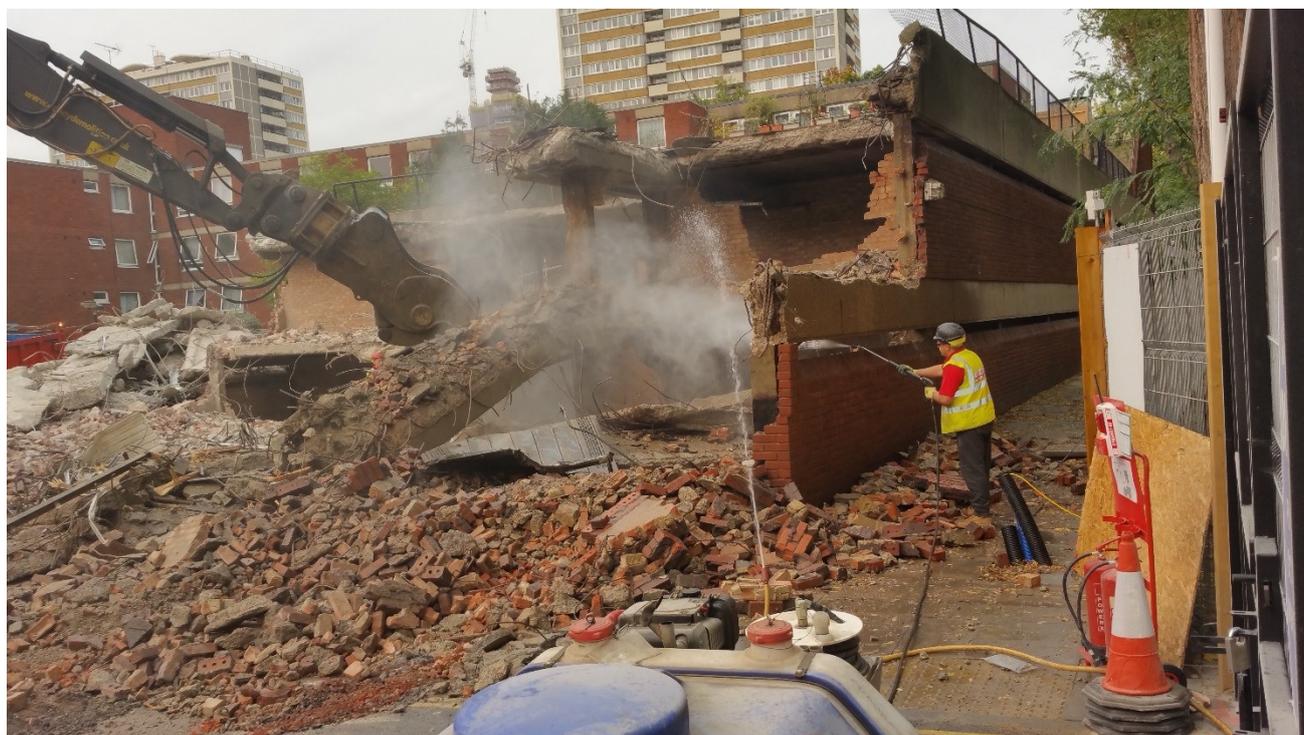


Code of Practice for Construction Sites

May 2018



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1 Introduction

- 1.1. Construction, demolition and refurbishment are key to improving our living and working environments as well as delivering economic benefits. However, construction work can be noisy, dusty and cause vibrations. We know that the surrounding neighbourhoods can be disturbed by this so the aim of this Code of Practice (CoP) is to set out minimum guidance and standards to be achieved for managing the environmental impacts from construction sites.
- 1.2. Islington is a densely populated borough. It is vital that we are able to ensure the potential negative effects of construction do not cause unnecessary disturbance to the borough's residents, visitors, students, businesses and other sensitive premises that are likely to be in close proximity to development and associated works. Consultation with the Environmental Pollution, Policy & Projects team is advised at as early a stage as possible, particularly through project planning and operation, who will be able to advise on the matters outlined in this CoP.
- 1.3. This CoP sets out our expectations of construction sites and those operating them in the borough. It promotes good communication between contractors and residents and the measures we expect to be taken to mitigate the environmental impacts on those close by.
- 1.4. This CoP applies to all types of building work including, but not limited to, demolition, site preparation, excavation, maintenance, construction and refurbishment. The relevant Council team must be contacted prior to the works commencing in these situations. Ultimate responsibility for ensuring this CoP is adhered to lies with the Principal Contractor, although the developer and other workers will likely have an interest in ensuring minimum disruption from any works.
- 1.5. Where developments are subject to the approval of Construction Management Plan, the applicant is advised to follow the guidance within this CoP and any other relevant guidance. A proforma plan document can be obtained from the Development Management team or the EPPP team.
- 1.6. Advice can be sought from Environmental Pollution, Policy & Projects team if further guidance is required. Developers and contractors are encouraged to speak to the Council, prior to works starting, to confirm how the Code will apply to their development and to discuss applying for a Prior Consent under S61 of the Control of Pollution Act 1974 where necessary.
- 1.7. Although this CoP gives an outline of legal requirements, it is not an authoritative statement of the law. Where necessary Islington Council will not hesitate to enforce statutory powers on property owners as well as developers.

2 Use & Application

- 2.1. This CoP is intended to guide developers and contractors to what best practice and standards for demolition and construction are expected in the London Borough of Islington, and discussion with the Environmental Pollution, Policy & Projects team throughout all stages of the project is encouraged. The CoP is not a formal statement of law, but it gives an outline of legal requirements that must be complied with. Enforcement action may be taken by Council officers where necessary, and a list of relevant legislation and guidance is given in Appendix A.
- 2.2. Developments that have entered into an agreement under Section 106 of the Town and Country Planning Act 1990 will be formally required to comply with this CoP, and it can be used as a basis for preparing a CoP Response Document.
- 2.3. Not all parts of this CoP will apply to all construction projects, but it is expected that all contractors apply the ethos of this document to their projects and ensure appropriate provisions are in place to protect nearby residents and businesses from any disruption. Compliance with the CoP will demonstrate a positive attitude.

3 Legal Framework

- 3.1. Where following this CoP is a condition of your planning permission, failure to do so may result in legal action being pursued. If this guidance is adhered to, there should not be a need to serve any statutory notices; however, enforcement action will be taken if necessary to ensure compliance with the law and considerate working.
- 3.2. You may wish to apply for prior consent to work on construction sites under Section 61 of the Control of Pollution Act 1974. The CoP will assist with the application and you should contact the Environmental Pollution, Policy & Projects team for advice and information, including the application forms.
- 3.3. Section 72 of the Control of Pollution Act 1974 requires that 'Best Practicable Means' (BPM) is employed at all times when controlling noise and vibration on construction sites. This means that the measures must be taken to control environmental impacts and the recommendations and good practice that is outlined in British Standard 5228-1&2:2009+2014 Code of practice for noise and vibration control on construction and open sites shall be followed. It is the responsibility of the Principal Contractor that all activities adhere to current codes of practice and environmental law.

4 Site Risk Assessment

- 4.1. One of the key measures in ensuring that adequate noise and vibration mitigation is provided is careful planning before the start of the works to ensure that appropriate mitigation is factored into the programme and cost model.
- 4.2. The London Good Practice Guide on Noise & Vibration Control for Demolition and Construction clearly sets out a method for risk assessment. This method provides an initial identification of the overall noise and vibration risk associated with the site and the proposed works. This enables early identification for developers and contractors of generic and specific noise or vibration mitigation measures likely to be required, procedures which may need to be developed and any external consents which may be required.
- 4.3. The risk assessment tool requires the developer and/or contractor to assess the site location in part A and the works information in part B as below in Tables 1 and 2 and the total in Table 3.

		Low	Medium	High
Locality / Site information	Programme Duration			
	<6 months		■	■
	6 months to 12 months	■		■
	> 12 months	■	■	
	Proximity of nearest sensitive receptors			
	>50m from the site boundary		■	■
	Between 25m and 50m	■		■
	<25m	■	■	
	Day-time Ambient Noise Level			
	High ambient noise level		■	■
	Medium ambient noise level	■		■
	Low ambient noise level	■	■	
	Working hours			
	Normal working hours only^		■	■
	Some extended evening or weekend working	■		■
	Some night-time working	■	■	
SUBTOTAL A				
Add up the number of ticks in each column				

Table 1: Site location

		Low	Medium	High
Works information	Location of works			
	Majority within existing complete building envelope			
	Majority of works external			
	External demolition			
	Limited to 2 weeks ¹			
	External demolition between 2 weeks and 3 months ¹			
	External demolition greater than 3 months ¹			
	Ground works			
	Limited to non-percussive methods (i.e. hand tools / small excavator / small backhoe)			
	Percussive methods ² less than 3 months ¹			
	Percussive methods greater than 3 months ¹			
	Piling			
	Limited to 1 week ^{1,3}			
	Bored piling only. No impact or vibratory piling			
	Impact or vibratory piling			
	Vibration generating activities			
	Limited to less than 1 week			
	Between 1 week and 1 month			
	Greater than 1 month			
	Street management			
	Required for less than 1 week / or not at all			
	Required for less than 1 month			
	Required for greater than 1 month			

¹ Total across entire programme.

² For example, breaking out using hydraulic or pneumatic breakers

³ Hydraulic jacking (or press-in piling) is considered to be acceptable for longer periods

SUBTOTAL B			
Add up the number of ticks in each column			

Table 2: Works information

	Low	Medium	High
Risk Assessment A – Locality / Site Information Carry over SUBTOTAL A			
Risk Assessment B - Works information For the highest number of ticks in SUBTOTAL B add one tick to the equivalent risk column			
TOTAL			

Table 3: Risk assessment total

- 4.4. The identified total risk category for the site is then the higher of A and B.
- 4.5. Once the risk allocation is known, the Good Practice Measures tables in Section 6 of the Guide are used to identify specific measures expected for the site. There are minimum considerations that are presented at the top of the tables that are applicable for all risk sites.
- 4.6. Developers and or contractors are advised to carry out a risk assessment following this methodology in advance of any works

5 Community Liaison

- 5.1. Ongoing communication with neighbours and local community stakeholders is the most important factor in minimising complaints and difficulties.
- 5.2. Before the commencement of work on site the developer and/or contractor must contact the London Borough of Islington Streetworks team and Environmental Pollution, Policy & Projects team to agree on the scope of works and community liaison strategy. Information that should be provided to the Environmental Pollution, Policy & Projects team include, but is not limited to, the following:
- Site and Contractor details
 - Site plans
 - Programme of proposed works
 - Duration of proposed works
 - Any neighbours which may be affected by the works including residential properties, hotels/hostels & hospitals, offices, cafes/restaurants/pubs, those affected by party wall agreements, places of worship and community centres. Also any local community groups such as residents' or local business associations. Working methods and protective measures to control noise, dust and vibration
 - Environmental monitoring regimes
 - Identification of receptors and liaison strategy
 - Site logistics plan
 - Plant and equipment to be used and level of noise they produce
 - Number of major construction sites near the proposed site
 - The existing ambient noise and dust/air quality levels
- 5.3 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 Council, are made at the beginning of the project to ensure that the joint impact from the work of all sites in the locality is kept to a minimum.
- 5.4 If local residents and businesses are warned about site activities before they take place it will often help reduce their concerns about any upcoming works. Prior to each stage of the project the developer should provide a briefing to ward members, residents, businesses and other identified affected parties. The information should include, but not be limited to, duration and nature of the project, key dates and phasing, and contact details for the site should be given out prior to commencement.
- 5.5 A dedicated member of staff should be appointed to liaise with the Council, local residents, businesses and other affected parties. The contractor should, during the liaison process,

obtain details of any vulnerable persons, people who work at home during the hours of the proposed work, or details of any special occasions from occupiers of neighbouring premises, as this may influence schedules for noisy or dusty works. The newsletter should contain information about current progress and forthcoming works, with contact details for the site. It is also advised that regular meetings are arranged with the local community so that any concerns they may have can be raised in person. The member of staff should be available at all times while the site is in use to provide a first line of response to any complaints and inform the Environmental Pollution, Policy & Projects team should these occur. The contractor must maintain a designated complaints register, noting the nature of the complaint, time & date, cause of the complaint and action taken.

- 5.6 The developer shall arrange for monthly communication (or otherwise agreed) with neighbours and other interested parties by newsletter to inform them about site progress and upcoming works. This shall include:
- 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;
 - the anticipated effects of the planned works;
 - proposed mitigation measures;
 - contact details for enquiries; and
 - complaints procedure.
- 5.7 A notice board should be maintained outside of the site, e.g. on hoardings, identifying key personnel. This should include company details, contact addresses and names and telephone numbers for whom to contact in the event of an emergency and for any enquiries from the public. The board should also give up-to-date information on the site programme and progress.
- 5.8 Other interested parties, such as nearby demolition or construction sites or streetworks, should be identified and the Environmental Pollution, Policy & Projects team must be made aware of these. The Council must be informed in advance when any unusual works are intended to take place. This includes any out-of-hours works for which permission must be sought from the Environmental Pollution, Policy & Projects team at least 7 days before the activity is due to take place. If permission is granted the community and affected parties must be forewarned.

6 Hours of Work

Sites will be allowed to carry out noisy work between the hours of:

0800 – 1800 Monday to Friday

0800 – 1300 Saturday

Noisy works must NOT take place outside of these hours without prior permission (including Sundays and Bank Holidays).

As far as is reasonably practicable you must keep to these hours.

- 6.1. The core working hours detailed above must be adhered to by all staff on site when carrying out any works anticipated to cause a disturbance. If, in the case of an emergency, works need to be undertaken outside of these times the Council must be informed as soon as possible.
- 6.2. When applying for prior permission to work out-of-hours the details about why it cannot be done during normal hours must be provided. Predicted noise levels at any sensitive premises, such as residential properties, hospitals, schools or businesses, should be supplied as well as what measures will be taken to reduce noise levels. The permission will only be granted in exceptional circumstances, and approval will be conditional on the contractor notifying nearby residents and businesses in advance of the proposed work and adopting mitigation measures to reduce the impact of the works.
- 6.3. Where it is the opinion of the Environmental Pollution, Policy & Projects team that works causing structurally transmitted noise will affect neighbours, the hours for these works must be negotiated with the Environmental Pollution, Policy & Projects team and all affected parties. For more information about noise and vibration see below.
- 6.4. With sites in close proximity to offices, restaurants and other commercial space which may seek a quiet environment at certain times during the day, it is vital to have close liaison and effective communication of the work schedule. In many cases, it will be advisable to negotiate “quiet” periods, where noisy works such as saw cutting and breaking out are avoided in agreement with nearby businesses. Typical quiet periods are:

1000 – 1200 & 1400 – 1600 Monday to Friday

These periods may be subject to variation in particular circumstances, such as during lunchtimes adjacent to cafes and restaurants or businesses where the majority of trade is carried out at lunchtimes. Sites in close proximity to the Emirates Stadium or tube stations serving the Stadium should liaise with the stadium management team on match day access.

7 Considerate Constructors Scheme

- 7.1. We do not have our own borough considerate constructors scheme but we encourage all contractors to take part in the national scheme. It is designed to encourage best practice beyond statutory requirements and looks at areas of construction activity that may have an impact on the image of the industry: general public, the workforce and the environment. For information on the scheme and how to apply go to www.ccsscheme.org.uk.

8 Noise & Vibration

- 8.1. Islington is a densely populated borough, often with a mix of businesses, residents and noise-sensitive premises (e.g. schools) within close proximity to each other. As a result, development across the borough can have significant environmental impacts and measures must be taken to reduce the effects where practicable.
- 8.2. One of the key measures in ensuring that adequate noise and vibration mitigation is provided is careful planning before the start of the works to ensure that appropriate mitigation is factored into the programme and cost model. Noise control mitigation should look at first the source, then the noise transmission pathway and then the receiver.
- 8.3. The London Good Practice Guide on Noise & Vibration Control for Demolition and Construction clearly sets out a method for risk assessment set out here in Section 4. This method provides an initial identification of the overall noise and vibration risk associated with the site and the proposed works. This enables early identification for developers and contractors of generic and specific noise or vibration mitigation measures likely to be required, procedures which may need to be developed and any external consents which may be required. Developers and or contractors are advised to carry out a risk assessment following this methodology in advance of any works.
- 8.4. Once the risk allocation is known, the Good Practice Measures tables in Section 6 of the Guide are used to identify specific measures expected for the site and are reproduced here below (Tables 4-11). There are minimum considerations that are presented at the top of the tables that are applicable for all risk sites.

General Considerations

General considerations are measures which apply to all sites, to be considered when planning the site, prior to commencement of works or those which are not identified by the other categories.

Mitigation for all Risk Sites

Designated site-based staff shall have the authority to take the steps necessary on behalf of the contractor(s) to ensure noise and vibration is adequately controlled and managed, according to the circumstances associated with each worksite.

At the commencement of their appointment on a project (or prior to start of works on site), all site staff are to be briefed on their responsibilities to the application of BPM to minimise construction noise and vibration and the content of any planning consents, codes of construction or other legal agreements. The performance of the training should then be regularly reviewed and repeated throughout the construction programme as appropriate.

Site hoarding to be built and maintained to maximise the reduction in noise levels to sensitive buildings and land uses.

Display contact details of contractor and responsible site manager as well as working hours and other site information on the hoarding.

Locate the site access away from noise sensitive receptors.

Keep internal haul routes well maintained and avoid steep gradients.

Limit material and plant loading and unloading to normal working hours.

Reduce loading / unloading heights for muck away and material movement to mitigate impact noise.

Handle all material in a manner that minimises noise.

Join the Considerate Constructors Scheme for the site (see Appendix 6 for further information).

Consult the respective Borough's Code of Construction Practice / Technical Guidance.

Mitigation Measures to be Considered	Low Risk	Medium Risk	High Risk
Submit a Section 61 consent application to the local authority (see Appendix 2) ⁴ .	◇	○	●
Adhere to 'quiet hours' as agreed and/or adopted by the local authority.	○	○	●
Maximise the screening effect of buildings and temporary stockpiles through programming / phasing of works.	◇	○	●

⁴ For low risk sites (refer to 'risk assessment approach' on page 6 for a definition) a formal Section 61 consent application would not typically be necessary, but the contractor can submit details to the local authority (see Appendix 1 for details).

Use rubber linings in chutes, dumpers and hoppers to reduce impact noise.	○	●	●
Minimise opening and closing of site access gates through good coordination of deliveries and vehicle movements.	○	●	●
See Vehicle Activity for additional good practice with regards to the transportation of material.	○	●	●

● **Highly Recommended** ○ **Desirable** ◇ **Not applicable**

Table 4: General considerations

Plant

Construction plant and equipment, in one form or another, will be used on a construction site throughout the duration of a project. They are a source of noise and vibration and can disturb local residents and users of other receptors and form the basis of a large proportion of complaints received by a local authority.

It is important that the appropriate plant and equipment for the task is selected and the correct procedures are followed to ensure the plant is used at its most effective and efficient.

Mitigation for All Risk Sites

Ensure that each item of plant and equipment complies with the noise limits quoted in the relevant European Commission Directive 2000/14/EC, United Kingdom Statutory Instrument (SI) 2001/1701.

Fit all plant and equipment with appropriate mufflers or silencers of the type recommended by the manufacturer.

Follow manufacturer's guidance and measures to operate plant and equipment and use it in a manner which minimises noise.

Use all plant and equipment only for tasks for which it has been designed for.

Shut down all plant and equipment in intermittent use in the intervening periods between works or throttle it down to a minimum.

Mitigation Measures to be Considered	Low Risk	Medium Risk	High Risk
If possible power all plant and equipment by mains electricity or other quieter technology rather than locally powered sources such as generators.	○	●	●
Maximise screening from existing features / structures, or employ the use of full or partial enclosures for fixed plant. The enclosures should be well maintained. Fixed plant can include generators, compressors, pumps, batching plant and ventilation plant.	○	●	●
Locate and orientate fixed or semi-static plant away from noise sensitive receptors.	○	●	●
Consider additional measures to control noise for any plant required to operate on a 24 hour basis; for example, dewatering pumps or generators used to power site security.	○	●	●
Vibratory compaction equipment shall be used in a mode which minimises the incident vibration at nearby residential and other sensitive properties. Consideration should be given to engaging concentric weights only when running at speed to avoid run up, run down resonances, the use of smaller equipment, or turning off the mechanical vibration on vibratory rollers and undertaking more	○	●	●

passes for areas where there is a particular risk that disruption may occur at neighbouring properties.

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● **Highly Recommended**

○ **Desirable**

◇ **Not applicable**

Table 5: Plant

Vehicle Activity

Material deliveries and removals are major noise sources that can have an impact on receptors both close to and at a distance away from a construction site.

Measures to minimise this impact should be considered as early as possible in the planning stage of a project, so site layout and logistical plans can be developed accordingly. Measures are especially necessary for sites close to schools or where a number of construction sites are operating within close proximity to each other.

Mitigation for all Risk Sites

Ensure all vehicle movements occur within normal hours or at agreed times, taking into account the primary function of sensitive receptors in the vicinity (i.e. avoiding school drop-off/pick-up periods).

Maximise the reuse of any waste arising on site to minimise vehicle movements.

Plan deliveries and vehicle movements so that vehicles are not waiting or queuing on the public highway. If waiting or queuing is unavoidable then engines should be turned off.

Minimise opening and closing of site access through good coordination of deliveries and vehicle movements.

Mitigation Measures to be Considered	Low Risk	Medium Risk	High Risk
Plan site layout to ensure that reversing is kept to a practicable minimum, and where practicable eliminated altogether.	○	○	●
Where reversing is required, use broadband reverse sirens / alarms or, where it is safe to do so, disengage all sirens and alarms and use banks-men.	○	○	●
Produce a robust Construction Traffic Management Plan which may also be required by the Local Planning Authority to plan, manage and minimise vehicle movements. Avoid unnecessary impact on sensitive receptors, traffic diversions via other sensitive areas or bottlenecks (see TfL guidance ⁵).	○	●	●
Consider potential accumulation of traffic from other local construction sites and plan delivery routes and times to avoid congestion.	○	●	●
Rubber/ Neoprene (or similar non- metal lining material) matting to line the inside of material transportation vehicles so as to avoid the 'first drop' high noise levels.	◇	○	●
Where site space is limited and volume of vehicles attending site is high, seek vehicle holding bay(s) to use with 'Just in time' delivery management systems ⁶ .	◇	○	●

⁵ Construction Logistics Plan Guidance for Developer

<http://www.tfl.gov.uk/cdn/static/cms/documents/construction-logistics-plan-guidance-for-developers.pdf>

⁶ Consult with Highways Department at the local council for possible locations.

Space planning for stockpiling of material (over weekends and, evening and nights) within the site to allow removal during normal working hours only.	◇	○	●
Consider alternative means of transport, e.g. river and rail.	◇	○	●

Table 6: Vehicle activity

Demolition⁷ Phase

Demolition has the potential to cause the most disruption to a neighbouring receptor. Modern non-percussive demolition techniques need to be considered wherever practicable to limit its noise and vibration impact. Where these methods are not possible, due to site or other constraints⁸, then measures to minimise the amount and intensity of percussive breaking on site should be given priority.

Percussive demolition methods have been used for years to dismantle buildings and break up the resulting concrete and brickwork. These methods can be particularly intrusive and can have a major impact on the local environment with only limited noise mitigation measures available.

Mitigation for all Risk Sites

Employ the use of acoustic screening; this can include planning the demolition sequence to utilise screening afforded by buildings to be demolished.

Mitigation Measures to be Considered	Low Risk	Medium Risk	High Risk
If working out of hours on safety grounds, limit high noise/vibration demolition activities to normal hours wherever practicable.	○	○	●
Avoid demolition activities outside of normal working hours through the use of temporary measures, such as safety / protection fences, to enable works to be conducted during normal working hours.	○	○	●
Utilise low impact demolition methods such as non – percussive plant wherever practicable ⁹ .	◇	●	●
Use rotary drills and “bursters” activated by hydraulic or electrical power, or chemically based expansion compounds, to facilitate fragmentation and excavation of hard material.	◇	○	●
Avoid the transfer of noise and vibration from demolition activities to adjoining occupied buildings through cutting any vibration transmission path or by structural separation of buildings.	◇	○	●
Rather than breaking in-situ, consider the removal of larger sections by lifting them out and breaking them down either in an area away from sensitive receptors or off-site.	◇	○	●

● **Highly Recommended** ○ **Desirable** ◇ **Not applicable**

Table 7: Demolition phase

⁷ Including removal of temporary structures

⁸ Including cost

⁹ Lower noise impact demolition or mitigation measures may include pulverisers (munchers), saws and rotary drills and “busters” activated by hydraulic or electrical power and hydraulic cracking or splitting.

Ground Works and Piling Phase

There are many non-percussive methods available on the market for breaking-out and piling that make percussive methods obsolete in many cases and these should take priority when works are in the planning stage.

Percussive piling methods can create both intrusive noise and vibration at local receptors and can continue for a long period of time, depending on the size of the new development. Where percussive methods are used measures within the Good Practice Table will help mitigate noise and vibration impacts.

Mitigation for all risk sites

Avoid percussive piling wherever possible.

Mitigation Measures to be considered	Low Risk	Medium Risk	High Risk
If working outside of normal hours on safety grounds, limit major excavation works to normal working hours.	○	○	●
Adopt the following hierarchy of groundwork / piling methods, in order of preference to minimise the impact of piling, if ground conditions, design and safety allows: <ul style="list-style-type: none"> • Pressed-in methods, e.g. Hydraulic jacking • Auger / bored piling • Diaphragm Walling • Vibratory piling or vibro-replacement • Driven piling or dynamic consolidation 	○	●	●
Consider the location and layout of the piling plant for efficient operation and potential noise control of generators and any electric or hydraulic motors used by plant.	○	●	●
Where impact piling is the only option, utilise a non-metallic dolly between the hammer and driving helmet, or enclose the hammer and helmet within an acoustic shroud.	○	●	●
Consider concrete pour sizes and pump locations. Plan the start of concrete pours as early as possible within normal working hours to avoid overruns.	○	●	●
Where obstructions are encountered stop works and review approach; adopt work methods that minimise noise and vibration.	○	●	●
When using an auger (for bored piling), rather than dislodging material from the auger by rotating the drill back and forth quickly, use alternate methods where safe to do so. For example, some piling rigs are equipped with metal brush to remove spoil as the auger is taken out of ground.	○	○	○

Prepare pile caps using methods / procedures which minimise the use of breakers, e.g. using hydraulic splitters to crack the top of the pile.	○	●	●
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● **Highly Recommended** ○ **Desirable** ◇ **Not applicable**

Table 8: Ground works and piling phase

Construction Phase

During the construction phase many of the problems can be minimised or even removed by careful planning and organisation of the site.

As the height of the building structure increases receptors further away from the site can potentially become more exposed to noise due to removal of shielding effects of neighbouring buildings.

Each site and building method will offer its own opportunities to reduce its impact on local receptors.

Mitigation for all Risk Sites

When working within a building ensure all openings (e.g. windows and doors) are closed or sealed up.

Plan the site layout to maximise screening from existing features / structures.

Mitigation Measures to be Considered	Low Risk	Medium Risk	High Risk
Use prefabricated building structures or elements to minimise noise on site.	◇	○	●
Where on-site fabrication is unavoidable, all high noise level works should be carried out within normal hours.	◇	○	●
Consider concrete pour sizes and plan the start of concrete pours as early as possible within normal working hours to avoid overruns. Confirm site cut off time for latest possible pour start.	○	●	●
Where practicable consider using an on- site, noise attenuated, concrete batching plant to minimise overruns and disturbance from queuing delivery wagons from off-site and remote facilities.	◇	○	●
Obtain and agree a protocol with concrete suppliers and sub-contractor with measures to ensure that as far as practicable overruns on concrete pours do not occur.	○	●	●
Use plasma cutting for steel cutting operations.	○	●	●

Table 9: Construction phase

Monitoring

Monitoring may include either physical measurement or observational on-site monitoring. Noise and vibration monitoring is the most obvious way of demonstrating to a local authority that you are complying with the noise and vibration levels presented within any agreements (see Appendix 2 for Section 61 example) and works are being carried out in accordance with the British Standard BS5228.

Any monitoring regime should be agreed with the local authority prior to being implemented to avoid unnecessary costs. Any personnel undertaking noise and vibration monitoring shall be able to demonstrate their competency for the task. Any monitoring undertaken should be readily available for the local authority to review upon request.

Mitigation for all Risk Sites

Establish pre-existing levels of ambient noise.

Carry out attended noise monitoring at the start of any new phase of works, to check source sound emission data from plant on-site and following any complaints.

Carry out regular on site observation monitoring and checks/ audits to ensure that BPM is being employed at all times. Such checks should include:

- Hours of working
- Presence of mitigation measures, equipment (engine doors closed, airlines not leaking, etc.) and screening (location and condition of local screening, etc.)
- Number and type of plant
- Construction method, and
- Where applicable, any specific Section 61 consent conditions.

The site reviews should be logged and any remedial actions recorded.

Mitigation Measures to be Considered	Low Risk	Medium Risk	High Risk
Monitor noise continuously during demolition, piling, excavation and sub- and superstructure works at agreed locations and report to the local authority at agreed intervals.	◇	○	●
Monitor vibration continuously during demolition, piling, excavation and sub-structure works at agreed locations and report to the local authority at agreed intervals.	◇	○	●
Appraise and review working methods, procedures and logistics on a regular basis to ensure continuous development of BPM.	◇	○	●
Establish level trigger alerts in agreement with the local authority and guided by BS5228. Monitor noise and vibration to trigger text alerts; where levels exceed the triggers then inform the local authority, review work practices and agree additional mitigation measures with the local authority.	◇	○	●
Use monitoring equipment with web access capabilities to view and inspect real time measurement and/or audio data.	◇	○	●

Table 10: Monitoring

Communication and Liaison

It is important that good relations are built with people living and working within the vicinity of the worksite.

The developer or contractor should communicate with neighbours on all planned works, especially for periods outside of normal working hours, where agreed. Methods of communication, as a minimum would involve letter drops prior to and during works. Other forms of communication could include newsletters, meetings which residents or community groups can attend, notice boards, websites or social media, depending on the size of the project.

All correspondence to be sent to residents or other neighbouring receptors should be forwarded to the local authority prior to its distribution, ideally for comment. The local authority can also provide guidance on the area to be included within the letter drops.

Mitigation for all Risk Sites

Develop a Community Liaison Plan. Develop a Complaint Procedure (see Appendix 6) with timescales for responses and a nominated liaison person to engage with residents and to handle complaints. These should be agreed with the local authority.

Display contact details for the site manager and liaison officer prominently on the site hoarding.

Brief all site staff regarding the complaints procedure and mitigation requirements and their responsibilities to register and escalate complaints received.

Mitigation Measures to be Considered	Low Risk	Medium Risk	High Risk
Send regular updates at appropriate intervals to all identified affected neighbours via newsletter and posting information on the site hoarding. Also make information available via email when requested.	◇	○	●
Develop and maintain a website to provide information about the project and to receive feedback.	◇	○	●
Arrange regular community liaison meetings at appropriate intervals including prior to commencement of project. Respond to issues raised and report back to attendees.	◇	○	●
Arrange meetings and communicate on a regular basis with neighbouring construction sites to ensure activities are coordinated to minimise any potential cumulative issues.	◇	○	●
Advise neighbours about reasons for and duration of any permitted works outside of normal working hours.	○	●	●
Arrange meetings and communicate on a regular basis with the local authority to monitor the progress of the works and to	◇	○	●

consider any concerns or complaints raised by the local community.			
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● **Highly Recommended** ○ **Desirable** ◇ **Not applicable**

Table 11: Communication and liaison

- 8.5. All works must be carried out using Best Practicable Means (BPM) as defined in section 72 of Control of Pollution Act 1974, and in accordance with BS 5228-1&2:2009+A1:2014. Appropriate methods for controlling noise and vibration, and managing the impacts on surrounding neighbours, must be applied at all times, where reasonably practicable.
- 8.6. Where control at the source is not adequate, further control measures should be considered such as:
 - Preparation of materials, particularly involving noisy operations such as cutting or drilling, must be undertaken off-site, where practicable.
 - For major projects, where noise levels are predicted to exceed the noise insulation/temporary rehousing trigger levels for the periods set in Table E.2 of Annex E of BS5228:2009+A1:2014 then noise insulation/temporary rehousing or the reasonable costs thereof shall be offered by the developer to the affected owners/occupiers.
- 8.7. Any works undertaken on site that may result in the transmission of noise or vibration to neighbouring premises should be notified to the Environmental Pollution, Policy & Projects team. Advance negotiation will need to be made with all affected parties and the Environmental Pollution, Policy & Projects team will advise if there should be any time restrictions, such as quiet periods, to these works. This will be made on a site-by-site basis and will depend on individual factors to the location.
- 8.8. Any agreements made under the Party Wall etc. Act 1996 are not enforced by the Environmental Pollution, Policy & Projects team but notification of such agreements and works to any boundaries will need to be given to the Environmental Pollution, Policy & Projects team and time restrictions for noisy work may be required. This may have an impact on costs and timings of schedules. It is advised that even where Party Wall agreements are not in place, if works are likely to affect neighbouring properties, then condition surveys may need to be carried out prior to works starting and suitable monitoring regimes should be considered (see the Monitoring Regimes section below).
- 8.9. Where there are believed to be sensitive properties near to a development, such as of known historical interest, or that may have structural problems, it is advised that contact is made with the owners prior to works starting. This is to look at the feasibility of condition surveys in the event of vibration complaints where party wall agreements are not in place. Much of Islington’s historic residential and commercial property is likely to be sensitive to vibration, particularly if built directly onto London Clay with varying foundation conditions. Guidance relating to the potential effect of vibration on the operation of computers, and other sensitive equipment, can be found in BS 5228-2:2009+A1:2014.

9 Monitoring Regimes

- 9.1. Contractors and developers shall follow the risk assessment approach of the London Good Practice Guide for Noise & Vibration Control for Demolition and Construction and employ monitoring regimes in accordance with this. Contractors are encouraged to undertake monitoring for noise, vibration and dust where there are receptors nearby that are likely to be affected by these issues. Particular phases of the works that are known to cause noise, vibration or dust should be identified for targeted monitoring, and results used to identify problems as early as possible and to evaluate complaints.
- 9.2. The contractor is responsible for responding to complaints within an appropriate time frame and should provide details of remedial action the contractor is going to take. Regular meetings should take place between the contractor and the Council's Construction Impact Monitoring Officer to monitor the progress of the works and to resolve or discuss any complaints received or issues raised by neighbouring occupiers.
- 9.3. In some instances, continuous monitoring with SMS or email alarm systems may be required to be set up. In these circumstances, the contractors will be expected to respond immediately to any exceedances of trigger levels, including the implementation of suitable control measures where necessary. The trigger level values (and a set procedure for actions following any breaches of the trigger levels) should be agreed with the Environmental Pollution, Projects and Policy team prior to the commencement of the monitoring.
- 9.4. Prior to undertaking any work, it is recommended that ambient noise levels around the site are measured, particularly at locations where there are sensitive receptors. This can be used to make direct comparisons between the baseline levels and noise levels during the works and the Environmental Pollution, Policy & Projects team may use this to set noise limits that trigger actions on site. As a general rule, it is expected that if noise levels from the site are more than 10 dB(A) above the background levels there will be significant effects and measures must be taken to reduce the noise.
- 9.5. Noise measurements should be made ideally using a calibrated Class 1 Integrating Logging Sound Level Meter, as detailed in BS 5228-1:2009+A1:2014, and calibration should take place before and after measurements using a Class 1 Acoustic Calibrator. L_{Aeq} , L_{AFmax} and L_{A90} noise levels should be recorded (as a minimum) together with a record of any events that may affect the noise levels in that period.
- 9.6. The threshold for human perception of vibration can be as low as 0.3 mm/s peak particle velocity (PPV), and it is expected that complaints are likely to be received when levels of 1 mm/s are experienced, but this may be tolerated given prior notification. Premises likely to be sensitive to vibration should be identified prior to works starting. We recommend vibration levels on site are set at:
 - 1 mm/s for nearby occupied residential and educational buildings, hospitals and laboratories
 - 3mm/s for occupied commercial premises where the activities are not of a vibration sensitive nature or potentially vulnerable unoccupied buildings
 - 5 mm/s for other unoccupied buildings

If these levels are breached for extended periods of time, working methods will need to be reviewed and control measures put in place.

- 9.7. Vibration measurements should be made so that ideally 3 orthogonal Peak Particle Velocity values are recorded for a minimum of 15 minute durations of 10 second or shorter samples. If complaints are received it is recommended that monitoring at neighbouring premises is considered.
- 9.8. Air quality monitoring may be required on large sites adjacent to sensitive premises, such as schools and residential. This may include assessing for dust nuisance and also real-time monitoring of particulate matter (PM): PM_{2.5} and PM₁₀. An initial threshold value for PM₁₀ is usually set at 150µg/m³ over a 15-minute period. However, the threshold values and type and location of any monitoring equipment depend on local conditions and the baseline and should be agreed with the Environmental Pollution, Policy & Projects team in advance. Developers should refer to Section 11 of this document and the GLA's "Control of Dust and Emissions for Construction and Demolition" SPG for guidance on monitoring requirements.

10 Section 60 & 61 Notices

- 10.1. Compliance with this CoP will generally demonstrate compliance with the London Borough of Islington's requirements under Section 60 of the Control of Pollution Act 1974. If complaints about excessive noise and vibration disturbance are justified the Council may serve a Section 60 notice. This notice can apply controls regarding plant or machinery used, hours of work and noise and vibration.
- 10.2. The contractor can apply in advance for prior consent for works in the form of a Section 61 notice, where information needs to be submitted regarding working hours, working methods and full plant list, noise control measures, monitoring, community liaison and predicted noise levels of the works before consent is granted. Contact the Environmental Pollution, Policy & Projects team for further information. The contractor should submit a Section 61 consent application for approval at least 28 days prior to the commencement of construction. It is recommended that a draft S61 is submitted to the Environmental Pollution, Policy & Projects team in the first instance at least one months prior to this.
- 10.3. Contraventions of Section 60 or 61 notices may result in legal proceedings, leading to further costs and delays for the contractor.

11 Air Quality & Dust

- 11.1. Local Authorities are required to work towards achieving national air quality objectives under Part IV of the Environment Act 1995 and as part of the Government's Air Quality Strategy. London has some of the worst air quality in the UK and the entire of the London Borough of Islington has been declared an Air Quality Management Area, which means the Council must implement measures to try to improve the air quality in the borough. Demolition and construction activities can detrimentally affect the air quality in the area, and impacts may include odour, dust deposition, visible dust plumes, increase in levels of particulates from dust generating activities and increase in levels of particulates (PM) and nitrogen dioxide (NO₂) from exhaust emissions.
- 11.2. It is expected that all site operators take appropriate measures to control pollution and dust from sites and meet the highest possible standards for this. The Control of Dust and Emissions during Construction and Demolition SPG (www.london.gov.uk/what-we-do/planning/implementing-london-plan/supplementary-planning-guidance/control-dust-and) has been published and it is expected that all developments comply with this planning guidance as a minimum. This includes standards for non-road mobile machinery (NRMM) in London being implemented in 2015 and 2020 based on engine emissions standards. Compliance with the SPG, and this CoP, will also assist developers in ensuring any dust generated does not cause a statutory nuisance, which is an offence under Section 79 of The Environmental Protection Act 1990. The IAQM's 'Guidance on the Assessment of Dust from Demolition and Construction' also provides useful guidance on impacts. The full document is available from their website <http://iaqm.co.uk>.
- 11.3. The risk of dust emissions causing detrimental impacts is dependent on:
- The activities being undertaken (including number and types of vehicles and plant etc.).
 - The duration of the activities.
 - The size of the site.
 - The meteorological and local conditions, such as topography.
 - The proximity of receptors.
 - The adequacy of mitigation measures and existing levels of background pollution.
 - The sensitivity of receptors.
- 11.4. The activities on construction sites should be assessed according to four activities: demolition, earthworks, construction and track-out. The assessment methodology considers annoyance, health effects and ecological effects, and the activities should be assessed to determine site-specific mitigation for each. Examples of mitigation measures include:
- **Communication strategy**, including community engagement and display of contact details for the site.
 - **Site management**, including recording dust complaints, undertaking air quality monitoring where practical, and taking appropriate measures to reduce emissions in a

timely manner.

- **Monitoring**, including on- and off-site inspections and real-time monitoring where practical.
- **Preparing and maintaining the site**, including cleaning schedules using wet methods, wheel washing facilities, site layout to locate dust-causing activities and plant away from receptors, covering skips and using screens where suitable.
- **Operating vehicle/machinery and sustainable travel**, including switching vehicles and machinery off when not in use, avoiding the use of diesel generators, using electric machinery on mains power where possible, covering of vehicle loads, and compliance with the London Low Emission Zone.
- **Operations**, including adopting suitable dust suppression techniques, using lined rubble chutes, minimising drop heights, avoiding cutting, sawing or grinding materials on site where possible, using dust extraction methods, and the use of tower cranes to reduce vehicle movements.
- **Waste management**, including no bonfires or burning of waste materials on site under any circumstances.

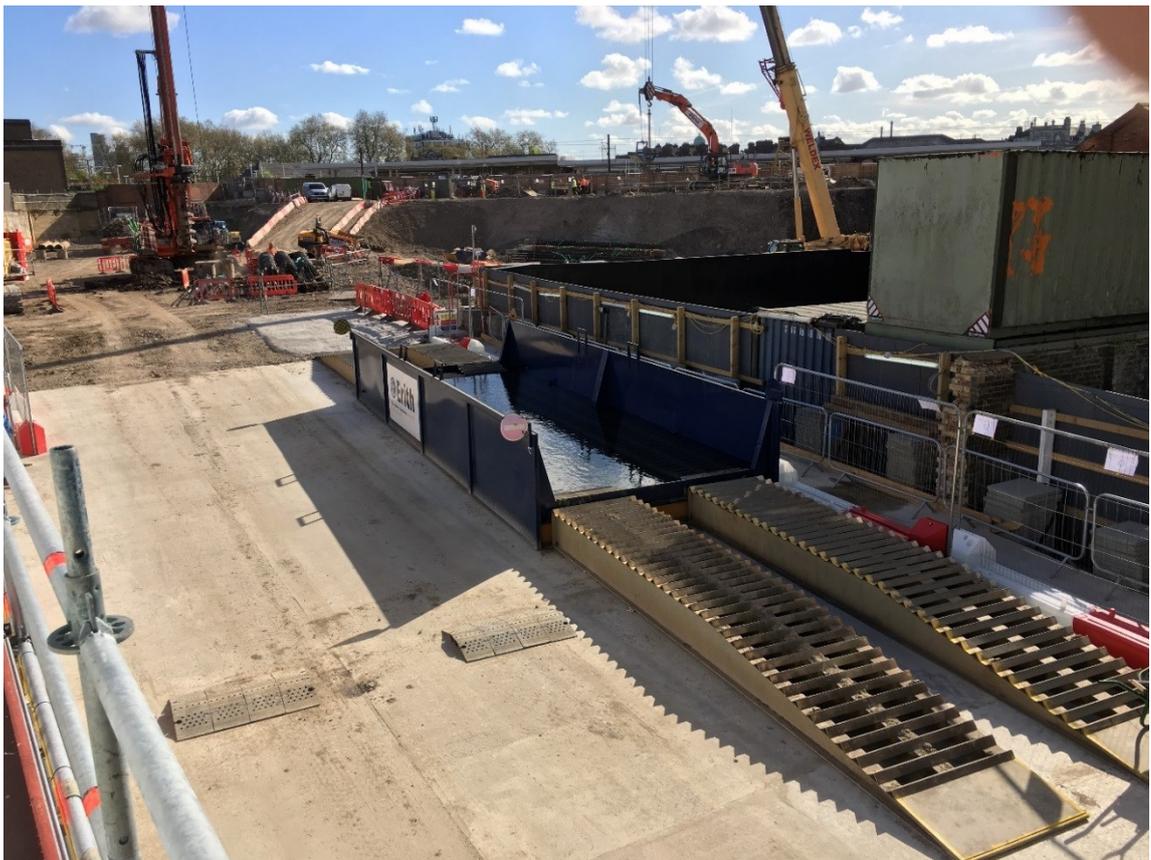


Figure 1: Example of a drive through wheel washing facility

- 11.5. Non Road Mobile Machinery on construction contributed an estimated 7% of NO_x emissions in the London Atmospheric Emissions Inventory in 2013. In line with the SPG, contractors shall sign up to the Non-Road Mobile Machinery register (<http://nrmm.london/>). They shall keep an inventory of all NRMM on-site, stating the emission limits for all

equipment, with photos of machinery and a compliance reference. All machinery should be regularly serviced and service logs kept on-site for inspection. This documentation should be made available to the Environmental Pollution, Policy & Projects team as required. Contractors should clearly label machinery confirming compliance with the Euro IIIA & IIIB standards (see Appendix B for example labels).

- 11.6. An Air Quality and Dust Management Plan should be submitted to the Council prior to works commencing on site. This must outline what works will be carried out, including the site layout and details of dust-causing activities, and what measures will be taken to control the impacts of demolition, earthworks, construction and track-out activities on air quality. This should cover the work of all contractors and any subcontractors on site. Staff should be trained on the site's pollution control policy and for large developments, a named individual responsible for implementing any control measures should be notified to the Council.
- 11.7. For sites with potentially asbestos-containing materials, a separate management plan will need to be produced by a specialist licensed asbestos removal contractor. Any concerns about asbestos removal on construction sites should be raised with the Health and Safety Executive, who are responsible for enforcing health and safety matters on demolition and construction sites.
- 11.8. Diesel generators give rise to nitrogen dioxide and particulate matter emissions. The use of diesel 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 to avoid delays with utilities work. UK Power Networks have information and the relevant application form on their website (see <https://www.ukpowernetworks.co.uk/electricity/temporary-connection>). Alternative technologies, such as solar, gas and hybrid are also available and should be used wherever feasible. Controls must be in place for generator running times to ensure they are shut down when not in use. Where all options have been explored and discounted, developers should look at abatement technology such as selective catalytic reduction systems and diesel particulate filters to reduce emissions.
- 11.9. 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*.
- 11.10. Dust exposure and the occupational health impacts for site operatives must be considered. The Breathe Freely website provides a construction manager's toolkit to manage risks and health hazards onsite (www.breathefreely.org.uk/construction-manager-s-toolkit.html#toolboxtalks). IOSH's "No Time to Lose" campaign also has guidance and site education resources to engage and inform the workforce available to download (<http://www.notimetolose.org.uk/Free-resources/Resource-library/Pack-1-Diesel.aspx>)

12 Concrete Crushers

- 12.1. The use of concrete crushers in Islington is generally discouraged unless the crusher is being used to prepare material for piling mats, or the material is being reused on site. This is because recycling such material reduces the number of vehicle movements associated with the site.
- 12.2. Any plant or machinery to be used for the crushing of concrete or other materials is subject to the Environmental Permitting Regime under the Pollution Prevention and Control Act 1999. The local authority where the crusher company is registered will issue an Environmental Permit. It is the responsibility of the contractor to ensure a copy of the permit is sent to the Environmental Pollution, Policy & Projects team prior to the equipment being used in Islington.
- 12.3. Where there is the risk of pollution emanating from the crusher, including fumes and dust, measures must be taken to control the Environmental Pollution, Policy & Projects team and ensure the neighbouring amenity will not be subject to any nuisance. Best Available Techniques must be used in accordance with Process Guidance note PG 3/16(12) at all times.
- 12.4. Where concrete crushers are used on sites in areas of the borough that are likely to be sensitive to vibration, it is recommended that the crusher is serviced prior to use to ensure there is no excessive vibration from uneven rotating parts. Dampers, such as matting or steel spring isolators, should also be applied to the crusher to reduce vibration transmission to the surrounding area.

13 Vehicle Movements & Deliveries

- 13.1. Vehicle movements, deliveries, loading and unloading can cause disturbance to neighbours as a result of reversing alarms, running engines and noisy materials being handled. These activities should be planned so they are carried out during normal site working hours to reduce the noise impact on the surrounding area.
- 13.2. Where feasible, vehicle movements should be arranged on a “just in time” basis to prevent queuing outside of the site on the public highway. Any vehicles waiting to enter the site must switch their engines off while waiting.
- 13.3. Where it is not possible for vehicle movements to take place within site working hours, such as for an abnormal load or loads requiring an escort, permission must first be obtained from the Environmental Pollution, Policy & Projects team and any affected premises given prior written warning. Details should include date, start time and likely duration and, if possible, reasons for working outside the prescribed hours, as well as contact details for the person in control of the event.
- 13.4. The site layout, scheduling and logistics, including any loading bays, should be planned so as to minimise the effect on neighbours. A competent banksman must be employed to provide assistance to vehicles entering and leaving the site to ensure the safety of the public, reduce traffic congestion and ensure engines are switched off.



Figure 2: Simple measures such as signage at the site entrance can inform driver behaviour

- 13.5. Certain roads within Islington are subject to height, weight and width limits for vehicles. This must be considered when planning vehicle routes to and from the site. Further information can be found on the Council’s website, from the Metropolitan Police or the Highways Agency. It is advised that a Construction Logistics Plan is produced prior to work starting, in consultation with our Highways department, to include permitted access routes for construction traffic and loading controls.

- 13.6. Construction Consolidation Centres can reduce construction and delivery costs, increase supply security and tackle poor air quality and emissions. LB Islington encourages the use of these facilities wherever possible. More information and the current directory of London Construction Consolidation Centres can be viewed on the TfL website (<https://tfl.gov.uk/info-for/deliveries-in-london/delivering-efficiently/consolidating-deliveries>).

14 Highways

- 14.1. Any activities on the Highway may require prior permission for certain operations, particularly where there are any temporary obstructions. For example, scaffoldings, hoardings, crossovers, gantries and cranes may be subject to the licensing regime, and any road closures that require a Temporary Traffic Order must be applied for in advance. Any damage to the public highway caused by the demolition and construction works will need to be repaired.
- 14.2. If any works to the public highway need to be undertaken outside of normal working hours, including on roads managed by Transport for London, permission must be sought from both the Highways and Environmental Pollution, Policy & Projects teams in advance. For further information regarding works on the Highway contact streetworks@islington.gov.uk. Streetworks contractors must use best practical means to minimise the impacts of the works. This shall include (but not be limited to):

Noise

- selection of quiet vehicles and checking of noise output and maintenance prior to use
- any vehicle alarms should be broadband or white noise type sounders and volume reduced or disabled following risk assessment
- no shouting
- no stereos
- toolbox talks for all staff on the best practice measures to be employed to minimise environmental impacts
- acoustic screening/enclosure of worksites/noise sources wherever possible using Echo Barrier H2 or panels of an equivalent or better acoustic performance. Contractors to provide photo evidence of acoustic screening in place onsite
- no idling/unnecessary revving of engines
- liaison with nearby businesses and residents
- contractor to update by email the Council's Streetworks and EPPP teams with any complaints received

Air Quality & Dust

- all plant to meet relevant Non Road Mobile Machinery Register emission standards (i.e. Euro IIIB wherever possible unless it can be demonstrated that IIIB equipment is not available in which case IIIA)
- diesel generator use to be avoided whenever possible
- use processes which do not generate fumes and/or dust
- ensure that fumes and/or dust do not escape from the site to affect members of the public and the surrounding environment

- burning of materials on site is not permitted under any circumstances
- dusty activity should be undertaken away from sensitive receptors, with wind direction taken into consideration
- a dust suppression system must be used when stone cutting
- careful consideration should be given to the location and temperature control of tar and asphalt burners if required

Lighting

- where necessary battery powered lighting to be orientated and angled to avoid light pollution and spill.
- 14.3. Hoardings and fences should be maintained in good working order throughout the project and can be used when planning noise control measures. Site information boards must be displayed including out-of-hours contact details, a 24-hour telephone number, community information and updates to the works programme.
 - 14.4. Any site activities, including vehicle movements, which are to take place on the same days as any local events or at the Emirates Stadium, must be notified to the Highways and Environmental Pollution, Policy & Projects teams in advance as local road restrictions may apply.
 - 14.5. Careful planning of construction routes should be carried out prior to commencement on site in liaison with Highways & the EPPP team. Where appropriate it may be necessary to temporarily remove speed humps around the site to reduce construction traffic vibration, designate construction traffic routes and/or carry out pre-commencement surveys of nearby potentially affected houses and structures.

15 Parking

- 15.1. All vehicle movements to and from your site should be planned and agreed with us in advance and enforced with your contractors and drivers.
- 15.2. Vehicles must not park outside the site at any time of the day or night unless specifically agreed.
- 15.3. Vehicles must enter the site immediately and are to leave the site in a safe and controlled manner.
- 15.4. The area around the site or any road within Islington is not to be used as a holding area for deliveries. There is to be no contractor parking on the highway at any time anywhere within Islington. We may require vehicles associated with the site to display stickers or markings, so they can be easily identified.
- 15.5. Parking can be suspended for traffic management and or access to site, or for material storage. A materials licence will be required if materials are to be stored in the parking bay overnight (<https://www.islington.gov.uk/parking/parking-permits/suspend-a-parking-bay>). To obtain a parking suspension application email parkingsuspensions@islington.gov.uk. Parking restrictions start in most controlled parking zones (CPZ's) at 08:30 to 18:30 (see online zone map) however they can run for 24hrs if required.

16 Cyclist & Pedestrian safety

16.1 As cycle use within the Borough continues to rise, there is the potential for conflict between construction vehicles and cyclists. Developers must ensure that contractors and their sub-contractors working on construction sites in Islington are FORS (Fleet Operators Recognition Scheme Silver Graded or higher) and are registered as CLOCS (Construction Logistics and Cyclist Safety) Champions. The CLOCS standard includes 7 requirements which are the responsibility of the contractor/developer and are aimed at effectively managing the site and traffic coming to site. This covers:

- construction logistics plans
- site suitability
- vehicle loading/unloading
- traffic routing
- control of traffic
- ensuring supply chain compliance

Vehicles attempting to deliver to the site without the correct registration or cyclist protection measures fitted should be turned away from the site. Further information can be found on the CLOCS website (<https://www.clocs.org.uk/>).

16.2 A risk assessment should be carried out relating to the safe movement of any plant, site vehicles, cyclists and pedestrians prior to commencing onsite and the interface regularly reviewed.

17 Security

- 17.1 The developer and/or contractor must ensure that the site is secure and unauthorised access to the site is prohibited at all times. Site gates must be closed and locked when there is no site activity and appropriate security provision put in place, such as security guards and CCTV where appropriate. It is advised that the local community is consulted on site security matters. If there are any site alarms or overnight generators to provide power to any security welfare cabins, these must operate so as not cause a statutory nuisance. Site alarms must operate with an appropriate cut off period and notice specifying contact details for the alarm key holders.
- 17.2 Suitable lighting and signage will be required to enable the safety and security of the site. Any lighting must operate at the lowest possible luminosity and be directed in a manner so as to not intrude on the local amenity, including adjacent buildings, and cause a disturbance. Lighting may be required to ensure a safe route for passing public and precautions must be taken to avoid shadows cast on the surrounding footpaths and roads.
- 17.3 Hoardings and temporary structures should be designed to minimise opportunities for rough sleeping and the behaviours associated with this, as well as anti-social behaviour. Where such issues do arise the Council may require revision of hoarding alignment, and may also require additional lighting or other site security measures. The developer's nominated representative should refer rough sleepers they are concerned about to Streetlink on www.streetlink.org.uk to enable local teams to work with the developer to address any issues.

18 Site Layout & Good Housekeeping

- 18.1. The layout of the site must be planned to ensure the likelihood of an environmental incident or nuisance is reduced. The following measures should be adopted when planning site layouts, but this is not an exhaustive list.
- 18.2. Adequate waste management procedures, including the prohibition of open fires or burning of waste (see section on Waste Management).
- 18.3. Effective preventative pest and vermin control and reactive treatment if an infestation is discovered to prevent further occurrence.
- 18.4. Adequate provision of staff welfare facilities and ensuring high standards of cleanliness on site, including wheel washing facilities. Smoking areas should not be located at the boundary of working areas or adjacent to neighbouring land where possible.
- 18.5. The location of storage, machinery, equipment and other temporary structures should be such that environmental effects are minimised, where practicable. This includes the location of site accommodation to avoid overlooking residential properties.
- 18.6. Site management should try to prevent staff congregating outside of the site prior to commencing or leaving work, to reduce the impact on the neighbouring amenity.
- 18.7. A travel plan for all site staff should be implemented to encourage the use of public transport and reduce the amount of off-site parking in the borough.

19 Water Quality

- 19.1. All contractors must ensure that site activities and working methods protect the quality of surface water and groundwater from any adverse effects. Plans should be prepared to show all watercourses and surface and ground-water bodies, any potential sources of pollution, and drainage within the site. Site drainage plans and flood risk management plans must be available on site and kept up-to-date. The measures to be taken to prevent incidents, and damage to services during excavations, tunnelling, or other such activities, should also be prepared.
- 19.2. Details may include:
- Monitoring of groundwater and surface water quality and water levels.
 - Measures to prevent run-off and other pollutants being washed into watercourses.
 - Information regarding emergency procedures to deal with any water contamination arising from the works, including the provision of spillage kits.
 - Provision of a suitable site drainage system, including pollution cut-off valves, with suitably sized treatment facilities.
 - Appropriate use of bunds of non-erodible material, or other such measures, adjacent to watercourses.
- 19.3. Any wastewater that is generated from site activities is classified as trade effluent. The site runoff should not discharge to any ditches, watercourses, drains, sewers or soakaways, without an agreement with the appropriate authority. The Environment Agency give consent for controlled waters and Thames Water gives consent for other waters. The contractor is responsible for ensuring that appropriate authorisations are in place, and copies of consents are kept on site.
- 19.4. All redundant pipework should be sealed off before works commence on site and filled with a suitable material, such as cement grout, to prevent any rodent infestations or possible subsidence. It is recommended that underground drainage systems are installed using pipes made from robust materials, and inspection chambers are adequately sealed with bolted covers.
- 19.5. Any storage of oil-based materials, including petrol, diesel and above ground fuel and oil storage tanks, must comply with the Control of Pollution (Oil Storage) (England) Regulations 2001, as amended. Any stationary plant must be maintained to ensure no leakages or oil or fuel and any secondary containment measures do not overflow. See Appendix A for guidance.

20 Protection of Trees

- 20.1 Contractors are required to consider the protection and health of all retained trees, understand their protected status and to adhere to all approved detail on trees both on and adjoining the site before commencing any works trees.
- 20.2 Trees, shrubs and other significant vegetation are of particular value in Islington due to the borough's dense urban nature and limited amount of green space. The positive impacts that trees have in improving air quality, storm water interception and air temperature are increasingly important due to projected future temperature increases as a result of climate change. The presence of healthy mature trees has also been proven to increase property values.
- 20.3 Under the UK planning system, local authorities have a statutory duty to consider the protection and planting of trees when granting planning permission for proposed development. The impact of developments on trees will be assessed in accordance with the council's tree policy and strategy, the Tree Policy for Islington (2011), and to all other statutory provisions and material considerations.
- 20.4 Developments are required to minimise any impacts on retained trees, including through the provision of sufficient space for the crowns and root systems and their future growth. Any loss of or damage to trees, or adverse effects on their growing conditions should be avoided. If any tree is cut down without agreement or dies as a result of activity on site, you may be prosecuted and/or fined and a replacement tree that becomes established must be provided. Where on-site re-provision is not possible, a financial contribution of the full cost of appropriate re-provision will be required.
- 20.5 Guidance on the level of detail and protection required is outlined in BS5837: 2012 Trees in relation to design, demolition and construction. In order to assess the possible impact of construction upon trees an Arboricultural Implications Assessment (AIA), which shall include a Tree Constraints Plan and Tree Survey will be required. If the development impacts on retained trees, then an Arboricultural Method Statement will also be required. These documents shall include relevant trees within the vicinity of the site.
- 20.6 Developments are required to provide adequate and appropriate building foundations, which are a prerequisite for retaining trees and allowing for supplementary planting. The proposed foundation depths of new structures will therefore not be an acceptable reason for curtailing planting.
- 20.7 Where construction is likely to impact on mature trees and/or trees subject to a Tree Preservation Order (TPO) or within a conservation area are required It is important to contact the local planning authority and follow the appropriate procedures outlined in the Town and country planning act before undertaking any works that might affect the protected trees. Failure to do so may result in prosecution. In order to establish the protected status of a tree please contact planning enquiries (planning@islington.gov.uk).
- 20.8 Pruning of retained trees and shrubs on construction sites may be required. Where proposed pruning is appropriate it is generally to be carried out prior to the commencement of any construction or site preparation works, by an appropriately qualified professional to BS 3998:2010 Tree works recommendations. The pruning of

council trees on or adjacent to the site may only be undertaken by the approved Islington council tree work contractors.

21 Ecology

- 21.1 Legislation exists to protect certain key species and habitats. In the Islington context, this is relevant to nesting birds, bats, great crested newts and slow worms. All birds, their nests and eggs are protected under the Wildlife and Countryside Act 1981. This makes it an offence to:
- Intentionally kill, injure or take any wild bird;
 - Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built;
 - Intentionally take or destroy an egg of any wild bird;
 - Sell, offer or expose for sale, have in his possession or transport for the purpose of sale any wild bird (dead or alive) or bird egg or part thereof.
- 21.2 To avoid contravention of the Wildlife and Countryside Act 1981, works should be planned to avoid the possibility of killing or injuring any wild bird, or damaging or destroying their nests. The most effective way to reduce the likelihood of this is to undertake work outside the main bird nesting season which typically runs from February to August. Where this is not feasible, it will be necessary to have any areas of suitable habitat thoroughly checked for nests prior to vegetation clearance.
- 21.3 All species of bat are fully protected under The Conservation of Habitats and Species Regulations 2010. This inhibits killing or disturbing bats and damaging a roosting or resting place. Bats are protected against both intentional or reckless disturbance. If a building or tree is believed to have potential for bat roosting, then a survey must be undertaken prior to building works by a qualified ecologist.
- 21.4 Great crested newts are protected against killing and disturbance and their breeding sites or resting places are also protected by law. Slow worms are protected against being killed or injured.
- 21.5 You must not plant in the wild or cause [certain invasive and non-native plants](#) to grow in the wild. This can include moving contaminated soil or plant cuttings. You can be fined or sent to prison for up to 2 years.

The most commonly found invasive, non-native plants include:

- Japanese knotweed
- giant hogweed
- Himalayan balsam
- rhododendron ponticum
- New Zealand pigmyweed (this is banned from sale)

In Islington, the most commonly found invasive plant is Japanese knotweed. You must prevent the spread of Japanese knotweed from your land onto adjacent areas. You can be prosecuted for causing a nuisance if you allow it to spread onto anyone else's property.

Soil or plant material contaminated with Japanese knotweed is classified as controlled waste and must be treated accordingly.

Specialist advice should be sought regarding the removal of Japanese knotweed and current government guidelines must be followed. More information can be obtained from Defra or the Environment Agency.

22 Contaminated Land

- 22.1 Contractors will be required to undertake detailed ground investigation work and, where necessary, assess land contamination at the site. This will depend on the historical and current land uses, previous site activities and processes, geological and hydrogeological setting and any known soil, water or gas sampling results or previous site investigations. Irrespective of whether the development is subject to planning condition, it is the responsibility of the contractor to investigate the land to see what measures are needed to make the site safe and suitable for the proposed use.
- 22.2 Ground investigations and risk assessments must be undertaken in accordance with the requirements of the National Planning and Policy Framework, and appropriate guidance:
- BS 10175:2011 Investigation of potentially contaminated sites- Code of practice
 - CLR11: Model Procedures for the Management of Land Contamination
 - BS 5930:1999 + A2: 2010 Code of practice for site investigations
 - The Site Investigation Steering Group publication: Guidelines for the safe investigation by drilling of landfills and contaminated land (1993)
 - Assessing risks posed by hazardous ground gases to buildings CIRIA 665 for ground gases
 - Contaminated Land: A guide to help developers meet planning requirements
 - Control of Asbestos Regulations 2012: Interpretation for Managing and Working with Asbestos in Soil and Construction & Demolition materials: Industry Guidance (CAR-SOIL)
- 22.3 Where significant contamination is found, a remediation strategy should be prepared, which includes a remedial options assessment to determine the most appropriate remediation technique, for consultation with the Environmental Pollution, Policy & Projects team. This should include options to deal with the soil, ground and surface water, and ground gas control and protection measures. Once a remediation strategy has been approved and works undertaken, a validation report must be provided to the Environmental Pollution, Policy & Projects team with any copies of certificates where appropriate.
- 22.4 To enable classification of waste for disposal purposes the Contractor must ensure any waste material excavated is analysed. If the material is found to be contaminated, any storage on site should ensure no cross- contamination with the ground or groundwater.
- 22.5 The contractor must comply with the provisions of the Environmental Protection Act 1990, and the Special Waste Regulations 1996 (as amended). The removal and disposal of contaminated materials must be conducted under a strict consignment note system. Disposal sites must be agreed with the Environmental Agency.
- 22.5 Any site investigation, risk assessment or remediation strategy should be carried out by a competent person. This may be an approved SiLC (Specialist in Land Condition) – the register of SiLCs is available online (www.silc.org.uk/silc-register/). Contaminated land reports should be signed off by a Suitably Qualified Person (SQP).

23 Waste Management

- 23.1 Waste management on site must be planned so as to minimise waste at source and use material resources more efficiently. This may include measures such as the reuse and recycling of materials, “just-in-time” deliveries, careful storage of materials and the minimisation of packaging.
- 23.2 All waste must be managed in accordance with the waste hierarchy as set out in the Waste (England and Wales) (Amendment) Regulations 2012. This should follow the route from most to least preferred options: Prevention – Reduction – Re-use – Recycle & Composting – Energy Recovery – Disposal. All waste must be removed from the site using a registered waste carrier and sent to authorised disposal facilities in accordance with relevant legislation, and be managed in such a way to ensure the prevention of harm to human health, amenity and the environment.
- 23.3 The Government revoked the Site Waste Management Plan Regulations 2008 on 1st December 2013. However the Council promotes efficient use of resources and advises that a site waste management plan should be prepared by the principal contractors on site to identify types and quantities of waste likely to arise during works being undertaken. Waste must be classified in accordance with statutory controls regarding hazardous waste, and suitable separation, segregation and storage must be undertaken to ensure no leaching or contamination into the surrounding area. Any skips or storage receptacles must be suitable for use and remain closed when waste is no being deposited into them, and have appropriate signage.
- 23.4 Open fires, or the burning of any materials on site, are not permitted.

24 Problems on Site

- 24.1 Noisy works outside permitted hours without prior approval by the Council will only be tolerated where there is a genuine emergency e.g. gas leak, power failure or significant water leak causing flooding. Where practicable, notice of the works should be given to the Environmental Pollution, Policy & Projects Team and any properties that maybe affected with as much advance warning as possible. Where it is not practicable, full details shall be provided to the EPPP team and any affected properties as soon as practicable after the event.
- 24.2 In the event of an environmental incident (e.g. a spillage), steps must be taken to prevent pollution, such as the protection of drains, use of absorbent granules following a spill, switching off of machinery or other sources of noise or dust. Where necessary the Environment Agency may also need to be notified. Once the situation has been rectified, full details should be provided to the Environmental Pollution, Policy & Projects team and other relevant authorities, and recorded in the site incidents logbook.
- 24.2 If a pest infestation occurs on the site, the contractor must employ a specialist pest control company to treat the problem. Preventative measures must also be employed to prevent pests, such as stopping and sealing all disused drains and sewers and not allowing any consumables to be left to rot or allow harbourage of pests, particularly where catering is provided on site.

Useful Contacts

Contact Islington

E: contact@islington.gov.uk

T: 020 7527 2000

Web: www.islington.gov.uk

Environmental Pollution, Policy & Projects team, Public Protection Division

London Borough of Islington, 222 Upper Street, London, N1 1XR

E: pollution@islington.gov.uk

T: 020 7527 3258 option 2 (Monday to Friday 9am to 5pm)

T: 020 7527 7272 option 1 (Sunday to Thursday until 2am, Friday and Saturday until 4am)

Streetworks Team, Public Realm

London Borough of Islington, 1 Cottage Road, London, N7 8TP

E: streetworks@islington.gov.uk

T: 020 7527 2000

Planning and Development

London Borough of Islington, 222 Upper Street, London, N1 1XR

E: planning@islington.gov.uk

T: 020 7527 6743 (9am to 1pm)

Tree and Landscape Section, Conservation and Design Team

Planning enquiries - planning@islington.gov.uk

Tree Preservation Officer – Gavin.Rees@Islington.gov.uk

Pruning council trees – Paul.Zepler@islington.gov.uk

Building Control Services

London Borough of Islington, 222 Upper Street, London, N1 1XR

E: building.control@islington.gov.uk

T: 020 7527 5999 (1pm to 5pm)

The Environment Agency

North East Thames Area Office, Apollo Court, 2 Bishops Square Business Park, St Albans Road West, Hatfield, Hertfordshire, AL10 9EX

E: enquiries@environment-agency.gov.uk

T: 03708 506 506 (**general enquiries**)

T: 0800 807 060 (**to report an incident**)

T: 03708 502 858 (**hazardous waste registration**)

Considerate Constructors Scheme

E: enquiries@ccscheme.org.uk

T: 0800 783 1423

Web: www.ccscheme.org.uk/

Health and Safety Executive

T: 0845 300 9923 (**fatal and major injuries ONLY**)

T: 0300 003 1647 (**concerns team**)

E: concerns@hse.gsi.gov.uk

T: 0300 003 1747 (**advisory team**)

Web: www.hse.gov.uk/

English Heritage

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

T: 0207 973 3000

E: london@english-heritage.org.uk

Web: www.english-heritage.org.uk/

London Low Emission Construction Partnership

E: erg-construction@kcl.ac.uk

Appendix A – Legislation & Guidance

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 full and partial demolition

ISO 14001

Vehicle Movements

Highways Act 1980

Road Traffic Regulations Act 1984

Traffic Management Act 2004

Noise and Vibration

Environmental Protection Act 1990

Control of Pollution Act 1974

BS 5228-1:2009+A1:2014 & 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

London Good Practice Guide for Noise & Vibration Control for Demolition and Construction

Air Quality

Environmental Protection Act 1990

Environment Act 1995

Air Quality (England) Regulations 2000

Building Research Establishment draft Code of Practice on Controlling Particles from Construction and Demolition (2000)

Clean Air Act 1993

DEFRA (2011) UK Air Quality Strategy, HMSO, London

GLA (2014) The Control of Dust and Emissions during Construction and Demolition SPG

IAQM (2014) Assessment of Dust from Demolition and Construction

ICE "Engineering Cleaner Air" (2017)

IOSH "No Time to Lose" Campaign (2017)

Islington Air Quality Strategy 2014-2017

Road Vehicles (Construction and Use) Regulations 1986 (as amended) – Regulation 98

Road Traffic (Vehicle Emissions) (Fixed Penalty) (England) Regulations 2002

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)

The Waste (England and Wales) Regulations 2011

Waste Management Duty of Care Code of Practice (1996), HMSO

Protection of Trees

BS 3998:2010 Tree works recommendations

BS5837 2012 Trees in relation to design, demolition and construction.

NJUG4 - NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees

NHBC Part 4. Foundations, 4.2 Building near trees

Contaminated Land

Environment Act 1995

Contaminated Land Regulations 2000

CIRIA publications:

C532: Control of water pollution from construction sites

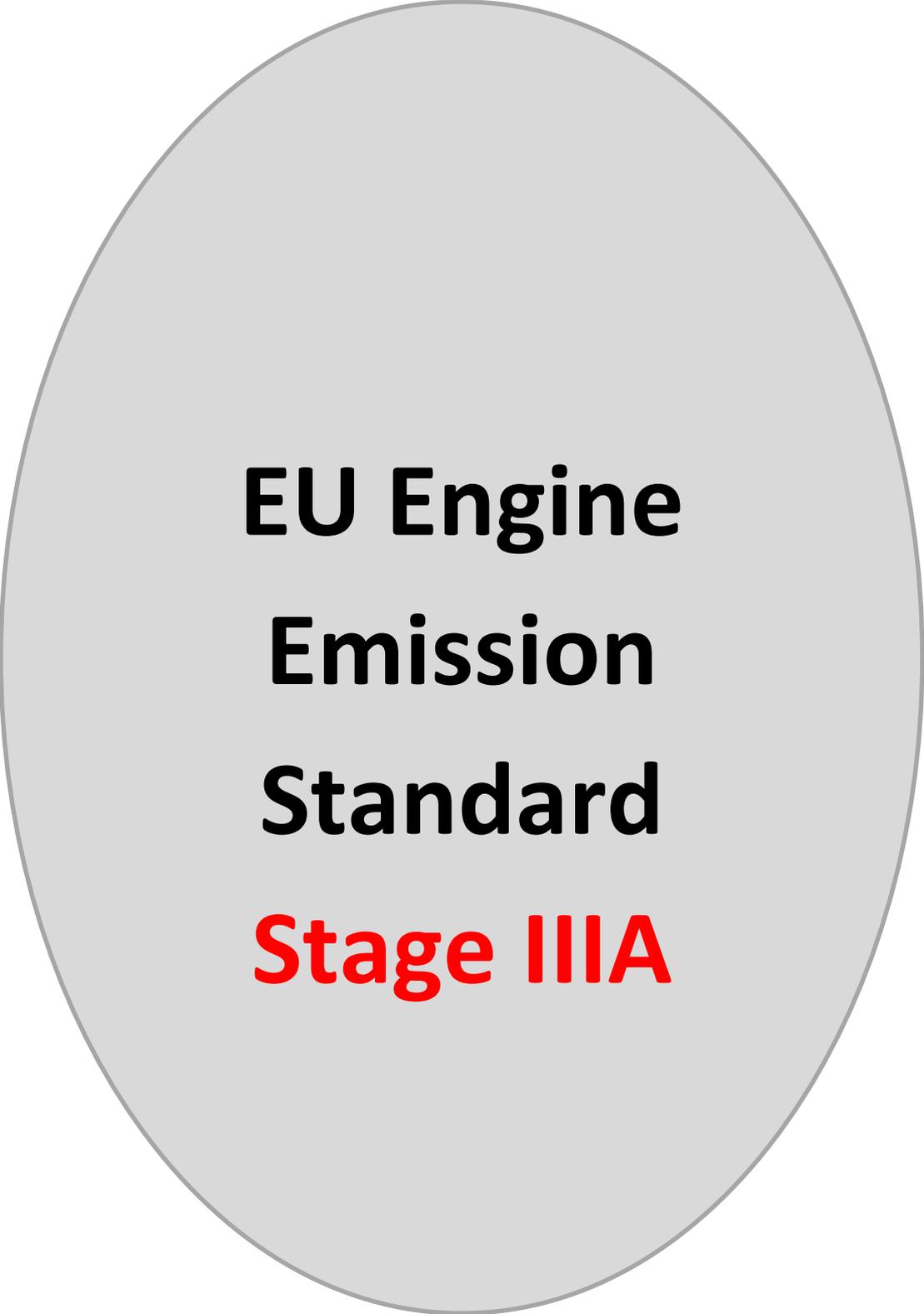
C648: Control of water pollution from linear construction projects: technical guidance

C649:b Control of water pollution from linear construction projects: site guide

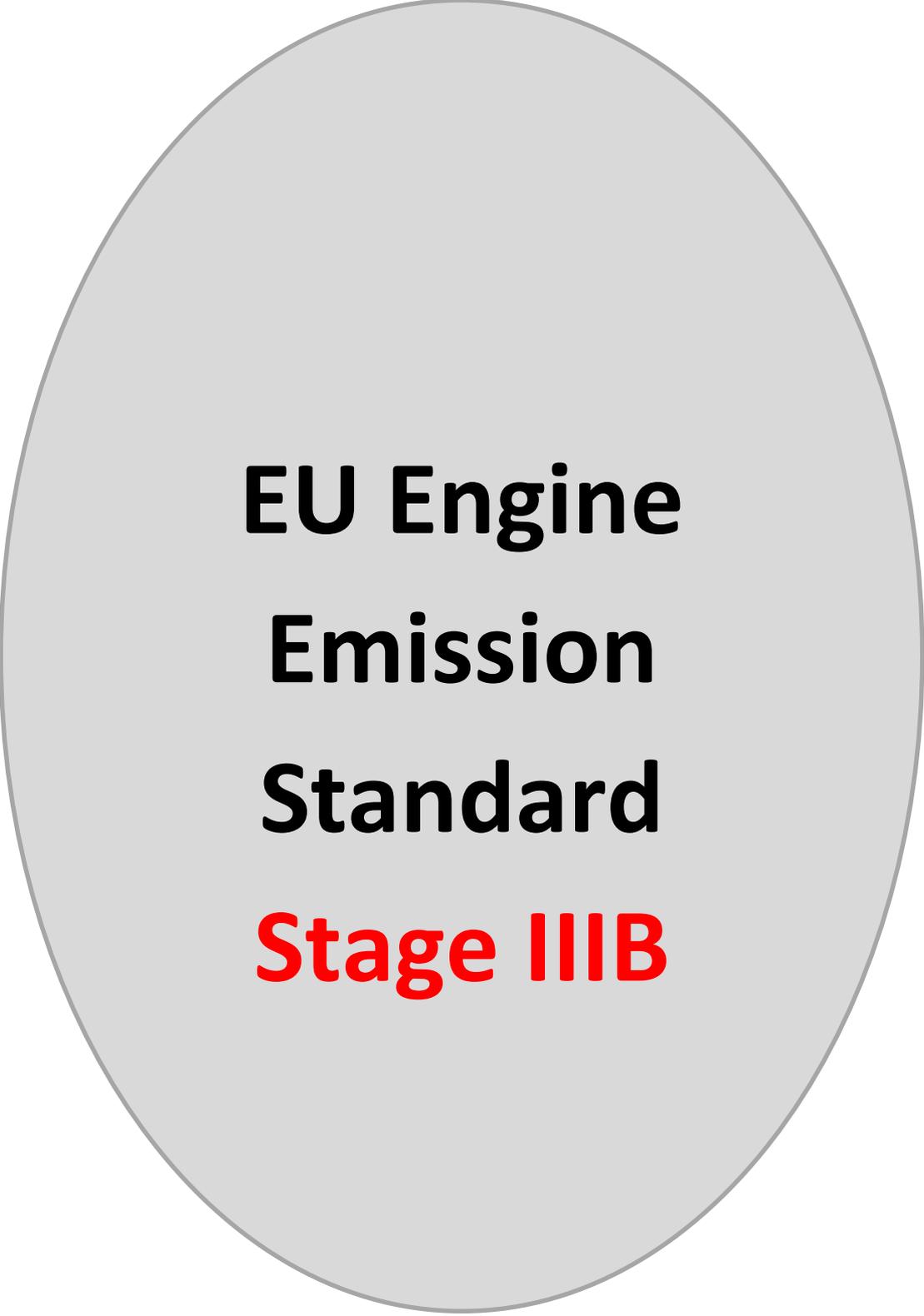
Environment Agency: Groundwater protection: Principles and practice (GP3)

BS 6031 Code of practice for earthworks

Appendix B - NRMM compliance



**EU Engine
Emission
Standard
Stage IIIA**



**EU Engine
Emission
Standard
Stage IIIB**