



Framework: Collaborative Delivery Framework
Supplier: Ove Arup & Partners Ltd
Company Number: [REDACTED]

Geographical Area:
Project Name: Humber - East Halton Marshes Phase 2
Project Number: [REDACTED]

Contract Type: Professional Service Contract
Option: Option E

Contract Number: [REDACTED]

Revision	Status	Originator	Reviewer	Date

**PROFESSIONAL SERVICE CONTRACT under the Collaborative Delivery Framework
CONTRACT DATA**

Project Name Humber - East Halton Marshes Phase 2

Project Number [REDACTED]

This contract is made on 31 October 2020
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
2020-07-16 Halton Marshes ph2 - Options Appraisal Report Scope v4 - 13/05/20

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 E	Option for resolving and avoiding disputes	W2
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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
- Z: *Additional conditions of contract*

The *service* is Arup to provide an options appraisal report which will inform progression to SOC.

The *Client* is [REDACTED]

Address for communications [REDACTED]

Address for electronic communications [REDACTED]

The *Service Manager* is [REDACTED]
Address for communications [REDACTED]

Address for electronic communications [REDACTED]

The *Scope* is in
2020-07-16 Halton Marshes ph2 - Options Appraisal Report Scope v4 - 13/05/20

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 *key date*
conditions to be met 'none set' 'none set'
 'none set' '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 31 October 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 *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

6 Compensation events

These are additional compensation events

1. Managing and mitigating the impact of Covid 19 and working in accordance
2. 'not used'
3. 'not used'
4. 'not used'
5. '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 SERVICE 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 *Consultant*) arising from or in connection with the *Consultant* 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 *Consultant* arising out of and in the course of their employment in connection with the contract *Legal minimum* in respect of each claim, without limit to the number of claims *For the period required by law*

The *Consultant's* total liability to the *Client* 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 'to be confirmed'
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 result of rectifying a non-compliance with the Framework Agreement and/or any call off contracts following an audit

Z6 The Schedule of Cost Components

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

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 X5: Sectional Completion

The *completion date* for each *section* of the *service* is

section
1

description

completion date

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

OPTION X7: Delay damages

X7 only

Delay damages for Completion of the whole of the *service* are

per day

X7 plus X5

Delay damages for each *section* of the *service* are

amount per day

section
1

description

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

The delay damages for the remainder of the *service* are

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

£5,000,000.00

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

[REDACTED]

Address for communications

[REDACTED]
[REDACTED]
[REDACTED]

Address for electronic communications

[REDACTED]

The *fee percentage* is

Option E

[REDACTED]

The *key persons* are

Name (1)

[REDACTED]

Job

[REDACTED]

Responsibilities

[REDACTED]

Qualifications

[REDACTED]

Experience

[REDACTED]

Name (2)

[REDACTED]

Job

[REDACTED]

Responsibilities

[REDACTED]

Qualifications

[REDACTED]

Experience

[REDACTED]

Name (3)

[REDACTED]

Job

[REDACTED]

Responsibilities

[REDACTED]

Qualifications

[REDACTED]

Experience

[REDACTED]

Name (4)

[REDACTED]

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

Impact of Covid-19 - delayed site visit and/or availability of EA/Co
#REF!

Rate adjustment on anniversary of the framework

Data - Limited access to available data/incorrect format/drip fed to

Site - Access not being granted to site. Impact Delay in inspection

3 Time

The programme identified in the Contract Data is

Resolving and avoiding disputes

The *Senior Representatives* of the *Consultant* are

Name (1)

Address for communications

Address for electronic communications

Name (2)

Address for communications

Address for electronic communications

X10: Information Modelling

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

to be delivered within two weeks of the starting date

Contract Execution

Client execution

Signed under hand by

for and on behalf of the Environment Agency



Signature



Role

Consultant execution

Consultant execution

Signed under hand by Nigel Ridgway

for and on behalf of

Ove Arup & Partners Ltd



Signature



Role

Environment Agency NEC4 professional services contract (PSC) Scope

Project / contract Information

Project name	East Halton Marshes Phase 2 Options Assessment
Project SOP reference	[REDACTED]
Contract reference	
Date	13 May 2020
Version number	4
Author	[REDACTED]

Revision history

Revision date	Summary of changes	Version number
13 May 2020	First issue	1
30 May 2020	Client update	2
16 July 2020	Clarification of Scope by Client	3
04 August 2020	Final Draft	4

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	9	29* August 2018

Details of the services

Background

The Halton to Killingholme Marshes flood Area is located on the south bank of the Humber Estuary and is at risk from tidal flooding. This risk is managed by flood defences along the estuary frontage which are in various states of disrepair and are likely to deteriorate further as a result of tidal currents and wave action. The estimated asset life for some sections is less than 5 years.

The area includes the South Humber Gateway development site which has been allocated for estuary-related industry or commercial activities. Able UK have previously progressed development plans for the sites including works to the flood defences across the Halton Marshes frontage. In 2014 the Environment Agency agreed an allocation of GiA funding to North Lincolnshire Council to support the delivery of these flood defence works. By early 2018 this planned development of the site has not progressed and as such works to the flood defences have stalled. In response to these changes the Environment Agency is reviewing the approach to the ongoing management of the flood defences in this area. This is being done in alignment with the current Humber FRM Strategy (2008) and the new tidal strategy, currently being developed.

A substantial amount of investigation has been undertaken since 2013, and the aims of this report is to update this thinking with current legislation and funding policies.

Objective

The objective of this contract is to provide an appraisal of the options to manage flood risk in the section of Flood Area 23 that is north of the Humber Sea Terminal and be aligned with the current Humber FRM Strategy. It should provide a leading option in line with FCRM appraisal guidance and to establish the level of Grant-in-Aid and third-party funding required to deliver this option.

Outcome Specification

The required outcome of this contract is to provide an 'Options Appraisal Report' which summarises the economic and funding case for an agreed set of options to manage flood risk along the Halton to Killingholme frontage, but primarily focussing on reducing the risk to the port and industrial complex at North Killingholme Haven

The *Consultant* will develop Do Nothing, Do Minimum and 5no. Do Something options over the 100 year appraisal period. Do something options include:

Option 1: Stability and uniform Standard of Protection of existing Frontline defence and outfall replacement – Increase stability of existing frontline defence as well as toe preservation and ensuring a more uniform standard of protection.

1a: Maintain current standard of service to prolong life for 25 years and reduce risk of failure due to breach or overtopping.

1b: Sustain current standard of service over the asset life, which could be delivered in separate multiple phases.

It is accepted that overtopping or breaching of defences north of East Halton Beck will continue to pose an outflanking risk to some of Flood Area 23 with this option.

Option 2: Strengthening of raised land and embankment construction – strengthening the artificially raised land that runs along the northern extent of the port storage areas, together with new cross bank defences as necessary and construct a new cross bank at East Halton Beck. This option would not better protect the residential

property at the end of Marsh Lane, but would reduce the flood risk to the Humber Sea Terminal port development caused by failure of the existing frontline defence.

Option 3: Construct new embankment on a new alignment – construct a new cross bank north of the Humber Sea Terminal development as well as a new cross embankment at East Halton Beck. There are two alignments for the new cross bank;

3a: along the original alignment (along Marsh Lane to the old brick works)

3b: an alignment along the HST boundary (This option would not better protect the residential property at the end of Marsh Lane).

These options would reduce the flood risk to the port development caused by failure of the existing frontline defence.

The *Consultant* will review information from previous appraisal work (as detailed below). The specific approach to benefits assessment and benefits apportionment will be agreed once the existing available information has been reviewed. The approach will include a bespoke assessment of damages associated with the Port. The purpose of this bespoke assessment is to provide an improved representation of Port damages compared to more standard damages assessment approaches.

The *Consultant* should take a proportionate approach to revising the benefits assessment in line with the available budget for the project. The approach will be discussed and agreed with the Environment Agency's project team.

The *Consultant* will obtain a whole life cost for the scheme options through the *Client's* cost consultant.

The *Consultant* will produce a benefit cost assessment for the scheme for a 100 year appraisal period and one other (possibly 25 years) benefits period which will be selected upon review of the options and agreed with the *Client* and in accordance with the Humber FRM Strategy.

The *Consultant* will provide a high level assessment of environmental improvements to inform the inclusion of OM4s in the partnership funding calculators for all options.

The *Consultant* will produce a partnership funding calculator (2020 version) for the do minimum and all the Do Something options.

The *Consultant* will summarise the above in an Options Appraisal Report, including a recommended leading option.

The *Consultant* shall reasonably ensure that all considerations are compliant with all guidance and legislation and seek to minimise long-term asset/land management and maintenance costs.

The assessment should also demonstrate that the *Consultant* has learnt from international best practice and other similar schemes.

1. The *services* specifically excludes the following:

N/A

2. Drawings, site information or reports already available:

- a) Initial Assessment produced, Jacobs (June 2019)
- b) Northern Area Tidal Modelling Study, Mott McDonald (2006), and subsequent updates.
- c) Humber Strategy Benefits Analysis, Environment Agency (2008)
- d) East Halton Skitter Assessment of Options Technical Note, Arup (2013)
- e) Halton Marshes Flood Area 23 Damage Assessment, Black and Veatch (2005)
- f) Humber FRM Strategy relevant Key Issues Report and Detail Appraisal Report
- g) the *Client* and *Consultant* shall review the other available documents to consider if they are relevant.

3. Specifications or standards to be used

- a) Health and safety
Health and safety is the number one priority of the *Client*. The *Consultant* will promote and adopt safe working methods and shall strive to deliver solutions that provide optimum safety to all.
- b) Embedded carbon
The *Client* has an aim to become carbon neutral. Options should consider the embedded carbon cost for the development, construction and future maintenance, when determining the leading option. It should also consider what mitigation should be incorporated.

4. Constraints on how the *Consultant* provides the *services*

- a) The outputs should be provided in a suitable format to allow the findings to be included in a future SOC.
- b) The *Consultant* shall ensure that appropriate use is made of existing data, to avoid duplicating work already undertaken. Relevant *Client* data is identified in Appendix A. In addition, any other existing sources known to the *Consultant* should be utilised.
- c) The *Consultant* must nominate a lead member of staff as a Key Person who will act as their representative responsible for managing the services, liaising with the *Client's* representatives.
- d) The *Consultant* shall ensure that sufficient resources are provided to achieve the agreed programme.
 - Development of scope and awarding of contract – 20/08/2020
 - Site Visits/collation of existing data – 14/10/2020
 - Drafting of Options Appraisal Report – 31/12/2020
 - Completion of Options Appraisal Report – 31/12/2020

5. Requirements of the programme

- a) The programme complies with the requirement of Clause 31 and Clause 32 and also includes alignment and submission of the BEP and Master Information Delivery Plan (MIDP).

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

- a) ASite
- b) Fastdraft
- c) Any relevant existing data and reports requested by the *Consultant*

Appendix 1 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*.

www.Pow.bim4.info

Appendix A

Relevant Data as Identified by the *Client*

Document	Author	Date
Humber Strategy Key Issues Report	Black & Veatch	2005
East Halton Skitter: Assessment of options for protecting land on the south bank of the Humber and to the south of East Halton Skitter. Appendix 1 Technical Note Draft Information	Arup	2013
Northern Area Tidal Breach Hazard Mapping (PDF), Breaches H18,H19 and H20	Environment Agency	2013
Humber Strategy: Assessment of options for protecting land on the south bank of the Humber and to the south of East Halton Skitter. Technical Note 0-12-08	Arup	2013
Halton Marshes Flood Area 23 2005 Damage Assessment	Black & Veatch	2013
East Halton Marshes- Phase 2. Estimate assumptions and issues	Environment Agency	2013
Northern Area Tidal Breach Hazard Mapping, Breach H20. 1% AEP. Scenario year 2006.	Environment Agency	2015
Northern Area Tidal Breach Hazard Mapping, Breach H20. 1% AEP. Scenario year 2115.	Environment Agency	2015
Northern Area Tidal Breach Hazard Mapping, Overtopping Depths East Halton. 1% AEP. Scenario year 2006.	Environment Agency	2015
Halton Marshes (ALP)- GiA contribution justification. Email from Mark Adams to Sue Manson and Philip Winn 24/03/2016	Environment Agency	2016
Draft Sensitive: Halton Marshes GiA Arup review	Environment Agency	2016
Halton Marshes Phase 2 Commercial Properties Map	Environment Agency	2018