

NEC4 Engineering and Construction

Short Contract

FCRM Operational Framework – KSL South East Hub Lot 1

A contract between	The Environment Agency Horizon House Deanery Road Bristol BS1 5AH
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And	Amalgamated Construction
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For	KSL Reconditioning Programme 21/22 – Package 1 : Newington Culvert Lining (ENV0002795C)
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	Contract Forms <ul style="list-style-type: none">- Contract Data- The <i>Contractor's</i> Offer and <i>Client's</i> Acceptance- Price List- Scope- Site Information
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Contract Data

The *Client's* Contract Data

	The <i>Client</i> is	
Name	Environment Agency	
Address for communications	Guildbourne House Chatsworth Road Worthing, BN11 1LD	
Address for electronic communications	[REDACTED]	
The <i>works</i> are	Design and Build of Newington Culvert lining and repairs	
The <i>site</i> is	THE STREET, NEWINGTON, FOLKESTONE, CT18 8AU (NGR - TR1827537532 to TR1819737425)	
The <i>starting date</i> is	28/02/2022	
The <i>completion date</i> is	04/11/2022	
The <i>delay damages</i> are	£245.71	Per day
The <i>period</i> for reply is	2	weeks
The <i>defects date</i> is	104	weeks after Completion
The <i>defects correction period</i> is	4	weeks
The <i>assessment day</i> is	the last working day	of each month
The <i>retention</i> is	nil	%
The United Kingdom Housing Grants, Construction and Regeneration Act (1996) does apply		
The <i>Adjudicator</i> is:		
In the event that a first dispute is referred to adjudication, the referring Party at the same time applies to the Institution of Civil Engineers to appoint an <i>Adjudicator</i> . The application to the Institution includes a copy of this		

definition of the *Adjudicator*. The referring Party pays the administrative charge made by the Institution. The person appointed is also *Adjudicator* for later disputes.

Contract Data

The *Client's* Contract Data

The interest rate on late payment is	nil	% per complete week of delay.
For any one event, the liability of the <i>Contractor</i> to the <i>Client</i> for loss of or damage to the <i>Client's</i> property is limited to	£100,000	
The <i>Client</i> provides this insurance	None	
Insurance Table		
Event	Cover	Cover provided until
Loss of or damage to the <i>works</i>	The replacement cost	The <i>Client's</i> certificate of Completion has been issued
Loss of or damage to Equipment, Plant and Materials	The replacement cost	The defects Certificate has been issued
The <i>Contractor's</i> liability for loss of or damage to property (except the works, Plant and Materials and Equipment) and for bodily injury to or death of a person (not an employee of the <i>Contractor</i>) arising from or in connection with the <i>Contractor's</i> Providing the Works	Minimum £5,000,000 in respect of every claim without limit to the number of claims	
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 amount required by the applicable law	
Failure of the <i>Contractor</i> to use the skill and care normally used by professionals providing works similar to the works	Minimum £1,000,000 in respect of every claim without limit to the number of claims	6 years following Completion of the whole of the works or earlier termination
The <i>Adjudicator nominating body</i> is	The Institution of Civil Engineers	
The <i>tribunal</i> is	litigation in the courts	

The conditions of contract are the NEC4 Engineering and Construction Short Contract June 2017 and the following additional conditions	
Only enter details here if additional conditions are required.	
Z1.0	Sub-contracting
Z1.1	The <i>Contractor</i> submits the name of each proposed subcontractor to the <i>Client</i> for acceptance. A reason for not accepting the subcontractor is that their appointment will not allow the <i>Contractor</i> to Provide the Works. The <i>Contractor</i> does not appoint a proposed subcontractor until the <i>Client</i> has accepted them.
Z1.2	Payment to subcontractors and suppliers will be no more than 30 days from receipt of invoice.
Z2.0	Environment Agency as a regulatory authority
Z2.1	The Environment Agency's position as a regulatory authority and as <i>Client</i> under the contract is separate and distinct. Actions taken in one capacity are deemed not to be taken in the other.
Z2.2	Where statutory consents must be obtained from the Environment Agency in its capacity as a regulatory authority, the <i>Contractor</i> is responsible for obtaining these and paying fees (unless stated otherwise in the Scope). The <i>Client's</i> acceptance of a tender and the <i>Client's</i> instruction or variation of the works does not constitute statutory approval or consent.
Z2.3	An action by the Environment Agency as regulatory authority is not in its capacity as <i>Client</i> and is not a compensation event.
Z3.0	Confidentiality & Publicity
Z3.1	The <i>Contractor</i> may publicise the works only with the <i>Client's</i> written agreement.
Z4.0	Correctness of Site Information
Z4.1	Site Information about the ground, subsoil, ducts, cables, pipes and structures is provided in good faith by the <i>Client</i> but is not warranted correct. The <i>Contractor</i> checks the correctness of any such Site Information they rely on for the purpose of Providing the Works.
Z5.0	The Contracts (Rights of Third Parties) Act 1999
Z5.1	For the purposes of the Contracts (Rights of Third Parties) Act 1999, nothing in this contract confers or purports to confer on a third party any benefit or any right to enforce a term of this contract.
Z6.0	Design
Z6.1	Where design is undertaken, it is the obligation of the <i>Contractor</i> to ensure the use of skill and care normally used by professionals providing similar design services.
Z6.2	The <i>Contractor</i> designs the parts of the works which the Scope states they are to design.
Z6.3	The <i>Contractor</i> submits the particulars of their design as the Scope requires to the <i>Client</i> for acceptance. A reason for not accepting the <i>Contractor's</i> design is that it does not comply with either the Scope or the applicable law. The <i>Contractor</i> does not proceed with the relevant work until the <i>Client</i> has accepted this design.
Z6.4	The <i>Contractor</i> may submit their design for acceptance in parts if the design of each part can be assessed fully.
Z7.0	Change to Compensation Events
Z7.1	Delete the text of Clause 60.1(11) and replace by: The <i>works</i> are affected by any one of the following events <ul style="list-style-type: none"> • War, civil war, rebellion revolution, insurrection, military or usurped power • Strikes, riots and civil commotion not confined to the employees of the <i>Contractor</i> and sub-contractors • Ionising radiation or radioactive contamination from nuclear fuel or nuclear waste resulting from the combustion of nuclear fuel • Radioactive, toxic, explosive or other hazardous properties of an explosive nuclear device • Natural disaster • Fire and explosion • Impact by aircraft or other device or thing dropped from them

Z8.0	Framework Agreement															
Z8.1	The <i>Contractor</i> shall ensure at all times during this contract it complies with all the obligations and conditions of the Framework Agreement made with the <i>Client</i> .															
Z9.0	Termination															
Z9.1	Delete the text of Clause 92.3 and replace with: If the <i>Contractor</i> terminates for Reason 1 or 6, the amount due on termination also includes 5% of any excess of a forecast of the amount due at Completion had there been no termination over the amount due on termination assessed as for normal payments.															
Z10.0	Data Protection															
Z10.1	The requirements of the Data Protection Schedule shall be incorporated into this contract															
Z11.0	Liabilities and Insurance															
Z11.1	Civil data protection claims and regulatory fines for breaches of Data Protection Legislation are excluded from any limit of liability stated.															
Z12.0	Packaging															
Z12.1	For contracts containing packages of projects the Client's Contract Data, Scope and Site Information particular to an individual project is contained within its Site Specific Pack															
Z30.0	Material Price Volatility The Client recognises the ongoing pricing uncertainty in relation to materials for the period from 1 July 2021 to 30 June 2022 the Client will mitigate this additional cost through this clause. Payment is made per assessment based upon a general average material proportion within assessments, calculated at 40%.															
Z30.1	Defined terms a) The Latest Index (L) is the latest index as issued by the Client. The L, which is at the discretion of the Client, is based upon the issued consumer price index ((CPI) based upon the 12-month rate) before the date of assessment of an amount due. b) The Price Volatility Provision (PVP) at each date of assessment of an amount due is the total of the Material Factor as defined below multiplied by L for the index linked to it. c) Material Factor (MF) 40% is used, based on a general average material proportion across our programme. The volatility provision is only associated with material element. No volatility provision is applicable to any other component of costs.															
Z30.2	Price Volatility Provision Through a Compensation Event the Client shall pay the PVP. PVP is calculated as: $Assessment \times MF \times L = PVP$															
Z30.3	Price Increase Each time the amount due is assessed, an amount for price increase is added to the total of the Prices which is the change in the Price for Work Done to Date for the materials component only (and the corresponding proportion) since the last assessment of the amount due multiplied PVP for the date of the current assessment.															
Z30.4	Compensation Events The Contractor shall submit a compensation event for the PVP on a monthly basis (where applicable) capturing Defined Cost only for the PWDD increase in month. Forecasted costs should only be considered for the June 2022 period compensation event. <table border="1" data-bbox="284 1899 1407 2134"> <thead> <tr> <th>Assessment Date</th> <th>Defined Cost?</th> <th>Forecasted Cost?</th> </tr> </thead> <tbody> <tr> <td>31st Jul 21</td> <td>In period costs only</td> <td>No</td> </tr> <tr> <td>31st Aug 21</td> <td>In period costs only</td> <td>No</td> </tr> <tr> <td>30th Sept 21</td> <td>In period costs only</td> <td>No</td> </tr> <tr> <td>31st Oct 21</td> <td>In period costs only</td> <td>No</td> </tr> </tbody> </table>	Assessment Date	Defined Cost?	Forecasted Cost?	31 st Jul 21	In period costs only	No	31 st Aug 21	In period costs only	No	30 th Sept 21	In period costs only	No	31 st Oct 21	In period costs only	No
Assessment Date	Defined Cost?	Forecasted Cost?														
31 st Jul 21	In period costs only	No														
31 st Aug 21	In period costs only	No														
30 th Sept 21	In period costs only	No														
31 st Oct 21	In period costs only	No														

30 th Nov 21	In period costs only	No
31 st Dec 21	In period costs only	No
31 st Jan 22	In period costs only	No
28 th Feb 22	In period costs only	No
31 st Mar 22	In period costs only	No
30 th Apr 22	In period costs only	No
31 st May 22	In period costs only	No
30 th Jun 22	In period costs only	Forecasted costs for remainder of contract

The Defined Cost for compensation events is assessed using

- the Defined Cost at base date levels for amounts calculated from rates stated in the Contract Data for People and Equipment and
- the Defined Cost current at the date the compensation event was notified, adjusted to the base date by 1+PVP for the last assessment of the amount due before that date, for other amounts.

Contract Data

The Contractor's Contract Data

The Contractor is		
Name	Amalgamated Construction Ltd	
Address for communications		
Whaley Road, Barugh, Barnsley, South Yorkshire S75 1HD		
Address for electronic communications		
[REDACTED]		
The fee percentage is		
		12 %
The people rates are		
category of person	unit	rate
Project Manager		
	hour	As Operational Framework
Quantity Surveyor		
	hour	As Operational Framework
General Foreman		
	hour	As Operational Framework
The published list of Equipment is		
		CECA
The percentage for adjustment for Equipment is		
		12%

Contract Data

The *Contractor's* Offer and *Client's* Acceptance

The *Contractor* offers to Provide the Works in accordance with these *conditions of contract* for an amount to be determined in accordance with these *conditions of contract*.

The offered total of the Prices is **£76,085**

Enter the total of the Prices from the Price List.

Signed on behalf of the *Contractor*

Name

Position

Signature

Date

The *Client* accepts the *Contractor's* Offer to Provide the Works

Signed on behalf of the *Client*

Name

Position

Signature

Date

Price List

If the *Contractor* is to be paid an amount for the item which is not adjusted if the quantity of work in the item changes, the tenderer enters the amount in the Price Column only: the Unit, Quantity and rate columns being left blank.

If the *Contractor* is to be paid an amount for the item of work which is the rate for the work multiplied by the quantity completed, the tenderer enters the rate which is then multiplied by the expected quantity to produce the Price, which is also entered.

The Contractor shall provide the pricing information to design and build a suitable solution to recondition assets to fully operational condition in line with the following objectives.

Note: The *Contractor* must satisfy themselves that they have priced for the whole of the scope for these projects in line with the requirements highlighted within this contract, the PCI documentation, NEAS screening, Site information spreadsheet and information based in the site information pack.

It will be assumed that this is the case whether or not the item appears on the Price List.

Item Number	Description	Unit	Quantity	Rate	Price
1	Detailed design (Contractor to breakdown design activities)	Sum			
2	Information Delivery Plan (IDP)	Sum			
3	Preparation of a detailed Construction Phase Plan (CPP) and RAMS in accordance with the SHEW Code of Practice and any other information critical to be produced and accepted by the <i>Client</i> before commencement on site. The production of a Waste Management Plan. Maintenance and adherence to the Environmental Action Plan (EAP).	Sum			
4	All licences, permits, planning and approvals necessary to complete the scope of works including Flood Risk Activity Permit (FRAP) including HRA and MCZ assessments and full consents.	Sum			
5	Ecological surveys and walkovers	Sum			
6	Preliminaries and supervision	Sum			
7	GPR survey of areas of intrusive works and other areas and other surveys such as dimensional surveys or CCTV surveys as deemed necessary by Contractor	Sum			

8	Precondition photographic survey of working areas and access routes and photographs and video footage both prior to commencement and after completion for comparative purposes.	Sum			
9	Mobilisation and establishment of works and reinstatement on completion.	Sum			
10	Construction / build (<i>Contractor</i> to breakdown construction activities)	Sum			
11	Removal and disposal of silt	Tonne	10		
12	All surplus wastes generated by the works to be disposed of off-site in accordance with the current Waste Management Regulations.	Sum			
13	Preparation of 'as built' drawings and provision of Health and Safety File (including information on materials used and maintenance – O&M Manuals).	Sum			
14	Completion of the Environment Agency's Carbon Calculator and Carbon Optimisation Report to inform the design stage, and a Carbon Calculator and Final Carbon Report for the 'as built' project to be provided within a month of project completion.	Sum			
	<i>For Contractors use</i>				
The total of the Prices		For <i>Contractors</i> use	£ 76,085		

The method and rules used to compile the Price List are

Civil Engineering Standard Method of Measurement 4th edition (CESMM4) as per the Framework Price Workbook.

Scope

Description of the works

The scope of *works* for this contract is to Design and Build a suitable solution to recondition the asset back to its pre failure and fully operational condition.

Culverts:

- Inlet – MH 1 - Outlet. Outlet incorporates 3 overflows: Outlet A, Outlet B, Outlet C with lengths of 13.46m, 13.66m & 13.60m respectively from MH 1. Length of Inlet – MH 1: 1.99m.
- Inlet – MH 1 – MH 2 – MH 3 – Outlet B. Lengths: 1.99m, 35.84m, 10.00m and 71.80m.
- The MH 3 – MH 2: up to 17 meters
- MH 3 – Outlet B

Given below are damages identified from the 'Newington CCTV Report 2018' and 'Newington CCTV Report 2019'

- MH 1 – Outlet A:
 - Settled deposits coarse 5 % cross-sectional area loss, at 0.60m from the MH 1 (Grade 3).
 - Fine roots at joint, at 12.03m from MH 1 (Grade 2).
- MH 1 – Inlet:
 - Fine roots at joint, at 1.20m from MH 1 (Grade 2).
- MH 1 – MH 2:
 - Longitudinal crack at joint at 01 o'clock at 1.90m from MH 1 (Grade 2).
 - Longitudinal crack at joint at 10 o'clock at 2.08m from MH 1 (Grade 2).
 - Longitudinal fracture at joint at 12 & 03 o'clock at 2.08m from MH 1 (Grade 3).
 - Fine roots at joint, at 2.81m from MH 1 (Grade 2).
 - Longitudinal crack at joint at 12 o'clock at 5.02m from MH 1 (Grade 2).
 - Hole in drain/sewer from 10 to 02 o'clock, at 7.96m from MH 1 (Grade 5).
 - Multiple fractures from 02 to 04 o'clock and from 08 to 10 o'clock at 7,95m from MH 1 (Grade 4).
 - Multiple fractures from 08 to 04 o'clock at 8,98m from MH 1 (Grade 4).
 - Longitudinal crack at joint at 12 o'clock at 21.67m from MH 1 (Grade 2).
- MH 2 – MH 3:
 - Settled deposits, hard or compacted, 25 % cross-sectional area loss, at 6.24m from the MH 2 (Grade 4).
Remarks: Possible concrete.
- MH 3 – MH 2:
 - Missing bricks at 08 o'clock at 0.10m from MH 3 (Grade 4).
 - Settled deposits, coarse, 20 % cross-sectional area loss at 4.60m from MH 3(Grade 4). Remarks: Joint causing slight weir effect.
 - Start S01 settled deposits, coarse, 10 % cross-sectional area loss at 10.70m from MH 3(Grade 3). Remarks: Under water level.
 - Suspected patch job with road sign at 11.10m from MH3.
 - End F01 settled deposits, coarse, 10 % cross-sectional area loss at 17.10m from MH 3(Grade 3). Remarks: Under water level.

At 17.10m from MH 3 the survey was abandoned due to UTP Obstructions.

- Outlet – MH3
 - Missing bricks at 09 o'clock at 0.00m from Outlet B (Grade 4).
 - Start S01 of settled deposits, fine, 10 % cross-sectional area loss, at 0.10m from Outlet B (Grade 3).
 - Missing bricks at 03 o'clock at 24.90m from Outlet B (Grade 4).
 - Missing bricks at 08 o'clock at 26.20m from Outlet B (Grade 4).
 - Fine roots from 07 to 1 o'clock at 28,80m from Outlet B (Grade 2).
 - Roots tap at 09 o'clock at 30.00m from Outlet B (Grade 4).
 - Settled deposits, 20 % cross-sectional area loss at 56.40m from Outlet B (Grade 4). Remarks: Debris stuck in joint causing weir effect.
 - Disused / slab MH at 58.80m from Outlet B.

- Settled deposits, 10 % cross-sectional area loss at 61.20m from Outlet B (Grade 3). Remarks: Under water level.
- Start S02 of settled deposits, coarse, 10 % cross-sectional area loss, at 62.60m from Outlet B (Grade 3).
- End F01 of settled deposits, coarse, 10 % cross-sectional area loss, at 71.80m from Outlet B (Grade 3).
- End F02 of settled deposits, coarse, 10 % cross-sectional area loss, at 71.80m from Outlet B (Grade 3).

The *Contractor* shall carry out the following works, in consideration to the above damages.

1. Reline the culvert from MH1 to MH2 (cut back root ingress and patch up holes where required, to enable relining)
2. Patch up holes, cut back root ingress and repair the damages in the culvert from MH2 to MH3 to outlet
3. Investigate and remediate the road sign patch repair (MH3 to Outlet: 11.10m) and disused slab (Outlet to MH3: 58.80m).

The *Contractor* shall carry out CCTV surveys for any missing sections and identified scope of repairs shall be processed as a compensation event, if accepted by the *Client*. Upon completion of CCTV survey, the *Contractor* will supply a detailed CCTV inspection report and video footage of the survey.

The report is to be issued to the *Client*, prior to demobilising, and will include any additional works to the above identified repairs. The *Client* may notify a compensation event to carry out these additional works, if they are not notified as a defect.

No additional sediment should be removed from culverts without prior written agreement with the *Client*. For the purposes of pricing please assume the silt is inert. If the silt testing provides a result that is not inert then prior written agreement from the *Client* is required before the silt can be removed. Additional disposal costs for contaminated silt will be dealt with by compensation events.

The *Contractor* is to provide and dispose of appropriate sediment traps for the section that requires CCTV.

The *Contractor* may leave their temporary works in place for a maximum period of 2 weeks, where approved FRAP duration takes precedence.

The *Contractor* may extend this period, only after seeking and obtaining written agreement from the *Client* during this period.

A quantity of 10 tonnes of silt removal within the culvert is assumed in this contract. No additional sediment should be removed from culverts without prior written agreement with the *Client*. Where the *Contractor* identifies that the quantity of silt removal is higher than this assumption prior to silt removal, they shall notify the *Client* before proceeding and seek acceptance to proceed. For the purposes of pricing please assume the silt is inert. Silt testing is required. If the silt testing provides a result that is not inert then prior written agreement from the *Client* is required before the silt can be removed. Additional disposal costs for contaminated silt will be dealt with by compensation events. The *Contractor* is to provide and dispose of appropriate sediment traps for each site. To reduce the risk of cross contamination the *Contractor* is to wash down all vehicles and equipment between jetting sites.

The *Contractor* shall ensure that the proposed design is accepted by the *Client* before the works commence on site.

Upon award, the *Contractor* will satisfy themselves with all dimensions for all works. The *Contractor* must accept any risk surrounding likely damage caused by their method of working for all works. The *Contractor* shall carry out all surveys as required for a suitable design and build, including ecological surveys and walkovers as deemed required by environmental regulations and the *Client*'s NEAS and FBG team.

The *Contractor* shall provide all site services required for their works and preliminary activities and supervision including welfare, site accommodation etc. The *Contractor* must independently obtain and include all costs associated with all permits, licences, approvals, planning and environmental permits and approvals, including FRAPs (Flood Risk Activity Permit), HRA (Habitats Regulations Assessment) and MCZ (Marine Conservation Zones) assessments and full approvals or consents required to deliver the works. The *Contractor* shall commence FRAP consultations for the schemes where required in liaison with the *Client*'s Project Manager.

The *Contractor* shall include any temporary works required to undertake the *Contractor*'s method of working as deemed necessary to meet the works scope. The *Contractor* shall provide the *Client*'s Project Manager sufficient notice to arrange site visits for the assessments. All access routes and working areas must be reinstated to the same or a better standard than on commencement on completion of the works. The *Contractor* shall take condition photos of the working area before and after works and provide them to the *Client*.

The *Contractor* shall develop a Carbon Calculator in line with the *Client*'s process. The template of the Carbon Calculator will be issued by the *Client* upon contract award. The *Contractor* should produce risk assessments and method statements before works. The risk assessments and method statements shall meet the requirements of the Construction Design and Management Regulations 2015, unless notified otherwise by the *Client*.

The *Contractor* must adhere to the SHEW Code of Practice and provide any other information critical for acceptance by the Principal Designer and *Client*'s Delegate or the *Client* before commencement on site. The *Contractor* shall

complete, update, hold and provide a schedule of risk assessments and method statements for acceptance to the *Client's* Delegate before the start of construction work.

The Information Delivery Plan (IDP) is a schedule of how the *Client* expects data to be shared between the *Client* and the *Contractor* working on the projects as part of Building Information Modelling (BIM). The *Contractor* must ensure that this protocol is adhered to, where required. It reflects the information that is already held for each project and the information that the *Client* expects to receive from the *Contractor*. The IDP is hosted on Asite and is accessible by the *Client* as well as the *Contractor* following award.

The *Contractor* must prepare a detailed Construction Phase Plan (CPP) in accordance with the SHEW Code of Practice and any other information critical to be produced and accepted by the Client before commencement on site. Note: A suitably developed Construction Phase Plan must be issued for approval not less than 10 working days prior to planned mobilisation. Please refer to the Pre-Construction Information (PCI) for further clarification of requirements. A GPR survey of areas of intrusive works and other areas, as well as all other surveys required to deliver the projects shall be carried out by the *Contractor* prior to works commencing on site in accordance with the SHEW Code of Practice.

The *Contractor* shall obtain up-to-date information on existing services located on, or adjacent to, the Site prior to starting construction-related activities. The *Contractor* must produce a Site Waste Management Plan (SWMP). The *Contractor* is to allow for the cost associated with waste not suitable for reuse within the permanent works. This must be disposed of off-site in accordance with the site-specific Site Waste Management Plan (SWMP) and the current Waste Management Regulations. If replacement timbers are used on the works, it must be new FSC Approved Sustainable Hardwood (Ekki). The use of new tropical hardwoods requires Sustainable Business Case approval, which the *Client* will obtain, however, the *Contractor* must be compliant in all areas of reporting and record keeping and submit evidence of FSC certification etc. to the *Client* prior to completion of the works.

Maintenance and adherence to the Environmental Action Plan (EAP) is also a requirement. The *Contractor* shall provide an EAP and EMP as and where required by the *Client*.

The *Contractor*, as Operator, will in accordance with clause Z2.2 be required to sign and pay for the Flood Risk Activity Permit (FRAP). The *Contractor* will need to prepare and submit the FRAP application (which will be required for each project) within a week of Outline Design to enable works to start on site in line with the timescales set out in Section 5 of this Contract. The *Contractor* will carry out detailed design and submit drawings of the proposed works to the *Client* for approval with at least 5 working days allowed in the programme for review. A detailed photographic record of access routes and all working areas (including vertical and horizontal alignments and close proximity photos of elements of the structure included in the scope of works) must be carried out by the *Contractor* prior to works commencing on site and provided to the *Client*. Public Safety Risk Assessments (PSRAs) where required should be provided by the *Contractor* with support from the Principal Designer. The design for each project must be accepted by the *Client*, including the Environment Agency's PSRA Assessor, and time allowed in the programme for review. Prior to completion, a suitably developed Health and Safety File must be issued to the Principal Designer along with 'as built' drawings (provided in CAD and pdf format) showing any changes from the original approved design. The *Contractor* will update the Carbon Calculator during Detail Design and the Construction stages. This is the *Client's* tool for assessing whole life carbon. In order to support the *Client* in cutting carbon emissions, the Contractor must complete and provide to the *Client* an updated Carbon Calculator and Carbon Optimisation Report which should be produced at the design stage to inform the design i.e. to reduce carbon where possible for each project, and an 'as built' Carbon Calculator and Final Carbon Report for each project within one month of completion of the works.

2. Drawings

N/A

3. Specifications

The deliverables should consider the below specification where applicable.

Title	Date or Revision	Tick if publicly available
Environment Agency Blockage Management Guide (Gov.uk)	12/2019	yes
Latest Ciria Guidance: Culvert, screen and outfall manual - New CIRIA guidance	12/2019	yes
'Civil Engineering Specification for the Water Industry, Seventh Edition', published by the Water Industry Research Ltd in 2011.	7 th Edition	yes
Environment Agency National Standard Contract and Specification for Surveying Services Standard Technical Specifications.	Latest version	yes
Minimum technical requirements	April 2021 (latest version)	
The Contractor shall also utilise the following but not limiting to specifications where applicable, to design and build the projects with reasonable skill and care.		
British Standard Code of Practice and Euro codes	Latest version	yes
European Standards	Latest version	yes
<p>And the following but not limiting to Environmental specifications/guides and codes of practise:</p> <ul style="list-style-type: none"> • BRE – Green Guide to Specification; • BRE – Materials Information Exchange; • CIRIA SP122 – Waste Minimisation and Recycling in Construction (practical guidance); • CIRIA C513 – The Reclaimed and Recycled construction materials Handbook; • CIRIA C533 – Environmental Management in Construction; • Considerate Constructor Scheme; • CL:AIRE Policy Paper (2010) • General Guide to the Prevention of Water Pollution: PPG1; • Works in, near or liable to affect Watercourses: PPG5; • Working at construction and demolition sites: PPG6; • Pollution Prevention Guidelines Marinas and Craft: PPG14; and • Pollution Prevention Guidelines Pollution incident response planning: PPG21. 	Latest version	yes

4. Constraints on how the *Contractor* Provides the Works

The design shall reflect a suitable solution to recondition the assets back to its fully operational capability and the design shall be fully accepted by the *Client* before construction commences. The design shall meet all applicable statutory, non-statutory and legal regulations and Environment Agency's requirements as both a statutory body and a *Client*, unless agreed otherwise with the *Client*. The projects have been screened by the *Client's* National Environmental Assessment Service (NEAS), however, the *Contractor* should manage all activities in line with the Environmental Action Plan (EAP) for each project to minimise and mitigate environmental risks e.g. pollution. The *Contractor* shall maximise positive environmental outcomes and demonstrate mitigation has been considered. The *Contractor* shall carry out ecological surveys and walkovers as required by the NEAS and FBG.

The *Contractor* shall ensure that a good level of communication is maintained with the project team and the APT team, as well as members of the public, so that the *Contractor's* activities whilst carrying out the works are mutually understood. However, formal public relations shall be managed by the *Client*. The *Contractor* shall notify the *Client's*

Project Manager of all press or media enquiries. The *Client* shall delegate the duties of administering this contract to an appointed *Client's* Delegate and onsite quality assurance to an appointed Supervisor (who shall also carry out Environmental Clerk duties as well). The delegated roles shall support the management of works. The *Contractor* should coordinate and collaborate with the *Client's* CDM Principal Designer, *Client's* Delegate and Supervisor to provide works. The *Contractor* shall provide an Inspection Test Plan (ITP) before Construction commences for *Client's* acceptance. Tests shall be carried out after construction and accepted by the Supervisor. The test results shall be included along with the handover documentations. The *Client's* Delegate and the *Contractor* shall utilise the *Client's* ECSC standard commercial and contract forms that have been developed for contract administration purposes. The *Client's* Delegate shall provide the forms to the *Contractor* as required.

The *Client's* Project Manager shall issue a delegation letter to all parties. The delegation letter shall contain clauses delegated to the delegate roles.

The *Contractor* shall notify the *Client's* Delegate of any issues that may affect residents or the public and the dates and times of expected disturbances. Due to the proximity of the sites residential housing at some of the sites, noise levels shall be monitored and kept to a minimum whenever possible, where required a section 61 consent shall be obtained by the *Contractor*.

The *Contractor* shall prepare 'notices or letters informing works being carried out and planned date and time of works', where the works may impact residents nearby. The *Contractor* shall seek *Client's* acceptance of these notices or letters, and distribute them to the residents, in instances where the works may impact the residents nearby. The *Contractor* (or any of their subcontractors or suppliers) shall not publish information about the works or use the site to demonstrate equipment or material to third parties without the written acceptance of the *Client*. The *Contractor* shall notify the *Client's* Delegate of any meetings requested by third parties so that the *Client* has the option to attend or send a representative. The *Contractor* shall record all meetings and agreements with third parties and shall notify the *Client* of all details.

The *Contractor* must act as an ambassador for the Environment Agency and maintain good relations with local members of the public who may be walking along the site boundary. As members of the public frequent the area around the site, the *Contractor* must secure the site and erect information/warning signage. The *Client* will manage communications and consultations with local groups, neighbours, and promenade users.

The *Contractor* shall erect at the start of the Contract and remove at the end of the Contract two notice boards on site, if required by the *Client* (these will be provided by the *Client* if required. The *Contractor* shall highlight if the boards are required in prior to works commencing on site). The notice boards shall be erected on Environment Agency land unless otherwise directed by the *Client*. The *Contractor* shall agree the locations of the notice boards with the *Client*. The boards shall be securely fixed to site fencing and clearly visible to the public.

The *Contractor* shall not undertake or allow billposting or advertising of any kind in connection with the works without the written consent of the *Client*. Access to Environment Agency assets, other buildings and operational plant must be maintained at all times. The *Contractor* shall ensure that the areas on the site are not affected by the works.

As part of delivering the works the *Contractor* shall fulfil the duties of Principal *Contractor* in terms of the CDM 2015 regulations. Duties will include, but are not limited to, producing the buildability statement, *Contractor's* risk assessment, temporary works schedule, completing the RAG list and liaising with the *Client* and Principal Designer.

The *Contractor* shall not commence works on site until the RAMS, CPP, FRAP Permit, other statutory and non-statutory permits, including HRA and MCZ full assessments and full consents are obtained as required and EAP are in place and accepted by the *Client*. The works might constitute working in confined spaces. The *Contractor* shall ensure sufficient measures are in place to ensure safe working in confined spaces and shall capture this in the RAMS for the *Client's* and Principal Designer's acceptance.

The *Client's* Estates team will identify landowners and carry out formal landowner negotiations. The *Client's* NEAS team will carry out FBG liaison and NEAS screening. The *Contractor* shall carry out informal correspondences with the external stakeholders and landowners, in coordination with the *Client's* project manager.

The *Client* shall provide access to the sites as required for the proposed works to be carried out. Design of works and access should take into consideration the site information, objectives and presence of protected species as set out in the environmental screening and information provided.

The *Client* may have telemetry and electrical supply equipment cabinets and other buildings within the asset area. These services are critical and should be avoided/protected from damage during the works. The *Client* may need access to these for operation and maintenance purposes so access should be maintained. The *Contractor* needs to maintain safe public access/interface during the construction works and implement appropriate safety measures to manage this risk. All temporary works and access arrangements around them will be the sole responsibility of the *Contractor*.

The *Contractor* shall attend Progress meetings, Early Warning meetings and lessons learned workshop as instructed by the *Client's* Delegate. The *Client's* Delegate or the *Contractor* may give an early warning by notifying the other of any other matter which could increase the *Contractor's* total cost. The *Client's* Delegate enters early warning matters in the Early Warning Register. The *Client's* Delegate or *Contractor* may instruct other people to attend an early warning

meeting if the other agrees. A subcontractor may attend an early warning meeting if its attendance would assist in deciding the actions to be taken. The *Contractor* shall provide access to work being done for the contract for

- the *Client's* Delegate,
- the *Client's* Project Manager,
- the Supervisor and
- Others as named by the *Client's* Delegate.

The *Contractor* and the Supervisor informs the other of each of their inspections before the inspection starts and afterwards informs the other of the results. The Supervisor may watch any test or inspection done by the *Contractor*.

The *Client* shall provide *Contractor* with site information pack with existing site information and a Microsoft Spreadsheet containing site details and site constraints. The *Contractor* shall request for further information from the *Client* where deemed inadequate to carry out their works. Completion may not be awarded until the *Contractor* has

- provided the *Client* with two copies of the H&S File and O&M Manual,
- populated the *Client's* latest version of the Carbon Tool and issued it to the Client.
- uploaded BIM information onto the *Client's* data storage system.

These are an absolute requirement of Completion.

All works produced as part of this contract would be the *Client's* intellectual property and shall require the *Client's* acceptance to reuse the information in any manner.

In addition to clause Z7.2, the *Contractor* shall work in accordance with up to date Public Health England guidance regarding COVID19 and formal guidance from the EA at all times.

Working times

Working hours shall be as follows:

07:30 to 18:00 Monday to Friday (other than for piling activities)

0800 to 18.00 Monday to Friday for piling activities

Delivery restrictions are limited to normal working hours as stated above.

No work will be permitted outside of these hours or on Public Holidays without the prior written acceptance of the *Client's* Delegate.

5. Requirements for the programme

The *Contractor* submits their first programme with the Contractor's Offer for acceptance by the 10th of every month.

The *Contractor* shows on each programme submitted for acceptance (every four weeks)

- the *starting date* 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 *Client* and others as last agreed with them by the *Contractor* or, if not so agreed, as stated in the Scope,
- the dates when the *Contractor* plans to complete other work needed to allow the *Client* and others to do their work,
- provisions for float, time risk allowances, health and safety requirements, environmental requirements and the procedures set out in the contract,
- the dates when, in order to Provide the Works in accordance with the programme, acceptances, Plant and Materials and other things to be provided by the *Client* 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 will be used
- other information which the Scope requires the *Contractor* to show on a programme submitted for acceptance. A programme issued for acceptance is in the form stated in the Scope.

Within two weeks of the *Contractor* submitting a programme for acceptance, the *Client* notifies the *Contractor* of the acceptance of the programme or the 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 the contract requires, it does not represent the *Contractor's* plans realistically or
- it does not comply with the Scope.

If the *Client* does not notify acceptance or non-acceptance within the time allowed, the *Contractor* may notify the *Client* of that failure. If the failure continues for a further one week after the *Contractor's* notification, it is treated as acceptance by the *Client* of the programme.

The *Client's* Delegate shall notify and agree with the *Contractor* regarding any additional items required on each programme within 2 weeks of contract award. The *Contractor* shall agree any changes to the schedule with the *Client's* Delegate within 2 weeks of Contract Award and issue a schedule of planned design submission to the *Client's* Delegate. The *Contractor* shall ensure the changes shall not impact the Completion date.

The *Contractor* shows on each revised programme

- the actual progress achieved on each operation and its effect upon the timing of the remaining work,
- 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

The *Contractor* submits a revised programme to the *Client* for acceptance

- within the *period for reply* after the *Client* has instructed the *Contractor* to, and
- when the *Client* chooses to.

6. Services and other things provided by the *Client*

All site services required to deliver the projects should be provided by the *Contractor*, unless agreed otherwise with the *Client*.

Item	Date by which it will be provided
The <i>Client</i> will provide site access and liaise with the landowner and neighbours as required to provide access. The <i>Contractor</i> shall correspond with external stakeholders and landowners, in coordination with the <i>Client's</i> project manager.	Ongoing
The <i>Client</i> will provide flood warnings and alerts.	Once Contractor registers

Site Information

Proposed sub-contractors

	Name and address of proposed subcontractor	Nature and extent of work
1.	OnSite Central Ltd  Form of Contract: NEC4 Engineering and Construction	Re-lining of culverts.
2.	Form of Contract:	
3.	Form of Contract:	
4.	Form of Contract:	