

## Construction Management Plan



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**Controlled Document**

Updates must be authorised by the Mace Project Manager

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## 1.0 Introduction

Mace Ltd has been appointed as the Main Contractor for the project and this Construction Management Plan provides an outline of how we propose to execute the development proposals with minimal harmful impact on the building, local amenities and the environment. The project at 39 Queens Grove will be completed in coordination with the project at 40 Queens Grove.

The document describes in outline, how the work is to be carried out with an emphasis on how Mace intend to mitigate the environmental impact that our activities could have on the surrounding area, its residents and the environment generally. However generally early phases of construction access for the basement extension

Mace is accredited to ISO 14001 Environmental Management standard and is committed to continually improving environmental performance.

In addition to the environmental requirements, we recognise that the building construction is contained within a conservation zone and the works need to be carried out sympathetically to care for the elements of the structure and fabric that are to be retained as well as allowing appropriate time and facilities for archaeological investigation and recording.

The Construction Management Strategy is based on Mace's commitment to implementing industry best practice and will draw upon the following reference documents:

- ✓ Environmental Code of Construction Practice
- ✓ Considerate Constructor's Scheme
- ✓ BS 5228: 2009 Noise & Vibration Control on construction sites
- ✓ BS 6187: 2000 Code of Practice for Demolition

As Project Manager Mace will at all times ensure work is carried out in a safe and considerate manner with due regard to the public, adjoining properties, businesses and road users.

## 2.0 Programme

The overall programme for the works on site is approximately 45 weeks and will broadly follow the stages set out in Table 1 below:

**Table 1: Indicative Programme**

Phase	Start date
Site strip / enabling works	July 2010
Piling	August 2010
Reduced dig	September 2010
Structure	October 2010
Fit out to completion	February 2011
Completion	July 2011

The outline method for the works is described below:

## 2.1 Demolition / Enabling Works

This phase of work involves the initial establishment of site including:

- ✓ Provision of welfare and site set up will be via benefit of 40 Queens Grove and their proposed site set up. At this stage a gantry is not expected on the street.

Refer to appendix 1 for Site Logistics Plan

It should be noted that at this stage the welfare is contained within the demise of the existing property, utilising the front courtyard / driveway area.

- ✓ Craneage

A crane should not be required to complete the proposed works. Access will be via 40queens Grove and deliveries will be limited in size to ensure they are not beyond the lifting capacity of the site equipment.

A coordinated programme will be produced which maximises the deliveries to site and thus minimises the frequency of crane operations. This will minimise any disruption to the existing residences and the requirement for associated road closures.

All work with cranes is controlled to the highest standards of Health & Safety and full safety method statements would be produced and agreed with all regulatory authorities and strictly monitored at site level.

- ✓ Enabling Works

Removal / re-grade of existing top soil to the required pile matt formation level. This will be reinstated upon completion of the works.

## 2.2 Piling

Scheme design proposals involve the use of contiguous / secant (not driven) perimeter piling designed and constructed in accordance with the Specification for Piling and Embedded Retaining Walls' (SPERW), forming the extent of the basement construction.

Prior to commencement of the piling operation a piling matt will be constructed to a depth and specification to suit.

Due to access constraints to the rear of the property, all machinery including the piling rig will be access via 40 Queens Grove. The Site Logistics Plan attached to this report (appendix 1) identifies the approximate location of the crane which will require road closure / parking bay suspension, approvals of which will be gained from the local and highway authority.

All activities on site are subject to pre-planned method statements approved by Mace in accordance with the Construction Design and Management regulations 2007 and the Management of Health and Safety at Work regulations 1999

The following key considerations will be taken into account in preparation of method statements:

- ✓ Site location and access / traffic management
- ✓ Protection of the public and adjacent property

- ✓ Any unexpected ground contamination if discovered
- ✓ Water encountered during excavation.
- ✓ Existing services
- ✓ Access / rights of way
- ✓ Noise and vibration
- ✓ Air quality / dust control
- ✓ Waste management and material re-use
- ✓ Storage and handling of materials
- ✓ Local community liaison
- ✓ Emergency / accident procedures
- ✓ Training
- ✓ Monitoring procedures

Plant selected will be inherently quiet and will work within the guidelines agreed with Camden Council's Environmental Services Department

### **2.3 Reduced dig**

The scope for this work includes excavation of the basement to formation level, temporary works / propping of piles and temporary works associated with retention of the adjoining boundary walls.

Excavation of the basement shall be undertaken by use of mechanical excavators.

All arisings shall be disposed of via 40 Queens Grove and then to the front of that property where they shall be removed from site and disposed of in accordance with legislative requirements.

If temporary works are required they will be installed through the excavation and shall be designed to minimise deflection of the piles in the temporary condition. This is likely to be a cross braced system with lateral walers / beams or an installation of permanent structure early.

The in-ground drainage, service ducting, and the like will be coordinated with the piles and pile caps and placed in sequence to release areas as soon as possible for the construction of the reinforced concrete basement floor slab.

### **2.4 Structure**

The structural work comprises construction of the reinforced concrete basement slab, reinforced concrete retaining walls and roof slab with progressive removal of the temporary works.

Materials shall be supplied via craneage and concrete pumped from an agreed location at the front of the property.

### **2.5 Fit out to completion**

As quickly as possible the envelope will be completed to provide a waterproof environment in which to work.

We will attempt to deliver larger items of plant / materials prior to through the logistics provided by No. 40. However the project may require minimal specific mobile crane lifts to place larger plant items.

All finishes will be reviewed to ensure that these are specified as sustainable materials and obtained from credited sources. It is a planning requirement that the project achieves level 4 of the Code for Sustainable Homes and the project is registered under the Code for Sustainable Homes, revision October 2008 (registration number: BRE-00003441-DS-001-00).

Where possible prefabrication techniques will be utilised in the construction process to minimise on the number of individual trades and associated deliveries.

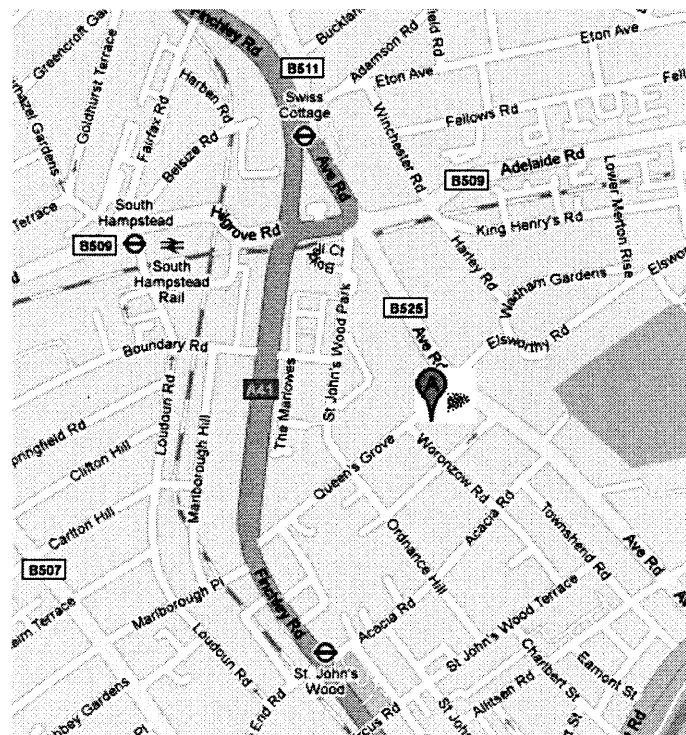
### 3.0 Site Logistics and the delivery and distribution of materials

#### 3.1 Principles

This development is located on Queen's Grove, London NW8 which is a residential road linking to Finchley Road (A41) to the West and to Avenue Road to the East.

Queen's Grove is a 2-way road and has parking bays at intervals along its length for residents parking.

Pedestrian access is well served via St John's Wood and Swiss Cottage underground stations, also South Hampstead rail and underground



Particular considerations will be as follows:

- ✓ Site security and protection of the public
- ✓ Site cleanliness
- ✓ Control of noise, dust and vibration
- ✓ Health, Safety and Environmental controls
- ✓ Management of access / egress
- ✓ Delivery Management

#### 3.2 Loading, un-loading and vehicle movements

All deliveries, where possible, shall be carried out within normal site working hours and will be controlled by suitably qualified banksmen thereby ensuring pedestrian safety and minimising disturbance to other traffic. Where possible reversing will be avoided and vehicles will be routed from Avenue Road to Finchley Road in a one way type system.

Parking will be controlled in front of the house.

Abnormal loads will be arranged / approved with Camden Council and if required Transport for London and Metropolitan Police Force.

A system for pre-booking deliveries will be utilized to ensure that they are received and managed in the most effective manner with minimal disruption.

### 3.3 Material Storage

The plan area of this development is relatively small and does not provide opportunity for bulk material storage. Where smaller loads of materials are stored on site these shall be stored in a clean and safe manner to ensure that there is no deleterious affect on the environment.

Due to the constraints of material storage area, deliveries will be planned on a 'just-in-time' basis.

## 4.0 Management of Environmental Impact

### 4.1 Identifying the impacts

This section assesses the potential impact on neighbouring properties and occupiers and the control measures to be implemented to mitigate the same.

*Table 2 below provides a brief summary of examples of some of the environmental impacts which have been considered with respect to the development and the wider environment. Section 4.2 then identifies the control measures that would be put in place to mitigate any impact.*

*Table 2:  
Summary of Potential Impacts during Construction for which management plans will be established to minimise their impact*

Issue	Potential Impacts
Site security and protection of public	<ul style="list-style-type: none"> <li>Unauthorised site access</li> <li>Unsightly, poorly lit and ill kept site boundaries</li> <li>Restricted access routes for pedestrians / vehicles</li> </ul>
Noise	<ul style="list-style-type: none"> <li>Increased adverse road noise levels from vehicles</li> <li>Increased adverse noise levels from plant during construction works</li> </ul>
Vibration	<ul style="list-style-type: none"> <li>Increased adverse vibration levels from vehicles</li> <li>Increased adverse vibration levels from plant during construction works</li> </ul>
Dust / Air Quality	<ul style="list-style-type: none"> <li>Generation of windblown dust from areas within the site, stockpiles, vehicles, work faces and cutting and grinding of materials</li> <li>Generation of exhaust emissions from lorries and plant delivering and removing materials including dust and particulates which may impact upon local air quality</li> </ul>
Traffic	<ul style="list-style-type: none"> <li>Adverse traffic congestion caused by site traffic and an increase in heavy goods vehicle (HGV) movement</li> <li>Adverse traffic disruptions from abnormal or hazardous loads</li> <li>Adverse traffic disruptions from road closures</li> <li>Transfer of mud and material from vehicles onto the public highway</li> </ul>

Issue	Potential Impacts
	creating pollution hazards
Waste Management	Excessive waste generation and its appropriate disposal
Storage of fuels and construction materials	Adverse accidental spills and discharges to drains which may create pollution hazards
Pedestrian access to site and surroundings	Adverse disruptions to pedestrian access and routes within the locality of the site and reduction in pedestrian amenity
Hazardous materials and contaminated land	Exposure of the workforce to deleterious / hazardous materials such as asbestos, and ground contamination
Transportation	Avoiding unnecessary vehicle movements Energy usage during the build process and embodied energy within the manufacture of products Transportation of materials and labour on the Site

## 4.2 Site Controls

A detailed environmental plan will be produced as part of Mace's ISO 14001 Environmental Management System. The following procedures / proposals identify the ways in which we initially plan to manage the impacts during demolition and construction.

### ✓ Site security and protection of public

Access to the property is currently controlled via secure gates within the hoarding. These will be retained for the duration of works.

Manned security will be provided at this location to ensure that deliveries and access is fully managed.

The rear of the property is enclosed via existing brick walls. These will be protected for the duration of construction using additional security fencing (Heras or similar) with monarflex or similar sheeting.

### ✓ Noise, vibration and dust / Air Quality

In a project of this nature, it is recognised that noise, vibration and dust will be important issues and could give rise to local disturbance. These impacts are an inevitable consequence of the construction activities, however, site-specific best practice measures will be implemented by contractors to minimise the disturbance to local residents and businesses and other potentially sensitive receptors.

Considerations in relation to noise and vibration include:

- Selection of inherently quiet plant
- Selection of the 'best practicable means' for all work to minimise the effects of noise and vibration
- Liaison with the neighbouring residences potentially most affected by noise or vibration from on-site or off-site activities
- Monitoring of noise and vibration levels at, or near, the Site boundaries.
- Use of screens for as long as practicable to provide a degree of acoustic screening



- Requirement for engines to be switched off on-site when not in use, use of quieter plant, regular plant maintenance.

With regard to potential dust emissions, environmental management controls will be implemented to prevent the release of dust entering the atmosphere and/or being deposited on nearby receptors, thereby reducing atmospheric pollution levels as far as possible. The following dust mitigation measures are proposed:

- Vehicles will not be allowed to leave site with dirty wheels and will be cleaned by jet washing if necessary.
- Vehicle movements on site will be restricted to the piling and reduced dig operations.
- Muck away and demolition lorries exiting the site will be sheeted to prevent dust pollution and blown debris
- Water suppression will be used on site if dust levels begin to rise.
- Stock piling (top soil) will be minimised and where required will be covered and treated (water suppression) to prevent dust pollution.
- Site management will undertake regular inspections of site to ensure that spillages are dealt with expediently and appropriately.
- Regular site inspections to ensure that the site is clean, potential contaminants are correctly banded / controlled and that excessive dust / debris sources are maintained correctly.
- Site management will undertake Environmental audits and inspections on a frequent basis to ensure that all precautions are being suitably maintained.

- ✓ Hazardous materials and contaminated land

There are no known hazardous materials on site.

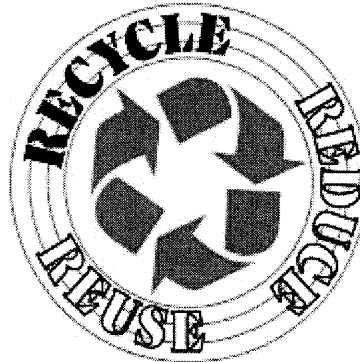
The site will have the benefit of a full soils analysis which will identify any potential contaminants present on the ground. In the event that any hot spots are discovered during excavation work then the removal of the material will be carried out with due regard to prevailing regulations.

- ✓ Resource Use and Transportation

There is no parking available on site and it is anticipated that the majority of the workforce will arrive to site by Public Transport.

## 5.0 Waste Management

A Site Waste Management Plan will be developed by the main contractor detailing how it is proposed to dispose of and manage waste created during the demolition and construction phase. All relevant sub-contractors will be required to investigate opportunities to minimise waste arisings at source and, where such waste generation is unavoidable, to maximise the recycling and reuse potential of demolition and construction materials. Wherever feasible, such arisings will be dealt with in a manner that reduces environmental impact and maximises potential re-use of materials. Recycling of materials will largely take place off-site where noise and dust are less likely to result in impacts to the occupants of surrounding properties.



All waste will be removed by appropriately licensed carriers to licensed facilities, the verification of this falls under the Management Systems required of Mace to comply with our ISO 14001 accreditation.

## 6.0 Site Office and Welfare Facilities

### 6.1 Site Accommodation for the works

Site accommodation and welfare facilities will be provided within the site demise and will be retained for the duration of construction. A gantry may be required in line with others approved on the street for the construction process. However at this stage we hope to maintain the accommodation without the use of a gantry system.

All facilities will be cleaned on a daily / as required basis and areas surrounding will be kept clean and free of debris to prevent air blown nuisance.

Such facilities will be screened as appropriate in respect of their proximity to adjoining properties.

## 7.0 Communication and Community Liaison

Signage will be placed on the boundary of the site (Queen's Grove) to indicate participation in the Considerate Constructor's Scheme which includes appropriate contact names and numbers that members of the public may call to raise any concerns.

General communication about the Development will be carried out via publication of newsletters which will be distributed on a regular basis to:

- ✓ Adjoining and neighbouring residences.
- ✓ Other residences affected by the development proposals / construction activities
- ✓ Local Planning Authority
- ✓ Environmental Health Department

These newsletters will provide the following detail:

- ✓ Contact details including name and telephone number for the works.
- ✓ Update on progress of the construction activities
- ✓ Notice of future planned activities including any abnormal issues such as road closures

## 8.0 Site Working Hours

Site working hours will be in accordance with the approved planning consent / hours agreed with Camden Council typically 08.00 to 18.00 Monday to Friday; 08.00 to 13.00 Saturday.

**Appendix 1**



