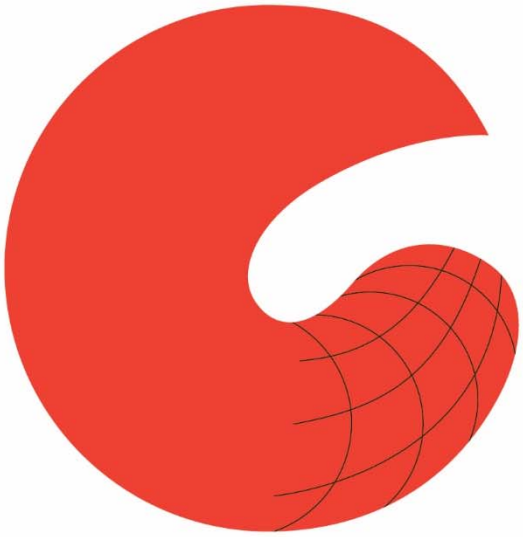

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CONSULTING
ENGINEERS LTD

11-12 INGESTRE ROAD, LONDON, NW5 1UX

Construction Management Plan DRAFT

11-12 INGESTRE ROAD, LONDON, NW5 1UX
Construction Management Plan

Client: Four Quarters (Ingestre Road) Ltd

Engineer: Create Consulting Engineers Ltd
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Report By: Colin Buchanan, BSc (Hons), FGS

Approved By: Andrew Warren, BSc (Hons), MSc, FGS

Reference: CB/CS/P17-1282/06

Date: July 2018

11-12 INGESTRE ROAD, LONDON, NW5 1UX
Construction Management Plan DRAFT

11-12 INGESTRE ROAD, LONDON, NW5 1UX
Construction Management Plan

Contents

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Revisions & Additional Material

Please list all iterations here:

Date	Version	Produced by
13 July 2018	Draft V1	Create Consulting Engineers Ltd
20 July 2018	Draft V2	Create Consulting Engineers Ltd

Additional Sheets

Please note – the review process will be quicker if these are submitted as Word documents or searchable PDFs.

Date	Version	Produced by

1.0 INTRODUCTION

1.1 The purpose of the **Construction Management Plan (CMP)** is to help developers to minimise construction impacts, and relates to both on site activity and the transport arrangements for vehicles servicing the site.

1.2 It is intended to be a live document whereby different stages will be completed and submitted for application as the development progresses.

1.3 The completed and signed CMP must address the way in which any impacts associated with the proposed works, and any **cumulative impacts of other nearby construction sites**, will be mitigated and managed. The level of detail required in a CMP will depend on the scale and kind of development. Further policy guidance is set out in Camden Planning Guidance (CPG) 6: Amenity and (CPG) 8: Planning Obligations.

1.4 This CMP follows the best practice guidelines as described in Transport for London's (TfL's Standard for Construction Logistics and Community Safety (**CLOCS**) scheme) and Camden's Minimum Requirements for Building Construction **(CMRBC)**.

1.5 The approved contents of this CMP must be complied with unless otherwise agreed with the Council in writing. The project manager shall work with the Council to review this CMP if problems arise in relation to the construction of the development. Any future revised plan must also be approved by the Council and complied with thereafter.

1.6 It should be noted that any agreed CMP does not prejudice or override the need to obtain any separate consents or approvals such as for road closures or hoarding licences.

1.7 If your scheme involves any demolition, you need to make an application to the Council's Building Control Service. Please complete the "Demolition Notice."

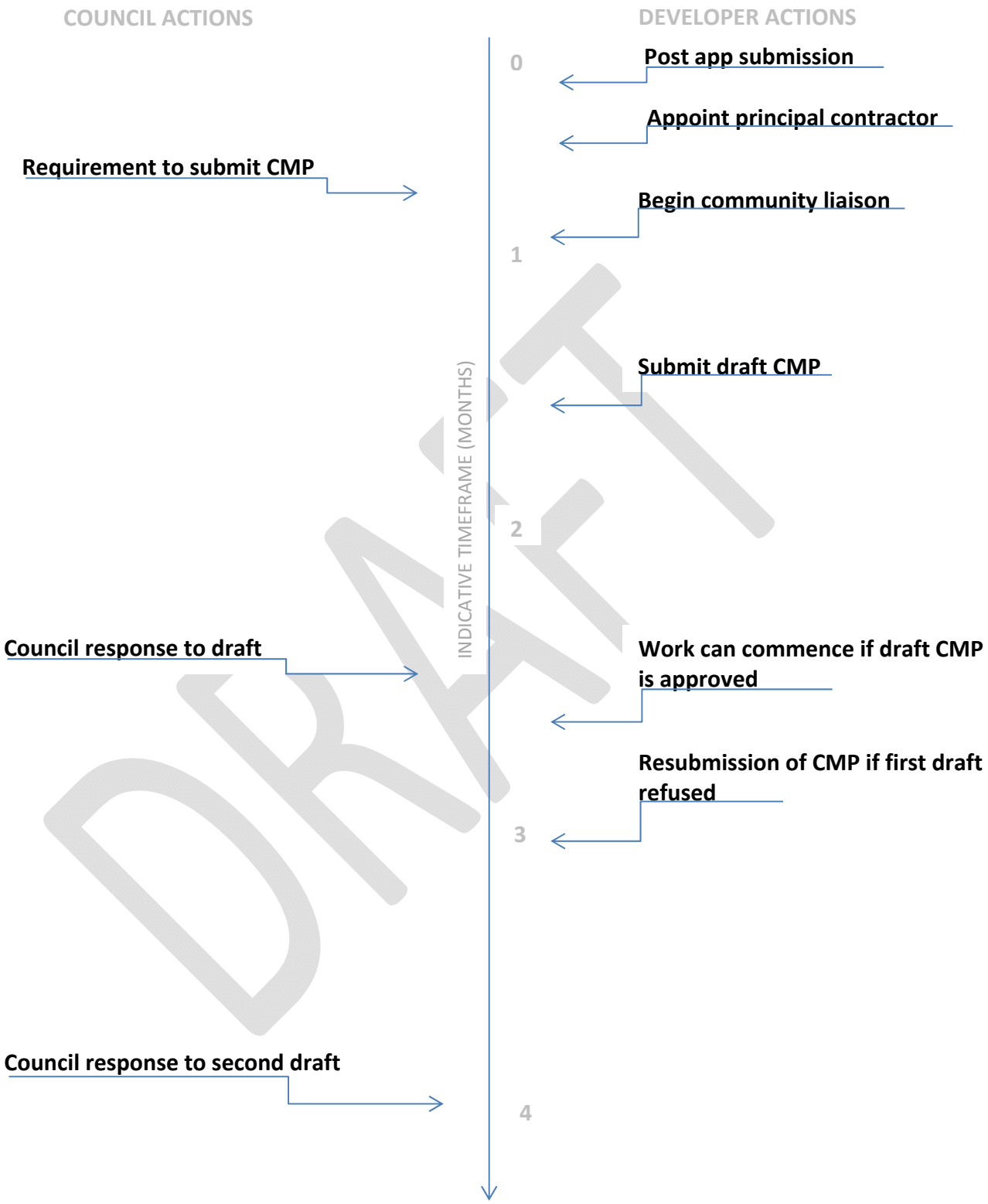
1.8 Please complete the questions below with additional sheets, drawings and plans as required. The boxes will expand to accommodate the information provided, so please provide as much information as is necessary. **It is preferable if this document, and all additional documents, are completed electronically and submitted as Word files to allow comments to be easily documented. These should be clearly referenced/linked to from the CMP.**

1.9 Please notify that council when you intend to start work on site. Please also notify the council when works are approximately **3 months from completion.**

1.10 Note: the term 'vehicles' used in this document refers to all vehicles associated with the implementation of the development, e.g. demolition, site clearance, delivery of plant & materials, construction, etc.

1.11 Revisions to this document may take place periodically.

2.0 TIMEFRAME



3.0 CONTACT

3.1 Please provide the full postal address of the site and the planning reference relating to the construction works.

Address: 11-12 Ingestre Road, London, NW5 1UX

Planning reference number to which the CMP applies: 2017/3735/NEW

Type of CEMP: Draft for planning

3.2 Please provide contact details for the person responsible for submitting the CMP.

Name: Colin Buchanan, Technical Director, Create Consulting Engineers Ltd

Address: 109-112 Temple Chambers, 3-7 Temple Avenue, London EC4Y 0HP

Email: colin.buchanan@createconsultingengineers.co.uk

Phone: 0207 822 2300

3.3 Please provide full contact details of the site project manager responsible for day-to-day management of the works and dealing with any complaints from local residents and businesses.

Name: TBC (Principal Contractor not yet appointed)

Address:

Email:

Phone:

3.4 Please provide full contact details of the person responsible for community liaison and dealing with any complaints from local residents and businesses if different from question 3. In the case of Community Investment Programme (CIP), please provide contact details of the Camden officer responsible.

Name: TBC (Principal Contractor not yet appointed)

Address:

Email:

Phone:

3.5 Please provide full contact details including the address where the main contractor accepts receipt of legal documents for the person responsible for the implementation of the CMP.

Name: TBC (Principal Contractor not yet appointed)

Address:

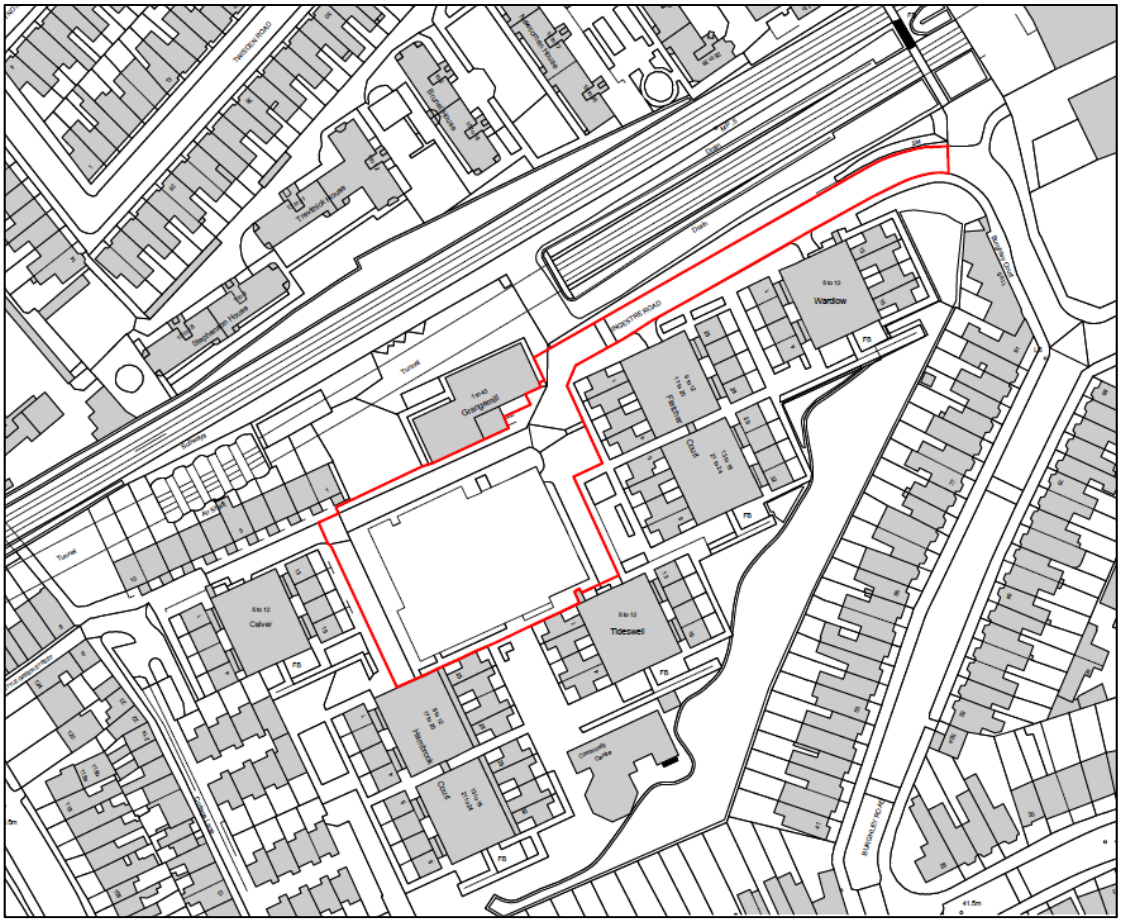
Email:

Phone:

4.0 SITE

4.1 Please provide a site location plan and a brief description of the site, surrounding area and development proposals for which the CMP applies.

The site is located in the London Borough of Camden, approximately 375m west of Tufnell Park tube station and approximately 600m northwest of Kentish Town tube station (see figure below). The Site is accessed via Ingestre Road from the northeast, via Burghley Road and to the west (pedestrian access only) from Little Green Street, via Highgate Road (B518).



The site houses a part two, part three-storey building with four wings arranged around a central courtyard, originally built as an elderly persons home, with a service yard on the northeast corner.

The surrounding Ingestre Road estate comprises a mid-20th century residential development with a community centre and nursery. The estate comprises flat-roofed buildings from two to five storeys in height with undercroft vehicle access leading to resident garages. The building to the north is Grangemill, a nine storey residential building beyond which lies the North London Line viaduct.

4.2 Please provide a very brief description of the construction works including the size and nature of the development and details of the main issues and challenges (e.g. narrow streets, close proximity to residential dwellings, etc.).

The project comprises the demolition of existing buildings and the erection of a six storey plus single storey basement building accommodating 50 Assisted Living residential apartments with associated communal and support facilities and ancillary cafe, salon and mini gym, together with external amenity spaces, car lift, basement parking, laundry, plant, CCTV, lighting, access, landscaping, infrastructure and other ancillary works.

The development will take place entirely within the existing footprint of the site. It is envisaged that the retaining walls will be contiguous piled retaining walls with the foundations built off pile caps and the superstructure will be concrete frame. Heave protection will be provided to underside of the basement slab.
The existing retaining wall will be propped off some temporary piles and the contiguous piled retaining wall will be propped at the top due to the height of the basement.

There is space for the storage of demolition materials prior to off-site disposal. There is limited space on site for storage and deliveries during construction. The materials and equipment will then need to be delivered to Site on an as required basis.

4.3 Please identify the nearest potential receptors (dwellings, business, etc.) likely to be affected by the activities on site (i.e. noise, vibration, dust, fumes, lighting etc.).

Receptor:	Likely Impacts:
Local residences adjacent to site (Ingestre Road Estate)	Noise and dust from on-site works, traffic impacts from delivery vehicles, access during works
Acland Burghley Youth Centre (located east and with access from Ingestre Road)	Noise and dust from on-site works, traffic impacts from delivery vehicles, access during works
Acland Burghley Secondary School (located east although access not on traffic route)	Noise and dust from on-site works, traffic impacts from delivery vehicles, access during works
Local retail businesses (on Highgate Road) to the west of the site	Noise, dust and other impacts from on-site works, traffic impacts from delivery vehicles, access during works
Local residences in wider geographical area	Noise from on-site works, traffic impacts from delivery vehicles
Local businesses in wider geographical area	Noise from on-site works, traffic impacts from delivery vehicles

4.4 Please provide a scaled plan detailing the local highway network layout in the vicinity of the site. This should include details of on-street parking bay locations, cycle lanes, footway extents and proposed site access locations.

See Drawing No. 1282/03/001 and 1282/03/009 at rear of report for indicative drawings, which will be updated once a Principal Contractor is appointed.

4.5 Please provide the proposed start and end dates for each phase of construction as well as an overall programme timescale. (A Gantt chart with key tasks, durations and milestones would be ideal).

The development is expected to commence in late 2018 and is anticipated to be completed within 24 months. The start date will be dependent on receipt of consent and the programme of the appointed Principal Contractor.

4.6 Please confirm the standard working hours for the site, noting that the standard working hours for construction sites in Camden are as follows:

- 8.00am to 6pm on Monday to Friday
- 8.00am to 1.00pm on Saturdays
- No working on Sundays or Public Holidays

Confirmed.

4.7 Please indicate if any changes to services are proposed to be carried out that would be linked to the site during the works (i.e. connections to public utilities and/or statutory undertakers' plant). Larger developments may require new utility services. If so, a strategy and programme for coordinating the connection of services will be required. If new utility services are required, please confirm which utility companies have been contacted (e.g. Thames Water, National Grid, EDF Energy, BT etc.) You must explore options for the utility companies to share the same excavations and traffic management proposals. Please supply details of your discussions.

No service changes required.

5.0 COMMUNITY LIAISON

A neighbourhood consultation process must have been undertaken prior to submission of the CMP first draft. This consultation must relate to construction impacts, and should take place following the granting of planning permission in the lead up to the submission of the CMP. A consultation process specifically relating to construction impacts must take place regardless of any prior consultations relating to planning matters. This consultation must include all of those individuals that stand to be affected by the proposed construction works. These individuals should be provided with a copy of the draft CMP, or a link to an online document. They should be given adequate time with which to respond to the draft CMP, and any subsequent amended drafts. Contact details which include a phone number and email address of the site manager should also be provided.

5.1 Significant time savings can be made by running an effective neighbourhood consultation process. This must be undertaken in the spirit of cooperation rather than one that is dictatorial and unsympathetic to the wellbeing of local residents and businesses.

5.2 These are most effective when initiated as early as possible and conducted in a manner that involves the local community. Involving locals in the discussion and decision making process helps with their understanding of what is being proposed in terms of the development process. **The consultation and discussion process should have already started, with the results incorporated into the CMP first draft submitted to the Council for discussion and sign off.** This communication should then be ongoing during the works, with neighbours and any community liaison groups being regularly updated with programmed works and any changes that may occur due to unforeseen circumstances through newsletters, emails and meetings.

5.3 Please note that for larger sites, details of a construction working group may be required as a separate S106 obligation. If this is necessary, it will be set out in the S106 Agreement as a separate requirement on the developer.

Cumulative Impact

5.4 Sites located within high concentrations of construction activity that will attract large numbers of vehicle movements and/or generate significant sustained noise levels should consider establishing contact with other sites in the vicinity in order to manage these impacts. **The Council can advise on this if necessary.**

Consultation

5.5 The Council expects meaningful consultation. For large sites, this may mean two or more meetings with local residents **prior to submission of the first draft CMP**.

5.6 Evidence of who was consulted, how the consultation was conducted and a summary of the comments received in response to the consultation should be included. Details of meetings including minutes, lists of attendees etc. should be appended.

5.7 In response to the comments received, the CMP should then be amended where appropriate and, where not appropriate, a reason given. The revised CMP should also include a list of all the comments received. Developers are advised to check proposed approaches to consultation with the Council before carrying them out. If your site is on the boundary between boroughs then we would recommend contacting the relevant neighbouring planning authority.

5.8 Please provide details of consultation of draft CMP with local residents, businesses, local groups (e.g. residents/tenants and business associations) and Ward Councillors.

This document is the first draft CMP submitted as part of the planning application for the proposed development. Following consent and appointment of the Principal Contractor, the Principal Contractor will amend and update the CMP and will consult on it fully with Camden Council, local residents, local resident associations (if applicable) and Ward Councillors.

This would include:

- The Spanish Nursery;
- The Ingestre Road Tenants and Residents Association; and
- College Lane & Little Green Street Resident's Association.

A minimum of two consultation events will be undertaken on the CMP to allow for amendments to be made and these to be communicated, although further regular consultations will also be held regularly during the proposed development.

The updated CMP will provide details of consultation undertaken and any amendments made following consultation, prior to re-submission to Camden Council for approval. Local residents and resident associations to be consulted regularly on the proposed development are listed below:

- 1 to 43 Grangemill;
- 1 to 10 Ingestre Road;
- 1 to 16 Tideswell;
- 1 to 32 Hambrook Court;
- 1 to 32 Fletchers Court;
- 1 to 16 Wardlow; and
- Acland Burghley School.

A draft letter to be sent to residents / the school is provided in Appendix A.

Construction Working Group

5.9 Please provide details of community liaison proposals including any Construction Working Group that will be set up, addressing the concerns of the community affected by the works, the way in which the contact details of the person responsible for community liaison will be advertised to the local community, and how the community will be updated on the upcoming works i.e. in the form of a newsletter/letter drop, or weekly drop in sessions for residents.

A Construction Working Group will be arranged following consent and appointment of the Principal Contractor. This will include representatives of both the Developer and the Principal Contractor.

A Resident Engagement Meeting will be organised prior to the commencement of work on site and at suitable intervals throughout construction, where the Construction Working Group will provide information on the progress of the proposed development and upcoming work, and to allow residents and the public to raise any concerns. All local residents, Camden Ward Councillors and Camden Council will be invited to attend. The Principal Contractor will be required to maintain accurate minutes of each meeting and to provide an update at future meetings of actions taken.

The Principal Contractor will appoint a specific Public Liaison Contact for all public queries and/or concerns. This point of contact will be advertised in local papers, through a letter drop at all properties listed in Q13 above and displayed on boards on the outskirts of the proposed development site. Email, phone and a postal address will be provided. The Principal Contractor will have an obligation to respond to all queries/concerns within a set time period and will report to the Construction Working Group on the actions undertaken.

Schemes

5.10 Please provide details of your 'Considerate Constructors Scheme' registration, and details of any other similar relevant schemes as appropriate. Contractors will also be required to follow the "Guide for Contractors Working in Camden" also referred to as "Camden's Considerate Contractors Manual".

The appointed Principal Contractor will comply with the following:

- Construction Logistics and Cyclist Safety (CLOCS) scheme;
- Contractors Health and Safety Assessment Scheme (CHAS);
- Considerate Constructors Scheme (CCS) or similar;
- Freight Operators Recognition Scheme;
- Construction Industry Training Board (or similar) scheme (CITB) with operatives and management holding CSCS, CPCS, CCDO, etc. cards;
- Site Managers Safety Training scheme / CSCS Gold Card;
- Qualified First Aid; and
- Construction (Design & Management) Regulations 2015.

The CMP will be updated with full details following consent and the appointment of the Principal Contractor.

Neighbouring Sites

5.11 Please provide a plan of existing or anticipated construction sites in the local area and please state how your CMP takes into consideration and mitigates the cumulative impacts of construction in the vicinity of the site. The council can advise on this if necessary.

No existing or anticipated construction sites have been identified in the local area at the time of preparing this draft CMP.

This review will be updated in consultation with Camden Council prior to the commencement of construction of the proposed development to identify any new proposals and the timings for construction of all relevant developments in the area.

The appointed Principal Contractor will liaise closely with Camden Council and the contractors on any other local development sites where construction will be occurring within the same time period to ensure that cumulative effects are managed and impacts minimized.

6.0 TRANSPORT

This section must be completed in conjunction with your principal contractor. If one is not yet assigned, please leave the relevant sections blank until such time when one has been appointed.

6.1 Camden is a CLOCS Champion, and is committed to maximising road safety for Vulnerable Road Users (VRUs) as well as minimising negative environmental impacts created by motorised road traffic. As such, all vehicles and their drivers servicing construction sites within the borough are bound by the conditions laid out in the CLOCS Standard.

6.2 This section requires details of the way in which you intend to manage traffic servicing your site, including your road safety obligations with regard to VRU safety. It is your responsibility to ensure that your principal contractor is fully compliant with the terms laid out in the CLOCS Standard. It is your principal contractor's responsibility to ensure that all contractors and sub-contractors attending site are compliant with the terms laid out in the CLOCS Standard.

6.3 Checks of the proposed measures will be carried out by the council to ensure compliance. Please refer to the CLOCS Standard when completing this section. Guidance material which details CLOCS requirements can be accessed here, details of the monitoring process are available here.

6.4 Please contact CLOCS@camden.gov.uk for further advice or guidance on any aspect of this section.

Please refer to the CLOCS Overview and Monitoring Overview documents referenced above which give a breakdown of requirements.

CLOCS Contractual Considerations

6.5 Name of Principal Contractor:

TBC (Principal Contractor not yet appointed)

6.6 Please submit the proposed method for checking operational, vehicle and driver compliance with the CLOCS Standard throughout the duration of the contract (please refer to our CLOCS Overview document and Q18 example response).

Compliance with CLOCS is aligned with the requirement for accreditation with the Freight Operators Recognition Scheme (FORS). All fleet operators will need to demonstrate accreditation to FORS Bronze Level as a minimum. Accreditation under the FORS scheme will be a contractual requirement and compliance in respect of operational, vehicle and driver compliance aspects with CLOCS requirements will be as follows:

Independent pre-commencement checks will be made using the online FORS accreditation database and other equivalent accreditation schemes and assessments made with respect of quality operation, incident reporting, routeing compliance, equipment fitted to vehicles, licensing and driver training and development.

On-site checks for compliance will include ensuring vehicles display valid FORS certification including ID number at all times, physical check of driver licences upon arrival, real time compliance of drivers to traffic routeing plans and physical check of vehicles for cleanliness, mirror blind spots, warning signage, side guards/audible warning equipment and beacons.

Where considered applicable, off-site compliance checks may also be undertaken at the depot to review vehicle maintenance, driver training and vehicle incident reporting records.

6.7 Please confirm that you as the client/developer and your principal contractor have read and understood the CLOCS Standard and included it in your contracts. Please sign-up to join the CLOCS Community to receive up to date information on the standard by expressing an interest online.

6.8 I confirm that I have included the requirement to abide by the CLOCS Standard in my contracts to my contractors and suppliers:

Confirmed.

6.9 Please contact CLOCS@camden.gov.uk for further advice or guidance on any aspect of this section.

Site Traffic

Sections below shown in blue directly reference the CLOCS Standard requirements. The CLOCS Standard should be read in conjunction with this section.

6.10 **Traffic routing**: *"Clients shall ensure that a suitable, risk assessed vehicle route to the site is specified and that the route is communicated to all contractors and drivers. Clients shall make contractors and any other service suppliers aware that they are to use these routes at all times unless unavoidable diversions occur."* (P19, 3.4.5)

6.11 Routes should be carefully considered and risk assessed, taking into account the need to avoid where possible any major cycle routes and trip generators such as schools, offices, public

buildings, museums etc. Where appropriate, on routes that use high risk junctions (i.e. those that attract high volumes of cycling traffic) installing Trixi mirrors to aid driver visibility should be considered.

6.12 Consideration should also be given to weight restrictions, low bridges and cumulative impacts of construction (including neighbouring construction sites) on the public highway network. The route(s) to and from the site should be suitable for the size of vehicles that are to be used.

a. Please indicate routes on a drawing or diagram showing the public highway network in the vicinity of the site including details of how vehicles will be routed to the Transport for London Road Network (TLRN) on approach and departure from the site.

It is anticipated that construction traffic will access the site via Ingestre Road, Burghley Road (south) and Highgate Road (B518). Construction traffic will avoid using any other residential streets wherever possible.

Construction traffic entering the site will approach on Highgate Road from the north or the south, turn right / left into Burghley Road (heading northwest) and then turn left (north) into Ingestre Road.

Construction traffic exiting the site will head east along Ingestre Road, turn right (southwest) onto Burghley Road and then at the junction with Highgate Road, turn left or right to go south or north providing the most practicable connections to the London road network.

See Drawing No. 1282/03/001 at rear of report for illustration of vehicle routeing.

b. Please confirm how contractors, delivery companies and visitors will be made aware of the route (to and from the site) and of any on-site restrictions, prior to undertaking journeys.

A suitable risk-assessed route to/from the site will be agreed. The route has considered potential constraints and mitigate, where possible, for any impacts on existing traffic. The agreed route is detailed within this CMP.

Site delivery times to avoid peak traffic will be assessed and determined. The confirmed route will be submitted to Camden Council for review and agreement as part of the final CMP prior to commencement of construction. All companies delivering to the proposed development site will be provided site logistics, traffic management and confirmed approved routing to and from the proposed development site including directions as part of their site briefing.

Prior to accessing the Site, the Principal Contractor/fleet operator will be required to brief all drivers on the agreed the route to site, with briefing attendance records submitted. The COMP and traffic management plan will be regularly reviewed by the Principal Contractor and routing may be modified or amended as considered necessary, although only following agreement with Camden Council. Factors that may influence the routing may include activities on other local development sites and local road closures.

Deliveries will be subject to a delivery management/booking system, with incoming deliveries required to be pre-booked/approved in advance. Drivers will be required to contact the proposed development site prior to departure to ensure no issues will impact the planned delivery, including current traffic conditions that could affect journey time/time of arrival. If the drivers miss their allotte4d timeslot, they will need to re-book and sent away from the Site. Vehicles will not be permitted to wait outside or near to the Site.

Suitable and extensive directional site signage will be provided to assist drivers when attending site.

6.13 **Control of site traffic, particularly at peak hours**: "*Clients shall consider other options to plan and control vehicles and reduce peak hour deliveries"* (P20, 3.4.6)

6.14 Construction vehicle movements are generally acceptable between 9.30am to 4.30pm on weekdays and between 8.00am and 1.00pm on Saturdays). If there is a school in the vicinity of the site or on the proposed access and/or egress routes, then deliveries must be restricted to between 9.30am and 3pm on weekdays during term time. (Refer to the Guide for Contractors Working in Camden).

6.15 A delivery plan should ensure that deliveries arrive at the correct part of site at the correct time. Instructions explaining such a plan should be sent to all suppliers and contractors**.** Consideration should be given to the location of any necessary holding areas for large sites with high volumes of traffic. Vehicles must not wait or circulate on the public highway. Whilst deliveries should be given set times to arrive, dwell and depart, no undue time pressures should be placed upon the driver at any time.

a. Please provide details of the typical sizes of all vehicles and the approximate frequency and times of day when they will need access to the site, for each phase of construction. You should estimate the average daily number of vehicles during each

major phase of the work, including their dwell time at the site. High numbers of vehicles per day and/or long dwell times may require vehicle holding procedures.

Construction Site Staff	
Phase:	All
Size and types of vehicle:	Cars and small vans, although where possible all construction site staff will use public transport.
Location:	There is no access or parking associated with the site. All construction staff will need to use nearby public parking or public transport.
Frequency:	N/A
Waste / Demolition Materials Removal	
Phase:	Demolition and Enabling (Basement Excavation) Works
Size and types of vehicle:	Rigid vehicle grab loaders and roll on roll off trucks (up to 20 tonnes) and skip swap vehicles
Location:	Accessing the Site from Ingestre Road and reversing into the allocated space to the front of the Site (see Drawing Nos. 1282/03/002 and 1282/03/003 at rear of report)
Control:	Access restricted to one vehicle at any one time. This area will require reversing into allocated space under the guidance of banksmen.
Frequency:	Up to 5 per day during demolition/basement excavation operations; 1 per day during construction.
Dwell Time:	Up to 60 minutes per vehicle
Deliveries	
Phase:	Construction
Size and types of vehicle:	Long wheel based panel van, rigid delivery vehicle (7.5 tonnes), 10m rigid vehicle
Location:	Accessing the Site from Ingestre Road and reversing into the allocated space to the front of the Site (see Drawing No. 1282/03/004 at rear of report)
Control:	Access restricted to one vehicle at any one time. This area will require reversing into allocated space under the guidance of banksmen.
Frequency:	4 to 5 every day
Dwell Time:	Up to 30 minutes per vehicle
Concrete Deliveries	
Phase:	Construction
Size and types of vehicle:	Concrete delivery vehicle
Location:	Accessing the Site from Ingestre Road and reversing into the allocated space to the front of the Site (see Drawing No. 1282/03/005 at rear of report)
Control:	Access restricted to one vehicle at any one time. This area will require reversing into allocated space under the guidance of banksmen.
Frequency:	Up to 2 per day
Dwell Time:	Up to 60 minutes per vehicle

b. Please provide details of other developments in the local area or on the route.

No developments have been identified at the time of preparing this draft.

A further detailed review of local developments will be undertaken on receipt of planning consent and this plan will be updated in consultation with Camden Council prior to the commencement of construction to identify any local developments and timings for construction. The Principal Contractor will liaise closely with Camden Council and the contractors on any other local development sites to minimise the cumulative effects during construction.

c. Please outline the system that is to be used to ensure that the correct vehicle attends the correct part of site at the correct time.

There are no areas for waiting vehicles, all construction vehicles and deliveries will need to be co-ordinated and restricted to one vehicle accessing the dedicated unloading / storage area (access and egress) at any one time. The unloading / storage area allows for one vehicle with turning and egress.

There is limited storage space at the front of the Site and waste removal (skip / skip swap vehicles), general deliveries and concrete deliveries will need to be co-ordinated to enable use of this limited space for each activity.

Vehicles must not wait in the area before or after making deliveries/collections. Deliveries are required to be Just-In-Time (JIT).

Delivery / collection and all other vehicle operations at the property will be booked by the Contractor's head office to be competed between the agreed hours of operation. Drivers will be given a specific time slot to attend the site. Drivers will be given the site Foreman's contact details and must confirm with the Foreman 20 minutes prior to arrival that site is clear, the Foreman will not accept vehicles that have not been cleared in advance

There are to be no unexpected arrivals at the site. Only one vehicle will be at the site at any one time and vehicles will only be accepted by the Foreman if the road immediately in front of the site is clear. Failure of suppliers to comply with the arrangements for booking of time slots or for calling ahead will result in the supplier being removed from the project.

Banksman will be available to direct demolition and construction traffic in and out of the loading / unloading areas, as required.

Visits by the professional supervision, and other parties involved in the project (i.e. consultants in charge of the Project Management, H&S, Building Control etc.) will be required to travel via public transport where possible, or to park in public car parks if car use is essential.

d. Please identify the locations of any off-site holding areas (an appropriate location outside the borough may need to be identified, particularly if a large number of delivery vehicles are expected) and any measures that will be taken to ensure the prompt admission of vehicles to site in light of time required for any vehicle/driver

compliance checks. Please refer to question 24 if any parking bay suspensions will be required for the holding area.

Potential off-site holding areas for site traffic/deliveries will be confirmed by the Principal Contractor, following consent and appointment of the Principal Contractor.

The requirement for an off-site holding area will be reviewed in line with the proposed programme and may be implemented during specific periods where the number and frequency of planned deliveries requires detailed timing and control to avoid waiting traffic and congestion.

e. Please provide details of any other measures designed to reduce the impact of associated traffic (such as the use of construction material consolidation centres).

The following measures will be employed to reduce the impact associated with construction traffic:

- The proposed development will operate a 'Just in Time' protocol in terms of deliveries to ensure more regular flow and avoid peaks of excessive deliveries. This also provides an opportunity to manage and reduce vehicle sizes required to supply the site.
- The Principal Contractor will identify and utilise off-site manufacture and pre-fabrication where possible to minimise the number of deliveries to site through a reduction in single components being required in lieu of composite and modularised solutions
- The Principal Contractor will utilise off-site material consolidation centres for specific high volume trade packages in conjunction with pre-fabrication of components.
- Incoming deliveries will be pre-slung/pre-strapped to allow for quick off-load upon arrival which will reduce waiting time on site and/or traffic congestion.
- The Principal Contractor will instigate a process of pre-selection of allocated delivery drivers and vehicles via repeat/bulk suppliers to allow for vehicle and compliance checks to be carried out in advance at depot thereby reducing time spent on site.
- The Principal Contractor will undertake effective planning of the construction operations to allow for progressive loading out of materials as works progress and in advance of subsequent trade packages being commenced to provide a regulated pattern of deliveries and avoid peaks.

6.16 **Site access and egress:** "*Clients shall ensure that access to and egress from the site is appropriately managed, clearly marked, understood and clear of obstacles.*" (P18, 3.4.3)

6.17 Vehicles entering and leaving the site should be carefully managed, using gates that are clearly marked and free from obstacles. Traffic marshals must ensure the safe passage of all traffic on the public highway, in particular pedestrians and cyclists, when vehicles are entering and leaving site, particularly if reversing.

6.18 Traffic marshals, or site staff acting as traffic marshals, should hold the relevant qualifications required for directing large vehicles when reversing. Marshals should be equipped with 'STOP

– WORKS' signs (not STOP/GO signs) if control of traffic on the public highway is required. Marshals should have radio contact with one another where necessary.

a. Please detail the proposed access and egress routes to and from the site

Construction traffic entering the site will approach on Highgate Road from the north or the south, turn right / left into Burghley Road (heading northwest) and then turn left (north) into Ingestre Road.

Construction traffic exiting the site will head east along Ingestre Road, turn right (southwest) onto Burghley Road and then at the junction with Highgate Road, turn left or right to go south or north providing the most practicable connections to the London road network.

See Drawing No. 1282/03/001 at rear of report for illustration of vehicle routeing.

b. Please describe how the access and egress arrangements for construction vehicles will be managed.

The Principal Contractor will prepare a site logistics plan to identify the following:

- Access and egress of the Site;
- Material off-load and laydown areas;
- Material storage areas;
- Site access routes;
- Site welfare and accommodation; and
- Tower crane and static plant locations.

An indication of loading / unloading areas during demolition and construction works have been identified on Drawing Nos. 1282_03_002 to 005 at the rear of this report.

Vehicles accessing/egressing the site will be controlled by qualified/competent banksman. To ensure a secure boundary, the site will be hoarded with maintained gates only opened to facilitate the access/egress of vehicles and will be kept locked at all other times.

Vehicles will only be permitted to access the site at their allotted time with the assistance of banksman. Similarly, vehicles will only be allowed to leave the site once the banksman have confirmed it is safe to do so having checked conditions on the highway, including for the presence of pedestrians and cyclists.

All vehicles will be checked for cleanliness prior to exiting the site to prevent contamination of the highway and will be cleaned as necessary. Banksman will be provided with two-way radios to ensure effective communication with each other and site management, including sub-contracted supervisors. Daily briefings will be undertaken to review planned deliveries using the delivery schedule.

c. Please provide swept path drawings for any tight manoeuvres on vehicle routes to and from the site including proposed access and egress arrangements at the site boundary (if necessary).

Swept path drawings for all vehicle types during the demolition and construction phases are provided as Drawing Nos. 1282_03_002 to 005 at the rear of this report.

d. Provision of wheel washing facilities should be considered if necessary. If so, please provide details of how this will be managed and any run-off controlled.

During the demolition and construction phases, vehicle movements on the site will be kept to appropriate temporary hard standing areas (see Drawing Nos. 1282_03_002 to 005) to minimise the risk of wheels becoming contaminated with mud and clay.

Any debris from the off-loading procedure will be swept clean at the time of Incident and drainage will be incorporated within this area to prevent run-off.

Road conditions will be continuously monitored with adequate facilities in place for cleaning, if required.

6.19 **Vehicle loading and unloading:** *"Clients shall ensure that vehicles are loaded and unloaded on-site as far as is practicable."* (P19, 3.4.4)

6.20 If this is not possible, Traffic Marshalls must ensure the safe passage of pedestrians, cyclists and motor traffic in the street when vehicles are being loaded or unloaded.

6.21 Please provide details of the parking and loading arrangements for construction vehicles with regard to servicing and deliveries associated with the site (e.g. delivery of materials and plant, removal of excavated material). This is required as a scaled site plan, showing all points of access and where materials, skips and plant will be stored, and how vehicles will access and egress the site. If loading is to take place off site, please identify where this is due to take place and outline the measures you will take to ensure that loading/unloading is carried out safely. Please outline in question 24 if any parking bay suspensions will be required.

A detailed plan for the loading and unloading arrangement will be provided when the Principal Contractor has been appointed.

Drawing Nos. 1282_03_002 to 005 identify access / egress of vehicles (with swept path analysis) with vehicle loading / unloading areas and storage areas.

Highway Interventions

Please note that Temporary Traffic Orders (TTOs) and hoarding/scaffolding licenses may be applied for prior to CMP submission but won't be granted until the CMP is signed-off.

If the site is on or adjacent to the TLRN, please provide details of preliminary discussions with Transport for London in the relevant sections below.

Parking Bay Suspensions and Temporary Traffic Orders

6.22 Please note, parking bay suspensions should only be requested where absolutely necessary. Parking bay suspensions are permitted for a maximum of 6 months, requirement of exclusive access to a bay for longer than 6 months you will be required to obtain Temporary Traffic Order (TTO) for which there is a separate cost.

6.23 Please provide details of any proposed parking bay suspensions and TTO's which would be required to facilitate construction. **Building materials and equipment must not cause obstructions on the highway as per your Considerate Contractors obligations unless the requisite permissions are secured.**

6.24 Information regarding parking suspensions can be found here.

It is proposed to suspend a total of 10No. parking bays on Ingestre Road for this development. See Drawing No. 1282_03_009 for details.

Suspension of a total of 4No. parking bays are required on Ingestre Road to the north of the Site during the demolition phase to enable access (see Drawing No. 1282_03_002).

Scaled Drawings of Highway Works

6.25 Please note that use of the public highway for storage, site accommodation or welfare facilities is at the discretion of the Council and is generally not permitted. If you propose such use you must supply full justification, setting out why it is impossible to allocate space on-site. You must submit a detailed (to-scale) plan showing the impact on the public highway that includes the extent of any hoarding, pedestrian routes, parking bay suspensions and remaining road width for vehicle movements. We prefer not to close footways but if this is unavoidable, you should submit a scaled plan of the proposed diversion route showing key dimensions.

a. Please provide accurate scaled drawings of any highway works necessary to enable construction to take place (e.g. construction of temporary vehicular accesses).

It is not proposed to use the highway for storage, site accommodation or welfare facilities.

Highways works are proposed as part of the development which will comprise road re-surfacing and kerb improvements works for Ingestre Road.

b. Please provide details of all safety signage, barriers and accessibility measures such as ramps and lighting etc.

The majority of the safety signage, external safety lighting and accessibility measures will be placed along the northern boundary of the proposed development site. Details will be defined following consent and the appointment of the Principal Contractor although the following is anticipated:

- Suitable lighting to illuminate the external hoarding onto Ingestre Road and access gateway into loading / unloading areas
- Safety/directional signage on the external perimeter of the site at the vehicle entry locations warning of potential risks and identifying access/egress points.
- Directional signage along the traffic route to the proposed development site to direct incoming site traffic/deliveries.
- Suitable safety/directional signage to inform pedestrians of potential construction traffic.

All of the above will be undertaken following consultation with Camden's Highways department and in accordance with relevant regulations, in addition to the requirements outlined in the *'Guide for Contractors Working in Camden'.*

Diversions

6.26 Where applicable, please supply details of any diversion, disruption or other anticipated use of the public highway during the construction period (alternatively a plan may be submitted).

None anticipated.

VRU and Pedestrian Diversions, Scaffolding and Hoarding

6.27 Pedestrians and/or cyclist safety must be maintained if diversions are put in place. Vulnerable footway users should also be considered. These include wheelchair users, the elderly, those with walking difficulties, young children, those with prams, the blind and partially sighted. Appropriate ramping must be used if cables, hoses, etc. are run across the footway.

6.28 Any work above ground floor level may require a covered walkway adjacent to the site. A licence must be obtained for scaffolding and gantries. The adjoining public highway must be

kept clean and free from obstructions. Lighting and signage should be used on temporary structures/skips/hoardings etc.

6.29 A secure hoarding will generally be required at the site boundary with a lockable access.

a. Please provide details describing how pedestrian and cyclist safety will be maintained, including any proposed alternative routes (if necessary), and any Traffic Marshall arrangements.

Wherever possible, and especially for vehicles over 3.5 tonnes, drivers will be required to be accredited with the Fleet Operator Recognition Scheme (FORS), Bronze Level. Drivers will have undertaken cycle awareness training and vehicles associated with the development will need to have sideguards fitted (unless demonstrably unable to do so); have close proximity warning systems fitted, external warning devices, rear facing CCTV camera (or Fresnel Lens); have a Class VI mirror; and have prominent signage warning cyclists of the dangers of 'undertaking' on the inside of such vehicles. The amount of construction traffic and the level of disturbance to the public will be kept to a minimum – this will be continually reviewed through the monitoring process.

Banksman will be available to direct demolition and construction traffic in and out of the loading / unloading areas, as required.

Visits by the professional supervision, and other parties involved in the project (i.e. consultants in charge of the Project Management, H&S, Building Control etc.) will be required to travel via public transport where possible, or to park in public car parks if car use is essential.

b. Please provide details of any temporary structures which would overhang the public highway (e.g. scaffolding, gantries, cranes etc.) and details of hoarding requirements or any other occupation of the public highway.

The project will have not have any structures overhanging the public highway during the construction process. A secure hoarding will be in placed at the front of the site with lockable access and there will be no use of the public highway for the storage of materials, site accommodation or welfare facilities.

- SYMBOL IS FOR INTERNAL USE

7.0 ENVIRONMENT

7.1 To answer these sections please refer to the relevant sections of **Camden's Minimum Requirements for Building Construction (**CMRBC**).**

7.2 Please list all noisy operations and the construction method used, and provide details of the times that each of these are due to be carried out.

The following construction activities have the potential for adverse effects upon local sensitive receptors:

Demolition and Enabling (Basement Excavation) Works:

- Physical demolition activities such as hammering, drilling, breaking of materials etc.;
- Plant machinery and any powered tools being used during the demolition phase;
- Removal of demolition materials to storage skip for collection;
- Excavation of soils within proposed basement area; and
- Physical removal and delivery of skips (storage area).

Construction:

- Plant machinery and use of any powered tools being used during the construction;
- Delivery of materials to site (concrete, wood, bricks etc.); and
- Construction activities such as hammering, drilling, sawing, angle grinding etc.

Trackout:

- Increased noise and vibration levels from traffic due to construction vehicles associated with the site, through vehicle movement and warning soundings; and
- Communication noise between banksman and vehicle driver when construction vehicles are manoeuvring to park at the site.

7.3 Please confirm when the most recent noise survey was carried out (before any works were carried out) and provide a copy. If a noise survey has not taken place please indicate the date (before any works are being carried out) that the noise survey will be taking place, and agree to provide a copy.

Environmental sound monitoring was conducted on site by Create in July 2017 (Ref: FV_CS_P17-1282_01) and determined that the ambient sound level was 51dB $L_{Aeq,T}$. From the use of the ABC method within BS5228-1:2009+A1:2014, the daytime threshold should be 65dB $L_{Aeq,10h}$ at the closest receptor. The closest noise sensitive receptor was measured to be 1 Tideswell and 25 Hambrook, both at 2m, with remaining facades being 9m or more.

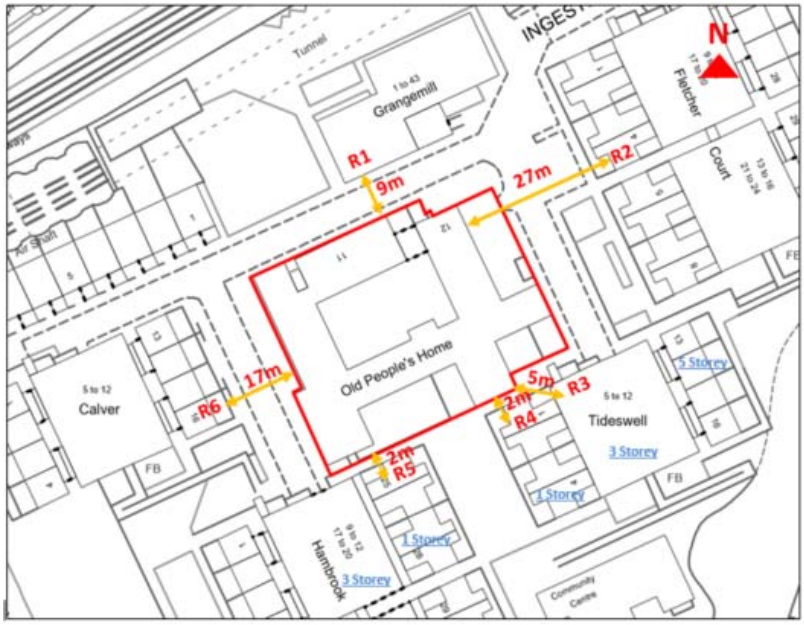
7.4 Please provide predictions for noise and vibration levels throughout the proposed works.

Guidance relating to the prediction and assessment of the demolition and construction phase noise effects has been taken from BS 5228-1: 2009+A1:2014 'Code of practice for noise and vibration control on construction and open sites' Part 1: 'Noise' which provides recommendations for basic methods of noise control relating to construction and open sites where work activities/operations generate significant noise levels.

Amongst other things, the annexes to BS 5228 provide information on relevant legislation (Annex A), typical noise sources and advice on mitigating them (Annex B), sound level data for use in the prediction methods described in the standard (Annexes C and D), assessing the significance of noise effects (Annex E), estimating noise levels (Annex F) and Implementing noise monitoring (Annex G).

The development site is located close to a number of existing residential properties that potentially may experience adverse effects due to the sound from the construction activities associated with the proposed development.

The specific duration, location and magnitude of potentially significant effects cannot be fully assessed at this outline stage due to the exact plant and method not being finalized at this stage for demolition and construction. However, an initial outline assessment has been undertaken of the phases most likely to cause impacts – the demolition and construction, based on assumptions regarding plant and percentage of on-time. The figure below shows the nearest noise sensitive receptors surrounding the proposed development site.



The tables provided in Appendix B show an initial the assessment of demolition noise that has been conducted to establish the likelihood of adverse impact to the existing residents surrounding the site without any form of acoustic mitigation. This assessment has been carried out for each of the receptors identified above. The distance from the noise sensitive receptors to the equipment used and their on-time percentage was based on assumptions.

By using the "ABC" method the ambient noise level was below the Category A therefore the threshold levels for category A should be used to establish the effect at the receptors. The following table shows that demolition noise would be deemed to be significant as the predicted levels would be above Category A at all locations.

The table below shows the degree of the effect the predicted demolition sound would have on each receptor considered using the ABC method from BS 5228-1:2009.

Receptor	Daytime threshold dB(A)	Construction SPL dB(A)	Degree of effect
R1	65	86	Significant
R2	65	80	Significant
R3	65	92	Significant
R4	65	97	Significant
R5	65	97	Significant
R6	65	82	Significant

Predicted Demolition Sound Levels

The tables provided in Appendix C show an initial the assessment of construction noise that has been conducted to establish the likelihood of adverse impact to the existing residents surrounding the site without any form of acoustic mitigation. This assessment has been carried out for each of the receptors identified above. The distance from the noise sensitive receptors to the equipment used and their on-time percentage was based on assumptions.

Referring to the ABC method the ambient noise level was below the category A therefore threshold levels for category A should be used. To establish the effect of the existing dwellings:

Receptor	Daytime threshold dB(A)	Construction SPL dB(A)	Degree of effect
R1	65	83	Significant
R2	65	76	Significant
R3	65	85	Significant
R4	65	91	Significant
R5	65	91	Significant
R6	65	78	Significant

Predicted Construction Sound Levels

Using these distances, the daytime threshold at the site boundary should be set at 71dB $L_{Aeq,10h}$ for the East façade facing Tideswell, and 80dB $L_{Aeq,10h}$ for the façades facing the East, North and West.

7.5 Please provide details describing mitigation measures to be incorporated during the construction/demolition works to prevent noise and vibration disturbances from the activities on the site, including the actions to be taken in cases where these exceed the predicted levels.

By referring to the ABC Method within BS5228-1:2009, the levels would be classed as being significant at all locations, without the use of noise mitigation. In order to reduce the sound levels significantly to these receptors, tall timber hoarding should be included along the façade of the site, as a minimum. The use of this type of hoarding should result in a reduction of these demolition noise levels, in the region of -15dB attenuation, thus drastically reducing the effect of these planned works.

Additionally, the demolition work should be phased in such a way that the duration of works in locations close to existing noise sensitive receptors be minimised. If structurally possible consider leaving the external walls in place for as long as possible, thus acting as heavy weight barrier for as long as possible.

This would have a limited effect to properties on the 2nd floor or higher but perform well for the ground and potentially first floor properties, depending on the location.

Even with the timber hoarding, the closest receptors would still be exposed to significant construction noise, so additional mitigation measures should also be adopted. These could include:

- Operatives should be trained in methods to reduce the noise levels where possible and the importance of centring site based noise;
- Minimising unnecessary revving of engines and switching off plant when not in use;
- Use of rubber linings in chutes and dumpers to reduce the impact noise;
- Minimising the drop height of materials into trucks and onto the ground;
- Starting machinery sequentially as opposed to cumulatively;
- Regular maintenance of the plant and machinery;
- Use of localised acoustic screening and acoustic enclosures such as the Echo Barrier system; and
- There should also be a clear chain of command in case of any noise complaints.

The Best Practicable Means (BPM) will be employed to reduce noise to a minimum with noise levels aiming to be within the daily limits as stipulated above, at the relevant site boundaries, equating to 65 dB $L_{Aeq,10h}$ at the properties.

The following key activities have been identified as activities that require plant, equipment and techniques that has the potential impact local sensitive receptors:

- Demolition; use of non-percussive techniques where practicable and equipment fitted with pulveriser/munching attachments.
- Steelwork/reinforcing bars; all fabrication and cutting should take place off site where practicable, or an acoustic enclosure used to reduce noise impact.
- Generators and air compressors; where unavoidable, plant should be located within the site boundary, be the quietest available units incorporating sound attenuation measures/reduction techniques and be switched off when not in use.

The following mitigation measures are proposed in order to minimise potential effects associated with noise and vibration:

- Early and thorough public relations to be established with the adjacent tenants and occupants, including timely warning/notice of any likely periods of noise activities;
- Contractor contact details to be displayed on the hoardings in place at the boundary of the site;
- Where vehicles are standing for a significant period of time, engines to be switched off and the use of vehicles' horns will be permitted only when absolutely necessary (and in line with the requirements of the Highway Code);
- Workers using any noisy plant should be fully trained and provided with suitable ear protection;
- The quietest and newest plant machinery should be used at all times, all plant machinery to be fitted with effective exhaust silencers;
- Locating noise-generating fixed plant as far away from sensitive receptors as possible;
- Limit the requirement for generators and motor-driven tools, where possible;
- Avoidance of percussive equipment where possible;
- Use enclosed chutes and conveyors;
- Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment; and
- Acoustic enclosures or barriers to be fitted where possible to suppress noisy equipment.

The following actions are to be taken should sound and vibration levels exceed the daily limit at the relevant site boundary façade:

- In the event that a complaint or concern is raised, a review will be completed to remove the problem wherever possible and to establish what levels of sound and vibration have been emitted from site and the cause of the breach;
- In the event that sound levels are not found to be unreasonable, the complaint will be reviewed and discussions held with the third party to understand the problem further and evaluate whether the particular problem can be rectified or at least improved; and

- In the event that the limit has been exceeded, the operation will be modified and the noise and/or vibration rechecked from the operation to verify that the corrective action has been effective, actions may include reducing operating hours, re-siting the equipment, changing the method of working or installing temporary acoustic barriers such as Echo Barriers www.echobarrier.co.uk (in accordance with methods outlined in BS5228:2009+A1:2014).

Taking into account the site location, the current use of the site, the type of development proposed, the existing background sound levels anticipated, the working hours proposed and the proximity to roads as well as the location with regards to existing commercial and residential properties it has been decided that any additional acoustic assessments would not be required, as this has already been completed in 2017 so the reading measurements should be considered suitable.

7.6 Please provide evidence that staff have been trained on BS 5228:2009

Evidence that staff have been trained on BS5228:2014 will be provided when the Principal Contractor has been appointed and will be made available on site, provided to the HSE and will be made available for inspection by other parties on site should this be required. Simple training could involve the Site Management team being trained and then passing the relevant information down to the team via the use of Tool Box Talks. The training is available through Create Consulting Engineers Ltd. Due to the nature of construction sites, it would be prudent to provide a short training section within the site induction process.

7.7 Please provide details on how dust nuisance arising from dusty activities, on site, will be prevented.

In February 2014, the IAQM published guidance on how to assess and mitigate the impacts of dust emissions from demolition and construction sites. This guidance has been followed to produce a construction dust risk assessment.

A summary of the dust risk impact assessment can be seen below, with full details presented in the Air Quality Assessment (Ref: DM_CS_P17-1282_02 dated July 2018).

Each activity has been assessed individually to determine a Dust Emissions Magnitude (DEM) in terms of their scale and nature of works. The level of magnitude is assessed against the sensitivity of the site to determine the potential risk of dust impacts, shown in the table below.

Potential Risk	Site Specific Dust Risk			
	Demolition	Earthworks	Construction	Trackout
Dust Soiling	MEDIUM	LOW	MEDIUM	LOW
Human Health	LOW	NEGLIGIBLE	LOW	LOW
Ecological	LOW	NEGLIGIBLE	LOW	LOW

Summary of Potential Dust Risk Impact

The above summary demonstrates that the proposed development, pre-mitigation, has the potential to result in worst case MEDIUM impact upon sensitive receptors from dust soiling during demolition and construction, and LOW/NEGLIGIBLE during the remaining site activities.

In accordance with the GLA's The Control of Dust and Emissions during Construction and Demolition (2014), the following mitigation measures are proposed in order to minimise potential effects from air pollution/dust:

Site Management

- Contact details for the person responsible for dust and emissions generated from the site should be displayed on the site boundary;
- The developer and contractors should keep a record of all such complaints and respond to them as soon as possible;
- The developer and contractor are to actively monitor the site to ensure the control of dust and emissions;
- Site Inspections: The developer and contractor are to actively monitor the site to ensure the control of dust and emissions;
- Increase the frequency of site inspections by those accountable for dust and air quality pollutant emissions issues when activities with a high potential to produce dust and emissions are being carried out, and during prolonged dry or windy conditions; and
- Record any exceptional incidents that cause dust or air quality pollutant emissions, on or off site, and the action taken to resolve the situation recorded in the log book.

Preparing and Maintaining the Site

- Site layout: when planning construction works, the developer will aim to:
  - Locate machinery and dust generating activities away from receptors;
  - Create a physical distance and/or barrier between dust/emission generating activities and receptors;
  - Install solid screens or barriers around dust generating activities; and
  - Remove loose materials as soon as possible.

- Site maintenance:
  - Hoardings, fencing, barriers and scaffolding should be regularly cleaned using wet methods, where possible to prevent re-suspension of particulate matter; and
  - Regular checks of buildings within 100m of the site boundary should be carried out to check for soiling due to dust with cleaning carried out where necessary.

Demolition and Enabling (Basement Excavation) Works:

- Soft strip inside buildings before demolition;
- Bag and remove any biological debris or damp down such material before demolition; and
- Ensure effective water suppression is used during demolition operations, hand held sprays are more effective than hoses attached to equipment as the water can be directed to where it is required.

Construction

- Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out unless required for a particular process;
- Mix large quantities of cement, grouts and other similar materials in enclosed areas remote from site boundaries and potential receptors;
- Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery; and
- For small supplies of fine powder ensure bags are sealed after use and are stored appropriately to prevent dust release.

7.8 Please provide details describing how any significant amounts of dirt or dust that may be spread onto the public highway will be prevented and/or cleaned.

Trackout

- Ensure any vehicles entering and leaving site are securely covered to prevent escape of materials / soils during transport;
- Ensure all vehicles switch off engines when stationary, no idling vehicles;
- Routinely clean public roads and access routes using wet sweeping methods; and
- Avoid dry sweeping of large areas.

General Mitigation Measures

- Ensure regular cleaning of hardstanding surfaces using wet sweeping methods;
- Display the head or regional office contact information, and the name and contact details of person(s) accountable for air quality on the site boundary;
- Develop and implement a stakeholder communications plan that includes community engagement before work commences on site;
- Log all air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record all measures taken. Make the complaints log available to the Local Authority when asked;
- Carry out regular on-site and off-site inspections to monitor dust soiling effects, with cleaning to be provided if necessary. Increase the frequency of inspections when activities with a high potential to produce dust are being carried out;
- Erect barriers around the site, any dusty activities and stockpiles (to be covered);
- Screen areas of the building, where dust producing activities are taking place, with debris screens or sheeting;
- Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period;
- Remove materials that have a potential to produce dust as soon as possible, unless being re-used. If they are to be re-used, on site covers should be used;
- Ensure all vehicles switch off engines when stationary, no idling vehicles;
- Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine sprays on equipment wherever possible; and
- Avoid bonfires and the burning of waste materials.

It is important that attention is paid to any construction activity that takes place in close proximity to the site boundary, particularly closest to sensitive receptors.

The implementation of the specific mitigation measures given above will ensure that the potential adverse impacts from construction dust during all construction stages are avoided. It is noted by the IAQM that through the use of effective mitigation, the effects of dust from construction activity will not normally be significant.

Construction Traffic and Plant

As previously stated, there is potential for air pollutant impacts to arise from construction plant and vehicles associated with the scheme. Currently the number of construction vehicles and construction plant have not been confirmed, however, the following BAT (Best Available Technology) should still be implemented during the demolition and construction phases.

The construction traffic and plant mitigation measures recommended are as follows:

- All vehicles should switch off engines when stationary, no idling vehicles;
- On-road vehicles to comply with the requirements of the Low Emission Zone and the London NRMM standards, where applicable;
- All non-road mobile machinery (NRMM) to use ultra-low sulphur diesel (ULSD) where available;
- Minimise the movement of construction traffic around the site;
- Maximising efficiency (this may include alternative modes of transport, maximising vehicle utilisation by ensuring full loading and efficient routing);
- Vehicles should be well maintained and kept in a high standard of working order;
- Avoid the use of diesel or petrol-powered generators by using mains electricity or battery powered equipment where possible; and
- Locate plant away from boundaries close to residential areas.

Reducing Emissions from Vehicles and machinery

- All mobile vehicles associated with the demolition/construction should comply with the standards of the London Low Emission Zone, which are as follows:
  - HGVs, buses and coaches – Euro 4; and
  - Minibuses and vans – Euro 3.
- The site should be managed so that vehicles do not have to wait to park safely. However, should vehicles have to wait they should not idle. Generally, if a vehicle is stationary for more than a minute, turning off the engine will reduce emissions;
- Wherever possible, reduce the use of diesel or petrol generators. Renewable, mains of battery powered plants should be used; and
- Ensure all NRMM comply with the standards set within this guidance.

Operations

- Cutting, grinding and sawing should not be conducted on-site and prefabricated material and modules should be brought in where possible. In cases where such work must take place, spraying water, preferably from a water efficient spray pump, over the material as it is being cut greatly reduces the amount of dust generated; and
- Skips, chutes and conveyors should be completely covered and, if necessary, completely enclosed to ensure that dust does not escape. Similarly, drop heights should be minimised to control the fall of materials.

Waste Management

- No burning of any material is permitted on-site; and
- Any excess material should be reused or recycled on or off-site in accordance with appropriate legislation.

An outline Site Waste Management Plan is provided in Appendix E.

7.9 Please provide details describing arrangements for monitoring of noise, vibration and dust levels.

Noise:

A permanent Class 1 sound level meter will be installed at appropriate site boundary location during demolition and key construction activities. In order to keep the ambient sound below a reasonable levels, alerts via email or SMS will be provided to key members of site staff when the threshold levels are exceeded. It would be advisable that the continuous monitoring be positioned along the South façade of the hoarding, in the direction of the Tideswell properties.

Given there are residential properties within 5m, permanent vibration monitoring should also be adopted in locations closest to these properties. Vibration levels in terms of Peak Particle Velocity (PPV) will be recorded and alerts via email or SMS will be provided when a level of 1 $mm.s^{-1}$ is exceeded. Other alert limits will be setup to include 5mm/s and 10mm/s. Detailed weekly reports of the sound and vibration monitoring will be provided to the Council on request.

All noise, vibration and dust monitoring could be provided through Create Consulting Engineers Ltd as required, all with access via a single web based platform.

Dust:

The risk assessment carried out resulted in a MEDIUM/ LOW/ NEGLIGIBLE risk of impact. When accompanied with mitigation measures to be implemented as standard the risk will be further reduced. As such, monitoring should only be required for a size of this size if complaints are received by LBC from members of the public, which may then suggest that mitigation measures are not being properly implemented.

On-going visual inspection of the Site will be undertaken at all times. If dust clouds are observed or if complaints are received relating to dust / air quality, action should be taken immediately to halt the source of dust emissions and implement appropriate corrective actions.

Following receipt of a complaint, and in consultation with LBC, a formal monitoring program may be enacted, should existing mitigation be proven to be inadequate and ineffective.

Should there be a requirement to establish a full time monitoring program, the Contractor should implement:

- A single transect across the Site, according to the direction of the prevailing wind, should be agreed with LBC. One automatic PM10 monitor will be deployed at either end of each transect. These instruments must provide data that can be downloaded in real-time. The dust monitors must also provide an alert to Site management, such as in the form of an alarm or text message, when the Action Level has been exceeded;
- Quality Assurance (QA) and Quality Control (QC) measures will be provided by third party monitoring party, if required;
- An internal "amber" alert of 150µg/m3 shall be set as a 15 minute mean for concentrations of PM_{10};
- A "red" alert of 250µg/m3 shall be set as a 15 minute mean for concentrations of PM_{10}; and
- Details regarding the automatic alert direct to the site manager so that when dust levels breach the acceptable limits action can be taken swiftly and effectively. When two amber alerts will be consecutively received, the project manager or the appropriate person(s) will review the activities to identify any potential dust or particulate sources. If the cause of the amber alert relates to site activity, mitigation shall be put I place to avoid a red alert. If the red alert is exceeded, the monitoring unit shall send alerts (emails and/or text messages) to the project manager or the appropriate person(s). If a red alert is received, Camden Environmental Team should be notified.

Notification to Camden Environmental Team following a red alert:

- The project manager shall as quickly as practicable investigate activities on the site to ascertain any visible dust is emanating from the site and identify activities occurring without adequate dust control measures implemented;
- If it is identified that the cause of the alert relates to the worksite activity, mitigation shall be put in place immediately to reduce impacts;
- Details of the alert, investigation and actions taken shall be recorded in site logbook and the Environmental Team shall be notified of the event, investigation and any actions by email on first of each month. Site logbook shall be available to LBC; and
- If no source of the dust event is identified on site, and/or if the cause of the alert is not related to site operations, the outcome of any investigation shall be recorded in the site logbook and reported to the Environmental Team via email.

Where the results of monitoring exercises indicate that the Action Levels have been exceeded, the following shall be undertaken by the Contractor:

- Identify the activity or activities causing the Action Level to be exceeded;
- Investigate whether the activities could be easily changed or other simple actions taken to substantially reduce dust levels;
- If simple and effective remedial measures are not identified, adopt alternative techniques and / or additional mitigation measures, until the problem is rectified;
- In all cases where Action Levels are likely to be exceeded, undertake liaison with neighbours and LBC to the degree that is appropriate for the levels likely to be reached and their estimated duration; and
- Log the incidents of exceedances along with the identified source and the action taken to mitigate the issue. This log should be available for review by LBC at all times.

The local community will be informed of proposed Site operations and potentially disturbing operations should be scheduled during times that will minimise impact.

7.10 Please confirm that a Risk Assessment has been undertaken at planning application stage in line with the GLA policy. The Control of Dust and Emissions During Demolition and Construction 2104 (SPG), that the risk level that has been identified, and that the appropriate measures within the GLA mitigation measures checklist have been applied. Please attach the risk assessment and mitigation checklist as an appendix.

Dust Risk Assessment has been undertaken as part of the Air Quality Assessment (Ref: DM_CS_P17-1282_02 dated July 2018) and summarized above

7.11 Please confirm that all of the GLA's 'highly recommended' measures from the SPG document relative to the level of risk identified in question 36 have been addressed by completing the GLA mitigation measures checklist.

Confirmed.

7.12 If the site is a 'High Risk Site', 4 real time dust monitors will be required. If the site is a 'Medium Risk Site', 2 real time dust monitors will be required. The risk assessment must take account of proximity to sensitive receptors (e.g. schools, care homes etc), as detailed in the SPG. Please confirm the location, number and specification of the monitors in line with the SPG and confirm that these will be installed 3 months prior to the commencement of works, and that real time data and quarterly reports will be provided to the Council detailing any exceedances of the threshold and measures that were implemented to address these.

The dust risk assessment demonstrates that the proposed development, pre-mitigation, has the potential to result in LOW/NEGLIGIBLE impact during site activities.

The contractor should not be required to implement monitoring from project outset and should be given an opportunity to mitigate risks by implementing effective mitigation measures prior to installation of real time dust monitors. Monitors should be installed should complaints be received from local residents by the council or site management, and only if mitigation measures are shown to be inadequate/ ineffective.

7.13 Please provide details about how rodents, including rats, will be prevented from spreading out from the site. You are required to provide information about site inspections carried out and present copies of receipts (if work undertaken).

Prior to works commencing a rodent survey will be completed by an appropriately qualified company and any findings dealt with in line with best practice guidance.

During works all site areas will be kept clean and tidy with organic waste stored in sealed containers and disposed of regularly. Should any rodents be identified in the area an appropriate exterminator will be contacted immediately and they will be dealt with appropriately.

7.14 Please confirm when an asbestos survey was carried out at the site and include the key findings.

An Asbestos Investigation Site Walkover survey was undertaken on the site in 2013 and a copy of the report has been included in Appendix D. A detailed Pre-Demolition Asbestos Survey will need to be completed prior to commencement of any demolition works on site.

Any identified asbestos-containing materials will be removed and disposed of to an appropriately licensed disposal facility by an experienced, licensed asbestos remediation contractor, employing all necessary measures to mitigate risks to on-site personal and adjacent residents and properties.

7.15 Complaints often arise from the conduct of builders in an area. Please confirm steps being taken to minimise this e.g. provision of a suitable smoking area, tackling bad language and unnecessary shouting.

The Principal Contractor will ensure appropriate controls are in place to minimise anti-social behaviour impacts from the conduct of builders e.g. provision of suitable smoking area, tackling bad language and unnecessary shouting.

7.16 If you will be using non-road mobile machinery (NRMM) on site with net power between 37kW and 560kW it will be required to meet the standards set out below. The standards are applicable to both variable and constant speed engines and apply for both PM and NOx emissions.

From 1st September 2015

(i) Major Development Sites – NRMM used on the site of any major development will be required to meet Stage IIIA of EU Directive 97/68/EC

(ii) Any development site within the Central Activity Zone - NRMM used on any site within the Central Activity Zone will be required to meet Stage IIIB of EU Directive 97/68/EC

From 1st September 2020

(iii) Any development site - NRMM used on any site within Greater London will be required to meet Stage IIIB of EU Directive 97/68/EC

(iv) Any development site within the Central Activity Zone - NRMM used on any site within the Central Activity Zone will be required to meet Stage IV of EU Directive 97/68/EC

Please provide evidence demonstrating the above requirements will be met by answering the following questions:

a) Construction time period (mm/yy - mm/yy): ***Late 2018 to late 2020***

b) Is the development within the CAZ? (Y/N): ***No***

c) Will the NRMM with net power between 37kW and 560kW meet the standards outlined above? (Y/N): ***Yes***

d) Please provide evidence to demonstrate that all relevant machinery will be registered on the NRMM Register, including the site name under which it has been registered: ***All relevant machinery will be registered under the agreed site name, to be confirmed (when Principal Contractor appointed)***

e) Please confirm that an inventory of all NRMM will be kept on site and that all machinery will be regularly serviced and service logs kept on site for inspection:
We confirm that an inventory will be kept and that all machinery will be regularly inspected, maintained and that service logs will be retained for inspection.

f) Please confirm that records will be kept on site which details proof of emission limits, including legible photographs of individual engine plates for all equipment, and that this documentation will be made available to local authority officers as required:
We confirm that records will be retained on site for inspection in line with the requirements outlined.

SYMBOL IS FOR INTERNAL USE

8.0 AGREEMENT

The agreed contents of this Construction Management Plan must be complied with unless otherwise agreed in writing by the Council. This may require the CMP to be revised by the Developer and reapproved by the Council. The project manager shall work with the Council to review this Construction Management Plan if problems arise in relation to the construction of the development. Any future revised plan must be approved by the Council in writing and complied with thereafter.

It should be noted that any agreed Construction Management Plan does not prejudice further agreements that may be required such as road closures or hoarding licences.

Please notify that council when you intend to start work on site. Please also notify the council when works are approximately 3 months from completion.

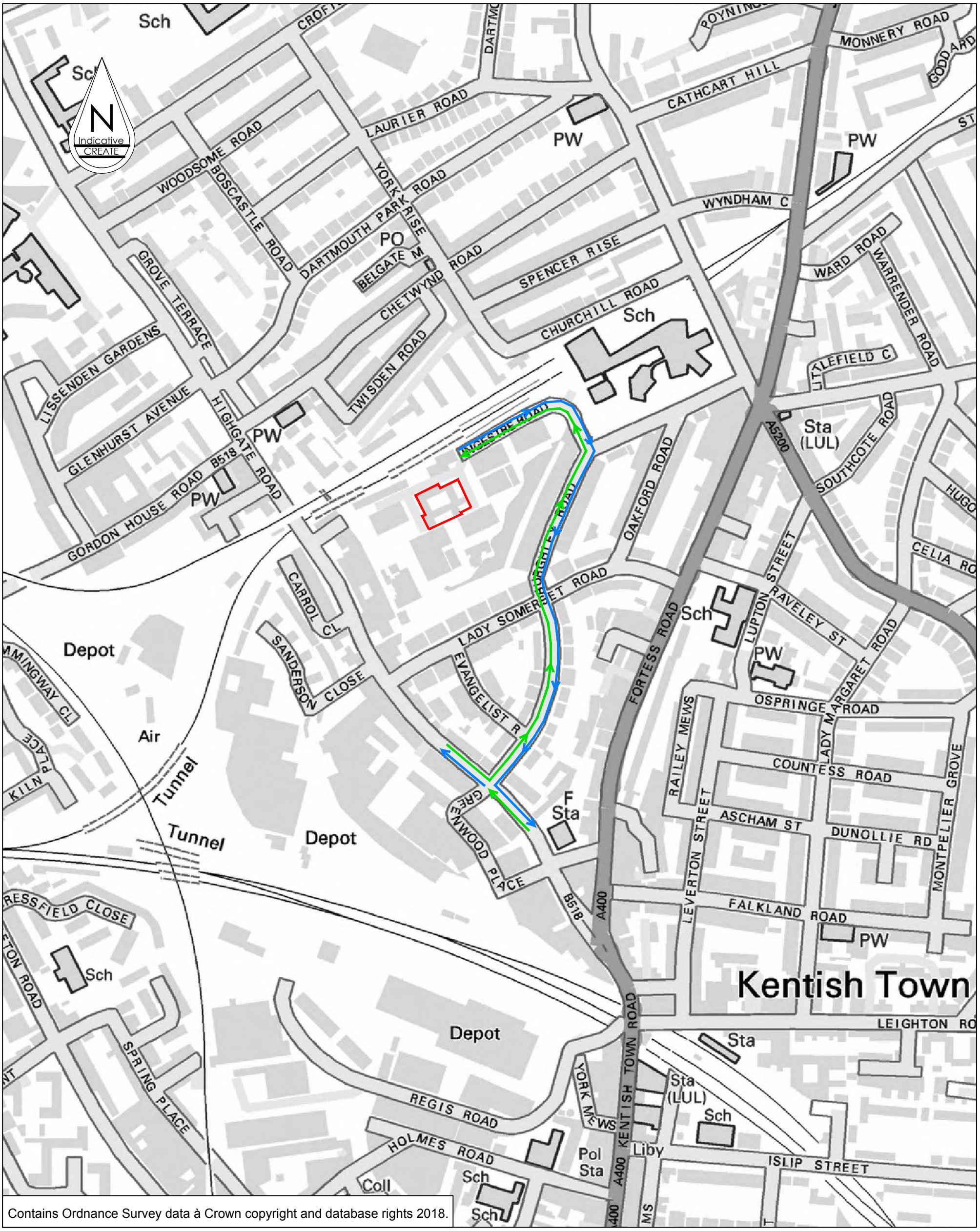
Signed:
Date: 13 July 2018

Print Name: Colin Buchanan
Position: Technical Director, Create Consulting Engineers ltd

Please submit to: planningobligations@camden.gov.uk

End of form.

DRAWINGS



Contains Ordnance Survey data à Crown copyright and database rights 2018.

KEY

SITE LOCATION

ACCESS TO SITE

EGRESS FROM SITE

Create Consulting Engineers accept no responsibility for any unauthorised amendments to this drawing. Only figured dimensions are to be worked to. COPYRIGHT © RESERVED

REV	DATE	AMENDMENT DETAILS	DRAWN	APPROVED

PROJECT: INGESTRE ROAD	DATE: 06.06.18	DRAWING STATUS: INFORMATION	
	SCALE(S): 1:250	DESIGNED: AF	DRAWN: AF
DRAWING TITLE: PROPOSED TRAFFIC ROUTE PLAN		CHECKED: CB	APPROVED: CB
	JOB No: 1282		
CLIENT: B K RABADIYA CONSTRUCTIONS LIMITED	DRAWING No: 03/001	REVISION: -	

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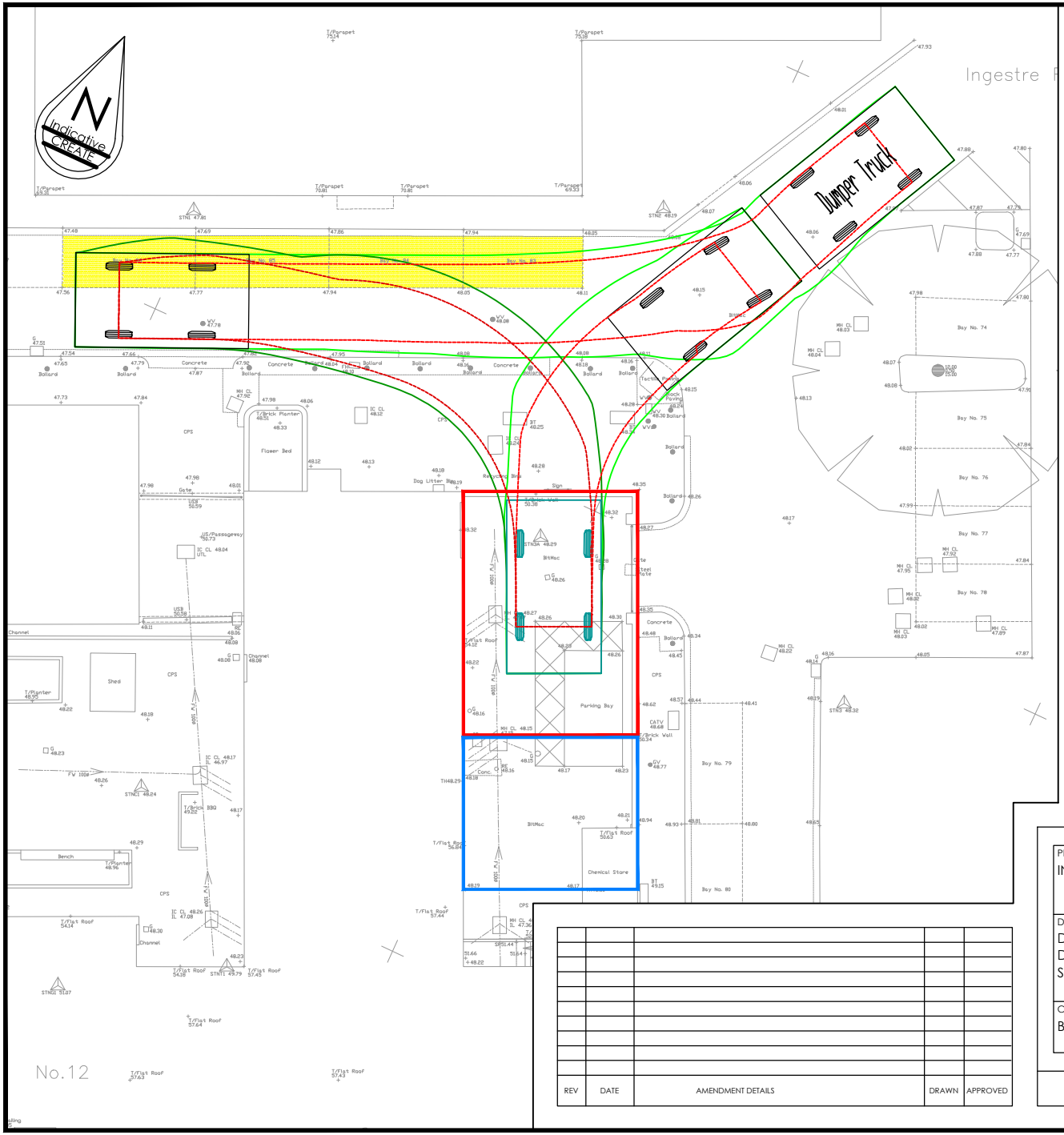
ORIGINAL SHEET SIZE - A3 Portrait

DO NOT SCALE



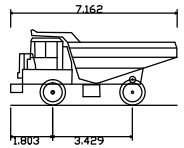
NOTE:

1. DRAWING BASED ON BLUEPRINT SURVEYS LTD SURVEY DATED APRIL 2013.

KEY:

- WHEEL ROUTE
- VEHICLE OVERHANG
- PARKING BAY SUSPENSION
- LOADING/UNLOADING AREA
- STORAGE AREA

VEHICLE LIBRARY:



Dumper Truck	
Overall Length	7.162m
Overall Width	3.901m
Overall Body Height	3.238m
Min Body Ground Clearance	0.363m
Track Width	3.136m
Lock to Lock Time	6.00s
Kerb to Kerb Turning Radius	8.500m

THE VEHICLE TRACKS SHOWN WERE PRODUCED USING AUTOTRACK VERSION 11.00a AND ARE INDICATIVE OF THE MOVEMENTS ACHIEVABLE FROM THE VEHICLE TYPE SHOWN. NO GUARANTEE IS GIVEN THAT THE TRACK RUNS SHOWN ARE ACTUALLY ACHIEVABLE BY ALL INDIVIDUAL MAKES AND MODELS OF SIMILAR TYPES VEHICLES USING THE ILLUSTRATED ROUTES.

REV	DATE	AMENDMENT DETAILS	DRAWN	APPROVED

PROJECT: INGESTRE ROAD, LONDON	DATE: 31.10.17	DRAWING STATUS: INFORMATION	
	SCALE(S): 1:250	DESIGNED: AF / DRAWN: AF	
		CHECKED: CB / APPROVED: CB	
DRAWING TITLE: DEMOLITION PHASE DUMPER TRUCK SWEPT PATH ANALYSIS	JOB No: 1282		
CLIENT: B K RABADIYA	DRAWING No: 03/002	REVISION: -	

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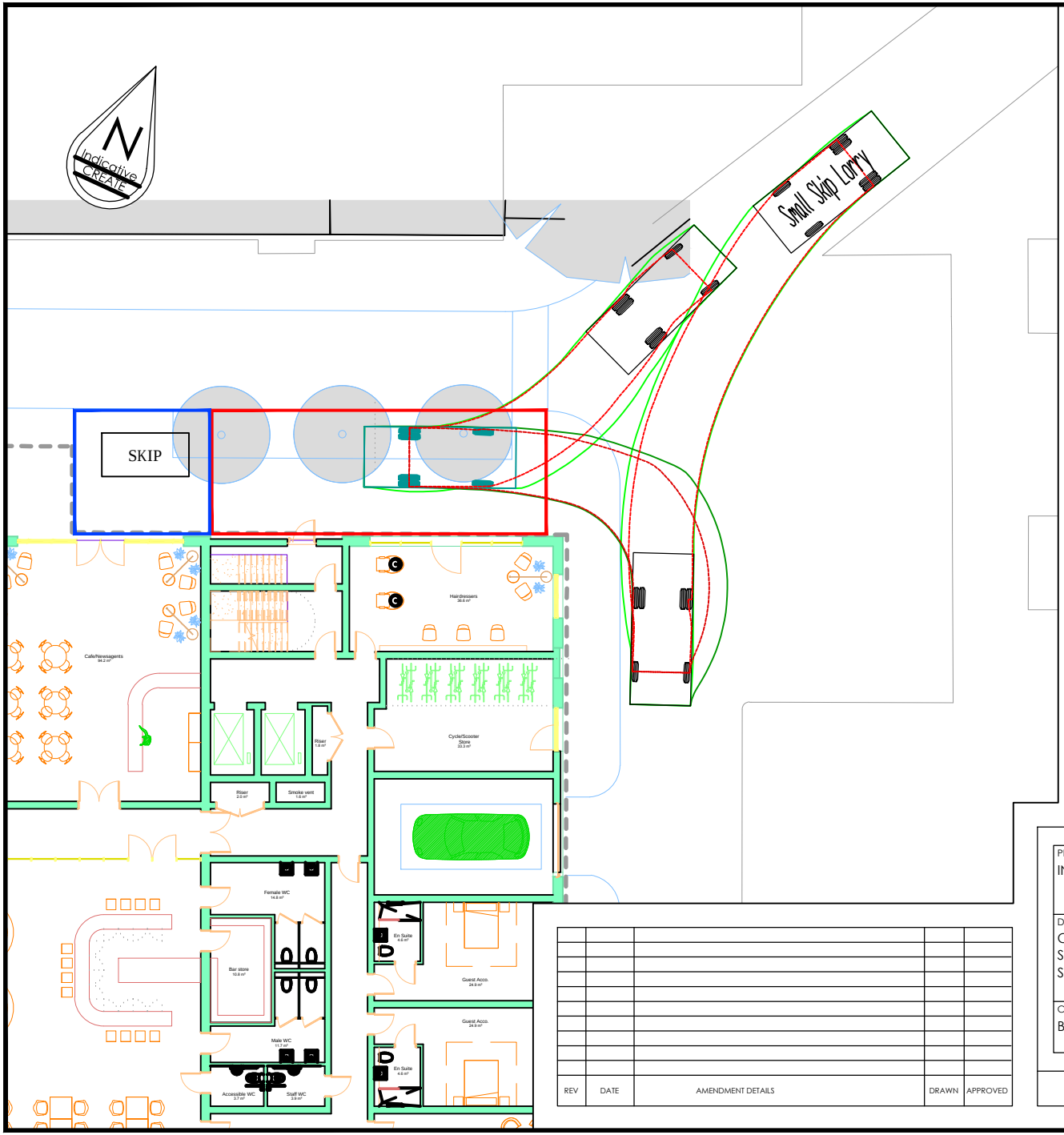
ORIGINAL SHEET SIZE - A4 Landscape

DO NOT SCALE



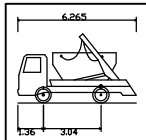
NOTE:

1. DRAWING BASED ON BARTON WILLMORE PROPOSED PLANS GROUND FLOOR DATED 06/06/18.

KEY:

- WHEEL ROUTE
- VEHICLE OVERHANG
- LOADING/UNLOADING AREA
- STORAGE/UNLOADING AREA

VEHICLE LIBRARY:



Small Skip Lorry	
Overall Length	6.265m
Overall Width	2.500m
Overall Body Height	3.650m
Min Body Ground Clearance	0.396m
Max Track Width	2.435m
Lock to Lock Time	6.00s
Kerb to Kerb Turning Radius	6.340m

THE VEHICLE TRACKS SHOWN WERE PRODUCED USING AUTOTRACK VERSION 11.00a AND ARE INDICATIVE OF THE MOVEMENTS ACHIEVABLE FROM THE VEHICLE TYPE SHOWN. NO GUARANTEE IS GIVEN THAT THE TRACK RUNS SHOWN ARE ACTUALLY ACHIEVABLE BY ALL INDIVIDUAL MAKES AND MODELS OF SIMILAR TYPES VEHICLES USING THE ILLUSTRATED ROUTES.

REV	DATE	AMENDMENT DETAILS	DRAWN	APPROVED

PROJECT: INGESTRE ROAD, LONDON	DATE: 19.06.18	DRAWING STATUS: INFORMATION	
	SCALE(S): 1:250	DESIGNED: AF	DRAWN: AF
		CHECKED: CB	APPROVED: CB
DRAWING TITLE: CONSTRUCTION PHASE SKIP SWAP VEHICLE SWEPT PATH ANALYSIS	JOB No: 1282		
CLIENT: B K RABADIYA	DRAWING No: 03/003	REVISION: -	

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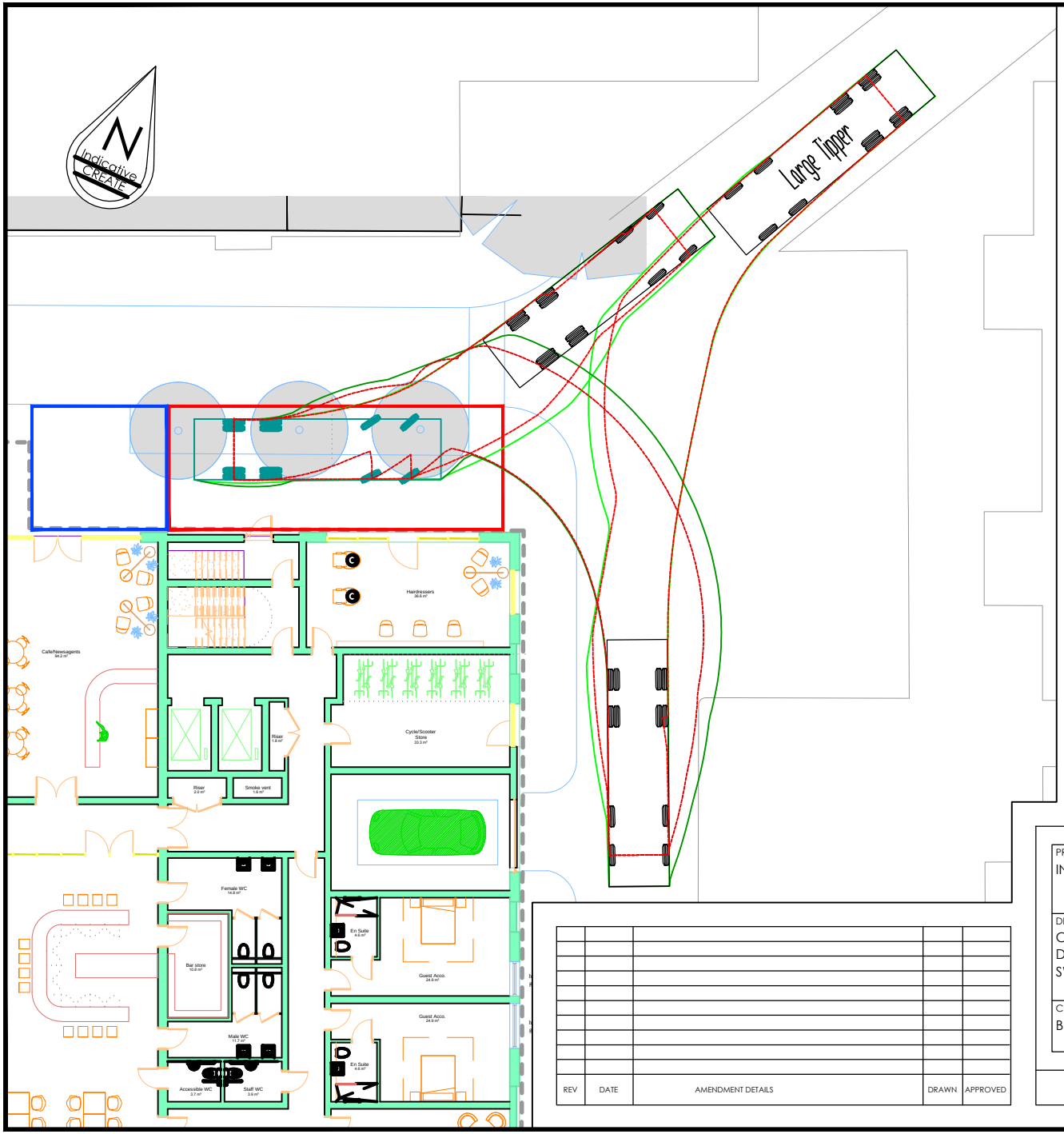
ORIGINAL SHEET SIZE - A4 Landscape

DO NOT SCALE



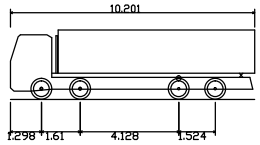
NOTE:

1. DRAWING BASED ON BARTON WILLMORE PROPOSED PLANS GROUND FLOOR DATED 06/06/18.
2. DELIVERIES TO BE MADE WHEN SKIP IS NOT ON SITE.

KEY:

- WHEEL ROUTE
- VEHICLE OVERHANG
- LOADING/UNLOADING AREA
- STORAGE/UNLOADING AREA

VEHICLE LIBRARY:



Large Tipper	
Overall Length	10.201m
Overall Width	2.500m
Overall Body Height	2.893m
Min Body Ground Clearance	0.343m
Max Track Width	2.500m
Lock to Lock Time	6.00s
Kerb to Kerb Turning Radius	11.550m

THE VEHICLE TRACKS SHOWN WERE PRODUCED USING AUTOTRACK VERSION 11.00a AND ARE INDICATIVE OF THE MOVEMENTS ACHIEVABLE FROM THE VEHICLE TYPE SHOWN. NO GUARANTEE IS GIVEN THAT THE TRACK RUNS SHOWN ARE ACTUALLY ACHIEVABLE BY ALL INDIVIDUAL MAKES AND MODELS OF SIMILAR TYPES VEHICLES USING THE ILLUSTRATED ROUTES.

REV	DATE	AMENDMENT DETAILS	DRAWN	APPROVED

PROJECT: INGESTRE ROAD, LONDON	DATE: 18.06.18	DRAWING STATUS: INFORMATION	
	SCALE(S): 1:250	DESIGNED: AF / DRAWN: AF	
		CHECKED: CB / APPROVED: CB	
DRAWING TITLE: CONSTRUCTION PHASE DELIVERY VEHICLE SWEPT PATH ANALYSIS	JOB No: 1282		
CLIENT: B K RABADIYA	DRAWING No: 03/004	REVISION: -	

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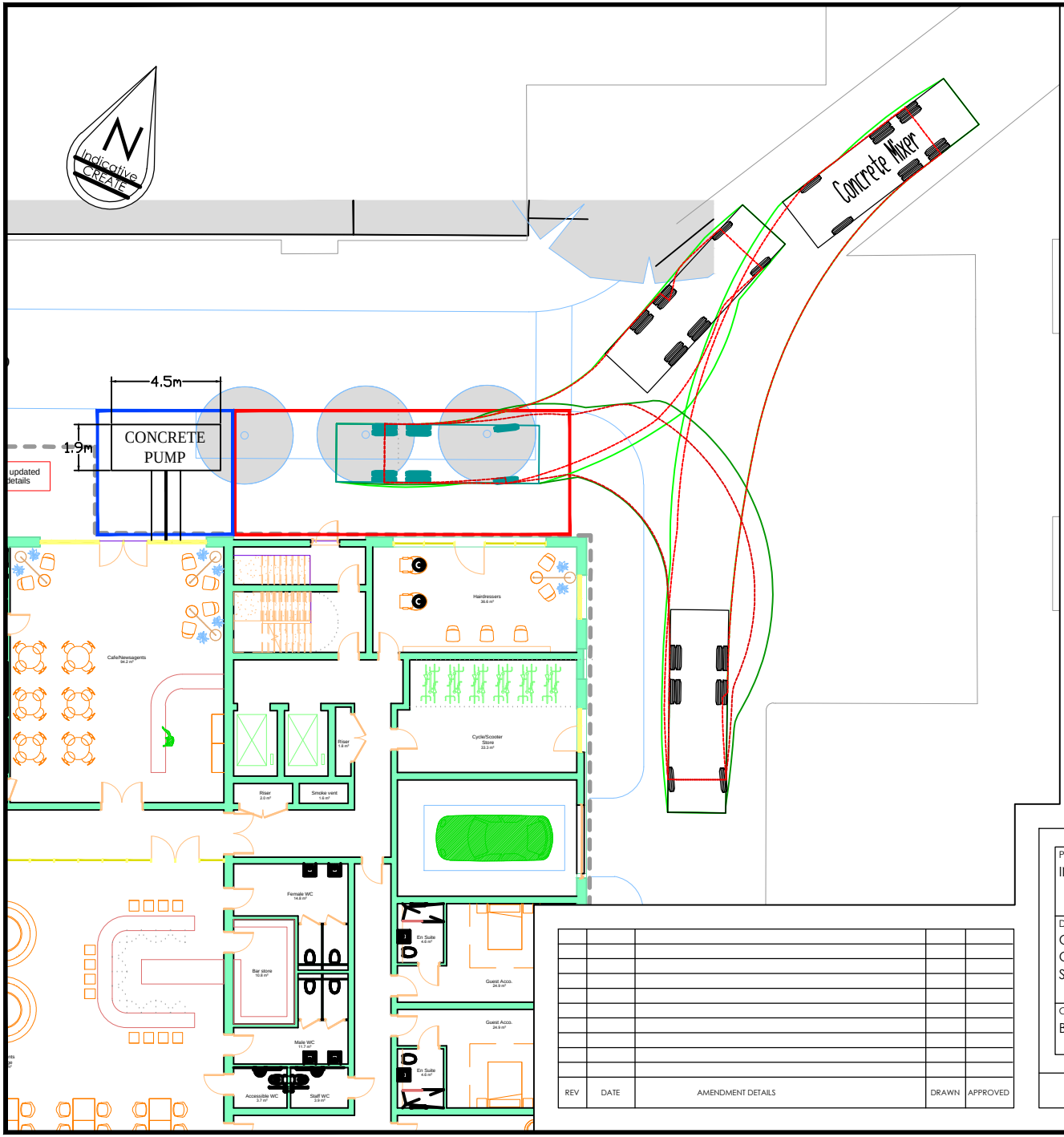
ORIGINAL SHEET SIZE - A4 Landscape

DO NOT SCALE



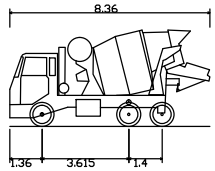
NOTE:

1. DRAWING BASED ON BARTON WILLMORE PROPOSED PLANS GROUND FLOOR DATED 06/06/18.
2. CONCRETE DELIVERIES TO BE MADE WHEN SKIP IS NOT ON SITE

KEY:

- WHEEL ROUTE
- VEHICLE OVERHANG
- LOADING/UNLOADING AREA
- STORAGE/UNLOADING AREA

VEHICLE LIBRARY:



Concrete Mixer	
Overall Length	8.360m
Overall Width	2.390m
Overall Body Height	4.027m
Min Body Ground Clearance	0.358m
Max Track Width	2.413m
Lock to Lock Time	6.00s
Kerb to Kerb Turning Radius	8.210m

THE VEHICLE TRACKS SHOWN WERE PRODUCED USING AUTOTRACK VERSION 11.00a AND ARE INDICATIVE OF THE MOVEMENTS ACHIEVABLE FROM THE VEHICLE TYPE SHOWN. NO GUARANTEE IS GIVEN THAT THE TRACK RUNS SHOWN ARE ACTUALLY ACHIEVABLE BY ALL INDIVIDUAL MAKES AND MODELS OF SIMILAR TYPES VEHICLES USING THE ILLUSTRATED ROUTES.

REV	DATE	AMENDMENT DETAILS	DRAWN	APPROVED

PROJECT: INGESTRE ROAD, LONDON	DATE: 18.06.18	DRAWING STATUS: INFORMATION	
	SCALE(S): 1:250	DESIGNED: AF / DRAWN: AF	
		CHECKED: CB / APPROVED: CB	
DRAWING TITLE: CONSTRUCTION PHASE CONCRETE MIXER SWEPT PATH ANALYSIS	JOB No: 1282		
CLIENT: B K RABADIYA	DRAWING No: 03/005	REVISION: -	

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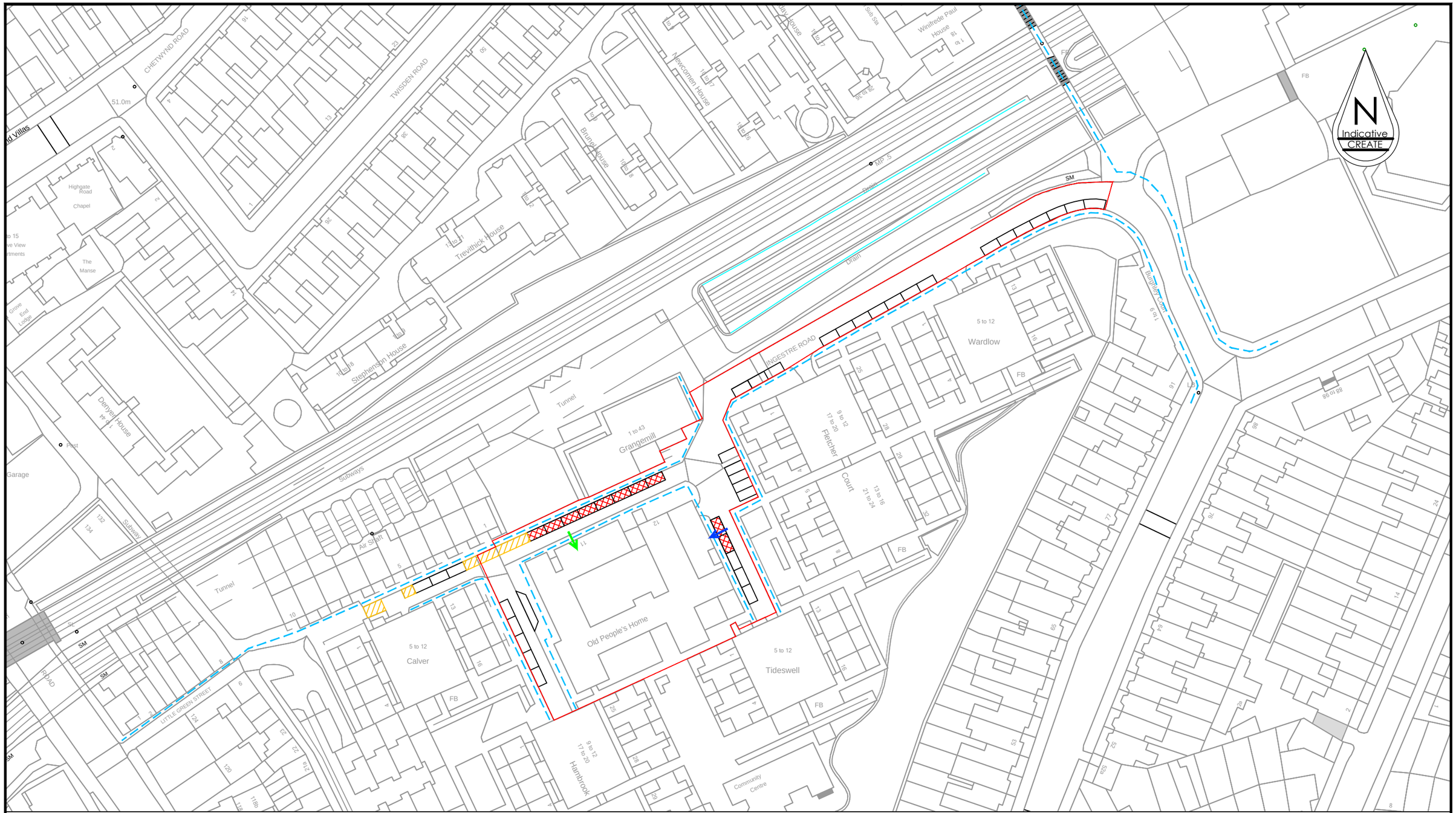
ORIGINAL SHEET SIZE - A4 Landscape

DO NOT SCALE



KEY:

- PERMIT PARKING SPACE
- PERMIT PARKING SPACES TO BE REMOVED
- EXISTING KEEP CLEAR MARKINGS
- PROPOSED CAR LIFT ACCESS POINT
- PROPOSED MAIN PEDESTRIAN ACCESS
- PEDESTRIAN LINKS
- PROPOSED DELIVERY BAY
- RED LINE BOUNDARY

REV	DATE	AMENDMENT DETAILS	DRAWN	APPROVED

PROJECT: INGESTRE ROAD, LONDON	DATE: 06.07.18	DRAWING STATUS: INFORMATIION	
	SCALE(S): 1:1000	DESIGNED: AF / DRAWN: AF	
		CHECKED: CB / APPROVED: CB	
DRAWING TITLE: LOCAL HIGHWAY NETWORK PLAN	JOB No: 1282		
CLIENT: FOUR QUARTERS (INGESTRE ROAD) LTD	DRAWING No: 03/009	REVISION: -	

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ORIGINAL SHEET SIZE - A3 Landscape

DO NOT SCALE

APPENDIX A
LETTER TO LOCAL RESIDENTS (DRAFT)

Our ref: CB/01/P17-1282/01

July 2018

The Occupier

Dear Sir / Madam,

RE: 11-12 INGESTRE ROAD, LONDON, NW5 1UX
PLANNED REDEVELOPMENT – COMMUNITY NOTIFICATION

Create Consulting Engineers Ltd was instructed by R B Rabadiya Constructions Ltd to produce a Construction Environmental Management Plan (CEMP) to inform the redevelopment of the former care home at 11-12 Ingestre Road, London, NW5 1UX.

As part of the CEMP process, the development process have been reviewed and assessed to ensure that best practice and lowest impacts are strived for at all times including high levels of community liaison and communication.

This letter details the proposed works and timings for the project and provides you with contact details for both site management and consultants should you wish to contact them to raise any concerns of have any questions.

The development proposals are described as follows:

Demolition of existing buildings and the erection of a six storey plus single storey basement building accommodating 50 Assisted Living residential apartments with associated communal and support facilities and ancillary cafe, salon and mini gym, together with external amenity spaces, car lift, basement parking, laundry, plant, CCTV, lighting, access, landscaping, infrastructure and other ancillary works.

The development is expected to commence in late 2018 and the works are expected to be completed within 24 months.

Contact address and full details for the persons responsible for dealing with and complaints from local residents or businesses and community liaison:

Name of Site Contact:	To be confirmed
Name of Company:	
Company Address:	
Telephone:	
Email:	

Or

Name of Consultant Contact:	Colin Buchanan
Name of Company:	Create Consulting Engineers Ltd
Company Address:	109-112 Temple Chambers 3-7 Temple Avenue London EC4Y 0HP
Telephone:	0207 822 2300
Email:	colin.buchanan@createconsultingengineers.co.uk

The developers, contractor and consultants would welcome feedback from local residents both before, during and after the contract has been completed so please feel free to contact the above representatives should you have any questions or concerns or should you require to see a copy of the Construction Management Plan.

Yours faithfully

Colin Buchanan
Technical Director – Create Consulting Engineers

APPENDIX B
DEMOLITION NOISE PREDICTIONS

Demolition Noise at R1

R1 Grangemill Building

Activity	BS5228 ref.	Level	% on time	On Time Correction	Distance to Receiver	Distance Correction	SPL at Receiver dB(A)
Pulverizer mounted on excavator	C.1-3	80	35	5	10	0	76
Breaker on wheeled backhoe	C.1- 2	92	10	10	10	0	82
Articulated dump truck	C.1 - 11	80	15	9	10	0	72
Tracked Excavator	C.1 - 13	86	25	6	10	0	80
Tracked Crusher	C.1 - 14	82	30	4	30	10	68
Hand held pneumatic breaker	C.1 - 6	83	10	10	10	0	73
Lump Hammer (Windows)	C.1 - 20	81	5	13	10	0	68
Tracked excavator steel	C.1 - 17	83	25	6	10	0	77
							86

Demolition Noise at R2

R2 Fletcher Court

Activity	BS5228 ref.	Level	% on time	On Time Correction	Distance to Receiver	Distance Correction	SPL at Receiver dB(A)
Pulverizer mounted on excavator	C.1-3	80	35	5	21	6	69
Breaker on wheeled backhoe	C.1- 2	92	10	10	21	6	76
Articulated dump truck	C.1 - 11	80	15	9	21	6	65
Tracked Excavator	C.1 - 13	86	25	6	21	6	74
Tracked Crusher	C.1 - 14	82	30	4	30	10	68
Hand held pneumatic breaker	C.1 - 6	83	10	10	21	6	67
Lump Hammer (Windows)	C.1 - 20	81	5	13	21	6	62
Tracked excavator steel	C.1 - 17	83	25	6	21	6	71
							80

Demolition Noise at R3

R3 5-12 Tideswell

Activity	BS5228 ref.	Level	% on time	On Time Correction	Distance to Receiver	Distance Correction	SPL at Receiver dB(A)
Pulverizer mounted on excavator	C.1-3	80	35	5	5	-6	82
Breaker on wheeled backhoe	C.1- 2	92	10	10	5	-6	88
Articulated dump truck	C.1 - 11	80	15	9	5	-6	78
Tracked Excavator	C.1 - 13	86	25	6	5	-6	86
Tracked Crusher	C.1 - 14	82	30	4	30	10	68
Hand held pneumatic breaker	C.1 - 6	83	10	10	5	-6	79
Lump Hammer (Windows)	C.1 - 20	81	5	13	5	-6	74
Tracked excavator steel	C.1 - 17	83	25	6	5	-6	83
							92

Demolition Noise at R4

R4 1 Tideswell

Activity	BS5228 ref.	Level	% on time	On Time Correction	Distance to Receiver	Distance Correction	SPL at Receiver dB(A)
Pulverizer mounted on excavator	C.1-3	80	35	5	12	2	74
Breaker on wheeled backhoe	C.1- 2	92	10	10	2	-14	96
Articulated dump truck	C.1 - 11	80	15	9	12	2	70
Tracked Excavator	C.1 - 13	86	25	6	12	2	78
Tracked Crusher	C.1 - 14	82	30	4	23	7	71
Hand held pneumatic breaker	C.1 - 6	83	10	10	2	-14	87
Lump Hammer (Windows)	C.1 - 20	81	5	13	2	-14	82
Tracked excavator steel	C.1 - 17	83	25	6	12	2	75
							97

Demolition Noise at R5 25

R5 25 Hambrook

Activity	BS5228 ref.	Level	% on time	On Time Correction	Distance to Receiver	Distance Correction	SPL at Receiver dB(A)
Pulverizer mounted on excavator	C.1-3	80	35	5	12	2	74
Breaker on wheeled backhoe	C.1- 2	92	10	10	2	-14	96
Articulated dump truck	C.1 - 11	80	15	9	12	2	70
Tracked Excavator	C.1 - 13	86	25	6	12	2	78
Tracked Crusher	C.1 - 14	82	30	4	23	7	71
Hand held pneumatic breaker	C.1 - 6	83	10	10	2	-14	87
Lump Hammer (Windows)	C.1 - 20	81	5	13	2	-14	82
Tracked excavator steel	C.1 - 17	83	25	6	12	2	75
							97

Demolition Noise at R6

R6 16 Claver

Activity	BS5228 ref.	Level	% on time	On Time Correction	Distance to Receiver	Distance Correction	SPL at Receiver dB(A)
Pulverizer mounted on excavator	C.1-3	80	35	5	17	5	71
Breaker on wheeled backhoe	C.1- 2	92	10	10	17	5	77
Articulated dump truck	C.1 - 11	80	15	9	17	5	67
Tracked Excavator	C.1 - 13	86	25	6	17	5	75
Tracked Crusher	C.1 - 14	82	30	4	40	12	66
Hand held pneumatic breaker	C.1 - 6	83	10	10	17	5	68
Lump Hammer (Windows)	C.1 - 20	81	5	13	17	5	63
Tracked excavator steel	C.1 - 17	83	25	6	12	2	75
							82

APPENDIX C
CONSTRUCTION NOISE PREDICTIONS

Construction Noise at R1.

R1 Grangemill Building

Activity	BS5228 ref.	Level	% on time	On Time Correction	Distance to Receiver	Distance Correction	SPL at Receiver
Dozer	C2.13	78	30	5	10	0	73
Wheeled backhoe Loader	C.2 - 8	68	40	3	9	-1	66
Tracked excavator	C.2 - 21	71	15	8	10	0	63
Dump Truck (Empty)	C.2 - 31	87	5	13	10	0	74
Dump truck (Tipping Fill)	C.2 - 30	79	15	8	10	0	71
Tubular Steel Piling	C.3 - 2	87	5	13	9	-1	75
concrete agitator	C.4 - 34	69	50	3	10	0	66
concrete pump	C.3 -26	75	50	3	9	-1	73
Concrete Mixer	C.4 - 21	77	20	7	10	0	70
Truck Mounted Concrete Pump	C.4 - 30	80	50	3	10	0	77
							83

Construction Noise at R2

R2 4 Fletcher Court

Activity	BS5228 ref.	Level	% on time	On Time Correction	Distance to Receiver	Distance Correction	SPL at Receiver
Dozer	C2.13	78	30	5	21	6	67
Wheeled backhoe Loader	C.2 - 8	68	40	3	21	6	59
Tracked excavator	C.2 - 21	71	15	8	21	6	57
Dump Truck (Empty)	C.2 - 31	87	5	13	21	6	68
Dump truck (Tipping Fill)	C.2 - 30	79	15	8	21	6	65
Tubular Steel Piling	C.3 - 2	87	5	13	21	6	68
concrete agitator	C.4 - 34	69	50	3	21	6	60
concrete pump	C.3 -26	75	50	3	21	6	66
Concrete Mixer	C.4 - 21	77	20	7	21	6	64
Truck Mounted Concrete Pump	C.4 - 30	80	50	3	21	6	71
							76

Construction Noise at R3

R3 5-12 Tideswell

Activity	BS5228 ref.	Level	% on time	On Time Correction	Distance to Receiver	Distance Correction	SPL at Receiver
Dozer	C2.13	78	30	5	10	0	73
Wheeled backhoe Loader	C.2 - 8	68	40	3	5	-6	71
Tracked excavator	C.2 - 21	71	15	8	10	0	63
Dump Truck (Empty)	C.2 - 31	87	5	13	10	0	74
Dump truck (Tipping Fill)	C.2 - 30	79	15	8	10	0	71
Tubular Steel Piling	C.3 - 2	87	5	13	5	-6	80
concrete agitator	C.4 - 34	69	50	3	10	0	66
concrete pump	C.3 -26	75	50	3	5	-6	78
Concrete Mixer	C.4 - 21	77	20	7	10	0	70
Truck Mounted Concrete Pump	C.4 - 30	80	50	3	10	0	77
							85

Construction Noise at R4.

R4 1 Tideswell

Activity	BS5228 ref.	Level	% on time	On Time Correction	Distance to Receiver	Distance Correction	SPL at Receiver
Dozer	C2.13	78	30	5	10	0	73
Wheeled backhoe Loader	C.2 - 8	68	40	3	2	-14	79
Tracked excavator	C.2 - 21	71	15	8	10	0	63
Dump Truck (Empty)	C.2 - 31	87	5	13	10	0	74
Dump truck (Tipping Fill)	C.2 - 30	79	15	8	10	0	71
Tubular Steel Piling	C.3 - 2	87	5	13	2	-14	88
concrete agitator	C.4 - 34	69	50	3	10	0	66
concrete pump	C.3 -26	75	50	3	2	-14	86
Concrete Mixer	C.4 - 21	77	20	7	10	0	70
Truck Mounted Concrete Pump	C.4 - 30	80	50	3	10	0	77
							91

Construction Noise at R5.

R5 25 Hambrook

Activity	BS5228 ref.	Level	% on time	On Time Correction	Distance to Receiver	Distance Correction	SPL at Receiver
Dozer	C2.13	78	30	5	10	0	73
Wheeled backhoe Loader	C.2 - 8	68	40	3	2	-14	79
Tracked excavator	C.2 - 21	71	15	8	10	0	63
Dump Truck (Empty)	C.2 - 31	87	5	13	10	0	74
Dump truck (Tipping Fill)	C.2 - 30	79	15	8	10	0	71
Tubular Steel Piling	C.3 - 2	87	5	13	2	-14	88
concrete agitator	C.4 - 34	69	50	3	10	0	66
concrete pump	C.3 -26	75	50	3	2	-14	86
Concrete Mixer	C.4 - 21	77	20	7	10	0	70
Truck Mounted Concrete Pump	C.4 - 30	80	50	3	10	0	77
							91

Construction Noise at R6.

R6 16 Claver

Activity	BS5228 ref.	Level	% on time	On Time Correction	Distance to Receiver	Distance Correction	SPL at Receiver
Dozer	C2.13	78	30	5	17	5	68
Wheeled backhoe Loader	C.2 - 8	68	40	3	17	5	60
Tracked excavator	C.2 - 21	71	15	8	17	5	58
Dump Truck (Empty)	C.2 - 31	87	5	13	17	5	69
Dump truck (Tipping Fill)	C.2 - 30	79	15	8	17	5	66
Tubular Steel Piling	C.3 - 2	87	5	13	17	5	69
concrete agitator	C.4 - 34	69	50	3	17	5	61
concrete pump	C.3 -26	75	50	3	17	5	67
Concrete Mixer	C.4 - 21	77	20	7	17	5	65
Truck Mounted Concrete Pump	C.4 - 30	80	50	3	17	5	72
							78

APPENDIX D
ASBESTOS SURVEY

Please quote our ref: L-MER00590-2.4.2-13-C66-PM

16 April 2013

David Gent
Lambert Smith Hampton
United Kingdom House
180 Oxford Street
London
W1D 1NN

By Email and by Post: dgent@lsh.co.uk

Dear Mr Gent

INGESTRE ROAD RESIDENTIAL CARE HOME
ASBESTOS INVESTIGATION SITE WALKOVER

Merebrook Consulting Limited was requested by David Gent of Lambert Smith Hampton to undertake a site walkover of the Ingestre Road Residential Care Home on 9 – 10 April 2013 to establish the presence and extent of any possible asbestos containing materials.

The building was constructed of brick and concrete with a steel support frame, and a flat roof area. On the lower ground floor, insulation board infill panels were located above doors in both the laundry and in the main corridor adjacent to the lift. In the main electrical intake room, also located on the lower ground floor, a number of fuse boxes could possibly contain asbestos flash guards. No access was available within the fuse boxes as they were live at the time of the inspection. Within the sluice room on the lower ground floor, two bitumen rumble pad were noted as being present to the sinks.

Within the St Johns Lounge on the ground floor, approximately 2 square meters of a cement based material formed boxing within the corner of the room. Rumble pads were noted as being present to the sinks located in both the ground floor sluice room as well as the adjacent cleaner's cupboard. On the upper mezzanine floor, a cement material formed the boxing within the meeting room, kitchen, staff rooms and staff w/c. In each instance approximately 2 square meters of the material was present. In the airing cupboard located adjacent to the staff bedrooms 2 square meters of floor tiles were present, and within one of the bedrooms, an ironing board was found that had an insulation board resting pad.

In the lift motor room, the brake shoes to the lift motor are likely to contain asbestos and an Asbestos Insulation Board infill has been previously identified. This is located in the ceiling along the back edge of the lift motor room and has been sealed, but still requires labelling. Within the adjacent tank room, two fuse boxes may contain asbestos materials, as well as the 6 flange gaskets which are present within the pipework.

All materials listed are materials that commonly contain asbestos however sampling will have to be undertaken during Demolition/Refurbishment survey to establish if the materials contain asbestos before works commence on site.

Photographs taken during the site investigation have been enclosed for your reference.

I trust the above is suitable and sufficient.

Please do not hesitate to contact me if you require any additional information.

Yours sincerely

Paul Manning
For Merebrook Consulting Limited

Enc Site photos

Merebrook Consulting Ltd
First Floor, 1 Leonard Place, Westerham Road, Keston, BR2 6HQ
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email consulting@merebrook.co.uk **www.merebrook.co.uk**
Registered in England No. 02740216
Registered office: East Mill, Bridgefoot, Belper, Derbyshire, DE56 2UA
Offices: London Kent Belper Cardiff

MER00590/I.R/01. Lower ground floor. Insulation board infill panels above doors to laundry area.

MER00590/I.R/02. Lower ground floor. Insulation board infill panel above doors within main corridor.

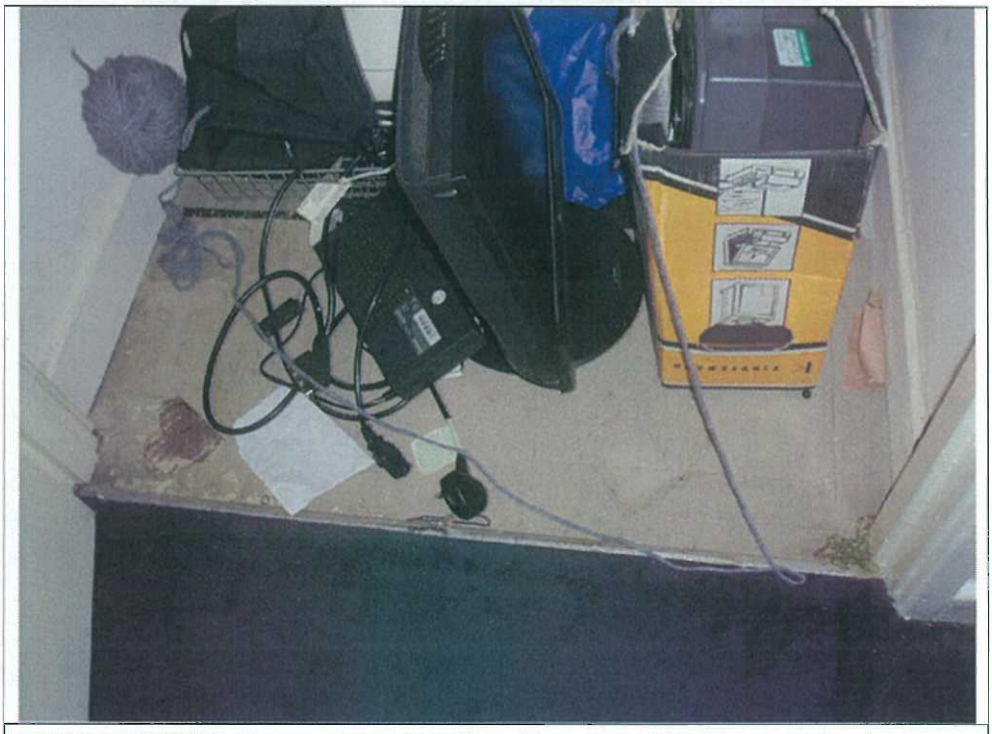
MER00590/I.R/03. Electrical intake room, fuse boxes with possible asbestos flash guards.

MER00590/I.R/04. Lower ground floor, sluice room. Sinks with bitumen rumble pads attached.

MER00590/I.R/05. Ground floor St Johns lounge. Cement boxing.

MER00590/I.R/06. Ground floor, sluice room and cleaners cupboard. Rumble pads to sinks.

MER00590/I.R/07. Upper mezzanine, cement material which forms boxing present in the meeting room, kitchen, staff rooms and staff w/c.



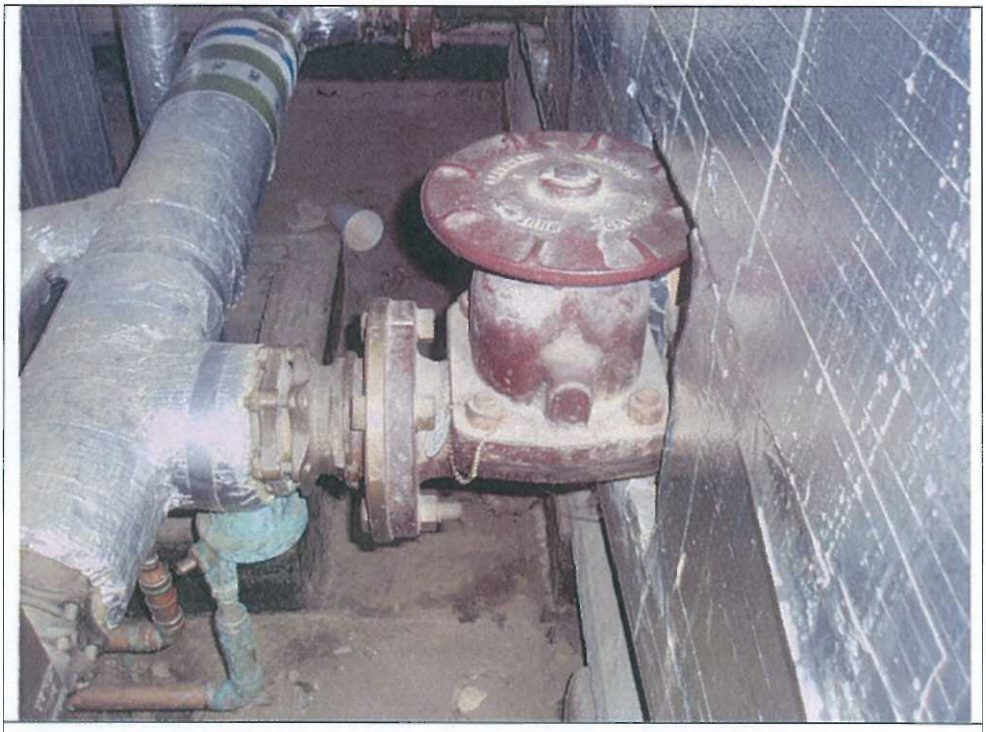
MER00590/I.R/08. Upper mezzanine. Floor tiles present in airing cupboard.

MER00590/I.R/09. Upper mezzanine. Staff bedroom, ironing board rest pad.

MER00590/I.R/10. Lift motor room, brake shoes to lift motor.

MER00590/I.R/11. Lift motor room. A.I.B. infill to ceiling.

MER00590/I.R/12. Tank room, fuse boxes that may contain asbestos.



MER00590/I.R/13. Tank room, flange gaskets within pipe work.

APPENDIX E
OUTLINE SITE WASTE MANAGEMENT PLAN

11-12 INGESTRE ROAD, LONDON, NW5 1UX
Outline Site Waste Management Plan

Client: Four Quarters (Ingestre Road) Ltd

Engineer: Create Consulting Engineers Ltd
109-112 Temple Chambers
3-7 Temple Avenue
London
EC4Y 0HP

Tel: 020 7822 2300
Email: enquiries@createconsultingengineers.co.uk
Web: www.createconsultingengineers.co.uk

Report By: Thomas Abbott, BSc (Hons), MSc, BREEAM Assessor, MBRE, PIEMA

Approved By: Colin Buchanan BSc (Hons), FGS

Reference: TA/CS/P17-1282/12 Rev A

Date: June 2018

11- 12 INGESTRE ROAD, LONDON, NW5 1UX
Outline Site Waste Management Plan

11-12 INGESTRE ROAD, LONDON, NW5 1UX
Outline Site Waste Management Plan

Contents

Registration of Amendments

Revision and Date	Amendment Details	Revision Prepared By	Revision Approved By
Rev A 040718	Updated to address comments from BMP	TA	CB

1.0 INTRODUCTION

1.1 Create Consulting Engineers Ltd was instructed by Four Quarters (Ingestre Road) Ltd to produce an Outline Site Waste Management Plan (SWMP) to support the planning application for a proposed Assisted Living Development at the site of the former care home at 11-12 Ingestre Road, London, NW5 1UX.

Project Context

1.2 The proposed development is to comprise the demolition of existing buildings and the erection of a six storey plus single storey basement building accommodating 50 Assisted Living residential apartments with associated communal facilities and ancillary café, salon and mini gym, together with external spaces, car lift, basement parking, laundry, plant, CCTV, lighting, access, landscaping, infrastructure and other ancillary works.

1.3 Architectural plans are included at the rear of the report. Drawing No. 27463-A-P11-01a (Ground Floor) is reproduced below as Figure 1.1, which gives a plan view of the proposed development.

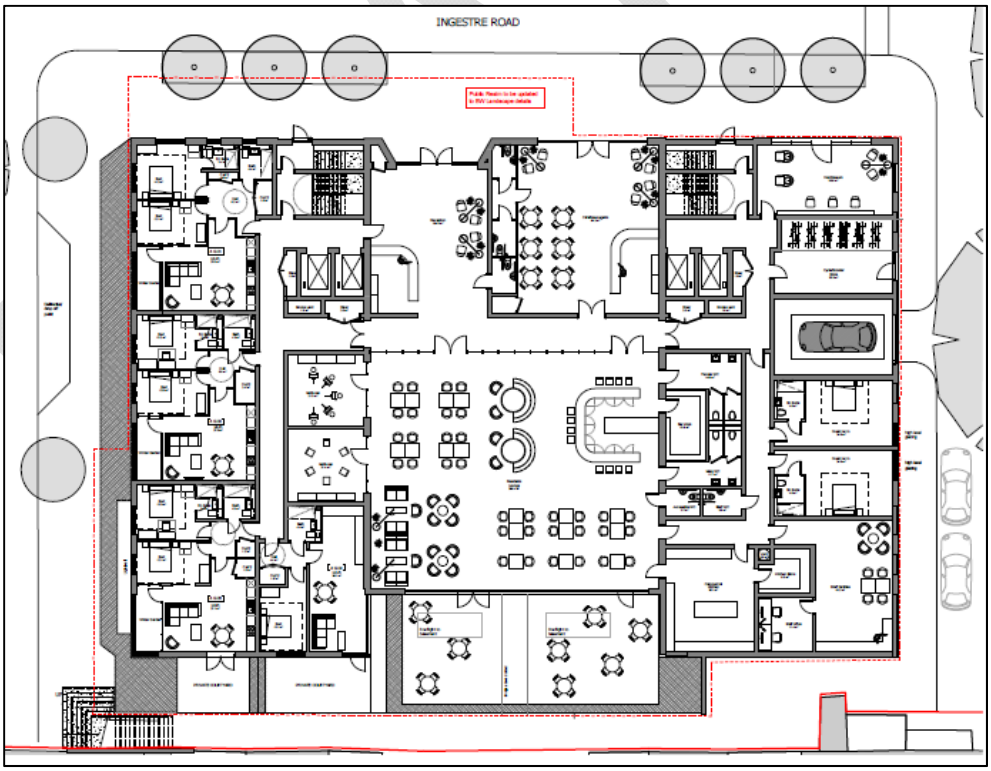


Figure 1.1: Proposed Development Plan (Ground Floor)

Objectives

1.4 This Outline Site Waste Management Plan (SWMP) has been prepared as part of the overall suite of planning submission documents.

1.5 It is noted that the legislation affecting SWMPs ceased to be in force in December 2013 in England although the production of a SWMP is still considered to be good practice and the WRAP criteria have been updated to reflect this recent change. These changes to the WRAP criteria are the removal of references to the SWMP Regulations 2008, which have been repealed, revised mass/volume waste conversion factor for 17 09 04 and new generic guidance on SWMP element of Environmental Assessment Methods.

1.6 Target benchmarks for resource efficiency will be set in accordance with best practice. Procedures for minimising, reporting and measuring the production of hazardous and non-hazardous waste will be implemented and the level of waste diverted from landfill reported on a regular basis.

Report Structure

1.7 As the scheme is currently at the pre-planning stage, specific contractors, including a Principal Contractor, have not yet been appointed. This document is currently configured as a 'starting' document which will be further developed as the design stages progress towards the construction phase. The ongoing 'live' document will be available for review by the development team as required.

1.8 The SWMP will establish the following criteria:

- Resource management and responsibilities;
- Nature and form of waste produced;
- What happens to the waste produced;
- Contractor responsibilities; and
- Assessment/measurement of produced waste.

2.0 SITE LOCATION AND DESCRIPTION

Site Location

2.1 The site is located in the London Borough of Camden, approximately 375m west of Tufnell Park tube station and approximately 600m northwest of Kentish Town tube station as shown on Figure 2.1 below.

2.2 The site is located on Ingestre Road and accessed from the northeast, via Burghley Road and to the west (pedestrian access only) from Little Green Street, via Highgate Road (B518).

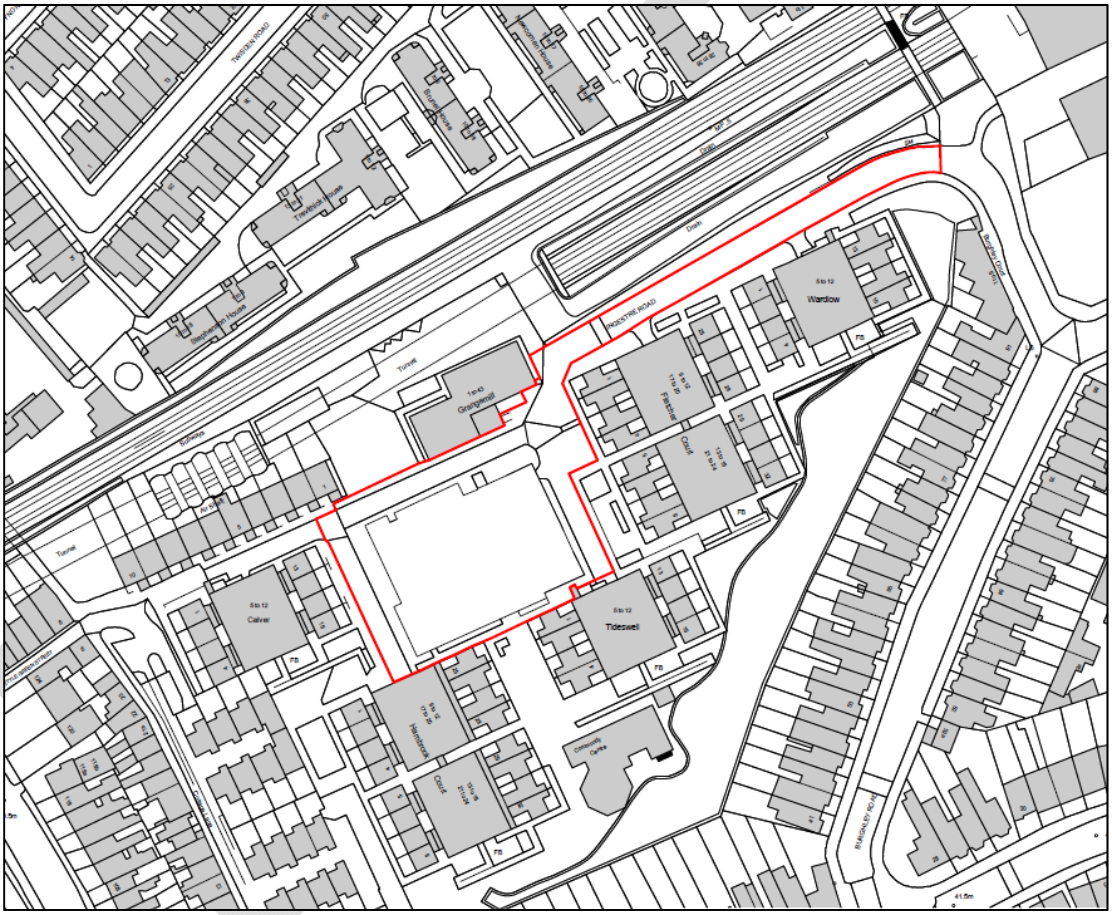


Figure 2.1: Site Location Plan

Site Description

2.3 The site is approximately 0.18 hectares in area and comprises a part two, part three-storey building, originally built as an elderly person's home. The building comprises four wings arranged around a central courtyard.

2.4 The surrounding Ingestre Road estate comprises a mid-20th century residential development with a community centre and nursery. The estate comprises flat-roofed buildings from two to five storeys in height with undercroft vehicle access leading to resident garages. The building to the north is Grangemill, a nine-storey residential building beyond which lies the North London Line viaduct. Little Green Street is a narrow single carriageway road flanked with Victorian dwellings on both sides with access from Little Green Street into Ingestre Road restricted to emergency vehicles only.

3.0 ROLES & RESPONSIBILITIES

Construction Team

3.1 The Principal Contractor, and associated roles, has not yet been appointed owing to the status of the scheme's design. The development team is committed to making these appointments as soon as practicable before or after the planning consent for the project is gained.

3.2 The team propose to utilise a standard team structure which is representative of those used on previous developments elsewhere in Greater London. This structure is flexible and will be configured relevant to the form of contracts used.

3.3 The changes to the Construction (Design & Management) Regulations which came into effect in 2015 are noted. The team have confirmed that the appropriate Regulations' requirements, roles and responsibilities will be followed.

3.4 It should be noted that some of the elements of this generic structure may be adopted or reflected in the final contractual arrangements; however, in following the CDM Regulations then some or all of the positions will be applicable. The following roles are established here together with brief overviews of the responsibilities consistent with this SWMP.

Key Responsibilities

3.5 Key project team members will be covered in the relevant Construction Phase Quality Plan. The following key roles are relevant to the delivery of the SWMP and are presented here:

- Site Engineer / Site Manager;
- Construction Environmental Manager (CEM).

3.6 The Site Engineer / Site Manager will be responsible for ensuring the SWMP is followed, including all relevant procedures. The environmental competency of the contractors will also form part of their responsibility.

3.7 In fulfilling these duties the Engineer / Manager will ensure that appropriate plans, licenses, certificates are in place to deliver and meet the legal and contractual requirements associated with the SWMP.

3.8 The Construction Environmental Manager (CEM) will report to the Site Engineer / Site Manager and have more specific duties relating to the following aspects:

- Monitor training records and ensure contractors' environmental training is up to date;
- Ensure third-parties (public, interested parties, residents etc.) including statutory bodies are kept up to date as required;

- Monitoring of work by others with regard to environmental requirements;
- Assisting the Engineer / Manager in the discharge of duties including the development, adherence and maintenance of the relevant policies and procedures;
- Ensure contractor's quality management systems, and procedures, are up to date and checked through regular audits;
- The Principal Contractor will be required to set up regular procedures for regular monitoring and reporting – to liaise with the CEM and Engineer;
- Review potential instructions for contractors to ensure that the environmental implications are not adverse;
- Deal with any environmental incidents on site to ensure that appropriate measures have been taken to clean up, report and review to ensure that another similar incident does not occur; and
- Report on the above to the Engineer and keep appropriate records.

Training

3.9 Training will be required to ensure all contactors (and sub-contractors) are suitably trained in order to demonstrate their competence in discharging their duties. This will be the responsibility of the CEM.

3.10 The training regime requirements are in addition to those required as part of the Site Health and Safety Plan and the Site Code of Construction Practice (see the Appendices for a sample training log).

Environmental Induction

3.11 An environmental induction will comprise part of the overall site induction process. Within the induction, there will be specific emphasis on environmental constraints, requirements, reporting and controls linked to the operation of the development's construction.

3.12 Opportunities for expanding specific day-to-day operational issues will also be sought – this will include the mechanisms for delivering the SWMP requirements. This will also extend to Toolbox Talks and Method Statement presentations.

3.13 The CEM will maintain the record of all staff's attendance at induction, toolbox talks and method statement briefings; all staff training details will be kept on site.

4.0 WASTE MANAGEMENT

4.1 In line with Article 4 of EU Directive 2008/98/EC, the standard hierarchy of waste management will be followed:

- Prevention;
- Preparing for re-use;
- Recycling;
- Other recovery, e.g. energy recovery; and
- Disposal.

Prevention

4.2 Many current construction projects seek to include a Lean Construction policy for the site. It is proposed that this will be maintained for this site. In order to benefit local traffic conditions, as well as environmental matters, the minimum amount of material will be stockpiled on site. This will be supported by a just-in-time delivery programme for goods and a just-in-time removal programme for waste.

4.3 Once the detailed design is underway, and the Principal Contractor is appointed, the relevant Bills of Quantity will be developed and maintained. These will be used to directly inform the quantities of waste expected and if possible what alternative fabrication, delivery, construction and demolition techniques could be used to minimise waste production.

4.4 The WRAP SmartWaste estimator (or equivalent) will be used to track the quantities and hence effectiveness of the operational SWMP. This, or similar tool, will enable accurate forecasting of requirements and ordering of materials.

Preparing for Re-Use

4.5 Opportunities for on-site re-use/re-purposing of materials will be sought wherever practicable. It is acknowledged that there will be limitations on re-use of materials given the type and age of the existing buildings on site currently.

4.6 Where on site re-use is not practicable, opportunities for recycling will be sought ahead of the possibility of disposal. As part of this assessment on-site and as part of the demolition then construction phases it is proposed that, subject to space constraints, waste will be segregated to facilitate onward movement whether for re-use, recycling or disposal.

4.7 The storage will use clearly marked, accessible, containers (including skips) which will be secured against the potential for leakage, and will be sited away from drains or watercourses etc. The appropriate licenses for recycling contractors will be required (responsibility of the CEM) and should be available for inspection at any time.

4.8 The site will be kept secure, ad-hoc waste or that tipped by the public (or others), will not be permitted.

Disposal

4.9 At no time will the dumping of waste be permitted, both on and off site. Where disposal is the only option, it will be to the appropriate and licensed premises identified through the operational SWMP.

4.10 All waste will be collected and disposed of by a registered licensed contractor to a licensed site suitable for the type of waste, and the appropriate records maintained.

4.11 Burning of surplus material or material arising from the site will not be permitted within the site.

4.12 Where possible green waste will be given future uses, for example biomass fuel or compost. Green waste could be processed into biomass pellets or compost or wood chippings for garden usage.

Contaminated & Hazardous Wastes

4.13 The management of possible sources of hazardous waste will be in accordance with the current statutory requirements, guidance and best practice, taking care to ensure the health and wellbeing of site staff, local residents/business occupiers etc.

4.14 Hazardous waste will be stored separately and labelled accordingly. Where possible it will be removed off-site to secure facilities.

4.15 There is a residual risk (to be managed through the Principal Contractor's procedures) that contaminated wastes may be generated as part of the strip-out, demolition and/or construction.

4.16 Swift action will be required by all relevant parties in raising the issues, in addition to treating and refining procedures to ensure the risk of repeat incidents is removed.

4.17 Contaminated waste is proposed to be removed off-site for remediation or possible disposal as the appropriate facilities.

Ground Works

4.18 The extent and nature of the groundworks is understood and will comprise the excavation of the basement and any arisings from foundation and service installations. Currently, it is anticipated that a small percentage of the disturbed material may be impacted by

contamination due to the previous uses of the site (see Site Investigation results in Basement Impact Assessment report).

4.19 Should any unforeseen contaminated land be encountered the CEM will be informed who will liaise with the Environment Agency and an appropriate member of the project team who will advise on assessment, analysis and potentially disposal. If contaminated land is encountered the excavation will stop in order to reduce the risk of mobilising the contaminants.

4.20 Should off-site disposal be required the contaminated material will be characterised on the transfer note according to the European Waste Catalogue and will be collected and disposed of by a registered licensed contractor.

4.21 The contaminated materials will either be, subject to the materials' nature:

- Remediated on site;
- Transported off site for remediation; or
- Transported for disposal at an appropriately licensed facility.

5.0 WASTE ARISINGS

Construction Programme

5.1 The Construction Programme must be kept updated and the updates must be referred to in the SWMP. It is noted that this will be a live document reflecting the changes that will occur owing to the increased level of detail that will be available as the design progress and the demolition/construction phases get underway.

5.2 The Principal Contractor will also be expected to update the SWMP as a result of their professional knowledge and experience. This, with the programme, will be reported back to the CEM and Site Engineer / Site Manager in line with their responsibilities for the respective discussion and approval.

5.3 The programme should demonstrate how the requirements of the SWMP have been considered, planned and programmed. The CEM and Site Engineer / Site Manager will ensure that the agreed updates to the documents are circulated to all relevant parties. Specific programme details are not currently finalised however the key phases will include:

Preliminaries

- Establishment of site works and site compound;
- Establishment of routes for vehicle movements and material transportation;
- Import/export of materials and waste products by road transport;
- Storage of raw materials; and
- Storage and use of a variety of chemical substances including: cement and concrete; fuels, oils and lubricants; other chemicals such as detergents and cleaning fluids.

Demolition and Groundworks

- Commencement of demolition works;
- Removal of internal fittings;
- Removal of roof structure;
- Demolition of walls;
- Removal of existing foundations;
- Form supports for basement excavation;
- Excavation of basement area;
- Excavation of new foundations;
- Excavation of service runs; and
- Installation of main service supplies.

New Construction

- Construction of new foundations;
- Construction of new paved areas to sub-base level;
- Construction of new walls;
- Installation of new roofs,
- Installation of external doors and windows;
- Internal fitting out; and
- Hand over dates.

5.4 Reporting back to the CEM and Site Manager / Site Engineer, the Principal Contractor (including sub-contractors) will be required to ensure that adequate information is provided demonstrating compliance with the SWMP – this must be provided and agreed before work starts. All records pertaining to this will be the responsibility of the CEM and held on site.

5.5 In the event of any conflicts between the SWMP and current contractual and legal obligations the Contractor will inform the Site Manager / Site Engineer at the earliest opportunity. This will also be addressed in the appropriate conditions of contract in use on the Contract.

5.6 The SWMP and its requirements will also be used to inform the tender phase – the requirements and framework will be made available to prospective tenderers as early as possible.

Waste Types

5.7 The previous sections summarised an overview of the broad waste types. The sections below present more details.

5.8 The broad categories dividing waste according to their substantial or potential threat to public health or the environment are:

- Inert;
- Non-Hazardous;
- Stable non-reactive hazardous; and
- Hazardous.

5.9 An initial schedule of existing materials is presented in Table 5.1 below. This will be completed to ensure coverage of all requirements and material types on the site both existing and new.

Demolition	Details
Concrete structure	
External brick walls	
Roofing	
Timber windows	
Lead flashings	**TO BE COMPLETED (CONSTRUCTION STAGE)**
Timber studs	
Plasterboard	
New Build	
Concrete ground floor slab	
External brick walls	
External rendered walls	
Internal timber stud walls	
Plasterboard	
Roofing	

Table 5.1: Summary Material Schedule

5.10 The European Waste Codes (as summarised by UK government) are set out below (asterisk "*" denotes hazardous material).

Insulation and asbestos materials

- Insulation containing asbestos *Hazardous* 17-06-01*
- Other insulation containing dangerous substances *Hazardous* 17-06-03*
- Other insulation materials *Non-hazardous* 17-06-04
- Other construction materials containing asbestos *Hazardous* 17-06-05*

Concrete, bricks, tiles and ceramics

- Concrete *Non-hazardous* 17-01-01
- Bricks *Non-hazardous* 17-01-02
- Tiles and ceramics *Non-hazardous* 17-01-03
- Concrete, bricks, tiles and ceramics (alone or in mixtures) containing dangerous substances *Hazardous* 17-01-06*
- Concrete, bricks, tiles and ceramics in mixtures, containing no dangerous substances *Non-hazardous* 17-01-07

Wood, glass and plastic		
• Wood – untreated	*Non-hazardous*	17-02-01
• Glass - uncontaminated	*Non-hazardous*	17-02-02
• Plastic - excludes packaging waste	*Non-hazardous*	17-02-03
• Treated wood, glass, plastic (alone or in mixtures) containing dangerous substances	*Hazardous*	17-02-04*
Bituminous mixtures, coal tar and tar		
• Bituminous mixtures containing coal tar	*Hazardous*	17-03-01*
• Other bituminous mixtures	*Non-hazardous*	17-03-02
• Coal tar and tarred products	*Hazardous*	17-03-03*
Metallic waste, including cable		
• Copper, bronze and brass	*Non-hazardous*	17-04-01
• Aluminium	*Non-hazardous*	17-04-02
• Lead	*Non-hazardous*	17-04-03
• Iron and steel	*Non-hazardous*	17-04-05
• Tin	*Non-hazardous*	17-04-06
• Mixed metals	*Non-hazardous*	17-04-07
• Metals containing dangerous substances	*Hazardous*	17-04-09*
• Cables containing oil, coal tar and other dangerous substances	*Hazardous*	17-04-10*
• Other cables	*Non-hazardous*	17-04-11
Soil, contaminated soil, stones and dredging spoil		
• Soil and stones containing dangerous substances	*Hazardous*	17-05-03*
• Other soil and stones	*Non-hazardous*	17-05-04
• Dredging spoil containing dangerous substances	*Hazardous*	17-05-05*
• Other dredging spoil	*Non-hazardous*	17-05-06
Gypsum		
• Gypsum materials containing hazardous materials	Hazardous	17-08-01*
• Other gypsum materials	*Non-hazardous*	17-08-02
Cement		
• Un-used or un-set cement	*Hazardous*	17-09-03*

Paints and varnishes		
• Containing organic solvents or other dangerous substances	*Hazardous*	08-01-11* (20-01-27*)
• Not containing organic solvents or other dangerous substances	*Non-hazardous*	08-01-12 (20-01-28)
• Paint or varnish remover	*Hazardous*	08-01-21*
• Paint cans	*Hazardous*	*Refer to packaging waste and recyclables section*
Adhesives and sealants		
• Containing organic solvents or other dangerous substances	*Hazardous*	08-04-09* (20-01-27*)
• Not containing organic solvents or other dangerous substances	*Non-hazardous*	08-04-10 (20-01-28)
• Adhesive or sealant containers	*Hazardous*	*Refer to packaging waste and recyclables section*

Waste Volumes

5.11 As indicated previously the specific detailed design matters have not yet been finalised for this development so waste volumes are not known at this time. The SWMP will be updated as progress through design is made to ensure that appropriate assessments and requirements are delivered at the right stages through the process.

Site Waste Management Plan (SWMP)

5.12 The types of waste to be generated from each construction stage will be identified in the SWMP data sheet. The SmartWaste tracker (or equivalent) will be used.

5.13 The Plan is a useful planning tool to record the types of waste and estimate the volumes that will be generated from all stages of the work programme. It will also identify those materials that could potentially be re-used or recycled and suggested market outlets. Targets can then be set for different material types based on the predictions of the Plan (i.e. % of a material to be re-used on site).

5.14 As the construction programme progresses, the Plan will be developed. The Principal Contractor will be responsible for updates with each movement of waste to/from the site:

- The identity of the person removing the waste (name, company etc.);
- The registration number of the waste carrier;
- A copy or reference to the written description of the waste; and
- Details of the site where the waste is taken to and whether it holds a permit or is exempt.

5.15 The Data Sheet also includes a provision to record:

- The types and quantities of waste produced; and
- The types and quantities of waste that have been re-used / recycled / recovered landfilled or otherwise disposed of on or off site.

5.16 These details will form part of a review of the SWMP to be undertaken every 6 months (as a minimum) by the Principal Contractor and the Applicant. Where necessary a further plan will be produced to accommodate any changes in order to reflect the progress of the project and of meeting the SWMP targets.

6.0 WASTE MANAGEMENT CONTRACTORS & FACILITIES

Recycling

6.1 As presented above, the Principal Contractor will be required to only dispose of material where it cannot be prevented, re-used, recycled or recovered in another form.

6.2 Once appointed the Principal Contractor will be required to identify waste recycling and disposal facilities and insert them into the SWMP with details of the facility licences and options.

Final Disposal

6.3 This section identifies the type and location of waste disposal facilities existing in the vicinity of the site. As the development goes forward the type and location of waste disposal facilities existing in the vicinity of the site will be identified.

6.4 Consistent with the waste management hierarchy the Contractor will only dispose of materials where they cannot be eliminated or recycled.

6.5 Where disposal is the only option, the contractor will look to minimise the environmental impacts by selecting the closest and most appropriate facilities in the area.

6.6 The CEM will be responsible for ensuring sites, contact details and accounts are current for the development's construction phase.

6.7 This function will be extended for the purposes of contingency planning, whereby alternative sites to main sites will be identified.

6.8 Only appropriately qualified and licensed contractors, with suitable experience shall be used as a requirement of this SWMP.

7.0 AUDITING, REPORTING & EVALUATION

Site Inspection

7.1 The site will be inspected on a regular, ongoing, basis by the Principal Contractor in discharging their duties. Inspections must be in line with the current version of the updated SWMP (and construction programme).

7.2 Where not inspected by the Site Manager / Site Engineer or CEM, it must be through an appointed person, designated and trained to be confirmed by the Site Manager / Site Engineer and CEM.

7.3 As considered elsewhere, it is also proposed to undertake Stop Shift audits with sub-contractors to make certain the SWMP requirements are being met.

Internal Inspection

7.4 Monthly inspections shall be undertaken by the CEM and Principal Contractor. In line with good Health & Safety practice, any issues, non-conformities and associated remedial actions will be raised within routine Construction Team meetings. Actions will be allocated to designated individuals with specific timescales to successfully resolve them.

7.5 The SWMP will be monitored and the overall site staff's performance with regard to the SWMP will be reported back to the Engineer by the CEM. Performance will be measured against adherence to forecasted figures, deviation from planned figures/volumes of waste and how it has been managed. The monitoring results will be reported in line with the site Quality Management System.

7.6 The Principal Contractor and CEM will be responsible for the site's audit schedule. This will correspond with the construction programme and the site QMS which will be established by the main contractor. On updating the construction programme, the Principal Contractor will also update the audit schedule.

7.7 Audit checklists should be developed and updated and refined by the CEM and the main contractor regularly to consider the changing nature of the construction programme and inputs from corrective actions logs originating from non-conformance reports.

7.8 If a non-conformance is discovered during an audit or otherwise reported an Environmental Non-Conformance Report Form (ENCR) shall be completed and corrective actions shall be devised. The recommended corrective actions, and progress against agreed timescales, will be recorded in the Corrective Actions Log, maintained by the CEM.

7.9 Corrective actions should be ranked commensurate to the risk. On occasions where legal compliance is an issue or environmental pollution is imminent then the corrective actions should be implemented as soon as possible.

7.10 The Site Manager / Site Engineer shall have precedent on the time between ranking and implementation; the CEM should advise the Site Manager / Site Engineer on all SWMP issues enabling the Site Manager / Site Engineer to act accordingly, taking into account all issues associated with the corrective action.

7.11 Lessons learned from each construction phase will be extended into subsequent phases of the programme. This evaluation process of performance will enable continued compliance with this SWMP, with legislation and the Applicants commitment towards environmental performance and sustainability.

Monitoring and Reporting

7.12 Appropriate Duty of Care paper work will be retained on site, volumes (m^3 or tonnes) and wastes types will be recorded for all wastes sent for reprocessing, recycling, or disposal.

7.13 The CEM shall complete the SWMP. A SWMP Close Out report shall be compiled by the CEM at the end of the construction process that summarises performance of the SWMP.

8.0 DISCLAIMER

8.1 Create Consulting disclaims any responsibility to the Client and others in respect of any matters outside the scope of this report.

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