to the *works* or with whose systems the same are or will be connected including any statutory provisions and
 - any decisions of a relevant authority under the statutory provisions which control the right to develop the site on which the *works* are to be provided (including, without limitation, any planning permission).
- (50) **Statutory Undertaker** means any governmental or local authority or

statutory undertaker

- which has any jurisdiction with regard to the *works*
- with whose requirements the *Employer* is required to comply or
- with whose systems and/or utilities the *works* will be associated.

- (51) **TfL Group** means Transport for London (“TfL”), a statutory body set up by the Greater London Authority Act 1999 and all of its subsidiaries and their subsidiaries (as defined in Section 1159 of the Companies Act 2006) from time to time, together with Cross London Rail Links Limited (company number 04212657) and reference to any “member of the TfL Group” refers to TfL or any such subsidiary.
- (52) **TfL Premises** are any premises owned, leased or under the control of any member of the TfL Group.
- (53) **Transparency Commitment** means the transparency commitment stipulated by the UK government in May 2010 (including any subsequent legislation) in accordance with which TfL is committed to publishing its contracts, tender documents and data from invoices received.
- (54) **The Workplace Policy** is the *Employer’s* “Workplace Harassment Policy”, as updated from time to time, copies of which are available on request from the *Employer*.=
- (55) **KAD (Keolis Amey Docklands)** is the franchisee appointed for the operation and maintenance of the Docklands Light Railway assets.
- (56) **Possession Overrun** is the overrunning of engineering hours by the *Contractor*. The rate for *Possession Overrun* will apply in such circumstances.
- (57) **Station Opening** is when the *Contractor* has made sufficient progress with the *works* and rectified all defects which would prevent or restrict safe railway operations and opening of the station for passenger operations and which has been accepted by the *Project Manager*.
- (58) **Station Closure Date** is the date on which the Custom House for ExCeL Station is closed for passenger operations to allow the *Contractor To Provide the Works*.

Clause 12.2	Delete the current wording in clause 12.2 and replace with “This contract is governed by English law and the parties submit to the non-exclusive jurisdiction of the English Courts.”
Clause 12.4	Delete the existing wording and replace with: This contract supersedes any previous agreement, arrangement or understanding between the <i>Employer</i> and the <i>Contractor</i> in relation to the matters dealt with in this contract and represents the entire understanding and agreement between the <i>Employer</i> and the <i>Contractor</i> in relation to such matters. The <i>Employer</i> and <i>Contractor</i> acknowledge and agree that each of them has not relied upon any prior representation by the other in entering into this contract.
Clause 12.5	Insert a new clause: Any obligation imposed on either Party in this contract in the present tense is to be construed as an on-going obligation unless that obligation has been fulfilled.
Clause 12.6	Insert a new clause: Save that any member of the TfL Group has the right to enforce the terms of this contract in accordance with the Contracts (Rights of Third Parties) Act 1999, the <i>Employer</i> and the <i>Contractor</i> do not intend that any of the terms of this contract are enforceable by virtue of the Contracts (Rights of Third Parties) Act 1999 by any person not a Party. Notwithstanding the terms of this clause, the Parties are entitled to vary or rescind this contract without the consent of any or all members of the TfL Group (other than the <i>Employer</i>).
Clause 12.7	Insert a new clause: If any clause or part of this contract is found by any court, tribunal, administrative body or authority of competent jurisdiction to be illegal, invalid or unenforceable then that provision will, to the extent required, be severed from this contract and will be ineffective without, as far as is possible, modifying any other clause or part of this contract and this will not affect any other provisions of this contract which will remain in full force and effect. In the event that in the <i>Employer's</i> reasonable opinion such a provision is so fundamental as to prevent the accomplishment of the purpose of this contract, the <i>Employer</i> and the <i>Contractor</i> immediately commence good faith negotiations to remedy such invalidity.
Clause 12.8	Insert a new clause: The headings to the sections, clauses and sub-clauses of these <i>conditions of contract</i> are for convenience only and do not affect their construction or interpretation.
Clause 12.9	Insert a new clause: A reference in these <i>conditions of contract</i> to any applicable law or Statutory Requirement includes that law or Statutory Requirement as from time to time amended, re-enacted or substituted and any orders, rules, regulations, schemes, warrants, bye-laws,

directives or codes of practice raised under any such law or Statutory Requirement.

- Clause 12.10 Insert a new clause: Notwithstanding the Contract Date, the conditions of this contract cover all work carried out by the *Contractor* from the date when he first commenced performance of the *works* and this contract and the warranties and undertakings in this contract are deemed to apply to all work performed by the *Contractor* both before and after the Contract Date.
- Clause 12.11 Insert a new clause: Failure by the *Employer* to exercise his rights under this contract does not constitute waiver of those rights nor any of them nor does any such failure relieve the *Contractor* from any of his obligations under this contract. The waiver in one instance of any right, condition or requirement does not constitute a continuing or general waiver of that or any other right, condition or requirement.
- Clause 13.3 At the end insert: Where the *period for reply* includes Christmas Day, Good Friday or a day under which the Banking and Financial Dealings Act 1971 is a Bank Holiday in England and Wales, that day is excluded for the purpose of calculating the period.
- Clause 14.1 Delete and substitute: No acceptance, approvals, comments, instructions, consents or advice or indication of satisfaction given by or from the *Employer*, the *Project Manager* or the *Supervisor*, nor any enquiry or inspection which the *Employer*, the *Project Manager* or the *Supervisor* makes or has carried out for its benefit or on its behalf at any time, operates to reduce, extinguish, exclude, limit or modify the *Contractor's* duties and obligations under this contract unless it is in writing from the *Employer*, refers to this contract and clearly identifies the duty or obligation and the extent to which such duty or obligation is to be reduced, extinguished, excluded, limited or modified.
- Clause 16.2 Delete "Either the *Project Manager* or the *Contractor* may instruct the other" and substitute "*The Project Manager* may instruct the *Contractor* or the *Contractor* may request the *Project Manager* (such request not to be unreasonably refused)".
- Clause 16.4 Add at the end of the clause: For the avoidance of doubt, revisions to the Risk Register do not give rise to a compensation event and merely reflect the decisions reached at the risk reduction meeting. The *Contractor's* only entitlement to a change in the Prices, the Completion Date or a Key Date as a result of any revision to the Risk Register is in

accordance with clauses 60 to 65

- Clause 17.2 Insert a new clause: There is no addition to the Prices, any change to any Key Date or the Completion Date arising from any such ambiguity or inconsistency where the *Project Manager* decides that the ambiguity or inconsistency in question is one arising from a document which the *Contractor* prepared or is responsible for. The *Project Manager* notifies the *Contractor* of this decision.
- Clause 17.3 Insert a new clause: Where there is a discrepancy or conflict between or within the documents forming this contract, the provisions of the *conditions of contract* prevail over all other documents and the Amendments to Conditions of Contract clauses prevail over all other parts of the *conditions of contract*.
- Clause 17.4 Insert a new clause: the *Contractor* accepts entire responsibility for the *Contractor's* design and for any mistake, inaccuracy, discrepancy or omission contained in the same
- Clause 17.5 Insert a new clause: The *Contractor* is deemed to have verified the accuracy of any information provided by the *Employer*, the *Project Manager* and/or the *Supervisor*
- Clause 18.1 After "impossible" insert "or to carry out *works* which if completed in accordance with this contract will result in the *works* not being in accordance with the Statutory Requirements".
- Clause 19.1 Insert after "and which" in the second paragraph:
- "is not a shortage of staff whether caused by local market fluctuations or otherwise an event of Insolvency of the *Contractor* or any Subcontractor, Indirect Subcontractor or supplier or an event attributable to any negligence, omission or default of the *Contractor* or any of his employees or agents or any Subcontractor or Indirect Subcontractor or any of their employees or agents and which"
- and after the fourth bullet point insert:
- "and the *Contractor* can demonstrate that he did not allow for it in his tender then this is a "Prevention Event" and"
- Clause 20.1 At the end insert: "and the Statutory Requirements, and the *Contractor* ensures that the *works* will, when completed, comply with the *Works Information* and satisfy any requirement identified in the *Works*

Information and this contract.”

Clause 20.6 Insert new clause: The *Contractor* warrants and undertakes to the *Employer* as a condition of this contract that

he has examined the *Works* Information and all other documents forming this contract and is not aware of any ambiguity or discrepancy within or between any of the contract documents which might adversely affect the carrying out of his work in accordance with this contract,

he has all the resources including financial, technical and human resources as are required to carry out and complete his work in accordance with this contract,

his work and those parts of the *works* for which the *Contractor* is responsible will be designed and specified using the best modern engineering principles and practices at the time of preparing the design and in accordance with good industry practice, and

the proceeds of a claim made in connection with this contract under insurance taken out by the *Contractor* pursuant to clause 81 of the *conditions of contract* will be used solely for the purposes of the *works* and for no other purpose.”

Clause 21.1 Insert at the end of the clause: “The *Contractor* integrates and coordinates his design (if any) with the designs of Others and in accordance with the *Works* Information and the instructions of the *Project Manager*.”

Clause 21.2 Delete the second sentence and replace with “Reasons for not accepting the *Contractor’s* design are that

- “it does not comply with the *Works* Information, applicable law or Statutory Requirements,
- it is not integrated and coordinated with the designs of Others where the *Contractor* is required by the *Works* Information or the instructions of the *Employer* to integrate and/or coordinate his design with the designs of Others or such integration is necessary for the *Contractor* to Provide the *Works*,

it does not comply with this contract.”

Clause 21.4 Insert new clause

- (1) The *Contractor* warrants to the *Employer* that insofar as it is responsible for the design of the *works*, it has exercised and exercises in the design of the *works* all reasonable skill, care and diligence as may be expected of a properly qualified

designer of the appropriate discipline(s) for such design, experienced in carrying out *works* of a similar scope, nature, timescale and complexity and on a similar site or at a similar location to the *works*

(2) The *Contractor* warrants to the *Employer* that it uses the reasonable skill, care and diligence set out in clause 21.4(1) to see that the *works* comply with any performance specification or requirement included or referred to in the *Works Information* or the *Contractor's* design (including any changes to the *Works Information*) and comply with all Statutory Requirements. The *Contractor* warrants that any part of the *works* designed by the *Contractor* will interface and integrate fully with any design prepared by, or on behalf, of the *Employer*.

Clause 21.5

Insert new clause

- (1) Subject to the *Works* Information and any changes to it the *Contractor* warrants that to the extent the *Contractor* either is obliged to specify or approve products or materials for use in the *works* or does so specify or approve, the *Contractor* does not specify, approve or use any products or materials which are generally known within the construction industry to be deleterious at the time of use in the particular circumstances in which they are used, or those identified as potentially hazardous in or not in conformity with
 - (a) the report entitled “Good Practice in the Selection of Construction Materials” (1997, by Tony Sheehan, Ove Arup & Partners, published by the British Council for Offices and the British Property Federation) other than the recommendations for good practice contained in Section 2 of that report,
 - (b) relevant British or European Standards or Codes of Practice, or
 - (c) any publications of the Building Research Establishment related to the specification of products or materials.
- (2) If in the performance of its duties under this contract, the *Contractor* becomes aware that he or any other person has specified or used, or authorised or approved the specification or use by others of, any such products or materials, the *Contractor* notifies the *Project Manager* in writing immediately. This clause does not create any additional duty for the *Contractor* to inspect or check the work of others which is not required by this contract.”

Clause 22 Delete and replace with

Intellectual Property Rights

- Clause 22.1 The parties agree that the Intellectual Property Rights (IPR) in all documents, drawings, materials, computer software, any other material or *works* prepared or developed by or on behalf of the *Contractor* in the performance of this contract (including IPR in materials or *works* created by a Subcontractor or Indirect Subcontractor) vests in the *Employer*. The *Contractor* procures that each Subcontractor and Indirect Subcontractor assigns such IPR to the *Employer*.
- Clause 22.2 In respect of Background IPR, the *Contractor* grants (in respect of his own Background IPR) and procures the grant of (in respect of a Subcontractor or Indirect Subcontractor's Background IPR) a non-exclusive, perpetual, irrevocable, royalty free licence (including the right to sub-licence) to the *Employer* and any novated *Employer* to use the Background IPR for all purposes, including (without limitation) for the purposes of
- understanding the *works*, completing, operating, maintaining, repairing, modifying, altering, enhancing, re-figuring, correcting and replacing the *works*, extending, interfacing with, integrating with, connection into and adjusting the *works* and/or the *works* of Others, and enabling the *Employer* to carry out the operation, maintenance, repair, renewal and enhancement of the "Docklands Light Railway" network (where applicable).
- Clause 22.3 The *Contractor* warrants and undertakes that he has the right to grant the *Employer* a licence to use the *Contractor's* Background IPR for all purposes, including (without limitation) for the purposes listed in clause 22.2.
- Clause 22.4 The *Contractor* indemnifies the *Employer* and members of the TfL Group against all losses arising out of any use by the *Employer* of the Background IPR, including, without limitation, any claim that the exploitation of the licence granted by the *Contractor* under clause 22.2 infringes the intellectual property rights or other rights of any third party.
- Clause 22.5 The *Contractor* shall have no right (save where expressly permitted under this contract or with the *Employer's* prior written consent) to use any trade marks, trade names, logos or other intellectual property rights of the *Employer*.

- | | |
|--------------|--|
| Clause 22.6 | The <i>Contractor</i> acknowledges that he is the author of all documents, drawings, materials, computer software, and any other materials or <i>works</i> prepared and developed by him in the performance of this contract and waives any moral rights which he might be deemed to possess under Chapter IV of the Copyright Design & Patents Act 1988 in respect thereof and of the <i>works</i> . |
| Clause 22.7 | IPR in all items supplied and owned by the TfL Group to the <i>Contractor</i> remains the property of the TfL Group. |
| Clause 22.8 | The <i>Employer</i> grants to the <i>Contractor</i> a non-exclusive, non-transferable, revocable licence to use all IPR owned (or capable of being so licensed) by the <i>Employer</i> and required by the <i>Contractor</i> in order to Provide the <i>Works</i> . Any such licence is granted for the duration of this contract solely to enable the <i>Contractor</i> to comply with its obligations under this contract. |
| Clause 22.9 | The <i>Contractor</i> promptly notifies the <i>Employer</i> upon becoming aware of an infringement, alleged infringement or potential infringement of any IPR (including any claims and demands relating to the same) which affects or may affect the provision of the <i>works</i> . |
| Clause 22.10 | Subject to the <i>Employer's</i> proper observance of its obligations under this contract, the <i>Contractor</i> indemnifies the <i>Employer</i> against all actions, claims, demands, costs, damages, charges or expenses (including legal costs on a full indemnity basis) that arise from or are incurred by reason of any infringement or alleged infringement of any IPR. |
| Clause 22.11 | The <i>Employer</i> , at the request of the <i>Contractor</i> , gives the <i>Contractor</i> all reasonable assistance for the purpose of contesting any such claim, demand or action. The <i>Contractor</i> reimburses the <i>Employer</i> for all costs and expenses (including legal costs) incurred in doing so and/or the <i>Contractor</i> shall conduct any litigation and all negotiations at its own expense arising from such claim, demand or action. The <i>Contractor</i> consults with the <i>Employer</i> in respect of the conduct of any claim, demand or action and keeps the <i>Employer</i> regularly and fully informed as to the progress of such claim, demand or action." |
| Clause 23.1 | Insert an additional bullet point between the first and second bullet points:

"• this contract" |

Clause 24.2	<p>In the first sentence delete “an employee” and replace with “any person under the control of the <i>Contractor</i>.”</p> <p>In the second sentence delete “the employee” and replace with “such person”.</p>
Clause 26.3	<p>Insert a further bullet point after the bullet “they do ... co-operation”:</p> <p>“ • in the opinion of the <i>Project Manager</i> they are not consistent with the terms of this contract”.</p>
Clause 26.5	<p>Insert new clause: “Where the <i>Contractor</i> has proposed a Subcontractor in Contract Data Part Two for part of the <i>works</i>, acceptance of Contract Data Part Two by the <i>Employer</i> without qualification of such proposal is deemed to be consent on the same legal basis as consent by the <i>Project Manager</i> under clause 26.2. Any such Subcontractor is not removed by the <i>Contractor</i> from the part of the <i>works</i> for which he has been proposed without the prior written consent of the <i>Project Manager</i>.”</p>
Clause 26.6	<p>Insert new clause: Neither the objection to nor any failure to raise an objection to a proposed Subcontractor either by or through the <i>Project Manager</i> relieves the <i>Contractor</i> of any liability or obligation under this contract.”</p>
Clause 27.5	<p>Insert new clause: The terms and conditions of this contract and the warranties and undertakings which it contains apply to all <i>works</i> performed and to be performed by the <i>Contractor</i> in relation to the project to which the <i>works</i> relate both before and after the Contract Date.”</p>
Clause 27.6	<p>Insert new clause: “The <i>Employer</i> may assign the benefit of and its rights under this contract without the consent of the <i>Contractor</i> being required. The <i>Contractor</i> shall not assign the benefit of and its rights under this contract without the prior written consent of the <i>Employer</i>”.</p>
Clause 27.7	<p>Insert new clause</p> <ol style="list-style-type: none"> (1) The <i>Contractor</i> takes full responsibility for the adequacy stability and safety of all site operations and methods of construction and complies fully with the requirements of relevant health and safety legislation and regulations. (2) The <i>Contractor</i> throughout the progress of the <i>works</i> and while the <i>Contractor</i> has access to the Site in accordance with this contract has full regard for the safety of all persons entitled to be upon the Site and keeps the Site (so far as the

same is under his control) and the *works* (so far as the same have not been handed over to or occupied by the *Employer*) in an orderly state appropriate to the avoidance of danger to such persons and, without limitation, in connection with the *works*, provides and maintains at his own cost all lights guards fencing warning signs and watching when and where necessary or where required by any competent statutory or other authority for the protection of the *works* or for the safety and convenience of the public or Others.

- (3) Not Used.
- (4) Not Used.
- (5) Before the commencement of work on Site the *Contractor* provides the *Project Manager* with a copy of his Statement of Health and Safety Policy, and that of any Subcontractor prior to such Subcontractor commencing work on the Site.
- (6) The *Contractor* to the extent that he is in control of the Site or any part of it within the meaning of Section 4 of the Health and Safety at Work etc. Act 1974 keeps the Site, its access and egress, safe and without risk to the health of persons using it.
- (7) The *Contractor* at all times co-operates, so far as is reasonably practicable, with all parties having health and safety responsibilities on or adjacent to the Site for the effective discharge of those responsibilities.”

Clause 27.8

Insert new clause “The *Contractor* acknowledges that the *Employer* is under a duty under Section 17 of the Crime and Disorder Act, 1998 to have due regard to the impact of crime, disorder and community safety in the exercise of the *Employer’s* duties, where appropriate, identify actions to reduce levels of crime and disorder and without prejudice to any other obligation imposed on the *Employer*, exercise its functions with due regard to the likely effect of the exercise of those functions on, and the need to do all that it reasonably can to prevent, crime and disorder in its area and in the performance of this contract, the *Contractor* assists and co-operates, and uses reasonable endeavours to procure that its Subcontractors and Indirect Subcontractors assist and co-operate, with the *Employer* where possible to enable the *Employer* to satisfy its duty.”

- Clause 27.9 Insert new clause “The *Contractor* performs all the functions and duties of the “principal *Contractor*” under the Site Waste Management Plans Regulations 2008 and any amendment, consolidation, revision and/or replacement thereto.”
- Clause 27.10 Insert new clause “The *Contractor* shall be deemed to be fully acquainted with the physical conditions (including the sub-surface conditions) and other conditions of or affecting the Site of the *works* before the Contract Date and to have obtained all necessary information as to risks, contingencies and all other circumstances which may influence or affect the execution of the *works*. No failure on the part of the *Contractor* to discover or foresee any such condition, risk, contingency or circumstance entitles the *Contractor* to a compensation event and/or any additional payment (whether by way of an addition to the Prices or otherwise) or to any change to the Completion Date and/or Key Dates. As between the *Contractor* and the *Employer*, the *Contractor* does not rely upon any survey, report or other document prepared by or on behalf of the *Employer* regarding any such matter as is referred to in this clause or as set out in the *Works Information* and/or *Site Information* and the *Employer* makes no representation or warranty as to the accuracy or completeness of any such survey, report or document. The *Employer* has no liability arising out of or in relation to any such survey, report or document or from any representation or statement, whether negligently or otherwise made, contained in such survey, report or other document.”
- Clause 27.11 Insert new clause “If requested by the *Employer*, the *Contractor* enters into a novation agreement within the period for reply in the form of the novation agreement in the form attached or in such other format as the *Employer* may reasonably require in order to novate the benefit and burden of this contract to another member of the TfL Group.”
- Clause 27.12 Insert new clause: The *Contractor* gives notice to the *Employer* within 10 days where
- there is any change in ownership of the *Contractor* where such change relates to fifty percent (50%) or more of the issued share capital of the *Contractor*; and
 - there is any change in ownership of the Holding Company where such change relates to fifty percent (50%) or more of the issued share capital of the Holding Company; and
 - (in the case of an unincorporated *Contractor*) there is any change in the management personnel of the *Contractor*, which

alone or taken with any other change in management personnel not previously notified to the *Employer*, equates to a change in the identity of fifty percent (50%) or more of the management personnel of the *Contractor*.”

Clause 30.4 Insert new clause: The *Contractor* proceeds regularly and diligently to Provide the *Works* in accordance with this contract, and uses all reasonable endeavours to prevent and/or reduce any delay in the progress of the *works*.”

Clause 45.3 For the avoidance of doubt, the *Contractor* continues to be liable for Defects (including Defects listed in the Defects Certificate and latent or inherent Defects) after the issue of the Defects Certificate, the operation of this section 4 and the termination of this contract for any reason (including breach by the *Employer*) in accordance with the *law of the contract*, subject to any time limit on claims and limitation on liability expressly provided by this contract”.

Clause 50.1A Insert new clause: The *Contractor* submits an application for payment to the *Project Manager* in a form approved by the *Project Manager* not less than fourteen days prior to each assessment date. The application states the sum that the *Contractor* considers to be due to him at the payment due date and the basis on which that sum is calculated.”

Clause 50.4 In line two delete "on or before the assessment date" and substitute "in accordance with clause 50.1A".

Clause 50.8 Insert new clause “All sums payable by or to the *Employer* or the *Contractor* are exclusive of Value Added Tax (“VAT”). Where VAT is chargeable on such sums, the payer pays, upon production of a valid VAT invoice by the payee, such VAT in addition to such sums.”

Clause 50.9 Insert new clause

(1) If a parent company guarantee has been required from the *Contractor* by the inclusion of optional clause X4 (parent company guarantee) then one quarter of the Price for Work Done to Date is retained in assessments of the amount due until the *Contractor* has provided the relevant guarantee in accordance with optional clause X4, and

(2) In addition or in the alternative if a performance bond has been required from the *Contractor* by the inclusion of optional clause X13 (performance bond) then one quarter of the Price for Work Done to

Date is retained in assessments of the amount due until the *Contractor* has provided the relevant performance bond in accordance with optional clause X13, and

(3) the *Employer* shall pay any amount retained pursuant to clause 50.9 (1) and/or 50.9 (2) to the *Contractor* within 10 days of the provision to the *Employer* of the relevant guarantee or performance bond. The total amount retained by the *Employer* pursuant to this clause 50.9 shall not exceed half of the Price for Work Done to Date.”

Clause 50.10 Insert new clause “In addition to any other rights of the *Employer* whether at law or equity under this contract, whenever

under this contract or any other contract between the *Employer* and the *Contractor* any sum of money is recoverable from or payable by the *Contractor* or

any damages, costs, charges, expenses, debts, sums or other amounts are reasonably and properly owed to, or incurred by, the *Employer* or where any member of the TfL Group is the *Employer* only, any member of the TfL Group arising out of or attributable to this contract or any other contract between the *Employer* and the *Contractor*

then the same may be deducted from any sum otherwise due or which at any time may otherwise become due to the *Contractor* under this contract.”

Clause 51.1 Delete the first sentence and replace it with:

“The *Project Manager* certifies a payment within one week of each assessment date and issues a copy of the certificate to the *Contractor*.”

Clause 51.1A Insert new clause: As soon as reasonably practicable and in any event not later than five days of receipt of a certificate in accordance with clause 51.1 the *Contractor* issues a valid VAT invoice for the amount stated on the certificate. The *Contractor* issues invoices in the manner and format required by the Contract Data and/or the *Works Information*.”

Clause 51.4 At the end of the clause add: The parties agree that the provisions in this *contract* for the payment of interest constitute a substantial remedy for late payment of any sum payable under this contract in accordance with section 8(2) of the Late Payment of Commercial Debts (Interest)

Act 1998

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| Clause 60.1(12) | Delete clause |
| Clause 60.1(13) | Delete clause |
| Clause 60.1(18) | After “of contract by” insert “or act of prevention on the part of”. After “ <i>Employer</i> ” insert “(except to the extent that it is caused or contributed to by the <i>Contractor</i> any Subcontractor or Indirect Subcontractor or any person for whom those parties are responsible)”. |
| Clause 60.1(19) | Delete and replace with: An event which is a Prevention Event and is not a breach of contract by the <i>Contractor</i> and is not one of the other compensation events stated in this contract provided that the <i>Contractor</i> is not entitled under this sub-clause 60.1(19) to any change to the Prices.” |
| Clause 61.7 | At the end insert: No change in Prices is made in respect of any compensation event notified after the <i>defects date</i> |
| Clause 63.3 | <p>At the end of the second sentence insert: “provided always that any delay is only assessed as giving rise to a change in the Completion Date or a Key Date if and to the extent that the compensation event is the sole or principal cause of the delay, and there is sufficient evidence to demonstrate that the compensation event has caused or (in the case of future delay) will cause delay to the Completion Date or a Key Date</p> <p>For the avoidance of any doubt, the <i>Employer</i> may assess and fix an earlier Completion Date or Key Date if the effect of the compensation event is to reduce the time required for Completion or meeting a Key Date.”</p> |
| Clause 63.4 | At the end of the clause delete the full stop and insert: “and the <i>Employer</i> has no financial liability to the <i>Contractor</i> other than amounts claimable and recoverable under this contract.” |
| Clause 63.6 | After “event includes” insert the words “reasonable and proportionate”. |
| Clause 70.1 | Delete and substitute No payment is made to the <i>Contractor</i> on account of Plant and Materials which are outside the Working Areas unless immediately on payment and without any further act being necessary title passes to the <i>Employer</i> and the <i>Contractor</i> ensures that the Plant and Materials are clearly tagged, identified as the <i>Employer’s</i> and set aside |

for the *Employer*. Risk in such Plant and Materials does not pass on payment.”

Clause 70.2 At the end insert: Notwithstanding the first sentence of clause 70.2, title passes to the *Employer* on payment being made by the *Employer* to the *Contractor* for Plant and Materials outside the Working Area

Clause 83.1 Delete clause 83.1 and replace with the following new clause: The *Contractor* is responsible for and indemnifies the *Employer*, his employees and agents against all expenses, liabilities, losses, claims, proceedings, compensation and costs whatsoever (“Losses”) incurred in respect of death or injury to any person, loss or damage to property (including property belonging to the *Employer* or for which he is responsible) and any other loss damage (other than the *works*) cost or expense including but not limited to that incurred or suffered by the *Employer* due to losses arising under its contracts with Others which may arise out of or in the course of or by reason of the *Contractor’s* performance, non-performance or part performance of this contract to the extent that such Losses are due to any negligence, breach of contract, breach of statutory duty, error, act, omission, or default by the *Contractor*, his employees, Subcontractors, Indirect Subcontractors or agents or due to matters, circumstances or events which are at the *Contractor’s* risk.”

Clause 83.2 Delete clause 83.2 and replace with the following new clause: The *Contractor’s* indemnity under sub-clause 83.1 remains in force for the duration of this contract and continues to survive the expiry or termination of the *Contractor’s* appointment under this contract and/or the expiry or termination of this contract. Without prejudice to the survival of any other clauses or schedules, the clauses or schedules of this contract necessary to give effect to the *Contractor’s* indemnity under clause 83.1 also survive expiry or termination of the *Contractor’s* appointment under this contract and/or the expiry or termination of this contract.

Clause 83.3 Add new clause 83.3 as follows: The *Contractor* is not responsible for and does not indemnify the *Employer* for Losses to the extent that such Losses are caused by the negligence of the *Employer*, his employees or agents.”

Clause 84.1 Delete “Insurance Table” and substitute with “Insurance Table set out in **Schedule 2.**” Replace the reference to Contract Data in line two and in line 3 with “Insurance Table set out in **Schedule 2.**”

At the end of the clause insert:

Subject to clause 84.4, the insurances provide cover from the *starting date* until the Defects Certificate or a termination certificate has been issued, whichever is the later (or for such other period as stated in the Contract Data).

Clause 84.2 Delete the “Insurance Table” in its entirety. Insert “not used”.

Clause 84.3 Insert a new clause as follows: The insurance requirements under this contract do not relieve the *Contractor* from any of his other obligations and liabilities under this contract”.

Clause 84.4 Insert a new clause:

(1) The *Contractor*, at his own cost, takes out and maintains professional indemnity insurance with a limit of indemnity of not less than the sum stated in **Schedule 2** for any one occurrence or series of occurrences arising out of any one event, in relation to the *works* provided always that such insurance is in place from the Contract Date until no less than twelve (12) years after Completion of the *works* the insurance premiums in respect of the insurance are at all times the responsibility of the *Contractor* and if such insurance ceases to be available to the *Contractor* (and/or design and build *Contractors* engaged in services of a similar size, nature and complexity as the *Contractor*) at commercially reasonable rates and terms (such non availability to be confirmed by an independent insurance agent operating in the UK market), excluding any increase in premiums attributable to the actions, omissions, claims record, error or defaults of the *Contractor*, the *Contractor* immediately notifies the *Employer* and the *Contractor* and the *Employer* then meet and the *Contractor* outlines the steps he intends to take to manage such risks. If the steps proposed by the *Contractor* are not reasonably acceptable to the *Employer*, the parties shall agree an alternative method of managing such risk.

(2) The *Contractor* carries out his obligations under this contract and ensures that his servants or agents carry out their respective obligations in such manner that all requirements, terms, conditions, stipulations and provisos of the insurance required by clause 84.4 (1) are at all times fully complied with”.

Clause 84.5 Insert a new clause: The *Contractor* provides insurance covering loss or damage to motor vehicles and liability to third parties arising out of the use of motor vehicles used in connection with the

works. Such insurance shall contain an indemnity to principals clause. The minimum amount of cover/indemnity provided by such insurance shall be the replacement cost in respect of loss or damage and the amount required by the applicable law in respect of third party liability.”

Clause 84.6 Insert a new clause: The *Employer* provides the insurances set out in the contract Schedule 2 to the extent such insurance is available at reasonable commercial rates. Nothing in such insurance changes the allocation of risks to the *Contractor* and the *Employer* as set out in clause 80 and clause 81.”

Clause 85.5 Insert a new clause: In relation to all claims made under insurances obtained by the *Employer* (as set out in the Contract Data Part One) the following provisions apply.

- (1) Unless the *Employer* otherwise decides, the *Contractor* authorises the *Employer* to submit all claims and the *Employer* submits and administers all claims.
- (2) Without prejudice to any other right, remedy or power of the *Employer*, the *Contractor* must provide such information, documents and records in connection with such claims as the *Employer* requires forthwith on demand, regardless of whether the *Employer* is submitting or administering the claim.
- (3) Without prejudice to any other right, remedy or power of the *Employer*, the *Contractor* authorises insurers to pay monies under the insurances to the *Employer*.
- (4) The *Employer*, after receipt of monies paid under the insurances, allocates and pays to each party insured that portion of the monies received for the purpose of rectifying the loss that each party insured has suffered. The *Contractor* bears the cost of all deductibles.
- (5) If the premiums payable by the *Employer* increase due to or as a result of claims caused by the *Contractor* arising from events within the control of the *Contractor* (including claims attributable to its Subcontractors and/or Indirect Subcontractors) then the *Contractor* shall pay to the *Employer* the increase in premium.”

Clause 85.6	Insert a new clause: The <i>Contractor</i> effects any insurances which it is required to provide under this contract promptly with a reputable insurer or insurers accepted by the <i>Project Manager</i> and authorised to underwrite such risks in the United Kingdom.”
Clause 85.7	Insert a new clause: The <i>Contractor</i> promptly notifies the <i>Project Manager</i> in writing of any claim, event, fact, matter or circumstance which may give rise to the right to make any claim on any insurance.”
Clause 85.8	Insert a new clause: The <i>Contractor</i> does not compromise, surrender, release, settle or waive any claim or potential claim which the <i>Contractor</i> has or may have the right to bring, or has brought, under any insurance without the prior consent of the <i>Project Manager</i> .”
Clause 85.9	Insert a new clause: The <i>Contractor</i> does not by any act or omission exclude, limit, reduce, vitiate, prejudice, lose or forgo any of the <i>Contractor’s</i> and/or the <i>Employer’s</i> rights to make or proceed with a claim against any insurer.”
Clause 85.10	Insert a new clause: If the <i>Contractor</i> is informed that any insurer providing insurance required by this contract intends to cancel or change any term of any insurance required by this contract, the <i>Contractor</i> promptly notifies the <i>Project Manager</i> of such intention.”
Clause 85.11	Insert a new clause: The <i>Contractor</i> promptly notifies the <i>Project Manager</i> in writing of any anticipated or actual event or circumstance which may lead or has led to any insurance required by this contract lapsing or being terminated or the cover under it being reduced or modified.”
Clause 85.12	Insert a new clause: To the extent that the <i>Contractor</i> is entitled to bring any claim or claims under any insurance relating to this contract then the <i>Contractor</i> deals with all such claims promptly and diligently and (subject to the requirements of this contract) in accordance with all insurer requirements and recommendations.”
Clause 85.13	Insert a new clause: The <i>Contractor</i> acknowledges that the <i>Employer</i> has the right to control and to supervise all dealings with the press, television, reporters, and any other media in relation to any incident, event, claim or action arising in connection with this contract.”
Clause 85.14	Insert a new clause: If and to the extent that the <i>Contractor</i> receives payment in respect of any damage or destruction following an

insurance claim in respect of damage or destruction of the *works* the *Contractor* shall apply the same to remedy the damage or destruction.”

- Clause 91.1 In R7 add after “amalgamate or reconstruct” the words “without insolvency”.
- Clause 91.2 Add a new paragraph at the end of the clause: “The *Employer* may also terminate if the *Project Manager* notifies that the *Contractor* has defaulted in one of the ways listed at R11-R13 on two occasions within a period of eight (8) weeks whether or not the *Contractor* has remedied the default within four (4) weeks of the second notification by the *Project Manager*.”
- Clause 91.4 Add at the start of the clause: “Save when the *Employer* has complied with Option Y (UK) 2 clause Y2.3,”
- Add at the end of the clause: “provided always that the *Contractor* has given written notification to the *Employer* of such intention to terminate at least five (5) weeks prior to any such termination and the *Employer* has not paid the amount due within that period.”
- Clause 91.6 Add at the start of the second bullet point: “providing the *Contractor* has given written notification to the *Employer* of an intention to terminate at least five (5) weeks prior to such termination and no instruction allowing the *works* to restart or start has been given within that period.”
- Add at the start of the third bullet point: “providing written notification of an intention to terminate is given to the other Party at least four (4) weeks prior to such termination and no instruction allowing the *works* to restart or start has been given within that period.”
- Clause 91.7 In the fourth bullet point after “experienced” insert “and prudent *Contractor* familiar with *works* similar to the *works* and exercising the foresight appropriate to such a”
- Clause 91.8 Insert a new clause: The *Employer* may terminate the contract if the *Contractor* is in breach of clause Z8 (Conflict of Interest) and/or clause Z11 (Corrupt Gifts and Payments), or if any of the events referred to at clause 27.12 occur (regardless of whether or not the notice required by clause 27.12 is given by the *Contractor*) (R22)”.
- Clause 92.1 Add a new sentence at the end of the clause “The *Contractor* makes available to the *Employer* within seven (7) days all information prepared in relation to the *works* in either electronic or documentary form including

all drawings, specifications, reports and any other information held in an agreed format”.

Clause 92.2 In procedure P2 after “assign the benefit of” insert “and/or enter into a novation of (in such format as the *Employer* may reasonably require)”.

Clause 94 Insert a new clause:

Ineffectiveness and cessation

94.1 Without prejudice to the *Employer's* right to terminate the *Contractor's* obligation to Provide the *Works* under clauses 90 to 93 or at common law, the *Employer* may terminate the *Contractor's* obligations to Provide the *Works* at any time following a Declaration of Ineffectiveness in accordance with the provisions of this clause 94.

94.2 In the event that a court makes a Declaration of Ineffectiveness, the *Employer* promptly notifies the *Contractor*. The Parties agree that the provisions of clause 94 shall apply as from the date of receipt by the *Contractor* of the notification of Declaration of Ineffectiveness. Where there is any conflict or discrepancy between the provisions of clauses 90 to 93 and this clause 94 or the Cessation Plan, the provisions of this clause 94 and the Cessation Plan prevail.

94.3 The Declaration of Ineffectiveness does not prejudice or affect any right, liability or remedy which has accrued or accrues to either Party prior to or after such Declaration of Ineffectiveness.

94.4 As from the date of receipt by the *Contractor* of the notification of the Declaration of Ineffectiveness, the Parties (acting reasonably and in good faith) agree or, in the absence of such agreement, the *Employer* reasonably determines an appropriate Cessation Plan with the object of achieving an orderly and efficient cessation of the *works* or (at the *Employer's* request) a transition of the *works* to the *Employer* or such other entity as the *Employer* may specify, and minimal disruption or inconvenience to the *Employer* or to public passenger transport services or facilities, in accordance with the provisions of this clause 94 and to give effect to the terms of the Declaration of Ineffectiveness.

94.5 Upon agreement, or determination by the *Employer*, of the Cessation Plan the Parties comply with their respective obligations under the Cessation Plan.

94.6 The *Employer* pays the *Contractor's* reasonable costs in assisting the

Employer in preparing, agreeing and complying with the Cessation Plan. Such costs are based on any comparable costs or charges agreed as part of this contract or as otherwise reasonably determined by the *Employer*. Provided that the *Employer* is not liable to the *Contractor* for any loss of profit, revenue goodwill or loss of opportunity as a result of the early termination of the *Contractor's* obligation to Provide the *Works* pursuant to this clause 94.”

Dispute Resolution

Option W2

Delete option

“W2.1

- The Parties follow the procedure below for the avoidance and resolution of any Dispute arising under or in connection with this contract.
- In this clause, time periods stated in days exclude Christmas Day, Good Friday and bank holidays.
- A Party may refer a Dispute to the *Adjudicator* at any time by way of a Notice of Adjudication. Subject to that, by notice in writing, a Party may refer a Dispute to the Parties’ Senior Representatives for consideration. The written notice identifies the Party’s Senior Representative, gives brief written particulars of the Dispute, including the provisions of this contract that are relevant to the Dispute, the relief sought and the basis for claiming the relief sought.
- Within fourteen (14) days of receipt of the notice of referral to Senior Representatives, the responding party provides the referring party with a brief written response and identifies the responding party’s Senior Representative.

Within a further fourteen (14) days the Senior Representatives meet and try to reach agreement to resolve the Dispute. Each Party bears its own costs and expenses in relation to any reference of a Dispute to the Senior Representatives. Any documents prepared or exchanged in relation to the reference of the Dispute to Senior Representatives and any discussions between the Senior Representatives are without prejudice and the Parties do not make use of or rely upon any without prejudice statements in any subsequent Dispute proceedings.

W2.2

- The Parties appoint the *Adjudicator*.

- The *Adjudicator* acts impartially and decides the Dispute as an independent adjudicator and not as an arbitrator.
- The Parties may choose an adjudicator (or replacement adjudicator, as necessary) jointly or a Party may ask the *Adjudicator nominating body* to choose an adjudicator. Such joint appointment or referral to the *Adjudicator nominating body* shall take place immediately upon the serving of a Notice of Adjudication, or immediately following the position of *Adjudicator* falling vacant.
- The *Adjudicator nominating body* chooses an adjudicator within four (4) days of the request. The chosen adjudicator becomes the *Adjudicator*.
- A replacement *Adjudicator* has the power to decide a Dispute referred to his predecessor but not decided at the time when his predecessor resigned or became unable to act. He deals with an undecided Dispute as if it had been referred to him on the date he was appointed.
- The *Adjudicator*, his employees and agents are not liable to the Parties for any action or failure to take action in an adjudication unless the action or failure to take action was in bad faith.

W2.3

- Before a Party refers a Dispute to the *Adjudicator*, he gives a Notice of Adjudication to the other Party with a brief description of the Dispute, including the provisions of this contract that are relevant to the Dispute, the relief sought, the basis for claiming the relief sought and the decision that he wishes the *Adjudicator* to make. Following the appointment of the *Adjudicator*, the Party immediately sends a copy of the Notice of Adjudication to the *Adjudicator*. Within three (3) days of the receipt of the Notice of Adjudication, the *Adjudicator* notifies the Parties
 - that he is able to decide the Dispute in accordance with the contract or
 - that he is unable to decide the Dispute and has resigned.

If the *Adjudicator* does not so notify within three (3) days of the issue of the Notice of Adjudication, either Party may act as if he has resigned.

- Within seven (7) days of a Party giving a Notice of Adjudication he
 - refers the Dispute to the Adjudicator,
 - provides the *Adjudicator* with the information on which he relies,

including the factual and contractual or other basis of the claim, the amount (if any) claimed and any supporting documents, and

- provides a copy of the information and supporting documents he has provided to the *Adjudicator* to the other Party.

Upon receipt of the Referral Notice, the *Adjudicator* must inform every Party to the Dispute of the date that it was received. Within fourteen (14) days from the referral, any Party, who is not the Party giving a Notice of Adjudication, provides the *Adjudicator* with the information on which he relies, including the factual and contractual or other basis of the claim, the amount (if any) claimed and any supporting documents.

These periods may be extended if the *Adjudicator* and Parties agree.

- If a matter disputed by the *Contractor* under or in connection with a subcontract is also a matter disputed under or in connection with this contract the *Contractor* may, with the consent of the Subcontractor and *Employer*, refer the subcontract dispute to the *Adjudicator* at the same time as the main contract referral. The *Adjudicator* then decides the disputes together and references to the Parties for the purposes of the dispute are interpreted as including the Subcontractor. The Parties comply with any reasonable request by the *Adjudicator* for more time to decide the disputes referred to him.

If this contract is a subcontract and the main contract provides for joint adjudication of disputes, the following procedure applies.

Within two (2) weeks of the notification of the dispute by the *Contractor* to the *Employer*, the *Employer* notifies the *Contractor* if the matter disputed is a matter disputed under or in connection with the main contract.

The *Employer* may then

- submit the subcontract dispute to the main contract adjudicator at the same time as the main contract submission and
- instruct the *Contractor* to provide any information which the *Employer* may require.

The main contract adjudicator then gives his decision on the disputes together.

- The *Adjudicator* may
 - make directions for the conduct of the Dispute
 - review and revise any action or inaction of the *Employer* related to the Dispute and alter a quotation which has been treated as having been accepted
 - take the initiative in ascertaining the facts and the law related to the Dispute
 - instruct a Party to provide further information related to the Dispute within a stated time and
 - instruct a Party to take any other action which he considers necessary to reach his decision and to do so within a stated time.
- If a Party does not comply with any instruction within the time stated by the *Adjudicator*, the *Adjudicator* may continue the adjudication and make his decision based upon the information and evidence he has received.
- The *Adjudicator* shall consider any relevant information submitted to him by any of the Parties and shall make available to them any information to be taken into account in reaching a decision.
- A communication between a Party and the *Adjudicator* is communicated to the other Party at the same time.
- Save as required by law, the Parties and the *Adjudicator* keep information relating to the Dispute confidential.
- If the *Adjudicator's* decision includes assessment of additional cost or delay caused to the *Contractor*, he makes his assessment in the same way as a compensation event is assessed.
- The *Adjudicator* decides the Dispute and notifies the Parties of his decision and his reasons within twenty-eight (28) days of the Dispute being referred to him. This period may be extended by up to fourteen (14) days with the consent of the Parties or by any other period agreed by the Parties.
- After the giving of a Notice of Adjudication, the Parties may seek to agree how the *Adjudicator* allocates the costs and expenses of the adjudication, excluding the *Adjudicator's* own remuneration and

expenses, as between the Parties.

- Subject to any agreement of the Parties, the *Adjudicator* allocates payment of his own remuneration and expenses as between the Parties.
 - Unless and until the *Adjudicator* has notified the Parties of his decision the Parties proceed as if the matter disputed was not disputed.
 - If the *Adjudicator* does not make his decision and notify it to the Parties within the time provided by this contract the Parties and the *Adjudicator* may agree to extend the period for making his decision. If they do not agree to an extension, either Party may act as if the *Adjudicator* has resigned.
 - The *Adjudicator's* decision is binding on the Parties unless and until revised by the courts pursuant to any legal proceedings and is enforceable as a matter of contractual obligation between the Parties and not as an arbitral award. The *Adjudicator's* decision is final and binding if neither Party has notified the other within the time required by this contract that he is dissatisfied with a matter decided by the *Adjudicator* and intends to refer the matter to the courts.
 - The *Adjudicator* may on his own initiative or on the application of a Party correct his decision so as to remove a clerical or typographical error arising by accident or omission. Any correction of a decision must be made within five days of the delivery of the decision to the Parties. As soon as possible after correcting a decision in accordance with this paragraph, the *Adjudicator* must deliver a copy of the corrected decision to each of the Parties to the contract. Any correction of a decision forms part of the decision
 - If the *Adjudicator's* decision changes an amount notified as due, payment of the sum decided by the *Adjudicator* is due not later than seven days from the date of the decision or the final date for payment of the notified amount whichever is the later.
- W2.4
- Unless the Parties agree otherwise, a Party does not refer any Dispute under or in connection with this contract to the courts unless it has first been decided by the *Adjudicator* in accordance with this contract.

- If, after the *Adjudicator* notifies his decision, a Party is dissatisfied, that Party may notify the other Party of the matter which he disputes and state that he intends to refer it to the courts. The Dispute may not be referred to the courts unless this notification is given within six (6) weeks of the notification of the *Adjudicator's* decision.
- The courts settle the Dispute referred to it. The courts have the powers to reconsider any decision of the *Adjudicator* and to review and revise any action or inaction of the *Employer* related to the Dispute. A Party is not limited in court proceedings to the information or evidence put to the *Adjudicator*.
- A Party does not call the *Adjudicator* as a witness in court proceedings."
-

Assessing the amount due

Y2.1.1 Insert new clause 50.11:

"If the *Contractor's* employment is terminated under clause 91.1 because the *Contractor* has become insolvent within the meaning of Section 113 of the Act (R10A), the *Employer* need not pay any sum due to the *Contractor* other than any amount due to him under clause 90.4 either:

- where the *Contractor* becomes insolvent prior to the prescribed period before the final date for payment, provided that the *Employer* or *Project Manager* issues a Pay Less Notice notifying the *Employer's* intention not to pay such sum, or

in any event, if the *Contractor* becomes insolvent after the prescribed period before the final date for payment."

▪

Payment

Y2.1.2 Delete the first sentence of clause 51.1 and substitute:

"The *Project Manager* certifies a payment not later than five days after each payment due date and issues a copy of the payment certificate to the *Contractor*."

Y2.1.3 Insert at the end of clause 51.1A:

"The *Contractor* issues a corrected VAT invoice, where required, within five days of receipt of any Pay Less Notice."

Y2.1.4 Insert new clause 51.1B:

"If a certificate is not issued by the *Project Manager* in accordance with clause 51.1, the sum to be paid by the *Employer* is, subject to clause Y2.3, the sum stated as due in the *Contractor's* application in accordance with clause 50.1A."

Dates for payment

Y2.2 Delete the text of Y2.2 and substitute:

"The date on which a payment becomes due is the later of:

- the assessment date; and
- fourteen days after the date of receipt by the *Project Manager* of the *Contractor's* application for payment in accordance with clause 50.1A.

The final date for payment is twenty eight days or a different period for payment if stated in the Contract Data after the date on which payment becomes due."

Y2.3 Delete "seven days" in line two of Y2.3 and substitute: "one day"

Insert at the end of Y2.3: "In the case of the *Employer*, the notice may be given on his behalf by the *Project Manager*."

Suspension of Performance

Y2.4 Insert at the end of Y2.4: "whether or not the event has been notified by the *Contractor* within the period specified in clause 61.3."

Termination

Y2.6.1 In the Termination Table in clause 90.2:

Insert 'or R10A' after 'R1-R15'

Insert 'R10A,' after 'R1-R10'

Y2.6.2 Insert a new main bullet at the end of clause 91.1:

- If the other Party has become insolvent as defined in Section 113 of the Act (R10A).

Z Clauses

The following Z Clauses are incorporated into the Conditions of Contract:

Z2 Warranties

Z2.1 The *Contractor*, within fourteen (14) days of the *Project Manager's* request, provides to the *Employer* collateral warranties executed as deeds in the forms attached in favour of

- the *Employer* and any member of the TfL Group notified to the *Contractor*

Z2.2 The *Contractor*, within fourteen (14) days of the *Project Manager's* request, procures that the "Principal Subcontractors" enter into collateral warranties executed as deeds in the forms attached in favour of

-the *Employer*, and

- any member of the TfL Group notified to the *Contractor* by the *Employer*

and "the Principal Subcontractors" means all Subcontractors with a design responsibility (including those responsible for the selection of goods and materials and the supply of proprietary products and systems) and such other Subcontractors as the *Employer* may from time to time by notice in writing to the *Contractor* specify as being Principal Subcontractors.

Z3 Employer's business

The *Contractor* acknowledges that it

- has sufficient information about the *Employer* and the *works*, and is aware of the *Employer's* processes and business, and
- has made all appropriate and necessary enquiries to enable it to Provide the *Works* in accordance with this contract, and
- is aware of the purposes for which the *works* are required, and
- shall neither be entitled to any additional payment nor excused from any obligation or liability under this contract due to any misinterpretation or misunderstanding by it of any fact relating to the *works*.

Z4 Best value

The *Contractor* acknowledges that the *Employer* is a best value authority for the purposes of the Local Government Act 1999 and as such the *Employer* is required to make arrangements to secure continuous improvement in the way it exercises its functions, having regard to a combination of economy, efficiency and effectiveness.

The *Contractor* assists the *Employer* to discharge the *Employer's* duty where possible, and in doing so, inter alia carries out any reviews of the *works* reasonably requested by the *Employer* from time to time. The *Contractor* negotiates in good faith (acting reasonably) any changes to this contract in order for the *Employer* to achieve best value.

Z5 Data Protection, Freedom of Information and Data Transparency

- Z5.1** The *Contractor* complies with all of its obligations under the Data Protection Act 1998 and if processing personal data (as such terms are defined in section 1(1) of that Act) on behalf of the *Employer* ("TfL Personal Data"), the *Contractor* only carries out such processing in order to Provide the *Works* and in accordance with instructions from the *Employer*.
- Z5.2** When the *Contractor* receives a written request from the *Employer* for information about, or a copy of, TfL Personal Data, the *Contractor* supplies such information or data to the *Employer* within such time and in such form as specified in the request (such time to be reasonable) or if no period of time is specified in the request, then within fourteen (14) days from the date of the request.
- Z5.3** The *Employer* remains solely responsible for determining the purposes and manner in which TfL Personal Data is to be processed. The *Contractor* does not share any TfL Personal Data with any Subcontractor, Indirect Subcontractor or third party unless there is a written agreement in place which requires the SubContractor, Indirect Subcontractor or third party to only process TfL Personal Data in accordance with the *Employer's* instructions to the *Contractor*, and comply with the same data protection requirements that the *Contractor* is required to comply with under this contract.
- Z5.4** The *Contractor* acknowledges that the *Employer* is subject to the Freedom of Information Act 2000 and all subordinate legislation made under it, together with the Environmental Information Regulations 2004 (and any provisions that replace these) and any guidance issued by the Information Commissioner, the Ministry of Justice, or the Department for Environment Food and Rural Affairs (including in each case its successors or assigns) in relation to such legislation and agrees to assist and co-operate with the *Employer* to enable the *Employer* to comply with its obligations under such legislation including providing to the *Employer* such information as the *Employer* may reasonably request concerning this contract within two (2) days of a request from the *Employer*. The *Contractor* further acknowledges that the *Employer* may be obliged under such legislation to disclose information without consulting or obtaining consent from the *Contractor*. Without prejudice to the generality of the foregoing the *Contractor* shall transfer to the *Employer* any request for information under the Act that it receives as soon as reasonably practicable. The *Contractor* shall not itself respond to any person making such a request save to acknowledge receipt, unless expressly authorised to

do so by the *Employer*. This clause shall survive the expiry or termination of this contract.

Z5.5 The *Contractor* acknowledges that the *Employer* is subject to the Transparency Commitment. Notwithstanding clause Z5.4 and clause Z7, the *Contractor* gives its consent for the *Employer* to publish the Contract Information to the general public.

Z5.6 The *Employer* may in its absolute discretion redact all or part of the Contract Information prior to its publication. In doing so and in its absolute discretion the *Employer* may take account of the exemptions/exceptions that would be available in relation to information requested under the Freedom of Information Act 2000 and all subordinate legislation made under it, the Environmental Information Regulations 2004 (and any provisions that replace these) and any guidance issued by the Information Commissioner, the Ministry of Justice, or the Department for Environment Food and Rural Affairs (including in each case its successors or assigns) in relation to such legislation. The *Employer* may in its absolute discretion consult with the *Contractor* regarding any redactions to the Contract Information to be published pursuant to clause Z5.5. The *Employer* makes the final decision regarding publication and/or redaction of the Contract Information.

Z6 Access to Premises

Z6.1 Any TfL Premises made available to the *Contractor* in connection with this contract shall be free of charge and shall be used by the *Contractor* solely so the *Contractor* can Provide the *Works* provided, for the avoidance of doubt, that the *Contractor* is responsible for its own costs or travel including any congestion charging and/or low emission charging. The *Contractor* shall

- have the use of such TfL Premises as licensee and shall not have or purport to claim any sole or exclusive right to possession or to possession of any particular part of such TfL Premises,
- vacate such TfL Premises upon the termination or expiry of the contract or at such earlier date as the *Employer* may determine,
- not exercise or purport to exercise any rights in respect of any TfL Premises in excess of those granted under this clause Z6.1,
- ensure that the *Contractor's* employees, Subcontractors and Indirect Subcontractors and persons connected to them carry any identity passes issued to them by the *Employer* at all relevant times and comply with the *Employer's* security procedures as may be notified by the *Employer* from time to time, and

- not damage the TfL Premises or any assets on the TfL Premises.

Z6.2 Nothing in this clause Z6 shall create or be deemed to create the relationship of landlord and tenant in respect of any TfL Premises between the *Contractor* and any member of the TfL Group.

Z6.3 The *Employer* shall be under no obligation to provide office or other accommodation facilities or services (including telephony and IT services) to the *Contractor* except as may be specified in the *Works Information*.

Z6.4 The *Employer* is responsible for maintaining the security of TfL Premises in accordance with its standard security requirements. The *Contractor* shall comply with all of the *Employer's* security requirements while on TfL Premises, and shall ensure that all of the *Contractor's* employees, Subcontractors, Indirect Subcontractors and persons related to them comply with such requirements. Upon request, the *Employer* shall provide the *Contractor* with details of the *Employer's* security procedures.

Z6.5 The *Employer* reserves the right under this contract to refuse to admit to any TfL Premises any of the *Contractor's* employees, Subcontractors, Indirect Subcontractors and persons related to them who fail to comply with any of the *Employer's* policies and standards referred to in this contract.

Z6.6 The *Employer* reserves the right under this contract to instruct any of the *Contractor's* employees, Subcontractors, Indirect Subcontractors and persons related to them personnel to leave any TfL Premises at any time for any reason and such personnel shall comply with such instructions immediately.

Z6.7 Where the *Contractor* is required to access (with appropriate permission and approval of the *Employer*) any areas under the control of any of the *Employer's* PPP or PFI *Contractors*, the *Contractor* must comply (and ensure that any Subcontractor's and Indirect Subcontractors comply) with all of their rules, regulations and standards as appropriate.

Z7 **Not Used**

Z8 **Conflict of Interest**

Z8.1 The *Contractor* acknowledges and agrees that it does not have any interest in any matter where there is or is reasonably likely to be a conflict of interest with the provision of the *works* or any member of the TfL Group, save to the extent fully disclosed to and approved in writing by the *Employer*.

Z8.2 The *Contractor* undertakes ongoing and regular conflict of interest checks throughout the duration of this contract and in any event not less than once in every

six months and notifies the *Employer* in writing immediately on becoming aware of any actual or potential conflict of interest with the provision of the *works* under this contract or any member of the TfL Group and shall work with the *Employer* to do whatever is necessary (including the separation of staff working on, and data relating to, the *work* from the matter in question) to manage such conflict to the *Employer's* satisfaction, provided that, where the *Employer* is not so satisfied (in its absolute discretion) it shall be entitled to terminate the contract.

Z9 Compliance with Policies

Z9.1 The *Contractor* notifies its personnel Subcontractors and Indirect Subcontractors and the *Employer* of any health and safety hazards that exist or that may arise in connection with the provision of the *works* of which the *Contractor* is aware or ought reasonably to be aware.

Z9.2 The *Contractor* undertakes that all its personnel and those of its SubContractors and Indirect Subcontractors comply with all of the *Employer's* policies and standards that are relevant to the provision of the *works*, including those relating to safety, security, business ethics, responsible procurement, work place harassment, drugs and alcohol and illegal substances and any other on site regulations specified by the *Employer* for personnel working at TfL Premises or accessing the *Employer's* computer systems. The *Employer* provides the *Contractor* with copies of such policies on request.

Z9.3 The *Contractor* shall as he Provides the *Works* (while taking into account best available techniques not entailing excessive cost and the best practicable means of preventing, or counteracting the effects of any noise or vibration) have appropriate regard (insofar as the *Contractor's* activities may impact on the environment) to the need to preserve and protect the environment and to the need to avoid, remedy and mitigate any adverse effects on the environment,

Z10 Records, Audit and Inspection

Z10.1 In this clause Z10

“Records” means

- all necessary information for the evaluation of claims or compensation events, whether or not relating to Subcontractors and/or Indirect Subcontractors,
- management accounts, information from management information systems and any other management records,
- accounting records (in hard copy as well as computer readable data),
- sub-contract files (including proposals of successful and unsuccessful

bidders, bids, rebids, etc.),

- original estimates,
- estimating worksheets,
- correspondence,
- compensation event files (including documentation covering negotiated settlements),
- schedules including capital *works* costs, timetable and progress towards Completion,
- general ledger entries detailing cash and trade discounts and rebates,
- commitments (agreements and leases) greater than £5,000 (five thousand pounds),
- detailed inspection records,
- such materials prepared in relation to the invitation to tender and subsequent tendering process relating to cost breakdowns, in each case which have not already been provided to the *Employer*, and
- accounts and records of the Price for *Works Done* to Date and all other amounts to be paid to the *Contractor* under this contract.

Z10.2 The *Contractor* maintains and procures in each subcontract that each of his Subcontractors, maintains and retains the Records for a minimum of twelve (12) years from Completion with respect to all matters for which the *Contractor* and his Subcontractors and Indirect Subcontractors are responsible under this contract. The *Contractor* procures that each subcontract contains open-book audit rights in favour of the *Employer* and any novated *Employer* and their authorised representatives.

Z10.3 The *Contractor* undertakes and procures that his Subcontractors and Indirect Subcontractors undertake their obligations and exercise any rights which relate to the performance of this contract on an open-book basis. The *Employer* and/or any novated *Employer* and their authorised representatives may from time to time audit on an open-book basis and check any and all information regarding any matter relating to the performance of or compliance with this contract, including without limitation, inspection of the *Contractor's* technical and organisational security measures for the protection of personal data, any aspect of the *Contractor's* operations, costs and expenses, sub-contracts, claims related to compensation

events, and financial arrangements or any document referred to therein or relating thereto. The *Employer's* and any novated *Employer's* rights pursuant to this sub-clause include the right to audit and check and to take extracts from any document or record of the *Contractor* and/or his Subcontractors and Indirect Subcontractors including, without limitation, the Records.

Z10.4 The *Contractor* promptly provides (and procures that his Subcontractors and Indirect Subcontractors promptly provide) all reasonable co-operation in relation to any audit or check including, to the extent reasonably possible in each particular circumstance by granting or procuring the grant of access to any premises used in the *Contractor's* performance of this contract, whether the *Contractor's* own premises or otherwise, granting or procuring the grant of access to any equipment or system (including all computer hardware and software and databases) used (whether exclusively or non-exclusively) in the performance of this contract, wherever situated and whether the *Contractor's* own equipment or otherwise, making any contracts and other documents and records required to be maintained under this contract (whether exclusively or non-exclusively) available for audit and inspection, providing a reasonable number of copies of any subcontracts and other documents or records reasonably required by the *Employer's* and/or any novated *Employer's* auditor and/or granting copying facilities to the *Employer's* and/or any novated *Employer's* auditor for the purposes of making such copies, and complying with the *Employer's* and/or any novated *Employer's* reasonable requests for access to senior personnel engaged by the *Contractor* in the performance of this contract and/or the *works*.

Z11 Corrupt Gifts, Fraud and the Payment of Commission

Z11.1 The *Contractor* does not, and ensures that its employees, agents Subcontractors and Indirect Subcontractors do not, pay any commission, fees or grant any rebates to any employee, officer or agent of the *Employer* or any member of the TfL Group nor favour any employee, officer or agent of the *Employer* or any member of the TfL Group with gifts or entertainment of significant cost or value nor enter into any business arrangement with employees, officers or agents of the *Employer* or any member of the TfL Group other than as a representative of the *Employer*, without the *Employer's* prior written approval.

Z11.2 If any fraudulent activity comes to the attention of the *Contractor* in relation to this contract the *Contractor* notifies the *Employer* by the most expeditious means available. The *Contractor* cooperates with the *Employer* in the investigation of any fraudulent activity and implements any changes in the procedures or working practices employed under the contract as may be necessary to ensure that the likelihood or opportunity for a recurrence of such fraud is minimised. The *Contractor* ensures that no fraudulent activity is committed by the *Contractor*, its agents,

employees, Subcontractors or Indirect Subcontractors.

Z11.3 The *Employer* has the right to audit any and all such records necessary to confirm compliance with clause Z11.1 and Z11.2 at any time during the duration of this contract and during the 6 year period following expiry or termination of this contract. Breach of clause Z11.1 and/or Z11.2 shall entitle the *Employer* to terminate this contract and any other contracts between the *Contractor* and the TfL Group immediately.

Z11.4 In the event of any breach of this clause Z11 by the *Contractor* the *Employer* recovers any loss liability or damage incurred or suffered as a result of the breach of this clause by the *Contractor*.

Z12 Quality Statement

Z12.1 The quality statement sets out the *Contractor's* proposals for the management and resourcing of the *works*.

Z12.2 The *Contractor* warrants that the representations contained in the quality statement section of his tender are accurate in every respect and may be fully relied upon by the *Employer*, including where the standards represented exceed the minimum originally specified by the *Employer*.

Z12.3 Should any discrepancy arise between the quality statement and other contract documents the Works Information takes precedence except where the quality statement includes a standard which exceeds that specified in the other contract documents, in which case the quality statement shall take precedence over those other documents.

Z13 The *Contractor* operates a quality management system complying with BS EN ISO 9002 for his performance of the contract. The management, organisation, responsibilities, procedures, processes, resources and programme for the quality management system from design (where applicable) to procurement, construction, completion, testing and commissioning of the *works* until the defects date is contained in a quality plan which is submitted to the *Employer* in accordance with the *Works Information*. Any Subcontractor appointed by the *Contractor* operates a quality system enabling him to comply with the *Contractor's* quality management system.

Z14 Not Used

Z15 Nuisance

Z15.1 The *Contractor* at all times prevents any public or private nuisance (including, without limitation, any such nuisance caused by noxious fumes, noisy working

operations or the deposit of any material or debris on the public highway) or other interference with the rights of any adjoining or neighbouring landowner, tenant or occupier or any statutory undertaker arising out of the carrying out of the *works* or of any obligation under clause 43 and assists the *Employer* in defending any action or proceedings which may be instituted in relation to the same. The *Contractor* is responsible for and indemnifies the *Employer* from and against any and all expenses, liabilities, losses, claims and proceedings whatsoever resulting from any such nuisance or interference, except only where such nuisance or interference is the consequence of an instruction of the *Employer*.

Z15.2 Without prejudice to the *Contractor's* obligations under clause Z15.1, the *Contractor* ensures that there is no trespass on or over any adjoining or neighbouring property arising out of the *works* or of any obligation under clause 43. If the carrying out of the *works* or of any obligation under clause 43 is likely to necessitate any interference (including, without limitation, the oversailing of tower crane jibs) with the rights of adjoining or neighbouring owners or occupiers, then the *Contractor*, at no cost to the *Employer*, obtains the prior written agreement of such owners and/or occupiers to the work, and such agreement will be subject to the approval of the *Employer* before execution. The *Contractor* complies in every respect with any conditions in any such agreement.

Z16 Construction Industry Scheme

Z16.1 Where the Construction Industry Scheme applies to any payment to be made by the *Employer* to the *Contractor* under this contract, the obligations of the *Employer* to make such payment will be subject to the provisions of the Construction Industry Scheme. Unless and until HM Revenue and Customs confirms to the *Employer* that the *Employer* can make any payment to the *Contractor* without any tax deduction, the *Employer* deducts any tax from payments due to the *Contractor* under this contract at the rate specified by HM Revenue and Customs pursuant to the Construction Industry Scheme before paying the balance to the *Contractor*. The *Employer* accounts to HM Revenue and Customs for any tax so deducted.

Z17 Use of Existing Services

The *Employer* does not warrant the suitability or availability of installations and services for the *Contractor's* use and the *Contractor* shall take measures to supplement them as necessary.

Z18 Not Used

Z19 Equality & Diversity Compliance

Z19.1 Without limiting the generality of any other provision of the contract, the *Contractor*:

- does not unlawfully discriminate;

- procures that its personnel do not unlawfully discriminate; and
- uses reasonable endeavours to procure that its Subcontractors and any Indirect Subcontractors do not unlawfully discriminate in relation to the *works* within the meaning and scope of:
- the Sex Discrimination Act 1975;
- the Race Relations Act 1976 (including the Race Relations (Amendment) Act 2000);
- the Disability Discrimination Act 1995 (as amended by the Disability Discrimination Act 2005);
- the Employment Equality (Sexual Orientation) Regulations 2003;
- the Employment Equality (Religion or Belief) Regulations 2003;
- the Equality Act 2006;
- and any other relevant enactments in force from time to time relation to discrimination in employment.

Z19.2 The *Contractor* acknowledges that the *Employer* is under a duty under Section 71 of the Race Relations Act 1976 to have due regard to the need to eliminate unlawful racial discrimination and to promote equality of opportunity and good relations between persons of different racial groups. In the performance of the contract, the *Contractor* assists and co-operates and uses reasonable endeavours to procure that its Subcontractors and Indirect Subcontractors assist and co-operate with the *Employer* where possible in satisfying this duty.

Z19.3 The *Contractor* acknowledges that the *Employer* is under a duty by virtue of a Mayor of London's direction under Section 155 of the Greater London Authority Act 1999 (in respect of the Greater London Authority's duty under section 404(2) of the Greater London Authority Act 1999) to have due regard to the need to:

- promote equality of opportunity for all persons irrespective of their race, gender, disability, age, sexual orientation or religion;
- eliminate unlawful discrimination; and
- promote good relations between persons of different racial groups, religious beliefs and sexual orientation,

and in the performance of the contract, the *Contractor* assists and co-operates and uses reasonable endeavours to procure that its Subcontractors and Indirect Subcontractors assist and co-operate with the *Employer* where possible to enable the *Employer* to satisfy its duty.

Z19.4 The *Employer's* Workplace Policy requires the *Employer's* own staff and those of its Subcontractors and Indirect Subcontractors to comply fully with the Workplace Policy to eradicate harassment in the workplace. The *Contractor*:

- ensures that its staff, and those of its Subcontractors and Indirect Subcontractors who are engaged in the performance of the contract are fully conversant with the requirements of the Workplace Policy;
- fully investigate allegations of workplace harassment in accordance with the Workplace Policy; and
- ensures that appropriate effective action is taken where harassment is found to have occurred.

Z19.5 The *Contractor* acknowledges that the *Employer* is under a duty under Section 49A of the Disability Discrimination Act 1995 (as amended by the Disability Discrimination Act 2005) to have due regard to the need to

- eliminates discrimination that is unlawful under the Disability Discrimination Acts;
- eliminate harassment of disabled persons related to their disabilities and promote equality of opportunity between disabled persons and other persons;
- take steps to take account of disabled persons' disabilities (even when that involves treating disabled persons more favourably than other persons); and
- promote positive attitudes towards disabled persons and encourage participation by disabled persons in public life

and in the performance of the contract, the *Contractor*, assists and co-operates, and uses reasonable endeavours to procure that its Subcontractors and Indirect Subcontractors assist and co-operate, with the *Employer* where possible to enable the *Employer* to satisfy its duty.

Z19.6 The *Contractor* assists and co-operates with the *Employer* and uses reasonable endeavours to procure that its Subcontractors and Indirect Subcontractors assist and co-operate where possible with the *Employer's* compliance with its duties under section 1 and section 149 of the Equality Act 2010 as and when section 1 and/or section 149 come into force, including any amendment or re-enactment of section 1 or section 149, and any guidance, enactment, order, regulation or instrument made pursuant to these sections.

Z20 Considerate Constructors Scheme

The *Contractor*

- registers the *site* under the Considerate Constructors Scheme
- complies with the Considerate Constructors Scheme's Code of Considerate Practice in Providing the Works.

Z21 Design Check Certificate

All design prepared by the *Contractor* and submitted to the *Project Manager* is supported by a design check certificate in a form approved by the Project Manager and signed by an appropriately qualified and experienced engineer other than the engineer who prepared the design.

If the certifying engineer is not an employee of the *Contractor*, he is a Subcontractor.

Z22 Single Point Design Responsibility

Z22.1 In this Option, "Employer's Design Information" means any drawings, proposals, specifications, method statements, designs, plans, schemes or other documents, or concepts prepared or developed by the Employer and included in the Works Information.

Z22.2 The *Contractor* is deemed to have scrutinized, prior to the Contract Date, the Employer's Design Information. The *Contractor* is responsible for the design of the works and for the accuracy of such Employer's Design Information except as stated in clause Z21.3 below.

Z22.3 The Employer is not responsible for any error, inaccuracy or omission of any kind in the Employer's Design Information as originally included in the contract. The Employer does not give any representation or warranty as to the accuracy, status or completeness of the Employer's Design Information, except as stated below.

The Employer is responsible for the correctness of the following elements of the Employer's Design Information:

- (a) data and information stated in the Works Information as being the responsibility of the Employer,
- (b) definitions of intended purposes of the works or any part thereof, and
- (c) criteria for the testing and performance of the completed works.

Z22.4 Where there is a mistake, inaccuracy or discrepancy in or omission from the Employer's Design Information, the *Contractor* informs the *Project manager* in writing of his proposed amendment to remove the mistake, inaccuracy, discrepancy or omission. Within two weeks, the *Project manager* may consent to the *Contractor's* proposed amendment or comment in writing on such an amendment provided that the *Project manager* does not unreasonably withhold his consent to a proposed amendment. The *Contractor* takes account of such comments and resubmits his proposed amendment to the *Project manager*. Such process is repeated until the *Project manager* accepts the *Contractor's* proposed amendment.

Z22.5 The following shall not give rise to a compensation event:

- (a) anything which is the *Contractor's* responsibility as set out in this Option Z22;

- (b) any comment, failure to comment or delay in commenting by the Project Manager in connection with this Option Z22 (which shall also not be treated as an act of prevention or breach of contract by the Employer); or
- (c) any discrepancy, mistake, inaccuracy in, or omission from, the *Contractor's* design and/or the Employer's Design Information.

Z23 Delay Damages for Key Dates

- Z23.1 The *Contractor* pays delay damages at the rate stated in the Contract Data from the Key Date for each day until the condition to be met has been met.
- Z23.2 If the Key Date is changed to a later date after delay damages have been paid, the Employer repays the overpayment of damages with interest. Interest is assessed from the date of payment to the date of repayment and the date of repayment is an assessment date.



Royal Docks Capacity Enhancement Custom House Station

2014 - 077

Contract Data

Annexure 2



CONTRACT DATA

Part one - Data provided by the *Employer*

**Statements given in all
contracts**

1. General
 - The *conditions of contract* are the NEC3 Engineering and Construction Contract (Third edition June 2005 with amendments June 2006 and April 2013) core clauses together with the clauses for main Option A, dispute resolution Option W2, secondary Options X4, X5, X6, X7, X15, X16, X18, Y(UK)2, Y(UK)3 and Amendments to Conditions of Contract in Schedule 1 hereto.
 - The *works* are:

The demolition of the existing Custom House DLR station and design and construction of the new station incorporating a new mezzanine level over the full length of the existing platform to tie into the Crossrail Bridge all as more fully described in the Works Information.
 - The *Employer* is:

Name: Docklands Light Railway Limited

Address: Castor Lane, Poplar, London, E14 0BL
 - The *Project Manager* is:

Name: [REDACTED]

Address: Docklands Light Railway, Castor Lane, Poplar, London, E14 0BL
 - The *Supervisor* is:

Name: As notified to the *Contractor* by the *Project Manager* from time to time

Address: Docklands Light Railway, Castor Lane, Poplar, London, E14 0BL
 - The *Adjudicator* is: as appointed by the President or Vice President of the Royal Institution of Chartered Surveyors.



2. Works Information

- The Works Information is in the document entitled “**Royal Docks Capacity Enhancement, Custom House Station – Works Information**” appended hereto under Annexure 4 and includes all documents referenced to therein.
3. Site Information

- The Site Information is in the document entitled “**Royal Docks Capacity Enhancement, Custom House Station – Site Information**” appended hereto under Annexure 5 and includes all documents referenced to therein.
 - The *boundaries of the site* are:
4. Language

- The *language of this contract* is: English
5. Period for Reply

- The *period for reply* is: 14 days
6. Tribunal

- The *tribunal* is The courts of England and Wales
7. Time

- The *starting date* is
 - AD1 - The *access date* to the *site* is
 - The *completion date* for the whole of the *works* is



8. X5 Sectional Completion

- The *completion date* for each *section* of the *works* is

<i>Section</i>	<i>description</i>	<i>completion date</i>
----------------	--------------------	------------------------

1	Achieve Station Opening	
---	-------------------------	--

9. Programme

- If no programme is identified in part two of the Contract Data the Contractor is to submit a first programme for acceptance within of the Contract Date.
- The Contractor submits revised programmes at intervals no longer than
- The *Contractor's* programme complies with all dates and timescales set out in the Contract Data.

10. Testing and Defects

- The *defects date* is weeks after Completion of the whole of the *works*.
- The *defect correction period* is weeks.

11. Payment

- The *currency of this contract* is **GBP Sterling**
- The *assessment interval* is every (not more than five) accounting period of the *Employer*, such periods to be advised to the *Contractor* annually.
- Payment is made in accordance with the Payment Schedule in the Activity Schedule
- The *interest rate* is per annum above the base lending rate of the Bank of England
- The *Contractor* submits invoices on the basis of certification and such invoices contain the Contractor's Vendor Number and the contract Purchase Order Number. The *Contractor* also submits a copy of the relevant Payment Certificate signed by the *Project Manager* with his invoice.
- The period for payment is

.....

12. Additional
Employer's
Risks

- There are no additional *Employer's* risks:

13. Delay
Damages

- X5 Delay damages for each *section* of the *works* are:

<i>Section</i>	<i>description</i>	<i>amount per day</i>
1	Delayed Station Opening	██████████

- Z23 Delay damages for the Key Dates are:

	<i>Key Date</i>	<i>Condition to be met</i>	<i>Delay Damages</i>
KD1	██████████ ██████████ ██████████ ██████████	Both up and down track are to be open for Excel Events for the; ██████████	██████████ Per day or part thereof
KD2	██████████ ██████████ ██████████ ██████████ ██████████ ██████████	Both up and down track are to be open for Excel Events for the; ██████████ ██████████	██████████ Per day or part thereof
KD3	██████████ ██████████	All construction work which would require a possession of Crossrail must be complete before test train running commences.	██████████ Per day or part thereof

- X7 Delay damages for Completion of the whole of the *works* are:

██████████ per day or part thereof



14. X6 Bonus for early *completion*
- X6 is used for X5
- The bonus for each *section* of the *works* is
- | Section | description | amount per day |
|---------|-----------------------|----------------|
| 1 | Early Station Opening | |
15. Possession Overrun
- Possession Overrun will be charged at: per hour or part thereof
16. X13 Performance Bond
- Not used.
17. X4 Parent Company Guarantee
- The *Contractor* provides a Parent Company Guarantee from its ultimate holding company in the form set out under Annexure 6 of the Form of Agreement.
18. X15 Limitation of Contractor's Design liability
- Option X15 is applicable.
19. X16 Retention
- Retention is applied to all interim payments of the Amount Due and will be held at until Completion when the amount will be reduced to until the end of the *defects date*.

20. X18 Limitation
of Liability

- The *Contractor's* liabilities are limited as follows:

For any one event, the *Contractor's* liability to the *Employer* for loss of or damage to the *Employer's* property is limited to [REDACTED] of the final total of the Prices.

The *Contractor's* liability for Defects due to his design which are not listed on the Defects Certificate is limited to [REDACTED] of the final total of the Prices.

The *Contractor's* total liability to the *Employer* for all matters arising under or in connection with this contract, other than excluded matters, is limited to [REDACTED] of the final total of the Prices.

The end of liability date is [REDACTED] years after the Completion of the whole of the *works*

21. Insurance

- The *Employer* provides the insurances as stated in Schedule 2 hereto to be provided by the *Employer*. The insurances being provided by the *Employer* are subject to the following deductibles which the Contractor is liable for:

Construction All Risks

[REDACTED] each occurrence in respect of loss or damage caused to the works by defects in design, plan, specification, materials or workmanship.

[REDACTED] each occurrence in respect of loss or damage caused by storm tempest, water damage, subsidence or collapse.

[REDACTED] each occurrence in respect of loss or damage caused by defect in design, plan, specification, materials or workmanship.

[REDACTED] each occurrence all other losses

Public Liability

[REDACTED] each and every occurrence



22. Y(UK)2
Housing Grants
Construction
and
Regeneration
Act 1996

- The period for payment is 28 days after the date when payment becomes due in accordance with clause 51.1A of the conditions of contract.
23. Y(UK)3 The
Contracts
(Rights of Third
Parties) Act
1999



- For the purpose of secondary Option Y(UK)3 the terms and persons or organisations are:
24. TfL Schedule 1
Amendments
and Z Clauses

- The additional conditions of contract are those set out in Schedule 1 and Z Clauses to the Contract Agreement

SCHEDULE 2

Insurance Table

<i>INSURANCE AGAINST</i>	<i>WHICH PARTY PROVIDES</i>	<i>MINIMUM AMOUNT OF COVER OR MINIMUM LEVEL OF INDEMNITY</i>
<p>Construction All Risks</p> <p>All risks of loss or damage (not excluded by the terms and conditions of the policy) to the permanent <i>works</i> and materials or equipment for incorporation therein, the temporary works (i.e. other works erected or constructed for the purpose of making possible the erection or installation of the permanent <i>works</i>) constructional plant and equipment temporary buildings and other property owned by or supplied by the <i>Employer</i>.</p>	<p><i>Employer</i> in the joint names of the Parties</p>	<p>The total sum of the replacement cost.</p> <p>Subject to deductibles as stated in the Contract Data Part 1</p>
<p>Public Liability</p> <p>All sums for which the insured shall become legally liable to pay as damages in respect of death of or injury or illness or disease to third parties and/or loss of or damage to third party property obstruction loss of amenities trespass nuisance or any like cause happening during the period of insurance and arising out of or in connection with this contract</p>	<p><i>Employer</i></p>	<p>any one occurrence and unlimited in the period of insurance.</p> <p>Subject to deductibles as stated in the Contract Data Part 1</p>
<p>Employer's Liability</p> <p>Liability for death of or bodily injury or illness sustained by employees of the <i>Contractor</i> arising out of or in the course of their employment in connection with this contract</p>	<p><i>Contractor</i></p>	<p>The greater of the amount required by the applicable law and the amount stated in the Contract Data for any one event</p>

Loss or damage to constructional plant, tools, equipment, temporary buildings (including contents therein) belonging to or the responsibility of the <i>Contractor</i>	<i>Contractor</i>	The replacement cost
Professional Indemnity Insurance Negligence omission or default in respect of design of the <i>works</i> for which the <i>Contractor</i> is responsible	<i>Contractor</i>	 each and every claim
Products Liability Insurance Indemnity against legal liability for damages in respect of accidental 1) Bodily Injury to any person 2) Damage to Property occurring during the Period of Insurance anywhere in the world and caused by or arising from any Product Supplied.	<i>Contractor</i>	 for any one occurrence or series of occurrences during a year



Royal Docks Capacity Enhancement Custom House Station

2014 - 077

Employer's Works Information

Annexure 4



WI 100 DESCRIPTION OF THE WORKS

WI 101.1 Introduction

- (1) The Docklands Light Railway (the “DLR”) is a modern driverless, electrically operated, high frequency urban rail system covering the Docklands area in East and South East London, United Kingdom. The Railway currently has 39 route kilometres of track, 45 stations and operates 149 light rail vehicles.
- (2) Docklands Light Railway Limited (“DLRL”) is the owner of the DLR assets and is the authority responsible for the DLR. DLRL is part of Transport for London (“TfL”) which is responsible for the delivery of London's transport services on behalf of the Mayor of London.
- (3) The Docklands Light Railway Limited, hereinafter referred to as the “*Employer*” is part of Transport for London (“TfL”) owns and is responsible for the Docklands Light Railway (the “DLR”).
- (4) The new Crossrail Project is now nearing completion and includes a new Crossrail station at Custom House.
- (5) In order to provide an effective interchange between the new Custom House Crossrail station and the existing DLR Custom House Station the *Employer* wishes to alter and amend the existing DLR Custom House Station to tie into and link with the Crossrail station.
- (6) DLRL have obtained a Certificate of Lawfulness for Development from the London Borough of Newham. This certificate is valid as long as the architectural concept is retained without the need for a planning application.
- (7) The DLRL Custom House Station is bounded by the new Crossrail Station on its northern side and by ExCeL on its southern side. This ‘island’ location which is further affected by nearby high tension overhead lines makes the logistics of undertaking the *works* difficult and challenging. Details of these constraints are set out elsewhere in this Works Information.
- (8) The carrying out and construction of the *works* is further constrained by the *Employer's* requirement that the DLR remains operational i.e. will continue to run through the Custom House station, preferably by keeping both ‘Westbound-track’ and ‘Eastbound track’ running during traffic hours but in any case having one road operational at all times during traffic hours. Details of these constraints are set out elsewhere in this Works Information.

WI 105.1 General description of the works

- (1) The descriptions of items of work or requirements in this Works Information including in any specification or drawings referred to therein are not intended to limit or exclude anything that a competent *Contractor*, experienced in carrying out work of similar size, scope, nature and complexity to the *works* ought reasonably to have known would be required to satisfy the *Employer's* requirements and to properly carry out and complete the *works*. The *Contractor* acknowledges that the *Employer* is relying on the *Contractor* in this regard.



- (2) The *works* are for the *Contractor* to design, demolish, procure, construct, complete and test / commission the capacity enhancement *works* at Custom House Station through the construction of a new mezzanine level across the full length of the existing platform to tie into the Crossrail footbridge along with new stairs. This includes but is not limited to;
- Developing and completing the *Employer's* requirements design
 - Temporary Works
 - Temporary decommissioning and bringing back into service of existing assets
 - Site Clearance & Demolitions
 - Groundworks & Piling
 - Steelwork
 - Concrete Work
 - Roofing, Cladding & Curtain Wailing
 - Mechanical & Electrical Works
 - CCTV, APCs, PA, ticket machines, ticket validators, and alter passenger interface and control systems.
 - Internal Finishes
 - External Finishes
 - Signage
 - EMC, Earthing and Bonding
 - Plant room alterations

WI 110 **Project Objectives and Philosophy**

- (1) Safety – In line with the TfL Health, Safety and Environmental Policy the *Contractor* is to adopt a harm free philosophy all by ensuring;
- Every journey is safe for the *Employer's* customers
 - *Employer's* employees, agency staff and *Contractors* go home safe every day
 - *Employer's* assets are maintained and projects are delivered safely
 - Help to fulfil the *Employer's* commitments to prevent pollution and nuisance; protect biodiversity; improve air quality; and reduce waste and carbon emissions.
- (2) Programme – *Contractor* is to design and construct the *works* in a manner to achieve Completion by no later than the Completion Date in order to tie in with the opening of Crossrail. *Works* are also to be provided to minimise the disruption to the operational railway.
- (3) Quality – Materials and Workmanship are to be inline with other world class projects including the new adjoining Crossrail station.
- (4) Cost – As with other public sector projects the *Employer* has an obligation to demonstrate best value. This will include the project whole life costing which the *Contractor* needs to incorporate in his design.

- (5) Collaboration – The *Employer* is working to achieve BS11000 and requires the *Contractor* to adopt the philosophy by supporting the *Employer*. The *Contractor* has a requirement to support the *Employer* and also demonstrate how they will work collaboratively and comply with BS11000.
- (6) DLR Operation – The *works* shall be designed and implemented such that line possessions are kept to a minimum.

WI 112 Contractor General Obligations

- (1) The *Contractor's* price for the *works* is deemed to include for all the requirements and obligations set out and/or referred to and/or reasonably inferred in the Works Information unless it is expressly stated by the *Employer* to be the responsibility of the *Employer*.
- (2) The *Contractor* does everything expected and necessary that a prudent, competent and experienced design and build *Contractor* would do to assess the risks under the Contract including, without limitation:
 - (i) Obtaining comprehensive knowledge as to the availability and cost of labour including the costs of complying with obligations imposed by any agreement between the relevant industry unions and *Employers* relating to the execution of such work as is required for the *works*;
 - (ii) Obtaining comprehensive knowledge of all requirements in relation to the *works* generally, including the working hours within which the *works* may be performed on Site and any measures which are necessary arising from execution of the *works*; and
 - (iii) Obtaining all appropriate professional and technical advice on all matters and circumstances in respect of the *works* prior to submitting its tender for the *works*.
- (3) Failure by the *Contractor* to properly assess the risks he has taken does not relieve the *Contractor* of his obligations under this Contract and is not a compensation event under the Contract

WI 115 Site Location

- (1) The Site for the *works* is the Custom House for ExCeL DLR Station situated in the London Borough of Newham and is located on the DLR route between Royal Victoria and Prince Regent Stations. It lies south of Victoria Dock Road and the new Crossrail Station. A full description together with location maps and drawings is contained in the Site Information.

WI 200 Constraints On How The *Contractor* Provides The Works

WI 201 General Constraints

WI 201.1 Legislation

- (1) The *Employer* is under a duty under section 76a of the Sex Discrimination Act 1975, section 71 of the Race Relations Act 1976 and under section 49a of the Disability Discrimination Act 1995 to have due regard to the need to eliminate unlawful discrimination on the grounds of sex or marital status, race or disability (as the case may be) and to promote equality of opportunity between persons of different racial groups and between disabled people and other people (as the case may be). In providing the works, the *Contractor* shall assist and cooperate with the *Employer* where possible in satisfying this duty.
- (2) The *Contractor* acknowledges that where the *Employer* is under a duty by virtue of a direction under Section 155 of the Greater London *Employer* Act 1999 in respect of section 404(2) of that Act to have due regard to the need to:
 - (i) Promote equality of opportunity for all persons irrespective of race, sex, disability, age, sexual orientation or religion;
 - (ii) Eliminate unlawful discrimination; and
 - (iii) Promote good relations between persons of different racial groups, religious beliefs and sexual orientation,

and in providing the works, the *Contractor* assists and co-operates with the *Employer* where possible to enable the *Employer* to satisfy its duty;

WI 201.2 Confidentiality

- (1) The *Contractor* keeps all details and information regarding the contract confidential and shall not, without the prior consent of the *Project Manager*, take or authorise the taking of any photographs of the project for use in any publicity or advertising nor publish alone or in conjunction with any other person any articles, photographs or other illustrations or information relating to the contract or any part of it, whether printed, or on any website or otherwise, nor shall he impart to any publication, journal or newspaper or any radio or television programme any information about the contract.
- (2) During the term of this contract and after its expiry or termination for any reason, each of the parties undertakes to the other to keep the Confidential Information confidential, except where:
 - (iv) the Confidential Information was already lawfully known, or became lawfully known to the relevant party independently;
 - (v) the Confidential Information is, or comes into, the public domain other than due to wrongful use or disclosure by the relevant party;
 - (vi) disclosure or use is necessary by the relevant party in connection with entry into this deed or for the proper and effective performance of his obligations under this deed (including disclosure by either party to his insurers and professional advisers); or

- (vii) disclosure is required by law to any government, governmental department, agency, regulatory or fiscal body or *Employer* (whether national or foreign).
 - (3) Each of the parties ensures that his respective employees, agents, sub-*Contractors* and nominees comply with the requirements for confidentiality and the *Contractor* ensures that all of his professional advisers, agents, sub-*Contractors* and nominees sign a confidentiality undertaking in a form consistent with the *Contractor's* obligations for confidentiality.
 - (4) Each of the parties notifies the other immediately if it becomes aware of a breach of this clause by any person to whom Confidential Information has been divulged and shall give the other party all reasonable assistance in connection with any proceedings against that person.
- WI 201.3 Language
- (1) If the *Contractor* employs operatives who do not speak English or who do not fully understand spoken or written English, the *Contractor* provides a supervisor who is fluent in English and fluent in the language of the operative.

WI 205 Constraints Associated with the Site

- WI 205.1 Site Investigation
- (1) The *Contractor* is deemed to have visited the Site and allows for all the physical and or other working conditions, including without limitation constraints associated with; accessibility, surroundings, storage space for materials and any required additional handling and transporting for materials.
 - (2) The *Contractor* is deemed to have carried out investigations as necessary in order to gain a complete understanding of the physical conditions and all matters that associated with the Site, including:
 - (i) visiting and examining the Site and its surroundings and doing everything possible to inform himself fully as to the physical conditions and/or features of the Site,
 - (ii) ascertaining the local conditions near or relevant to the Site, or any other condition or characteristic of the Site affecting or which may affect the *Contractor*.
 - (iii) obtaining all necessary information as to risks, contingencies and other circumstances which could have an effect on the performance and cost of executing the *works*;
 - (iv) informing himself of the nature of the *works* and the means of access to and facilities at the Site and transport facilities for deliveries of materials to or from the Site;

Claims from the *Contractor* in respect of these matters will not be entertained.

WI 205.2 Schedule of Condition

- (1) Prior to commencement of the *works* the *Project Manager* and the *Contractor* agrees the condition of the Site and of any Site working areas. The condition of the Site and any Site working areas will be jointly inspected at the completion of the *works* and as required by the *Project Manager* during the course of the *works*. The *Contractor* makes good any damage caused by the *Contractor* to the Site and any Site working *works* areas.

WI 205.3 Site Ground Investigations

- (1) To the extent the *Employer* provides the *Contractor* with a ground investigation report (refer to the Site Information document for further details) which gives indicative details of the existing Site ground and sub-surface conditions. The *Employer* provides no warranties or assurances as to the accuracy of this report.
- (2) In addition to any Site investigation reports provided by the *Employer* the *Contractor* is deemed to have carried out any further investigations as necessary in order to gain a complete understanding of the physical conditions and the sub-surface conditions of the Site and the *Employer* entertains no claims from the *Contractor* arising from a want of knowledge on the part of the *Contractor* in this respect.
- (3) The *Contractor* assesses all physical constraints associated with the Site including without limitation, accessibility, surroundings, storage space for materials including all additional handling and transporting and the nature of the ground. The *Employer* is not responsible for any failure by the *Contractor* to properly assess the physical constraints associated with the Site.

WI 205.4 Use of the Site

- (1) The *Contractor* only uses the Site for the execution of the *works*.
- (2) The *Contractor* limits his operations to within the *boundaries of the site* as shown in the Site Information.
- (3) The *Contractor* ensures that the Site is used in a manner that is in strict compliance with the requirements of the WoRM where and to the full extent that the *works* are close to the operational railway.

WI 205.5 Noise and Vibration

- (1) The *Contractor* ensures that all necessary noise reduction measures are implemented either directly to plant or temporarily to ensure boundary noise levels are not contravened. The maximum noise levels tolerable at the site boundary at specific times of the day and days of the week shall be agreed by the *Contractor* and approved by the *Project Manager* and in conjunction with relevant stakeholders including Newham Council and ExCeL.
- (2) The *Contractor* outlines within his method statement the measures that he will take to ensure that the noise requirement is met.

- (3) The *Contractor* takes all measures to reduce vibration and noise arising from Site operations to a minimum. Compressors are to be fully silenced models fitted with effective exhaust silencers and acoustic covers, all to the design of the compressor manufacturers and with acoustic screens in addition. Pneumatic percussive tools are to be fitted with silencers of a type recommended by the tool manufacturers. Compressors, tools, silencers and other contrivances shall be maintained in good and efficient working order and are not to be altered in a manner that would increase the noise of operation.
- (4) The *Contractor* follows the recommendations of the Control of Noise, (Code of Practice for Construction Sites) Order 1975, and the British Standard Code of Practice for Noise Control on Construction and Open Sites, BS5228, Parts 1 and 2, incorporating any amendments and any requirements of the Environmental Health and Planning Department.
- (5) The *Contractor* ensures that no unwanted or damaging vibration is transferred to any adjacent structures or buildings or to retained structures within the Site.

WI 205.6 Electrical Interference

- (1) The *Contractor* takes all necessary precautions to avoid excessive electromagnetic disturbance of apparatus outside the Site. The *Contractor* ensures that all electrical equipment and plant is suppressed so as to cause no unacceptable electrical or other interference to surrounding properties.
- (2) The *Contractor* shall take measurements of existing electrical interference to establish a baseline prior to commencement of any site works. Any increase in electrical interference caused by the *Contractors* equipment shall be assessed and agreed by the *Project Manager* prior to its use

WI 205.7 Temperature and humidity levels

- (1) The *Contractor* maintains an even temperature and humidity where required for the proper execution of the works. The *Contractor* repairs and makes good any damage by his failing to comply with this requirement.

WI 205.8 Parking

- (1) Public car parking spaces are available at a nearby multi storey car park. Refer to the Site Information document for further details.
- (2) Car Parking in the local area including adjacent roads such as Seagull Lane or Sandstone Lane is very restricted. Refer to the Site Information document for further details.

WI 205.9 Deliveries to the Site

- (1) The *Contractor* is bound by the load and size of vehicles allowed in this area of London at various times of the day and week and is responsible for establishing any restrictions on delivery times.

WI 205.10 Reservation of Rights to Use of Site by *Employer*

- (1) The *Employer* reserves the right to allow access to the Site by the *Employer's* Franchisee and to use the Site or any portion thereof for the execution of work by the Franchisee or its *Contractors* where such work is deemed necessary by the *Employer* as necessary for the safe running of the Docklands Light Railway. The *Contractor* recovers any additional cost reasonably incurred arising from the *Employer* exercising his right herein.
- (2) The *Employer* reserves the reasonable right to use the Site or any portion thereof for the execution of any work or storage of materials not included in this contract which may be carried out by Others provided the *Employer* shall not cause any unreasonable interference with the *Contractor* and/or with the execution of the works.
- (3) The *Contractor* allows all reasonable access and facilities for the execution of such work but is not required to provide any plant or materials except by special arrangement and will hand over sections of the *works* as and when reasonable to enable such work to proceed.
- (4) The *Contractor* is to afford facilities to the *Employer*, and/or any other persons authorised by them on the Site so that this work may proceed simultaneously with the progress of the works.
- (5) The above reservations of rights do not relieve the *Contractor* of any of his obligations under the Contract.
- (6) The *Contractor* is to ensure that the First Line Response Technicians (FLRT) have unhindered access to the Station Equipment Room (SER).

WI 205.11 Control of Water

- (1) The *Contractor* undertakes all dewatering on or about the Site necessary for the proper carrying out of the *works* regardless of nature of water ingress.

WI 205.12 Site Rules

- (1) The *Contractor* proposes site rules for agreement by the *Project Manager* and ensures that all persons for whom the *Contractor* is responsible abide by same. The Site rules shall as a minimum address;
 - (i) Observance and compliance with all Site signage
 - (ii) Designated pedestrian route throughout the Site
 - (iii) Reporting all unsafe acts or situations
 - (iv) Reporting all accidents, however minor
 - (v) Alcohol, drugs or other intoxicants whilst on Site
 - (vi) Horseplay or become involved in fighting whilst on Site
 - (vii) Knives, firearms or other offensive weapons on the Site
 - (viii) Use of incorrect or faulty plant, tools and equipment.
 - (ix) Not operating plant or equipment without proper training.
 - (x) CITB Certification
 - (xi) Use radios or personal stereo systems whilst on Site.
 - (xii) Compliance with dress code appropriate to Site and DLR environment.

- (2) The *Contractor* provides for each of his Site staff and operatives, including any sub-*Contractors*, to undergo a site-specific induction prior to starting work on Site.
- WI 205.13 Proximity to operational track
- (1) The *Contractor* designs and constructs the *works* in such a way as to minimise any closure of either DLR tracks at Custom House. At tender stage the *Contractor* shall propose the dates and times that the either track is required to be closed to trains (in addition to any working in engineering hours that may be required)
- WI 205.14 Site compound
- (1) Storage areas adjacent to the site are limited. The *Employer* offers the *Contractor* a limited area for use for site accommodation, materials storage and access to the working area. This land is offered free of charge for a set period of time and the *Contractor* is responsible for provision of all hardstanding, utility services etc. Refer to Site Information for further details.
- WI 205.15 Crossrail Footbridge
- (1) The scope of construction of the new Crossrail station at Custom House includes the construction of a footbridge connecting the ExCeL Exhibition Centre to the new Crossrail station and provides a public right of way to the north of the station. This public right of way has to be kept open at all times unless the *Contractor* has approval from the *Project Manager*. Refer to Site Information for further details.
- WI 205.16 Existing Station Facilities (Lifts escalators)
- (2) During the contract period the *Contractor* is responsible for the retention and protection of the following items within the working area:-
 - (i) Existing lifts and lift cars (2no) and associated equipment
 - (ii) Existing double bank escalator
 - (iii) Existing stairs
 - (iv) Existing station equipment room
 - (v) Radio masts (2no)
 - (3) These items shown above will be handed over to the *Contractor* by the *Employer* at the commencement of the contract. The handover and handback arrangements will be agreed by the *Project Manager*.
 - (4) The *Contractor* provides 24/7 access for DLRL maintenance staff to gain access to the plantroom and other assets as agreed by the *Project Manager*.

WI 210 Constraints Associated with Time

WI 210.1 Time Restrictions

- (1) The starting date, access date, Key Dates and the Completion Dates represent the principle constraints on the order and timing of the *Contractor's* operations.
- (2) The Working hours will be in accordance with Local Authority (Newham) approvals under section 61 for noise and vibration.
- (3) Overtime on the Site is subject to prior written approval from the *Project Manager* who has sole discretion in respect of such approval. Approval for any overtime working is on the basis such overtime is not be at any additional cost to the *Employer* and that any additional cost incurred by the *Employer* in facilitating overtime working at the Site is repaid to the *Employer* by the *Contractor*.
- (4) Refusal to sanction overtime at the Site is not a compensation reason for delay or additional expense.
- (5) Any concealed work which is executed during overtime working at the Site and for which notice has not been given to the *Project Manager* is exposed by the *Contractor* for inspection purposes at no cost to the *Employer*.
- (6) Night working is only allowed when approved by the *Project Manager*. However, a certain amount of working during engineering hours is expected due to the nature and scope of the demolition and construction works. Engineering hours are defined as
 - (i) 01.30 to 04.30hrs Tuesday to Saturday
 - (ii) 01.30 to 05.30hrs Sunday
 - (iii) 00.30 to 04.30hrs Monday

However, the exact times are liable to change due to timetable alterations depending on the time taken to handover the track from the *Employer* represented by KAD.

- (7) The *Contractor* may need to close the station and/or Westbound track as agreed with the *Employer* and franchisee KAD (Keolis Amey Docklands) in a specific possession to carry out specific *works* that are not safe or economical to carry out during engineering hours. During these times when the track is closed, the system of *Line Rental* will be charged.
- (8) The maximum duration allowed for station closure is 38 weeks subject to the *Project Manager's* acceptance. This is extended to a total station closure period of 45 weeks on the proviso that Line Rental is not used. Station Opening is as defined by clause 11.2 (64) of the TfL Schedule 1 Amendments and Z Clauses.

(9) Possession Times

The three types of possessions used on DLR include:-

- A Line possession – where a single track is taken over for a discrete or continuous no. of days, over a defined section of the track.
- Weekend possession - where all or single tracks are taken over for a period of 52 hours commencing Friday night after the last train until before the first train on Monday morning, over a defined section of the track
- Engineering hours - where all or single tracks are taken over after the last train at night and before the first train the following morning, over a defined section of the track.

(10) Notice Periods

Notice periods required from the *Contractor* for engineering hours possession is 5 weeks

Notice periods required from the *Contractor* for weekend possessions is a minimum of 12 weeks

- (11) There are a number of events scheduled to be held in 2017 at the ExCeL centre. Some of these events rely on visitors to the event travelling by DLR to gain access to the event. At the eastern end of the ExCeL venue visitors can arrive via Prince Regent Station. At the western end of the ExCeL venue visitors could arrive via Royal Victoria or Custom House. Details of the key annual significant events are as follows:-

- a. [REDACTED]
- b. [REDACTED]

The *Contractor* is to ensure that the *works* do not impede on the operational availability of both the west and eastbound lines.

- (12) The dates for the above constraints are based on the *Employer's* current Programme and may change. Refer to the Access Dates, Key Dates and Completion Dates in the Contract Data Part 1.

WI 215 Constraints associated with adjoining infrastructures

WI 215.1 Public and Private Roads

- (1) The *Contractor* maintains all roads paths and paving highways and areas adjacent thereto leading to and from the Site free from dust, debris, mud and stones arising from the works. The *Contractor* ensures that loose material, mud and debris are not dropped from vehicles entering or leaving the Site.
- (2) The *Contractor* keeps all areas of the site affected by the *works* and all public highways, footpaths and other areas so affected, free of dirt and debris at all times. If such levels of cleanliness are not maintained to the reasonable satisfaction of the *Project Manager*, the *Project Manager* makes alternative arrangements for cleaning and charges this to the *Contractor*.
- (3) The *Contractor* repairs any damage he causes to the roads and paths on the site and to any public highways, bridges, footpaths, kerbs, drains, sewers or right of ways (including services drains and sewers). The *Contractor* indemnifies the *Employer* against any liability, loss, claim or proceedings whatsoever arising under any statute or at common law in respect of any such damage.
- (4) For the purpose of the foregoing the term “highway” means any road or footpath, on or off the Site, used by the public, together with any kerbs, gullies, sewers, street lighting, public utility services, grassed verge or tree planting associated therewith.

WI 215.2 Adjoining and Adjacent Property

- (1) The *Contractor* treats all properties adjoining and adjacent to the Site (including the new Crossrail footbridge) as being occupied during the carrying out of the *works* and the *Contractor* ensures that his operations do not interfere with such properties.
- (2) The *Contractor* carries out the *works* taking all measures and precautions so as not to cause interference or interruption to the operation of the existing DLR operations except that agreed with the *Employer*.
- (3) The *Contractor* undertakes regular liaison, through the *Project Manager*, with occupants of adjacent or adjoining properties (including ExCeL and Crossrail) who may be materially affected by the *works* so as to keep them informed in advance of all work that may affect them.
- (4) The *Contractor* repairs any damage to adjoining and adjacent properties arising from the execution of the *works*.
- (5) The *Contractor* repairs any damage sustained to boundary walls, fences and gates, paved areas arising from the execution of the *works*.
- (6) The *Contractor* takes all precautions so as not to cause interference or interruption to the use of the adjoining and adjacent properties and land.

WI 215.3 Nuisance/Trespass

- (1) The *Contractor* prevents any public or private nuisance (including, without limitation, any nuisance caused by noxious fumes, noisy working or other interference with the rights of any adjacent or adjoining properties arising out of the carrying out of the *works*).
- (2) The *Contractor* takes all precautions to prevent disturbance, inconvenience and/or nuisance to the occupiers and users of adjoining and/or adjacent properties and to the public generally caused by noxious fumes, noisy working or other interference with the rights of any adjoining or neighbouring properties) arising out of the carrying out of the *works*. The *Contractor* executes noisy operations at such times and in such a manner as not to cause disturbance or nuisance to neighbours and adjoining and/or adjacent properties.
- (3) The *Contractor* takes all precautions to prevent his employees and those of his sub-*Contractors*, from trespassing on adjoining and/or adjacent property.
- (4) If the *Contractor* operates any plant, machinery or equipment that projects or operates over adjoining or adjacent property or rights of way, the *Contractor* obtains the permission from the adjoining or adjacent property owner or occupier through the *Project Manager* and obtains any legal licence etc. as necessary. The *Contractor* indemnifies the *Employer* against any claim or action for damages arising from the use of any plant, machinery or equipment.

WI 215.4 Existing Thames Water Sewer

- (1) [REDACTED]
- (2) [REDACTED]

WI 216 Other Constraints

WI 216.1 National Grid

[REDACTED]

WI 216.2 Utilities

[REDACTED]

WI 220 Access Arrangements

WI 220.1 Access to the Site

- (1) The *Contractor* has visited the Site and is familiar with all matters relating to access to the Site including all such matters that may impact on the execution and completion of the *works*.
- (2) The *Contractor's* means of access to the Site requires the *Contractor* to access the Site via land leased to the *Employer* from ExCeL. The *Contractor* is aware of and complies with all arrangements associated with accessing the site. A plan showing the Site access, site compound and working areas is included in the Site Information.
- (3) The *Contractor* complies with all requirements and restrictions concerning access to the Site as may be notified to the *Contractor* from time to time by the *Project Manager*.
- (4) The *Contractor* gives the *Employer* and the *Project Manager* access to the Site and to any areas off-site where work is being performed in relation to the *works* as required by the *Employer* and/or the *Project Manager*.
- (5) The *Employer* provides the site area (as shown in the Site Information) to the *Contractor* free of charge. However the *Contractor* is responsible for the provision (including connection, installation, disconnection and removal) of any utility services such as water and electricity for site accommodation, welfare and material storage and any other use as agreed with the *Employer*.

WI 220.2 Access within the Railway Environment

- (1) Access to the Site is governed by the Working on the Railway Manual (“**WoRM**”). The *Contractor* is fully aware and conversant with the provisions and requirements of the WoRM and the *Contractor* complies with the requirements of the WoRM in relation to gaining access to the Site and to working on the Site.
- (2) The *Contractor* provides all method statements, risk assessments, and other documentation stated in the WoRM as being required for access to and working on the Site.
- (3) The *Contractor’s* operatives and his sub-*Contractors* are in possession of all passes and training as are required for them to access and to work on the Site.

WI 235 Security and Protection of the Site

WI 235.1 Security

- (1) The *Contractor* familiarises himself and is aware of the existing security arrangements associated with the access to the site and station and the *Contractor* co-operates fully with same.
- (2) The *Contractor* provides his own security at the Site for the safekeeping of the Site, the *works* and for the *Contractor’s* own materials, plant and equipment. The *Project Manager* does not entertain any claims in respect of loss or damage to the *works*, materials, plant or equipment arising from a lack of security being provided by the *Contractor*. The *Contractor* ensures that the security of adjoining or adjacent properties (such as ExCeL or Crossrail) shall not in any way be impaired due to the *works*. The *Contractor* indemnifies the *Employer* against any claims arising from same.

WI 240 Traffic Management

WI 240.1 Traffic Management Implementation

- (1) The *Contractor* implements a traffic management control procedure in agreement with the *Project Manager* (this may also require agreement from Others) in relation to the Site. The traffic control procedure shall without limitation include for:
- No queuing on any of the roads surrounding the Site.
 - No impact on access to residential and commercial premises neighbouring the Site.
 - No queuing which may interfere with the use of the adjacent operations by others.
 - All vehicles to be checked and logged upon entering and leaving the Site and a record taken of their contents
 - No vehicles will be left unattended
 - All vehicle engines to be switched off whilst unloading
 - Any vehicle reversing on Site must have a banksman in attendance
 - Any vehicle removing loose rubbish or debris from the Site must have the load fully sheeted

The above list is not meant to be totally exhaustive, but serves to illustrate that the *Contractor* must closely control all traffic movements to ensure that a safe working environment is achieved and that any disruption or nuisance is kept to the absolute minimum.

WI 245 Condition Survey

WI 245.1 Condition Survey

- (1) The *Project Manager* and the *Contractor* agree a condition survey of adjoining and adjacent properties that may be affected by the *works*.

WI 255 Consideration of Others

- (1) The *Contractor* undertakes his *works* having due regard to Others and the *Contractor* ensures that his operations do not unreasonably interfere with Others. The *Contractor* is made aware of ExCeL and Crossrail who are operating nearby and shall ensure that their operations are not unreasonably impacted by the site works.

WI 260 Site Cleanliness

WI 260.1 Removal of Rubbish

- (1) The *Contractor* removes all rubbish from the Site on a regular basis and keeps the Site clean and tidy to the reasonable satisfaction of the *Project Manager*.
- (2) The *Contractor* complies with the Environmental Protection Act 1990 regarding the disposal of waste and rubbish from the Site.
- (3) The *Contractor* removes all surplus hazardous materials and rubbish from the Site in accordance with the relevant regulations for same. All waste transfer documentation is retained on Site and made available to the *Project Manager* on request.
- (4) If the *Contractor* fails to clear rubbish, waste materials or debris within 24 hours notice from the *Project Manager*, the *Project Manager* organises the clearance thereof and the cost of same is deducted from the *Contractor's* account.
- (5) The *Contractor* ensures the risk of vermin infestation is minimised by adequate arrangements for disposal of food or other waste or materials attractive to pests. If vermin infestation occurs because of the *Contractor*, the *Contractor* takes such action as the *Project Manager* instructs at no cost to the *Employer*.
- (6) The *Contractor* ensures that all holes, excavation pits, manholes, drains, etc. are covered up and sealed after each working day, including replacement of manhole covers to prevent the escape of vermin
- (7) The *Contractor* considers ways of recycling demolished materials to minimise the impact on the environment. Details shall be included in the Environmental Management Plan included in the site information.

WI 260.2 Cleaning of the *Works*

- (1) On completion of the *works* the *Contractor* hands over the *works* in a clean and acceptable condition to the approval of the *Project Manager* including removing all debris and rubbish off Site.

WI 300 THE CONTRACTORS DESIGN

WI 305 The *Contractor's* Design Responsibility (Clause 21)

WI 305.1 Contractors Design of the Works

- (1) The *Contractor* designs the *Works* in accordance with the *Employer's* Requirements.
- (2) The *Contractor* is the principal and sole designer for this project in accordance with clause Z22 (Single Point Design Responsibility) and the information contained within Contract Data Part 1. The *Contractor* accepts the design supplied by the *Employer* as his own, develops and rectifies as required to achieve a construction issue design that is compliant with relevant DLR and European Standards.
- (3) The *Contractor* is responsible for developing the *Employer's* Requirements and any outline designs contained therein to a fully detailed and coordinated design that complies with and that satisfies the *Employer's* requirements.
- (4) For the avoidance of doubt the *Contractor* is responsible for the entire design including provision of Assurance and compliance submission(s) for the whole of the *works*. The *Contractor* is responsible for the design of all Equipment together with installation and operation methodology, notwithstanding that designs of certain Equipment (such as excavation propping and other temporary works arrangements) may be included in the *Employer's* Design Information.
- (5) The *Employer* has provided the preliminary indicative design for Acceptance in Principle (AiP) purposes. The *Contractor* reviews, verifies, warrants and adopts this 'indicative design' as his own and re-submit the AiP for the *Employer's* acceptance. The *Contractor* develops the full design through all stages to RIBA Stage 6. The *Contractor* is required to optimise the design that provides the safest, economic and efficient design to be constructed, operated and maintained throughout the project lifecycle.
- (6) The *Contractor* has due regard for the architectural concept included in the architectural Acceptance in Principle design and the *Contractor* retains such architectural concept in the *Contractor's* design and does not change same without written consent from the *Project Manager*.
- (7) The *Employer* shall not be liable to the *Contractor* (whether in Contract, tort, or otherwise) in respect of any inaccuracy, error, omission, unfitness for purpose, defect or inadequacy of any kind whatsoever in any of the design information or data provided to the *Contractor*.
- (8) The *Contractor* shall be responsible for obtaining any consents, waivers, approvals which may be required from any of the Stakeholders in relation to any of the design obligations of the *Contractor* and provide any evidence necessary for the purposes of the review process.

- (9) The *Contractor* develops the AiP design from the current design to achieve compliance with Standards and that can be built, operated, maintained (see Site information) economically, safely without adverse impact on health and performance.
- (10) The *Contractor* is the principal and sole designer for the whole of the *works* in accordance with clause Z22 (Single Point Design Responsibility) and the information contained within Contract Data Part 1.
- (11) The design requirements for the *Contractors* design are more fully described in Works Information WI 2000.
- (12) The *Contractor* is responsible for the management, co-ordination, liaison, integration and delivery for the entire design for the *works* and with others.
- (13) The *Contractor* is responsible for the design of all Plant and Materials for the *works* together with installation and operation methodology. The *Contractor* is also responsible for integrating and coordinating those elements of the *works* designed by others.
- (14) The *Contractor* ensures that construction does not start on any elements of the *works* without satisfying the relevant approval process and until the design is accepted by the *Project Manager*.
- (15) The *Contractor* ensures and demonstrates that his designers have been assessed and are suitably qualified and competent to carry out the design and are reviewed throughout the design process.
- (16) The *Contractor* is responsible for managing the design interfaces with assets and structures affected by the *works* either directly or indirectly.
- (17) The *Contractor* shall ensure that the structural integrity of all existing structural members carrying altered or new loads is assessed.
- (18) The *Contractor* shall survey all existing structure and infrastructure which is to be retained and ensure they are retained in the same position, an example being the coping stones and tracks.
- (19) The current station has provisions for Persons with Reduced Mobility. The *Contractor* is required to ensure that the adequacy of these provisions (a) is not impacted by the proposed works, (b) if impacted, are re-assessed and mitigations provided.
- (20) The design of any hoarding shall be sufficient to resist all anticipated loadings and shall include any special requirements required of the TfL as appropriate.
- (21) The *Contractor* designs a new signage scheme in accordance with the technical specification detailed in W1 2000 Standards and Specifications. The smart signage must be designed to be operated from a secured appropriate switch system located on the station area, location to be agreed. The *Contractor* shall provide ducting from the Station Equipment Room (SER) to this switch for future implementation of a remote control system to operate the smart signage.

- (22) The *Contractor's* design satisfies all of the *Employer's* design acceptance requirements identified in WI 2000. The *Contractor's* is deemed to be aware of such design acceptance requirements and has taken account of the same.
- (23) The design responsibility extends into the construction phase requiring competent design representatives from the *Contractor's* designer to monitor all the excavation activities 24 hours a day, 7 days a week. This is to verify that the actual ground conditions encountered accord with expectations, that the *works* are being constructed in accordance with the design and that the actual ground movements and structural performance experienced accord to expectations. The *Contractor* seeks to minimise the effects of ground movement ensuring that predicted levels of damage are within the *Contractors* acceptable levels through the design and construction process and, if required, designs suitable mitigation measures to meet this requirement as detailed in WI 2300.
- (24) The *Contractor* shall provide all design services and the preparation of all drawings, models and calculations necessary for the construction, installation, testing and commissioning of the various systems and maintenance. The *Contractor* shall be responsible for the design of all aspects of the *Works* required by this Contract including production of the drawings to execute the *Works*. Where appropriate, risk assessments shall be undertaken to arrive at the appropriate design decisions.
- (25) With his tender the *Contractor* shall provide details of all subcontractors he proposes to use in all disciplines. No design subcontractors, including checking engineers, shall be employed by the *Contractor* unless they have first been approved by the *Project Manager*.
- (26) The *Contractor* shall deliver a fire strategy co-ordinated with ExCeL and Crossrail Custom House Station as an early deliverable in accordance with DLR Standards in WI 2000.
- (27) The *Contractor* shall deliver a comprehensive maintenance strategy that complies with the *Employer's* current standards & CDM regulations and demonstrated to be ALARP. This shall take into account the restrictions and risks associated with working near OLE lines and over live tracks, in particular when maintenance involves access to high level glass cladding and roofing panels. The *Contractor* will be expected to review maintenance/cleaning proposals, which may need to include proprietary access equipment, to ensure cleaning and maintenance access arrangements are ALARP. The proposals will need to be accepted by DLRL Maintenance and Operations. *In the event the Employer accepts the Contractor's proposal, other than abseiling method, this will be treated as a Compensation event.*
- (28) Design calculations shall be neat, clearly legible and concise. All design calculations and drawings shall remain the property of the *Employer*.
- (29) Access and use of tracks during possessions to be agreed with the *Project Manager*.
- (30) The *Contractor* shall carry out a dilapidation survey as an early deliverable, prior to commencing the design. The dilapidation survey shall be carried out in the presence of DLRL and KAD.

WI 305.2 *Contractor's Design of Temporary Works*

- (1) The *Contractor* is responsible for the design and submission of all details for all temporary works (including scaffolding) required for the works.
- (2) The *Contractor* submits the design and all relevant calculations to the *Project Manager* at least five weeks before proposed installation/erection for review before obtaining approval as per the DLR CAP (Change Assurance Panel) process.
- (3) The *Contractor* does not commence any temporary works without written approval of the *Project Manager*. For the avoidance of doubt approval by the *Project Manager* of any temporary works, (including scaffolding), is not acceptance by the *Project Manager* as to the suitability or otherwise of any temporary works or scaffolding.
- (4) The *Contractor* is responsible for the design and Assurance for all enabling and temporary works required for construction of the works. The *Contractor* ensures that sufficient competent temporary works engineers are deployed on site to change and verify that all temporary works comply with the design prior to loading.
- (5) The *Contractor* shall ensure that possessions and activities carried out in engineering hours are in accordance with the current Working on the Railway Manual, as may be amended from time to time.
- (6) The *Contractor* shall ensure that all signalling equipment, including any on sections of tracks to be closed, is protected and a temporary uninterruptable power supply is provided.
- (7) The *Contractor* shall ensure that the rail infrastructure is adequately protected during possession when accessing the site across the tracks.
- (8) The *Contractor* shall protect workers from the live track(s) and protect the live track(s) from construction activity including known and accidental loads.
- (9) The *Contractor* shall provide lifting facilities as required to execute the Contract Works.
- (10) Where the *Contractor* is carrying out lifting operations using cranes, all such operations shall be carried out in accordance with the relevant standards.
- (11) The *Contractor* shall obtain approvals for crane over sailing, including when over sailing third parties.

WI 305.3 Design Checks and Approvals

- (1) For all design undertaken by the *Contractor*, the *Contractor* submits details of designs carried out in respect of the works and the Equipment including relevant design and check certificates, to the *Project Manager* for acceptance.
- (2) The following design items must be accompanied by a CAT III design check certificates;
 - a. All temporary works that interfaces or could affect the operational railway.
 - b. Activities that will disturb the tracks, trackside equipment and platform copers.
 - c. Glass balustrades or other architectural fixtures which may take passenger loadings.
 - d. All structural elements.

All other areas will require a CAT II check.

WI 305.4 Design for the Works

- (1) Within two weeks of the *starting date* the *Contractor's* Design Manager prepares the following design assurance plan, in consultation with the *Project Manager*:
 - A detailed design programme consistent with the programme to be submitted for acceptance, showing the planned order and timing of the *Contractor's* design activities including the various stages involved with the preparation of the design documentation for construction through to completion of "as-built" records. This programme includes provision for all reviews required under the contract, for design, design development, design checks, certification, and for obtaining and obtaining design consents and third party technical approvals as appropriate, and providing Assurance. The *Contractor* allows sufficient time in his Programme for any re-submissions that may be necessary to obtain acceptance or consent or approval as the case may be;
 - A schedule of all Assurance deliverables commencing with the design elements of the *Contractor's* Project Assurance Plan;
 - A list of all design deliverables including all drawings, specifications and other design data which the *Contractor* intends to produce together with the dates by which the *Contractor* plans to complete each deliverable identified in the list;
 - A list of the names of the *Contractor's* key design staff and specialist designers and Subcontractors, and evidence of their competence to undertake the design work, and identifying those with delegated authority to certify the *Contractor's* design;
 - A list of the names of independent checker's key staff and evidence of their competence to undertake the checking, and identifying those with

delegated authority to sign-off check certificates; A list of all consents and approvals for the *Contractor's* design required from the *Project Manager* and Others including technical approval bodies;

- The quality plans and procedures applicable to the *Contractor's* design and checking activities, including describing the interfaces between the *Contractor's* designers, the *Contractor's* Design Manager and the Design Liaison Manager; and

Procedures for design progress monitoring and reporting, design change control and design risk management.

WI 305.5 Design of Equipment

- (1) Within two weeks of the starting date and before commencing any design of Equipment, the *Contractor* submits to the *Project Manager* a list of items of Equipment for which the *Contractor* intends to prepare designs, and the proposed checking categories.
- (2) In preparing this list the *Contractor* identifies the potential for risk, together with any third party approvals that may be required (e.g. highway authorities and Statutory Undertakers).
- (3) The *Contractor* also submits, to the *Project Manager* for acceptance, the schedule of design interfaces between Equipment and the *works* and settlement control, identifying which party within the design organisation is responsible for the design and checking of each aspect of design.
- (4) The *Project Manager* instructs the *Contractor* as to those items of Equipment for which the *Project Manager* will require submission of the *Contractor's* design data.
- (5) The design and check of any item of Equipment is undertaken by competent qualified persons and, where appropriate, the *Contractor* appoints a Temporary Works Coordinator, who will undertake the duties and role described as Falsework Co-ordinator in BS: 5975.
- (6) Unless the *Project Manager* allows it to be left in the *works*, the *Contractor* removes all Equipment when it is no longer needed, in such manner as to prevent damage to the *works*. The *Contractor's* design of Equipment takes account of this requirement.

WI 305.6 Design Warranty of the works

- (1) The *Contractor* warrants that the new station is designed to continue in service assuming normal usage and maintenance to provide a design life in accordance with Engineering Standard DLR-ENG-STD-ES-502. The *Contractor* shall ensure that no major rebuilding, repairs, modification or strengthening is required arising from an inadequacy in the design.
- (2) The *Contractor* shall use the level of skill care and diligence specified by clause 15.7(b) to ensure that the completed design for the *Works* shall comply with the requirements of the *Employer's* Requirements.
- (3) The *Contractor* shall, in designing the Works, use reasonable skill care and diligence and shall have the like liability of an appropriate designer experienced in carrying out design *works* for projects of similar size and complexity as the Works.
- (4) The *Contractor* shall submit appropriate review and check certificates with Design Documentation submitted, as directed by the Project Manager.
- (5) The *Contractor* provides a warranty for all hardware equipment supplied as part of the works. The warranty shall be effective for a period that is usual in the market for this environment from the date of final acceptance of such hardware warrants everything needed to correct any defect in the hardware equipment.
- (6) The *Contractor* provides a warranty that warrants all software provided by the Contractor. The warranty provides cover that is usual in the market for the software provided.

WI 310 Design Process

- (1) All design for the *Works* shall be developed through standards and assurance process.
- (2) The *Contractor* provides a Design Management Plan.
- (3) The *Contractor* provides complete supporting information and obtains the *Project Manager's* written acceptance for any concessions from the *Employer's* Requirements and Standards required for the *Contractor's* design of the *works*.
- (4) The *Contractor* confirms compliance with, and, as necessary, makes cross references to, the *Employer's* Requirements and Standards and any other relevant Works Information.
- (5) The *Contractor* provides Assurance and a compliance submission statement in timely fashion in respect of the design. The *Contractor* fulfils the designer's duties under the Construction (Design & Management) Regulations 2015 and provides all design information for the preparation of the Health & Safety File as required by the *Project Manager*.
- (6) The *Contractor* prepares working drawings, design calculations, specifications, safe system of works and any other relevant information necessary to Provide the Works.
- (7) The *Contractor* obtains all required design checks and third party technical approvals and carries out any reworking of the design necessary in order to obtain these approvals.
- (8) The *Contractor* provides design certificates and check certificates.
- (9) The *Contractor* is responsible for co-ordination, systems integration and quality control of the *Contractor's* design and its integration with other parts of the *works* whether designed by the *Contractor* or not.
- (10) The *Contractor* obtains the acceptance of the *Project Manager* to any changes which arise on Site and vary the *Contractor's* design, which has been already been accepted by the *Project Manager*, or vary designs prepared by Others and contained in the *Employer's* Design Information.
- (11) The *Contractor* prepares and provides soft copies and hard copies of "as-built" drawings and operation and maintenance manuals to suit the progressive completion of the *works*.
- (12) The *Contractor* complies with the quality plans and procedures and ensures that the *Project Manager* is kept informed of the *Contractor's* progress at all stages during the preparation of *Contractor's* design.
- (13) The *Contractor* makes presentations and reviews of the developing design to the *Employer* and Others as appropriate and/or as reasonably required by the *Employer*.



- (14) The *Contractor* develops the design in accordance with DLRL Change Assurance Framework and progress the *works* through the Change Assurance Panel Gates. The *Employer* has submitted the Notification of Change (NoC) which has been approved under the Operational Asset Change Category. The *Contractor* shall develop the design to the following Change Assurance Panel (CAP) Gates; Acceptance in Principle (AiP), followed by Acceptance of Design (AoD), followed by Acceptance of Asset (AoA) and concluded with the Closure of Change (CoC) CAP gate. The *Contractor* shall provide all necessary documentation required by CAP in order to obtain assurance to progress to the next stage gate.
- (15) The *Contractor* shall only commence construction of the design or parts thereof once the design or such parts have passed the Acceptance of Design assurance gate.
- (16) The *Contractor* addresses all open comments resulting from the preliminary Acceptance in Principle design. The comment schedules are included in WI 2000.
- (17) The *Contractor* addresses all conditions, if any, raised by the Change Assurance Panel from the preliminary Acceptance in Principle Design.
- (18) The *Contractor* notes that Change Assurance Panel meetings take place fortnightly.
- (19) The *Contractor* provides the *Project Manager* with the design along with all the relevant documentation identified in the Master Document List for the assurance gate. The Master Document List, which requires updating throughout the change assurance process, is included in WI 2000.
- (20) Refer to Annex 3.300.5 Acceptance in Principle templates.

WI 315 Design Submission

- (1) The *Contractor* submits two copies of the design data to the *Project Manager* for acceptance. The *Contractor* makes a presentation for each package of data submitted for review and gives no less than four weeks' notice of the intended submission date.
- (2) The *Contractor* uploads the design to the *Contractor's* online document control system and provides the *Employer* and Others with access.
- (3) The *Contractor* provides the *Employer* and Others 20 working days to review the design. The *Contractor* allows for at least two iterations of review in his programme. The *Employer* reviews and comments on the design and returns his comments in accordance with the DLR review process.
- (4) All Design documentation submitted by the *Contractor* to the *Employer* for review contains sufficient detail and is accompanied by sufficient information to enable the *Project Manager* to reasonably to assess whether the *Contractor's* design satisfies the *Employer's* Requirements, the *Contractor's* Works Proposals and does not contain a Safety Issue.
- (5) Where revised Design documentation is submitted, the *Contractor* shall also ensure that the documents clearly identify the revision made.
- (6) The *Contractor* provides the design of the *works* or of the relevant parts of the *works* to the *Project Manager* for comment and acceptance at least five weeks before the proposed installation/erection of the *works* or of the relevant part of the *works*. For the avoidance of doubt comment and/or acceptance by the *Project Manager* of the *works* or of any part of the *works* does not constitute acceptance by the *Project Manager* as to the suitability or the *Contractor's* design is not a waiver or does not relieve the *Contractor* of his design responsibilities and obligations in respect of his design.

WI 320 Construction information

- (1) Unless the *Project Manager* has notified the *Contractor* otherwise, the *Contractor's* design is advanced to complete and suitable for construction status before submission of the design data to the *Project Manager* for acceptance.
- (2) Submissions are staged in accordance with the Accepted Programme. The *Contractor* includes all relevant information in the design particulars, including:
 - Drawings
 - Bending schedules
 - Specifications
 - Safe system of works
 - Assessment reports
 - Design certificates
 - Check certificates
 - Designer's risk assessments
 - Design calculations
 - Confirmation that the *Contractor* has obtained the third party approvals for which he is responsible.

WI 325 Project Manager's Acceptance

- (1) The *Contractor* constructs the works in accordance with the design which has been accepted by the *Project Manager*. The *Project Manager* reviews the submitted design data for compliance with the *Employer's* Requirements.
- (2) Any re-working of the design, which is necessary, in order to obtain the *Project Manager's* acceptance is undertaken by the *Contractor* before commencing construction of that element or elements of the *works* affected.
- (3) In accordance with the provisions of clause 21 of the *conditions of contract*, the categories of acceptance are as follows:
 - a) Accepted without comment
The *Contractor* adheres to the design which the *Project Manager* has accepted and construction proceeds.
 - b) Accepted with comments
The *Contractor* reviews and incorporates the *Project Manager's* comments in his design and construction proceeds.
If the *Contractor* does not incorporate the *Project Manager's* comments, the

Contractor justifies the reasons for not agreeing, in detail, to the *Project Manager*. The *Contractor* then resubmits the design to the *Project Manager* for acceptance.

Construction does not proceed unless the submission has been accepted by the *Project Manager* in accordance with clause 21 of the *conditions of contract*.

c) Rejected

The *Project Manager* gives reasons for rejecting the design submitted.

Construction does not proceed.

The design is revised by the *Contractor* and resubmitted.

d) No review required to be undertaken

The *Contractor* adheres to the design which the *Project Manager* has not reviewed and construction proceeds.

WI 330 Design approvals from Others (27.1)

WI 330.1 Keolis Amey Docklands (KAD).

- (1) The *Contractor* shall be aware that Keolis Amey Docklands Ltd (KAD) has an input to the approval of the *Contractor's* design and the *Contractor* shall allow for the impact of this in his price and programme for the *works*.

WI 330.2 Crossrail

- (1) The *Contractor* shall be aware that Crossrail has an input to the approval of the *Contractor's* design where it interfaces with Crossrail, in particular any modifications to the existing Crossrail footbridge. The *Contractor* shall allow for the impact of this in his price and programme for the *works*.

WI 335 Employer's Requirements

- (1) The *Employer's* Requirements are the requirements the *Employer* has for the *works* as set out and/or as contained in and/or as reasonably inferred from the Technical Requirements Specification and/or the Technical Requirements Drawings contained in the WI2000. The *Contractor's* design satisfies and complies with all of the *Employer's* Requirements contained or reasonable inferred therein
- (2) Where and to the extent the *Contractor's* design does not satisfy or comply with the *Employer's* Requirements, the *Contractor* at no cost to the *Employer* amends his design such that in the reasonable opinion of the *Project Manager*

or otherwise as may be instructed by the *Project Manager*, the *Contractor's* design satisfies and complies with the *Employer's* requirements.

- (3) The *Contractor* shall ensure that his Earthing and Bonding Strategy and EMC Strategy are developed in advance of the design development. The *Contractor* shall submit both strategies as an early deliverable for the *Project Managers* acceptance.
- (4) The new footbridge linking Crossrail and ExCeL is open for pedestrian access as a public right of way in May 2016. The *Contractor* shall ensure that this footbridge remains in operation throughout the construction works as a pedestrian access route. The *Contractor* shall ensure that his design and construction methodology mitigates any risks to the pedestrians. When tying the mezzanine level to the Crossrail footbridge the *Contractor* shall obtain access by obtaining the relevant permissions.
- (5) The *Contractor* provides reasonable access to KAD when and to the extent KAD is required to carry out maintenance activities to support the functionality of the DLR network.
- (6) The *Contractor* shall not use the lift to support construction works to obtain access at platform level and footbridge level. The *Contractor* shall only use the lift to facilitate the alteration works required to the structure housing the lift car.

WI 340 Change to *Employer's* Requirements

WI 340.1 Contractor's design change proposals

- (1) For the purpose of this clause a *Contractor's* design change proposal means a proposal made by the *Contractor*, before proceeding with the relevant work, to change the design which is contained in the *Employer's* Requirements, or which has previously been accepted by the *Project Manager*.
- (2) If the *Contractor* wishes to propose such a change he submits the relevant design data to the *Project Manager* for acceptance, with an explanation of the reasons for the proposed change together with an assessment of the cost and programme effects.
- (3) Except as may be agreed between the *Project Manager* and *Contractor*, the period for reply for the assessment of the *Contractor's* submission to change the design shall be four weeks.
- (4) The *Contractor* submits the following information with any alternative design proposal:
 - Outline drawings of his proposed scheme;
 - Outline construction safe system of work with safety risk assessment;
 - Summary of changes from the *Employer's* Design Information;

- Proposed design check category of the structure;
 - List of third party approvals required for the alternative design proposal;
 - Outline programme for design, liaison, checking, consents, *Project Manager's* review and construction; and
 - Proposed design and checking bodies.
- (5) The *Contractor* is responsible for co-ordination of the design and its integration with other parts of the works not designed by the *Contractor*. This may involve regular liaison and formal reviews on all aspects of the design with the *Employer's* other designers.
- (6) Design change proposals (including drawings and specifications) are subject to formal review by the *Project Manager*.
- (7) The *Contractor* takes account of the *Project Manager's* and the *Employer's* costs incurred in review and acceptance of the proposed change. The *Contractor* is also responsible for management of the programme to ensure that the process of revisions to the design does not impact on the Completion Date or on any other Key Date.
- (8) The *Project Manager* may agree a phased submission programme to facilitate development of the assured design and to mitigate delays in the construction programme.

WI 345 Records

- (1) The *Contractor* maintains a log of all proposed design changes sufficient to track the relevant correspondence, design particulars, and cost and programme impacts of each design change.

WI 350 Cost saving proposals

- (1) The *Contractor* identifies opportunities for cost saving proposals, notifies the *Project Manager* and undertakes to chair and manage a cost saving meeting. The meeting is attended by key personnel to review the proposals and the beneficial output to the contract. The *Project Manager* reserves the right to refuse any output of the cost saving process, where this leads to a change in scope. The *Project Manager* reserves the right to instruct the output of a cost saving exercise as a change to the Works Information, if it constitutes a change in scope.

WI 355 Design co-ordination

- (1) The *Contractor* ensures that the design is progressed in a logical sequence and that all elements of the design are co-ordinated with each other.

WI 360 Requirements of Others

- (1) The *Contractor* ensures that the design has full and due regard for the requirements of Others as may be set out in this Works Information and/or as may be notified to the Contractor by the *Employer* from time to time.
- (2) For works affecting Crossrail assets, the *Contractor* shall agree with Crossrail, in advance of such works, the requirements of the assurance and handover process.
- (3) The *Contractor* provides the *Employer* with all the necessary information, drawings and approvals etc. to enable the latter to discharge its duties with regards to any Party Wall or other agreement.

WI 365 Contractor's Design Manager

- (1) The *Contractor* appoints a design manager (the *Contractor's* Design Manager) who is responsible for the management, coordination, quality control and Assurance of the *Contractor's* design work.
- (2) The *Contractor's* Design Manager is to;
 - be the primary interface with the *Project Manager* on design matters.
 - have the appropriate knowledge, skills and experience to carry out the role.
 - act as the single point of contact for design queries for *Contractor*, designers, *Project Manager* and *Employer*.
 - be responsible for managing the exchange of information between the various discipline designers in order to achieve a coordinated design.
 - chair design team meetings.
 - conduct regular informal interdisciplinary reviews and at least one formal documented interdisciplinary review prior to the design being submitted to the *Employer*.
 - collate all design information and maintains the official copy of the design.
 - be the first point of contact for any design changes, whether requested by the *Employer*, the *Contractor*, or necessitated on site.
- (3) For the duration of the design phase of the *works* until the submitted design has been accepted by the *Employer*, the *Contractor* convenes a weekly design team meeting. The meeting is chaired and recorded by the *Contractor's* Design Manager and will be attended by a competent representative from each design party. A representative of the *Project Manager* and/or the *Employer* may elect to attend. A copy of the recorded minutes is to be submitted to the *Project Manager*, regardless of his attendance or that of one of his agents.

WI 365 Employer's Design

- (1) The *Employer* does not design the *works*. To the extent the *Employer* provides any design to the *Contractor* the *Contractor* completes, develops and integrates

such design into the *Contractor's* design and the *Contractor* takes full responsibility for such design as if the *Contractor* had prepared the design provided by the *Employer*.

Employer has provided the preliminary indicative design for Acceptance in Principle purposes. The *Contractor* reviews, verifies, warrants and adopts this 'indicative design' as his own and develops the full design through all stages to RIBA Stage 6. The *Contractor* is required to optimise the design that provides the safest, economic and efficient design to be constructed, operated and maintained throughout the project lifecycle.

WI 370 Building Information Modelling

- (1) The *Contractor* provides a BIM model in accordance with the BIM Standard, refer to WI 2000 and Appendix 3.2000.16.

WI 400 COMPLETION

WI 405 Completion definition 11.2(2)

WI 405.1 Definition

- (1) In addition to and without prejudice to clause 11.2(2) of the contract, Completion of the *works* is when the *Contractor* has:
- Rectified all defects which would prevent or restrict safe railway operations and/or opening of the station for passenger operations.
 - Completed Testing and Commissioning of all systems in accordance with WI 700 and accepted by the Franchisee (KAD).
 - Provided adequate training including “train the trainer” training to Others (maximum of 12) identified by the *Project Manager*.
 - Cleaned Site and removed all obstructions including surplus Plant & Materials and Equipment from the station area to enable safe operation of the station to the reasonable satisfaction of the *Project Manager*.
 - Cleaned Site and removed all obstructions from compound area including carrying out all dilapidations to enable Others to use area for intended purpose to the reasonable satisfaction of the *Project Manager*.
 - Provided to the *Project Manager* final copies of the approved Operational and Maintenance Manuals.
 - Completed the Health & Safety file and accepted by the *Project Manager*.

- Completed the as-built information which has been accepted by the *Project Manager*.
- Provided all deliverables required under the Contract which have been accepted by the *Project Manager*.
- Completed all *works* necessary for the stakeholders including Crossrail and ExCeL to function without constraints

WI 405.2 Notice requirements

- (1) The *Contractor* provides the *Project Manager* no less than four weeks notice of the date that the *Contractor* plans to achieve Completion.

WI 405.3 Work to be done by the Completion Date

Without limitation to the provisions in the *conditions of contract*, the *Project Manager* does not certify completion unless the below activities have take place. The *Contractor* shall, by the *Completion Date* for the whole of the *works* ensure the following:

- Completion of the *works* in accordance with the Works Information;
- The *works* have been assured in accordance with WI 600;
- Operations and Maintenance (O&M) manuals and warranties in accordance with WI 600 have been provided by the *Contractor* and accepted by the *Project Manager*;
- All testing, inspections and commissioning has been witnessed by the *Project Manager* and/or the *Supervisor* and has been certified in accordance with WI 700 and accepted as complete by the *Project Manager*;
- Completion of all *works* necessary to facilitate a safe handover of the fully operational station to the *Employer* with all elements operational to the extent that the *works* require them to be.
- The Site is clear of all unused Plant and Materials, Equipment and other items to ensure free and unobstructed access by the *Employer* and Others and that a “final clean” has been undertaken;
- All temporary hoardings and barriers have been removed;
- The demobilisation of all site accommodation and welfare is complete;
- All strategic maintenance tools necessary to open up and inspect the *works* delivered by the *Contractor*, accepted by the *Project Manager*.

- The *Contractor* training of the *Employer's* staff and Others as detailed in WI 415 has been completed;
- Provide care, protection and maintenance (as required) of all completed *works* until handover.
- Post-completion maintenance plan and asset labelling has been accepted by the *Project Manager*, and
- All notified Defects have been completed by the *Contractor*.

WI 405.4 Completion Process

- (1) In order to obtain Completion, the *Contractor*:
- Has an accepted Completion Management Plan for the *works* detailing the proposed programme activities, durations and resources required to achieve project Completion in accordance with the Works Information;
 - Completes all tests and inspection in accordance with WI 700;
 - Corrects all Defects notified to the *Project Manager* before Completion in accordance with clause 43 of the conditions of contract;
 - Completes all calibration, commissioning and systems integration in accordance with the Works Information;
 - Provides all Completion documentation required by the Works Information and ensures such information has been accepted as complete by the *Project Manager*, and
 - Notifies the *Project Manager* that the *works* have been completed and request an inspection.
- (2) Completion is certified by the *Project Manager* in accordance with clause 30.2 of the conditions of contract.

WI 405.5 Completion Inspections

- (1) The *Contractor*, the *Employer* and Others affected by Completion, carry out joint inspections of the works.
- (2) The *Contractor* makes provision for time to correct Defects and any necessary re-inspection following correction. The *Contractor* also allows time for updating and modifying any Completion documentation that may be required.
- (3) The *Contractor* provides the *Project Manager* with:
 - Details of inspection plans including a 2 week rolling look ahead to be carried out, required attendees including the *Employer's* representatives, Subcontractors or Others including the format for output of successful inspection/identification of Defects;
 - Details of certificates, warranties and the like and evidence that all applicable statutory or regulatory approvals have been obtained
 - Details of tests to be completed including certification requirements/test results for work covered up and provision of copies as evidence – visibility alone is not acceptable
 - Details and programme for all off site tests, Factory Acceptance Tests (FATs), in sufficient time to enable the *Project Manager* to attend such tests with reasonable notice.
 - Details of site cleanliness inspections, dust mitigation measures, removal of all temporary *works* plant and Equipment and making good for both permanent and temporary works
 - Details of identified Defects, time provision for correction of Defects, delivery of parts, materials and Equipment and updating Completion documentation as required
 - A Defect correction programme for acceptance by the *Project Manager*

WI 405.6 Completion Documentation

- (1) The *Contractor* provides to the *Project Manager* for acceptance a list of all Completion documentation in accordance with the Works Information.
- (2) Completion is not certified by the *Project Manager* unless as a minimum the following has taken place:
 - A Completion Management Plan has been accepted by the *Project Manager*
 - As-built drawings and design specifications have been provided and accepted by the *Project Manager*



- All Assurance documentation has been provided and accepted by the *Project Manager* in accordance with WI 600
- Quality records have been provided and accepted by the *Project Manager* in accordance with WI 600
- Health and Safety files have been provided and accepted by the *Project Manager* in accordance with CDM (2015)
- Inspections, tests plans and commissioning certificates have been completed in accordance with WI 700 and accepted as completed by the *Project Manager*
- A list of spares and a list of critical components/plant and Equipment is provided by the *Contractor*.
- Any software manual and licences.
- Asset information has been updated, integrity checked, provided in a format agreed and accepted by the *Project Manager*
- Non-conformance reports (NCRs) and close out activities have been provided and accepted as completed by the *Supervisor* as part of Defects management process.
- Completion of staff training and staff training manuals, training programme and “refresher” programme has been provided and accepted by the *Project Manager*
- Completion of work by / for Others has been certified as completed and accepted by the *Project Manager*
- All public third party complaints recorded and resolved together with other third party liaison (party wall disputes resolved etc.)
- Meter readings of all power supplies to Site and all supplies to be taken over by the *Employer* supplied by the *Contractor* and accepted by the *Project Manager*
- All excess materials, plant and Equipment has been removed and the Sites left in a clean and tidy condition with dust mitigation measures implemented and accepted as complete by the *Project Manager*
- A Maintenance Strategy and Plan has been accepted by the Franchisee and the *Employer*.

WI 415 Training

The *Contractor* produces a training plan outlining all training activities and submits a copy of the plan to the *Project Manager*, for acceptance, prior to commencement of training and as a minimum no less than 65 days prior to the completion of the whole of the works. The Training Plan will define skills and competencies required for the *Employer's* staff involved in the operation of the facilities installed by the *Contractor* in performing the works, and shall include procedures for the installation and use of the equipment. All training modules shall contain objectives, method, contents, duration, prerequisites required, facilities and trainer resource availability. Competency requirements and certification, assessment arrangements, standards and re-testing procedures shall also be included.

- (1) The supporting training manuals shall include the documents to develop and achieve the staff maintenance skill and competency required for maintenance of the facilities installed by the *Contractor* in performing the works.

For maintenance related training, the Training Plan is to include all aspects, such as trouble shooting and preventative maintenance techniques. Training activities shall include familiarisation with all relevant pieces of plant, systems and any special tools and equipment. The training is envisaged to comprise on-site training and classroom activities as below.

- (1) Training includes as a minimum:
 - Familiarisation of the station and assets and their operation;
 - Off-Site class room training;
 - On-Site class room training;
 - Hands on training;
 - Refresher training; and
 - Visits to relevant sites (where appropriate).
- (2) Training includes operation of the overall system and all individual aspects of the installation.
- (3) Training refers to the relevant sections of the O&M Manuals, Drawings and Specification.
- (4) Training provides a thorough understanding of the purpose and intent of all plant and systems for the purposes of safe operation, fault finding, maintenance, repair and overhaul, and includes but not be limited to the following:
 - Plant control functions;
 - Plant monitoring and action on alarms;
 - Operation of safety systems;

- Operation of set-point adjustment and controls;
 - Fault or failure shutdown of main elements of Plant whilst in automatic mode;
 - Restarting of Plant following shutdown;
 - Operational function from SCADA;
 - Operation of the main elements of plant when the various Programmable Logic Controller (PLC) controls fail;
 - Total power failure during normal operation and auto start-up on restoration of power;
 - Access to, and removal (as necessary) of Plant;
 - Routine maintenance tasks; and
 - Lifting arrangements.
- (5) The *Contractor* provides course notes and any visual aid equipment that may be required.
- (6) The *Contractor* ensures that only competent trainers deliver sessions.
- (7) the *Contractor* provides comprehensive training for maintenance staff for all electronic or electrical and mechanical Plant and systems prior to the Handover into operational use of that part of the works.

WI 420 Final Clean

Throughout the period of Contract the *Contractor* shall maintain the whole area of his operations in a clean, tidy and safe condition by arranging his materials in an orderly manner.

All rubbish, waste material, debris and the like shall be systematically cleared off the working areas as it accumulates, and, if not removed directly off the Site, shall be deposited at general collecting points approved by the *Project Manager* pending removal from the Site by the *Contractor*. This should be in accordance with the *Contractor's* Waste Management Plan. The *Contractor* shall take the necessary measures to keep the *works* site clean and tidy. All waste shall be disposed of by licensed Waste Carriers.

- (1) Prior to Completion the *Contractor* ensures that the Site is clear of all Equipment, Plant and unused Materials and all temporary *works* and that a "builder's final clean" has been undertaken.

WI 425 Security

- (1) The *Contractor* prepares a plan four weeks in advance of the Completion Date for the *Project Manager's* approval, detailing how the *Contractor* proposes to

transfer the possession of the Site or part(s) thereof to the *Employer* as part of the Hand over / Handback Strategy.

- (2) The *Contractor* removes all temporary access provided by the *Contractor* before the Completion Date and secures all alterations made.
- (3) For security reasons there will be no external windows in buildings including the SER room and any station attendant rooms.
- (4) The *Contractor* is to ensure all wired and wireless network connections for power and comms will have adequate security protection including UPS system with trigger points wherever there has been an infringement attempt.
- (5) External doors shall be steel faced security doors and fitted with security hinges. Three point locking and hinges are required. Only personnel access doors shall be fitted with external handles and have panic bars on the inside.
- (6) Video recordings from the CCTV cameras are to be displayed on a 20" monitor with secured remote access for upgrades at a later date.
- (7) Local video recordings on the DVR are to be in encrypted format with additional security passwords.

WI 430 Correcting Defects (45.1, 45.2)

- (1) Access to the site for correcting defects after Completion can only be obtained with the permission of the land / property owner.
- (2) Process for liaison with the *Project Manager* and *Employer* as identified in this Contract.
- (3) All Defects notified before Completion as defined by clause 11.2 (5) of the *conditions of contract* are rectified to comply with the Works Information.
- (4) The *Contractor* complies with the defect correction period as stated in the *conditions of contract* and Contract Data. The *Contractor* continues to make use of access booking process requirements on the operational railway in order to arrange the appropriate access to the Site in order to correct the Defects.
- (5) In completing Defect correction the *Contractor* allows for:
 - All attendances required from Subcontractors, statutory authorities, utilities, the *Employer* and Others.
 - Time period for correction of Defects on Site
 - Updating as-built information, O&M manuals as required
 - Re-inspection of corrected Defects
 - Keeping records of corrected Defects and supplying these to the *Supervisor* as evidence of Defects correction in addition to site inspections.
 - The *Supervisor* issuing the Defects Certificate in accordance with clause 43 of the conditions of contract.

WI 435 Pre-Completion arrangements

- (1) The *Contractor* attends a series of pre-completion meetings with the *Project Manager* to commence 10 weeks before the planned completion of the *works* and thereafter on a weekly basis. The purpose of the meetings is for the *Contractor* to present a detailed completion programme for the *works* and to enable the *Project Manager* to ensure that all arrangements and measures are in place for a proper and complete handover of the *works* to the *Employer*.
- (2) Review the *Contractor's* progress and planning 10 weeks prior to planned Completion as shown on the Accepted Programme, or if there is no updated Accepted Programme when the *Project Manager* deems it to be the appropriate time. This enables the *Employer* to consider what action may be required or assistance given in order to achieve Completion.

WI 440 Contractor's Maintenance Obligations

WI 440.1 Draft Operational & Maintenance Data

- (1) The *Contractor* is responsible for all planned and reactive maintenance of the *works* until Take Over by the *Employer* in accordance with clause 35 of the conditions of contract.
- (2) Not less than four weeks prior to Completion, the *Contractor* submits to the *Project Manager* for acceptance, a draft of the operation and maintenance (O&M) manual, including an outline plan for preventive maintenance, and a recommended list of spare parts.
- (3) The *Project Manager* either accepts the O&M Data or notifies his non acceptance, giving reasons, within four weeks. A reason for not accepting the draft O&M data is that it is not sufficient to enable the *Employer* to accept responsibility for the maintenance of the section of *the works*.
- (4) The *Contractor* submits a list of recommended operational asset spares for the *Project Manager's* acceptance as part of the draft O&M manual. The spare parts holding list identifies items required as a basic holding suitable for one year's routine preventive maintenance together with identification of all long delivery components.
- (5) The calibration and maintenance of new permanent assets brought into use but not taken over remains the *Contractor's* responsibility in accordance with clause 35.2 of the conditions of contract.
- (6) The maintenance of new temporary assets constructed or installed to enable the on-going operability of the *Employer's* asset but not forming part of the *works* remains the *Contractor's* responsibility.
- (7) The responsibility for maintenance of existing assets not forming part of the *works* is retained by the *Employer* except where access to such assets is prevented by the *Contractor* or the assets have been significantly modified by him such that a material change to the existing maintenance regime is required.

In this case the *Contractor* becomes responsible for the maintenance of the affected assets until Take Over, where access is prevented, and until such time as they can be accessed.

- (8) No less than 26 weeks prior to the Completion Date the *Contractor* is to present to the *Project Manager* for approval a Test and Commissioning Plan detailing how he intends to commission, test and handover the *works*. The Plan will be updated by the *Contractor* for approval by the *Project Manager* when it changes or at least every 4 weeks. The *Contractor* will appoint a dedicated full time Testing & Commissioning Manager as a *key person* as part of his team.
- (9) The maintenance of existing assets that are unchanged by the *Contractor* remains the responsibility of the *Employer*.
- (10) The maintenance of new assets at Take Over is the responsibility of the *Employer*.

WI 445 Meeting post Completion

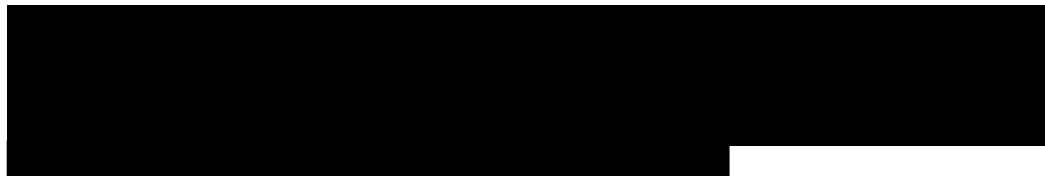
- (1) Following completion of the *works*, the *Contractor's* attends a "Lessons Learned" meeting with the *Project Manager* and the *Employer* in order to share and review any lessons learned in the course of the execution of the *works*.

WI 450 Post Completion review meeting

- (1) The *Contractor* attend meetings during the *defects correction period* as reasonably required by the *Project Manager* having due regard to the extent of defects occurring after the Completion of the *works* to review progress, planning and implementation of correcting any such defects prior to the end of the *defects correction period*.

WI 455 Planned and Reactive maintenance

WI 455.1 Spares



WI 455.2 Maintenance

- (1) The *Contractor* is responsible for all planned and reactive maintenance of the *works* until handover to the *Employer* or Others as identified by the *Project Manager*.

WI 460 Maintenance records

- (1) The *Contractor* submits maintenance records to the *Project Manager* for acceptance, no less than 2 weeks prior to handover.

WI 461 Maintenance Strategy

- (1) Prior to final acceptance of the *Contractor's* design the *Contractor* is to produce and gain approval from the *Project Manager* a Maintenance Strategy, ALARP and CDM requirements and principles with regard to safe and economic interface with the railway *works*

WI 500 PROGRAMME REQUIREMENTS

WI 505 Programme Requirements (Clause 31.2)

- (1) The *Contractor's* programmes are prepared using Primavera Enterprise Version 8.0 or later. Primavera software settings shall be in accordance with the Project Manager's requirements.
- (2) All Primavera calendars used shall be set in days. On all programmes no activity shall exceed 2 week duration without prior acceptance by the Project Manager.
- (3) The Contractor's programmes shall show the critical path(s), early start and finish dates, late start and finish dates and total float.
- (4) Key Dates and/or Sectional Completion Dates are shown on the programme.
- (5) Interfaces and/or constraints associated with *works* by Others as identified in this Works Information are shown.

- (6) All programme submissions are clearly titled, numbered and dated
- (7) The programme allows sufficient time for the process of review, revision and further review of all drawings, documents and other things to be submitted to the *Project Manager* so that such process may be completed without delaying the placing of orders and the execution of the *works*
- (8) The *Contractor* submits the programmes in the following format:
 - The full programme in logical linked Gantt chart form showing the critical path(s), Early Start Dates, Late Start Dates and Float in hard copy and .pdf electronic file format;
 - A summary programme for each section of the *works* in linked bar chart format showing the critical path(s), sectional Completion Dates, Key Dates and other major milestones in hard copy and .pdf electronic file format; and
- (9) The full programme Primavera .xer files and .plf files by electronic data transfer. The change log is submitted with the data files and any changes to calendars particularly noted.
- (10) All programmes submitted include the information listed in clauses 31.2, and 32.1 of the *conditions of contract* as amended together with the following information:
 - The dates the *Contractor* plans to submit particulars of the design of any items of Equipment required by the Works Information;
 - The dates when key items of Plant and Materials and Equipment are required;
 - All major milestones to Completion of the *works*;
 - The agreed dates when documents are submitted, for acceptance by the *Project Manager*, in respect of design or third party consents;
 - The dates when the *Contractor* consent submissions are made;
 - The agreed dates when, in order to Provide the *Works* in accordance with the programme, the *Contractor* requires design information or other information to be provided by the *Employer* or Others;
 - The dates when the station is required to be closed and opened to passengers including an allowance for a maximum 4 week notice of closure
 - The dates when the WESTBOUND track is planned to be closed and opened to DLR trains including a 13 weeks notice from closure and 4 week notice for re-opening.
 - The dates of submission of any quality plans.
 - The dates of submission of any safety plans;
 - The dates of submission of any other programmes and safe system of works;
 - The dates of submission of any logistics plan;

- The dates of commencement of all permanent and temporary construction and installation activities;
- The dates of factory and Site inspection and tests;
- All quality hold points and quality control points;
- The dates of all necessary approvals and consents from the *Employer* or from Others.
- The dates of submission of any design documents; and any other deliverables required by the Contract.
- The dates and duration of all testing and commission activities.
- The Contractor shall resource load, with hours, cost and quantities the first revised programme for acceptance within 4 weeks of the starting date. The Contractor and the Project Manager shall agree on the method for resource loading of the programme, and the maintenance of the resource loading prior to the submittal of the first revised programme;
- Details of any 3rd party (e.g. Crossrail, ExCeL etc.) interfaces and/or submissions development, submission and approvals allowing sufficient time for each stage of the process and also allowances for resubmission;
- Details of any significant changes including revisions to critical path since the previous Accepted Programme.

WI 510 Programme Arrangement

- (1) The *Contractor's* programme is prepared with due regard to the following:
 - The programme separately identifies any *works*
 - (A) that are required to be carried out during engineering hours during both weekends and weekdays ;
 - (B) to be carried out with single track closure;
 - (C) to be carried out with station closed to passengers
 - any stages in the *works*, (for example Stage 1 works and Stage 2 works) as may be further described in the Works Information.
 - The programme separately identifies any optional works, as may be further described in the Works Information.
 - The programme identifies the latest date by which any stage *works* commencement notice are required to be issued by the *Project Manager*.
- (2) The *Contractor* develops a sub-network of the programme showing all design deliverables. This sub-network is a separate programme but which can be integrated as part of the overall programme submitted for acceptance
- (3) The programme activities and work breakdown structure should, without limitation, take into account the following activities

Appoint <i>Contractor</i>
<i>Contractors Mobilise</i>
Prepare Preliminary Design
DLR Review
AiP at CAP
Prepare Detailed Design
DLR Review
Developer Review
Detailed Design - Final Amendments
AoD at CAP
Mobilisation period
Site Setup / Enabling Works
Decommission Plant Room
Install Hoarding Along Platform North Side
Erect Hoarding at High Level
Remove Western Staircase
Remove Existing Canopy
Modify Column Support to Eastern Link Bridge to ExCeL
Remove Escalator Canopy
Demolish Upper Level of Platform Slab
Remove Cladding to Escalators
Remove Roof Structure of Western & Eastern Link Bridge to ExCeL
Piling For Mezzanine Foundation
Install Base Plates on Existing Foundation at Eastern End
Core Bottom Level of Platform Slab in Preparation For Piling
Demolish Existing Pile Cap to Western Stairs
Cast Pile Caps & Ground Beams to Mezzanine Foundation
Additional Pile & Amendments to Northern Foundations on Western Footbridge
Install Mezzanine Main Steel Columns & Beams. Lifting Ops During Track Closure/Engineering Hours
Piling For Plant Room Footbridge
Cast Pile Caps For Plant Room Footbridge
Install New Bearing Shelves to Existing Plant Room Foundations
Install Mezzanine Secondary Steel Structure
Install Main Columns & Beams For New Infill Slab to Eastern End, Maintenance Footbridge & Plant Room
Cast New Platform Deck
Amend & Add New Columns & Beams to Extend The Western Footbridge
Construct Second Level to Plant Room
Cast the Deck of Infill Slab to The Western Lift
Fit Out New Plant Rooms
Re-Instate Escalator Cladding
Install Mezzanine Roof Columns & Beams
Re-Instate Western Staircase
Install New Central Stairs
Lay New Platform Paving & Install Platform Furniture
Cast The Mezzanine Deck Slab
Re-Set Coping Stones Along Eastbound Line

Re-Set Coping Stones Along Westbound Line
Install Glazing & Hand Rails
Install Ceiling & Fit Out Services Platform Level
Minor Amendments to Crossrail Link Bridge
Install Mezzanine Roof
Install Ceiling & Fit Out Services Mezzanine Level
Install External Glazing to Escalators
Remove Hoarding Platform Level
Re-Commission Plant Rooms
Testing & Commissioning
Remove Hoarding at Mezzanine Level
AoA at CAP
Decommission Site Compound & Make Good
CoC at CAP

WI 515 **Methodology Statement**

- (1) The *Contractor* provides a narrative with each programme submitted for acceptance describing how the programme has been put together, with reference to the safe system of work and including:
 - Cycle times and work sequences;
 - The time risk allowance against each activity;
 - The deployment of *Contractor's* Equipment and labour;
 - The production rates used in determining durations;
 - The shifts assumed in determining durations;
 - The breakdown of labour requirements by trades;
 - Intended working hours
 - The schedules of quantities used in developing the programme; and
 - Time risk allowance.
- (2) The programme narrative is in sufficient detail to enable the durations, leads and lags in the logic diagram to be reconciled and substantiated, and to enable the projected levels of labour (by trade) and staff and flows of goods, Materials and Equipment to be identified.

WI 520 **Work of the *Employer* and Others**

- (1) The *Contractor* shall note that the *Employer* is responsible for the design and implementation of changes to the signalling and train operations as a result of any track closure which will be carried out by Thales or other company approved by the *Employer*. The *Contractor* shall be responsible for co ordination and management of interfaces as a result of this work. The *Contractor* shall be responsible for establishing the programme of these signalling *works* and ensuring that the activities are integrated in the *Contractor's* programme.



- (2) If the *Contractor* bids for a westbound line closure the train service to/from Beckton will be routed through Custom House on the eastbound track, platform 3 in the station, via crossovers 1312A&B and 1315A&B (see Network Schematic and LCS Codes DLR-ENG-GDN-ES008b in W1 2000 Standards and Specifications – Core Asset Information Standards and Guidance)
- (3) The *Contractor* when making the request for the line closure needs to submit this in accordance with the Working On The Railway Manual, WORM, which requires 13 weeks notice.
- (4) Whilst DLRL will make the necessary changes to the signalling software, the *Contractor* will be expected to undertake and allow in his price for the following to enable the track to be closed.
 - Liaise with DLRL’s franchisee, Keolis Amey Docklands (KAD), to organise and manage implementation and subsequent removal of the line closure.
 - Ensure a fully boarded timber hoarding completely surrounds the site, to separate the operational railway from the site working areas, line closure, etc.
 - Install where agreed timber baulks across the tracks to prevent trains entering the site.
 - Where agreed with KAD engage a suitably qualified sub *Contractor* to remove sections of conductor rail and/or drop power cables supplying the conductor rail, to provide electrical isolation of the line to be closed and subsequent reinstatement to allow re-opening of the line.
 - Undertake with KAD a track survey and condition report before closing the track and subsequently prior to re-opening the line to operational service.
 - The signal cable that runs in the centre of the track and on the foot of the rail throughout the length of the line closure section will need to be protected as this remains connected and part of the live signal control system
 - The *Contractor* will need to allow and make arrangements for access of the DLRL First Line Response Team, FLRTs, to access the “site” in order to correct a fault that may be affecting the operation service of the railway. FLRT access needs to be 24hours/day, 7days/week” *works works*
- (5) The *Contractor* ensures that any relocation, removal and reinstatement *works* of existing and new oyster validators and associated equipment by the *Employer’s* approved supplier is included in the programme of works.
- (6) The *Contractor* co-ordinates, manages and facilitates the works by the *Employer’s* approved supplier.
- (7) The *Contractor* allows for the *Employer’s* approved supplier to provide input into the installation and commissioning of the oyster validators.
- (8) The *Contractor* shows all handover and handback activities in the programme.

WI 525 Information Release Schedule

- (1) The *Contractor* provides the *Project Manager* with a schedule of information required from the *Project Manager* and the date by which it is to be provided. The *Contractor* ensures that any dates contained in the schedule of information to be provided are neither unreasonably close to or distant from the date when work associated with the requirement is due to be carried out.

WI 530 Revising Programmes

- (1) Revised programmes submitted by the *Contractor* for acceptance include the information listed in clause 32.1 of the *conditions of contract* together with the following information:
 - change log detailing all new activities
 - changed durations
 - changed calendar assignments
 - changed dependencies.
- (2) The *Contractor* attends regular planning meetings with the *Project Manager* as reasonably required by the *Project Manager* having regard to the progress of the *works*.
- (3) The *Contractor* updates programme as reasonably required by the *Project Manager* having regard to the progress of the *works*.
- (4) The *Contractor* provides a progress report for review and discussion at the progress meetings.

WI 535 Inspection, Test and Sample Schedule

- (1) The *Contractor* provides the *Project Manager* with a schedule of inspections; tests and sampling that require to be notified and co-ordinated with the *Employer*.

WI600 QUALITY AND ASSURANCE

WI 605 Terminology

- (1) The following are Quality and Assurance System terms used in this section of the Works Information;

Term	Meaning
Assurance	Process of ensuring and providing evidence that the <i>works</i> have been designed and constructed in compliance with the <i>Employer's</i> Requirements
Conformity	Fulfilment of specified requirements.
<i>Contractor's</i> Project Quality and Assurance Plan	A document setting out how the quality requirements of the contract will be achieved, controlled, assured, demonstrated and managed.
Corrective Action Request (CAR)	A statement prepared to record a failure to implement a specified process or contractual requirement. Generally identified during an audit.
<i>Employer's</i> Requirements	The output from the <i>works</i> in respect of spatial and operational improvements documented in the <i>Employer's</i> Requirement in the Works Information and the applicable Standards and legislation applicable.
Handback	The process by which the <i>Contractor</i> returns into use an altered or unaltered asset where the function of the asset is not changed by the <i>Contractor's</i> occupation or alteration.
Handover	The process by which a new asset or an existing asset where the function has changed, is handed over to the <i>Employer</i> and the responsibility for maintenance after the Handover transfers to the <i>Employer</i> and is carried out on the <i>Employer's</i> behalf. Completion or take over by the <i>Employer</i> (in accordance with clause 35 of the <i>conditions of contract</i>).
Hold Point	A point in the construction of an element of the <i>works</i> at which the <i>Project Manager</i> is invited to inspect the <i>works</i> to verify quality or completeness prior to the work progressing. The <i>Project Manager</i> will identify these Hold Points during his review of the Inspection and Test Plans
Inspection & Test	Plans specifying the activities required to establish how Conformity is to be verified. They identify the

Plans (ITPs)	responsibilities for executing the activities, the documents controlling them and the records required to provide Assurance. These are prepared for a particular element of the <i>works</i> to support the <i>Contractor's</i> Project Quality and Assurance Plan.
Safe System of Work	A statement submitted in accordance with the requirements of clause 31.2 of the <i>conditions of contract</i> describing how the <i>Contractor</i> plans to do the work, and identifying the principal Equipment and resources which he plans to use.
Non Conformance Report (NCR)	A statement raised to record a Non-conformity (Defect) in the product, workmanship, or system.
Nonconformity	A Defect - as defined in clause 11.2 (5) of the <i>conditions of contract</i> . (The term "Non-conformity" is used to be consistent with industry practice and includes System Defects as defined below.)
Outstanding Work List	A list generated at an inspection or acceptance stage to identify Defects which must be remedied before an asset can be put into operational use.
Quality and Assurance System	The management system for achieving the quality requirements described in the Works Information and for demonstrating that achievement, including the provision of documentary evidence and supporting records.
Quality Control Procedures (QCPs)	Documents that specify operational techniques or activities that are used to fulfil requirements for quality, and as such support the contract quality plan.
Site Query (SQ)	A request for information, clarification or agreement to a proposed action.
System Defect	A failure to comply with the quality and Assurance management requirements specified in this Works Information.
Verification Activity Plan	Document prepared and owned by the <i>Employer</i> in accordance with LUL Standard S1538.

WI 610 Quality Statement

- (1) The *Contractor* undertakes the *works* in accordance with Quality Management Principals [ISO 9000] and ensures:
- achievement of all the Project objectives,
 - sustainable culture of Continuous Improvement and Innovation to correct and prevent non-conformances ,
 - Enables a robust and adequate application of Quality Management Systems [ISO 9001].

WI 615 Quality and Assurance management system

WI 615.1 Quality and Assurance Management Systems requirements

- (1) The *Contractor* provides a quality and assurance management system for approval of the *Project Manager* and is submitted within 4 weeks after contract award. The quality and assurance management system identifies how the *Contractor*, by audit, inspection, self certification, collation and provision of evidence, demonstrates that the *works* are designed and constructed in compliance with all the requirements of the contract relevant Standards and statutory regulations.
- (2) The *Contractor* submits plans and procedures for acceptance by the *Project Manager* to demonstrate how he will satisfy these requirements.
- (3) The *Contractor's* quality and Assurance documentation are set out to minimise the duplication of information between plans and procedures.

WI 615.2 Quality system requirements

- (1) The *Contractor*, his designers, Subcontractors and suppliers establish and implement quality management systems which comply with BS EN ISO 9001.
- (2) The *Contractor* provides access to his quality system documentation for review, inspection, and audit by the *Project Manager*, to support the requirements of the LU Verification Activity Plan.
- (3) Any intervention by the *Project Manager* in Hold Point inspections, and critical interventions, in audits, or in oversight of the progress of the works, does not relieve the *Contractor* of his obligations under the contract.
- (4) Quality system documentation which supports Subcontractor and supplier activities in the *works* is reviewed and accepted by the *Contractor* before work starts on the relevant activities. The contract makes the documentation available to the *Project Manager* for audit on request.
- (5) The *Employer*, the *Project Manager* and Others including statutory authorities and Statutory Undertakers have the right to observe, witness, conduct audits,

inspections and tests of all *works* that are being executed by the *Contractor*, his designers, Subcontractors, suppliers and sub-tiers thereof.

- (6) The *Contractor* provides all inspection and testing necessary to demonstrate compliance with the specified requirements. All Non-conformities are resolved before final acceptance of the whole of the *works* or any section thereof.

WI 615.3 Quality and Assurance Manager

- (1) The *Contractor* appoints a Quality and Assurance Manager to be responsible for all quality and Assurance matters on this contract. The Quality and Assurance Manager is suitably empowered and supported to enable the quality of work on the contract to be managed effectively.
- (2) The Quality and Assurance Manager is independent of the design and construction functions, and has an independent link to level. The Quality and Assurance Manager is full-time for the duration of the contract, dedicated to quality and Assurance matters on this contract, and is provided with adequate resources and authority to enable the quality of work on the contract to be managed effectively. The *Contractor* does not replace the Quality and Assurance Manager without the express written permission of the *Project Manager*.
- (3) The Quality and Assurance Manager:
- develops and implements a Project Quality and Assurance Plan as detailed in WI625 below;
 - Ensures the *Contractor's* Quality and Assurance Plan complies with BS/150 1055 and LU Standard S1538
 - develops and provides quality training for all personnel to include induction and training for staff with specific quality responsibilities;
 - manages all quality personnel;
 - approves the quality elements of the *Contractor's* Safe Systems of Work;
 - ensures compliance with legal and contractual requirements;
 - provides advice and instruction to construction teams to deal rapidly and effectively with quality non-conformities and complaints;
 - analyses individual quality non-conformities and complaints to identify trends, root causes and the corrective and preventive actions needed;
 - ensures the provision and review of ITPs;
 - undertakes audits of the *Contractor* and Subcontractors including compliance with legal and contractual requirements;
 - produces information for the Management Review with senior management, that as a minimum should comply with ISO 9001, and attend

the Management Review meeting to ensure that the quality management system remains suitable, adequate and effective.; and

- reports to the *Project Manager* on all quality issues.

(4) The Quality and Assurance Manager has the following key competencies:

- appropriate experience of quality management and the delivery functions of the *Contractor*/supplier under self certification contracts;
- good knowledge and practical experience of developing, implementing and improving quality management systems;
- be a member of the Chartered Quality Institute (or an equivalent recognised quality body) or an appropriate engineering institute; and
- be a competent auditor or have access to competent auditors.

(5) Designers, Subcontractors, suppliers and sub-tiers thereof each provides a quality assurance representative with adequate resources and appropriate authority and competency to ensure the quality of work and deliverables on the contract

(6) The *Employer*, the *Project Manager*, and authorised Others including statutory authorities and Statutory Undertakers, have the right to observe, witness, conduct audits, inspections and tests of all *works* that are being executed by the *Contractor*, his designers, Subcontractors and supply chain.

(7) The *Contractor* provides all inspection and testing necessary to demonstrate that all the requirements of the Works Information and the law have been met. All non-conformities are resolved before final acceptance of the *works* or any section of the works.

(8) All on-Site and off-Site testing is carried out by laboratories accredited by UKAS or by a similar national body or by persons accredited to a similar standard and are subject to acceptance by the *Project Manager*. The quality system provides procedures for witnessing the manufacturing, construction, installation, testing and commissioning of the works.

WI 615.4 Samples for Submission

(1) The *Contractor* provides the following samples for approval by the *Project Manager* :-

- i. Platform materials
- ii. Glazing
- iii. Canopy roofing
- iv. Mezzanine flooring
- v. any other materials forming part of the permanent *works* as requested by the *Project Manager*

- (2) A full list of samples required to be issued by the *Employer* within 8 weeks after contract award.

WI 620 Assurance management

WI 620.1 General

- (1) *Contractor* Assurance requires the *Contractor* to provide sufficient evidence to demonstrate to the *Project Manager* that the general and specific requirements of the Works Information and the Standards have been complied with
- (2) The *Project Manager* monitors Assurance by a process of planned sampling and critical intervention.
- (3) The *Contractor* monitors, inspects, audits and verifies that his suppliers and Subcontractors and all tiers supplying the suppliers and Subcontractors are providing acceptable Assurance, through procedures and evidence, in compliance with general and specific requirements and the relevant Standards

WI 620.2 Design Assurance

- (1) The *Contractor* provides Assurance to the *Project Manager*, that the proposed design is compliant with all standards and requirement of this Works Information. The *Contractor's* procedures for achieving Assurance are identified in the *Contractor's* Project Quality and Assurance Plan.
- (2) Where there is a Defect, the *Contractor* carries out such redesign as may be necessary to correct, rectify or prevent a recurrence of such Defect. Any such redesign ensures that the performance and operation of the *works* and the relevant part thereof is not degraded or reduced by virtue of such redesign from the Standards specified in the Works Information and/or in this contract or if no Standard is so specified, from the Standard reasonably inferred from this contract.
- (3) As a minimum, the design management process is documented in the *Contractor's* or Subcontractor's management system to meet the *Employer's* requirements for design.
- (4) The *Contractor* ensures that the Designer(s) have the appropriate professional qualifications to achieve the design assurance requirements

WI 620.2 Technical Assurance

- (1) The *works* including the design of the *works* will be subject to the *Employer's* Change Assurance Process, The *Contractor* is required to submit sufficient documentation to enable the design to be reviewed and approved by the Change Assurance Panel. The assurance process requires that a number of gates are passed in order to permit development of the *works*. The *Contractor* provides;
 - Verification of the existing Approval in Principle
 - A detailed design to obtain Approval of Design
 - Test plans and draft O&M manuals to obtain Acceptance of Assets

- As-built drawings and O&M manuals to obtain Closure of Change
- (2) The *Contractor* reviews the Technical Assurance Plan (TAP), and, especially, the Master Document List (MDL) that accompanies it. The MDL details the documentation required in order for approval of each assurance gate to be obtained.
- (3) The *Contractor* supplies such documentation in respect of each assurance gate on within such timescale as required to achieve the programme having regard to the time required by the *Employer* to review such documentation.
- (4) The *Contractor* takes account of any *Employer* comments and revises the documentations so that such comments are addressed.
- (5) Responsibility for design activities and production of documentation rests with the *Contractor*.
- (6) For any design involving existing Crossrail assets, the *Contractor* shall comply and satisfy the Crossrail assurance process.

WI 620.3 Construction

- (1) The *Contractor* Provides the *Works* in accordance with the assured design and with all applicable law, the Standards and the contract requirements.
- (2) The *Contractor* assures the *Employer*, through submissions to the *Project Manager*, that the *works* have been constructed in accordance with the contract. The *Contractor* prepares, retains and provides evidence to the *Project Manager* to that effect.
- (3) The *Contractor* implements self certification processes to ensure that the *works* have been constructed in accordance with the contract. Such self certification processes includes demonstrably independent scrutiny, monitoring, checking and audit regimes in accordance with the contract requirements. The *Contractor* ensures independence in assessment, and certification in the quality assurance, quality control and building control processes. The processes are identified in the *Contractor's* Project Quality and Assurance Plan which will indicate the relevant processes and procedures used.

WI 625 *Contractor's* Project Quality and Assurance Plan

WI 625.1 Project Quality and Assurance Plan

- (1) Within four weeks of the starting date, the *Contractor* submits a Project Quality and Assurance Plan to the *Project Manager* for acceptance. The *Contractor* reviews and updates the plan if significant changes occur to the processes, organisation or requirements or as reasonably required by the *Project Manager*.
- (2) The *Contractor's* Project Quality and Assurance Plan is supported by applicable QCPs, ITPs, Safe Systems of Work and references to and extracts from Standards.

- (3) The *Contractor's* Project Quality and Assurance Plan include the controls to be applied by designers, Subcontractors, suppliers and sub-tiers thereof, both directly and by identifying the Quality and Assurance System documentation that designers, Subcontractors, suppliers and sub-tiers thereof are required to produce. The *Contractor* ensures that designers, Subcontractors, suppliers and sub-tiers thereof agree to and implement the applicable controls specified in the *Contractor's* Project Quality and Assurance Plan and the identified quality system documentation.
- (4) The *Contractor*, the designers, Subcontractors, suppliers and sub-tiers thereof do not commence any activity on any part of the *works* for which the *Contractor's* Project Quality and Assurance Plan, applicable QCPs and ITPs, have not been accepted by the *Project Manager*.
- (5) The *Contractor's* Project Quality and Assurance Plan, as a minimum, complies with the requirements of the guidelines set out in BS EN ISO 10005 and, as appropriate:
- Covers the relevant phases of the contract (design, assessments, procurement, manufacture, condition/defect surveys, construction, installation, monitoring, testing, commissioning and maintenance);
 - Complies with BE EN ISO 9000, BS EN ISO 9001 and BS EN ISO 9004 (as applicable)
 - Incorporates comprehensive quality system procedures for all identified risk and processes associated with this contract;
 - Identifies clear and robust QCPs to provide independence of all inspection and checking processes to ensure that self certification is in place and evidence provided to assure the design and construction;
 - Indicates the inter-relationship of the *Contractor's* Project Quality and Assurance Plan with other associated documentation of the *Contractor*;
 - Describes the relationships and activities of the *Contractor*, designers, Subcontractors, suppliers and consultants including organograms;
 - Specifies the requirements of the quality systems to be operated by the *Contractor's* designers, Subcontractors and suppliers;
 - Includes *Contractor's*, designers' and Sub-*Contractors'* design control systems/procedures;
 - Identifies the requirements for self certification, audit, intervention and inspection of all subcontracted processes;
 - Incorporates a monitoring system for procurement, maintenance and condition of Plant and Materials to ensure that contract objectives can be fulfilled;
 - Allows for external second and third party audits to be carried out as required by the *Project Manager* and Others as described above;
 - Incorporates comprehensive Quality and Assurance System audit procedures including the preparation of audit reports;

- Specifies procedures to rectify non-conformities raised, including System Defects raised as a result of both internal and external audits;
 - Describes the statistical process techniques to be used to prevent the occurrence of non-conformities;
 - Provides for regular management reviews of the contract Quality and Assurance System;
 - Includes records management procedures including for review and verification of records by the *Contractor's* quality assurance manager and compilation of Assurance packages at Handover of new and altered assets; and
 - Identifies quality related Key Performance Indicators;
- (6) The *Contractor* prepares, and updates as required, QCPs to support the *Contractor's* Project Quality and Assurance Plan for the works. The *Contractor* incorporates requirements for review and update of the QCPs in the *Contractor's* Project Quality and Assurance Plan. The *Project Manager* identifies those QCPs which require *Project Manager* acceptance.
- (7) The primary activities addressed by QCPs and to be implemented by the *Contractor* are to include
- Preparation of QCPs for design (including temporary works);
 - Procurement, manufacture, construction, installation and testing along with all quality control processes;
 - Design control including verification, validation, approval and acceptance by Others where relevant;
 - Design change control;
 - Preparation of Safe Systems of Work;
 - Preparation, review and approval of ITPs;
 - Preparation of Materials requisitions and approval of purchase orders in accordance with accepted specifications;
 - Performance of quality verification inspections;
 - Control and calibration of measuring and test Equipment;
 - Scheduling of necessary testing;
 - Interim inspection of work including Equipment and temporary works;
 - Monitoring against Safe Systems of Work;
 - Monitoring the activities of designers, Subcontractors, suppliers and subtiers thereof, to ensure their compliance with the contract;
 - Review of Material suppliers' and Subcontractors' quality verification documentation;
 - Administration of Non-conformity and reporting to the *Project Manager*;
 - Certification control and co-ordination;

- Quality verification inspection of the completed *works* and collation delivery of quality control records;
 - Collation delivery of design and construction compliance verification and Assurance records;
 - Administration of design, procurement, manufacture, construction, installation, test and functional Non-conformities and concessions and reporting of them to the *Project Manager*;
 - Production of four-weekly reports of quality issues including Nonconformity records and Key Performance Indicators; and
 - Verification of Plant and Materials and system compliance through conducting inspection, testing and commissioning
- (8) The *Contractor*, the designers, Subcontractors and suppliers completes the *works* in accordance with the *Contractor's* Project Quality and Assurance Plan and QCPs.

WI 630 Surveillance and Audits

WI 630.1 Surveillance

- (1) The *Contractor's* Quality Management System provides a process and procedure for surveillance of the design and construction of the *works* by a process of audits, certification and self certification. The *Contractor* collates all the quality documentation from his inspection and testing processes and other verification activities.
- (1) *works*

WI 630.3 Audit Programme

- (1) The *Contractor* submits, with his *Contractor's* Project Quality and Assurance Plan, a schedule of internal, designer, Subcontractor and supplier audits that will be conducted by the *Contractor's* personnel. The schedule, scope and method of the audits enable the *Contractor* to verify that all aspects of the *works* are conducted in accordance with contractual requirements
- (2) The schedule and any amendments are subject to acceptance by the *Project Manager*. The schedule is reviewed by the *Contractor* with the *Project Manager*, every four weeks, to reflect all relevant aspects and the developing and changing nature of the Project and the construction programme. This review will consider trends from audit findings and the adequacy of preventative measures put in place

WI 630.4 Audit Participation

- (1) The *Contractor* allows the *Employer*, the *Project Manager*, and Others to observe or participate in audits. The *Contractor* provides the facilities and access necessary for these audits to be carried out effectively
- (2) The *Contractor* places similar requirements on his designers, SubContractors, and suppliers with regards to audit participation.

WI630.5 Audit process and outputs

- (1) All audits performed by the *Contractor* are carried out as described in BS EN ISO 19011 and all reports are, unless otherwise agreed by the *Project Manager*, to be submitted for acceptance
- (2) The *Contractor* maintains an audit / CARs / preventative action reports database for use by the *Contractor* and the *Project Manager*.

WI 635 Contractor's Resources

WI 635.1 Resources

- (1) The *Contractor's* Project Quality and Assurance Plan includes organisation charts for the *Contractor* and all designers, Subcontractors, and suppliers to show the reporting structure of those personnel responsible for quality on the contract and particularly those personnel responsible for self certification activities
- (2) The *Contractor's* Project Quality and Assurance Plan includes curriculum vitae for all such quality personnel, including those of Subcontractors, designers, and suppliers and particularly those nominated for self certification activities.
- (3) The *Contractor* demonstrates that adequate resources are provided to fulfil the contract.
- (4) The *Contractor* provides appropriate training to all personnel in the operation of the Quality Management System and maintains training records.

WI 640 Self Certification

WI 640.1 Self certification requirements

- (1) The *Contractor* implements a quality control system for the contract to include monitoring, inspection and corrective action to ensure that the specified requirements are achieved.
- (2) The *Contractor* submits, to the *Project Manager* for acceptance, his proposals for self certification within the *Contractor's* Project Quality and Assurance Plan. This self certification plan demonstrates the processes to be employed and proformas to be used to verify compliance with the specified requirements. The plan is based on the *Contractor's* existing company management system procedures and proformas. The *Contractor* submits the plan to the *Project Manager* for acceptance before commencement of the *works* and within 4 weeks after contract award.
- (3) The plan identifies the means provided to achieve self certification of designers, Subcontractors and suppliers. The plan states when the designers', Subcontractors' and suppliers' own systems will be employed, and where the *Contractor* will exercise quality control over the designer, Subcontractors or supplier.

- (4) There are specific requirements within the Works Information for independent checking and inspection of elements of the works.
- (5) The *Contractor* ensures that all quality control of construction of the *works* is independent of the production control of the works.
- (6) The *Contractor* submits, to the *Project Manager* for acceptance, the ITPs and inspection check lists for the elements of the works. The *Project Manager* may identify Hold Points at which *Project Manager* inspection and acceptance is required before work proceeds.
- (7) The *Contractor* produces appropriate self certification records to demonstrate that the supporting documents (inter alia: ITPs, inspection check lists, supplier compliance certificates, concrete and other Site measurement commissioning records, audit records, “red-line” mark-ups, and “as-built” details) have been completed in accordance with contract requirements.
- (8) The *Contractor* raises a NCR whenever corrective action for an identified Defect cannot be implemented within the shift.
- (9) The *Contractor* submits NCR corrective proposals to the *Project Manager* for acceptance (if appropriate the *Project Manager* consults the infrastructure owner or maintainer). The work does not proceed until the *Project Manager* has accepted the relevant NCR corrective proposal. Records showing the successful corrective and preventative action are included in the quality control records.
- (10) The *Contractor* maintains the quality control records in an accepted database to verify Assurance at Completion of a section of the works. The *Project Manager* may access and interrogate the database and records at any time during the progress of the works. The database is indexed and formally transferred to the *Project Manager* at Completion of a section of the works.
- (11) The *Contractor* carries out scheduled, structured audits on specific elements of quality control for the works, by trade or by location, to verify that the records are prepared and maintained in an acceptable form. The *Project Manager* may attend these audits.
- (12) The *Project Manager* audits the records and NCR registers and reports during the progress of the works.
- (13) The *Project Manager* monitors the effectiveness of the *Contractor's* self certification system through:
 - surveillance,
 - witnessing appropriate key activities,
 - review of certification and records,
 - monitoring and participation in the *Contractor's* audit schedule,
 - independent auditing.

WI 645 Materials and Construction

WI 645.1 Quality System

- (1) The *Contractor* implements a quality control system for the contract to include monitoring, inspection and corrective action to ensure that the specified materials and construction methodology requirements are achieved.

WI 650 Schedule of *Contractor's* Management Plans and other procedural documentation

- WI 650.1 The *Contractor* is required to note the documents as part of the *works* and included in documents such as the MDL.

WI 655 Quality Control

WI 655.1 Quality Plan

- (1) The *Contractor* agrees a quality plan with the *Project Manager* that demonstrates and verifies that the *works* satisfy the *Employer's* requirements as contained in the Works Information as may be modified from time to time. The quality plan incorporates requirements such as hold-points, inspections or other tests required by the *Project Manager*.
- (2) The agreed quality plan does not replace or supersede any other quality verification procedures that forms the *Contractor's* own quality system or that is required elsewhere under the contract, e.g. Certificate of Registration to an Accredited Quality Scheme, Material Certification, Certificate of Completion / Conformity, Staff Training Certificates etc.

WI 655.2 Setting Out

- (1) The *Contractor* accurately, truly and properly sets out the *works* and is responsible for the correctness of the positions, levels, dimensions and alignment of all parts of the works. The *Contractor* provides all necessary instruments, appliances, materials, equipment and labour in connection therewith.

WI 655.3 Accuracy of Setting Out

- (1) The *Contractor* ensures when setting out, that he complies with all requirements for special accuracy and critical dimensions shown on drawings or otherwise specified. Where work is not otherwise specified the *Contractor* does not exceed tolerances stated in the contract documents.
- (2) The *Contractor* takes corrective action in respect of work not complying with the standard of accuracy or tolerances specified, including rectification of work already carried out, adjustment of methods or materials used, increased supervision of identified source of inaccuracy. When any adjustment of design and/or details may be required in respect of same the *Contractor* requests

approval from the *Project Manager* who instructs the *Contractor* on the action to be taken. The *Contractor* complies with the *Project Managers* instructions. The *Employer* is not responsible for any cost or time implications arising from the *Contractors* corrective action.

- (3) The *Contractor* arranges the setting out, installation and juxtaposition of equipment so that there are no practically or visually unacceptable changes in plane, line or level and that the finished work has a true and regular appearance.

WI 655.4 *Appearance and Fit*

- (1) The *Contractor* ensures that tolerances of components or equipment do not exceed the maximum deviations in size, position or shape stated in the RMSS.
- (2) The *Contractor* ensures that the existing (Crossrail) footbridge and other footbridges are structurally independent including ensuring that tolerances are agreed with any third parties

WI 655.5 *Suitability of Related Work and Conditions*

- (1) Before starting any new section of the *works* the *Contractor* ensures that previous related work is properly completed and to an adequate and suitable condition to receive any follow-on work.

WI 660 **Protection of Existing Structures and Services**

WI 665.1 Protection of Existing Structures and Services

- (1) The *Contractor* is responsible for and ensures the adequacy, stability and structural integrity of the *works* during their construction, with particular regard to the erection sequence and temporary condition of the various elements of construction where different from the final design condition.
- (2) The *Contractor* does not overload the *works* during distribution and storing of materials and/or during the carrying out of the *works*.

WI 665 **Protection of the Works**

WI 665.1 Protection of the Works

- (1) The *Contractor* protects the *works* in respect of everything which a prudent and competent *Contractor* would protect the work and clears away on completion or when no longer required. The *Contractor* repairs and makes good any damage to the *works* arising from such protection to the satisfaction of the *Project Manager*.
- (2) The *Contractor* shall protect all adjacent infrastructure. The following (not limited to) is a list of assets that require protection:-

- DLRL infrastructure
- Crossrail –infrastructure
- ExCeL footbridges.
- National Grid power lines
- Thames Water assets

- (3) The *Contractor* has regard to and complies with the latest publications and good practice in respect of winter working and is deemed to have included in his prices for taking all reasonable precautions in providing protection or otherwise to avoid delay in the execution of the *works*.
- (4) Any work liable to damage by frost is to be covered up and protected to the satisfaction of the *Project Manager*. Any work damaged by frost is to be cut out and made good at the *Contractor's* expense.

WI 665.2 Existing Mains Services

- (1) The *Contractor* ascertains the positions of all services and makes his own enquiries regarding the existing services prior to commencement of work on Site. No claim in respect of lack of knowledge in respect of same is entertained.
- (2) A number of the existing services crossing the Site serve adjacent properties and remain live during the course of the *works*. The *Contractor* takes all reasonable precautions to protect such services and affords all reasonable access to the *Employer* or to Others to facilitate any urgent or emergency repair as required by the *Employer*. The *Contractor* repairs any damage caused by the *Contractor* thereto.
- (3) The *Contractor* repairs all existing sewers and drains which are displaced or blocked through the execution of the *works* to the satisfaction of the *Project Manager*. On completion of the *works* the *Contractor* shall provides evidence that all underground services, whether existing or new, are not displaced or blocked.
- (4) The *Contractor* applies to the appropriate statutory authorities for any discharge licences or temporary main supplies (other than those which are specifically to be provided by the *Employer*) and pays for all charges in connection therewith.
- (5) The *Contractor* indemnifies the *Employer* against any expense, liability, loss or claim, etc. whether received before or after Completion.

WI 700 TESTS AND INSPECTIONS

WI 700.1 Inspections of the Works

- (1) The *Contractor* arranges and facilitates on-site inspections of the *works* and off-site inspections of the *Contractor's* facilities where work is being carried out in relation to the *works* as required by the *Project Manager*.

WI 705 Test and inspection schedule

Notwithstanding items mentioned elsewhere in the contract the *Contractor* shall provide a test and inspection schedule and plan, prior to commencement of construction, for the following (but not limited to):-

- All M&E systems including power supplies, lighting, alarms,
- Civil engineering including drains, concrete steelwork
- Architectural items including glazing, roofing etc.

WI 705.1 Test and inspection schedule

- (1) The *Contractor* complies with the requirements of the following Inspection and Test Plan schedule and allows within the Accepted Programme for inspections and test carried out by the *Project Manager* and Others.

WI 705.2 Terminology

- (1) The following are terms used in this section of the Works Information.

Term	Meaning
Assurance	Process of ensuring and providing evidence that the <i>works</i> have been designed and constructed in compliance with the <i>Employer's</i> Requirements.
Conformity	Fulfilment of specified requirements.
<i>Employer's</i> Requirements	The output from the <i>works</i> in respect of spatial and operational improvements documented in the <i>Employer's</i> Requirement Statement in Works Information Chapter 1A, and the applicable Standards and legislation.
Hold Point	A point in time in the construction of an element of the <i>works</i> at which the <i>Project Manager</i> shall be invited to inspect the <i>works</i> to verify quality or completeness prior to the work progressing. The <i>Project Manager</i> will identify these Hold Points during his review of the Inspection and Test Plans.
Inspection & Test Plans (ITPs)	Plans specifying the activities required to establish how Conformity is to be verified. They identify the responsibilities for executing the activities, the documents controlling them and the records required to provide Assurance. These are prepared for a particular element of the <i>works</i> to support the

	<i>Contractor's</i> Project Assurance Plan.
Non Conformance Report (NCR)	A statement raised to record a Non-conformity (Defect) in the product, workmanship, or system.
Nonconformity	A Defect - as defined in clause 11.2 (5) of the <i>conditions of contract</i> . (The term "Non-conformity" is used to be consistent with industry practice and includes System Defects as defined below.)
Outstanding Work List	A list generated at an inspection or acceptance stage to identify Defects which must be remedied before an asset can be put into operational use.
Quality Control Procedures (QCPs)	Documents that specify operational techniques or activities that are used to fulfil requirements for quality, and as such support the contract quality plan.
Site Query (SQ)	A request for information, clarification or agreement to a proposed action.
Verification Activity Plan	Document prepared and owned by the <i>Employer</i> in accordance with LUL Standard S1538.

WI 710 Management of tests and inspections

The *Contractor* shall allow the *Project Manager* access at all times to carry out any all tests and inspections. The *Contractor* allow for all these *works* and activities in the programme

WI 715 Covering up completed work

Before any works are covered up, the *Contractor* provides reasonable notice to allow the *Project Manager* and/or the Supervisor to inspect before it is covered up. If the Contractor does not provide notice the *Contractor* uncovers and recovers such work if instructed by the *Project Manager* at no cost to the *Employer* and the *Project Manager's* instruction is not a compensation event.

WI 720 Procedures for inspections and watching tests

The *Project Manager* and the *Contractor* agree a procedure for inspections and watching tests that will reasonably allow the *Project Manager* and/or the Supervisor to be assured of the inspection and test results.

WI 725 Testing and Commissioning

- (1) The *Contractor* undertakes all testing and commissioning of all installations incorporated into the works.
- (2) Testing and commissioning is in accordance with the requirements of the relevant specifications and relevant Handover / Handback Strategy.
- (3) An Inspection and Test Plan shall be provided with the detailed design, describing how the works will be inspected and tested at the factory, during the works and on completion of the works. The inspection and test plan shall include testing of the interfaces.
- (4) Inspection check sheets and inspection reports shall be produced for all factory and site inspection and submitted for acceptance.
- (5) Test specifications shall be produced for all factory and site tests and submitted for acceptance. The test specification shall include the following as a minimum:
 - i. Scope
 - ii. Equipment/ system to be tested
 - iii. Competence requirements for tester
 - iv. Test equipment required
 - v. Method of testing
 - vi. Measurements/records to be taken
 - vii. Expected results
 - viii. Pass/Fail criteria
 - ix. Access requirements
- (6) Test reports shall be submitted. Type test reports are to be signed by the tester, and reviewed and approved by the relevant engineer within the *Contractor's* design team.

WI 800 MANAGEMENT OF THE WORKS

WI 800.1 Project execution Plan

- (1) Within four weeks of the starting date, the *Contractor* submits for acceptance a Project Execution Plan (PEP) which sets out in detail how the *Contractor* plans to Provide the *Works* to achieve Completion on or before the Completion Date, within the forecast total of the Prices and in accordance with Statutory Requirements and the requirements of the Works Information. The PEP is based on the *Contractors* own procedures and includes additional topics agreed between the *Project Manager* and the *Contractor*. The PEP describes the interrelationship of the plans and procedures requested by this and other parts of the Works Information.

WI 805 The *Contractor's* Representative

WI 805.1 Site Management and Supervision

- (1) The *Contractor* provides full time experienced and competent site management and supervision staff approved by the *Project Manager* on the Site at all times when the *Contractor* is carrying out works.
- (2) The *Contractor* does not replace any approved site management or supervision without the prior written approval of the *Project Manager* and replaces them with site management or supervision approved by the *Project Manager*.
- (3) Any instructions given to the *Contractor's* Site management is deemed to have been issued to the *Contractor*.
- (4) The *Contractor* removes any site management or supervision from the Site if the *Project Manager* reasonably believed that the Site management or supervision does not provide the management and quality control required for the works.
- (5) Any person employed for the *works* by the *Contractor*, who in the opinion of the *Project Manager* is incompetent or who acts in an improper or unsafe manner, shall be removed from the Site. Such persons shall not return to the Site for employment in any capacity without the permission of the *Project Manager*.
- (6) The *Contractor* appoints a *Contractor's Representative* to act on behalf of the *Contractor* through out the project
- (7) As part of the *Contractor's* mobilisation duties the *Contractor* understands the structure and format of the *Employer's* project team, in particular the appointment of the *Project Manager* and *Supervisor* and any delegations thereto and submits to the *Project Manager* within 4 weeks of the *starting date* for acceptance a communication plan such that there are clear lines of communications between the *Contractor* and the *Project Manager*.
- (8) The communication plan is to facilitate:
 - Receipt of instructions

- Understanding of levels of authority to receive instructions by the *Project Manager* or *Supervisor*
- Receipt of other contractual communications

- (9) The *Contractor* ensures that his project team and Site organisation are established and changed as necessary to facilitate effective communications between the *Employer's* representatives.

WI 810 Progress Meetings

WI 810.1 Meetings

- (1) The *Contractor* coordinates design meetings on a fortnightly basis or as required by the *Project Manager*
- (2) The *Contractor* attends Site progress meetings as required by the *Project Manager*.
- (3) The *Contractor* attends any meetings convened by the *Project Manager* at the times and places instructed.
- (4) The *Contractor* and *Project Manager* have joint weekly meetings which include a review of health and safety, progress, environment, cost, risk, performance, quality, design, subcontracting, third party liaison and special subjects.
- (5) The *Contractor* ensures his SubContractors attend meetings where relevant.
- (6) The *Contractor* and *Project Manager* agree timing, chair, minute takers and attendees for the meeting. Actions from meetings are agreed, documented and logged with Completion Dates. Meetings may be combined or re-scheduled with the agreement of the *Project Manager*.
- (7) Risk reduction meetings as per clause 16 of the *conditions of contract* are to be held on a weekly basis or in accordance with clause 16.2.
- (8) Other meetings are agreed between the *Contractor* and *Project Manager* as required.

WI 815 Reporting

WI 815.1 Progress Report

- (1) The *Contractor* issues a comprehensive progress report at four week intervals to suit the DLR 13 period calendar reporting cycle. The first progress report is issued at a date to be instructed by the *Project Manager* which will be no more than 28 days after the *starting date*.

- (2) The *Contractor* submits four (4) printed copies and one (1) electronic copy of each progress report to the *Project Manager*
- (3) The detailed format of the report is agreed with the *Project Manager* prior to the submission of the first report which includes the following as a minimum
 - Executive Summary and Key Issues
 - Health and Safety, Security and loss prevention
 - Progress
 - Programme Narrative
 - Resources (Manpower and Equipment);
 - Design
 - Ground Movement – Monitoring and Control
 - Procurement
 - Commercial
 - Risk Management
 - Quality and Assurance
 - Environment Activities
 - Community and stakeholder relations
 - Station and Track Access
 - Updated Activity schedule

WI 815.2 Details of key parts of the report are set out in the following paragraphs

(1) Executive Summary and Key Issues

Up to two pages summarising the achievements, key issues, interfaces experienced during the period, a summary of safety statistics, the current commercial position relating to Price for Work Done to Date and estimated final cost.

(2) Health and Safety, Security and Loss Prevention

A summary of all activities related to health and safety, security and loss prevention such as meetings, instructions, inductions, and special achievements. Safety defects and security breaches are summarised together with a brief description of any lost time due to injury or damage to property and near misses. Safety statistics, accident frequency rates (AFR) including all lost time incidents and RIDDOR reportable incidents in the period and cumulative is also included.

Trends are provided together with proposed action to improve safety performance. The four weekly health and safety information, in accordance with WI 1100, is also included within this part of the report.

(3) Progress

This part comprises a narrative report on the progress achieved against that planned in the relevant period, together with explanations of any delays incurred (apportioned by categories) and details of plans on how the delays are recovered. Progress in the period is reported against the Accepted Programme on a physical percentage complete basis by discipline and overall.

Dashboards are included in the reports showing status against all disciplines. The report describes the work which is on the critical path/s, showing the amount of remaining work, the movement of time risk allowances and float in the period and that is remaining.

(4) Programme Narrative and Delay Analysis

This part identifies the current Accepted Programme and summarises the information contained on each programme which the *Contractor* submits for acceptance. The *Contractor* comments on the progress of all aspects of the work including design, procurement and construction as well as the delay analysis described in WI 500.

Special emphasis is given to issues notified, or to be notified, as early warnings which may delay completion or delay achievement of a Key Date.

(5) Design

This part describes the status of the design and engineering of the works. The percentage status of completion of each drawing, the percentage of drawings completed and the number and category of drawings to be completed is recorded. The *Contractor* identifies the progress on preparation of the Assurance packages. Progress of design is shown graphically by the use of slip charts derived from the P6 programme, programme for acceptance and reports the status of design relative to the critical path and measures being taken to address any slippage.

(6) Procurement

This part describes the status of procurement (including procurement of Subcontractors) and purchasing, including delivery of all Equipment and Plant and Materials. It highlights those items that have long delivery times or where the procurement dates have limited float. It shall also include the latest procurement schedule.

(7) Commercial

This part includes all commercial matters including;

- Compensation events
- Early warning matters
- Forecast to go
- Earned Value Analysis
- Cost and schedule performance
- Risks

(8) Ground Movement – Monitoring and Control

This part presents an overview of the status of Defects and condition surveys, monitoring instrumentation, the movements experienced in the period and to date, and details of any breaches of performance criteria and mitigation measures implemented.

(9) Risk and Opportunity Management

The *Contractor* identifies in this part of the period progress report, the top ten risks and opportunities to the *works* as assessed. This part addresses the following issues in relation to each of the identified ten risks and opportunities:

- control measures for the risks identified and the cost of mitigation if *Employer's* risk.
- opportunity implementation actions and the benefits
- action completion dates and owners
- status of actions
- any further issues raised/residual risks
- closed and new risks
- a narrative is provided in this part of the period progress report for each risk identified.

(10) Consents

This part details:

- the status of all consents including progress against programme
- the identification of issues, risks and opportunities associated with consents

(11) Quality and Assurance

This part details:

- the latest revision of the *Contractor's* project quality and Assurance Plans
- a summary of changes to the *Contractor's* project quality and Assurance Plans
- progress on safe system of works, procedures, inspection and test plans
- any concerns or difficulties in providing certification or quality records to demonstrate the compliance of completed work
- a summary of the assessment and monitoring of suppliers and Subcontractor quality systems that have been carried out
- summary of recent ongoing and planned quality audits
- status of all Non-Conformance Reports (NCRs)
- status of all corrective action requests (CARs)
- any other significant quality issues

(12) Environmental Activities

This part details:

- the status of the key environmental management systems - including but not limited to the environmental management plan and Site waste management plan.
- progress against agreed environmental targets
- summary of environmental training provided in the period
- status of all environmental consents
- status of all environmental incidents
- status of all environmental audits performed, including summary of key findings and outline of planned audits
- summary of all environmental monitoring – including details of any breaches or complaints

(13) Community Relations and Stakeholder management

This part details:

- the latest revision of the project communications plan
- records of all *works* notifications issued and requirements for further notification
- records of all complaints received and actions taken
- records of all community relations initiatives made and contacts made

(14) Station and Track Access

This part details:

- the actual access used against that planned with reasons for not achieving the planned access
- any access cancelled, reduced or extended by the *Employer*
- Lane Rental periods used with details of activities carried out during track closures.

(15) Progress photographs

The *Contractor* provides three hundred colour digital photographs each month (minimum resolution ten mega-pixels) recording the progress of the works. The areas photographed are to be accepted by the *Project Manager*.

The *Contractor* loads each digital image onto a file share system specified by the *Project Manager* along with the following information:

- date of photograph
- brief description/location
- photographer's name and contact details
- serial number based on date (for example 070814-1 for photo taken on 7th August 2014)

The copyright of all photographs taken are to be vested with the *Employer*.

Taking photographs for promotional purposes on or about the Site is not permitted unless express written permission of the *Project Manager* is granted. Photographs are to be suitable for reproduction at A3 size.

Over and above these photographs, the *Contractor* ensures his section managers take adequate record photographs of progress of their sections of the *works* including:



- general progress
- defects
- completed

WI 820 Work Plan

- (1) For each element of work in hand, the *Contractor* issues a work plan(s), no later than 0900 on Monday of each week. The work plan comprises a four week rolling programme (one week look back and three weeks look ahead) covering day to day activities. This work plan is in Gantt chart format and be resource loaded.
- (2) The headings include Safety, Progress, Programme, Design, Quality, Access, Environment and Issues
- (3) The work plan indicates the timing of all proposed hold points in the inspection and test plans identified by the *Project Manager*, for inspection by the *Project Manager* or the *Supervisor* or by Others who have the right of inspection
- (4) There is a narrative report on each section/discipline of the work describing the progress over the week look back and planned for the three weeks look ahead.
- (5) The *Contractor* marks up progress achieved on the look back week with weightings linked to the overall Accepted Programme. Schedule performance indicators (SPIs) and cost performance indicators (CPIs) shall be calculated for the planned and actual work
- (6) The *Contractor* provides details and reasons for targets not being achieved and actions that the *Contractor* intends to take to recover any lost time.
- (7) The format of the work plan is to be agreed by the *Project Manager*, and the work plan is submitted in electronic format and hard copy.
- (8) The work plan is discussed at a work plan meeting to be held at the time of issue of the work plan. The *Project Manager* is to be invited to attend the work plan meeting. The *Contractor* requires the *Contractor's* section managers accountable for the delivery of the *works* to present their section and account for the performance and the short term plan.

WI 825 Daily Log

- (1) The format of the daily log is agreed by the *Project Manager* and the *Contractor*. For each area of the work, the *Contractor* maintains the daily log available to the *Project Manager* and his staff no later than 10:00 hours the next day, inclusive of all weekends. It contains as a minimum:
 - the number of personnel on Site during the day against that planned. For manual workers the personnel are grouped by trade and for non-manual workers by work title
 - items of Equipment and plant on Site against that planned
 - brief description of the work carried out that day,
 - the commencement or completion of any significant event

- major items of Equipment received or removed including details of Plant and Materials installed
 - work stoppages, interruptions, delays and potential causes of delay with reference to the EWN raised as appropriate.
 - The report shall include a general description and any significant weather events during the course of the day
 - a daily record of work performed on Site, materials delivered
 - Weather records including a general description and any significant weather events during the course of the day.
- (2) The *Contractor* makes the daily log available to the *Project Manager* for inspection on request.

WI 830 *Contractor's Proposals to change the Works Information*

- (1) Any proposal submitted by the *Contractor* to the *Project Manager* to change the Works Information contains:
- A detailed scope of the change, clearly identifying the specific sections of the Works Information which are proposed to be changed
 - A schedule detailing how the proposed change is to be effected, including activities and anticipated durations for any resulting design changes to be undertaken by the *Contractor*, additional or revised consents, additional or revised concessions, amended Completion Date, amended Key Dates and other relevant information.
 - A proposed revised programme if the programme for the remaining work is affected.
 - Proposed changes to the Prices
- (2) The *Project Manager* replies in accordance with the *conditions of contract* and either;
- Accepts the proposal
 - Accepts the proposal with conditions
 - Rejects the proposal
 - Requests further information
 - Requests a revised proposal to suit considerations required by the *Project Manager* or the *Employer*.

WI 835 Not Used

WI 840 Record Drawings

WI 840.1 Requirements

- (1) The *Contractor* keeps a set of all drawings used for construction or fabrication, and associated data and specifications, on the Site marked up to record accurately all changes during construction including any instructions and technical query responses. See WI 300 BIM Requirements.
- (2) The *Contractor* ensures the drawings and specifications are marked up on a continuous basis by the *Contractor* in a format acceptable to the *Project Manager*. The *Project Manager* has access to these Site records at all times.
- (3) Within two weeks of all work shown on a specific drawing, associated data or specification being completed, the *Contractor* produces the as-built drawings and other information which are clearly marked “As Built”. The *Project Manager* may audit the record information.
- (4) The *Contractor* includes or reference these “As Built” drawings in the documentation produced for the Health & Safety File.

WI 845 Risk Management

WI 845.1 Requirements

- (1) The *Employer* and the *Contractor* are committed to identifying and managing risk.
- (2) Risk in this context includes (but is not limited to) those events that, if they do occur, could impact on safety, the environment, the *Employer's* interests or reputation, or the interests of Others. The *Employer's* strategy for this process is summarised below.
- (3) The *Contractor* co-operates with the *Project Manager*, the *Employer*, and with Others in providing information needed in connection with risk management of this contract

WI 845.2 *Employer's* Risk Management strategy

- (1) Risk management is utilised as an action and decision support tool on the project. The process identifies high risk activities and processes and these risks are reviewed to ensure that all reasonable practicable measures are taken to mitigate the risk.
- (2) Risk control measures shall be determined for all risks identified.
- (3) The project Risk Management Process (RMP) is prepared by the *Employer*. The RMP generates information to be used in support of management decision

making, and drives action in the prioritisation and reduction of risks to which the Project may be exposed

- (4) The RMP includes a statistical analysis of the identified risks, issues and contingencies. This analysis provides information which is used in management reporting both by the project and LU as a whole.
- (5) It is emphasized that the risk management process is an ongoing activity comprising regular review and the incorporation of measures so that contract risks shall be fully mitigated as far as practicable.
- (6) The objectives of the risk management process are:
 - To identify risks to the contract before they occur; i.e. events or circumstances that may have an impact on one or more of the project's objectives, including time and cost
 - Eliminate risks wherever possible or reduce the likelihood of occurrence
 - Develop risk management strategies and fall-back plans to deal with risks should they occur.
 - Mitigate or reduce the scale of the potential impact of the risk occurring.
 - Assess cost and programme effect of any agreed risk and link to the project cost plan and schedule
- (7) Having conducted a risk reduction meeting or other risk review, the *Project Manager*, with the *Contractor's* co-operation, ensures that the Risk Register is updated and provides the following information:
 - Description of risk
 - Probability of risk occurring
 - Impacts if risk occurs (schedule and cost descriptions and level)
 - Mitigation strategies and actions with dates
 - Risk owner

WI 845.3 *Contractor's Responsibility for Risk Management*

- (1) The *Contractor* submits, within four weeks of the starting date, for acceptance by the *Project Manager*, a Risk Management Plan. The *Contractor* liaises with the *Project Manager* during this time to identify and agree the parameters to be used in the identification and evaluation of risk.
- (2) The focus of the Risk Management Plan should be reduction of risk exposure. It should be results-oriented and not place undue weighting on analysis at the expense of action. It is in the interests of the *Employer* and the *Contractor* to share relevant risk information and work together to prevent the realisation of risks where possible.
- (3) In conjunction with clause 16 of the *conditions of contract* the *Contractor* identifies any changes or newly identified risks to the *Project Manager*.

- (4) The *Contractor* identifies any risks which have been realised and become issues to the *Project Manager*.
- (5) The *Contractor* reports risks and provides risk related information in accordance with the requirements of this contract and the Risk Management Plan.
- (6) The *Contractor* submits an updated version of their Risks and Issues registers, as separate documents, for approval by the *Project Manager* with the 4 weekly period progress report or earlier as required by the *Project Manager*.
- (7) The *Contractor* provides, both in hard-copy and electronic format, a copy of the *Contractor's* current project risk register for reference at each meeting.

WI 845.4 Risk Reduction Meetings

- (1) The *Contractor* meets with the *Project Manager* not less than once in each four week period to review the Risk Register in accordance with clause 16 of the conditions of contract
- (2) The *Contractor* provides the appropriate level of representation at the meetings to review and action the identified risks and notified early warnings

WI 850 Labour

WI 850.1 Employment of Labour

- (1) The *Contractor* employs all labour at not less than the rates of wages and under conditions laid down by law or in accordance with any working rule agreement applicable to the industry concerned.
- (2) The *Contractor* imposes a requirement for the highest level of conduct on his workforce in relation to neighbouring property owners and the public. The *Contractor* removes any person who fails to adhere to the required level of conduct from the Site and the *Project Manager* has the right to demand the removal of any such person from the Site, whether employed directly by the *Contractor* or by his sub-*Contractors*.

WI 850.2 Competency of Labour

- (1) The *Contractor* ensures that only suitably trained, experienced and competent labour is used at all stages of the works. All *Contractor* operatives and sub-*Contractors* are required to be assessed as competent using a formally defined competence management system that is compliant with the task they are undertaking
- (2) The *Contractor* provides the *Project Manager* with a record of the training and relevant certification for all of Site operatives under his control. This is used as evidence that the operatives are suitably qualified for the operations they are carrying out.

- (3) The *Contractor* satisfies himself and warrants that all elements of the *works* as set out and/or referred to and/or reasonably inferred in this Works Information can be completed and achieved for the price stated in the Pricing Document.

WI 855 Not Used

WI 860 Not Used

WI 865 Project Team

- (1) Before the Starting Date the *Contractor* is to provide to the *Project Manager* for acceptance his proposed organisational chart showing the intended resources allocated to deliver the works.

WI 870 Communications

- (1) The *Contractor* only acts on written instructions from the *Project Manager*.
- (2) All instructions given by the *Project Manager* are in writing. The *Contractor* does not act on verbal instructions, the *Contractor* only acts on instructions in writing from the *Project Manager*. If the *Contractor* acts on instructions other than on instructions in writing from the *Project Manager*, the *Contractor* is not entitled to be paid for so acting or to any additional time. If the *Contractor* acts on instructions other than in writing from the *Project Manager*, the *Contractor* undertakes all *works* required by the *Project Manager* to return the works, at no cost to the *Employer*, to the state they would have been in had the *Contractor* not acted on such instructions.
- (3) Any instruction in writing given to the *Contractor's* Site management team by the *Project Manager* is deemed to have been issued to the *Contractor*.
- (4) The *Contractor* provides royalty free access and training for the *Project Manager* to use the *Contractors* electronic document management system for transmitting all communications and instructions under the Contract.
- (5) The *Contractor* ensures as far as is reasonably practicable that all drawings, graphical models, setting out data, correspondence, reports, risk register data and construction programmes are transferable electronically. The *Contractor* ensures that central records, drawings, specifications, Site queries, photographs, inspection and testing reports are accessible to the *Project Manager*.

WI 875 Labour and Plant Returns

- (1) In addition to any other returns and reports, notices and the like required under the contract, the *Contractor* submits the following to the *Project Manager* in a form accepted by the *Project Manager*.
- Daily Labour Returns giving the numbers, including trade classifications, of all personnel employed on the Site, including those of subcontractors, and the number and position of supervisory and administrative staff.
 - Details of *works* to be carried out each night and the names of personnel involved (to be submitted by 1200 hours on the day of the *works* or 1200 hours Friday for weekend works).
 - Weekly Equipment Returns recording the numbers and types of all mechanical plant & Equipment on the Site and, where applicable, the dates when the plant or Equipment was brought on to and removed from the Site, including the activity the plant or Equipment is required.
 - Incident notification reports for all incidents occurring on Site, in a form to be agreed with the *Project Manager*.
 - List of all Plant and Materials prior to delivery to Site.
 - Timesheets are completed by all *Contractor* personnel. These are signed and endorsed by the relevant line manager. The timesheets are kept in a suitable single location within the *Contractor's* offices and be available for regular audit by the *Project Manager*. A weekly summary of timesheets are submitted to the *Project Manager* by Thursday of the following week. The summary sheet includes a list of all staff working on the Project, the rate being charged, hours expended, and cumulative hours expended.

WI 876 Key Persons Succession Plan

- (1) The *Contractor* submits to the *Project Manager* a key person succession plan for acceptance within 12 weeks of the starting date. A reason for not accepting the key person succession plan is that it does not give sufficient confidence to the *Project Manager* that replacement key people will be properly inducted and their workload handed over to them in a structured and ordered fashion. The *Project Manager* approves all replacement staff and closely monitors their performance during a 3 month probation period. The *Project Manager* accepts these staff only when he is satisfied they have completed the probation period and met the previously agreed objectives.
- (2) The *Contractor* includes, as a minimum, in his key person succession plan the following:
- details of any planned replacement key people
 - processes for handing over duties, including length of shadowing time
 - submission of CV's
 - details of how the *Contractor* proposes to effect any replacement such that there is no impact on the *Contractor* providing the works

WI 877 Lessons Learned

- (1) The *Contractor* will attend and participate in lesson learned workshop as and when required by the *Project Manager*

WI 900 WORKING WITH THE *EMPLOYER* AND WORKING WITH OTHERS

WI 905 Sharing the Working Areas with the *Employer* and Others

WI905.1 General Requirements

- (1) Certain operations not forming part of the *works* may be carried out within or adjacent to the Site by Others under separate arrangements with the *Employer* contract.
- (2) The *Contractor* is responsible for the co-ordination of the *works* with the activities of Others on the Site in respect of programme and technical interfaces. Failure to demonstrate this within accepted programme may give grounds for non-acceptance by the *Project Manager*.
- (3) The *Contractor* exercises the duties of *Principal Contractor* in respect of access for Others and ensures the safety of his workforce and the workforce of Others, and ensures that the progress of the *works* is not compromised.
- (4) 1.10.1.11 The principal interfaces that are anticipated to arise between the *Contractor* and Others during the *works* are set out below:

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- (5) 1.10.1.12 The *Contractor* shall co-ordinate his emergency arrangements with Others.

WI 915 Coordination

WI 915.1 General Requirements

- (1) The *Contractor* coordinates the carrying out of the *works* with the *Employer's* franchisee KAD
- (2) The *Contractor*, as *Principal Contractor*, holds regular general co-ordination meetings as specified below, to which the *Project Manager* shall be invited. All Others who share the Site are invited as required.
- (3) The *Contractor* liaises with Others as to their actual progress and arranges the delivery schedules for his Equipment, Plant and Materials accordingly.
- (4) Where the *Contractor* is required to use shared areas within or adjacent to the Site the *Contractor* agrees who is to be the *Principal Contractor* for these parts of the Site and shall ensure that the limits of primacy are clearly delineated.
- (5) The *Contractor* attends coordination meetings chaired by the respective *Principal Contractor* as agreed for that part of the Site, and provide the necessary assistance to the *Principal Contractor* to enable him to manage the construction area

WI 915.2 Co-ordination Meetings

- (1) In order to be able to co-ordinate the *works* being carried out by Subcontractors and by Others, the *Contractor* arranges types of co-ordination meeting to which he will convene with the relevant personnel.
- (2) The area(s) of the Site allocated to each *Contractor* during any period of work shall be determined and agreed at the meeting.

WI 916 Collaboration

- (1) The *Employer* and the *Contractor* engage with each other in a collaborative manner in a way that is described in BS11000. The objective of this collaborative approach is to facilitate the *Employer* and *Contractor* working more closely together so that the benefits of collaboration and the creation of additional values are achieved and realised by both parties.
- (2) The *Contractor* prepares a 'Relationship Management Plan', as envisaged by BS11000, within 4 weeks of the contract award date that describes how they will work together collaboratively, including with key stakeholders and third party interests, for agreement with the *Project Manager*. Once agreed the parties implement the 'Relationship Management Plan'
- (3) The *Contractor* works with the *Employer* and prepares and implements a Collaborative Planning workstream, which is presented to and approved by the *Project Manager* within 4 weeks of contract award and be based on the following four stages:-

- i. Integrated Team Planning including:-
 - Carrying out joint planning and programming sessions
 - Collaborative mapping (by for example mapping interdependencies)
 - ii. Short Interval Reviews focussed on:-
 - Actions & Tasks (S.M.A.R.T)
 - Task Owners
 - Timescales
 - Causes
 - Progress % complete
 - iii. Analyse reviewing, lessons learnt and improve:-
 - Improving reliability
 - Removing uncertainty
 - iv. Informing and engaging people:-
 - Displaying good information on appropriately visible screens boards etc.
- (4) The *Contractor* implements collaborative planning where:-
- Critical issues are identified and resolved
 - An ethos of clear accountability is developed
 - An efficient reporting process is created
 - A shared purpose within teams is created
 - New ideas, innovation and opportunities are identified
- (5) Key to collaborative working is for the *Contractor's* and *Employer's* staff to work in a co-located office environment. The *Contractor* shall provide office accommodation that is conducive and facilitates collaborative working for the *Employer*, including the *Project Manager*

WI 920 Authorities and utilities providers

- (1) A number of services run under, over and adjacent to the site. The Contractor shall liaise with the relevant utilities providers and/or authorities as appropriate in respect of their protection, connection and usage.

WI 921 Community Relations and Publicity

There are residents living on Seagull Lane and Victoria Dock Road should be included by the *Contractor* in the Stakeholder management plan and in any community and publicity activities.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] works on

ExCeL in order to mitigate the effects of the *works* where possible.

WI 1000 SERVICES AND OTHER THINGS TO BE PROVIDED

WI 1000.1 Site Compound

- (1) The *Employer* provides the following for the *Contractors* site compound shown in the Site Information.
 - Area to use free of charge for the duration as indicated in the contract. Should the *Contractor* exceed this period, he shall be responsible for the administration and procurement of extending the lease of the land.
 - The current tenant of the site compound currently has supply of water, power, and interception chamber connected to a foul sewer and fibre optic broadband, with the supply de-activated prior to mobilisation.
- (2) The *Contractor* shall be responsible for ascertaining the condition of these services, liaising with appropriate service providers to re-activate the supplies and to decommission these services at the end of the contract.
- (3) The *Contractor* shall be responsible for obtaining any licences or consents to discharge, including the payment of any fees required, for the provision of temporary and permanent water and drainage supplies.
- (4) The *Contractor* shall bear costs relating to site compound setup and carrying out conditional surveys and return the site to a state agreed with the site owner.
- (5) The *Contractor* shall obtain all the relevant approvals for use of the land as a site compound including permissions for site access and egress.
- (6) The *Contractor* provides everything else to establish his Site compound within the designated area as shown in the Site Information.
- (7) The *Contractor* shall take all reasonable measures to prevent unauthorised access into the Site and shall ensure that the work site is fully enclosed.
- (8) To achieve this requirement, temporary hoarding shall be provided around the site.
- (9) Temporary hoardings shall be constructed, painted, and lighted in accordance with TfL requirements and shall be maintained in good condition. The hoarding shall be provided with an anti-intruder barrier along the top edge. Hoardings adjacent to areas to which the public has access shall be devoid of all projections. Solid 3m high gates shall be provided for access and egress to work sites. These shall be locked at all times when not in use. There shall be a separated controlled access for personnel on foot.

- (10) The *Contractor* shall maintain the hoardings and keep them free from graffiti and shall erect and display any information / explanatory signs and other logos or signs as instructed by the *Project Manager*. Permission to feature other company logos or information signs on the hoarding (or visible from outside the hoarding) must be sought from the *Project Manager* prior to their installation. In addition, the *Contractor* shall include Project Information on the hoarding when requested by the *Project Manager*.
- (11) The *Contractor* shall comply with all local authority byelaws and other regulations pertinent to the operations within the Borough of Newham.
- (12) Throughout the period of the Contract, the *Contractor* shall maintain the whole area of his operations in a clean, tidy and safe condition by arranging his materials in an orderly manner. All rubbish, waste material, debris and the like shall be systematically cleared off the working areas as it accumulates, and, if not removed directly off the Site, the *Contractor* shall take the necessary measures to keep the *works* site clean and tidy. All waste shall be disposed of by licensed Waste Carriers.
- (13) The external surround of each Site immediately outside the hoarded area shall be inspected on a daily basis and kept free of rubbish.
- (14) The *Contractor* shall take all necessary precautions to ensure that oil or other deleterious matter shall not enter any existing drainage system or water courses and shall not by his operations, pollute or injuriously affect any drainage systems, water supply, groundwater aquifers, streams or rivers. All liquids contaminated by oil or other deleterious matter shall be passed through approved interceptors to remove contamination.
- (15) The *Contractor* shall manage all surface water from paved areas or roofs, which would otherwise flow into the working area and shall ensure that surface run-off is not permitted to enter any excavation. Pumping shall be provided as necessary.
- (16) The *Contractor* shall take reasonable precautions to keep all public and private roads clear of any spillage or debris from his traffic to the satisfaction of the *Project Manager*. All such spillage or droppings, which accrue, shall be cleared immediately.
- (17) The *Contractor* shall not create a dust nuisance. If in the opinion of the *Project Manager* the *Contractor* is not dealing adequately with the control of dust the *Project Manager* may instruct the *Contractor* to carry out such additional measures as the *Project Manager* considers are necessary at the *Contractor's* expense.
- (18) The *Contractor* shall take all measures to minimise airborne nuisance from fine material particles during construction of the Works.
- (19) The *Contractor* shall take all measures to minimise airborne nuisance from fine material particles during construction of the Works.

- (20) The *Contractor* shall work with special care in the vicinity of underground services. Any services which are encountered shall be left in position as far as is possible and carefully protected by the *Contractor* to the satisfaction of the appropriate authority or owners, so that such services may continue safely in use for the duration of the *Works* or until any diversion that may be necessary is completed and brought into full use. No electricity cable or other service shall be cut into until the *Contractor* has taken steps to ensure, in conjunction with the authority responsible for the service, that the cable or other service is dead.
- (21) Should any damage occur to any service, the *Contractor* shall immediately report the damage both to the *Project Manager* and to the owner of the affected service. The *Contractor* shall, without delay and at his own cost, subject to the provisions of the Contract and requirements of the service owner, repair and make good the same and carry out any *works* as may be considered necessary by the *Project Manager* and/or the owner of the service for the future operation of the service, except where the owner of the service elects to make good the damage in which case the cost incurred in so doing shall be paid by the *Contractor* on demand.

WI 1000.2 Temporary Accommodation, Plant and Facilities

- (1) The *Contractor* provides and erects, maintains and subsequently removes all temporary office accommodation, messing and welfare, storage, sheds, drying rooms, and other facilities within the area designated by the *Employer* on Site as the Compound that is required for the *Contractor* to carry out and complete the works.
- (2) The *Contractor* provide a temporary office for use by the *Project Manager* and his staff. The *Project Manager* office is furnished with two office desks and chairs and with a meeting table to accommodate up to 8 people. The *Project Manager's* office is otherwise furnished and equipped as would be reasonable for use by the *Project Manager*. The *Contractor* pays for electricity, water and telephone. The *Contractor* re-locates / re-sites the *Project Manager's* office as is necessary to facilitate any phasing of the works.
- (3) The *Contractor* provides the installation, maintenance, energy charges, (including all necessary utility and drainage connections of metered supplies), lighting, heating and everything else required for the temporary accommodation.
- (4) The *Contractor* provides the *Project Manager* with a proposed layout for the *Contractor's* temporary accommodation and facilities and only erects same when approved by the *Project Manager*.
- (5) The accommodation and facilities provided by the *Contractor* are of good quality and comply with current fire safety codes and other regulations relating to temporary office accommodation.
- (6) The *Contractor* re-locates / re-sites offices, sheds etc. as is necessary to facilitate any phasing of the works.



- (7) The *Contractor* provides telephone, ISDN, ADSL and fax lines, e-mails, photocopying for the *works* and pays all charges connected therewith for the duration of the *works*.
- (8) The *Contractor* removes all temporary accommodation from the Site within a reasonable time of completion of the *works* and makes good all temporary connections etc.

WI1000.3 Site Communications

- (1) NOT USED

WI1000.4 Plant, Tools, Vehicles, etc.

- (1) The *Contractor* provides, erects, maintains and removes on completion all necessary plant, tools equipment and vehicles that may be required for carrying out the *works* and pay all charges in connection therewith, including all associated fuel and consumables.
- (2) The *Contractor* ensures that all static plant have drip trays and that fuelling areas to all plant are bunded.

WI1000.5 Hoisting

- (1) The *Contractor* provides all facilities required for loading and unloading materials and hoisting where required.

WI1000.6 Scaffolding

- (1) The *Contractor* provides, erects, maintains and removes on completion all scaffolding, staging, temporary stairs and bridgeways required for the execution of the works, including paying all charges in connection therewith.
- (2) The *Contractor* ensures that all scaffolding is regularly inspected and 'Scaff tags' registers are completed and maintained by the *Contractor*. All installations comply with all regulations.
- (3) The *Contractor* allow access to the *Employer* and the *Project Manager* or any of their agents or consultants onto such scaffolds / temporary stairs and / or bridgeways for the purpose of inspecting the works.
- (4) Mechanical Platforms should be utilised wherever practical. All mechanical platforms must carry current test certificates and be operated by qualified personnel. Drip trays must be fitted to platforms and all other mechanical plant operated within the buildings and/or being utilised on finished surfaces.

WI1000.7 Water for the Works

- (1) The *Contractor* provides water for the works.

WI1000.8 Temporary Lighting and Power

- (1) The *Contractor* provides all temporary power and lighting for the *works* including all temporary wiring, leads and fittings, generators, switchboards, transforming equipment, etc., and all artificial task lighting as necessary for the carrying out the works.
- (2) The *Contractor* installs, protects and operates the temporary lighting and power installations in a manner which complies with current statutory regulations.

WI1000.9 Temporary Roadways

- (1) The *Contractor* provides and maintains all temporary roads, paths, hard standings etc. on the Site as are required for the *works* and the *Contractor* clears them away once the *works* are complete.

WI1000.10 Temporary Name Boards, Display Boards etc.

- (1) The *Contractor* does not erect name boards unless permitted by the *Project Manager*.

WI1000.11 Temporary Works

- (1) The *Contractor* provides, installs maintains and removes all temporary *works* and temporary measures required for the proper carrying out and completion of the *works*.
- (2) The *Contractor* notifies the *Project Manager* prior to dismantling any temporary *works* or scaffolding of his intention to dismantle. The temporary *works* or scaffolding must not be dismantled until the *Project Manager* has given his written approval to do so. Any temporary *works* or scaffolding dismantled before it is ascertained whether or not it is required for further use is re-erected free of charge by the *Contractor* if so directed by the *Project Manager*.
- (3) The *Contractor* provides, maintains, erects, alters, adapts and maintains as necessary all temporary supports, needling, shoring and strutting, etc., required for the proper execution of the *works*.
- (4) The *Contractor* removes temporary supports on completion and all work disturbed by this is made good and reinstated by the *Contractor* to the *Project Manager's* satisfaction.
- (5) The *Contractor* pays all fees and charges (including rates and taxes) to Statutory Authorities or other bodies for all temporary *works*.

WI1005.2 Scheme Sign Boards

- (1) The *Contractor* only erects a scheme sign board as approved by the *Project Manager*.

WI1010 Services and other things to be provided by the *Employer* for use by the *Contractor*

- (1) The *Employer* does not provide any facilities or services for the use of the *Contractor* and Others.

WI 1100 HEALTH, SAFETY AND ENVIRONMENTAL REQUIREMENTS

- (1) The *Contractor* complies with all current safety, health and welfare legislation and with all current approved Codes of Practice issued by the Health & Safety Executive and with the following.

WI1105.1 Smoking, Alcohol and Illicit Substances

- (1) Smoking, being under the influence of alcohol and/or illicit substances on the Site is forbidden. If any person is found or suspected to be in breach of this, then such person will be removed forthwith from the Site and will not be permitted back onto the Site under any circumstances. The Transport and Work Act 1992 applies.

WI 1105.2 Emergency Numbers

- (1) All out of hours and emergency contact numbers shall be provided to the *Project Manager* prior to commencement of work on Site.

WI 1105.3 First Aid

- (1) The *Contractor* provides trained first aiders at a ratio of at least 1 per 50 operatives or part thereof.

WI 1105.4 CDM Regulations

- (1) The *Contractor* complies fully with the requirements of the Construction (Design and Management) Regulations 2015.
- (2) The *Contractor* takes on the role of Principal Designer and Principal Contractor in accordance with the requirements of the Construction (Design and Management) Regulations 2015.
- (3) The *Employer* has commissioned a Construction Methodology Report in respect of the works. The *Contractor* considers this report in the carrying out of the works.

WI 1110.1 Health & Safety Plan

- (1) The *Contractor* develops a Health and Safety Plan for the carrying out of the works, setting out without limitation;
 - The main health and safety hazards identified as likely to arise during the *works* and details of precautionary measures to be taken, together with a statement of specific method statements and assessments of risks.
 - The principle technical standards and guidance notes appropriate to the hazards identified.
 - The management structure and approach to health and safety to be adopted by the *Contractor*.
 - Details of the *Contractor's* health and safety procedures, and procedures for reporting and investigating accidents and incidents.
 - Names, qualifications and experience of the *Contractor's* proposed safety, health and welfare representatives.
 - Methods of assessing the competence of sub-*Contractors*.
 - Arrangements for issuing health and safety directions.
 - Procedures for informing sub-*Contractors* and employees on Health and Safety hazards.
 - Procedures for the communications between the project team, sub-*Contractors* and Site operatives.
 - Arrangements for co-operation and co-ordination with sub-*Contractors*.
 - Procedures for managing design work carried out during the construction phase.
 - Arrangements for welfare facilities.
 - Procedures for review and audit of work in progress to confirm that the *works* are in compliance with the procedures required to minimise the hazards identified in the risk assessment.
- (2) The *Contractor* continuously reviews, amends and extends the Health and Safety Plan to incorporate additional items identified to be a risk to health and safety. The amended and/or extended Health and Safety Plan shall provide for the management of health and safety of all persons on or carrying out the works, also of persons adjacent to any areas where work is being, or will be carried out.
- (3) The *Contractor* keeps a copy of the Health and Safety Plan on Site at all times.

WI 1115.1 Site Safety Officer

- (1) The *Contractor* appoints a designated Site Safety Officer. Such person is to be notified to the *Project Manager* together with his position and frequency of visits to Site. The Site Safety Officer attends Site safety meetings as required and the Pre-Start Health and Safety meeting.
- (2) The *Contractor* provides such welfare and safety measures and amenities required by the nature and situation of the *works* up to a suitable Site safety standard based on the CDM Regulations, both for his workpeople and those of his sub-*Contractors*.
- (3) The *Contractor* ascertains and complies with the requirements of the DLR, Network Rail and London Underground in respect of safety precautions to be taken during construction, having regard to the nature of the *works* to be executed.
- (4) The *Contractor* ensures regular visits and inspections by his nominated Site Safety Officer.

WI 1120.1 Health & Safety File

- (1) The *Contractor* provides the *Project Manager* with two hard copies and two electronic copies on disc (in an agreed format) of the Health and Safety file containing:-
 - Record drawings and plans used and produced throughout the construction process along with the design criteria
 - General details of the construction methods and materials used
 - Details of the structure's equipment and maintenance facilities
 - Maintenance procedures and requirements for the structure
 - Manuals produced by specialist *Contractors* and suppliers which outline operating and maintenance procedures and schedules for plant and equipment installed as part of the structure
 - Conformance certificates, test records and all stator documentation.
 - Details of the location and nature of utilities and services, including emergency and fire fighting systems

WI 1125.1 Safety Training

- (1) All operatives and management on Site employed directly or indirectly by the *Contractor* are to have received such DLR safety training as is appropriate for the work they are required to undertake and are to be made fully aware of the techniques and procedures to be used during the *works* with regard to their own safety and the safety of others.
- (2) The *Contractor* provides a record of training and the relevant certification for all of their Site operatives under their control in order to demonstrate that the operatives are suitably qualified for the operations they are carrying out.
- (3) The *Contractor* arranges regular relevant toolbox talks for his staff, and maintains a register of attendees of these sessions for the *Project Manager* to inspect. The *Contractor* takes a pro-active stance on promoting safety awareness on the Site.

WI 1130.1 Laser Equipment

- (1) Where construction laser equipment is to be used, it shall be used and stored in accordance with BS EN 60825-1 and the manufacturer's instructions. Either Class 1 or Class 2 laser equipment shall be used, ensuring that the laser beam is not set at eye level and is terminated at the end of its useful path. The use of Class 3A and Class 3B laser equipment will not be permitted without the approval of the *Project Manager* and subject to the submission of a method statement on its safe use.

WI 1135.1 Public Safety

- (1) The *Contractor* complies with all statutory requirements with respect to public safety in connection with the *works*.
- (2) The *Contractor* allows for taking all necessary precautions to protect members of the public. This requirement includes ensuring that the Site is adequately protected at all times when workers are absent.

WI 1140.1 COSHH

- (1) Failure to comply with the Control of Substances Hazardous to Health Regulations SI 2002 No. 2677 (COSHH), in addition to exposing employees to risk, constitutes an offence and is subject to penalties under the Health and Safety at Work Act 1974.
- (2) The *Contractor* is obliged to notify the *Project Manager* of any substances to be used in the *works* that are, or may be, classified as hazardous. The *Contractor* is to provide full details of such substances, including the completion of a Materials Hazard Information Data Sheet, storage details and the Risk Assessment for the *works* to be undertaken. These details must be submitted to the *Project Manager* prior to the use of any hazardous material.

- (3) COSHH assessments will be produced prior to the delivery of any material to Site, and any hazardous materials will be stored in the appropriate containers.

WI 1145.1 Fire Precautions

- (1) The *Contractor* develops a fire evacuation procedure for agreement with the *Project Manager*. The *Contractor* ensures that all of its persons working on Site or who may have authority to visit Site from time to time are aware of this procedure and receive any instruction that may be appropriate.
- (2) The *Contractor* takes all necessary precautions to minimise the risk of fire and prevent personal injury and death, and damage to the *works* or other property, from fire. The *Contractor* shall comply with the latest edition of the Joint Code of Protection from Fire on Construction Sites, 1992 published by the BEC, the Loss Prevention Council and the National *Contractor's* Group, Part 1 of DOE publication "Standard Fire Precautions P5" and all subsequent amendments. The *Contractor* appoints a Site Fire Safety Co-ordinator.
- (3) The *Contractor* ensures that all staff and operatives attend a Site induction with the *Contractor*. Means of escape, fire points, etc. are shown to all operatives during the Site induction process.
- (4) The *Contractor* allows for any other special precautions necessitated by the *Contractor's* method of working. The *Contractor* is responsible for ensuring that his staff and operatives/sub-*Contractors* are aware of the fire procedures while working on the Site and ensure that they comply with the requirements.
- (5) The *Contractor* removes all superfluous inflammable packaging from Site on a daily basis.
- (6) The *Contractor* obtains the consent, in writing, from the *Project Manager*, before storing or using plant, equipment or materials involving risk of fire or posing any hazard to any person and property. The methods employed in storing or using such plant, equipment or materials, and the location of Site, require the approval of the *Project Manager*.
- (7) The *Contractor* provides any additional fire extinguishers on Site as may be required to deal with the *Contractor's* method of working and/or any materials, packaging and equipment brought or stored on Site by the *Contractor*.
- (8) The *Contractor* takes all precautions to prevent the outbreak of fire on the Site arising from the *works*.

WI 1146 HSE KPI reporting

- (1) The *Contractor* shall report its own and its subcontractors HSE performance to TfL on a periodic basis. The data shall be provided in the format prescribed by TfL. The data is to be submitted within 3 days of the TfL accounting period ending.

WI 1147 Inspections

- (1) The *Contractor* shall undertake weekly Health and Safety inspections of the Site to monitor performance in respect of health and safety and submit report to *Project Manager* for Acceptance no later than 5 working days following the date of inspection.

WI 1148 Incident Reporting and Investigation

The *Contractor* shall report all incidents, accidents and near miss events which occur during the Contract to the Client in the format approved by the Client.

The *Contractor* shall, within forty eight (48) hours submit an initial written report and after 7 days a full report detailing the following:

- Incidents (events that resulted in harm);
- Near misses/near hits (events that could have resulted in harm);
- Sub-standard conditions (hazards that have the potential to cause harm); and
- Sub-standard acts (behaviours or work methods that have the potential to cause incident).

Where serious accidents occur – Major injuries and Dangerous Occurrence (as defined in RIDDOR) - these should be subject to a thorough formal investigation, the Client reserves the right to take part in any investigation led by the *Contractor* and/or in certain instances lead their own investigation. In any case the investigation report will be completed to establish root causes and to a level of detail acceptable at the time to the *Employer*. Incidents as described above should be, after the situation has been made safe, reported through the Client's agreed on call and incident reporting arrangements. If there are any doubts about what should be reported the incident should be reported. If the incident is serious enough to warrant press attention – all communications with the press will be via TfL.

This does not supersede the *Contractors* responsibility for statutory reporting of incidents/accidents.

WI 1149 CSCS

The *Contractor* shall ensure that all employees, sub *Contractors* and suppliers of any tier and other *Contractors* entering the Working Areas are in possession of a valid Construction Skills Certification Scheme (CSCS) card. The *Contractor* shall ensure that the CSCS card held by individuals is appropriate to the specific role on the project.

An exception to this requirement is granted where the individual holds a valid card from a CSCS affiliated or amalgamated scheme or other accepted scheme which has been assessed as meeting similar standards. Dispensation against this requirement may be given by the TfL *Project Manager* following a written request by the *Contractor*.

WI 1150 Non English speaking Workers

The *Contractor* shall have adequate arrangements in place to communicate health and safety information to non-fluent English speakers on site such that they receive the required safety training/briefing (including any emergency procedures before commencing work; instructions are effectively communicated to, and understood by, all such team members.

WI 1160 Public Safety

The *Contractor* complies with all statutory requirements with respect to public safety in connection with the works.

The *Contractor* allows for taking all necessary precautions to protect members of the public. This requirement includes ensuring that the Site is adequately protected at all times when workers are absent.

WI 1170 Environment

WI1170.1 General

- (1) The *Contractor* complies with all current environment legislation and with all current regulations with the following.

WI1170.2 Pollution.

- (1) The *Contractor* complies with all current statutory rules and regulations regarding pollution arising from the *works* and shall ascertain what requirements, restrictions or consents, if any, apply to the *works* in this respect. The *Contractor* complies with any such requirements, restrictions or consents.
- (2) If in the opinion of the *Project Manager* any of the arrangements for control of pollution are inadequate the *Project Manager* reserves the right to require the *Contractor* in implement such other arrangements as the *Project Manager* directs or to otherwise arrange the necessary remedial action and to set off such costs against monies due to the *Contractor*.
- (3) The *Contractor* shows within his method statement the measures that he will take to ensure that pollution protection requirements are met.
- (4) The *Contractor* does not interfere with or otherwise injuriously affect in any way possible or any watercourse or water supply.
- (5) The *Contractor* indemnifies the *Employer* against any expense, liability, loss, claim or proceedings whatsoever in respect of contamination, damage, noise, vibration, fumes, dust, smoke and other nuisance and any alleged nuisance or any negligence on the part of the *Contractor* or his sub-*Contractors* arising out of or in the course of or by reason of the carrying out of the works.
- (6) If in the opinion of the *Project Manager* any of the arrangements for control of noise, fumes, pollution and all other statutory obligations are inadequate the *Project Manager* reserves the right to arrange the necessary remedial action and to set off such costs against monies due to the *Contractor*.

WI 1170.2 Control of Pollution Act 1974

- (1) The *Contractor* complies with the Control of Pollution Act 1974.
- (2) The *Contractor* complies with any notices served upon him, or upon the *Employer* by any Local Authority under Sections 60 and 61 of the Control of Pollution Act 1974 (hereinafter in this clause referred to as “the said Act”) or under Section 68 of the said Act.
- (3) The *Contractor* makes all applications and obtain all such consents as are required under Sections 60 and 61 of the said Act and he shall comply with all or any conditions or limitations that may be imposed by any Local Authority on the granting of such consents.

- (4) If the *Contractor* shall be guilty of any offence under Sections 60 and 61 aforesaid, the *Contractor* pays all fines imposed by the Court or Courts by which he has been convicted, and the *Contractor* is not indemnified by the *Employer* in respect of any such fines.
- (5) The *Contractor* informs the *Project Manager* in writing of any contravention of Sections 60 and 61 of the said Act or British Standard whether by himself, his servants or agents or by his sub-*Contractors* or suppliers, their servants or agents, within 24 hours of any such contravention. The *Employer* has power thereupon or upon the said contravention coming to his notice, to issue such instructions as he may think fit to abate, or halt any such contravention and the *Contractor* complies with such instructions at his own cost. The *Contractor* is not be entitled to an extension of time for delays caused by such compliance.
- (6) The *Contractor* shall take all necessary measures for all pollution control, with particular reference to plant and equipment, and must address these issues in his Method statements.
- (7) The *Contractor* does not burn rubbish on the Site.
- (8) The *Contractor* takes all reasonable endeavours to meet the *Employer's* environmental standards and to ensure his prospective sub-*Contractors* and suppliers have the same obligation.

WI 1171 Waste Reporting

TfL uses the BRE's SMART Waste online reporting system for recording waste data and tracking performance against corporate targets. The *Contractor* is encouraged to register with and use the SMART Waste system to record data about the volumes of waste generated, reused/recovered/recycled, and to assist with complying with their Duty of Care requirements. However, with the approval of the *Project Manager*, the *Contractor* may use another system or template (e.g. the WRAP Netwaste tool and WMP template) as long as it helps deliver demonstrable improvements in waste and materials management, demonstrates compliance with legal duty of care obligations and shows progress against the waste targets.

The *Contractor* shall report the following information each period:

- Total amount of waste produced (non-hazardous and hazardous) - tonnes
- Total amount of hazardous waste produced - tonnes
- Amount of waste reused, recycled or recovered (i.e. diverted from landfill) - tonnes

The *Contractor* shall also report performance against the waste targets set out above. If the amounts of waste reused, recycled or recovered fall below the stated targets, the *Contractor* shall include an explanation of why this has occurred, and the measures that will be implemented to improve performance to the required levels.

WI 1190 Work Related Road Risk

WI 1190.1 Definitions

(1) The following terms have the following meanings:

“Bronze Accreditation”	the minimum level of accreditation within the FORS Standard, the requirements of which are more particularly described at: www.fors-online.org.uk
“Car-derived Vans”	a vehicle based on a car, but with an interior that has been altered for the purpose of carrying larger amounts of goods and/or equipment;
“Collision Report”	a report detailing all collisions during the previous 12 months involving injuries to persons or fatalities;
“Delivery and Servicing Vehicle”	a Lorry, a Van or a Car-derived Van;
“Driver”	any employee of the <i>Contractor</i> (including an agency driver), who operates Delivery and Servicing Vehicles on behalf of the Service Provider while delivering the Services;
“DVLA”	Driver and Vehicle Licensing Agency;
“FORS”	the Fleet Operator Recognition Scheme, which is an accreditation scheme for businesses operating van and lorry fleets. It offers impartial, independent advice and guidance to motivate companies to improve their compliance with relevant laws and their environmental, social and economic performance;
“FORS Standard”	the standard setting out the accreditation requirements for the Fleet Operator Recognition Scheme, a copy of which can

be found at:

www.fors-online.org.uk

“Gold Accreditation”	the highest level of accreditation within the FORS Standard, the requirements of which are more particularly described at: www.fors-online.org.uk
“Lorry”	a vehicle with an MAM exceeding 3,500 kilograms;
“MAM”	the maximum authorised mass of a vehicle or trailer including the maximum load that can be carried safely while used on the road;
“Side Guards”	guards that are fitted between the front and rear axles of a Lorry and that comply with EC Directive 89/297/EEC and the Road Vehicles (Construction and Use) Regulations 1986;
“Silver Accreditation”	the intermediate level of accreditation within the FORS Standard, the requirements of which are more particularly described at: www.fors-online.org.uk
“Van”	a vehicle with a MAM not exceeding 3,500 kilograms.

WI 1190.2 Fleet Operator Recognition Scheme Accreditation.

- (1) Where the *Contractor* operates Freight Vehicles, the *Contractor* within 90 days of executing the Contract:
- (unless already registered) register for membership of FORS or a scheme, which in the reasonable opinion of the *Employer*, is an acceptable substitute to membership of FORS (the “Alternative Scheme”); and
 - (unless already accredited) have attained the standard of Bronze Membership of FORS (or higher) or the equivalent within the Alternative Scheme and shall maintain the standard of Bronze Accreditation (or equivalent standard within the Alternative Scheme) by way of an annual independent assessment in accordance with the FORS Standard or take such steps as may be required to maintain the equivalent standard within the Alternative Scheme. Alternatively, where the *Contractor* has attained

Silver or Gold Standard , the maintenance requirements shall be undertaken in accordance with the periods set out in the FORS Standard.

WI 1190.3 Safety Equipment on Vehicles

- (1) The *Contractor* ensures that every Lorry, which it uses to provide the *works*:
- has Side Guards, unless the *Contractor* can demonstrate to the reasonable satisfaction of the *Employer* that the Lorry will not perform the function for which it was built if Side Guards are fitted;
 - has a front, side and rear blind spots completely eliminated or minimised as far as practical and possible, through the use of fully operational direct and indirect vision aids and driver audible alerts; and
 - has equipment fitted with an audible means of warning other road users of the Lorry's left manoeuvre; and
 - has prominent signage on the Lorry to warn cyclists and other road users of the dangers of passing the Lorry on the inside and of getting too close to the Lorry.

WI 1190.4 Driver Licence Checks

- (1) Where the *Contractor* operates Delivery and Servicing Vehicles to provide the *works* the *Contractor* ensures that:
- The *Contractor* has a system in place to ensure all its Drivers hold a valid driving licence for the category of vehicle that they are tasked to drive, along with recording any endorsements, or restrictions on the Drivers licence; and
 - each of its Drivers engaged in the provision of the *works* has a driving licence check with the DVLA or such equivalent before that Driver commences delivery of the *works* and that the driving licence check with the DVLA or equivalent authority is repeated in accordance with either the following risk scale (in the case of the DVLA issued licences only), or the *Contractor's* risk scale, provided that the *Contractor's* risk scale has been Approved in writing by the *Employer* within the last 12 months:
 - (i) 0 – 3 points on the driving licence – annual checks;
 - (ii) 4 – 8 points on the driving licence – six monthly checks;
 - (iii) 9 – 11 points on the driving licence – quarterly checks; or
 - (iv) 12 or more points on the driving licence – monthly checks.

WI 1190.5 Driver Training

- (1) The *Contractor* ensures that each of its drivers who has not undertaken:
- undergoes approved progressive training (to include a mix of theoretical, e-learning, practical and on the job training) and continued professional development to include training covering the safety of vulnerable road users and on-cycle hazard awareness, throughout the term of the Contract.
 - a FORS e-learning safety module in the last 12 months, undertakes a FORS e-learning safety module (or an equivalent safety module provided by the Alternative Scheme).

WI 1190.6 Collision Reporting

- (1) Where the *Contractor* operates Delivery and Servicing Vehicles to Provide the Works, the *Contractor*:
- ensures that it has a system in place to capture, investigate and analyse road traffic collisions that results in fatalities, injury or damage to vehicles, persons or property and for generating Collision Reports; and
 - within 15 days of the Commencement Date, provides to the *Employer* a Collision Report. The *Contractor* provides the *Employer* with an updated Collision Report within five working days of a written request from the *Employer*.

WI 1190.7 Self Certification of Compliance

- (1) Within 30 days of the Commencement Date and where the *Contractor* operates Delivery and Servicing Vehicles to Provide the Works, the *Contractor* provides a written report to the *Employer* detailing its compliance with clauses 18.4, 18.5 and 18.6 of this Contract (the "WRRR Self-certification Report"). The *Contractor* provides the *Employer* with updates of the WRRR Self-certification Report on each three month anniversary of its submission of the initial WRRR Self-certification Report.

WI 1190.8 Obligations of the *Contractor* Regarding Subcontractors

- (1) The *Contractor* shall ensure that those of its sub-*Contractors* who operate Delivery and Servicing Vehicles to provide the *works* shall comply with all relevant parts of this WI1190 as if those sub-*Contractors* were a party to this contract.

WI 1190.9 Failure to Comply with Work Related Road Risk Obligations

- (1) Without limiting the effect of any other clause of this Contract relating to termination, if the *Contractor* fails to comply with the relevant parts of this WI 1190.
 - the *Contractor* has committed a material breach of this Contract; and
 - the *Employer* may refuse the *Contractor*, its employees, agents and Delivery and Servicing Vehicles entry onto any property that is owned, occupied or managed by the *Employer* for any purpose (including but not limited to deliveries).

WI 1200 SUB-CONTRACTING

WI 1205 Restrictions for Subcontracting

WI1205.1 Specific Requirements

- (1) The *Contractor* only sub-contracts any part of the *works* as per clause 26 of the *conditions of contract* and with the prior written approval of the *Project Manager* provided always that the *Contractor* remains fully responsible for such parts of the *works*. The *Contractor* does not sub-contract any part of the *works* where the *Employer* makes a reasonable objection to the sub-contracting of that part.
- (2) The *Contractor* engages all sub-*Contractors* and suppliers on terms consistent with the terms of this contract and on terms that oblige the Sub-*Contractor* and supplier to comply with the terms of its sub-contract in a manner which enables the *Contractor* to comply with its contract obligations under the contract.

WI1210 Requirements for all Subcontracts

- (1) The *Contractor* ensures that each subcontract he lets in relation to this contract contain provisions:
 - requiring the proposed Subcontractor (and sub-subcontractors of any tier) to meet the Conditions stated for any Key Date on or before such Key Date and to achieve Completion on or before the Completion Date and to minimise the level of Defined Cost,
 - requiring the proposed Subcontractors (and sub-subcontractors of any tier) to assign to the *Employer* the IPR in all documents, drawings, materials, computer software, licences and any other material or *works* prepared or developed by or on behalf of the proposed Subcontractor in the performance of the subcontract,
 - requiring the proposed Subcontractor (and sub-subcontractors of any tier) to grant a non-exclusive, perpetual, irrevocable, royalty-free licence to the *Employer* to use Background IPR (including the right to grant sub-licences) of an equivalent extent and nature to those required by this contract,

- imposing equivalent obligations of confidentiality on the proposed Subcontractor (and sub-subcontractors of any tier) to those required by this contract,
- imposing equivalent obligations regarding Prohibited Acts and health and safety (including Safety Breaches) as required by this contract on Subcontractor (and sub-subcontractors of any tier),
- in equivalent terms to the payment clause of this contract together with an obligation to procure that equivalent provisions are included in sub-subcontracts of any tier,
- imposing equivalent obligations regarding London Living Wage on the proposed Subcontractor (and sub-subcontractor of any tier) to those required by this contract,
- imposing equivalent obligations regarding Freedom of Information Act on the proposed Subcontractor (and sub-subcontractor of any tier) to those required by this contract,
- imposing equivalent obligations regarding criminal record declarations on the proposed Subcontractor (and sub-subcontractor of any tier) to those required by this contract,
- in equivalent terms to clause 50 in *conditions of contract* together with an obligation to procure that equivalent provisions are included in sub-subcontracts of any tier,
- requiring the Subcontractor to comply with the provisions of assignment and novation of this contract,
- imposing equivalent rights to terminate the Subcontract and any sub-subcontract (together with equivalent provisions in relation to the amounts due in the event of such termination) to those contained in this contract,
- requiring the Subcontractor to maintain *Employers* liability, and where relevant, motor liability and professional indemnity insurance in accordance with this contract,

WI 1215 Submission of Subcontract Documentation

- The *Contractor* submits to the *Project Manager* for acceptance a schedule of all proposed subcontracts that the *Contractor* intends to place, or series of subcontracts with the same Subcontractor, together with a copy of the proposed subcontract scope and subcontract documentation and such other information as the *Project Manager* may require.
- The *Contractor* includes in the proposed schedule of subcontracts all proposals to let *works* to any associated, affiliated or subsidiary companies of the *Contractor* and the *Contractor's* group of companies.

WI 1220 Acceptance Procedures

- The acceptance procedures set out in clause 26 of the *conditions of contract* apply.

WI 1225 The Subcontract Procurement Plan

Not Used

WI 1230 Responsible Procurement

- The *Contractor* complies with TfL's policies in respect of Responsible Procurement, Ethical Sourcing and Sustainable Timber.

WI 1300 TITLE

WI 1300.1 Specific Requirements

- (1) The *Contractor* has no title to equipment or to any other items removed from the existing station as part of the works. The *Contractor* carefully removes all such equipment and items and
 - a. Where equipment or other items are to be reinstalled as part of the works, the *Contractor* is responsible for their safe storage and
 - b. Where equipment or other items are not to be reinstalled as part of the works, the *Contractor* delivers them to the *Employer* as directed by the *Project Manager*.

WI 1305 Marking

- (1) All Plant and Materials which are easily detachable are to be marked as 'Property of DLR' unless the *Project Manager* has agreed that marking is not required.

WI 1310 Disposal of Materials from Site

- (1) Unless otherwise stated in the Works Information, the benefits of credit for sale of all redundant materials removed from the Site are to the benefit of the *Employer*.

WI 1400 DOCUMENTATION

WI1410 Insurances and Warranties

- (1) The *Contractor* provides the insurances required in the Contract Data and as required by law, including without limitation, insurance of all his plant, tools, equipment, temporary works, Employer liability, Public liability and Professional Indemnity cover in respect of all design carried out by the *Contractor*.
- (2) The *Contractor* provides evidence that a valid and in-date policy of insurance is in place for each required insurance. Further evidence may be required by the *Employer* from time to time to ensure that the policy cover remains in place.

WI 1415 Parent Company Guarantee.

- (1) If the *Contractor* is not the ultimate holding company, the *Contractor* provides a Parent Company Guarantee from its ultimate holding company in the form set out under Annexure 6 of the Form of Agreement.

WI 1500 ACCOUNTS AND RECORDS

Not Used

WI 2000 EMPLOYER'S WORKS SPECIFICATIONS AND DRAWINGS

WI 2000.1 Introduction.

- (1) This WI 2000 sets out the *Employer's* requirements for the works, for which the *Contractor* is responsible to develop and complete the design and subject to acceptance of the *Contractor's* design, to construct the works.
- (2) The descriptions of items of work or requirements contained or referred to herein are not intended to limit or exclude anything that a competent *Contractor*, experienced in designing and in carrying out works of similar size, scope, nature and complexity to the *works* ought reasonably to have known would be required to satisfy the *Employer's* requirements.

WI 2005 *Employer's requirements*

WI 2005.1 *Employer's requirements Statement.*

- (1) The *Employer* requires a new station that:
 - i. Provides the safest, economic and efficient design to be constructed, operated and maintained throughout the project lifecycle.
 - ii. Increases the vertical capacity at Custom House DLR station to allow platforms to clear before the next train arrives by providing a full mezzanine concourse above the existing platform which ties into the existing footbridges.
 - iii. Facilitates increased interchange capacity between the DLR station and the new Crossrail station at Custom House.
 - iv. Operationally is comfortable and intuitive for passengers to use.
 - v. Ensures any impact on the new Crossrail infrastructure and ExCeL is kept to a minimum.
 - vi. Is fully integrated and compatible with the existing assets and control systems used on the rest of the Docklands Light Railway.
 - vii. Impact on the DLR operational railway is kept to a minimum.

WI 2005.2 *Employer's design.*

- (1) The *Employer's* design as referred to in WI 300 is contained in the Preliminary Acceptance in Principle Design (refer to WI 2025) and is supplemented by the following documents:
 - a. Employers Requirement's: E&M, Telecommunications and Miscellaneous Works, refer to Appendix 3.2000.15.
 - b. A preliminary signage scheme is provided by the Employer which the Contractor will develop and completes as part of the design. Refer to Appendix 3.2000.13 for the preliminary Signage Scheme.
- (2) The Preliminary Acceptance in Principle Design has been reviewed by DLR and KAD, comments are documented in comment sheets listed in WI2025, and the *Contractor* incorporates these comments when developing the design to the next stage gate.
- (3) The *Contractor* notes that the fascia cladding material is metal / or Aluminium and not stainless steel. For the avoidance of doubt note AM-01 on drawing 14077-WWP-PRM1-T225_B-DR-A-1005_P01 incorrectly specifies stainless steel.
- (4) For the avoidance of doubt whilst the AiP states the use of intumescent paint, subsequent analysis has concluded that the exclusion of the intumescent paint will not impair the structural performance in a fire condition. Refer to Appendix 3.2000.12. This analysis is only applicable to the current AiP design, should the design change, a new structural fire performance analysis will be required.

WI 2010 Specifications & Standards

WI 2010.1 The *Contractor* ascertains and complies with all standards that are required to comply with the *Employer's* requirements. Notwithstanding such an obligation, the *Contractor* complies with the following specifications and standards to the extent that they are relevant to the *works*.

- (1) Core Asset Information Standards and Guidance. Please refer to Appendix 3.2000.01;

Document Ref.	Document Title
DLR-ENG-STD-S104	BIM STANDARD
DLR-ENG-GDN-ES001	BIM Process Overview
DLR-ENG-GDN-ES002	BIM Document Control Guidance
DLR-ENG-GDN-ES003	Document Numbering Guidance
DLR-ENG-GDN-ES004	BIM CAD Guidance
LU Standard S1037	Computer Aided Design (CAD) Data
LU Standard R0115	Core Asset Information Management
LU Standard R0582	Production of Drawings (General)
LU Standard R0583	Production of Civil Engineering Drawings
LU Standard R0584	Production of Power Asset Drawings
LU Standard R0585	Production of Rolling Stock Drawings
LU Standard R0586	Production of Signalling Drawings
LU Standard R0587	Production of Station & Premises Drawings
LU Standard R0588	Production of Telecommunications Drawings
LU Standard R0589	Production of Track Engineering Drawings
LU Standard R0590	Production of Survey Drawings
LU Standard R0591	Production of Infrastructure Protection Drawings
TfL Code of Connection CoCo	Code of Connection Policy Version 1.1 Partner Edition
DLR-ENG-GDN-ES006	BIM Design Collaboration Guidance
DLR-ENG-GDN-ES007	BIM Health & Safety File Guidance

Document Ref.	Document Title
DLR-ENG-GDN-ES007a	Health and Safety File Master Index Template
DLR-ENG-GDN-ES008	Asset Capture Sheet
DLR-ENG-GDN-ES008a	LCS Code Map
DLR-ENG-GDN-ES008b	Network Schematic and LCS Codes
DLR-ENG-GDN-ES008c	Asset Location Guidance

(2) Engineering Standards and Guidance. Please refer to Appendix 3.2000.02;

Document Ref.	Document Title
DLR-ENG-STD-ES001	Standard for Standards
DLR-ENG-STD-ES101	Noise and Vibration Engineering Standard
DLR-ENG-STD-ES102	EMC Standard
DLR-ENG-STD-ES201	Communications System Engineering Standard
DLR-ENG-STD-ES201	Communications System: General Requirements and Workmanship (DRAFT)
DLR-ENG-STD-ES-202	Communications Systems: Communications Equipment Rooms (DRAFT)
DLR-ENG-STD-ES-203	Communications Systems: Cabling and Cable Management (DRAFT)
DLR-ENG-STD-ES301	Signalling Principles Engineering Standard
DLR-ENG-STD-ES302	Automatic Train Control System Engineering Standard
DLR-ENG-STD-ES401	Permanent Way Engineering Standard
DLR-ENG-STD-ES501	Civil Structural Architectural Landscape Works Engineering Standard
DLR-ENG-STD-ES502	Station Areas Engineering Standard
DLR-ENG-STD-ES502a	Advice Note on Proposed Amendments to DLR-ENG-STD-ES502

Document Ref.	Document Title
DLR-ENG-STD-ES503	Sub Surface Stations
DLR-ENG-STD-ES504	Design of Underground Structures Engineering Standard
DLR-ENG-STD-ES505	Basis of Bridge Design and Assessment
DLR-ENG-STD-ES601	Electrical Power Supplies Engineering Standard
DLR-ENG-STD-ES602	Building Other Systems Engineering Standard
DLR-ENG-STD-ES603	Tunnel Systems Engineering Standard
DLR-ENG-STD-ES604	Earthing Bonding and Corrosion Protection Engineering Standard
DLR-ENG-STD-ES605	Electrical Installation Standards Engineering Standard
DLR-ENG-STD-ES606	750V Traction Distribution Protection System Engineering Standard
DLR-ENG-STD-ES609	High Voltage Traction and Auxiliary Power Supply Engineering Standard
DLR-ENG-STD-ES610	DLR Lighting Standard
DLR-ENG-STD-ES610	DLR Lighting Standard (Issue 2.0 DRAFT)
DLR-ENG-STD-ES701	Code Of Practice Engineering Standard
DLR-ENG-STD-ES709	Rolling Stock Permanent Way Interface Engineering Standard
CED-ST-2207-A2	Guidance on the control of pigeons and starlings (Note: This standard is referenced in standard DLR-ENG-STD-ES502)

- (3) DLR Engineering Standards and Guidance. Please refer to Appendix 3.2000.02;

Drawing Ref.	Document Title
DLR-ENG-DWG-RS256	Vehicle & Structure Gauges - Lateral cant Allowances
DLR-ENG-DWG-RS257	Vehicle & Structure Gauges - Detail of Conductor Rail area
DLR-ENG-DWG-RS258	Vehicle & Structure Gauges - Platform location and Minimum Dimensions
DLR-ENG-DWG-RS259	Vehicle & Structure Gauges - Swept Envelope
DLR-ENG-DWG-RS260	Vehicle & Structure Gauges - Structure Gauge for Open Track
DLR-ENG-DWG-RS283	Standard Bridge Load Case
DLR-ENG-DWG-ST001	DLR Platform Markings Sheet 1
DLR-ENG-DWG-ST002	DLR Platform Markings Sheet 2

- (4) Signage Standards and Guidance. Please refer to Appendix 3.2000.03;

Drawing Ref.	Document Title
BB-DLR-SIGN-GUIDE-2008-1	DLRL Sign and Information Board Strategy
DLR Signs Standard - Issue 02	DLRL Sign Standard

(5) Engineering Maintenance Standards. Please refer to Appendix 3.2000.04;

Document Ref.	Document Title
DLR-ENG-STD-MR100F	Maintenance Management Standard (Franchisee use only)
DLR-ENG-STD-MR200F	Communications Infrastructure Maintenance Standard (Franchisee use only)
DLR-ENG-STD-MR300F	Signalling and Control System Infrastructure Maintenance Standard (Franchisee use only)
DLR-ENG-STD-MR400F	Permanent Way and Tracksides Environment Maintenance Standard (Franchisee use only)
DLR-ENG-STD-MR500F	Structures and Buildings Maintenance Standard (Franchisee use only)
DLR-ENG-STD-MR600F	Electrical and Mechanical Services Infrastructure Maintenance Standard (Franchisee use only)
DLR-ENG-STD-MR700F	Rolling Stock Maintenance Standard (Franchisee use only)
DLR-ENG-STD-MR800F	Maintenance Standard for Premises Infrastructure (Franchisee use only)
DLR-ENG-STD-MR200	Communications Infrastructure Maintenance Standard (Concessionaire use only)
DLR-ENG-STD-MR300	Signalling and Control System Infrastructure Maintenance Standard (Concessionaire use only)
DLR-ENG-STD-MR400	Permanent Way and Tracksides Environment Maintenance Standard (Concessionaire use only)
DLR-ENG-STD-MR500	Structures and Buildings Maintenance Standard (Concessionaire use only)
DLR-ENG-STD-MR600	Electrical and Mechanical Services Infrastructure Maintenance Standard (Concessionaire use only)
DLR-ENG-STD-MR700	Rolling Stock Maintenance Standard (Concessionaire use only)

- (6) Business Critical Process. Please refer to Appendix 3.2000.05;

Document Ref.	Document Title
DLR-IMS-GENR-BCP-00000	Safety Management Arrangements on the DLR
DLR-IMS-GENR-BCP-00003	DLR Joint Change Assurance Framework
DLR-IMS-GENR-BCP-00009	Management of DLR Engineering & Maintenance Standards
DLR-IMS-GENR-BCP-00014	Assurance of Non-signalling Asset Changes
DLR-IMS-GENR-BCP-00019	Fire Safety Arrangements on the DLR
DLR-IMS-GENR-BCP-00022	Management of Asbestos on the DLR
DLR-IMS-GENR-BCP-00024	DLR Possessions Planning in Operational Hours

- (7) DLR Engineering Generic Specifications. Please refer to Appendix 3.2000.06;

Document Ref.	Document Title
DLR-ENG-SPC-M41	NBS Specification: Section M Terrazzo Tiling
DLR-ENG-SPC-M12	NBS Specification: Section M Resin Flooring
DLR-ENG-SPC-M10	NBS Specification: Section M Cement Based Screeds
DLR-ENG-SPC-M40	NBS Specification: Section M Stone/Concrete/Quarry/Ceramic Tiling/Mosaic
DLR-ENG-SPC-M60	NBS Specification: Section M Painting/Clear Finishing

- (8) The Contractor complies with the Working on The Railway Manual (“WoRM”), refer to Appendix 3.2000.07;

- (9) British, European and International Standards

The *Contractor* complies with the *Employer's* standards, British and European standards, statutory regulations and RSSB Railway Group Standards with

regards to the design, construction, installation, testing and commissioning of the works. If there is a conflict between the Employer's standards and the British and European standards, the *Contractor* refers to the *Project Manager* for clarification.

- (10) DLR Acceptance in Principle Guidance Templates. Please refer to Appendix 3.2000.08;

Document Ref.	Document Title
AiP Comm's Template v2.0	AiP Comm's Template v2.0
AiP E&M Template v2.0	AiP E&M Template v2.0
AiP for Design & Assessment of Structures Template v2.0	AiP for Design & Assessment of Structures Template v2.0

WI 2015 Existing Assets

- WI 2015.1 The *Employer* requires that the following assets remain operational during the course of the *works*.

- a. SER
- b. SER Telephone
- c. SCADA RTU
- d. Fire Alarm – lift shafts, escalators and SER
- e. Radio Antennas
- f. HV Equipment
- g. CCTV – on high level walkway, lifts and escalator
- h. LV Assets within lift, escalator, SER and high level walkway
- i. Ring Main Unit
- j. DVR
- k. OTN and Cisco Man
- l. TVM
- m. Signalling equipment

- WI 2015.2 The *Employer* allows that the following assets need not remain operational during the course of the *works*. The *Contractor* ensure that these assets are properly protected during the course of the works

- i. Lifts
- ii. Escalator
- iii. Oyster Validators

WI 2020 Safety, Maintainability and Reliability

(1) As required by the Master Document List.

WI 2025 Drawings and Reports

WI 2025.1 Architectural Acceptance in Principle. Refer to Appendix 3.2000.9;

Document Ref.	Document Issue	Document Title
14077-WWP-PRM1-T255_1-RP-A-0010	P04	Custom House Architecture AiP
14077-WWP-PRM1-T255_1-DR-A-1002	P03	Custom House – Site Plan
14077-WWP-PRM1-T255_1-DR-A-1003	P04	Proposed Platform Plan
14077-WWP-PRM1-T255_1-DR-A-2001	P03	Proposed Platform Reflected Ceiling Plan
14077-WWP-PRM1-T255_A-DR-A-1004	P04	Proposed Mezzanine Plan
14077-WWP-PRM1-T255_A-DR-A-2002	P03	Proposed Mezzanine Reflected Ceiling Plan
14077-WWP-PRM1-T255_B-DR-A-1005	P03	Proposed Roof Plan
14077-WWP-PRM1-T255_Z-DR-A-4002	P03	Proposed Southern Elevation
14077-WWP-PRM1-T255_Z-DR-A-1001	P01	Existing Station – Enhancement Diagram
14077-WWP-PRM1-T255_Z-DR-A-3001	P04	Proposed Long Station 3001
14077-WWP-PRM1-T255_Z-DR-A-3002	P01	Proposed Cross Sections 3002
14077-WWP-PRM1-T255_Z-DR-A-3003	P01	Proposed Cross Section 3003
14077-WWP-PRM1-T255_Z-DR-A-3004	P01	Proposed Cross Section 3004
14077-WWP-PRM1-T255_Z-DR-A-3005	P01	Proposed Cross Section 3005
14077-WWP-PRM1-T255_Z-DR-A-4001	P03	Proposed Northern Elevation
14077-WWP-PRM1-T255_Z-DR-A-8002	P01	3D Visual Exploded Isographic
14077-WWP-PRM1-T255_Z-DR-A-8003	P01	3D Visual Perspective Cross Section
14077-WWP-PRM1-T255_Z-DR-A-8001	P01	3D Visual Overview
14077-WWP-PRM1-T255_1-LS-A-0100	P01	Hazard Mitigation Register
14077-WWP-PRM1-T255_1-SP-A-0001	P01	Custom House Technical Reference Sheet and Outline Specification

CS02 14077-WWP-PRM1-T535_1-RP-A-0010 Rev 02_DLR	CS02	Custom House Architecture Comment Sheet
Derogation to DLR Standards Application - Ramp Length	P01	DLR CUH Draft Derogation application - Concourse - Ramp length modification
Certificate of Lawfulness For Proposed Use or Development	-	The London Borough of Newham Decision Notice

WI 2025.2 Civil/Structural Acceptance in Principle. Please refer to Appendix 3.2000.10;

Document Ref.	Document Issue	Document Title
14077-ACOM-PRM1-T255_Z-RP-CS-0001	P02	Custom House Civils & Structures AiP
14077-ACOM-PRM-T255_1-DR-CS-0001	P03	Existing Station Layout
14077-ACOM-PRM-T255_1-DR-CS-0002	P05	Proposed Platform Demolition Plan
14077-ACOM-PRM-T255_1-DR-D-0001	P02	Proposed Drainage Plan
14077-ACOM-PRM-T255_2-DR-CS-0001	P04	Proposed Foundation Plan
14077-ACOM-PRM-T255_2-DR-CS-0002	P03	Proposed Foundation Details, Sheet 1 of 2
14077-ACOM-PRM-T255_2-DR-CS-0003	P01	Proposed Foundation Details, Sheet 2 of 2
14077-ACOM-PRM-T255_A-DR-CS-0001	P04	Proposed Plan at Mezzanine Level
14077-ACOM-PRM-T255_A-DR-CS-0002	P04	Proposed Mezzanine Ramp Plan
14077-ACOM-PRM-T255_B-DR-CS-0001	P04	Proposed Roof Plan
14077-ACOM-PRM-T255_Z-DR-CS-0001	P04	Typical Sections, Sheet 1
14077-ACOM-PRM-T255_Z-DR-CS-0002	P04	Typical Sections, Sheet 2
14077-ACOM-PRM-T255_Z-DR-CS-0003	P04	Typical Sections, Sheet 3
CS05 14077-ACOM-PRM1-T255_Z-RP-CS-0001 Rev 02_DLR	CS05	Custom House Civils & Structures Comment Sheet

WI 2025.3 Telecommunications Acceptance in Principle. Refer to Appendix 3.2000.11;

Document Ref.	Document Issue	Document Title
14077-ACOM-PRM1-T255_Z-RP-CM-0001	P04	Custom House Telecommunications AiP
14077-ACOM-PRM1-T255_Z-HS-CM-0001	P00	Designer's Risk Assessment Telecommunications
14077-ACOM-PRM-T255_1-DR-CM-0001	P04	Proposed CCTV Layout at Platform Level Sheet 1
14077-ACOM-PRM-T255_1-DR-CM-0002	P04	Proposed CCTV Layout at Platform Level Sheet 2
14077-ACOM-PRM-T255_1-DR-CM-0003	P04	Proposed CIS Layout at Platform Level Sheet 1
14077-ACOM-PRM-T255_1-DR-CM-0004	P04	Proposed CIS Layout at Platform Level Sheet 2
14077-ACOM-PRM-T255_1-DR-CM-0005	P03	Proposed PA Layout at Platform Level Sheet 1
14077-ACOM-PRM-T255_1-DR-CM-0006	P03	Proposed PA Layout at Platform Level Sheet 2
14077-ACOM-PRM-T255_A-DR-CM-0001	P04	Proposed CCTV Layout at Mezzanine Level Sheet 1
14077-ACOM-PRM-T255_A-DR-CM-0002	P04	Proposed CCTV Layout at Mezzanine Level Sheet 2
14077-ACOM-PRM-T255_A-DR-CM-0003	P05	Proposed CIS Layout at Mezzanine Level Sheet 1
14077-ACOM-PRM-T255_A-DR-CM-0004	P05	Proposed CIS Layout at Mezzanine Level Sheet 2
14077-ACOM-PRM-T255_A-DR-CM-0005	P03	Proposed PA Layout at Mezzanine Level Sheet 1
14077-ACOM-PRM-T255_A-DR-CM-0006	P03	Proposed PA Layout at Mezzanine Level Sheet 2
CS03 14077-ACOM-PRM1-T255_Z-RP-CM-0001 Rev 04_DLR	CS03	Custom House Telecommunications Comment Sheet (DLR) – Including 2 No Mark ups
CS02 14077-ACOM-PRM1-T255_Z-RP-CM-0001 Rev 04_KAD	CS02	Custom House Telecommunications Comment Sheet (KAD)

WI 2025.4 Electrical and Mechanical Acceptance in Principle. Refer to Appendix 3.2000.12;

Document Ref.	Document Issue	Document Title
14077-ACOM-PRM-T255_Z-RP-MX-0001	P03	Custom House E&M AiP (Appendix A-G)
14077-ACOM-PRM-T255_Z-RP-Y-0001	P02	Custom House DLR Station Fire Strategy
14077-ACOM-PRM-T255_Z-RP-E-0001	P01	Custom House DLR Station EMC Strategy
14077-ACOM-PRM-T255_Z-DR-E-0001	P02	Electrical Schematic
14077-ACOM-PRM-T255_Z-DR-E-0002	P02	Earthing Schematic
14077-ACOM-PRM-T255_1-DR-E-0003	P03	Proposed Lighting Layout At Platform Level Sheet 1
14077-ACOM-PRM-T255_1-DR-E-0004	P03	Proposed Lighting Layout At Platform Level Sheet 2
14077-ACOM-PRM-T255_A-DR-E-0003	P04	Proposed Lighting Layout At Mezzanine Level Sheet 1
14077-ACOM-PRM-T255_A-DR-E-0004	P04	Proposed Lighting Layout At Mezzanine Level Sheet 2
14077-ACOM-PRM-T255_1-DR-E-0005	P03	Proposed CMS Layout at Platform Level Sheet 1
14077-ACOM-PRM-T255_1-DR-E-0006	P03	Proposed CMS Layout at Platform Level Sheet 2
14077-ACOM-PRM-T255_A-DR-E-0005	P03	Proposed CMS Layout at Mezzanine Level Sheet 1
14077-ACOM-PRM-T255_A-DR-E-0006	P03	Proposed CMS Layout at Mezzanine Level Sheet 2
14077-ACOM-PRM-T255_Z-DR-MX-0001	P03	Plant Room Sheet 1
14077-ACOM-PRM-T255_Z-DR-MX-0002	P02	Plant Room Sheet 2
CS02 14077-ACOM-PRM1-T255_Z-RP-MX-0001 Rev 03_DLR	CS02	Custom House E&M Comment Sheet (DLR)
CS01 14077-ACOM-PRM1-T255_Z_RP-E-0001 Rev 03 DLR	CS01	Custom House EMC Strategy Comment Sheet
CS01 14077-ACOM-PRM1-T255_Z-RP-Y-0001 Rev 02	CS01	Custom House Fire Strategy Comment Sheet
Earthing and Bonding Engineering Recommendations (HazID)	1.0	Earthing and Bonding Engineering Recommendations (HAzID)
Structural Fire Performance Analysis	-	DLR Custom House CFD technical note and Inherent Fire Resistance of Proposed Steel Sections technical note

WI 2025.5 Signage Plan. Refer to Appendix 3.2000.13;

Document Ref.	Document Issue	Document Title
DLR Custom House for ExCeL Draft Sign Scheme	3.0	DLR Custom House for ExCeL Draft Sign Scheme

WI 2025.6 Preliminary Acceptance in Principle Change Assurance Documents. Refer to Appendix 3.2000.14;

Document Ref.	Document Issue	Document Title
SOP PC-3.12	1	HOHB Strategy Custom House
DLR-IMS-SAMS-MDL	1	MDL (Master Document List)
DLR-IMS-SAMS-TAP	1	TAP (Technical Assurance Plan)
ConOps.CUHJCSH	1	Operations Concept

WI 2025.7 Building Information Modelling Documents. Refer to Appendix 3.2000.16;

Document Ref.	Document Issue	Document Title
14077-DLR-MAC-T255_Z-AS-K-0010	1	BIM Execution Plan – Programme Level
14077-DLR-MAC-T255_Z-EI-K-0011	1	Employers Information Requirements

WI 2300 Ground Movement Control and Monitoring

WI 2300.1 Definitions

The following terms have the following meanings:

- (1) **Trigger Levels** - General term for values assigned to output from monitoring instruments so that if Monitoring results indicate that these values are reached certain actions are triggered. The trigger levels generally consist of an escalating system (green /amber/red or similar) so that early warning of problems is provided, and notification is provided if critical situations are reached.
- (2) **Baseline Readings** - The process of obtaining readings at regular intervals over a specified period of time (minimum [ENTER NUMBER OF WEEKS] weeks under this contract) in order to identify the likely range of ambient movements, when unaffected by construction works. Subsequent construction induced movements may then be identified by comparison of Monitoring data against the baseline values. Baseline Readings will also apply to Monitoring of DLR track for establishing cant and twist baselines.
- (3) **Calibration** - The process of applying known loads or displacements to an instrument and measuring the response under controlled environmental conditions. Carried out in the factory (to obtain gauge factors) and for some instruments again on site prior to Installation. It may also be carried out during Installation and whilst in service.
- (4) **Installation** - The procurement of Monitoring equipment and Instrumentation / or the appointment of a I&M subcontractor arranging access (including preparing method statements, risk assessments, forms, permits etc.), installation including any temporary works required, protection or safeguarding to the works and any adjacent equipment belonging to Others, Calibration, testing, inspection, certification and any repairs required as a result of Installation. The Contractor shall make allowance for appropriate safety personnel (COSS and Lookouts etc.), equipment and training in the order to facilitate Installation.
- (5) **Decommissioning** - The removal of Instrumentation when it is no longer required or as otherwise directed by the Project Manager, including the reverse of the Installation process in so far as obtaining access, permissions and approvals for methodology of decommissioning and any temporary works to facilitate removal.
- (6) **Instrumentation** - Includes all recording devices, cabling, data-logging facilities, devices used to record geotechnical or structural changes induced by the proposed works.
- (7) **Maintenance** - Processes and procedures to ensure that Monitoring Instrumentation is kept in good working order as specified in the Works Information to ensure the constant operation and availability of the Instrumentation
- (8) **Monitoring** - The process of gathering, reducing, interpreting and reporting of data obtained from the installed Instrumentation system.
- (9) **Zone of Influence** - Area within which the construction of the Project may affect existing buildings, utilities or other structures.

WI 2300.2 Contractors Responsibility

The *Contractor* shall be responsible for the following works:

- (1) The production of the ground modelling analysis to determine the Zone of Influence of the proposed methodology to implement the works and the extent of its impact on adjacent assets.
- (2) To assess the effects of construction work on existing structures above and below ground which may or may not form part of the Project.
- (3) The Contractor is responsible for notifying the Project Manager when access is required,
- (4) The Contractor is required to undertake pre-installation surveys as necessary to determine the Monitoring system designs, and to make a photographic and written record of the conditions at location of all Monitoring equipment prior to Installation. The Contractor shall carry out the works with due regard to the condition of the structures.
- (5) It is noted that the Crossrail project has installed track monitoring equipment to record any movement as a result of their works impacted on DLRL assets. The Contractor is responsible for liaising with the Crossrail team to determine if this equipment can be novated to the Contractor.
- (6) A pre-condition survey to determine the current status of all assets that will be retained throughout the duration of the works.
- (7) The establishment of robust, verifiable and accurate survey control points outside the Zone of Influence
- (8) The development of a Monitoring plan, which shall include, but not limited to, the Instrumentation system chosen, the parameters being measured, Trigger Levels, action plan, roles and responsibilities and communication plan.
- (9) Liaising with relevant asset owners and stakeholders to seek approval for Installation of the Monitoring system.
- (10) The Contractor will be required to meet with the Project Manager and third parties (including Crossrail, ExCeL) to agree the appropriate Instrumentation to be installed and the associated fixing details. Upon De-commissioning, the Contractor shall ensure that Re-instatement is carried out to a standard that is equivalent or better to the condition indicated in the pre-construction condition survey reports. The standard of Re-instatement shall be agreed with the Project Manager in the Method Statements.
- (11) The Contractor will be required to record Baseline Readings.
- (12) The Contractor is responsible for reporting trends and the procurement, Calibration, quality assurance, Installation, commissioning, Maintenance, Monitoring and Decommissioning of the Instrumentation. The Contractor shall produce Method Statements all as necessary.
- (13) The Contractor shall ensure that all information regarding actual movements, rates of change and trends are communicated to the Project Manager, in a timely and efficient way.



- (14) The list of asset impacted by the works must include as a minimum the following:
- i. Platform nosings on the DLR island platform
 - ii. The escalators and lifts
 - iii. The DLR running rails, including the sleepers and ballast.
 - iv. The nosings on the new Crossrail platforms.
 - v. The Crossrail running rails, including the sleepers and ballast.
 - vi. The Crossrail overhead line equipment
 - vii. The columns supporting the footbridges.
 - viii. The sub & super-structure of the ExCeL building & infrastructure.

APPENDIX CONTENTS

Appendix 3.2000.01 - Core Asset Information Standards and Guidance
Appendix 3.2000.02 - Engineering Standards and Guidance
Appendix 3.2000.03 - Signage Standards and Guidance
Appendix 3.2000.04 - Engineering Maintenance Standards
Appendix 3.2000.05 - Business Critical Process
Appendix 3.2000.06 - Engineering Generic Specifications
Appendix 3.2000.07 – WoRM
Appendix 3.2000.08 - Acceptance in Principle Templates
Appendix 3.2000.09 - Architectural AiP
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Appendix 3.2000.13 - Signage Plan
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Appendix 3.2000.15 - Comms and Miscellaneous Works Information
Appendix 3.2000.16 – BIM

Note: The Appendices are provided on the attached DVD 1 of 2.



Royal Docks Capacity Enhancement Custom House Station

2014 - 077

**E&M, Telecommunications and Miscellaneous
Works Information**

Rev 02

Employers Requirement's: **E&M, Telecommunications and Miscellaneous Works**

WI 2005.2.1 General

- (1) The purpose of this document is to supplement the AECOM preliminary Acceptance in Principle concept design.
- (2) The *Contractor* shall ensure that at early stages he carries out a tag and trace survey of all cables in the station and divert or protect as required prior to commencement of design and should familiarise himself with the existing systems and services at Custom House in order to validate the current systems against those described herein.
- (3) The *Contractor* shall via survey confirm all existing services and systems. The *Contractor* shall include in his the design, co-ordination and installation of all third party assets such as oyster validators. Commissioning and testing to be carried out by the relevant Original Equipment Manufacturer (OEM) so as not to invalid any warranties.

WI 2005.2.2 Closed Circuit Television (CCTV)

- (1) The location and views of the CCTV cameras viewable from both the primary control centre at Beckton and the back-up control centre at Poplar are documented in the attached CCTV System Benchmark Report by M.J.QUINN produced on behalf of franchisee Keolis Amey Docklands (KAD).
- (2) The current CCTV cameras are analogue and locally stored on a Digital Video Recorder (DVR) in the Station Equipment Room (SER).
- (3) The *Contractor* shall include in his design digital IP CCTV cameras and locally stored Digital Tecton Liberators DVR. The *Contractor* shall ensure that the structured cabling employed for the CCTV system shall run directly from the network switch to CCTV cameras. The use of line extenders is not acceptable.
- (4) The camera views are transmitted via the OTN 2500 system, however the system has reached capacity and cannot accommodate anymore cameras, DLRL is addressing this problem by developing an IP Transport Network (ITN) project which will replace the OTN 2500 network. However until this has been commissioned, most probably after the completion of this project (Custom House Station). The views from the CUH CCTV cameras need to be converted from digital to analogue to run on the existing analogue OTN 2500 system. As the OTN 2500 forms a circuit the nodes within the CUH SER needs to remain live and be supported throughout the CUH project and in particular the CUH SER works.
- (5) The *Contractor* shall ensure that the analogue CCTV cameras and cables to the OTN 2500 are protected and the CCTV views outside of the site boundary are supported throughout the CUH project and in particular the CUH SER works. Attached to this section is a CCTV System Benchmark Report by M.J.QUINN, the views have been shown indicatively on the attached drawing. This drawing is for information only, the *Contractor* shall as an early deliverable survey, verify and tag and trace all CCTV camera views supported by the OTN 2500.



- (6) The CUH Crossrail Station is to install CCTV cameras on the Crossrail footbridge and the Crossrail lift for use when the Crossrail footbridge opens. DLR is supporting these CCTV camera views from the point when the footbridge opens to the point when Crossrail opens. The installation of this system is not within the scope of this project however these CCTV views need to remain live throughout this period and the *Contractor* shall protect the cameras (if necessary) and cables leading to the OTN 2500. The nodes within the CUH SER need to remain live and be supported throughout the CUH project and in particular the CUH SER works.
- (7) The *Contractor* shall take note of the attached CCTV system specification.

WI 2005.2.3 Graphical User Interface (GUI)

- (1) The Telent MICA GUI is the front end GUI that allows such functionality as CCTV, LLPA, PEPs to be viewed, operated etc. Located in Beckton and Poplar Control Centres and mini operations rooms.
- (2) Following the installation and commissioning of new Comms assets by the Contractor, the GUI will be updated by the Employer's nominated supplier to reflect the changes. The Contractor is required to include this activity in their programme and engage and facilitate with the nominated supplier to ensure this activity including any enabling works is successfully implemented.

WI 2005.2.4 Public Address System (PA)

- (1) The LLPA system is an IP based Public Address system used for station announcements, the existing station uses a LLPA system.
- (2) The *Contractor* shall replace the LLPA system for a PA/VA system to be provided with an amplifier and wireless microphone. The *Contractor* shall ensure that the speakers are EN54 compliant.
- (3) The *Contractor* shall take note of the attached specification.

WI 2005.2.5 Passenger Emergency Point (PEP)

- (1) The Passenger Emergency Points are located on each station platform and in lifts. PEPs enable passengers to call the Control Centre in the event of an emergency requiring immediate action. The existing station has four PEPs, two located on platform level and one in each lift. The PEPs on platform level include an emergency stop button.
- (2) The PEPs on the platform need to be de-commissioned, stored, re-installed on the new platform and re-commissioned on completion of the project.
- (3) The PEPs in the lift will remain live and in use throughout the project and hence their connection, and support in the SER must be protected.
- (4) The *Contractor* shall take note of the attached specification.

WI 2005.2.6 Passenger Information Display (PID)

- (1) Currently there are two double sided PIDs located at platform level, one showing train arrival times for eastbound trains and one showing train arrival times for westbound trains.
- (2) The PIDs are part of the train signalling system and are hence supported by Thales. The *Contractor* shall remove and protect the existing PIDs. DLRL will place an order with Thales to de-commission and re-commission these PIDs. However the *Contractor* is to allow for provision of all power and communication cabling and ducts to support the new PID location. The *Contractor* is to allow for progressing, managing and supporting Thales and the commissioning of these PIDs.
- (3) No additional PIDs are required.
- (4) The *Contractor* shall take note of the attached specification.

WI 2005.2.7 Docklands Arrival Information System (DAISY) and Electronic Service Update Boards (ESUB)

- (1) DAISY consist of a LCD display screen that show the next several train arrival information, these flat screen monitors are fed from the DAISY server. Some screens have an integrated ESUB function, that alternate between DAISY and ESUB data.
- (2) The ESUB displays (Electronic Service Update Boards) provide up to the minute detailed information on the status of the TFL running lines; this information is obtained from an LU owned server feed.
- (3) Currently there is one DAISY screen and one ESUB located outside of the site boundary, which will have power and communication feeds from the CUH SER. These systems will remain available for service throughout the project, hence the *Contractor* needs to ensure these services and connections are protected.

WI 2005.2.8 Automated Passenger Counters (APC)

- (1) The DLR operates a system which counts passengers using infra-red sensors located in 'rods' located above stairs, escalators and in lifts or lift entrances. The rods transmit data for processing via a PCL located in the CUH SER. All the APC rods, other than for lifts, need to be de-commissioned, removed, stored and then re-installed and commissioned in their new locations prior to station opening.
- (2) The PLC and associated cables needs to be either removed, stored and re-installed, tested and commissioned or protected during the works.
- (3) All the APC equipment including the cables is supplied by Acorel and Acorel needs to commission any new or re-installed equipment. Additionally, Acorel needs to be consulted with the re-location of all rods, both existing and new, to optimise their location. Additional rods need to be procured for the new stairs as well as new caballing for all the re-located rods.

- (4) The *Contractor* shall allow for the supply from Acorel for all new and re-located equipment together with Acorel's input into the design and testing and commissioning.
- (5) The *Contractor* shall take note of the attached information from Acorel and the indicative price for caballing from supplier Acorel.

WI 2005.2.9 Oyster Validators (OV)

- (1) Currently there are Oyster Validators located outside of the site boundary on the footbridges, which will have power and communication feeds from the CUH SER. These OVs will remain available for service throughout the project, hence the *Contractor* needs to ensure these services and connections are protected.
- (2) The *Contractor* shall identify the Master OV and link new OV to the Master OV.
- (3) The *Contractor* is to refer to attached drawings for indicative locations of the OV on the mezzanine level.
- (4) The *Contractor* needs to allow for the supply from Cubic for all new or reinstalled OV together with Cubic input into the commissioning of the OV.

WI 2005.2.10 Ticket Vending Machines (TVM)

- (1) Currently there are five TVMs located in and around the station, which will have power and communication feeds from the CUH SER. These TVMs will remain available for service throughout the project, hence the *Contractor* needs to ensure these services and connections are protected.

WI 2005.2.11 Radio Antenna

- (1) Currently at the station there are two radio antenna, one east of the platform and one west of the platform.
- (2) The *Contractor* shall ensure the Radio SOU and associated radio equipment shall remain connected and active during construction, and a decommissioning/migration plan should be included in the *Contractors* design when migrating services
- (3) The *Contractor* shall take note of the attached information.

WI 2005.2.12 Other Track Systems

- (1) There are a number of track systems, communications, signalling and power that run through the station, via the SER. All of the systems are critical to the running of the operational railway and need to be protected. Hence the *Contractor* is to undertake in the initial stage of the project a tag and trace survey and then present proposals to protect these surveys for the Project Managers approval.

WI 2005.2.13 Wireless Microphones

- (1) DLRL intends to upgrade the existing platform PEP units to incorporate wireless microphones. Hence to support this upgrade when the *Contractor* re-installs the platform PEPs the following additional cable is to be provided to each PEP unit from the SER.
 - a. 2 No CAT 6 Cables
 - b. 1 No Audio Cable

WI 2005.2.14 Telephones

- (1) The *Contractor* shall ensure that the telephone in the SER remains operational at all times.
- (2) The *Contractor* shall provide a telephone in the new upper SER floor.

WI 2005.2.15 Station Equipment Room (SER)

- (1) The *Contractor* shall ensure that the equipment in the SER remains in a temperature regulated and a dust and damp free environment throughout construction, particularly during works to the SER.
- (2) A number of DLRL systems within the existing SER are critical for the continued running of the railway and must remain live and protected throughout the works. The *Contractor* is to survey and prepare a strategy for acceptance by the Project Manager, as to how these systems will be protected.

WI 2005.2.16 SCADA

- (1) The fire alarm system is communicated back to the Beckton and Polar Depot via SCADA. The fire detector in the lifts is to remain operational and the SCADA system is to remain functional throughout the works.
- (2) Following the installation and commissioning of new assets supported via the SCADA by the Contractor, the SCADA will be updated by the Employer's nominated supplier to reflect the changes. The Contractor is required to include this activity in their programme and engage and facilitate with the nominated supplier to ensure this activity including any enabling works is successfully implemented.

WI 2005.2.17 Heated Mirrors

- (1) Whilst the DLR operates an automatic railway the train operator has to initiate door closure. To help facilitate this mirrors are positioned on platforms to enable the viewing of the platform edge to ensure it is safe to close the doors. The location of the mirrors is governed by the stopping position of the train by the signalling system; hence the mirrors are in predesignated positions. Each platform may have a number of mirrors, all of which are electrically heated.
- (2) The *Contractor* will have to allow for isolating, removing, storing, refurbishing and re-installing these mirrors on the new platforms together with adjusting and commissioning the mirrors to gain approval from the DLRL Operator.
- (3) The mirrors must be installed in the same position or a position fit for the operation of the railway.

WI 2005.2.18 Low Voltage (LV)

- (1) The *Contractor* shall take note that DLRL have approved AF Switchgear and Blakley products for Mains Panels.
- (2) The *Contractor* shall take note that DLRL have approved Blakley and Crabtree products for LV distribution.
- (3) The *Contractor* shall take note that cabling is to be a LSF or LSOH type, emergency circuits are to be fire rated cables.
- (4) The *Contractor* shall take note that all CMS in public areas is to be sealed stainless steel 316 grade and in sealed rooms to be standard galvanised steel.
- (5) The *Contractor* shall take note that the mains supply cable between the HV Transformer and main LV panel shall have a 4 pole isolator located on the same floor as the LV panel to allow LV isolation without need to have HV attendance.
- (6) LV protection system, where RCD is used shall be of a DC immune type.
- (7) Emergency lighting circuits to be fire rated cabling.
- (8) The *Contractor* ensures the metering of Main LV, Lighting loads and tenancy areas.
- (9) For any alteration completed as part of this works, the current earthing and bonding systems must be left in a compliant state; this is in accordance with the statutory electricity at work regulation 8.

WI 2005.2.19 Earthing and Bonding and EMC Works

- (1) Custom House DLR station has a major interface with Crossrail including parallel running and shared infrastructure. Management of this AC/DC interface requires special consideration. Through the correct application of best practice EMC and earthing and bonding principles, standards and legislation, the Contractor shall demonstrably ensure that:
 - i. Safety of passengers and staff is guaranteed
 - ii. DLR assets are protected from the influence of Crossrail; namely its OLE systems and any earthing related surges
 - iii. Crossrail assets are protected from the influence of the DLR; this must be achieved via an early works earthing and bonding strategy.
 - iv. Third party assets such as ExCeL are protected from the influence of DLR and Crossrail
 - v. A robust process is followed to capture & manage risks, mitigate risks by design and verify closed in the build.
- (2) A number of early Acceptance in Principle deliverables/strategic documents must be produced early on in the design programme as follows;
 - i. EMC strategy
 - ii. Earthing and Bonding strategy (see preliminary HazID outcomes; DLR CUH - E&B Recommendations in 5 - Annexure 3 Works Information – Attachments)
 - iii. Systems Integration Plan
 - iv. Hand trace and Tag survey report of all cables within the site boundary and passing through the site boundary defined in Annexure 5 Site Information drawing number 14077-DLR-PRM-T255_Z-DR-K-0001.
 - v. Critical asset identification and migration strategy.
- (3) There is believed to be a pre-existing earthing and bonding fault with the signalling supply in the equipment room. If DLRL wishes the Contractor to rectify this, this will be dealt with under the Compensation Event Procedure.

WI 2005.2.20 Provision for Future Retail Space

- (1) The *Contractor* shall make provision for a future retail space including a staff disabled toilet at mezzanine level including but not limited to the following:
 - i. Water supply to be metered and pipework chlorinated and certificate produced by Contractor.
 - ii. Waste pipework needs to be to foul connection, route and connection point to be proven by *Contractor*.
 - iii. All pipework shall be lagged and trace heated.
 - iv. Disabled toilet to have frost protection heater and washing and drying provision in accordance with Building Regulations.
 - v. Electrical supply into a suitable isolator.

WI 2005.2.21 Advertising Panels

- (1) There is a large advertising panel located south of the Westbound track, if required the *Contractor* shall remove, protect and reinstate the advertising panel.
- (2) The *Contractor* provides a CMS route with capacity for a power supply and communications supply to the advertising panels. Refer to Appendix 3.2000.09 for architectural acceptance in principle drawings for advertising panel locations.
- (3) The *Contractor* co-ordinates and allows for progressing, managing and supporting Exterior in the installation and commissioning of their advertising panels.
- (4) The *Contractor* takes note of the attached information.