

Construction/ Demolition Management Plan

pro forma

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Contents

Revisions	3
Introduction	4
Timeframe	6
Contact	7
Site	9
Community liaison	12
Transport	14
Environment	26
Agreement	31

Revisions & additional material

Please list all iterations here:

Date	Version	Produced by
19/10/20	1	Caneparo Associates

Additional sheets

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

Date	Version	Produced by
30/10/20	1	Appendix A - Existing On-Street Highway Arrangement Plan – Caneparo Associates
30/10/20	1	Appendix B Construction Site Arrangement Plan – Caneparo Associates
30/10/20	1	Appendix C - Swept Path Analysis – Caneparo Associates

Introduction

The purpose of the **Construction Management Plan (CMP)** is to help developers to minimise construction impacts, and relates to all construction activity both on and off site that impacts on the wider environment.

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 nature 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 the [Construction Logistics and Community Safety \(CLOCS\)](#) Standard and the [Guide for Contractors Working in Camden](#).

Camden charges a [fee](#) for the review and ongoing monitoring of CMPs. This is calculated on an individual basis according to the predicted officer time required to manage this process for a given site.

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 during construction. 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 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](#)."

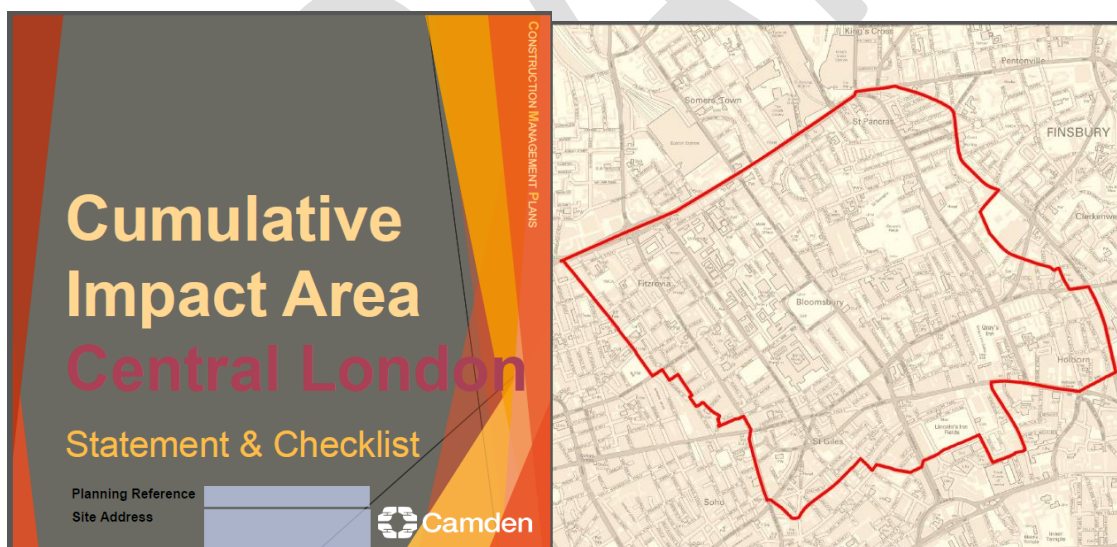
Please complete the questions below with additional sheets, drawings and plans as required. The boxes will expand to accommodate the information provided, so please provide as much information as is necessary. It is preferable if this document, and all additional documents, are completed electronically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

(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.

IMPORTANT NOTICE: If your site falls within a Cumulative Impact Area (as of 03/02/2020 to 03/08/2020 there is only one established CIA for the Central London area) you are required to complete the CIA Checklist and circulate as an appendix to the CMP and included as part of any public consultation – a CMP submission will not be accepted until evidence of this has been supplied.

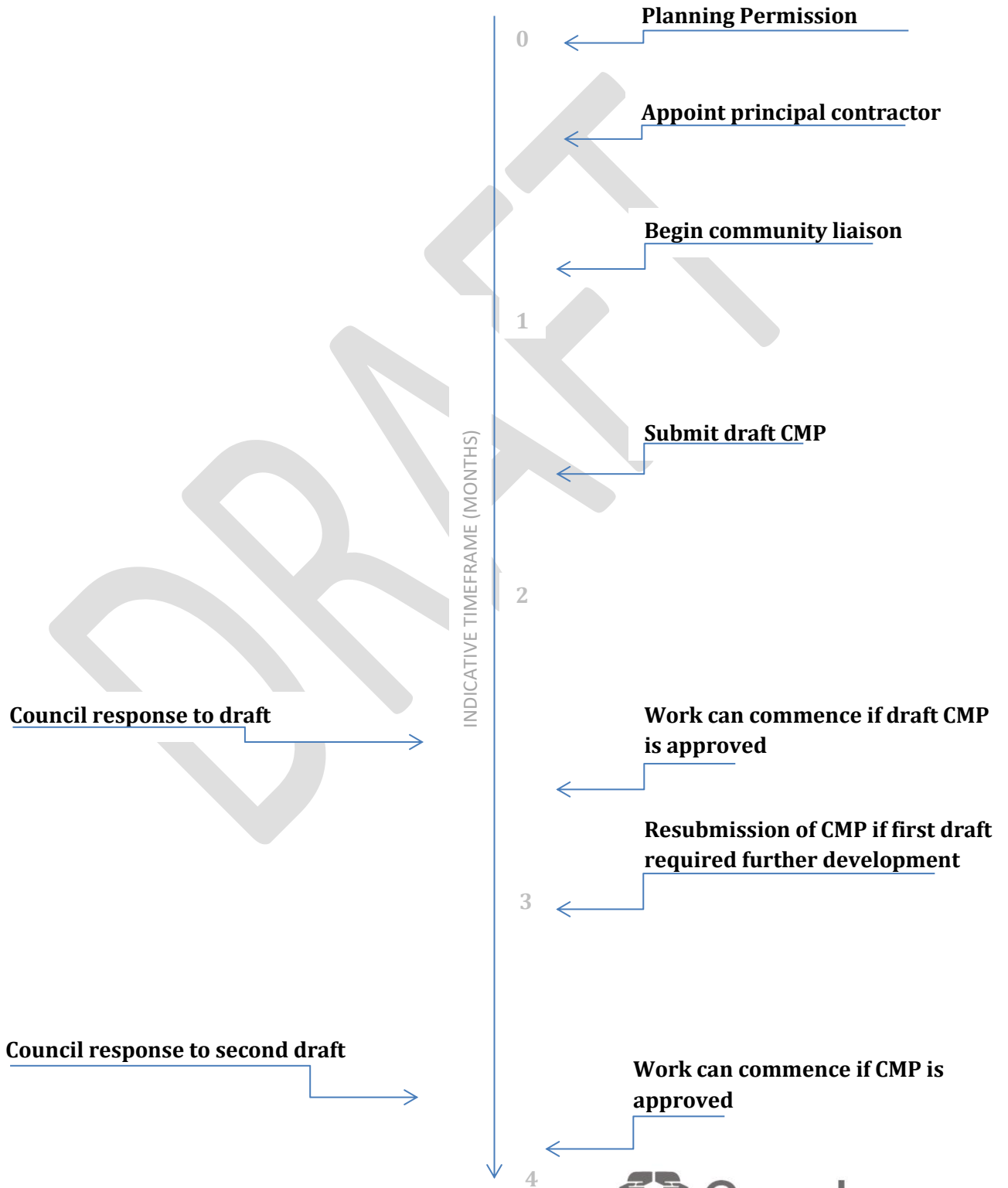
The CIA Checklist can be found at <https://www.camden.gov.uk/about-construction-management-plans#sumf>



Timeframe

COUNCIL ACTIONS

DEVELOPER ACTIONS



Contact

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

Address: Network Building, 95-100 Tottenham Court Road, W1T 4TP

Planning reference number to which the CMP applies: TBC

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

Name: Caneparo Associates

Address: 21 Little Portland Street, London, W1W 8BT

Email: info@caneparoassociates.com

Phone: 0203 617 8200

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: To be confirmed

Address:

Email:

Phone:

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: To be confirmed

Address:

Email:

Phone:

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: To be confirmed

Address:

Email:

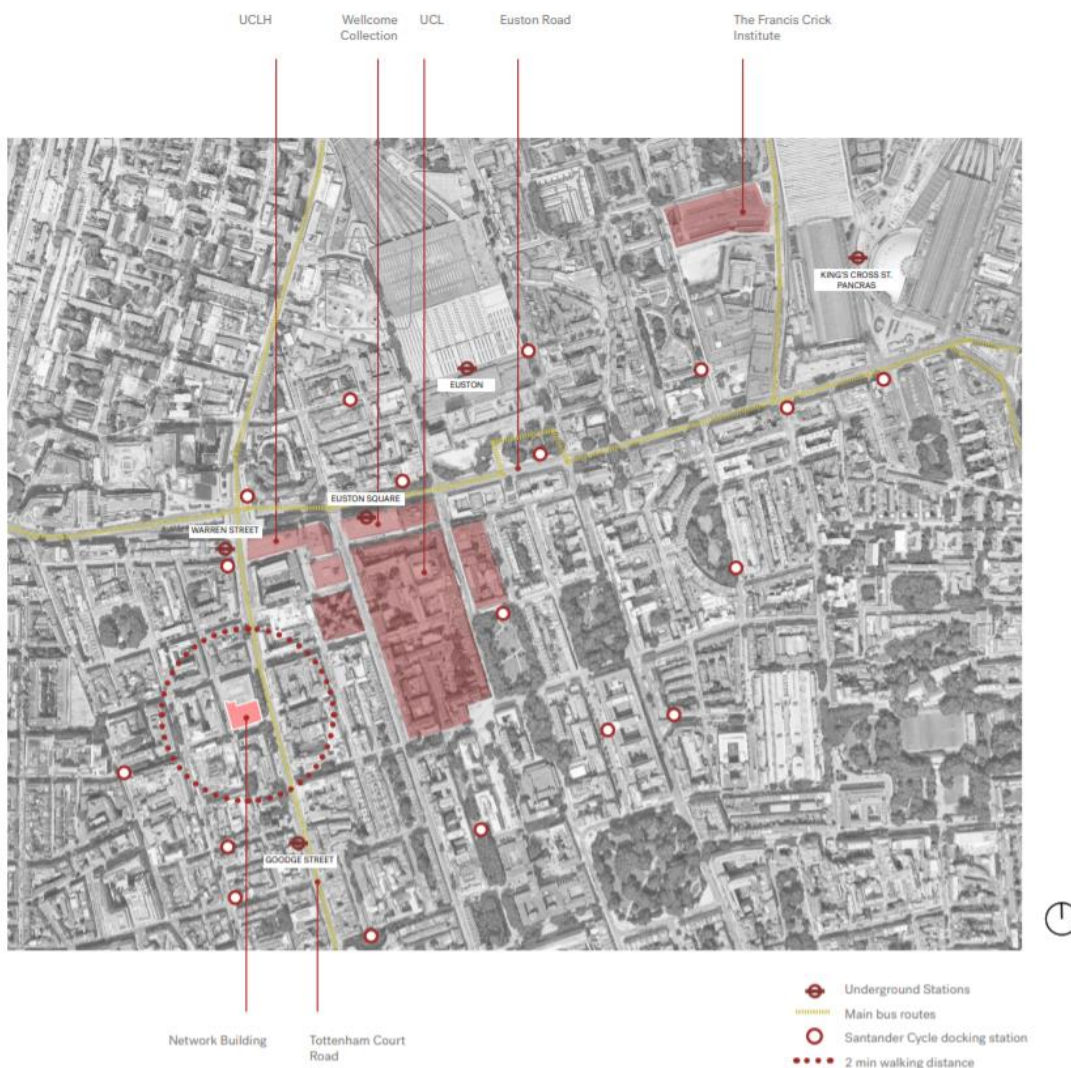
Phone:

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.

The application site occupies the southern half of the block bounded by Tottenham Court Road on the east, Whitfield Street to the west and Howland Street to the south. The existing building is a six-storey office building with retail units at ground level.

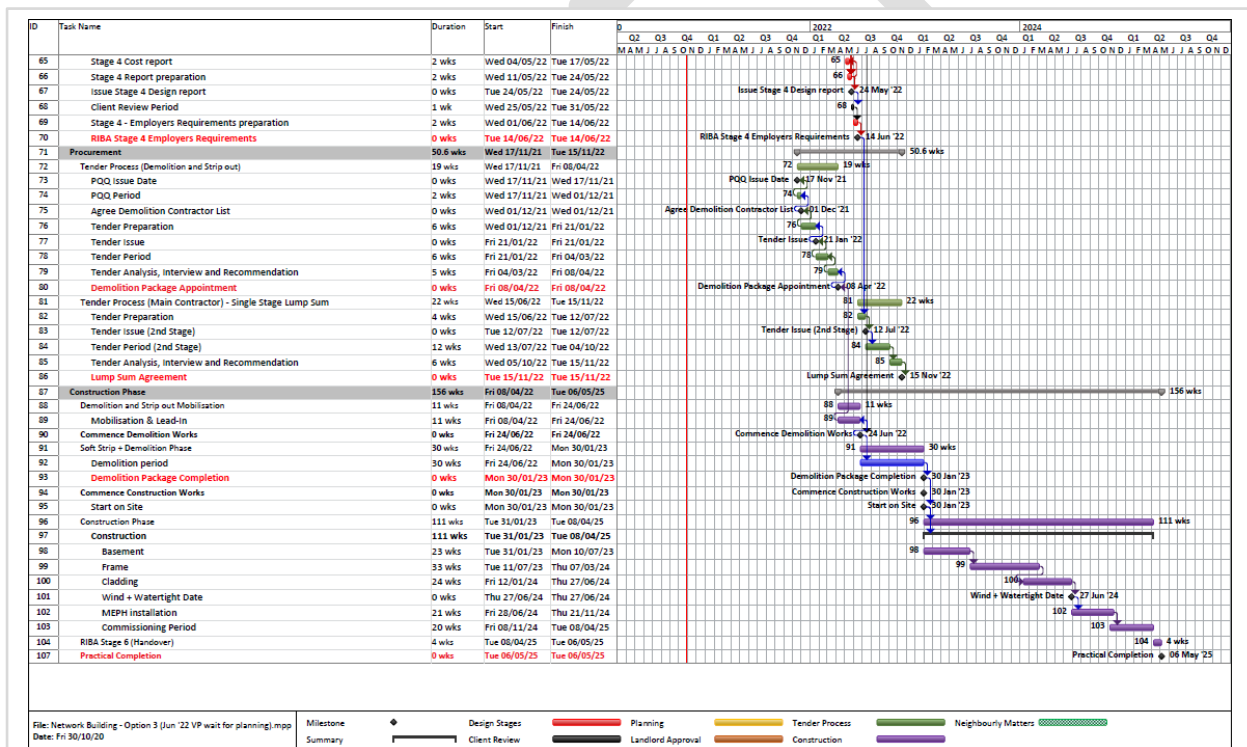
The proposals seek the Demolition of the existing building and construction of a new building to provide E class use floorspace along with details of access, scale and landscaping and other works incidental to the application.



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 construction will involve demolition and new construction that will present challenges in terms of limited space on site and the close proximity of commercial neighbours. Issues of particular significance will be the proposed closure of part of Whitfield Street, crane locations, access for large items of plant and machinery, prevention of nuisance due to noise, vibration, dust, etc and the location of welfare and site offices.

8. 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).



Key programme dates:

- Commence demolition works – June 2022;
- Commence construction works – Jan 2023;
- Completion of construction – May 2025.

9. 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

Camden's standards working hours will be adhered to, as set out above.

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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.

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 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.

10. Sensitive/affected receptors

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.).

The Network Building is situated on Tottenham Court Road, Howland Street and Whitfield Street which is an area with a number of residential and commercial properties. Within a 65m of the site are 58 properties including 13 residential homes and 45 business. Some key examples within the immediate vicinity include commercial tenants at 90 Whitfield Street, residential properties at 88 Whitfield Street and a number of retail/F&B units along Tottenham Court Road and Howland Street.

11. Consultation

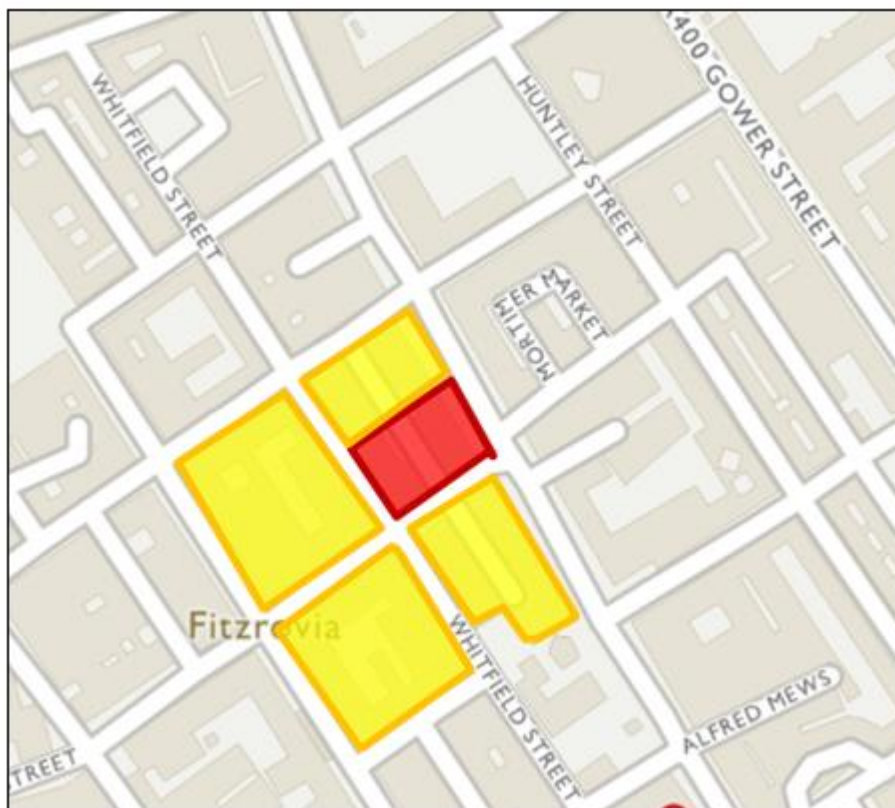
The Council expects meaningful consultation. For large sites, this may mean two or more meetings with local residents **prior to submission of the first draft CMP**.

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

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.

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

The below catchment area plan illustrates the range of residential addresses and business, in context of the site, that will be approached as part of the consultation process for the proposed works.



12. Construction Working Group

For particularly sensitive/contentious sites, or sites located in areas where there are high levels of construction activity, it may be necessary to set up a construction working group.

If so, please provide details of the group that will be set up, the contact details of the person responsible for community liaison and how this 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 setup in due course, closer to the intended demolition works commencing and construction works starting. We anticipate this being in Q3 2021.

13. Schemes

Please provide details of your Considerate Constructors Scheme (CCS) registration. Please note that Camden requires [enhanced CCS registration](#) that includes CLOCS monitoring. Please provide a CCS registration number that is specific to the above site.

Contractors will also be required to follow the [Guide for Contractors Working in Camden](#). Please confirm that you have read and understood this, and that you agree to abide by it.

This is acknowledged and agreed.

14. 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 have not yet taken into account neighbouring sites that might be under construction at the time of our works.

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 CCS monitors as part of your enhanced CCS site registration, and possibly council officers, to ensure compliance. Please refer to the CLOCS Standard when completing this section.

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

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CLOCS Contractual Considerations

15. Name of Principal contractor:

To be confirmed

16. 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](#)).

The development works will be registered on the 'Considerate Contractors Scheme' in order to obtain the 'Exceptional' score. While FORS and CLOCS standards will also be adhered to.

Contracts

CLOCS Compliance will be included as a contractual requirement. The FORS Bronze accreditation will be the minimum 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 (e.g. 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.).

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.

Continued overleaf...

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.

Where the contractors own vehicles and drivers are used the above approach will be modified accordingly.

Collision reporting data will be requested from operators and acted upon when necessary.

17. 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.

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

The principal contractor will confirm that all contract orders for this project will include that all sub-contractors and suppliers will abide by the CLOCS Standard. Confirmation will also be provided for the formal sign up and registration for the CLOCS community.

It will be confirmed that all deliveries / vehicles will access the site via the A501 from either the west on Marylebone Road or from the east on Euston Road, directly into B506 Great Portland Street southbound. Vehicles will then turn eastbound onto Clipstone Street and continue onto Maple Street, before turning right into Whitfield Street. This route is illustrated in Question 18.

All deliveries / vehicles will egress the site via Howland Street to the south, continue along New Cavendish Street, before turning northbound onto Portland Place.

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.

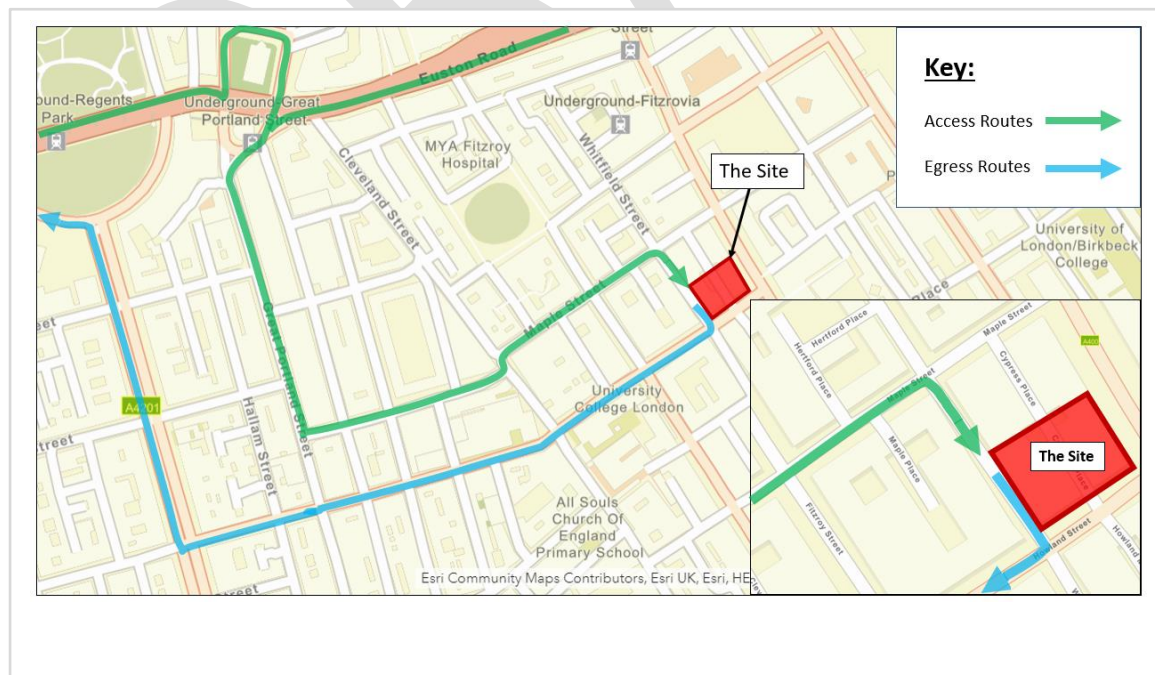
18. Traffic routing: *“Clients shall ensure that a suitable, risk assessed vehicle route to the site is specified and that the route is communicated to all contractors and drivers. Clients shall make contractors and any other service suppliers aware that they are to use these routes at all times unless 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, stations, public buildings, museums etc.

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.

Please show vehicle approach and departure routes between the site and the Transport for London Road Network (TLRN). Please note that routes may differ for articulated and rigid HGVs.

Routes should be shown clearly on a map, with approach and departure routes clearly marked. If this is attached, use the following space to reference its location in the appendices.



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

Suppliers and delivery companies will be made aware of the agreed access and egress routes, site restrictions in terms of time limits, maximum vehicle width, length and height, site contact details and any relevant information which we may impact the drivers and other road users. This will be regularly reviewed and monitored to ensure compliance.

The following schools have been identified along the proposed construction traffic route:

Abercorn School, Queen's College Preparatory School, Portland Place School, and EIFA International School are all located on Portland Place and would be passed by traffic on the egress route to the TLRN.

Owing to the central London location there are multiple office buildings, however these are not deemed to be sensitive. There are no stations, museums, or sensitive public buildings on the routes to/from the TLRN.

19. 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 should be restricted to the hours of 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 the hours of 9.30am and 3pm on weekdays during term time.

Vehicles may be permitted to arrive at site at 8.00am if they can be accommodated on site. Where this is the case, they must then wait with their engines switched off.

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.

a. Please provide details of the types of vehicles required to service the site and the approximate number of deliveries per day for each vehicle type during the various phases of the project.

For Example:

Plant and tower crane delivery at start of project

Articulated vehicles: 2 deliveries per day

Large Tipper: 40 deliveries per day during substructure and superstructure works

Concrete / Skip Lorries: 15 deliveries per day average

3.5t van: 5 deliveries per day average

It is anticipated the Site will receive a maximum of 40 deliveries per day, Monday to Friday during the substructure and superstructure works, which will be above the average number of deliveries for the development. During other stages of the project, it is expected that approximately 20 deliveries will be made to the site per day on average.

The size of vehicles will be confirmed once a detailed Construction methodology has been prepared and a contractor is appointed, however are anticipated to include:

- Tower crane delivery vehicles
- Piling rig
- 16.5m articulated vehicles
- 10m large tipper
- 10m rigid
- Concrete mixer
- 7.5T Panel Van
- 3.5T Panel Van.

Allocated time slots will be given 48 hours before planned delivery. All construction delivery movements will be controlled via a Logistics Framework / 'Booking In' system.

The project will adhere to the permitted construction vehicle hours of between 09:30 to 16:30 on weekdays and 08:00 to 13:00 on Saturdays.

b. Cumulative effects of construction traffic servicing multiple sites should be minimised where possible. Please provide details of other developments in the local area or on the route that might require deliveries coordination between two or more sites. This is particularly relevant for sites in very constrained locations.

As set out in Question 14, it is apparent that there are no major works proposed nearby. Accordingly, coordination is not currently required. However, the planning portal will be regularly reviewed, prior to and throughout the program of works, in order for suitable mitigation measures to be implemented if / when necessary.

c. Please provide swept path analyses for constrained manoeuvres along the proposed route.

The Swept Path Analysis included at **Appendix C** showing the arrival manoeuvre for the largest anticipated vehicles expected to visit the Site, turning from Maple Street onto Whitfield Street into the proposed pit lane arrangement.

d. Consideration should be given to the location of any necessary holding areas/waiting points for sites that can only accommodate one vehicle at a time/sites that are expected to

receive large numbers of deliveries. Vehicles must not queue 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.

Please identify the locations of any off-site holding areas or waiting points. This can be a section of single yellow line that will allow the vehicle to wait to phone the site to check that the delivery can be accommodated.

Please refer to question 24 if any parking bay suspensions will be required to provide a holding area.

In order to facilitate construction at the Site a pit lane arrangement is proposed on Whitfield Street. This will involve the closure of Whitfield Street to traffic and suspension of parking bays between Maple Street to the north and Howland Street to the South. In addition, the eastern footway will require closure for the duration of the works to accommodate the site hoarding. A pit lane of circa 4.5m width will be provided along Whitfield Street, which will be able to accommodate the largest articulated vehicles. Traffic marshals will be placed at the Maple St / Whitfield St and the Whitfield St / Howland St junctions to ensure vehicles are guided safely into and from these junctions.

The existing contra-flow cycle lane will remain in place and be expanded to provide northbound movement for cyclists; this will be segregated from construction works by the site hoarding.

The possible use of off-site holding areas or waiting points will be reviewed prior to and during the programme of works.

e. Delivery numbers should be minimised where possible. Please investigate the use of construction material consolidation centres, and/or delivery by water/rail if appropriate.

The possible use of consolidation centres will be reviewed prior to and during the programme of works in order to minimise deliveries where possible.

f. Emissions from engine idling should be minimised where possible. Please provide details of measures that will be taken to reduce delivery vehicle engine idling, both on and off site (this does not apply to concrete mixers).

Instructions will be issued to all contractors and subcontractors setting out the requirements they must abide by throughout their contract. This will include instructions to ensure that vehicles are not idling for any material length of time i.e. engines must be switched off when vehicles are stationary.

20. 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)*

This section is only relevant where vehicles will be entering the site. Where vehicles are to load from the highway, please skip this section and refer to Q23.

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.

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 site access and egress points on a map or diagram. If this is attached, use the following space to reference its location in the appendices.

Vehicles will enter the site during the demolition and sub-structure phases, and access will be provided via the proposed pit lane on Whitfield Street with relevant crossovers formed and located to suit access points during demolition, piling and sub-structure works as they progress. Smaller vehicles will also require access to the Cypress Place loading area. Vehicles during other phases will load/unload on-street within the pit lane located along Whitfield Street. The site arrangement plan including site access is included at **Appendix B**.

b. Please describe how the access and egress arrangements for construction vehicles in and out of the site will be managed, including the number and location of traffic marshals where applicable. If this is shown in an attached drawing, use the following space to reference its location in the appendices.

Traffic Marshalls will be provided to stop cyclists and bank the vehicle out during all vehicle movements. We would suggest 3 traffic marshals (two to stop the cyclists and one to bank the vehicle).

c. Please provide swept path drawings for vehicles accessing/egressing the site if necessary. If these are attached, use the following space to reference their location in the appendices.

Swept paths of construction vehicles entering the site are included within **Appendix C**.

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. Please note that wheel washing should only be used where strictly necessary, and that a clean, stable surface for loading should be used where possible.

A concrete hard standing area will be formed adjacent to Whitfield Street when required with a powered jet wash facility and will be supported by continuous road sweeping.

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

This section is only relevant if loading/unloading is due to take place off-site on the public highway. If loading is taking place on site, please skip this section.

a. 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 this is attached, use the following space to reference its location in the appendices. Please outline in question 24 if any parking bay suspensions will be required.

Vehicles will load/unload on-street within the pit lane located along Whitfield Street. Vehicles will access the pit lane via Maple Street and egress westbound on Howland Street to the southeast. See **Appendix B** for proposed Construction Site Arrangement Plan.

b. Where necessary, 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 detail of the way in which marshals will assist with this process, if this differs from detail provided in Q20 b.

Vehicles will access the pit lane via Maple Street and egress westbound on Howland Street to the southeast. Traffic marshals will be placed at the entry and exit of the pit lane, along with at the Maple St / Whitfield St and the Whitfield St / Howland St junctions to ensure vehicles are guided safely into and from these junctions. Further details of specific locations for traffic marshals will be confirmed by the contractor once the construction methodology has been finalised.

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Street Works

Full justification must be provided for proposed use of the public highway to facilitate works. Camden expects all options to minimise the impact on the public highway to have been fully considered prior to the submission of any proposal to occupy the highway for vehicle pit lanes, materials unloading/crane pick points, site welfare etc.

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.

Please note that there is a two week period required for the statutory consultation process to take place as part of a TTO.

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.

If the site conflicts with a bus lane or bus stop, please provide details of preliminary discussions with Transport for London in the relevant sections below.

22. Site set-up

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, relevant street furniture, and proposed site access locations. If these are attached, use the following space to reference their location in the appendices.

See Existing Highway Arrangement Plan in **Appendix A**

23. Parking bay suspensions and temporary traffic orders

Parking bay suspensions should only be requested where absolutely necessary and these are permitted for a maximum of 6 months only. For exclusive access longer than 6 months, you will be required to obtain a [Temporary Traffic Order \(TTO\)](#) for which there is a separate cost.

Please provide details of any proposed parking bay suspensions and/or TTO's which would be required to facilitate the construction - include details of the expected duration in months/weeks. Building materials and equipment must not cause obstructions on the highway as per your CCS obligations unless the requisite permissions are secured.

Information regarding parking suspensions can be found [here](#).

The proposed pit lane will require the closure of the southern section of Whitfield Street to motor vehicles. The footway and car/motorcycle parking bays located on the eastern side of the road will need to be suspended. Parking bays on Maple Street may also require short-term suspension to ease the path of articulated vehicles entering Whitfield Street; this may be limited to phases when articulated vehicles are fully utilised (such as the cladding phase).

A TTO will be obtained for the temporary closure of the pedestrian footway and the suspension of the parking bays. A TTO application for the creation of a northbound cycle lane on the western side of Whitfield Street will also be submitted, to facilitate two-way movement for cyclists.

It is anticipated that the entire demolition and construction works will take approximately 180 weeks and the closures outlined above will be required for the duration of this period.

24. Occupation of the public highway

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. 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 justification of proposed occupation of the public highway.

The build form of the existing and proposed buildings takes up the entirety of the site, therefore prevents site accommodation from being located on site during the works. Site accommodation / welfare will be located above a footway gantry on Howland Street along the Site frontage. The gantry will enable 2m of existing footway to remain on Howland Street for pedestrians during the construction works. Storage of materials will be accommodated on site.

b. Please provide accurate scaled drawings of any highway works necessary to enable construction to take place (e.g. construction of temporary vehicular accesses, removal of street furniture etc). If these are attached, use the following space to reference their location in the appendices.

Temporary access into the site will be required on Whitfield Street, and the temporary removal of existing on-street Sheffield stands will be required to facilitate vehicle access into the pit lane. In addition it will be necessary to trim-back or temporarily remove a street tree on Whitfield Street. These are illustrated in **Appendix B**.

25. Motor vehicle and/or cyclist diversions

Where applicable, please supply details of any diversion, disruption or other anticipated use of the public highway during the construction period. Please show locations of diversion signs on drawings or diagrams. If these are attached, use the following space to reference their location in the appendices.

Pedestrian disruption will occur on Whitfield Street, with the closure of the eastern footway. Pedestrians wishing to travel between Maple Street and Howland Street north/southbound will be required to travel via the western footway or via the Tottenham Court Road footways.

The proposed closure of Whitfield Street to traffic will require southbound vehicles to be diverted to Howland Street via Fitzroy Street or Tottenham Court Road.

Further details of the planned diversions will be provided as part of the Construction Methodology following appointment of the contractor.

26. Scaffolding, hoarding, and associated pedestrian diversions

Pedestrians 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 ramps 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, and hoarding should not restrict access to adjoining properties, including fire escape routes. 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. Where applicable, please provide details of any hoarding and/or scaffolding that intrudes onto the public highway, describing how pedestrian safety will be maintained through the diversion, including any proposed alternative routes. Please provide detailed, scale drawings that show hoarding lines, gantries, crane locations, scaffolding, pedestrian routes, parking bay suspensions, remaining road width for vehicle movements, temporary vehicular accesses, ramps, barriers, signage, lighting etc. If these are attached, use the following space to reference their location in the appendices.

The site hoarding is illustrated within the site Construction Arrangement Plan at **Appendix B**. This will require the closure of the eastern footway on Whitfield Street, and a temporary pedestrian crossing location is also shown within Appendix B.

A minimum footway width of at least 2 metres will be maintained on the Howland Street and Tottenham Court Road frontages once the hoarding and scaffolding are in place. The retained footway width of 2 metres will allow the free flow of pedestrians along both routes.

All relevant lighting, signage, security measures and escape routes will be provided to the proposed structures in accordance with best practice standards. All necessary licences for hoarding/scaffolding will be applied for following appointment of the contractor.

b. Please provide details of any other temporary structures which would overhang/oversail the public highway (e.g. scaffolding, gantries, cranes etc.) If these are attached, use the following space to reference their location in the appendices.

An overhead gantry will be provided on Howland Street over the footway where the site accommodation / welfare will be located, this is illustrated in **Appendix B**.

Further site set-up arrangements will be set out in more detail once the main Contractor is employed to undertake the works.

27. Services

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.

Requirements for utility and plant materials will be set out in detail once the main Contractor is employed to undertake the works.

DRAFT

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.

Noisy working shall include

- Cutting using power tools;
- Breaking out using power tools;
- Moving of materials on site;
- Demolition of the existing building.
- Loading of material into waste removal vehicles.
- Delivery of materials and vehicle movements.

Please note that there shall be a Section 61 Agreement with LBI which must also be referred to and complied with in regard to site hours and other environmental restrictions such as noise, vibration and dust. The site shall operate 2 hours on / 2 hours off for noisy working Monday to Friday i.e.

0800-1000 hours Noisy working
1000-1200 hours Non noisy working
1200-1400 hours Noisy working
1400-1600 hours Non noisy working
1600-1800 hours Noisy working

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.

Please refer to **Appendix D** for background noise survey undertaken by Hann Tucker in August 2020.

30. Please provide predictions for [noise](#) and vibration levels throughout the proposed works.

Predictions for noise levels will be made available once the plant list has been reviewed from the main contractor.

Vibration levels throughout the proposed works are innately impossible to predict to any degree of certainty. Owing to the nature of demolition and construction works it is inevitable that a temporary increase in vibration will be experienced during this time. It is anticipated that there could be vibration level implications for nearby properties.

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.

DRAFT

Noise and vibration shall be managed according to best practicable means. The following mitigation measures should be implemented by contractors at all times to minimise noise and vibration generated from Site activities and disruption to any sensitive receptors. Particular attention will be paid to implementing the measures outlined below when operations are undertaken in close proximity to the adjoining residential properties.

Hoarding and sheeting to public boundaries, potentially with increased height along boundaries with sensitive receptors;

- Any damaging to the hoarding surrounding the Site will be immediately repaired by the Principal Contractor;
- Lorry movements limited as far as possible;
- Use of modern plant with inherent noise suppression where available;
- Use of screens around static plant, and other temporary acoustic barriers where appropriate; Switching off plant which is not in use;
- Appropriate handling of storage materials;
- Restrictions on working hours and staff to be appropriately trained, particularly for noisy
- activities;

Monitoring shall be the responsibility of the Principal Contractor. This will be determined by the nature of the demolition works being undertaken at the Site at a particular time. During phases that have the potential to generate excessive noise and / or vibration, continuous monitoring is likely to be required. However, during quieter periods, monitoring may be undertaken once or twice per day.

The results of monitoring will be recorded and retained on Site. Should monitoring identify any exceedance of the noise or vibration Action Levels, or should any complaints regarding noise and vibration be received, additional sample noise and vibration monitoring should be undertaken by the Environmental Monitoring Co-ordinator nominated by the Principal Contractor. Where the results of the monitoring exercises indicate that the Action Levels have been exceeded, the following actions should be undertaken:

- When activity or activities causing the Action Levels to be exceeded, these will be identified by the Contractor by taking notes on site upon receipt of an exceedance alert to inform retrospective sample monitoring for subsequent discussions with the Environmental Monitoring Coordinator;
- Investigations will be made to determine whether the activities could be easily changed or other simple actions taken to substantially reduce noise or vibration levels;
- If simple and effective remedial measures are not identified, consideration will be given to the implementation of alternative techniques and/or additional mitigation measures;
- Log the incidents of exceedances along with the identified source and the action taken to mitigate the issue.

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

This will be provided once the Principal Contractor is appointed.

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

The following mitigation measures will be adopted by the Principal Contractor to reduce and manage dust and other emissions from Site activities and minimise disruption or nuisance to nearby sensitive

Receptors. Particular attention will be paid to implementing the measures outlined below when operations are undertaken close to the adjoining residential properties, and once parts of the Site are occupied.

A) Pre-project planning and effective management

- Carry out an environmental risk assessment and monitoring of dust during Site enabling works;
- Method Statements to include processes for controlling dust;
- Discussions with stakeholders to confirm what monitoring is required to meet national and local aims.

B) Site works

- Visual assessment of dust levels will be undertaken by all site personnel at all times to identify where excess dust levels are being generated;
- Solid barriers will be erected and maintained around the area under development; and
- Keeping fencing, barriers, scaffolding and screening clean.

C) Haulage routes, vehicles and plant

- Unnecessary vehicle movements and manoeuvring will be avoided;
- Locate plant and vehicles away from sensitive areas.
- Use of plant with low emission levels;
- Switching off plant when not in use;
- Provision of easy-to-clean hardstanding for vehicles;
- Restriction of drop heights onto lorries;
- Use of gas powered generators rather than diesel if possible;
- Regular maintenance of engines, plant, maintenance of pumps and bowser jets;
- Use of wheel-washes or other similar facilities;
- Regular use of brushes and water sprays on vehicles in heavily used areas;
- Use of enclosed and sheeted vehicles;
- Avoid heating with open flame burners;
- Using water sprays, sand or Hessian to reduce vapour emissions e.g. at major haul routes on Site; and
- Use of particle control measures on all machinery which can generate dust e.g. vacuums.

D) Materials handling, storage, stockpiles, spillage and disposal

- Provision of screening during dust generating activities near to commercial and residential properties adjoining the Site;
- Keeping handling areas clean and free of dust;
- Employ best available dust suppression techniques to control particle emissions;
- Control the cutting and grinding of materials on Site;
- Damping down with water when loading materials onto vehicles, onto conveyors and skips;
- Storage of fine dry materials in enclosures at all times, or given adequate protection from wind by sheeting;
- Ensure that skips are securely covered;
- Ensure methods and equipment are in place for immediate clean-up of accidental spillages of dusty or potentially dusty materials, using wet handling methods where appropriate; and No burning of waste wood or other materials on Site.

In addition to the above, The Control of Dust and Emissions During Construction and Demolition Supplementary Planning Guidance, produced by the Mayor of London in 2014, also requires the Principal Contractor to take into account the impact of air quality and dust on occupational exposure standards to minimise worker exposure, and breaches of air quality objectives that may occur outside the Site boundary, such as by visual assessment.

The Principal Contractor must ensure that all plant and vehicles are in good state of repair and conform to the manufacturers' specifications or legislative / British Standard Emission Standards. Plant maintenance and defect reports shall be held on Site in a designated file. Wherever possible, plant shall not be left running for long periods when not directly in use. Where appropriate, electrically-powered plants shall be used in place of petrol or diesel. Care should be taken that damping down and wheel washing activities do not create excess mud that could cause excessive runoff into water courses and drainage.

Particular attention will be paid to operations which must inevitably take place in close proximity to sensitive surrounding properties.

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.

Refer to question 33.

35. Please provide details describing arrangements for monitoring of [noise](#), vibration and dust levels.

Monitoring shall be the responsibility of the Principal Contractor. Final details of dust monitoring are to be agreed with Camden.

The Principal Contractor will determine the prevailing wind direction across the Site using data from a nearby weather station and identify which location(s) need to be monitored. The number of automatic particulate monitors will be confirmed by the Principal Contractor and will be set up to measure representative PM10 levels. These instruments should provide data that can be downloaded in real-time by the Local Authority. The dust monitor should 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. If required, supplementary monitoring with hand-held monitors will be implemented to get on-the-spot at selected points, such as close to sensitive receptors.

It is also recommended that an alert level below the Action Level should be incorporated into the alarm system, to allow issues surrounding elevated dust levels to be dealt with prior to the Action Level being reached.

Where the results of monitoring exercises indicate that the Action Levels have been exceeded, work should stop immediately and the following steps will be undertaken by the Principal 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 Camden.
- 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 CofL at all times.

The local community will be informed in writing of proposed Site operations, and potentially disturbing operations will be programmed for times that would minimise any impacts.

Ongoing visual inspection of the Site will be undertaken at all times by the Principal Contractor. If dust clouds are observed, action should be taken immediately, notwithstanding dust monitoring measurements.

36. 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.

To be submitted as part of the environmental management plan and issued ahead of start on site.

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](#).

To be submitted as part of the environmental management plan and issued ahead of start on site.

- 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.

We confirm that 2 real time dust monitors will be installed on site for the duration of the demolition and construction works, and three months prior to the commencement of works. The contractor will confirm the location of these once appointed.

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).

The appointed contractor will utilize bait traps to prevent rodents spreading out from the site. The contractor will keep monitoring and re-baiting traps once a week.

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

Refer to **Appendix E** – Asbestos Survey undertaken by PA Group UK in June 2015. Asbestos has been identified, and will need to be removed from the building prior to demolition works commencing in earnest.

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.

In the event of a complaint from a neighbour, a member of the public or Camden Pollution Control Team in relation to any site activity, it will be recorded in a designated logbook, stating the nature of the complaint, the cause and, where appropriate, the remedial action taken. Sub-contractors shall immediately notify the Principal Contractor should they receive any complaints.

Should complaints about odour, noise, dust or vibration be received, they will be addressed directly by the Principal Contractor to enable results at the time of the complaint to be reviewed, and where appropriate immediate actions employed to rectify the problem.

All complainants will be contacted by the Principal Contractor or their representative for further discussion and identification of a mutually acceptable resolution if the problem persists. Where a valid grievance is raised, measures will be put in place where practicable to avoid recurrence of the complaint.

The Principal Contractor will provide regular updates to the Project Manager with regard to complaints received and subsequent resolutions.

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:

- a) Construction time period (mm/yy - mm/yy):
- b) Is the development within the CAZ? (Y/N):
- c) Will the NRMM with net power between 37kW and 560kW meet the standards outlined above? (Y/N):
- 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:
- 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:
- 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:

The above will be confirmed by the appointed contractor in due course, and the requirements met.

● 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.

To be completed by the main Contractor **[TO FOLLOW]**

Signed:

Date:

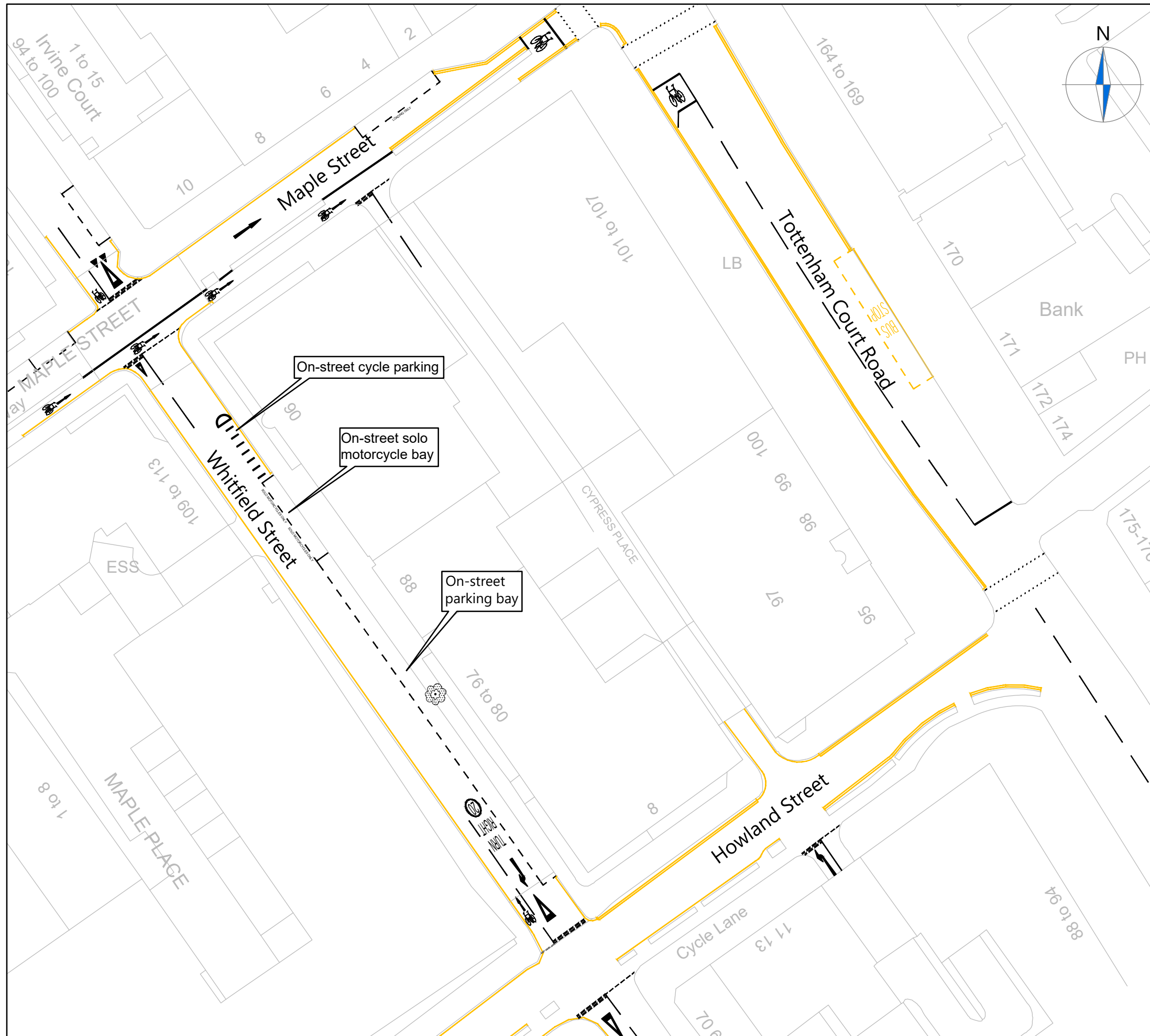
Print Name:

Position:

Please submit to: planningobligations@camden.gov.uk

End of form.

Appendix A



NOTES

1. Do not scale from this drawing.
2. This drawing to be read & printed in colour.
3. This drawing is for illustrative purposes only.

Rev	Details	A	Revised road markings.	AFG	SMcC	11.11.20
				Drawn	Checked	Date

REVISION HISTORY

Status: Preliminary For Approval For Construction
 For Information For Tender As Built

Client:

Derwent Valley Property Development Limited

Project:

Network Building

Drawing Title:

Existing Highway Arrangement

Scale: **1:500** Size: **A3**

Drawn by: **COS** Checked by: **AFG** Date: **30.10.2020**

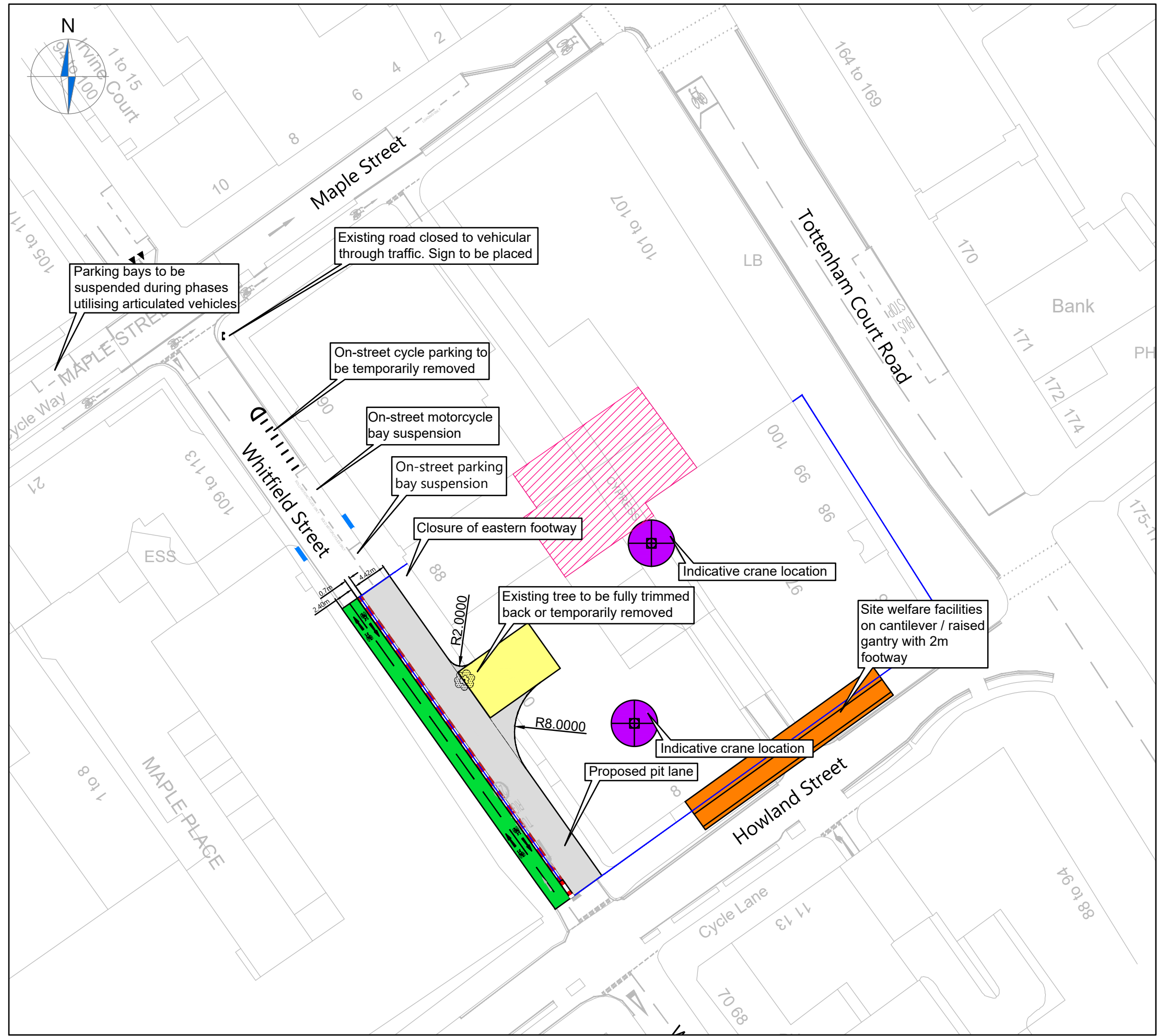


Transport Planning & Highway Design

21 Little Portland Street • London • W1W 8BT • Tel. 020 3617 8200

Scheme Ref:	Drawing No:	Sheet :	Rev:
CA4312	001	1 of 1	A

Appendix B



NOTES

1. Do not scale from this drawing.
2. This drawing to be read & printed in colour.
3. This drawing is for illustrative purposes only.

KEY:

	Site Hoarding
	Cycle Lane
	Pit Lane
	Wheel Washing Facility
	Welfare Facilities
	Loading / Turning Area
	Temporary Pedestrian Crossing

A Revised road markings and pit lane layout. AFG | SMCC | 09.11.20
 Rev Details Drawn Checked Date

REVISION HISTORY			
Status:	<input type="checkbox"/> Preliminary	<input type="checkbox"/> For Approval	<input type="checkbox"/> For Construction
	<input checked="" type="checkbox"/> For Information	<input type="checkbox"/> For Tender	<input type="checkbox"/> As Built

Client:
Derwent Valley Property Development Limited

Project:
Network Building

Drawing Title:
**Construction Management Plan
 Site Arrangement Plan**

Scale: **1:500** Size: **A3**

Drawn by: **AFG** Checked by: **AS** Date: **30.10.2020**

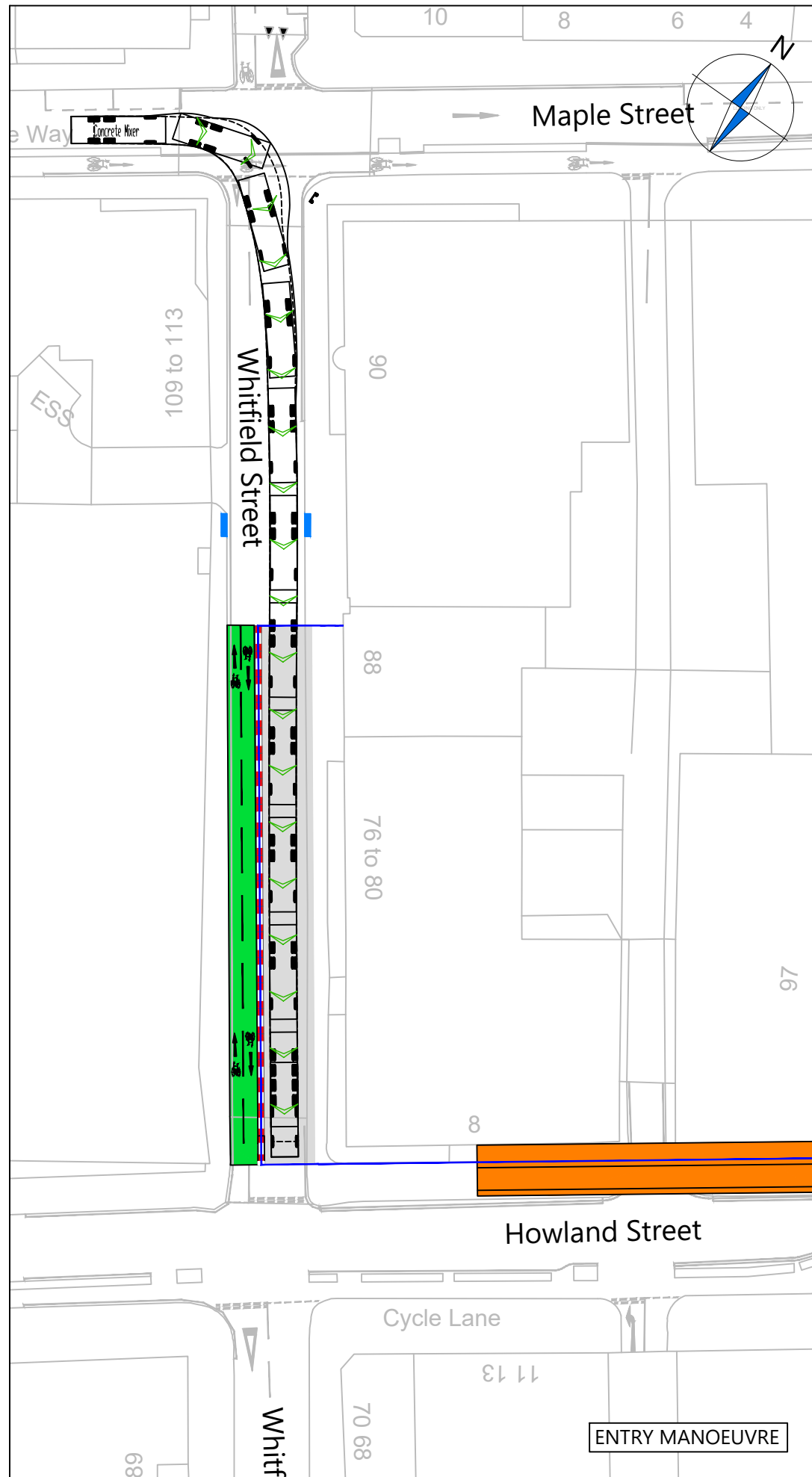


Scheme Ref: **CA4312** Drawing No: **0002** Sheet: **1 of 1** Rev: **A**

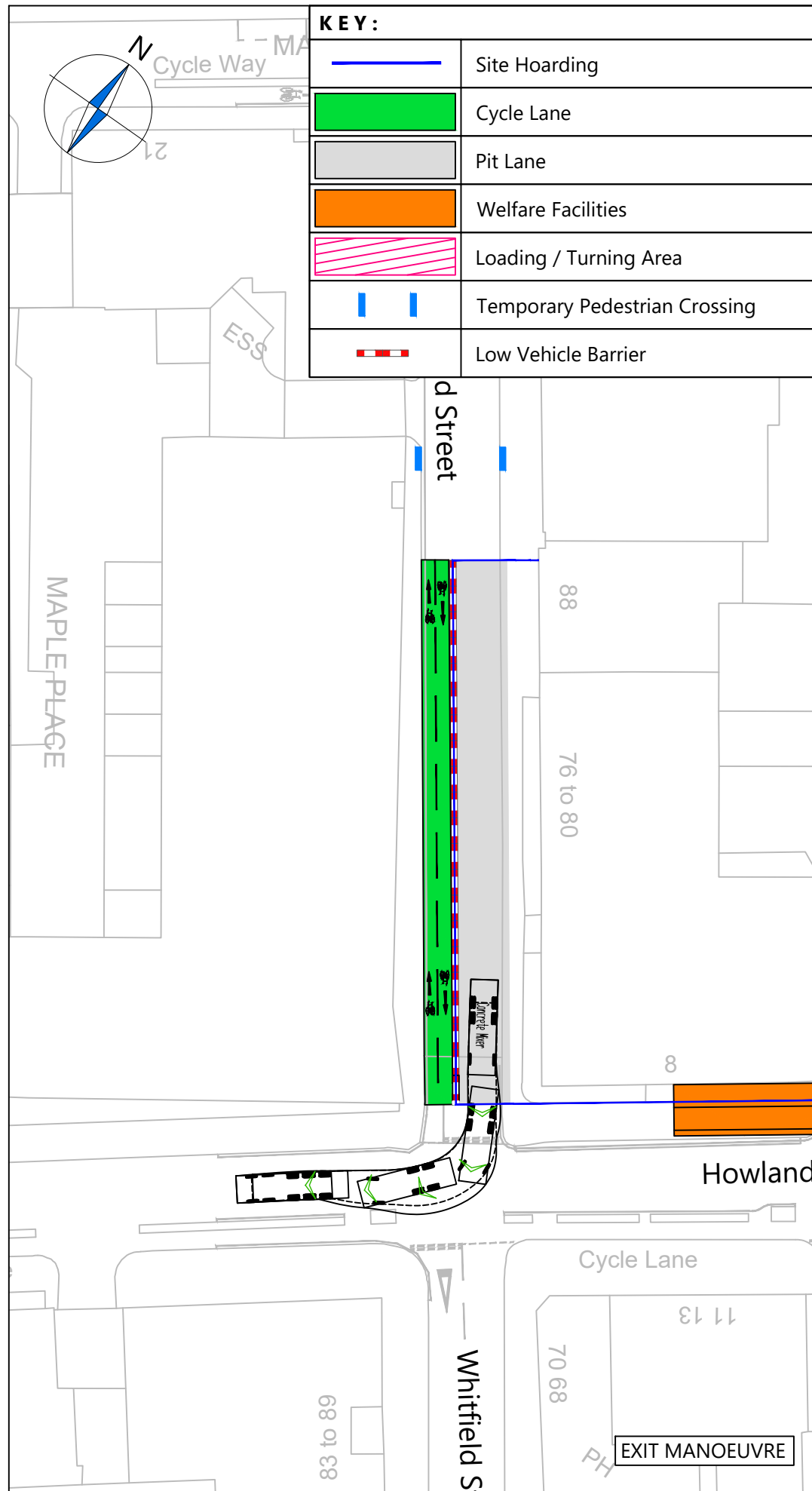
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CA4312_002_A - CONSTRUCTION MANAGEMENT PLAN - SITE ARRANGEMENT PLAN.DWG

Appendix C



ENTRY MANOEUVRE



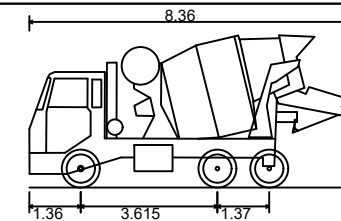
EXIT MANOEUVRE

KEY:	
	Site Hoarding
	Cycle Lane
	Pit Lane
	Welfare Facilities
	Loading / Turning Area
	Temporary Pedestrian Crossing
	Low Vehicle Barrier

NOTES

1. Do not scale from this drawing.
2. This drawing to be read & printed in colour.
3. This drawing is for illustrative purposes only.

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

FORWARD MOVEMENTS ARE SHOWN IN BLACK (design speed - 5kph)

REVERSE MOVEMENTS ARE SHOWN IN BLUE (design speed - 2.5kph)

Rev	Details	Revision History	Drawn	Checked	Date
A	Revised road markings and pit lane layout.	AFG	SMcC		11.11.20

Status: Preliminary For Approval For Construction For Information For Tender As Built

Client: Derwent Valley Property Development Limited

Project: Network Building

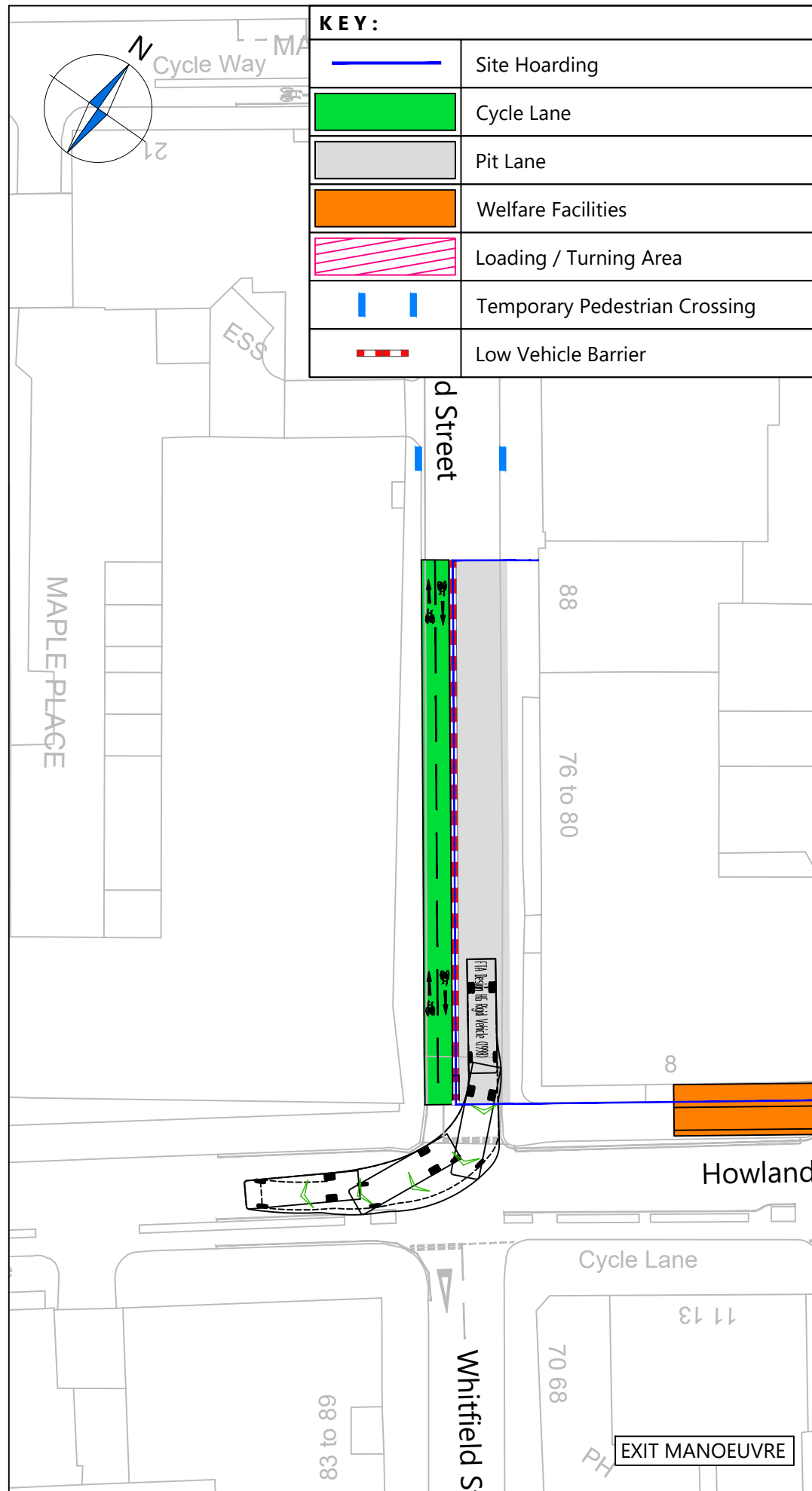
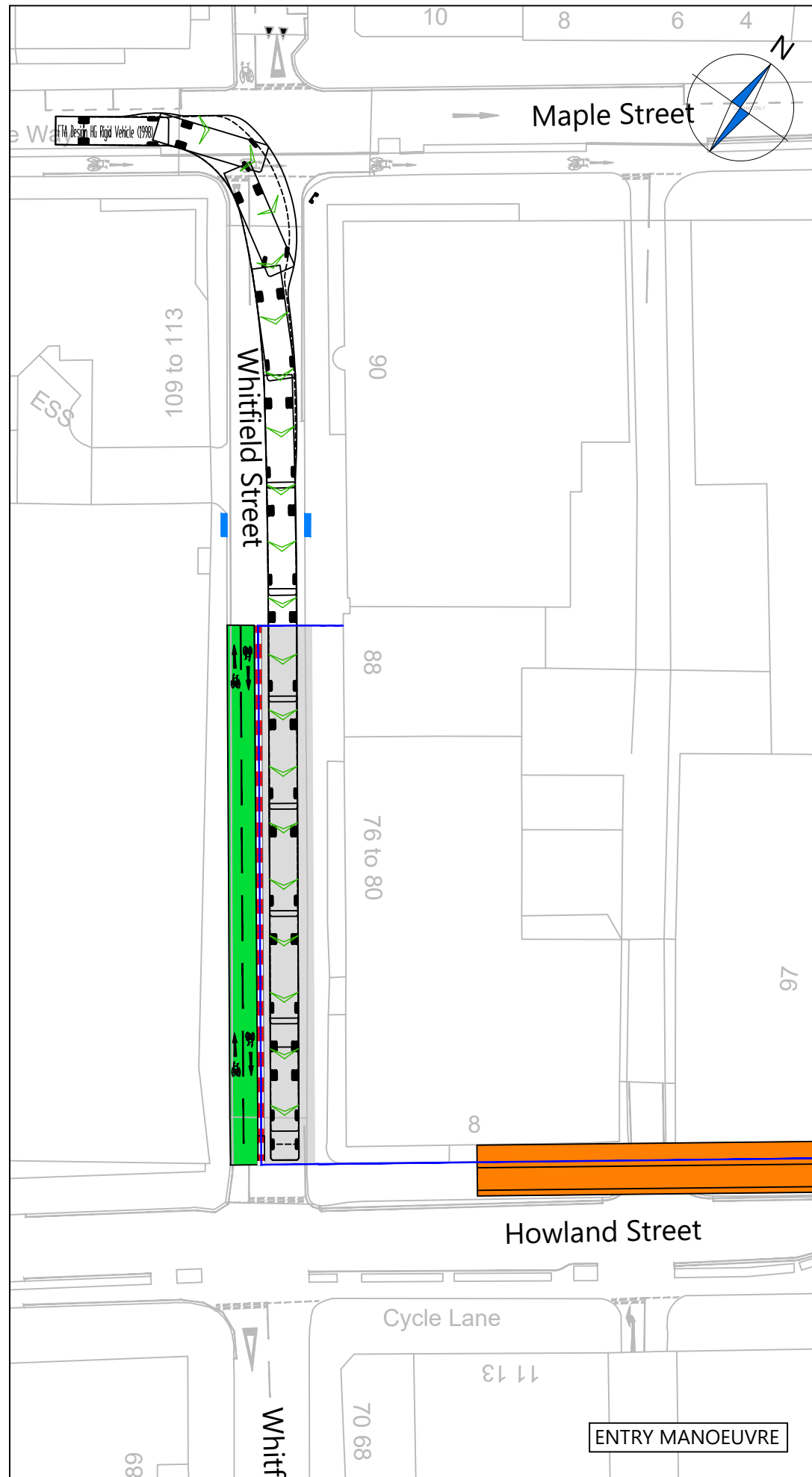
Drawing Title: Vehicle Swept Path Analysis of a Concrete Mixer

Scale: 1:500 Size: A3

Drawn by: AFG Checked by: AS Date: 30.10.2020

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21 Little Portland Street • London • W1W 8BT • Tel. 020 3617 8200

Scheme Ref:	Drawing No:	Sheet :	Rev:
CA4312	TR009	1 of 6	A



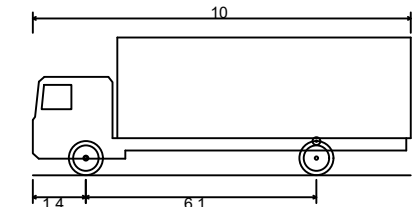
KEY:

	Site Hoarding
	Cycle Lane
	Pit Lane
	Welfare Facilities
	Loading / Turning Area
	Temporary Pedestrian Crossing
	Low Vehicle Barrier

NOTES

1. Do not scale from this drawing.
2. This drawing to be read & printed in colour.
3. This drawing is for illustrative purposes only.

FTA DESIGN HG RIGID VEHICLE (1998)



Overall Length	10.000m
Overall Width	2.500m
Overall Body Height	3.645m
Min Body Ground Clearance	0.440m
Track Width	2.470m
Lock to Lock Time	3.00s
Kerb to Kerb Turning Radius	11.000m

- FORWARD MOVEMENTS ARE SHOWN IN BLACK (*design speed - 5kph*)
- REVERSE MOVEMENTS ARE SHOWN IN BLUE (*design speed - 2.5kph*)

A	Revised road markings and pit lane layout.	AFG	SMcC	11.11.20
Rev	Details	Drawn	Checked	Date
REVISION HISTORY				
Status:	<input type="checkbox"/> Preliminary	<input type="checkbox"/> For Approval	<input type="checkbox"/> For Construction	
	<input checked="" type="checkbox"/> For Information	<input type="checkbox"/> For Tender	<input type="checkbox"/> As Built	

Client:
Derwent Valley Property Development Limited

Project:
Network Building

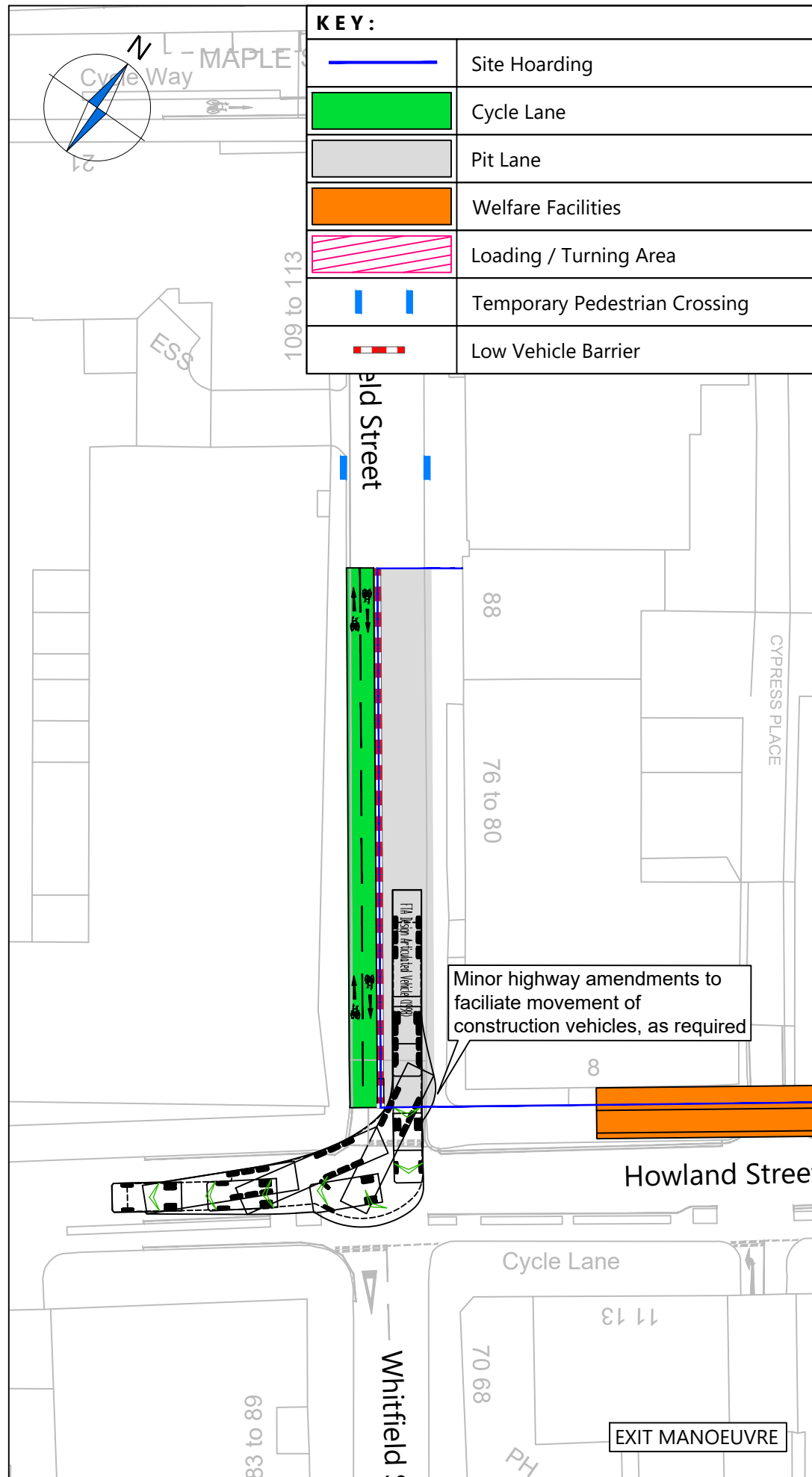
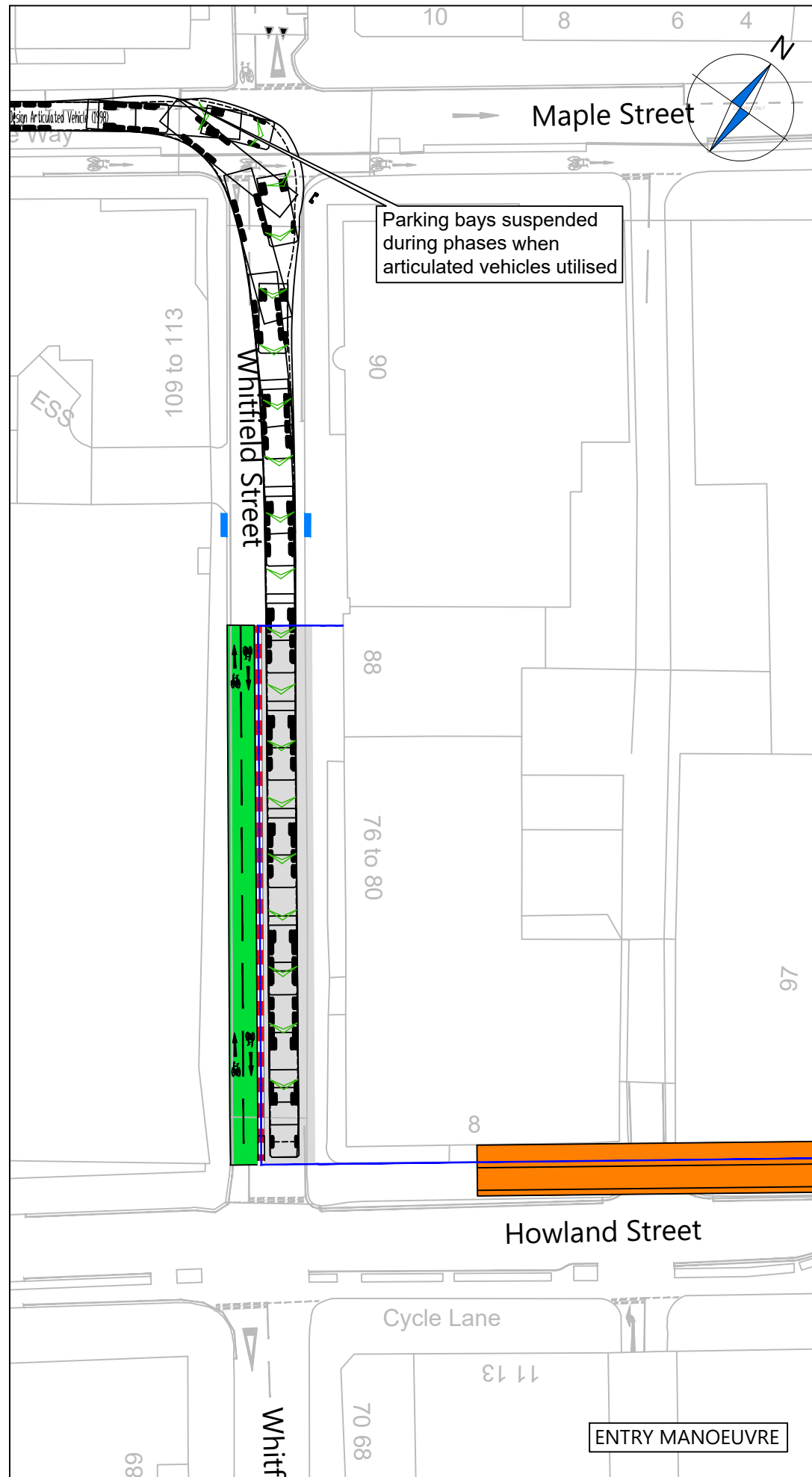
Drawing Title:
Vehicle Swept Path Analysis of FTA HG Rigid Vehicle

Scale: **1:500** Size: **A3**

Drawn by: **AFG** Checked by: **AS** Date: **30.10.2020**

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Scheme Ref: **CA4312** Drawing No: **TR009** Sheet: **2 of 6** Rev: **A**



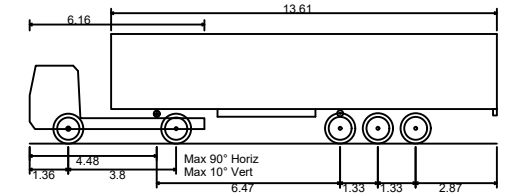
KEY:

	Site Hoarding
	Cycle Lane
	Pit Lane
	Welfare Facilities
	Loading / Turning Area
	Temporary Pedestrian Crossing
	Low Vehicle Barrier

NOTES

1. Do not scale from this drawing.
2. This drawing to be read & printed in colour.
3. This drawing is for illustrative purposes only.

FTA DESIGN ARTICULATED VEHICLE (1998)



Overall Length	16.480m
Overall Width	2.550m
Overall Body Height	3.870m
Min Body Ground Clearance	0.515m
Max Track Width	2.470m
Lock to Lock Time	3.00s
Kerb to Kerb Turning Radius	6.550m

FORWARD MOVEMENTS ARE SHOWN IN BLACK (design speed - 5kph)

REVERSE MOVEMENTS ARE SHOWN IN BLUE (design speed - 2.5kph)

A	Revised road markings and pit lane layout.	AFG	SMcC	11.11.20
Rev	Details	Drawn	Checked	Date

REVISION HISTORY

Status:	<input type="checkbox"/> Preliminary	<input type="checkbox"/> For Approval	<input type="checkbox"/> For Construction
	<input checked="" type="checkbox"/> For Information	<input type="checkbox"/> For Tender	<input type="checkbox"/> As Built

Client:

Derwent Valley Property Development Limited

Project:

Network Building

Drawing Title:

Vehicle Swept Path Analysis of FTA Design Articulated Vehicle

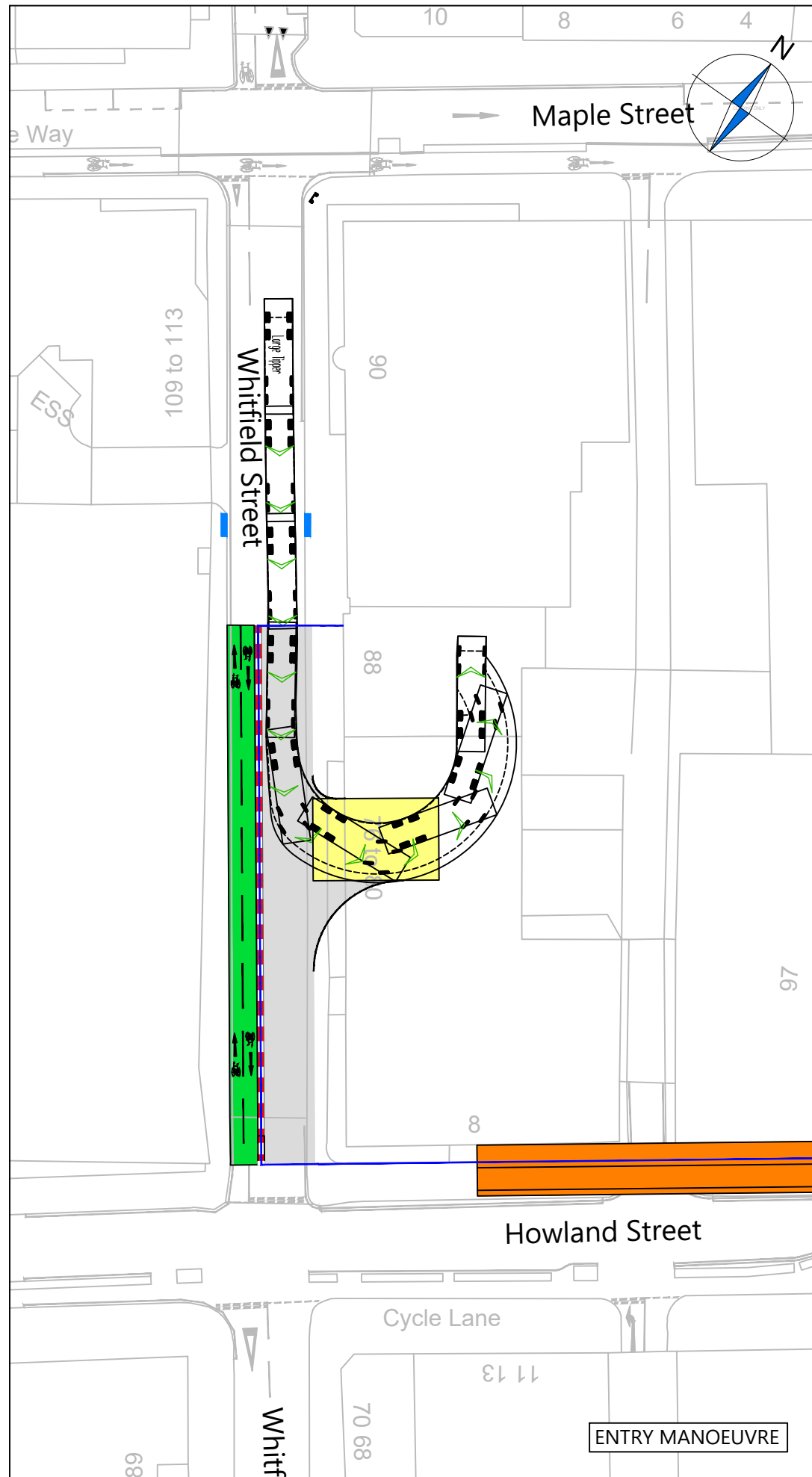
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Drawn by: AFG Checked by: AS Date: 30.10.2020

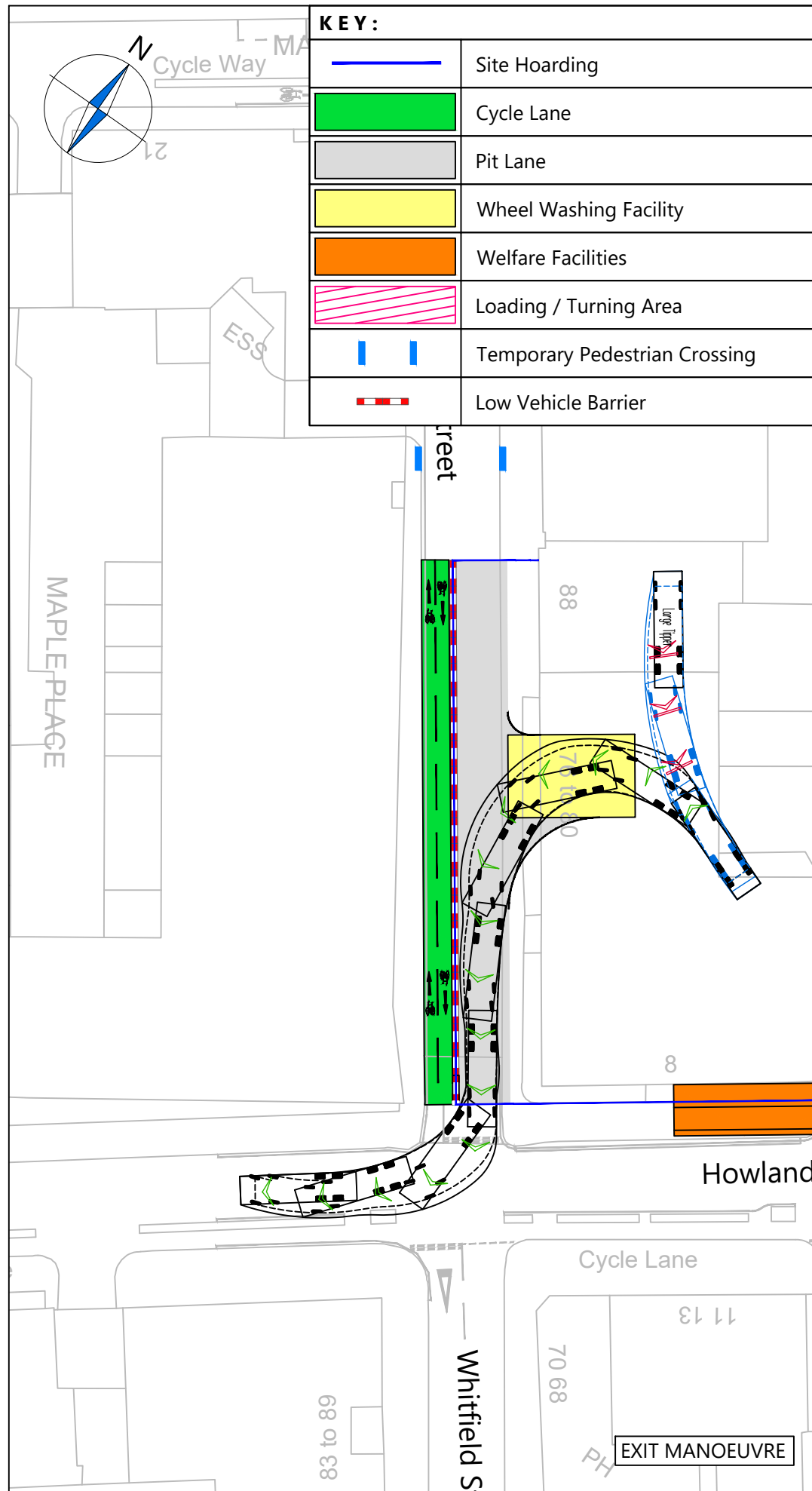


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Scheme Ref:	Drawing No:	Sheet :	Rev:
CA4312	TR009	3 of 6	A



ENTRY MANOEUVRE



EXIT MANOEUVRE

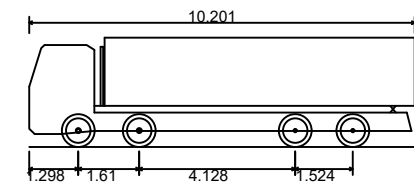
KEY:

	Site Hoarding
	Cycle Lane
	Pit Lane
	Wheel Washing Facility
	Welfare Facilities
	Loading / Turning Area
	Temporary Pedestrian Crossing
	Low Vehicle Barrier

NOTES

1. Do not scale from this drawing.
2. This drawing to be read & printed in colour.
3. This drawing is for illustrative purposes only.

LARGE TIPPER



Overall Length 10.201m
 Overall Width 2.495m
 Overall Body Height 2.890m
 Min Body Ground Clearance 0.341m
 Track Width 2.471m
 Lock to Lock Time 6.00s
 Kerb to Kerb Turning Radius 11.550m

FORWARD MOVEMENTS ARE SHOWN IN BLACK (design speed - 5kph)

REVERSE MOVEMENTS ARE SHOWN IN BLUE (design speed - 2.5kph)

Rev	Details	REVISION HISTORY			Drawn	Checked	Date
Status:	<input type="checkbox"/> Preliminary	<input type="checkbox"/> For Approval	<input type="checkbox"/> For Construction	<input checked="" type="checkbox"/> For Information	<input type="checkbox"/> For Tender	<input type="checkbox"/> As Built	

Client:
Derwent Valley Property Development Limited

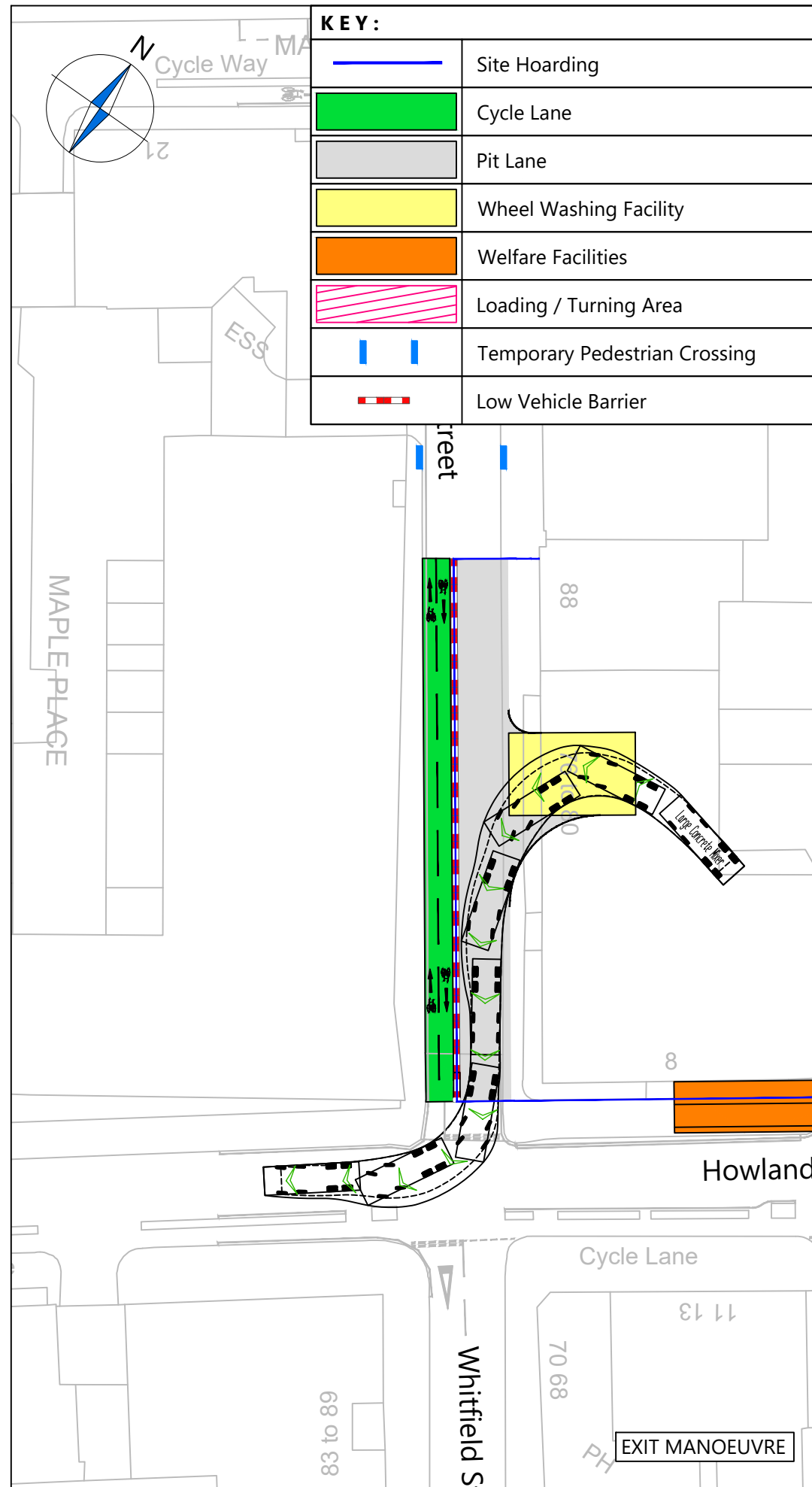
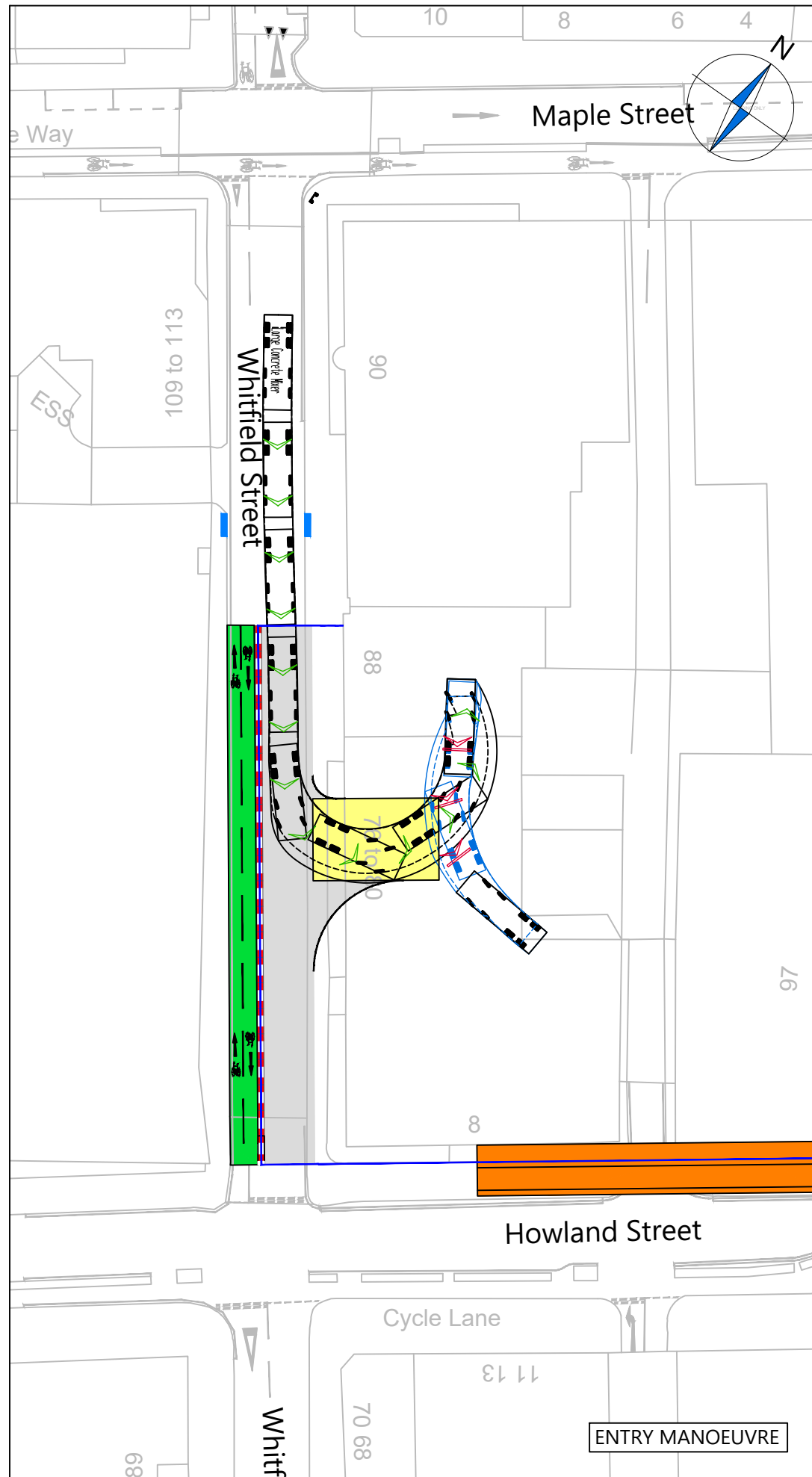
Project:
Network Building

Drawing Title:
Vehicle Swept Path Analysis of a Large Tipper

Scale: 1:500 Size: A3
 Drawn by: AFG Checked by: AS Date: 30.10.2020

CANEPARO ASSOCIATES
 Transport Planning & Highway Design
 21 Little Portland Street • London • W1W 8BT • Tel. 020 3617 8200

Scheme Ref: CA4312 Drawing No: TR009 Sheet: 4 of 6 Rev: ...



KEY:

	Site Hoarding
	Cycle Lane
	Pit Lane
	Wheel Washing Facility
	Welfare Facilities
	Loading / Turning Area
	Temporary Pedestrian Crossing
	Low Vehicle Barrier

NOTES

1. Do not scale from this drawing.
2. This drawing to be read & printed in colour.
3. This drawing is for illustrative purposes only.

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

FORWARD MOVEMENTS ARE SHOWN IN BLACK (design speed - 5kph)

REVERSE MOVEMENTS ARE SHOWN IN BLUE (design speed - 2.5kph)

Rev	Details	REVISION HISTORY			Drawn	Checked	Date
Status:	<input type="checkbox"/> Preliminary	<input type="checkbox"/> For Approval	<input type="checkbox"/> For Construction	<input checked="" type="checkbox"/> For Information	<input type="checkbox"/> For Tender	<input type="checkbox"/> As Built	

Client: Derwent Valley Property Development Limited

Project: Network Building

Drawing Title: Vehicle Swept Path Analysis of a Concrete Mixer

Scale: 1:500 Size: A3

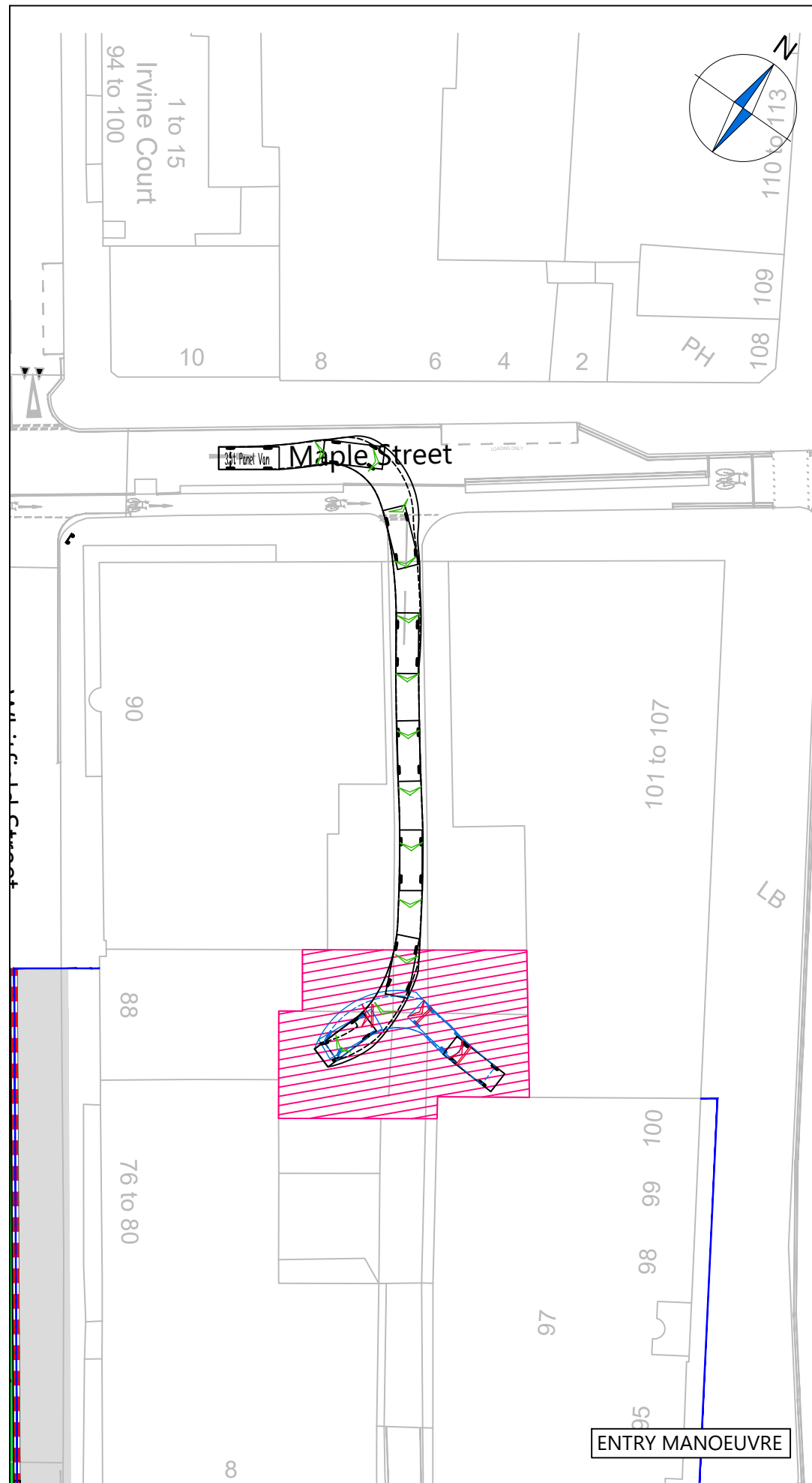
Drawn by: AFG Checked by: AS Date: 30.10.2020

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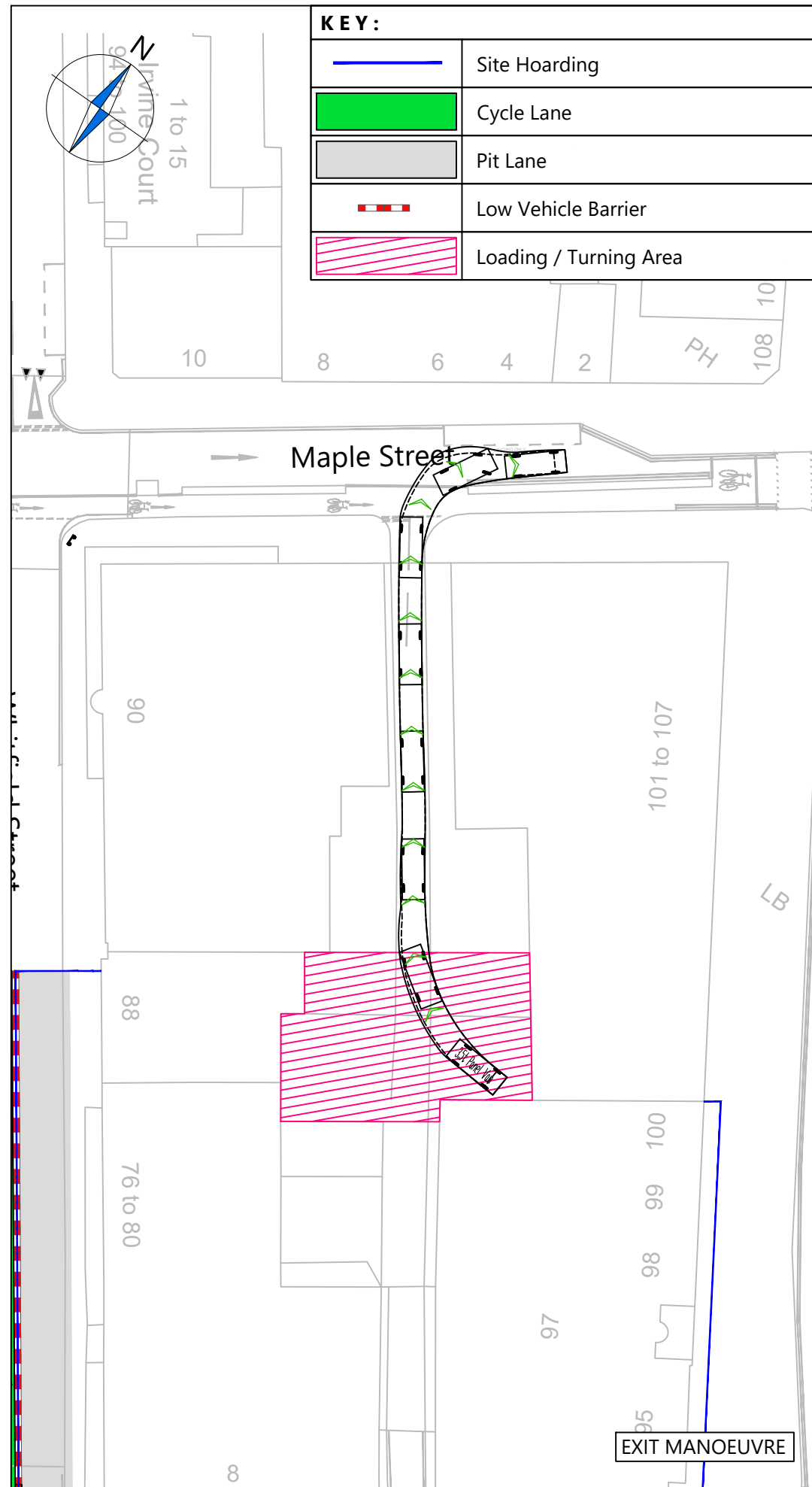
Scheme Ref:	Drawing No:	Sheet :	Rev:
CA4312	TR009	5 of 6	...

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CA4312_TR009_A - SWEEP PATH ANALYSIS (CMP).DWG



ENTRY MANOEUVRE



EXIT MANOEUVRE

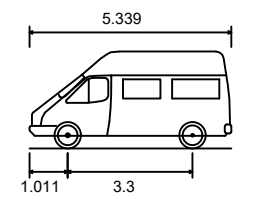
KEY:

	Site Hoarding
	Cycle Lane
	Pit Lane
	Low Vehicle Barrier
	Loading / Turning Area

NOTES

1. Do not scale from this drawing.
2. This drawing to be read & printed in colour.
3. This drawing is for illustrative purposes only.

3.5T PANEL VAN



Overall Length	5.339m
Overall Width	1.986m
Overall Body Height	2.565m
Min Body Ground Clearance	0.338m
Track Width	1.986m
Lock to Lock Time	4.00s
Kerb to Kerb Turning Radius	6.400m

- FORWARD MOVEMENTS ARE SHOWN IN BLACK (design speed - 5kph)
- REVERSE MOVEMENTS ARE SHOWN IN BLUE (design speed - 2.5kph)

Rev	Details	REVISION HISTORY			Drawn	Checked	Date
Status: <input type="checkbox"/> Preliminary <input type="checkbox"/> For Approval <input type="checkbox"/> For Construction <input checked="" type="checkbox"/> For Information <input type="checkbox"/> For Tender <input type="checkbox"/> As Built							

Client: **Derwent Valley Property Development Limited**

Project: **Network Building**

Drawing Title: **Vehicle Swept Path Analysis of a 3.5t Panel Van**

Scale: 1:500 Size: A3

Drawn by: AFG Checked by: AS Date: 30.10.2020

CANEPARO ASSOCIATES
Transport Planning & Highway Design
21 Little Portland Street • London • W1W 8BT • Tel. 020 3617 8200

Scheme Ref: CA4312 Drawing No: TR009 Sheet: 6 of 6 Rev: ...

Appendix D



Network Building London

Environmental Noise Survey Report

27891/ENS1

3 August 2020

For:
Blackburn & Co
No.1 Clink Street
London
SE1 9DG



Hann Tucker Associates

Consultants in Acoustics Noise & Vibration

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Manchester Office: First Floor, 346 Deansgate, Manchester, M3 4LY (t) +44 (0) 161 832 7041

(w) hanntucker.co.uk (e) enquiries@hanntucker.co.uk



Environmental Noise Survey Report 27891/ENS1

Document Control

Rev	Date	Comment	Prepared by	Authorised by
0	03/08/2020	-		
			James Hardacre Technical Assistant	Andrew Fermer Director

This report has been prepared by Hann Tucker Associates Limited (HTA) with all reasonable skill, care and diligence in accordance with generally accepted acoustic consultancy principles and the purposes and terms agreed between HTA and our Client. Any information provided by third parties and referred to herein may not have been checked or verified by HTA unless expressly stated otherwise. This document contains confidential and commercially sensitive information and shall not be disclosed to third parties. Any third party relies upon this document at their own risk.



Environmental Noise Survey Report 27891/ENS1

Contents		Page
1.0	Introduction	1
2.0	Objectives	1
3.0	Site Description	1
4.0	Acoustic Terminology	2
5.0	Methodology	2
6.0	Results	5
7.0	Discussion Of Noise Climate	6
8.0	Conclusions	6
9.0	Local Authority Requirements	6
10.0	Relevant Planning Policies and Guidance	8
11.0	Plant Noise Emission Criteria	11

Attachments

Appendix A – Acoustic Terminology



1.0 Introduction

Hann Tucker Associates have been appointed to undertake an unmanned environmental noise survey at the Network Building, London, in order to identify existing environmental noise levels around the proposed development site.

2.0 Objectives

To establish by means of a detailed 24 hour survey the existing L_{Amax} , L_{A10} , L_{Aeq} and L_{A90} environmental road, rail and air traffic noise levels at up to 2 (two) “secure” on-site positions, using fully computerised unmanned monitoring equipment.

To present our methodology and results in a full technical report

3.0 Site Description

3.1 Location

The site is located at Network House on Whitfield street in London. The location is shown in the Location Map below.



Location Map (Map data © Google 2020)

The site falls within the jurisdiction of Camden Council.



3.2 Description

The site is a ground plus 5 storey commercial building.

The site boundary is neighboured by Tottenham Court Road to the north east, Howland street to the south east, Whitfield street to the south west and Maple street to the north west. The surrounding area is characterised by commercial uses.

The site is shown in the Site Plan below.



Site Plan (Imagery ©2020 Bluesky, CNES/Airbus, Getmapping plc, Infoterra Ltd & Bluesky, Maxar Technologies, The GeoInformation Group, Map data ©2020)

4.0 Acoustic Terminology

For an explanation of the acoustic terminology used in this report please refer to Appendix A enclosed.

5.0 Methodology

The survey was undertaken by James Hardacre.



5.1 Procedure

Fully automated environmental noise monitoring was undertaken from approximately 13:30 hours on 14 July 2020 to 12:15 hours on 17 July 2020.

During the periods we were on site the wind conditions were calm. The sky was generally overcast. We understand that generally throughout the survey period the weather conditions were similar to those observed during the site visits. These conditions are considered suitable for obtaining representative measurement results.

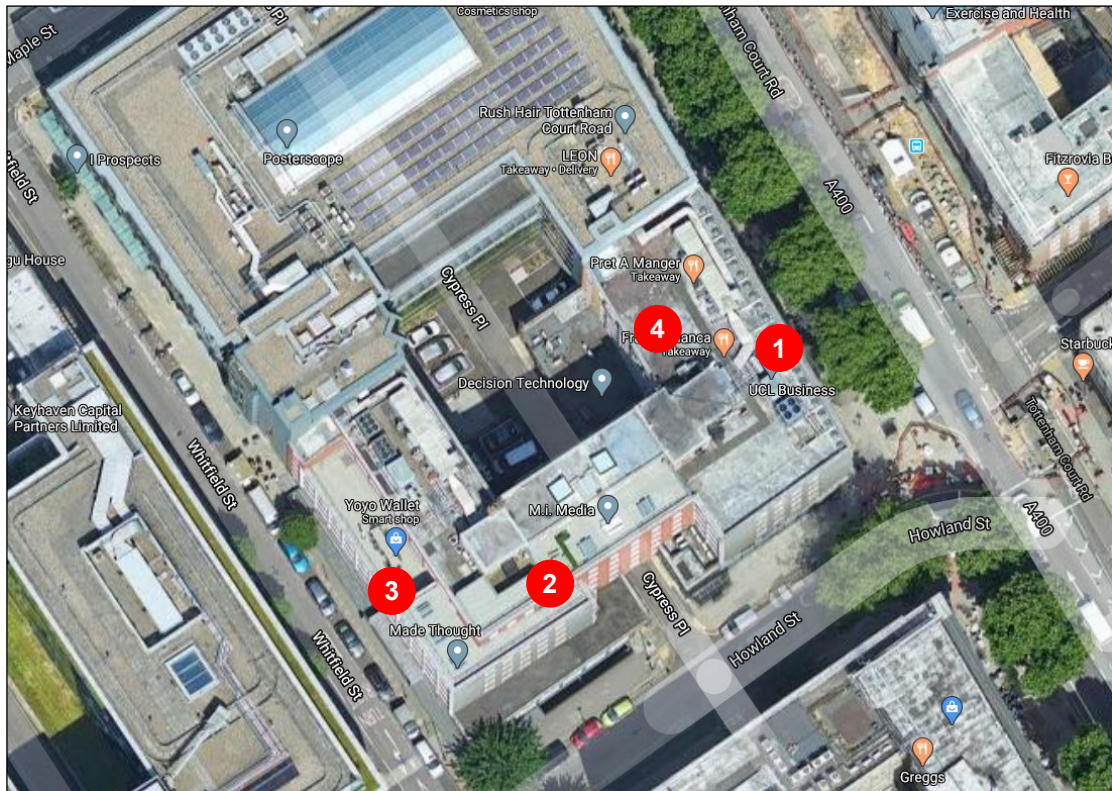
Measurements were taken continuously of the A-weighted (dBA) L_{90} , L_{eq} and L_{max} sound pressure levels over 15 minute periods.

5.2 Measurement Positions

The noise level measurements were undertaken at 4 positions as described in the table below.

Position No	Description
1	The microphone was placed at roof level in the free-field on the north-eastern facade of the site. The microphone was attached to a pole and positioned 3 metres above roof level and at least 25m above ground level.
2	The microphone was placed at roof level in the free field on the south-eastern facade of the site. The microphone was attached to a pole and positioned 3 metres above roof level and at least 25m above ground level.
3	The microphone was placed at roof level in the free field on the south-western facade of the site. The microphone was attached to a pole and positioned 3 metres above roof level and at least 25m above ground level.
4	The microphone was placed at roof level in the free field on the north-western facade of the site. The microphone was attached to a pole and positioned 3 metres above roof level and at least 25m above ground level.

The positions are shown on the plan below.



Plan Showing Unmanned Measurement Positions (Imagery ©2020 Bluesky, CNES/Airbus, Getmapping plc, Infoterra Ltd & Bluesky, Maxar Technologies, The GeoInformation Group, Map data ©2020)

5.3 Instrumentation

The instrumentation used during the survey is presented in the table below:

Description	Manufacturer	Type	Serial Number	Calibration
Position 1 & 4 Type 1 ½" Condenser Microphone	PCB	377B02	135744	Calibration on 20/01/2020
Position 1 & 4 Preamp	PCB	PRM902	4812	Calibration on 21/01/2020
Position 1 & 4 Type 1 Data Logging Sound Level Meter	Larson Davis	824	3700	Calibration on 21/01/2020
Position 2 & 3 Type 1 ½" Condenser Microphone	PCB	377B02	133362	Calibration on 13/09/2019
Position 2 & 3 Preamp	Larson Davis	PRM902	3318	Calibration on 13/09/2019
Position 2 & 3 Type 1 Data Logging Sound Level Meter	Larson Davis	824	3699	Calibration on 13/09/2019



Each sound level meter, including the extension cable, was calibrated prior to and on completion of the surveys. No significant changes were found to have occurred (no more than 0.1 dB).

Each sound level meter was located in an environmental case with the microphone connected to the sound level meter via an extension cable. Each microphone was fitted with a windshield.

6.0 Results

The results have been plotted on Time History Graphs 27891/TH1.1 to 27891/TH1.4 enclosed presenting the 15 minute A-weighted (dBA) L_{90} , L_{eq} and L_{max} levels at each measurement position throughout the duration of the survey.

6.1 Lowest Measured L_{90} Noise Levels

The following table presents the lowest measured L_{A90} background noise levels during the survey:

Position	Lowest Measured L_{A90} Background Noise Level (dB re 2×10^{-5} Pa)	
	Daytime (07:00 – 23:00) Hours	Night-Time (23:00 – 07:00) Hours
1	49	47
2	47	45
3	52	52
4	50	49

6.2 Modal Average Measured L_{90} Noise Levels

The following table presents the modal average measured L_{A90} background noise levels during the survey:

Position	Modal Average Measured L_{A90} Background Noise Level (dB re 2×10^{-5} Pa)	
	Daytime (07:00 – 23:00) Hours	Night-Time (23:00 – 07:00) Hours
1	57	48
2	53	46
3	55	52
4	51	50



6.3 Measured L_{eq} Noise Levels

The measured daytime $L_{Aeq(16\text{-hour})}$ and night-time $L_{Aeq(8\text{-hour})}$ noise levels for each position are presented in the table below.

Position	Measured $L_{Aeq,T}$ Noise Level (dB re 2×10^{-5} Pa)	
	Daytime (07:00 – 23:00) Hours, $L_{Aeq,16hr}$	Night-Time (23:00 – 07:00) Hours, $L_{Aeq,8hr}$
1	59	52
2	58	52
3	60	55
4	54	52

7.0 Discussion Of Noise Climate

Due to the nature of the survey, i.e. unmanned, it is not possible to accurately describe the dominant noise sources, or specific noise events throughout the entire survey period. However at the beginning and end of the survey period the dominant noise sources were noted to be road traffic from the road network.

8.0 Conclusions

A detailed 24 hour survey has been carried out and the existing L_{Amax} ; L_{Aeq} and L_{A90} environmental road, rail and air traffic noise levels at 4 “secure” on-site position have been established, by means of fully computerised unmanned monitoring equipment.

Plant noise emission criteria have been recommended based on the results of the noise survey and with reference to the Local Authority’s requirements.

9.0 Local Authority Requirements

The site lies within London Borough of Camden’s jurisdiction. Their advice regarding criteria for atmospheric noise emissions from building service plant is contained within their Local Plan, version June 2017 as follows:

Industrial and Commercial Noise Sources

A relevant standard or guidance document should be referenced when determining values for LOAEL and SOAEL for non-anonymous noise. Where appropriate and within the scope of the document it is expected that British Standard 4142:2014 ‘Methods for rating and assessing industrial and commercial sound’ (BS 4142) will be used. For such cases a ‘Rating Level’ of 10 dB below background (15dB if tonal components are present) should be considered as the design criterion).



Table C: Noise levels applicable to proposed industrial and commercial developments (including plant and machinery)

Existing Noise sensitive receptor	Assessment Location	Design Period	LOAEL (Green)	LOAEL to SOAEL (Amber)	SOAL (Red)
Dwellings**	Garden used for main amenity (free field) and Outside living or dining or bedroom window (façade)	Day	'Rating level' 10dB* below background	'Rating level' between 9dB below and 5dB above background	'Rating level' greater than 5dB above background
Dwellings**	Outside bedroom window (façade)	Night	'Rating level' 10dB* below background and no events exceeding 57dB _{L_{max}}	'Rating level' between 9dB below and 5dB above background or noise events between 57dB and 88dB L _{max}	'Rating level' greater than 5dB above background and/or events exceeding 88dB _{L_{max}}

*10dB should be increased to 15dB if the noise contains audible tonal elements. (day and night). However, if it can be demonstrated that there is no significant difference in the character of the residual background noise and the specific noise from the proposed development then this reduction may not be required. In addition, a frequency analysis (to include, the use of Noise Rating (NR) curves or other criteria curves) for the assessment of tonal or low frequency noise may be required.

**levels given are for dwellings, however, levels are use specific and different levels will apply dependent on the use of the premises.

The periods in Table C correspond to 0700 hours to 2300 hours for the day and 2300 hours to 0700 hours for the night. The Council will take into account the likely times of occupation for types of development and will be amended according to the times of operation of the establishment under consideration.

There are certain smaller pieces of equipment on commercial premises, such as extract ventilation, air conditioning units and condensers, where achievement of the rating levels (ordinarily determined by a BS:4142 assessment) may not afford the necessary protection. In these cases, the Council will generally also require a NR curve specification of NR35 or below, dependant on the room (based upon measured or predicted Leq,5mins noise levels in octave bands) 1 metre from the façade of affected premises, where the noise sensitive premise is located in a quiet background area.

On 26 June 2016 London Borough of Camden sent us an email confirming the following windows should be considered noise sensitive, "housing, schools, hospitals, offices, workshops".



10.0 Relevant Planning Policies and Guidance

10.1 Noise Policy Statement for England

The Noise Policy Statement for England (NPSE) was published in March 2010. The NPSE is the overarching statement of noise policy for England and applies to all forms of noise other than occupational noise, setting out the long term vision of Government noise policy which is to:

“Promote good health and a good quality of life through the effective management of noise within the context of Government policy on sustainable development.”

That vision is supported by the following aims which are reflected in three of the four aims for planning policies and decisions in paragraph 123 of the NPPF (see paragraph 8.2 (b) below):

“Through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development:

- *avoid significant adverse impacts on health and quality of life;*
- *mitigate and minimise adverse impacts on health and quality of life; and*
- *where possible, contribute to the improvement of health and quality of life.”*

The Explanatory Note to the NPSE has three concepts for the assessment of noise in this country:

NOEL – No Observed Effect Level

This is the level below which no effect can be detected and below which there is no detectable effect on health and quality of life due to noise.

LOAEL – Lowest Observable Adverse Effect Level

This is the level above which adverse effects on health and quality of life can be detected.

SOAEL – Significant Observed Adverse Effect Level

This is the level above which significant adverse effects on health and quality of life occur.

None of these three levels are defined numerically and for the SOAEL the NPSE makes it clear that the noise level is likely to vary depending upon the noise source, the receptor and the time of day/day of the week, etc. The need for more research to investigate what may represent an SOAEL for noise is acknowledged in the NPSE and the NPSE asserts that not stating specific SOAEL levels provides policy flexibility in the period until there is further evidence and



guidance.

The NPSE concludes by explaining in a little more detail how the LOAEL and SOAEL relate to the three aims listed in paragraph (b) above. It starts with the aim of avoiding significant adverse effects on health and quality of life, then addresses the situation where the noise impact falls between the LOAEL and the SOAEL when *“all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life while also taking into account the guiding principles of sustainable development.”* The final aim envisages pro-active management of noise to improve health and quality of life, again taking into account the guiding principles of sustainable development which include the need to minimise travel distance between housing and employment uses in an area.

10.2 National Planning Policy Framework (NPPF)

The National Planning Policy Framework (NPPF) was published in March 2012 and replaced the previous national planning guidance document Planning Policy Guidance 24: *Planning and Noise* (PPG24).

The main reference to noise within the NPPF is at paragraph 123, reproduced below:

“123. Planning policies and decisions should aim to:

- Avoid noise from giving rise to significant adverse impacts²⁷ on health and quality of life as a result of new development;*
- Mitigate and reduce to a minimum other adverse impacts²⁷ on health and quality of life arising from noise from new development, including through the use of conditions;*
- Recognise that development will often create some noise and existing businesses wanting to develop in continuance of their business should not have unreasonable restrictions put on them because of changes in nearby land uses since they were established;²⁸ and*
- Identify and protect areas of tranquillity which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason.”*

The reference numbers 27 and 28 point respectively to the Explanatory Note to the NPSE and the provisions of the Environmental Protection Act 1990 *“and other relevant law”*.



The spirit of the Localism Act and the NPPF would suggest that of the guidelines cited, it is guidelines adopted as policy by the Local Planning Authority (if such exist) that should prevail, at least until the Government publishes relevant technical guidance under the NPPF.

10.3 Planning Practice Guidance on Noise

Planning Practice Guidance (PPG) under the NPPF has been published by the Government as a web based resource at <http://planningguidance.planningportal.gov.uk/blog/guidance/>. This includes specific guidance on Noise although, like the NPPF and NPSE the PPG does not provide any quantitative advice. It seeks to illustrate a range of effect levels in terms of examples of outcomes as set out in the following table:

Perception	Examples of Outcomes	Increasing effect level	Action
Not noticeable	No effect	No Observed Effect	No specific measures required
Noticeable and not intrusive	Noise can be heard, but does not cause any change in behaviour or attitude. Can slightly affect the acoustic character of the area but not such that there is a perceived change in the quality of life.		
		Lowest Observed Adverse Effect Level	
Noticeable and intrusive	Noise can be heard and causes small changes in behaviour and/or attitude, e.g. turning up volume of television; speaking more loudly; where there is no alternative ventilation, having to close windows for some of the time because of the noise. Potential for some reported sleep disturbance.	Observed Adverse Effect	Mitigate and reduce to a minimum
		Significant Observed Adverse Effect Level	
Noticeable and disruptive	The noise causes a material change in behaviour and/or attitude, e.g. avoiding certain activities during periods of intrusion; where there is no alternative ventilation, having to keep windows closed most of the time because of the noise. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to change in acoustic character of the area.		Avoid
Noticeable and very disruptive	Extensive and regular changes in behaviour and/or an inability to mitigate effect of noise leading to psychological stress or physiological effects, e.g. regular sleep deprivation/awakening; loss of appetite, significant, medically definable hard, e.g. auditory and non-auditory.		Prevent



10.4 World Health Organisation Guidelines on Community Noise

BS8233:2014 is based upon the current World Health Organisation (WHO) guidance “*Guidelines on Community Noise*”. A summary of the noise guidelines relevant to the proposed development is presented in the table below.

Residential Environment	Critical Health Effect(s)	L _{Aeq}	L _{AFmax}	Time Base
Outdoor living area	Serious annoyance, daytime and evening	55	-	07:00-23:00
	Moderate annoyance, daytime and evening	50	-	07:00-23:00
Dwelling, indoors	Speech intelligibility and moderate annoyance, daytime and evening	35	-	07:00-23:00
Inside bedrooms	Sleep disturbance, night-time	30	45	23:00-07:00
Outside bedrooms	Sleep disturbance, window open (outdoor values)	45	60	23:00-07:00

These WHO guidelines are based, in almost all cases, on the lower threshold below which the occurrence rates of any particular effect can be assumed to be negligible.

The internal and external noise level criteria presented in BS8233:2014 for residential dwelling are generally consistent with the WHO guidelines, although some differences are apparent. For instance the WHO guidelines refer to research that suggests “*For a good sleep, it is believed that indoor sound pressure levels should not exceed approximately 45 dB L_{AFmax} more than 10-15 times per night.*” (Vallet & Vernet, 1991). The current version of BS8233 does not identify a specific L_{AFmax} level although it suggests that a guideline value may be set using that parameter depending on the character and number of individual noise events per night.

11.0 Plant Noise Emission Criteria

On the basis of the aforementioned acoustic standards and guidance, together with the results of the environmental noise survey, we propose that the following plant noise emission criteria be achieved at in the nearest garden ‘used for main amenity’ or at 1 metre from the nearest living room, dining room, or bedroom in the daytime, and at 1 metre from the nearest bedroom window at night-time with all plant operating simultaneously.



Position	Plant Noise Emission Criteria (dB re 2x10 ⁻⁵ Pa)	
	Daytime (07:00 – 23:00 hours)	Night-time (23:00 – 07:00 hours)
1	39dBA / NR35*	37dBA / NR35*
2	37dBA / NR35*	35dBA / NR35*
3	42dBA / NR35*	42dBA / NR35*
4	40dBA / NR35*	39dBA / NR35*

*NR35 criterion applies to 'smaller pieces of equipment on commercial premises, such as extract ventilation, air conditioning units, and condensers....where noise sensitive premises are located in a quiet background area' as per Camden's Local Plan.

If plant contains tonal or impulsive characteristics the external design criteria should be reduced by 5dBA.

The above criteria are based on a level of 10dB below background in order to fall into Camden's 'Green' criteria for **dwelling**s. Whilst we understand that Camden considers other uses noise sensitive, the Local plan states that the criteria is use dependent but does not define criteria that correspond to 'Green', 'Amber', or 'Red' for these other uses. We request that Camden clarify their policy in this respect. The criteria could be relaxed by 5dB in line with the 'Amber' criteria in Camden's Local Plan, which may be acceptable to Camden depending on 'the context of other merits of the development'.

It should be noted that the above are subject to the final approval of the Local Authority.

Appendix A

The acoustic terms used in this report are defined as follows:

dB	Decibel - Used as a measurement of sound level. Decibels are not an absolute unit of measurement but an expression of ratio between two quantities expressed in logarithmic form. The relationships between Decibel levels do not work in the same way that non-logarithmic (linear) numbers work (e.g. 30dB + 30dB = 33dB, not 60dB).
dBA	<p>The human ear is more susceptible to mid-frequency noise than the high and low frequencies. The 'A'-weighting scale approximates this response and allows sound levels to be expressed as an overall single figure value in dBA. The _A subscript is applied to an acoustical parameter to indicate the stated noise level is A-weighted</p> <p>It should be noted that levels in dBA do not have a linear relationship to each other; for similar noises, a change in noise level of 10dBA represents a doubling or halving of subjective loudness. A change of 3dBA is just perceptible.</p>
L _{90,T}	L ₉₀ is the noise level exceeded for 90% of the period <i>T</i> (i.e. the quietest 10% of the measurement) and is often used to describe the background noise level.
L _{eq,T}	L _{eq,T} is the equivalent continuous sound pressure level. It is an average of the total sound energy measured over a specified time period, <i>T</i> .
L _{max}	L _{max} is the maximum sound pressure level recorded over the period stated. L _{max} is sometimes used in assessing environmental noise where occasional loud noises occur, which may have little effect on the L _{eq} noise level.
L _p	Sound Pressure Level (SPL) is the sound pressure relative to a standard reference pressure of 2 x 10 ⁻⁵ Pa. This level varies for a given source according to a number of factors (including but not limited to: distance from the source; positioning; screening and meteorological effects).
L _w	Sound Power Level (SWL) is the total amount of sound energy inherent in a particular sound source, independent of its environment. It is a logarithmic measure of the sound power in comparison to a specified reference level (usually 10 ⁻¹² W).

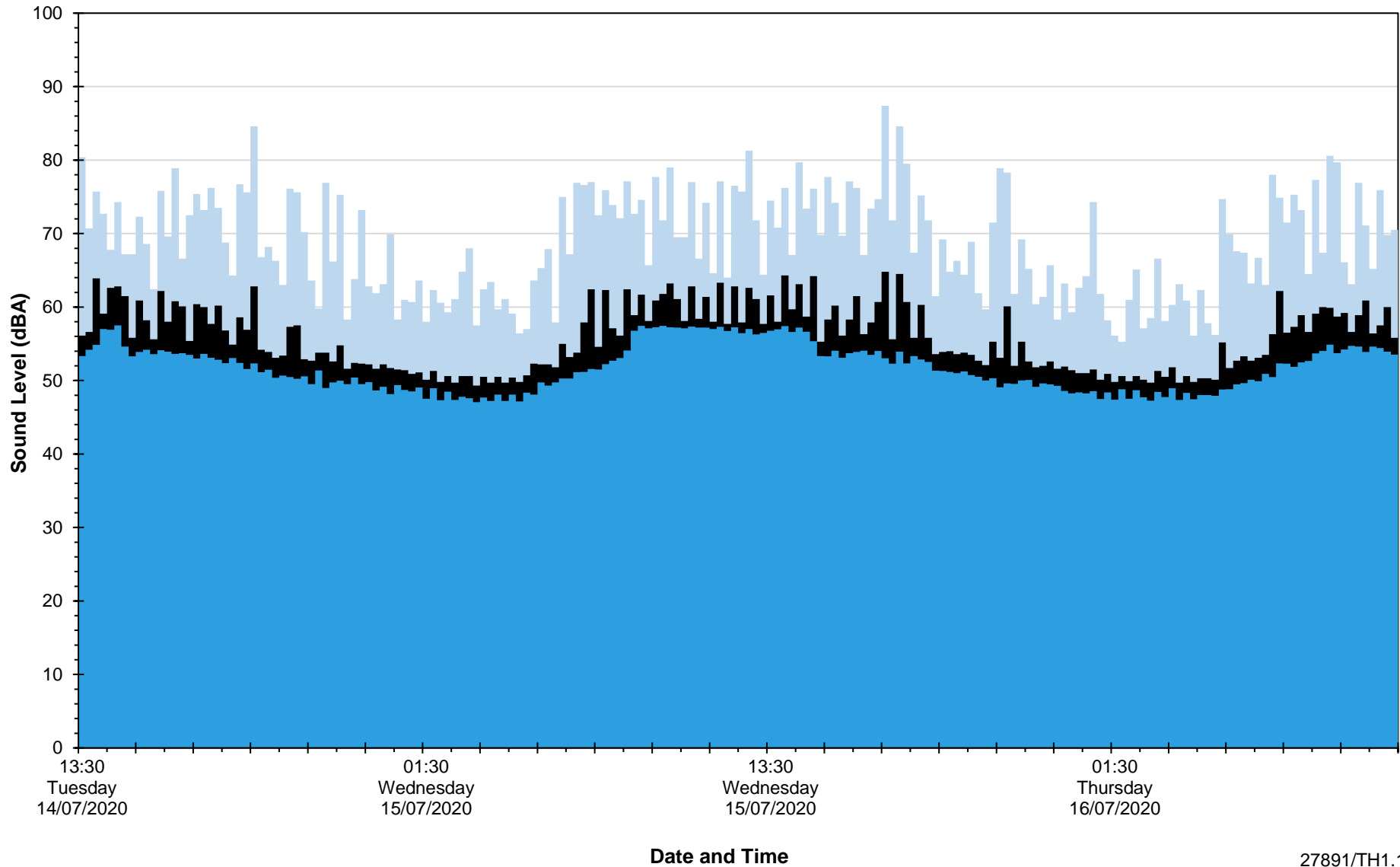
Network Building

Position 1

L_{eq} , L_{max} and L_{90} Noise Levels
Tuesday 14 July 2020 to Thursday 16 July 2020

■ L_{max} ■ L_{eq}

■ L_{90}



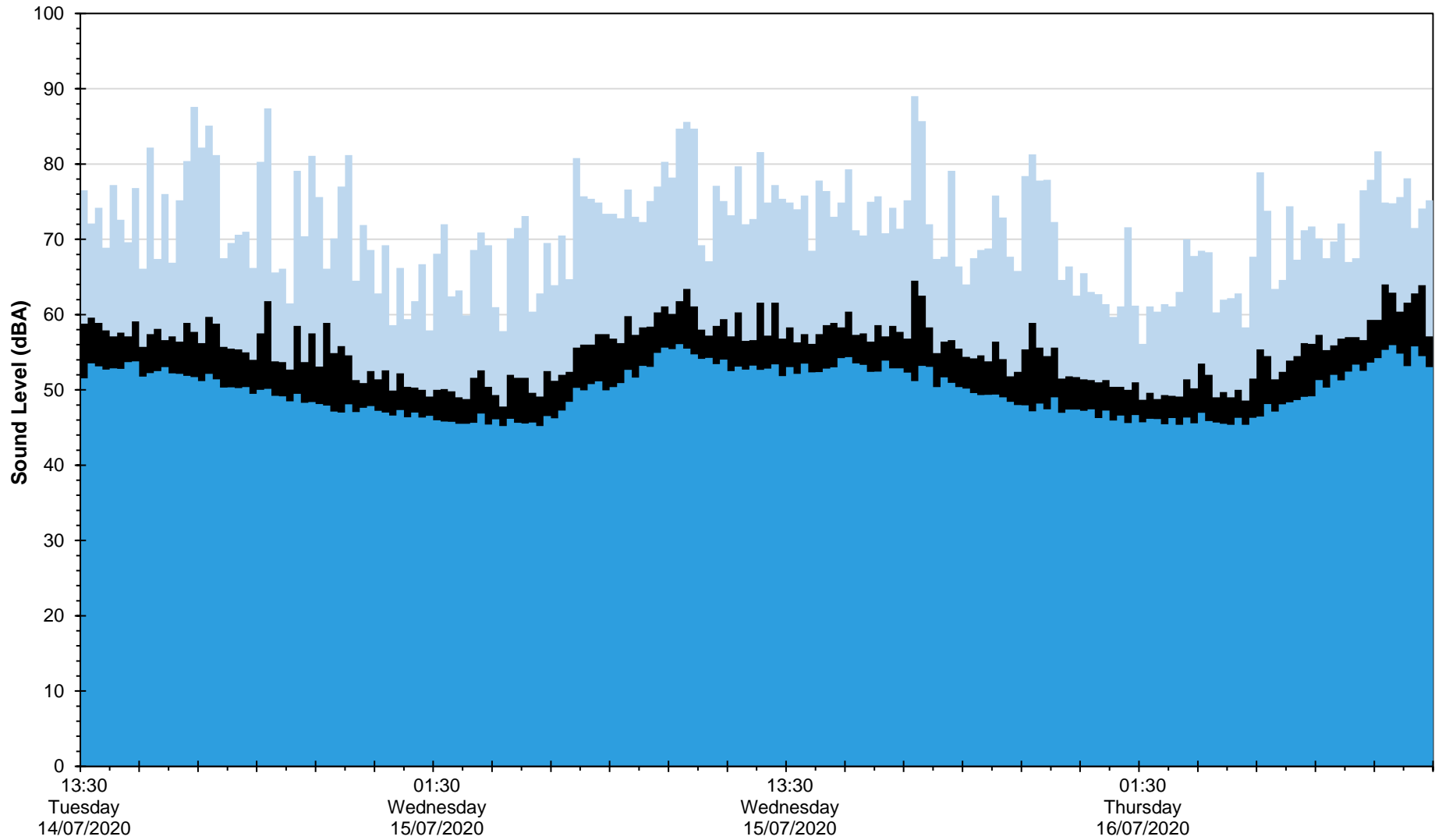
Network Building

Position 2

L_{eq} , L_{max} and L_{90} Noise Levels
Tuesday 14 July 2020 to Thursday 16 July 2020

■ L_{max} ■ L_{eq}

■ L_{90}



Date and Time

27891/TH1.2

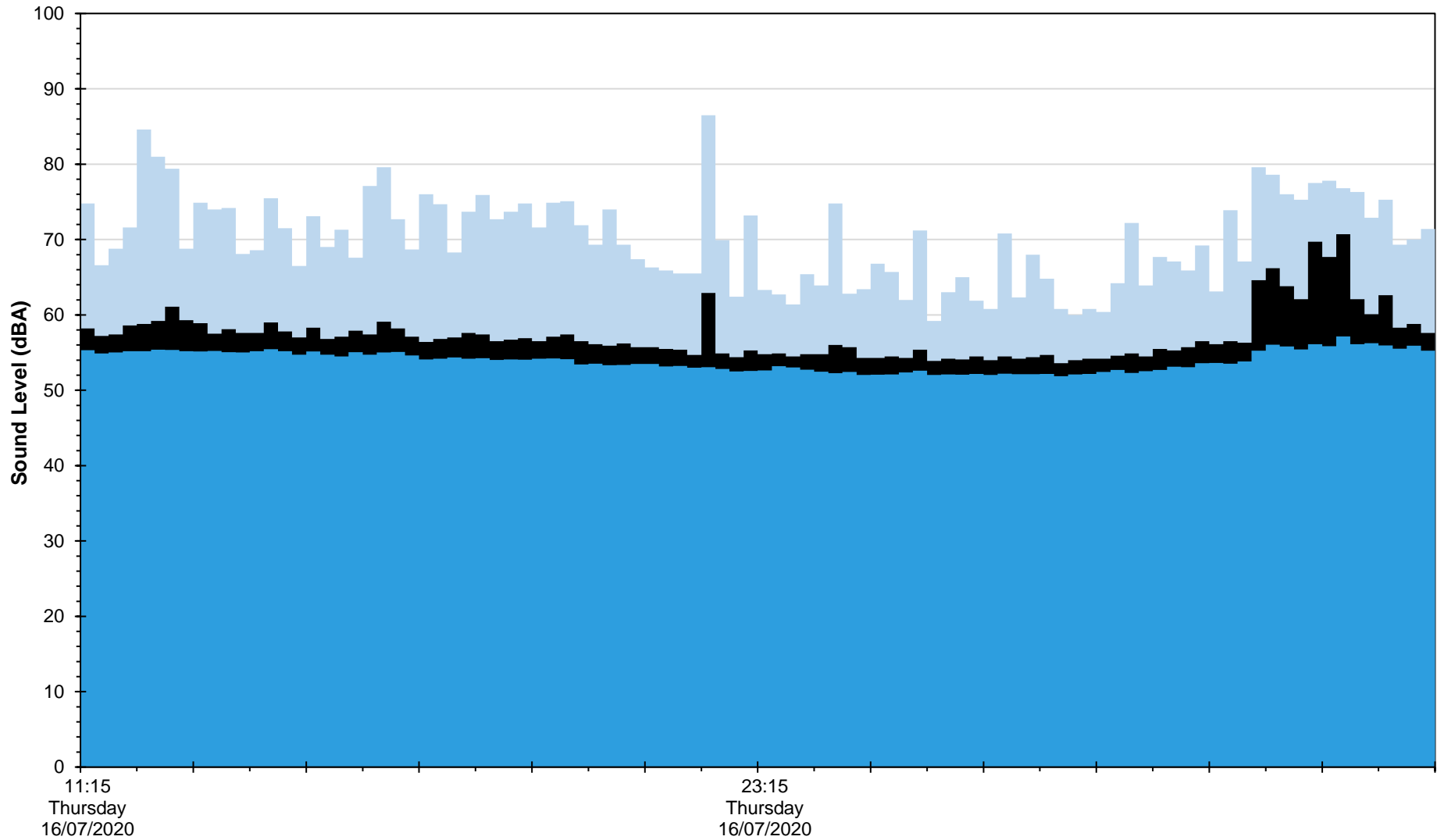
Network Building

Position 3

L_{eq} , L_{max} and L_{90} Noise Levels
Thursday 16 July 2020 to Friday 17 July 2020

■ L_{max} ■ L_{eq}

■ L_{90}



Date and Time

27891/TH1.3

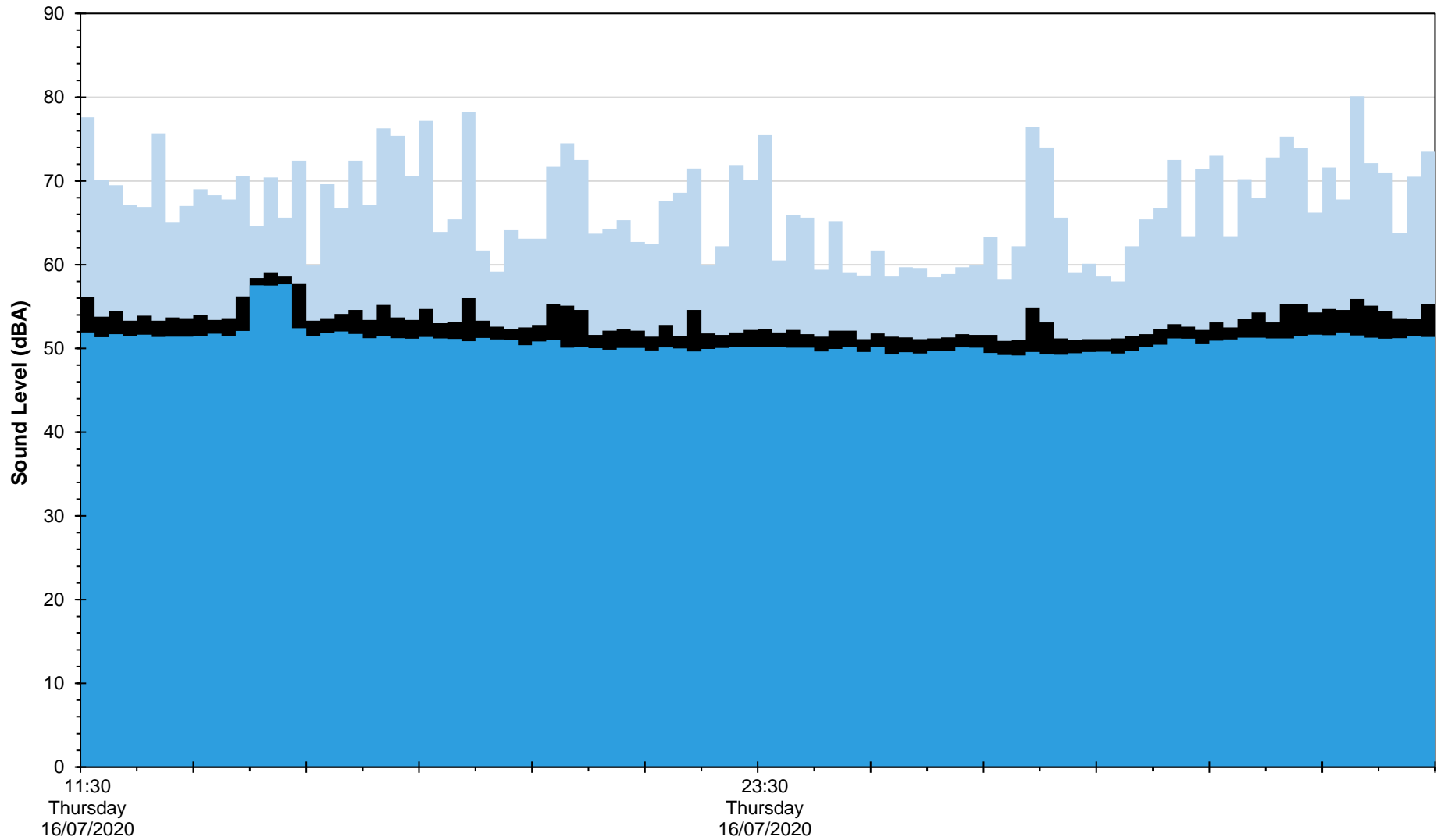
Network Building

Position 4

L_{eq} , L_{max} and L_{90} Noise Levels
Thursday 16 July 2020 to Friday 17 July 2020

■ L_{max} ■ L_{eq}

■ L_{90}



Date and Time

27891/TH1.4

Appendix E





WWW.PAGROUPUK.COM
 E: RECEPTION@PAGROUPUK.COM
 0845 474 0172



Management Survey
 for asbestos materials at:

The Network Building
 97 Tottenham Court Road
 & 80 Whitfield Street
 London
 W1T 4TP
 United Kingdom

On behalf of:

Derwent London
 25 Savile Row
 London
 W1S 2ER



PROJECT MANAGER: **CHRIS MILLER-HANNA**

DATE: **22ND JUNE 2015**

REFERENCE: **2015-00342**

SURVEYOR CHECKED 

QA CHECKED BY 

Please consider the environment and think before you print.



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 COMPANY REG NO - 6257126



CONTENTS

SECTION	TITLE	PAGE
1.	MASTER CONTROL PAGE	3
2.	EXECUTIVE SUMMARY	5
3.	NOTES ON APPENDICES	7

APPENDICES

- A. REGISTERS – ASBESTOS / NON-ASBESTOS/ NO ACCESS
- B. PHOTOGRAPHS - ASBESTOS / NON-ASBESTOS/ NO ACCESS
- C. ANNOTATED FLOOR PLANS (IF APPLICABLE)
- D. BULK SAMPLE REPORTS
- E. PROJECT OUTLINE
SURVEY METHODOLOGY
SAMPLING RATIONALE FOR ASBESTOS SURVEYS
SAMPLING METHODOLOGY
SAMPLING DENSITY
SAMPLE ANALYSIS
REPORTING
DESCRIPTION OF SURVEY TYPES
MATERIAL RISK ASSESSMENT
LIMITATIONS & EXCLUSIONS
STANDARD TERMS OF ENGAGEMENT



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MASTER CONTROL PAGE



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1. MASTER CONTROL PAGE (ASBESTOS SURVEY)

This Control Page is to update all management related changes and revisions to the original survey document and the duty holders responsible. Please ensure this page is completed as required to demonstrate safe ongoing asbestos management.

Client & Address	Derwent London, 25 Savile Row, London, W1S 2ER
Client Contact Details:	Stuart Macintosh - 02075 805 054
Surveying Company Details:	PA Group UK Limited, The Granary, Pinden Farm, Dartford, Kent, DA2 8EA – Tel: 0845 474 0172
Original Survey Type & Date:	Asbestos Management Survey – Monday 8 th June 2015

DUTY HOLDER - Please ensure when a Duty Holder changes complete this section

Duty Holder Name	Date (Duty Began)	Signature	Date (Duty Finish)	Signature	Asbestos Awareness Certificate

RE-INSPECTION - Please complete this section at every asbestos re-inspection

Re-Inspection (Revision Number)	Date	Company	Name	Sign



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EXECUTIVE SUMMARY



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2. EXECUTIVE SUMMARY

1	Site Location	The Network Building, 97 Tottenham Court Road & 80 Whitfield Street, London, W1T 4TP, United Kingdom
2	Survey Type/ Scope	Asbestos Management Survey to 97 Tottenham Court Road & 80 Whitfield Street areas only.
3	Date of Survey	Monday 8 th June 2015
4	Surveyor(s)	Phil Jenkins
5	Asbestos Present	Yes
6	Action Required	No
7	General Site Description	The site consists of a 6 storey office block constructed of concrete ceilings, suspended fibre board ceiling tiles, fixed plasterboard ceilings, plasterboard, ceramic tiles and concrete and brick walls, carpets, modern vinyl, raised steel and ceramic tiles over concrete floors, modern plant equipment, fibre glass, rubber, hessian and bitumen lagged steel pipe work, modern electric fuse boxes, rubber stair nosings, ceramic and plastic cisterns, modern sink units, steel windows, with steel sills, and solid surrounds, asphalt flat roofs, steel and plastic guttering and downpipes, steel flues concrete and brick risers with steel pipework runs, fibre glass water tanks and all concrete fire exit stairwells.
8	Summary of Asbestos	Asbestos has been identified during the scope of this inspection, in the form of Gaskets within the Boiler Room & Old Oil Store, the Gas Meter Room and the Sprinkler Cupboard and Car Park. Asbestos has also been presumed to exist in the form of Rope Flash Guards and Rope Brake Pads within Lift Motor 1 & 2 and Rope Seals to the External Roof. Please observe the Asbestos Register for further information.
9	Areas of No Access	Not all areas have been accessed. Every effort was made to access all areas of the site. Any areas of No Access are detailed 'Appendix A & B – No Access Register / Photographic Register'. Please ensure these areas are inspected prior to ANY disturbance.
10	General Recommendations	Ongoing safe management of items in situ is all that is required. Any recommendations as stated on the Survey Registers (Appendix A & B) should be actioned as a minimum to ensure the asbestos either remains in situ in sound condition or is removed. A specification / Contractors method statement for the removal of asbestos materials should be developed prior to any asbestos removal works. Thereafter ongoing re-inspections and specific assessment when refurbishment planned are necessary.
11	Specific Exclusions	Survey to scope specified areas only. All other areas including ground floor shops units are considered out of scope of survey.
12	This sheet is intended to provide a summary only of the asbestos survey, findings and actions. It should not be used for costing and all sections of the report read (See Appendices).	



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NOTES ON APPENDICES



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3. NOTES ON APPENDICES

The appendices generally include the following elements (where applicable):

Appendix A - Registers

Register of Asbestos Materials

The register details the location, approximate extent, risk assessment and required remedial action for each asbestos containing material identified at the time of survey. Each individual item on the register includes a unique *'finding reference'*. Not all materials detailed on the register have been sampled and have been referenced and also referred to as *'Presumed or Strongly Presumed'* if sampling not possible. Inaccessible materials for the purposes of sampling could also have been included within the 'Register of No Access' and may include annotations of suspected ACMs.

Register of No Access

Where areas are identified as not having been accessed they have been identified and included within this register including a reason for the no access. These areas should be inspected for ACMs *prior to any work being undertaken* in these areas. Areas of no access can include annotations stating suspected ACM's are present but as they cannot be accessed cannot be sampled.

Register of Non-Asbestos Materials

The 'Register of Non-Asbestos Materials' contains only those materials sampled, analysed and subsequently found not to contain asbestos. It should not be taken as a comprehensive list of Non-asbestos materials within the Building.

Appendix B - Photographic Record

Contains representative images of materials listed in the 'Register of Asbestos Materials', 'Register of No Access' and Non-Asbestos Register including finding reference, location, description and recommendation.

Appendix C - Annotated Plans

The floor plans detail the approximate location of ACMs and the finding references. Annotations can be more detailed including description, recommendation and extent on request. The floor plans (where provided) are diagrammatic and should not be relied on for determining precise extents or scale.

Appendix D - Determination of Asbestos Content Report

Details only items sampled and the type of asbestos within said sample. This does *not detail all asbestos materials present* - see 'Asbestos Register of Asbestos Materials'.



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APPENDIX A REGISTERS

1.	REGISTER OF ASBESTOS	2 PAGES
2.	REGISTER OF NON-ASBESTOS	2 PAGES
3.	REGISTER OF NO ACCESS	1 PAGE



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1. Register of Asbestos - The Network Building, 97 Tottenham Court Road & 80 Whitfield Street, London, W1T 4TP, United Kingdom.

Item	Extent	Material Details	Recommendations	References
Internal Basement Boiler Room & Old Oil Store Within Pipe Work Gaskets	50 Qty	Chrysotile (white asbestos); Rope or Cloth Asbestos Insulating board (AIB), Gaskets, Rope etc; Enclosed sprays, lagging & AIB, asbestos cement; Good condition: no visible damage; Easily accessed, below head height.	Recommendation: Manage & monitor condition Specific Comment: Approximately 50 quantity, unable to fully quantify due to some areas of pipe work being concealed - Ongoing safe management of item in situ.	Finding: 08062015PGJA007 Sample: A/006/08062015/PGJ Algorithm Score: 4 Potential for Fibre Release: Very low risk
Internal Basement Car Park Within Pipe Work on Rear Wall Gaskets	6 Qty	Chrysotile (white asbestos); Rope or Cloth Asbestos Insulating board (AIB), Gaskets, Rope etc; Enclosed sprays, lagging & AIB, asbestos cement; Good condition: no visible damage; Easily accessed, below head height.	Recommendation: Manage & monitor condition Specific Comment: Ongoing safe management of item in situ is all that is required.	Finding: 08062015PGJA013 Sample: A/009/08062015/PGJ Algorithm Score: 4 Potential for Fibre Release: Very low risk
External Roof External Roof Below Circle Skylight Glass Rope Seals	23 Qty	Chrysotile (white asbestos); Rope or Cloth Asbestos Insulating board (AIB), Gaskets, Rope etc; Enclosed sprays, lagging & AIB, asbestos cement; Good condition: no visible damage; Easily accessed, below head height.	Recommendation: Manage & monitor condition Specific Comment: Presumed Chrysotile, no sample without damage to glass - Ongoing safe management of item in situ is all that is required.	Finding: 08062015PGJA011 to contain asbestos Algorithm Score: 4 Potential for Fibre Release: Very low risk
Internal Basement Gas Meter Room Within Pipe Work Gaskets	6 Qty	Chrysotile (white asbestos); Rope or Cloth Asbestos Insulating board (AIB), Gaskets, Rope etc; Enclosed sprays, lagging & AIB, asbestos cement; Good condition: no visible damage; Easily accessed, below head height.	Recommendation: Manage & monitor condition Specific Comment: Ongoing safe management of item in situ is all that is required.	Finding: 08062015PGJA009 Sample: A/008/08062015/PGJ Algorithm Score: 4 Potential for Fibre Release: Very low risk

Item	Extent	Material Details	Recommendations	References
Internal Roof Lift Motor 1 & 2 Within Lift Motors Rope Brake Pads	4 Qty	Chrysotile (white asbestos); Rope or Cloth Asbestos Insulating board (AIB), Gaskets, Rope etc; Enclosed sprays, lagging & AIB, asbestos cement; Good condition: no visible damage; Easily accessed, below head height.	Recommendation: Manage & monitor condition Specific Comment: Presumed Chrysotile, no sample due to live equipment - Ongoing safe management of item is all that is required.	Finding: 08062015PGJA001 Not Sampled - Presumed to contain asbestos Algorithm Score: 4 Potential for Fibre Release: Very low risk
Internal Sixth Floor Lift Motor 1 & 2 Within MEM Switch Gear Rope Flash Guards	12 Qty	Chrysotile (white asbestos); Rope or Cloth Asbestos Insulating board (AIB), Gaskets, Rope etc; Enclosed sprays, lagging & AIB, asbestos cement; Good condition: no visible damage; Easily accessed, below head height.	Recommendation: Manage & monitor condition Specific Comment: Presumed Chrysotile, no sample due to live electrics - Ongoing safe management of item in situ is all that is required.	Finding: 08062015PGJA010 Not Sampled - Presumed to contain asbestos Algorithm Score: 4 Potential for Fibre Release: Very low risk
Internal Ground Floor Sprinkler Cupboard Within Pipe Work Gaskets	5 Qty	Chrysotile (white asbestos); Rope or Cloth Asbestos Insulating board (AIB), Gaskets, Rope etc; Enclosed sprays, lagging & AIB, asbestos cement; Good condition: no visible damage; Easily accessed, below head height.	Recommendation: Manage & monitor condition Specific Comment: Ongoing safe management of item in situ is all that is required.	Finding: 08062015PGJA012 Sample: A/009/08062015/PGJ Algorithm Score: 4 Potential for Fibre Release: Very low risk

2. Register of No Access Gained - The Network Building, 97 Tottenham Court Road, 80 Whitfield Street, London, W1T 4TP, United Kingdom.

Location	Reason
Internal, Basement, Throughout Site. Within Floor Ducts - No Access	No access within floor ducts without specialist lifting equipment - Area considered out of scope of survey.
Internal, Ground Floor, Throughout Site. Within Loft Shafts - No Access	No access within lift shafts as no engineer present - Area considered out of scope of survey.

4. Register of Non-Asbestos - The Network Building, 97 Tottenham Court Road, 80 Whitfield Street, London, W1T 4TP, United Kingdom.

Item	Extent	Material Details	Recommendations	References
Internal Basement Boiler Room Front Wall Thermal Insulation Residue	24 m2	No Asbestos Detected; Thermal insulation Non-asbestos material; Easily accessed, below head height.	Recommendation: No asbestos detected Specific Comment: No Action Required.	Finding: 08062015PGJA005 Sample: A/004/08062015/PGJ Algorithm Score: 0 Potential for Fibre Release: N/A
Internal Basement Boiler Room Left Wall Thermal Insulation Residue	24 m2	No Asbestos Detected; Thermal insulation Non-asbestos material; Easily accessed, below head height.	Recommendation: No asbestos detected Specific Comment: No Action Required.	Finding: 08062015PGJA002 Sample: A/001/08062015/PGJ Algorithm Score: 0 Potential for Fibre Release: N/A
Internal Basement Boiler Room Rear Wall Thermal Insulation Residue	24 m2	No Asbestos Detected; Thermal insulation Non-asbestos material; Easily accessed, below head height.	Recommendation: No asbestos detected Specific Comment: No Action Required.	Finding: 08062015PGJA003 Sample: A/002/08062015/PGJ Algorithm Score: 0 Potential for Fibre Release: N/A
Internal Basement Boiler Room Right Wall Thermal Insulation Residue	24 m2	No Asbestos Detected; Thermal insulation Non-asbestos material; Easily accessed, below head height.	Recommendation: No asbestos detected Specific Comment: No Action Required.	Finding: 08062015PGJA004 Sample: A/003/08062015/PGJ Algorithm Score: 0 Potential for Fibre Release: N/A
Internal Basement Boiler Room To Front of Boilers Gaskets	2 Qty	No Asbestos Detected; Rope or Cloth Non-asbestos material; Easily accessed, below head height.	Recommendation: No asbestos detected Specific Comment: No Action Required.	Finding: 08062015PGJA006 Sample: A/005/08062015/PGJ Algorithm Score: 0 Potential for Fibre Release: N/A

Item	Extent	Material Details	Recommendations	References
Internal Basement Old Oil Store To Pipe Work by Door Bitumen Felt Lagging	6 m2	No Asbestos Detected; Bitumen products Non-asbestos material; Easily accessed, below head height.	Recommendation: No asbestos detected Specific Comment: No Action Required.	Finding: 08062015PGJA008 Sample: A/007/08062015/PGJ Algorithm Score: 0 Potential for Fibre Release: N/A

APPENDIX B
PHOTOGRAPHIC RECORD

- | | | |
|-----------|---|----------------|
| 1. | PHOTOGRAPHIC ASBESTOS REGISTER | 4 PAGES |
| 2. | PHOTOGRAPHIC NON ASBESTOS REGISTER | 3 PAGES |
| 3. | PHOTOGRAPHIC NO ACCESS REGISTER | 1 PAGE |

Photographic Asbestos Register

2. Management Sur The Network Building 97 Tottenham Court Road, 80 Whitfield Street London W1

Building: The Network B

Survey Date: 08 Jun 2015



Finding Code: 08062015PGJA013

0

Floor:	Basement	Internal
Area:	Car Park	
Location:	Within Pipe Work on Rear Wall	
Description:	Gaskets	
Extent:	6	Qty
Accessibility:	4. Easily accessed, below head height	

Recommendation

Manage & monitor condition

Surveyors Comment:

Ongoing safe management of item in situ is all that is required.

Material Assessment

PT: 2. Asbestos Insulating board (AIB), Gaskets, Rope etc

MC: 0. Good condition: no visible damage

ST: 1. Enclosed sprays, lagging & AIB, asbestos cement

Algorithm Score: 4

Potential for Fibre Release: Very low risk

Sample Details

Referred to a Visually Identical Material

Sample Reference: A/009/08062015/PGJ

Type of Asbestos (TY): 1. Chrysotile (white asbestos)

Additional Asbestos 1:

Additional Asbestos 2:

Specific Product: 3.02 Rope or Cloth

2. Management Sur The Network Building 97 Tottenham Court Road, 80 Whitfield Street London W1

Building: The Network B

Survey Date: 08 Jun 2015



Finding Code: 08062015PGJA012

0

Floor:	Ground Floor	Internal
Area:	Sprinkler Cupboard	
Location:	Within Pipe Work	
Description:	Gaskets	
Extent:	5	Qty
Accessibility:	4. Easily accessed, below head height	

Recommendation

Manage & monitor condition

Surveyors Comment:

Ongoing safe management of item in situ is all that is required.

Material Assessment

PT: 2. Asbestos Insulating board (AIB), Gaskets, Rope etc

MC: 0. Good condition: no visible damage

ST: 1. Enclosed sprays, lagging & AIB, asbestos cement

Algorithm Score: 4

Potential for Fibre Release: Very low risk

Sample Details

Sampled and Analysed

Sample Reference: A/009/08062015/PGJ

Type of Asbestos (TY): 1. Chrysotile (white asbestos)

Additional Asbestos 1:

Additional Asbestos 2:

Specific Product: 3.02 Rope or Cloth

Photographic Asbestos Register

2. Management Sur The Network Building 97 Tottenham Court Road, 80 Whitfield Street London W1

Building: The Network B

Survey Date: 08 Jun 2015



Finding Code: 08062015PGJA011

0

Floor:	Roof	External
Area:	External Roof	
Location:	Below Circle Skylight Glass	
Description:	Rope Seals	
Extent:	23	Qty
Accessibility:	4. Easily accessed, below head height	

Recommendation

Manage & monitor condition

Surveyors Comment:

Presumed Chrysotile, no sample without damage to glass - Ongoing safe management of item in situ is all that is required.

Material Assessment

PT:	2. Asbestos Insulating board (AIB), Gaskets, Rope etc
MC:	0. Good condition: no visible damage
ST:	1. Enclosed sprays, lagging & AIB, asbestos cement

Algorithm Score: **4**

Potential for Fibre Release: **Very low risk**

Sample Details

Sampled and Analysed

Sample Reference:	PSM_A/003/08062015/PGJ
Type of Asbestos (TY):	1. Chrysotile (white asbestos)
Additional Asbestos 1:	
Additional Asbestos 2:	
Specific Product:	3.02 Rope or Cloth

2. Management Sur The Network Building 97 Tottenham Court Road, 80 Whitfield Street London W1

Building: The Network B

Survey Date: 08 Jun 2015



Finding Code: 08062015PGJA010

0

Floor:	Sixth Floor	Internal
Area:	Lift Motor 1 & 2	
Location:	Within MEM Switch Gear	
Description:	Rope Flash Guards	
Extent:	12	Qty
Accessibility:	4. Easily accessed, below head height	

Recommendation

Manage & monitor condition

Surveyors Comment:

Presumed Chrysotile, no sample due to live electrics - Ongoing safe management of item in situ is all that is required.

Material Assessment

PT:	2. Asbestos Insulating board (AIB), Gaskets, Rope etc
MC:	0. Good condition: no visible damage
ST:	1. Enclosed sprays, lagging & AIB, asbestos cement

Algorithm Score: **4**

Potential for Fibre Release: **Very low risk**

Sample Details

Presumed to contain asbestos

Type of Asbestos (TY):	1. Chrysotile (white asbestos)
Additional Asbestos 1:	
Additional Asbestos 2:	
Specific Product:	3.02 Rope or Cloth

Photographic Asbestos Register

2. Management Sur The Network Building 97 Tottenham Court Road, 80 Whitfield Street London W1

Building: The Network B

Survey Date: 08 Jun 2015



Finding Code: 08062015PGJA009

0

Floor:	Basement	Internal
Area:	Gas Meter Room	
Location:	Within Pipe Work	
Description:	Gaskets	
Extent:	6	Qty
Accessibility:	4. Easily accessed, below head height	

Recommendation

Manage & monitor condition

Surveyors Comment:

Ongoing safe management of item in situ is all that is required.

Material Assessment

PT: 2. Asbestos Insulating board (AIB), Gaskets, Rope etc

MC: 0. Good condition: no visible damage

ST: 1. Enclosed sprays, lagging & AIB, asbestos cement

Algorithm Score: 4

Potential for Fibre Release: Very low risk

Sample Details

Sampled and Analysed

Sample Reference: A/008/08062015/PGJ

Type of Asbestos (TY): 1. Chrysotile (white asbestos)

Additional Asbestos 1:

Additional Asbestos 2:

Specific Product: 3.02 Rope or Cloth

2. Management Sur The Network Building 97 Tottenham Court Road, 80 Whitfield Street London W1

Building: The Network B

Survey Date: 08 Jun 2015



Finding Code: 08062015PGJA007

0

Floor:	Basement	Internal
Area:	Boiler Room & Old Oil Store	
Location:	Within Pipe Work	
Description:	Gaskets	
Extent:	50	Qty
Accessibility:	4. Easily accessed, below head height	

Recommendation

Manage & monitor condition

Surveyors Comment:

Approximately 50 quantity, unable to fully quantify due to some areas of pipe work being concealed - Ongoing safe management of item in situ.

Material Assessment

PT: 2. Asbestos Insulating board (AIB), Gaskets, Rope etc

MC: 0. Good condition: no visible damage

ST: 1. Enclosed sprays, lagging & AIB, asbestos cement

Algorithm Score: 4

Potential for Fibre Release: Very low risk

Sample Details

Sampled and Analysed

Sample Reference: A/006/08062015/PGJ

Type of Asbestos (TY): 1. Chrysotile (white asbestos)

Additional Asbestos 1:

Additional Asbestos 2:

Specific Product: 3.02 Rope or Cloth

Photographic Asbestos Register

2. Management Sur The Network Building 97 Tottenham Court Road, 80 Whitfield Street London W1

Building: The Network B

Survey Date: 08 Jun 2015

Finding Code: 08062015PGJA001

0



Floor:	Roof	Internal
Area:	Lift Motor 1 & 2	
Location:	Within Lift Motors	
Description:	Rope Brake Pads	
Extent:	4	Qty
Accessibility:	4. Easily accessed, below head height	

Recommendation

Manage & monitor condition

Surveyors Comment:

Presumed Chrysotile, no sample due to live equipment - Ongoing safe management of item is all that is required.

Material Assessment

PT: 2. Asbestos Insulating board (AIB), Gaskets, Rope etc

MC: 0. Good condition: no visible damage

ST: 1. Enclosed sprays, lagging & AIB, asbestos cement

Algorithm Score: 4

Potential for Fibre Release: Very low risk

Sample Details

Presumed to contain asbestos

Type of Asbestos (TY):	1. Chrysotile (white asbestos)
Additional Asbestos 1:	
Additional Asbestos 2:	
Specific Product:	3.02 Rope or Cloth

Photographic Non-Asbestos Register

2. Management Sur The Network Building 97 Tottenham Court Road, 80 Whitfield Street London W1

Building: The Network B

Survey Date: 08 Jun 2015

Finding Code: 08062015PGJA008

0



Floor:	Basement	Internal
Area:	Old Oil Store	
Location:	To Pipe Work by Door	
Description:	Bitumen Felt Lagging	
Extent:	6	m2
Accessibility:	4. Easily accessed, below head height	

Recommendation

No asbestos detected

Surveyors Comment:

No Action Required.

Material Assessment

PT: Non-asbestos material
 MC: N/A
 ST: N/A

Algorithm Score: 0

Potential for Fibre Release: N/A

Sample Details

Sampled and Analysed

Sample Reference: A/007/08062015/PGJ

Type of Asbestos (TY):	0. No Asbestos Detected
Additional Asbestos 1:	
Additional Asbestos 2:	
Specific Product:	1.03 Bitumen products

2. Management Sur The Network Building 97 Tottenham Court Road, 80 Whitfield Street London W1

Building: The Network B

Survey Date: 08 Jun 2015

Finding Code: 08062015PGJA006

0



Floor:	Basement	Internal
Area:	Boiler Room	
Location:	To Front of Boilers	
Description:	Gaskets	
Extent:	2	Qty
Accessibility:	4. Easily accessed, below head height	

Recommendation

No asbestos detected

Surveyors Comment:

No Action Required.

Material Assessment

PT: Non-asbestos material
 MC: N/A
 ST: N/A

Algorithm Score: 0

Potential for Fibre Release: N/A

Sample Details

Sampled and Analysed

Sample Reference: A/005/08062015/PGJ

Type of Asbestos (TY):	0. No Asbestos Detected
Additional Asbestos 1:	
Additional Asbestos 2:	
Specific Product:	3.02 Rope or Cloth

Photographic Non-Asbestos Register

2. Management Sur The Network Building 97 Tottenham Court Road, 80 Whitfield Street London W1

Building: The Network B

Survey Date: 08 Jun 2015

Finding Code: 08062015PGJA005

0



Floor:	Basement	Internal
Area:	Boiler Room	
Location:	Front Wall	
Description:	Thermal Insulation Residue	
Extent:	24	m2
Accessibility:	4. Easily accessed, below head height	

Recommendation

No asbestos detected

Surveyors Comment:

No Action Required.

Material Assessment

PT: Non-asbestos material
 MC: N/A
 ST: N/A

Algorithm Score: 0

Potential for Fibre Release: N/A

Sample Details

Sampled and Analysed

Sample Reference: A/004/08062015/PGJ

Type of Asbestos (TY):	0. No Asbestos Detected
Additional Asbestos 1:	
Additional Asbestos 2:	
Specific Product:	4. Thermal insulation

2. Management Sur The Network Building 97 Tottenham Court Road, 80 Whitfield Street London W1

Building: The Network B

Survey Date: 08 Jun 2015

Finding Code: 08062015PGJA004

0



Floor:	Basement	Internal
Area:	Boiler Room	
Location:	Right Wall	
Description:	Thermal Insulation Residue	
Extent:	24	m2
Accessibility:	4. Easily accessed, below head height	

Recommendation

No asbestos detected

Surveyors Comment:

No Action Required.

Material Assessment

PT: Non-asbestos material
 MC: N/A
 ST: N/A

Algorithm Score: 0

Potential for Fibre Release: N/A

Sample Details

Sampled and Analysed

Sample Reference: A/003/08062015/PGJ

Type of Asbestos (TY):	0. No Asbestos Detected
Additional Asbestos 1:	
Additional Asbestos 2:	
Specific Product:	4. Thermal insulation

Photographic Non-Asbestos Register

2. Management Sur The Network Building 97 Tottenham Court Road, 80 Whitfield Street London W1

Building: The Network B

Survey Date: 08 Jun 2015



Finding Code: 08062015PGJA003

0

Floor:	Basement	Internal
Area:	Boiler Room	
Location:	Rear Wall	
Description:	Thermal Insulation Residue	
Extent:	24	m2
Accessibility:	4. Easily accessed, below head height	

Recommendation

No asbestos detected

Surveyors Comment:

No Action Required.

Material Assessment

PT: Non-asbestos material
 MC: N/A
 ST: N/A

Algorithm Score: 0

Potential for Fibre Release: N/A

Sample Details

Sampled and Analysed

Sample Reference: A/002/08062015/PGJ

Type of Asbestos (TY):	0. No Asbestos Detected
Additional Asbestos 1:	
Additional Asbestos 2:	
Specific Product:	4. Thermal insulation

2. Management Sur The Network Building 97 Tottenham Court Road, 80 Whitfield Street London W1

Building: The Network B

Survey Date: 08 Jun 2015



Finding Code: 08062015PGJA002

0

Floor:	Basement	Internal
Area:	Boiler Room	
Location:	Left Wall	
Description:	Thermal Insulation Residue	
Extent:	24	m2
Accessibility:	4. Easily accessed, below head height	

Recommendation

No asbestos detected

Surveyors Comment:

No Action Required.

Material Assessment

PT: Non-asbestos material
 MC: N/A
 ST: N/A

Algorithm Score: 0

Potential for Fibre Release: N/A

Sample Details

Sampled and Analysed

Sample Reference: A/001/08062015/PGJ

Type of Asbestos (TY):	0. No Asbestos Detected
Additional Asbestos 1:	
Additional Asbestos 2:	
Specific Product:	4. Thermal insulation

Photographic No Access Register

2. Management Sur The Network Building 97 Tottenham Court Road, 80 Whitfield Street London W1

Building: The Network B

Survey Date: 08 Jun 2015



Finding Code: 08062015PGJA015

1

Floor:	Ground Floor	Internal
Area:	Throughout Site	
Location:	Within Loft Shafts	
Description:	No Access	
Extent:	<input type="text"/>	<input type="text"/>
Accessibility:	<input type="text"/>	

Recommendation

Surveyors Comment:

No access within lift shafts as no engineer present - Area considered out of scope of survey.

Access and Inspect prior to any disturbance within this area

2. Management Sur The Network Building 97 Tottenham Court Road, 80 Whitfield Street London W1

Building: The Network B

Survey Date: 08 Jun 2015



Finding Code: 08062015PGJA014

1

Floor:	Basement	Internal
Area:	Throughout Site	
Location:	Within Floor Ducts	
Description:	No Access	
Extent:	<input type="text"/>	<input type="text"/>
Accessibility:	<input type="text"/>	

Recommendation

Surveyors Comment:

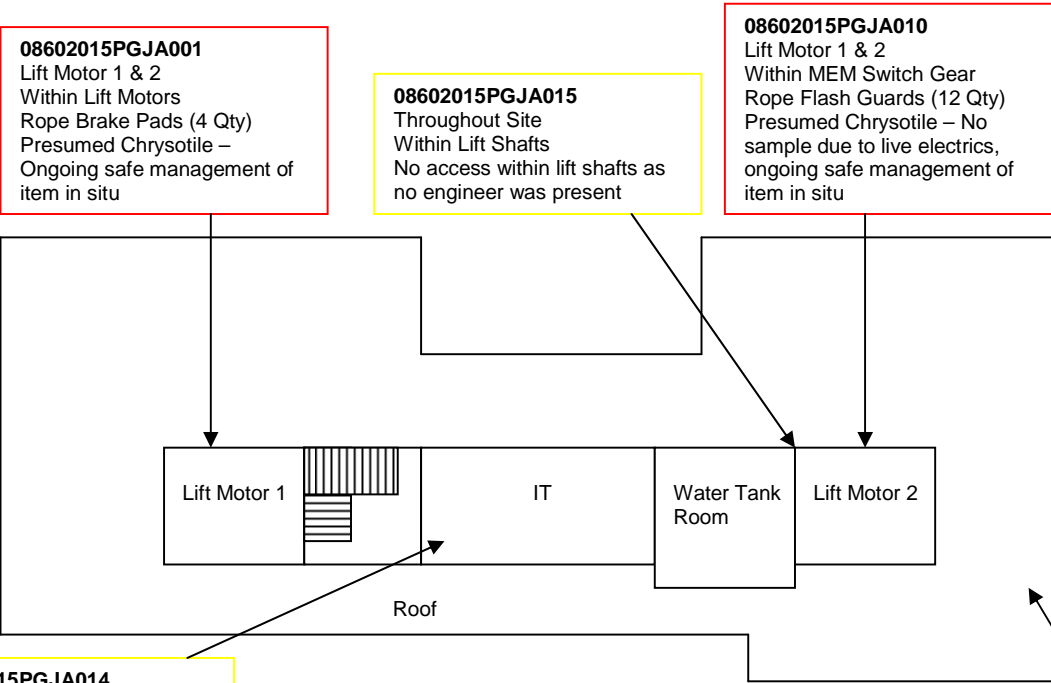
No access within floor ducts without specialist lifting equipment - Area considered out of scope of survey.

Access and Inspect prior to any disturbance within this area

APPENDIX C
ANNOTATED FLOOR PLANS

1. ANNOTATED FLOOR PLANS

2 PAGES



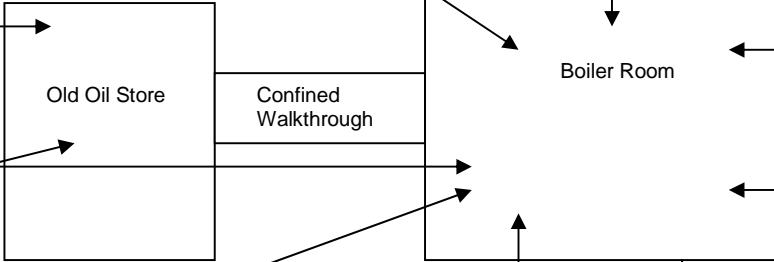
08602015PGJA014
Throughout Site
Within Floor Ducts
No access floor ducts without
lifting equipment

08602015PGJA005
Boiler Room
Front Wall
Thermal Insulation Residue
(24 m2)
No Asbestos Detected

08602015PGJA004
Boiler Room
Right Wall
Thermal Insulation Residue
(24 m2)
No Asbestos Detected

08602015PGJA011
External Roof
Below Circle Skylight Glass
Rope Seals (23 Qty)
Presumed Chrysotile – No
sample without damaging
glass, ongoing safe
management of item in situ

08602015PGJA008
Old Oil Store
To Pipe Work by Door
Bitumen Felt Lagging (6 L/m)
No Asbestos Detected



08602015PGJA007
Boiler Room & Old Oil Store
Within Pipe Work
Gaskets
Chrysotile – Ongoing safe
management of item in situ

08602015PGJA005
Boiler Room
Front Wall
Thermal Insulation Residue
(24 m2)
No Asbestos Detected

08602015PGJA006
Boiler Room
To Front of Boilers
Gaskets (2 Qty)
No Asbestos Detected

08602015PGJA003
Boiler Room
Rear Wall
Thermal Insulation Residue
(24 m2)
No Asbestos Detected

08602015PGJA002
Boiler Room
Left Wall
Thermal Insulation Residue
(24 m2)
No Asbestos Detected

08602015PGJA009
Gas Meter Room
Within Pipe Work
Gaskets (6 Qty)
Chrysotile – Ongoing safe
management of item in situ



WWW.PAGROUPUK.COM
E: RECEPTION@PAGROUPUK.COM
0845 474 0172

Key:

- Asbestos
- Non Asbestos
- No Access

Client:
Derwent London
25 Savile Row
London
W1S 2ER

Project:
The Network Building
97 Tottenham Court Road
80 Whitfield Street
London
W1T 4TP

Project No:
2015-00342

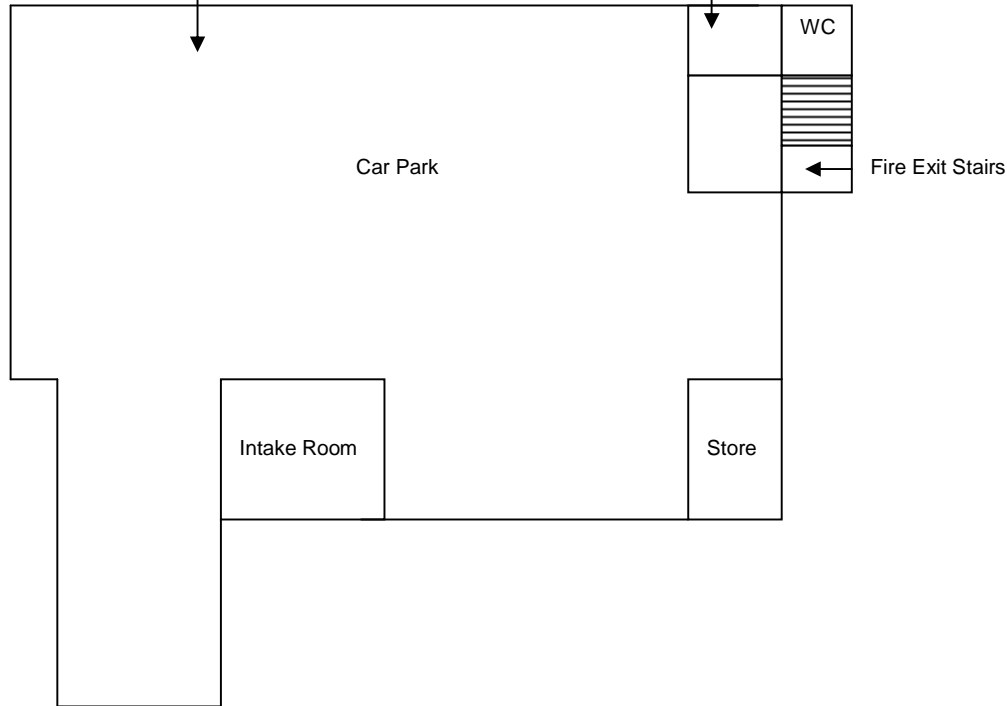
Drawing Title:
Basement

Purpose of Issue:
Asbestos Survey

Date:
8th June 2015
Scale:
Not to scale

08602015PGJA013
Car Park
Within Pipe Work On Rear
Wall
Gaskets (6 Qty)
Chrysotile – Ongoing safe
management of item in situ

08602015PGJA012
Sprinkler Cupboard
Within Pipe Work
Gaskets (5 Qty)
Chrysotile – Ongoing safe
management of item in situ



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0845 474 0172

Key:

- Asbestos
- Non Asbestos
- No Access

Client:

Derwent London
25 Savile Row
London
W1S 2ER

Project:

The Network Building
97 Tottenham Court Road
80 Whitfield Street
London
W1T 4TP

Project No:

2015-00342

Drawing Title:

Basement/Car Park

Purpose of Issue:

Asbestos Survey

Date:

8th June 2015

Scale:


Not to scale

APPENDIX D
BULK SAMPLE REPORTS

1. BULK SAMPLE CERTIFICATES


2 PAGES

Determination of Asbestos Report


Client: Derwent London	This laboratory is UKAS accredited for identification of asbestos in materials. The following results have been obtained from samples taken by an authorised representative of PA Group in accordance with documented in-house procedures for sampling.	
Address: 25 Savile Row London W1S 2ER		
Addressee: Stuart Macintosh - 02075 805 054		
Site: The Network Building 97 Tottenham Court Road, 80 Whitfield Street London W1T 4TP	Report Number: 17062015LJBA	
Building: The Network Building 97 Tottenham Court Road 80 Whitfield Street London W1T 4TP		

The following results have been obtained for samples examined by optical microscopy using polarising and dispersion staining techniques in accordance with the documented in-house manual based on HSG248 Asbestos: The analysts guide for sampling, analysis and clearance procedures", ISBN 0 7176 2875 2 (2005). Opinions and interpretations expressed herein are outside the scope of UKAS accreditation. Reference to the type of material is based solely upon physical appearance and asbestos content and is outside the scope of UKAS accreditation.

Location / Description: Internal, Basement, Boiler Room, Left Wall, Thermal Insulation Residue	Type of Asbestos: No Asbestos Detected
Sample Reference: A/001/08062015/PGJ	Type of material (if asbestos) Thermal insulation
Location / Description: Internal, Basement, Boiler Room, Rear Wall, Thermal Insulation Residue	Type of Asbestos: No Asbestos Detected
Sample Reference: A/002/08062015/PGJ	Type of material (if asbestos) Thermal insulation
Location / Description: Internal, Basement, Boiler Room, Right Wall, Thermal Insulation Residue	Type of Asbestos: No Asbestos Detected
Sample Reference: A/003/08062015/PGJ	Type of material (if asbestos) Thermal insulation
Location / Description: Internal, Basement, Boiler Room, Front Wall, Thermal Insulation Residue	Type of Asbestos: No Asbestos Detected
Sample Reference: A/004/08062015/PGJ	Type of material (if asbestos) Thermal insulation

Project No.: 2015-00342	Analysed by: Laura Baxter	Date of analysis: 17/06/2015
Date of Issue:	Date Samples Taken: 08/06/2015 Taken by: Phil Jenkins on behalf of PA Group Ltd.	
Authorised Signatory	Signature 	Name Zeynep Arif
		Function
Page 1 of 2		
Chrysotile: White Asbestos Amosite: Brown Asbestos Crocidolite: Blue Asbestos Functions: HL=Head of Laboratory, TM=Technical Manager, QM=Quality Manager, DTM=Deputy Technical Manager, TO=Technical Officer		

Location / Description: Internal, Basement, Boiler Room, To Front of Boilers, Gaskets	Type of Asbestos: No Asbestos Detected
Sample Reference: A/005/08062015/PGJ	Type of material (if asbestos) Rope or Cloth
Location / Description: Internal, Basement, Boiler Room & Old Oil Store, Within Pipe Work, Gaskets	Type of Asbestos: Chrysotile (white asbestos)
Sample Reference: A/006/08062015/PGJ	Type of material (if asbestos) Rope or Cloth
Location / Description: Internal, Basement, Old Oil Store, To Pipe Work by Door, Bitumen Felt Lagging	Type of Asbestos: No Asbestos Detected
Sample Reference: A/007/08062015/PGJ	Type of material (if asbestos) Bitumen products
Location / Description: Internal, Basement, Gas Meter Room, Within Pipe Work, Gaskets	Type of Asbestos: Chrysotile (white asbestos)
Sample Reference: A/008/08062015/PGJ	Type of material (if asbestos) Rope or Cloth
Location / Description: Internal, Ground Floor, Sprinkler Cupboard, Within Pipe Work, Gaskets	Type of Asbestos: Chrysotile (white asbestos)
Sample Reference: A/009/08062015/PGJ	Type of material (if asbestos) Rope or Cloth
Location / Description: External, Roof, External Roof, Below Circle Skylight Glass, Rope Seals	Type of Asbestos: Chrysotile (white asbestos)
Sample Reference: PSM_A/003/08062015/PGJ	Type of material (if asbestos) Rope or Cloth

Project No.: 2015-00342		Analysed by: Laura Baxter		Date of analysis: 17/06/2015	
Date of Issue:			Date Samples Taken: 08/06/2015 Taken by: Phil Jenkins on behalf of PA Group Ltd.		
Authorised Signatory	Signature 	Name Zeynep Arif	Function	Page 2 of 2	
Chrysotile: White Asbestos Amosite: Brown Asbestos Crocidolite: Blue Asbestos Functions: HL=Head of Laboratory, TM=Technical Manager, QM=Quality Manager, DTM=Deputy Technical Manager, TO=Technical Officer					

APPENDIX E

- 1.0 PROJECT OUTLINE**
- 2.0 SURVEY METHODOLOGY**
- 3.0 SAMPLING RATIONALE FOR ASBESTOS SURVEYS**
- 4.0 SAMPLING METHODOLOGY**
- 5.0 SAMPLING DENSITY**
- 6.0 SAMPLE ANALYSIS**
- 7.0 REPORTING**
- 8.0 DESCRIPTION OF SURVEY TYPES**
 - 8.1 MANAGEMENT SURVEY**
 - 8.2 REFURBISHMENT OR DEMOLITION SURVEY**
- 9.0 METHOD OF RISK ASSESSMENTS**
 - 9.1 MATERIAL ASSESSMENT**
 - 9.2 PRIORITY ASSESSMENT**
- 10.0 LIMITATIONS, OBSERVATIONS & EXCLUSIONS**
 - 10.1 GENERAL LIMITATIONS & OBSERVATIONS**
 - 10.2 REPORT**
 - 10.3 LIMITATIONS RELATING TO INSPECTION**
 - 10.4 LIMITATIONS AND RESTRICTIONS RELATING TO SAMPLING**
- 11.0 STANDARD TERMS OF ENGAGEMENT**

1.0 PROJECT OUTLINE

- a. To provide a Management / Refurbishment / Demolition inspection for asbestos containing materials that require identification and documenting to safely and effectively manage in situ or remove prior to disturbance. The purpose of the survey is to establish the presence, location and extent of any asbestos containing materials within the property and to provide recommendations in relation to minimising the risk of exposure up to and during any required safe removal of asbestos materials detected.
- b. Prior to attending site, a review of the floor plans and any historic information provided by the client will be carried out. Historic information in relation to site hazards and previous asbestos surveys will be reviewed, noted and included in any work instruction.
- c. Should it be the case that the building or parts thereof are due to be refurbished in the near future, we will conduct our survey and provide our recommendations with this in mind. We do not anticipate conducting any significant damage to the present building fabric in order to undertake our survey. This however may lead to limitations within the survey scope and these will be clearly defined within our survey report, this is at the request of the ultimate client.
- d. We will, as far as reasonably practicable in accordance with this method statement, our standard in-house procedures and our standard terms of engagement identify asbestos containing materials within accessible elements of the property and provide a report detailing their location, estimated extent and our recommendations in relation to minimising asbestos exposure to building occupants, maintenance personnel and members of the public up to and where possible during their safe removal.
- e. Should the building continue to be maintained with no disturbance works planned then the all/any asbestos materials can be managed and maintained in situ assuming they are in sound condition and pose no risk of exposure to building occupants.

2.0 SURVEY METHODOLOGY

2.1 Conditions of Survey

- 2.1.1 Please note all asbestos surveys will be undertaken in strict accordance with PA Group's standard Survey Procedures Manual and all sections therein. The Survey Procedures Manual is a thorough and detailed document explaining in detail how we as a UKAS accredited inspection body approach and undertake any asbestos commissioned. An uncontrolled copy of this document can be made available upon request should the need arise.
- 2.1.2 Prior to commencing the survey, a request was made on PA Group's standard 'Service Pro-Forma' document as part of our proposal for all information available relating to the building. For example, build date, refurbishment dates, floor plans and elevation drawings, engineering drawings, heating drawings, asbestos records and historical information among other information requests (see project pro-forma). Where provided, this information will be reviewed prior to the survey commencing and included in the survey instruction.

2.2 Risk Assessment

- 2.2.1 On attending site the surveyor will sign in (if applicable) and where possible or planned conduct a pre-survey meeting and walk through with the client or client's representative. Where this is not possible information will be requested over the phone prior to attending site. The surveyor will then walk through all relevant parts of the site to be included in the inspection prior to conducting an area by area investigation to establish the main features and to carry out a thorough site risk assessment before signing and dating the risk assessment if it deemed safe to continue by the surveyor.
- 2.2.2 Should the surveyor have reservations regarding the survey scope, nature or possibility of safely conducting the survey these are to be documented in full on the risk assessment within the survey workbook and extended onto the notes pages if required?

- 2.2.3 All surveyors have been specifically trained either in-house or externally in relation to completion of Risk Assessments and their production in relation to Asbestos Surveys and issues. Please refer to our Risk Assessment procedure (H&S Policy – Procedure Note 25)
- 2.2.4 On completion of a satisfactory RA (including amended RA) then the 'Pre-Survey Review' can be initialled and completed ensuring any relevant comments on deviations of changes to scope are documented.
- 2.3 Survey Commencement
- 2.3.1 Should any discrepancies be apparent amend the plans. If no plans are available then compare the premises with any description provided and generate plans on-site. In addition a note will be made of any areas likely to require keys for access and brought to the attention of the client or representative. Use of a plan to record on site details is normal and should only be omitted if both a) the client does not require plans; b) the locations of items and features mentioned in the report can be made very clear and precise without a plan.
- 2.3.2 Start by gaining familiarity with the premises and cross-reference the layout to the plans provided. During this initial familiarisation the surveyors will take into account the type, construction and age of the premises to be surveyed and current or former equipment and types of processes carried out in them. These variables are likely to influence the presence and location of ACMs. However, surveyors should be cautious of basing judgements on generalisations attached to age, type or other factors. Specifications may have been altered during construction of the building or poor removal practice may have left debris and residues now partially concealed by substitute materials. In some cases contamination or debris can occur from the time at which the asbestos materials were installed.
- 2.3.3 The surveyor will select a suitable starting point for systematic coverage of the premises, to avoid missing any areas. It is suggested that you start at the highest or lowest level of the building and at an outermost corner. If you are drawing the plans then draw them first and then re-start a walk round to carry out the survey.
- 2.3.4 In carrying out the survey it is often helpful to follow risers and ducts or other continuations through as an additional process to the room by room process. Mark any risers and ducts on your working plan.
- 2.3.5 The first room/area will be located on the plan and the description entered (if not already present) in the areas accessed part of the survey workbook. The area on the plan can be ticked or colour shaded to show it has been accessed.
- 2.3.6 Proceed to the next rooms, corridors and connecting spaces in a systematic manner. Inspect the composition of all building fabric and fixtures working around the area progressively. As well as visible materials, inspect accessible voids, ducts, risers etc. In the case of Refurbishment or Demolition surveys a more intrusive approach will be adopted, except where re-occupation is to occur in which case this will place some limitations on the inspection.
- 2.3.7 The surveys and inspections will involve a thorough and methodical inspection of each accessible functional space within the building:
- a. Inspecting walls, partitions, ceilings, floors, beams, ducts, risers, plant and equipment;
 - b. Recording the nature, location and extent of materials suspected to consist of or contain asbestos;
 - c. In the event that materials are inaccessible or it would be potentially hazardous to gain access to areas, we will record areas to which access was either restricted, partial or not possible or other constraints at the time of inspection together with a reason. In the case of a HSG 264 inspection, such limitations will be included by prior consultation and agreement with the Client.
 - d. Available plans will be annotated with the location of each finding, area no access and appropriate descriptive;
 - e. Each material either presumed, strongly presumed or demonstrated to contain asbestos through sampling and analysis will be subject to a material risk assessment. Whilst this is not strictly required in the case of an HSG 264 Refurbishment or Demolition survey, such information will be provided as it often assists contractors in the preparation of asbestos removal specifications or management strategies.
- 2.3.8 For each material identified a recommended action, based on the decision flow charts contained in Appendix 5 of HSE guidance "Managing Asbestos in Premises" (HSG 227), 2002. Factors within the material risk assessment govern the recommended action, which where appropriate or over-ridden by other considerations may be altered by the surveyor and provided in the form of a "Considered Recommendation and annotated within the 'Surveyors Comments' section of the Registers.

3.0 SAMPLING RATIONALE FOR ASBESTOS SURVEYS (HSG 264)

3.1 For HSG 264 Surveys with suspected or presumed asbestos containing materials the following protocol applies;

- a. Identify all the likely asbestos containing building materials and group them into homogeneous sampling areas in accordance with HSG 264 and our in house procedures and UKAS Accreditation;
- b. Prepare plans of each area and annotate detailing sample and suspect asbestos incident locations;
- c. Determine the number of samples to be taken;
- d. Determine the locations from where samples will be taken;
- e. Collect samples;
- f. Report;

3.2 In more detailed terms the following will take place;

- a. Materials will be grouped into homogeneous sampling areas, uniform in texture, colour, and which in all other respect appear identical. Materials which appear to have been installed at different times or if there is any other reason to suspect that materials may be different then the materials must be allocated to different sampling areas;
- b. Identification of suspect materials and selection of homogeneous sampling areas are by their very nature subjective processes. If there is any doubt the material will be considered suspect or allocated a separate sampling area as appropriate;
- c. Annotation plans provided by the client. In their absence sketch plans or outline drawings may be provided where necessary to indicate the location of a material which otherwise would not be apparent;
- d. Samples will be taken in numbers that accord with the recommended density stated under Sampling Density, Section of this method statement;

4.0 SAMPLING METHODOLOGY

4.1 All sampling will be carried out by a trained PA Group surveyor in accordance with our in house procedures and UKAS Accreditation using clear plastic self seal bags. The procedure for sampling using clear plastic pressure seal bags is detailed below:-

- a. In any instance where significant release of dust or contamination of clothing is likely where clothing may become visibly dusty as a result of inspection, investigation or sampling, the area will be cordoned off with barrier tape and personal protective equipment (PPE) and Respiratory Protective Equipment (RPE) will be worn by the surveyor.
- b. Place plastic drop cloth below area where sample will be taken;
- c. Have sample bag ready along with a wet wipe and length of adhesive tape;
- d. Using a hand spray or wet wipe wet a small area where the sample will be taken;
- e. For sprayed coatings, pipe or vessel insulation place a wet wipe in the barrel of the core sampler. Using the core sampler, whilst continually spraying the material with a hand held spray, we will bore into the material until the substrata is reached. (Representative samples of other materials will be taken using a hand tool appropriate for the situation);

- f. Damp area again using hand spray, remove core samples and using plunger push samples into bag and seal;
 - g. Fill sample hole with prepared wet wipe and seal with filler and adhesive tape;
 - h. Affix sample location sticker ensuring that sample number and location tally (if applicable);
 - i. Clean drop cloth, area and equipment, especially the core sampler;
 - j. Dispose of or retain contaminated materials such as wet wipes, drop cloth, overalls, gloves etc;
 - k. Continue sampling keeping track of sample numbers and corresponding locations.
- 4.2 Each sample will be stored in an individual sample bag labelled with the unique reference number and each batch of samples will be contained within a further sample bag labelled with unique project reference assigned for a specific project. The batch of samples will be labelled with an asbestos "a" label.
- 4.3 As a minimum, the unique sample reference, title of the room or area from where the sample was taken, the item from which the sample was taken and a brief description will be recorded on our standard bulk sample report form or survey paperwork. The asbestos type, and to assist in determining the appropriate removal method, the percentage content will be added following analysis.
- 4.4 Additional information recorded at the time of sampling may range from a simple description of the material sampled to the completion of a survey sheet, which can include a photograph, and an estimate of exposure potential in the form of an algorithm.
- 4.5 In some instances the sampling procedure may take other forms such as:-
- a. For thermo-plastic or PVC flooring, bitumen roofing felts, asbestos paper, cloth, ropes or yarns etc by wetting using a spray then cutting a small sample using a scalpel or chisel and seal with filler and adhesive tape;
 - b. Asbestos cement panels, roofing sheets or guttering first wet the material using a spray then break off a small sample using pliers before sealing the broken edge using filler and adhesive tape. Samples taken at a corner are easier to seal;
 - c. For "Durasteel" panels first wet the material using a spray then collect the sample using an awl before sealing with filler and adhesive tape.

5.0 SAMPLING DENSITY

- 5.1 Bulk Sampling Strategy; for the purposes of this survey initial sampling of any finding will be at the density recommended in our procedure manual (at the density set out in the DETR publication "Asbestos and Man-Made Mineral Fibres in Buildings" which exceeds the requirements of HSG 264 and complies with our UKAS Accreditation). One sample only will be taken from all similar subsequent findings unless;
- a. Results exist for identical building elements;
 - b. Where a building element is suspected to contain an asbestos containing material of known composition and that material is within the building element concerned;
 - c. Only one sample of each type of debris found in any one functional space will be taken.
 - d. In which case No further samples will be taken of the repeat finding(s);

6.0 SAMPLE ANALYSIS

- 6.1 All bulk samples (together with all site notes, work books etc), will be submitted to the laboratory, situated at PA Group' offices, for analysis. Upon receipt samples will be logged, analysed and findings reported in accordance with HSE HSG248 "Asbestos: the analysts guide for sampling analysis and clearance procedures (2005) and UKAS accreditation for this activity. Results are provided to the surveyor for inclusion in the report.

7.0 REPORTING

- 7.1 Format, content and number of copies required will be agreed in advance of site attendance and will be produced in accordance with the requirements of HSG 264.
- 7.2 Reports are produced either by, or under the supervision, of the surveyor. The report once compiled is checked by the surveyor for completeness and accuracy. A further check is carried out by an authorised signatory prior to the report being signed off by both parties.
- 7.3 The standard PA Group (ARMalite) survey report will be produced in all instances unless specifically requested in writing and agreed by the client.

8.0 DESCRIPTION OF SURVEY TYPES (ALL IN ACCORDANCE WITH HSG 264)

8.1 Management Survey: Standard sampling, identification and assessment survey (formerly a type 2 survey)

The purpose of a management survey is to control asbestos-containing materials (ACM) during the normal occupation and use of premises by ensuring that:

- a. Nobody is harmed by the continuing presence of ACM in the premises or equipment
- b. The ACM remain in good condition.
- c. Nobody disturbs it accidentally.

A management survey is the standard survey. Its purpose is to locate, as far as reasonably practicable, the presence and extent of any suspect ACMs in the building which could be damaged or disturbed during normal occupancy, including foreseeable maintenance and installation, and to assess their condition.

Management surveys will often involve minor intrusive work and some disturbance. The extent of intrusion will vary between premises and depend on what is reasonably practicable for individual properties, i.e. it will depend on factors such as the type of building, the nature of construction, accessibility, etc.

A management survey should include an assessment of the condition of the various ACMs. This 'material assessment' will give a good initial guide to the priority for managing ACMs as it will identify the materials which will most readily release airborne fibres if they are disturbed. The survey will usually involve sampling and analysis.

A management survey can also 'presume' the presence or absence of asbestos. By presuming the presence of asbestos, the need for sampling and analysis can be deferred until a later time (e.g. before any work is carried out).

However, as far as possible, all ACMs should be identified as part of the survey. The areas inspected should therefore include, but not be limited to, underfloor voids, ceiling voids, lofts, inside risers, service ducts and lift shafts, areas behind wall linings, basements, cellars, underground rooms, and undercrofts among others.

All practical measures should be employed to ensure all possible spaces are included within a MS and that limitations or exclusions should be kept to an absolute minimum and only included with valid reasons and explanations.

Survey planning should ensure as far as possible that adequate access on site is in place and that keys or similar are available. Stating rooms are locked is not a valid reason without good foundation.

The survey methodology employed should as far as possible include comment or sampling of possible concealed materials that although partially inaccessible could be included within the MS.

8.2 Refurbishment or Demolition Survey: Intrusive Survey & Sampling (formerly a type 3 survey)

A refurbishment and demolition survey aims to ensure that:

- a. Nobody will be harmed by work on ACM in the premises or equipment
- b. Such work will be done by the right contractor in the right way.

A refurbishment or demolition survey is needed before any refurbishment or demolition work is carried out. These types of survey are used to locate and describe, as far as reasonably practicable, all ACMs in the area where the refurbishment work will take place or in the whole building if demolition is planned. The survey will be fully intrusive and involve destructive inspection, as necessary, to gain access to all areas, including those that may be difficult to reach. A refurbishment or demolition survey may also be required in other circumstances, e.g. when more intrusive maintenance and repair work will be carried out or for plant removal or dismantling.

There is a specific requirement in the *Control of Asbestos Regulations 2012 (CAR 2012)* for all ACMs to be removed before major refurbishment or final demolition. Removing ACMs is also appropriate in other smaller refurbishment situations which involve structural or layout changes to buildings (e.g. removal of partitions, walls, units etc).

Under the *Construction design and management regulations*, the survey information should be used to help in the tendering process for removal of ACMs from the building before work starts. The survey report should be supplied by the client to designers and contractors who may be bidding for the work, so that the asbestos risks can be addressed. In this type of survey, where the asbestos is identified so that it can be removed (rather than managed), the survey does not normally assess the condition of the asbestos, other than to indicate areas of damage or where additional asbestos debris may be present. However, where the asbestos removal may not take place for some time, the ACMs' condition will need to be assessed and the materials managed.

Refurbishment or demolition surveys are intended to locate all the asbestos in the building or relevant part, as far as reasonably practicable. Disruptive inspection techniques will be needed to lift carpets and tiles, break through representative walls, ceilings, cladding and partitions, and open up floors. In these situations, controls should be put in place to prevent the spread of debris, which may include asbestos. Should specialist equipment be required this should be identified in the pre-contract review and be available on site. The client should be made aware of the full definition and requirements of such surveys at the outset.

The protocol for intrusive survey must ensure all reasonable measures have been engaged and planned to identify all possible asbestos in any given space or building. Surveyors must use hand tools to open up representative areas of all building elements including all layers of building products.

In conjunction with the systematic survey methodology (see section 3 Survey Methodology) which clearly identifies the nature and process employed when surveying these intrusive measures should be incorporated at each stage and any suspected ACM's sampled (section 4/5). If genuine access cannot be gained or limited access is gained then valid reasons must be clearly stating and these items photographed and included within the final report as areas that require further investigation.

In many instances ACMs will be effectively concealed within the building fabric and even the most intrusive survey will not locate and identify all ACMs within a property. Careful consideration should therefore be given by the surveyor to stating the limitations of the survey. However limitations should be kept to an absolute minimum and only included with valid reasons that have foundation.

In some instances ACMs will be so integral to the fabric of a building that they may only be discovered during the course of refurbishment or demolition work. As a consequence, the client should make provision for this possibility, particularly as there may be potentially significant delays to the project programme, together with increased project costs. Such costs cannot be directly attributable to the surveying entirety.

Survey restrictions and caveats can seriously undermine the management of asbestos in buildings and should only be included where absolutely necessary and can be fully justified. Any survey restrictions and caveats must be agreed in advance between the surveyor and client, and documented in the survey report.

Demolition surveys may also require coring works to slabs or similar if the foundations/slab is to be removed as well as the physical building that is to be demolished. This should be identified at planning stage and incorporated in the survey plan. If coring works are necessary specific control measures may be required.

9.0 METHOD OF RISK ASSESSMENTS

9.1 Material Assessment – undertaken by PA Group surveyor (see Register of Asbestos for Scores).

The material risk assessment adopted by PA Group Limited exceeds the requirements detailed in HSG 264 and is in accordance with our in house procedures and our UKAS Accreditation.

(Looks at the type and condition of the ACM and the ease with which it will release fibres if disturbed)

The system of risk assessment, which has been adopted, is based on the algorithm stated within HGS 264 (Surveying, sampling and assessment of asbestos containing materials).

The algorithm sets out the factors, which are most relevant in assessment of the potential release of fibres from a suspect material. These factors have been assigned quantifiable numerical values. The algorithm produces a single numerical value for each asbestos item, which may then be used as a priority rating for remedial work. The items that recommend any action should be implemented in accordance with the company's management policy / plan for asbestos containing materials

Materials Assessment	Algorithm Values
<p>MC Material Condition. The condition of the material at the time of the inspection. Factors to be considered include the quality of the installation, deterioration of the outer covering or encapsulation, de-lamination and damage. The range of groups is 0 to 3.</p>	<p>0 Good condition: no visible damage; 1 Low damage: a few scratches or surface marks; broken edges on boards, tiles etc 2 Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibres 3 High damage or delamination of materials, sprays and thermal insulation. Visible asbestos debris</p>
<p>ST Surface Treatment. Is the surface of the material in question encapsulated, papered, painted or covered. The range is 0 to 3.</p>	<p>0 Composite materials containing asbestos: reinforced plastics, resins, vinyl tiles 1 Enclosed sprays and Lagging, asbestos insulation board (with exposed face painted or encapsulated), asbestos cement sheets etc 2 Unsealed AIB, or encapsulated lagging and sprays 3 Unsealed Lagging and Sprays</p>
<p>TY Type of Asbestos. Determined by laboratory analysis The range of groups is 0 to 3.</p>	<p>0 Non asbestos 1 Chrysotile (White Asbestos) 2 Amphibole asbestos excluding Crocidolite 3 Crocidolite</p>
<p>PT Product Type (or debris from material). The range is 1 to 3.</p>	<p>1 Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints or decorative finishes, asbestos cement etc) 2 Asbestos insulation board, mill boards, other low density insulation boards, asbestos textiles, gaskets, ropes and woven textiles, asbestos paper & felt 3 Thermal Insulation (eg pipe and boiler lagging), sprayed asbestos, loose asbestos, asbestos mattresses and packing</p>
<p>Algorithm Significance The algorithm is a numerical way of taking into account many influencing factors, giving each factor considered a score. These scores are totalled to give the material assessment score. Each of the parameters are scored and added to give a total score between 2 and 12:</p>	<ul style="list-style-type: none"> Materials with scores of 10 or more are regarded as having a high potential to release fibres if disturbed; Those with a score between 7 & 9 are regarded as having medium potential to release fibres; Materials with a score between 5 & 6 are regarded as having low potential to release fibres; Scores of 4 or less are regarded as having very low potential to release fibres.
<p>The material assessment identifies the high risk materials, which are those that will most readily release airborne fibres if disturbed. It does not automatically follow that those materials assigned the highest score in the material assessment will be the materials that should be given priority for remedial action. Management priority must be determined by carrying out risk assessment which will take into account other factors such as the following;</p>	<ul style="list-style-type: none"> Proposed or Routine Maintenance Activities Normal Occupation Activities Resulting Likelihood of Disturbance Resulting Human Exposure Potential

9.2 Priority Assessments – undertaken by the Duty Holder as defined in *Control of Asbestos Regulations 2012*

(Looks at the likelihood of someone disturbing the ACMs)

A detailed risk assessment can only be carried out with knowledge of the Material Assessment Score (provided on the enclosed Register of Asbestos) and the detailed knowledge of the activities carried out in the premises. The risk assessment should form the basis of the Asbestos Management Plan, so it is important it is accurate.

PA Group advise their clients to carry out their own priority risk assessments in accordance with HSG227 and using the parameters and scoring system referred to in the aforesaid publication and shown below. PA Group are not accredited for priority assessments and any comments and observations are outside the scope of our UKAS accreditation.

Priority Assessment Factor	Score	Score variable
Normal occupant activity Main type of activity in area	0	Rare disturbance activity (eg. little used store room)
	1	Low disturbance activities (eg. office type activity)
Secondary activities for area	2	Periodic disturbance (eg. industrial or vehicular activity which may contact ACMs)
	3	High levels of disturbance, (eg. fire door with asbestos insulating board sheet in constant use)
	As above	As above
Likelihood of Disturbance		
Location	0	Outdoors
Accessibility	1	Large rooms or well-ventilated areas
	2	Rooms up to 100m ²
	3	Confined space
Extent/amount	0	Usually inaccessible or unlikely to be disturbed
	1	Occasionally likely to be disturbed
	2	Easily disturbed
	3	Routinely disturbed
	0	Small amounts or items (eg. strings, gaskets)
	1	=<10m ² or =<10m pipe run
	2	=<10m ² to =<50m ² or =<10m to =<50m pipe run
	3	=<50m ² or =<50m pipe run
Human Exposure Potential		
Number of occupants	0	None
	1	1 to 3
	2	4 to 10
	3	>10
Frequency of use of area	0	Infrequent
	1	Monthly
	2	Weekly
	3	Daily
Average time area is in use	0	<1 hour
	1	>1 hour to <3 hours
	2	>3 to <6 hours
	3	>6 hours
Maintenance activity		
Type of maintenance activity	0	Minor disturbance
	1	Low disturbance
	2	Medium disturbance
	3	High level disturbance
Frequency of maintenance activity	0	ACM unlikely to be disturbed for maintenance
	1	=<1 per year
	2	>1 per year
	3	>1 per month

Worked Example of Priority Risk Assessment

The following is an example of a worked Priority Risk Assessment for a fictitious incident of asbestos thermal insulation lagging on a boiler and pipework to a typical boiler room. The incident detailed in the example has no relation to the building surveyed.

Priority assessment algorithm			
Assessment factor	Variable(s) selected	Score for each variable	Overall Score
NORMAL OCCUPANT ACTIVITY			
Main type of activity in area	Low disturbance activity (checking safety controls on boiler once per day)	1	1
LIKELIHOOD OF DISTURBANCE			
Location	Room up to 100m ² – boiler room 6m x 7m	2	average = 2
Accessibility	Occasionally likely to be disturbed – don't need to disturb ACM to carry out checks but may inadvertently disturb	1	
Extent/amount	Small boiler and single 10m pipe run	2	
HUMAN EXPOSURE POTENTIAL			
Number of occupants	None	0	average = 1
Frequency of use	Daily – daily safety control checks	3	
Average time area is in use	<1 hour – few minutes once a day	0	
HUMAN EXPOSURE POTENTIAL			
Type of maintenance activity	Minor disturbance – potential for disturbance during annual servicing of boiler	0	average = 1
Frequency of maintenance activity	>1 per year – annual service + 1 breakdown visit per year	2	
Total priority assessment score			5
Material assessment score (provided by asbestos survey)			11
Total of material and priority assessment scores			16

Once a similar assessment has been made of each asbestos incident detected within the scope of the survey, the total of material and priority assessment scores should be compared and collated.

The highest scoring assessments will define the Management Priority materials.

Whilst PA Group are unable to undertake these assessments on the Duty Holders behalf, our surveyor can form part of the assessment team to assist the Duty Holder in undertaking these assessments. Please contact PA Group for more details.

10.0 LIMITATIONS, OBSERVATIONS & EXCLUSIONS FOR SURVEY OF ASBESTOS CONTAINING MATERIALS

10.1 General Limitations and Observations

- 10.1.1 The surveys conducted by PA Group will involve thorough inspection of all accessible parts of a building to which we are able to gain safe access, sampling and testing depending on the type of survey being instructed by the 'client' (or nominated representative) of all suspect materials for asbestos and the provision of a report or similar document which must be wholly read in conjunction with all elements. We to draw your attention to the fact that as highlighted within each survey type (form of inspection), asbestos still may remain undiscovered within any given building, or parts thereof, and therefore should this be identified at a later stage after our services / involvement have finished that PA Group should be consulted in the first instance to advise as necessary in accordance with legislation. Should this not be done we would accept no liability should any costs, time or further implications arise at a later stage through inappropriate use of the report documented or otherwise. Should intrusive investigation such as a refurbishment survey or demolition survey be undertaken damage will occur to the building or parts thereof by the nature of the inspection, if certain areas are not itemised as not to be inspected all parts will be subjected to such destructive measures and PA Group cannot be held liable for any damage.
- 10.1.2 Representative beam casings and bulkheads would be exposed, inspected and any significant dust deposits sampled. If suspect materials are thought to be present then this would be highlighted at the time and further advice or assessment sought.
- 10.1.3 Dismantling of structural, load bearing or substantial walls for inspection has not been made provision for within the proposal, as this would form part of any refurbishment, renovation or demolition process. Should it be thought that suspect areas are present within said areas then they will be highlighted and annotated accordingly within the report and advised in summary to await further advice.
- 10.1.4 Representative floor spaces would be, exposed and any significant dust deposits sampled. If suspect materials are thought to be present then this would be highlighted at the time and further advice or assessment sought.
- 10.1.5 Brake linings within lift machinery would not generally be inspected, as a potential element of dismantling of plant may be required and only specifically trained and competent personnel can undertake such an activity. If suspected it should be presumed that the linings contain asbestos.
- 10.1.6 As highlighted within our proposal should any plans for existing or historic heating or pipework systems be available please forward them to us in good time, however it is noted that these are not likely to be available in many cases. In this instance for us to inspect every inch of wall surface and open it is not a practical solution. Should it be thought that pipework is present within the walls themselves then reasonable measures will be employed to trace this occurrence. Should it be required that continual exposing or dismantling of walls is required then we would envisage revisiting the client to highlight the issue and ask further advice on the intended action. However we would envisage finding and noting any such occurrences during our standard investigations.
- 10.1.7 Should service ducts be evident they will be inspected if accessible. We would employ measures to lift the ducts if this was an issue. However should they be immovable or deemed a confined space then accessing this element is not provided for and would have to be evaluated at the time.
- 10.1.8 With regard to the frequency of sampling dust (ventilation, floors and ceiling) and sampling plaster we would ask for guidance on the expected number or frequency to ensure suitable coverage for all parties. Once clarified as to what is reasonable or representative then we can confirm this in writing. Otherwise we will sample only a minimal number of areas of duct or plaster to prove negative results only.
- 10.1.9 As in accordance with current H&S guidelines we are not permitted to access over 2m in height and the use of ladders is now not the preferred route, platform or podium blocks with the relevant handrails are preferred. We have included for step ladders. Should high-level access equipment be necessary i.e. by scissor lift or boom then this would not be included and would have to be requested in advance of the survey and the proposal amended.
- 10.1.10 Should asbestos removal works be deemed necessary during the inspection to open up spaces for inspection so the survey is as conclusive as possible the removal costs are not included nor the 14-day period within the timescale (if applicable) for the project timeline. This can generally only be evaluated at the time of the survey and phased in thereafter.

- 10.1.11 We would advise that the survey report is for reporting of asbestos materials and documenting them. Should you wish to use it to price for removal works then it is your decision as the use of the report is yours. However we feel it prudent a specific removal specification is implemented for contractors to price. We cannot be held responsible if a situation or additional cost arises from the removal contract that would have been included in a suitable specification document.
- 10.1.12 In advance we wish the client to acknowledge that in accordance with any previous deadline should plant or similar have to be isolated and a programme submitted that this would be currently unforeseeable then there may be a delay in the timescale for completion purely based on these additional elements.
- 10.1.13 Should you wish for us to revisit the site once any enabling works are planned to liaise with the structural engineer or similar we will or course accommodate any requirements where possible. If the assistance is additional then there may be additional costs.

10.2 Report

- 10.2.1 This report details the findings of a refurbishment or invasive survey for asbestos containing materials (refer to HSG 264 for further details, ISBN 0-7176-2076-X) the information may not be taken to be a full and detailed inspection of all parts of the building and therefore further inspection in accordance with legislation will be required prior to any refurbishment, alteration or demolition.
- 10.2.2 The report must be read and used wholly in conjunction with all elements of its content, many sections relate directly to others. PA Group can accept no liability or responsibility for the cost of removal of asbestos or other materials or delays etc caused by the inappropriate use of this report. Should interpretation be taken incorrectly without consulting PA Group in the first instance then no liability will be associated.
- 10.2.3 Prior to any remedial or removal works being undertaken as a result of our findings or recommendations contained within this report, we recommend a specific specification for such works be drafted by a reputable asbestos consultant or competent person acting on behalf of the client. The recommendations set out in this report should not be relied upon as a specification for remedial works.
- 10.2.4 We further recommend that under no circumstances should any removal or remedial works be costed based on this report or subsequent specification alone. Such documents should only be used as an aid to what we consider to be an essential site walkthrough at the planning stage. In addition, all parties involved in any remedial works should be fully conversant with the findings of the report, the scope of the inspection and the limitations of the survey. If at any time a full understanding of the report, its findings or limitations are not fully understood, we, or an alternative competent person should be consulted.

10.3 Limitations relating to Inspection (as detailed in survey report and annotated to specifically reflect survey individually: -

- 10.3.1 The findings of this report are limited only to those areas accessed at the time of the survey and detailed in this report as per the instruction and supporting documentation.
- 10.3.2 Flues, ducts, voids or any similarly enclosed areas, the access to which necessitated the use of specialist equipment or tools, or which would have caused damage to floors, decoration, fixtures, fittings or the structure have *not* been inspected unless specific information to the contrary has been provided. Therefore, these areas in accordance with guidance provided in HSG 264 must be presumed to contain asbestos and prior to any works commencing either re-inspected or removed as asbestos.
- 10.3.3 Lift shafts or similar which require the attendance of a specialist engineer has not been inspected unless otherwise stated without that engineer in attendance. This attendance must be instructed prior to site works commencing.
- 10.3.4 Any areas or surfaces that would require the removal or relocation of carpets, furniture, fixed blinds/curtains, fixtures or fittings have not been subject to inspection unless specifically instructed and mentioned elsewhere in this report. This mainly related to occupied properties to which accessing these areas would disrupt normal working activity.
- 10.3.5 Any part requiring specialist access equipment other than stepladders has not been inspected e.g. internal / external high-level parts, internal elements to boilers / plant. Any requirement for specialist access equipment has been specifically excluded unless otherwise stated or previously instructed.

- 10.3.6 No report has been made upon concealed spaces, which may exist within the fabric of the building where the extent and presence of these is not evident due to inaccessibility or insufficient knowledge of the structure at the time of the survey.
- 10.3.7 No responsibility is accepted for the presence of asbestos in voids (under floor, floor, wall or ceiling) other than those opened up during the investigation.
- 10.3.8 Inspection of pipe work has been restricted primarily to the insulation visible due to plant being operational at the time of survey. Where it is evident comment will be made on underlying debris which may be present however a detailed inspection, which is outside the scope of this survey, is required to establish the presence, nature, extent of any asbestos containing debris.

10.4 Limitations and Restrictions relating to Sampling:

- 10.4.1 Samples have not been taken where the act of sampling would endanger the surveyor or affect or hinder the functional integrity of the item concerned. For example; fuses within electrical boxes, gaskets, fire doors, ropes associated with heating, glazing or power plant etc.
- 10.4.2 Samples have not been taken where prohibited or prevented by the client, tenant or their representative.
- 10.4.3 Whilst every effort will have been made to identify the true nature and extent of the asbestos material present in the building to be surveyed, no responsibility has been accepted for the presence of asbestos in materials other than those sampled at the requisite density.
- 10.4.4 Bulk samples have been taken from all materials which upon visual inspection appeared likely to contain asbestos with the exception of items of bitumen, plastic, resin or rubber which contain asbestos, the thermal and acoustic properties of which are incidental to their main purpose which falls outside the scope of the approved Code of Practice for Work with Asbestos Insulation, Asbestos Coating, and Asbestos Insulating Board.
- 10.4.5 Materials have been referred to as Asbestos Insulating Board or Asbestos Cement based upon their asbestos content and visual appearance alone. Density checks on materials have not been carried out unless stated otherwise.
- 10.4.6 Textured Coatings such as *Artex* may contain a trace quantity of Chrysotile asbestos. Due to this low asbestos content, applications of this product may be non-homogenous and may elicit both positive and negative samples. Where both positive and negative samples are obtained the client should presume that the textured coating contains Chrysotile throughout even though a non-detected result has been obtained.
- 10.4.7 When representative samples are taken and samples prove negative, due of the inconsistent nature of the product the possibility still remains that the textured coating and parts thereof could possibly be positive. Should there be any doubt whatsoever, further samples should be taken and no responsibility can be attributed to PA Group.

11.0 STANDARD TERMS OF ENGAGEMENT

11.1 Parties:

- 11.1.1 The Client which expression shall mean the party for whom the Agreed Work is being undertaken pursuant to the Proposal as herein defined.
- 11.1.2 PA Group registered office is The Granary, Pinden Farm, Dartford, Kent, DA2 8EA (hereafter referred to as "PA")

11.2 Recitals:

- 11.2.1 The Client has requested PA to provide professional environmental consultancy services upon the terms set out in detail in additions or amendments thereto agreed in writing.
- 11.2.2 Services carried out under the Proposal in accordance with these Standard Terms of Engagement and the Proposal.

11.3 The Terms:

11.3.1 Engagement

11.3.2 The Client agrees to engage PA and PA agree to undertake the Agreed Work in accordance with these Standard Terms of Engagement and the Proposal.

11.3.3 Standard of Care

11.3.4 PA shall perform the Agreed Work using the reasonable standard of skill and care normally exercised by the professional environmental consulting firms in performing similar services under similar conditions.

11.3.5 PA shall use all reasonable endeavours to perform the Agreed Work in accordance with all relevant legislation.

11.4 Obligations of the Client

11.4.1 Throughout the period of this agreement the Client shall afford to PA or procure the affording to PA of access to any sites where access is required for the performance of the Agreed Work.

11.4.2 The Client will inform PA in writing of all special site and/or plant conditions including without prejudice to the generality of the foregoing the existence of any underground cables, pipes drains or underground buildings or constructions and shall also inform PA of any relevant site operating procedures and site safe operating procedures and any other regulations relevant to the carrying out of the Agreed Work the notification of such matters to be acknowledged in writing by PA if they are to be binding upon them.

11.4.3 **The Client shall take all steps to secure and otherwise keep safe all and any property and personal of PA.**

11.4.4 The Client shall afford to PA access at all reasonable times to any relevant site for the purpose of removing any plant equipment or records owned or hired by it that are present on the site.

11.4.5 The Client shall provide free of charge such information and drawings as are available to the Client as may reasonably be required by PA for the performance of the Agreed Work.

11.4.6 Where the Agreed Work requires PA to enter upon any site whether or not owned or occupied by the Client then the Client shall notify PA of any hazards known or suspected by the Client to exist upon such site and shall indemnify PA against all cost claims demands and expenses arising as a result of any non-disclosure in this respect.

11.4.7 The Client undertakes not at any time without the prior written consent of PA during the performance of the Agreed Work and for a period of six months thereafter to directly or indirectly solicit, entice, procure or employ any person who during the performance of the Agreed Work was an employee of PA and who had material contact of involvement with the Agreed Work.

11.5 Confidentiality

11.5.1 PA Group undertakes not to divulge or disclose to any third party without the written consent of the Client information, which is designated confidential by the Client prior to the acceptance of the contract or which can reasonably be considered to be confidential and arises during the performance of the Agreed Work unless Required to do so by law.

11.5.2 Subject to 5.8.1 above PA shall be permitted to use information related to the Agreed Work for the purposes of marketing its services and in proposals for work of a similar type.

11.6 Insurance

11.6.1 PA holds professional indemnity insurance in an amount of not less than £1,000,000 in aggregate in any one year.

11.6.2 PA agrees to maintain the insurance referred to in 5.1 above the period of six years from the date of this agreement provided that such insurance continues to be available upon reasonable terms at reasonable commercial rates in the insurance market for environmental consultants and shall when reasonably requested by the Client produce for inspection evidence of such insurance.

11.7 Liability

11.7.1 PA confirms that it will be responsible to the Client for all costs claims and demands properly incurred by the Client and which represent the reasonably foreseeable damage suffered by the Client as a direct result of the negligent act of omission of PA in the performance of the Agreed Work under these Term. Without prejudice to the foregoing the Client acknowledges that PA shall have no liability to the Client or to any third party for any indirect, economic or consequential loss howsoever arising and whiter pursuant to the performance of the Agreed Work under these Terms of howsoever otherwise arising.

11.7.2 PA is carrying out the Agreed Work solely for the benefit of the Client and the Client shall indemnify PA against any claims from any third parties in respect of the Agreed Work unless PA has without being requested by the Client to do so provided advice of information direct to such parties or has in writing permitted disclosure of such advice or information to such persons.

11.7.3 The total liability of PA under or in connection with this Agreement and the Agreed Work whether in contract, tort, breach of statutory duty or otherwise shall not exceeds 6x fees for the building in question and the client shall indemnify and keep indemnified PA from and against all costs, claims, demands, proceedings, charges and expenses arising out of or in connection with the Agreed Work in excess of such liability and limitation provided that in the event of the insurance referred to in clauses 5.1 and 5.2 no longer being available upon reasonable terms at reasonable commercial rates then the liability of PA shall be restricted to £25,000 under this.

11.7.4 The liability of PA in respect of the Agreed Work shall be limited to that proportion of the Client's losses and damages which it would be just and equitable to require PA to pay having regard to the extent of PA' responsibility for the same and on the basis that any other consultants contractors and sub contractors shall be deemed to have provided contractual undertakings to the Client in respect of their services in connection with the project of which the Agreed Work is part in terms no less onerous than under these Standard Terms and shall be deemed to have paid to the Client such proportion which it would be just and equitable for them to pay having regard to the extent of their respective responsibilities.

11.7.5 **Nothing contained in these standard terms shall exclude or restrict the liability of PA in respect of death or personal injury resulting from the negligence of PA.**

11.8 Ownership of Documents and Intellectual Property (IP)

11.8.1 The Client acknowledges and agrees that any and all intellectual property rights (including without limitation any trade marks, patents and any copyright in drawings, reports, specifications, bills of quantities, calculations software, algorithms, work processes and graphic images and other documents and information) created developed subsisting or used by PA or any third party in performance of the Agreed Work ("the intellectual property") shall vest in or (as the case may be) remain the exclusive property of PA or of any relevant third party.

11.8.2 When so agreed by PA and recorded in writing prior to the delivery of such intellectual property and subject to PA and its sub-consultants having received payment of all fees and disbursements properly due under this agreement the Client shall have a non exclusive licence to copy and use such intellectual property for the purposes directly related to the Agreed Work. Such Licence shall enable the client to copy and use the intellectual property but solely for his own purpose and such use shall not include any licence to reproduce any conceptual designs or professional opinions contained therein. The Client shall have no right to grant sub-licences.

11.8.3 Save as above, the Client shall not make copies of such intellectual property nor shall he use the same in connection with any other works of for any other purpose nor pass them to any third party without the prior

written approval of PA and upon such terms as may be agreed by PA. PA shall be liable for the use by any person of such intellectual property for any purpose than that for which the same were prepared by or on behalf of PA. The licence granted in terms of this clause may be terminated by PA forthwith if the Client is in material and/or persistent breach of any term of condition of these Terms or if the Client (whether under these Terms or otherwise) within 14 days of the due date therefore. Unless expressly stated, no other licence to any IP is implied or granted under these Terms.

11.8.4 PA shall not without the written consent of the Client such consent not to be unreasonably withheld, publish alone or in conjunction with any other person any articles, photographs or other illustrations relating to the Agreed Work. For the avoidance of doubt nothing herein shall prevent or restrict PA from using the intellectual property for its own purposes or for the provision of services to third parties.

11.8.5 **Proposals submitted to the Client are solely for his use and the ownership of such proposals not confirmed as Agreed Work with the Client remain with PA and must not be used as the basis for any future work undertaken either by the Client or a third party and no liability can be accepted howsoever arising from such proposals.**

11.9 Payment

11.9.1 PA shall submit invoices and payment shall be made by the Client in accordance with the rates and fees and timetable set out in the Proposal. If no payment terms are specified in the Proposal invoices can be submitted monthly.

11.9.2 Payment shall be made by the Client within fourteen days of the date of any invoice and payment shall be made in full (without any deduction of retention for any claim or counter claim or otherwise) in pounds sterling and interest at the rate of four per cent (8%) above the Bank of England base lending rate will be payable on all overdue payments such interest being calculated from the date of the invoice to the actual receipt of payment by PA.

11.9.3 All sums payable by the Client under the terms of the Proposal are exclusive of Value Added Tax which will be payable by the Client in addition to such sums and shall be chargeable at the prevailing rate and in the manner prescribed by law.

11.10 Limitation

11.10.1 No action in proceedings under or in respect of this agreement whether in contract or in tort or in negligence or for breach of statutory duty or otherwise shall be commenced against PA after the expiry of a period of six years from the date of commencement of the Agreed Work or such other date as may be agreed in writing between the parties.

11.11 Waiver

11.11.1 No failure by PA to seek redress for breaches by the Client, or failure by PA to exercise any right or remedy to which it may be entitled in terms of these Terms unless in writing by an authorised officer of PA shall in any way affect or prejudice the rights of PA or be taken as a waiver of the terms of this or any other clause of these terms.

11.12 Entire Agreement and Exclusion of Representations

11.12.1 These Terms and the Proposal to which they apply represent the entire agreement of the parties hereto with respect to the Agreed Work and supersede any prior written or oral warranties, terms, conditions and representations whether express or implied and any claim against PA in respect of the Agreed Work can only be made in contract under the provisions of these Standard Terms or the Proposal, and not under the law of tort or otherwise.

11.12.2 PA will not be bound by any standard or printed terms, conditions, warranties or representations furnished by the Client in any of its documents unless PA specifically states in writing separately and the Client acknowledges such notification in writing.

11.12.3 For any variation to these Terms to be effective the variations must be in writing signed by both PA and the Client.

11.13 Notices

11.13.1 Any notice to be given by the Client under this agreement shall be deemed to be duly given if it is in writing and delivered by hand or sent by registered post to PA at the address of PA shown at the head of these Standard Terms. Any notice to be given by PA shall be duly given if it is in writing and delivered by hand or sent by registered post to the Client at the address of the Client as set out in the Proposal or if there is no such proposal the registered office of the Client. These notices shall, if sent by registered post, be deemed to have been received 48 hours after postage.

11.14 Delay and Force Majeure

11.14.1 PA will comply with the programme for the achievement of the Agreed Work unless delayed or prevented by circumstances beyond its reasonable control and in the event of any such circumstances arising PA undertakes to complete the Agreed Work as promptly as is reasonable but will not be liable to the Client for any delay resulting from such circumstances beyond PA's reasonable control.

11.14.2 If PA through no fault of its own is unable to carry out the Agreed Work according to an agreed timetable by reason of other works being unfulfilled or for any other reason which is the responsibility of the Client additional expenses of staff subsistence travel mobilisation as appropriate will be met by the Client and shall include the cost of the hire of equipment of additional sub-contractors' costs reasonably incurred.

11.15 Governing Law

11.15.1 This agreement shall be governed by and construed in accordance with English law and the parties submit to the exclusive jurisdictions of the English Courts.

11.16 Termination

11.16.1 The appointment of PA may be terminated in the event of either party becoming bankrupt, going into liquidation (either voluntary or compulsory unless as part of a bona fide scheme of reconstruction or amalgamation), being dissolved or having a receiver or administrator appointed to the whole or any part of its assets. Notice of termination must be given to the party that is insolvent by the other party.

11.16.2 If for any reason the performance of the Agreed Work is suspended for a period in excess of one calendar month then PA shall be entitled to terminate its appointment in respect of the Agreed Work by seven days written notice to the Client.

11.16.3 Any termination of the appointment of PA howsoever caused shall be without prejudice to the right of PA to require payment for all services performed up to the date of such termination.

11.17 Assignment

11.17.1 The Client shall not be entitled to assign transfer or pass the benefit of the whole or any part of this Agreement without the consent in writing of PA and signed by a Board Director.

11.18 Conflict

11.18.1 In the event of any conflict between the wording of these Terms of Engagement and the terms of the Proposal the terms of the latter shall prevail.

11.19 Disputes

- 11.19.1 The Agreed Work is of a 'Construction Contract' within the definition in Section 104 of the Housing Grants Construction and Regeneration Act of 1996 then the following provisions shall apply.
- 11.19.2 In the event of any dispute or difference arising under or by reason breach of this Agreement (other than with regard to the meaning or construction of this Agreement) such disputes or difference whether arising before or after the determination of this Agreement may be referred to some independent and fit person to be nominated by the President or Vice President for the time being of the Chartered Institute of Arbitrators within seven days of the application of either of the parties hereto but in the event of any such dispute or difference arising under or by reason of breach of this Agreement then the matter may be referred to a leading Counsel of proven ability and experience to be nominated by the President for the time being of the Law Society within seven days of the application of either of the parties to the person hereto and any fees and expenses which may become payable to the person appointed shall be within the award of that person.
- 11.19.3 Any such adjudicator appointed in the terms of clause 18.1.1 hereof shall have twenty eight days from the date of referral within which to reach a decision on the dispute, or such longer period as is agreed between the parties after the dispute has been referred, but without prejudice to the forgoing the adjudicator shall be permitted to extend the said period of twenty eight days up to fourteen days, with the consent of the party by whom the dispute was referred. The adjudicator shall act fairly, reasonably and impartially and shall conduct the adjudication in accordance with rules 13 to 25 (inclusive) of the Technology and Construction Solicitors Association Adjudication Rules 1999 (version 1.3) except that 19(ix) shall not apply thereto.
- 11.19.4 The adjudicator shall be required to issue a written decision to the parties to the dispute, within seven days of reaching a decision, giving detailed reasons for his decision. The decision of the adjudicator shall be binding on both parties until the dispute is finally determined by agreement of the parties or by legal proceedings.
- 11.19.5 When issuing his decision, the adjudicator shall be entitled, but not bound, to award damages and interest thereon to such parties as he may think fit.
- 11.19.6 If the Agreed Work does not constitute a Construction Contract' as defined above then the following provisions shall apply.
- 11.19.7 If any dispute arises between the parties with respect to any matter then such dispute shall at the instance of either party be referred to a person agreed between the parties, and, in default of agreement within twenty-one days of notice from either party by the President for the time being of the Institution of Civil Engineers. Such person shall be appointed to act as an expert and not as an arbitrator. The costs of such expert shall be borne to equally by the parties unless such experts shall decide one party has acted unreasonably in which case he shall have discretion as to costs.

11.20 Severance

- 11.20.1 If any term or provision in these Terms shall be held to be illegal or unenforceable in whole or in part under any enactment or rule of law such term or provision or part shall to that extent be deemed not to form part of these Terms but the validity and enforceability of the remainder of these Terms shall not be affected.

11.21 Contracts (Rights of Third Parties) Act 1999

- 11.21.1 The provisions of the Contract (Rights of Third Parties) Act 1999 are expressly excluded from applying to these Terms or the Proposal to which they relate and accordingly no benefit to any third party is intended nor shall be implied under such Terms or Proposal.