



ROTHAMSTED  
RESEARCH

CONSTRUCTION OF GENERAL PURPOSE  
AGRICULTURAL BUILDING and CATTLE  
HANDLING AREA WITH CRUSH AND QUICK  
WEIGH SYSTEM

at

SX7093 3717

for

ROTHAMSTED RESEARCH LTD

NORTH WYKE

OKEHAMPTON

EX20 2SB

## SCOPE OF WORK

To erect a 30.17m x 15.24m steel framed agricultural building under a fibre cement sheet roof. The building will be enclosed on the south-west and north-west elevations using concrete panels with timber cladding above. The northeast gable end will be open with gates and the southeast elevation open with a feed barrier and trough. It is proposed that the building will be used for livestock accommodation and isolation if and when necessary as well as for the storage of straw, corn and fodder as and when necessary.

To provide a concrete apron in front of above building and erect a cattle handling area (approx. 18m x 10m) to include penning for up to 50 cattle, race and crush with quick weigh system.

This scope of work to be read in conjunction with the attached drawing - Drg No. R101 – Elevations.

### 1. PREAMBLES

#### 1.1. Health & Safety

The contractor shall comply fully with all legislation in respect of Health & Safety and good site practice, together with the requirements of the Construction (Design & Management) Regulations 2015.

#### 1.2. Access

The proposed building will be accessed via the existing gateway in the northern corner of field SX7093 3717.

#### 1.3. Materials

All materials are to be of the highest quality and agreed with the client. No changes or alterations to the specification may be made by the contractor without the express consent of the client.

#### 1.4. Design

A 30.17m x 15.24m steel framed general purpose agricultural building totalling 460m<sup>2</sup> to be used for livestock accommodation as and when necessary but also for arable storage when this block of land is arable cropped. The site has been chosen because it is situated within a dip within the parcel and therefore is well sheltered from the landscape to the south due to the topography of the land and to the north, east and west by existing hedgebanks. The site is relatively level and will only require a small amount of excavation work which will again reduce the visibility of the building across the landscape.

#### 1.5. Structural Steelwork

From 1st July 2014, all steel frames used in the UK have to be CE marked. This requires the frame manufacturer correctly designing the building to the relevant standards and to have a factory control system in place, which complies with the requirements of BS EN 1090-1.

#### 1.6. Galvanising of the Steel

All steel to be galvanised shall be either grip plastered or pickled in cold diluted acid. Galvanising shall proceed immediately after cleaning and shall be hot dipped galvanised to the single British Standard EN ISO 1461. 'Hot dip galvanised coating on iron and steel articles - specifications and test methods.' The requirements of EN ISO 1461 include cleaning and preparation of steelwork as well as galvanising.

#### 1.7. Storing and Handling

All structural steel on site shall be stored and handled so that members are not subject to excessive stress and damage. The structural steelwork contractor is to visit the site

and satisfy himself in relation to all critical dimensions and in relation to gaining access to enable setting out to take place. During erection of the works it shall be securely bolted or otherwise fastened and if necessary braced to make adequate provision for erections, stresses and conditions.

Bolting – where necessary, washers shall be tapered or otherwise suitably shaped to give the heads and nuts of the bolts satisfactory bearing. The threads and position of each bolt shall project through the nut at least one turn. All bolts, nuts and washers shall be galvanised or zinc plated.

### **1.8. Welding**

Welding, where required by design or shown in the contract or otherwise approved shall be in accordance with British Standard and carried out by qualified personnel. All welding shall be completed prior to cleaning and galvanised of the structural steel member.

## **2. SERVICES**

Care shall be taken to locate all services prior to work commencing and any found to be active in the area of the works to be protected from the said works.

### **2.1. Water & Electricity**

The contractor shall be responsible for providing their own temporary electricity supply on site for the purpose of construction, unless alternative arrangements are agreed with the client.

### **2.2. Welfare Facilities**

The contractor is to allow for a portable toilet and the usual welfare facilities for the complete period of the contract and these facilities to be kept clean at all times.

## **3. SITE WORKS**

### **3.1. Foundations**

The contractor is to design the foundations, following consideration of the worse conditions and stress and deflections of the steel work and loadings on the foundations.

The contractor is to allow for all the supply and installation of the foundation bases (including concrete). It should be assumed that the foundations are based on normal ground conditions. Foundations should be laid in virgin ground.

## **4. PROPOSED WORKS - EXTERNALLY**

### **4.1. Roof**

The roof sheeting shall be Profile 6 Natural Grey (Eternit or similar) and fixed in accordance with manufacturer's instructions. The ridge, Profile 6 Natural Grey with vent ridge (750 girth), with additional purlins to support.

### **4.2. Skylights**

Provide and fix 10 No Profile 6 GRP safety lights.

### **4.3. Eaves**

Eaves are to be at 5.2m height and, on Southeast elevation, extend 2.4m from building.

### **4.4. Bargeboards**

To be formed with plastisol vergeline flashings (or similar).

#### **4.5. Cladding**

To be made up of 150mm x 75mm tanalised timber rails and 150mm x 22mm tanalised space boarding fixed according to manufacturer's specification, where shown on Drg No. R101.

#### **4.6. Walling**

Allow for 100mm thick pre-stressed concrete panels to form 2m high walls to South West and North West elevations, as shown on Drg No. R101.

#### **4.7. Doors / Roller Blinds**

Allow for 3 no. 1.5m high galvanised sheeted doors, with 3.1m drop roller blinds above to the Northeast elevation. All doors and blinds to be fitted to manufacturer's specification.

#### **4.8. Feed Troughs**

Allow to form and construct concrete feed troughs on the outside of stanchions to the Southeast elevation. All troughs to incorporate electric fencing to deter badgers from entering the troughs. Galvanised doors to each end required to allow for access to sweep out. Troughs to be accessed via a 30m run panel and neck rail.

#### **4.9. Drainage**

All clean water to drain into soakaways from 160mm PVC downpipes. Dirty water from handling area to be captured in 9000 litre interceptor tank.

### **5. CONCRETE**

#### **5.1. External concrete**

Allow for 714 m<sup>2</sup> external concrete as per Drg. No. R101. No less than 150mm of C35 concrete cover over a suitably compacted sub-base to be used.

#### **5.2. Concrete Floors**

All concrete to be laid over suitably compacted hardcore, 30mm blinding, damp proof membrane and 150mm thick C35 concrete - to form scrape ways, bedded areas and entrances at door openings. Levels are to be determined on site with client before work commences.

### **6. INTERNAL EQUIPMENT**

#### **6.1. Plumbing**

All 25mm water pipes to be placed into ducting beneath floor slab, allowing to isolate individual slimline troughs, with two stopcocks at the end of each run. Water pipe to be fixed to wall and covered over with protective barrier to prevent livestock from damaging.

#### **6.2. Electrics**

Allow £15,000 PC Sum to install electric supply, lighting design and location of sockets which needs to be agreed with client.

### **7. COMPLETION**

On completion, clear away all surface rubble, leaving the site clean and tidy.

	<b>Pricing Schedule</b>	<b>£</b>	<b>p</b>
<b>1.0</b>	Preambles including provision of welfare facilities and compliance with CDM requirements.		
<b>2.0</b>	Site excavation and preparation		
<b>3.0</b>	Erection of building including structural steelwork, roof, cladding and foundations.		
<b>4.0</b>	Concrete slabs internally		
<b>5.0</b>	Doors, roller blinds, feed fence and feed trough		
<b>6.0</b>	External concrete		
<b>7.0</b>	Handling system		
<b>8.0</b>	Crush and quick weigh system		
<b>9.0</b>	Dirty water tank (9000 litre)		
<b>10.0</b>	Drainage (clean and dirty)		
<b>11.0</b>	Water		
<b>12.0</b>	Electrics (PC Sum)	15000	00
<b>13.0</b>	Completion – tidy site		
	<b>TOTAL</b>		
	All prices to be exclusive of VAT		