Construction Management Plan

pro forma v2.1

Planning Permission: **2015/3136/P**
Permission date: **22 June 2016**
Site address: **1 Ardwick Road, London NW2 2BX**
Developer/Principal Contractor: **Globalhome Estates Limited**

Document prepared in accordance with definition of Construction Management Plan, paragraph 2.4 of S106 Agreement dated 22/06/2016.

Rev D. 07.07.2017

GLOBALHOME ESTATES

Camden

Contents

Revisions & additional material

Please list all iterations here:

Date	Version	Produced by
06/10/2016	A	Vassilis Zavitsanos
17/01/2017	B	Vassilis Zavitsanos
17/04/2017	C	Vassilis Zavitsanos

Additional sheets

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

Date	Version	Produced by

Introduction

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.

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

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.

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

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.

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.

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

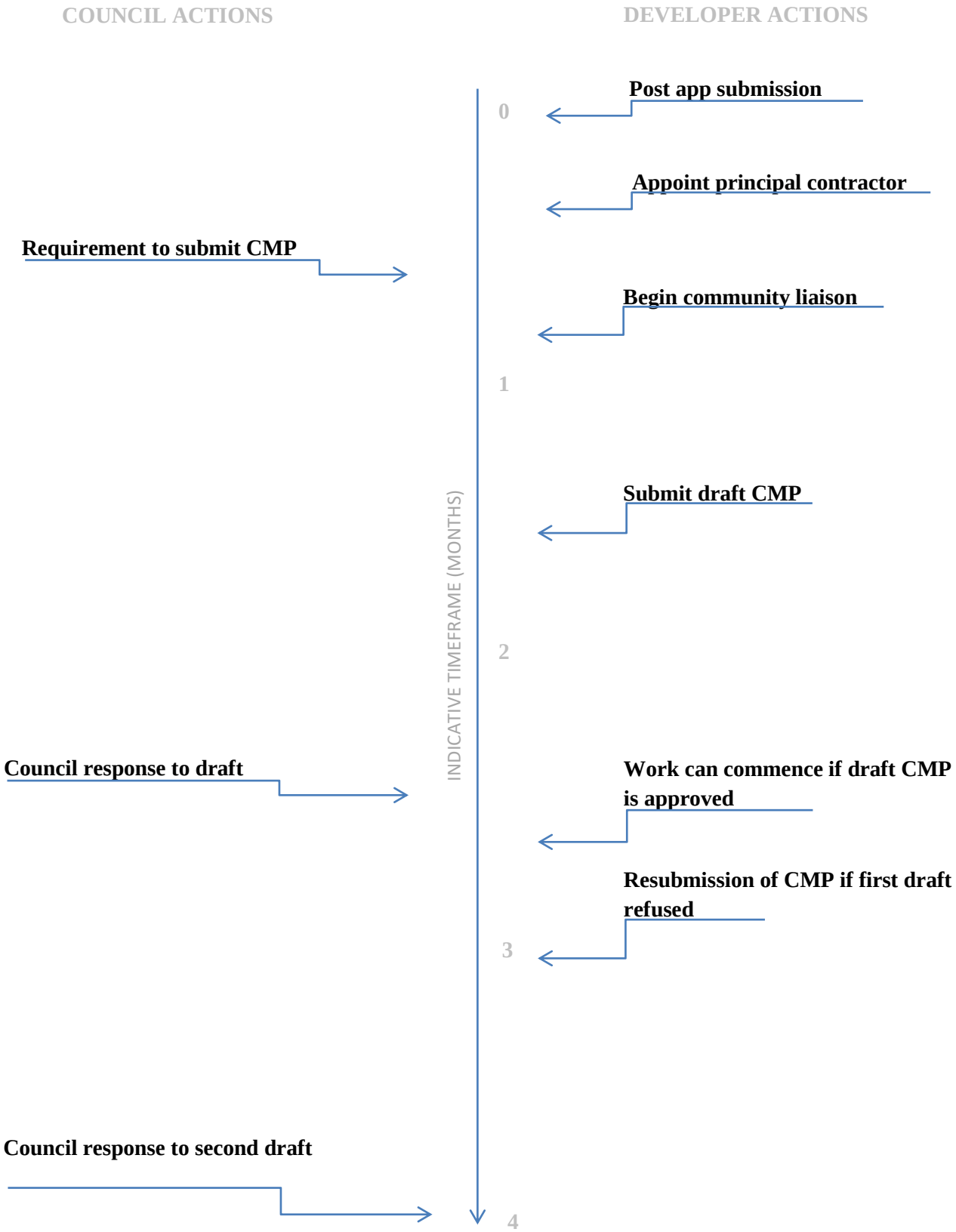
Please complete the questions below with additional sheets, drawings and plans as required. The boxes will expand to accommodate the information provided, so please provide as much information as is necessary. **It is preferable if this document, and all additional documents, are completed electronically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

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.**

(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.)

Revisions to this document may take place periodically.

Timeframe


COUNCIL ACTIONS
DEVELOPER ACTIONS
Post app submission
0
Appoint principal contractor
Requirement to submit CMP
Begin community liaison
1
Submit draft CMP
INDICATIVE TIMEFRAME (MONTHS)
2
Council response to draft
Work can commence if draft CMP is approved
Resubmission of CMP if first draft refused
3
Council response to second draft
4

Contact

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

Address: 1 Ardwick Road, NW2 2BX
Planning ref: 2015/3136/P
Type of CMP: Section 106 planning obligation

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

Name: Mr Vassilis Zavitsanos
Address: Flat 5, 27 Fitzjohns Avenue
Email: b.zavitsanos@gmail.com
Phone: 02074317298

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: Mr Martin Jenkinson
Address: Flat 5, 27 Fitzjohns Avenue
Email: martin@globalhomeestates.co.uk
Phone: 02074317298

Mr Martin Jenkinson is a chartered surveyor and member of the developer's senior management team, with 25 years of construction experience in real estate development in prime London. He has full authority to deal with any complaints from local residents and businesses and resolve any and all issues on site.

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: Mr Martin Jenkinson
Address: Flat 5, 27 Fitzjohns Avenue
Email: martin@globalhomeestates.co.uk
Phone: 02074317298

Mr Martin Jenkinson is a chartered surveyor and member of the developer's senior management team, with 25 years of construction experience in real estate development in prime London. He has full authority to deal with any complaints from local residents and businesses and resolve any and all issues on site.

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: Ms Christiana Tsentas
Address: Flat 5, 27 Fitzjohns Avenue
Email: contact@globalhomeestates.co.uk
Phone: 02074317298

Site

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

For a scaled site plan, please refer to Appendix A, drawing CMP/Q06.

The site is located on the corner of Ardwick Road and Fortune Green Road with pedestrian and vehicular access on Fortune Green Road and separate pedestrian access on Ardwick Road. The site is fully enclosed on all sides with perimeter and party walls of at least 1.7m in height. No hoarding will be required on public highway or pedestrian pathway. The surrounding area includes major roads such as A41 Finchley Road and B510 Fortune Green Road with mixed commercial/residential use. Ardwick Road includes mainly residential users.

7. 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 proposed development is minor in nature and includes the conversion of a single family dwelling house into eight self-contained flats with extension of existing lower ground floor and rear extensions at lower ground floor, first floor and second floor along with roof alterations including additional rooflights and 2 side dormers following removal of an upper ground floor rear conservatory.

The site benefits from existing vehicular access and egress arrangements and immediate access to major road network. Access to and egress from the site will be appropriately managed, clearly marked, understood and clear of obstacles. Given the minor nature of proposed works, no problems or challenges are anticipated throughout the duration of the proposed works.

8. 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.).

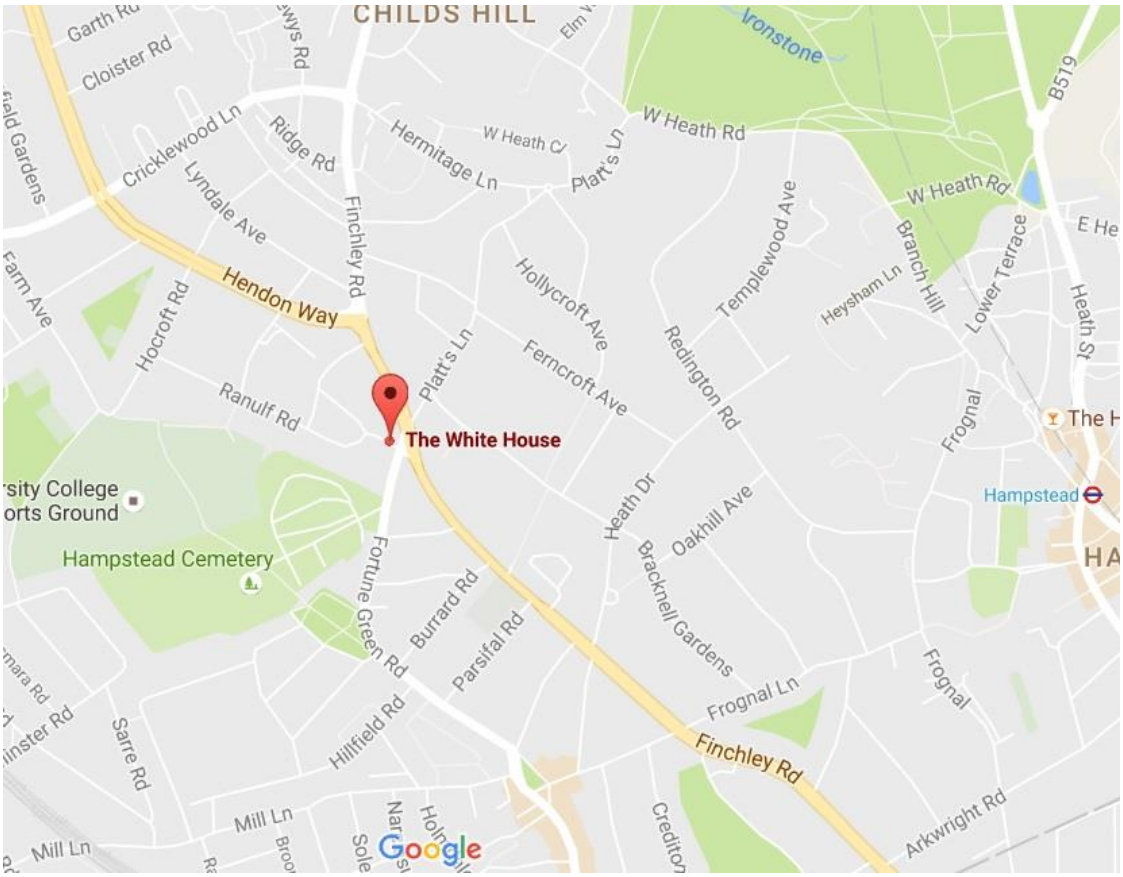
Nearest potential receptors are:

- 3 Ardwick Road, with which the building site shares a Party Wall
- 79 Fortune Green Road
- 2 Ardwick Road

Given the limited scope of works, it is anticipated that any impact or other properties will be limited. Most activities will take place within the existing building envelope and any noise and dust emissions will be contained and limited.

9. 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.

Local highway network includes A41 Finchley Road and B510 Fortune Green Road. Details of on-street parking bay locations and footway extents are shown on drawing CMP/Q09 in Appendix A. Proposed site access locations are marked on drawing CMP/Q06 also in Appendix A.



10. 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).

Works are expected to start on site in early November provided all the relevant documentation and agreements are in place. Schedule of works is as follows:

1. Mobilization and enabling works: Week 0 to week 5 (Duration 6 weeks)
2. Underpinning of existing walls and lower ground floor extension: Week 6 to Week 40 (Duration 35 weeks)
3. Conversion to 8no flats: Week 41 to Week 54 (Duration 14 weeks)
4. 1st fix: Week 55 to Week 62 (Duration 8 weeks)
5. Decoration: Week 63 to Week 70 (Duration 8 weeks)
6. Fittings and Furniture: Week 70 to Week 78 (Duration 9 weeks)

Programme of works and Gantt chart are available in Appendix A.

11. 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

Site operation will take place only within standard working hours:

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

12. 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 new connections will be required for the proposed works.

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 grant 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.

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.

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.

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

Sites located within high concentrations of construction activity that will attract large numbers of vehicle movements should consider establishing contact with other sites in the vicinity in order to manage traffic routeing and volumes. Developers in the Tottenham Court Road area have done this to great effect.

The Council can advise on this if necessary.

13. Consultation

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**.

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

In response to the comments received, the CMP should then be amended where appropriate and, where not appropriate, a reason should be 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.

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

Copies of the draft CMP have been provided to 3 Ardwick Road, 79 Fortune Green Road, 2 Ardwick Road and other adjoining properties for their consideration and feedback. For a copy of the accompanying letter please refer to Appendix A.

14. Construction Working Group

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 is not required given the scale and duration of the permitted works however the developer remains committed to addressing the concerns of the community affected by the works. Contact details of the construction project manager will displayed on the hoarding/wall of the property. The community will be updated on progress and upcoming works in the form of a monthly letter drop/email and monthly drop-in sessions for residents.

15. Schemes

Please provide details of any schemes such as the 'Considerate Constructors Scheme', such details should form part of the consultation and be notified to the Council. Contractors will also be required to follow the "Guide for Contractors Working in Camden" also referred to as "Camden's Considerate Contractors Manual".

The development is registered with the Considerate Constructors Scheme with site registration number **ID 57942.**

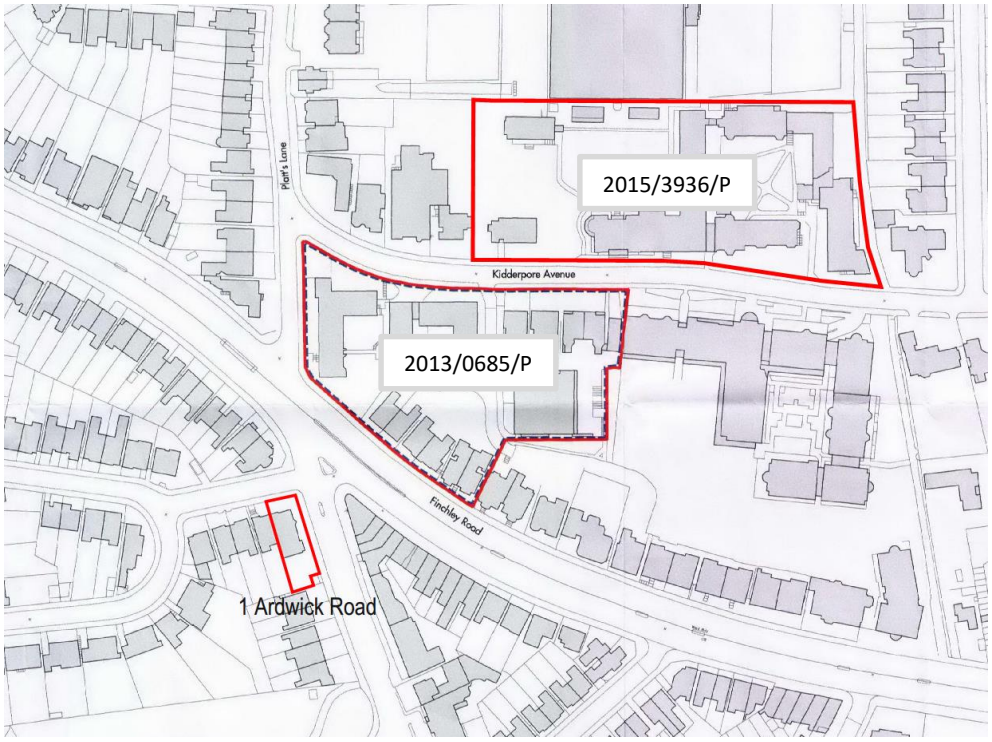
16. Neighbouring sites

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.

We are not aware of other existing or anticipated construction sites South West of A41 Finchley Road.

We understand that two development schemes are currently under way and nearing completion North East of A41 Finchley:

- *2015/3936/P - King's College London Hampstead Residence, Kidderpore Avenue, NW3 7SU - Development of the site to provide 156 residential units.*
  The development is East of A41 Finchley Road and access to the site is through Platt's Lane. 1 Ardwick Road is a development of much smaller scale and does not share access arrangements via minor roads.
- *2013/0685/P - Redevelopment of the site to create 128 residential units.*
  The development is East of A41 Finchley Road is carried out in phases and expected to be completed in early 2018.



1 Ardwick Road is a minor scheme involving the extension of existing lower floor and internal refurbishment of the existing building.

Vehicle movements to and from site will be no more than 4nos during ground works and no more than 1no for the remainder of the development works. As demonstrated with the noise assessment, the proposed works are not expected to have an impact to immediate receptors.

It is not expected that there will be cumulative impacts from the proposed development.

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.

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.

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.

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.

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 Considerations

17. Name of Principal contractor:

Globalhome Estates Limited
Flat 5, 27 Fitzjohns Avenue
London, NW3 5JY

18. 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 in the appendix and CLOCS Standard point 3.4.7).

Contracts

FORS Bronze accreditation as a minimum will be a contractual requirement, FORS Silver or Gold operators will be appointed where possible. Where FORS Bronze operators are appointed, written assurance will be sought from contractors that all vehicles over 3.5t are equipped with additional safety equipment (as per CLOCS Standard P13), and that all drivers servicing the site will have undertaken approved additional training (eg. Safe Urban Driving + 1 x e-learning module OR Work Related Road Risk Vulnerable Road User training + on-cycle hazard awareness course + 1 x e-learning module etc.). CLOCS Compliance will be included as a contractual requirement.

Desktop checks

Desktop checks will be made against the FORS database of trained drivers and accredited companies as outlined in the CLOCS Standard Managing Supplier Compliance guide. These will be carried out as per a risk scale based on that outlined in the CLOCS Managing Supplier Compliance guide.

Site checks

Checks of FORS ID numbers will form part of the periodic checks and will be carried out as per an appropriate risk scale.

Random spot checks will be carried out by site staff on vehicles and drivers servicing the site at a frequency based on the aforementioned risk scale. These will include evidence of further training, license checks, evidence of routing information, and checks of vehicle safety equipment. Results from these checks will be logged and retained, and enforced upon accordingly.

19. 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.

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

We confirm that the requirement to abide by the CLOCS Standard will be included in our contracts to our contractors and suppliers.

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

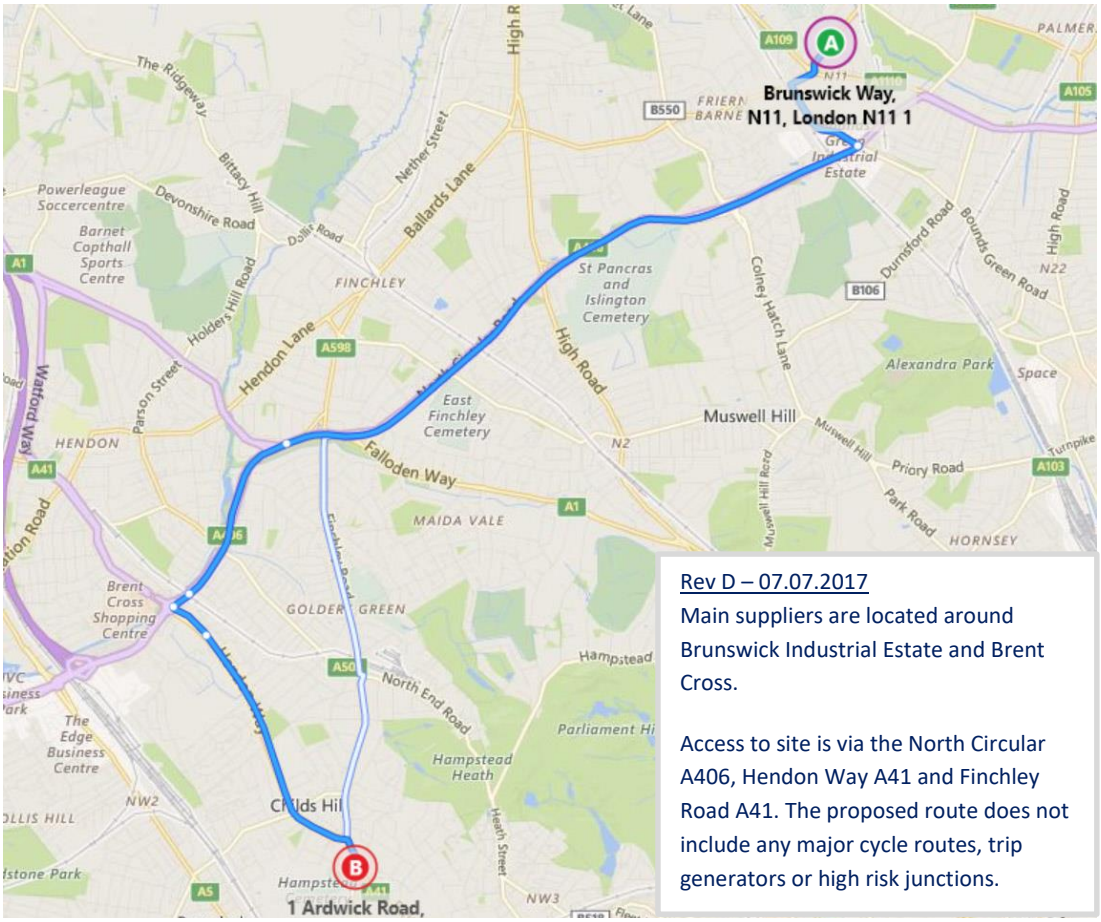
Site Traffic

20. 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)

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.

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 links to the Transport for London Road Network (TLRN).



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.

Contractors, suppliers and delivery companies will be given copies of the site access map. Instructions will be given asking the vehicle driver to call ahead to ensure that the site is ready to receive a vehicle. In addition, verbal briefings of the access route will be provided to all suppliers, contractors and visitors prior to them undertaking a journey. Visitors will be given briefings in relation to the route to site.

Copies of the CMP and access information can be emailed on request.

21. 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)

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*).

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.

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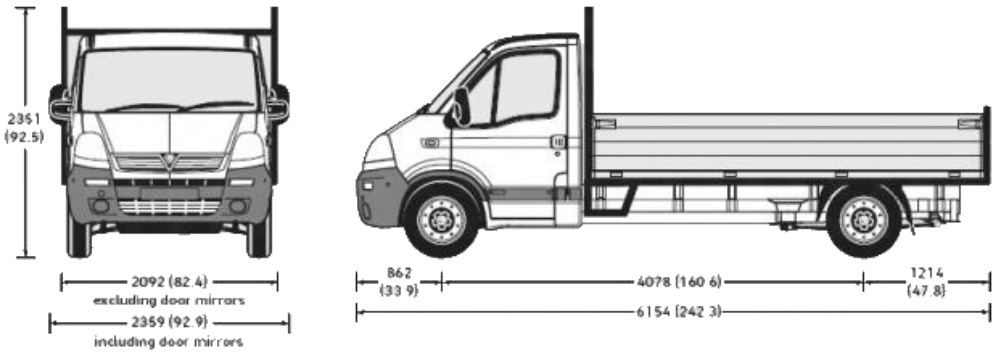
- To ensure that no vehicles throughout the construction period will not be required to reverse for egress from the site, only small lorries will be used for removal of spoil during extension works to the existing basement and for deliveries to site.
- The number of lorries during ground works will increase to 3no/per day, from 1no/per day originally. Vehicles will access the site between the hours of 9.30am and 2pm.
- Works sequence will allow the designated loading/unloading area to be used for the duration of works.
- Revised swept path analysis (SPA) for 6.1m small lorry indicates that vehicles is not required to reverse for egress from the site.

Small lorries will be used to move spoil during underpinning and lower ground floor extension: Small lorry 6.2m (L) 2.1m (W) 2.4m (H); 3 visit per day; 10 minutes maximum dwell time.



Deliveries for the duration of the development: Small lorry 6m (L) 2.4m (W) 2.2m (H); 2 visits per day; 10 minutes maximum dwell time

For Swept Path Analysis please refer to Appendix A.

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On completion of ground works, no vehicles will be allowed to enter the site. Building materials will be delivered on Ardwick Road using small lorries and carried to site by hand. It is estimated that one delivery will be made per day between the hours of 9.30am and 12pm.

It is not envisaged that a parking suspension will be required for deliveries, but parking suspension for one bay will be sought if necessary.

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

We are not aware of other developments in the site vicinity.

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.

A time slot is agreed with each supplier/contractor on the day before to avoid more than one vehicles attending on site. Suppliers who do not adhere to this requirement will be dropped.

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.

(Rev C) Approx 3no small lorries will access the site per day during ground works for small removal and 1no small for the duration of the development for deliveries to site. An off-site holding area will not be required based on the the scale and duration of the permitted works.

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).

Spoil disposal and materials' deliveries will be organized with efficiency and grouped in order to minimize vehicles on site per day.

22. 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)

Vehicles entering and leaving the site should be carefully managed, using gates that are clearly marked and free from obstacles. Traffic Marshalls must ensure the safe passage of pedestrians, cyclists and other traffic when vehicles are entering and leaving site, particularly if reversing.

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

Access to and egress from site is through the existing vehicular entrance on Fortune Green Road during ground works phase. No temporary arrangements are deemed necessary at this stage. For the remainder of the works, a small lorry will make deliveries on Ardwick Road and materials will be taken to site by hand.

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

Qualified banksmen will be provided at all times when vehicles are manoeuvring in and out of the site. Trained site staff will assist when delivery vehicles are accessing the site. Banksmen will assist with safe passage of pedestrians and vehicular traffic in the street when vehicles are accessing or egressing from the site.

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).

(Rev C) Vehicles will use the existing vehicular gate. No tight manoeuvres applicable.

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.

(Rev C) Vehicles will remain on hard standing surfaces to minimize any run-off. Hard surface mats will be used where necessary to facilitate vehicle movements on site. Wash washing facilities will be available near the site access to be used when required.

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

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.

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.

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Small vehicles will be used for spoil removal and deliveries to site. Vehicles will be loaded and unloaded on-site. Following ground works completion, a small lorry deliver on Ardwick Road and materials will be taken to site by hand.

Traffic Marshalls will ensure the safe passage of pedestrians, cyclists and motor traffic in the street when vehicles are being loaded or unloaded.

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.

- **24. Parking bay suspensions and temporary traffic orders**

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.

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.**

Information regarding parking suspensions can be found here.

It is envisaged that no parking suspensions will be required for the approved works. If one is needed on completion of ground works, an application will be made to the Council.

25. Scaled drawings of highway works

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).

No highway works are necessary to enable construction. The existing vehicular access on Fortune Green Road will be used for the approved works.

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

The adjoining public highway will be kept clean and free from obstructions. Lighting and signage will be used on site walls and entrances as required. Appropriate ramping will be provided in the event of cables, hoses, etc. are run across the footway.

26. Diversions

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).

No disruptions are anticipated to the public highway during the construction period.

27. VRU and pedestrian diversions, scaffolding and hoarding

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.

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.

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.

The site is enclosed with 1.8m perimeter brick walls. All points of access with have gates with locks.

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.

No temporary structures will overhang the public highway.

SYMBOL IS FOR INTERNAL USE

Environment

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

28. 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 site will operate between 08:00 until 18:00 Monday to Friday and 08:00 until 13:00 on Saturdays. No works will be carried out on Sundays and Bank Holidays. Contractors will be required to do everything reasonably possible (using best practical means) to ensure noise from works within these hours is kept to a minimum. This includes using well-maintained and silenced plant and equipment including compressors, generators and power tools.

Noisy operations include:

- Use of 1T mini digger and 1T mini dumper during the excavation for the extension of the existing basement.
- Use of Bosch electric breaker for removal of existing foundations and internal walls
- Use of other electric tools for general building work

29. 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.

The background noise survey was carried out by Acoustics Plus. For more information please refer to Appendix B. The site is located within a high ambient noise area with $LA_{eq,10hr}$ exceeding 65dB.

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

The site is adjacent to major road arteries such as Fortune Green Road B510 and Finchley Road A41 and in accordance with the ambient noise assessment by Acoustics Plus $LA_{eq,10hr}$ exceeds 65dB. Noise levels at the nearest sensitive façade should aim to be within a daily level of 75 dB (LAeq, 10hr) for airborne noise, and that first Action Level Trigger of 78 dB (LAeq, 5 minutes) should be used to ensure daily levels are within the 75dB (LAeq, 10hr) level.

31. 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.

- Fit-for-purpose temporary acoustic enclosures/screens with sufficient mass so as to be able to resist the passage of sound across the barrier and free of significant holes or gaps between or under any acoustic panels will be used to mitigate noise emissions where required.
- For regenerated structure borne noise, where required, the contractor will incorporate 2hr on/off respite periods to reduce impact to nearby sensitive receptors.
- So far as reasonably practicable all scaffolding will have monarflex coverage.

The first Action Level Trigger of 78 dB (LAeq, 5 minutes) will be used to ensure daily levels are within the 75dB (LAeq, 10hr) level. In case agreed noise limits are exceeded or in the event nuisance complaints being received the contractor will stop works and take measures to reduce the emitted noise within acceptable limits.

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

We can confirm that all managers involved in the project will be Site Management Safety Training Scheme (SMSTS) accredited and First Aid Trained. Sufficient training on BS 5228:2009 will be provided to Site Management staff.

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

The Dust Risk Assessment prepared for the approved works is available in Appendix C. The site is low risk during earthworks and construction phases. The Risk Assessment includes a list of Dust Mitigation measures to be adopted on site.

34. 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.

The site is low risk and is enclosed with 1.8m high perimeter brick walls. It is not expected that any significant amounts of dirt or dust will spread onto public highway. In any event, the public highway will be cleaned promptly whenever required.

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

Site manager or appointed staff will monitor daily the noise, vibration and dust levels and review operations if levels exceed reasonable levels.

Noise levels at the nearest sensitive façade will aim to be within a daily level of 75 dB $LA_{eq,\ 10hr}$ for airborne noise. First Action Level Trigger will set at 78 dB $LA_{eq,\ 5\ min}$ to ensure daily levels are within the 75dB $LA_{eq,\ 10hr}$ level.

For short term (hand held) noise monitoring :

- Noise measurements will be taken by site manager or appointed staff.
- At least once every two hours or more frequently if required.
- 5 minute measurements will be used to calculate $LA_{eq,\ 5\ min}$
- Site map with NMLs provided in Appendix A.
- Class 1 sound level meter is used

For unattended long term noise monitoring the contractor will ensure:

- Installation of two semi-permanent Class 1 sound level meters at appropriate site boundary locations, continuously monitoring a range of noise metrics, including LMax, LMin, LA_{eq}, LA_{90}, at 15 minute intervals.
- Provision of alerts via SMS or email when levels breach specified noise levels allowing site staff to undertake immediate investigation and take remedial action where necessary.
- Provision of weekly/monthly reports to the Council on request, detailing daily noise emissions, and listing and discussing of any noise level triggers by text alert and action taken.
- Site map of NMLs provided in Appendix A.

36. Please confirm that a Risk Assessment has been undertaken at planning application stage in line with the GLA's Control of Dust and Emissions Supplementary Planning Guidance (SPG), and the risk level that has been identified, with evidence. Please attach the risk assessment as an appendix if not completed at the planning application stage.

Risk Assessment is available in Appendix C.

The site and proposed works are of low risk with low or negligible potential impact.

37. 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.

Please refer to Air Quality (Dust) Assessment in Appendix C.

38. 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.

This is a low risk site. Not applicable.

39. 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).

Survey carried out by Rentokil found no evidence of rat infestation. See attached correspondence and copy of Rentokil report.

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

An asbestos survey was carried out by JM Environmental. The findings included the presence of asbestos cement boards, asbestos insulating boards and asbestos thermoplastic & bitumen adhesive. The recommendation was to have the above removed prior to the refurbishment works.
Asbestos removal works were carried out by Southern Asbestos Limited and the site was cleared for the refurbishment works.

41. 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 is a member of the Considerate Constructors Scheme and achieves high standards on all sites. All members of staff and subcontractors are inducted and made aware of site rules and procedures. All employees are expected to be polite and courteous to members of public.

42. 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:

Not applicable.

SYMBOL IS FOR INTERNAL USE

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: ……07/07/2017……..

Print Name: ……Vassilis Zavitsanos……..

Position: ……Development Manager……

Please submit to: planningobligations@camden.gov.uk

Appendix A

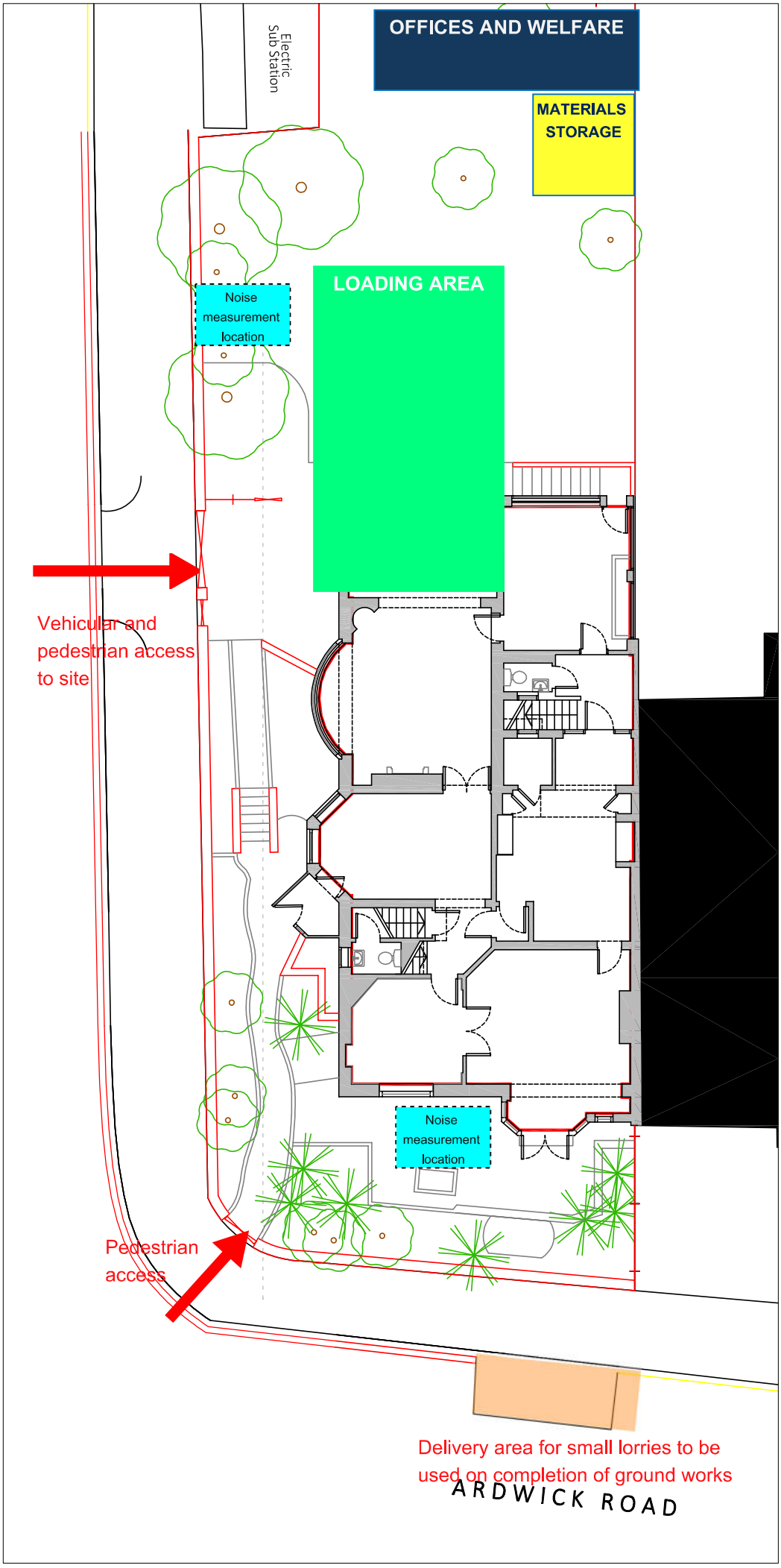
Drawing CMP/Q06 Existing site plan, 1:125 @ A3

Drawing CMP/Q09 Local highway network, 1:500 @ A3

Programme of approved works – Gantt chart

Swept Path Analysis for small lorry: Site access and egress

Consultation Letter sample to neighbours and other stakeholders



5 0 5

Scale: Metres 1: 100

N

rev A ISSUED FOR CMP

project

1 Ardwick Road
London
NW2 2BX

client

drawing

EXISTING
SITE PLAN

drawn	checked	date
VZ		06.10.2016
scale		paper size
1:125	@	A3

drawing no

CMP / Q06

GLOBALHOME ESTATES LIMITED

Flat 5, 27 Fitzjohns Avenue
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e: contact@globalhomeestates.co.uk
w: www.globalhomeestates.co.uk

5 0 5

Scale: Metres 1: 100

N

rev A ISSUED FOR CMP

project

1 Ardwick Road
London
NW2 2BX

client

drawing

EXISTING
Local highway network

drawn	checked	date
VZ		06.10.2016
scale		paper size
1:500	@	A3

drawing no

CMP / Q09

GLOBALHOME
ESTATES
LIMITED

Flat 5, 27 Fitzjohns Avenue
London NW3 5JY
t: +44 (0) 207 431 7298
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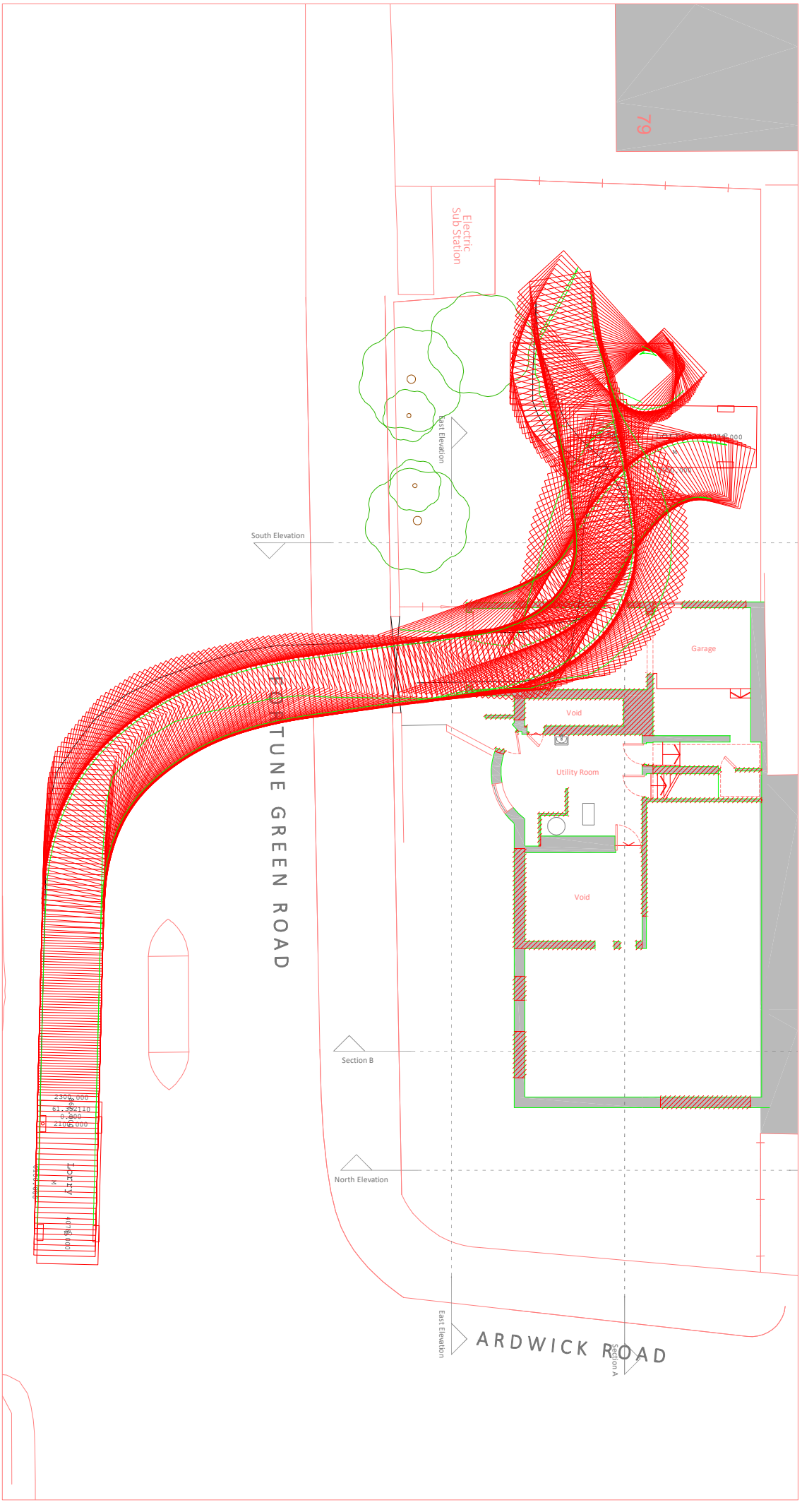
Project Ref: 1 Ardwick Road, NW2 2BX
Developer/Main Contractor: Globalhome Estates Limited
Document Version: D (Date 07/07/2017)

	Timescale (weeks)																																		
	07 July 2017	14 July 2017	21 July 2017	28 July 2017	04 August 2017	11 August 2017	18 August 2017	25 August 2017	01 September 2017	08 September 2017	15 September 2017	22 September 2017	29 September 2017	06 October 2017	13 October 2017	20 October 2017	27 October 2017	03 November 2017	10 November 2017	17 November 2017	24 November 2017	01 December 2017	08 December 2017	15 December 2017	22 December 2017	29 December 2017	05 January 2018	12 January 2018	19 January 2018	26 January 2018	02 February 2018	09 February 2018	16 February 2018	23 February 2018	02 March 2018	09 March 2018	16 March 2018
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Works description							Mobilization and enabling works																														
								Underpinning of existing walls and lower ground floor extension																														
																											Conversion to 8no flats										

	Timescale (weeks)																																		
	23 March 2018	30 March 2018	06 April 2018	13 April 2018	20 April 2018	27 April 2018	04 May 2018	11 May 2018	18 May 2018	25 May 2018	01 June 2018	08 June 2018	15 June 2018	22 June 2018	29 June 2018	06 July 2018	13 July 2018	20 July 2018	27 July 2018	03 August 2018	10 August 2018	17 August 2018	24 August 2018	31 August 2018	07 September 2018	14 September 2018	21 September 2018	28 September 2018	05 October 2018	12 October 2018	19 October 2018	26 October 2018	02 November 2018	09 November 2018	16 November 2018	23 November 2018	30 November 2018
	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77
Works description									Conversion to 8no flats						Conversion to 8no flats																							
																	1st fix																				
																									2nd fix + Decoration											
																		Fittings and Furniture																			



rev

project

1 Ardwick Road
London
NW2 2BX

client

drawing

Swept Path Analysis
for small lorry

drawn	checked	date
JS	JE	11.04.2017
scale		paper size
1:100	@	A3

drawing no

SPA_A Rev C

MDC METROPOLITAN DEVELOPMENT CONSULTANCY
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Globalhome Estates Limited

Flat 5, 27 Fitzjohn's Avenue, London NW3 5JY
Tel. 0207 431 7298, Fax. 0207 431 9341
Email. globalhomeestates@yahoo.co.uk

The Residents
3 Ardwick Road
London NW2 2BX

31st January 2017

Re: Redevelopment of 1 Ardwick Road, London NW2

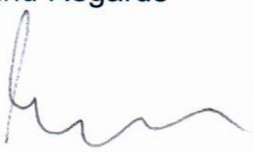
Dear Residents,

We are required by Camden Council to write to you with details and information regarding the Construction Works that are currently being carried out at 1 Ardwick Rd.

Please find enclosed the Construction Management Plan which has been prepared in accordance with the councils requirements.

Please contact me should you require any further information.

Kind Regards



Martin Jenkinson
Globalhome Estates Ltd

martin@globalhomeestates.co.uk

Globalhome Estates Limited

Flat 5, 27 Fitzjohn's Avenue, London NW3 5JY
Tel. 0207 431 7298, Fax. 0207 431 9341
Email. globalhomeestates@yahoo.co.uk

The Residents
79 Fortune Green Road
London NW2

31st January 2017

Re: Redevelopment of 1 Ardwick Road, London NW2

Dear Residents,

We are required by Camden Council to write to you with details and information regarding the Construction Works that are currently being carried out at 1 Ardwick Rd.

Please find enclosed the Construction Management Plan which has been prepared in accordance with the councils requirements.

Please contact me should you require any further information.

Kind Regards

Martin Jenkinson
Globalhome Estates Ltd

martin@globalhomeestates.co.uk

Appendix B

Ambient noise report by Acoustics Plus for 1 Ardwick Road, NW2 2BX

Noise & Vibration Consultants
4 Mulberry Place, Pinnell Road, London, SE9 6AR
Tel: **020 8859 0303** Fax: 020 8859 1211
Email: **info@acousticsplus.co.uk** Web: www.acousticsplus.co.uk

ACOUSTICS PLUS

Global Home Estates Ltd
27 Fitzjohns Ave
Hampstead
NW3 5JY

Our ref: ph-103310-01

31st January 2017

Dear Mr Jenkinson ,

Re: 1 Ardwick Road, London, NW2 2BX

We write to put on record the findings of our background noise monitoring exercise carried out from 27th – 30th December 2016.

Measurements were obtained at 2nd floor level as shown in Diagram 1 below. The measurements are considered representative of noise levels experienced at the adjacent noise sensitive façade.

Diagram 1

Noise & Vibration Consultants
4 Mulberry Place, Pinnell Road, London, SE9 6AR
Tel: **020 8859 0303** Fax: 020 8859 1211
Email: **info@acousticsplus.co.uk** Web: www.acousticsplus.co.uk

ACOUSTICS PLUS

The monitoring exercise was carried out over a 72hr period. As the site is operational, measurements were obtained over a weekend period when no construction was taking place. These results are considered to be representative of weekday noise levels in the absence of construction noise.

The results of the exercise are shown in Diagram 2 below and summarised in Table 1. The highlighted data represents the daily $L_{Aeq,10hr}$ in line with Camden Councils recommendations.

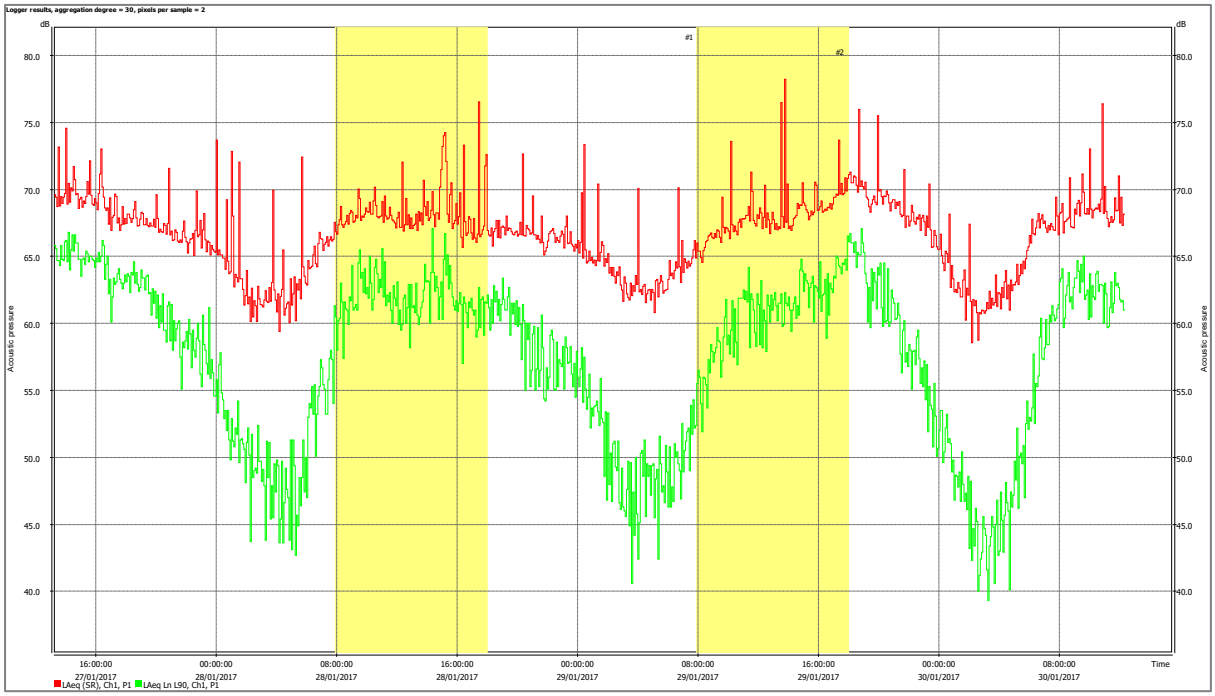


Diagram 2

Date & Time period	Average $L_{Aeq,10hr}$
28th January 2017 08:00-18:00hrs	69
29th January 2017 08:00-18:00hrs	68

Table 1

Given the ambient noise is in excess of 65dB $L_{Aeq,10hr}$ the following criteria with regard construction noise is applicable:

"Noise levels at the nearest sensitive façade should aim to be within a daily level of **75 dB** (LAeq, 10hr) for airborne noise, and that first Action Level Trigger of **78 dB** (LAeq, 5 minutes) should be used to ensure daily levels are within the 75dB (LAeq, 10hr) level"

Noise & Vibration Consultants
4 Mulberry Place, Pinnell Road, London, SE9 6AR
Tel: **020 8859 0303** Fax: 020 8859 1211
Email: **info@acousticsplus.co.uk** Web: www.acousticsplus.co.uk

ACOUSTICS PLUS

Should you require any further clarification of the measurement exercise, please do not hesitate to contact me.

Yours sincerely,

Phil Huffer BSc MIOA
Principal Consultant

Appendix C

Air Quality (Dust) Assessment for the development of
1 Ardwick Road, London NW2 2BX

Air Quality (Dust) Assessment

for the development of 1 Ardwick Road, NW2 2BX

The AQA was prepared to form part of the planning application to develop 1 Ardwick Road. The Document is in accordance with The control of Dust and Emissions during Construction and Demolition SPG, July 2014, Mayor of London.

Globalhome Estates Limited

2016

This report has been prepared by Globalhome Estates Limited and checked by Mr Vassilis Zavitsanos, Civil and Environmental Engineer M.Eng, M.Sc., taking into account the scope of approved works.

Unless otherwise agreed, this document and all other Intellectual Property Rights remain the property of Globalhome Estates Limited.

In preparing this report, Globalhome Estates Limited has exercised all reasonable skill and care, taking into account the objectives and the agreed scope of works. Globalhome Estates Limited does not accept any liability in negligence for any matters arising outside of the agreed scope of works.

London, 02/10/2016

Globalhome Estates Limited
27 Fitzjohns Avenue, London, NW3 5JY
T: 0207 431 7298 F: 0207 431 9341
contact@globalhomeestates.co.uk

Contents

1 Introduction

This Air Quality Assessment has been prepared to assess the impact of the proposed development at 1 Ardwick Road, NW2 2BX. The document follows the methodology described by The Control of Dust and Emissions during Construction and Demolition SPG, July 2014, Mayor of London.

1.1 Description of proposed Works

The existing property consists of a partial lower ground floor and ground, first and second floors.

The approved development works are minor in nature and include the conversion of the existing single family dwelling house into eight self-contained flats with extension of existing lower ground floor and rear extensions at lower ground floor, first floor and second floor along with roof alterations including additional rooflights and 2 side dormers following removal of an upper ground floor rear conservatory.

The site benefits from existing vehicular access and egress arrangements and immediate access to major road network. Access to and egress from the site will be appropriately managed, clearly marked, understood and clear of obstacles.

1.2 Operational impact

It is expected that the proposed development will lead to an improvement compared to the existing property. The new apartments will be car free so it is not anticipated that it will result to increased traffic emissions arising from the additional traffic on local.

2 Dust Risk Assessment

2.1 Introduction

Globalhome Estates Limited prepared a Dust Risk Assessment (DRA) to be submitted with the Construction Management Plan as part of the Air Quality Statement. The document includes:

• The Risk assessment for each phase of works (earthworks, construction, track-out), which incorporates the risk evaluation process set out below, and identifies suitable mitigation measures (see Chapter 5) for the relevant level of risk.

• Identification of whether each phase of activity on-site represents a low, medium or high risk by following the guidance as set in "The control of Dust and Emissions during Construction and Demolition SPG", July 2014, Mayor of London.

A detailed assessment will be carried out as there are approximately 10nos 'human receptors' with high sensitivity within 50 m of the boundary of the. There are no hospitals or nurseries within 50m of the proposed development.

The assessment identifies the Risk levels to receptors during all four phases.

2.2 Phases

The Air Quality (Dust) Risk Assessment considers the following three phases of development:

• Earthworks

• Construction

• Track-out

2.2.1 Dust Emission Magnitude

The dust emission magnitude is based on the scale of the anticipated works and is classified as Small, Medium, or Large. A classification will be noted for each of the four phases.

2.2.1.1 Earthworks phase

2.2.1.1.1 Phase Description

Earthworks primarily cover underpinning and excavation, haulage, tipping and stockpiling of soil type materials. This includes leveling the site and landscaping.

The proposed development includes underpinning the existing building, and partial excavation to extend the existing basement.

2.2.1.1.2 Earthworks Phase Dust Emission Magnitude

The development is classified as small and it complies with the relevant criteria:

• Total site area <2,500m2

• <5 heavy earth moving vehicles active at any one time

• Total material moved <10,000 tonnes

2.2.1.2 Construction phase

The key issues when determining the potential scale of dust emission during the construction phase include the size of the building(s)/infrastructure, method of construction, construction materials, and the duration of build.

2.2.1.2.1 Construction Phase Dust Emission Magnitude

The proposed development is classified as small and it complies with the criteria below:

• Total building volume <25,000m3

• Construction material with low potential (ie. timber)

2.2.1.3 Track-out phase

2.2.1.3.1 Phase Description

Factors which determine the risk of dust emissions from Track-out are vehicle size, vehicle speed, vehicle numbers, geology and duration. Only receptors within 50m of the route(s) used by vehicles on the public highway and up to 500 m from the site entrance(s) are considered to be at risk from the effects of dust.

2.2.1.3.2 Track-out Phase Dust Emission Magnitude

The development is considered small and it complies with the following criteria:

• <10 HDV (>3.5t) trips in any one day

• Surface material with low potential for dust release

• Unpaved road length <50 m.

2.2.1.4 Dust Emission Magnitude for all phases

Overall, the Dust Emission Magnitude for each phase is presented on the table below:

2.2.1.4.1.1 Table – Dust emission magnitude during development phases

Activity	Dust Emission Magnitude
Earthworks	Small
Construction	Small
Track-out	Small

2.3 Area sensitivity

The sensitivity of the area takes account of a number of factors:

• The specific sensitivities of receptors in the area

• The proximity and number of those receptors

• In the case of PM10, the local background concentration and

• Site-specific factors, such as whether there are natural shelters, such as trees or other vegetation, to reduce the risk of wind-blown dust.

2.3.1 Sensitivity of People to Dust Soiling Effects

It is estimated that there are there are approximately 10nos “human receptors” within 50 m of the boundary of the site.

All receptors are assumed to have High Sensitivity, under the following criteria:

• Users can reasonably expect an enjoyment of a high level of amenity or

• The appearance, aesthetics or value of their property would be diminished by soiling and the people or property would reasonably be expected to be present continuously, or at least regularly for extended periods as part of the normal pattern of use of the land.

• Indicative examples include dwellings, museums and other culturally important collections, medium and long term car parks and car showrooms.

2.3.2 Sensitivities of People to the Health Effects of PM10

All receptors are assumed to have High Sensitivity. Typical criteria include:

• Locations where members of the public are exposed over a time period relevant to the air quality objective for PM10 (in the case of the 24-hour objectives, a relevant location would be one where individuals may be exposed for eight hours or more in a day).

• Indicative examples include residential properties. Hospitals, schools and residential care homes should also be considered as having equal sensitivity to residential areas for the purposes of this assessment.

2.3.3 Overall Area Sensitivity

The SPG provides tables to calculate the area sensitivity based on the number of receptors, distance from the proposed development and their sensitivity as presented above.

The area sensitivity will be calculated for the following categories:

1. Dust and soiling effects on people and property
2. Human health impacts (based on PM10 concentration increased due to the proposed development)
3. Ecological Impact

2.4 Dust and Soiling effects on people and property

Receptors and their sensitivity and respective distance from the proposed development are used on the table below to determine the area sensitivity. The area is considered of Medium Sensitivity.

2.4.1.1.1.1 Table – Sensitivity of the area to dust and soiling effects on people and property

Receptor Sensitivity	Number of Receptors	Distance from the Source (m)[c]			
		<20	<50	<100	<350
High	>100	High	High	Medium	Low
	10-100	High	Medium	Low ⇦	Low
	1-10	Medium	Low ⇦	Low	Low
Medium	>1	Medium	Low	Low	Low
Low	>1	Low	Low	Low	Low

2.5 Human health impacts

Receptors and their sensitivity and respective distance from the proposed development are used on the table below to determine the area sensitivity. The area is considered of High Sensitivity.

2.5.1.1.1.1 Table - Sensitivity of the area to human health impacts

Receptor Sensitivity	Annual Mean PM_{10} concentration [C]	Number of Receptors [D]	Distance from the Source (m)[E]				
			<20	<50	<100	<200	<350
High	>32 µg/m³	>100	High	High	High	Medium	Low
		10-100	High	High	Medium	Low	Low
		1-10	High	Medium	Low	Low	Low
	28-32 µg/m³	>100	High	High	Medium	low	Low
		10-100	High	Medium	Low	Low	Low
		1-10	High	Medium	Low	Low	Low
	24-28 µg/m³	>100	High	Medium	Low	Low	Low
		10-100	High	Medium	Low	Low	Low
		1-10	Medium	Low	Low	Low	Low
	24-28 µg/m³	>100	Medium	Low	Low	Low	Low
		10-100	Low	Low	Low	Low	Low
		1-10	Low	Low	Low	Low	Low
Medium	-	>10	High	Medium	Low	Low	Low
	-	1-10	Medium	Low	Low	Low	Low
Low	-	1-10	Low	Low	Low	Low	Low

2.6 Risk of Impacts

The dust emission magnitude determined above is combined with the sensitivity of the area to determine the risk of impacts with no mitigation applied.

The SPG provides the Risk tables below which will be used to calculate the Risk of Dust Impacts for each of the three phases, ie. earthworks, construction and Track-out.

2.6.1.1.1.1 Table - Risk of dust impacts – Earthworks

Sensitivity of Area	Dust Emission Magnitude		
	Large	Medium	Small
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Medium Risk	Low Risk ⇦
Low	Low Risk	Low Risk	Negligible

The Earthworks phase Risk matrix for the Receptors/Sensitivity of Area/Dust Emission Magnitude is as follows:

2.6.1.1.1.2 Table – Risk of Dust Impacts on Receptors during Earthworks phase

Receptors	Area Sensitivity	Dust Emission Magnitude	Risk of Dust Impacts Earthworks
Dust Soiling	Medium	Small	Low Risk
Human Health	Medium	Small	Low Risk

2.6.1.1.1.3 Table - Risk of dust impacts – Construction

Sensitivity of Area	Dust Emission Magnitude		
	Large	Medium	Small
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Medium Risk	Low Risk ⇦
Low	Low Risk	Low Risk	Negligible

The Construction phase Risk matrix for the Receptors/Sensitivity of Area/Dust Emission Magnitude is as follows:

2.6.1.1.1.4 Table – Risk of Dust Impacts on Receptors during Construction phase

Receptors	Area Sensitivity	Dust Emission Magnitude	Risk of Dust Impacts Construction
Dust Soiling	Medium	Small	Low Risk
Human Health	Medium	Small	Low Risk

2.6.1.1.1.5 Table - Risk of dust impacts – Track-out

Sensitivity of Area	Dust Emission Magnitude		
	Large	Medium	Small
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Low Risk	Negligible ⇦
Low	Low Risk	Low Risk	Negligible

The Track-out phase Risk matrix for the Receptors/Sensitivity of Area/Dust Emission Magnitude is as follows:

2.6.1.1.1.6 Table – Risk of Dust Impacts on Receptors during Track-out phase

Receptors	Area Sensitivity	Dust Emission Magnitude	Risk of Dust Impacts Track-out
Dust Soiling	Medium	Small	Negligible
Human Health	High	Small	Negligible

The results are summarized on the Dusk Risk table below.

2.6.1.1.1.7 Table – Summary Dust Risk Table with no mitigation measures applied

Potential impact	Risk		
	Earthworks	Construction	Track-out
Dust Soiling	Low Risk	Low Risk	Negligible
Human Health	Low Risk	Low Risk	Negligible

3 Mitigation Measures

The developer will implement the appropriate dust and pollution control measures set out below to ensure the air quality impacts of construction and demolition are minimized and any mitigation measures employed are effective. Best practice methods will be adopted and staff will trained to ensure these are implemented correctly. This is expected to minimize formation of dust and harmful emissions.

These measures are summarized below, and they are divided according to key construction and demolition stages and site risk. All measures are compulsory for site staff unless not feasible and alternative arrangements are agreed with site management. These measures are intended to be effective and deliverable and in-line with best practice.

The focus of the dust and pollution control measures to be outlined is to reduce health and dust annoyance impacts on existing local receptors. Potential health impacts from dust emissions to site personnel will also be considered and included in the site's health and safety documentation.

Contact details for the person responsible for dust and emissions generated from the site will be displayed on the site boundary so that local residents and businesses are able to contact the developer and contractor to raise any issues that they may have and report complaints. Site management has the authority to deals with complaints.

3.1 Site inspections

The developer and contractor will actively monitor the site to ensure the control of dust and emissions. Dry and windy conditions increase the likelihood of dust and emissions being produced and dispersed, so extra site monitoring will take place during these times.

3.1.1 Preparing and maintaining the site

3.1.1.1 Site layout

• Machinery and dust generating activities will be located within the development enclosure and away from receptors

• Solid screens and/or monarflex sheeting will be used to enclose the site where necessary. Additional barriers will be provided around dust generating activities.

• Materials will be always covered to prevent wind whipping

• Site will be cleaned daily and any loose materials will be removed as soon as possible.

3.1.1.2 Site maintenance

The developer and contractor will keep their construction site clean and in good order. Measures will include:

• Eliminate and runoff and mud as it can lead to dust once dry

• Hoardings, fencing, barriers and scaffolding will be regularly cleaned as required.

3.1.1.3 Dealing with spillages

Spillages can occur with a wide range of liquid and materials. The following measures will address this issue:

• Use bunded areas wherever practicable

• Regularly inspect the site area for spillages

• Have spillage kits readily available

• Vacuum or sweep regularly to prevent the buildup of fine waste dust material, which has spilled on the site and is designated as waste that is no longer fit for use

3.1.1.4 Reducing emissions from vehicles

Emissions from vehicles associated with construction sites can significantly add to levels of local air pollution, so it is important that best practice is employed to reduce these.

All mobile vehicles associated with the demolition / construction will comply with the standards of the London Low Emission Zone. For HGVs, the standard is Euro IV for PM and for heavier vans and mini buses it is Euro 3.

3.1.1.5 Reducing vehicle idling

Site management will work with suppliers and other contractors to ensure that vehicles do not have to wait to park safely.

If vehicles have to load/unload they will not stay idle unless required to safely operate the vehicle.

3.1.1.6 Construction Traffic

A site specific Construction Traffic Management Plan has been developed to evaluate the impact to the local environment. Generally, site management is responsible to ensure deliveries and removals are managed so that they are made when they are most needed, at times when they will contribute less to congestion and at locations where loading and unloading can take place safely. Deliveries will be consolidated so fewer journeys are needed.

These measures will reduce congestion in the local area and inconvenience to local road users.

3.1.2 Operations

3.1.2.1 Diesel or petrol generators

Generators will generally be avoided. Use will be allowed only in emergencies and site management will approve use only when no other option is available.

3.1.2.2 Cutting, grinding and sawing

Cutting, grinding and sawing will be reduced. Where possible, materials will be prepared off-site. In cases where such work must take place, spraying water over the material as it is being cut will greatly reduces the amount of dust generated.

If scabbling (*grinding concrete using a machine tipped with steel or carbide material*) is required the following measures will be in place to comply with best practice:

• Pre-wash work surfaces

• Screen off work area

• sweeping away or use electric vacuum

3.1.2.3 Chutes, conveyors and skips

Skips, chutes and the electric conveyor belt will be completely covered and, if necessary, completely enclosed to ensure that dust does not escape. Similarly, drop heights will be minimized to control the fall of materials.

3.1.3 Waste Management

• No burning of any material is permitted on-site

• Any excess material should be reused or recycled on or off-site in accordance with appropriate legislation

• Site management will identify the waste types that are likely to be produced and aim to reduce the amount of waste as much as possible, through identifying routes to reuse or recycle materials. Site Management will refer to the Waste and Resources Action programme (WRAP-www.wrap.org.uk) which provides a list of ten quick wins for reducing and re-using waste

• Control access to storage areas to minimize risk of theft or damage

• Set up a dedicated store for timber, from which workers can re-use supplies

• Store any materials away from sensitive locations in fenced off areas

• Employ a just-in-time policy to deliver materials in order to reduce the storage time on-site

• Recycled materials will be used where possible and any materials used on site will be recycled rather than disposed of (including timber, aggregates, soil, bricks, masonry, concrete).

3.1.4 Mitigation measures specific to demolition

Demolition activities can generate significant dust and also cause re-suspension of dust currently within the building. The developer will carry out soft stripping to screen dust and prevent dispersion. Water suppression will be used to damp down dust and other debris that could generate dust, and, where practical, manual or mechanical demolition techniques will be used.

3.1.5 Measures specific to construction

Cement, sand, fine aggregates and other fine powders will be sealed after use and if necessary stored in enclosed or bunded containers or silos. Some materials should be kept damp to reduce the risk of drying out.

For a comprehensive table of mitigation measures for Low, Medium and High Risk Sites please refer to Appendix A.

4 Site Monitoring

The correct implementation of the best practice methods identified above is expected to minimize the formation of dust and harmful emissions from the proposed development.

In addition, continuous site monitoring will allow the developer to manage the generation of dust including PM10 and PM2.5 and NOx emissions during construction. The site is considered to be Low Risk. For a Low Risk site the Control of Dust and Emissions during Construction and Demolition SPG July 2014 recommends to:

• Take into account the impact of air quality and dust on occupational exposure standards to minimize worker exposure and breaches of air quality objectives that may occur outside the site boundary, such as by visual assessment

• Keep an accurate log of complaints from the public, and the measures taken to address any complaints, where they were required

5 Conclusion

This document identifies the Dust Risks associated with the proposed development. Best practice methods have been identified and proposed to minimize the formation of dust and harmful emissions from the construction. Appropriate mitigations measures are proposed to minimize impact to the adjoining owners and other stakeholders.

In relation to operational impact, it is expected that the new gas boiler and improved thermal performance of the new building envelope will greatly reduce the emissions of PM10 and NOx. It is anticipated that there will be no charge in road traffic as a result of the proposed development.

6 Appendix A

Measures relevant forEarthworks, Construction and Track-out

Source: The control of Dust and Emissions during Construction and Demolition SPG, July 2014, Mayor of London

MITIGATION MEASURE	LOW RISK	MEDIUM RISK	HIGH RISK
Site management			
Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.		XX	XX
Develop a Dust Management Plan.		XX	XX
Display the name and contact details of person(s) accountable for air quality pollutant emissions and dust issues on the site boundary.	XX	XX	XX
Display the head or regional office contact information.	XX	XX	XX
Record and respond to all dust and air quality pollutant emissions complaints.	XX	XX	XX
Make a complaints log available to the local authority when asked.	XX	XX	XX
Carry out regular site inspections to monitor compliance with air quality and dust control procedures, record inspection results, and make an inspection log available to the local authority when asked.	XX	XX	XX
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 and dust are being carried out, and during prolonged dry or windy conditions.	XX	XX	XX
Record any exceptional incidents that cause dust and air quality pollutant emissions, either on or off the site, and the action taken to resolve the situation is recorded in the log book.	XX	XX	XX

XX: Highly recommended, X: Desirable

MITIGATION MEASURE	LOW RISK	MEDIUM RISK	HIGH RISK
Put in place real-time dust and air quality pollutant monitors across the site and ensure they are checked regularly.		XX	XX
Operating vehicle/machinery and sustainable travel			
Ensure all on-road vehicles comply with the requirements of the London Low Emission Zone.	XX	XX	XX
Ensure all non-road mobile machinery (NRMM) comply with the standards set within this guidance.	XX	XX	XX
Ensure all vehicles switch off engines when stationary – no idling vehicles.	XX	XX	XX
Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where possible.	XX	XX	XX
Impose and signpost a maximum-speed-limit of 10mph on surfaced haul routes and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate).	X	X	XX
Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials.		XX	XX
Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing).	XX	XX	XX
Operations			
Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.	XX	XX	XX

MITIGATION MEASURE	LOW RISK	MEDIUM RISK	HIGH RISK
Ensure an adequate water supply on the site for effective dust/particulate matter mitigation (using recycled water where possible).	XX	XX	XX
Use enclosed chutes, conveyors and covered skips.	XX	XX	XX
Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.	XX	XX	XX
Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.		XX	XX
Waste management			
Reuse and recycle waste to reduce dust from waste materials	XX	XX	XX
Avoid bonfires and burning of waste materials.	XX	XX	XX

Measures specific to demolition

MITIGATION MEASURE	LOW RISK	MEDIUM RISK	HIGH RISK
Soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust).	X	X	XX
Ensure water suppression is used during demolition operations.	XX	XX	XX
Avoid explosive blasting, using appropriate manual or mechanical alternatives.	XX	XX	XX
Bag and remove any biological debris or damp down such material before demolition.	XX	XX	XX

Measures specific to Earthworks

MITIGATION MEASURE	LOW RISK	MEDIUM RISK	HIGH RISK
Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces.		X	XX
Use Hessian, mulches or trackifiers where it is not possible to re-vegetate or cover with topsoil.		X	XX
Only remove secure covers in small areas during work and not all at once.		X	XX

Measures specific to Construction

MITIGATION MEASURE	LOW RISK	MEDIUM RISK	HIGH RISK
Avoid scabbling (roughening of concrete surfaces) if possible	X	X	XX
Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place	X	X X	XX
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.		X	XX
For smaller supplies of fine powder materials ensure bags are sealed after use and stored appropriately to prevent dust.		X	X

Measures specific to Track-out

MITIGATION MEASURE	LOW RISK	MEDIUM RISK	HIGH RISK
Regularly use a water-assisted dust sweeper on the access and local roads, as necessary, to remove any material tracked out of the site.	X	XX	XX
Avoid dry sweeping of large areas.	X	XX	XX
Ensure vehicles entering and leaving sites are securely covered to prevent escape of materials during transport.	X	XX	XX
Record all inspections of haul routes and any subsequent action in a site log book.		XX	XX
Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems and regularly cleaned.		XX	XX
Inspect haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable;		XX	XX
Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).	X	XX	XX
Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits.		XX	XX
Access gates to be located at least 10m from receptors where possible.		XX	XX
Apply dust suppressants to locations where a large volume of vehicles enter and exit the construction site		X	XX