

City of London

Code of Practice
for Deconstruction and
Construction Sites

Ninth Edition
January 2019



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Foreword

This is the ninth version of the Code of Practice developed by the City of London's Pollution Control Team to encourage the use of the best environmental options in planning and managing construction and deconstruction (demolition) in the City of London. The area is densely populated by residents, many types of business, and other sensitive premises, all of which can be affected by construction work and associated activities.

This Code meets one of the aims of the City Noise Strategy which is to mitigate and minimise noise and noise impacts that could adversely affect health and well-being of City residents, workers and visitors and to avoid noise and noise impacts that could have a significant adverse effect.

This Code seeks to set out simply and clearly what constitutes acceptable site practice within the City. It is intended to help developers, architects, engineers and construction professionals to plan, cost and manage the environmental issues which frequently arise in the industry.

In the City we encourage a flexible approach to addressing environmental problems. I must emphasise that this needs early and, in some cases, frequent liaison with the officers in the Pollution Control Team who should be consulted at all stages of project planning, programming and operation, so that the best options for your site can be developed.

This ninth edition of the code generally revises and updates the eight edition. It contains further guidance on the prevention of air pollution from activities on site, a minor revision to the schedule of monitoring contributions and changes to standard Saturday working hours.

Additionally, we encourage you all to apply, via our Considerate Contractors Scheme (CCS), for the Environmental Award. This will recognise those sites/companies who innovate to protect the Environment in the City each year.

The Code takes into account current best practice and new technology already adopted by many sites in the City.

I hope you will find this guidance useful in planning and managing your site activities.

Jeremy Simons
Chairman of Port Health and Environmental Services Committee
December 2018

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Forward by Jeremy Simons

Chairman of Port Health and Environmental Services Committee

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Note: Copies of this Code of Practice can also be accessed via the City's website at:

www.cityoflondon.gov.uk/business/environmental-health/environmental-protection/Pages/Construction-.aspx

1 Introduction and Use

Introduction

- 1.1 At any one time there are many active deconstruction, construction and refurbishment sites within the City of London. The work is essential in order to enable the City to maintain its status as a world class centre of business and finance. Some of the activities involved and listed in this document can often disturb and disrupt neighbours and users of the surrounding area. To help Developers and their Contractors minimise disturbance, the City of London has prepared this Code of Practice detailing the standards to which they expect sites to be maintained and operated.
- 1.2 The environmental impacts of construction work must be considered as early as possible in the project. Where potential adverse impacts are identified, measures to offset or reduce them should be incorporated into the project proposals at the earliest stage and taken into account in the final cost. These matters must form part of the 'Scheme of Protective Works' to be submitted to the Pollution Control Team in the Department of Markets and Consumer Protection. We wish to encourage best practice and new innovation in Environmental Matters and welcome all companies/sites to take part in the CCS Environment Award.
- 1.3 *Note: The term Contractor used within this Code of Practice includes Principal Contractors, Construction Managers, Trade Contractors and other similar roles. Ultimate responsibility rests with the Principal Contractor although the Developer (or promoter of the project) will clearly have an interest in ensuring that works are undertaken with minimum disruption.*

Use and Application of the Code of Practice

- 1.4 This Code is intended as a guide to 'Best Practicable Means' but must not replace consultation between developers, Contractors and regulators. Throughout all stages of a project, discussion with the City of London is actively encouraged at the earliest opportunity. The Code should be used by developers during the planning application process as an informative document, allowing the developer to discuss terms tailored to their specific development with the City of London. Developers must ensure that Contractors are fully aware of this Code and its implications, in particular the requirement for proactive and effective community Liaison and Consultation (section 2).
- 1.5 Adherence to this Code will demonstrate a positive attitude and commitment towards minimising environmental impacts and will be used as one of the main methods of assessment within the City's Considerate Contractor Scheme. Many consents granted by the City of London under Planning Acts will include conditions which refer to the standards in this Code. Site specific Deconstruction and Construction Schemes submitted under planning conditions will generally be expected to reflect the relevant provisions of this Code.
- 1.6 The Code follows a methodical approach to construction works and sets standards to be followed. Not all parts of this Code will apply to every construction project. However, the City will expect all Contractors to comply with the spirit of the Code,

with appropriate provisions being applied to the site at all times. This should allow local residents and businesses to continue operating with minimal disturbance.

- 1.7 Where two sites (or more) are operating in close proximity to each other the impact of all operations on neighbours will be taken into account when applying controls to mitigate any environmental effects. It will be expected that arrangements for liaison between sites, as well as the City, are made by the Contractor at the beginning of projects to ensure that the joint impact from the work of all sites in the locality is kept to a minimum.
- 1.8 Although this Code gives an outline of legal requirements, it is not an authoritative statement of the law. Where necessary in accordance with its policy statement on enforcement, the City of London will not hesitate to enforce the statutory powers they have. A list of relevant guidance and legislation are included as Appendix A.
- 1.9 There is generally a good level of compliance across the City with this Code, but the density of development, high level of activity, and conflicting needs of different communities occupying an extremely limited area mean that the impacts of non-compliance can be particularly severe. This Code makes provision for a more proactive approach to monitoring by City Officers in order to ensure better long term environmental management and help mitigate adverse construction impacts more effectively.
- 2.0 Appendix L sets out contributions which will be sought by the City on certain developments to assist improved monitoring and liaison, and which may be provided for in site specific Deconstruction and Construction Schemes submitted under planning conditions.

2 Community Liaison and Consultation

Summary:

The Contractor needs to:

- demonstrate 'best practicable means' by contacting the City of London *well in advance of* works commencing to discuss the proposed works and the scope of liaison and 'Scheme of Protective Works' to be submitted for protecting nearby residents and commercial occupiers (hereafter referred to as *neighbours*);
- identify neighbours and interested parties (including where appropriate Ward Members) and consult with them **before** finalising the Scheme of Protective Works;
- maintain dialogue and information exchange with the City of London's Pollution Control Team, neighbours and interested parties throughout the proposed works;
- respond quickly to complaints and resolve where practicable; and
- ensure neighbours and interested parties are kept informed of works as they progress and are consulted where necessary.

Scheme of Protective Works

- 2.1 Prior to work commencing on each stage of the development, the Contractor **must** contact the City of London's Highways Division and the Pollution Control Team, in order to:
- agree the scope of the '**Scheme of Protective Works**' to be submitted; and
 - identify the scope of community liaison and consultation.
- 2.2 The Contractor must demonstrate 'Best Practicable Means' (BPM) and create a 'Scheme of Protective Works' for protecting neighbours. As part of this Scheme, the Contractor is expected to have and apply appropriate liaison and consultation approaches to minimise the environmental impact on neighbours.
- 2.3 The scope of the Scheme and extent of liaison will be site dependent, having regard to the scale of works and the potential for disruption to neighbours. Figures 2.1, 2.2 and 2.3 will be used to guide the scope required. Figure 2.4 is a guide to the information which may be required in the 'Scheme of Protective Works'.

Figure 2.1 – Category of Site

| | | | | |
|--------------------|--------|----------------------------------|--------------------------------|-------------------------------|
| Site Sensitivity ↑ | High | Category B Site | Category A Site | Category A Site |
| | Medium | Category C Site | Category B Site | Category A Site |
| | Low | Category C Site | Category C Site | Category B Site |
| | | Minor Development | Medium Scale Major Development | Large Scale Major Development |
| | | Size and nature of development → | | |

Figure 2.2 - Deciding on the Size, Nature and Sensitivity of the works

| Size of the development | |
|---|--|
| <p><i>Large scale Major Developments</i></p> <ul style="list-style-type: none"> • Residential - 200 or more units • Industrial, commercial or retail floor space -10,000 square metres. <p><i>Medium Scale Major Developments</i></p> <ul style="list-style-type: none"> • Residential between 10 and 199 (inclusive) units. • For all other uses - floorspace between 1,000 square metres and 9,999 square metres or where the site area is between 0.5 hectare and less than 2 hectares. <p><i>Minor Developments</i></p> <ul style="list-style-type: none"> • Residential - Between 1 and 9 (inclusive) units. • For all other uses - floorspace of less than 1,000 square metres or where the site area is less than 1 hectare. | |
| Nature of the works | Sensitivity |
| <ul style="list-style-type: none"> • Type of works and its impact • Duration of works • Working hours | <ul style="list-style-type: none"> • Proximity of site to neighbours • Number of people affected • Type of neighbour • Duration of works |

Figure 2.3 - Scope of Information to be Provided

| | |
|--|---|
| <p>Category A Site (site example: construction and or deconstruction sites)</p> | <ul style="list-style-type: none"> • Prior consultation with the Pollution Control Team; • Approval by Pollution Control Team of Full Scheme of Protective Works; • Full level of community engagement in Liaison and Consultation section below, including Ward Member(s), about the works. |
| <p>Category B Site (site example: retainment of façade with internal works)</p> | <ul style="list-style-type: none"> • Prior consultation with the Pollution Control Team; • Approval by Pollution Control Team of Scheme of Protective Works; • Communication as per figure 2.5 below |
| <p>Category C Site (site example: involving a refurbishment only)</p> | <ul style="list-style-type: none"> • Communication as detailed in figure 2.5 below. |

Figure 2.4 - Scheme of Protective Works

| Basic Information to facilitate discussion – (Site suggested Information Sheet in Appendix G) | |
|---|--|
| <ul style="list-style-type: none"> • Site Contact Details • Contractor Contact Details • Description of works to be carried out – including working hours and duration • Summary of Noisy works and mitigation • Summary of works affecting Air Quality (e.g. dust) and mitigation • Site Sensitivity and methods of notifying neighbours • Training of the construction team e.g. toolbox talks to include mitigation measures and locations of sensitive receptors | |
| Detailed Information (subject to discussion with Pollution Control Team) | |
| 1) Programme of Proposed Works | including start and finish dates of principle stages |
| 2) Liaison & Consultation Strategy | see section 2.5 – 2.10 below |
| 3) Complaints and incidents Procedure | A system and procedure for dealing with enquiries and complaints from the public (see section 2.11 to 2.16 below) |
| 4) Staff and training | Details of toolbox talks, frequency and content relating to noise, vibration, air quality, contaminated land, waste, water and light pollution matters |
| 5) Site Plan(s) showing site boundary | <ul style="list-style-type: none"> • Show sensitive receptors • site layout and access • wheel / vehicle check and wash facilities • air quality and noise monitoring locations (where applicable) • site equipment location (e.g. cranes and generators) • location of water for damping down • fuel and waste store on site • refer to the CLP haulage routes and vehicle waiting areas |
| 6) Monitoring | Proposed monitoring regime for noise, dust and vibration (where applicable) together with procedures to respond to non-compliances in relation to any trigger levels set for noise, dust and vibration |
| 7) Proposed Vehicles and Machinery | Detail proposed vehicles and machinery on site: Noise and vibration: see section 3.11 relating to predictions Air quality: see sections 4.12-4.15 e.g. NRMM compliance |
| 8) Working methods and pollution control measures | <p>Where applicable, reference to the results of background assessments, predictions and/or phase I/II assessments needs to be made in the submitted Scheme of Protective Works in order to refer to the necessary working methods, protective works, control measures or remediation works required to:</p> <ul style="list-style-type: none"> • mitigate against activities which have the potential to cause disturbance to neighbours (e.g. noise, dust and vibration) • prevent an impact on the environment (e.g. air quality) • remove pollution (e.g. contaminated land) <p>Noise see sections: 3.27-3.48 Air Quality: see sections: 4.19-4.29 Contaminated Land: see section 5</p> |

- 2.4 For Category A, B and C sites, throughout the construction/deconstruction works, regular dialogue between the Contractor and the City of the London should take place and meetings with the City may be held. The names and contact details of appropriate site personnel must therefore be forwarded to the Pollution Control Team at the earliest opportunity to facilitate liaison. A list of useful City of London contact names and telephone numbers is included in Appendix B. The liaison requirements for all sites are set out in figures 2.1 to 2.5.

Liaison and Consultation Strategy

- 2.5 The Liaison and Consultation Strategy should identify all neighbours and specify individuals and groups who may be affected by, and consulted with, regarding activities at the site. The strategy should include the contact details and programme for engagement. The Contractor should therefore identify the following:

- City of London Ward Member(s) for the site; who can be identified via the City of London Website at:
<http://democracy.cityoflondon.gov.uk/mgFindMember.aspx> or by contacting the Pollution Control Team. A copy of the Ward boundaries can be found in Appendix K and an interactive map can be found at:
https://www.mapping.cityoflondon.gov.uk/geocortex/mapping/?viewer=compass&runworkflowbyid=Switch_layer_themes&LayerTheme=Show%20the%20Ward%20Boundaries%20layers
- All neighbours and premises which may be affected by the site's activities, including:
 - any residential properties;
 - hotels, hostels and hospitals;
 - offices;
 - lunchtime catering premises;
 - public houses;
 - those affected by party wall/shared party element works (see sections 3.40-3.42 for guidance);
 - Places of worship
 - Community Centres
- Local Community Groups such as the Barbican Association, Castle Baynard Residents and Smithfield Trust; and
- Other interested parties (e.g. other construction / deconstruction sites in close proximity, utility and street works in the area and any events such as the Lord Mayors Show or road races).

2.6 Identification of residential premises

Reference should be made to the Residential Streets map (Appendix J), which identifies residential areas within the City. New residential developments are continually appearing, so the Pollution Control Team should be consulted in order to obtain the most up to date information. For this reason, the Contractor should also re-evaluate the area in close proximity to the site from time to time. This will enable the Contractor to identify new groups or individuals who may be affected by the site's activities.

- 2.7 With reference to Figure 2.5 below, the Liaison and Consultation Strategy should include:

2.8 Initial Consultation

Prior to each project stage, provide a briefing/presentation of the 'Scheme' (detailed above) to the Ward Member(s), residents, Local Community Groups, businesses and other individuals identified. Briefings should include:

- Details of the 'Scheme of protective Works' in a readily understandable form;
- formal presentation, question and answer session or drop in sessions;
- information regarding how the works will enhance and benefit the local environment for neighbours; and
- Opportunity to provide feedback on the proposed works should be invited and responded to in writing; where practicable, amendments to the Scheme should be made to address concerns raised. The *finalised* Scheme should be provided to the City's Pollution Control Team and where requested, the Ward Member(s), neighbours and interested parties.

2.9 **On-going Communication**

- Plans for at least fortnightly communication (or as otherwise agreed) with neighbours and interested parties (identified above), for example by newsletter, in order to keep neighbours informed about current progress and planned works. The newsletter should be timely to allow neighbours time to plan around the works. It should contain the information suggested below, together with details of the Pollution Control Team contact:
 - The location of the planned works;
 - The type of planned works which are anticipated to give rise to effects on adjacent residents;
 - The duration of the planned works and the periods within which works will be undertaken (i.e. whether during normal working hours, during the evening or overnight);
 - The anticipated effects of the planned works;
 - The measures to be implemented in line with the Scheme of Protective Works to mitigate the impact of the planned works;
 - Contact details for enquiries; and
 - Complaints Procedure.
- A display board should be erected outside the site, which as a minimum shall identify key personnel, contact addresses, web site and telephone numbers, including complaint contact numbers. Additional information should include details of the scheme and its progress.

2.10 **Other Communication**

- The Contractor should appoint a responsible person to liaise with the City, neighbours and interested parties in order to keep them informed of matters likely to affect them. Good relations can be developed by keeping neighbours informed of progress and by responding to complaints quickly and fairly.
- Site Hours Variation Request Procedure (as per paragraph 3.10) to be followed for ANY works outside the 'standard hours' or within the 'quiet hours';
- Arrangements should be put in place for notifying or alerting neighbours in advance of additional unplanned noisy works, where applicable;
- Feedback should be requested from neighbours throughout the project and at the end, in order to allow modification of activities to reduce impact;

| Fig 2.5 – Communication Requirements per Site Category | Category A Site | Category B Site | Category C Site |
|--|-----------------|-----------------|-----------------|
| Identification of neighbours who may be affected | ✓ | ✓ | ✓ |
| Notification of works to Ward Member(s), neighbours and community groups | ✓ | possible | |
| Initial Consultation | | | |
| Scheme of Protective Works in an understandable form | ✓ | ✓ | |
| Presentation/drop in session/question and answer session | ✓ | | |
| Explain how works will enhance area | ✓ | | |
| Request feedback to proposed Scheme of Protective Works | ✓ | | |
| On-going Communication | | | |
| Regular communication e.g. newsletters | ✓ | ✓ | |
| Display board / information outside site | ✓ | ✓ | ✓ |
| Other Communication | | | |
| Responsible person to liaise with the City | ✓ | ✓ | ✓ |
| Site Hours Variation Procedure as per paragraph 3.10 | ✓ | ✓ | ✓ |
| Feedback obtained throughout the works | ✓ | | |

Complaints Procedures

- 2.11 The Contractor will establish a system and procedure for dealing with enquiries and complaints from the public.
- 2.12 Contact numbers, email and postal addresses for the enquiries and complaints system will be displayed on signs around the construction site and will be published on the website and newsletters.
- 2.13 Where complaints are made, the Contractor is expected to respond by investigating the complaint quickly and sympathetically, taking action to resolve the problem where the complaint is justified. If no resolution can be found the complaint should be referred to the City of London. A Contractor's response to complaints is an important criterion when evaluating the performance of the site for the Considerate Contractor Scheme.
- 2.14 The Contractor must maintain a designated complaints/incidents logbook or register covering:
- the nature of the complaint;
 - the cause; and, where appropriate,
 - the remedial action taken.
- 2.15 The City may request to see the complaints/incidents logbook at any time.
- 2.16 Complaints received by the City of London will be investigated. This will involve discussions with the Contractor and, if appropriate, monitoring or surveillance. Enforcement action may be taken if the complaint/s are justified and sufficient steps have not been taken by the Contractor to resolve matters.

Other Consultation

- 2.17 The City of London must be told in advance of any unusual activities including planned out-of-hours working. The Site Hours Variation Request Sheet (Appendix H) must be completed and e-mailed to the Pollution Control Team at least 5 days before the activity is to take place. Approval or the reasons for refusal will be countersigned and e-mailed back. Unless approval is given and the sheet is available for inspection, an Officer attending the site, in response to a complaint, will require the noisy work to stop.
- 2.18 The Pollution Control Team must be supplied with a current 24-hour call out number that will be answered in the case of a complaint or an emergency. It is also recommended that Contractors contact the City of London Police service to ensure a security assessment is carried out.
- 2.19 Where construction activities are being undertaken on two or more sites in close proximity, regular meetings should be arranged and attended by representatives from each site and the City of London in order to minimise cumulative impacts. Items for discussion may include:
- activities to be undertaken;
 - requirements for road closures;
 - out of hours work;
 - neighbour liaison;
 - monitoring results;
 - requirements for mitigation.
- 2.20 The appropriate body must to be contacted with regard to wastewater generated from site activities which is classified as trade effluent. See section 7.
- 2.21 Contact must be made with the City of London Drainage Services Group (020 7332 1105) or Thames Water Utilities (0800 3169800) before any work is undertaken on connections to sewers or drains running under the public highway. See Section 7.
- 2.22 The Contractor must ensure that the Department of Built Environment (Development Management) has been contacted via 020 7332 1710 to establish whether the site contains a listed building, scheduled ancient monument or archaeological remains, and what specific requirements are included in the planning permission, listed building consent or conservation area consent. Details regarding scheduled monument consent should be obtained from Historic England; their contact number is 020 7973 3000. See Section 8.
- 2.23 The Contractor must ascertain whether any trees on the site or in immediate area are either protected by Tree Preservation Orders or fall within a Planning Conservation Area prior to works starting. This may be done by contacting the Department of the Built Environment (Tree Officer) on 020 7332 1708. See Section 8.
- 2.24 Prior to commencement of works on-site, an ecological survey should be undertaken by a qualified professional to confirm the absence of birds, bats and any other protected species which may be nesting/roosting within buildings or vegetation. If present, appropriate mitigation measures should be undertaken following consultation with the City's Department of Open Spaces who can be contacted on 020 7332 3505. See Section 8.

Considerate Contractor Scheme

2.25 The Considerate Contractor Scheme (CCS), pioneered by the City of London in 1987, aims to encourage building and civil engineering Contractors working adjacent to the City's streets to carry out their operations in a safe and considerate manner, with due regard to passing pedestrians and road users. Details are set out in Appendix C of this Code. As part of the scheme, all Contractors will be evaluated by the Pollution Control Team for their level of co-operation and compliance with this Code of Practice.

3 Noise

Summary:

The Contractor must:

- contact the Pollution Control Team to agree the working hours and methods to be used which may generate noise and vibration prior to the commencement of any work on site (see Section 2 – Scheme of Protective Works);
- Adhere to ‘standard’ hours for noisy site work and ensure that best practicable means are used to mitigate noise and vibration impacts on neighbours;
- Observe ‘quiet hours’ where City business activities may be affected by noise or vibration;
- ensure that if work is planned to take place outside the ‘standard’ hours, prior approval is obtained from the Pollution Control Team using the ‘Site Hours Variation Request’ procedure

Introduction

- 3.1 The high level of intensive development in the City, including major office redevelopments in the east and infrastructure projects, can have significant environmental impacts on occupiers of nearby noise sensitive premises. Protecting City businesses, residents and other noise sensitive premises (e.g. schools) from noise and vibration impacts of construction sites is essential to the City’s continuing reputation as an excellent place to live, work and to do business.
- 3.2 This Code of Practice is a notice of the City of London’s general requirements under Section 60 of the Control of Pollution Act 1974. The Contractor may also be informed of additional requirements during consultations with the City of London.
- 3.3 Complaints about excessive noise disturbance found to be justified may result in a Section 60 notice, under the Control of Pollution Act 1974, being served by the City of London. This will generally require the Contractor to adhere to these quiet working hours.

Hours of Work

- 3.4 Prior to commencing work, Contractors **must** contact the Pollution Control Team in order to agree hours of work. If no-one is disturbed by works then 24-hour working may be considered; however, such circumstances are rare in the City. Where residents and commercial activities are significantly affected or are likely to be affected, the standard times of operation will be imposed.
- 3.5 **Standard Hours**
‘Standard’ hours permitted for **noisy** work will normally be the following:
- 08:00 - 18:00 hours (Monday to Friday);
 - 09:00 - 14:00 hours (Saturday);
 - No noisy working is permitted on Sundays, Bank or Public Holidays.

3.6 **Reduced Impact Hours**

The City also requires time restrictions on noisy works to reduce noise disturbance to businesses. These times are known as '**reduced impact hours**' which are:

- 10:00 - 12:00 (Monday to Friday);
- 14:00 - 16:00 (Monday to Friday).

'**reduced impact hours**' are put in place to give nearby commercial occupiers at least 4 hours without noisy working from street and construction sites during the working day. These periods may be subject to variation in particular circumstances, for example during lunchtimes, adjacent to eating places or businesses where the majority of trade is carried out at lunchtimes.

3.7 **Work outside standard hours and during reduced impact hours**

Outside '**standard hours**' and during '**reduced impact hours**' the following noise generating activities will not usually be permitted where the activities are likely to cause disturbance:

- Cutting using power tools;
- Breaking out using power tools;
- Other noise generating activities, depending on the specific location of site and neighbours.
- The use of impact fasteners;
- The loading of heavy materials;
- Other noisy activities, depending on the specific location of site and neighbours, deemed unacceptable by Environmental Health Officers.

Where there is no disturbance from these activities it is likely that variations will be permitted, see 3.10 below.

3.8 Noisy work outside '**standard hours**' or during '**reduced impact hours**' will be considered in order to support the City's businesses and also the needs of local neighbours e.g. proximity to restaurants, places of worship or residential properties.

3.9 ANY works outside the '**standard hours**' or any noisy activities within the '**reduced impact hours**' can only be undertaken with the approval of the City using the Site Hours Variation Request Sheet (Appendix H). Approval will be conditional on the Contractor submitting the following:

- Details of site and out of hours contacts
- Details of site operations and location
- Dates and proposed hours
- Reasons and justification for the request
- Proposed plant to be used
- Predicted noise levels at sensitive locations
- Mitigation measures
- Neighbours affected and copies of written notifications.

Variations will be approved for works where impacts can be demonstrated to be low, in locations where there are no affected neighbours or for safety, logistics or engineering reasons. Variations may be refused if the impacts on neighbours are considered high and cannot be mitigated or previous variations have not been fully complied with.

3.10 Where, in the opinion of Environmental Health Officers, structurally transmitted noise adversely affects neighbours, **it will be barred between 09:00 - 17:00 hours**. For complex sites with a neighbour mix including residential, retail, and commercial properties, advance negotiation with all parties and the Pollution Control Team is

expected of the Developer/Contractor, as restrictions may have significant implications for cost and timing of the project.

Noise and Vibration Monitoring Regimes and Limits

- 3.11 The City requires Contractors to undertake and submit predictions of noise and vibration levels at identified locations and any identified sensitive receptors. Regular intelligence-led monitoring of noise and vibration levels is also expected to be undertaken by looking at the work programme and identifying aspects likely to cause significant noise/vibration. Receptor points are to be agreed with the City of London prior to initiation of predictions and monitoring. Results should be compared against suitable baseline data as a useful means of:
- Controlling noise and vibration, and identifying problems at an early stage (it is particularly valuable to carry out monitoring during the early stages of a project);
 - providing an objective basis for evaluating complaints; and
 - safeguarding Contractors against claims of damage.
- 3.12 Prior to commencing work, it is essential to undertake monitoring of ambient noise levels around the site at sensitive neighbours (this should be agreed with the City Pollution Control Team). This will provide baseline data for comparison with levels present during the works. This baseline assessment should be submitted to the Pollution Control Team. A baseline vibration exercise will be unnecessary unless neighbours are clearly affected by any existing source of substantial vibration e.g. a tube line.
- 3.13 Where there are party walls or neighbours are otherwise directly attached to elements of the site, the noise, vibration and structural implications of the proposals will require individual and detailed evaluation.
- 3.14 In some circumstances, the Pollution Control Team may require continuous monitoring combined with a real-time alarm system, with details to be agreed on an individual basis. Informal site boundary walk about to monitor noise as experienced by neighbours is highly recommended to understand the impact the site may be having.
- 3.15 Noise measurements should ideally be taken with a Class I Integrating Logging Sound Level Meter calibrated (before and after) with a Class I Acoustic Calibrator. L_{Aeq} and L_{AFmax} , noise levels should be recorded (as a minimum) together with a record of all events potentially affecting the noise level at the time of monitoring.
- 3.16 *Note: The period over which the L_{Aeq} parameter should be averaged must be agreed with Environmental Health Officers.*

Noise Limits

- 3.17 The suitability of specific noise limits is highly dependent upon the individual situation. The factors to be considered include:
- The characteristics of the noise and its potential effect on the neighbours;
 - Baseline ambient noise levels; and,
 - The nature and duration of the works.
- 3.18 In addition, following complaints, specific noise levels may be set to prevent speech interference in offices and loss of trade.

- 3.19 The City of London expects noise from the site to be controlled to an acceptable level. In the City environment this can be a difficult balance and 'best practicable means' must be applied to reduce noise and vibration as far as possible.
- 3.20 Noise levels within businesses during noisy periods must enable workers to carry out conversations, both face-to-face and on the telephone, and allow normal business to be conducted. It is considered that an internal noise level of 65 dBA or above is likely to cause annoyance and interference to all occupiers (dependent on the noise characteristics).
- 3.21 Such noise should be restricted to hours outside the normal working day of 09.00 – 17.00. Timings of works with noise levels exceeding 65dBA affecting all City occupiers should be discussed and agreed with Environmental Health Officers prior to commencing.

Vibration Limits

- 3.22 When carrying out works which may produce vibration, all potential receptors must be considered, with particular attention to be paid to the following:
- Occupiers and users of buildings
 - Hospitals or laboratories
 - IT related issues;
 - Cosmetic or structural damage to buildings or heritage sites.
- 3.23 People's response to perceptible vibration is accentuated by their fear of building damage. Suitable guidance upon the levels of vibration, which may cause building damage, can be found in BS 7385-2:1993.
- 3.24 Guidance relating to the potential effect upon the operation of computers and other relatively sensitive equipment can be found in BS 5228-2:2009+A1:2014.
- 3.25 Complaints of vibration are usually concerned with fear of the unknown and the potential effects of relatively low levels of vibration in buildings. This problem is best addressed by:
- Liaison with all parties potentially affected, with explanations given of precisely when they are likely to be affected by specific activities;
 - Monitoring affected parties to reassure occupants as to the relative levels of vibration compared with building effect (BS 7385-2:1993).
- 3.26 Vibration meters should preferably record 3 orthogonal Peak Particle Velocity values (15 minutes of 10 second or shorter samples). Where complaints are received, the Contractor/client should consider the need for monitoring at neighbouring premises.

Working Methodologies, Noise and Vibration Control Measures

General methodologies

- 3.27 In addition to working hours and community liaison, all works must be carried out in accordance with BS 5228-1:2009+A1:2014 and BS 5228-2:2009+A1:2014. All works must employ Best Practicable Means as defined by Section 72 of the Control of Pollution Act 1972 to minimise the effects of noise and vibration. The City must be

satisfied that all means of managing and reducing noise and vibration, which can be practicably applied at reasonable cost, have been implemented.

- 3.28 A written evaluation of methodologies used must be made available to the City of London and include justifications with regards to the minimisation of noise and vibration (see section 2 and figure 2.4).
- 3.29 The City considers the off-site prefabrication or preparation of as many building elements and materials as possible an essential requirement for Best Practicable Means, in particular for the cutting of decking and steelwork.
- 3.30 Where appropriate, the following measures to minimise noise and vibration levels should be adopted:
- Employing only modern, quiet and well-maintained equipment (all equipment must comply with the EC Directives and UK Regulations set out in BS 5228-1:2009+A1:2014);
 - Using low impact techniques, such as demolition munchers and bored or hydraulically-jacked piling rigs;
 - careful planning of the sequence of work in order to minimise the transfer of noise/vibration to neighbours;
 - using fully silenced modern piling rigs selecting pressed in methods or auger over higher impact methodologies
 - Careful operation of the piling rig so there is **no reversing** of the Kelly/auger bars;
 - using electrically powered equipment run from the mains supply;
 - use of screws and drills rather than nails for fixing hoardings etc;
 - use of an alternative to percussive drills / hammer where possible
 - use of plasma cutters where cutting on site is the only alternative
 - careful handling of materials & waste such as lowering rather than dropping items;
 - taking steps to isolate the deconstruction works from sensitive neighbours, in order to minimise the transfer of vibration and structure borne noise;
 - erection of acoustic screens or enclosures wherever possible;
 - avoidance of unnecessary noise (such as engines idling between operations, shouting, loud radios or excessive revving of engines) by effective site management.
 - Concrete pours and finishing must be planned to avoid overruns past the standard hours, the pour size and concrete workability must be considered. The Contractor must enter into a written protocol with the concrete supplier regarding timing of deliveries to ensure works can be completed within the permitted hours.
 - The position, location and acoustic shielding of any concrete pumps must be agreed with the Pollution Control Team.
 - Audible alarms must be broadband sound, including reversing alarms and other equipment such as mobile elevated work platforms.
 - Pile breaking-out, pile reduction work, and concrete break-out and removal must be carried out, where reasonable and practicable, using low impact techniques such as bursting, munching, cutting or bending, if impact methods must be used then works should be undertaken within a portable acoustic enclosure. The enclosure shall be three-sided with a roof or such other acoustic enclosure.
 - As an alternative to breaking in situ, remove larger sections by lifting them out and breaking them down off site.

- 3.31 Where control at source is not practicable or adequate, the distance between noise/vibration sources and sensitive neighbours should be maximised and the transmission path interrupted, with options considered in the order of source-pathway-receptor. Where practical this can be achieved by:
- Siting of stationary plant and loading/unloading areas;
 - erecting impervious hoardings, of at least 5 kg/m² surface density, where possible higher than the line of sight to neighbours;
 - leaving building façades and boundary walls intact as long as possible during demolition and boarding/bricking up windows;
 - the use of existing non-sensitive structures as shields;
 - the use of temporary structures; and
 - cutting of transmission pathways for vibration.
- 3.32 In addition to mitigation strategies above, a Liaison and Consultation Strategy (as detailed in section 2) should be implemented as an essential element of the Best Practicable Means to minimise the effects of noise and vibration.

Vehicle Movements, Deliveries, Loading and Unloading

- 3.33 Vehicle movements, deliveries, loading and unloading can cause considerable noise and disruption to neighbours as a result of the following:
- reversing beacons;
 - running engines; and
 - noisy material being loaded and unloaded
- 3.34 All loading, unloading and deliveries of materials and plant to the site and removal of waste should, where possible, be carried out within normal site working hours. Any early morning or evening deliveries must have approval from the Pollution Control Team. This must be requested using the copy of the Site Hours Variation Request Sheet (Appendix H).
- 3.35 All vehicle movement alarms and reversing beacons must be broadband sound where practicable, engines must be switched off when not in use and unloading conducted with care. The site layout should be designed to minimise potential effects on neighbours. A competent banksman should be employed to provide assistance to vehicles accessing and leaving the site, thereby ensuring minimal traffic disturbance and pedestrian safety.
- 3.36 Vehicle movements should be planned to ensure that lorries do not arrive or depart outside standard hours. No daytime or night-time parking of lorries will be permitted outside agreed areas.
- 3.37 Where appropriate, deliveries should be arranged on a just-in-time basis in order to prevent vehicles queuing outside site.
- 3.38 Appendix F of this code summarises the City of London's traffic management requirements for vehicle movements, site deliveries, street closures, crane operations and abnormal loads. This can be copied for use by Sub-Contractors and others.

Party Wall work

- 3.39 Work to party walls and major works in partially occupied buildings will be strictly controlled, and are **usually barred between 09:00 and 17:00 hours** when noise and/or vibration could be transmitted to neighbouring properties and businesses. Working hours for Party Wall work must therefore be agreed with the City's Pollution Control Team prior to works commencing.
- 3.40 Vibration monitoring should be considered to reassure neighbours and assist in demonstrating that levels do not exceed those which may cause structural damage to adjoining buildings. Complaints relating to vibration can cause considerable delays, particularly during demolition piling and ground work phases of construction activities. Noise should also be considered to assist in determination of acceptable levels.
- 3.41 Where works are carried out close to, or on, a party wall, The Party Wall Act 1996 may apply. The Contractor must consider all aspects of this Act and allow sufficient time to comply with it.

Scaffolding and Gantries

- 3.42 Scaffold erection or dismantling can cause disturbance to site neighbours. All works must be undertaken in accordance with the Department of Built Environment's Highways Division Guidance Notes for Activities on the Public Highway and be subject to a licence under the 1980 Highways Act. Subsequent erection and dismantling activities must be agreed with the Pollution Control Team, and comply with prescribed times.
- 3.43 Appendix D sets out detailed information on the requirements of the City for scaffolding and gantries.

Cranes, Lifting of Heavy Equipment, and consequent Road Closures

- 3.44 The erection of fixed cranes, rigging, and use of mobile cranes on the highway and lifting of heavy equipment often has to be undertaken outside normal working hours. All these street-based activities require prior consent from *both* the Highways Division *and* the Pollution Control Team. Although it is normally the crane company's responsibility to obtain prior approval for the works, the Contractor should ensure this has been done.
- 3.45 The Pollution Control Team's approval for the work is required to ensure that all plans are appropriate for the location, and that steps have been taken to mitigate any disturbance to commercial or residential neighbours. The application for this must be accompanied by a lifting plan.
- 3.46 The correct procedure involves the following:
- See: [highway licences](#) page to ensure all relevant authorisations have been obtained
 - Telephone the Pollution Control Team to agree the outline proposals (020 7606 3030).
 - The 'mobile crane environmental health authorisation notice & structures notification form' (Appendix I), together with a lifting plan, should be fully completed and returned to the Pollution Control Team for scrutiny/approval.
 - Once received, the completed application form will be checked, any necessary amendments agreed with the sender, and returned to the applicant

with the appropriate signature. This can then be presented to the City's Street Management Office at a previously agreed appointment (020 7332 3553).

- 3.47 *Note - The part of Appendix I relating to 'structures authorisation' must also be signed by the crane company's representative. It is the crane operators responsibility to check whether there are any underground 'structures' either under or in the vicinity of the highway where the crane operation is sited - see Appendix F for full details.*
- 3.48 Crane oversailing must be agreed with the City of London and/or site neighbours. Under section 177 of the Highways Act 1980, site cranes require a licence if the jib at any point extends over the public highway. Application for this licence should be made to the Department Built Environment's Highways Division. A charge may be levied for oversailing the public highway.

4 Air Quality

Summary

The Contractor must:

- Submit a Scheme of Protective Works which includes an Air Quality Dust Management Plan (AQDMP) which details techniques to be adopted that ensure the air quality in the City of London is not adversely affected by activities at and associated with the development site.
- The AQDMP should be produced in line with the requirements of this section which includes a consideration of:
 - Summary of works that may impact air quality
 - Complaints and incidents procedure
 - Staff training relating to air quality matters
 - Site Plan
 - Air quality monitoring considerations and trigger levels
 - Machinery and equipment used on site (*NRMM compliance / minimised generator use / concrete crushers/ no-idling policy*)
 - Working methodologies and emission controls to be employed

Introduction

- 4.1 Under Part IV of The Environmental Act 1995 and the Government's UK Air Quality Strategy, Local Authorities are required to work towards achieving national air quality objectives. The City of London has some of the worst air quality in the Country and has been declared an Air Quality Management Area for PM₁₀ (fine particles) and nitrogen dioxide.
- 4.2 The UK is facing the prospect of large fines from the European Commission for failure to meet air quality Limit Values. Recent studies have demonstrated that poor air quality and dust have a significant impact on public health in London, with the equivalent of over 10,000 premature deaths in London in 2010 attributable to poor air quality; this issue is now therefore of the highest priority.
- 4.3 Construction and deconstruction sites in the City are therefore expected to meet the highest possible standards for control of air pollution and dust.
- 4.4 In July 2014, The Greater London Authority (GLA) published the Supplementary Planning Guidance document (SPG): '[The Control of Dust and Emissions During Construction and Demolition](#)'. In order to mitigate negative impacts on air quality in the City, the construction and deconstruction industry is expected to employ, as a minimum, methods detailed in the GLA SPG (and subsequent revisions) and detailed in this section. As additional best practice and case studies become available, they will be available at:
www.cityoflondon.gov.uk/airqualityplanning

Air Quality Risk Categorisation in the City Environment

- 4.5 Where an Air Quality Impact Assessment is created and submitted at the planning stage for approval, it may include an Air Quality (Dust) Risk Assessment (AQDRA) prepared by a competent person. The GLA's SPG (2014) provides guidance with regard to which sites the GLA consider high risk.
- 4.6 The risk assessment detailed in the SPG requires a detailed understanding of the project and its effect on receptors. The built up nature of the City, unpredictable air flow and its poor air quality means even small scale deconstruction/construction projects can have an adverse impact on air quality. For this reason, all projects will be expected to implement all possible mitigation measures and an explanation provided where they are felt not to be required.

Air Quality Monitoring

- 4.7 The GLA's SPG suggests that continuous monitoring for particulate matter is required at high risk sites. However, reliance on the results of continuous monitoring as an indicator that the site is doing all it can to reduce emissions is not sufficient due to the density and wind direction factors in the City mentioned above. As such, a greater emphasis should be placed on control measures such as damping down and site management (e.g. no-idling policy and NRMM compliance, see sections below).
- 4.8 Continuous monitoring positioned between construction sites and sensitive land users, such as buildings with openable windows, outside amenity and residential developments, is beneficial with regard to providing assurance to neighbours; however, its reliance as an indicator of good site management is limited due to the above. Appendix 8 of the GLA's SPG provides details regarding different types of monitoring.
- 4.9 Continuous air quality monitoring will normally be required on large sites adjacent to sensitive premises such as residential properties, schools and St Bartholomew's hospital. This may include dust slides for assessing nuisance dust and real time monitoring to assess PM_{2.5} and PM₁₀. A site will not normally be required to monitor nitrogen dioxide.
- 4.10 Real time monitoring may involve setting an alarm to alert the site manager if levels of PM₁₀ go above a set threshold. The threshold value, type and location of any monitoring equipment should be agreed with the Pollution Control Team in advance. The threshold value is normally initially set at 150µg/m³ for PM₁₀ over a 15 minute period, with the level being reviewed periodically.
- 4.11 Regular patrols outside the site perimeter during potentially dusty works are required. This is to look for visual evidence of dust releases off site and to take appropriate action where it is identified. The Contractor shall take any necessary measures to prevent nuisance/adverse effects to people's health.

Machinery and Equipment on Site (GLA SPG Chapter 7)

- 4.12 **Non-Road Mobile Machinery (NRMM):** NRMM are often fueled by diesel and therefore give rise to nitrogen dioxide and particulate emissions. Consequently, the need, size and choice of NRMM should be carefully considered. Before sourcing diesel plant, consideration needs to be given to low and zero emission plant, such as electric or hybrid MEWPs. Where diesel plant is employed it should adhere to the NRMM policy below as a minimum. Notwithstanding the policy size requirements, ALL diesel plant should be the lowest emission solution available.

The NRMM policy is set out in the GLA's Dust and Emissions SPG. Since 1 September 2015 NRMM with a net power between 37kW and 560kW used in the Central Activity Zone are required to meet the standards set out below. This applies to both variable and constant speed engines for both NOx and PM. These standards are based upon engine emissions standards set in EU Directive 97/68/EC, and its subsequent amendments.

NRMM (within the above kW range) used on any site within the City are required to meet Stage IIIB of the Directive as a minimum. From September 2018, this requirement changes to Stage IV. Any amendments of the policy and guidance must be adhered to. **Where the above commitments cannot be met the matter should be discussed and agreed with the Environmental Health Officer.**

Prior to the commencement of any works, all developments within the City must register relevant NRMM online at <https://nrmm.london/register>. There are a small number of permitted exemptions to the above, and more details of this or updates to the overall NRMM policy requirements, which should be adhered to, can be found at the website: www.nrmm.london.

The NRMM should be maintained and operated in accordance with the manufacturers guidelines so as to achieve the required emission standard; this includes the grade of fuel used.

In order to demonstrate NRMM compliance, best practice includes using stickers on machinery to show engine stage and the use of a spreadsheet to detail all equipment on site, with photos and a compliance reference; such best practice is encouraged on City sites.

- 4.13 **Generators:** Diesel generators give rise to nitrogen dioxide and particulate matter emissions. The use of generators to provide electricity on site should therefore be avoided wherever possible. This can be avoided by ensuring an electrical supply for the site is secured well in advance of works.

Where generator use cannot be avoided, it should be a lower emission solution, such as hybrid, gas or hydrogen technology. Where diesel is used, the newest Euro standard engine should be used (in accordance with the NRMM policy), with a lower emission solution that incorporates battery storage technology. This reduces generator size and running hours, cuts fuel consumption, emissions and noise. The use of hydrogen technology for lighting towers and site cabins rather than generators should also be considered.

- 4.14 **Concrete Crushers:** The use of concrete crushers will not generally be sanctioned in the City because of the potential to cause dust and nuisance to neighbours.

However, the City of London will allow the use of city crushers to prepare material for piling mats and ramps, as this reduces the number of vehicle movements associated with the site. Any crushing plant would have to be authorised under the Environmental Protection Act 1990. Appropriate measures, such as enclosing the plant and built in water sprays would have to be used at all times.

- 4.15 **Emission management and idling engines:** Machinery must be appropriately sized and sourced for use, well maintained and used in accordance with manufactures guidelines. Machinery and vehicles must not be left idling either on site or waiting for access to the site as this gives rise to unnecessary air pollution. It is a requirement of *Regulation 98 of the Road Vehicles (Construction and Use) Regulations 1986* (as amended) for drivers to switch off their engines in parked vehicles. Failure to turn off an idling engine if requested may lead to a Fixed Penalty Notice being issued under the *Road Traffic (Vehicle Emissions) (Fixed Penalty) (England) Regulations 2002*.

Scheme of Protective Works and Air Quality Dust Management Plan (AQDMP)

- 4.16 A Scheme of Protective Works will need to be submitted to the City Corporation and approved prior to works commencing on-site; it should include an Air Quality and Dust Management Plan (AQMDP).
- 4.17 The AQDMP should detail measures to reduce on site emissions and a consideration of utilising dust and emission reduction measures detailed below. It should also be kept under review so that changes to the timetable and potential emissions can be mitigated.
- 4.18 The AQDMP should be produced prior to any demolition or construction works, agreed with the City Corporation and should contain details of the following:
- **Summary** of the work to be carried out and an inventory and timetable of all dust and NOx air pollutant generating activities;
 - **Liaison and consultation strategy** relating to works which may impact on air quality;
 - **Complaints and incidents:** methodology for recording action taken in response to incidents;
 - **Staff and training:** The identification of a trained and responsible person on site for air quality and the training schedule for all staff e.g. toolbox talks relating to idling engines;
 - A site **plan(s)** showing:
 - o sensitive receptors
 - o site layout and access (with wheel check and wash facilities shown)
 - o air quality monitoring locations
 - o site equipment, including generator location
 - o location of water for damping down
 - o fuel stored on site
 - o reference to the CLP which contains proposed haulage routes and vehicle waiting areas;
 - **Monitoring:** Summary of monitoring methods (if applicable), trigger levels and procedure for mitigation when exceeded;
 - **Machinery:**
 - confirmation that **NRMM** compliant equipment will be sourced and registered on the GLA website;
 - a commitment to sourcing power for the site which does not involve diesel **generators**;

- details regarding **concrete crusher** use;
- emission management plans which includes no-engine **idling**, both on and off site; and
- **working methodologies and control measures** should be included in the AQDMP for all relevant activities which may affect air quality. The controls implemented should include those detailed in sections 4.19-4.29 below. The scheme should consider the entire lifetime of the project and sequence of works.

Working Methodologies and Control Measures (SPG chapter 5)

4.19 Activities undertaken on site must be done so with methodologies which reduce the likelihood of dust generation and the worsening of air quality. With reference to the Mayor's SPG, the phases of works which could create emissions that affect human health and the environment are:

- Demolition
- Earthworks
- Construction
- Trackout

4.20 The following control measures should be incorporated for the relevant phases. The AQDMP can state it will adhere to this code, rather than detail all methods that will be adopted; however, where measures are not adopted, in discussion with the City Corporation, the AQDMP should detail why they have not been adopted.

General measures and details for Demolition, Earthworks, Construction and Track-out

4.21 *Preparing the site:*

- a. Plan site layout: Plans should be made to eliminate dusty works, where this is not possible, dusty activity should be planned away from sensitive receptors, with wind direction taken into consideration.
- b. All sites should be sufficiently screened / wrapped in order to prevent offsite dust deposition. Plans should be made for screening dust generating activity and for water to be available for damping down.
- c. Install green walls, screens or other green infrastructure to minimise the impact of dust and pollution.
- d. Provide showers and ensure a change of shoes and clothes are required before going off-site to reduce transport of dust.
- e. Where air quality monitoring is proposed, select appropriate locations and commence baseline monitoring at least three months before phase begins. Ensure the equipment is maintained and calibrated in accordance with the manufacturer's guidelines.
- f. Plan for wheel washing facilities, where space allows.

4.22 *Inspections, liaison and complaints:*

- a. Hold regular liaison meetings with other high risk construction sites within 500m of the site boundary to ensure plans are coordinated and dust and particulate matter emissions are minimised.
- b. *On/Off Site inspections:* Carry out regular inspections to monitor compliance with air quality and dust control procedures, including:
 - checking for spillages of cement and other powders (which should be

- removed to prevent off-site deposition); and
 - checking buildings within 100m of site boundary (cleaning to be provided if necessary).
- c. Record inspection results, and make an inspection log available to the Pollution Control Team when asked. The frequency of site inspections should be increased (by those accountable for dust and air quality pollutant emission issues) when activities with a high potential to produce dust and emissions are being carried out, and during prolonged dry or windy conditions.
- d. *Incidents and Complaints: Record any exceptional incidents that cause dust and air quality pollutant emissions, either on or off the site, and ensure the action taken to resolve the situation is recorded in the log book. Record and respond to all dust and air quality pollutant emissions complaints and make a complaint log available to the Pollution Control Team when asked.*

4.23 **General site Management and Operations:**

The operator should ensure fumes and/or dust does not escape from the site and affect members of the public and the surrounding environment, the following should be adhered to:

- a. Use processes which do not generate fumes and/or dust and dusty material;
- b. Ensure an adequate water supply and water pressure (using groundwater / recycled water where possible) or a local exhaust ventilation is available on the site for effective dust/particulate matter mitigation for:
 - o damping down dust generating activities and unsealed areas in dry weather
 - o using mobile sprinkler systems and mobile bowsers
 - o using equipment fitted with fine mist sprays during dust generating works
 - o collecting dusty material during dusty works;
- c. Use enclosed (rubber) chutes, conveyors, covered skips, sheeting, bagging and minimize drop heights to reduce the amount of dust produced on site;
- d. Dusty works should be eliminated; where this is not possible, solid screens or barriers of appropriate height should be erected around dusty activities and/or the site boundary and action taken to prevent offsite deposition. The site fencing, barriers and scaffolding should be kept clean using wet methods;
- e. Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods;
- f. The burning of materials on site is not permitted under any circumstances;
- g. Careful consideration should be given to the location and temperature control of tar and asphalt burners and the lid should remain closed when heating.
- h. Avoid site runoff of water or mud;
- i. Remove materials from site as soon as possible; and
- j. Fabrication, cutting, grinding and sawing should ideally be undertaken off-site. If the work must take place on site, the following techniques should be used. It will be the Contractor's responsibility to demonstrate that stated methodologies are not available, and that every effort has been made to acquire them:
 - Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction;
 - Areas used to undertake cutting and grinding should be screened; and
 - Shears and guillotines or burners should be used in preference to disc cutters on activities such as re-bar cutting and decking.

4.24 **Vehicles, Machinery and sustainable travel**

Vehicle choices and management can have a significant impact on air quality within the City of London. For this reason, the following should be adhered to:

- a. Ensure all on-road vehicles comply with the requirements of the London Low Emission Zone and any subsequent traffic management policies to improve air quality;
- b. Ensure a consideration of items in sections 4.12-4.15 (NRMM compliance, minimised generator use, appropriate concrete crusher use and no-idling engines);
- c. Wherever possible, vehicle movements should be minimised through full load only delivery, considered logistics planning, liaison with other sites within close proximity and the use of consolidation centres. To that end, a Construction Logistics Plan should be produced to manage the sustainable delivery of goods and materials. See TfL Guidance:
<https://tfl.gov.uk/info-for/urban-planning-and-construction/transport-assessment-guide/guidance-by-transport-type/freight>
- d. Implement a Travel Plan that supports and encourages sustainable travel to and from site. See City Advice notes:
<https://www.cityoflondon.gov.uk/services/transport-and-streets/Pages/transport-strategy.aspx>
- e. Prevent the occurrence of smoke emissions or fumes from site plant or stored fuel oils by ensuring plant is well maintained and measures are taken to ensure they are not left idling when not in use;
- f. Low sulphur diesel fuel should be used;
- g. Wheel washers to be used on vehicles leaving the site (where site on space allows);
- h. Where there is a potential for dust releases, lorries and skips leaving the site to be covered;
- i. The generation of dust whilst loading or unloading materials must be controlled; and
- j. Where possible, vehicles visiting site should sign up and adhere to FORS standards (or equivalent). Best practice has noted the use of an on-line booking system which only allows compliant vehicles to attend site and this is encouraged.

4.25 **Waste management (see section 6 of this code).**

- a. Reuse and recycle waste to reduce dust from waste materials.
- b. No bonfires or burning of waste materials.

4.26 **Measures and details specific to Demolition**

- a. The use of 'long arm' demolition equipment will not generally be sanctioned in the City, except where the work is within an enclosure or underground.
- b. Soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust).
- c. Ensure water suppression is used during demolition operations.
- d. Explosive blasting is not permitted, use appropriate manual or mechanical alternatives.

4.27 **Measures and details specific to Earthworks**

Due to site space restrictions, it is anticipated that material will not be stored on site for extended periods within the City. Where it is, reference needs to be made to contaminated land requirements in section 5. When material is stored or moved, operations should be employed which minimise dust releases by stabilising stockpiles and damping down when dry or moved.

4.28 **Measures Specific to Construction**

- a. Scabbling should be done off site and will not generally be allowed in the City due to the amount of dust generated.
- b. Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, (unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place).
- c. Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.
- d. For smaller supplies of fine powder materials, ensure bags are sealed after use and used and stored appropriately to prevent dust.
- e. Spraying of intumescent fire paint and cementations fibrous fire spray should not be carried out in the city, due to air quality issues and difficulties in encapsulating areas and will only be permitted when working areas can be fully encapsulated and air monitoring carried out.

4.29 **Measures Specific to Trackout**

- a. Ensure vehicles entering and leaving sites are securely covered to prevent escape of materials during transport.
- b. Install hard surfaced routes and areas to work, which are regularly damped down with fixed or mobile sprinkler systems, pressure washers or water-assisted dust sweepers. Areas should be regularly cleaned (avoiding dry sweeping of large areas). Hard surfaced areas should be inspected for damage and repaired where required.
- c. Record all inspections of surfaces and routes to and from site and any subsequent action in a site log book.
- d. Ensure there is an adequate area of hard surfaced area between the wheel wash facility and the site exit, where possible. Access gates should be ideally located at least 10m from receptors.
- e. Where reasonably practicable, implement a wheel washing system (with rumble grids) to dislodge accumulated dust and mud prior to vehicles leaving the site.
- f. Apply dust suppressants to locations where a large volume of vehicles enter and exit the site (See GLA SPG for guidance with regard to dust suppressants).

5 Contaminated Land

Summary

Where the site is suspected of being affected by contamination, then appropriate investigations and a subsequent remediation strategy and verification programme will be the subject of planning conditions for any works that require planning approval.

Irrespective of whether or not the development is subject to such planning conditions, it is the responsibility of the Contractor to ensure that appropriate investigations and risk assessments have been carried out to characterise the ground conditions. It is similarly the Contractor's responsibility to ensure that appropriate action is taken and/or mitigation measures put in place to ensure that:

- The works themselves do not pose any unacceptable risks to human health (including construction workers, neighbours and the general public), controlled waters or other eco systems.
- The development once completed does not pose any unacceptable risks to human health (including subsequent construction/maintenance workers, future occupants, neighbours and the general public), controlled waters and other eco systems.

It is also the Contractor's responsibility to ensure that:

- The City of London's Pollution Control Team is notified of any ground contamination that is found either during prior investigation or subsequently during development
- Any remediation which takes place is approved by the City of London's Pollution Control Team and is thoroughly documented in the form of a verification report.

Introduction

- 5.1 It is the duty of the Contractor to ensure that adequate work has been done to investigate, evaluate and manage risks from contaminated land (whether it originates on the site or not) to human health, controlled waters and other eco systems.
- 5.2 General guidance is provided by the Environment Agency on its *Land Contamination: Technical Guidance* website page which may be found at <https://www.gov.uk/government/collections/land-contamination-technical-guidance>. The Agency's guiding principles of managing and reducing contaminated land are explained in "*GPLC2 - FAQ's, technical information, detailed advice and references*" which may be accessed at the above website. The technical framework for the management of contaminated land is provided in the Agency's publication "*Model Procedures for the Management of Land*", report CLR11" which also may be accessed via the above website.
- 5.3 The technical framework is underpinned by a large number of Environment Agency reports and tools, British Standards and other industry technical reports which give specific guidance on the various aspects of investigation, evaluation and mitigation of risks posed by contamination. Again the Environment Agency website

above provides a link to its own reports and tools. Cl:aire, CIRIA and the BRE are other sources of industry reports, many of which are included in the references section below.

- 5.4 The assessment of contaminated land in the UK is a risk based one. This means that although contamination may exist in, on or under land, this may not in itself present an unacceptable risk. A risk arises when there is a pollutant linkage i.e. a receptor (such as humans) may be impacted by a source (such as hydrocarbon contamination within the ground) via a pathway (such as inhalation of vapours). That risk only becomes unacceptable once the magnitude of the risk exceeds a set limit.

Phased Approach

- 5.5 The investigation and assessment of contaminated land requires the assessor to identify potential sources of contamination, receptors and the potential pathways that may connect them to establish potential pollutant linkages.
- 5.6 The investigations should be undertaken, in a phased manner, with the results of each phase being used to decide whether or not there is a requirement to proceed to the next phase. In some cases iterative investigation may be required. At each step the Contractor should liaise with the Pollution Control Team before proceeding to the next phase and where a phase indicates that no unacceptable risks exist then must seek the Pollution Control Team's approval before omitting subsequent phases.
- 5.7 The methodology for site investigation appraisal and assessment is outlined in the documents detailed above. The process of phased and iterative assessment is summarised in CLR11, Figure 1.
- 5.8 The City of London is a densely populated area which has had a long history of previous development including a range of potentially contaminating industrial uses. As such the possibility of contamination must be assumed on all development sites. The City Corporation will require, as a minimum, a Phase 1 Desk Study and Conceptual Site Model (CSM).
- 5.9 Where contamination is found (albeit on or off site) that poses unacceptable risk, then a Remedial Options Appraisal shall be carried out to ensure that the selected option meets the City's targets for sustainable development as well as providing the required mitigation measures.
- 5.10 Where remediation is required then a detailed Remediation Method Statement shall be provided to the City Corporation for approval prior to commencement of any remediation works. The Remediation Method Statement should include an Environmental Monitoring Plan where it is identified that the remediation works themselves may pose a potential risk to human health, controlled waters or other eco systems.
- 5.11 On completion of the remediation, a verification report shall be provided. The verification report should contain documentary evidence of the remediation works carried out together with photographs and laboratory test results to support decisions made on site.

Local Context

5.12 **Geology and Groundwater**

Due to the historical redevelopment of the City made ground is expected to present (to varying thickness) across the area. Made ground or fill is by nature highly variable in composition and may contain contaminated and/or putrescible material. It can therefore be potential source of contamination and landfill gas.

5.13 The City of London is mapped by the British Geological Survey as being entirely underlain by London Clay which is classified as Unproductive Strata.

5.14 Superficial deposits overlying the clay include Alluvium associated with the River Thames along the southern boundary, and in linear deposits in the central and western areas of the City. Hackney Gravel, Taplow Gravel and Lynch Hill Gravel are mapped across the City and are classed as a Secondary Aquifer. Areas of Langley Silt Member are mapped in the southern and eastern parts of the City.

5.15 **Surface Water**

The primary surface water feature within the City of London is the River Thames located along the southern boundary of the City. The River Fleet and Walbrook are both culverted, flowing south beneath the City and discharge into the Thames.

5.16 **Historical Uses**

The City of London has a long history of industrial use dating back to the Roman era. Historical maps of the City available from the 1870s detail a number of industrial land uses which include (but are not limited to) warehouses and wharves (predominantly along the River Thames boundary), railway land, factories and works including printers, hatters, furriers and foundries; some historic uses can be seen on the City's [interactive map](#).

5.17 **Unexploded Ordnance**

Approximately half of the City is mapped as having suffered WWII bomb damage. Published copies of bomb damage maps are available on the City of London web site as well as the website 'Bomb Sight' which records the positions of bombs which landed across London.

5.18 A desk based UXO risk assessment should be undertaken, as a minimum, by an appropriately qualified person for all works where ground is to be 'broken'. Mitigation measures may be required for intrusive works and or construction, with appropriate contingency measures in place to deal with any suspect items.

Key Personnel

5.19 Due to the highly complex nature of site investigation, risk assessment and remediation design; it is strongly recommended that the Contractor appoint a specialist consultant at the earliest opportunity. In any case any contaminated land report, risk assessment, options appraisal, remediation strategy or verification report must be prepared and countersigned by a Competent Person.

5.20 A competent person is someone who has the appropriate qualifications and experience to undertake the task in question. The Contractor may wish to use the services of a SiLC (Specialist in Land Condition). A register of SiLCs may be found at

<http://www.silc.org.uk/silc-register/> . Subject to discussion with the Pollution Control Team, the City Corporation requires that all contaminated land reports are signed off by a SQP (Suitably Qualified Person as defined under the National Quality Mark Scheme).

- 5.21 The Pollution Control Team are responsible for approving contaminated land reports and the Contractor is advised to contact the Team in the early stages of planning.

Unexpected Contamination

- 5.22 If any undetected or unexpected contamination or ground gas is identified or suspected during the course of the development works, the Contractor must stop work, seek the advice of a competent person and undertake whatever further specific investigations are required to characterise the contamination and develop an appropriate remediation strategy. Where ground contamination is identified, the Pollution Control Team must be notified. Where ground-water contamination is suspected, then the Environment Agency and Pollution Control Team must be contacted. All remedial work must be approved by the Pollution Control Team.

Waste Disposal

- 5.23 The City advises that all projects with an estimated construction cost exceeding £300,000 excluding VAT have a Site Waste Management Plan and in any case all waste must be disposed of in accordance with current legislation.
- 5.24 Appropriate soil tests must be carried out on all soils removed from waste to ensure an accurate and appropriate waste classification.
- 5.25 It is a requirement of the waste legislation that hazardous and non-hazardous waste be treated prior to disposal to change the characteristics of the waste and in so doing either reduce the volume and/or hazardous nature of the waste and/or facilitate handling and/or recovery. Additional hazardous and non-hazardous waste must be separated.
- 5.26 Soils may be classified as non-hazardous or hazardous waste on the basis of its chemical content.
- 5.27 Particular attention is drawn to the subject of asbestos in soils. Where the asbestos content exceeds 0.1% by volume OR a competent person is able to detect asbestos containing materials with the naked eye. The latter is likely to apply at asbestos concentrations significantly lower than 0.1%

Re-use of Soils

- 5.28 The City of London promotes sustainable development and in this respect is supportive of soil re-use where appropriate.
- 5.29 Where soils are to be re-used on the subject site (Site of Origin) or another site (Receiver Site), then it is recommended that this is done in accordance with the CLAIRE Code of Practice, otherwise the soils may be classified as waste, requiring an EA permit or EA exemption before it may be reused.

- 5.30 It is noted that only natural soils (e.g. London Clay) may be moved and reused on another site, whereas made ground or natural soils may be re-used on the site of origin provided it meets key test criteria set out in the code.
- 5.31 Where soils are to be reused on site either in accordance with the Code or under an EA exemption or permit then details must be forwarded to the Pollution Control Team prior to re-use and all such re-use detailed in the final verification report for the site.

General Site Activities and Controls

- 5.32 Notwithstanding the requirements to remediate or provide mitigation measures to counter ground contamination, the Contractor must also ensure that all its activities are undertaken in such manner as is required to prevent contamination of the ground, ground-water and surface waters. This may include but is not restricted to:
- materials being stored in appropriate conditions to prevent damage/contamination of storage areas;
 - containers of hazardous or potentially contaminating materials being sited away from drains and un-surfaced areas;
 - containers of hazardous or potentially contaminating materials being fit for purpose, regularly inspected and maintained;
 - containers of hazardous or potentially contaminating materials should have secondary containment (such as a bund) to contain any leaks or spills for example, areas used for the storage of diesel fuel or chemicals
 - All waste should be clearly labelled and segregated prior to offsite disposal to prevent cross contamination and inappropriate disposal; and
 - It is the Contractor's responsibility to ensure that its principal Contractor and sub-Contractors are made aware of the ground conditions and potential hazards associated with those conditions.

6 Waste and Materials Handling and Storage

Summary

The Contractor must:

- ensure a Site Waste Management Plan is developed (if required);
- ensure waste is contained and disposed of in an appropriate manner and in accordance with legislation and the Waste Management Hierarchy; and
- ensure methodologies are adopted that prevent environmental impacts by the mishandling and storage of on-site materials and waste.

Waste Management

- 6.1 The City recommends any project costing over £300k is required to produce a Site Waste Management Plan (SWMP) for new build, maintenance, and alteration or installation/removal of services (such as sewerage or water).
- 6.2 The purpose of a SWMP is to ensure that building materials are managed efficiently, waste is disposed of legally, and that material recycling, reuse and recovery is maximised. As such, a SWMP sets out how all building materials, and resulting wastes, are to be managed over the course of a project. For more information, please consult the following websites: www.defra.gov.uk and www.environment-agency.gov.uk
- 6.3 Those sites with a budget of less than £300k must manage their waste according to current legislation (see www.environment-agency.gov.uk). Evidence of how waste is disposed of, and efforts to reduce and recycle waste, must be maintained and kept on site.
- 6.4 All site waste management must be planned and carried out in accordance with the Waste Management Hierarchy, as demonstrated below:



- 6.5 All wastes must be removed from sites using a registered waste carrier and sent only to disposal facilities authorised to receive it. Disposal must be in accordance with relevant legislation.

- 6.6 All waste documentation - transfer notes, consignment notes, exemptions, waste carrier and facility licences - must be held on site as required by legislation. Such documentation must be maintained to be readily available for inspection at all times.

Materials Handling and Storage

- 6.7 Materials should be stored in appropriate conditions to prevent damage/contamination, of storage areas. Containers should be sited away from drains and un-surfaced areas. Storage containers should be fit for purpose, regularly inspected and maintained, and should all have secondary containment (such as a bund) to contain any leaks or spills.
- 6.8 Fuels should be stored in compliance with current guidance and recommendations.
- 6.9 Procedures and training should be in place for the safe delivery and handling of materials, with regular site inspections carried out to ensure that once on site they are stored safely and correctly.

Asbestos and other Hazardous Materials

- 6.10 All work on asbestos and other hazardous materials must comply with current Legislation and HSE Approved Codes of Practice & Guidance.
- 6.11 Before any work is done or commissioned that is likely to disturb asbestos or other hazardous material, the following must be worked out:
- The amount of hazardous material;
 - Where it is and what condition it is in;
 - Whether work is likely to disturb material; and,
 - Whether and how the material needs to be safely protected or removed.
- 6.12 This can be achieved either by checking existing records (such as client's survey, asbestos plan or register) or commissioning a suitable survey before work starts. It is good practice to include the need for such a survey in the initial project cost and programme. For more information, please see the following and associated links:
<http://www.hse.gov.uk/asbestos/essentials/>
<http://www.hse.gov.uk/comah/index.htm>

7 Water

Summary

The Contractor must:

- ensure trade effluent is not discharged directly to surface or foul drains without contacting the appropriate body;
- trade effluent consents are held on site;
- contact the City of London's Drainage Services Group or Thames Water Utilities if work is to be undertaken on sewer connections or drains running under the public highway; and
- ensure the under-ground drainage systems are adequately designed and installed.

Discharge of Waste Water from Sites

- 7.1 Wastewater generated from site activities including water from dewatering excavations, site run off slurry and bentonite are classified as trade effluent. These should not be discharged direct to surface or foul drains without the consent of the Environment Agency for controlled waters, and Thames Water for others.
- 7.2 The Contractor is responsible for obtaining necessary consents and ensuring compliance with any conditions imposed on them. Copies of consents must be held in a designated file kept on site. In cases of heavy water run-off, sumps must be provided in order to deal with the issue.

Site Drainage, Temporary and Permanent Connections to Sewers

- 7.3 Contact must be made with the City of London Drainage Services Group (020 7332 1105) or Thames Water Utilities (0845 9200 800) before any work is undertaken on connections to sewers or drains running under the public highway. The following general requirements will have to be met:
- All redundant sewer communication pipe work must be sealed off at the sewer. The remaining pipe work should be removed or filled with a suitable weak concrete, cement grout or other suitable material. This is to prevent any infestation by rodents and avoid the risk of future possible subsidence.
 - All retained sewer communication pipes should be tested and a CCTV survey carried out to ensure they are suitable for the new development and in good condition.
 - In order to prevent rodents or sewer gases reaching the site, temporary sewer communication pipes must be provided with a 'cascade' cast iron interceptor trap to British Standard specification.
- 7.4 It is strongly recommended that all under-ground drainage systems are installed using pipes made of a robust material such as cast iron, and that inspection chambers etc. are properly sealed with bolted down covers. This will prevent later problems from damage by vibration or rodent access.
- 7.5 Wherever it is at all possible, the drainage system serving the proposed development or refurbishment should gravitate to the sewer. This will eliminate the need for pumping of foul drainage to the sewer and the associated problems which regularly occur with this type of installation.

- 7.6 The sewage system within the City of London is vented to atmosphere via vents at road surface level and any increase of discharge velocity resulting from pumped or stored sewage being discharged to the sewer frequently results in complaints of foul smells. These may well be treated as a statutory nuisance by the City of London. The importance of designing a system which discharges to the sewer by gravity wherever practicable cannot be overstated.
- 7.7 *Note: Details of the City's standard drainage connection requirements and the related legislation are shown in Appendix E.*

8 Sustainability and Preservation

Summary

The Contractor should:

- employ best practice and look for new innovative techniques in the priority areas specified to ensure a more sustainable approach;
- ensure the Department of Planning and Transportation has been contacted to establish the status of the site and what specific requirements are included in the planning permission, listed building consent or conservation area consent;
- ascertain whether any trees on the site or immediate area are either protected or fall within a Conservation Area prior to works starting; and
- ensure an ecological survey has been undertaken by a qualified professional and appropriate mitigation measures agreed with the City of London.

Climate Change and Sustainability

- 8.1 The City of London is working towards limiting the impact of the region and making it more sustainable, demonstrated by (among other projects) the current development of a Climate Change Strategy, and strongly encourages other parties to do the same. Innovation and best practice in this area will therefore be highly regarded in applications for the Environment Award through the CCS.
- 8.2 The Sustainable Development Commission has identified the following key priority areas for action in the UK:
- sustainable consumption and production – greater efficiency in utilisation of resources and minimisation of waste;
 - natural resource protection; and,
 - climate change and energy – both reducing energy consumption and sourcing that energy from more sustainable sources.
- 8.3 Contractors should employ best practice and look for new innovative techniques in each of these priority areas, thus ensuring the process of construction or deconstruction is made more sustainable.
- 8.4 The impact of such techniques, or indeed highlighting of areas for improvement, can be demonstrated by including life cycle analyses for materials/processes or basic carbon footprinting in documentation submitted as part of the planning process.
- 8.5 Examples of actions taken to increase the sustainability of the site could include:
- Use of the Mayor of London's Green Procurement Code, in particular via the procurement of FSC-approved/sustainable timber or equivalent, for example, PEFC certification;
 - Use of non-virgin aggregate;
 - general good practice including ensuring that plant not in use is switched off and that lighting is used only when necessary (such as through the use of timers);
 - Use of energy efficient bulbs or solar powered lighting;
 - the use of existing feeds for power where possible to prevent the need for generators, or the purchasing of energy/electricity from sustainable sources;

- Employment of energy efficient and, where possible, gas powered plant as opposed to petrol/diesel;
- Efficient use of water as a resource, for example in cleaning systems or the implementation of rainwater harvesting.

8.6 For more information regarding climate change and sustainability issues relevant to a particular project or site, Contractors are encouraged to read the Climate Change Adaptation Strategy available at:

<https://www.cityoflondon.gov.uk/services/environment-and-planning/sustainability/Documents/climate-change-adaptation-strategy-2010-update.pdf>

Archaeology and Built Heritage

- 8.7 Much of the City of London is designated as being of archaeological potential. Archaeology is a material consideration of the planning process. Where archaeological remains survive, the archaeological potential is considered as part of the planning application. Where a development affects archaeology, investigation and recording is required as a condition of the planning permission. This may be to ensure the preservation *in-situ* of important archaeological remains and to ensure that a record of the remains is made.
- 8.8 Some monuments and archaeological remains are scheduled ancient monuments under Part I of the Ancient Monuments and Archaeological Areas Act 1979 and scheduled monument consent is required to undertake any work that may affect a scheduled monument. Scheduled Monument Consent is obtained from the Department of Culture, Media and Sport and advice on this is available from Historic England.
- 8.9 Some buildings and structures are included on the statutory list of buildings of special architectural or historic interest. Listed building consent is needed to carry out any work which may affect a building's special architectural or historic interest.
- 8.10 The Contractor must ensure that the Department of the Built Environment has been contacted to establish whether the site contains a listed building, scheduled ancient monument or archaeological remains, and what specific requirements are included in the planning permission, listed building consent or conservation area consent. Conditions of a planning permission may include the requirement of a programme of archaeological work and recording to be carried out as an integrated part of the development, submitted to and approved by the Department of the Built Environment before work commences (contactable via 020 7332 1710).
- 8.11 Advice and details of the need for Scheduled Monument Consent should be obtained from Historic England (contactable via 020 7973 3000).

Trees and Wildlife

- 8.12 The local planning authority has specific powers under the Planning Acts to protect trees and require the planting of a replacement tree in certain circumstances. The Director of Open Spaces is also responsible for the maintenance and management of street trees and trees within some of the city churchyards. The Contractor must

therefore ascertain whether any trees on the site or in the immediate vicinity of the site are protected or maintained by the Corporation prior to starting work.

8.13 A tree may be protected in one of the following ways:

- By a Tree Preservation Order
- If it is located within a conservation area
- By means of conditions on planning permissions or other consents.

8.14 The City of London Tree Strategy Supplementary Planning Document (Part 1) and the accompanying evidence and practice guidance (Part 2) sets out a co-ordinated approach to the management of trees in the City of London. It provides advice for anyone wishing to undertake work to existing trees or to plant new trees. It can be found via the following link:

<https://www.cityoflondon.gov.uk/services/environment-and-planning/planning/heritage-and-design/Documents/Tree-Strat-Part-1-Complete.pdf>

8.15 Development schemes can have a major impact on existing trees including street trees. It is essential therefore that the potential impact of the proposed works on these trees is assessed at an early stage prior to the submission of any application. This should include the demolition and construction process and future maintenance of the building. Prior to undertaking any tree works or any works in the vicinity of trees Contractors should consult the City Corporation Tree Strategy.

8.16 Prior to commencement of works on site, checks should be undertaken to confirm whether there are any birds or bats that may be nesting/roosting within buildings or vegetation. If present appropriate mitigation measures should be undertaken following consultation with the City's Department of Open Spaces 020 7332 3505.

9 Light Pollution

Summary

The Contractor must ensure:

- nearby residents and commercial occupiers are not adversely affected by light pollution from the site;
- an energy efficient lighting approach is adopted; and
- lighting does not pose a hazard;

Light Pollution

- 9.1 Light pollution is a statutory nuisance and is defined as any form of artificial light which shines outside the area it is required to illuminate. Unnecessary use of lights is considered a waste of energy (see section 8.5). Any use of lighting should have regard to these facts and should be designed to prevent any nuisance to residents or road traffic and be used primarily for reasons of health and safety or security.
- 9.2 Site lighting should be located and aligned so as not to intrude into residential properties, on sensitive areas, or constitute a road or rail hazard.
- 9.3 Site lighting outside of working hours should be designed to the minimum required to ensure safety and security taking to prevent potential impacts on neighbours.
- 9.4 During the fit out stages of construction, it is a requirement that contractors will utilise black out window coverings.

10 Problems on Site

Summary:

- If emergency work is required then the Contractor must contact City of London as detailed;
- The Contractor must ensure that systems are in place to enable problems on site to be identified and ensure that appropriate action is taken to mitigate the problem and the appropriate parties are informed.

Emergency Work

- 10.1 The City of London appreciates that occasionally incidents arise whereby it is impossible or impractical to comply with all the requirements within this Code. In such an event, the Pollution Control Team should be contacted within the hours of 08:00 and 17:00. Outside of these hours The Out of Hours Team should be called on 020 7606 3030, leaving a name, mobile number, the nature of the emergency, and the site address. Following this the Environmental Health Out of Hours Officer will respond by calling the Contractor in order to ensure the presence of an emergency and approve the method of work.
- 10.2 In the event of an environmental incident (e.g. a spillage), steps should be taken to prevent pollution, for example through:
- Protection of drains by the use of drain covers or booms;
 - Use of absorbent granules following an oil/chemical spill; and,
 - Turning off equipment or other sources of noise or dust.
- 10.3 Once the situation has been rectified, full details about the incident and remedial actions undertaken should be provided to the City of London and other relevant authorities, and recorded in the site complaints/incidents logbook.

Pollution Emergencies

- 10.4 All sites should have a plan, equipment and training in place for dealing with pollution emergencies. A summary of the plan should be visibly displayed around site, and understood by all workers.
- 10.5 For more guidance on such planning, please see the Environment Agency guidance 'Pollution Prevention Pays – getting your site right', downloadable at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/485173/LIT_7481.pdf

Pest Control

- 10.6 The City of London has a statutory duty to take such steps as may be necessary to keep the City free from rats and mice this includes enforcement of the *Prevention of Damage by Pests Act 1949*.
- 10.7 When an occupier of any land, including a construction site becomes aware of an infestation by rats or mice in large number he must notify Port Health and Public Protection (020 7606 3030).

- 10.8 Appropriate measures must be taken to limit any insect, bird or rodent infestation. Such measures are considered essential to limit future problems in completed buildings - especially in the case of mice.
- 10.9 Pest control does not just include treatment by a pest control company; in fact this is a last resort. Measures should be taken to:
- Prevent access to the site principally from exposed drainage;
 - Reduce harbourage in order to ensure that rubbish or spoil is not left for long enough allow rodents to establish themselves above ground;
 - Limit potential food and water sources. It is particularly important to ensure that waste food or empty cartons are not left in areas where they can encourage rats and mice.
- 10.10 Many of the methods necessary to achieve adequate control should be part of established construction/deconstruction methods. To report any problems with infestations, or if you require any additional advice, contact the City of London on the following number: 020 7606 3030.

11 Legislation and Documentation

Documentation

- 11.1 The Contractor should keep all appropriate documentation and records relevant to the requirements of this Code in designated files held on or accessible from site (i.e. electronic or on-line). They must be available at all times for inspection and review by the City of London or other authorities and should include as a minimum:
- Scheme of Protective Works (as per section 2);
 - liaison minutes, letters, photos and newsletters.
 - noise, vibration and dust monitoring results (where applicable);
 - waste management documentation (where applicable);
 - inventory of non-road-mobile machinery and corresponding emission standards, with the relevant plant registered on the NRMM website;
 - Site hours variation sheets; and
 - a complaints/incidents log with actions taken.

Section 60 and 61 Notices

- 11.2 The Control of Pollution Act 1974 Part III restricts and limits noise and vibration from a construction site. If complaints are received, where it is considered necessary, the Department of Markets and Consumer Protection will serve a Section 60 notice on the Contractor for the control of noise and vibration at the site. This notice can:
- Specify the plant or machinery that is or is not to be used;
 - specify the hours during which work can be carried out; and/or,
 - specify the levels of noise and vibration that can be emitted from the site.
- 11.3 The Contractor can apply in advance for a consent in the form of a Section 61 notice regarding the methods and conditions by which they are intending to undertake the works and control nuisance.
- 11.4 The City does not advise the use of Section 61 consents but it does support a system of prior agreement on similar lines, as this allows a much more flexible approach of greater benefit to the Contractor. Section 60 notices will be served where they are considered necessary. Contraventions of either Section 60 or 61 may well result in legal proceedings, leading to further costs and delays for the Contractor.

APPENDIX A

Guidance and Legislation

General

Environment Agency Pollution Prevention Guidance Notes
National Planning Policy Framework
Planning Policy Guidance Notes
Town and Country Planning Act 1990
Planning and Compensation Act 1991
BS 6187: 2011 Code of Practice for Demolition
ISO 14001

Vehicle Movements

Highways Act 1980
Road Traffic Regulations Act 1984
Traffic Management Act 2004
Standard for Construction Logistics – Managing Work Related Road Risk (TfL) and Fleet Operator Recognition Scheme (TfL)

Noise and Vibration

Environmental Protection Act 1990 (especially Sections 79 – 82)
Control of Pollution Act 1974 (especially Section 60 and 61)
BS 5228-1:2009+A1:2014 and BS 5228-2:2009+A1:2014, – Noise & Vibration Control on Construction and Open Sites
BS 7385-2:1993 Evaluation and Measurement for Vibration in Buildings. Part 2 Guide to Damage Levels from Ground borne Vibration
BS 6472:2008 Guide to Evaluation of Exposure to Vibration in Buildings (1Hz - 80Hz)
Noise and Statutory Nuisance Act 1993
Control of Noise at Work Regulations 2005
The City of London Noise Strategy 2016 to 2026

Air Quality

Air Quality (England) Regulations 2000
Environment Act 1995
Clean Air Act 1993
Road Traffic (Vehicle Emissions) (Fixed Penalty) (England) Regulations 2002
Road Vehicles (Construction and Use) Regulations 1986 (as amended) – Regulation 98
GLA Guidance: The Control of Dust and Emission during Construction and Deconstruction (SPG)
DEFRA (2001) UK Air Quality Strategy, HMSO, London
The City of London Air Quality Strategy: see www.cityoflondon.gov.uk/air for the most recent copy
Building Research Establishment Code of Practice on Controlling Particles from Construction and Demolition (2003)

Smoke and Fume Nuisance

Noise and Statutory Nuisance Act 1993

Asbestos and Hazardous Substances

The Control of Asbestos Regulations 2012
Special Waste (Amendment) (England and Wales) Regulations 2001

MDHS 100 "Surveying sampling and assessment of asbestos-containing materials" HSE Guidance Note 2002
Control of Substances Hazardous to Health Regulations 2002 (as amended)
Environmental Protection (Controls on Substances that Deplete the Ozone Layer) Regulations 2011
Plus all other current/future Legislation together with HSE Approved Codes of Practice and Guidance

Waste Management

Environmental Protection Act 1990
Environment Act 1995
Environmental Protection (Duty of Care) Regulations 1991
Environmental Protection (Special Waste) Regulations 1996 (as amended)
The Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations 1991
Waste Management Licensing Regulations 1994 (as amended)
Waste Management Duty of Care Code of Practice (1996), HMSO

Contaminated Land

British Standards Institute, Investigation of potentially contaminated sites – Code of practice BS 10175:2011+A1:2013
British Standards Institute, Guidance on investigations for ground gas – Permanent gases and Volatile Organic Compounds (VOCs) BS 8576:2013
British Standards Institute, Specification for subsoil and requirements for use BS 8601:2013
British Standards Institute, Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings BS 8485:2015
British Standards Institute, Specification for Topsoil BS 3882:2015
British Standards Institute, Code of practice for ground investigations BS 5930:2015
Building Research Establishment, Cover Systems for Land Regeneration: 2004
Building Research Establishment, Concrete in Aggressive Ground, Special Digest 1 : 2005
Chartered Institute of Environmental Health and Land Quality Management, Generic Assessment Criteria for human health risk assessment: 2006
Chartered Institute of Environmental Health and Department for Environment Food and rural Affairs, Local authority guide to the application of Part 2A of the Environment Protection Act 1990 – extended to cover radioactive contamination 2007
Chartered Institute of Environmental Health and Cl:aire, Guidance on comparing soil contamination data with critical concentration: 2008
CIRIA, A guide for safe working on contaminated sites, R132: 1996
CIRIA, Assessing risks posed by hazardous ground gases to buildings CIRIA C665: 2007
CIRIA, The VOCs handbook. Investigating assessing and managing risks from inhalation of VOCs at land affected by contamination. CIRIA 682: 2009
Cl:aire, SuRF UK, A Framework for Assessing the Sustainability of Soil and Groundwater Remediation: 2010
Cl:aire, The Definition of Waste: Development Industry Code of Practice, V2: 2011
Cl:aire, A Pragmatic Approach to Ground Gas Risk Assessment. Cl:aire Research Bulletin RB17 : 2012
Cl:aire and Joint Industry Working Group, CAR-SOIL™, Control of Asbestos Regulations 2012, Interpretation for Managing and Working with Asbestos in Soil and Construction and Demolition Materials: 2016
Department for Environment Food and Rural Affairs, Environmental Protection Act 1990: Part 2A Contaminated Land Statutory Guidance.
Department for Environment Food and Rural Affairs, Model Procedures for the Management of Land", report CLR11: 2004
Environment Agency, Guidance on requirements for Land Contamination Reports: 2005

Environment Agency, Remedial targets Methodology – Hydrogeological Risk Assessment for Land Contamination: 2006
Environment Agency, Contaminated Land Exposure Assessment Tool v1.05: 2009
Environment Agency, Guiding Policies for Land Contamination 2010, last updated 2016
HMSO, Environment Act 1995
HMSO, The Contaminated Land (England) Regulations: 2000 (with amendments 2006,2012)
HMSO, The Landfill Tax Regulations 1996 (with amendments 2015,2016)

Discharges and Site Drainage

Environmental Protection Act 1990
Environment Act 1995
Water Resources Act 1991
Water Industry Act 1991
Trade Effluent (Prescribed Processes and Substances) Regulations 1989 (as amended)
Anti-Pollution Works Regulations 1999

Pests

Wildlife and Countryside Act 1981 (as amended)

Trees

Town and Country Planning Act 1990
Wildlife and Countryside Act 1981 (as amended)
Conservation of Habitats and Species Regulations 2010
BS 5837:2012 Trees in relation to design, demolition and construction - Recommendations
BS 3998:2010 Tree work: Recommendations

Archaeology and Built Heritage

Ancient Monuments and Archaeological Areas Act 1979
Planning (Listed Buildings and Conservation Areas) Act 1990

City of London Documents

Code of Practice for Deconstruction and Construction Sites
Considerate Contractor Scheme (see Appendix C)
Scaffolding and Hoarding Licences (see Appendix D)
City's Standard Requirements for Sewer Connections (see Appendix E)
Traffic Management Requirements (see Appendix F)

APPENDIX B

Contact details for City Departments and External Agencies

Postal address for all Internal Departments: PO Box 270, Guildhall
London, EC2P 2EJ
General Switchboard (24 hour service) Tel: 020 7606 3030

MARKETS AND CONSUMER PROTECTION – Pollution Control Team

All enquiries: Tel: 020 7606 3030.
Email:
publicprotection@cityoflondon.gov.uk

DEPARTMENT OF THE BUILT ENVIRONMENT HIGHWAY MANAGEMENT GROUP

Out of Hours in Emergency: Tel: 020 7606 3030 and ask for duty officer to be called. He or she will call you back.

Considerate Contractor Scheme: Tel: 020 7332 1104
Email: ccs@cityoflondon.gov.uk
Highways Section & Scaffolding Licences: Tel: 020 7332 1104/3578

Parking dispensations & Highway Closures: Tel: 020 7332 3553
traffic.management@cityoflondon.gov.uk
uk

City of London Drainage Group: Tel: 020 7332 1105
District Surveyors: Tel: 020 7332 1000
City Structures Officer Tel: 020 7332 1544

DEPARTMENT OF THE BUILT ENVIRONMENT DEVELOPMENT MANAGEMENT

Protected Trees Tel: 020 7332 1708
Listed Buildings – Consent to Work Tel: 020 7332 1710

OPEN SPACES DEPARTMENT

Advice on birds, bats or plants found on site Tel: 020 7374 4127

THE CITY OF LONDON POLICE

Postal Address: Wood Street Police Station
37 Wood Street, London EC21 2NQ
General Enquiries: Tel: 020 7601 2455
Control Room (24 Hour operations): Tel: 020 7601 2222
Abnormal loads & traffic planning: Tel: 020 7332 3122

MUSEUM OF LONDON ARCHEOLOGY – ‘MOLA’

Postal Address: 46 Eagle Wharf, London, N1 7ED
General Enquiries: Tel: 020 7410 2200

EXTERNAL AGENCIES

THE ENVIRONMENT AGENCY

Postal Address: Apollo Court
2, Bishops Square Business Park
St. Albans Road
Hatfield,
Herts, AL10 9EX

General Enquiries: Tel: 08708 506 506

HEALTH & SAFETY EXECUTIVE

Postal Address: Rose Court
2, Southwark Bridge Road
London, SE1 4LW

24 Hour Emergency Contact:
(construction, demolition
& asbestos related matters) Tel: General enquiries: 0845 3450055
Tel: 020 7556 2102

THE METROPOLITAN POLICE

Postal Address: New Scotland Yard
Broadway
London, SW1H 0BG

General Enquiries: Tel: 0300 123 1212
Abnormal Loads Section Tel 020 8246 0931

LONDON FIRE & EMERGENCY PLANNING AUTHORITY

Postal Address: 20 Albert Embankment
London, SE1 7SD

General Enquiries: Tel: 020 7587 2000

NB. *The work previously carried out by the **Petroleum Inspectorate** is now shared between The Health & Safety Executive - in respect of most instances where fuel is dispensed or stored in large quantities and Building Control Officers in Local Authorities - in the case of ventilation & signage in underground car parks etc.*

ENGLISH HERITAGE

Postal Address: 1 Waterhouse Square, 138-142 Holborn, London, EC1N
2ST

General enquiries: Tel: 020 7973 3000

TRANSPORT FOR LONDON

Abnormal loads section Tel: 020 7474 4770

LONDON UNDERGROUND LTD

Contact re underground structures etc. Tel: 020 7222 1234

PORT OF LONDON AUTHORITY

General enquiries: Tel: 0147 456 2200

APPENDIX C

Considerate Contractor Scheme Information

1. The Considerate Contractor Scheme (CCS) comprises:
 - a Code of Good Practice, covering care, cleanliness, consideration and cooperation;
 - regular inspections by the City's Considerate Contractor Surveillance Officers;
 - an annual judging and awards ceremony; and
 - a telephone hotline enabling the general public to comment on the Scheme, sites and on participating Contractors. (020 7332 1104 / email ccs@cityoflondon.gov.uk)

Note: general compliance with this Code of Practice is also a requirement of the scheme and sites will be judged and scored in this context.

2. The CCS is a co-operative initiative open to all Contractors undertaking building and civil engineering work in the City of London. There is no membership fee, but on joining the Scheme, members agree to abide by the Code of Good Practice. It is by following this voluntary Code that the general standards of works are raised and the condition and safety of City streets and pavements improved for the benefit of everyone living, working or just travelling through the Square Mile.

Membership of the CCS is actively encouraged for all construction and deconstruction works in the City.

Additional information and a copy of the code of practice can be obtained from The Department of the Built Environment Highways Division representative on 020 7332 1104 or by email to ccs@cityoflondon.gov.uk

3. An Environment Award is available as a separate achievement in the Considerate Contractor Scheme to recognise and encourage best practice and innovation in the sustainability of City construction and deconstruction. For details email publicprotection@cityoflondon.gov.uk

APPENDIX D

Scaffolding & Hoarding Licence Requirements

1. Under sections 168 and 169 of the Highways Act 1980, scaffolds and gantries on or over the Public Highway require a licence and must comply in all respects with the Department of the Built Environment's Highways Division's Guidance Notes for Activities on the Public Highway.
2. Under section 184 of the Highways Act 1980, temporary vehicle crossovers require a licence and should comply with section 13 of the Highways Division's Guidance Notes for Activities on the Public Highway.
3. Application for these licences should be made to the City by contacting Highways Division, Department of Markets and Consumer Protection. A site visit will usually be required. (020 7332 1104)
4. Scaffolding over the River Thames, on the foreshore or within 16 metres of flood defences requires consent under the byelaws of the Environment Agency, Thames Region and the Port of London Authority.
5. Requests for further information, copies of the guidance notes and licence applications should be made to the Highways Division (020 7332 3578).



Department of Markets and Consumer Protection

City of London
PO Box 270, Guildhall
London EC2P 2EJ
www.cityoflondon.gov.uk

APPENDIX E

The City of London Sewers Act 1848 City of London Standard Requirements

1. All communicating drains to the sewer outfall **must** be provided with a cast iron intercepting/disconnecting trap which has a cascade, with access to the crown of the trap and have rodding access through to the sewer as BSS figure 26 or equivalent (for rodent control measures).
2. The communication pipework should be laid in straight lines in the vertical and the horizontal alignments and with no other pipe connections. (e.g. at a self-cleansing velocity and in a straight line from interceptor to the sewer).
3. The interceptor should be located inside the property boundary and adjacent to the buildings curtilage.
4. There should be provision to provide ventilation to the low invert level of a drainage system this should normally be at the intercepting trap. It may be difficult to evaluate air movement precisely and therefore as guidance you should allow for the vent pipe to be half diameter at the size of the intercepting trap. This vent should be discharged to a safe outlet at roof level atmosphere.

NOTES

- a) The sewage system within the City historically vents to atmosphere via low level vents and any increases of discharge velocity (e.g. pumped drainage) of building effluent to the sewers results in the incidences of smells being reported. As justified smell complaints are treated as a statutory nuisance by this Department. It is **STRONGLY RECOMMENDED** where practicable and safe to do so all drainage should discharge via gravity.
- b) In the view of the City there are rodents present within the sewers and special rodent control is therefore required, historically the measures the City accepts is both by means of an interceptor trap and a sealed drainage system. You should discuss this matter with your Building Control body/Advisor.
- c) There is a requirement under Section 62 of the Building Act 1984 for any person who carries out works which result in any part of a drain becoming permanently disused that they shall seal the drain at such points as the City may direct. You should therefore make arrangements to seal off any redundant communication drains connecting to the Thames Water Utilities (TWU) sewer at the point of communication with the local sewer and at the buildings curtilage.
- d) The City now requires in some instances the introduction of sewer vent pipes. Via the Planning process. The information required for this approval is shown below:
 - A long sectional detail is required for each connection. Copy of standard City detail is shown.
 - Minimum size of sewer vent to be 150mm.
 - Confirmation of materials proposed, pipework must be rodent proof, i.e. light weight iron or similar.
 - Basement, ground floor and roof level layout plans are required, showing sewer vent pipework.
 - Locations of the sewer vent pipework, in building, to be shown, i.e. in a duct or riser.
 - Schematic drawing of all soil and waste pipework, clearly showing sewer vent with route of the sewer vent highlighted so it is easy to identify.

Any failure in respect of these requirements may result in: -

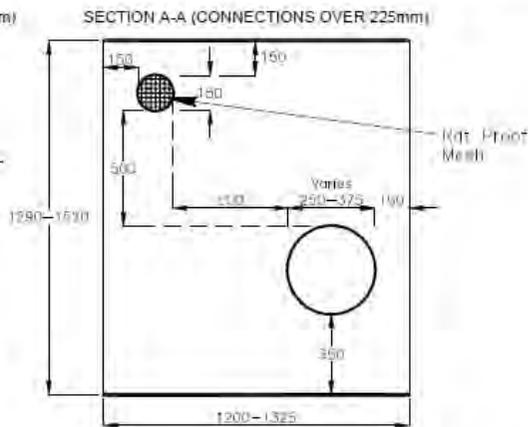
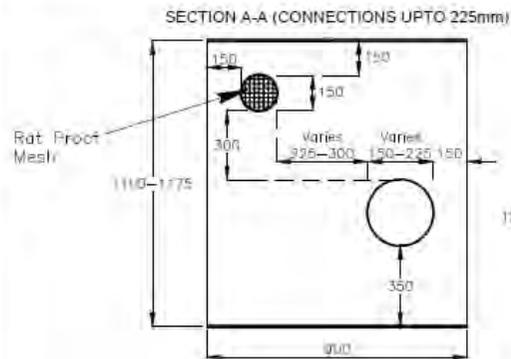
1. *Charging of costs and expenses involved in attending site and auditing works.*
2. *Copies of documents concerning any default being placed on our Land Charges Register and disclosed to all subsequent enquiries*
3. *Charging for remedial works done in default and costs recovered from responsible person(s) which may be substantial in terms of cost and delays to the project.*

You are advised to submit proposals in writing concerning these matters to the above address

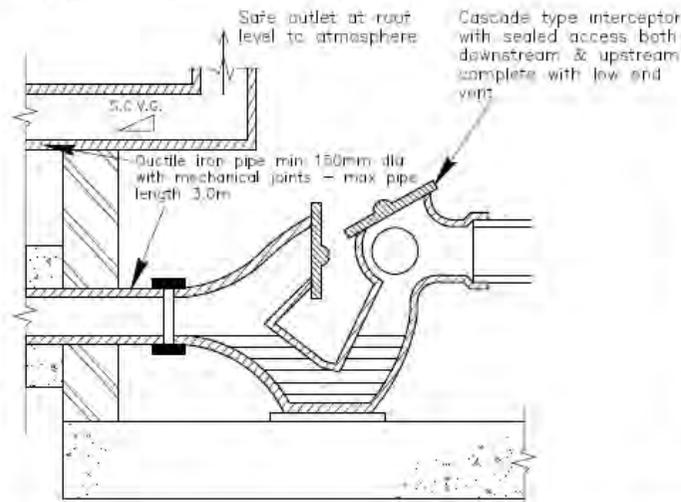
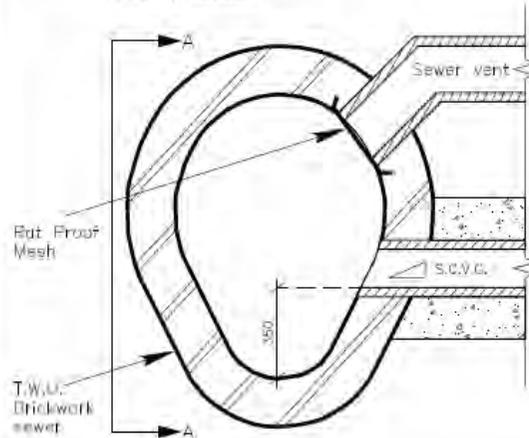
If you require any further advice or information on this matter, then please do not hesitate to contact a

Member of the Pollution Team on 020 7606 3030 or email:

publicprotection@cityoflondon.gov.uk



S.C.V.G. = Self Cleansing Velocity Gradient



NOTES:

- 1) THE SEWER VENT WILL ONLY BE REQUIRED ON THOSE DEVELOPMENTS WHERE IT IS A MANDATORY PLANNING REQUIREMENT.
- 2) ALL HEADING CONSTRUCTIONS TO ACCOMMODATE A VENT WILL REQUIRE APPROVAL IN PRINCIPAL VERIFIED BY THE CITY SURVEYOR.
- 3) **VENT PIPE MATERIAL SPECIFICATION:**
WITHIN HEADING—SAME SPECIFICATION AS SEWER CONNECTION.
WITHIN BUILDING—THE MATERIAL SHOULD HAVE A TECHNICAL STANDARD FOR THE PURPOSE PROPOSED. REFER TO APPROVED DOCUMENT H1 FOUL WATER DRAINAGE.
- 4) NO ACCESS SHALL BE PROVIDED TO THE PIPE IN ITS ENTIRETY. THE PIPE WORK SHALL BE CLEARLY LABELLED AS 'SEWER VENT PIPE NO CONNECTION TO BE MADE' AS AND WHERE ACCESSIBLE.
- 5) THE LOCATION AND INSTALLATION SHALL BE TO THE SATISFACTION OF THE DIRECTOR OF PLANNING AND THE DIRECTOR OF ENVIRONMENTAL SERVICES.
- 6) THE INSTALLATION AND TESTING SHALL BE IN ACCORDANCE WITH ALL CURRENT LEGISLATION AND SHALL BE TO THE SATISFACTION OF THE DIRECTOR OF ENVIRONMENTAL SERVICES.
- 7) RODENT CONTROL DEVICES WILL BE REQUIRED TO BE INSTALLED AT ROOF LEVEL.
- 8) CONNECTIONS TO BE CONSTRUCTED AND MADE GOOD CONSECUTIVELY.
- 9) THE SEWER VENT PIPE SHALL BE SUPPORTED WITHIN THE HEADING WITH PROPRIETARY BRACKETS 300MM FROM JOINT AND ADDITIONAL BRACKETS AT 1.5M CENTRE TO CENTRE.
- 10) 12mmx16g STAINLESS STEEL MESH TO BE FIXED TO THE VENT/SEWER INTERFACE TO PREVENT RODENT INGRESS.

Note:
Do not state All dimensions to be checked on site.
Errors to be reported to supervising officer.

| | | | |
|-----|---|-------|-------|
| D | RODENT PROOF MESH ADDED | S.B. | FEB12 |
| C | NOTES UPDATED | S.G. | NOV09 |
| B | SECTION DETAILS UPDATED AND EXTRA NOTES ADDED | S.B. | JUN08 |
| A | SEWER VENT ADDED | S.B. | MAY08 |
| Rev | | Drawn | Date |


CITY OF LONDON
 Drawing prepared by CITY SURVEYORS DEPARTMENT
 39 MARK LANE
 DEPARTMENT OF THE CITY'S ENVIRONMENT
 11 A BARRACKS ROAD, MARK LANE
 (CORNER OF DEPARTMENT OF THE CITY'S ENVIRONMENT)
 WC2R 0BU, LONDON, ENGLAND
 Tel: 020 7600 3030 Fax: 020 7600 1000

| | | | |
|---------------------------|--------|--|------|
| Project: HIGHWAY DRAINAGE | | Drawing: TYPICAL SEWER AND VENT CONNECTION | |
| Scale: as A4 | NTS. | Drawn by: | S.B. |
| Drawn by: | P.J. | APP: | |
| Date: | MAY 08 | Time made: | |
| | | Drawing No: AL15M1v | |
| | | Revision: A B C D | |

20/06/2008 16:17:26: S:\p\proj\shen\Structure\CAD\H10\H10\N\5\0\pipea & Sewer Subways - Cables, Structures Drainage Detail - AL15M1 - Rev 0 - Head.Dwg:John

APPENDIX F

Traffic Management Requirements

General

The Contractor will be required to use designated traffic routes. These must be agreed during the site operations planning stage with the Department of Markets and Consumer Protection Highways Management Group (020 7332 3993).

If necessary, proposed routes will also be discussed with The City Police (020 7601 2222), Transport for London (020 7474 4770), Port Health and Public Protection (020 7606 3030) & The Metropolitan Police. (020 7230 1212).

Whenever possible vehicles must enter and exit the site in a forward direction, any exceptions to this rule must have prior consent from the Department of Markets and Consumer Protection Highways Division (020 7332 3578).

A competent banksman should be provided to assist your drivers accessing & leaving sites where there are busy streets etc., thereby ensuring pedestrian safety & minimal disturbance to other traffic.

Deliveries to the site should be properly co-ordinated. Parking in local streets whilst waiting for access to the site is not permitted. A 'parking dispensation' will be required for vehicles unloading or loading in the street. (Contact the Traffic Management Office on 020 7332 3553 to arrange this)

The Contractor will be held responsible for any damage caused to the highway by site activities and will be required to carry out the temporary or permanent reinstatement of roads, kerbs, footpaths & street furniture to the satisfaction of the City.

The City encourages use of systems where vehicles serving sites regularly are identified by prominently displayed notices.

Contractors must not allow mud or other spoil from sites onto the highway adjacent to the site. Wheel washing plant or other means of cleaning wheels must be used before vehicles leave unpaved sites.

Arranging road closures in connection with crane & other heavy lifting equipment deliveries.

The correct procedure involves firstly telephoning the Pollution Control Team to agree the hours of operation and noise implications of your outline proposals on 020 7606 3030.

The 'mobile crane environmental health authorisation & structures form' – 'Appendix I' should then be completed and e-mailed to the Pollution Control Team via the following e-mail address for approval: publicprotection@cityoflondon.gov.uk

Once received, the completed form will be checked, any necessary amendments agreed with the applicant and returned to the applicant signed by the authorising officer.

Formal application for any crane operation and / or road closure must then be made in person to the Department of Built Environment's Traffic Management Office. Applications will only be considered by appointment, and applicants must have details of the proposed date, time and nature of the operation at this time. Also, a completed 'Appendix I' signed by the authorising officer must be presented, together with the appropriate payment. For details of current charges or to make an appointment, telephone 020 7332 3553.

Important Note- Underground 'Structures'

The part of Appendix I relating to 'structures authorisation' must also be signed by the crane company's representative before it is presented to The Traffic Management office. It is the crane operators responsibility to check whether there are any underground 'structures' such as subways, car parks, vaults or railway tunnels under, or adjacent to the part of the highway where the crane is to be sited.

Operators must contact the City's Structures officer on 020 7332 1544 to discuss the operation and, if required, the owners of any private underground structures such as London Underground Ltd. (020 7222 1234)

Abnormal Loads

Prior permission for any **abnormal loads** (as specified in legislation enforced by the City of London & Metropolitan Police forces) is required from The City of London Police's traffic planning section (020 7601 2143) & The Metropolitan Police's abnormal loads section (020 8246 0931). Generally, such deliveries have to take place on weekdays after 19.00 hours or at weekends and may also require prior agreement from 'Transport for London'. Contact 020 7474 4770.

Standard for Construction Logistics – Managing Work Related Road Risk

In addition to the particular requirements above, the City expect all Contractors to observe the Standard for Construction Logistics – Managing Work Related Road Risk, especially as all journeys have to pass along routes administered by Transport for London. It is recommended that all Developers/Project Managers include adherence to the Standard as a contractual obligation for all of their Contractors.

Fleet Operator Recognition Scheme

The City of London has a fleet of around 150 vehicles, and has a Gold accreditation FORS assessment. It is expected that all fleet operators within the City will be a member of the scheme, with at least a Bronze accreditation. Whilst it is recognised that most construction sites will be serviced by a variety of construction suppliers, the City of London will actively encourage all developers and project managers to insist that ALL vehicles visiting their sites are registered with FORS. MACE and Berkeley Group have now made this a contractual obligation



APPENDIX G

SITE INFORMATION SHEET

Working and Out of Hours Contact No: 020 7606 3030

Please email the details below to:
publicprotection@cityoflondon.gov.uk

| Contact Details | | | |
|--|--|----------------------|--|
| Date form completed: | | Date works starting: | |
| Site name and address (Site Plan to be attached) | | | |
| Name of Site Contact: | | | |
| Site contact direct dial number and e-mail address: | | | |
| Site 24 Hour Contact Number: | | | |
| Contractor Company Name: | | | |
| Name of Contractor Contact: | | | |
| Contractor address | | | |
| Contractor contact number and e-mail: | | | |
| Details of Works | | | |
| Proposed Working Hours: | | | |
| Approximate dates of Works: | | | |
| Brief Details of Works to be Carried Out: | | | |

Appendix H

SITE HOURS VARIATION REQUEST SHEET

Department of Markets and Consumer Protection
 Port Health and Public Protection – Pollution Team
 City of London, PO Box 270, Guildhall, London EC2P 2EJ
 Normal and Out of Hours Contact No.: 020 7606 3030
publicprotection@cityoflondon.gov.uk

This form must be completed and returned to the Pollution Team at least 5 days before the activities are to take place.

The site hours requested can only be worked if approval is given and this form is countersigned by an Environmental Health Officer.

| | |
|---|--|
| Date of Application: | |
| Date(s) of Proposed Operations: | |
| Proposed Working Hours: | |
| | |
| Site Name and Address: | |
| Site Contact Name and Number: | |
| Site Contact Email Address: | |
| | |
| Details of Operation: | |
| Reasons For Operation: | |
| | |
| Contractor Company and Office Contact Details: | |
| Contractor Company Contact Details for Onsite Operations: (i.e. Name, Number, and Email) | |
| | |
| Plant and/or tools to be used: | |
| Mitigation measures to minimise levels of noise: | |

| | |
|---|--|
| <p>Details of residential locations, hotels and other businesses likely to be affected.</p> <p>Access to our interactive map is available here.</p> | |
|---|--|

Copies of communications to residents and businesses must be attached to this application. Out of hours activities will not be approved unless these are received.

The above works are approved, subject to the following conditions and comments.

| |
|--|
| |
|--|

| | |
|--------------------------------------|--|
| Environmental Health Officer: | |
| Signature: | |
| Date: | |

The City of London Corporation is a data controller, and processes personal data in accordance with the General Data Protection Regulation (GDPR) and the Data Protection Act 2018. For full details of how and why the City of London Corporation processes personal data, please refer to the full privacy notice at www.cityoflondon.gov.uk/privacy. Alternatively, you can request a hard copy. Please direct all data protection queries to the Information Compliance Team at information.officer@cityoflondon.gov.uk



APPENDIX I

Environmental Health MOBILE PLANT & STRUCTURES NOTIFICATION

publicprotection@cityoflondon.gov.uk

In order to demonstrate the environmental impact of the operation has been minimised, this form must be signed by Environmental Health and presented to the Street Management Office at your authorisation appointment. This form alone does not constitute authorisation.

| | |
|--|--|
| Company Name: | |
| Contact Name: | |
| e-mail address: | |
| Telephone No/Site Contact Mobile No:- | |
| Company Address | |
| Street Name & Location (Where operation is to take place): | |
| Type Of Operation: | |
| Are any noisy operations involved? | |
| Weight of Crane: | |
| Type Of Traffic Prohibition: | |
| Date Of Street Management Services Appointment: | |

(Times Requested): (please state **TIMES** below in the relevant section)

| | |
|---|--|
| (Monday-Friday) | |
| (Saturday Only) | |
| (Sunday Only) | |
| (*Friday/Saturday-Sunday) (please also state non operational times) (*delete where necessary) | |

Authorisation Declaration (to be signed by environmental officer)

| | | |
|--|-----------------------|-------------------------|
| State Name: (of environmental officer) [see Map] | Authorised Signature: | Date: (of confirmation) |
| | | |

B STRUCTURES AUTHORISATION NOTICE

| | | | |
|---|---|------------------------------------|----|
| Are there any underground City of London or Privately owned structures? (See List for Corp of London structures). | If YES, please provide documentation that permission has been provided. | Signature of Crane Representative: | |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Yes</td> <td style="width: 50%;">No</td> </tr> </table> | | Yes | No |
| Yes | No | | |

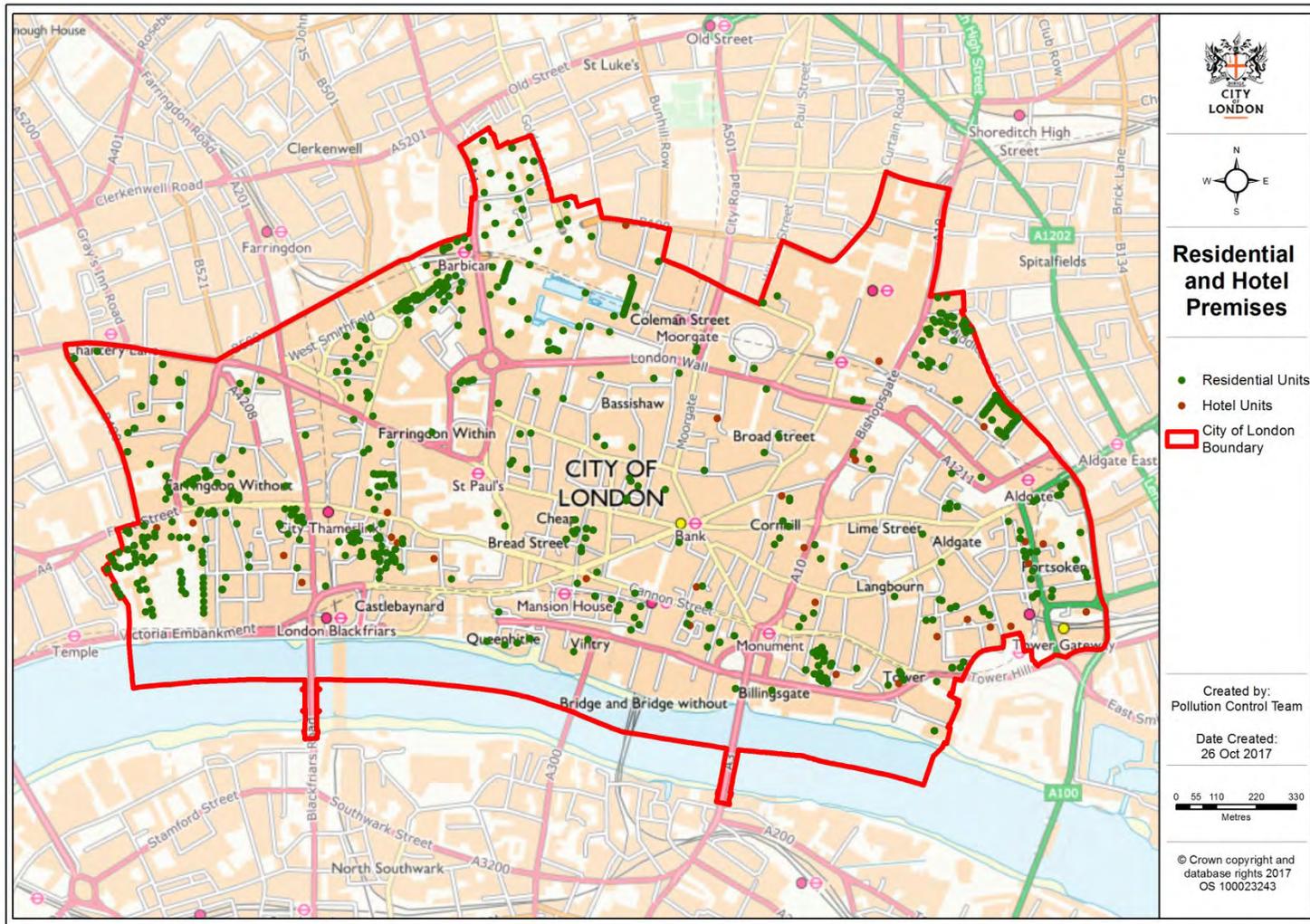
If you fail to produce this form (signed by environmental health and crane company) at your appointment, you may have to book another appointment which will delay your operation.

To be completed by Street Management Services Officer at appointment:

| | | | |
|------------------------------|--|----------------------|--|
| INDEMNITY NUMBER: | | DATES AGREED: | |
| SMS OFFICER: | | | |
| DATE: | | | |

Appendix J

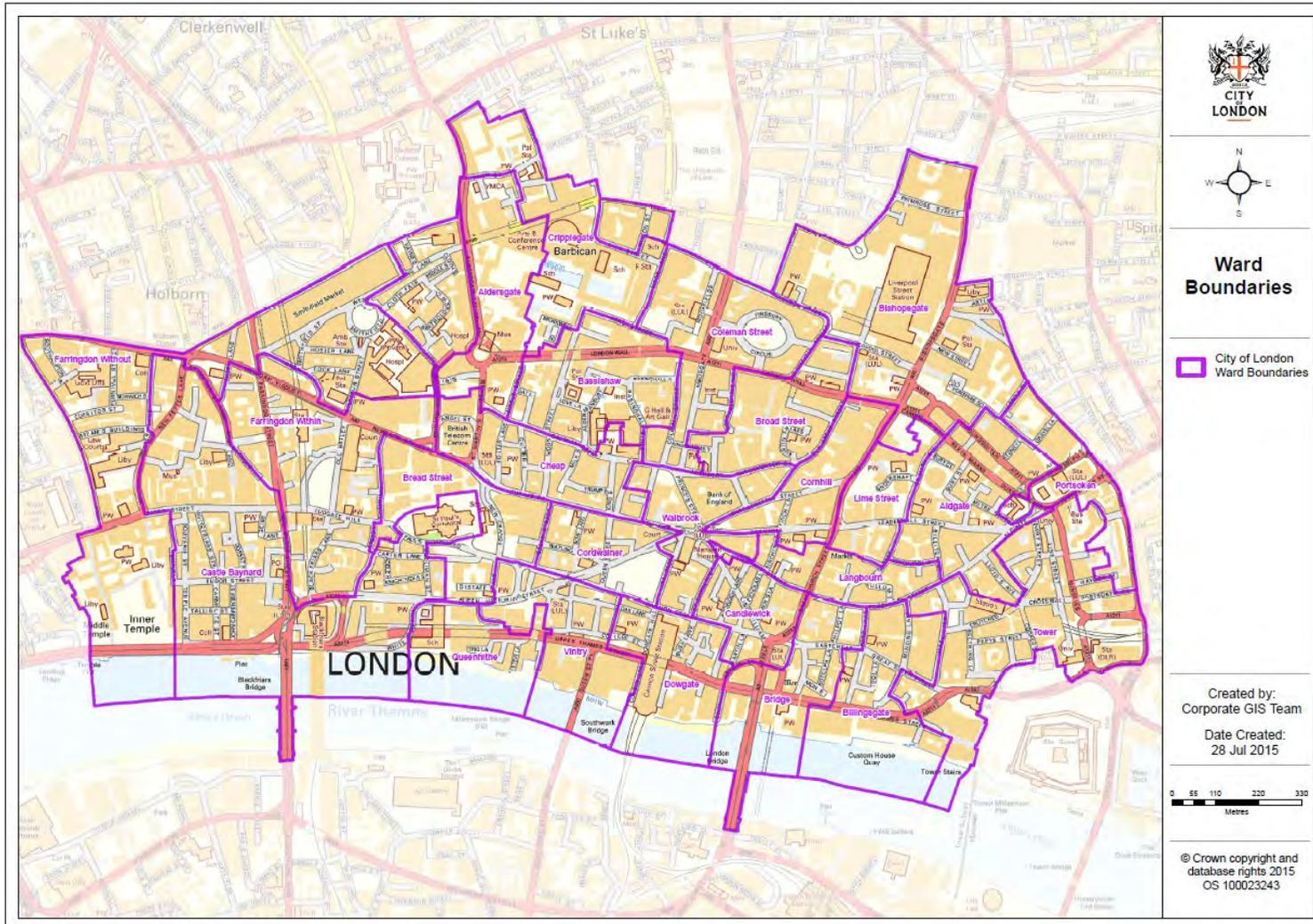
Search online to view the most up-to-date: "Planning/Property and Land Use" layers shown below <http://www.mapping.cityoflondon.gov.uk/geocortex/mapping/?viewer=compass>



Appendix K

Search online to find a ward member:

www.democracy.cityoflondon.gov.uk/mgFindMember.aspx



APPENDIX L

SITE SIZE AND MONITORING CONTRIBUTION

Size of the development

Category 1: Large scale Major Developments

- Residential - 200 or more units
- Industrial, commercial or retail floor space -10,000 square metres.

Category 2: Medium Scale Major Developments

- Residential between 10 and 199 (inclusive) units.
- For all other uses – floor space between 1,000 square metres and 9,999 square metres or where the site area is between 0.5 hectare and less than 2 hectares.

Category 3: Minor Developments

- Residential - Between 1 and 9 (inclusive) units.
- For all other uses - floor space of less than 1,000 square metres or where the site area is less than 1 hectare.

| | Services required |
|--|--|
| <p>Category 1 Site (site example: construction and or deconstruction sites)</p> | <p>Advice to applicants relating to environmental requirements e.g. full scheme of protective works including noise and dust mitigation measures. Meetings and follow up correspondence as required for first year site set up only or as phases of development progress e.g. demolition and ground works to construction.</p> |
| | <p>Review of draft scheme of protective works for first year site set up only or as phases of development progress e.g. demolition and ground works to construction.</p> |
| | <p>Site visits twice a week over the duration of the developments to assess compliance with agreed requirements.</p> |
| | <p>Complaints investigation and follow up.</p> |
| | <p>Attendance at Community Liaison events to include initial consultation and on-going events.</p> |
| | <p>Review and approval of Site Hours Variation Requests.</p> |
| | <p>Review of noise, dust and complaint monitoring data.</p> |
| | <p>Cost for Category 1 site: £53,820 for first year of project. £46,460 for each year thereafter.</p> |

| | |
|--|--|
| <p style="text-align: center;">Category 2 Site (site example: retainment of façade with internal works)</p> | Services required |
| | <p>Advice to applicants relating to environmental requirements e.g. full scheme of protective works including noise and dust mitigation measures. Meetings and follow up correspondence as required for first year site set up only or as phases of development progress e.g. demolition and ground works to construction.</p> |
| | <p>Review of draft scheme of protective works for first year site set up only or as phases of development progress e.g. demolition and ground works to construction.</p> |
| | <p>Site visits once a week over the duration of the developments to assess compliance with agreed requirements.</p> |
| | <p>Complaints investigation and follow up.</p> |
| | <p>Attendance at Community Liaison events to include initial consultation and on-going events.</p> |
| | <p>Review and approval of Site Hours Variation Requests.</p> |
| | <p>Review of noise, dust and complaint monitoring data.</p> |
| | <p>Cost for Category 2 site: £30,935 for first year of project. £25,760 for each year thereafter.</p> |
| <p style="text-align: center;">Category 3 Site (site example: involving a refurbishment only)</p> | Services required |
| | <p>Complaints investigation and follow up.</p> |
| | <p>Review and approval of Site Hours Variation Requests.</p> |
| | <p>Cost for Category 3 site: £5,060 per annum.</p> |

There will be some circumstances where the impact of the works will be very small, for example where planning permission was required because of a buildings listed status and the works are very minor. In such cases the sites will be considered “out of category” and will not be required to pay any fee. Such consideration will be on a case by case basis and such exemptions are expected to be few.