

NEC4 Engineering and Construction Short Contract	
Property Flood Resilience Framework 2024	
<div>Needham Market Flood Risk Management Project</div> <div>ENVIMAN002635</div>	
A contract between	<div>The Environment Agency</div> <div></div> <div></div> <div></div> <div></div>
And	Lakeside Flood Solutions Ltd
For	Needham Market PFR Scheme Phase 1
	<div>Contract Forms</div> <div><div>- Contract Data</div><div>- The <i>Contractor's</i> Offer and <i>Client's</i> Acceptance</div><div>- Price List</div><div>- Scope</div><div>- Site Information</div></div>

Contract Data

The *Client's* Contract Data

	The <i>Client</i> is	
Name	Environment Agency	
Address for communications	[REDACTED]	
Address for electronic communications	[REDACTED]	
The <i>works</i> are	Provision and installation of Property Flood resilience measures (PFR) for 24 properties in Needham Market	
The <i>site</i> is	Needham Market	
The <i>starting date</i> is	27 th August 2024	
The <i>completion date</i> is	30 th April 2025	
The <i>delay damages</i> are	£176.43	Per day
The <i>period</i> for reply is	2	weeks
The <i>defects date</i> is	52	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	to be decided for each call off from framework	5%
The United Kingdom Housing Grants, Construction and Regeneration Act (1996) does apply.		
The <i>Adjudicator</i> is: the person appointed as follows:		
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	0.5	% per complete week of delay.
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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
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The <i>Client</i> provides this insurance	None
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Only enter details here if the *Client* is to provide insurance.

Insurance Table

Event	Cover	Cover provided until
Loss of or damage to the <i>works</i>	The cover is 1.2 times the replacement cost	The <i>Client's</i> certificate of Completion has been issued
Loss of or damage to Equipment, Plant and Materials	The cover is 1.2 times the replacement cost	The Defects Certificate has been issued
The <i>Contractor's</i> liability for loss of or damage to property (except the <i>works</i> , 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. Each and every occurrence and include an 'indemnity to principal clause'.	
Failure of the <i>Contractor</i> to use the skill and care normally used by professionals providing works similar to the <i>works</i>	Minimum £2,000,000 in respect of every claim without limit to the number of claims	6 years following Completion of the whole of the <i>works</i> or earlier termination
Loss of, damage to or failure of any Products used in Installation.	Minimum £1,000,000 in respect of every claim without limit to the number of claims	The Defects Certificate has been issued

The <i>Adjudicator nominating body</i> is	The Institution of Civil Engineers
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The <i>tribunal</i> is		litigation in the courts
The <i>conditions of contract</i> are the NEC4 Engineering and Construction Short Contract June 2017 with October 2020 amendments 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 sub-contractor with evidence of competence and capability checks to the <i>Client</i> for acceptance. A reason for not accepting the sub-contractor 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 him.	
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. 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.	
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	Payment on Termination	

	Replace Clause 92.3 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	Data Protection
Z10.1	Schedule 14 – Data Protection Schedule of the Deed of Agreement shall be incorporated into this Agreement.
Z10.2	A request or instruction pursuant to Schedule 14 by the <i>Project Manager</i> shall be treated as being a request or instruction by the <i>Client</i> .
Z10.3	For the avoidance of doubt, reference to Supplier in Schedule 14 is reference to the <i>Contractor</i> .
Z11	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	<p>Inflation</p> <p>At the Contract Date the Client set total of the Prices does not include a sum to cover inflation.</p> <p>The total of the Prices [at the Contract Date] shall be adjusted by a fixed number of Price Adjustments.</p> <p>The number of Price Adjustments shall be equal to:</p> <p>The number of months between the Completion Date included at the Contract Date and the Contract Date.</p> <p>The proportion of Price Adjustment shall be equal to:</p> <p>The Client set total of the Prices at the Contract Date / The number of Price Adjustments</p> <p>Each time the amount due is assessed, the Price Adjustment shall be:</p> <p>The proportion of Price Adjustment x [80% x Construction Output Price, Non-Housing Repair & Maintenance index – month rate]</p> <p>The Construction Output Price, Non-Housing Repair & Maintenance index – month rate shall be the value determined by the Office of National Statistics for the applicable month of the amount due assessment</p> <p>Provided always that the fixed number of Price Adjustments has NOT been exceeded.</p> <p>The Price Adjustment adjusts the [Client set] total of the Prices.</p> <p>If a compensation event under this contract omits original Scope covered by the total of the Prices at the Contract Date the Price Adjustments made under this clause shall be corrected accordingly.</p>

Contract Data

The *Contractor's* Contract Data

	The <i>Contractor</i> is	
Name	Lakeside Flood Solutions Ltd	
Address for communications	<div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div>	
Address for electronic communications	<div>[REDACTED]</div>	
The <i>fee</i> percentage is	<div>[REDACTED]</div>	%
The <i>people rates</i> are		
category of person	unit	rate
<div>[REDACTED]</div>		
The <i>published list of Equipment</i> is		N/A
The <i>percentage for adjustment for Equipment</i> is		0%

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

Enter the total of the Prices from the Price List.

Signed on behalf of the *Contractor*

Name

Position

Director

Signature

Date

05/08/24

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

Signed on behalf of the *Client*

Name

Position

Partnerships and strategic overview team leader – Suffolk

Signature	<div></div>
Date	07/08/2024

Price List

Entries in the first four columns in this Price List are made either by the *Client* or the tenderer.

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.

Item Number	Description	Unit	Quantity	Rate (£)	Price (£)
1.	Refer to Pricing Schedule: 2024_05_23_Schedule of works pricing v2_Needham Market_EA4 – LFS 11.06.24 for breakdown of pricing. Payment will be made against completed items within the Pricing Schedule.				
2.	T1. Preliminaries				
3.	T2. Measurement, manufacture, installation and commissioning, including modifications and making good to existing				
The total of the Prices					

The method and rules used to compile the Price List are PFR 2024 Framework pricing schedule. Any items not listed on the schedule will be priced separately.

Scope

1. Description of the works

1.1. Background

Needham Market in Suffolk is at a high risk of flooding from the River Gipping and the Lion Barn Drain. The town has suffered from fluvial flooding in August 1987, January 1988, October 1993, May 2012, and most recently in October 2023 during storm Babet and January 2024 during storm Henk.

The Outline Business Case (OBC) Technical Note, which was completed in June 2022, concluded that a standalone PFR solution was the most cost beneficial option for Needham Market and recommended that the PFR option be taken forward and developed in a Full Business Case (FBC) report. The preparation of the FBC is currently in progress and is anticipated to be completed by mid-June 2024.

The OBC Technical Note identified 51 properties as potential candidates for Property Flood Resilience (PFR) measures, all properties at Very Significant or Significant risk. It recommended threshold topographic surveys of these properties to confirm that they would be potentially eligible for PFR measures.

The threshold topographic survey was completed in January 2023. It confirmed that **twenty three** residential properties and **one** commercial property were at risk of flooding and were eligible for PFR measures.

Following the above, a PFR property survey identified the remedial measures that could be installed at each property.

The list of properties is provided in Chapter (7) Site information.

1.2. Operating Procedure

The *Client* is responsible for securing a signed Scope Agreement.

Orders cannot be placed until permitted by the *Client*, following written acceptance of the Contract Scope and provision of a signed Scope Agreement.

Construction cannot commence until authorisation given in writing by the Client.

The Principal Contractor shall be present on site at ALL times.

The Principal Contractor shall prepare a Construction Phase Plan to be issued to the *Client* at least 10 working days prior to commencing any construction work including advanced works and mobilisation.

Welfare facilities compliant CDM 2015 Schedule 2 and SHEW CoP requirements S2.7, 2.7.1, 2.7.2 and details must be specifically detailed in the Contractors Construction Phase Plan

1.3. Design

The *Contractor* designs the parts of the works which the Scope states they are to design.

The *Contractor* submits the particulars of their design as the Scope requires to the *Client* for acceptance. A reason for not accepting the *Contractor's* design is that it does not comply with either the Scope or the applicable law.

The *Contractor* does not proceed with the relevant work until the *Client* has accepted his design.

The *Contractor* may submit their design for acceptance in parts if the design of each part can be assessed fully.

1.4. Detailed Design and Installation

Under this Lot, the *Contractor* shall confirm the preferred PFR solution and carry out detailed design. Following approval from the *Client* and property owner and/or tenant, the *Contractor* shall install PFR interventions, in accordance with the Property Flood Resilience Minimum Technical Requirements (MTR).

The *Contractor* shall collaborate with the Lot 1 Consultant on the development and delivery of the PFR programme.

This scope fulfils the requirements of the PFR Code of Practice including steps 5-6 of standard 3 (Options development and design), standard 4 (Construction) and standard 5 (commissioning and handover).

This scope should be read in conjunction with the PFR Code of Practice and property flood resilience Minimum Technical Requirements.

1.5. Objectives

The Clients objective is to improve the flood resilience of a property and its owner and/or tenant. Appropriate interventions to reduce the volume of water entering the property (RESISTANCE) or to limit the damage caused if water does enter the property (RECOVERABILITY) should be identified. Appropriate interventions that should be taken by the property owner and/or tenant to prepare for flooding should also be identified (PREPAREDNESS). Collectively, the PFR solution will provide the property owner and/or tenant with the tools to prepare and build back better after a flood.

The objectives of the *Contractor* are to:

- (added) ensure all site visits are carried out in accordance with the *Client's* Safety, Health and Environment Code of Practice.
- confirm the preferred PFR solution, following engagement with the property owner and/or tenant, *Client*, and Lot 1 Consultant.
- Assess the effectiveness of any existing PFR measures and where appropriate, incorporate into the design.
- carry out detailed design of the preferred PFR solution and produce a PFR Specification which meets the standard of the property flood resilience MTR.
- work collaboratively to ensure any changes, including design amendments, are managed effectively and in accordance with the Framework Agreement.
- (added) design, supply and install, where appropriate, flood resistance and recoverability interventions in accordance with the PFR Specification.
- work collaboratively with the Lot 1 Consultant to provide assurance of the PFR solution, including post installation testing in line with the property flood resilience MTR.
- ensure that the commissioning and handover process is completed in accordance with this scope and the property flood resilience MTR, including encouraging property owner and/or tenants to sign up for PFR maintenance.
- ensure that project closure is completed to the appropriate standard.
- (added): demonstrate how they will minimise the carbon emissions to ensure optimisation of lowest carbon in design and installation of PFR products.

1.6. Key Deliverables

Table 1 sets out the key deliverables required to fulfil the requirements of this scope. The property flood resilience MTR sets out the requirements of these key deliverables.

Table 1: Key deliverables- Lot 2

Service	Key deliverable
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Detailed design	Option Development Summary Agreement
	PFR Specification
	Contract Scope
	Contract Scope Written Summary
Construction	Inspection and quality check
Commissioning and handover	Handover pack

1.7. Details Of The Works: Detailed Design

(added) The *Contractor* shall carry out consultation at the site with the homeowners and Tenants where delegated. This consultation shall consist of the following:

- a) attend a project Start-up meeting with the *Client*.
- b) attend weekly progress meetings with the *Client* during the initial two months of the contract, and then change to fortnightly meetings thereafter.
- c) liaise with the *Client* and Homeowner to ensure they fully understand the flood hazard affecting the property, construction form and its condition and property owner and/or tenant assessment.
- d) attend a property owner and/or tenant demonstration day with the *Client*.
- e) confirm the preferred PFR solution by:
 - arrange dates for a Works Inspection by the client.
 - arranging and attending a Works Inspection with the property owner and/or tenant.
 - informing the *Client* at the earliest opportunity of any changes to the PFR solution and provide evidence to the Lot 1 Consultant and Client for written acceptance.
 - confirming the preferred option via the completion of the Options Development Summary Agreement, in accordance with the property flood resilience MTR.
 - (added) provide timely updates to Homeowners and Tenants of work progress.
 - (added) gather information from the Homeowner on any private underground or overground services.
 - (added) after completion of the works, but before the end of the Defects Period the *Contractor* will attend a site PFR flood exercise and liaise with individual Homeowners on the use of their products.

Design work shall be compliant to CDM 2015 and any additional requirements of SHEW CoP V6 (or latest) especially Section 3. Any submissions shall include (in addition to any other items identified in MTR's) the following:

- Design risk analysis (design risk assessment or equivalent)
- Drawings to include hazard symbols and SHE boxes identifying residual risks for construction, maintenance, operation and dismantling.
- COSHH MSDS for any substances
- Hazard map
- Review of RaG List and sign off where required (in conjunction with *Client*)
- Assessment of Public Safety
- Buildability statement
- Operation & maintenance statement (for inclusion in Handover Pack)

1.6.1 Subcontracting

The *Contractor* shall:

- a) request written approval from the *Client* prior to appointing any design consultant in connection with the *works*
- b) provide details of the designer's previous relevant experience, CVs of key staff, and client references.
- c) allow 2 weeks from submission of satisfactory evidence to acceptance by the *Client*.
- d) provide the *Client* with details of proposed subcontractors and suppliers, including method statements and risk assessments, for acceptance prior to subcontractors commencing the *works*, and prior to suppliers providing services and materials in connection with the *works*.
- e) be satisfied of the quality of all subcontracted items of the *works* prior to submission for review, or prior to requesting an inspection by the *Client*.
- f) Requirements and vetting of Heating Equipment and Testing Approval Scheme (HETAS), Gas inspections, solid fuel fires, wood burners or similar items and works shall be carried out in accordance with the respective Lot 1 and Lot 2 scopes.

2.6.1 Additional Requirements

The *Contractor* shall:

- a) obtain any Highways approvals required.
- b) assist the *Client* in agreeing all product types and installation location with the Local Authority (Listed Building and Planning) and other statutory bodies (English Heritage and Natural England).
- c) Where the *works* affect listed buildings, authorisation will be obtained by the *Contractor*.
- d) adhere to the *Client's* Safety, Health, Environment and Wellbeing (SHEW) Code of Practice (Oct 2017)
- e) act as Contractor and Designer under CDM for the installed measures.
- f) provide site specific Risk Assessment and Method Statements (RAMS) to the *Client* for acceptance 2 weeks before commencement on *site*.
- g) provide welfare facilities at each site.
- h) develop the H&S File as sites progress in liaison with the Lot 1 Consultant under Lot 1.
- i) provide a draft H&S file in accordance with the *Client's* standard format, (template headings to be confirmed following Framework award), 2 weeks prior to sectional completion or completion of the package of *works* whichever is the sooner.

1.8. The Design and Construction Requirements

No detailed design activities can commence until approved by the *Client*, following provision of a signed Options Development Summary Agreement, in accordance with the property flood resilience MTR.

Upon written acceptance of a signed Options Development Summary Agreement by the *Client*, the *Contractor* shall commence detailed design. The *Contractor* shall:

- a) (added) use the PFR Survey Report as a basic design identifying what PFR measures are required for each property.
- b) (added) carry out a Works Inspection to confirm in detail the *works* including all specific sizes of products required.
- c) Consider properties constructed pre-2000 to contain asbestos unless otherwise stated.
- d) Ensure all members of staff receive asbestos training awareness.
- e) be responsible for the detailed design and specification of the preferred PFR solution under the Construction Design and Management Regulations (CDM).
- f) use their own skill and judgment to identify what proprietary items will suit the specific needs of the property and its owner and/or tenant in accordance with the property flood resilience MTR.

- g) identify the need for, and commission, structural surveys, if required, as per the property flood resilience MTR.
- h) identify the need for, and commission, all licences, authorisations, consents or permits required in relation to the performance of the PFR solution.
- i) use their skill and judgment to overcome site specific issues that arise during the installation process.
- j) produce a PFR Specification in accordance with the property flood resilience MTR and deliver to the *Client* for written acceptance.
- k) (added) is responsible for ensuring Gas Safety, HETAS and Building Regulation compliance. Gas Safety certification and HETAS certification for individual properties will be provided by the *Contractor*.
- l) (added) The contractor and or their representatives who are completing works on properties under this contract, shall ensure the work is compliant with 'Health and Safety at Work Etc Act 1974' / 'Gas Safety (Installation and Use) Regulations 1998' and 'Building Regulations'. This will specifically apply to any properties where there are gas appliances, solid fuel fires, wood burners or similar items which require adequate ventilation. In particular, Regulation 8 of the Gas Safety (Installation and Use) Regulations 1998 prohibits alterations to premises which affect the safe use of a gas appliance, the safe operation of a flu or interfere with the adequacy of the ventilation.
- m) (added) responsible for ensuring compliance with all relevant electrical regulations for any electrical works carried out through the contract. Certification, where required, will be provided by the *Contractor*.
- n) (added) provide the *Client* with a copy of the Homeowner's sign off document. The sign off document should record that that works have been completed to the Homeowner's property to their satisfaction and should be signed and dated by the Homeowner. The document should also record that adequate training for the installation and storage of the measures has been given.
- o) (added) attend a flood exercise day after the Completion but before the end of the Defects Period.
- p) (added) agree with the Homeowners any changes to the existing conditions of any replacements in writing.

As part of the detailed design assurance process, the *Contractor* shall collaborate with the *Client* and Lot 1 Consultant to ensure that the PFR Specification meets the requirements of the Property Survey Report and the property flood resilience MTR.

Where not accepted, update within two (2) weeks unless otherwise agreed in writing by the *Client*.

Upon written acceptance of the PFR Specification, the *Contractor* shall:

- a) produce a Contract Scope and Contract Scope Written Summary for written acceptance by the *Client* and in accordance with the specification set out in the property flood resilience MTR.
- b) distribute the Contract Scope Written Summary, with an appended Contract Scope Agreement, in the agreed format to the property owner and/or tenant following approval from the *Client*.

1.9. Details Of The Works: Construction Of PFR

The *Contractor* is responsible for the installation of the PFR solution in line with the manufacturers specification and as identified in the PFR Specification and Contract Scope.

The *Contractor* shall:

- a) undertake a condition survey of the property, land, and any other features, such as highway, which may be affected by the works. The *Contractor* shall:
 - carry out the condition survey two (2) weeks before commencing work.
 - give the *Client* and property owner and/or tenant one (1) week notice prior to undertaking the condition survey.
 - ensure all photographs, surveys and inventories are date stamped and their location clearly defined.
 - provide a copy of the condition survey to the *Client* and property owner and/or tenant for written acceptance; and,
 - Work cannot commence until the condition survey is accepted in writing by all parties.

- b) use their skill and judgment to overcome site specific issues that arise during the construction process, where changes to the Contract Scope Summary are required the *Client* and property owner and/or tenant should be notified at the earliest opportunity.
- c) (added): contact the homeowners prior to PFR installations to make any special arrangements regarding disabled access, if required, during the installation.
- d) where accidents or incidents arise, they must be reporting in accordance with the SHEW Code of Practice. Where required, the condition survey should be updated and accepted in writing by all parties.
- e) provide supervision for the works at each site to an appropriate level and duration to comply with the CDM Regulations and in line with the SHEW Code of Practice.
- f) attend regular progress meetings with the *Client*. Frequency shall be a maximum of one (1) per week.
- g) commission, all licences, authorisations, consents or permits required in relation to the performance of the PFR solution.
- h) identify and complete all snagging prior to the commencement of the commissioning and handover process.
- i) provide the *Client* with a photographic record of each completed PFR intervention. This should be clearly presented on a property-by-property basis and be provided in full for each site location.
- j) Upon completion of the works, the condition survey shall be repeated, as per Section 8 (a) above. The *Contractor* shall:
 - identify any damage attributed to their activities.
 - engage with the *Client* and property owner and/or tenant to confirm any damage and required remediation.;
 - upon agreement from the *Client* and property owner and/or tenant, remedy damage attributable to their activities; and,
 - The cost of making good any damage shall be met by the *Contractor*.
- k) Work collaboratively with the Lot 1 Consultant to update the PFR Outcome Reporting Tool for the project as per the Framework Schedule 9. No modifications are to be made to this template.

The *Contractor* shall complete post installation testing and assurances, in collaboration with the Lot 1 Consultant and in accordance with the property flood resilience MTR. The *Contractor* shall:

- a. Complete post installation wet testing on flood resistant door sets and flood barriers of 20% of properties. Post installation wet testing shall:
 - i. Be programmed in collaboration with the Consultant who shall witness a minimum of 50% of the Contractor's post installation wet testing program, Properties to be Wet tested shall be selected by the *Client*
 - ii. In the event any of the wet tests fail, the contractor shall initially Wet test 50% of remaining untested properties , further failures would require all properties to be tested.
 - iii. Wet Testing beyond the initial specified 4 properties shall be undertaken with no additional payment application to the *Client* for any further Wet Testing
 - iv. Be completed in accordance with the property flood resilience MTR.
 - v. Be supported by a method statement that has been accepted by the *Client*, in writing, as part of the Individual Property Scopes.
 - vi. Be agreed with the property owners and/or tenants prior to commencement.
- b. Attend a Post Installation Audit, led by the *Consultant*, collaborating on its completion; and,
- c. Rectify any issues identified as part of the Post Installation Audit. Condition photographs shall be taken at all stages and accepted in writing by the property owner and/or tenant prior to commencement.
- d. Failures during Wet testing will be considered a defect under section 4 Of the NEC4 ECSC terms, following any corrections further wet testing shall be undertaken with attendance from the *Client*

In addition, the contractor shall:

- a) (added): obtain permission from the Homeowner and shall give at least 24 hours' written notice before entering the property to assess the pre-installation condition or to test the performance of the installed PFR.
- b) be programmed in collaboration with the Lot 1 Consultant who shall witness a minimum of 50% of the *Contractors* post installation wet testing programme.
- c) (added): ensure that the works for wet testing comply with CDM regulations 2015.
- d) (added): agree with the *Client* on the installed PFR measures to be used for wet testing.
- e) be supported by a method statement that has been accepted by the *Client*, in writing, as part of the Contract Scope.
- f) agree with the property owner and/or tenant prior to commencement.
- g) attend a Post Installation Audit, led by the Lot 1 Consultant collaborating on its completion; and,
- h) rectify any issues identified as part of the Post Installation Audit. Where required, pre-condition photographs shall be taken and accepted in writing by the property owner and/or tenant prior to commencement.
- i) (added): provide the *Client* with all the test data and results.

1.10. Details Of The Works: Commissioning and Handover

As part of the commissioning and handover process, the *Contractor* shall collaborate with the Lot 1 Consultant and *Client* to:

- a) provide training on the operation, storage, and maintenance of installed PFR interventions to the property and/or tenant.
- b) provide the property owner and/or tenant the option to sign up to after sales service including maintenance agreements.
- c) ensure the property owner and/or tenant is aware of the warranty periods associated with each intervention provided, in accordance with the property flood resilience MTR.
- d) produce a Handover Pack, in accordance the property flood resilience MTR, and deliver to the *Client* for written acceptance. Publish to the property owner and/or tenant in the format agreed with the *Client*.
- e) provide the relevant information to the Lot 1 Consultant for the Post Installation Flood Risk Report, in accordance with the property flood resilience MTR; and,
- f) attend, a Flood Exercise Day with the *Client* and Lot 1 Consultant after the Completion but before the end of the Defects Period to provide advice and adjust measures fitted as necessary.

The *Contractor* is to keep a stock of consumable spares for the PFR intervention installed, which may be purchased by the homeowner, or to advise property owners and/or tenant where spares can be purchased directly from the manufacturer and provide details of the manufacturer and supplier of the PFR products.

1.11. Details Of The Works: Project Closure

As part of the project closure process, the *Contractor* shall:

- a) provide the relevant information to the Lot 1 Consultant to update the PFR Outcome Reporting Tool for the project as per the Framework Schedule 9. No modifications are to be made to this template.
- b) ensure all project data and outputs are provided back to the *Client*, in a format requested by the *Client*.
- c) support the development of customer feedback activities with the *Client* and Lot 1 Consultant.
- d) (added): invite the Homeowners to participate and provide feedback on how the *Contractor* carried out the PFR work and suggest how the work could be improved.
- e) attend a lesson learnt workshop with the *Client* at the end of the contract to provide knowledge transfer and feedback to the *Client* on the PFR project, including contract management and key deliverables. The template provided in as per the Framework Schedule 9 should be used. No modifications are to be made to this template; and,

- f) complete 360 Feedback Form, as per as per the Framework Schedule 9. No modifications are to be made to these templates.

1.12. Constraints on How the Consultant Provides the Services

All model and survey information shall be provided to the *Contractor* in an encrypted format (using WinZip 128-bit encryption) according to *Clients' Data*.

Project deliverables shall be returned to the *Client* by the Contractor in an encrypted format (using WinZip 128 bit encryption) according to *Clients' Data*.

1.13. Services and other Things Provided by the Client

The *Client* shall provide the *Contractor*:

- a) with access to the Site.
- b) available address data.
- c) outputs of *Client* led community engagement including the Initial Property Questionnaire outputs.
- d) Hazard Assessment and Property Survey Report.
- e) Options Development Summary; and,
- f) Post flood incident report (where appropriate).

All data shared with the supplier remains the Intellectual Property of the Client.

Any material prepared by or on behalf of the *Contractor* for the purposes of the contract shall be the property of the *Client* and the *Contractor* shall have no rights, either expressly or impliedly therein. No use may be made by the *Contractor* of any material prepared for this contract by them, for purposes other than those stated in this document without the *Clients'* prior agreement.

2. Drawings

Drawing Number	Revision	Title
N/A		

3. Specifications

List the specifications which apply to the contract.

Title	Date or Revision	
Minimum Technical Requirements	V12 Dated December 2021	
Minimum Technical Requirements Property Flood Resilience	Current	
Safety, Health, Environment and Wellbeing (SHEW) Code of Practice (CoP)	September 2023	
Minimum Technical Requirements – Environment and Sustainability	March 2023	
(SHE) handbook for managing capital projects	March 2023	

(added) A barrier will include all fixings and all necessary modifications to existing door and surroundings and installation of required permanent fittings and frames, all necessary reinstatement, durable silicone based sealant around the frame, matching the existing and to the required protection height, and around sills to seal all gaps. Installation works to comply with the British Standards requirements as outlined in the property flood resilience MTR.

3.1. Flood Doors

(added) Flood doors, can be UPVC, hardwood or composite to the requirements of the British Standards as outlined in the property flood resilience MTR or evidenced that they meet this recognised industry standard details as agreed by the *Client*.

(added) The doors are to be solid, or where not solid should consider how the ingress and egress of water can be managed in the voids of the door or frame.

(added) The door shall include all necessary modifications to the existing door opening and if required a new threshold step. All required ironmongery is also to be included. The door or the fitting of the door shall be carried out in such a way that when the designed flood retention level is reached there is a means to allow floodwater to enter the property thus preventing structural damage from hydrostatic pressures outside the building.

3.2. Airbrick replacements and covers, including vent covers.

(added): Automatic closing airbricks are to be used unless otherwise agreed with the *Client*.

(added): The replacement with automatic closing airbricks is to include removal and disposal of the existing and all necessary modifications to install the replacement.

(added): Airbrick replacements are to match the colour of the existing walls or the airbrick being removed. It will include mortar colour and pointing which is to match that existing.

(added): If the use of Airbrick covers is agreed by the *Client* the covers are to match the colour of the existing wall. Any alternative to the existing colour is to be agreed with the *Client*.

(added): All cover frames are to be sealed with a suitable sealant.

(added): Gas or solid fuel ventilation vents are NOT to be provided with covers. Where such vents exist within the identified flood zone, a certified Gas safe or HETAS Engineer is to be procured by the *Contractor*. These suitably qualified persons will advise on the re-routing of any ventilation, or any other steps may be required. This information is to be provided by the *Contractor* at the time of their design recommendations. This is to allow the works required to be clearly identified and priced. Additionally, this could identify properties that currently do not comply with the required regulations.

(added): Any works to gas or solid fuel ventilation carried out under this contract, shall be inspected certified and signed off by a suitably qualified person.

(added): Homeowners who are issued with an improvement notice from the Gas safe or HETAS Engineer and do not comply will not be included in the PFR scheme.

(added): All PFR Measures that are listed in the Works Inspection shall be suitable to work in sites where Radon and Landfill Gas has been identified.

3.3. Waterproofing applications for external walls

(added): The waterproofing application must comply with the requirements of the British Standards as outlined in the property flood resilience MTR able to inhibit the passage of water and water-borne contaminants whilst retaining the ability for water vapour to escape from the structure. The waterproofing is not to be a PVA based product.

(added): The substrate must first be tested to ensure there is no colour reaction or deterioration.

3.4. Waterproof Render

(added): The render system is to be designed to resist hydrostatic pressure must meet Grade 3 (No water penetration acceptable) of the requirements of the British Standards as outlined in the property flood resilience MTR for waterproofing protection for use in high water table areas (Protection against water ingress which is dependent on a separate barrier system applied to the structure).

3.5. Non-return Valves

(added): Fully automatic valves to stop sewage or floodwater surging back up into the property may be of the push fit type inserted into foul drainage pipes within existing inspection chambers and/or installed in-line to existing waste and overflow pipes above ground level. These will be located externally where possible. The valves supplied are to be designed specifically for outdoor use to ensure that they are not susceptible to freezing in winter conditions. Any other location to external must be approved by the *Client*.

3.6. Full Port non-return valves

(added): Full port non-return valves will be provided in existing chambers unless agreed with the *Client*. Valves will be fully open and allow solids to flow freely and unrestricted through the valve but in flood conditions when water surges back through the drainage system the gate is automatically deployed by the hydraulic pressure of water. Valves will be low maintenance and fully rod able.

(added): Where it is neither possible to fit within existing chambers nor install push fit non return valves then a new chamber, with suitable cover, is to be installed constructed to suit the valve, ground and surcharge loadings, all as agreed with the *Client*.

3.7. Dewatering pumps

2.1.1.Skimmer Pumps (handheld puddle pumps)

(added): Portable pump able to pump water down to 1mm. The pump will have a check valve (non-return valve) to prevent back flows, able to operate for extended periods with little or no water, supplied with 10 metres of heavy duty rubber 230 volt power cable with RCD trip protection, and 10 metres (or to suit need of the property) minimum 25mm diameter outlet pipe. Minimum free passage 6mm. Minimum flow rate 175 litres per minute.

2.1.2.Electric Sump Pumps

(added): Permanent electric sump pumps shall, where possible, be located outside the property. An internal sump is to be provided within the property in the sub-floor void space with permanent pipework to the external sump pump and chamber. The sump pump shall be supplied with automatic float switches. The limit switches on the floats shall be set to maintain flood water below the suspended floor construction & damp proof course level only and not to drain the water from the sub-floor void completely. Installation details are to be agreed with the *Client*.

(added): The pump is to be supplied and installed with heavy duty rubber 230 volt power cable with RCD trip protection and a 100mm maximum diameter outlet pipe. Minimum free passage to be 9 mm. Minimum flow rate of 480 litres per minute. Hard wired installation will require electrical certification.

(added): Chambers and chamber covers to allow access for maintenance of the pumps shall be of adequate size to allow the removal of the pumps. New chambers, with suitable covers, are to be installed constructed to suit the ground and surcharge loadings, all as agreed with the *Client*.

3.8. Pan-seal/Toilet Bungs/Toilet Stoppers:

(added): Pan-seals and toilet bungs are to prevent sewage backflow coming back up the toilet in flood conditions. Bungs or stoppers are preferred but may not be suitable for all applications. Bungs may be of the inflatable device to fit in the 'U' bend. Pan Seals of the type which fit directly below the pan rim and inflated to create the required seal. Bungs and Pan Seals are to be provided with a suitable hand pump and connection.

3.9. Flood gates in garden walls or embankments:

(added): Barriers can be used to suit the opening width. The barrier will include all fixings and all necessary modifications to existing wall or embankment including and permanent fittings, frames, posts, sills and any required post foundation.

(added): Alternatively, if agreed by the *Client* hardwood or composite flood gates specifically designed for the purpose can be used. (Currently not available with BS approval).

4. Constraints on how the Contractor Provides the Works

4.1. Working Times

No works are to be undertaken on site without permission from the *Client*.

The *Contractor* will be permitted to work between 7.30am and 6.00pm on weekdays (Monday to Friday)

Site Managers shall have the following:

- a. Current CITB Site Management Safety Training Scheme (SMSTS) or IOSH Safety, Health & Environment for Construction Site Managers
- b. CIRIA, CITB or IEMA Construction Environmental Awareness course
- c. Have completed and gained certification for the Non-Native Species Secretariat eLearning modules;
 - Module 1. Introduction to invasive non-native species
 - Module 2a Identification and recording
 - Module 2b, 2c, or 2d depending on INNS risk,
 - Module 3a. Biosecurity

4.2. Use of the Site

The *Contractor* shall (added):

- a) (added): Identify a suitable location for use as a site compound during the *works* and submit proposals to the *Client* for approval.
- b) (added): only use the Site for purposes connected with the *works*.
- c) (added): shall make all adequate provisions to allow the Homeowner / Tenant unhindered access to their property at all time.

4.3. Access to the Site

The *Contractor* shall:

- a) (added): make arrangements for access to the Site for the duration of the works.
- b) (added): determine the most appropriate and achievable access routes for the construction of the works and submit his proposals to the *Client* as part of the design.
- c) (added): protect all access routes used during works and reinstate these to pre-works condition or better.

4.4. Parking

(added): The *Contractor* shall provide adequate parking for site personnel and visitors within the site compound.

4.5. Pollution, Ecological and Environmental Impacts

(added): The Preliminary Environmental Information Report is provided as 'Other Information'; this presents the current consideration of pollution, ecological and environmental impacts. The Environment Agency is committed to the environmental principles of stewardship and sustainability and has corporate goals to maintain and enhance the water environment.

The *Contractor* shall:

- a) (added): provide the *works* in accordance with environmental best practice. The *Contractor* shall produce a suitable Environmental Risk Assessment to identify the possible risks from their activities and appropriate measures to minimise or eliminate them. Permitting and / or exemption of activities that are covered in the Environment Permitting Regulations shall be considered and the relevant permissions obtained prior to works starting on site.
- b) (added): prepare, for acceptance of the *Client*, a Pollution Emergency Plan prior to the commencement of the construction works which will include a 24 hour call out procedure with the associated telephone numbers.

4.6. Occupied Premises and Users

- a) The *Contractor* shall not gain access to any occupied premises or third party land that is outside the Site without the prior written consent of the *Client*.

4.7. Confidentiality

The *Contractor* shall:

- a) not disclose information in connection with the *works* except when necessary to carry out their duties under the contract or their obligations under the contract.
- b) publicise the services only with the *Client's* prior written agreement.

4.8. Security and protection on the Site

- a) The *Contractor* shall establish a liaison procedure with the Environment Agency's flood resilience team to obtain advance flood warnings.

4.9. Security and Identification of People

- a) The *Contractor* shall ensure that the construction *works* do not compromise the security of properties within or adjacent to the Site.
- b) The *Contractor* is wholly responsible for the security of the compound, passage of vehicles, personnel/pedestrians and security of neighbouring properties which may be affected by the works, including personnel, plant, equipment and materials used in the delivery of the *works*.

4.10. Protection of Existing Structures and Services

The *Contractor* Shall:

- a) avoid damage to highways, roads, properties, land, trees and other vegetation, boundaries and any other features of the apparatus of statutory undertakers, the Highways Authority and others. In the event of damage the *Contractor* shall undertake repairs to pre-construction condition.
- b) restore any fencing that he is permitted to remove and repair any fencing or gates that may be damaged as a result of his operations.
- c) Not burn debris under any circumstances
- d) repair any structure or service damaged during the execution of the works.
- e) make safe and restore any structure to its operative condition to the satisfaction of the *Client* and the homeowner. The requirements of this Clause shall extend to any structure and service wherever it may be.

4.11. Protection of the works

The *Contractor* shall:

- a) protect the *works*, Material, Plant and Equipment liable to damage either by the weather or by the method used for carrying out the construction of the *works*. Damage attributable to the *Contractor's* activities shall be determined by the *Client* and remedied by the *Contractor*. The cost of making good any damage shall be met by the *Contractor*.

4.12. Cleanliness of the Sites

The *Contractor* shall

- a) take all reasonable steps to minimise dust nuisance during the construction of the *works* in accordance with pollution emergency plans.
- b) prevent vehicles entering and leaving the Sites depositing mud or other debris on the surface of adjacent roads, pavements or footpaths, and removes promptly any materials deposited.
- c) keep the Working Areas tidy and promptly removes rubbish, waste and surplus. Materials, Plant and Equipment are positioned, stored and stacked in a safe and orderly manner.

4.13. Traffic Management

- a) The *Contractor* is responsible for any traffic safety and management, including obtaining road closure, opening, or traffic signals consents and nominates one of his site staff to be responsible for all related activities.

- b) Before any work in, or affecting the use of, any highway or road is commenced, the *Contractor's* proposed method of working, including any special traffic requirements, is agreed with and confirmed in writing to, the *Client*, and all relevant authorities.
- c) Where appropriate the *Contractor* shall produce a Traffic Management Plan to be submitted to the *Client* prior to construction of the *works*. Traffic movement to and from the Site is to be the minimum necessary and delivery and removal of Materials and Equipment shall avoid peak traffic hours.
- d) The Traffic Management Plan is to include, but is not limited to, the following:
 - Access routes to be taken by heavy vehicles, noting any height or weight restrictions.
 - Structural assessment of any weak crossings/culvert/bridges which need to be crossed.
 - Timings for heavy load movements.
 - Vehicular routing.
 - Parking restrictions for construction vehicles on the public highway surrounding the site.
 - Pedestrian walkways around the site.
 - Storage areas.
 - Timetable for removal of site compound equipment.
- e) The *Contractor* co-operates with the relevant authorities concerning *works* in, or access to, the highway. The *Contractor* informs the *Client* of any requirements or arrangements made with the relevant authorities.

4.14. Consideration of Others

The *Contractor* shall:

- a) register the site and act in accordance with the Considerate Contractor Scheme. As such the *Contractor* shall work to limit the impacts of the *works* on local residents and the land uses.
- b) identify a named individual to act as the initial point of contact for local residents and enquiries from the general public.

4.15. Control of site personnel

The *Contractor* shall:

- a) ensure that all persons working on or visiting the Site hold a valid and current Construction Skills Certification Scheme (CSCS) card. Persons without this card shall be escorted at all times by a member of the site team.
- b) maintain a visitors' book in which the date, the time in, the time out, evidence of a specific Health and Safety induction, CSCS number, and the name and company of the person visiting shall be noted.
- c) make appropriate arrangements for the control of people working and visiting the Site.

4.16. Waste materials

The *Contractor* shall:

- a) provide a suitable assessment for the removal and disposing of any hazardous materials by suitable licensed and regulated parties.
- b) (added) The *Contractor* shall formulate a waste hierarchy with waste prevention at the top of the waste hierarchy (the preferred option) and disposal at the bottom (the worst option). In order of preference, in between, the *Contractor* shall prepare for reuse, recycling, and recovery of the waste. The *Contractor* shall make reference to Defra's publication 'Guidance on Applying the Waste Hierarchy, June 2011'.

4.17. Deleterious and hazardous materials

The *Contractor* shall consider the existing fixed materials that would be disturbed as a part of the works. An appropriate assessment should be carried out to identify the type and hazards and an appropriate additional measure needed to mitigate the risk for the *Contractor* and the Homeowners/ Tenants.

5. Requirements for the programme

5.1. Programme

The *Contractor* submits the contract programme with the *Contractor's* Offer for acceptance.

The *Contractor* shows on each programme which he submits for acceptance on a monthly basis (in form of Gantt chart) the following:

- a) starting date
- b) period required for mobilisation/ planning & post contract award.
- c) proposed order and timing to undertake the works.
- d) proposed plant and labour resources
- e) critical path
- f) each of the activities listed within the Price List
- g) Any key third party interfaces: lead in periods for materials and sub-contractors; time required to obtain consents/waste permits; stated constraints; *Contractor's* risks.
- h) Completion date as defined on the *Client's* Contract Data page.

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

(Added) Services and other things for the use of the *Client* or visitors to be provided by the *Contractor* at the Site Compound.

The *Contractor* shall

- provide the following on the Site for the duration of construction:
- pay all third-party costs associated with applications for consents, approvals, agreements and licences in connection with the *works*.

Specific details of what is to be provided shall be included in the Construction Phase Plan.

Item	Date by which it will be provided
Adequate parking	At the start of the contract
Meeting room	
Storage facilities	
Medical facilities and first aid	
Sanitation, with provision for segregated male and female facilities	
Security	
Sign boards and other signage	
Safety equipment and services	
Fences, screens and hoardings	
Utilities, e.g. water and power	

Maintenance of access roads	Over the duration of the contract
Management of construction traffic	

7. Site Information

The Site consists of 23 private properties and 1 commercial property. Among these properties there are six properties which hold listed building status (highlighted in bold) and will possibly require listed building consent or planning permission for installation PFR measures:



Proposed sub-contractors			
	Name and Address of Proposed Subcontractor	Form of Contract	Nature and Extent of Work
1			
2			
3			
4			