nec 4

Environment Agency

Framework:	**Collaborative Delivery Framework**
Supplier:	**Ove Arup & Partners Ltd**
Company Number:	**01312453**
Geographical Area:	**Midlands**
Project Name:	**DADI Asset Data and Information Security**
Project Number:	**31524**
Contract Type:	**Professional Service Contract**
Option:	**Option C**
Contract Number:	**31524**

Revision	Status	Originator	Reviewer	Date

PROFESSIONAL SERVICE CONTRACT under the Collaborative Delivery Framework
CONTRACT DATA

Project Name   DADI Asset Data and Information Security

Project Number   31524

This contract is made on   02 November 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
  Project and Asset Data Information Security_requirements_scope_A03. Dated 9th July 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   The aim of the project is to implement PAS1192-5:2015 - specification for security-minded Building Information Modelling (BIM), digital built environments and smart asset management - on the Environment Agency flood defence schemes being delivered through the

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
Project and Asset Data Information Security_requirements_scope_A03. Dated 9th July 2020

The *partner contract* is
Na

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
        12 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	*key date*
'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	02 November 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	12 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:

	share range			Consultant's share percentage	
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

1. Managing and mitigating the impact of Covid 19 and working in accordance w
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'

Rev 1.6.8a

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 *Consultant's* failure to use the skill and care normally used by professionals providing services similar to the *service*	**£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 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

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

£5,000,000

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

£5,000,000

The *end of liability date is*   12 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.
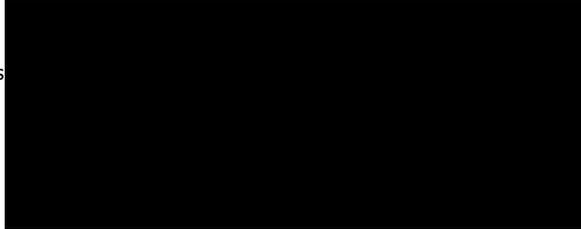
1 General

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

Nov 2020 to March 2021

5 Payment

The *activity schedule* is

Resolving and avoiding disputes

The *Senior Representatives* of the *Consultant* are
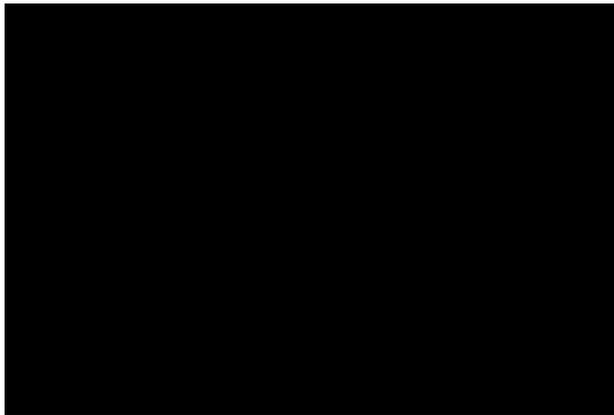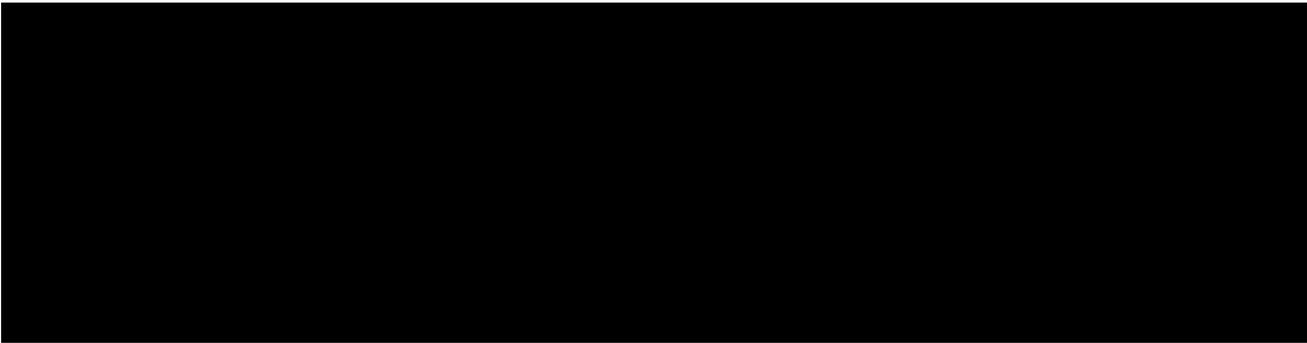
X10: Information Modelling

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

Contract Execution

Client execution

Consultant execution

Environment Agency
NEC4 professional services contract (PSC)
Scope

Project / contract Information

Project name	Project and Asset Data Information Security Requirements
Project SOP reference	ENVFCPAM00127B00C Task 1.6
Contract reference	
Date	3 April 2020
Version number	T3
Author	████████████████

Revision history

Revision date	Summary of changes	Version number
20/01/20	First Tender issue	T1
30/01/20	Update roles Section 7	T2
03/04/20	Update security triage section 2.1 to clarify requirements.	T3

customer service line
03708 506 506
www.environment-agency.gov.uk

incident hotline
0800 80 70 60

floodine
0845 988 1188

Contents

1.   Project overview

The aim of the project is to implement PAS1192-5:2015 - specification for security-minded Building Information Modelling (BIM), digital built environments and smart asset management - on the Environment Agency flood defence schemes being delivered through the Collaborative Delivery Framework (CDF). To deliver this, the project needs to define the Built Asset Security Information Requirements (BASIR) and the corresponding processes, procedures and controls required to manage secure asset data and information during capital project delivery. The project also aims to implement these security controls within the Employer Common Data Environment (ECDE), Asite.

1.1 Background

The Flood and Coastal Risk Management Directorate (FCRM) within the Environment Agency has range of fixed and mobile assets to protect people, properties and the wider environment from damage caused by floods, storms and storm surges. To provide protection the Environment Agency needs to ensure that information and data about FCRM assets is safeguarded to prevent it being used by hostiles who wish to cause financial, physical and/or reputational damage. It is also important to ensure that appropriate access to data and information is not compromised such that it impacts on the Environment Agency's ability to respond to an incident.

Whilst there is a need to protect sensitive data, DEFRA and its arms-length bodies such as the Environment Agency have, along with many Government Departments, been focused on making datasets available as open data; ensuring future data collection and publication approaches are open by default, taking a transparent approach from the outset, whilst not releasing sensitive asset or people data. This will make it easier to work more collaboratively with other government bodies, external partners and the public. This is aligned to Smart Cities and Digital Built Britain where integrated data sets provide a far greater understanding of the provision, capacity, condition and utilisation of networks of assets.

In short, the Environment Agency needs to implement a way to ensure that asset data and information that is deemed to be "sensitive" can only be accessed by those who are cleared to access the data, whilst ensuring that our wider asset data and information can be accessed by internal staff and without compromising the effort to make non-sensitive datasets open to external organisations. This project seeks to begin that process by defining the Built Asset Security Information Requirements and by applying a security layer – in line with PAS1192-5:2015 – to the Employer Common Data Environment used in capital project delivery. In designing the BASIR and security protocol it is also important that they can be applied by project teams with as little effort as possible, and taking into account that they will be generally applied by *Client* project teams without specialist knowledge in BIM, information management or security. This will be the first step in implementing security-minded BIM across the wider Environment Agency asset information and data platforms.

The DADI Asset Data & Information Security Project will follow the principles of best practice documented in PAS 1192-5:2015, a specification for security-minded Building information modelling, digitally built environments and smart asset management. The security protocols defined by this project will apply to all FCRM assets which have an element deemed to be "sensitive"; therefore a key aspect of this work will be to define a "security triage" process by which Project and Asset Management teams can define whether specific instances of asset elements should be deemed as "sensitive" and require the elevated security procedures. As a starting point, the security protocols will be particularly relevant to FCRM assets deemed to be strategically important. An assessment is ongoing but as of July 2018 over 400 strategically important assets have been identified.

Through the implementation of this project and adopting PAS1192-5:2015, the Environment Agency will be able to identify security risks and implement controls that are commensurate with the risk i.e. sensitive asset data and information is protected but is managed alongside non-sensitive data and information in a coherent and collaborative way, ensuring accessibility to those who require access.

Asite Adoddle, which is referred to as File Store within the Environment Agency, is used for the Employer's Common Data Environment (ECDE).

1.2 Project objectives

1. Implementation of PAS1192-5 on capital projects delivered under the Collaborative Delivery Framework (CDF).
2. Define a "security triage" process for Project and Asset Management teams to follow, which will enable them to determine what elements of an asset should be defined as "sensitive" and therefore require the asset data and information to be secured.
3. The Environment Agency's asset data and information is safe guarded where the controls imposed are commensurate with the risk of financial, physical or reputational damage due to unauthorised access or release of data and or information.
4. Sensitive asset data and information is protected but is managed alongside non-sensitive data and information in a coherent and collaborative way ensuring accessibility to those who require access.
5. The Environment Agency is able to demonstrate that it is capable of securely storing 3rd party asset data and information that they hold in relation to their or 3rd Party's operations, maintenance and projects (e.g. asset data about a water authority's potable water borehole).
6. Being open about working with the Centre for the Protection of National Infrastructure (CPNI) and adopting their best practice, reducing the risk of Environment Agency assets data and information systems being targeted by hostiles who wish to cause financial, physical or reputational damage.
7. Ensure that the Environment Agency's suppliers meet specified security requirements, and continue to meet them, to ensure that they have adequate controls to safeguard Environment Agency and related 3rd party asset data and information.
8. Demonstrate to the Cabinet Office that in in line with implementing a BIM Level 2 mandate, that the Environment Agency adopts new aspects of BIM Level 2 as they are developed.
9. Production of two example case studies to demonstrate application including data and geometry.
10. Environment Agency project delivery staff (PCM and PA teams) are trained on the need to apply the asset data security protocol, how Programme & Contract Management (PCM) teams should implement and follow it on their projects and how Portfolio Assurance (PA) teams can assure that adequate security measures are being implemented across projects being delivered under the CDF.

1.3 Project outcomes

The Environment Agency will be compliant with the requirements of PAS1192-5 including having developed a Built Asset Information Security Requirements (BASIR) and implementing the corresponding processes, procedures and controls covering all FCRM assets delivered under the Environment Agency's capital framework, the Collaborative Delivery Framework (CDF).

The Employer Information Requirements and Information Delivery Plan template will be updated to reflect commercial requirements for suppliers, ensuring that controls and security requirements identified in the BASIR are included. Configuration of File Store will have been amended to comply with the BASIR. Internal and external stakeholders have been engaged

throughout the development and implementation, bought in and embedded to deliver in accordance with the new requirements.

Core team of staff in Portfolio Assurance (PA), Programme and Contract Management (PCM), Senior Users and Framework Suppliers across the 14 regional offices have been trained with regards to implementing the BASIR and the associated procedures and controls and act as security champions in their regional offices.

2. *Consultant* deliverables

The *Consultant* shall produce the following key deliverables:

- Built Asset Security Information Requirements (BASIR).
- Proposed amendments to the framework Employer's Information Requirement and Information Delivery Plan reflecting the BASIR requirements.
- Training seminars for *Client* staff. Produce the scope for the development of eLearning material to explain the asset data and information security procedures, suitable for use on the *Client's* Learning & Development system. The eLearning module will be produced by a supplier appointed by the *Client*, with support from the *Consultant*.
- Produce technical content for eLearning module, suitable to be used by the supplier responsible for producing engaging eLearning. Provide support to the *Client* and eLearning supplier on the technical aspects of the content.
- An Operational Instruction (OI) which explains how to identify and classify what asset data and information needs to treated with elevated security.
- A detailed guidance document explaining how to apply the security protocol to secure asset information and data.
- Configuration requirements for File Store to reflect the BASIR requirements.
- New project template(s) and User Acceptance Test plan for Asite in accordance with the configuration requirements addressing the controls defined in the BASIR.
- Benefits realisation plan.
- 2 x Case studies to demonstrate the application of the security protocol and functionality of the ECDE, to show the benefit gained by adopting this approach.

2.1 Establish the Security Triage process & Built Asset Security Information Requirements (BASIR)

The *Consultant* shall establish the Security Triage process and the Built Asset Security Information Requirements (BASIR) for both FCRM capital project and asset management activities in line with PAS1192-5:2015.

The Security Triage process will define how individual asset elements are identified as "sensitive" and thus require elevated security for the management of any associated data and information. A starting point for this will be based around the *Client* Asset Management classification, shown in Appendix 1. The *Consultant*, by engaging with key *Client* stakeholders, will identify asset types and elements in the classification that are deemed to be "sensitive" and automatically require elevated information and data security. As part of this engagement the *Consultant* will define a process by which other asset elements may be deemed as sensitive based on their other characteristics, for example location. This will form the definition of sensitive asset elements within the *Client* asset management framework, and provide a security risk assessment methodology that can be applied to future capital FCRM projects.

The *Consultant* shall produce the BASIR to define the arrangements for capturing, handling, storage, access and use of information and data relating to "sensitive" asset elements, as defined in PAS1192-5:2015. The BASIR shall be a standalone document that details the

processes, procedures and controls that are to be followed. The BASIR shall consider the volume and location strategy of the asset types and associated sub-types, such that information and data specific instances of asset elements deemed to be "sensitive" can be handled securely. In doing so the *Consultant* shall detail the metadata requirements to support the configuration of the ASite Employer Common Data Environment (E-CDE) to support. The BASIR also needs to establish the protocol for securely handling third party asset data and information. This will include a triage process to affirm the level of sensitivity of the asset and a corresponding method for securely handling sensitive third party asset data and information.

Once produced the *Consultant* shall test and seek endorsement of the BASIR with the Senior Users and update the BASIR accordingly.

The *Consultant* shall review the current Environment Agency BIM standard methods and procedures, the Information Delivery Plans (IDP) and the framework level Employer's Information Requirements (EIR). The *Consultant* shall produce a deliverable that details the processes and procedures for implementing the BASIR. The *Consultant* shall also draft the amendments to the current IDP and the EIR to include requirements emanating from the EIR.

The processes and procedures along with the proposed changes to the EIR and IDP shall provide a set of controls for non-strategically important assets, which would include for example volume and location that segregates known sensitive data. The process and procedures deliverable shall include the process controls in considering releasing asset data in response to Freedom of Information requests. The BASIR will also provide processes and procedures for managing data and information security of third party (i.e. not Enrivnoment Agency-owned or operated) assets that are impacted by Environment Agency works.

The *Consultant* shall test the processes and procedures along with the project stakeholders and address comments raised. Proposed changes to the IDP and EIR are to be reviewed and agreed with the Environment Agency DADI project team.

The *Consultant* shall ensure the BASIR and associated processes and stakeholder engagement include assurance that the requirements are being implemented and maintained.

2.2 Training

The *Consultant* shall prepare all written training materials to explain the purpose of the asset data and information security procedures, how staff members in Programme & Commercial Management (PCM) who deliver capital works can follow and apply the procedures when delivering FCRM capital projects, and *Client* staff in Portfolio Assurance (PA) teams how to provide assurance across the capital programme that information and data security is being controlled adequately, as per the BASIR. The *Consultant* will provide two forms of training:

1. Seminars to Environment Agency Staff
2. Guidance Documents and Operational Instruction

The *Consultant* shall also support the *Client* and their nominated supplier to develop eLearning content to be added to the *Client* eLearning platform.

All training documents, presentations and videos are to be created using Environment Agency templates, which will be issued to the *Consultant* by the *Client*.

### 2.2.1 Audience & learning outcomes

The intended audience for these training courses are Project Managers in PCM delivering capital Flood Defence assets for the Environment Agency, Senior Users and suppliers working on these projects, and members of the Portfolio Assurance (PA) team who will be responsible for assuring that the security protocol is followed across the programme.

The *Consultant* will propose the necessary learning outcomes for all training and guidance based on the final content of the BASIR and the implementation of the security protocol. These proposals are to be accepted by the *Client* prior to the development of any training material. The learning outcomes must be relevant to the project stakeholder groups, including Programme & Contract Management teams, Portfolio Assurance, Senior Users and suppliers. The learning outcomes for the training materials are likely to include the following aspects, but the *Consultant's* proposal is not limited to the below:

1. Understand the security context – why we need to implement asset data security (based on PAS1192-5:2015, section 4)
2. Ability to explain the concept of a BASIR (based on PAS1192-5:2015, section 10)
3. Ability to explain how the BASIR integrates with other BIM components – the Employer's Information Requirements, the Asset Information Requirements, BIM Execution Plan and Information Delivery Plan
4. Have an overview of the Environment Agency BASIR
5. Asset Data Security Triage - explain how to identify and classify assets that require security procedures
6. Ability to explain how to set up and use the Asite File Store to manage secure asset data and information during project delivery
7. Ability to use the reporting tools in the Asite File Store to assure project data and information security

2.2.2   Seminars

The *Consultant* is responsible for providing training for Environment Agency staff across the
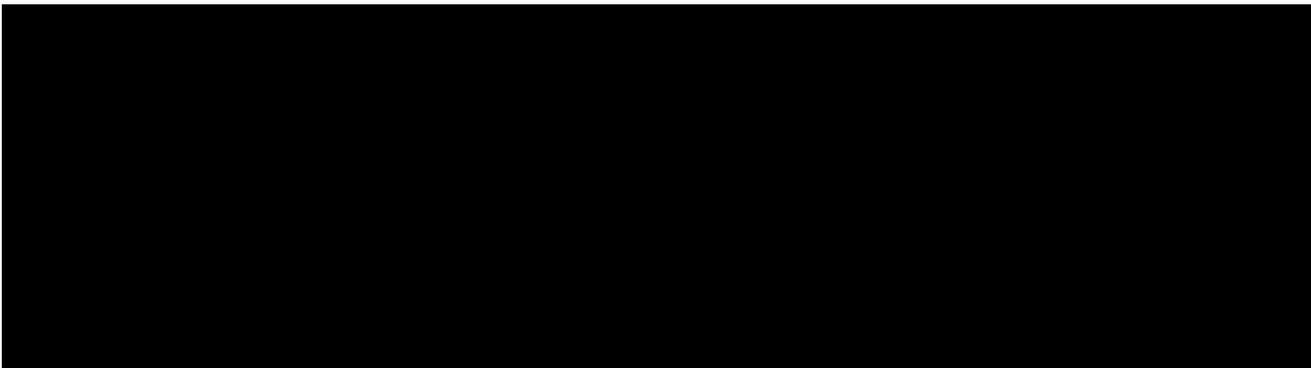
The *Consultant* shall allow for each seminar to be given twice at each location (i.e. 14 seminars in total), on non-consecutive days to facilitate *Client* staff availability. Each seminar shall last for 1 day.

The Learning Objectives are to be defined as per section 2.2.1 of this document. The *Consultant* is responsible for preparing the content of the course and for delivering it; the *Client* is responsible for arranging the courses, confirming locations, and confirming attendees.

The intended audience for these seminars will be for the management teams, key member of staff and any identified project teams who will apply the security protocol imminently. They will be comprised of staff from:

- Capital Programme Delivery – Programme & Commercial Management (PCM)
- Capital Portfolio Assurance (PA)
- Operations Senior Users including MEICA
- File Store administration
- Framework suppliers

In delivering training to the File Store administration team, the training shall cover the requirement for the central PMO team to undertake assurance activities to verify that projects are being configured with the correct security configuration.

2.2.3 eLearning

The *Client* intends to appoint a specialist eLearning supplier to develop an engaging eLearning module to explain the concept of the BASIR and security protocol, and how to apply them on *Client* projects delivered under the CDF. The *Consultant* will support the development of this material by providing the following deliverables:

a) **Confirm the Learning Outcomes and suitable audience.** Based on the final BASIR and implemented security protocol, the *Consultant* will propose the Learning Outcomes for the eLearning module as outlined in section 2.2.1 of this document.

b) **Produce the scope for the specialist supplier.** Based on the Learning Outcomes the *Consultant* will define a scope for the *Client* to procure a specialist supplier to develop eLearning materials. The *Consultant* is responsible for defining the required structure of the eLearning module/s, number of modules required (e.g. different modules for different audiences if required), and Learning Outcomes for each module.

c) **Undertake a start-up meeting with the specialist eLearning supplier.** The *Consultant* will allow for one startup meeting with the appointed eLearning supplier and the *Client*. The purpose of this meeting is to confirm the eLearning requirements, technical requirements for the eLearning, and project management arrangements. This meeting is to be located in London.

d) **Develop technical content.** The *Consultant* will write the technical content of the eLearning modules, which will be developed into the modules by the specialist supplier.

e) **Provide technical support to the eLearning supplier.** The *Consultant* will advise the specialist supplier on the technical content of the eLearning modules.

f) **Support management of the development process.** The *Client* will lead on project management of developing the eLearning modules. The *Consultant* will attend fortnightly teleconferences with the *Client* and specialist supplier for progress reviews.

g) **Undertake reviews of the eLearning module during development, with formal reviews at the Alpha, Beta and Gold stages**. The *Consultant* will review and test the eLearning modules at regular intervals to ensure that each module covers the required learning outcomes, is visually engaging and clear to understand for the intended audience. The *Consultant* will submit Reports of these reviews to the *Client*.

Each module identified by the *Consultant* will consist of a visual eLearning module with recorded voiceover. The module shall be produced in SCORM 1.2 format so that it can be added to the *Client* eLearning platform, however the *Consultant* will be responsible for engaging with the *Client* Learning & Development team prior to producing the eLearning course, to confirm the technical requirements for the platform. Each module will have an end-of-module assessment test comprising of 15 multiple choice questions.

2.2.4 Guidance documents & Operational Instruction

The *Consultant* shall produce two new written documents explaining the asset data and information security procedures. These will be:

- An Operational Instruction. This will explain how to identify and classify assets that require security procedures (i.e. Learning Outcome 5 in section 2.2.1 of this document)
- A detailed guidance document which explains the purpose of the asset data security procedures, the BASIR, and a step-by-step user guide on how to use the Asite File Store to handle secure data and information (i.e. Learning Objectives 1 to 4, and Objective 6 in section 2.2.1 of this document)

These documents are to be prepared using *Client* standard templates for guidance documents and instructions, which will be issued to the *Consultant*.

2.2.5   Upskilling BASIR owner

The *Client* will identify the people responsible for owning and maintain the BASIR and security triage process. The *Consultant* is responsible for producing a briefing note explaining:

a) The purpose of the BASIR & Security Triage process
b) Key terms of the BASIR and Security Triage process
c) Any ongoing issues or risks associated with asset data and information security

The *Consultant* will also host a briefing session with the responsible person to explain the briefing note and answer any queries.

2.3 Change support – Asite file store platform (ECDE)

In addition to delivering training, the *Consultant* shall provide business change support to the six regions along with the File Store administration team to ensure that the regions have assessed the impact of the change on their staff and activities and are able to implement the new ways of working.

The *Consultant* shall attend a meeting with Asite who will advise the *Consultant* on the information that they require to implement the changes to the configuration of File Store. The *Consultant* shall produce the configuration requirements, in the form required by Asite. In establishing the configuration requirements, the *Consultant* shall define the user acceptance criteria.

The *Consultant* shall support Asite whilst they implement the required changes. User acceptance test plans will be developed and tests undertaken by the *Consultant* with input from the Environment Agency DADI project team. The *Consultant* shall support Asite in addressing comments emanating from the user acceptance testing.

Asite shall amend File Store project template(s) so that they are available for testing by the DADI project team and Senior Users. The testing period will be two-weeks. Following the testing of the new project template(s), Asite shall update the project template(s). In addressing comments raised Asite will demonstrate how comments have been addressed.

The *Consultant* shall support in identifying methods to monitor compliance with the Security Triage process, BASIR, and other protocols introduced under this project. This shall include methods of visualising performance a "dashboard" or KPI.

2.4 Case studies

After defining the BASIR and once the ECDE (Asite) has been adapted to suit the requirements, the *Consultant* shall produce two case studies of projects being delivered under the EA Collaborative Delivery Framework that are using the security protocols. The two projects to be examined will be agreed with the *Client*.

The case studies should show at a high level (so as not to compromise any secure data or information) how the security protocols are being applied in each project, and the benefit to the project from applying PAS1192-5 in the delivery of the work.

3.   *Consultant* tasks

To support the production of the commissioned deliverables and the overall delivery of the project, the *Consultant* shall undertake the following tasks:

- Initial project mobilisation
- Ongoing project management activities during delivery
- Continual engagement with project stakeholders

- Support the changes required to the Employer Common Data Environment (ECDE), Asite
- Support the preparation of project Comms & Engagement, to audiences internal to the Environment Agency as well as external audiences such as supplier groups
- Support project close-out; benefits realisation, lessons learnt, etc.

3.1 Project mobilisation

A mobilisation period should be allowed for. During this period, the *Consultant* shall:

- Attend mobilisation meeting.
- Confirm stakeholder engagement requirements.
- Identify stakeholders and prepare a stakeholder engagement plan.
- Update the project execution plan and quality plan for comment
- Establish project controls and reporting.
- Complete reading of background project information provided by the DADI project team.
- Issue updated project execution plan and quality plan addressing DADI project team comments.
- Document product descriptions to agree outputs.

The *Consultant* is responsible for the stakeholder engagement and management requirements and producing project communications material to support the engagement, buy in and ongoing support of stakeholders. The *Client* project management team will support the identification of the stakeholders. The *Client* project management team will provide support to the supplier in identifying, where appropriate, meeting rooms in *Client* offices to hold the stakeholder workshops.

The *Consultant* will deliver a training plan, detailing the delivery approach for training enabling the provisional timetabling of training sessions to be set to ensure stakeholders are available to attend the planned training sessions.

The *Consultant* should recognise that stakeholders will not be immediately available to attend workshops due to their current work commitments. The *Consultant* is responsible for scheduling the workshops with the Senior User Groups.

3.2 Stakeholder engagement

In defining and drafting the Security Triage process, the *Consultant* shall engage with stakeholders from the following *Client* teams:

- Mechanical, Electrical, Instrumentation, Control & Automation (MEICA)
- Asset Performance (regional asset management teams)
- Programme & Contract Management (PCM)
- Defra Security team
- Suppliers on the Collaborative Delivery Framework

The purpose of this engagement is to identify which asset elements on the *Client* asset management classification are always "sensitive" and find a "light touch" automated process by which other elements can be determined to be sensitive or not. The *Consultant* should allow for two workshop dates with the above stakeholders at a location in London for this purpose. The two workshops will have the same agenda, and are required to manage attendance to a reasonable number and accommodate varying availability.

In drafting the BASIR, the *Consultant* shall engage with stakeholders:

- Programme & Contract Management (PCM) teams
- Portfolio Assurance (PA)
- Mechanical, Electrical, Instrumentation, Control & Automation (MEICA)

- Asset Performance (regional asset management teams)
- Defra Security team
- Suppliers on the Collaborative Delivery Framework
- Other affected projects in the Creating Asset Management Capability (CAMC) and Digital Asset Data & Information (DADI) Portfolios

The *Consultant* must allow for two sets of two workshops (four in total) with key stakeholders identified above. Two workshops at each stage are to manage the number of attendees at each workshop, and accommodate varying availability.

The first workshops will be designed to capture stakeholder requirements for the BASIR, and the second to be held after producing a draft version of the BASIR to test and review it with the stakeholders.

Following on from each workshop the *Consultant* should allow for a "mop-up" session via teleconferencing with any invited *Client* staff not able to attend the workshops.

The *Consultant* shall engage with the Environment Agency's Employer Common Data Environment (ECDE) provider (Asite Adoddle) and internal system manager to confirm the current means by which 'project areas' are created in File Store in line with the current Capital Project delivery procedures. The development of a BASIR shall include identifying and agreeing with appropriate stakeholders the process and approach to the setting up of a new project workspace that includes the BASIR requirements aligned with the 12 asset types listed in Section 2.1 of this document.

3.3 Comms & engagement

The *Consultant* will provide support to the Environment Agency in preparing project updates to internal newsletters, magazines and other groups. The *Consultant* shall allow for producing:

a) 3 no. monthly project updates, length 150 words for use in internal newsletters, to be issued by the end of each calendar month
b) 20 minute presentation in person every other month in London to a supplier working group.
c) 1 no. 30 minute presentation every other month via a webex on progress to various stakeholders.
d) 1 hour call per week to present the weekly update be attended by the *Consultant*'s team until contract completion.
e) During production of the eLearning content, 30 minute progress call every fortnight with the *Client* and the eLearning provider
f) Regular engagement relating to ongoing development and delivery of services with the Environment Agency Project Manager.

The *Consultant* will produce a Stakeholder Engagement plan within two weeks of contract award, for acceptance by the *Client*. It shall include the above items, as well as provision for regular engagement with DADI Asset Information & Data Security project stakeholders to inform them of the project as it progresses, and gain their support.

3.4 Project close-out

The *Consultant* will support the *Client* with the following project close-out activities:

a) Verification and acceptance of products produced
b) Assure that support is in place for the *Client* to support the products
c) Assess any benefits that have been realised at project closure
d) Produce benefits realisation plan
e) Record lessons learnt

f) Record any open issues and risks, and ensure that provision is in place as part of the handover process to manage these

4. Access to

The *Client* will provide the *Consultant* with a copy of the:

- CAMC Asset Information Management System (AIMS) Asset Terminology Guide and Data Requirements Library
- Capital project Employer's Information Requirements
- Capital project Information Delivery Plan template

Access will be provided to Senior Users and their staff across the regional offices to establish the new ways of working and deliver the core training.

Access to personnel from Asite will be facilitated.

The *Consultant* will produce a report that details the required configuration changes to File Store. Asite shall engage with the *Consultant* and shall define the configuration requirements, as defined in the BASIR.

The *Client* will provide Asite with access to the DADI project team and the external *Consultant*'s team.

5. Acceptance criteria

1. BASIR and the corresponding processes, procedures and controls are clear and simple to implement which will be assessed by the Security project Senior Users. The BASIR shall be designed so that staff do not need to be security specialists. As such the BASIR shall make use of clear and simple process diagrams to enable staff to establish project specific controls that are to be included in a project IDP.
2. The File Store configuration is completed and configured in accordance with the BASIR requirements addressing the controls defined within it. Signed off by the *Client* team that are responsible for the management of this service.
3. Stakeholders have been engaged and bought into and supportive of the requirements and changes.
4. The Project Board have signed off the products/ outputs delivered.
5. *Client* Staff have the appropriate skills to deliver, assure and manage the implementation of the requirements.
6. CDF Suppliers are aware and operating within the requirements of the BASIR.
7. Training materials (eLearning, guidance documents & Operating Instruction) have been delivered that are suitable for use by staff in the future to understand the BASIR and the processes, procedures and controls that have been put in place.
8. Benefits of the project are being realised and captured.

6. Outputs of this commission

1. BASIR has been established corresponding processes, procedures and controls
2. EIR and IDP have been updated to implement the changes emanating from the BASIR
3. Stakeholders engaged, bought in and delivery and assurance embedded.
4. 14 no. Training seminars delivered to staff across 7 regional offices, to include staff from PCM, PA, CDF Supplier and Capital Project Senior Users
5. Training material provided to the Environment Agency eLearning platform

6. Guidance documents suitable for use by staff that haven't attended training seminars.
7. Requirements are implemented within the Common Data Environment (Asite) in accordance with the configuration requirements addressing the controls defined in the BASIR.
8. 2 no. case studies are produced to show the implantation of the security protocol within projects being delivered under the Collaborative Delivery Framework.
9. Benefits review and realisation plan developed and being implemented.

7. Resource requirements

Specific skillsets are required to complete the project and any prospective team should include the following capabilities as a minimum. An individual can be allocated to one or more disciplines. It should be made clear within the proposal what each proposed resource will be responsible for. This will also be assessed against the schedule for effective resource planning.

Discipline	Capability / Responsibility	Qualifications/ Experience
BIM - Security	Author the Built Asset Security Information Requirements (BASIR)	a) Experience and knowledge of basic BIM processes (ISO 19650) as applied in the Environment Agency. b) Knowledge of the Environment Agency c) Demonstrable experience in developing a client BASIR in accordance with PAS1192-5 is desired. d) Membership of a professional body eg Institution of Civil Engineers
Business change – implementing software changes	Specify and test the changes required to the Employer Common Data Environment (Asite) to support the security protocol.	a) Experience of developing configuration requirements for software changes. b) Experience of developing User Acceptance Test (UAT) plans and performing UAT on software update. c) Experience of configuration of the Asite platform is desirable.
Business change – embedding the new process/policy in the organisation	Business change support to embed the new process amongst staff.	a) Experience of embedding process changes across organisations. Rolling out the changes, informing and training those affected, and monitoring compliance and up-take after implementation.
Stakeholder relationship management and communication	Pro-actively manage the stakeholder relationships and communication.	a) 3+ years prior experience in stakeholder management b) Preparation of communication for a technical subject with a mixed audience that includes non-technical staff.
Project Management	Pro-actively manage the delivery of the service and responsible for meeting these requirements.	a) Project management experience preferably in the development of technical standards. b) PRINCE2 or equivalent qualifications. c) Desirable change management qualifications/ experience.
Learning and Development	Delivering technical content for learning material that meets the learning outcomes.	a) Experience in the development of technical Learning and Development material to non-technical users.

7.1 Reporting requirements

1. Schedule update on award within a week. Schedule to be provided in Microsoft Project (and PDF) to include as a minimum a Ganntt Chart with Task Name, Duration, Start, Finish, Predecessors, Resource Names and associated costs.
2. 1 no. Summary report per week to update on schedule including completed tasks, communication undertaken, stakeholder engagement, financial until contract completion.
3. 1 no. highlight report per month to project board on progress. Allowance for every other to be in Bristol with alternate meetings by teleconference. Preparation of Powerpoint slides providing a summary of schedule, financial update, stakeholder engagement, risks, issues and communication activities and any associated feedback from that engagement and communication. These slides and update report (Word and PDF) to be supplied to the project team 5 working days before the board for review. Report and slides should include progress against schedule, financial update, stakeholder engagement, risks, issues and communication activities and any associated feedback from that engagement and communication.

8. Risks and constraints

Early engagement with Asite should be undertaken to ensure that they understand the scope of the project and they are ready to and are committed to establishing the new project templates on the required dates.

To ensure that the project is delivered efficiently and on time, it is essential that the *Consultant* identifies the key stakeholders in advance and schedules the early workshops with appropriate allowance in notice to enable the maximum number of stakeholders to engage with the project.

9. Security requirements

Consultant staff shall have baseline security clearance.

APPENDIX A – Client AM classification

The *Client* Asset Management classification, including asset types, sub-types and associated elements can be downloaded from Asite at the following link:

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This spreadsheet contains details of the Environment Agency's Asset Management classification. The classification is broken down by Asset Complexes, Assets, and Asset Elements.
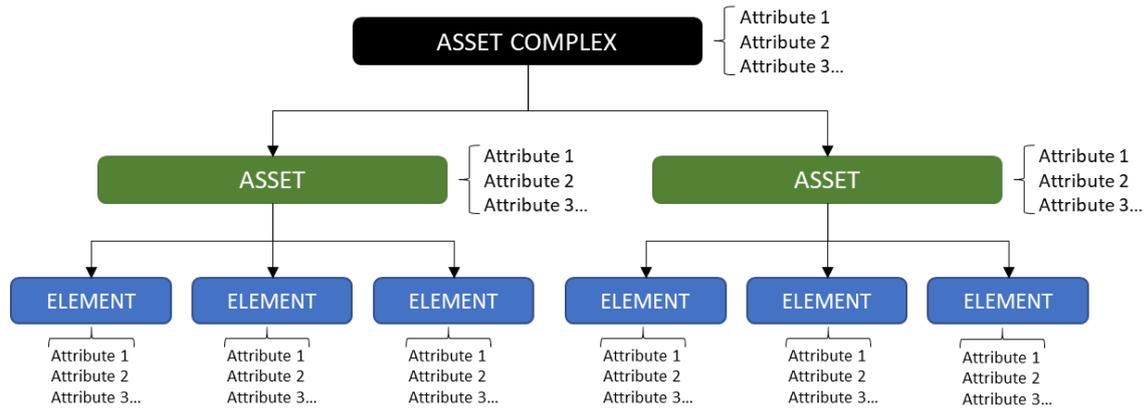
The classification is currently in review; this document is presented as a "snapshot" for tender purposes, and the latest full version will be issued by the *Client* upon contract award.