

Holdsworth Design Practice Ltd. Chestnut House, 3 The Woodlands, Hayton, Carlisle, Cumbria. CA8 9HZ. 07769700912



# **CONSTRUCTION MANAGEMENT PLAN**

REF: USH.CS.1222.CMPWD1

## **PROJECT**

MOTORHOME AND HOLIDAY CABIN SITE, AND ASSOCIATED SHOP AND AMENITY FACILITIES WITH ACCESS ROAD.

## **SITE ADDRESS**

LAND ADJACENT TO PARTFILED HOUSE, DRIGG, HOLMROOK.

## **FOR**

MR & MRS. USHER, PARTFILED HOUSE, DRIGG, HOLMROOK.

Read in conjunction with drawings USH.CS.1222.CMP1

## **DATE**

22nd OCTOBER 2024

Registered Office: 3 The Woodlands, Hayton, Brampton. CA8 9HZ.
Registered No 6707020. VAT No. 998 3341 67
Directors: AJ Holdsworth, JL Holdsworth

### THIS DOCUMENT.

This document is a general Construction Management Plan for the purposes of planning condition 8 of the approved planning consent document for application 2/21/2411/OF1.

This planning condition states that;

Before development commences, a Construction Management Plan must be submitted to and approved in writing by the Local Planning Authority. This plan must include provide details of dust emissions, noise and vibration, and must identify remedial action to prevent nuisance. The development must be carried out in accordance with the approved details at all times thereafter.

### PROJECT OVERVIEW

The proposed project is to construct internal access roads with access from the existing highway and erect holiday cabins, on site shop & amenity building with raised walkways to serve the cabins. In association with these works there is a requirement for implementing a drainage and landscaping of the general site.

The works are, in relative terms, small scale and will not be undertaken using a Main Contractor scenario. The works will be undertaken by individual trades independent of each other and managed by the client and Holdsworth Design Practice Ltd.

The works can be broken down into the following general elements of work, which are not set out in any particular..

- Ground works to form crossover to the existing highway, internal access road, motorhome bays, parking areas and general hard standing walkways.
- Creation of drainage channels, underground drainage pipe work and attenuation pond which are detailed within the drainage plan.
- Erection of raised walkway to serve holiday cabins.
- Erection of holiday cabins and shop with shower room.
- Services installation from main supply for water and electricity and distribution to relevant internal locations.

The main areas of consideration, in regard to the planning condition are;

- Dust emissions control
- Noise and vibration
- Nuisance

These are to protect the adjacent and nearby residents during the construction works.

### SITE LAYOUT

The site will be set out on the basis of the enclosed plan USH.CS.1222.CMP1 which provides a general layout of the site during construction to facilitate day to day works.

#### PHASE 1 WORKS

These will be establishing site set up and facilitating the required excavations for the drainage cesspool tank and associated chemical discharge tank.

Formation of phase 1 internal access road to include an area for the site cabin and secure storage, internal site parking. All works will be undertaken in a way to progress the 'hard standing' elements to final build up and finish requirements.

Internal access roads will require the top vegetation to be scraped and levelled down to a depth of approximately 450mm to account for ground conditions and a minimum 275mm layer build up for access road specification. Typical build up layer to be

- 150-250mm compacted unbound sub base layer
- 100mm well compacted road base layer
- 50mm well compacted binder layer
- 6-10mm surface course layer.

The above is based on a situation of commercial developments where there will be a moderate number of commercial vehicles, ie waste collection vehicles. This is a general specification which will be designed by an engineer to the correct specification according to ground conditions.

Areas have been allocated for operative parking, secure site storage, site cabin and storage for any excavation materials that have not been able to be carted away by the Vacuum Excavation Wagons.

Excavations will be, undertaken to install cesspool and chemical discharge tanks along with associated drainage. Typical excavating plant machinery, such as a JCB, will be used for excavations that are not within the tree root protection zones, for those excavation within tree root protection zones or close to them will be undertaken by a Vacuum excavation plant machinery. These will then be back filled as required and a hard standing surface over achieved.

### **PHASE 2 WORKS**

Phase 2 work will begin when all excavations for the drainage tanks and associated works are complete. This will enable the working from a stable base for the installation of tanks and back fill to provide a stable base for the proposed internal hard standing.

Further works will consist of implementing the required sub base, using the same specification as stated above in phase 1 works, for the remaining motor home bays, carpark area, ground bearing walkways and the remainder of the internal access road.

These works release areas from Phase 1 work to allow the Vacuum excavation of the attenuation pond from the drainage plan. This will use a Tracked Vac Vehicle that is

Registered Office: 3 The Woodlands, Hayton, Brampton. CA8 9HZ.
Registered No 6707020. VAT No. 998 3341 67
Directors: AJ Holdsworth, JL Holdsworth

used for 'off road' excavations. Having continuous tracks to distribute weight evenly

through operation.

It will also allow for access of a mini pile machinery, if hand pile machinery is not suitable, to access the cabin locations to install the screw pile foundations. A route has

been shown for the installation of the mini pile driver that avoids trees root areas,

although the loading onto the ground will be minimal.

Once cabin foundation screws are installed the raised walkaways will be erected using a

screw foundation system with walkway supported on metal I beams cross members.

The initial metal framework will be established for the decking and handrails to be

applied.

Phase 2 works will be concluded by the final buildup of and installing of final internal

access road layer to achieve planning approval compliance.

SITE SET UP

A certain amount of work is required to set the site up and it remain safe and have

minimal impact on surrounding residents and maintain highway safety.

This will be undertaken using the current gated access from the highway to be able to

establish internal sufficient space to allow a safe working area to progress the main area of hard standing to a size that can accommodate larger heavier plant machinery

required to create the main access to the public highway.

Initially the works required to create a temporary access point to the site from the

public highway will be created, removing existing hedges, shrubs and trees required to achieve the approved site access width and formation. The correct sight lines will be

achieved for safe maneuvers to and from the site in accordance with the approved

plans.

A temporary hard standing will then be installed to transfer from highway to site which

will ultimately form the required sub base for the final hard standing, which will be

highway standards compliant.

Upon completion of temporary access the internal phase 1 hard standing will be created

to house parking within site, access to the excavation areas and for placement of secure

storage and site cabin.

All temporary hard standing associated with the site will be suitable for accommodating

all vehicles that are intended to use it, specifically the gross weight capacities when fully

loaded.

#### **GENERAL SITE PROCEDURES.**

#### SITE NOTICES AND SECURITY

At the entrance to the site a temporary sign board will be erected to display site Health and Safety requirements and considerations. This will include primary and secondary site contact details and instructions in regard to entering site and informing the 'Site Manager' of this.

It will also display the required Personal Protective Equipment (PPE) to be worn when on site.

Warning signs will be adequately displayed advising that the site is an ongoing construction site and caution must be undertaken at all times.

Overhead service cables will be adequately highlighted with high visibility wrappings.

The site entrance will be closed off outside of working hours by means of Heras Fencing placed across the access point, with notices to warn members of the public of a construction site.

The applicant lives adjacent to the site and will therefore be actively vigilant in identifying unauthorized site entry out of site operations hours.

It should be noted that the site will follow the required Health & safety protocol and CDM 2015 regulations where they apply throughout the project, and this will be covered in a separate document prepared pre-construction.

### **VEHICLE MOVEMENT WITHIN SITE.**

The site will have a requirement to accommodate contractor vehicles, plant machinery, material deliveries and spoil removal wagons, it is envisaged that these will be as below, although it is not an exhaustive list.

- Small and medium sized vans / pickup type commercial vehicles.
- Flat bed / tipper 'transit' based trucks.
- 4 axles rigid 30ton gross weight wagons (tipper wagons) or smaller
- 4 axles rigid up to 32ton vacuum excavation wagon (2.5m wide x 10.1m long)
- Track based Vacuum Excavator ( (2.55m wide x 7.7m long)
- Excavator (JCB type) and delivery wagon.
- Dumper truck. For movement of spoil.

Site operative vehicles will be parked on site in locations allocated during Phase 1 and 2, to ensure safe movement around site of plant and machinery. These are shown on the accompanying site plan USH.CS.1222.CMP1.

JCB type excavators and Vacuum Excavation Wagons will be used for the bulk of

excavation works.

JCB type excavators will be used for the majority of excavation works that are outside of

tree root sensitive areas. The excavated materials will be placed in a storage area, or be

directly loaded onto tipper wagons for immediate removal from site.

Vacuum Excavators use a high pressure air hose and suction method for excavating the

drainage tank pits, and will be used for tree root sensitive areas. Movement to and from site during excavation will be frequent due to each wagon having a 10m<sup>3</sup> capacity for

topsoil excavation. Vacuum excavation has been chosen to minimize impact to the

ground and trees roots of nearby trees.

Tipper wagons, if required to move spoil that has not been removed by vacuum

Wagons, will be required on site for a short duration of time during phase 1. Where tipper wagons are required to wait, the drivers will be instructed to turn of the their

engines. No engine idling will be permitted whilst waiting, unless required to safely

operate the wagon.

Excavators and Dumper Trucks will be restricted to internal site use and be delivered and off loaded from site on low loader type wagon. They will be used to aid the

excavation works should any of the sub ground not be suitable for Vacuum Excavation.

All vehicles, when leaving site, will be required to stop at the wheel wash point located at the exit point of the site to undertake a wheel wash to remove any debris and dust

from the wheels and undercarriage of vehicle.

Every reasonable effort should be taken to remove any debris from the vehicles that can

be deposited upon the highway when having left the site. The wheel wash will be a pressure washer, which will be powered from a generator feed and temporary water

supply, or submersed pump in a water storage container

The wheel wash will be the responsibility of vehicle operative or passenger, as the site

will not have continuous operative presence due to the nature of the small scale works. However, during heavy frequency movements off site an operative will work the wheel

wash facility to aid continued excavations.

**DUST EMMISIONS** 

Dust is a general term used to describe different types of dust that you may find on a

construction site.

There are three main types:

Registered Office: 3 The Woodlands, Hayton, Brampton. CA8 9HZ.

- silica dust created when working on silica-containing materials like concrete, mortar and sandstone (also known as respirable crystalline silica or RCS);
- wood dust created when working on softwood, hardwood and wood-based products like MDF and plywood;
- other 'general' dust created when working on other materials containing very little or no silica. The most common include gypsum (eg in plasterboard), limestone, marble and dolomite.

The ability to generate dust on this project type is limited. There will be very limited / no use of concrete, mortar, plasterboard, MDF and plywood. There will be no use of limestone, marble and dolomite.

There is some risk of working with sandstone, however this will only be at the stage of any excavations where the works require removal of large boulders that may need breaking out. This would generate very little dust and can be contained within the localized site working area, where they would be broken down in-situ to minimize dust migration from source.

All log cabins are timber construction and arrive to site as a flat pack build, with no cutting or modification required to erect them.

Some cutting of timber and composite materials will be required for the timber deck walkway, however this will be very localized, external and well within the site boundaries with little chance of breaking out beyond the site.

The main risk of dust generation is to delivery and install of hardcore for sub bases to internal hard standing and final finishes. This will be minimal and only likely to occur on dry days were the substrate is also dry and has been for a prolonged period of time.

Where dust generation is anticipated to be high and for a prolonged period of time a misting suppression system, or simple use of water sprayed over the materials prior to off loading, will be used to contain the dust to the general working area, with appropriate site operative safety equipment worn.

It is not thought that dust from vehicle movement over the hard standing will be impactful on health within site and external of site. This is due to limited in site vehicle movement being required, that any dust generated can quickly disperse unhindered into open air with the site being open. Further to this the work will take place in winter / spring months where prolonged dry spells are limited and the ground conditions of the site are generally deemed to be damp.

Where there are prolonged periods of dry weather anticipated and therefore cause the temporary site road to become a source of dust emission, it will be periodically have moisture added to the surface to prevent dust arising.

#### NOISE AND VIBRATION

Construction processes have noise and vibration considerations through normal working practices. It should be acknowledged that the proposed work is not unique in it's general construction procedures and will be using standard building practices. Therefore noise and vibration is thought to be within acceptable limits of any construction process, a comparison would be a typical new build house or home extension.

Mitigation of construction noise and vibration is implemented through Best Practicable Means (BPM), of which guidance can be found within the Control of Pollution Act 1974.

The objective when considering and determining BPM is to strike a balance between ensuring the protection of the persons in the locality from the effects of noise and vibration and enabling the works to proceed as planned without being subject to disproportionate constraints.

Typical BPM measures that could be applied to this level of project and site situation might include:

- restrictions on working hours,
- adopting quiet working methods, using plant with lower noise emission levels;
- adopting working methods that minimise vibration generation particularly with regard to demolition activities and piling;
- use of plant conforming with the relevant EU directives relating to noise and vibration;
- ensuring that all plant is properly maintained, (mechanisms properly lubricated, faulty silencers replaced, worn bearings replaced, cutting tools sharpened etc.);
- hydraulic equipment in preference to pneumatic equipment;
- locating plant as far away from noise and vibration sensitive receptors as practicable;
- use of temporary acoustic enclosures or screens around specific noisy static plant;
- An alternative format for collation of information on projects where there is a requirement to predict noise levels
- avoiding the unnecessary revving of engines and switch off equipment when not in use
- starting-up plant and vehicles sequentially rather than at the same time;
- keeping internal haul routes well maintained to minimise impulsive noise and vibration from vehicles running over discontinuities in the running surfaces;
- ensuring that unloading is carried out within the worksite rather than on adjacent roads or laybys;

• phasing of materials deliveries to be controlled on a 'just in time' basis to minimise

noise and congestion on roads around the site; and

Taking the above BPM into account it can be identified that no special measures are thought to be required in the undertaking of this project, with the following taken into

account;

The proposed plant machinery will be typical machinery used in construction and for the

excavation of drainage tanks, general drainage, and attenuation pond.

Excavations are to undertaken by excavators and vacuum excavators. This will generate

very little vibration other than normal and accepted plant operations, ie vibration form on board generators, compressor and running of engine, and that these will be

stationed on ground that is absorbent of vibration and noise.

The noise generated will be of a typical nature within construction works, as

compressors and generators will be in operation during excavation works. This type of machinery is designed to be used in urban areas where works typically would take place

within residential localities.

There maybe some periodic use of a pneumatic 'pecker' machinery to dislodge large

rocks and boulders that may be typically expected to be found during excavations.

However this would take place sporadically and for short periods of time.

Cabin construction will utilize screw pile foundations which can be installed using hand

held tools, and in some instances of poor ground a mini pile machine. Once foundations are completed works to form a base are undertaken by a typical joinery contractor using

hand tools to assemble the cabins, which arrive flat pack.

The walkways will also use screw pile foundations, using the same pile driving tools, and

have a metal sub frame connected to them from which to build the raised walkaway. Therefore in general the construction of the walk ways will require operatives using

hand tools only.

The majority of hand held tools will be battery powered, with the exception of the

handheld pile drivers which will require power from generators.

Site power will only be required for temporary site lighting and hand tools, as no other

machinery is envisaged outside of plant supplied by specialist contractors.

As the site will be limited, through insistence of the applicant, to 8am to 5pm Monday to

Friday and 8am to 12noon on a Saturday there will be no noise and vibration associated with site operations outside of these hours. They are typical working hours and not

Registered Office: 3 The Woodlands, Hayton, Brampton. CA8 9HZ.

excessive and any noise and vibration would not, in general terms, impact neighbors

amenity time with early start time, in the evenings or weekends.

If the noise is identified as excessive site will consider using localized hoarding

placement to create a partial enclosure to contain / reduce noise breakout.

As contractors have not yet been appointed technical specifications for the plant machinery to be used is not available. It is to be assumed that all plant machinery used

on site will be up to date in terms of dampening technology, correctly serviced and have required certification of compliance for health & safety. Taking account of noise level

limitations and compliance of British Standards (BS5228-1)

Based on the above and the site situation it can be assumed that the construction works

pose little impact to the surrounding locality and neighboring properties.

**NUISANCE** 

Due to the, in relative terms to a typical construction process, small scale of construction works required to execute this project it is not thought that a nuisance will

occur.

It is assumed that most causes of nuisance occur where an unacceptable level of impact

of noise and inconvenience takes place. When assessing the site operations and frequency of movement to and from the site it would be categorized as a low nuisance

site.

It has been established above that nuisance caused by noise and dust is unlikely to be a

factor in the site works, due to the nature of the project and plant machinery to be used. This leaves the other aspect of nuisance being inconvenience, which can generally

be associated to traffic and delays in progressing by non-site associated traffic passing

the site on the public highway.

Again, due to the nature of the site works traffic movement to and from the site is going

to be minimal. It is acknowledged that there will be periods of time where the traffic movement intensifies, which will be limited to the excavation works and delivery of

materials to form the internal access roads. This intensification will be spread apart in

terms of time as they will occur at differing phases of the construction works.

Even at 'intense periods' the traffic movement is likely to have minimal impact due to

inconvenience, ie non associated traffic having to wait for site associated traffic to maneuver to and from site. Any inconvenience will likely be measured in minutes at

worst and very possibly seconds, as the only identifiable delay would be waiting for a

wagon to turn into site.

Registered Office: 3 The Woodlands, Hayton, Brampton. CA8 9HZ.

During works to form the highways compliant site access point there will likely be a need to use a temporary traffic control system, which will be applied for and executed according to appropriate guidance by a specialist contractor. This would not ordinarily constitute a nuisance.

Further to the above the following elements are being implemented on site to reduce nuisance and inconvenience due to the site works.

- Site hours are not excessive. Monday to Friday 8am to 5pm and 8am to 12noon on Saturday. These are typical working hours with no Sunday or Bank Holiday working permitted by the applicant.
- There is no reason to and it will not be permitted to burn waste on the site.
   Waste will be taken away from site as trade waste by a registered trade waste management company.
- It has been established that vehicles leaving the site will, where is reasonably required, be washed down to prevent debris dispersing onto the public highway.
- All temporary site lighting will be placed to face into the site, and not facing out
  of the site. Furthermore due to the site operating hours the use of lighting will
  be minimal as the site will be open after first light and close, as a worst case
  scenario one hour after last light.

Furthermore the applicant lives adjacent to the site will also be managing the site on a day to day basis. It should also be noted that the site is well screened by mature trees and shrubbery, providing a degree of noise suppression and barrier to the travel of sound.

## **WORKS OUTSIDE OF ECOLOGICAL AREAS**

This section relates to planning condition 5b and should be adhered to to ensure works do not contravener any planning consent given.

Planning condition 5b states that 'An outline specification for ground preparation for landscaped areas outside of the ecological areas' should be provided. Works outside of the ecological area relate to hard standing, raised decking walkways and the site shop and holiday cabins.

Works specifically relating to the raised decking walkways and the site shop and holiday cabins do not require any ground preparation as all foundation works will utilize a screw foundation system. Therefore the ground around this operational works should be protected as per the arboricultural method statement.

Works to the hard standing area, such as the access road ground bearing walk way and excavations for the drainage tanks. These will in a varying degree require excavation works.

It should be noted that specialists contractor will be appointed to install all hard standing within the site and their specification and implementation of the Hard standing. The following specification follows general and typical building practice for the products proposed.

## Access road and carpark hard standing.

The ground bearing hardstanding will need excavation to approximately 375 – 400mm below ground level depending on ground conditions. This will be carried out as follows;

- Mark out all access track according to phased works.
- Excavate to required depth with track wheeled excavator, such as a mini digger.
- All excavation should be undertaken within the internal perimeter of the access road and parking, marking out and begin from the site entrance and working into the site accordingly. This is to ensure no excessive excavator maneuvering takes place on protected ecological areas than is strictly necessary.
- Soil should be removed to the central spoil storage area using mini tracked dumper or dumper trucks that can operate within parameters of the proposed hard standing parameters that have been excavated. No spoil to be stored outside of excavated access road and carparking areas.
- On completion of excavation further scrape of vegetation layer within track parameters under taken to achieve good level ground.
- Timber walkway edging should be then installed to provide hard border edge to walkways. Care should be taken to install from excavated walkway side, every reasonable step should be taken to not walk on the ground outside of walkway demarcation to install edging board and supporting stakes.
- Sub base layer to be transported to required position by dumper truck and distributed within boundaries of hard standing area. All reasonable care should be taken to ensure leakage of sub base material does not spill outside of track edging.
- Compaction of subbase to be undertaken on completion of subbase distribution or in sections as required to ensure progress.
- This would form the temporary hard standing internal access road until final material finish is to be applied.

### Final material finish

- Any geotechnic stabilization layer to be installed over subbase in sections to allow installation of gravel guard grid, to protect geotechnic layer.
- Upon completion of required sections lay gravel in an even layer coverage of gravel guard grid ensuring full coverage is achieved and grid is not visible.

Registered Office: 3 The Woodlands, Hayton, Brampton. CA8 9HZ.
Registered No 6707020. VAT No. 998 3341 67
Directors: AJ Holdsworth, JL Holdsworth

Move onto next section of works of access road until completion of road,

## Ground bearing pedestrian walkways.

The ground bearing walkways will need excavation to approximately 250mm below ground level. This will be carried out as follows;

- Mark out all walkway tracks.
- Excavate to required depth with track wheeled excavator, such as a mini digger.
- All excavation should be undertaken within the internal perimeter of the walkway marking out and begin from the temporary hard standing location (ie temporary access road) and working away from starting point into site. This is to ensure no excessive excavator maneuvering takes place on protected ecological areas than is strictly necessary.
- Soil should be removed to the central spoil storage area using wheel barrows or mini tracked dumper that can operate within parameters of walkway that have been excavated. No spoil stored along side or outside of excavated track.
- On completion of excavation further scrape of vegetation layer within track parameters under taken to achieve good level ground.
- Timber walkway edging should be then installed to provide hard border edge to walkways. Care should be taken to install from excavated walkway side, every reasonable step should be taken to not walk on the ground outside of walkway demarcation to install edging board and supporting stakes.
- Sub base layer to be transported to required position by mini tracked dumper and poured with boundaries of track width. All reasonable care should be taken to ensure leakage of sub base material does not spill outside of track edging.
- Compaction of walkway to be undertaken on completion of subbase distribution.
- Self-binding gravel material to be transported to required position by mini tracked dumper and poured with boundaries of track width. All reasonable care should be taken to ensure leakage of sub base material does not spill outside of track edging.
- Once all self-binding top coat material is installed it should be compacted to form final surface finish.

### **Camper Van bays**

The camper van bays will need a degree of excavation to approximately 350 – 400mm deep depending on ground conditions.

- Mark out all bays in locations and to dimensions on approved plans
- Excavate areas with excavator and move spoil to storage area.
- Install geotextile layer over required area.
- Distribute subgrade layer to required thickness and compact.

- Distribute sandy gravel subbase layer with added fertilizer and compact.
- Apply geocell grid over area required to supplier instruction.
- Distribute around and within geocell grid sharp sand with added fertilizer.
- Level off to top of geocell grid to supplier instruction.
- Distribute grass seed over sand and water.

**END**