RAF CAM Relocation Project- Pre-Construction Information Pack (PCIP)

Version 1.0 dated 08 June 2022

Contents

1. INTRODUCTION

This Pre-Construction Information Pack forms part of the tender documentation for the appointment of the Contractor; it describes the project, construction site and timing, identifies hazards and risks, required standards for health, safety and welfare and identifies interfacing activities.

Designers and Contractors may use this information in conjunction with other contract documentation to plan their work. It is a responsibility of the Client to ensure its preparation and they must provide this document as soon as practicable to each designer and Contractor being considered for appointment.

The purpose is to highlight the main health and safety issues in connection with the construction work in the project and to form a basis for tenderers to explain their proposals for managing the risk inherent in the project.

The PCIP will be updated prior to Contract award to accommodate additional information identified during the Tendering phase.

The appointed Contractor will develop the PCIP as part of its duties (under Regulation 12) to produce a Construction Phase Plan, in particular taking reasonable steps to ensure co-operation between all Contractors to achieve compliance with the Regulations together with any specific rules and recommendations set down within the Plan.

No construction work will be allowed to commence until the Client is satisfied that a Construction Phase Plan has been prepared in accordance with Regulation 12.

2. PROJECT TEAM AND NATURE OF PROJECT

Project Team and Stakeholders[1]

The table below identifies the key Project personnel and their role within the Project. In the majority of cases the Client personnel should be the first point of contact. In the event of an emergency or site security issue please contact the station staff.

[1] This table will be completed by the Client prior to contract award.

PROVISIONAL

Client - Project Delivery	Post	Representative	Email
Project Delivery Manager	DES FsAST-AVMED-Ld	FOI Section 40(2) – Personal information	FOI Section 40(2) – Personal information
Infra Project Manager	DES FsAST-C17STS-PM	FOI Section 40(2) – Personal information	FOI Section 40(2) – Personal information
Information Manager (IM)		TBC	
Quantity Surveyor (QS)		TBC	
Project Planner		TBC	
Technical support Provider (TSP)		TBC	
NEC Supervisor/Principal Designer		TBC	
Project Planner		TBC	
Lead Commercial Officer	DES FsAST-Comrcl-Lead	FOI Section 40(2) – Personal information	FOI Section 40(2) – Personal information
Infra Commercial Officer	DES FsAST-Comrcl3	FOI Section 40(2) – Personal information	FOI Section 40(2) – Personal information
Information - Station Support			
OC Base Support Squadron (OC BSS)	CRN-Spt-BSS-OC	FOI Section 40(2) – Personal information	FOI Section 40(2) – Personal information
CRN-BSW-BSS-SO3 Infra	SO3 Infra	FOI Section 40(2) – Personal information	FOI Section 40(2) – Personal information
Site Security Officer (SSyO)	RAFP-CRN OC	FOI Section 40(2) – Personal information	FOI Section 40(2) – Personal information
Station Health and Safety Advisor(SHSA)	CRN-Ops-Safety-Func-HS	FOI Section 40(2) – Personal information	FOI Section 40(2) – Personal information
Station Environmental Protection Officer (SEPO)	CRN-Ops-Safety-Func-SEPO	FOI Section 40(2) – Personal information	FOI Section 40(2) – Personal information
Other Stakeholders			
Communication and Information Systems (CIS)	RAF Digital-Del-CIS Infra2	FOI Section 40(2) – Personal information	FOI Section 40(2) – Personal information

Project CDM Appointments[2]

The project has been assessed with regard to the Construction, Design & Management Regulations (CDM) 2015, and falls within the prescribed requirements.

[2] This table will be completed prior to contract award by the Client and Contractor.

PROVISIONAL

Role	Name	Email
Client		FOI Section 40(2) – Personal information
Client Project Manager (PM)		*TBA*
Principal Designer		*TBA*
Designated Project Engineer/TSP		*TBA*
Contractor		*TBA*
Contractor PM		*TBA*
Building Control Advisor		*TBA*
Structural Engineer		*TBA*

PROVISIONAL

RAF CAM Relocation project - Project Brief

The aim of the RAF CAM (Centre for Aviation Medicine) Relocation project is to move the RAF CAM capability from RAF Henlow in Bedfordshire to a purpose-built facility within the perimeter fence of RAF Cranwell in Lincolnshire.

The RAF CAM relocation project sits within the Air Sub-Programme 5 (ASP5) which addresses the closure of RAF Henlow. The Outline Business Case (an initial Gateway review), approved in March 2021, considered the entire ASP5 Programme. This provided assessment phase funding for RAF CAM Relocation and approved the proposed site from a selection of options. The Final Business Case (FBC), due next year, will consider only the RAF CAM Relocation project and will be developed in response to tenders delivered. The FBC will approve the project and funding for the remainder of the RAF CAM Relocation project activities, including equipment In-Service Support but excluding Building Facilities Management.

The scope of the RAF CAM project will include the design and construction of a new building, the integration and commissioning of a range of test equipment (~qty 16 items) and training facilities, and the in-service support of the equipment. The building facilities management shall be undertaken by the existing team at Cranwell after acceptance and handover of the building. Prior to installation some equipment shall be either renewed or refurbished. The interfaces created between the equipment and the building shall be managed by the Contractor. Disposal of assets at Henlow is out of scope as is any requirement for Single Living Accommodation, and RAF CAM Personnel scaling.

This project may interact with other Construction projects at Cranwell, including those under ASP1 (Portal – Cranwell estate development). These may raise threats to project delivery on utility, traffic, and accommodation topics but may also create opportunities for cost sharing and are being monitored accordingly by the Client.

The site for the new facility is centred on National Grid Reference (NGR) 501440, 349680, near Sleaford, Lincolnshire, NG34 8HB. The site is roughly square in shape, bounded by tarmacadam roads on all sides, and covers an area of approximately 5 hectares. The majority of the site is covered with grass with a few trees, with a car park located in the northwest corner and a smaller one adjacent to the western site boundary. Three underground air raid shelters are present in the southwest corner of the site. A further four underground air raids shelters are present immediately south of the road forming the southern boundary of the site. In the centre of the site is a Seven Trent pumping station with manholes and control panel above the ground level. There are street lighting columns along the western and northern boundary of the site and around the car parking area.

Note that the site for the building sits within the station perimeter fence at RAF Cranwell. This has implications for the management of the construction site and construction activities as detailed within the Scope document. In addition, as a defence contract the project has an associated security aspects letter which details the security management and data protection requirements for the project.

Several surveys have been completed addressing utilities, land quality, habitats, and transport. A site data pack for RAF Cranwell has been compiled to provide additional information on the hosting station. All are contained within this Pre-Construction Information Pack (PCIP) delivered by the Client. A DREAM (Defence Related Environmental Assessment Methodology) review and a Sustainability Assessment have already been initiated and access to these shall be granted at contract award.

The equipment which shall be installed includes various air platform cockpits, drop test rigs, and decompression chambers which require suitable access for installation and removal. The building will also house a specialist simulator, which requires a specific floor construct, and a plunge pool (heated body of water).

The User Requirement Document (URD) which captures the Customer (User) needs has been delivered to the Client. This document details the project requirements against which the delivered solution will be measured by the Customer/User (Air Capability/RAF CAM). A mature System Requirements Document (SRD) which has converted the user requirements into system requirements is available within the contract documentation package.

Planning approval for the building has already been addressed with the North Kesteven District Council Local Planning Authority (LPA) and passed as Permitted Development under Part 19, Class E of the GPDO. Consequently, we need not trouble the LPA further during the design and construction process.

The RAF siting board, which examines the impact of the new build on the station facilities and capabilities, has agreed the site location and perimeter with the proviso that the building shall not exceed 10m in height due to radio traffic considerations. Counter Terrorist Measures (CTM) require the building to be positioned at a distance away from the road and perimeter fence as defined in the contract documentation.

PROVISIONAL

A Scope document, which addresses the management requirements for the project, is Annexed to the contract. It is here that the project requirements for the application of Building Information Modelling (BIM), Government Soft Landings (GSL), the RIBA Plan of Work, Net Zero Carbon, MMC, etc are elaborated.

The project sits in RIBA Stage 2.

The project CIS requirements have been developed by Defence Digital and they sit within an Annex to the SRD. The general installation requirements (Part A) and the site-specific requirements (Part B) are available. The detailed user requirements (Part C) will be developed during the building design phase through a dedicated working group.

The project Security requirements have been captured within an OR1 document prepared by the RAF Police. This document also sits as an Annex to the SRD. A design specific exposition of these requirements will be developed and captured within an OR2 document during the building design phase.

The contract shall be following DIO policy and standards for the build which includes the application of:

- JSP 850
- DREAM
- Government Soft Landings
- BIM level 2
- Sustainability and Environment impact - the Sustainability and Environmental Assessment Toolset (SEAT) including a Sustainability Appraisal.
- RIBA Workplan 2020.

The site has limited electrical power capacity. A fact which will underline the requirement for building sustainability and climate resilience. ULEV charging points for the car park and bicycle storage are tangible manifestations of a policy of environmental consideration in design. It is expected that the Contractor will utilise PhotoVoltaic (PV) cells in the design and other innovative solutions to address utility provision. Water provision is another difficult topic in Lincolnshire and needs careful consideration. Emergency water supplies for firefighting are not readily available.

The site has good vehicular access being adjacent to the B1429, with links to the A15 and A17. It is proposed to ringfence the site and use a dedicated access gate to minimise the impact on the station. The build shall be CCS (Considerate Constructors Scheme) registered.

In addition to Preliminary Ecological Appraisal already completed a further habitat review will be undertaken this year (2022). The Client has been in discussion with the station utility providers, including the contractor responsible for Project Aquatrine – the Ministry of Defence's (MOD's) GB-wide water and wastewater Public Private Partnership (PPP) contract.

We shall establish Defence Share or a similar information sharing account to facilitate the exchange of information. Comments/updates for review can be captured within the documents. A new version shall be established with each exchange of the updated/amended document.

PROVISIONAL

3. PROJECT TIMESCALES[3]

The target Project timescales are outlined below. These will be updated prior to contract award to reflect the agreed schedule.

Anticipated Contract Award	September 2023
Start of Construction	TBA
Estimated completion of construction	TBA
Target Completion	November 2025
Target Final Completion	November 2026

4. CLIENT CONSIDERATIONS

Arrangements for planning and managing Health and Safety during the construction phase of the project are listed below:

The Client is responsible for the health and safety of all their employees at work and other people not in their employment, who are affected by the works.

The Client will arrange for an RAF Cranwell station brief to be given to the Contractor at contract award and again prior to the start of Construction. This will include a Health and Safety brief and a security brief.

The Client shall have the right to suspend the construction work if they believe that a person's safety is at risk.

The Client shall advise the Contractor on any local/special access arrangements for the site.

Client Codes of Practice for the site can be found at Appendix A to this document.

The Principal Designer shall review drawings and design changes throughout the project and raise any associated issues with respect to health and safety considerations with the design team.

The Contractor shall be responsible for the management and implementation of health and safety within the construction site and those that might be affected by construction operations.

The Construction (Design and Management) Regulations 2015 (CDM 2015) are applicable to this Project. The Contractor is responsible for developing the Construction Phase Plan which sets out the arrangements for securing health and safety during the construction phase and maintaining it on site throughout the duration of the project.

The Client requires that the Construction Phase Plan is submitted to the Client at least 40 Business Days before work commences on site. The Client will assess the plan to ensure it is suitable and sufficient.

All persons on site should be given a site-specific induction to familiarize themselves with emergency procedures, management requirements and specific site details.

All personnel on site must have received adequate training to undertake their work in a safe and competent manner. Information on the training of personnel, refresher training and statutory training certification should be held by the Contractor and must be available for inspection at the site.

Any training needs identified as being required during the project shall be undertaken.

[3] This table will be updated with information from the Tenders prior to contract award.

PROVISIONAL

Health and safety shall be included on the agenda of all site meetings and significant items recorded and distributed to all relevant parties.

A system of monitoring the construction works to ensure the effective management of safety throughout the project duration shall be implemented by the Contractor. Such monitoring shall include:

- Workplace inspections – general site safety
- Statutory inspections – scaffold, plant, equipment, etc.
- Sub-contractors – the monitoring of sub-contractors

The Contractor is responsible for the production of all required method statements and risk assessments with respect to his undertakings. In addition, the Contractor shall review the method statements and risk assessments of all subcontractors on site and ensure that their content is suitable and sufficient before permitting any relevant activities to commence.

Details of all accidents on site and the findings of such investigations shall be forwarded promptly to the Client.

The Contractor is responsible for obtaining any Section 61 Consents required under The Control of Pollution Act, 1974 and any licensing requirements associated with the protection of species and habitats.

If required, the Contractor shall notify HSE of the project as soon as possible before construction work starts.

The Contractor shall carry out a Fire Risk Assessment in respect of the works in accordance with the Regulatory Reform (Fire Safety) Order 2005, which shall be regularly reviewed and updated as necessary.

The Contractor shall ensure that emergency procedures and means of escape are maintained throughout the Construction Phase and any additional measures as a result of the works or erection of scaffolding/hoarding, etc. on site are put in place and maintained as required. This includes the physical protection of routes, floors and other types of surfaces, access/egress points, locks and door furniture and emergency and safety lighting and signage for escape routes, etc.

The Contractor shall be familiar with local emergency procedures and arrangements in relation to the RAF Cranwell.

The Contractor is responsible for obtaining any local permit requirements e.g. fire protection systems, working at height, hot works, RAF Cranwell security constraints, etc.

Welfare arrangements

The Contractor shall ensure that arrangements are made for the provision of adequate welfare facilities on the site. These shall include as a minimum the provision of toilets, wash hand basins with hot and cold water and towels, drinking water, a dry communal area. All welfare arrangements shall be agreed with the Project Manager and implemented before the commencement of any construction work and maintained in a hygienic manner for the duration of the project. (See the HSE publication "Provision of welfare facilities during construction work").

Security of the site

PROVISIONAL

Security arrangements shall be detailed in the Construction Phase Plan and agreed with the Project Manager in advance of any works. They shall take full cognisance of requirements for:

- hoardings
- additional signage and fencing
- known crime hot spots
- the likelihood of trespass and vandalism at the location
- known issues with regard to fly tipping or drug use.

The site shall be secured by fencing and gates with approved padlocking to prevent unauthorised access.

All access gates to the site shall be locked and secured when not in use.

The Contractor shall consider fully the guidance detailed in BS 6187 "Code of Practice for full and partial demolition.

Temporary works should also take cognisance of BS 5975 "Code of Practice for Temporary Works Procedures and the permissible stress design of falsework."

The Contractor shall assess fully any information about existing structures, their stability, structural form, and any fragile or hazardous materials and any structural modifications that may have been undertaken.

Communication

All formal communications, instructions, technical queries, etc. are to be routed via the Client or its on-site representative.

5. EXISTING ENVIRONMENT RESTRICTIONS AND ON-SITE RISKS

The Client has undertaken several site surveys over several years in preparation for construction on the RAF CAM Project site. These are detailed below and are available within the PCIP documentation pack. Within these documents the Contractor will find information on the site environment including services, possible obstructions, and hazards held by the Client. These survey reports are provided for information only as the Client cannot underwrite the accuracy of these reports.

The following site surveys which have been undertaken by the Client:

a) DIO - RAF Cranwell, Lincolnshire – Geo-environmental and Geotechnical Interpretative Report, Revision 2 dated December 2018.

b) DE&S - RAF CAM Relocation to RAF Cranwell - Preliminary Ecological Appraisal V2 dated 02/04/2020.

c) DIO - RAF CAM Relocation to RAF Cranwell - Transport Assessment V2 dated Nov 2020.

d) RAF Cranwell - Ground Penetrating Radar and Topographical Survey dated March 2020.

e) DE&S - RAF Cranwell "Site 07" Land to the East of Trenchard Hall Phase 1 Land Quality Assessment V2 dated May 2020.

f) DE&S - RAF Cranwell "Site 07" Land to the East of Trenchard Hall Supplementary Phase II Ground Investigation V2 dated November 2020.

PROVISIONAL

g) DE&S - RAF CAM Relocation to RAF Cranwell - Utilities Survey and Review V1(draft) dated 31 July 2020.

h) DE&S - RAF CAM Relocation to RAF Cranwell - Security Assessment Report V1(draft) dated 13 July 2020.

i) DE&S - RAF CAM Relocation to RAF Cranwell - Site Surveys Summary Report V1(draft) dated 18 February 2021.

The Client has prepared a data pack on the hosting RAF station. This provides information on the station, its people and processes.

- RAFCAM Relocation Project RAF Cranwell Site Data Pack V1.1 dated May 2022

Security alert status[4].

- RAF Cranwell alert status at 25 May 2022 is **MODERATE**.
- The current UK Terrorism Threat level is **SUBSTANTIAL**.

Project Security - Security Aspects Letter

The Security Aspects Letter (SAL) for the Project can be found at Annex A to the contract front sheet. This document provides all parties with the security classification of information elements within the Project that will be shared, if OFFICAL SENSITIVE or above. It is the responsibility of the Project Manager to ensure it remains relevant to the application of security to the Project. For Project information, the Contractor shall apply the direction contained within the SAL. If there is any doubt about the application of the SAL please contact the Client for guidance. More information can be found in the Defence Manual of Security and Resilience, JSP 440.

Local Planning Authority (LPA)

The Local Planning Authority for the Project is:
North Kesteven District Council, Kesteven Street, Sleaford, NG34 7EF

The Client submitted an application to the LPA for the building to be treated as Permitted Development under Part 19, Class E of the GPDO (Appendix B to the PCIP). This was approved. Further planning applications to the LPA are not required.

Utilities

Any work on utility and live telecommunications equipment must be planned and notified in advance to relevant stakeholders (See Contract Scope requirements). Notifications fall into three categories:

1] connection/disconnection

2] at risk

3] for information only.

As described earlier there is a sewage pumping station within the site boundary. The Client is in discussion with Severn Trent Services about options for the relocation of the

[4] These security status identifiers will be updated prior to contract award by the Client.

PROVISIONAL

pump and associated drains away from the site. If agreed this work would be undertaken in advance of contract award. The Client will update the Contractor during the Tender process.

Sustainability and Environment

The Client is very focussed on the impact of new build on the environment and must align to government policy and guidance relating to climate resilience, sustainability, and net carbon zero. More detail on these topics can be found within the Project Brief and Contract Scope.

No significant Environmental risks or issues have been identified by the Client, but the Contractor should note the following:

- The site sits within a Flood Risk Zone 1.
- An Arboriculture survey is being undertaken by the Client and the impact on the site shall be considered as part of the design and landscaping process. This shall be provided when available.
- A pre-construction habitat and species survey is required to be undertaken no earlier than 6 months prior to the start of construction.
- The proximity of the site to an active runway with the associated noise, FOD management issues, and siting board constraints.

Station Restrictions

RAF Cranwell restrictions are detailed within section 3.3 of the Cranwell Site Data Pack v1.1. Many of the constraints are applicable due the active runway near the development site. The Contractor shall recognise and respond to the constraints resulting from the use of airfield aids, the proximity of the runway and taxiway, Counter Terrorist Measures (CTM), and the requirements for military aerodrome safeguarding. A site constraints plan is lodged at Enclosure 5 to the Cranwell Site Data Pack.

Foreign Object Debris (FOD) is a pre-eminent danger when construction occurs close to an active runway. The Contractor must take appropriate measures to minimise the risk to life posed by FOD. There is more information on this in the Scope document and in the Cranwell Site Data Pack.

Design and Site Construction constraints have been established to minimise the risk to station flying activities which include a site height limit of 10 metres and a limitation of the use of metal structures. These must not be breached without the approval of the Client.

6. SITE ACCESS HAZARDS

The Contractor shall note the following:

- Site access shall cross a pedestrian footpath.
- The site and site access points are opposite family accommodation leading to concerns over levels of dust, noise, and air pollution.
- The site access lies near to a zebra crossing which links the accommodation and shop to the Cranwell facility. Due diligence must be taken when entering and exiting the site.

PROVISIONAL

- Site parking must be established within the secure site area. Parking cannot be allowed on the B1429 outside of designated parking areas.

7. RESIDUAL DESIGN AND CONSTRUCTION SITE HAZARDS

No significant residual Hazards have been identified to date. However, the Contractor is to note the following low risk hazards, take precautions against them and identify a process for a suitable response to the risk.

i. Although no Asbestos was found in the soil samples taken as part of the Land Quality Assessments of the site there remains the possibility of contaminated building fragments from the air-raid shelters or other artefacts being unearthed during site clearance and excavation. It was noted in the CGL report of 2018 that "Based upon the results of the assessment, Made Ground at the locations of the former air raid shelters has the potential to represent an unacceptable risk to human health due to the presence of asbestos." Hence the Contractor shall establish processes to deal with any asbestos in the event of its discovery, particularly in digging in the areas of made ground.

ii. The presence of heterogeneous and unconsolidated backfill to the seven demolished former air-raid shelters, as well as other below-ground relics of former site use (e.g., foundation slabs, redundant services etc.) are likely to represent local geotechnical constraints to the proposed development and represent a low risk to the Construction team. The Contractor shall consider if further risk reduction measures are required based on the development of the building footprint and foundation design. See Table 3.3 of the Supplementary Phase 2 Ground Investigation survey report. One mitigation to consider would be to avoid the air-raid shelters which sit on the periphery of the site.

iii. The CGL report "RAF Cranwell, Lincolnshire – Geo-environmental and Geotechnical Interpretative Report, Revision 2, dated December 2018 also notes that risks to human health are unlikely from contaminated soil and the risk from ground gas is negligible. However, the site is located in an area in which basic radon protection measures including a radon protection membrane may be required.

iv. A Zetica1 unexploded bomb risk map for Lincolnshire indicates that the site is in an area of moderate bomb risk. MACC International undertook a preliminary UXO risk assessment in 2017 and noted RAF Cranwell underwent several air raids during World War II and has been used for training over the years which potentially included the use of live and training ordnance. The MACC risk assessment concluded that the risk of encountering ordnance during a ground investigation is low to medium. A preliminary UXO threat assessment undertaken for CGL by 6 Alpha Associates (2018) indicated a high-risk rating, indicating further action was required to establish and mitigate any UXO risk posed. The CGL report also refers to a Stage 2 Detailed UXO Risk Assessment undertaken by Brimstone Site Investigation (Ref: DRA-18-1012 Dated March 2018) provided to CGL by RAF Cranwell which considered the site a low risk. However, this report has not been made available to the Client. Anecdotal evidence from site personnel indicated that possible UXO artefacts were identified at the edge of the existing runway during recent construction works.

PROVISIONAL

Given the military use of the site over many decades and the uncertainty created by conflicting UXO assessment reports the Client considers that there is a potential for UXO to be encountered during ground disturbance. To mitigate risks associated with UXO encounter, it is recommended that a specialist subcontractor is engaged to provide supervision of intrusive works. The specialist sub-contractor should provide a UXO site safety briefing to site personnel in advance of ground disturbance and provide full time supervision of the intrusive works.

8. HEALTH & SAFETY FILE

The Contractor shall comply with his duties under the CDM Regulations 2015 and obligations set out in the contract documents to ensure that the Client receives all the information required to complete the Health and Safety File within four weeks of issue of the Certificate of Practical Completion by the Contract Administrator.

Operation and Maintenance Manuals must be available before the building is handed over to the Client.

The Health & Safety File shall be provided in a single indexed electronic document format (including all manufacturers' data, drawings, etc). In addition, separate electronic copies of drawings in AutoCAD, and editable word / excel documents shall be provided.

Two hard copies in white, four-ring binders may also be required.

9. APPENDICES

Appendix A: Clients' Code of Practice / Site Rules for Contractors

The following table contains a list of applicable documents which identify practices/policy required for access and work on RAF Cranwell.

JSP 319	Joint Service Safety Publication for the Storage, Handling of Gases
JSP 375	Management of Health and Safety in Defence
JSP 418	Management of environmental protection in defence
JSP 426	Defence Fire Safety & Fire Risk Management Policy, Guidance and Information
JSP 440	The Defence Manual of Security and Resilience

The following RAF Cranwell local procedures are available within Enclosure 10 of the RAF Cranwell site data pack v1.1.

a) Organisation and Arrangements (O&A) for Safety Health Environmental Protection and Sustainable Development (SHEP&SD)

b) SHEP&SD Induction and Information for all visiting workers in acc/w JSP 375, Vol 2, Leaflet 34.

c) RAF Cranwell Guidance for Visitors leaflet

PROVISIONAL

d) RAF Cranwell Waste Disposal Policy

All persons visiting, working or based at RAF Cranwell are required to comply with all Station Standing Orders.

PROVISIONAL

Appendix B – LPA letter

RAF Cranwell PD letter MF 22 07 21 to

PROVISIONAL