**Scope**

in relation to *works* for

**Design and Build of a Glasshouse at Forest Research’s Northern Research Station (NRS)**

**Reference**: **CR2020/21/067**

# About us

1.1 The Forestry Commission (FC) is the government department responsible for protecting, expanding and promoting the sustainable management of woodlands.

1.2 FC works with two agencies: Forestry England, who manage the Public Forest Estate, and Forest Research, Great Britain’s principal organisation for forestry and tree related research.

1.3 Forest Research (FR) is a specialist research agency providing research services relevant to UK and international forestry interests, informing and supporting forestry’s contribution to government policies. It provides the evidence base for UK forestry practices and supports innovation.

1.4 FR conducts and commissions a wide variety of survey, research, data, analysis and scientific services. It works collaboratively with a variety of organisations (governments, charities and not-for-profit organisations, businesses, universities and research institutions) and also supplies services and training on a commercial basis.

1.5 More information is available on our website at [www.forestresearch.gov.uk](http://www.forestresearch.gov.uk)

## 1.2 Background

1.2.1 FR is currently undertaking work to consolidate a number of teams at its NRS campus (located on the Bush Estate, Roslin, Midlothian, EH25 9SY). As part of this work we are looking to replace some of our existing glasshouses (which are to be demolished to make way for new laboratory & office accommodation) with new facilities based within the nursery area.

1.2.2 The current glasshouse facilities at NRS, that will be demolished/will need to be replaced, comprise five separate units of different dimensions which, in total, provide 181m2 of useable bench space. Each of these units has separate environmental controls with some units, in addition, having artificial lighting, humidifying and bench heating capabilities.

1.2.3 Demolition of the existing glasshouses is not in the scope of this proposed contract.

# Description of the *works*

2.1 The *Contractor* carries out all design, all *site* preparation (including for access in order to Provide the Works), supplies and delivers all Plant and Materials, provides all Equipment, and constructs, equips, tests and commissions, ready for use by the *Client*, a new glasshouse facility suitable for use by the *Client* for a range of research and experiments (as opposed to horticultural production purposes) and which satisfies the following requirements:

2.1.1 A minimum of 180m2 of useable bench space spread across one or more glasshouses.

2.1.2 Durable construction with a planned operational life of at least 20 years.

2.1.3 A minimum of 5 (five) separate working compartments of roughly equal size.

2.1.4 Each working compartment to have independent automatic climate (temperature and humidity) control.

2.1.5 Each compartment to have automated ceiling shade blinds.

2.1.6 One compartment is to have misting capability.

2.1.7 One compartment is to have bench heating capability.

2.1.8 Growing lights are required in all compartments, with adequate working lighting in other areas (e.g. any vestibule or plant room).

2.1.9 Water supply within each compartment.

2.1.10 A minimum of 10,000 – 15,000 litres of water storage is required.

2.2 Mains electricity, water and gas are available on site and the *works* include making permanent connections to those supplies.

2.3 The *works*, after Completion and when in use, should be able to demonstrate energy (gas and electricity) efficiency and tenderers are encouraged to provide proposals for the *works* that seek to minimise energy consumption and, if possible, to utilise low carbon alternative energy sources.

2.4. The *works*, after Completion and when in use, should be able to demonstrate water efficiency and tenderers are encouraged to provide proposals that seek to minimise water consumption and take advantage of rainwater harvesting.

# Drawings

3.1 The *Contractor* provides tender drawings, design drawings, construction drawings systems schematic drawings, and as-built drawings.

# Completion

## 4.1 Final checks, testing and commissioning

4.1.1 The *works* include carrying out and successfully completing all final checks and tests on the Plant and Materials installed and the successful commissioning of the same.

## 4.2 Documentation

4.2.1 In addition to the drawings referred to in 3.1 above, the *works* include the provision of technical data sheets, operating and maintenance manuals/instructions, certifications and recommended spares lists, plus any manufacturer/supplier product warranties, in respect of the Plant and Materials installed.

# Constraints on how the *Contractor* Provides the Works

## 5.1 General constraints

5.1.1 The *site* is located on the Bush Estate, Roslin, which is a shared occupancy site managed by a third party. The Estate manager and/or other occupants may have requirements which arise that affect access to or egress from the *site* and which the *Contractor* will need to accommodate. The *Contractor* does not do anything to hinder existing occupiers’ use.

5.1.2 Vehicular access for FR staff, their visitors and deliveries to NRS should not be restricted.

5.1.3 Normal working hours for the *Contractor* when on the *site* are Monday to Friday 0730 – 1700, unless otherwise agreed with the *Client*.

## 5.2 Personnel

5.2.1 The *Contractor* ensures their personnel have the correct skills, knowledge, training and experience when undertaking work on site, and ensures all personnel are appropriately supervised, instructed and given full information to carry out their work.

5.2.2 The *Contractor’s* project team includes roles similar to: project/contract manager, structural engineer, glasshouse technology specialist and site manager (on site).

### 5.3 Site supervision

5.3.1 The *Contractor* designates a competent and authorised supervisor to be in attendance on site, during working hours, for the duration of the *works*, and as long thereafter as the *Client* considers necessary.

5.3.2 The supervisor is in full control of the *works* and is responsible for:

* implementation of the *Contractor’s* health and safety management requirements, including the safety of all operations
* compliance with all method statements and risk assessments
* compliance with all other requirements of this contract
* coordination and communication with Forest Research staff on site

5.3.3 Where *Contractor’s* personnel are lone working, they are also expected to undertake the duties of the authorised supervisor, unless agreed otherwise with the *Client.*

5.3.4 The *Contractor’s* authorisedsupervisor has, as a minimum, a valid [CITB Site Supervisors Safety Training Scheme](https://www.citb.co.uk/national-construction-college/health-and-safety-courses/site-supervisors-safety-training-scheme-sssts/) qualification (SSSTS or SMSTS).

### 5.4 Sub-contractors

5.4.1 With prior agreement of the *Client*, the *Contractor* can use sub-contractors to Provide the Works. The use of sub-contractors is clearly identified in the *Contractor’s* returned tender. This includes details of the sub-contractor’s names, addresses and proof of competence. Any changes, either before or during the *works* are immediately notified to the *Client.*

### 5.5 Construction Skills Certification Scheme (CSCS)

5.5.1 All *Contractor* personnel working or visiting sites must have a valid [CSCS](https://www.cscs.uk.com/) card, appropriate for the duties they are undertaking. *Contractor’s* personnel who hold the Site Supervisors Safety Training Scheme or Site Managers Safety Training Scheme qualification are exempt from this requirement.

5.5.2 The *Contractor’s* personnel carry their competence cards with them at all times and are prepared to produce these to *Client* staff if requested.

### 5.6 Construction Plant Competence Scheme (CPCS)

5.6.1 The *Contractor* ensures that their personnel hold a valid driving licence and appropriate [CPCS](https://www.nocnjobcards.org/CPCS/) operators’ cards for the Equipment used.

5.6.2 The *Contractor’s* personnel carry their competence cards with them at all times and are prepared to produce these to *Client* staff if requested.

## 5.7 Supervision

# 5.7.1 The *Contractor* has onsite attendance of a working foreman or a site manager who holds Site Manager Safety Training Scheme (SMSTS) qualiﬁcation*.* Evidence of attendance is to be kept by the *Contractor* and be available on request.

## 5.8 Security and protection of the Site

5.8.1 Site working areas are kept secure to prevent unauthorised access. If dust or debris is likely to be created during the work, dust suppression methods must be used. Heras fencing is suitable for other areas; this is double-clipped and carries appropriate signage to warn of construction activity. All gates are secured to prevent entry by unauthorised persons.

5.8.2 The *Contractor* repairs any damage to the access roads, fences, Forest Research car park and surrounding pedestrian area as a result of the *works* during the contract period; repair work is to be to the satisfaction of the *Client.*

**5.9** Not used.

## 5.10 Health and safety requirements

5.10.1 The *works* and Equipment used meet the requirements of all applicable legislation and standards.

5.10.2 The *works* and any Equipment used or Plant and Materials installed comply fully with the requirements of UK Legislation and Standards, including but not limited to:

* Health and Safety at Work etc Act 1974
* Provision and Use of Work Equipment Regulations (PUWER) 1998
* Supply of Machinery Regulations 2008.

5.10.3 When Providing the Works, the *Contractor*:

* assures that correct personal protective equipment is worn for the operation being carried out,
* complies with the *Client’s* [First Aid at Work Policy](https://www.forestryengland.uk/article/first-aid-policy). At least two operators are trained in Emergency First Aid at Work, unless lone working in which case that operator is trained,
* if lone working is required, adopts a robust, Fail-To-Safe lone working procedure. The *Client* is informed when the *Contractor* intends to come onto *site*, but the *Client* does not provide a lone-working system for the *Contractor.*

5.10.4 The *Contractor* complies with any other acts, orders, regulations and codes of practice relating to Health & Safety in the UK which may apply to the Equipment or to staff and other persons working on the *Client’s* premises in the performance of the contract. In addition to this, all staff and other persons working on or visiting the site comply with the *Client’s* local Health & Safety requirements.

5.10.5 Comprehensive risk assessments and method statements are required for all operations to address all the major hazards associated with the *site* and the *works* The *Contractor* is responsible for having an emergency action plan in place that is relevant to the *site* and the work being carried out.

## 5.11 COVID-19

5.11.1 The *Contractor* supplies a risk assessment that details how it is complying with the current government guidelines, especially relating to social distancing, cleaning and welfare. Government guidelines can be found at <https://www.gov.uk/guidance/working-safely-during-coronavirus-covid-19> and with reference to <https://www.constructionleadershipcouncil.co.uk/wp-content/uploads/2020/04/Site-Operating-Procedures-Version-3.pdf>

## 5.12 CDM Regulations 2015

5.12.1 The *Contractor* is the Principal Contractor and Principal Designer andcomplies with the [Construction (Design & Management) Regulations 2015.](https://www.legislation.gov.uk/uksi/2015/51/contents/made)

5.12.2 Principal Designers have an important role in influencing how risks to health and safety are managed throughout a project. Design decisions made during the pre-construction phase have a significant influence in ensuring the project is delivered in a way that secures the health and safety of everyone affected by the work.

5.12.3 In accordance with the CDM Regulations, the *Contractor* ensures its personnel have the correct skills, knowledge, training and experience when designing and undertaking work on site, and ensures all personnel are appropriately supervised, instructed and given full information to carry out their work.

5.12.4 The Principal Contractor plans, manages and co-ordinates work during the construction phase taking account of the Pre-construction Information. The Principal Contractor is expected as a matter of course to comply with all current health and safety regulations, Approved Codes of Practice and industry good practice.

5.12.5 The Principal Contractor displays the site rules, once these are agreed and which are to include the site rules advised by the *Client.* Induction training is attended by all site workers,

## 5.13 Environmental Standards

5.13.1 The *Contractor* complies with all *Client g*uidelines, including those issued pursuant to the *Client’s* ISO-14001 standard certified EMS, Government Buying Standards. Environmental Law and any other regulation affecting the conduct of the *Contractor’s* work.

**5.14** Not used.

## 5.15 Waste management

5.15.1 The *Contractor* is responsible for the correct disposal of all waste & recycling materials generated as part of the *works* and provides copies of all certificates in relation to that disposal. Any waste stored on site is stored safely until collection. No waste is to be burnt on site.

5.15.2 The *Contractor* ensures that disposal of all waste arising from *works* undertaken meets the requirements of the [Environmental Protection (Duty of Care) Regulations 1991, Section 34 of the Environmental Protection Act 1990.](https://www.gov.uk/government/publications/waste-duty-of-care-code-of-practice)

5.15.3 The *Contractor* provides relevant documentation relating to the disposal of waste in connection with *works* completed, at the request of the *Client*.

### 5.16 Not used.

## 5.17 Coordination and Communication

5.17.1 A formal pre-commencement meeting is required prior to work commencing on site.

5.17.2 The *Contractor* participates in a weekly short catch-up meeting with the *Client* to discuss progress, to ensure control measures for H&S and environmental risks are maintained. The timing & format of these catch-up meetings is agreed at the pre–commencement meeting.

# Requirements for the programme

6.1 As part of the tender submission, the tenderer provides, in the form of a GANTT chart or similar, a programme showing the sequence and timing of the principal activities involved in Providing the Works, and also identifying any work excluded and/or carried out by others.

6.2 The *Contractor* updates the tender programme at the time of contract award and then whenever there is a change to the programme.

# Services and other things provided by the *Client*

7.1 Electricity and water supplies are available for use (free of charge).

7.2 Several car parking spaces will be made available.

7.3 The *Contractor* will be designated space for a site compound/laydown area.