

DEMOLITION AND CONSTRUCTION METHOD STATEMENT

HALLINGTON MILL HALLINGTON

Project: Construction of new events building and extensions to threshing barn

Site address: Hallington Mill
Hallington
Northumberland

Date of works:

To be advised

DEMOLITION METHOD STATEMENT

Description of activity

Demolition of existing traditionally built timber framed agricultural hay shed building and lean too demolition of threshing barn extensions (see separate section for details).

Building demolition to ground level and removal of concrete slab and foundations.

Involves:

Demolition of existing brickwork/ blockwork, metal corrugated roof and wall coverings and timber structure, rafters joists, concrete floors and foundations, etc.

Access on-site to be 8.00am to 6.00pm

Supervision and personnel

- MR J Elves (Architect)
- Building and civil engineering contractors to be confirmed

Training

All operatives are adequately trained to carry out required tasks.

All site operatives hold current certification and accreditation

Legislation

- Health and Safety Work Act 1974
- The Management of Health and Safety at Work Regulations 2006
- Workplace (Health, Safety and Welfare) Regulations 1992
- The Control of Asbestos Regulations 2012
- Provision and Use of Work Equipment Regulations (PUWER) 1998
- Control of Substances Hazardous to Health Regulations 2002
- The Work at Height Regulations 2005
- The Personal Protective Equipment at Work Regulations 2002
- The Manual Handling Operations Regulations 1992
- The Construction (Design and Management) Regulations 2015
- Electricity at Work Regulations 1989
- The Pressure Systems Safety Regulations 2000
- Pressure Equipment Regulations 1999 (SI 1999/2001)

PPE requirements

- Hard hats
- Safety boots
- Hi-vis vest
- Safety gloves
- Safety glasses

Welfare

Welfare arrangements are supplied by the client or principal contractor.

These should be in line with Schedule 2 of the Construction Design & Management Regulations 2015 (CDM). All sites are to have a minimum amount of welfare facilities available for workers, which include the following:

- Toilets
- Washing facilities
- Drinking water
- Changing rooms and lockers
- Heating
- Rest facilities

First aid

Refer to the onsite safety notice board for all first aid information.

A first aid box with enough equipment to cope with the number of workers on site should be provided for by the client or principal contractor.

The client or principal contractor should nominate an appointed person to take care of first-aid arrangements.

The number of appointed first aiders shall be dependent on the number of employees.

Emergency procedures

The client or principal contractor will ensure that the existing site emergency procedures are followed and that relevant information is given to operatives at time of induction or when changes are made to procedures.

Method Statement

Prior to commencing on site, the following arrangements will be implemented:

Boundary agreements

Termination of services

Erect Heras fencing to secure the main site

Establish welfare facilities

Site operatives to wear hi vis vests and hard hats at all times

Wherever it is reasonable to do so, separate routes or pavements will be provided to keep pedestrians away from vehicles. Where possible pedestrian routes will represent the paths people would naturally follow (known as 'desire lines') to encourage people to stay on them.

Pedestrians will be kept away from areas where vehicles are working unless they need to be there.

Clear marking will be implemented to set apart vehicle and pedestrian routes.

Prior to starting work, necessary site inspections shall be made from the Company.

The condition of adjacent buildings, existing entrance roadway, street furniture, fences and boundary walls will be noted. Existing services, pipelines and fittings still connected shall be protected in a proper way to prevent any damage or clogging during demolition.

It has been assumed that the above will not be necessary as all services are disconnected however care will be taken to ensure this is the case on site.

Adequate protection and preservations shall be given to existing trees, hedges, shrubs, lawns, pathways and roads. Requirements outlined in the Tree Protection Plan (D Birch, May 2021) shall be adhered to at all times.

In case of any obstructions or fall of debris on roads, the area shall be cleaned on immediate basis.

During demolition of masonry structures, suitable temporary supports shall be made to existing structure. All the demolished materials shall be separately stored and disposed of at the appropriate dumping location.

Necessary excavations with proper shoring shall be made in case of any demolition to be done under the ground level.

Adequate precautions shall be made to prevent fire or explosions caused by gas, vapor, etc.

Periodically, water shall be sprayed to avoid dust during demolition.

In case of observations of any unidentified services or cables during the process, it shall be informed immediately and work shall proceed further only after getting proper approval.

A sequence of operations shall be established which allows the clearance of debris on regular basis such that unnecessary overloads to the existing structures shall be avoided and to maintain a good housekeeping.

Upon completion of demolition work, the site shall be kept tidy and the surrounding area shall be cleaned to avoid the accumulation of any dust and debris.

DEMOLITION OF LEAN TOO STRUCTURE TO THRESHING BARN

Reference to the Robert Lewis condition report has been considered in preparation of the demolition method statement appertaining to the lean too building surrounding the threshing barn, along with visual inspection of the structure including connection locations.

The building will be demolished in a methodical manner working from the roof structure being removed by hand utilising hand tools to cut or grind out metal roof sheeting fixings and the sheeting removed in a methodical one sheet at a time approach followed by the side walls and internal support structures section by section, utilising mechanical excavators to take down the outer walls (South & North only).

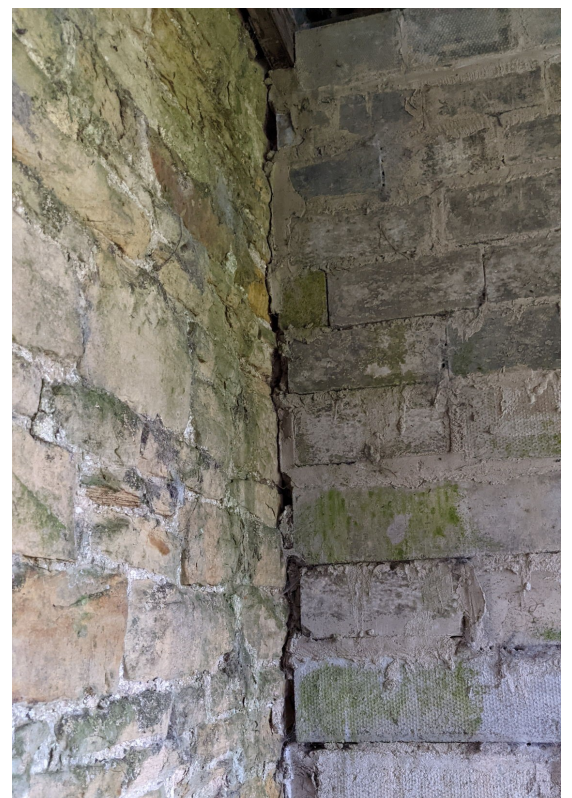
Timber joists, rafters or purlins will be cut approximately 500mm away from the main stone support wall of the threshing barn and the remaining ends will be removed from within the wall by hand utilising hand tools. The connections to the stone barn are limited as most of the lean too is self-supporting. Timber wedges are evident between the stones where lean-too timbers are nailed in (Fig. 1).

No direct connection to the stonework is evident other than at the North East corner where block work is mortared up to the stone, although this is clearly a weak join that is mostly cracked and separated, making removal straightforward (Fig. 2).

Fig. 1 Timber wedges for external timber attachment:



Figure 2; weak cement mortar join to stone;



The existing apertures to the stone wall on the Western elevation used for the existing lean-to roof joists will be utilised to insert new joists forming the new roof structure and pieced up with stone and lime pointing. Other apertures will be filled with matching stone and pointed up in lime mortar.

Where access at or above ceiling level is required, this will be achieved utilising either an access tower or a Mobile elevating work platform, dependent upon height and suitable access.

The demolition will be performed in a systematic procedure with a banks-man in attendance at all times and dust suppression measures in place.

At no time during the mechanical demolition process will operatives be working in the vicinity of the demolition excavators or structure being demolished.

Hand picking of demolition debris if required will be carried out upon completion of mechanical demolition.

On completion of building demolition the concrete slabs will be grubbed up using hammer and bucket excavator attachments and the resulting hardcore crushed.

The structural integrity of the existing threshing barn building will be maintained at all times.

The foundations will be removed to a maximum depth of 1.0m (tbc) to the building footprint and the area then backfilled with compacted hardcore.

The site is to be levelled to match surrounding ground levels, utilising demolition material or compacted hardcore to provide a safe even surface.

When the lean too has been demolished the side elevations of the threshing barn building will be exposed and repairs will be undertaken as part of the reconstruction project utilising reclaimed stone and making good to the lime pointing to the masonry fabric using traditional methods (separate note to follow on lime pointing).

The demolished area will remain fenced off until the site is redeveloped.

CONSTRUCTION METHOD STATEMENT

Introduction

The purpose of this construction method statement (CMS) is to ensure that the development approved at Hallington Mill Hallington planning ref 20/02786/FUL is carried out with minimum disturbance to neighbouring occupiers (in terms of noise, vibration, traffic and dust) and does not detrimentally impact on the environment and the safe operation of surrounding highways.

All main- and sub-contractors will adhere to the objectives of the CMS and to good working practices in relation to health and safety

The proposed construction site is currently occupied by agricultural barns and is located to the North of Hallington Mill and is within the site curtilage of the same overall land holding

The site is situated in a rural area.

As part of the approved development, it is proposed to demolish the existing hay shed in its entirety and the surrounding single storey lean too structures to the perimeter of the former threshing barn.

Proposed programme

The target construction start and completion dates are to be determined but will follow the working programme below:

Enabling, demolition and foundation works (pre-superstructure)

September 2021

Main superstructure and contract works (until completion)

November 2021

Working hours

No deliveries or noisy work (including the loading and unloading of waste and materials) is to take place on Sundays, bank holidays or outside the following working hours: 8am – 6pm Monday to Friday 8am – 1pm Saturday

Any requests to carry out such works outside of these working hours will be directed to the Local Authority at least seven days in advance, together with details of the works (including the expected noise levels) and why these cannot be carried out during the normal working hours.

Site security fencing and hoarding

Herras fencing or hoarding will be erected around the construction site of the hay shed and threshing barn only and all appropriate site notifications displayed thereon.

The hoarding will feature notice boards detailing the contact details of the main contractor as well as telephone numbers for emergencies and complaints. Whenever possible, the contractor will seek to reuse hoarding from other building sites and recycle / reuse the hoarding after use.

Vehicles may only enter the site via the existing gate to the west of Hallington Mill by arrangement and in the presence of an experienced banksman and road marshal.

On-site offices and welfare facilities

On-site facilities will be located to the north east of the Threshing Barn

Parking

On highway parking will not be allowed in connection with this development.

All sub-contractors, and labourers will be encouraged to park locally to the development site to the north of the existing access road

Loading and unloading of plant and materials

All loading / unloading is to take place within the construction site.

No highway loading or off loading will be permitted without prior approval from the Local Authority.

The access gates will be shut during site loading and unloading in the interest of employee and public safety as well as dust and noise suppression.

Vehicular movements and deliveries

It is anticipated that the largest lorry type utilized during the construction of the development will be of a maximum gross weight of no more than 20 tonnes.

This type of vehicle will fit within the designated on-site loading area and trips are not anticipated to exceed more than 6 -8 times per month.

Other vehicles expected on site will consist of standard skip lorries and flat bed delivery vehicles.

There will be a rota system requiring all deliveries to be pre-booked at least 24 hours in advance to avoid on-site and off-site congestion by spreading the resulting traffic over a longer period of time.

A traffic marshal will be available on site to coordinate deliveries and to ensure that the safety of employees cyclist and other vehicles is ensured at all times.

Other methods to optimize deliveries and to reduce their impact on traffic and congestion include:

Consolidating deliveries whenever possible

Not accepting part loads unless essential

Issuing notices to sub-contractors and delivery companies stipulating that deliveries that have not been booked in advance or happen outside agreed delivery slots may be turned back and re-scheduled

Storage of plant and materials

In addition to the delivery procedures listed above, the principle of “just in time” deliveries will be followed strictly throughout the development process to ensure that plant, machinery and materials are not stored on site before they are actually required for the building works.

When materials are kept on site then this will always be within the construction site boundary and only for as long as absolutely necessary.

All materials, especially those prone to emitting dirt or dust, will be covered by appropriate sheeting and securely fastened.

All areas within the site and on adjoining highways will be checked for spillages on a regular basis.

Machinery, when in use, will be kept away from noise-sensitive areas such as residential dwellings and their gardens.

All machinery and plant equipment that has to be kept on site will be switched off and secured when not in use.

Wheel washing facilities and road cleanliness

Wheel and chassis washing facilities will be provided on site within an impermeable wash bay area which is to be isolated from other areas.

These facilities will ensure that mud, stones and any other extraneous materials are removed from vehicles before they exit the site.

Lorries, especially those carrying excavation mud or soil, are expected to be fully sheeted before entering and leaving the site in order to minimize the risk of any over-spilling onto the highway.

The contractor will monitor the surrounding highways and footpaths on a daily basis and ensure that the construction works do not have a negative impact on road cleanliness.

A schedule of condition of the surrounding footpaths and highways will be prepared prior to any works starting on site to ensure the highways are kept in a good condition throughout the development process.

Dust and dirt control measures

Several measures to control dust and dirt have already been mentioned in previous paragraphs, such as:

Wheel and chassis washing facilities near the vehicular exit

Covered storage areas and sheeted delivery lorries In addition to the above, the following dust and dirt suppression measures will be pursued:

The use of fine sprays during the loading or unloading of materials as well as on buildings and structures (during demolition works), cutting and drilling plant, unpaved areas, sand, spoil and aggregate stockpiles

Preference of hydraulic construction over percussive techniques

Burning of waste or unwanted materials on site to be strictly forbidden

Covering of all skips

Correct use of all plant and machinery and regular maintenance of their exhaust systems, which are to be positioned as far away from adjoining buildings as possible Where practical, further measures will be devised in accordance with the BRE's Pollution Control Guides (2003) publications and the GLA's Best Practice Guidance on The Control of Dust and Emissions from Construction and Demolition (2006).

Any deviation from the above methods will only be permitted in exceptional circumstances and with prior consent from the main contractor and all other relevant parties.

Site waste management

Waste will be managed under the principle of hierarchical waste management priorities which, in order of importance, are as follows:

Reduce, Reuse, Recycle and Dispose.

It is important to tackle waste at the outset by reducing the amount of waste being produced in the first place, that is ensuring that the correct quantity of materials are ordered in the most environmentally friendly way.

Each sub-contractor will be responsible for ordering and supplying their own materials, thus minimizing the risk of waste through overordering

Each sub-contractor will also be required to use the most environmentally friendly packaging at its disposal (including recycled) without adversely affecting the safe handling and protection of materials.

The principle of “just-in-time” deliveries will furthermore reduce the risk of damage (and thus waste) through stockpiling.

The main contractor will employ as many local sub-contractors and suppliers as possible in order to reduce fuel consumption and packaging needs.

Where practical (and in agreement with recommendations from the ground investigation reports), waste resulting from site clearance and demolition will be salvaged (such as crushed concrete or soil reused for landscaping).

The use of reclaimed aggregate will be encouraged.

Where it is not possible to reuse materials on site the contractor will attempt to transport these materials to other nearby building sites or to sell them to intermediary companies for reuse.

The contractor will make use of material and waste exchanges, such as those listed on the BRE’s smartwaste.co.uk website or wastebook.org.

Where reuse is not practical or possible, the contractor will endeavour to recycle as much waste as possible offsite through the use of recycling companies.

To facilitate this, segregated waste and recycling skips will be located within the construction site curtilage and will be made available at all times.

Each sub-contractor will be responsible for moving waste and recycling (segregated at source where possible) into these skips and inducted beforehand on the correct use thereof.

The use of a waste compactor will be considered in order to further reduce the amount of vehicle trips required.

Hazardous materials are to be sealed, stored and disposed of in appropriate and safe manner in order to avoid contact with ground- or wastewater.

Burning of waste will not be allowed on site.

The management and disposal of any remaining landfill waste will be handled in accordance with all relevant statutory requirements, including the Environmental Protection Act 1990 and the Environmental Permitting Regulations 2007.

The above principles will be incorporated into all sub-contractor documentation and discussed with all relevant parties before works commence.

Noise and vibration

Best practical means are to be used at all times to minimise the noise and vibration impact of the works.

Machinery and vehicles will be fitted with effective silencers wherever available, and kept in good working order.

Acoustic covers are to be closed during operation.

Equipment will be operated so it produces as little noise as possible.

No idling engines or plant allowed onsite.

Toolbox talks will take place for all contractors to ensure they are aware of noise and vibration issues onsite.

Community liaison

A dedicated member of the contractor's team will be given the role of community liaison. He or she will handle any queries, concerns and complaints from neighbours and maintain a log book detailing such enquiries and any follow-up actions.