

CONSTRUCTION MANAGEMENT PLAN FOR THE FULL PLANNING APPLICATION FOR THE DISMANTLE AND REBUILD EXISTING STRUCTURES AT LARK HOUSE, COWSLEY LANE, CORNSAY, DURHAM, DH7 9EP



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# 1.0 Introduction

#### 1.1 Site address

1.1.1 Lark House, Cowsley Lane, Cornsay, DH7 9EP.

#### 1.2 **Proposed description**

1.2.1 Dismantle existing 2-storey 3 bed dwellinghouse and rebuild new 2-storey 2 bed dwellinghouse of similar scale and massing to modern building standards.

# 2.0 Environmental Management

# 2.1 Working hours

2.1.1 As the applicants are self-builders work would be mainly outside the typical working hours where possible they would however maintain works are undertaken within sociable hours and not to negatively impact adjacent neighbours.

#### 2.2 Summary of main works programme

2.2.1 Provisional timetable is 2 years for completion.

#### 2.3 Demolition and construction details

- 2.3.1 Demolition to be completed as a dismantling by hand. All works to be carefully planned and carried out by competent professionals to avoid unplanned structural collapse.
- 2.3.2 Construction to involve the following stages:
  - Foundations
  - Superstructure
  - Roofing
  - Windows and doors
  - First fix electrics and plumbing
  - Drainage and external works
  - Internal drylining
  - Carpentry
  - Second fix electrics and plumbing
  - Decorating
  - Landscaping

#### 2.4 Site arrangements

2.4.1 Site Access Considerations

Access is via the public highway along single lane track. Due to the limited width and turning circles present on the site, vehicular access will be carefully timed and arranged to prevent multiple vehicles arriving at the same time. Given the relatively low scale of development high traffic levels are not expected for the duration of the works.



### 2.4.2 Office and Accommodation Considerations

Given the relatively low scale of development the total number of construction contractors on site will be limited. No visitors will be expected. This reduces the requirements for accommodation. Temporary toilets will be provided in the form of a site portable toilet.

#### 2.4.3 Storage Considerations

Construction materials will be provided with suitable weather and security protections, provision of storage space is expected to be within existing outbuildings, on existing areas of hardstanding and located in areas concealed from view from the public right of way. Materials arising from the demolition will be stored in existing outbuildings, on existing areas of hardstanding should the materials be required for reuse. All other waste materials will be collated into material types and removed from site as soon as practicable and suitably processed/recycled.

#### 2.4.4 Temporary and Isolated Services Considerations

All service runs above and overground will be suitably capped, isolated and marked. All contractors on the site are to be made aware of these locations prior to commencement. Should temporary supply be required, these will be suitably formed above ground a safe distance from the area of the works and checks will be performed on a daily basis to ensure that these remain operational and safe to use.

# Works to electrical services are to be undertaken by a suitably qualified and experienced contractor.

2.4.5 Plant Considerations

Given the relatively low scale of development the total number and size of plant machinery will be limited. Any mini excavators, dumper trunks etc are to be parked on existing hard standing, concealed from view from the public right of way. Where practicable, plant will not drive on the public right of way. The site is considered to be of a suitable size to provide adequate safe space to allow segregation between persons and plant.

#### 2.4.6 Fencing Considerations

The existing site boundaries are considered sufficient for site security. Additional provision will be required adjacent to the public right of way. The site location is within a relatively low population countryside area that is considered to have low numbers of public frequenting the area and the risk of children accessing the site is also relatively low.

#### 2.4.7 Health and Safety Considerations

All considerations discussed above will meet the minimum requirements of the applicable health and safety regulations.



# 2.5 Detail of licences that will be applied for

2.5.1 None required.

# 2.6 Noise and vibration mitigation

2.6.1 Best Practicable Means (BPM) of noise control will be applied during construction works to minimise noise (including vibration) at neighbouring residential properties and other sensitive receptors arising from construction activities.

The general principles of noise management are given below: Control at source:

- Equipment noise emissions limits for equipment brought to site.
- Equipment method of directly controlling noise e.g. by retrofitting controls to plant and machinery.
- Equipment indirect method of controlling noise e.g. acoustic screens.
- Equipment indirect method of controlling noise e.g. benefits and practicality of using alternative construction methodology to achieve the objective e.g. vibratory piling techniques or hydrodemolition as opposed to more conventional but noisier techniques; selection of quieter tools/machines; application of quieter processes.

Control across site by:

- Administrative and legislative control,
- Control of working hours,
- Control of delivery areas and times,
- Careful choice of compound location,
- Physically screening site,
- Control of noise via Contract specification of limits,
- Noise Monitoring, to check compliance with noise level limits, cessation of works until alternative method is found.
- Many of the activities which generate noise can be mitigated to some degree by careful operation of machinery and use of tools. This may best be addressed by tool box talks and site inductions.

#### 2.6.2 <u>Best Practicable Means</u>

BPM are defined in Section 72 of the Control of Pollution Act 1974 and Section 79 of the Environmental Protection Act 1990 as those measures which are:

"reasonably practicable having regard among other things to local conditions and circumstances, to the current state of technical knowledge and to financial implications".

The Environment Agency will require its contractors to consider mitigation in the following order:

• BPM as identified above, including:

- Noise and vibration control at source: for example the selection of quiet and low vibration equipment, review of construction



methodology to consider quieter methods, location of equipment on site, control of working hours, the provision of acoustic enclosures and the use of less intrusive audible warnings such as broadband vehicle reversing alarms;

 Screening: for example local screening of equipment or perimeter hoarding; and

• Where, despite the implementation of BPM, the noise exposure exceeds the criteria defined in this Construction Noise and Vibration Management Plan, or where there are residents who would still be affected (eg shift workers, young mothers, the elderly, sick or disabled residents) the Agency would offer temporary relocation if required. These residents will be identified prior to works taking place.

The recommendations of BS5228: 2009+A1:2014 'Code of practice for Noise and Vibration Control on Construction and Open Sites', will be implemented, together with the specific requirements of this management plan.

# 2.6.3 Noise and Vibration Control Measures

In addition to specific requirements of the Local Authority, the Contractor will be required to adopt the following more specific measures:

# Control measures

Without prejudice to the other requirements of this section, the Contractor shall comply with the recommendations set out in BS5228:2009 and in particular with the following requirements:

- Vehicles and mechanical plant will be maintained in a good and effective working order and operated in a manner to minimise noise emissions. The contractor will ensure that all plant complies with the relevant statutory requirements;
- HGV and site vehicles will be equipped with broadband, non-tonal reversing alarms;
- Compressor, generator and engine compartment doors will be kept closed and plant turned off when not in use;
- All pneumatic tools will be fitted with silencers/mufflers;
- Care would be taken when unloading vehicles to avoid unnecessary noise;
- The use of particularly noise plant will be limited, i.e. avoiding use of particularly noisy plant early in the morning;
- Restrict the number of plant items in use at any one time;
- Plant maintenance operations will be undertaken at distance from noise-sensitive receptors;
- Reduce the speed of vehicle movements;
- Ensure that operations are designed to be undertaken with any directional noise emissions pointing away from noise-sensitive receptors;
- When replacing older plant, ensure that the quietest plant available is considered;



- Drop heights will be minimised when loading vehicles with rubble;
- Vehicles should be prohibited from waiting within the site with their engines running or alternatively, located in waiting areas away from sensitive receptors;
- Local hoarding, screens or barriers should be erected to shield particularly noisy activities;
- Piling will be carried out with the method that minimises both noise and the transmission of vibration to sensitive receptors;
- Temporary noise screens will be used to reduce noise from particularly noisy activities and the height of perimeter hoarding will be extended where this would assist in reducing noise disturbance at sensitive receptors; and
- Hours of operation should be strictly enforced and any deviations other than those previously identified will be with the consent of the local authority.

# 2.7 Dust mitigation and air quality

# 2.7.1 Demolition

Dust from demolition processes can often have a profound effect on neighbouring areas. If dust is likely to spread into areas beyond the site, as it may do in unfavourable wind conditions, steps should be taken to assess the risk and to devise appropriate measures, For example, hand or mechanical, will help to reduce the exposure to members of the public, but this may increase the exposure to operatives. Therefore, a balance will need to be struck between the method used and its overall effect. Guidance on appropriate health and safety measures is contained in a series of HSE Guidance Notes and in BS 6187 Code of Practice for Demolition.

#### 2.7.2 <u>Dust control guidance for emissions during demolition activities</u>

Potential dust source Blasting using explosives	<ul> <li>Dust control guidance</li> <li>Blasting should be avoided and other methods used wherever possible</li> </ul>
Sheeting/screening	<ul> <li>Buildings should be screened with suitable debris screens and sheets.</li> </ul>
Biological materials	<ul> <li>Bird droppings and other biological material should be removed prior to demolition.</li> </ul>
	• Care must be taken that the material does not become airborne, but is sufficiently contained.
Asbestos	<ul> <li>Asbestos must be removed by a registered specialist contractor prior</li> </ul>

to demolition.

<ul> <li>Suitable and sufficient water sprays must be used.</li> </ul>
<ul> <li>Spraying should be carried out prior to and during demolition</li> </ul>
<ul> <li>Enclose chutes and skips. Regular water spraying should be carried out.</li> <li>Material drop heights should be minimized</li> </ul>
<ul> <li>Burning should be avoided if possible.</li> </ul>
<ul> <li>If unavoidable, use incinerators rather than bonfires</li> </ul>
<ul> <li>Materials should be removed from the site as soon as is practical.</li> <li>Prolonged storage of</li> </ul>
<ul> <li>Prolonged storage of debris on site or exposure to wind should be avoided.</li> </ul>
Vehicles removing demolition materials must have their loads effectively sheeted
<ul> <li>As far as practical, routes should be located away from residential and commercial properties.</li> </ul>
<ul> <li>Crushers should be sited as far away as possible from sensitive receptors.</li> <li>Mobile plant, eg crushing, screening and roadstone coating plant, will require authorisation by the Local Authority in whose area the operating</li> </ul>



Operations such as cutting, grinding and sand-blasting can be major sources of airborne particles. If cutting and grinding operations are carried out on site, equipment and techniques incorporating the best available dust suppression measures should be used to keep dust emissions to a minimum. Plant hire companies should be consulted for information on the best equipment currently available. Regular improvements in dust control

company's

office is situated.



registered



technology often occur and hence new equipment becomes available to the market.

# 2.7.4 Dust control guidance for emissions from cutting, grinding and drilling

# Potential particle source

Cutting, grinding, drilling, sawing, trimming, planing, sanding Control guidance

- Cutting on site should be avoided by using prefabrication whenever possible.
- Avoid cutting out errors and re-bars.
- Employ equipment and techniques that minimise dust emissions, using best available dust suppression measures.
- Use water sprays to minimise dust from cutting equipment.
- Local exhaust ventilation should be used where possible.
- Fans and filters should be serviced and maintained to ensure correct operation.
- Design to fill wherever feasible rather than cutting back oversized work
- Use a diamond bladed floor saw with water pumped through to suppress dust.
- Standard angle grinders and disk cutters with no dust control should not be used for this purpose.
- Standard angle grinders and disk cutters with no dust control should not be used.
- A mortar raking kit, fitted on to a standard 5" angle grinder can be used on soft mortar. For hard mortar, a super-saw with oscillating blades can be used.
- Dust extraction/minimisation systems should always be used.

Cutting roadways, pavements, blocks etc Raking out mortar/pointing

Angle grinders and disk cutters



# 2.7.5 <u>Dust control guidance for emissions from mixing processes</u>

**Potential particle source** Mixing and granular materials

#### Control guidance

- The use of pre-mixed plasters and masonry compounds is recommended.
- The mixing of concrete or bentonite slurries should take place in enclosed or shielded areas.
- Fine materials should be palletised and shrink wrapped where possible

### 2.7.6 Internal and external finishing and refurbishment

Finishing processes such as painting, decorating, fitting out, grouting and cleaning all have a potential for generating dust and fine particles and the following control is recommended.

#### 2.7.7 <u>Dust control guidance for emissions from internal and external finishing</u>

Potential particle source	Control guidance Sanding and cutting
	machinery should be
	fitted with dust
	suppression or collection equipment.
	<ul> <li>Vacuum cleaning should</li> </ul>
	be used wherever possible.
Fitting out – plastering,	<ul> <li>Cutting and sanding</li> </ul>
rendering, decorative finishing,	machinery should be
Irniture fitting	fitted with dust
	suppression/collection
	<ul> <li>Vacuum cleaning should</li> </ul>
	be used whenever
	possible.
Installation of electrical	Cutting and sanding
systems – chasing of walls	machinery should be and
soffits and floors	plumbing, be fitted with
	suppression/collection
	equipment
	Vacuum cleaning should
	be used whenever
	possible
installation of fire proofing and	<ul> <li>Dust suppressants</li> </ul>
made mineral fibres, such as	Siloula de úsea wilen



mineral wools, special purpose and continuous filament fibres)

Cleaning processes

blowing fibres into voids and spaces.

- Local exhaust ventilation should be used when handling and cutting fibrous insulating materials.
- Dry sweeping should be avoided and only carried out with vacuum extraction methods attached.
- Damp sweeping using fine mist should be used.
- Washing and damping down should be carried out whenever necessary.

# 2.8 Is the site developer signed up to the Considerate Contractors Scheme

2.8.1 No