NEC4 engineering and construction contract (ECC) Scope

Project / contract information

Project name	Dunball Sluice Refurbishment
Project 1B1S reference	ENV0000761C
Contract reference	35349
Date	10 May 2022
Version number	P04
Author	[redacted]

Revision history

Revision date	Summary of changes	Version number
07/02/2022	First issue	P01
11/02/2022	Client amendments	P02
24/03/2022	Further Client changes	P03
10/05/2022	Changes agreed during clarifications	P04

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 following version of the Minimum Technical Requirements:

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

Contents List

S 100 Description of the *works*

S 101 Description of the *works*

1. General

Dunball sluice is located 2 miles north of Bridgwater in Somerset and acts as the outfall structure between the King's Sedgemoor Drain and the tidal River Parrett flowing into the Bristol channel. The King's Sedgemoor Drain serves the Parrett Flood Relief Channel, protecting the urban area of Bridgwater and several villages within the Somerset Levels, including Northmoor, which flooded over several weeks in 2013/14.

Dunball sluice, built in 1971 is critical to the water management activities in the Somerset Levels and Moors area as well as forming a vital part of the sea defences for nationally and internationally designated freshwater habitats. This system provides protection to properties, farmland and infrastructure.

The refurbishment of Dunball Sluice is planned for 2022/23 and as part of this work drawings and specifications of the MEICA aspects of the sluice have been produced. These are detailed in S1700.

The *works* comprise of the following main elements:

- Refurbishment of 4 main sluice tidal flaps and replacement winches
- Refurbishment of 8 sluice gates
- Refurbishment of the steel top frame structure for each sluice gate
- Refurbishment of sluice gate counterweights/counterweight baskets
- Replacement of covers over sluice gate lifting gear
- Refurbishment of the tilting weirs for bypass culverts on north and south sides
- Refurbishment of penstocks within the bypass culverts
- Refurbishment of tidal flaps on the bypass culverts
- Installation of an otter ramp for wildlife to bypass the structure
- Replacement of control panel and electrical wiring throughout the asset
- Minor repairs to concrete elements
- Other miscellaneous works to extend the life of the asset.

S 102 Purpose of the Works/ Outcome required

The project seeks to maintain or improve the Standard of Protection afforded by the structure by increasing the residual life of components (mainly MEICA) nearing the end of their working life by a further 35 years. The asset is in a general poor state of repair which will inevitably lead to operational problems if no action is taken.

The objective of this project is to deliver engineering solutions for the defects which have been identified in order to maintain the Standard of Protection (SoP) currently provided and to continue the water level management function of the asset.

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

S 201 General constraints

The *Contractor* shall comply with the following constraints with regard to delivery of the *works*:

- Use of the Site – Dunball Sluice is an operational site that provides an important flood protection role. The *Contractor* shall obtain a Permit to Work from the *Client* prior to commencing work on the Site, see S504. In the event that a flood event is forecast, the *Contractor* shall work with the *Client* to agree actions to maximise the discharge capacity of the asset. Any action required to be taken by the *Contractor* as a result will be the subject of an instruction by the *Project Manager*.
- The *Client's* Operations Staff may need to attend the Site to operate the sluice gates and isolate power at any time during the *works*. In this event the *Contractor* shall work with the *Client* to facilitate access to manage the operation of the facility.
- Access to the Site – Access for all labour, plant and material movements is via the EA gate off the A38/Bristol Road. Refer to drawing ENV0000761C-ATK-RC-3XX-DR-ME-000011 (Dunball Site Boundary)
- Noise and vibrations – See MTR (LIT_13258)
- Working hours – See MTR (LIT_13258)
- Parking – Parking shall be within the *boundaries of the site* . No parking shall be allowed outside the *boundaries of the site* , unless within designated public car parks.
- Use of cranes – Cranes shall be positioned on the walkway between the sluice gate mechanisms, the hard standing for temporary pumps, land owned by the Client to the north of the sluice, or the car park only. The load bearing capacity of these structures is not known.
- The *Contractor* shall carefully consider the location of any construction plant with regard to the existing structures and channels to minimise any damage and risk to their stability. The *Contractor* shall undertake any further investigations considered necessary for temporary works design prior to undertaking the permanent works.
- Storage of fuel and chemicals – The *Contractor* shall provide designated fuel and COSHH storage. See MTR (LIT_13258) clauses 1.19.9 & 2.168.8.
- Pollution, ecological and environmental impacts – See also MTR LIT_13258 clause 1.19.
- The *Client* is committed to the environmental principles of stewardship and sustainability and has corporate goals to maintain and enhance the water environment. The *Contractor* shall provide the *works* in accordance with environmental best practice.
- The *Contractor* shall comply with the following current relevant environmental legislation, guidance and other such documentation in the delivery of the *works*:
    - BRE – Green Guide to Specification
    - BRE – Materials Information Exchange
    - CIRIA, SP122 – Waste Minimisation and Recycling in Construction (practical guidance)
    - CIRIA, C513 – The Reclaimed and Recycled construction materials Handbook.
    - CIRIA, C533 – Environmental Management in Construction.
    - CIRIA, C692 – Environmental Good Practice on Site (third edition).
    - Environment Agency Japanese Knotweed Code of Practice 2012.
    - Pollution prevention guidance on gov.uk
- Activities within the watercourse shall be carried out in such a manner as to minimise environmental disturbance and in accordance with *Contractor*'s Method Statements accepted by the *Supervisor*.

- Fish must be rescued prior to any dewatering activities. Any pumps will require a screen at the inlet. An Environment Agency approved fish rescue must be facilitated by the *Contractor*. The *Contractor* shall give the *Client* at least two weeks of notice of any planned dewatering activities.
- Archaeological requirements – See MTR LIT_13258 clauses 3.1 & 3.20.
- Tide Information – Dunball Sluice controls the flow of water from the King's Sedgemoor Drain into the River Parrett. The River Parrett is tidal. The *Contractor* shall plan their works to coincide with tidal conditions suitable for the *works*.
- The *Contractor* shall plan and undertake the *works* so that all of the four main sluice eyes are fully operational and able to discharge at full capacity when the Kings Sedgemoor Drain is operating at winter pen level (from 1 December through to 31 March each winter). No more than two of the four main eyes shall be taken out of service at any time during the *works*.
- Flood Risk Activity Permit (FRAP) – The *Contractor* shall obtain the FRAP for these *works* or gain formal agreement from the Environment Agency that the *works* are exempt.

The *Contractor* shall maintain and implement the Environmental Action Plan (EAP) for the construction stage to the satisfaction of the Environmental Clerk of Works (ECW). Environmental Action Plan document ref no: ENV0000761C-ATK-00-XXX-RP-EN-01 Version 1 (dated 11 Feb 2022).

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 *works* only with the *Client's* written permission.

S 203 Security and protection on the Site

Refer to Minimum Technical Requirements' (LIT_13258), Section 1.9.

The *Client* will hand over responsibility of security of the Site to the *Contractor* on commencement of the *works*. The *Contractor* will be responsible for security on the Site and protection of the public for the period of the *works*.

S 204 Security and identification of people

The *Contractor*'s procedures for security, vetting and identification of people working on or visiting the site shall apply.

S 205 Protection of existing structures and services

The sand bank on the north bank of the Kings Sedgemoor Drain shall not be disturbed or removed as this is a habitat for local wildlife.

S 206 Protection of the *works*

No specific requirements.

S 207 Cleanliness of the roads

S 208 Refer to Minimum Technical Requirements' (LIT_13258), Section 1.9.**Traffic Management**

The *Contractor* shall arrange and manage any required traffic, road closures and public highways.

S 209 Condition survey

Before commencement of the *works* on the Site, the *Contractor* undertakes 'Pre-starting condition surveys' of all highways, property, land and any other features which may be affected by the construction works (including boundaries, gates, fences, walls as well as land and surfaces (including the depth and condition of any topsoil, if present) within the Working Areas, access routes, site compounds and all private properties and structures adjacent to the Working Areas.

The pre-starting condition survey comprises as a minimum: photographs of the condition of the items listed in S 205, original features on the land and an inventory of all items moved by the *Contractor* and where they are stored.

The *Contractor* will make a note of any existing damage and bring this to the attention of the landowner or tenant. Photographs, surveys and inventories must be date stamped and copies held by the *Contractor*. Four copies shall be made and sent to the landowner, the *Client*, the *Client*'s estates officers, the *Project Manager*.

The *Contractor* undertakes similar 'Post-completion condition surveys' when the *works* are complete, and on dates agreed with the *Project Manager*.

The *Contractor* undertakes the condition surveys in conjunction with the *Project Manager*, accompanied by any others invited by the *Contractor* or *Project Manager*. The *Contractor* and *Project Manager* notify each other in advance if any others are invited. The *Contractor* will remedy damage attributable to the *Contractor*s negligence at their own cost.

The *Contractor* gives at least 3 working days' notice to the *Project Manager* prior to any condition survey.

The *Contractor* shall ensure that the survey record is stored in the BIM archive.

S 2010 Consideration of Others

The *Contractor* shall work to limit the impacts of the *works* on local residents and other land users.

S 2011 Control of site personnel

The *Contractor* shall ensure that all persons working on or visiting the Site during working hours 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.

A visitor's book will be maintained by the *Contractor* at the site compound location 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.

The *Contractor* shall make appropriate arrangements for the control of people working and visiting the Site.

The *Contractor* shall agree suitable arrangements for out-of-hours access by Environment Agency Operations teams, who may need to attend the site in an emergency to operate the sluice. The *Contractor* shall maintain regular contact with the Operations team so that out-of-hours operation of the sluice can be undertaken safely and in full knowledge of current work activities or hazards.

S 2012 Site cleanliness

The *Contractor* keeps 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.

S 2013 Waste materials

The *Contractor* shall removal all waste from the Site and recycle or dispose of it, as appropriate. The *Contractor* shall keep records of all waste and record its volume, weight and method of reuse, recycling or disposal in the Site Waste management Plan (SWMP).

S 2014 Deleterious and hazardous materials

Silt removed from the sluice as part of the works is assumed to be inert. If contamination is found then the disposal of this material would be subject to a Compensation Event.

S 300 *Contractor*'s design

S 301 Design responsibility

The *Contractor* shall design all items to be replaced as identified in the drawings and specification documents (See S 1701/1702). This includes, but is not limited to, the following key components:

- Main sluice tidal flap seals, hinges, winches, cables and pulley systems
- Bypass culvert tidal flap seals and hinges
- Main sluice gate seals, rollers, bearings, sprockets, chains, actuator support frame and guards.
- Bypass culvert tilting weir seals, pivot pins/bushes and bearings.
- Bypass culvert isolation penstock seals.
- Counterweight chains, idlers and brackets.
- Control and instrumentation panels, cable trays and cabling.
- Concrete repairs for identified surface defects

The *Contractor* shall be responsible for the design of all temporary and facilitation works to provide access for the refurbishment *works*.

S 302 Design submission procedures

The *Contractor* is required to supply a set of design calculations and drawings for technical review and acceptance by the *Client* prior to manufacture of any replacement parts.

Proposals for any refurbishment shall be supplied to the *Project Manager* by the *Contractor* for technical review by the *Client* prior to commencement of the works. The *Contractor* holds the responsibility for items that are refurbished.

The *Contractor* shall submit the designs and refurbishment proposals to the *Project Manager* for acceptance at least two weeks prior to the works relating to that item commencing.

S 303 Design approval from Others

No specific requirements.

S 304 *Client's* requirements

The *Client's* requirements for the parts of the *works* to be designed by the *Contractor* are detailed in the specifications listed in S1701. The *Contractor's* designs shall also comply with the EA MTRs relevant to each design element.

S 305 Design co-ordination

The *Contractor* shall coordinate with the parties identified in S301 in the preparation of their designs.

S 306 Requirements of Others

It is assumed that the incoming power supply for the site is adequate to provide the power requirements for the replacement electrical equipment. If consultation with utility providers or an upgraded supply is required then this will be a Compensation Event.

S 307 Copyright/licence

No specific requirements.

S 308 Access to information following Completion

The *Client* may wish to access the *Contractor*'s information regarding these w*orks* for up to three years following issue of the Defects Certificate.

S 309 Site investigations

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Condition surveys have already been conducted without any removal of components (by means of drone surveys). Further condition surveys are required when items have been removed such that closer inspections can be carried out on items such as sluice gates, tidal flaps, tilting weirs etc. These inspections shall be carried out by the *Contractor* but may require the presence of the lead Designer The results of these detailed inspections will inform the decision as to whether items need to be replaced or refurbished. If items that are identified for refurbishment are found on inspection to require replacement, then the *Project Manager* shall notify the *Contractor*.

S 3010 Health and Safety

The refurbishment of Dunball sluice is notifiable under the Construction (Design & Management) Regulations (CDM 2015).

The following roles are defined under CDM:

Client:	Environment Agency
Principal Designer:	Atkins Ltd
Principal Contractor:	Keir Group plc
Designer:	Atkins Ltd

S 400 Completion

S 401 Completion definition

The following are absolute requirements for Completion to be certified:

- *Contractor* to supply marked up drawings to inform the As-Built drawing production.
- *Contractor* to supply copies of material datasheets for any materials used in the construction of the *works* for inclusion in the Health and Safety File.
- Population of the *Client's* latest version of the Project Cost Tool, or its successor
- Transfer to the *Client* databases of BIM data
- Delivery of the Final Carbon Report

S 402 Sectional Completion definition

Not used.

S 403 Training

Training shall be provided by the *Contractor* on the use of the replacement control panel. The *Contractor* shall arrange for this to l be provided by the manufacturer supplying the replacement control panel.

S 404 Final Clean

On Completion, the *Contractor* shall return the Site to the condition in which it was prior to the *works* to the satisfaction of the *Client.*

S 405 Security

The *Contractor* shall return the Site to the security arrangements in place prior to the *works*. The *Contractor* shall return all permits, keys, passes, etc. to the *Client* on Completion.

S 406 Correcting Defects

The *Contractor* shall make their best endeavours to correct all Defects prior to demobilising from the Site. After demobilising from the Site the *Contractor* shall contact the *Client* and Senior User to arrange access.

The *Contractor* shall inform the *Project Manage*r and *Supervisor* of their programme for correcting the Defects and shall submit their Risk Assessment and Method Statement for the planned work at least two weeks prior to the planned work.

S 407 Pre-Completion arrangements

Prior to Completion the *Contractor* shall arrange a joint inspection with the *Supervisor, 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

S 501 Programme requirements

The *Contractor* shall:

- Develop a fully resourced programme that shall show the period for construction including necessary time for internal reviews, external consultation and securing statutory approvals.
- Show linkages between the activities and products and the key activities and deliverables shall be highlighted.

The programme is to show the progress and percentage completion of each activity.

The programme complies with the requirements of Clause 31.2.

In preparing the Programme and Critical Path the *Contractor* shall show clearly the co-ordination of the work with the requirements of the *Client* , Statutory Bodies, Public Authorities and Utility Companies and shall make allowance for giving notices in accordance with the Conditions of Contract and the Special Requirements in relation to the Authorities and other Bodies..

S 502 Programme arrangement

No specific requirements.

S 503 Methodology statement

Method Statements include full particulars of the methods, timing and sequence of construction, including the use and design of temporary works, Materials and Plant and Equipment proposed by the *Contractor*. Method statements shall contain sufficient information to enable the *Project Manager* to assess any likely detriment to either the proposed or the existing works or to the *Client's* overall objectives.

All method statements submitted to the *Project Manager* are to include environmental management actions where relevant and will be reviewed by the Environmental Clerk of Works (ECW).

The *Contractor* issues method statements 2 weeks in advance of carrying out items of work. The *Contractor* allows the period for reply for acceptance or rejection of method statements. Work does not commence until the *Project Manager* has accepted the relevant method statement. The *Contractor* does the work in accordance with the accepted method statement.

Method statements submitted with a programme for acceptance include but are not limited to the following matters:

- Health & safety measures
- Extent of Working Areas and protective barriers
- Access to Working Areas, including confined spaces
- The implementation of relevant statutory regulations
- The design and construction of temporary works and de-watering measures
- How the environmental impact of the activities are to be minimised
- Equipment requirements, siting and mode of operation
- Labour requirements and supervision
- Delivery and storage of Plant and Materials
- Provision of access to third parties
- Details of the construction sequence
- Details of working methods
- Detailed programme

- Result of any consultation with third parties
- Contingency plans in the event of flooding, other difficulties or emergencies
- Risk and COSHH assessments.

S 504 Work of the *Client* and Others

The *works* are to be carried out on an operational site and the site constraints detailed in S201 shall be adhered to.

The *Contractor*'s programme shall identify all action or hold points, intervention and works to be carried out by the *Client* and others. Refer as necessary to sections S 901 and S 902.

S 505 Information required

The *Contractor* shall submit a schedule of information to be provided, who it is to be provided by, and the date by which it is to be provided. The schedule shall allow at least two weeks for the information to be provided.

S 506 Revised programme

The *Contractor* shall submit a revised programme on a monthly basis, or:

- On agreement of a Compensation Event
- Following a flood alert and an instruction to remove any of the downstream main tidal flap supports
- If tides are forecast to be higher than astronomical tide tables

The *Contractor* shall detail the reasons for the programme change together with the revised programme for acceptance by the *Project Manager*.

S 600 Quality management

S 601 Samples

Requirements for material samples for replacement components are detailed in the specifications listed in S1701

S 602 Quality Statement

No specific requirements.

S 603 Quality management system

The *Contractor* shall operate a third party approved quality management system in accordance with BS EN ISO 9001.

S 604 BIM requirements

All information acquired during these *Works* shall be issued to the BIM Information Manager.

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

The *Contractor* meets the requirements for delivery of documents and other information set out in the BIM Information Delivery Plan as detailed in Appendix A.

S 700 Tests and inspections

S 701 Tests and inspections

Detailed inspections shall be carried out on mechanical items as they are removed from the structure. The following procedure shall be followed:

- *Contractor* to remove equipment from the sluice for initial inspections on site.
- *Contractor* to disassemble all items that may require inspection including those that are to be replaced, with minimum damage.
- Once everything has been removed and cleaned, an inspection of all the components shall be undertaken with the *Client's* designer and *Contractor* present, to determine which items can be refurbished and which have to be replaced.
- Components identified for refurbishment will then be transported by the *Contractor* to their off-site working area where existing paint or other surface treatments are to be removed.
- A second inspection of all the components shall be undertaken with the *Client's* designer and *Contractor* present, to confirm that items can be refurbished.

Inspections of the main sluice gate cills, penstock cills and tilting weir cills shall be jointly undertaken by the *Contractor* and the *Client's* designer to ascertain if any repairs are required to the concrete structure in these areas. Any repairs required to the concrete shall be notified to the *Contractor* by the *Project Manager*

The *Contractor* shall also arrange for the repair of the damage and defects identified in the civil visual survey report ENV0000761C-ATK-XX-3XX-RP-C-000001.

S 702 Management of tests and inspections

The *Contractor* shall manage all inspections. The *Contractor* shall coordinate with their subcontractors and the *Client's* designer to ensure that all inspections are carried out and that they are carried out safely and efficiently.

S 703 Covering up completed work

No specific requirements.

S 704 *Supervisor's* procedures for inspections and watching tests

Not used

S 800 Management of the *works*

S 801 Project team – Others

The project team includes

- Client's Project Manager (PCM)
- Client's Senior User (Area client)

The following advise the *Client, Project Manager* and *Supervisor* in undertaking their duties

(but have no formal role under the contract):

- Environmental Clerk of Works (ECW) – general advice on EIA and ecology.
- Environment Agency Fisheries Recreation and Biodiversity Officer – advises on ecology.
- Environment Agency Fisheries Officer – advises on fisheries.

All of the above are allowed to visit and inspect the Site and the *works*, acting within the constraints of the *Contractor's* health and safety procedures.

S 802 Communications

The *Contractor* shall agree the following requirements with the *Client* and *Project Manager*:

- Meetings, attendees and meeting records
- Reporting requirements (e.g. progress reports)
- Information requirements
- Electronic systems and communications
- Use of standard forms and template
- Terminology and abbreviations

The Contract shall be administered using the standard forms and schedules that are incorporated into the Collaborative Delivery Framework agreement.

Monthly progress meetings are to be held either at the Site or at the *Client's* area office. Attendees shall include the *Contractor's* project manager, agent and quantity surveyor as a minimum.

The *Contractor* shall prepare monthly progress reports, submitted in pdf format to the *Project Manager* for distribution to the project team at least 3 working days in advance of each monthly progress meeting. The progress report shall include those details listed in the Minimum Technical Requirements Cl 1.25 and also the following:

- Progress:
    - activities started, progressed and completed during the month
    - activities planned for the forthcoming month
    - summary of ground conditions encountered
    - summary of weather conditions experienced
    - instructed changes to the Scope
- Labour/Materials/Equipment:
    - summary of principal equipment and materials brought to Site or taken off Site
    - subcontractors on Site
    - approximate numbers on Site
- Programme:
    - marked up copy of current programme showing progress and percent activities complete
    - revised programme (if appropriate).

- Issues: problems encountered or anticipated
- Information/services required from the *Client*
- Information required by the *Contractor*
- Public Relations:
    - contacts with the public or other third parties
    - complaints or claims
- Health and safety incidents
- Environmental:
    - breaches of the Environmental Action Plan;
    - carbon calculator update
    - pollution incidents, etc.
    - recycling and waste reports
- Efficiency register
- Representative progress photographs
- Any other issue/subject requested by the *Project Manager*

The *Contractor* shall comply with the following:

- Emergency Contacts List: develop and maintain for the duration of construction, copied to the *Client*, *Project Manager*, and *Supervisor*.
- Risk reduction meeting: held fortnightly, attended by the *Contractor*, *Project Manager* and *Supervisor*, chaired by the *Project Manager*.
- Summary 2 week look ahead programme: updated and issued on a weekly basis to the *Project Manager* and *Supervisor*.
- Communications to and from the *Contractor* and storage of project files sent by Asite as agreed with the *Project Manager*.
- *Client's* standard contract forms on FastDraft shall be used.
- All contract communications shall contain a unique reference number, appropriately titled.
- All communications shall be written in plain English such that they do not rely on the reader's knowledge of specific terminology or abbreviations.

S 900 Working with the *Client* and Others

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

Dunball Sluice is an operational site. The *Contractor* shall coordinate with the *Client* to ensure that the sluice can be used to provide its flood protection function.

The *Contractor* shall grant the *Client* access to take control of the Site during a Flood Event.

The *Contractor* shall grant the *Client* access to the Site to undertake routine maintenance tasks if required.

S 902 Co-operation

No specific requirement.

S 903 Co-ordination

No specific requirement.

S 904 Authorities and utilities providers

Not used

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

No specific requirement.

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*

The *Contractor* shall comply with the requirements of the MTR (LIT 13258) section 1.2 with regard to services, etc. for others.

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

The *Client* will provide the following:

- Access to the Site
- Space for the welfare facilities within the *boundaries of the site*
- Space for equipment inspections within the *boundaries of the site*
- Space for Plant and Materials within the *boundaries of the site*

Stop logs for the upstream and downstream side of the structure are available from the Environment Agency. These are designed specifically for the structure and are adequate for upstream water levels up to 4.57mAOD and downstream water levels up to 3.65mAOD. The stoplogs will be delivered to site by the fabricator.

Arrangements for delivery of the stop logs to the EA Bradney depot when the works have been completed will need to made by the *Contractor* with the EA Field Team.

The *Contractor* shall inspect the stop logs prior to use in order to confirm they are appropriate for undertaking the *works*. The stop logs shall be returned to the Bradney depot in good condition.

Stop logs for the bypass culverts are available from the Environment Agency and are stored on the Dunball Sluice site. The *Contractor* shall inspect the stop logs prior to use in order to confirm they are appropriate for undertaking the *works*. The stop logs shall be returned in good condition. The *Contractor* shall supply any additional or replacement stop logs required to undertake the *works*. All stop logs will be retained by the *Client* on completion of the *works*.

The *Client* will provide advice on fish rescues as required. The *Contractor* shall inform the *Project Manager*, giving two weeks' notice before any fish rescues will be required.

S 1003 CEEQUAL

The *Contractor* shall complete the CEEQUAL assessment in line with the provided CEEQUAL scoping note based on the CEEQUAL V6 Technical Manual requirements. For this project stage, 10 assessment issues have been scoped in. These are:

- 1.1 Sustainability leadership
- 1.2 Environmental management
- 3.1 Consultation and engagement
- 4.3 Protection of biodiversity
- 4.4 Change and enhancement of biodiversity
- 4.5 Long term management of biodiversity
- 6.1 Water pollution
- 7.2 Reducing whole-life carbon emissions
- 7.6 Construction waste management
- 7.7 Energy use

The *Contractor* shall provide a qualified CEEQUAL assessor and scope the individual questions within the assessment issues identified for agreement with the *Client*,

The *Contractor* shall set up and undertake the assessment and evidence-gathering throughout the *works*, using the CEEQUAL online tool via BREEAM Projects. The *Contractor* shall, supported by the *Client* and designer ensure that all of the evidence is uploaded prior to completion of the *works*.

The *Contractor* shall support the *Client* with scope submission to BRE as well as provide supporting information to the *Client* when handling verifier consultation.

The sustainability (CEEQUAL) lead is an integrated member of the project team attending progress meetings, key project workshops including but not limited to options/ design and risk as required providing an update against CEEQUAL targets and championing sustainability across the project team.

The *Contractor* shall provide all evidence to the *Client* upon request, to enable programme-level external verification.

S 1100 Health and safety

S 1101 Health and safety requirements

The *Contractor* shall comply with the requirements of:

- The *Client's* Constructing a Better Environment' 677_15 Safety, Health, Environment and Wellbeing (SHEW) Code of Practice (CoP) Version 2 dated May 2018.
- The *Client's* Operational Instruction 300_10; Safety, Health and Environment (SHE) handbook for managing capital projects Version 6 dated April 2019.

The *Contractor* shall provide information as requested to allow the Health and Safety File to be completed.

The *Contractor* shall register with the Environment Agency's Area Flood Warning team before commencing construction. The *Contractor* may arrange regular weather forecast information from the Environment Agency's Flood Warning team. The *Client* is not liable for any consequences if it is unable to provide either flood warnings or weather forecasts, of if they prove inaccurate.

If a flood warning is issued in advance on the basis of a forecast that water levels will exceed the Compensation Event threshold then the *Contractor* shall notify the *Project Manager*. Any action to be taken by the *Contractor* as a result of the forecast will be confirmed by a Project Manager's Instruction.

A copy of the HSE F10 Notification will be provided to the *Contractor* prior to commencement of the *works*.

S 1102 Method statements

The *Contractor* shall submit Risk Assessments and Method Statements for all works activities to the *Supervisor* two weeks prior to the associated work commencing.

S 1103 Legal requirements

The *Contractor* shall fulfil the roles of Principal Contractor under the Construction Design and Management Regulations 2015 for the duration of the *works*.

S 1104 Inspections

The *Contractor* shall make all health and safety records available to the *Project Manager* for inspection if required.

S 1200 Subcontracting

S 1201 Restrictions or requirements for subcontracting

No specific requirements.

S 1202 Acceptance procedures

No specific requirements.

S 1300 Title

Not used

S 1301 Marking

Not used

S 1302 Materials from Excavation and demolition

Not used

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

Not used

S 1500 Accounts and records (Options C and E)

S 1501 Additional Records

The following records shall be kept by the *Contractor*:

- Timesheets and site allocation sheets,
- 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, sub-contract and major material items)
- Specific procurement and cost reports

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

S 1600 Parent Company Guarantee (Option X4)

Not used

S 1700 *Client's* work specifications and drawings

S 1701 *Client's* work specification

The Project-Specific Technical Specification is the Environment Agency's Minimum Technical Requirements, which are amendments and addenda to the Civil Engineering Specification for the Water Industry (CESWI) 7th Edition. The following additional project-specific amendments and addenda also apply.

In the event of conflict between Environment Agency's Minimum Technical Requirements and the following additional project-specific amendments and addenda, the following additional project-specific amendments and addenda shall prevail.

The following specifications and documents apply. In case of inconsistency the documents shall be interpreted in the following descending order of precedence:

- *ECC Scope* (this document) Version P04
- Environment Agency Minimum Technical Requirements (MTR) Version 12.
- CESWI 7

The project specific specifications for the *works* are detailed in the table below.

Description	Document Number	Revision
Main Sluice Gate Tidal Flaps Specification	ENV0000761C-ATK-RC-3XX-SP-ME-000001	P02
Bypass Culvert Tidal Flaps Specification	ENV0000761C-ATK-RC-3XX-SP-ME-000002	P02
Main Sluice Gates Specification	ENV0000761C-ATK-RC-3XX-SP-ME-000003	P02
Bypass Culvert Tilting Weir Specification	ENV0000761C-ATK-RC-3XX-SP-ME-000004	P02
Bypass Culvert Isolation Penstock Specification	ENV0000761C-ATK-RC-3XX-SP-ME-000005	P02
Otter Pass Specification	ENV0000761C-ATK-RC-3XX-SP-ME-000006	P02
Counterweights Specification	ENV0000761C-ATK-RC-3XX-SP-ME-000008	P02
Electrical Installation User Requirements Specification	ENV0000761C-ATK-NI-3XX-SP-ME-000009	P01
Electrical Installation Specification	ENV0000761C-ATK-NI-3XX-SP-ME-000010	P01

In addition to these, the *Contractor* shall arrange for the repair of the damage and defects identified in the following civil visual survey (as previously mentioned in S701):

Description	Document Number	Revision
Civils Visual Survey Report	ENV0000761C-ATK-XX-3XX-RP-C-000001	C01

The *Contractor* shall replace all handrails and access ladders throughout the Site on a like-for-like basis, to meet modern standards (BS EN ISO 14122). The details of the quantities are listed below for the various areas of the site. The *Client* is reviewing future handrail requirements throughout the site and the *Project Manager* will issue an instruction if any changes to the type of handrail, fixings and/or locations for handrailing are required.

- Downstream area (tidal flap walkway area)
  - 102m handrailing (6x4.5m, 3x25m)
  - Replacement ladders from upper level (2-off)

- Upstream area (KSD side)
    - 24m handrailing
- Upper walkway area (around sluice gate mechanisms)
    - 83m handrailing (3x25m, 4x2m)
    - Gated access to actuators: 8-off gates
    - Replacement ladders within sluice gate chambers (16-off)
- Pump platform
    - 100m handrailing (80m+20m)
- North Tilting weir area
    - 20m handrailing
- South Tilting weir area
    - 25m handrailing
- Car park area/roadway to control building
    - 94m handrailing (20m+7m+67m)
- South downstream wall
    - 10m handrailing
- North downstream wall
    - 10m handrailing

S 1702 Drawings

The drawings for the *works* are detailed in the table below.

Description	Document Number	Revision
Main Sluice Gate Tidal Flaps General Arrangement	ENV0000761C-ATK-RC-3XX-DR-ME-000001	P02
Bypass Culvert Tidal Flaps General Arrangement	ENV0000761C-ATK-RC-3XX-DR-ME-000002	P02
Main Sluice Gates General Arrangement	ENV0000761C-ATK-RC-3XX-DR-ME-000003	P02
Bypass Culvert Tilting Weir General Arrangement	ENV0000761C-ATK-RC-3XX-DR-ME-000004	P02
Bypass Culvert Isolation Penstock General Arrangement	ENV0000761C-ATK-RC-3XX-DR-ME-000005	P02
Otter Pass General Arrangement	ENV0000761C-ATK-RC-3XX-DR-ME-000006	P02
Counterweights General Arrangement	ENV0000761C-ATK-RC-3XX-DR-ME-000008	P02
Electrical Single Line Diagram	ENV0000761C-ATK-RC-3XX-DR-ME-000009	P01

S 1703 Standards the *Contractor* will comply with

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

Ref	Report Name	Where used
300_10	SHE handbook for managing capital projects	
300_10_SD27	SHE Code of Practice	

All *Client* issued information referenced within the Information Delivery Plan remains within the *Site Information* unless it is referenced elsewhere within the *Scope*