

Environment Agency

NEC4 engineering and construction contract (ECC)

Scope

Project / contract information

Project name	Send Marsh Asset Improvement
Project SOP reference	ENV0003449C
Contract reference	33216
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Author	

Revision history

Revision date	Summary of changes	Version number
12/10/2021	First issue	1
08/11/2021	Second Issue (with DGC comments incorporated)	2
05/08/2022	Final issue	3

Document	Document Title	Version No	Issue date
LIT 13258	Minimum Technical Requirements	12	30/12/2021

This Scope should be read in conjunction with the version of the Minimum Technical Requirements current at the Contract Date. In the event of conflict, this Scope shall prevail. The *works* are to be compliant with the Scope.

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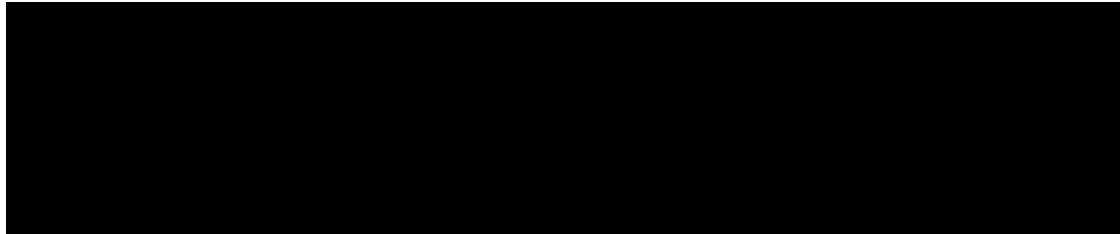
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S 100 Description of the works

S 101 Description of the works

The Send Marsh Asset Improvement project is located at the East Clandon Stream, Send Marsh, near Woking, within the Borough of Guildford, Surrey. Send Marsh has been subject to a number of flooding events over the past 40 years. In October 2000, there was a significant flood event in which 16 properties were flooded.



The section of the flood defence at risk includes the flood defence wall constructed on the west bank of the East Clandon Stream between the Portsmouth Road culvert and the Send Marsh Road culvert. At this location, several sections of the watercourse bank revetments have collapsed, posing a risk to the integrity of the flood defence wall (approximately 370m in length) and its ability to protect the 33 at-risk properties

The Send Marsh Asset Improvement project seeks to restore the design life of the failing asset and thereby mitigate the significant legal liability, financial losses and adverse reputational consequences that would come to bear on the *Client* if no intervention is made to address the issues relating to the failing asset.

The proposed work is to appraise long-term sustainable engineering options for addressing the failing flood defence at Send Marsh village. This appraisal work will be undertaken by the *Client's* appointed Lot 1 Delivery Partner from the Collaborative Delivery Framework (CDF).

The *Contractor* is required to provide Early Supplier Engagement for the Send Marsh Asset Improvement project, delivering the requirements of this Scope to support the delivery of outline designs and OBC.

The *Contractor* is also required to undertake ground investigation (GI) works for the Send Marsh Asset Improvement project so as to provide the relevant geotechnical information required to complete the appraisal. The GI works will be scoped and specified by the Lot 1 Delivery Partner and will be instructed by the *Client* via a Compensation Event when required.

S 102 Purpose of the works

The *Contractor* shall deliver the following:

1. Buildability and SHEW considerations

The *Contractor* shall:

Provide guidance and advice that the following documents are comprehensive and provide the best information available for the GI *works* and the development of the preferred options, inputting as required, to include suitable assurance for each of the following documents:

- Hazard Plan, Buildability Statement, desktop services searches, Pre-Construction Information Pack, Design Statement, Environmental Action Plan, Construction Method in the EIA, Information Delivery Plan (IDP), Carbon Report.

Provide advice on proposed options such as the impact of potentially relevant permissions and consenting application processes including related programme considerations.

Provide the logistics and practical considerations for the options, preferred option and GI *works* including for the use of supply chain engagement, temporary works, example materials, site compound locations, access constraints, construction logistics, community safety, procurement, and sourcing options.

Appropriately consider for all options the impact of known and unknown services. The Lot 1 Delivery Partner will develop the GI scope and the *Contractor* shall assist with developing the scope, including any proposals for service location identification to PAS 128, UXO surveys or asbestos demolition / refurbishment surveys as required.

Champion Safety, Health, Environment and Wellbeing (SHEW), wider sustainability matters and challenge assumptions where applicable.

The *Contractor* shall be instructed to undertake the GI *works* through a Compensation Event raised when the GI scope is finalised and *Contractor's* proposed instruction is agreed in terms of quality and price.

2. Affordability and Risk Management

The *Contractor* shall:

Identify any site and construction related opportunities and risks, quantify these risks and opportunities, propose potential mitigation measures and assist in the allocation of residual risk to the party best placed to manage the residual impacts as part of the integrated project Risk Register.

Support in the identification of project efficiencies through active contribution to the Efficiency Target and in the Efficiency Register.

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Provide market relevant advice to support on project whole life costs (and carbon), e.g. compensation exposure for third parties, input into the Pricing Strategy, and setting adequate budgets. This includes providing detailed costing for the preferred option and costing support to the Lot 1 Delivery Partner for the remaining short-listed options.

Consider where applicable, innovation and technology that can be embedded throughout the project, evaluating on a risk and opportunity basis. Provide support in ensuring the Project Preferred Option costing is within set tolerances.

3. Programme and project management

The *Contractor* shall:

- Review and report progress of *Contractor* activities to the *Client's Project Manager*.
- Provide a monthly forecast and expenditure profile which is in line with the Whole Life Programme and the *Client's* Gateways.
- Provide a project team with the relevant demonstrable knowledge and skills to undertake the work defined in the Scope.
- Maintain weekly verbal contact with the *Client*, *Project Manager* and Lot 1 Delivery Partner such that they are fully informed of progress and issues.
- Attend monthly progress meetings. Meetings shall either be held in the *Client's* local offices or virtually via MS Teams.
- Attend site visits as required for project site familiarisation purposes.
- Work with the Lot 1 Delivery Partner to provide inputs for the required *Client* monthly project reporting as agreed within the first 4 weeks of the contract. This is to include finances, progress, updated programme (with actual and forecast progress), lessons learned log, efficiencies, carbon and a register of risks, assumptions, issues and dependencies.
- Work with the *Client* to provide a monthly financial report. This will include a breakdown of all expenditure to date and forecast future expenditure. In addition, this will identify and provide an estimated valuation of all outstanding Compensation Events and an estimated value to Completion. The contract information held on FastDraft does not constitute completion of this task; monthly forecasts should be submitted and discussed with the *Project Manager*.

4. Contract Documentation

The *Contractor* shall review the adequacy and clarity of all documents required for any contracts covering intrusive investigation works and detailed design, all developed in accordance with the agreed Pricing Strategy.

5. Services Required

Cost and carbon support

The *Contractor* shall provide support for estimations of cost and carbon for potential solution(s), which will be prepared based upon the information collated to date and operational experience. At this stage the focus is on the scale and timing of possible costs to be used by the *Client* to review the project mandate and aid planning and should include an appropriate allowance for risk. This estimate should identify the extent of validity of the Project Cost Tool (PCT) and potential risks of variance to the PCT.

Ground Investigations

The Lot 1 Delivery Partner will develop the scope for the GI *works* and also review relevant data from previous reports to identify any gaps in existing data and use this to inform the required GI scope for the project. The *Contractor* shall provide support and advice to the Lot 1 Delivery Partner in the scoping of the GI *works*.

The Lot 1 Delivery Partner shall clearly communicate the technical specifications for the GI *works* to the *Contractor* for the *Contractor* to undertake. The *Client* will instruct the GI *works* to the *Contractor* via a Compensation Event. The costs for the GI *works* will not be included in the Target Cost but will be added subsequently via a Compensation Event once the GI scope is finalised and the *Contractor's* proposed instruction is agreed in terms of quality and price. Clauses related to the undertaking of the GI *works* are included in this Scope and shall apply once the Compensation Event has been instructed.

Key Outputs

The *Contractor* shall:

Attend a site visit to identify access requirements, physical constraints, easement requirements, required working areas, compound areas etc.

Undertake a review of option outline designs and drawings that are to form part of the pricing information. This will include consideration of whether or not sufficient information is available for the Lot 1 Delivery Partner to adequately price the options, as well as identification and advice on buildability, construction methods, SHEW compliance, etc.

Undertake a review of the high-level programme and input into activities, durations, and sequence. For example, whether works can be planned around seasons (e.g. avoid core winter months working), identification of long lead items (and therefore procurement timescales), ecological constraints, third party constraints, consents and robust delivery durations considering risk. The *Contractor* shall also provide early identification of programme constraints that could prevent a scheme from starting or completing as planned.

Identify any significant temporary works designs that need to be considered from a CDM perspective in advance of the works pricing, to ensure sufficiency of resources and time.

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Provide information for the carbon tool and CEEQUAL assessment.

Contribute to the high-level cost estimate and the project risk register.

6. Requirements of the programme

The *Contractor* shall provide input into the whole life programme as described in Section 3 above.

The *Contractor's* programme shall be in line with the Lot 1 Delivery Partner's programme (Appendix 1) for delivering the appraisal work.

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

7.1 Data and information management and intellectual property rights

All of the data listed as being supplied to the *Contractor* as part of this study remains the IP of the *Client*.

7.2 Data custodianship

The *Client* will be data custodian for all project deliverables from this commission.

7.3 Licensing information

Licences for LiDAR Data, Ordnance Survey mapping, model, survey, hydrometric and historical data will be provided to the *Contractor* upon award of this commission, as required.

7.4 Data management and metadata

The *Client* populates a metadata database called the information asset register (IAR). It is a requirement that all information produced by modelling work is appropriately tagged with metadata. If required, the *Client* will supply an IAR spreadsheet (and any supplementary local metadata requirements if appropriate) where all relevant metadata can be recorded and handed over on project completion.

7.5 Data security

All model and survey information will be provided to the *Contractor* in an encrypted format (using WinZip 128 bit encryption) according to the *Client's* data security policy. It is expected that once the commission is completed, all the original data sent to the *Contractor* which is classed as commercially sensitive, is returned in an encrypted format using WinZip 128 bit encryption. Project deliverables such as model files, survey data or anything of a personal nature such as questionnaires or address data must also be returned in an encrypted format using WinZip 128 bit encryption. Further details regarding security measures will be discussed at the start-up meeting for this commission.

7.6 *Client's* Advisors

The *Client* has a number of advisory departments. Instructions will only be deemed enacted from them when they are confirmed by an instruction from the *Project Manager*. These departments include Area, NEAS, FBG etc.

7.7 *Client* Documents the *Contractor* contributes to

The *Client* owns and maintains several project documents to which the *Contractor* is required to contribute:

- Project Risk Register
- Project Efficiency Register

S 200 General constraints on how the *Contractor* provides the works

S 201 General constraints

No access to private property is to be made by the *Contractor* without written *Client* approval and/or formal issue and serving of Notice/s of Entry.

It is essential to ensure that invasive species are not introduced or spread if found to be present on site.

There may be archaeology on site, details of which shall be included in the Pre-Construction Information on instruction to undertake site works.

Where site works are instructed, the *Contractor* shall reduce the risk of pollution and reduce any negative ecological and environmental impacts by following the most recent Environment Agency SHEW CoP, Pollution Prevention for Businesses and all relevant Environmental legislation.

Where site works are instructed, the *Contractor* shall make the necessary application for permits/FRAP etc.

The site is constrained and surrounded by an area of managed woodland so access will need to be carefully considered (including for an appropriate traffic management plan to facilitate safe vehicle movements off Portsmouth Road, as required).

S 202 Confidentiality

The *Contractor* may 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.

The *Contractor* may publicise the works only with the *Client's* written permission.

S 203 Security and protection on the Site

When undertaking the GI *works* on the Site, the *Contractor* shall keep the public fully informed of the *works* and of the dangers present on Site. The *Contractor* shall keep the local community informed of programmed activities and potential disturbances.

The *Contractor* is responsible for the security of the Working Areas, areas of occupation, site offices, site yard and any other areas deemed necessary by the *Contractor*.

S 204 Security and identification of people

Security requirements are to be determined by the *Contractor*.

S 205 Protection of existing structures and services

Up-to-date information on existing services located on, or adjacent to, the Site shall be obtained by the *Contractor* within one month prior to starting construction related activities.

The *Contractor* shall liaise with all relevant Statutory Undertakers, the Highway Authority and other owners of apparatus before commencing any excavations and shall undertake in situ investigations to confirm the locations of the statutory authority services identified in the site information, identify any other services that have not been identified, and identify any privately owned services within and adjacent to the working areas, compound areas and accesses.

The *Contractor* shall agree trial pit/borehole locations and number of trial pit/boreholes with utility providers prior to the start of works.

Should any damage to existing services, highways or apparatus be discovered, the *Contractor* shall, at once, notify the *Client's Project Manager* and the Statutory Undertaker, Highways Authority or owner concerned, as appropriate, and the *Contractor* shall afford every facility for the repair or replacement of the apparatus affected.

The *Contractor* shall arrange (including obtaining any necessary permissions, notices, licences or consents) and undertake any diversion if required for the work.

S 206 Protection of the works

The *Contractor* shall be responsible for the repair of any damage to the *works* due to the fault of the *Contractor* or their supply chain and shall put such damage right at their own cost to the satisfaction of the *Supervisor*.

S 207 Cleanliness of the roads

The *Contractor* shall ensure that the Site, including all access roads and footpaths, is well maintained and shall ensure that vehicles exiting the Site do not carry dirt or debris onto the public highway, footpaths or onto private access roads.

The *Contractor* shall protect the condition of the access roads, footpaths, entrances, public highways and the site compound during the *works* and shall be responsible for any damage caused by the *Contractor's* activities.

S 208 Traffic Management

The *Contractor* shall be responsible for traffic safety and management, including obtaining road closure, opening, or traffic signals consents, and shall nominate one of their site staff to be responsible for all related activities whenever required.

The *Contractor* shall arrange all necessary permissions, notices and licences for any temporary closures or diversions with the appropriate authority.

The *Contractor* shall arrange all necessary temporary traffic control measures and maintain them in good working order and condition at all times, re-positioning, covering or removing them as necessary to provide the *works*.

S 209 Condition survey

The *Contractor* shall perform pre-works photographic condition surveys of all Working Areas, access routes, compounds, adjacent buildings, trees, vegetation and lands to ensure that they are returned to an equal or better condition post-works.

S 210 Consideration of Others

The *Contractor* shall take all reasonable measures to protect adjacent properties and structures and also the risk for any damage caused by negligence.

The *works* shall be executed in a manner such that the disruption to local residents, landowner, businesses and the general public are kept to a minimum.

The *Contractor* shall ensure that the *works* shall not block or restrict access to or egress from residential properties, farm land, common land or businesses unless agreed with the parties affected.

Should it become impractical to maintain vehicular access to any property, apparatus or service at any time during the construction of the *works*, the *Contractor* shall provide and maintain alternative arrangements. The *Contractor* shall also provide assistance to the owner/occupier or tenant affected by the *works* to enable them to undertake all aspects of their normal activity.

The *Contractor* shall keep noise levels to a minimum. All working methods proposed by the *Contractor* shall be in accordance with HSE Guidance Leaflet INDG362 "Noise at Works – Guidance for *Employers* on the Control of Noise at Work Regulations 2005".

S 211 Control of Site personnel

All people working on site shall hold a suitable CSCS card, or equivalent. Anyone visiting the site who does not hold a suitable CSCS card, or equivalent, shall be accompanied by a suitably qualified member of the *Contractor's* staff.

S 212 Site cleanliness

The *Contractor* shall maintain the Site in a clean, safe and tidy condition clear of debris.

S 213 Waste materials

The *Contractor* shall apply best practice regarding materials handling, waste minimisation and waste recycling on Site.

S 214 Deleterious and hazardous materials

If during the *works* contamination is encountered on Site, which has not previously been identified, a site investigation will be carried out to the area before restarting works. Recommendations for remediation will be submitted to and approved by the *Supervisor*.

The process for dealing with any deleterious or hazardous waste found on site shall be agreed with the *Supervisor* and shall be a *Client* risk. The *Contractor shall be* responsible for obtaining and maintaining all necessary licences, permits and consents for managing such waste found on Site.

S 300 Contractor's design – Not Used

S 400 Completion

S 401 Completion definition

This contract will be completed on the *Client's* confirmation of the project's Outline Business Case approval.

S 402 Pre-Completion arrangements

Prior to the *works* being offered for takeover or completion, the *Contractor* shall arrange a joint inspection with the *Supervisor, Project Manager, Client's* project manager and Senior User. The initial inspection shall take place a minimum of three weeks in advance of the planned takeover or *Completion*.

S 500 Programme

S 501 Programme requirements

As per NEC core clauses.

S 502 Programme arrangement

As per NEC core clauses.

The *Contractor* shall work with the Lot 1 Delivery Partner who is appointed to do the appraisal work.

The Lot 1 Delivery Partner has prepared their own contract programme for delivering the appraisal work (Appendix 1). The *Contractor's* shall collaborate with the Lot 1 Delivery Partner in the development of their programme.

S 503 Methodology statement

As per NEC core clauses.

Method Statements shall be submitted to the *Project Manager* and Lot 1 Delivery Partner two weeks in advance of the associated activities taking place. The statements shall be referenced in the programmes submitted for acceptance to the *Project Manager*.

A schedule of method statements and risk assessments as set out in the Environment Agency Operational Instruction 300_10_SD06 Works Information: method statements and health and safety should be included with each updated programme. This schedule includes items relating to both the temporary and permanent *works*.

S 504 Work of the *Client* and Others

As per NEC core clauses.

The order and timing of the work of the *Client* and Others to be included in the programme and information to be provided. Refer as necessary to sections S 901 and S 902.

S 505 Information required

Not Used

S 506 Revised programme

As per NEC core clauses.

Further to the requirements of Clause 32, the *Contractor* shall provide a brief explanation of changes to each programme activity, sufficient to enable the *Project Manager* to understand the cause and impact of the change.

In addition to the monthly revision, the *Contractor* shall revise and reissue the programme with every Compensation Event.

The *Contractor* shall submit their revised programmes for acceptance five working days in advance of scheduled monthly progress meetings.

S 600 Quality management

S 601 Samples

In the event of additional work being added to the Scope the *Client* will advise the *Contractor* accordingly.

S 602 Quality Statement

As per the Minimum Technical Requirements stated.

S 603 Quality management system

Covered at Collaborative Delivery Framework (CDF) level.

S 604 BIM requirements

The BIM Information Manager is the *Client's* Project Manager.

The *Contractor* shall comply with the Collaborative Delivery Framework requirements and ensure that the project outputs are compliant with the BIM Employers Information Requirements 2.3.

S 700 Tests and inspections

TBC

S 800 Management of the works

All administrative communication between the Parties shall be directed through the *Project Manager* and the *Contractor's* appointed representative.

S 801 Project team – Others

The *Contractor* shall provide the list of key personnel working on this commission as a part of the Contract Data.

S 802 Communications

FastDraft shall be used for all contract communications.

The *Contractor* shall attend monthly progress meetings. Meetings shall either be held in the *Client's* local offices or virtually via MS Teams.

The *Contractor* shall notify the *Project Manager* within 24 hours of any accidents on Site.

All near-miss reports shall be provided within 14 days to the *Project Manager*.

S 900 Working with the Client and Others

S 901 Sharing the Working Areas with the *Client* and Others

The *Contractor* will need to liaise with landowners in and adjacent to the working areas in conjunction with the *Client's* Estates team and the *Client's* Partnership and Strategic Overview (P&SO) team.

S 902 Co-operation

The *Contractor* is required to co-operate with Others in obtaining and providing information which they need in connection with the *works*.

The *Contractor* will co-operate and liaise with landowners in conjunction with the *Client's* Estates team.

S 903 Co-ordination

The *Contractor* will liaise with and work in conjunction with the *Project Manager* and *Client's* Estates team to co-ordinate operations and work on private land with the landowner and tenants.

S 904 Authorities and utilities providers

The *Contractor* shall be responsible for obtaining up to date service information.

The *Contractor* shall be responsible for arranging, managing and allowing for the costs of all of the appropriate Highway Authority consents and road/footpath closures that may be required.

The *Contractor* shall agree and manage all works by utility providers necessary for the *works*.

The *Contractor* shall agree and manage the protection and any temporary diversion of services necessary to accommodate working methods in this area.

The *Contractor* is responsible for liaison with utilities providers for the protection and any necessary isolation of services to facilitate access or working methods to tie in with their proposed programme of works.

S 905 Diversity and working with the *Client*, Others and the public

In delivering the *works*, the *Contractor* shall consider the following and document how they are addressed on this contract:

- **Public:** how to effectively engage and manage public communications
- **Framework:** identify opportunities to support diverse workforces on our projects across our organisations.

S 1000 Services and other things to be provided

Ground Investigations

The Ground Investigations (GI) scope and technical specification will be developed by the Lot 1 Delivery Partner and the GI *works* will be instructed by the *Client* via a Compensation Event.

The *Contractor* is required to communicate with the Lot 1 Delivery Partner and undertake GI *works* as specified by the Lot 1 Delivery Partner to allow proper progression of appraisal and design.

The *Contractor* is required to clearly communicate the specifications for the GI *works* as identified above to the GI sub-contractor (if they are not undertaking these investigations themselves).

The *Contractor* is required to clearly communicate the relevant results of the GI *works* back to the Lot 1 Delivery Partner and the *Client*.

The *Contractor* shall provide a Factual Report on the Ground Investigations to the Lot 1 Delivery Partner and the *Client*.

S 1100 Health and safety

The *Contractor* shall comply with the requirements of the Minimum Technical Requirements and the *Client's* SHEW Code of Practice in the undertaking of the *works*.

The *Contractor's* Construction Phase Health and Safety Plan shall detail how construction flood risk, mitigation and management of evacuation procedures are dealt with.

S 1200 Subcontracting

S 1201 Restrictions or requirements for subcontracting

The *Contractor* submits their proposed procurement procedure to the *Project Manager* for acceptance. A minimum of 3 quotations for the GI *works* is required to ensure best value for money.

The procedure is not accepted if it:

- does not follow best practice principles
- conflicts with the need to ensure transparency in the disbursement of public funds
- does not meet requirements stated in this contract

S 1202 Acceptance procedures

As described in sub-clause 26.3 of the ECC contract.

S 1300 Title

Not used

S 1400 Acceptance and Procurement Procedure

Not used

S 1500 Accounts and records (Options C and E)

In the event of additional work being added to the Scope the *Client* will advise the *Contractor* accordingly.

S 1600 – Not Used

S 1700 Client's work specifications and drawings

S 1701 Client's work specification

In the event of additional work being added to the Scope the *Client* will advise the *Contractor* accordingly.

S 1702 Drawings

In the event of additional work being added to the Scope the *Client* will advise the *Contractor* accordingly.

S 1703 Standards the *Contractor* shall comply with

The *Contractor* should carry out their work using the following guidance.

Ref	Report Name	Where used
	Project Cost Tool	Costs
	Sustainability Measures Form	
	300_10 SHE handbook for managing capital projects	Throughout
	300_10_SD27 SHE Code of Practice	Throughout
OI 120_16	Whole-life Carbon Planning Tool	

Appendices

Appendix 1 Lot 1 Delivery Partner's Programme

Appendix 2 Information Delivery Plan (IDP)