FAIRLOP QUARRY

SLR

NEC3 Engineering and Construction Contract Option A

Phase E Slurry Wall Construction Prepared for: London Borough of Redbridge 409.09423.00001

SLR Ref: 409.09423.00001 Version No:2 April 2021

BASIS OF REPORT

This document has been prepared by SLR Consulting Limited with reasonable skill, care and diligence, and taking account of the manpower, timescales and resources devoted to it by agreement with London Borough of Redbridge (the Client) as part or all of the services it has been appointed by the Client to carry out. It is subject to the terms and conditions of that appointment.

SLR shall not be liable for the use of or reliance on any information, advice, recommendations and opinions in this document for any purpose by any person other than the Client. Reliance may be granted to a third party only in the event that SLR and the third party have executed a reliance agreement or collateral warranty.

Information reported herein may be based on the interpretation of public domain data collected by SLR, and/or information supplied by the Client and/or its other advisors and associates. These data have been accepted in good faith as being accurate and valid.

The copyright and intellectual property in all drawings, reports, specifications, bills of quantities, calculations and other information set out in this report remain vested in SLR unless the terms of appointment state otherwise.

This document may contain information of a specialised and/or highly technical nature and the Client is advised to seek clarification on any elements which may be unclear to it.

Information, advice, recommendations and opinions in this document should only be relied upon in the context of the whole document and any documents referenced explicitly herein and should then only be used within the context of the appointment.

CONTENTS

1.0	FORM OF CONTRACT	3
2.0	CONTRACT DATA PART ONE	6
2.1	General	6
2.2	Time	7
2.3	Testing and Defects	7
2.4	Payment	8
2.5	Compensation Events	8
2.6	Risk and Insurance	8
2.7	Option X2 – Changes in the Law	9
2.8	Option X7 – Delay Damages	9
2.9	Option X16 – Retention	9
2.10	Additional Conditions of Contract	9
3.0	CONTRACT DATA PART TWO	. 16
4.0	WORKS INFORMATION	. 17
4.1	Introduction	. 17
5.0	PROJECT SPECIFIC HEALTH AND SAFETY INFORMATION	. 18
5.0 5.1	PROJECT SPECIFIC HEALTH AND SAFETY INFORMATION	
		. 18
5.1	Introduction	. 18 . 18
5.1 5.2	Introduction Site Location	. 18 . 18 . 18
5.1 5.2 5.3	Introduction Site Location Activities and Health and Safety Information	. 18 . 18 . 18 . 18
5.1 5.2 5.3 5.4	Introduction Site Location Activities and Health and Safety Information Existing Land Use	. 18 . 18 . 18 . 18 . 18
5.1 5.2 5.3 5.4 5.5	Introduction Site Location Activities and Health and Safety Information Existing Land Use Surrounding Land Use	. 18 . 18 . 18 . 18 . 18 . 18 . 19
5.1 5.2 5.3 5.4 5.5 5.6	Introduction Site Location Activities and Health and Safety Information Existing Land Use Surrounding Land Use Ground Conditions	. 18 . 18 . 18 . 18 . 18 . 19 . 19
5.1 5.2 5.3 5.4 5.5 5.6 5.7	Introduction Site Location Activities and Health and Safety Information Existing Land Use Surrounding Land Use Ground Conditions Specific Hazards Associated with the Works	. 18 . 18 . 18 . 18 . 18 . 19 . 19 . 19
5.1 5.2 5.3 5.4 5.5 5.6 5.7 5.8	Introduction Site Location Activities and Health and Safety Information Existing Land Use Surrounding Land Use Ground Conditions Specific Hazards Associated with the Works Required Precautions	. 18 . 18 . 18 . 18 . 18 . 18 . 19 . 19 . 19 . 20
5.1 5.2 5.3 5.4 5.5 5.6 5.7 5.8 5.9	Introduction Site Location Activities and Health and Safety Information Existing Land Use Surrounding Land Use Ground Conditions Specific Hazards Associated with the Works Required Precautions Health and Safety Legislation and Other Regulations	. 18 . 18 . 18 . 18 . 18 . 19 . 19 . 19 . 20 . 20
5.1 5.2 5.3 5.4 5.5 5.6 5.7 5.8 5.9 5.10	Introduction	. 18 . 18 . 18 . 18 . 18 . 19 . 19 . 19 . 20 . 20 . 20
5.1 5.2 5.3 5.4 5.5 5.6 5.7 5.8 5.9 5.10 5.11	Introduction Site Location Activities and Health and Safety Information Existing Land Use Surrounding Land Use Ground Conditions Specific Hazards Associated with the Works Required Precautions Health and Safety Legislation and Other Regulations Item Required of the Contractor Traffic Routing/Management	. 18 . 18 . 18 . 18 . 18 . 19 . 19 . 19 . 20 . 20 . 20 . 20



5	.15	Storage of Materials 20
5	.16	Working Hours 20
5	.17	Induction for Principal Contractor and Sub-Contractor's Employees
5	.18	Plant Operator Site Licensing 21
5	.19	Statutory Undertaker's Equipment 21
1		



1.0 FORM OF CONTRACT

THIS CONTRACT is made on the of 2021 between:

- 1. **London Borough of Redbridge** (the *Employer*, which term includes its permitted successors and assignees) and
- 2. TBC

(the Contractor).

The *Employer* wishes to have the Works as defined in Contract Data Part One provided:

- 1. In consideration of the Price of £TBC, which is subject to adjustment in accordance with the *conditions of contract*, the *Contractor* will provide the Works in accordance with this Contract.
- 2. The *Employer* will pay the *Contractor* the amount due and carry out his duties in accordance with the *conditions of contract* identified in the Contract Data.
- 3. This Contract, together with the following documents, constitute the "contract" in its entirety to the exclusion of all other terms whatsoever and are in the following order of priority:
 - (i) this Contract;
 - (ii) the Contract Data part one and all documents referred to in such part and in such documents;
 - (iii) the conditions of contract;
 - (iv) the Works Information and Drawings and each of the documents referred to or included therein provided by or on behalf of the *Employer* and further information issued to the *Contractor* in accordance with this Contract;
 - (v) the Contract Data part two and all documents referred to in such part and in such documents.
- 4. The Contractor is appointed as Principal Contractor for the Works as defined by the CDM Regulations 2015 until Completion.
- 5. The *Contractor* shall ensure that the reference number [TBC] is quoted on all correspondence and payment applications/invoices made with respect to this Contract. Failure to do so may result in a delay to payment.
- 6. The commencement on or off site, and/or the continuation of any Works by the *Contractor* which are the subject of this Contract are deemed to be an acceptance of the terms of this Contract in its entirety.
- 7. Where executed in counterparts:
 - a. The contract shall not take effect until all of the counterparts have been delivered;
 - Delivery will take place when the date of delivery is agreed between the Employer and the Contractor after execution of the contract as evidenced by the date inserted on page 1 of the contract; and



c. Where not executed in counterparts, the contract shall become effective on the date agreed between the Employer and the Contractor as evidenced by the date inserted on page 1 of the contract.

IN WITNESS WHEREOF this Contract, consisting of this and the preceding page together with the Contract Data part one, the *conditions of contract*, the Works Information and Drawings and the Contract Data part two, has been executed as follows but delivered on the date first before written.

SIGNED on behalf of the said.....Ltd/Plc (the *Employer*)

Signature
Name
Position
Signature
Name
Position
Address (witness only)
SIGNED on behalf of the saidLtd/Plc (the Contractor)
At[date of signing] on[date of signing]

Signature

Name



Position.....

Signature Name Position Address (witness only)

.....



2.0 **CONTRACT DATA PART ONE**

Data Provided by the Employer

2.1 General

- 2.1.1 The conditions of contract are the core clauses and the clauses for Main Option A, dispute resolution Option W2 and secondary Options X2 (as amended), X4, X7, X11, X12, X13 (applies if the Contractor is unable to provide a parent guarantee), X16, X25, Y(UK)2 and additional conditions of contract Z1 Z13 of the NEC3 Engineering and Construction Contract (April 2013 edition).
- 2.1.2 The Works are:

The design and construction of a slurry wall and associated works as set out in the Works Information.

2.1.3 The Employer is:

London Borough of Redbridge

2.1.4 The *Project Manager* is:

SLR Consulting Limited Mill Barn 28 Hollingworth Court Turkey Mill Ashford Road Maidstone Kent ME14 5PP

2.1.5 The *Supervisor* is:

SLR Consulting Limited Mill Barn 28 Hollingworth Court Turkey Mill Ashford Road Maidstone Kent ME14 5PP

- 2.1.6 The adjudicator is to be selected from the ICE list of Adjudicators.
- 2.1.7 The Principal Contractor is tbc
- 2.1.8 The Principal Designer is SLR Consulting Limited.
- 2.1.9 The Works Information incorporates the Site Information and the Pre-Construction Health and Safety Information report.
- 2.1.10 The boundaries of the Site are defined in the Works Information.
- 2.1.11 The language of the Contract is English.



- 2.1.12 The law of this Contract is the law of England, subject to the jurisdiction of the courts of England.
- 2.1.13 The period for reply is two (2) weeks.
- 2.1.14 The tribunal is the Courts.

2.2 Time

2.2.1 The key dates are contained in Table 1

Table 1 – Key Dates	
Works Commencement Date	ТВС
Planned Completion Date	ТВС
Completion Date	ТВС

- 2.2.2 The Contractor shall provide a fully detailed, coordinated Programme in accordance with clause 2.2.3 below, within two (2) weeks of the date of this Contract (the "Programme Development Period") that shall include the design (including the submission dates of documentation/drawings), and construction, testing, and Acceptance.
- 2.2.3 The programme shall comply with Clause 31.2 of the Conditions of Contract. The programme shall be prepared and submitted in both a hard copy and an electronic copy in Microsoft Project and shall clearly detail (but not be limited to) the following:
 - 1. all tasks as identified in the Activity Schedule
 - 2. the critical path
 - 3. any float and lag if appropriate
 - 4. the baseline
- 2.2.4 This programme shall be agreed between the Contractor and Employer and shall be hereinafter referred to as "the Approved Programme".
- 2.2.5 The Contractor shall carry out the Works in accordance with the Approved Programme.
- 2.2.6 The Contractor shall be responsible for monitoring and accurately recording at all times his own performance and his compliance with, or default under, the requirements of the Approved Programme.
- 2.2.7 The Contractor shall report to the Employer and *Project Manager* on its performance of the Approved Programme against the baseline programme on a monthly basis.

2.3 Testing and Defects

- 2.3.1 The defects date is 52 weeks after Completion of the whole Works.
- 2.3.2 The defects correction period is two (2) weeks except that:

In circumstances agreed with the Project Manager.



- 2.3.3 The Contractor will carry out the Tests (to be specified by the Employer) to the satisfaction of the Employer and Completion will be deemed to have occurred on the issue by the Employer of the Completion Certificate.
- 2.3.4 Completion of the Works will be deemed to have occurred on the issue by the Employer of the Completion Certificate.

2.4 Payment

- 2.4.1 The currency of this Contract is Pounds Sterling.
- 2.4.2 The assessment interval is monthly.
- 2.4.3 The final date for payment is sixty (60) days after receipt by the Employer of a certified invoice.
- 2.4.4 The interest rate is 2.5% per annum above the base rate in force from time to time of the Bank of England.

2.5 Compensation Events

2.5.1 The place where the weather is to be recorded is the Met Office weather station at

Ilford

Location: 51.5562, 0.0779

- 2.5.2 The weather measurements to be recorded for each calendar month are:
 - The cumulative rainfall (mm);
 - The number of days with rainfall more than 5 mm;
 - The number of days with minimum air temperature less than zero degrees Celsius;
 - The number of days with snow laying at 9.00 hours GMT;
 - And these measurements:

Working hours wind speed exceeds 60 km/hours

Working hours air temperature is below 5 degrees Celsius

Working hours air temperature exceeds 35 degrees Celsius

2.6 Risk and Insurance

- 2.6.1 The minimum limit of indemnity for insurance in respect of loss of or damage to property (except the Works, Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the Contractor) caused by activity in connection with this Contract for any one event is £10,000,000.
- 2.6.2 The minimum limit of indemnity for insurance in respect of death of or bodily injury to employees of the Contractor arising out of and in the course of their employment in connection with this Contract for any one event is £10,000,000.
- 2.6.3 The minimum limit of indemnity for professional indemnity insurance for any breach of this Contract for any one event is £2,000,000.
- 2.6.4 Insurance shall be maintained by the Contractor for a minimum of 12 years from Completion of the *Works*.



2.7 Option X2 – Changes in the Law

This clause shall apply as amended below:

"A Change in Law which constitutes a Specific Change in Law which occurs after the date of this Contract and such Change in Law was not reasonably foreseeable prior to the date of this Contract (a Qualifying Change in Law). The Employer may notify the Contractor of a compensation event of a Qualifying Change in Law and instruct him to submit quotations. If the effect of a compensation event which is a Qualifying Change in Law is to reduce the total Defined Cost, the Prices are reduced."

2.8 Option X7 – Delay Damages

Delay damages for failure to achieve Completion of the whole of the Works by the Completion Date are £3,000.00 per week. Such delay damages shall be recoverable as a debt.

2.9 Option X16 – Retention

- 2.11.1 The retention free amount is nil.
- 2.11.2 The retention percentage is 5%, reduced to 2.5% on completion.

2.10 Additional Conditions of Contract

2.12.1 The additional conditions of contract are Clauses Z1 – Z13 given below:

Clause Z1 Physical Conditions

- **Z1.1** Delete clause 60.2 of the conditions of contract and replace with the following:
- 60.2 In judging the physical conditions, the Contractor is deemed to have taken into account within his Prices the following actions:

60.2.1 carried out an inspection and examination of the Site, its surroundings and any existing structures or works on, over or under the Site relevant to the construction of the Works;

60.2.2 satisfied himself as to the form and nature of the Site in regard to:

- climatic and hydrological conditions;
- ground and subsoil conditions;
- risks of damage to property adjacent to the Site;
- risks of injury to occupiers of such property;
- restrictions or precautions relating to nearby land;
- risks of pollution and damage to the environment;
- materials (whether natural or otherwise) to be excavated;
- presence of hazardous or toxic substances or waste; and
- types of Plant and Materials required to construct the Works.

60.2.3 satisfied himself as to:

- means of communication with the Site;
- access to and through the Site;
- accommodation requirements;
- requirements of Others for access to the Site;
- interference by persons with access to or use of the Site;
- risks of interference by protesters or trespassers; and
- precautions to prevent nuisance or interference by third parties.



60.2.4 referred to the data contained in the Site Investigations appended to the Works Information. Having reviewed the Factual Site Investigations, including borehole logs and test results, the Contractor has satisfied himself with respect to the site specific ground conditions.

60.2.5 in general obtained for himself:

- all necessary information as to risks; and
- all necessary Site Information,

so as to meet his obligation to Provide the Works.

Z1.2 Delete clause 60.3 of the conditions of contract and replace with the following:

60.3 The Contractor is deemed to have taken into account within his Prices the specific issues associated with the ground conditions and access restrictions specific to the Site.

Clause Z2 Conflict of Interest

The Contractor shall notify the Employer immediately upon becoming aware of any possible conflict of interest which may arise between the interests of the Employer and any other client of the Contractor and the Contractor shall take all reasonable steps to remove or avoid the cause of any such conflict of interest to the satisfaction of the Employer.

Clause Z3 Failure to provide documentation

Should the Contractor fail to provide copies of any surveys, test results or documentation to the Employer or *Project Manager* within the requisite time period specified in the Contract then 2% of the amount due to the Contractor will be withheld until the information is provided. The release of these monies will be undertaken in the next payment certificate following the next payment period as defined in the Contract Data Part 1.

Clause Z4 Investigations by HSE

The Contractor shall inform the Employer as soon as reasonably practicable of any investigations instigated by the HSE on any of the Contractor's other business activities outside the Works.

Clause Z5 Notifying Compensation Events

In sub-clause 61.3 delete 'eight weeks' and replace with 'two weeks'.

Clause Z6 Obligation to Carry Out

Z6.1 The Contractor shall or shall procure that its Sub-Contractors and/or consultants shall carry out the design and the construction, completion and testing of the Works so that:

Z6.1.2 Completion of the Works occurs on or before the agreed completion date;

Z6.1.3 the Works fully comply with and meet all the requirements of:

- (a) this Contract;
- (b) the Works Information;
- (c) the Commissioning Requirements;
- (d) the Works Delivery Plan;
- (e) Good Industry Practice;
- (f) Guidance;
- (g) the Consents;
- (h) all applicable Legislation, Statute and Applicable Laws;
- (i) to carry out the Works in a manner as not to cause, constitute or contribute to a breach by the Employer of its obligations under the lease



Clause Z7 Design Development

Z7.1 Design Warranty

Without prejudice to Clause Z14 (Obligation to Carry Out), the Contractor warrants that it has used and will continue to use the degree of skill and care and diligence in the design of the Works that would reasonably be expected of a competent professional designer experienced in carrying out design activities of a similar nature, scope and complexity to those comprised in the Works.

Z7.2 Rectification of Construction Proposals

If it should be found that the implementation of the Works delivery plan does not fulfil the requirements of the Works Information, the Contractor shall:

- *Z*7.2.1 at its own expense amend the Work delivery plan so that:
 - (a) the Work delivery plan shall satisfy the Works Information; and
 - (b) following the amendment, the performance of the Work delivery plan will be of an equivalent standard of performance to that set out in the Works Delivery Plan prior to its amendment (for the purpose of comparison disregarding the fault which required the amendment to be made); and
- *Z7.2.2* rectify the Works or any part of the Works affected, in accordance with the amended Works Delivery Plan.
- Z7.3 Liability in relation to Design not diminished by Review The liability of the Contractor to carry out the design of the Works according to this Contract shall not be modified, diminished or otherwise affected by any Reviewable Design Data or other document or information regarding design having been reviewed or commented upon by the Employer or the *Project Manager*.
- Z7.4 Design and Works undertaken prior to the date of this Contract Any design, design development work or Works carried out in respect of the Works prior to the date of this Contract will not obviate, diminish or alter the Contractor's obligations hereunder and will be deemed to have been carried out pursuant to this Contract.

Z8 Inspection of Facilities

Further to Clause 41 of the conditions of contract the Employer and/or the Authority or a representative or adviser of the Employer and/or the Authority may at all reasonable times and on reasonable notice and subject to obtaining the consent of the relevant manufacturer or supplier (which the Contractor shall use all reasonable endeavours to obtain) enter upon any property used by the Contractor as training or workshop facilities and places where work is being prepared or materials are being obtained for the Works for the purposes of general inspection and of attending any test or investigation being carried out in respect of the Works.

Z9 Contractor Default

Z9.1 Add a new clause 91.8 to the Contract Conditions as set out below: 91.8 The Employer may terminate if:



- a) the Contractor does not carry out any Works contemplated by the Approved Programme for ten (10) consecutive Business Days or during thirty (30) Business Days (whether consecutive or not) in any consecutive six (6) month period (R18); or
- b) the Contractor fails to commence the Works by such date as is one (1) Contract Month after the Planned Works Commencement Date (R18); or
- c) the commission of a Prohibited Act occurs in accordance with Z6 (R18).

Z10 Voluntary Termination

The following new clause 90.5 shall be added to clause 90:

90.5 The Employer shall be entitled to terminate the Contractor's obligations to provide the Works at any time on immediate written notice to the Contractor.

Z11 Early Warning

The window for the notification of Early Warnings shall be 2 weeks.

At the end of Clause 16.1 insert the following:

Any early warning notice must specify:

- the reason for such matter arising; and
- an estimate of the likely effect of the matter that has arisen.

At the end of clause 16.3 insert the following additional bullet point:

• supplying any further information relating to the matter which is received by the Contractor and/or is reasonably requested by the Employer.

Z12 Assignation

The Employer may assign or otherwise transfer this Contract or the benefit hereof to any third party at any time without the consent of the Contractor. The Contractor shall not assign or otherwise transfer this Contract without the prior written consent of the Employer.

Z13 Definitions

Insert new Definitions as follows:

"Change in Law"	 means the coming into effect in England and Wales after the date of this Contract of Legislation other than Legislation which on the date of this Contract has been published: (a) In a draft bill as part of a Governmental Departmental Consultation paper; or (b) In a Bill; or (c) In a draft statutory instrument; or (d) As a proposal in the Official Journal of the European Communities; or (e) Guidance; or (f) Any applicable judgement of a relevant court of law which changes a binding precedent of England;
"Consents"	means all permissions, consents, approvals, certificates, permits, licenses and authorisations of a Relevant Authority required for the performance of any of the Contractor's obligations under this Contract including for the avoidance of

(a) all Environmental Permits;

global environmental and advisory solutions

doubt:



	 (b) all Planning Permissions; and (c) all Planning Obligations. All references in this Contract to Consents shall be construed as referring to the Consents as from time to time varied, relaxed or waived;
"Commissioning Requirements"	means as set out in the Works Information;
"Defect"	shall be amended to delete the words 'which the Project Manager has accepted'
"Good Industry Practice"	means that degree of skill and care, prudence and foresight and operating practice which would reasonably and ordinarily be expected from time to time of a skilled and experience contractor (engaged in the same type of undertaking as the Contractor) under the same or similar circumstances;
"Guidance"	means any applicable guidance or directions which the Contractor is bound to comply;
"Legislation"	 means: (a) any act of Parliament or subordinate legislation within the meaning of section 21(1) of the Interpretation Act 1978; (b) any exercise of the Royal Prerogative; (c) Any enforceable community right within the meaning of section 2 of the European Communities Act 1972; and (d) Any applicable judgement of a relevant court of law which is binding precedent in England, in each case in force in England;
"Loss"	means all damages, losses, liabilities, costs, expenses (including legal and other professional charges and expenses) and charges whether arising under statute, contract or at common law, or in connection with judgments, proceedings, internal costs or demands;
"Personnel"	means any employees, servants, agents, subcontractors or other representatives of the Contractor or any sub-contractor involved directly or indirectly or otherwise in the performance of the Works
"Planned Completion Date"	means such date TBC after the Works Commencement Date
"Project Contract"	means the Contract between London Borough of Redbridge and the Contractor
"Prohibited Act"	means:



defraud the Employer and/or the Authority or the Partner		(i) (ii) (b (c) (i)	to this contract or any other contract with the Employer or the Authority or the Partner Councils;
	"Reviewable Design Data"		means the Approved Programme;
"Reviewable Design Data" means the Approved Programme;	"Specific Change in Law"		means any Change of Law which specifically refers to the provision of any works the same as or similar to any of the Works;
"Specific Change in Law" means any Change of Law which specifically refers to the provision of any works the same as or similar to any of the	"Completion Date"		means TBC
"Specific Change in Law" means any Change of Law which specifically refers to the provision of any works the same as or similar to any of the Works;	"Tests"		means the tests specified in the works information and specification.;
"Specific Change in Law" means any Change of Law which specifically refers to the provision of any works the same as or similar to any of the Works; "Completion Date" means TBC "Tests" means the tests specified in the works information and	"Unsuitable Person"		means any person who: has any conviction; in the reasonable opinion of the Employer: is or is likely to cause damage to the reputation of the Employer or the Authority; or



- (ii) persistently fails or would fail to comply with the health and safety or other material obligations of the Contractor under this Contract; or
- (iii) is not a fit and proper person to be engaged or employed in or in connection with the provision or performance of any part of the Works; or
- (iv) may present an actual or potential risk to the health and safety or welfare of the Employer or any third party at the Site; or
- (v) is not appropriately trained, qualified, skilled and or competent to carry out any part of the Works;

"Works"

means as defined in Contract Data Part One clause 2.1.2;

"Works Commencement Date" means as defined in Contract Data Part One clause 2.2.1 or such other date as may be agreed between the Parties;

"Works Delivery Plan" means as detailed in the Works Information.

Z14 Collateral Warranty The Contractor shall be obliged to make available upon request, in the form appended, including but not limited to Brett Tarmac Limited.



3.0 CONTRACT DATA PART TWO

Data to be provided by the Contractor

The Contractor is: TBC

The direct fee percentage is TBC %				
The sub-contracted fee percentage is TBC %				
The working areas are the Site are as defined in the Works Information.				
The Key People are:				
Contract Manager	ТВС			
Site Agent	ТВС			
Site Foreman	ТВС			
Site Engineer	ТВС			
Health and Safety Representative	ТВС			
Quality Manager	ТВС			

The following matters will be included in the Risk Register:

- Obstructions to slurry wall
- Unidentified buried services
- Excessively high groundwater

The completion date for the whole of the Works is TBC

The Programme identified in the Contract Data is document refe	rence TBC
The Activity Schedule is document reference TBC	
The percentage for people overheads is	TBC %
The published list of Equipment is the last edition of the list publ	ished by CECA
The percentage for adjustment for Equipment in the published li	st is 0%
The rates for other Equipment are	N/A

The hourly rates for Defined	d Cost of Site Employees are:
Category of Employee	Hourly rate
Site Agent	
Site Foreman	
Site Engineer	
Labourer	

The hourly rates for Defined Cost of Design outside the Working Areas are:		
Category of Employee	Hourly rate	
Designer		
Draughtsman		

The percentage for design overheads is.....%

The categories of design employees whose travelling expenses to and from the Working Areas are included in Defined Cost are $N\!/\!A$

List of works to be sub contracted and names of the proposed Sub-Contractors



Work or Service Name of Sub-Contractor

4.0 WORKS INFORMATION

4.1 Introduction

4.1.1 The Works Information is contained in the Works Information and Performance Specification document¹.

global environmental and advisory solutions



¹ Fairlop Quarry Works Information and Performance Specification for Phase E Slurry Wall Construction prepared for London Borough of Redbridge; SLR Ref: 409.09423.00001 V1 dated April 2020

5.0 **PROJECT SPECIFIC HEALTH AND SAFETY INFORMATION**

5.1 Introduction

- 5.1.1 This project is being carried out in accordance with the Construction (Design and Management) Regulations 2015.
- 5.1.2 BTL Health and Safety documentation is presented within Annexes A and C to the Works Information.

Contract Fairlop Phase E Slurry Wall		
CLIENT (AND EMPLOYER UNDER CONTRACT)	PRINCIPAL DESIGNER	
London Borough of Redbridge	SLR Consulting Limited	
PROJECT MANAGER	PRINCIPAL CONTRACTOR	
SLR Consulting Limited	The Contractor until Completion	

5.2 Site Location

Fairlop Quarry Hainault Road, Little Heath, Romford RM6 5SS

5.3 Activities and Health and Safety Information

5.3.1 The main Works to be carried out by the Principal Contractor are the construction of a slurry wall. The Principal Contractor will be the Contractor, who will continue to perform the duties of these roles until issue of completion certificate. The purpose of this document is to highlight the main health and safety issues in connection with the Works. Further information is provided in the Pre-Construction Information report contained in the Works Information and Performance Specification (Appendix E).

5.4 Existing Land Use

5.4.1 The proposed Phase E area is located to the current phase of mineral extraction. Phase E is relatively flat at an elevation of c. 25mOD with a slight fall from east to west. Phase E is situated on Greenfield Land.

5.5 Surrounding Land Use

3.2.1 The area to the north of Area E is noted as 'Historic Landfill' on the Environment Agency's website, with the site names 'Aldborough Hatch Farm' and Fairlop Airfield.



3.2.2 It is understood that groundwater/leachate from these historic landfills may flow southwards into Phase E.

5.6 Ground Conditions

- 5.6.1 See section 7.3 of the Works information.
- 5.6.2 Utilities/services are shown on Drawing "Working Plan and Phase E Utilities". The Principal Contractor shall ensure that the Works are undertaken in accordance with HSE Guidance: Avoiding Danger from Underground Services (HSG47).

5.7 Specific Hazards Associated with the Works

- 5.7.1 Listed below are hazards or potential hazards associated with the Works, which the Employer has identified to date. The Principal Contractor is required to consider the preventative measures and precautionary measures required to address these hazards, together with any additional hazards identified by the Principal Contractor:
 - i. Existing site services;
 - ii. Interface with BTL site operational activities;
 - iii. Contact with contaminated ground or wastes or water;
 - iv. Soft or unstable ground.
 - v. Proximity of public footpath adjacent river Don

5.8 Required Precautions

5.8.1 The following precautions shall be implemented by the Contractor during the Works:

(i) No plant, traffic etc. shall cross any site services except whilst on established hardstandings or at defined crossing points.

(ii) All personnel should wear appropriate gloves, safety goggles and boots etc., and should not allow skin to come in direct contact with surface water or soils;

- (iii) The following general precautions should be adhered to:
 - Good levels of general personal hygiene should be maintained;
 - Personnel should not allow skin to come in direct contact with leachate or wastes;
 - Smoking is not permitted on the site;
 - Due to the proximity of the Site to an operational waste facility, personnel should be aware of the risk of leptospiral jaundice (leptospirosis) and tetanus and are advised to ensure they have on-going tetanus immunity; and
 - Personnel should not handle food whilst out of the confines of the compound areas and should avoid rubbing eyes, mouth, etc until adequate washing has taken place.

(iv) The Principal Contractor shall at all times comply with Health and Safety Executive Guidance Note HS(G) 47 "Avoiding Danger from Underground Services".

(v) The Principal Contractor shall construct and properly maintain signs at haul/access roads where there may be an interaction between the Principal Contractor's vehicles and the Employer's vehicles. Priority should be given at all times to the Employer's vehicles and vehicles depositing wastes.

(vi) The Principal Contractor shall not commence any Works in areas where services are known to be present until a permit has been issued by the relevant site staff. Where services are known to be present, Works shall not proceed until the exact location of the services have been identified.

(vii) The Principal Contractor shall erect temporary fencing with the appropriate signage around excavation areas to prevent access from members of the public or BTL site staff.



5.9 Health and Safety Legislation and Other Regulations

5.9.1 The Contractor shall comply with all relevant Health and Safety legislation and generally comply with the principles and requirements of appropriate industry advice and standards.

5.10 Item Required of the Contractor

5.10.1 The Contractor shall provide a draft Construction Health and Safety Plan which addresses the main health and safety issues associated with his Works. The Contractor will be expected to develop the plan and to provide the level of information as outlined in "A Guide to Managing Health and Safety in Construction", HSC, 1995 PP 57-60 (ISBN 0717607550). The Contractor shall provide evidence to demonstrate that his organisation (or any organisations, which he intends to employ) is fully competent to undertake the nature of the Works that are to be carried out.

5.11 Traffic Routing/Management

5.11 Access to the site is through Phase A off Painters Road (Plan F10/PL09/05). Plan F10/PL09/05 shows the access route (blue dashed line noted as "importation route").

5.12 Access for Emergency Services

5.12.1 The access to the site for emergency services will be from Painters Road.

5.13 Location of Accommodation and First Aid

5.13.1 Appropriate first aid facilities shall be provided by the Principal Contractor within the Principal Contractor's offices, messes, stores and workshops.

5.14 Location of Plant/Equipment

5.14.1 The Principal Contractor shall familiarise himself with the locations of all permanent and mobile plant operated by or on behalf of BTL prior to commencement of the Contract. The Principal Contractor's plant and equipment etc shall be stored within the Site boundary in areas that are allocated to the Principal Contractor and are identified on the Contract Drawings.

5.15 Storage of Materials

5.15.1 All materials shall be stored within the area allocated for the Principal Contractor's use on the Contract Drawings.

5.16 Working Hours

5.16.1 The working hours for the Works shall be 0700 hrs to 1800 hrs Monday to Friday and 0700 hrs to 1200 hrs on Saturday. Outside these hours, the Principal Contractor may only proceed with the Works with the specific written consent of the Employer.

5.17 Induction for Principal Contractor and Sub-Contractor's Employees

5.18.1 All staff employed by or on behalf of the Principal Contractor shall attend a Health and Safety course presented by BTL prior to the commencement of Works on site.



5.18 Plant Operator Site Licensing

5.19.1 All machine operators shall be required to qualify for a mobile plant operator's site licence. To that end, a qualified member of BTL staff shall assess each individual operator employed by the Principal Contractor or any Sub-Contractors.

5.19 Statutory Undertaker's Equipment

5.20.1 The Principal Contractor will ensure that Statutory Undertaker's equipment is not damaged during the execution of the Works.



EUROPEAN OFFICES

United Kingdom

AYLESBURY T: +44 (0)1844 337380

BELFAST T: +44 (0)28 9073 2493

BRADFORD-ON-AVON T: +44 (0)1225 309400

BRISTOL T: +44 (0)117 906 4280

CAMBRIDGE T: + 44 (0)1223 813805

CARDIFF T: +44 (0)29 2049 1010

CHELMSFORD T: +44 (0)1245 392170

EDINBURGH T: +44 (0)131 335 6830

EXETER T: + 44 (0)1392 490152

GLASGOW T: +44 (0)141 353 5037

GUILDFORD T: +44 (0)1483 889800

Ireland

DUBLIN T: + 353 (0)1 296 4667 France

GRENOBLE T: +33 (0)4 76 70 93 41

LEEDS

LONDON

MAIDSTONE

MANCHESTER

NOTTINGHAM

SHEFFIELD

SHREWSBURY

STAFFORD

STIRLING

WORCESTER

T: +44 (0)113 258 0650

T: +44 (0)203 691 5810

T: +44 (0)1622 609242

T: +44 (0)161 872 7564

NEWCASTLE UPON TYNE T: +44 (0)191 261 1966

T: +44 (0)115 964 7280

T: +44 (0)114 245 5153

T: +44 (0)1743 23 9250

T: +44 (0)1785 241755

T: +44 (0)1786 239900

T: +44 (0)1905 751310

www.slrconsulting.com

