Demolition and Construction Method Management Plan

Project:

Demolition of the existing garage buildings and erection of 2Nos. single family dwellings with associated parking and landscaping at Linden Avenue Lane Ruislip HA4 8UB

• Required to discharge condition number 3 of planning permission ref. 78323/APP/2024/968- 140 Linden Avenue, London Borough of Hillingdon

• Management of demolition and Construction Works

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1. Executive Summary

This Demolition and Construction Management Plan (DCMP) has been prepared to explain the practical aspects of the demolition of the existing bungalow buildings and erection of 2Nos. single family dwellings with associated parking and landscaping at Linden Avenue , Ruislip HA4 8UB. This DCMP focuses on the measures that will be put in place to ensure that the scheme is delivered in an organised, safe, and professional manner and with the minimum disruption to its immediate neighbours.

The plan has been prepared with the support of the client's designers. To gain a full understanding of the project and local environment, we visited the site and reviewed the current drawings and reports. The site location requires that special attention is paid to the neighbours especially the access and logistics of material delivery and to ensure the protection of the public.

The current scheme includes the demolition of the existing bungalow and erection of 2Nos. single family dwellings with associated parking and landscaping. The outline programme shows the overall duration for the main works will be 70 weeks starting on site in June/July 2025, following a design development period and contractor's mobilisation period.

Key to the project's success will include establishing an optimal method of delivery and distribution of materials onto site will be a major consideration, this will need to be undertaken as safely, quickly, quietly as possible to ensure construction does not adversely affect the neighbouring properties. We recognise the proximity of the adjoining properties and road junction, to the south of the site and the peak traffic volume times in the morning and evenings and incorporated within the DCMP. The DCMP aims identify the constraints, influences, and impacts of the proposed development and to demonstrate the level of understanding and control required through all disciplines and phases in the delivery of the scheme.

2. Introduction

This DCMP has been produced to review and detail the demolition and construction works sequence and methodology for the demolition of existing garage buildings and erection of 2Nos. single family dwellings with associated parking and landscaping. The process and issues of demolition and construction have been assessed with the appropriate mitigation strategy identified as required. All aspects of the redevelopment process are described and have been considered to ensure that they ultimately meet the needs of neighbouring stakeholders and the public.

This statement is also written to discharge condition number 3 of planning permission ref. 78323/APP/2024/968 – 140 Linden Avenue, Ruislip HA4 8UB, London Borough of Hillingdon.

report outlines how this project, will be constructed efficiently, under controlled environmental conditions. This method statement describes how we propose to minimise inconvenience to the neighbouring owners and pedestrians.
Figure 1 - Site Location Plan
The site is situated Linden Avenue.

3. Demolition and Construction Programme

Outline programme statement
We have included our Outline Programme which is based on the following approximate dates:
Complete Discharge of Planning Conditions: 15 May 2025

Construction Works Commence on Site: 16 June 2025

Contract Completion: Late September 2026

Contract Duration 70 calendar weeks

16 Months estimated programme of works.

The outline programme is based upon the Architectural Planning drawings provided at this stage.

Site Working arrangements

• Works will be undertaken in accordance with Hillingdon Council's permitted hours of building works & Notification to neighbours as follows:

• Construction and demolition work and associated activities at the development including deliveries, collections and staff arrivals audible beyond the site boundary should not occur outside the hours of 0800 - 1800hrs Mondays to Fridays, and 0800 - 1300hrs on Saturdays, nor at any other times, including Sundays and Public/Bank Holidays.

• All occupiers surrounding the site should be notified in writing at least 21 days prior to the commencement of any site works, of the nature and duration of works to be undertaken and subsequently be regularly updated. The contact details of persons responsible for the site works should be signposted at the site entrance or hoarding in case of emergency and for enquiries or complaints. Any complaints should be properly addressed as quickly as possible.

Construction Sequence

The main elements of the Construction Process are largely determined by the detailed design of the scheme. The design may lend itself to a greater or lesser degree of offsite fabrication which may reduce on site time or more traditional techniques may be required. Given the relatively restricted nature of the site, full consideration will be given to off-site fabrication where reasonably appropriate to minimise deliveries, on site storage and overall construction programme. An outline of the possible main elements is as follows:

• Site mobilisation including the installation of site accommodation and securing the site
• Demolition of the garages.
• Vegetation clearance and formation of site levels.
• Substructure construction including piling and below ground drainage as required
• Retaining walls and ground floor slabs
• Superstructure construction from ground slab to roof including stair cores
• Concrete or lightweight steel frame and floor slabs
• Roofing and Roof drainage
• Envelope cladding including brickwork and rain screen

- • Windows
- • Formation of the internal walls
- • Doors and ironmongery
- • Electrical and Mechanical installations
- • Plumbing fixtures and fittings
- • Finishes
- • External hard and soft landscape works including paving running concurrently
- • Car park final surface finishes.

4. Traffic Management and Site Logistics

Delivery traffic will use Linden Avenue both coming in and going out of the site. This due to the location of the site and traffic configuration in the area. Arriving traffic from the North will turn left into the Site and departing traffic will turn Left onto the Linden Avenue heading south. Large delivery vehicles which cannot turn within the site will reverse into the site. The site will be manned by two full time accredited traffic marshals to monitor and direct the ongoing traffic flow on the Linden Avenue as well as directing delivery vehicles which will reverse into the site, and off the main thoroughfare. The traffic will only be stopped for 2 minutes in every 15 minutes to allow vehicles onto and off site in line with the Enfield Roads/Street Works Stop Work Regulations.

Figure 2 - Traffic Plan

Traffic management

The traffic management plan aims to minimise congestion and impact on the surrounding areas as a result of the construction works, whilst maintaining safe access routes for pedestrians and other stakeholders.
All deliveries will be timed and booked to a pre-arranged schedule these deliveries will take place between the off-peak hours of 9.30am and 3.00pm. This will avoid the peak traffic times .The site is well served by public transport and therefore all personnel working or travelling to site will use public transport at all times. Minimal parking facilities will be available within the site.

Vehicle Movements

We estimate that there will be a peak number of 8 deliveries per day during the demolition stage of the contract. This will reduce to 6 per day during the superstructure and reduce further to 3 per day during the internal finishings period and thereafter. All deliveries will be scheduled in the site diary to arrive on a “just in time basis”. This will reduce the number of materials stored on site and avoid multiple deliveries arriving at the same time and there will be no vehicles held in the surrounding streets to cause congestion. Unexpected and unscheduled deliveries will be turned away, to return in a timely manner.

Plant and equipment

Mobile craneage
The project will require a small spider crane to lift the new structural steel beams, the machine will be reversed into the yard area and pick up from the delivery vehicle, this operation will be supported by a fully trained banksman and slinger, who will signal to the crane driver the final positioning and installation.

Scaffolding

The external elevations will be surrounded with a fully boarded scaffold with floor level working lifts with ladder access. The scaffolding will be enclosed with Monoflex plastic sheeting to contain the dust and water used for cleaning the façade.
Additional scaffolding includes;
• Roof edge handrails
• Riser ducts and openings protection handrails
• Handrails to staircases
• Birdcage scaffolds at the top of staircases for plastering and decorations Powys Lane, London

Temporary services

Provision will be made for a builder's electrical supply for the site establishment and the new build areas. This will include mains distribution to all work areas. Temporary lighting will be installed to each floor and will be supplemented with task lighting. We will use the existing water supply for each floor level and for the welfare facilities.

Site Hoardings

Prior to contractor's mobilization to site it is expected that the site is to be secured by putting up 2.1-metre-high hoarding finished with the developer choice of colour. The hoarding will allow for a 2.5 metre gates for access for deliveries and to access the works. The boundary of the hoardings will be 1.8m away from the area of the works to ensure the safety of the neighbouring property owners and ensure continuity of access to individual properties. Once the site is secured the demolition of the existing buildings is carried out. We anticipate that this could be completed within a week, including truck access to the site for the removal of construction and demolition waste. The Main Contractor will ensure that all appropriate measures are taken by the subcontractors responsible for this key element of the work.

Figure 3 – Extract of Site Plan showing hoardings

5. Demolition and Construction Methodology

Site establishment and welfare facilities

The site has space which will be used for site offices, meeting room and welfare facilities, changing room, mess room and toilets for the workforce. These facilities will be downsized and relocated in the later stages of the works when the construction programme dictates.

Stripping out and demolition

The existing bungalow will be demolished and cleared to provide a secure site area before any works commence. All arisings will be stored in secure skips before disposal. Waste will be segregated and disposed off.

Structural alterations to the existing building

Although the structural design is as yet not been completed, the ground floor is expected to be strengthened by retaining the existing garage walls to the south as a retaining wall. This will be done on a house-by-house basis working through the site from the west to the east of the site.

New construction generally

The houses will be constructed in the area currently covered by the bungalow. The construction will involve excavations for foundation footings, followed by the construction of retaining walls where required and/or making good the existing walls left out as part of the garage demolition phase. The foundation walls and floors will be followed by the external walls, floors, and Roof. The roof will be boarded and insulated and made weatherproof as per specifications.

The external scaffolding will be erected early in the programme to allow the construction works to be efficiently carried out. Upon completion the scaffolding will be struck and cleared, leaving a hoarded area at ground floor level for the final installation of windows and entrance doors for the final completion.

Substructure to the new rear extension

The new construction will have a retaining wall formed from the existing garage walls; the structural design is currently under review. The yard will be cleared, and the existing oversite slab broken out and cleared, the level will be reduced, and a granular piling mat (if required) installed. Once the piling is complete a reinforced capping beam will be cast on top of the piles.

Superstructure and Envelope

The structure is formed of traditional brickwork and blockwork loadbearing walls from ground level to first floor with timber joists and floorboards, as is the structure from ground to first floor and again up to the roof. The masonry will be constructed in 1.5m lifts with the external scaffolding erected progressively to suit the progress, the external elevations are clad with a face brick and windows installed at each floor level. The main roof is covered by a single ply covering system with green roof, tiling and terrace areas.

Fitout Works

The first fix for the fit out to the communal areas and flats can commence as soon as the temporary weathering has been completed, which will allow the interior fit-out together with mechanical, electrical and plumbing systems will commence.
Both operatives and materials will be supplied to each floor utilising materials hoists strategically located around the building. Work shall progress from the lowest floor upwards. Temporary lighting and power systems will be installed at each floor to serve these operations.

Internal Finishings

The key to the internal fitting out construction sequence will be maintaining trade continuity, this is best achieved by waiting for all the areas of the upper floors are available for 1st fix services installation, once the envelope is substantially watertight the dry trades of plasterboard partitions and drylining to walls and ceilings will commence without any risk for water damage. The houses will progress through to the 2nd fix stage with joinery, kitchens and bathrooms being installed and completed with decorations and flooring. The public access routes corridors and stairs will be the last areas to be completed, ready for snagging, de-snagging and handover.

Utilities Connection Services

Long lead time and the essential coordination of the architectural and structural and mechanical and electrical design requires that the orders are place with the last six months of completion. The utility companies will obtain licenses from the highway's agencies and local authority for temporary road closures etc. The Main Contractor will ensure that all appropriate measures are taken by the contractors responsible for this key element of the work.

External Works and Landscaping

It is anticipated that once the structure and building envelopes have been completed that works on completing the common/service areas surrounding the building will commence.

This will include completion of service and drainage lines, landscaping of Garden, paving and erection of external lighting. Only when all external works are finalised and the building envelope is completed, will the safety hoarding be dismantled, and final ‘dressing’ of external public areas take place.

Figure 4: Extract Showing Site Logistics

6. Survey of Adjoining Properties and Public Highways

Linden Avenue entrance will be the main site access to the site. It is anticipated that the construction works will have minimal interference with the neighbouring properties. The vehicles accessing the site will have their wheels jet washed before leaving site. If mud is found to be on the highway the road will be swept by the operatives or a lorry mounted road brush, to ensure the roads and adjoining streets are kept in good order. Special attention will be paid to the protection of the existing street furniture, signage and lamp standards etc. Any noted damage after site works is completed will be repaired.
Below are images showing the existing state of the public highways and adjoining properties.

1. View from entrance into the site.

7. Noise, Dust and Vibration

The control of noise, vibration and dust both within and external to the site boundary form an important part of the construction, design and methodology, with the contractor required to comply with the following legislation.

- Health and Safety at Work Act 1974
- Control of Noise at Work Regulations 2005
- Control of Pollution Act 1974 and Environmental Protection Act 1990
- Environment Act 1995 and the UK Air Quality Strategy 2000
- Environment Protection Act 1990
- Clean Air Act 1993
- COSHH Regulations 1994

Noise monitoring and control

Monitoring of plant outputs will be undertaken within the site, monitoring to confirm planning conditions imposed to protect local residents will be carried out at agreed and consistent locations and on the site boundary and also at noise sensitive points. The selection of plant will form a key part in the noise from the construction works. All plant is to be specified within the detailed construction methodology, with the location and intended activity to be fully considered. All equipment is to be switched off when not in use and plant and machinery on site is to be started sequentially rather than all at once.

Dust Control

The main contractor will be responsible for demonstrating that both nuisance dust and fine particle emissions emanating from the works are controlled and within acceptable limits. The external scaffolding will be wrapped in Monoflex plastic sheeting to contain airborne dust and the working lifts of the scaffolding will be kept clean and tidy, where appropriate working areas will be damped down with water to lay the dust. Cutting techniques which produce dust will be operated with extractor/containment systems and reduced dust to the absolute minimum possible.

Dust emissions can have an adverse effect on both people and environmental resources, including:

- Adverse health effects, both short and long term.
- Nuisance through surface soiling of buildings, vehicles, washing etc.
- Creation of surface film on water bodies.
- Damage to electrical and mechanical equipment.

Vibration

The control of plant and equipment which generate vibration will be restricted to periods of the day to be agreed in the contractor's final method statement, vibration levels will be identified and mitigated where possible, demolition techniques will employ crushing attachments where applicable rather than pneumatic breakers.

• Working hours need to be planned and accounted for considering the effects of vibration upon persons within the surrounding buildings and working on site.
• Low vibration working methods should be used where reasonably practical, these need to be adopted considering plant selection, economy, and speed of working activities.
• Control at source vibration should be controlled at source with suitable means identified to prevent spread.

8. Waste Management Strategy

The minimisation and management will form a key component of the demolition and construction methodology, and also the management of the works on site. The main contractor has the responsibility to ensure that all waste from site is dealt with in accordance with the Waste Duty of Care in section 34 of the Environmental Protection (Duty of Care) Regulations 1991. The following waste hierarchy will be adopted on the project to define the approach to waste management:

• Eliminate – avoid producing waste

• Reduce – minimise the amount of waste produced

• Re-use – either on site or another project

• Recycle - recycle as much as material as possible

• Disposal – dispose of residual waste in a responsible manner

During the pre-construction phase, waste elimination and reduction measures are to be reviewed and incorporated within the design and methodology. All persons working on the project will be required to undertake the main contractors, Health, Safety, Quality and Environmental Site-Specific Induction. Within this will be the requirements identified within the Site Waste Management Plan and segregation on site. Due to the constraints of the project size, it is not anticipated that whole scale segregation can be undertaken throughout the construction works. It is anticipated that inert excavated material and gypsum-based products will be segregated on site using designated skips., All other materials will be removed from site and sorted off-site at a suitable materials recovery facility complying with ISO 9001, ISO 14001, OHSAS 18001 Certifications, Environmental Permits and Waste Carriers Licences. Throughout the construction process reports are to be produced at regular intervals to record waste removed from site and demonstrate compliance with legal and regulatory requirements.

9. Neighbourhood Relations

Liaison, Consultation and Communication

The basis of maintaining good relations with is to have good channels of communications. The local community surrounding the site comprises many different stakeholders, each with bespoke requirements which must be maintained. This includes retail, commercial and residential premises. Consultation will take place with these stakeholders to understand their needs, inform them of the demolition and construction plans, and alleviate any concerns they may have regarding the construction works.

• Identify contact details for the Site Manager and a 24-hour mobile number.
• Provide notice for any special works or deliveries in the upcoming month.

The Site Manager will work throughout the construction process, and act as the direct point of contact for the local community and stakeholders. Through providing a consistent and single point of contact, any concerns or issues can be channelled to the correct party and resolved and mitigated as quickly as possible. The responsibilities of the Site Manager will include:

• Monitoring subcontractors and personnel compliance of the site rules for conduct on site.

• Acting as single point of contact for all residents and stakeholders.

• To respond quickly to issues raised to alleviate any concerns