Environment Agency
NEC4 engineering and construction contract (ECC)
Scope

Document category: COMPULSORY

Use the template on the pages that follow to assist you when preparing the Scope for an NEC4 engineering and construction contract (ECC).

Project / contract information

Project name	Anderby Creek Piling
Project SOP reference	ENV0003904C
Contract reference	C20876
Date	12th December 2023
Version number	2
Author	[redacted]

Revision history

Revision date	Summary of changes	Version number
	First issue	

This Scope should be read in conjunction with the version of the Minimum Technical Requirements and Exchange Information Requirements current at the Contract Date. In the event of conflict, this Scope shall prevail. The *service* is to be compliant with the following version of the Minimum Technical Requirements and Exchange Information Requirements:

Document	Document Title	Version No	Issue date
LIT 13258	Minimum Technical Requirements	V12	December 2021 [redacted]
LIT 17641	Exchange Information Requirements	V3.0	01/12/2022 [redacted]

Contents List

S 100 Description of the *works*

The piled channel walls 40m upstream of the Anderby Creek Outfall structure require immediate work to extend their design lives. The existing piles are heavily corroded and have exceeded or are close to their design lives.

Water from the surrounding catchment area is pumped via the Internal Drainage Board pumping station at the head of the Anderby Drainage Channel and is discharged at low tide via an existing concrete culvert to maintain upstream levels. As such this infrastructure is key to the area.

The northern embankment as-built drawings (dated 1972) show a sheet piled wall 5.2m deep, supported by tie-rods every 4m which connect to concrete anchor blocks. It appears that some of the tie-rods on the northern bank have failed, causing the piles to rotate towards the channel and compromise the stability of the properties built on top of the bank. The south embankment as-built drawings (dated 1962) indicate a sheet piled wall 4.9m deep, supported by tie-rods every 3.2m which also connect to concrete anchor blocks. Currently this wall shows no signs of deflection, although it has significantly exceeded its design life.

Both sections of wall (see photo above) must be replaced, for which the *Client* has prepared a legal justification business case. The scheme is being promoted on legal grounds which relate to safety and the wider need to maintain hinterland drainage via the IDB.

Numerous studies have determined that they are beyond economic repair and an outline design has been prepared based upon 12m long cantilevered piles in front of the existing defences. It was based upon a ground investigation undertaken in

January/February 2022 (refer to the Geotechnical Interpretive Report (GIR): PC2616-RHD-ZZ-05-R-GE-0002_P01_S3_ Anderby-GIR). This design (known as Option 05a), which has been detailed in the appended Anderby Creek Site Information Document (SID), has been approved by the Area Catchment Engineer. Further details and technical notes can be found in PC2616-RHD-ZZ-05-RP-D-0002_Anderby Creek Shortlisted Options.pdf by Royal HaskoningDHV.

S 101 Description of the *works*

***Contractor's* Design and Build**

The purpose of the *works* is to complete the detailed design, construct and then commission the assets detailed in the above documentation. The *Contractor* shall:

- Ensure that the assets have a design life of at least 50 years.
- .
- Produce a graphical representation of the design.
- .
- Take into consideration all relevant guidance and legislation and seek to minimise long-term asset / land management, maintenance costs and whole life carbon.
- Demonstrate best practice and how optimum flood risk reduction, natural processes, recreation, good ecological water quality and visual amenity can be combined.
- Work with the *Client* to ensuring the design is in line with the approved option and is designed with all associated approvals, statutory, and key stakeholders in mind.
- Develop a detailed design such that the cost and quality of the scheme is suited to the *Client's* budget.
- Demonstrate sustainability leadership through fully considering and contributing to achieving the *Client*'s environment and sustainability ambitions and targets. These are set out in the EA2025 Action Plan, e:Mission 2030 Strategy, the Defra 25 Year Environment Plan and are in line with the principles of sustainability as described by the United Nation's Sustainable Development Goals.
- Design the scheme considering the environmental sensitivities and opportunities of the sites and involving key environmental specialists as appropriate.
- Design process fully considers and addresses sustainability including carbon reduction as strategic outcomes.
- Prepare an adequate scope and documentation for costing and delivery of the construction works.
- Obtain licences / consents (e.g. Notices of Entry, abstraction / transfer licence, footpath diversion, Natural England consent depending on detailed design) and environmental permits as required.

- Collate the Health and Safety file up to completion of construction phase.
- Attend progress meetings with the *Client.*
- Monitor and report monthly to the *Project Manager* on progress made in delivering the *service*.

Pre- construction Information (*Client* to provide)

- Topographic Surveys
- Service Drawings
- GI Investigations
- Land Access Agreements
- Ecology Surveys
- Consents & Permits

Construction

- Interface with other RMA's working in the area.
- Undertake Temporary Works Designs
- Identify Site Compound and Materials Storage / laydown area.
- Identify best access and install temporary roadway.
- Mobilise and Set Up Site (Welfare, Signage, Fencing & Security)
- Set up Safe Systems of Works – Pedestrian & Plant access routes (c/w Plant / People Interface Segregation)
- Set up Safe Working to GS6 Regulations (for working under / adjacent to OLH)
- Set up safe Access & Egress
- Survey / Record / Photograph Works for As-Builts and H&S File
- Undertake Public Liaison
- De-mob / Clear Site

. The *Contractor* will establish these lines on site and confirm the position with the *Client's* Technical Adviser before commencement of any construction *works*. The *Contractor* shall check the provision of any level reference points shown on the drawings and confirm the position and level with the Technical Adviser before use for setting out the *works.* The *Contractor* shall inform the *Project Manager* when all setting out reference points have been agreed, checked and confirmed.

S 102 Purpose of the *works* / Outcome required

The objective is to ensure that flood risk management in this location is managed in accordance with the strategy and consideration of any specific asset / economic / commercial / stakeholder information. The Anderby Drainage Channel is owned by the *Client* and its functionality is critical for the IDB. The IDB pumping station maintains water levels in the upper catchment by enabling discharge through the channel at low tide via existing outfall structure. Capital maintenance works will

reduce the risk of asset failure, subsidence to properties adjacent to the channel and the reputational risk to the *Client*.

The *Contractor* shall complete the asset replacement such that it proves value for money to the *Client* in line with Benefits in the Business Case and results in economic efficiencies based on the project budget.

The *Contractor* shall maximise positive environmental outcomes and demonstrate mitigation has been considered.

The design option has already been developed and the *Contractor* will develop the outline design to meet the above objectives. The *Contractor* shall be responsible for ensuring the design is acceptable to the *Client* (gaining approval of Gateway 3), gain any associated approvals and be acceptable to statutory stakeholders

The *Contractor* shall safeguard the site, the works, products, materials, and any existing structures affected by the *works* from damage and theft.

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

S 201 General constraints

General constraints are listed in the following bullet points:

- Access to the Site
- Public Footpath
- Proximity to SSSI
- Pumping Station: rapid change in flow and depth of water.
- Working near water: Weils disease
- Working adjacent / within watercourse: risk of drowning
- Overhead and underground services
- Structural integrity of adjacent properties
- Condition and structural integrity of existing sheet piles
- Temporary works (depending on construction methodology selected)
- Steep banks
- Stakeholder consultation (utilities providers, landowners, Natural England et al)
- Noise and vibrations
- Working hours
- Use of cranes (overhead LV cables)
- Pollution, ecological and environmental impacts
- Interfaces between the *works* and existing things
- Tidal Information
- Sustainability targets.

S 202 Confidentiality

The *Contractor* does 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 services only with the *Client's* written permission.

S 203 Security and protection on the site

The *Contractor* ensures that the Site is left properly secured and in a safe condition at the end of each working day.

S 204 Security and identification of people

The level of security and procedures for identification of personnel on site is to be determined by the *Contractor*.

S 205 Protection of existing structures and services

The *Contractor* is responsible for the protection of the asset, concrete culvert, properties and utilities in connection with the work.

S 206 Protection of the *works*

The *Contractor* protects the *works*, Equipment, Plant and Materials, liable to damage either by the weather or by the method used for carrying out the *works*.

The *works* are to be protected against damage specifically from vandalism and flooding. The *Contractor* shall refer to Minimum Technical Requirement Section 1.29.

S 207 Cleanliness of the roads

The *Contractor* is responsible for road sweeping and general cleanliness when plant movements and deliveries are in process and in connection with the work.

S 208 Traffic Management

The *Contractor* is responsible for the management of traffic, road closures and public highways; and for communication and information requirements in connection with the work.

S 209 Condition survey

Pre and post condition surveys need to be carried out by the *Contractor* and any associated reinstatement works undertaken. The survey record should be stored in the BIM archive.

S 2010 Consideration of Others

The *Contractor* shall produce a programme and plan to minimise and avoid disturbance to the public and occupiers of adjacent premises.

S 2011 Control of site personnel

The *Contractor* is responsible for requirements for control of people working on or visiting the Site and Permits and licences (for example permits to work), to be obtained prior to any works.

S 2012 Site cleanliness

The *Contractor* is responsible for any requirements for protecting the *works*, the public and the workforce on the Site over and above the legal requirement and those stated elsewhere in this contract.

S 2013 Waste materials

The *Contractor* is responsible for the removal of waste and restrictions on the disposal of waste material. Categories of material and volumes including materials for recycling must be recorded.

S 2014 Deleterious and hazardous materials

The *Contractor* shall not use any deleterious or hazardous material without written *Client* permission.

S 2015 Carbon

A completed project must aim to minimise carbon emissions by:

1. Agreeing to a target (forecast) of emissions from construction that is set out in a verified carbon assessment with business case approval.
2. Exploiting the most likely opportunities for further reductions to the agreed forecast during construction.
3. Reporting the outturn of actual emissions against the agreed forecast and further reductions in a verified ‘as built’ update to the carbon assessment at project completion.

The project should be looking at how to minimise actual carbon emissions against the agreed forecast throughout the construction stage working with their suppliers on lower carbon products and services that meet the project scope and deliverables. A monthly report must be provided via FastDraft (using the carbon form – see application for payment section) providing:

1. actual emissions to date,
2. (latest) outturn forecast (based on actuals and remaining emissions to outturn) and
3. (Latest) outturn budget / target (set to the verified forecast)

The FastDraft carbon form may be supported by details of actual emissions to date against an agreed breakdown of asset / service / product lines taken from the verified carbon assessment.

This will inform the EA of progress in reducing carbon during construction in the form of a variance between a latest outturn forecast (reported on FastDraft) and verified forecast. The EA may require the project to set out actions to mitigate significant variances or where there is a significant change in scope to provide ‘updated’ versions of the carbon assessment, carbon budget and carbon appendix that will reset the construction stage outturn forecast and outturn budget.

Projects at completion must provide via Asite an ‘as built’ carbon appendix supported by an updated carbon assessment with outturn actual emissions reported against a previously verified forecast. The ‘as built’ carbon appendix and updated assessment must be verified by an EA appointed carbon specialist before completion of the project is approved. The verification process requires project team engagement with the verifier and may result in actions to:

1. update the carbon appendix and supporting carbon assessment and budget (i.e. ERIC).
2. set out the reasons for outturn actuals emissions being above / below the verified forecast.

The verified outturn actuals and forecast from this process will be required for the performance measure set out in this contract as well as for an EA process of carbon budget authorisation managed by EA Project Sponsor.

S 300 *Contractor's* design

Design must conform in principle to Option 5a - new sheet piled wall in front of the existing piles on the northern and southern banks - as outlined within tab '4. Scope' in the SID document, however, there is flexibility for the *Contractor* to develop the design further.

Clause X15 applies.

S 301 Design responsibility

The *Contractor* is responsible for all temporary and permanent works design.

S 302 Design submission procedures

The *Contractor* shall submit their design to the *Client's* Project Manager at least 4 weeks in advance of site works commencing. Details shall be emailed and placed on ASite.

S 303 Design approval from Others

The *Contractor's* design will be reviewed by the PD+ and will require the Area Catchment Engineer's acceptance prior to work commencing.

S 304 *Client's* requirements

The *Contractor* shall provide a design for the *works* which include the elements listed below:

- Specifications, including reference to relevant standards
- Design standards and codes of practice
- Size and / or space limitations
- Loading and capacity requirements
- Operational performance requirements and design life
- Energy consumption targets
- Environmental standards
- Sustainability requirements
- Design quality evaluation criteria
- *Client's* design reports
- *Client's* standard design guidance
- Collection of permanent works design criteria for BIM archive
- Requirements of the Whole-life Carbon Assessment using the Carbon Tool outputs to inform design selection and methodology
- The Corporate Requirement for carbon reduction and specific requirement to meet the EA NZC target for 2030 defined by a project 'carbon budget calculation' that are produced by the Consultant for acceptance by the *Client*.

S 305 Design co-ordination

The *Contractor* has responsibility for co-ordination with Others in preparing his design and any responsibility for the co-ordination of design by Others, and in consultation with the *Client*.

S 306 Requirements of Others

The *Contractor* has responsibility for co-ordination with Others in obtaining all necessary licences and permits in consultation and with the help of the *Client*.

S 307 Copyright / licence

The *Contractor* grants a free unequivocal, irrevocable licence to the *Client* to use all intellectual property, copyrights and licences that are used in the *Contractor's* design.

S 308 Access to information following Completion

The *Contractor* will ensure that all relevant data including H&S files are uploaded to the *Client's* database Asite following completion.

S 309 Site investigations

Not required (the *Client* has completed a site investigation, available as site information).

S 400 Completion

S 401 Completion definition

The following are absolute requirements for Completion to be certified, without these items the *Client* is unable to use the *works*:

- 1 hard copy of Health and Safety File and one electronic version
- 1 hard copy of Operating and Maintenance Manuals and one electronic version
- 1 hard copy of As Built drawings and one electronic version
- Population of the *Client's* latest version of the Project Cost and Carbon Tool (PCCT), or its successor
- Transfer to the *Client* databases of BIM data
- Delivery of the Final Carbon Appendix
- The whole of the *works* have been completed in accordance with the Scope
- There are no Defects that prevent safe access and operation by the *Client*
- There are no Defects that present a health & safety hazard to the public
- Conduct a project handover meeting that includes the *Client*
- Supply all electronic documentation on Asite.

S 402 Sectional Completion definition

Not applicable.

S 403 Training

No training is required.

S 404 Final Clean

Details of final clean, removal of temporary structures, materials, protection and tools.

S 405 Security

Details of security arrangements and handover at Completion.

S 406 Correcting Defects

Defects and corrections may be notified to the *Contractor* by the *Client's* Technical Adviser*, ECC Project Manager, Client* (scheme Project Manager) up to two years (104 weeks) from the date of take-over / completion.

S 407 Pre-Completion arrangements

Prior to any works being offered for takeover or Completion the *Contractor* shall arrange a joint inspection with the *Client's* Technical Adviser*, Project Manager,*

Client (scheme 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 408 Take over

Not used.

S 500 Programme

The *Contractor* has responsibility to provide a full programme detailing all activities, dates, milestones and any changes to the programme for acceptance by the *Client*. The programme will be submitted in MS Project format.

S 501 Programme requirements

The programme complies with the requirements of Clause 31.2 and includes alignment and submission of the BEP and Master Information Delivery Plan (MIDP).

S 502 Programme arrangement

The *Contractor* shall submit their programme as required by Clause 31 in the form of a Resource Analysed Critical Path Network linked bar chart showing start and finish dates for each activity. It shall clearly identify those activities forming a critical path. The programme is to be produced in an electronic format, such as Microsoft Project 2016 (*.mpp or as agreed with the *Client*), and pdf formats.

A base line plan shall be provided for the project start up meeting and this will be updated monthly for progress meetings with actual and forecast progress against the baseline.

S 503 Methodology statement

The *Contractor* has responsibility for co-ordination with Others in writing all Risk Assessments, Method Statements and timely submission to the PD+ and *Client*.

S 504 Work of the *Client* and Others

None.

S 505 Information required

None required.

S 506 Revised programme

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

S 507 Monthly reports

In managing the service the *Contractor* shall:

- Contribute monthly to the updates to the project risk register.
- Provide input to project efficiency CERT Form.

- Produce monthly financial updates and forecasts meeting the *Client's* project reporting timetable together with progress reports. Monthly financial updates and forecasts to meet EA deadlines provided by no later than the 10th day of each month, or otherwise agreed at the project start up meeting.
- Deliver a monthly progress report in the *Client's* standard template giving progress against programme, deliverables received and expected, financial summary against programme and forecast project carbon. [redacted]
- Commission capital forecast profile to be entered on FastDraft monthly & Project forecast outturn project carbon profile to be entered onto FastDraft monthly**.** The *Consultant/Contractor* is required to provide a monthly forecast on FastDraft for both carbon and cost in accordance with FHU [redacted]
- Attend project board meetings as required.
- Ensure quarterly input into framework performance assessment / environmental Performance Measures.
- Maintain and show how accurate and up to date information on the whole-life cost and carbon of options is driving optimum solutions at all stages of design development.
- Capture lessons learnt relevant to scheme delivery for the EA PM.

S 600 Quality management

S 601 Samples

In lieu of samples, the *Contractor* provides technical details, specifications and product information for equipment and materials proposed to be used in the *works* for acceptance of the *Client*.

S 602 Quality Statement

The *Contractor* shall submit their quality plan for the *works* to the *Project Manager* within 6 weeks of the *starting date*.

S 603 Quality management system

The *Contractor*'s quality management system shall comply with the requirements of ISO 9001 and ISO 14001.

S 604 BIM requirements

The BIM Information Manager is the *Client* Project Manager. The *Contractor* shall comply with the *Client's* BIM requirements.

S 700 Tests and inspections

S 701 Tests and inspections

The *Contractor* produces a schedule of tests and inspections for the works two weeks prior to commencement of the respective construction activity. The schedule of tests and inspections must ensure the works meet the requirements of the design and specification and the *Client's* MTR.

S 702 Management of tests and inspections

The management of the testing will be agreed once the schedule has been accepted. Management of the records will be agreed at the same time. Within two weeks of the *Contractor* submitting the schedule of tests and inspections, the *Project Manager* either accepts the schedule of tests and inspections or notifies the *Contractor* of reasons for not accepting it.

S 703 Covering up completed work

The *Contractor* shall notify the *Client's* Technical Adviser at least 1 week in advance before covering any works that the Technical Adviser shall test or inspect.

S 704 *Client's* Technical Adviser's procedures for inspections and watching tests

The *Client* shall appoint a Technical Adviser to monitor the *works* to ensure that all *works* are being undertaken in accordance with the Scope and to the pre agreed safe system of work.

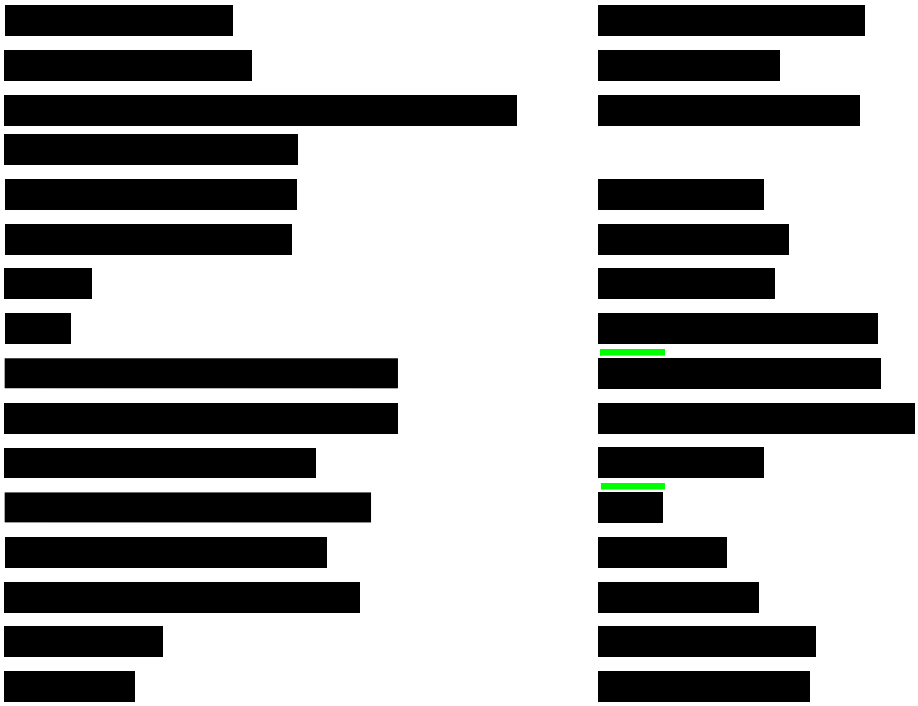
The *Contractor* is to notify the Technical Adviser a minimum of 1 week prior to the requirement for inspecting of any items described in the specifications.

The *Contractor* allows the Technical Adviser any reasonable opportunity and facility to inspect and monitor the samples and testing processes. The *Contractor* notifies the Technical Adviser of who, where and when samples and testing are being carried out.

S 800 Management of the *works*

S 801 Project team – Others

The project team comprises:



S 802 Communications

The *Contractor* shall document all forms of communication with third parties and maintain the stakeholder engagement plan.

Progress Meetings

The *Contractor* shall attend monthly progress meetings that are chaired by the *Project Manager* who produces the agenda. The *Contractor* shall produce the minutes and actions of the meeting. For the progress meeting the *Contractor* shall produce a progress report detailing work progress since the last meeting, health and safety checks and incidents, progress against programme, public relations/interaction, planned works, commercial situation, any other issues (refer to section 8.3 for details). An electronic copy of the progress report shall be provided by the *Project Manager* in advance of the Progress Meeting. The *Contractor* shall allow for attendance of key personnel from the *Contractor's* staff and key sub-Contractor's/suppliers staff at workshops which shall include the following:

- Progress meetings on monthly basis;
- Weekly issues log teleconference. Teleconferences will be conducted from home/site offices of all parties to minimise travel time and expenditure. All meetings to be held at appropriate dates agreed with the *Project Manager*. The

Contractor will also be required to attend the Project Board meetings arranged by the Project Executive.

Consultation

The *Contractor* shall:

- Co-operate, co-ordinate and liaise with key stakeholders, the public, property owners, and Others in relation to the *works*.
- Provide support to the *Client's* Technical Sdviser in public liaison activities throughout the works.

The *Client* shall assist the *Contractor* with consultation of landowners and individuals that are affected by the *works*. The *Contractor* shall work to the principles of the Considerate Constructor Scheme (www.ccscheme.org.uk) for dealings with the public.

A contact name within the *Contractor's* organisation shall be provided to residents who would be available to deal with complaints or queries in relation to the *works*. At all stages of the project the *Contractor* shall notify the *Client* and *Project Manager* of all press or media enquiries. All press and media enquiries will be handled by the *Client* and must not be addressed directly by the *Contractor*, or any of their employees.

S 900 Working with the *Client* and Others

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

The *Contractor* shall be responsible for the Working Areas and is required to co-operate with the *Client* and Others in sharing the Working Areas.

The *Contractor* shall provide every assistance to the *Project Manager*, *Client's* Technical Adviser and Environmental Clerk of Works in carrying out their duties.

S 902 Co-operation

The *Contractor* co-operates with the affected landowners and tenants and obtains the necessary permits from them in accordance with their Site safety procedures prior to commencing any work on their land where permissions/ agreement to work is required. Throughout the works, the *Contractor* in conjunction with the *Client* shall regularly keep all affected stakeholders up to date on progress with the works. This shall include, but not be limited to, the Public Rights of Way, Highways/ Roads Authority, Police, Landowners, Local Residents and affected stakeholders.

S 903 Co-ordination

Throughout the *works*, the *Contractor* shall liaise with the *Client* and Others for the co-ordination of the *works* and access to the site.

S 904 Authorities and utilities providers

The *Contractor* shall be responsible for arranging and managing any appropriate utility company consents and any road/footpath closures or vehicle movement permissions that may be required.

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

The *Contractor* shall inform the *Project Manager* of any opportunities to support diverse workforces and engagement throughout the duration of the project.

S 1000 Services and other things to be provided

S 1001 Services and other things for the use of the *Client, Project Manager* or Others to be provided by the *Contractor*

None.

S 1002 Services and other things to be provided by the *Client*

- The *Client* to issue all currently held information on the starting date of the contract. Information to include, but not limited to the following – existing surveys, UXO report, stats information, as built records (for pile wall and outlet “structure” immediately to the west of the wall end on the southern side), existing sheet pile wall condition reports, ground investigation reports, any other drawings, and any previous H&S files or other safety information.
- Notice of Entries, including landowner liaison by the *Client*
- Provision of all environmental support, surveys, reports and required permissions by the *Client*, to suit our programme requirements.
- Pre and post works structural surveys of the adjacent properties, reports and liaison with the occupants/owners by the *Client*

S 1100 Health and safety

S 1101 Health and safety requirements

The *Contractor* shall comply with all current Health and Safety Legislation. The *Contractor* shall discharge their duties in accordance with the requirements of the Construction (Design and Management) Regulations 2015.

The *Contractor* shall inform the Principal Designer and *Project Manager* of the following:

- The appointment of any Designers (temporary works, specialists, etc.).
- Design changes where safety considerations are required for all permanent works.

Procedures and policies as outlined in the *Client's* 'Constructing a better environment Safety, Health, Environment and Wellbeing (SHEW) Code of Practice (CoP)' document (Appendix C) shall be applied throughout the contract. In particular, the *Contractor* shall adhere to the specific competence and training requirements detailed in section 4.2. The *Contractor* shall demonstrate how H&S training will be carried out, the reporting procedures and commitment to the process.

The *Contractor* shall provide first aid facilities, materials and personnel trained in first aid, for the benefit of their own people, those of their subcontractors and the site staff of the *Project Manager*, *Client's* Technical Adviser and *Client*.

The *Contractor* shall copy the *Client* into all correspondence with the Principal Designer.

The *Contractor* shall provide regular toolbox talks to site personnel to ensure that health and safety issues, the requirements of the contract and the design and the contents of the method statements are communicated throughout the site team.

The *Contractor* shall report any health and safety incidents, "near misses", and instances of bad practice observed during the *works* period using the procedure outlined in "Environment Agency Operational Instruction 300_10_SD20: Reporting incidents at *Contractor*s' sites" (Appendix F). The *Contractor* shall follow the RIDDOR reporting procedure 'Constructing a Better Environment SHEW CoP'.

In undertaking the Works, the *Contractor* shall ensure the following:

- Zero utility strikes based on compilation of utility records pre-works
- Working near water to be managed
- Preventing water pollution
- Interface with the public to be managed, including zero incidents with members of the public and dust management in place

- Access and egress routes to be agreed and assessed by the *Contractor*
- Site PPE requirements enforced
- Site induction process in place
- Emergency procedures for accidents, fire, evacuation in place
- Parking facilities and traffic route information are provided
- Site access and security arrangements in place.

Where works are taking place on or adjacent to operational sites, the *Contractor* shall ensure that they arrange site inductions with the relevant parties to ensure they comply with the construction site health and safety procedures.

The *Contractor* shall carry out suitable fire risk assessments and arrange their own procedures and fire plan. Details must be included in the Construction Phase Plan prior to the commencement of work on site. It is expected that site-specific plans are produced covering:

- Main compound area
- Fuel and chemical storage facilities
- Other areas as assessed by the *Contractor*

The *Contractor* shall produce site-specific emergency plans covering:

- Water rescue and recovery, including contingencies for those parts of the site that may be subjected to flooding
- Working in the vicinity of overhead and underground services (service strike)
- Environmental Incidents
- Flooding

The *Contractor* shall provide full welfare provision for the site in accordance with schedule 2 of the CDM Regulations 2015, plus additional provisions as stated in Constructing a Better Environment SHEW Code of Practice, May 2018, sections 2.6, 2.7 and 4.8. Proposals, which will include a schematic showing the compound layout and welfare facilities, shall be fully detailed in the Construction Phase Plan (CPP) submitted to the *Client* for review under Regulation 16.

The *Contractor* shall submit monthly site progress reports to the *Client* or their representative, which include, as a minimum, the following information:

- Accident Reports – Reportable Accidents, Near Misses, etc.
- Site Safety Audits carried out during the month
- Update on site Welfare facilities supplied to *Works*
- Tool Box Talks given during the month
- Health & Safety Initiatives
- CDM Issues:
    - Update Information for F10 if one has been issued.
    - Design Changes

- Update Information for Construction Phase Plan
- Provision of information for Health & Safety File.

S 1102 Method statements

Detail the operations for which the *Contractor* is required to submit method statements and risk assessments to the *Project Manager* for acceptance.

All work shall be carried out using techniques to eliminate any risk of structural damage to the adjacent properties and trees, and to minimise potential complaints about noise and vibration.

The *Contractor* is responsible for any and all temporary works design and is to make due allowance in their programme for this and for any statutory approvals necessary.

The *Contractor* shall produce and issue to the Principal Designer Plus, for review and acceptance, a suitable Construction Phase Plan (CPP), which is to be submitted as early as practical but at least a minimum of 10 working days prior to the planned start of the *works*.

Method Statements need to be submitted for acceptance to the *Project Manager* and *Client's* Technical Adviser at least 2 weeks in advance of the intention to undertake the relevant site activity.

S 1103 Legal requirements

The Construction (Design and Management) Regulations, 2015, apply.

The *Contractor* shall fulfil the roles of Principal Contractor, Designer and Principal Designer under the Construction Design and Management Regulations 2015 for the duration of the *works*. The *Client* will confirm this appointment in writing. The *Client* shall employ a Principal Designer Plus for the duration of the *works*.

S 1104 Inspections

The *Project Manager* reserves the right to undertake regular checks on the *Contractor's* Health and Safety procedures including record of site inductions, tool box talks, confined space procedures, certifications, and PPE.

S 1200 Subcontracting

S 1201 Restrictions or requirements for subcontracting

Requirements are in accordance with the Collaborative Delivery Framework (CDF) schedules.

S 1202 Acceptance procedures

Requirements are in accordance with the Collaborative Delivery Framework (CDF) schedules.

S 1210 Procurement of subcontractors

Sub-contractors need to be selected using best value processes.

This requires the *Contractor* to demonstrate that they have made reasonable attempts to obtain three competitive tenders for all work in excess of £25,000.

The only exception to this is work which has been accepted (in writing) by the hub Commercial Services Manager for strategic suppliers or for emergency work.

S 1300 Title

S 1301 Marking

All Plant and Material procured under this contract must be marked as “The property of the Environment Agency” irrespective of where they are stored. All markings shall be to the satisfaction of the *Client*. The *Contractor* is to notify the *Client’s* Technical Adviser a minimum of 48 hours prior to the requirement for inspecting the marked items.

S 1302 Materials from Excavation and demolition

The *Contractor* has no title to materials from excavation or demolition. Any payment received by the *Contractor* for disposal of scrap metals associated with the works is to be applied as a credit to costs on this contract by the *Contractor*. The *Contractor* is responsible for the removal and appropriate disposal of general and contaminated waste from the Working Area, in accordance with the SWMP and Scope.

S 1400 Acceptance or procurement procedure (Options C and E)

None.

S 1500 Accounts and records (Options C and E)

S 1501 Additional Records

In addition to the requirement of Clause 52.2 of the NEC4 ECC Option C contract the following additional records shall be kept by the *Contractor:*

- Timesheets,
- Equipment records,
- Forecasts of the total Defined Cost (Forecasts are to include, but not be limited to costs to date, costs to completion including detailed breakdown of staff, subcontract and major material items), and
- Specific procurement and cost reports.

The above records shall be kept up to date on a weekly basis and filed in separate files, and be available for inspection by the *Project Manager*.

The format and presentation of records to be kept are to be accepted by the *Project Manager.*

S 1502 Application for Payment / Invoice

The *Contractor* is required to provide the backup to their application for payment in the following format:

[redacted]

Submission of an application for payment without this format of backup sheet will **not** be recognised or treated as a compliant submission.

A monthly report must be provided via FastDraft (using the carbon form) providing:

1. actual emissions to date,
2. (latest) outturn forecast (based on actuals and remaining emissions to outturn) and
3. (Latest) outturn budget / target (set to the verified forecast)

The FastDraft carbon form may be supported by details of actual emissions to date against an agreed breakdown of asset / service / product lines taken from the verified carbon assessment.

This will inform the EA of progress in reducing carbon during construction in the form of a variance between a latest outturn forecast (reported on FastDraft) and verified forecast.

S 1600 Parent Company Guarantee (Option X4)

Not used.

S 1700 *Client's* work specifications and drawings

S 1701 *Client's* work specification

The technical specification for the civil works is the 'Civil Engineering Specification for the Water Industry, 7th Edition', (CESWI 7) published by UK Water Industry Research Ltd in March 2011, augmented by the Supplementary Environment Agency's Minimum Technical Requirement and the Addendum to the Minimum Technical Requirements within Appendix B.

It is possible that conflicts and inconsistencies may arise between specification information. Notwithstanding the guidance provided within the Environment Agency Minimum Technical Requirements, the order of precedence for specification information shall be:

i. Scope (highest priority)
ii. Design Drawings (including Manual of Contract Documents for Highway Works Series 600 for backfilling and Series 1700 for grouted anchor structural concrete)
iii. Addendum to the Environment Agency Minimum Technical Requirements
iv. Environment Agency Minimum Technical Requirements, LIT 13258 04/05/2021, version 11, 4 May 2021.
v. Civil Engineering Specification for the Water Industry, CESWI 7th Edition

Nomenclature may vary between NEC4 and CESWI 7. Refer to the Environment Agency Minimum Technical Requirements, Operational Instruction 412_12_SD01 for clarification.

S 1702 Drawings

The Contractor shall refer to the following drawings and documents:

- PC2616-RHD-ZZ-05-RP-D-0005-Anderby Creek - Short term options - P04 DRAFT
- Anderby Creek Lane Referencing

PC2616-RHD-ZZ-05-RP-D-0003_Anderby Creek revised shortlist options for costs (3)

S 1703 Standards the *Contractor* will comply with

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

Ref	Report Name	Where used
	Project Cost and Carbon Tool	Costs
	Carbon Tools for budget calculation and reporting	
	Sustainability Measures Form	
	Timber Policy Documents	

	300_10 SHE handbook for managing capital projects	
	300_10_SD27 SHE Code of Practice	

Appendix 1 – Information Delivery Plan (IDP)

The *Contractor* shall adhere to the *Client's* Exchange Information Requirements (EIR) framework level minimum technical requirements.

All *Client* issued information referenced within the Information Delivery Plan (IDP) requires verifying by the *Contractor* unless it is referenced elsewhere within the Scope.

The *Contractor* shall register for an Asite Account and request access to the project workspace to view the IDP and update to create the MIDP.

Guidance on the IDP can be found here

Create the IDP on Asite and embed a PDF version as Appendix 1.

https://www.asite.com/login-home

Appendix 2 – Visualisation scope

Guidance on visualisation can be found [redacted]

A tool to aide in the identification and scoping of visualisation can be found in knowledge management [redacted]. Create a scope of visualisation requirements if needed and embed a PDF output here as Appendix 3.

Visualisation e-learning can be found on learning zone. Search visualisation.

Appendix 3 - Add extra appendices as required