

1 General

The *Consultant* is

Ove Arup & Partners Ltd

Name and address etc. of *Consultant*

for communications

Enter email address

truction Value

The *fee percentage* is

Name the *key persons* to be working on the contract

insert name	Name (3)
insert job	Job
insert responsibilities	Responsibilities
insert qualifications	Qualifications
insert experience	Experience

insert name	Name (4)
insert job	Job
insert responsibilities	Responsibilities
insert qualifications	Qualifications
insert experience	Experience

insert name	Name (5)
insert job	Job
insert responsibilities	Responsibilities
insert qualifications	Qualifications
insert experience	Experience

insert name	Name (6)
insert job	Job
insert responsibilities	Responsibilities
insert qualifications	Qualifications
insert experience	Experience

insert name	Name (7)
insert job	Job
insert responsibilities	Responsibilities
insert qualifications	Qualifications
insert experience	Experience

These are items which could affect the total of the Prices or delay Completion, which are known about at the time of completing this Contract Data

the Contract Data is;

This is optional and is inserted if a programme is being initially provided

rices is

Only include and complete if *activity schedule* Options A or C

Resolving and avoiding disputes

Enter postal address

r communications

Enter email address

insert name	Name (2)
insert address	address Line 1
insert address	address Line 2
insert address	address Line 3
insert address	address Line 4
insert address	address Line 5
insert address	address Line 6
insert email address	Email address for communications

Enter postal address

Enter email address

X10: Information modelling;

The *information execution plan* identified in the Contract Data is;

If an *information execution plan* is to be identified in the Contract Data

X10 is always used

to be developed within 2 weeks of award



Framework: Collaborative Delivery Framework  
Supplier: Ove Arup & Partners Ltd  
Company Number: 01312453  
  
Geographical Area: Midlands  
Project Name: Mids - CDF lot 1 - Navigation ALN  
Project Number: ENV0002759C  
  
Contract Type: Professional Service Contract  
Option: Option C  
  
Contract Number: 32035

Revision	Status		Originator		Reviewer		Date

PROFESSIONAL SERVICE CONTRACT under the Collaborative Delivery Framework  
CONTRACT DATA

Project Name Mids - CDF lot 1 - Navigation ALN

Project Number ENV0002759C

This contract is made on 15 February 2021  
between the *Client* and the *Consultant*

- This contract is made pursuant to the Framework Agreement (the "Agreement") dated 01st day of April 2019 between the *Client* and the *Consultant* in relation to the Collaborative Delivery Framework. The entire agreement and the following Schedules are incorporated into this Contract by reference
- Schedules 1 to 22 inclusive of the Framework schedules are relied upon within this contract.
- The following documents are incorporated into this contract by reference  
Arup - PSC - Navigation - Scope - 2021-01-05 V2 sw. Version 1, dated 08/07/2020

Part One - Data provided by the *Client*

Statements given in  
all Contracts

1 General The *conditions of contract* are the core clauses and the clauses for the following main Option, the Option for resolving and avoiding disputes and secondary Options of the NEC4 Professional Service Contract June 2017.

Main Option	Option C	Option for resolving and avoiding disputes	W2
-------------	----------	--	----

Secondary Options

- X2: Changes in the law
- X9: Transfer of rights
- X10: Information modelling
- X11: Termination by the *Client*
- X18: Limitation of liability
- X20: Key Performance Indicators
- Y(UK)2: The Housing Grants, Construction and Regeneration Act 1996
- Y(UK)3: The Contracts (Rights of Third Parties) Act 1999
- Z: *Additional conditions of contract*

The *service* is Provide various professional support services as outlined in the scope.

The *Client* is

Address for communications

Address for electronic communications

The *Service Manager* is  
Address for communications

Address for electronic communications

The *Scope* is in  
Arup - PSC - Navigation - Scope - 2021-01-05 V2

The *partner contract* is

The *language of the contract* is English

The *law of the contract* is  
the law of England and Wales, subject to the jurisdiction of the courts of England and Wales

The period for reply is 2 weeks

The *period for retention* is 6 years following Completion or earlier termination

The following matters will be included in the Early Warning Register

Early warning meetings are to be held at intervals no longer than 2 weeks

## 2 The *Consultant's* main responsibilities

The *key dates* and *conditions* to be met are  
*conditions* to be met  
 'none set'  
 'none set'  
 'none set'

*key date*  
 'none set'  
 'none set'  
 'none set'

The *Consultant* prepares forecasts of the total Defined Cost plus Fee and *expenses* at intervals no longer than 4 weeks

## 3 Time

The *starting date* is 09 July 2020

The *Client* provides access to the following persons, places and things  
 access *access date*

The *Consultant* submits revised programmes at intervals no longer than 4 weeks

The *completion date* for the whole of the *service* is 31 March 2021

The period after the Contract Date within which the *Consultant* is to submit a first programme for acceptance is 4 weeks

## 4 Quality management

The period after the Contract Date within which the *Consultant* is to submit a quality policy statement and quality plan is 4 weeks

The period between Completion of the whole of the *service* and the *defects date* is 26 weeks

## 5 Payment

The *currency of the contract* is the £ sterling

The *assessment interval* is Monthly

The *Client* set total of the Prices is

The *expenses* stated by the *Client* are as stated in Schedule 9

The *interest rate* is 2.00% per annum (not less than 2) above the Base rate of the Bank of England

The locations for which the *Consultant* provides a charge for the cost of support people and office overhead are All UK Offices

If Option C is used

The *Consultant's share percentages* and the *share ranges* are:

<i>share range</i>				<i>Consultant's share percentage</i>
less than		80 %		0 %
from	80 %	to	120 %	as set out in Schedule 17
greater than		120 %		as set out in Schedule 17

## 6 Compensation events

These are additional compensation events

- Managing and mitigating the impact of Covid 19 and working in accordance with Public Health England guidance, as may vary from time to time, between 1st November 2020 and 31st March 2021
- 'not used'
- 'not used'
- 'not used'
- 'not used'

## 8 Liabilities and insurance

These are additional *Client's* liabilities

1. 'not used'
2. 'not used'
3. 'not used'

The minimum amount of cover and the periods for which the *Consultant* maintains insurance are

EVENT	MINIMUM AMOUNT OF COVER	PERIOD FOLLOWING COMPLETION OF THE WHOLE OF THE <i>SERVICE</i> OR TERMINATION
The <i>Consultant's</i> failure to use the skill and care normally used by professionals providing services similar to the <i>service</i>	£5,000,000 in respect of each claim, without limit to the number of claims	12 years after Completion
Loss of or damage to property and liability for bodily injury to or death of a person (not an employee of the <i>Consultant</i> ) arising from or in connection with the <i>Consultant</i> Providing the Service	£15,000,000 in respect of each claim, without limit to the number of claims	12 years after Completion
Death of or bodily injury to the employees of the <i>Consultant</i> arising out of and in the course of their employment in connection with the contract	<i>Legal minimum</i> in respect of each claim, without limit to the number of claims	<i>For the period required by law</i>
The <i>Consultant's</i> total liability to the <i>Client</i> for all matters arising under or in connection with the contract, other than the excluded matters is limited to	£5,000,000	

#### Resolving and avoiding disputes

The *tribunal* is litigation in the courts

The *Adjudicator* is  
Address for communications 'to be confirmed'

Address for electronic communications ['to be confirmed'](#)

The *Adjudicator nominating body* is The Institution of Civil Engineers

#### Z Clauses

##### Z1 Disputes

Delete existing clause W2.1

##### Z2 Prevention

The text of clause 18 Prevention is deleted.

Delete the text of clause 60.1(12) and replaced by:

The *service* is affected by any of the following events

- War, civil war, rebellion, revolution, insurrection, military or usurped power;
- Strikes, riots and civil commotion not confined to the employees of the *Consultant* and sub consultants,
- Ionising radiation or radioactive contamination from nuclear fuel or nuclear waste resulting from the combustion of nuclear fuel,
- Radioactive, toxic, explosive or other hazardous properties of an explosive nuclear device,
- Natural disaster,
- Fire and explosion,
- Impact by aircraft or other aerial device or thing dropped from them.

### Z3 Disallowed Costs

Add the following in second bullet of 11.2 (18) add:

(including compensation events with the Subcontractor, i.e. payment for work that should not have been undertaken).

Add the following additional bullets after 'and the cost of ':

- Mistakes or delays caused by the *Consultant's* failure to follow standards in Scopes/quality plans
- Reorganisation of the *Consultant's* project team
- Additional costs or delays incurred due to *Consultant's* failure to comply with published and known guidance or document formats
- Exceeding the Scope without prior instruction that leads to abortive cost
- Re-working of documents due to inadequate QA prior to submission, i.e. grammatical, factual arithmetical or design errors
- Production or preparation of self-promotional material
- Excessive charges for project management time on a commission for secondments or full time appointments (greater than 5% of commission value)
- Any hours exceeding 8 per day unless with prior written agreement of the *Service Manager*
- Any hours for travel beyond the location of the nearest consultant office to the project unless previously agreed with the *Service Manager*
- Attendance of additional individuals to meetings/ workshops etc who have not been previously invited by the *Service Manager*
- Costs associated with the attendance at additional meetings after programmed Completion, if delay is due to *Consultant* performance
- Costs associated with rectifications that are due to *Consultant* error or omission
- Costs associated with the identification of opportunities to improve our processes and procedures for project delivery through the *Consultant's* involvement
- Was incurred due to a breach of safety requirements, or due additional work to comply with safety requirements
- Was incurred as a result of the *Client* issuing a Yellow or Red Card to prepare a Performance Improvement Plan
- Was incurred as a resulting of rectifying a non-compliance with the Framework Agreement and/or any call off contracts following an audit

### Z4 Share on termination

Delete existing clause 93.3 and 93.4 and replace with:

93.3 In the event of termination in respect of a contract relating to services there is no *Consultant's* share'

### Z6 The Schedule of Cost Components

The Schedule of Cost Components are as detailed in the Framework Schedule 9.

### Z7 Aggregated Consultant's share

Delete existing clauses 54 and 93.3 and replace with:

54.1 The *Service Manager* assess the *Consultant's* share of the difference between the Aggregated Total of the Prices and the Aggregated Price for Service Provided to Date.

The difference is divided into increments falling within each of the *share ranges*. The limits of a share range are the Aggregated Price for Service Provided to Date divided by the Aggregated Total of the Prices, expressed as a percentage. The *Consultant's* share equals the sum of the products of the increment within each share range and the corresponding *Consultant's* share percentage.

54.2 If the Aggregated Price for Service Provided to Date is less than the Aggregated Total of the Prices, the *Consultant* is paid its share of the saving. If the Aggregated Price for Service Provided to Date is greater than the Aggregated Total of the Prices, the *Consultant* pays its share of the excess.

54.3 If, prior to the Completion Date, the Price for Service Provided to Date exceeds 110% of the total of the Prices, the amount in excess of 110% of the total of the Prices is retained from the *Consultant*.

54.4 The *Service Manager* makes a preliminary assessment of the *Consultant's* share at Completion of the Whole of the *service* using forecasts of the final Aggregated Price for Service Provided to Date and the final Aggregated Total of Prices. This share is included in the amount due following Completion of the whole of the *services*.

54.5 The *Service Manager* makes a final assessment of the *Consultant's* share, using the final Aggregated Price for Service Provided to Date and the final Aggregated Total of the Prices. This share is included in the final amount due.

93.3 If there is a termination except if Z4 applies, the *Service Manager* assesses the *Consultant's* share after certifying termination. The assessment uses as the Aggregated Price for Service Provided to Date the sum of

- the total of
  - the Defined Cost which the *Consultant* has paid and
  - which it is committed to pay for work done before termination
- and
- the total of
  - the Defined Cost which the *Consultant* or *Contractor* has paid and
  - which it is committed to pay

in the *partner contract* before the date the termination certificate is issued under this contract.

The assessment uses as the Aggregated Total of the Prices the sum of

- the total of
  - the lump sum price for each activity which has been completed and
  - a proportion of the lump sum price for each incomplete activity which is the proportion of the work in the activity which has been completed
- and
- the total of
  - the lump sum price for each activity which has been completed and
  - a proportion of the lump sum price for each incomplete activity which is the proportion of the work in the activity which has been completed

and the sum of the prices for the services provided to date in the *partner contract*.

Add:

11.2(25) The Aggregated Total of the Prices is sum of

- the total of the Prices and
- the total of the Prices in the partner contract

11.2(26 ) The Aggregated Price for Service Provided to Date is the sum of

- the Price for Service Provided to Date and
- the Price for Service Provided to Date or the Price for Work Done to Date in the partner contract.

### Z23 Linked contracts

Issues requiring redesign or rework on this contract due to a fault or error of the *Consultant* will neither be an allowable cost under this contract or any subsequent contract, nor will it be a Compensation event under this contract or any subsequent contract under this project or programme.

### Z24 Requirement for Invoice

Add the following sentence to the end of clause 51.1:

The Party to which payment is due submits an invoice to the other Party for the amount to be paid within one week of the *Service Manager's* certificate.

Delete existing clause 51.2 and replace with:

- 51.2 Each certified payment is made by the later of
- one week after the paying Party receives an invoice from the other Party and
  - three weeks after the assessment date, or, if a different period is stated in the Contract Data, within the period stated.

If a certified payment is late, or if a payment is late because the *Service Manager* has not issued a certificate which should be issued, interest is paid on the late payment. Interest is assessed from the date by which the late payment should have been made until the date when the late payment is made, and is included in the first assessment after the late payment is made

### Z25 Risks and insurance

The *Consultant* is required to submit insurances annually as Clause Z4 of the Framework Agreement



Secondary Options

OPTION X2: Changes in the law

The *law of the project* is the law of England and Wales, subject to the jurisdiction of the courts of England and Wales

OPTION X10: Information modelling

The period after the Contract Date within which the *Consultant* is to submit a first Information Execution Plan for acceptance is 2 weeks

OPTION X18: Limitation of liability

The *Consultant's* liability to the *Client* for indirect or consequential loss is limited to £1,000,000.00

The *Consultant's* liability to the *Client* for Defects that are not found until after the *defects date* is limited to £1,000,000.00

The *end of liability* date is 6 years after the Completion of the whole of the *service*

OPTION X20: Key Performance Indicators (not used with Option X12)

The *incentive schedule* for Key Performance Indicators is in Schedule 17

A report of performance against each Key Performance Indicator is provided at intervals of 3 months

Y(UK)2: The Housing Grants, Construction and Regeneration Act 1996

The period for payment is 14 days after the date on which payment becomes due

Y(UK)3: The Contracts (Rights of Third Parties Act) 1999

term beneficiary



Part Two - Data provided by the *Consultant*

Completion of the data in full, according to the Options chosen, is essential to create a complete contract.

1 General

The *Consultant* is  
Name

Address for communications

Address for electronic communications

The *fee percentage* is

The *key persons* are

Name (1)  
Job  
Responsibilities  
Qualifications  
Experience

Name (2)  
Job  
Responsibilities  
Qualifications  
Experience

Name (3)  
Job  
Responsibilities  
Qualifications  
Experience

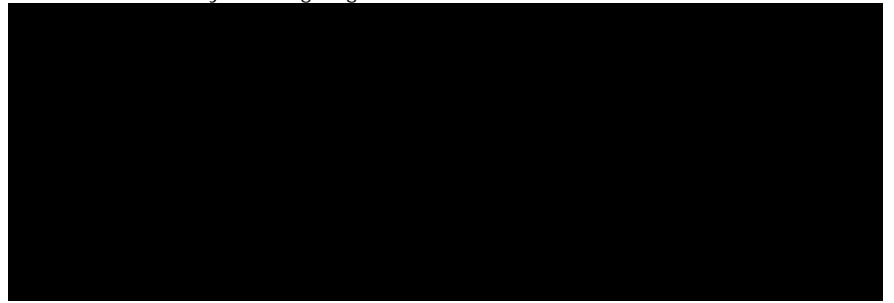
Name (4)  
Job  
Responsibilities  
Qualifications  
Experience

Name (5)  
Job  
Responsibilities  
Qualifications  
Experience

Name (6)  
Job  
Responsibilities  
Qualifications  
Experience

Name (7)  
Job  
Responsibilities  
Qualifications  
Experience

The following matters will be included in the Early Warning Register



3 Time

The programme identified in the Contract Data is

5 Payment

The *activity schedule* is  
Refer to Arup-PSC-Navigation-Scope 2012-01-05 V2

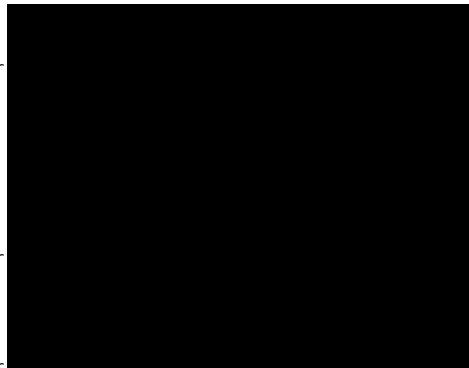
Resolving and avoiding disputes

The *Senior Representatives* of the *Consultant* are

Name (1)  
Address for

Address for

Name (2)  
Address for



Address for electronic communications

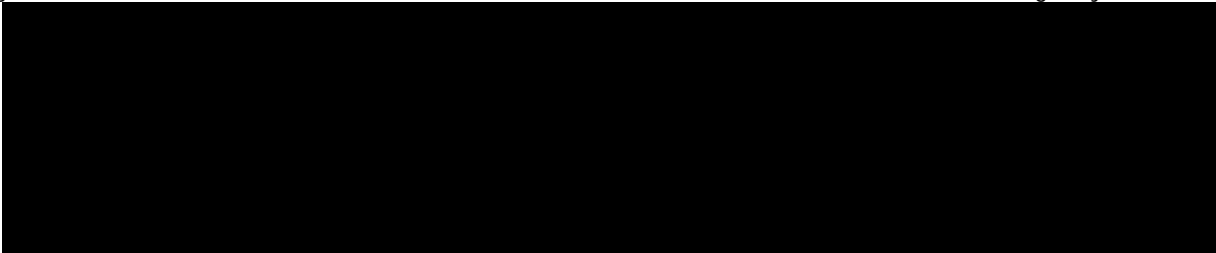
X10: Information Modelling

The *information execution plan* identified  
in the Contract Data is  
to be developed within 2 weeks of award

# Contract Execution

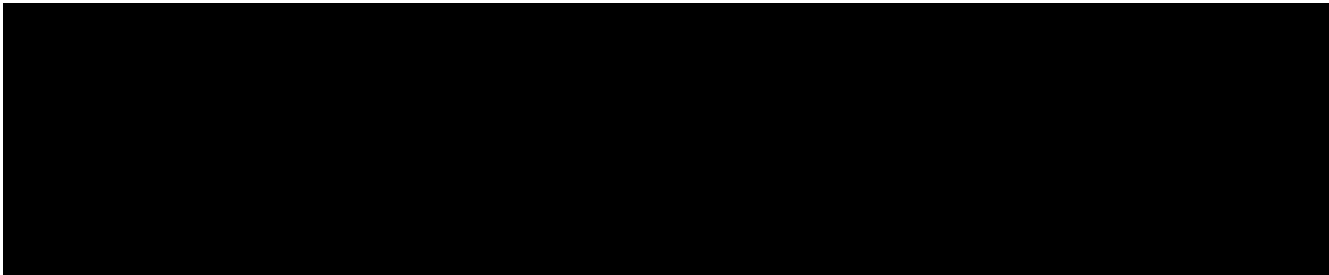
*Client* execution

Signed under hand by \_\_\_\_\_ for and on behalf of the Environment Agency



*Consultant* execution

*Consultant* execution



# PSC scope template - blank

NEC4 professional services contract (PSC)

412\_13\_SD02

Use the template on the pages that follow to assist you when preparing the scope for an NEC4 professional services contract (PSC).



# Environment Agency

## NEC4 professional services contract (PSC)

### Scope

#### Project / contract Information

Project name	Navigation ALN (design)
Project SOP reference	ENV0002759C
Contract reference	32035
Date	04/02/2021
Version number	3
Author	

#### Revision history

Revision date	Summary of changes	Version number
15 Jan 2021	First issue	001
21 Jan 2021	Update scope	002
01 Feb 2011	Update scope	003

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 *services* are to be compliant with the following version of the Minimum Technical Requirements:

Document	Document Title	Version No	Issue date
412_13_SD01	Minimum Technical Requirements	V2	18 Mar 2020

## Objective

The strategic driver for investment in navigation assets is legal compliance. The Environment Agency is the statutory navigation authority for 564km of navigable waterway stretching across the Operational Navigation. As such it has a duty, under the Anglian Water Authority Act 1977, to ensure that the navigation remains in as good a condition as it was in during the 9 months preceding the 8th December 1975. The Environment Agency also has an obligation under the Health & Safety at Work Act (1974), the Management of Health and Safety at Work Regulations (1992) and the Construction (Design and Management) Regulations (2015) to ensure that assets are safe to be used, enjoyed and maintained by staff, operatives, suppliers and the public as appropriate.

The main objective of this programme is to deliver work to navigation assets to ensure the Environment Agency's compliance with its legal obligations and RI\_2.9 (formerly KPI 851) requirements. The outcome will be an optimal investment regime that maximises asset value, minimises whole life costs and sustains assets at their target condition for the next seven years. This will provide a high-quality service to the boating community whom we serve, including complying, as appropriate, with the Equalities Act. Secondary objectives relate to asset reliability, net zero carbon and enhanced sustainability to contribute towards corporate goals.

## Outcome Specification

- a) The *Consultant* shall ensure that the final solution/options considered are compliant with current guidance and legislation and seek to minimise long-term asset/land management and maintenance costs
- b) The designs will also demonstrate that the *Consultant* has learnt from international best practice and demonstrate how optimum flood risk reduction, natural processes, recreation, good ecological water quality and visual amenity can be combined.
- c) The *Consultant* shall be responsible for ensuring the design is acceptable to the *Client* and be acceptable to statutory stakeholders.
  - Reduced risk of asset failure using designs and specifying materials with a 25 yr design life
  - Makes a positive contribution to the achievement of local and national BAP targets;
  - Demonstrates the successful integration of environmental design and civil engineering;
1. The *services* specifically excludes the following:
  - a) N/A
  - b)
2. Drawings, site information or reports already available
  - a) Historical Information on the sites is stored on the ASIt project WWAN000XXX-AREA-ANGLIAN WW
  - b)
3. Specifications of standards to be used
  - a)

- b)
- 4. Constraints on how the *Consultant* provides the *services*
  - a) N/A
  - b)
- 5. Requirements of the programme
  - a) The programme complies with the requirement of Clause 31 and also includes alignment and submission of the BEP and Master Information Delivery Plan (MIDP).
  - b) The completion date for the *services* is to be 29th March 2021.
- 6. Services and other things provided by the *Client*
  - a) ASite for document storage and FastDraft for contract management.

## Details of the services

Details of the services are:

### 7. Description of the work:

The works comprises asset inspections, reactive maintenance, and proactive maintenance. Assets typically comprise lock structures and associated facilities and separate landing stages/moorings.

The need for ongoing scheduled maintenance has been highlighted by the “Asset Condition and Confidence Report 2019” (Environment Agency, Version 1, 20/12/2019) which has been used to inform this Final Business Case (FBC); It has examined all navigation assets to ascertain the approach to maintenance, asset condition grading and where gaps exist. “Anglian” refers to East Anglia & Lincolnshire North assets and the approach to scheduled maintenance comprises:

- De-watered lock inspections of lock complexes every 10 years
- Principal bridge inspections every six years
- MEICA inspections for MEICA elements
- LOLER inspections for guillotine and radial gates

Note that LOLER inspections are capitalised where they lead to capital maintenance works.

The EA & LN asset base comprises:

- 65 lock complexes including bridges (primary assets);
- 71 bridges (not part of lock complexes and included within secondary assets); and
- 132 landing stages, 77 moorings and 82 canoe portages (will be combined to form the secondary assets).

## 21115.01 Brownshill

Work with the *Client* project manager in the preparation and submission to NEAS, documentation for the Environmental Screening and consents and approvals

- Ecological constraints walkover reports
- NEAS Screening Determination Notes
- Environmental Permits (Flood Risk Activity) – Provide support to JCE only
- Authorisation to fish using instruments (other than rod and line) under section 27A Salmon and Freshwater Fisheries Act 1975.
- Environmental Action Plans

Production of pre-construction pack which will include:

- Production/collation of Pre-Construction Information
  - PCI Report
  - Site Plan
  - Collation of historic information
  - Utility Searches and assessment (GPR and GS6)
  - UXO assessments



- H&S
  - Site Risk Assessment
  - RAG list
  - PSRA review
  - Hazard Plan production
- Landowners and Access
  - Landownership searches
  - Land Ownership Plans
  - Plans to support access notices

Survey Requirements:

- No lock drain down anticipated

Design Input

- No *Consultant's* design anticipated.

## 11107.01 Cogenhoe

Work with the *Client* project manager in the preparation and submission to NEAS, documentation for the Environmental Screening and consents and approvals

- Ecological constraints walkover reports
- NEAS Screening Determination Notes
- Environmental Permits (Flood Risk Activity) – Provide support to JCE only
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  - Site Risk Assessment
  - RAG list
  - PSRA review
  - Hazard Plan production
- Landowners and Access
  - Landownership searches
  - Land Ownership Plans
  - Plans to support access notices

#### Survey Requirements:

- Liaise with Site Contractor for lock drain downs and timings for inspections and surveys.
- The civils inspection works are intended to be performed through visual inspection ("tier 1" in accordance with Report SC110008-R2- Asset Performance Tools - Asset Inspection Guidance) using the Environment Agency Condition Assessment Manual (CAM) 166\_03\_SD01.
- The inspection will identify observable defects in the following structural components as part of a dewatered lock condition:
  - Lock chamber (including walls, floor, cills, lock ladders, copings and wing walls);
  - Lock Gates, structural conditions, control panels, collar straps, walkways (including lock edges, railing, fences, paths and ground slabs);
  - Associated (including kiosks, control buildings & adjacent footbridges that service the lock);
  - Upstream landing stage(s) and canoe portage platform(s);
  - Downstream landing stage and canoe portage(s);
  - Accessible regions behind any retained wall from bank level (to identify potential defects such as instability, leakage and piping through backfill behind the structure.
  - Measurements taken by Others to be included into inspection report.
- Downstream landing stage and canoe portage(s). See previously issued file note on inspection regime
- Lock chambers are classed as confined spaces.
- Defects necessitating further monitoring are to be raised with the Senior User on site during the course of the inspection. Notification shall be provided in sufficient time so as to enable the provision of any subsequent measures to be provided during the course of the inspection and without causing delay i.e. tell-tale, crack gauge, technical advice on products to be used etc. Any additional design measures are to be agreed under a PMI following notification.
- Completion and processing of the site Point Cloud survey of the lock, the empty lock chamber and adjacent areas (post construction).
- Note: Point Cloud survey data is currently being hosted on the *Consultant's* server, the *Client* will need to purchase its own licence to be able transfer of data and storages. The transfer process of data to maintain integrity will be a compensation event.

#### Design Input

- No *Consultant's* design anticipated.

### 11111.01 Doddington

Work with the *Client* project manager in the preparation and submission to NEAS, documentation for the Environmental Screening and consents and approvals

- Ecological constraints walkover reports
- NEAS Screening Determination Notes
- Environmental Permits (Flood Risk Activity) – Provide support to JCE only
- Authorisation to fish using instruments (other than rod and line) under section 27A Salmon and Freshwater Fisheries Act 1975.
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  - Site Plan
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Survey Requirements:

- Liaise with Site Contractor for lock drain downs and timings for inspections and surveys.
- The civils inspection works are intended to be performed through visual inspection ("tier 1" in accordance with Report SC110008-R2- Asset Performance Tools - Asset Inspection Guidance) using the Environment Agency Condition Assessment Manual (CAM) 166\_03\_SD01.
- The inspection will identify observable defects in the following structural components as part of a dewatered lock condition:
  - Lock chamber (including walls, floor, cills, lock ladders, copings and wing walls);
  - Lock Gates, structural conditions, control panels, collar straps, walkways (including lock edges, railing, fences, paths and ground slabs);
  - Walkways (including lock edges, railing, fences, paths and ground slabs);
  - Kiosks (including control buildings & adjacent footbridges that service the lock);
  - Upstream landing stage(s) and canoe portage platform(s);
  - Downstream landing stage and canoe portage(s);
  - Regions behind any retained wall from bank level (to identify potential defects such as instability, leakage and piping through backfill behind the structure).
- Downstream landing stage and canoe portage(s). See previously issued file note on inspection regime
- Lock chambers are classed as confined spaces.
- Defects necessitating further monitoring are to be raised with the Senior User on site during the course of the inspection. Notification shall be provided in sufficient time so as to enable the provision of any subsequent measures to be provided during the course of the inspection and without causing delay i.e. tell-tale, crack gauge, technical advice on products to be used etc. Any additional design measures are to be agreed under a PMI following notification.
- Completion and processing of the site Point Cloud survey of the lock, the empty lock chamber and adjacent areas (post construction).

- Note: Point Cloud survey data is currently being hosted on the Consultants server, the Client will need to purchase its own licence to be able transfer of data and storages. The transfer process of data to maintain integrity will be a compensation event.

#### Design Input

- No *Consultant's* design anticipated.

## 21111.01 Godmanchester

Work with the *Client* project manager in the preparation and submission to NEAS, documentation for the Environmental Screening and consents and approvals

- Ecological constraints walkover reports
- NEAS Screening Determination Notes
- Environmental Permits (Flood Risk Activity) – Provide support to JCE only
- Authorisation to fish using instruments (other than rod and line) under section 27A Salmon and Freshwater Fisheries Act 1975.
- Environmental Action Plans

Production of pre-construction pack which will include:

- Production/collation of Pre-Construction Information
  - PCI Report
  - Site Plan
  - Collation of historic information
  - Utility Searches and assessment (GPR and GS6)
  - UXO assessments
- H&S
  - Site Risk Assessment
  - RAG list
  - PSRA review
  - Hazard Plan production
- Landowners and Access
  - Landownership searches
  - Land Ownership Plans
  - Plans to support access notices

Survey Requirements:

- Liaise with Site Contractor for lock drain downs and timings for inspections and surveys.
- The civils inspection works are intended to be performed through visual inspection ("tier 1" in accordance with Report SC110008-R2- Asset Performance Tools - Asset Inspection Guidance) using the Environment Agency Condition Assessment Manual (CAM) 166\_03\_SD01.
- The inspection will identify observable defects in the following structural components as part of a dewatered lock condition:
  - Lock chamber (including walls, floor, cills, lock ladders, copings and wing walls);
  - Lock Gates, structural conditions, control panels, collar straps, walkways (including lock edges, railing, fences, paths and ground slabs);
  - Walkways (including lock edges, railing, fences, paths and ground slabs);

- Kiosks (including control buildings & adjacent footbridges that service the lock);
- Upstream landing stage(s) and canoe portage platform(s);
- Downstream landing stage and canoe portage(s);
- Regions behind any retained wall from bank level (to identify potential defects such as instability, leakage and piping through backfill behind the structure).
- Downstream landing stage and canoe portage(s). See previously issued file note on inspection regime
- Lock chambers are classed as confined spaces.
- Defects necessitating further monitoring are to be raised with the Senior User on site during the course of the inspection. Notification shall be provided in sufficient time so as to enable the provision of any subsequent measures to be provided during the course of the inspection and without causing delay i.e. tell-tale, crack gauge, technical advice on products to be used etc. Any additional design measures are to be agreed under a PMI following notification.
- Completion and processing of the site Point Cloud survey of the lock, the empty lock chamber and adjacent areas (post construction).
- Note: Point Cloud survey data is currently being hosted on the Consultants server, the Client will need to purchase its own licence to be able transfer of data and storages. The transfer process of data to maintain integrity will be a compensation event.

#### Design Input

- No *Consultant's* design anticipated.

## 21114.01 St Ives

Work with the *Client* project manager in the preparation and submission to NEAS, documentation for the Environmental Screening and consents and approvals

- Ecological constraints walkover reports
- NEAS Screening Determination Notes
- Environmental Permits (Flood Risk Activity) – Support to JCE only
- Authorisation to fish using instruments (other than rod and line) under section 27A Salmon and Freshwater Fisheries Act 1975.
- Environmental Action Plans

Production of pre-construction pack which will include:

- Production/collation of Pre-Construction Information
  - PCI Report
  - Site Plan
  - Collation of historic information
  - Utility Searches and assessment (GPR and GS6)
  - UXO assessments
- H&S
  - Site Risk Assessment
  - RAG list
  - PSRA review
  - Hazard Plan production

- Landowners and Access
  - Landownership searches
  - Land Ownership Plans
  - Plans to support access notices

#### Survey Requirements:

- Liaise with Site Contractor for lock drain downs and timings for inspections and surveys.
- The civils inspection works are intended to be performed through visual inspection (“tier 1” in accordance with Report SC110008-R2- Asset Performance Tools - Asset Inspection Guidance) using the Environment Agency Condition Assessment Manual (CAM) 166\_03\_SD01.
- The inspection will identify observable defects in the following structural components as part of a dewatered lock condition:
  - Lock chamber (including walls, floor, cills, lock ladders, copings and wing walls);
  - Lock Gates, structural conditions, control panels, collar straps, walkways (including lock edges, railing, fences, paths and ground slabs);
  - Walkways (including lock edges, railing, fences, paths and ground slabs);
  - Kiosks (including control buildings & adjacent footbridges that service the lock);
  - Upstream landing stage(s) and canoe portage platform(s);
  - Downstream landing stage and canoe portage(s);
  - Regions behind any retained wall from bank level (to identify potential defects such as instability, leakage and piping through backfill behind the structure.
- Downstream landing stage and canoe portage(s). See previously issued file note on inspection regime
- Lock chambers are classed as confined spaces.
- Defects necessitating further monitoring are to be raised with the Senior User on site during the course of the inspection. Notification shall be provided in sufficient time so as to enable the provision of any subsequent measures to be provided during the course of the inspection and without causing delay i.e. tell-tale, crack gauge, technical advice on products to be used etc. Any additional design measures are to be agreed under a PMI following notification.
- Completion and processing of the site Point Cloud survey of the lock, the empty lock chamber and adjacent areas (post construction).
- Note: Point Cloud survey data is currently being hosted on the Consultants server, the Client will need to purchase its own licence to be able transfer of data and storages. The transfer process of data to maintain integrity will be a compensation event.

#### Design Input

- Options to address the clash between the floating landing stage (guide pile bracket) and the adjacent bankside steel piling and failed concrete deck and to allow monitoring of the bank.
- Design of a replacement bridge deck (sharks tooth flooring panels) with GRP mini mesh deck material (12mm square holes, Green). This may require visit to site to measure the replacement panel sizes.

## 21116.01 Hermitage

Work with the *Client* project manager in the preparation and submission to NEAS, documentation for the Environmental Screening and consents and approvals

- Ecological constraints walkover reports

- NEAS Screening Determination Notes
- Environmental Permits (Flood Risk Activity) – Support to JCE only
- Authorisation to fish using instruments (other than rod and line) under section 27A Salmon and Freshwater Fisheries Act 1975.
- Environmental Action Plans

Production of pre-construction pack which will include:

- Production/collation of Pre-Construction Information
  - PCI Report
  - Site Plan
  - Collation of historic information
  - Utility Searches and assessment (GPR and GS6)
  - UXO assessments
- H&S
  - Site Risk Assessment
  - RAG list
  - PSRA review
  - Hazard Plan production
- Landowners and Access
  - Landownership searches
  - Land Ownership Plans
  - Plans to support access notices

Survey Requirements:

- Liaise with Site Contractor for lock drain downs and timings for inspections and surveys.
- The civils inspection works are intended to be performed through visual inspection (“tier 1” in accordance with Report SC110008-R2- Asset Performance Tools - Asset Inspection Guidance) using the Environment Agency Condition Assessment Manual (CAM) 166\_03\_SD01.
- The inspection will identify observable defects in the following structural components as part of a dewatered lock condition:
  - Lock chamber (including walls, floor, cills, lock ladders, copings and wing walls);
  - Lock Gates, structural conditions, control panels, collar straps, walkways (including lock edges, railing, fences, paths and ground slabs);
  - Walkways (including lock edges, railing, fences, paths and ground slabs);
  - Kiosks (including control buildings & adjacent footbridges that service the lock);
  - Upstream landing stage(s) and canoe portage platform(s);
  - Downstream landing stage and canoe portage(s);
  - Regions behind any retained wall from bank level (to identify potential defects such as instability, leakage and piping through backfill behind the structure).
- Downstream landing stage and canoe portage(s). See previously issued file note on inspection regime
- Lock chambers are classed as confined spaces.
- Defects necessitating further monitoring are to be raised with the Senior User on site during the course of the inspection. Notification shall be provided in sufficient time so as to enable the provision of any subsequent measures to be provided during the course

of the inspection and without causing delay i.e. tell-tale, crack gauge, technical advice on products to be used etc. Any additional design measures are to be agreed under a PMI following notification.

- Completion and processing of the site Point Cloud survey of the lock, the empty lock chamber and adjacent areas (post construction).
- Note: Point Cloud survey data is currently being hosted on the Consultants server, the Client will need to purchase its own licence to be able transfer of data and storages. The transfer process of data to maintain integrity will be a compensation event.

#### Design Input

- Give consideration to and provide a proposal for addressing the issues associated with the settlement of the foundation pads for the hydraulic power packs and the access steps on the downstream left bank leading to the closed mooring structure.

## 21105.01 Great Barford

Work with the *Client* project manager in the preparation and submission to NEAS, documentation for the Environmental Screening and consents and approvals

- Ecological constraints walkover reports
- NEAS Screening Determination Notes
- Environmental Permits (Flood Risk Activity) – Support to JCE only
- Authorisation to fish using instruments (other than rod and line) under section 27A Salmon and Freshwater Fisheries Act 1975.
- Environmental Action Plans

Production of pre-construction pack which will include:

- Production/collation of Pre-Construction Information
  - PCI Report
  - Site Plan
  - Collation of historic information
  - Utility Searches and assessment (GPR and GS6)
  - UXO assessments
- H&S
  - Site Risk Assessment
  - RAG list
  - PSRA review
  - Hazard Plan production
- Landowners and Access
  - Landownership searches
  - Land Ownership Plans
  - Plans to support access notices



#### Survey Requirements:

- Liaise with Site Contractor for lock drain downs and timings for inspections and surveys.
- The civils inspection works are intended to be performed through visual inspection (“tier 1” in accordance with Report SC110008-R2- Asset Performance Tools - Asset Inspection Guidance) using the Environment Agency Condition Assessment Manual (CAM) 166\_03\_SD01.
- The inspection will identify observable defects in the following structural components as part of a dewatered lock condition:
  - Lock chamber (including walls, floor, cills, lock ladders, copings and wing walls);
  - Lock Gates, structural conditions, control panels, collar straps, walkways (including lock edges, railing, fences, paths and ground slabs);
  - Walkways (including lock edges, railing, fences, paths and ground slabs);
  - Kiosks (including control buildings & adjacent footbridges that service the lock);
  - Upstream landing stage(s) and canoe portage platform(s);
  - Downstream landing stage and canoe portage(s);
  - Regions behind any retained wall from bank level (to identify potential defects such as instability, leakage and piping through backfill behind the structure).
- Downstream landing stage and canoe portage(s). See previously issued file note on inspection regime
- Lock chambers are classed as confined spaces.
- Defects necessitating further monitoring are to be raised with the Senior User on site during the course of the inspection. Notification shall be provided in sufficient time so as to enable the provision of any subsequent measures to be provided during the course of the inspection and without causing delay i.e. tell-tale, crack gauge, technical advice on products to be used etc. Any additional design measures are to be agreed under a PMI following notification.
- Completion and processing of the site Point Cloud survey of the lock, the empty lock chamber and adjacent areas (post construction).
- Note: Point Cloud survey data is currently being hosted on the Consultants server, the Client will need to purchase its own licence to be able transfer of data and storages. The transfer process of data to maintain integrity will be a compensation event.

#### Design Input

- Production of optioneering report to locally repair the pavement leading to the downstream landing stag, where tree root growth is presenting trip hazards.
- Design of agreed option.

### 11127.01 Lower Barnwell

Work with the *Client* project manager in the preparation and submission to NEAS, documentation for the Environmental Screening and consents and approvals

- Ecological constraints walkover reports
- NEAS Screening Determination Notes
- Environmental Permits (Flood Risk Activity) – Support to JCE only
- Authorisation to fish using instruments (other than rod and line) under section 27A Salmon and Freshwater Fisheries Act 1975.
- Environmental Action Plans

Production of pre-construction pack which will include:

- Production/collation of Pre-Construction Information
  - PCI Report
  - Site Plan
  - Collation of historic information
  - Utility Searches and assessment (GPR and GS6)
  - UXO assessments
- H&S
  - Site Risk Assessment
  - RAG list
  - PSRA review
  - Hazard Plan production
- Landowners and Access
  - Landownership searches
  - Land Ownership Plans
  - Plans to support access notices

Survey Requirements:

- Liaise with Site Contractor for lock drain downs and timings for inspections and surveys.
- The civils inspection works are intended to be performed through visual inspection ("tier 1" in accordance with Report SC110008-R2- Asset Performance Tools - Asset Inspection Guidance) using the Environment Agency Condition Assessment Manual (CAM) 166\_03\_SD01.
- The inspection will identify observable defects in the following structural components as part of a dewatered lock condition:
  - Lock chamber (including walls, floor, cills, lock ladders, copings and wing walls);
  - Lock Gates, structural conditions, control panels, collar straps, walkways (including lock edges, railing, fences, paths and ground slabs);
  - Walkways (including lock edges, railing, fences, paths and ground slabs);
  - Kiosks (including control buildings & adjacent footbridges that service the lock);
  - Upstream landing stage(s) and canoe portage platform(s);
  - Downstream landing stage and canoe portage(s);
  - Regions behind any retained wall from bank level (to identify potential defects such as instability, leakage and piping through backfill behind the structure).
- Downstream landing stage and canoe portage(s). See previously issued file note on inspection regime
- Lock chambers are classed as confined spaces.
- Defects necessitating further monitoring are to be raised with the Senior User on site during the course of the inspection. Notification shall be provided in sufficient time so as to enable the provision of any subsequent measures to be provided during the course of the inspection and without causing delay i.e. tell-tale, crack gauge, technical advice on products to be used etc. Any additional design measures are to be agreed under a PMI following notification.
- Completion and processing of the site Point Cloud survey of the lock, the empty lock chamber and adjacent areas (post construction).

- Note: Point Cloud survey data is currently being hosted on the Consultants server, the Client will need to purchase its own licence to be enable transfer of data and storages. The transfer process of data to maintain integrity will be a compensation event.

#### Design Input

On the lock bridge, replacing the existing steel punched flooring providing the deck to the footbridge with a mini-mesh deck. Design any alterations required to the existing bridge structure to accommodate the new deck material.

## 12103.01 Rushmills

Work with the *Client* project manager in the preparation and submission to NEAS, documentation for the Environmental Screening and consents and approvals

- Ecological constraints walkover reports
- NEAS Screening Determination Notes
- Environmental Permits (Flood Risk Activity) – Support to JCE only
- Authorisation to fish using instruments (other than rod and line) under section 27A Salmon and Freshwater Fisheries Act 1975.
- Environmental Action Plans

Production of pre-construction pack which will include:

- Production/collation of Pre-Construction Information
  - PCI Report
  - Site Plan
  - Collation of historic information
  - Utility Searches and assessment (GPR and GS6)
  - UXO assessments
- H&S
  - Site Risk Assessment
  - RAG list
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  - Hazard Plan production
- Landowners and Access
  - Landownership searches
  - Land Ownership Plans
  - Plans to support access notices

Survey Requirements:

- Not Required

#### Design Input

Design of a fixed level landing stage structure in replacement of the existing downstream floating landing stage. The replacement structure is to be provided in accordance with Performance Specification Ref: LM18-01.

- Production of optioneering report
- Design of agreed solution

## 11109.01 White Mills

Work with the *Client* project manager in the preparation and submission to NEAS, documentation for the Environmental Screening and consents and approvals

- Ecological constraints walkover reports
- NEAS Screening Determination Notes
- Environmental Permits (Flood Risk Activity) – Support to JCE only
- Authorisation to fish using instruments (other than rod and line) under section 27A Salmon and Freshwater Fisheries Act 1975.
- Environmental Action Plans

Production of pre-construction pack which will include:

- Production/collation of Pre-Construction Information
  - PCI Report
  - Site Plan
  - Collation of historic information
  - Utility Searches and assessment (GPR and GS6)
  - UXO assessments
- H&S
  - Site Risk Assessment
  - RAG list
  - PSRA review
  - Hazard Plan production
- Landowners and Access
  - Landownership searches
  - Land Ownership Plans
  - Plans to support access notices

Survey Requirements:

No *Consultant's* survey anticipated.

Design Input

No *Consultant's* design anticipated.

## 11106.01 Billing

Work with the *Client* project manager in the preparation and submission to NEAS, documentation for the Environmental Screening and consents and approvals

- Ecological constraints walkover reports
- NEAS Screening Determination Notes
- Environmental Permits (Flood Risk Activity) – Support to JCE only
- Authorisation to fish using instruments (other than rod and line) under section 27A Salmon and Freshwater Fisheries Act 1975.
- Environmental Action Plans

Production of pre-construction pack which will include:

- Production/collation of Pre-Construction Information
  - PCI Report
  - Site Plan
  - Collation of historic information
  - Utility Searches and assessment (GPR and GS6)
  - UXO assessments
- H&S
  - Site Risk Assessment
  - RAG list
  - PSRA review
  - Hazard Plan production
- Landowners and Access
  - Landownership searches
  - Land Ownership Plans
  - Plans to support access notices

Survey Requirements:

- Liaise with Site Contractor for lock drain downs and timings for inspections and surveys.
- The civils inspection works are intended to be performed through visual inspection ("tier 1" in accordance with Report SC110008-R2- Asset Performance Tools - Asset Inspection Guidance) using the Environment Agency Condition Assessment Manual (CAM) 166\_03\_SD01.
- The inspection will identify observable defects in the following structural components as part of a dewatered lock condition:
  - Lock chamber (including walls, floor, cills, lock ladders, copings and wing walls);
  - Lock Gates, structural conditions, control panels, collar straps, walkways (including lock edges, railing, fences, paths and ground slabs);
  - Walkways (including lock edges, railing, fences, paths and ground slabs);
  - Kiosks (including control buildings & adjacent footbridges that service the lock);
  - Upstream landing stage(s) and canoe portage platform(s);
  - Downstream landing stage and canoe portage(s);
  - Regions behind any retained wall from bank level (to identify potential defects such as instability, leakage and piping through backfill behind the structure).
- Downstream landing stage and canoe portage(s). See previously issued file note on inspection regime
- Lock chambers are classed as confined spaces.
- Defects necessitating further monitoring are to be raised with the Senior User on site during the course of the inspection. Notification shall be provided in sufficient time so as to enable the provision of any subsequent measures to be provided during the course of the inspection and without causing delay i.e. tell-tale, crack gauge, technical advice on products to be used etc. Any additional design measures are to be agreed under a PMI following notification.
- Completion and processing of the site Point Cloud survey of the lock, the empty lock chamber and adjacent areas (post construction).

- Note: Point Cloud survey data is currently being hosted on the Consultants server, the Client will need to purchase its own licence to be able transfer of data and storages. The transfer process of data to maintain integrity will be a compensation event.

Design Input

Production of a standard detail to repair/infill the gap between the rear of the upstream and downstream canoe portage structures and the bank.

## 11121.01 Denford

Work with the *Client* project manager in the preparation and submission to NEAS, documentation for the Environmental Screening and consents and approvals

- Ecological constraints walkover reports
- NEAS Screening Determination Notes
- Environmental Permits (Flood Risk Activity) – Support to JCE only
- Authorisation to fish using instruments (other than rod and line) under section 27A Salmon and Freshwater Fisheries Act 1975.
- Environmental Action Plans

Production of pre-construction pack which will include:

- Production/collation of Pre-Construction Information
  - PCI Report
  - Site Plan
  - Collation of historic information
  - Utility Searches and assessment (GPR and GS6)
  - UXO assessments
- H&S
  - Site Risk Assessment
  - RAG list
  - PSRA review
  - Hazard Plan production
- Landowners and Access
  - Landownership searches
  - Land Ownership Plans
  - Plans to support access notices

Survey Requirements:

No *Consultant's* survey anticipated.

Design Input

No *Consultant's* design anticipated.

## Appendix A BIM Protocol – Production and Delivery Table

All *Employer* issued information referenced within the Information Delivery Plan requires verifying by the *Consultant* unless it is referenced elsewhere within the *Scope*.

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