



**Proposed Residential Development
at
37 Hamilton Road
Construction Method Statement**

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Prepared for Hamilton Lofts Ltd.

by
Frendcastle Management Ltd.

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Introduction

This document describes the construction methods and phasing of the proposed Development at

37 Hamilton Road, Twickenham TW2 6SN

The Statement is intended to satisfy the requirements of Condition 17 of the planning appeal (Appeal A: APP/L5810/A/11/2147776) granted on 5 July 2011, as follows:

17) No development shall take place, including any works of demolition, until a Construction Method Statement has been submitted to, and approved in writing by, the local planning authority. The approved Statement shall be adhered to throughout the construction period. The Statement shall provide for:

- i) the parking of vehicles of site operatives and visitors;*
- ii) loading and unloading of plant and materials;*
- iii) storage of plant and materials used in constructing the development;*
- iv) the erection and maintenance of security hoarding including decorative displays and facilities for public viewing, where appropriate;*
- v) wheel washing facilities;*
- vi) measures to control the emission of dust and dirt during construction;*
- vii) a scheme for recycling/disposing of waste resulting from demolition and construction works; and,*
- viii) the method of construction for the foundations, including method for piling if applicable.*

The Statement is laid out under the headings of the details required by this Planning Condition.

In addition we have provided headings for the methods of construction of

- *the internal structure*
- *repair and replacement of external brickwork*

Planning for construction may be subject to modification during detailed planning and the construction detailed design stage. For this reason, the following method statement is based on reasonable assumptions in the preliminary construction programme, experience in relation to other development sites of a similar size and nature, and the best judgement of the construction experts.

1 The site

This site is located at the north end of Hamilton Road which terminates at the site without any turning space. To the North is a railway line, to the East are back gardens of terraced houses, and to the West is a large electricity transformer station. The site is in a conservation area.

The development proposed is described as the conversion of redundant industrial buildings into 21 flats, the demolition of minor buildings and structures, and the construction of six new residential units, with 24 parking spaces.

2 The parking of vehicles of site operatives and visitors

The area is served by local bus routes along Heath Road, and is ten minutes walk from Twickenham train station.

Operatives working on site will be encouraged to use public transport, and secure site storage will be offered for their tools on site, to avoid the need to carry heavy tools to and from site.

When operatives do travel by motor vehicle, they will be encouraged to share vehicles to reduce local road traffic and minimise the number of vehicles on site.

Temporary parking for 12 vehicles will be provided on site, to avoid any overspill parking affecting neighbouring streets.

3 Loading and unloading of plant and materials

Hamilton Road, Edwin Road, Marsh Farm Road and Colne Road are residential streets carrying local access traffic only. The building contractor will manage construction and vehicle movements to minimise disruption to neighbours.

Heavy goods vehicles will approach the site from the West via Staines Road and Colne Road to avoid Marsh Farm Road and the railway bridge at the eastern end of Colne Road.

Delivery times will be staggered to avoid morning and afternoon school run peak periods of 08.15 to 08.45 and 15.15 to 15.45.

The design maximises re-use of building materials from the existing buildings (crushed aggregate, facing bricks and roofing slates) to reduce the number of heavy goods deliveries.

4 Storage of plant and materials used in constructing the development

Site storage and temporary stock piling of materials will be set up on the eastern side of the site. This area will be kept to a minimum, with bulky materials delivered on a “just-in-time” basis to avoid the need for significant on-site storage.

Contractor’s offices and storage of low volume materials will be set up within the existing buildings to be retained.

Foundations are designed to use non-displacement piles and raft slabs to minimise spoil from excavations. What spoil is produced will be removed directly from excavation to avoid double handling. No spoil heaps will be used.

5 The erection and maintenance of security hoarding

The contractor will take all reasonable precautions to prevent unauthorised access to the site. They will enclose the site with temporary fencing as required to maintain security, prevent trespass and to ensure the general safety of the public.

24 hour site security will be provided by contracted security guards outside of site working hours.

Hamilton Road is a cul-de-sac with no passing foot traffic so the provision of a viewing platform is not appropriate.

The entrance gate, which occupies most of the frontage to Hamilton Road, will have open bars to allow good visibility through it.

6 Wheel washing facilities

When weather conditions generate mud on the site and its access road, a wheel washing station will be set up into the site from the site entrance. This will consist of a specific hard surfaced with an operative stationed with pressure hose and brush to clean the wheels of all construction traffic.

The station will be set back far enough from the public highway to ensure that mud and water will have drained from each vehicle before it reaches the public highway. The area will have temporary falls to a collection pit to prevent mud run-off from the site to the gulleys in the adopted highway..

Mud complaints will be reported to the Contractor and immediately investigated.

7 Measures to control the emission of dust and dirt during construction

On-site practice will follow the GLA risk assessment guidance for Dust Control on Construction Sites to mitigate noise and dust impacts. The site is assessed to be Medium Risk due to the proximity of sensitive receptors, and the following measures are currently planned to be adopted:

- Erect solid hoarding to the entire perimeter of the site to assist in the screening of dust generation from low-level sources.
- Prohibit bonfires on site.
- Use hydraulic demolition in preference to percussive techniques.
- Avoid stockpiles or keep them securely sheeted.
- Securely cover skips and prohibit loading them from a height.
- Provide full height debris / dust sheeting to access scaffolding used for repairs, cleaning and alterations to existing brickwork elevations.
- Use water damping as dust suppressant where applicable.
- Use brushing and water spraying of wheels at a specific wheel washing station before vehicles leave site (see 6 above)
- Provide hard surfacing and regular cleaning to the haul route within the site.
- Sheet over vehicles transporting materials capable of generating dust.
- Require all haulage vehicles to switch off engines to avoid idling while standing.
- Require all haulage vehicles to hold GLA Low Emission Zone certification to reduce exhaust emissions.
- Use off-site pre-fabrication, including timber-framed construction.
- Provide local residents with a single point of contact with phone number for dust complaints.
- Complaints will be reported to the named Site Agent of the Contractor and immediately investigated.

8 Measures to control the emission of dust and dirt during construction

On-site good practice procedures will be followed in order to mitigate construction noise. Measures currently planned to be adopted include:

- Erect solid hoarding to the entire perimeter of the site to assist in the screening of noise generation from low-level sources.
- Prohibit the playing of radios on site
- Use hydraulic demolition in preference to percussive techniques.
- Construct foundation piles using a small track-laying continuous flight auger rig to avoid vibration and noise impact on adjoining neighbours.
- Require all haulage vehicles to switch off engines to avoid idling while standing.
- Provide local residents with a single point of contact with phone number for noise complaints.
- Complaints will be reported to the named Site Agent of the Contractor and immediately investigated.

9 A scheme for recycling/disposing of waste resulting from demolition and construction works

A Site Waste Management Plan will be adopted to define procedures for monitoring site waste and target setting to promote resource efficiency. This plan will be compliant with the requirements of DEFRA and designed to achieve the maximum score under Was1 and Was2 of the Code for Sustainable Homes.

In addition to the normal good practise of minimising waste during construction, the Site Waste Management Plan will include the following exceptional measures:

- Low displacement foundation design will be used to minimise spoil arising from excavations (see below)
- Shuttering to reinforced concrete structural elements will be reused from previous sites, and retained in turn for reuse on future sites.

- All new and replacement facing brickwork on the existing buildings will use bricks reclaimed from the demolition of those parts of the existing buildings to be removed.
- The slate roof to Buildings 1 will use roofing slates reclaimed from the existing buildings, augmented with matching reclaimed slates from off site if necessary.

10 The method of construction for the foundations, including method for piling

The foundation design uses a ground-formed reinforced-concrete suspended ground floor acting as a raft slab. This will allow the formation of the foundation structure inside the retained external walls of the existing buildings. Structural independence will be maintained between the existing and new foundations with all junctions designed to accommodate differential settlement without distress.

This slab will be supported directly on non-displacement small diameter bored piles without the use of ground beams and pile caps, to minimise disturbance to the existing foundations to be retained, and to minimise spoil arising from excavation. The piles will be bored using a small track-laying CFA rig with non-percussive boring to avoid vibration in the adjoining foundations to be retained and noise to neighbours.

11 The method of construction for the internal structure

New floors, party walls and load bearing walls will be provided throughout to meet the requirements of parts A, B, C, and E of the Building Regulations.

The internal structure of Buildings 2 and 3 will use a timber frame with engineered joists spanning onto timber stud load bearing walls, augmented with loose steel beams in certain locations with longer spans. The full vertical load of the upper floors and roof will be supported by this timber frame.

The timber frame will be a self-supporting fully braced independent structure within the existing buildings, with all junctions to the retained existing fabric designed to accommodate differential movement without distress. The retained external walls of existing brickwork will be tied to this frame using post-fit ties, to provide lateral restraint without imposing vertical loading.

This design effectively uses the retained existing external walls as the external leaf of a timber framed building, with the detailing of the waterproofing, insulation and vapour barrier amended to suit these particular circumstances.

The internal structure of Building 1 will be of conventional loose timber joists and roof structure, bearing on the existing external walls and load bearing internal stud walls, in turn bearing on the existing foundations. The existing timbers will be retained where they are of adequate quality.

The waterproofing, insulation and vapour barrier for Building 1 will be provided by vapour check insulated plasterboard fixed directly to the inner face of the existing external walls.

12 The method of repair and replacement of external brickwork

Extensive areas of the existing brickwork of the retained external walls require remedial work. Before any work is done on the brickwork, each elevation will have a photographic survey to record the existing condition. This photographic record will be used alongside visual inspections on site to record the proposed remedial work on large scale elevation drawings. The survey will also be used to inform the restoration work so that the restored brickwork is an exact match to the existing in terms of bond and brick type.

Surface filling will not be used, and where bricks are spalled or eroded, each individual brick will be cut out one at a time and replaced. Where the number of spalled bricks exceeds 50% of the area, that section of brickwork will be cut out as a whole and rebuilt. Where the damaged brickwork is of an arch, the brickwork above will be replaced to the extent necessary to restore the structural integrity of the arch action in the wall.

The replacement bricks will be matching existing bricks reclaimed from other areas of the existing buildings, and will be laid in lime mortar, and in the bond and pointing of the original work.

Where the levels of arches are altered in accordance with the planning permission, all individual bricks in good condition from each arch will be retained on site and reused in that arch, augmented with matching existing bricks reclaimed from other areas of the existing buildings. These will be laid in the mortar, bond and pointing of the original arch.

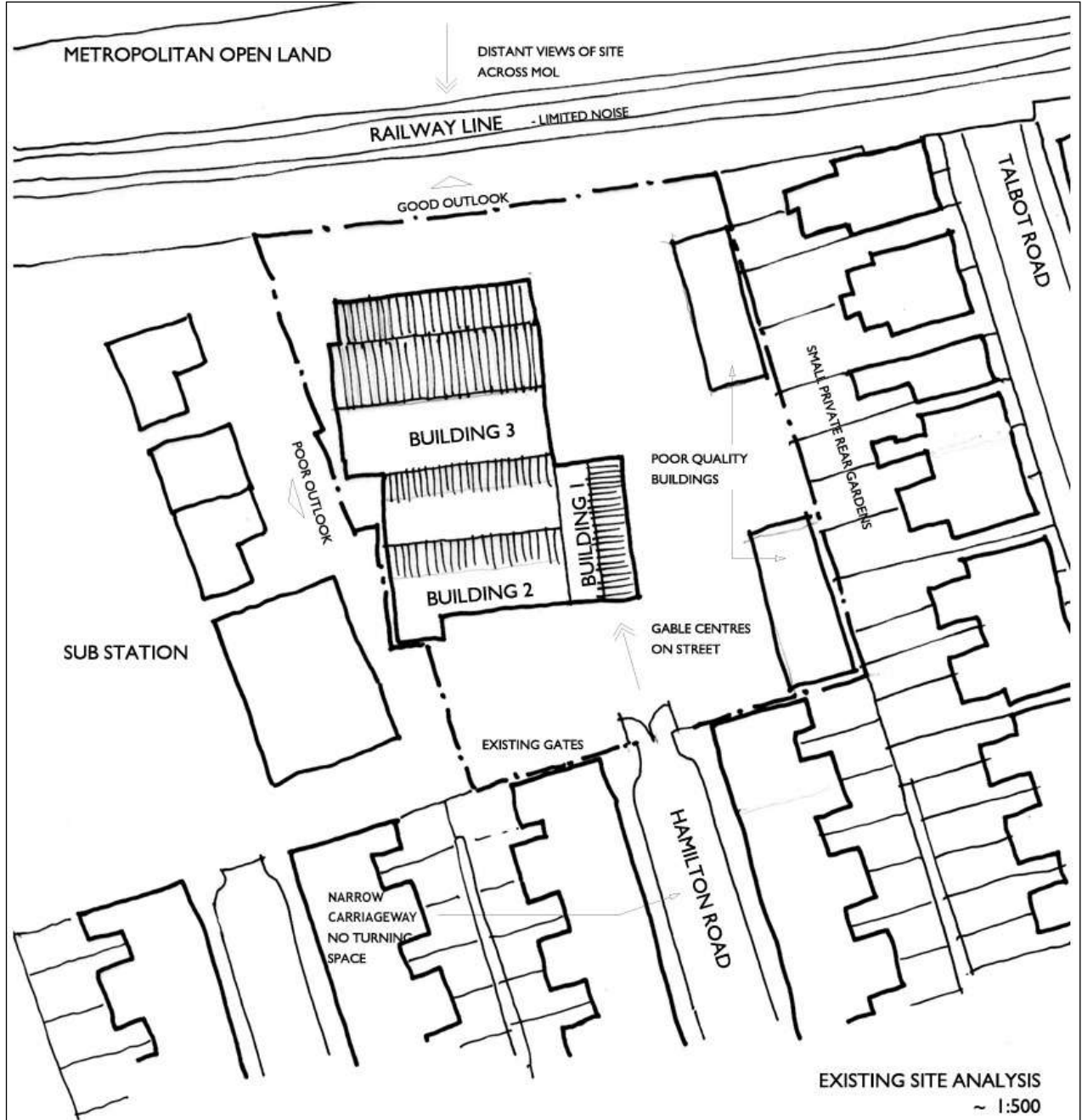
Where the levels of window sills are altered in accordance with the planning permission, and if the sill incorporates a decorative moulded brick feature panel, this panel will be isolated from the surrounding brickwork and removed

in one piece, to be refixed at the required level as a whole. If the sill consists of individual creasing tiles and shaped bricks, the replacement sill will be of matching construction to that of the original sill.

The eastern gable of Building 3 leans inward due to sulphate attack in the mortar combined with lack of restraint. This gable will be rebuilt to the extent necessary to restore the vertical line of the brickwork and to restore the structural integrity of the wall. The existing cast stone copings will be numbered, lifted and stored on site to be returned, each to their original position on the replacement brickwork. The replacement brickwork will re-use the bricks reclaimed from this gable area, and will be laid in the mortar, bond and pointing of the original work.

On the completion of the structural brickwork repairs, each whole elevation in turn will be chemically cleaned and repointed to ensure no discernible difference between areas of existing and replacement brickwork.

Appendix 1 – Existing Site Layout



Appendix 2 – Proposed Drawings