Construction Environmental Management Plan

27 Dene Road,
Northwood,
Middlesex
HA6 2BZ

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN FOR THE RE - DEVELOPMENT OF.

27 Dene Road, Northwood, Middlesex, HA6 2BZ

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1.0 INTRODUCTION.

TERMS OF REFERENCE.

The Construction Environmental Management Plan (CEMP) describes the proposed scope of the construction works and environmental factors and considerations relevant to scheme and key activities that will be undertaken. The construction activities comprise works to construct 5 new apartments.

The CEMP forms part of the overall Project Management and as such activities described would be integrated with other quality, sustainability and Health & Safety management processes.

The CEMP is required to implement the core principles of the local planning policies which encompass environmental controls required with due consideration to relevant environmental legislation. The CEMP seeks to ensure the following criteria are in place during the course of the development;

- Ensure that environmental management, controls and safety procedures that will need to be adopted during the development of the Site are in place,

- Thereby providing a tool to ensure the continuous review of any likely environmental effects as a result of the construction activities.

- Ensure that all enabling, demolition and construction works cause the minimum disruption to the local residents and members of the public.

More specifically, the CEMP aims to:

- Ensure that relevant mitigation measures are implemented.

- Ensure that relevant legislation, Government and industry standards, and construction industry codes of practice and good practice standards are implemented.

Site Management

The management team for the site will consist of:

- Building Director
- Site Manager

1.1 PROGRAMME OF WORKS.

The construction programme will span approximately 18 months.

The programme can be divided into the following main stages:

- Demolition
- Construction of the basement/ sub-structure
- Construction of the superstructure

The table below summarises the main programme activities to be undertaken and the approximate duration of the works:

Activity	Duration
Demolition	2 Months
Basement & Roads	7 Months
Construction	9 Months

1.2 DESCRIPTION OF THE WORKS.

Demolition works inclusive of disconnect of all services.

Demolition and Construction works will be accessed via the existing driveway access to the site.

The site is currently secured with low level fencing erected along Dene Road. The remaining boundaries are secured by existing garden fencing and hedgerow.

All Demolition material will be stored on site for re-distribution or removal. The site team will be directed to avoid any material migrating onto public land.

1.3 MATERIAL AND RESOURCE USE.

Plant and Equipment

Types of plant likely to be used during the Demolition and Construction phase works. The plant and equipment associated with each key element of the construction process is set out below in Table 1.2:

Table 1.2 Plant Used During Construction

Plant equipment.	Demolition	Groundworks	Construction
Tracked 360 degree excavators	*	*	*
Dumpers	*	*	*
Mobile Craneage		*	*
Tower Crane		*	*
Air Compressors	*	*	*
Power tools including percussion drills, cutting disks, pipe-threaders	*	*	*
Concrete Pumps		*	*
Hand/Power tools	*	*	*
Wheel Washing Plant	*	*	*
Scaffold		*	*
Mobile Access Platforms	*		*
Delivery Trucks	*	*	*
Skips & Skip Trucks	*	*	*

Wheel Washing

The policy is to remain proactive and control all mud and dust deposits at source. During the groundworks and construction phases. During the groundworks phase the following options will be utilized:

(a) *Jet Washing and Water Bowser*
A portable jet washer and bowser will be utilised for cleaning wheels, mud and also dust suppression.

(b) *Road Suction Sweeper*
The road sweeper role is a primary one of polishing up rather than the general solution. Generally this is employed for all muck away activities, however should the need arise this can be increased.

All vehicles will be stopped at the Site Entrance where they will be visually inspected. Any mud debris is then cleaned from the vehicles wheels and arches by using a power wash.

All muddy water will be swept from the matting onto the site ground where it will drain into the ground surface.

In the event that the power wash is not working all wheels will be cleaned by hand using brushes and water.

To supplement this a road suction sweeper will be used during heavy site traffic activities such as muck away.

Hours of Working

Given the close proximity of the existing residents we have limited the normal hours of working for construction to:

- Weekdays 08:00 to 1800 hours, and 09:00 to 1300 hours on Saturdays.

Car Parking

Site vehicles will be parked on site where possible, when this is not practicable they will be requested to park off site and considerately.

Material Deliveries

Deliveries will be phased and controlled on a “just in time” basis, all being clearly marked to show their destination.

All deliveries will access the development via Dene Road where they will be directed into the site and be unloaded in the designated storage area. The site has a double entrance which will be utilised during the demolition and groundworks phase of the development and will assist reduce the risk of reversing vehicles causing a hazard to pedestrians and cyclists.

It is anticipated that a workforce of approximately 20 - 30 people will be employed, working for either Gavacan Homes appointed subcontractors, suppliers or other organisations. The Construction Management Plan illustrates the location of the temporary accommodation and the area for the loading and unloading of delivery and cart away vehicles.

Delivery vehicles shall be prohibited from waiting on any of the surrounding streets leading to the site to prevent any disturbances to the residents and local traffic.

The safety of passing pedestrians, cyclists and traffic will be maintained by a site banksman.

1.4 WASTE MANAGEMENT.

Gavacan Homes is the client and main contractor for the project. We are committed to waste minimisation as part of our Corporate Social Responsibility agenda. Gavacan Homes expects subcontractors to enter into the waste management initiatives with commitment.

Gavacan Homes is striving to achieve elimination, as at the top of the waste hierarchy.

Gavacan Homes will manage 3 types of waste onsite:

- Inert waste: chemically inert, non-combustible, non-biodegradable and non-polluting
- Non-hazardous**:** by default, is neither hazardous nor inert.
- Hazardous waste: contains dangerous substances that could make it harmful to human health.

For Gavacan Homes to be in compliance with their duty of care there is a clear responsibility to dispose of the site waste at a licensed and suitable site under section 34(1) of the Environmental Protection Act 1990.

Subcontractors will be required to keep their area of works clean and tidy. A clean and tidy site is a safe site because it reduces the potential for trips, slips and falls. As such, all waste will be deposited immediately into collection receptacles provided by & for the individual sub-contractors waste.

Subcontractors will include an allowance in their budget tender prices for waste management and waste disposal. The preferred option on this project is outlined below.

Each Subcontractor will place their trade waste into bins or tipping skips (hereafter referred to as vessels) to collect waste. These vessels will be positioned at the point of the waste creation or at a location designated by Gavacan Homes near to their workplace. Subcontractors will also include costs for labour time to move waste to the central waste station area and disposal of waste within their budget.

It is the responsibility of the subcontractor to:

- Collect and decant their waste into vessels at the point of waste creation. The waste will be collected segregated into waste streams.
- To move the vessels from their place of waste collection – using their own labour - to the central waste station area, located at a position decided by Gavacan Homes Site Management.

To empty the waste into the designated skips or bins provided at the central waste station area using their own labour. The waste will be segregated by subcontractor operatives into the skips/bins provided.

Gavacan Homes are aware that the site is located in a residential area and as such subcontractors will be made aware of the sensitive receptors and the requirement to use the correct tools during work. The potential noise sources from work undertaken in connection with this project may include:

- Earthworks
- Excavations
- Transportation
- Cleaning
- Construction
- Waste Management

Contractors will ensure the implementation of best practicable means to reduce noise levels and to ensure compliance with acceptable levels. The best practicable mean for reducing noise will also be discussed during site induction and also carried out during toolbox talks.

The maximum level of vibration level at construction sites will be required to meet the criterion set out in in BS 5228-2:2009 as 0.3mm/s.

Monitoring of vibration will be carried out by Gavacan Homes to ensure minimum disruption. In the event of any complaints or issues Gavacan Homes will investigate the matter immediately.

1.5 ENVIRONMENTAL IMPACT.

Gavacan Homes are committed to manage the Impact our works have on the local and global environment and as such implement good working practices and close liaison with local residents. We will inform all residents of our commencement of works by issuing an introductory site commencement letter drop advising them of start dates and the dangers of construction sites.

Where practicable local contractors and materials will be procured to reduce the carbon footprint of the development.

Re-cycling of all materials will be managed pro-actively on site.

Air Quality and dust management

Dust emissions will be dealt with at Source by damping down prior to sweeping internally and externally.

Subcontractors will be encouraged to prefabricate materials off site prior to delivery to help minimise multiple deliveries, reduce emissions and maintain the neighbourhood air quality.

- Site management will endeavour to locate machinery and dust generating activities away from receptors.
- Subcontractors will be encouraged to prefabricate off-site prior to delivery
- Site management will minimize cutting, grinding and sawing on-site
- Site management will ensure cement, sand, fine aggregates and powders are sealed after use.
- All personnel to wear face fit tested face masks for all activities involving release of silica dust and sweeping.

Environmental Management and Monitoring

There are various scenarios that may be encountered during excavation such as identification of former underground storage tanks or other underground structures, identification of discoloured soils. Localized change in the type of material encountered. If any of the above scenarios are encountered during excavation the following method statement will need to be followed.

Method statement for previously unidentified contamination

Should such contamination be identified or suspected during site clearance or ground works, these should be dealt with accordingly.

Any employee of the PC or a sub-contractor who discovers an area of contaminated land or comes across polluted groundwater during the course of construction will report the matter immediately to the site manager.
The site manager will inform HESI immediately and instruct staff to cease works in the particular location.

A member of staff from HESI will inspect the site and carry out/or arrange for an appropriate risk assessment to take place.

The matter will be recorded, and reported to Groundwork consultants in the first instance, then the Local Authority and/or the Environment Agency.

Samples will be taken if required to determine the contamination levels and to determine classification of the waste

Where the waste is removed from site, it will be transported to an appropriate landfill site, and detailed logs recorded

Work will only re-commence in the affected area when HESI have informed the Site Manager that the matter is completed, (guidance, where appropriate, will be obtained from the appointed consultant, the Local Authority and/or the Environment Agency, should a change in the methodology be required).

Details of the incident, the assessment, and remedial action taken will be logged by the appointed consultant and added to the Health and Safety File on site.

Piling and Foundations

Pollution, Prevention and hazardous material storage

Chemicals and hazardous materials such as fuels and lubricants may be stored on site during the construction phase of the project. These include but are not limited to:

- Fuels
- Oils
- Lubricants
- Paint and Coating
- Adhesives and resins
- Solvents
- Compressed gases
- Cements and binders

Measures will be developed, implemented, maintained and monitored in order to comply with the Water Resources Act (1991) section 85 and associated Regulations. The following list shows measures that will be put in place to prevent pollution and would conform to the best practice policy proposed by the Environment Agency (EA) via the Pollution Prevention Guidelines (PPGs): • the handling, use and storage of hazardous materials to be undertaken in line with the EA's Pollution Prevention Guidelines (e.g. PPG2 Above Ground Oil Storage Tanks); • adequately bunded and secure areas with impervious walls and floor for the temporary storage of fuel, oil and chemicals on site during construction; • drip trays to collect leaks from diesel pumps or from standing plant; • oil interceptor(s) fitted to all temporary discharge points and for discharge from any temporary oil storage/ refuelling areas; • development of pollution control procedures in line with the EA's Pollution Prevention Guidelines, and appropriate training for all construction staff; • Provision of spill containment equipment such as absorbent material on site. There is a potential that hazardous waste will be stored on the site and therefore it must be stored in accordance with the Environment Agency Pollution Prevention Guidance (PPG2) so as not to cause any water/land contamination.

Pollution Prevention Guidelines (PPGs) are based on relevant legislation and reflect current good practice. Although some of the pollution prevention guidance documents have been withdrawn/archived, the information detailed in some of the document are still good practises for pollution prevention.

The following Pollution Prevention guidance document are listed below;

PPG2: Above ground oil storage tanks: Provides information about storing oil in above ground storage tanks, for new installations and existing tanks. The guidance is for small to medium size commercial oil storage. It gives advice on choosing, installing, using and maintaining oil tanks and how to deal with spills.

PPG3: Use and design of oil separators in surface water drainage systems: provides information about choosing and using oil interceptors to comply with environmental law and prevent pollution. It gives information about choosing, installing and maintaining an oil separator. Oil separators can be fitted to surface water drains to protect the aquatic environment.

PPG7 Refuelling facilities: It includes guidance on planning, designing, operating and maintaining refuelling facilities, plus information on storing other related, non-fuel products and dealing with environmental incidents.

PPG13: Vehicle Washing & Cleaning: provides information on how to comply with the law and prevent pollution when washing and cleaning vehicles. It includes advice on dealing with effluent, waste management and storing and using chemicals.

PPG26 Drums and intermediate bulk containers: gives information to store and handle drums and intermediate bulk containers (IBCs). It provides advice on choosing drums and IBCs, designing storage areas, delivery and handling, maintenance, dealing with spills and waste management.

The Pollution Prevention Guidelines are available to view on https://webarchive.nationalarchives.gov.uk/20140328090931/http://www.environment agency.gov.uk/business/topics/pollution/39083.aspx All contractors will be familiar with and apply the relevant best practice listed in the above guidance documents.

The Environment Agency incident hotline number is 0800807060 Fuels and oil All fuel and oil will be stored in accordance with the Control of Pollution (Oil Storage) (England) Regulations 2001 and they will be handled in such a way that risk of pollution is minimised, this will include: Fuel and oil storage tanks will comply with the Control of Pollution (Oil Storage) (England) Regulations 2001 and will be locked when not in use. Storage areas will not be located within 10m of the watercourse or highway gully. Mobile bowsers will be bunded and will comply with the Control of Pollution (Oil Storage) (England) Regulations 2001 and will be locked when not in use. Drums will be stored in bunded areas with a minimum capacity of 25% of the total volume contained within the bund, or 110% of the largest container, whichever is greater. Drums will be maintained in good condition, fitted with lids and labelled to indicate the contents. Trained operatives only will carry out refuelling of plant and equipment. Static combustion engine plant (e.g. compressors, lighting sets) will be integrally bunded or placed on drip trays. Plant will be regularly checked for leaks and will be regularly maintained. Spill kits will be provided within close proximity to fuel and oil storage areas and operatives will be trained in their use.

1.6 SUMMARY.

The construction programme will span approximately 18 months.

The initial phase of the development will involve demolition of the existing building, followed by construction of the basement, site road and substructure works, then proceeded by the construction of the apartment building.

Plant and equipment to be used during land clearance, and construction works has been identified together with the hierarchy of vehicle wheel cleaning facilities.

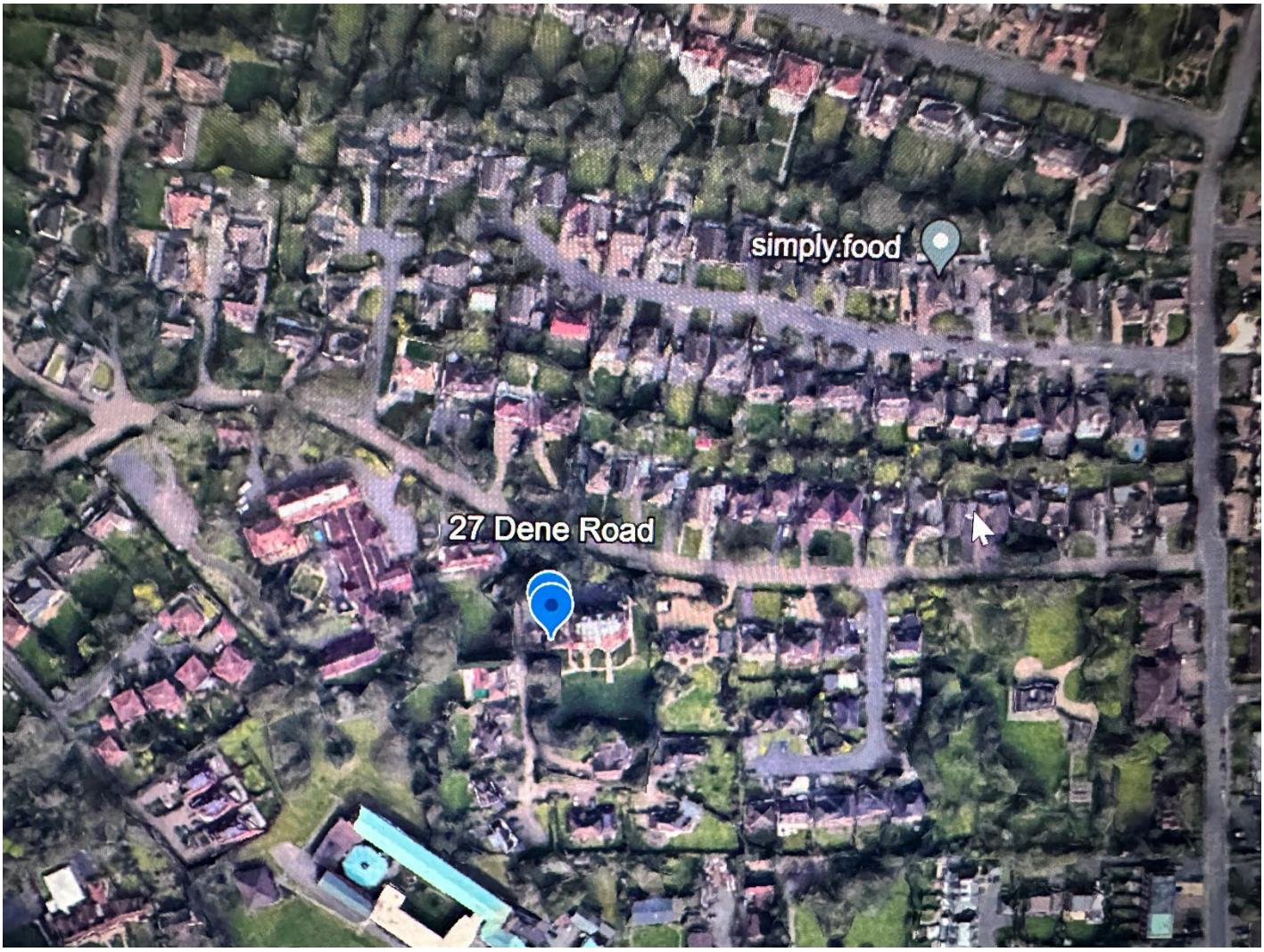
Waste will be dealt with in line with the table of hierarchy and at the least will be segregate.

Gavacan Homes to liaise closely with HESI on any matters that arise during the course of the works.

1.7 APPENDIX.

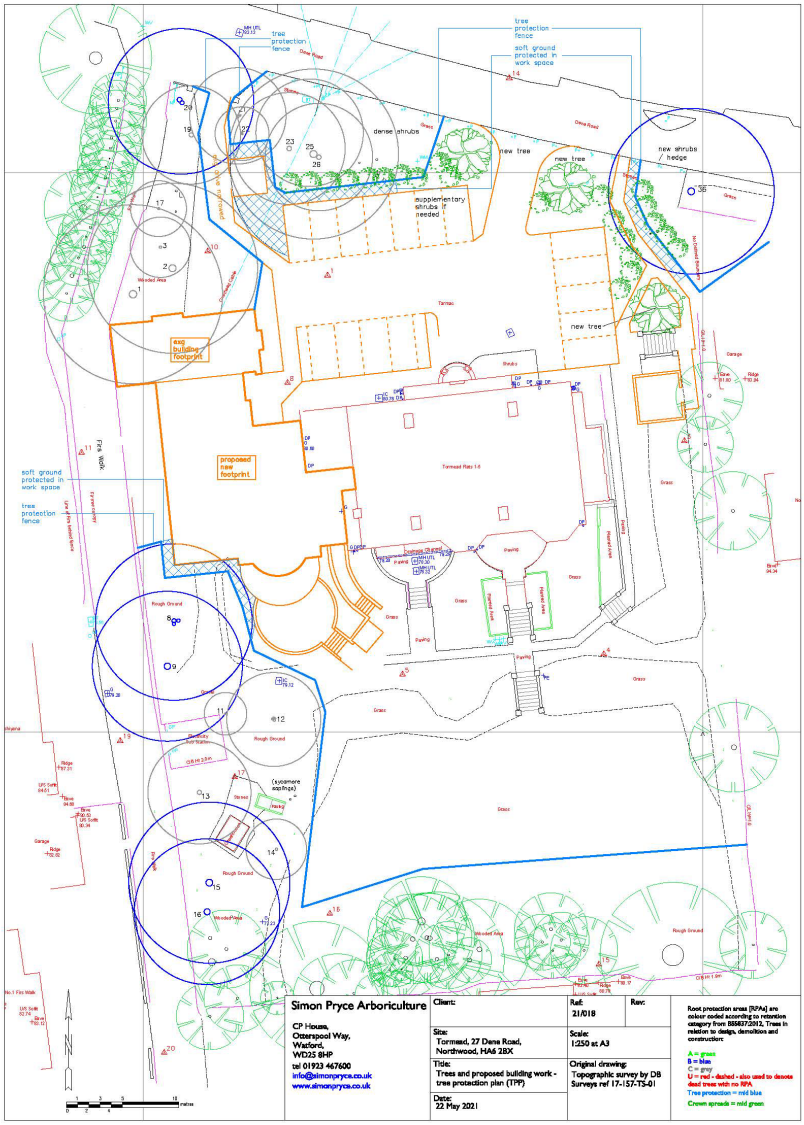
1.7.1 Site Location Map.

The below map shows the location of 27 Dene Road, Northwood.



1.7.2

Construction Management Plan.



The above drawing shows the construction site layout of the site secured with Gavacan Homes Hoarding inclusive of site gates at the entrances. The remaining boundary is secured with existing close board fencing.

Site traffic will enter the site via the entrance gates and will be supervised by a designated site operative whilst entering and egressing the site.

1.7.3

Condition Survey of Surrounding Roads Leading to Site.

Dene Road

Dene Road – entrance to site

Access into site

View to Dene Road entrance