



# Code of Construction Practice

July 2016



City of Westminster



# CONTENTS

1	INTRODUCTION .....	1
1.1	The Purpose Of This Document .....	1
1.2	Who Is The CoCP Aimed At? .....	2
1.3	How Does The Code Operate? .....	3
1.4	The Value Of Engagement .....	3
1.5	What Types Of Development Does The CoCP Apply To? .....	3
1.6	Use And Application Of The CoCP To Level 1 And Level 2 Projects .....	7
1.7	Use And Application Of The CoCP To Level 3 Projects .....	10
1.8	How Is The Document Structured? .....	10
1.9	How Does The CoCP Relate To Planning Policy? .....	12
1.10	How Does The CoCP Relate To Wider Legislation? .....	14
2	LIAISING WITH THE PUBLIC .....	17
2.1	Objectives .....	17
2.2	Level 3 Projects .....	17
2.3	Community Relations (Level 1 And Level 2 Projects Only) .....	17
2.4	Notification Regarding Semp (Level 1 And 2 Projects Only) .....	20
3	GENERAL SITE OPERATIONS .....	22
3.1	Objectives .....	22
3.2	Working Hours .....	22
3.3	Good Housekeeping .....	23
3.4	Health And Safety .....	24
3.5	Public Information .....	27
3.6	Security .....	28
3.7	Site Layout And Facilities .....	28
3.11	Operation Of Equipment .....	32
3.12	Cranes .....	33
3.13	Pest Control .....	34
3.14	Unexploded Ordnance .....	34
3.15	Electromagnetic Interference .....	34
3.16	Responsibility For Site Inspection .....	35
3.17	Clearance And Reinstatement Of Site On Completion .....	35
3.18	Considerate Constructors Scheme (Level 1 And 2 Projects Only) .....	35
4	EMPLOYMENT AND SKILLS .....	37
4.1	Objectives .....	37
4.2	Employment And Skills Plan (Level 1 Schemes Only) .....	37
4.3	Support For Employment And Skills Initiatives .....	39
5	TRAFFIC AND TRANSPORT .....	40
5.1	Objectives .....	40
5.2	Regulatory Overview .....	40
5.3	Works To Roads And Footpaths .....	42
5.4	Avoidance Of Nuisance .....	46

5.5	Access Routes .....	47
5.6	Site Access .....	48
5.7	Marking Of Lorries .....	48
5.8	Timing Of Movements .....	48
5.9	Safety Of Cyclists .....	49
5.10	Environmental Standards .....	51
5.11	Vehicle Restrictions .....	51
5.12	Parking .....	51
6	NOISE AND VIBRATION .....	52
6.1	Objectives .....	52
6.2	Regulatory Overview .....	52
6.3	Noise Control - General .....	53
6.4	Detailed Noise Control Provisions: Selection And Use Of Equipment .....	54
6.5	Vibration .....	56
6.6	Hours Of Working .....	57
7	DUST AND AIR POLLUTION .....	58
7.1	Objectives .....	58
7.2	Regulatory Overview .....	58
7.3	Dust .....	59
7.4	Vehicle Emissions .....	60
7.5	Non-Road Mobile Machinery (Nrmm) .....	61
7.6	Other Site Emissions To Air .....	62
7.7	Special Precautions For Asbestos .....	63
8	WASTE MANAGEMENT .....	65
8.1	Objectives .....	65
8.2	Regulatory Overview .....	65
8.3	Site Waste Management Plans .....	67
8.4	General Arrangements For Storage And Disposal .....	68
8.5	Contaminated Wastes .....	68
8.6	Re-Use Of Construction Materials .....	71
8.7	Packaging Waste .....	72
9	WATER POLLUTION AND FLOOD RISK .....	74
9.1	Objectives .....	74
9.2	Regulatory Overview .....	74
9.3	Marine Management .....	76
9.4	Disposal Of Seepage, Wastewater And Ground Water .....	77
9.5	Flooding .....	78
9.6	Temporary And Permanent Connections To Sewers .....	79
9.7	Drainage Routes To Canals .....	80
9.8	Spill And Leak Protection .....	80
9.9	Drainage Of Waterways .....	81
9.10	Water Transport .....	81
10	URBAN ECOLOGY .....	82

10.1	Objectives .....	82
10.2	Regulatory Overview .....	82
10.3	Wildlife Mitigation Measures .....	84
10.4	Protection Of Trees .....	85
10.5	Tree Replacement .....	86
11	HERITAGE ASSETS .....	87
11.1	Objectives .....	87
11.2	Regulatory Overview .....	87
11.3	General - Archaeology .....	90
11.4	Other Considerations .....	91
12	PROTECTION OF EXISTING INSTALLATIONS .....	93
12.1	Objectives .....	93
12.2	Regulatory Overview .....	93
12.3	Safeguarding .....	93
12.4	Surveys Before Construction Of Works .....	94
12.5	Monitoring .....	94
12.6	Survey After Construction Of Works .....	95
12.7	Cosmetic Damage .....	95
	APPENDIX A - Forms .....	96
	APPENDIX B - Legislation And Guidance .....	104
	APPENDIX C - Glossary .....	109
	APPENDIX D - Contact Details .....	111
	APPENDIX E - Employment And Skills Plan .....	112
	APPENDIX F - Code Of Construction Charges .....	118
	APPENDIX G - Site Environmental Management Plan Template: .....	122
	APPENDIX H - Construction Management Plan Template: .....	130
	APPENDIX I – Map Of TLRN And SRN .....	136



# 1 INTRODUCTION

*Summary: This chapter sets out the scope and the issues covered by this revised version of the Code of Construction Practice. It applies to all major development and infrastructure projects in Westminster and also to residential basements and other types of smaller development that are likely to have significant construction impacts.*

## 1.1 THE PURPOSE OF THIS DOCUMENT

The City of Westminster is a world class destination for living, working and visiting. As a result Westminster experiences a high level of new development, including subterranean development, and this is reflected in the City Council being the busiest planning authority in the country. At the same time the City has a densely-settled population of residents and businesses, with a range of attractions that bring very large numbers of visitors.

The construction of new developments anywhere has the potential to result in substantial environmental impacts, many having the potential to cause significant disturbance to local residents, businesses and traffic. These will obviously be felt more intensely somewhere like Westminster where there are simply more people and businesses likely to be nearby who will experience them. This means there is a particular need for everyone involved in development to take care to control, monitor and coordinate construction works (including, where relevant, demolition activities) to keep impacts to a minimum, stop things from going wrong and dealing with them promptly and efficiently when they do. While the Council will step in to take enforcement action where appropriate, it is far better for those concerned to deal with things before they reach this stage. It is important for those involved in development to remember that with every scheme they have the opportunity to uphold – or damage – the image of the sector as a whole. The issues set out in this Code of Construction Practice should be considered from the outset of the design process to ensure a comprehensive response.

This Code of Construction Practice (CoCP) sets out the minimum standards and procedures for managing and minimising the environmental impacts of construction projects within the City of Westminster, that will be acceptable to Westminster City Council and it is expected that developments should meet and aim to exceed these for projects within the City of Westminster. The standards relate to demolition and construction works (any references in this document to construction include demolition) that have the potential to affect the environment, amenity and safety of local residents, businesses, the general public and the surroundings in the vicinity of the proposed works. This CoCP covers a broader range of issues than previous versions, including protection of vulnerable road users (particularly cyclists), and employment and skills benefits during construction.

## 1.2 WHO IS THE CoCP AIMED AT?

Developers, consultants (including those designing and promoting schemes) and contractors/ sub-contractors: The CoCP identifies the main legal responsibilities and requirements of developers, their consultants and contractors (including Principal Contractors, Construction Managers, Trade Contractors and other similar roles) in constructing their projects. As it covers the whole range of projects from the most complex to the smaller-scale, and arrangements between the various parties involved in particular projects vary so widely, it cannot recognise every kind of arrangement that may be made allocating responsibility between those concerned. While the developer has ultimate responsibility, the various parties concerned in a particular project should agree a nominated person who will take responsibility for compliance with the CoCP on their behalf,



and the council should be informed of the name of this person and their contact details. This person should be someone with the necessary authority to deal with the matters covered by the CoCP on behalf of all those parties working on a site without the need to seek further authority. The terms “developer’s nominated representative” or “nominated representative” are used in the CoCP to describe this person.

In the CoCP, “developer” is used to mean the person or company promoting a scheme or development, who might be the owner of a site or work under the owner’s direction. “Contractor” is used to mean all those working on a site under contract from the developer, whether formally a contractor,

sub-contractor or consultant.

For the purposes of this CoCP references to the Highway Authority will refer to the City Council with the exception of the Transport for London Route Network and roads within Royal Parks, See the map at Appendix H.

Local residents, businesses and the general public: The CoCP aims to inform residents and other affected parties about how WCC manages and minimises disturbance and other environmental impacts from demolition and construction activities. It also seeks to assure them that best practice standards will be applied. Requirements for contractors to liaise with the public are specified in Chapter 2 below.

### 1.3 HOW DOES THE CODE OPERATE?

A flowchart at figure 1 sets out the process associated with signing up to the Code of Construction Practice for Level 1, Level 2 and Basement schemes.

### 1.4 THE VALUE OF ENGAGEMENT

The CoCP sets a formalised structure for dealing with the impacts of construction backed with legal enforcement action by the City Council where this is needed. In most cases the best outcome for all concerned is for problems to be avoided in the first place or, where they do happen, for them to be sorted out at site level quickly, and without fuss or the need for external intervention. Effective engagement between those involved with projects and those living and working in the area is an essential precondition to this kind of constructive approach.

The City Council strongly encourages early discussions between developers and those neighbouring their development. This is in developers' interests, as they are likely to find that it will make the formal planning process easier. This should be carried on after planning permission is granted and throughout the construction process. Providing neighbours with information about the progress of a project, telling them in good time about when works with the potential to cause disruption will take place and being approachable and responsive to those with comments or complaints will often help soothe the situation, and will reduce the need for formal Council intervention. Experience shows that this is as important for smaller projects as it is for larger, more complex ones.

This CoCP is intended as a guide to good practice. It is not a substitute for consultation between developers, contractors and regulators. Nor should it be taken as reducing or removing the need to consult and inform neighbours or be considerate of the impacts that construction may have on them.

### 1.5 WHAT TYPES OF DEVELOPMENT DOES THE COCP APPLY

The CoCP applies to three tiers of development (categorised based on their size and potential impacts) as follows:

Level 1 projects: 'Large/strategic'<sup>1</sup> proposals that involve the creation of 100 or more new or additional residential units or the creation/ change of use of 10,000 sqm or more floorspace. A recent example is One Hyde Park, Knightsbridge. These are projects that will have impacts at the neighbourhood scale as well as more localised impacts. Level 2 projects may be 'upgraded' to Level 1 projects due to the sensitivity of the local environment, which can include proximity of noise sensitive receptors or cumulative impacts.

<sup>1</sup> Definition of 'large/ strategic development' is as per the [guidance on categories of development set out on WCC's website for the purposes of pre application advice](#).

## 1 Introduction

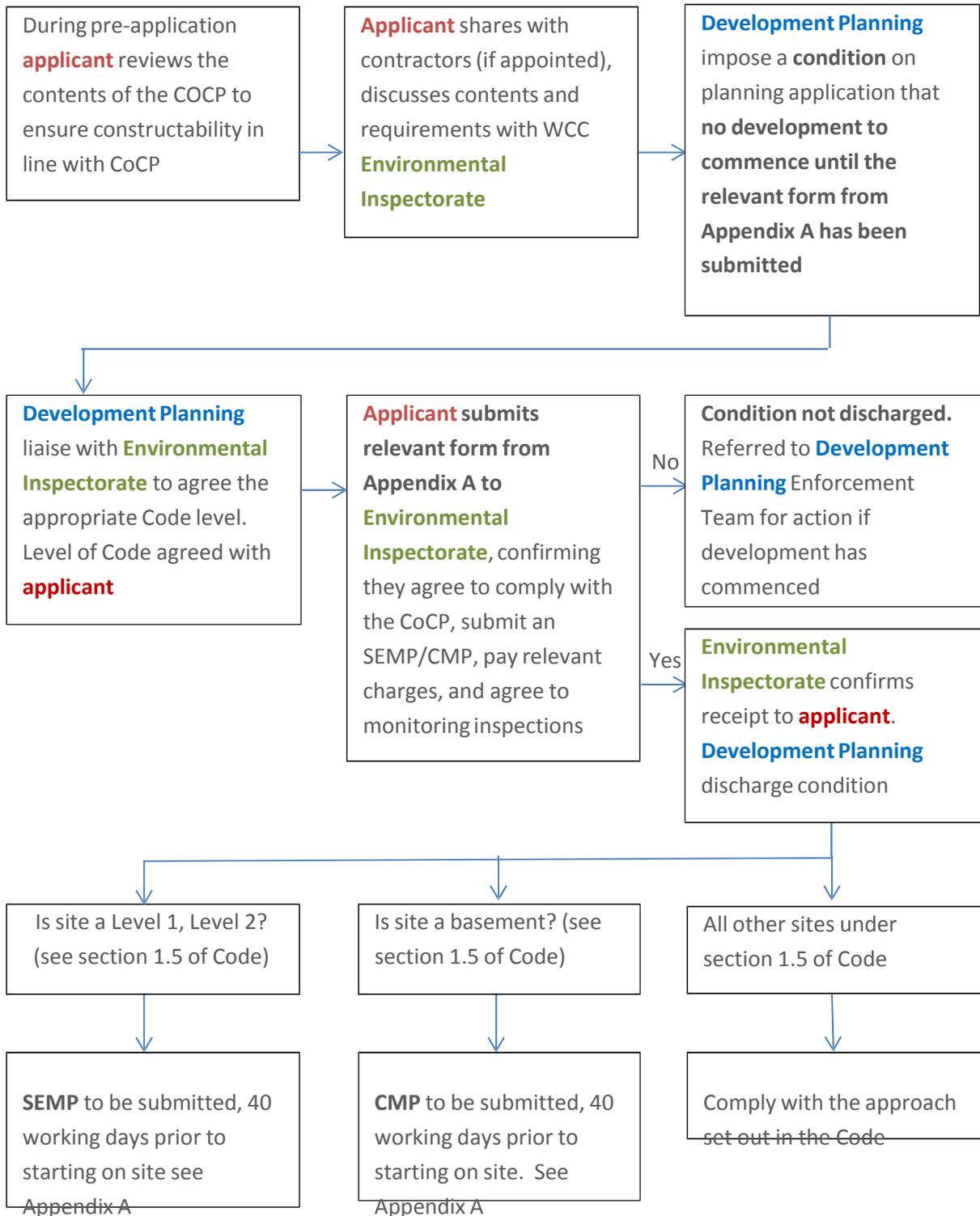
- Level 2 projects: Developments involving the creation of 10 or more new build residential units, or buildings where the new build floorspace to be created is 1000 sqm or more, or any basement developments. Level 3 projects may be 'upgraded' to Level 2 projects due to the sensitivity of the local environment, which can include proximity of noise sensitive receptors or cumulative impacts.
- Level 3 projects: All developments falling outside of the definitions of level 1 and 2 projects. Level 3 projects may be 'upgraded' to Level 2 projects due to the sensitivity of the local environment, which can include proximity of noise sensitive receptors or cumulative impacts.
- Major Refurbishments: While generally not covered by the Code of Construction Practice, those which are of such a scale that the impacts are equivalent to those arising from a new build, e.g. where there is extensive demolition and rebuilding, significant new construction behind a retained façade etc. The 'Level' will depend on the size thresholds as outlined for Level 1 , 2 and 3 projects above.



The definitions above seek to balance the need to provide certainty to developers and other stakeholders with the need to allow WCC discretion to judge the potential impacts of specific projects, having regard to the sensitivity of the local environment and cumulative impacts, and manage them accordingly. Infrastructure projects will generally be expected to comply with the Code of Construction Practice, although more stringent project-specific limits will apply regarding working hours.

A mechanism exists to allow the council to 'upgrade' a site from a lower to a higher level, particularly where impacts on neighbouring users are expected to be high, or in particularly sensitive sites. A decision to 'upgrade' a site will be taken prior to the signing of a contract with the council, taking into account factors such as proximity to noise sensitive receptors or those particularly sensitive to vibration.

FIGURE 1: PROCESS FOR APPLICATION OF THE CODE



**Submission of Appendix A creates a requirement for the developer/applicant and their contractors to comply with the contents of the Code.**

## 1.6 USE AND APPLICATION OF THE CoCP TO LEVEL 1 AND LEVEL 2 PROJECTS

The impacts of demolition and construction work should be considered as early as possible in a project. The CoCP will be forwarded to developers during the planning application process, allowing the developer to consider and discuss with WCC its application to their specific development. Developers should ensure that their contractors are fully aware of this CoCP and its implications so that they can carefully plan how to minimise impacts and feed this into their cost calculations.

A pre-commencement condition will require applicants to agree to be bound by the contents of this CoCP, which will be demonstrated by completion of Appendix A. Additional conditions may be used to control specific aspects of demolition and construction, such as working hours. The developers of Level 1 and Level 2 projects within Westminster must comply with the CoCP, and must ensure that their contractors and sub-contractors comply with it. The developer is responsible for payment of charges arising under this Code, and has ultimate responsibility in the event of non-compliance by any contractor, and the Council will use the full range of powers available to it under different legislation to ensure development is managed appropriately.

The condition wording is:

*“Prior to the commencement of any demolition or construction on site the applicant shall provide evidence that any implementation of the scheme hereby approved, by the applicant or any other party, will be bound by the council’s Code of Construction Practice. Such evidence must take the form of a letter from the Council’s Environmental Inspectorate confirming that the applicant has submitted Appendix A of the Code of Construction Practice, which constitutes an agreement to comply with the code and requirements contained therein”.*

For Level 1 and Level 2 projects, with the exception of basements, developers must prepare a Site Environmental Management Plan (SEMP) to demonstrate how they will comply with the requirements of this CoCP. For basements, a Construction Management Plan (CMP) must be prepared. The SEMP (or CMP) shall be produced and submitted to WCC Environmental Inspectorate for approval immediately after submission of Appendix A, and 40 working days prior to starting on site. Appendix A sets out the information that will be required from the applicant. The developer will need to demonstrate, via the SEMP, the management, monitoring, auditing and training procedures that will be put in place to ensure compliance with the CoCP. The SEMP will also need to set out the specific roles and responsibilities of the contractors’ personnel in managing, monitoring and controlling all sub-contractors. A template for SEMPs and CMPs is included at Appendix G and H, although this is for guidance only, and providing the information meets the requirements listed in

## 1 Introduction

Appendix A, applicants are free to submit the information in other formats, which is more likely to be the case with larger sites. For Level 2 projects the information provided should be proportionate to the likely impacts of the specific project in question, taking guidance from the Council's Environmental Inspectorate. The developer's representative will notify WCC of any revisions to the SEMP.

Draft SEMPS or CMPs are not required with the planning application. A draft submitted with the planning application is not a substitute for a full CMP or SEMP which includes setting out the roles and responsibilities regarding contractors' and sub-contractors, nor does this replace a s61 process.

WCC's Environmental Inspectorate will be responsible for liaising with the developer's nominated representative on a regular basis, advising them of their environmental responsibilities, agreeing routine arrangements for each site's activities and ensuring compliance with the CoCP. Officer time spent will be charged to the developer. The fee will be calculated based on an estimate of the time input required to liaise with the developer's nominated representative and monitor the demolition and construction activities and their impacts. The exact charge will depend on the number of monitoring visits required on the individual site. Further details are set out in Appendix F.

Statutory undertakers must be consulted about the detailed location of their apparatus and infrastructure in advance of the final design and in advance of any demolition and construction works.

The developer's nominated representative should ensure that all appropriate documentation relevant to the requirements of this CoCP are kept in designated files held on site. They must be available at all times for inspection and review by WCC or other authorities and should include as a minimum a site information sheet, noise, vibration and dust monitoring results, waste management documentation, a complaints/incidents log with actions taken, liaison minutes, letters, photos and newsletters.

### 1.6.1 INCIDENT REPORTING PROCEDURES

WCC understands that occasionally emergency incidents arise during which it is impossible or impractical to comply with all the requirements within the CoCP. In such an event the Health and Safety Executive (HSE) should be contacted.

The developer's representative must advise WCC within 24 hours of any incidents of non-compliance with the CoCP and respond to any reports referred by WCC within 24 hours, or as soon as reasonably practicable. In the event of working practices being deemed dangerous either by WCC or the HSE, immediate remedial action must be taken.

## 1 Introduction

The developer's nominated representative will ensure that there is a system in place to record any incidents on site, and any ameliorative action taken. These records must be kept on site for inspection by WCC's representatives on request.

The nominated representative will ensure that any reports forwarded by WCC, Police or other agencies are dealt with as soon as practicable, preferably within one hour of the report, but always within 24 hours of receipt by either the contractor or developer. The developer's nominated representative will monitor and ensure that the appropriate action has been taken. Where appropriate, remedial action shall be agreed with WCC. Procedures should be put in place to ensure, as far as is reasonably practical, that necessary action has been taken and steps to avoid recurrence have been implemented.

A telephone "Hot Line" for information and reporting will be provided by the developer. This will be staffed at all times during working hours. Information on this facility shall be prominently displayed on site hoardings.

### 1.6.2 REVIEW AND COORDINATION MEETINGS

The developer's nominated representative shall attend monthly review meetings, at reasonable times, and with sufficient notice, with the City Council's environmental officers, or as requested, to discuss their own responsibilities under the CoCP and those of other parties involved in work on the site.

Where construction activities are being undertaken on two or more sites in close proximity, regular meetings shall be arranged and attended by representatives from each site and WCC to ensure that works are appropriately coordinated in order to minimise impacts.



The developer and contractor shall permit WCC's environmental officers to undertake regular planned inspections of the site to check compliance with the CoCP and associated records.

### **1.7 USE AND APPLICATION OF THE COCP TO LEVEL 3 PROJECTS**

For Level 3 projects, developers/ contractors are generally not required to prepare a SEMP or CMP, nor pay monitoring fees. However this does not alter the need for all projects to comply with the relevant legislation covering demolition and construction impacts or to be considerate of the impacts their activities may have on neighbours. The legislation that developers and contractors of Level 3 projects need to comply with is summarised in the CoCP. Where necessary WCC will not hesitate to enforce the statutory powers they possess.

In circumstances where sites are deemed to be particularly sensitive, the Council reserves the right to request that Level 3 sites may submit information as per the 'Level 3' checklist at Appendix A, potentially including a CMP, although this will not generally be expected.

Not all parts of the CoCP will apply to every construction project. However, WCC will expect all developers and contractors to comply with the spirit of the CoCP, with appropriate provisions being applied to the site at all times (e.g. working hours, minimising impact, informing neighbours, incident reporting).

### **1.8 HOW IS THE DOCUMENT STRUCTURED?**

Chapter 1 provides important background information on what this document is and how it will be used.

Chapter 2 sets out requirements for liaison with the public.

The remaining chapters 3 to 12 deal with the specific impacts that need to be managed, which are:

- General site operations
- Employment and skills
- Traffic and transport
- Noise and vibration
- Dust and air pollution
- Waste management
- Water pollution and flood risk
- Urban ecology
- Heritage assets
- Protection of existing installations

## 1 Introduction

Each chapter highlights the objective and relevant legislation before outlining specific requirements for the particular issue. The key issues to address for Level 1, Level 2 and Level 3 projects are summarised by chapter in Table 1 below. Further details are provided within each chapter; where not stated the requirements apply to all types of project.

**TABLE 1: KEY ISSUES FOR LEVEL 1, LEVEL 2 AND LEVEL 3 PROJECTS**

Topic	Site Level		
	Level 1	Level 2	Level 3
<b>Liaison with the public (Chp 2)</b>			
Engagement with, and information to, neighbours	✓	✓	✓
Information about site operator and contact details on the hoarding	✓	✓	✓
Community liaison meetings	✓	(✓)	
<b>General requirements (Chp 1 &amp; 3)</b>			
Inquiry about site environment	✓	✓	✓
Planning of the site layout	✓	✓	✓
Site safety, health & safety, emergency procedures	✓	✓	✓
Check which permits will be needed	✓	✓	✓
Considerate Constructors scheme	✓	✓	(✓)
<b>Site Environmental Management Plan (SEMP)</b>			
	✓	✓ (except basements)	
<b>Construction Management Plans (CMP)</b>			
	✓	✓ (basements)	
<b>Employment and skills (Chp 4)</b>			
Seek local people for employment where possible	✓	✓	✓
Employment & Skills Plan	✓		
<b>Traffic and highways (Chp 5)</b>			
Planning of site access	✓	✓	✓
Deliveries and traffic routes, traffic management plan	✓	✓	
Lorry holding areas and lorry management	✓	(✓)	
<b>Noise and vibration (Chp 6)</b>			
	Level 1	Level 2	Level 3
Baseline noise monitoring	✓	✓ (✓) basements	
Noise and vibration mitigation (Best practicable means)	✓	✓	✓
Section 61 prior approval for all works	✓	✓ (✓) basements	
Section 61 prior approval for all noisy works outside of core working hours	✓	✓	✓
Noise and vibration monitoring and action levels	✓	✓ (✓) basements	

## 1 Introduction

<b>Dust and air quality (Chp 7)</b>			
No burning on site	✓	✓	✓
Dust mitigation (Best practicable means)	✓	✓	✓
Dust monitoring and action levels	✓	(✓)	(✓)
Wheel washing facility; road sweepers	✓	✓	(✓)
<b>Waste management (Chp 8)</b>			
Arrangement for storage and disposal	✓	✓	✓
Reuse of construction material	✓	✓	✓
Sustainable Waste management plan	✓	(✓)*	
<b>Water pollution and flood control (Chp 9)</b>			
Potential for sites close to River Thames to transport/remove materials by river	✓	✓	✓
Prevention of water and groundwater pollution	✓	✓	✓
Site drainage and waste water discharge	✓	✓	✓
Flood control (if applicable)	✓	(✓)	
<b>Other areas to consider, if applicable</b>			
Urban ecology incl. tree protection (Chp 10)			
Heritage assets (Chp 11)			
Contaminated land (Chp 8)			
Protection of existing installations (Chp 12)			

Legend: ✓ = required; (✓) = may be required (check with WCC); blank = not required.

\* A SWMP is required where the construction project is valued at over £300,000.

Appendix A contains checklists which are required to be returned to the Council. Appendix B lists key legislation and guidance referred to in the CoCP. A glossary of key terms and acronyms is provided in Appendix C. Appendix D provides contact details for relevant City Council departments and external agencies. Appendix E provides guidance on the Employment and Skills Plan (see Chapter 4). Appendix F sets out charges according to site level, and Appendix G contains templates for the Site Environmental Management Plan or Construction Management Plan.

### 1.9 HOW DOES THE COCP RELATE TO PLANNING POLICY?

Agreement to sign up to the terms of this Code of Construction Practice will be evidenced via submission of Appendix A, secured through planning condition, on the basis of the following planning policies which come from Westminster's City Plan: Strategic Policies (November 2013), and from its Unitary Development Plan as well as wider London Plan policies.

Westminster City Council Planning Policies:

## 1 Introduction

**Policy S28 (Design):** *“Development should: ...reduce energy use and emissions that contribute to climate change during the lifecycle of the development...” (the lifecycle of a development includes the construction phase)*

**Policy S29 (Health, safety and well-being):** *“The development of major infrastructure projects will need to mitigate, avoid or remedy environmental and local impacts, both in construction and operation”.*

**Policy S31 (Air quality):** *“The council will require a reduction of air pollution, with the aim of meeting the objectives for pollutants set out in the national [air quality] strategy. Developments will minimise emissions of air pollution from both static and traffic-generated sources...”*

**Policy S32 (Noise):** *“The council will work to reduce noise pollution and its impacts and protect Noise Sensitive Receptors from noise by:*

- *Requiring development to minimise and contain noise and vibration;*
- *Ensuring development provides an acceptable noise and vibration climate for occupants and is designed to minimise exposure to vibration and external noise sources; and*
- *Securing improvements to Westminster’s sound environment...”*

Westminster is currently undertaking a number of separate revisions to its City Plan policies. This includes its Basement Revision to the City Plan, with further policies around construction management and waste likely to be consulted on in 2016/17 as part of the full City Plan revision. These will be combined with Westminster’s strategic policies to form ‘Westminster’s City Plan’. Details of the emerging policies are available on our website including the emerging Revisions to the City Plan.

Unitary Development Plan policies:

**ENV 5 Air Pollution:** *“The City Council will promote measures to improve air quality, in particular encouraging developers to minimise global and local air pollution”*

**ENV 6 Noise:** *“The City Council will require developers, when carrying out construction work, to keep to a minimum disturbance to surrounding areas, and to adhere to hours of working agreed with the City Council prior to start on site”*

London Plan planning policies:

**Policy 5.3 (Sustainable design and construction).** *See Chapter 5 of the London Plan: “The highest standards of sustainable design and construction should be achieved... Development proposals should demonstrate that sustainable design standards are integral to the proposal, including its construction...”*

**Policy 7.14 (Improving air quality). See Chapter 7 of the London Plan:**

*“...Development proposals should: ... promote sustainable design and construction to reduce emissions from the demolition and construction of buildings following the best practice guidance in the GLA and London Councils’ ‘The control of dust and emissions from construction and demolition’.”*

The Mayor’s Supplementary Planning Guidance (SPG) on ‘The control of dust and emissions during construction and demolition’ provides important guidance on the implementation of policy 7.14 (above). In addition the Mayor’s Supplementary Planning Guidance on Sustainable Design and Construction provides guidance on pollution management, including land, air, noise and light pollution.



### **1.10 HOW DOES THE CoCP RELATE TO WIDER LEGISLATION COVERING CONSTRUCTION IMPACTS?**

A large body of environmental and safety requirements relevant to construction projects (including demolition) exists, in the form of primary legislation (Acts of Parliament), secondary legislation (Statutory Instruments, including Regulations and Orders) and statutory guidance and Codes of Practice. This CoCP draws together the relevant requirements and stipulates selective additional requirements where WCC considers it necessary, for example due to the unique pattern and context of development in the City of Westminster.

## 1 Introduction

Each chapter of this document sets out the main statutory provisions, regulations, codes of practice and standards relevant to each environmental topic. In addition, a list of all items of legislation, etc. referred to in the CoCP is included in Appendix B. However, the legislative requirements, standards, etc. in this document are not exhaustive. It is the responsibility of the developer and contractors to monitor the development and implementation of new environmental legislation and regulation and to use the appropriate standards prevailing at the time of awarding contracts. The contractor must comply with all prevailing legislation at the time of construction, including any Health and Safety requirements.

Environmental and safety legislation places responsibilities on developers and contractors in three principal ways. The developer/contractor:

- Has a duty to obtain a permit (e.g. licence, consent, authorisation) to undertake certain activities (e.g. a discharge consent is required to drain wastewater to a surface watercourse);
- Is prohibited from causing harm to the environment or human health – this approach runs through all UK pollution control legislation, and places an onus on a site operator to manage activities in such a way as to protect both the environment and human health;
- Has a duty to comply with specified requirements (e.g. complete duty of care for waste transfer).

In addition to statute law, common law also places requirements on contractors to apply a duty of care to others. Developers and contractors may be liable for any personal injuries or property damage that may arise from a breach of that duty.

Besides environmental permits (mentioned above), other aspects of construction are also subject to licensing requirements. For example, licences are required from the City Council before:

- Erecting any scaffolding, hoardings, gantry, temporary crossing or fence on the highway (see section 3.9);
- Depositing a skip; or
- Operating a mobile crane, aerial platform, concrete pump lorry or any such equipment.

The Council will look to the developer's nominated representative to ensure that all relevant licences are sought in a timely fashion, and that details are displayed and/or kept on site as appropriate. It should be noted that under the Traffic Management Act 2004 and the Road Traffic Regulation Act the Council has a duty to manage the traffic on its network. Where necessary this can include controlling the timing of licences, e.g. through imposing controls

## 1 Introduction

on the timing of deliveries, or requiring loading and unloading to take place in specified locations, or even to grant licences for only a single site at a time.

The developer's nominated representative has a duty to inform local residents likely to be affected by such activities at least 14 days prior to undertaking the works, as well as applying for the appropriate permits and licences. For Level 1 and Level 2 projects residents should be kept informed through a monthly newsletter. Such newsletters should also update neighbours on site progress and projected activities that might cause loss of amenity, such as road closures for delivery or use of mobile cranes or abnormal deliveries to the site.

# 2 LIAISING WITH THE PUBLIC

*Summary: This chapter sets out the processes that must be followed in liaising with the public for different types of projects.*

## 2.1 OBJECTIVES

The Developer or developer's nominated representative should develop and maintain good relations with the local community by keeping neighbours informed of progress and by responding to complaints quickly fairly, and effectively.

## 2.2 LEVEL 3 PROJECTS

The following specific requirements regarding liaison with the public apply to Level 1 and Level 2 projects only. However liaison with the public is no less important on Level 3 projects. The developer's nominated representative must ensure that occupiers of nearby properties are informed in advance of works taking place, including: the start date, estimated duration and nature of the project, details of contact names and numbers of appropriate site personnel. This may be of particular importance in proximity to noise sensitive receptors, or those sensitive to vibration where early engagement will be invaluable in planning logistics. In the case of work required in response to an emergency, WCC and local residents shall be advised as soon as reasonably practicable that emergency work is taking place.

Where complaints are made to the site, the contractor is expected to respond sympathetically, promptly and effectively. If no resolution can be found the complaint should be referred to WCC (see contact details in Appendix D), who will investigate it. The nominated representative must ensure that a dedicated complaints logbook is maintained covering: the nature of the complaint; the cause; and where appropriate, the remedial action taken. WCC may request to see this logbook at any time.

## 2.3 COMMUNITY RELATIONS (LEVEL 1 AND LEVEL 2 PROJECTS ONLY)

Community relations personnel should be provided, who will be focussed on engaging with occupiers of nearby properties (residential and business), and local amenity associations and neighbourhood forums where these exist, at all stages of the project starting, where practicable, before any works begin on site. This may be of particular importance in

## 2 Liaising with the Public

proximity to noise sensitive receptors, or those sensitive to vibration where early engagement will be invaluable in planning logistics. They should provide appropriate information and be the first line of response to resolve issues of concern. In particular, reasonable steps should be taken to engage with the elderly and residents with disabilities, and with other groups in the neighbouring area who might be affected by construction impacts in different ways (religious groups with different holy days, or noise sensitive receptors for example).



This could include producing a newsletter at appropriate stages providing details of site progress, perhaps including photographs, and a look ahead to the coming week advising people in advance of any likely noisy works that are likely to take place.

The contractor will ensure that occupiers of nearby properties, and local amenity associations, business improvement districts or similar groups where these exist, will be informed in advance of works taking place, including: the start date, estimated duration and nature of the project, the principal stages of the project, details of contact names and numbers of appropriate site personnel. In the case of work required in response to an emergency, WCC and local residents shall be advised as soon as reasonably practicable that emergency work is taking place. Potentially affected occupiers will also be notified of the 'Hotline' number and contact email address or web-based system for notifying of complaints, which will operate during working hours.

The developer's nominated representative will ensure that:

## 2 Liaising with the Public

- (a) contractor and subcontractor compliance with undertakings and performance against commitments, local agreements and specific community requirements throughout the project is monitored and recorded;
- (b) regular communication takes place to ensure that the community, local amenity associations, business improvement districts and other stakeholders and affected parties are kept well informed. The nominated representative should ensure production of monthly project update newsletters, detailing key contacts on site and expected disruptions and the measures being taken to minimise adverse impacts of these works, at least three weeks prior to construction activity taking place. The nominated representative will also be required to organise the holding of regular community meetings to allow community members to raise issues of concern and enable modification of activities to reduce impact;
- (c) ensure emergencies, complaints or other contacts made via the 'Hotline' or any other recognised means are responded to quickly and effectively, with feedback given about the action taken;
- (d) there is close liaison with the emergency services, local authority officers and other agencies (based on established contacts) who may be involved in incidents or emergency situations;
- (e) there is effective liaison with appropriate local community projects, employment and educational initiatives (required for Level 1 projects only, but good practice for others);
- (f) a comprehensive community emergency plan is put in place for each phase of the work. This will ensure that in the case of a major emergency, the community can be kept fully informed and will ensure that adequate arrangements are in place for the evacuation of an affected area if necessary; and
- g) shall ensure that a 'contact board' is displayed outside the site (e.g. on hoardings), identifying key personnel (with contact addresses, telephone numbers and email address), so that members of the public know who to contact in the event of a report or query. Additional information could include details of the scheme and its progress.

The developer's nominated representative will ensure that a telephone 'Hotline' and email address is maintained and advertised, which must be staffed during working hours to handle enquiries regarding construction activities from the general public. It will also act as a first point of contact and information in the case of any emergency.

All calls will be logged, together with the responses given and how the callers' concerns were addressed. All calls should be responded to promptly. The helpline will be widely

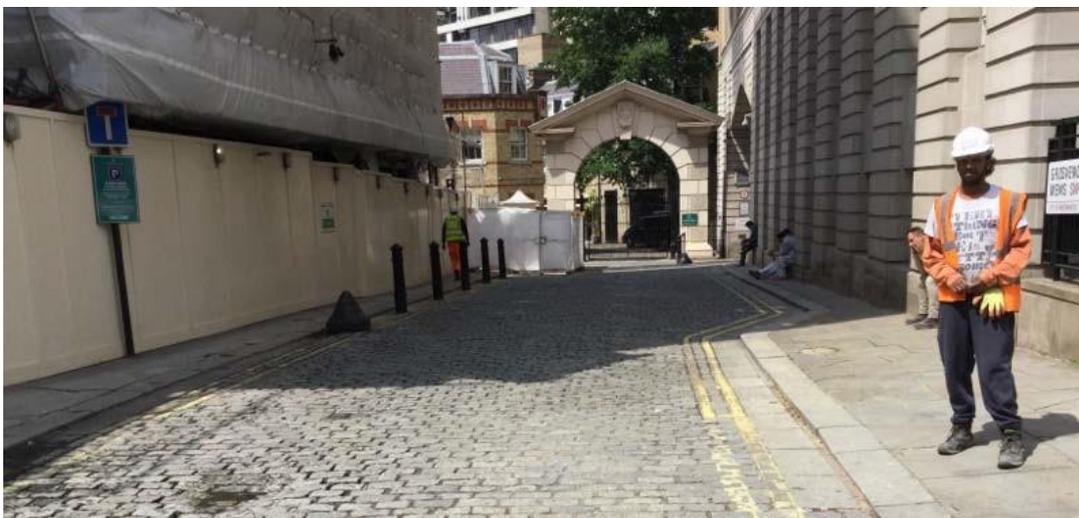
advertised and displayed on site signboards. A monthly report will be forwarded to WCC for review and comment.

### 2.4 NOTIFICATION REGARDING SEMP (LEVEL 1 AND 2 PROJECTS ONLY)

On Level 1 and Level 2 projects a Site Environmental Management Plan (SEMP; see section 1.4), or, for basements, a Construction Management Plan (CMP) must be produced to demonstrate how the project will comply with this CoCP. A condition will require applicants to submit Appendix A, demonstrating that the applicant agrees to be bound by the CoCP, its charges and monitoring and that it will submit to the Environmental Inspectorate for approval, an SEMP/CMP which deals with the relevant issues.

It is important to appreciate that by submitting Appendix A, the applicant enters into certain obligations including the submission of an SEMP/CMP. The aim of the SEMP is to set out the overarching approach and principles and not to define every detail; indeed it would not be possible or reasonable to secure all details of management and mitigation measures before construction (or demolition) commences on site. Construction is a dynamic process which often comes up against unforeseen challenges, hence developers and contractors need a degree of flexibility and compliance with the CoCP is managed by experts able to use professional judgement.

The planning system has limited powers to control the construction process and its impacts, and this CoCP seeks to move away from enforcement via the planning system. There is a range of legislation that does enable WCC to closely monitor and control all of these processes and impacts (see sections below and Appendix B). This legislation does not require public consultation on the proposed measures, but as part of this Code, the council requires the developer to notify affected residents and businesses 3 weeks ahead of submission of the SEMP/CMP. The need for notification is set out above at s2.3 on



## 2 Liaising with the Public

community relations requirements.

Table 2 below sets out indicatively, how it is envisaged that public notification and comments will inform the SEMP/CMP. Where the ‘notification’ of the public runs parallel to public consultation undertaken as part of the planning application, it is still necessary for the developer to demonstrate in the SEMP/CMP how issues raised arising either from the planning process or from the developer notification process are being addressed.

**TABLE 2: PUBLIC LIAISON**

Stage	Action
<b>Planning application submitted</b>	Public consultation begins on the planning application, and any comments made by the public or councillors relating to construction impacts to be taken on board by the Developer and incorporated in the SEMP/CMP.
<b>Planning application is determined</b>	Any comments arising relating to construction impacts to be taken on board by the Developer, and incorporated in the SEMP/CMP. Where appropriate, and particularly where there are significant concerns, the planning committee or other decision maker will impose conditions requiring specific mitigating measures within the SEMP/CMP. In such circumstances the permission cannot be implemented unless those mitigation measures have been agreed within the SEMP/CMP.
<b>Notification to neighbouring uses 3 weeks prior to submission of SEMP/CMP</b>	Developer to address each substantive construction related concern received both as part of the planning application process and arising from the three week notification of the SEMP/CMP and to propose within the submission document all necessary mitigation measures.
<b>Submission of SEMP/CMP 40 working days prior to start on site</b>	Environmental Inspectorate review SEMP/CMP.

# 3 GENERAL SITE OPERATIONS

*Summary: This chapter outlines the requirements relating to site management practices, including working hours, site layout and appearance, good housekeeping and health and safety.*

## 3.1 OBJECTIVES

Westminster City Council requires that the contractor carries out the work in accordance with current best industry practices in order to minimise, as far as reasonably practicable, any adverse environmental impact of their construction activities (including demolition work).

The site shall be managed in accordance with the requirements of the City Council. The developer's nominated representative will be responsible for obtaining all appropriate licences and consents in respect of site operations.

All of those working on a site must comply with all the relevant statutory provisions in respect of safety and will be required to work in such a way as to ensure the safety of the public and its workers.

## 3.2 WORKING HOURS

Core working hours will be from 0800 to 1800 on weekdays and 0800 to 1300 on Saturday. In residential areas noisy works associated with a development (e.g. demolition, piling and earthworks) will be limited to weekdays from 0800 to 1800 hours, unless otherwise agreed. Sites in proximity to noise sensitive receptors are expected to agree such quiet periods as are operationally necessary for the noise sensitive receptors, coordinating with other sites in the vicinity to ensure such periods align. The developer will ensure that the contractor adheres to these working hours for each site unless otherwise agreed with WCC. As far as reasonably practicable and where feasible, operations anticipated to cause disturbance would be limited to these hours, except in the case of an emergency.

The developer or contractor will have to apply for consents from WCC under the Control of Pollution Act 1974, Section 61, and will obtain a consent (which will include noise limits and vibration limits where relevant) for construction works on Level 1 projects and Level 2 projects and noisy out of hours work. The applications for consent will include details of the work to be undertaken, including proposed hours of work. The right to appeal against a

## 3 General Site Operations

withholding of consent or against conditions subject to which it is given is retained, and references to agreement are to be so construed.

All construction related traffic will abide by the agreed hours of working for each site unless otherwise agreed with WCC.

### 3.3 GOOD HOUSEKEEPING

The developer's nominated representative will ensure that all those working on a site follow a 'good housekeeping' policy at all times. This will include, but not necessarily be limited to the following:

- ensuring considerate site behaviour of all those working on a site ;
- prohibiting open fires;
- ensuring that appropriate provisions for dust control and road cleanliness are implemented;
- removal of rubbish at frequent intervals, leaving the site clean and tidy;
- frequent inspection, repair and re painting as necessary of all site hoardings to comply with the conditions of the City Council's Licence - all flyposting and graffiti is to be removed as soon as reasonably practicable and within 24 hours of notice from the City Council;
- maintenance of toilet facilities and other welfare facilities for its staff;
- removal of food waste;
- frequent cleansing of wheel washing facilities;
- prevention of vermin and other infestations (and prompt and effective action to deal with any that do arise); and
- undertaking all loading and unloading of vehicles off the highway wherever this is practicable
- ensuring that tunnels beneath gantries are well lit at all times



### 3.4 HEALTH AND SAFETY

All site work must be carried out in accordance with the provisions of the Health and Safety at Work Act 1974 to the satisfaction of the HSE or its local officer. The Health and Safety at Work Act 1974 places a number of general and specific duties on employers, employees and the self-employed. Section 2 of the Act places a duty on every employer to ensure, as far as is reasonably practicable, the health, safety and welfare at work of all employees.

Employers are also under a duty (section 3) to ensure, so far as is reasonably practicable, that persons not in their own employment (e.g. contractors or sub-contractors) are not exposed to risks to their health and safety. Section 7 of the Act places a duty on every employee while at work to take reasonable care of the health and safety of themselves and of other persons, and to cooperate with their employer or any other person with regard to any duty or other statutory requirement.



A large number of statutory regulations made under the 1974 Act set out detailed requirements for specific aspects of health and safety (e.g. provision of personal protective equipment, ladders, lighting, signs, electrical equipment, manual handling). These must be complied with during all construction works.

The developer's nominated representative will ensure that appropriate industry standards for health and safety are applied, and that continuous improvement in safety performance is sought, in accordance with the principles of HSG65 "Successful health and safety management", published by the Health & Safety Executive,

Nothing in this Code should be read as replicating, amending or replacing duties under the Construction (Design & Management) Regulations 2015. These apply to all construction projects in Great Britain with additional duties where a construction phase is planned to

### 3 General Site Operations

exceed 30 working days in duration or involving more than 500 person days (these are referred to as notifiable projects as they require formal notification of the Health and Safety Executive). The developer will ensure that adequate arrangements are in place for the discharge of all duties as named parties under the Construction (Design & Management) Regulations 2015 (CDM 2015). The table below, taken from the HSE summarises the key duties:

**TABLE 3: SUMMARY OF DUTIES UNDER CONSTRUCTION (DESIGN AND MANAGEMENT) REGULATIONS 2015 (CDM 2015)**

<b>CDM Dutyholders* – Who are they?</b>	<b>Main duties – What they need to do</b>
<b>Commercial clients</b> – Organisations or individuals for whom a construction project is carried out that is done as part of a business.	<p>Make suitable arrangements for managing a project, including making sure:</p> <ul style="list-style-type: none"> <li>• other dutyholders are appointed as appropriate</li> <li>• sufficient time and resources are allocated</li> </ul> <p>Make sure:</p> <ul style="list-style-type: none"> <li>• relevant information is prepared and provided to other dutyholders</li> <li>• the principal designer and principal contractor carry out their duties</li> <li>• welfare facilities are provided</li> </ul>
<b>Domestic clients</b> – People who have construction work carried out on their own home (or the home of a family member) that is not done as part of a business.**	<p>Though in scope of CDM 2015, their client duties are normally transferred to:</p> <ul style="list-style-type: none"> <li>• the contractor for single contractor projects</li> <li>• the principal contractor for projects with more than one contractor</li> </ul> <p>However, the domestic client can instead choose to have a written agreement with the principal designer to carry out the client duties.</p>
<b>Designers</b> - Organisations or individuals who as part of a business, prepare or modify designs for a building, product or system relating to construction work.	<p>When preparing or modifying designs, eliminate, reduce or control foreseeable risks that may arise during:</p> <ul style="list-style-type: none"> <li>• construction</li> <li>• the maintenance and use of a building once it is built</li> </ul> <p>Provide information to other members of the project team to help them fulfil their duties.</p>
<b>Principal designers</b> - Designers appointed by the client in projects involving more than one contractor. They can be an organisation or an individual with sufficient knowledge, experience and ability to carry out	<p>Plan, manage, monitor and coordinate health and safety in the pre-construction phase of a project. This includes:</p> <ul style="list-style-type: none"> <li>• identifying, eliminating or controlling foreseeable risks</li> <li>• ensuring designers carry out their duties</li> </ul>

### 3 General Site Operations

<p>the role.</p>	<p>Prepare and provide relevant information to other dutyholders. Liaise with the principal contractor to help in the planning, management, monitoring and coordination of the construction phase.</p>
<p><b>Principal contractors</b> – Contractors appointed by the client to coordinate the construction phase of a project where it involves more than one contractor.</p>	<p>Plan, manage, monitor and coordinate health and safety in the construction phase of a project. This includes:</p> <ul style="list-style-type: none"> <li>• liaising with the client and principal designer</li> <li>• preparing the construction phase plan</li> <li>• organising cooperation between contractors and coordinating their work</li> </ul> <p>Make sure:</p> <ul style="list-style-type: none"> <li>• suitable site inductions are provided</li> <li>• reasonable steps are taken to prevent unauthorised access</li> <li>• workers are consulted and engaged in securing their health and safety</li> </ul> <p>welfare facilities are provided</p>
<p><b>Contractors</b> – Those who carry out the actual construction work, contractors can be an individual or a company.</p>	<p>Plan, manage and monitor construction work under their control so it is carried out without risks to health and safety. For projects involving more than one contractor, coordinate their activities with others in the project team – in particular, comply with directions given to them by the principal designer or principal contractor. For single contractor projects, prepare a construction phase plan</p>
<p><b>Workers</b> – Those working for or under the control of contractors on a construction site.</p>	<p>Workers must:</p> <ul style="list-style-type: none"> <li>• be consulted about matters which affect their health, safety and welfare</li> <li>• take care of their own health and safety, and of others who might be affected by their actions</li> <li>• report anything they see which is likely to endanger either their own or others' health and safety</li> <li>• cooperate with their employer, fellow workers, contractors and other dutyholders</li> </ul>

Source: [www.hse.gov.uk/cdm/2015/summary.htm](http://www.hse.gov.uk/cdm/2015/summary.htm)

\* Organisations or individuals can carry out the role of more than one dutyholder, provided they have the skills, knowledge, experience and (if an organisation) the organisational capability necessary to carry out those roles in a way that secures health and safety.

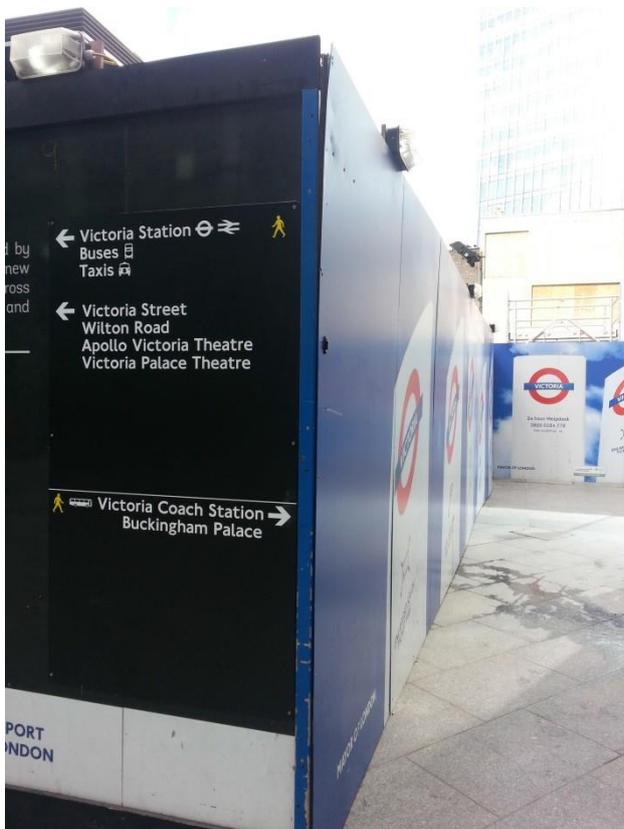
### 3 General Site Operations

\*\* CDM 2015 applies if the work is carried out by someone else on the domestic client's behalf. If the householder carries out the work themselves, it is classed as DIY and CDM 2015 does not apply.

For Level 1 and Level 2 projects the developer is responsible for ensuring the production of a health and safety management system in accordance with the principles of the Occupational Health and Safety Advisory Service's 18001 "Occupational health and safety management systems". This system will include documentation defining the nominated undertaker's internal arrangements for managing health and safety on the project and the specific requirements for health and safety applying to all designers, contractors and sub-

contractors appointed to work on the project.

The arrangements for health and safety will include a system for management of risks. This will require all hazards to be identified, and suitable and sufficient assessments made of the risk, followed by adoption of appropriate measures to eliminate the risk or to control the risk, so far as is reasonably practicable. Where risks to the public are involved, these will be reduced to as low as reasonably practicable, and will be managed in accordance with the guidance in HSG151 "Protecting the Public" published by the Health and Safety Executive.



The developer's nominated representative

will continuously monitor the work of contractors and sub-contractors and will conduct a programme of audits and inspections to ensure compliance with the requirements of this Code and other project health and safety requirements.

Further references to health and safety issues are picked up in relevant sections of this Code of Construction Practice.

### 3.5 PUBLIC INFORMATION

As a minimum requirement, the site hoarding will display up-to-date information on the site programme (start and finish dates) and telephone contacts for the developer's nominated representative and other key personnel of use for information or reporting purposes.

## 3 General Site Operations

As a condition of licence for any temporary structure on the Public Highway, the City Council will require the developer/contractor to affix its own signboard/contact details.

Where practicable and suitable the developer's nominated representative may also arrange for a viewing platform and / or observation window at the site.

### 3.6 SECURITY

The developer's nominated representative must ensure that the site is secure and that unauthorised entry to or exit from the site is prevented. Site gates must be closed and locked when there is no site activity and site security provisions must be put in place. Alarms must be connected to a 24-hour monitoring station and should adhere to HSE requirements, with a notice specifying contact details for the monitoring company, and must incorporate an appropriate cut out period.

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](http://www.streetlink.org.uk) to enable local teams to work with the developer to address any issues. The council may also be able to offer training packages to security staff on rough sleeping in line with its rough sleeping strategy.

### 3.7 SITE LAYOUT AND FACILITIES

#### 3.7.1 FENCING AND HOARDINGS

**General:** All work sites will be completely fenced to prevent public access. The range of allowable variations is described below.

**The Standard Hoarding:** The standard hoarding is a 2.44m minimum height, plywood faced, timber framed boundary hoarding, of a surface density of not less than 7kg/m<sup>2</sup> for normal security and noise limitation requirements.

Manufacturers can now supply recycled (and recyclable) PVC hoarding in a 2.44m height, fire rated to BS476 part 6 and 7 with class 0 certification.

The minimum height should be increased where necessary to protect buildings from noise and where local terrain or structures would allow the fence to be scaled by potential intruders. Advice should be sought from the Local Crime Prevention Officer of the Metropolitan Police. As set out above at 3.6, hoardings and temporary structures should be

### 3 General Site Operations

designed to minimise opportunities for anti-social behaviour. Where such issues arise the Council may require revision of the hoarding alignment, and additional security measures/lighting as appropriate.

**Green Hoarding:** Climbing plants are increasingly used on hoardings to improve visual amenity, resist graffiti, reduce noise and improve air quality through filtering dust and pollution. When a horizontal length of more than 50 metres of hoardings needs to be erected adjacent to the public highway, the incorporation of green hoardings will be encouraged, and required where it is due to be in place for 12 weeks or more. These should be appropriately maintained. Where practicable this should incorporate a full cover of climbing plants, with the plants trimmed back only to allow for essential lighting and health and safety signage.

**Special Circumstances:** Where a particular appearance or acoustic rating is needed this will be specifically requested by the City Council, unless dictated differently under a statutory Estate Management Scheme/Lease in the Westminster area. For example hoardings may need to be of a design appropriate to the character of the surrounding townscape. This may include one or more of the following:

- Incorporation of art work visualising the proposed development or photographic views of the local area or incorporating art work, mounted onto standard well maintained hoardings.
- Incorporation of viewing windows into standard well maintained hoardings to preserve important views and provide opportunities to observe construction activity.
- Incorporation of a full cover of climbing plants, with the plants trimmed back only to allow for essential lighting and health and safety signage.

The provisions of the Health and Safety at Work etc Act 1974 must be followed in all cases.

Hoardings must be lit from half an hour after sunset to half an hour before sunrise as a minimum.

Gates in the fencing or hoarding should, as far as is practicable, be positioned and constructed to minimise the noise transmitted to nearby noise-sensitive buildings. This must take account of noise emerging directly from the construction site direct and noise from plant entering or leaving the site. Gates must not open outwards onto the highway.

The developer's nominated representative will ensure that all hoardings are painted in a plain uniform manner but will have contrasting markings at projecting angles (to assist the visually impaired) to the satisfaction of the City Council. Any specially designed exterior decorations will require City Council approval and, potentially consent under the Control of Advertisements Regulations.

### 3.7.2 LOCATION OF HUTS, EQUIPMENT, SKIPS ETC

The location of site huts or office accommodation on or over the highway on gantries will not be permitted. These facilities should be accommodated within the boundaries of the site. Particular care should be taken where skips or heavy equipment are to be placed above vaults. Only in exceptional circumstances, where site huts cannot be accommodated on site, will the Highway Authority consider applications for licences/consents to locate them outside the boundaries of the site. Consent will not, however, be granted for any site huts for office accommodation on or above the highway. Applications for welfare facilities on or over the highway on gantries will be considered on their merits. The relevant consent or licence must be obtained from the Highway Authority before placing on the highway any skip or erecting any temporary structure, scaffold, hoarding, hoist, gantry, fence or excavation. Where this would lead to loss of residents' parking spaces an equal number of visitor parking bays in the vicinity should be converted into residents' parking bays for the duration of the works.

### 3.7.3 LIVING ACCOMMODATION

No living accommodation will be permitted on site other than with the approval of the City Council. Mess rooms, locker rooms, toilets, canteens and showers will be permitted.

## 3.8 LIGHTING

Lighting to site boundaries must be provided. On the Transport for London Route Network this will be discussed with Transport for London. Illumination should be the minimum sufficient to ensure the safety of the passing public, including disabled people, and security. Where practicable, precautions will be taken to avoid shadows cast by the site hoarding on surrounding footpaths, roads and amenity areas.

Site lighting must also be positioned and directed so as not to unnecessarily intrude on adjacent buildings, wildlife sites and other land uses, or to cause distraction or confusion to passing traffic on adjoining public highways. The design will ensure that any artificial light emitted from premises will not be prejudicial to health or be a nuisance as required by the Environmental Protection Act 1990.

The lighting will be designed to comply with the provisions of BS5489, Code of Practice for the Design of Road Lighting, where applicable. Further guidance is contained within Guidance Notes for the Reduction of Light Pollution, GN01, 2005, or later revisions published by the Institute of Lighting Engineers. This includes designing lighting to minimise effects on terrestrial ecology and the aquatic environment.

Where a hoarding, scaffold or temporary structure is to be installed upon the highway in close proximity to a lighting column or illuminated street signage (less than 2m) the further

### 3 General Site Operations

measures need to be discussed with the Environmental Inspectorate and Westminster's Lighting Compliance Officer.

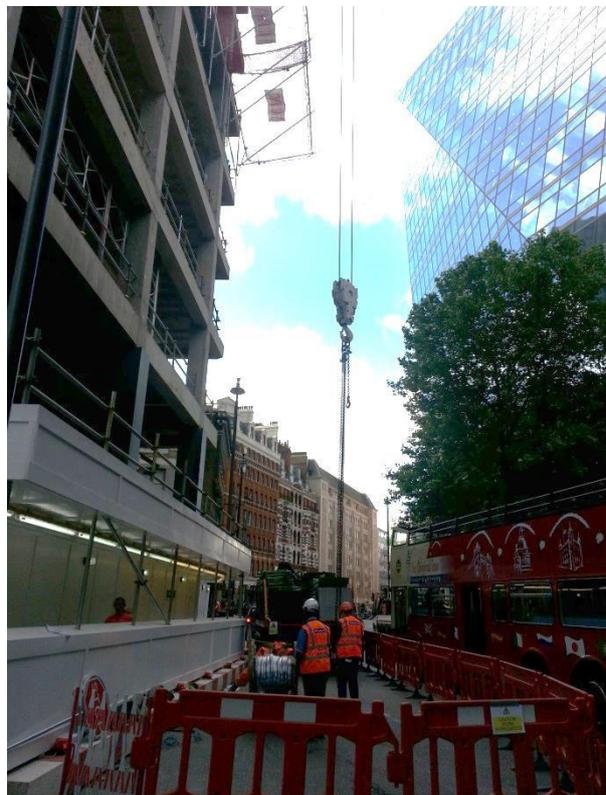
A decision will be needed on whether the lighting column or the signage has to be disconnected and whether replacement lighting/signage needs to be provided. In all cases 24 hour access to the base compartment of the lights/signage must be maintained.

Site security cameras, where used, must be sited in locations which will not cause nuisance or offence to local residents.

#### 3.9 TEMPORARY STRUCTURES ON THE HIGHWAY

Fenced storage areas, scaffolding gantries, loading/unloading bays, skips and other temporary structures on the highway will be provided and maintained to the conditions of a Licence issued by the City Council or TfL. It is recommended that due to structural stability issues basement contractors in particular have some knowledge of temporary works as defined in BS5975:2008.

When locating storage areas, temporary structures, etc. the developer's nominated representative must consider the particular needs of and the vulnerability of pedestrians in order to provide a safe and direct route for them. In particular, this will ensure adequate highway is available throughout the period of the works, particularly where there are high volumes of pedestrians. All barriers, clutter, and storage of materials and equipment within the footway will be minimised to ensure safe pedestrian movement.



In view of the potential impacts faced by both traffic and pedestrians, temporary structures etc. should only be allowed on the highway in exceptional circumstances. Where they are permitted, the contractor must pay particular attention to the safety of pedestrians as well as ensuring that any revision to traffic cyclist or pedestrian flows are properly controlled by signs, lights, banksmen etc. as necessary.

### 3.10 EMERGENCY PLANNING AND RESPONSE

**Emergency Procedures:** For Level 1 and Level 2 projects the developer's nominated representative will ensure that emergency procedures are developed, implemented and updated where necessary. The emergency procedure will include emergency pollution control measures that will take into account current relevant Environment Agency and government guidance relating to pollution. The emergency procedures will be produced in consultation with the emergency services.

The emergency procedure will contain emergency phone numbers and the method of notifying WCC and other statutory authorities. Copies of the procedures will be issued to the City Council, London Fire Brigade (LFB), the Police, the Ambulance Service and other relevant authorities etc. Emergency telephone numbers for developer's/contractor's key personnel will also be included.

**Emergency Access:** The nominated undertaker will ensure that the requirements of the London Fire and Emergency Planning Authority (LFEPA) will be followed for the provision of site access. Where appropriate, the accesses to the site will be designed to the requirements of the London Fire Brigade Note 'Access for Fire Appliances' which addresses the road widths required for fire apparatus. The accesses may vary over time and must also be suitable for ambulances.

**Fire Prevention and Control:** All construction sites and associated accommodation or welfare facilities will have in place appropriate plans and management controls to prevent fires. The site fire plans will be prepared and will have due regard to the following documents:

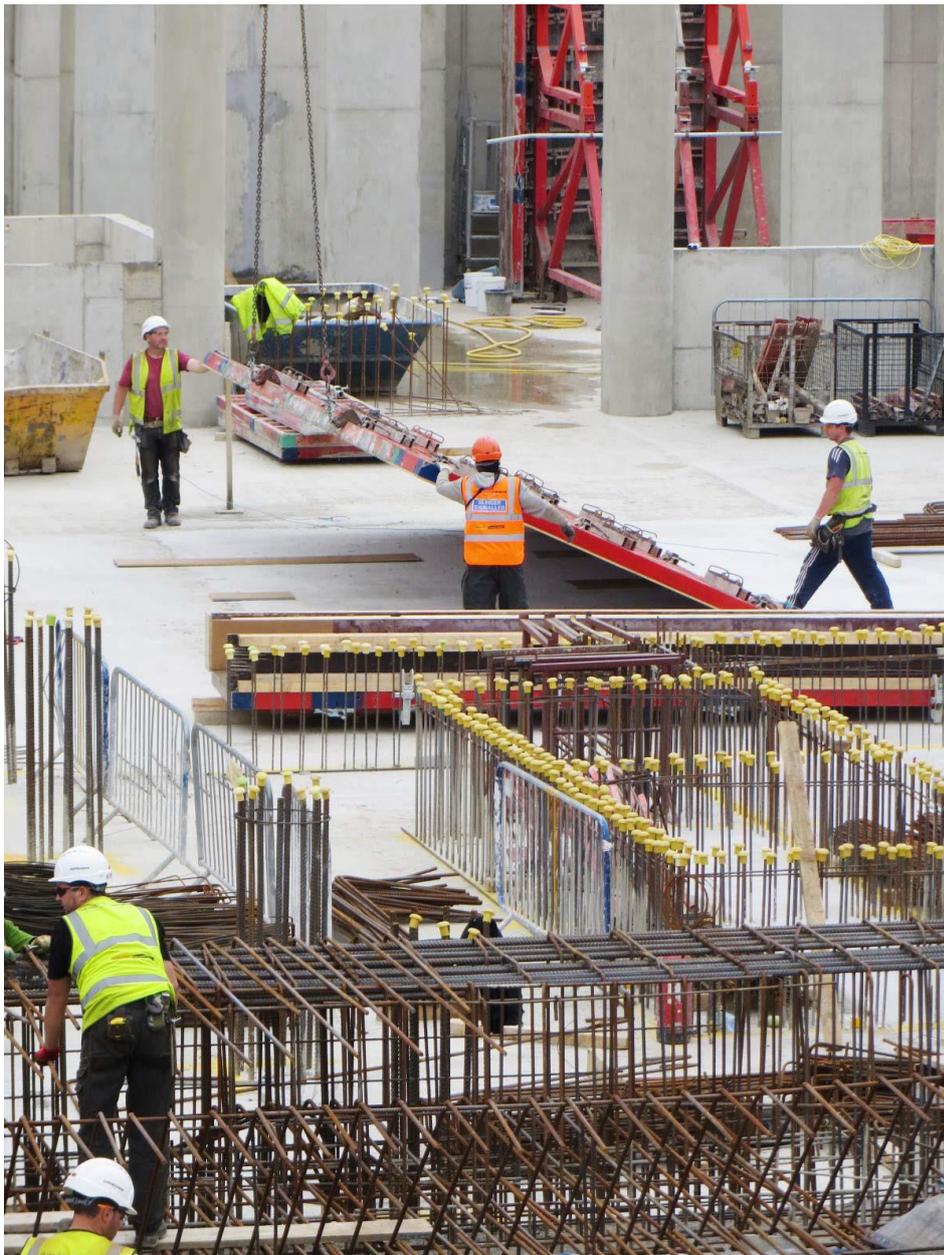
- (a) Fire Safety in Construction (HSG 168);
- (b) Fire Prevention on Construction Sites (CFPA Europe).

During project planning and design development, the developer's nominated representative should ensure reduction of fire risk and potential fire load during construction, operation and subsequently during maintenance or repair. The specification of non-combustible materials, products and packaging will be pursued wherever reasonably practicable. The project will also have to comply with any third party requirements as may be appropriate at specific sites.

### 3.11 OPERATION OF EQUIPMENT

The developer's nominated representative must take all reasonable precautions to ensure that equipment is operated in a manner so as not to cause nuisance to surrounding residents and occupiers.

Permission must be obtained from the Highway Authority by the developer's nominated representative before any plant, compressor, cement mixer, tar pot or other machinery can be stored or operated on the public highway.



### 3.12 CRANES

Crane arcs will be confined within the site boundary unless agreed otherwise with the Highway Authority and with property owners/occupiers whose air space is affected. Any Temporary Traffic Order (see Chapter 5) that may be required by the developer or its contractors must be applied for at least eight weeks before commencement of any Order, and the relevant fee must be paid beforehand. The developer's nominated representative will ensure the relevant permissions are obtained from the appropriate authority for cranes located adjacent to railways, roads or rivers. Cranes will be operated in accordance with the requirements of BS 7121, Code of Practice for Safe Use of Cranes. Aviation obstruction lighting should be provided for cranes of 150 metres or more above ground level, and for cranes of a lesser height where they are considered a significant navigational hazard, in accordance with the requirements of Article 219 of the UK Air Navigation Order 2009. Erection and dismantling of cranes should take place where possible within site boundaries.

The City Council will require an indemnity against all claims associated with the operation of crane jibs that oversail the highway.

### 3.13 PEST CONTROL

The developer's nominated representative shall ensure that the risk of infestation by pests or vermin is minimised. Adequate arrangements for disposing of food waste or other material attractive to pests must be implemented. If infestation occurs the nominated representative must ensure that such action to deal with it as required by the City Council's Environmental Health Officer is taken.

### 3.14 UNEXPLODED ORDNANCE

There may be unexploded bombs, shells and incendiary devices buried in sites that have been left undisturbed since World War II. The developer's nominated representative must ensure that all operatives are warned of this possibility. Should any such item be uncovered during the works the Metropolitan Police should be informed immediately and action taken as directed by them.

Where appropriate a risk assessment will be completed by the contractor for the possibility of unexploded ordnance being found on the various sites. An emergency response procedure will be prepared and implemented to respond to unexploded ordnance.

### 3.15 ELECTROMAGNETIC INTERFERENCE

The developer's nominated representative will consider the impacts of any electromagnetic interference on wireless telecommunication systems during the design and construction of the project, and where appropriate will employ best practice technology to ensure that levels of Radio Frequency Interference (RFI) associated with the project are low and at acceptable levels. In the case of adverse impacts, the nominated representative will investigate reports and if it is found to be linked to site activities, it must be resolved or, where this is not possible, mitigated.

### 3.16 RESPONSIBILITY FOR SITE INSPECTION

Nominated representatives from the developer/contractor and the City Council will inspect the worksite on a regular basis as agreed beforehand. The inspection will cover matters including equipment working methods and arrangements on the worksite. A schedule of defects will be prepared and agreed. The amount of time allowed to make good all defects will be determined by Council officers (normally 24 hours). If the contractor fails to take any required action to do this, the developer/client will exercise provisions in the contract to rectify the situation.

### 3.17 CLEARANCE AND REINSTATEMENT OF SITE ON COMPLETION

On completion of the works the developer's nominated representative will clear away and remove from the highway all plant, surplus materials, rubbish and temporary works of every kind. The site will be left clean and in a condition to the satisfaction of the City Council. Any potentially hazardous defects to the highway will be made good, prior to permanent reinstatement by the City Council. The provisions of s278 Highways Act 1980, which may require land owners to make financial contributions towards the carrying out of highway works, may also be applicable. This would require agreement of the process and the need for prior inspection to be agreed before works commence.



### 3.18 CONSIDERATE CONSTRUCTORS SCHEME (LEVEL 1 AND 2 PROJECTS ONLY)

Contractors will be required to manage sites and achieve formal certification under the Considerate Constructors Scheme (CCS), operated by the Construction Federation (or any future comparable scheme).

The Code of Considerate Practice commits those sites and companies registered with the Scheme to enhance site appearance, respect the community, protect the environment, secure everyone's safety and care for the workforce. Ten credits are available in each category, with the total score being out of 50.

For each site, contractors will be required to achieve a minimum score (seven out of ten) for each of the five categories. Should the site not be able to achieve this, an explanation indicating that the highest possible score has been achieved will be required from the contractor.

A copy of the CCS certificate will be sent to the Council.

#### **Best Practice Hub**

The CCS also provides a free online resource for best practice in considerate construction. Users of the Best Practice Hub can share innovation, best practice case studies and data on topical issues of interest such as mental health, noise and protection from the sun. The best practice hub is available at:

<https://ccsbestpractice.org.uk/>

# 4 EMPLOYMENT AND SKILLS

*Summary: This chapter sets out Employment and Skills Plan (ESP) requirements for developers of Level 1 projects. It also explains how the council can assist developers and contractors in developing partnerships with local organisations and recruiting employees locally.*

## 4.1 OBJECTIVES

Westminster City Council seeks to promote the provision of employment, training and skills development for local residents through construction projects. It sees this as an important part of supporting the long-term unemployed and other priority groups into sustainable employment while also helping the development sector secure the workforce it needs from places near their operations. Additional potential benefits of employing local people on construction sites include reduced traffic movements and ensuring that regeneration benefits are felt locally.

The developer/ contractor/ consultants will employ staff with appropriate skills, qualifications and experience appropriate to the needs of the works to be carried out during construction. Where appropriate, they will identify training needs for the construction workforce and will ensure that appropriate training requirements are fulfilled. Site briefings and toolbox talks will be carried out on a regular basis to ensure the construction workforce have a level of knowledge on environmental topics and community relations, and can effectively follow environmental control procedures

## 4.2 EMPLOYMENT AND SKILLS PLAN (LEVEL 1 SCHEMES ONLY)

Developers of Level 1 schemes are required to submit an Employment and Skills Plan (ESP) as part of the SEMP setting out how the following outcomes will be achieved:

- The developer must make best endeavours to ensure a minimum of 10% of the total workforce required to deliver the contract, including both contractor and sub-contractor workforces, are from the local area (“local” in this context depends on the nature of the job concerned; while the starting point should be the boundaries of Westminster, it is recognised that particularly for more specialist trades it may be necessary to look more widely within Central London).

## 4 Employment and Skills

- To facilitate the engagement of potential local employees, the developer should engage with in the first instance the council’s Economic Development team to be signposted to relevant employment and skills project leads. Following this introduction the developer will be expected to set up and maintain working referral relationships with designated project leads to ensure the engagement and recruitment of a minimum “local workforce” of 10%. Engagement with other Economic Development Teams may also lead to opportunities to secure a good outcome in terms of the 10% target.
- Every vacancy on site, including those with sub-contractors, is to be notified to the Council and any other contractor-identified local providers and employment vehicles, and candidates identified by these organisations are to have an equality of opportunity in the selection process.
- The developer must provide the Council with a Works Schedule and Recruitment Plan which outlines forecasted vacancies over the period of construction at least 6 months ahead of work commencing with a breakdown by trade/occupation.
- A minimum of one apprenticeship start or trainee start position must be provided for every £2 million in contract value, to be recruited from the priority groups as identified above.
- A minimum number of outputs must be delivered against other employment and skills areas as set out in the Employment and Skills Plan at Appendix E, to be achieved through the recruitment of local people via local employment vehicles.
- All works available for tendering, including sub-contracts, must be advertised through agencies required by the Council and any other contractor-identified local advertising vehicles.



## 4 Employment and Skills

Developers are required to complete an ESP covering the employment and skills areas as identified above. The required minimum outputs for each employment and skills area, based on the project value, are stated in Appendix E. This appendix also includes a template for the ESP. Developers should indicate the outputs they will deliver each year against the relevant employment and skills areas totalling at least the minimum requirements set out.

Monitoring and verification will be undertaken by the City Council's work and skills board. The developer's nominated representative may be required to provide the Council with a performance statement setting out progress in delivering local employment and skills development.

Reporting will take place via quarterly and year end reports to the Council's Economic Development Team.

### 4.3 SUPPORT FOR EMPLOYMENT AND SKILLS INITIATIVES

The Council may be able to assist contractors and enterprises working on site in developing partnerships with local organizations and recruiting employees from the local area. Developers and other construction enterprises may also wish to participate in the CITB-Construction Skills Evolve Shared Apprenticeship Scheme in order to access support regarding the recruitment and management of apprentices. The Evolve Shared Apprenticeship Scheme supports developers by recruiting suitable apprentices and acting as the primary employer of the apprentice, providing all necessary training and managing the apprentice's employment. For further information contact [info@evolveuk.org](mailto:info@evolveuk.org).

The inclusion of employment and skills requirements does not comprise or imply any promise on the part of the Council or their agents to provide suitable candidates or labour. Any action taken by these bodies or their agents to broker relationships with local individuals/ firms/ agencies does not imply that they or their agents consider the individual/ firm/ agency as suitable engagement by the contractor. All recruitment, supervision and discipline responsibilities rest with the contractor/sub-contractor/ consultant. Within this context the Council will work with local agencies to help facilitate the achievement of the employment and skills requirements.

# 5 TRAFFIC AND TRANSPORT

*Summary: This chapter highlights the measures to be used in order to avoid the nuisance (and in some instances harm) to the public that may arise from increases in traffic flows and temporary rearrangements of the road network associated with construction works. It includes provisions to protect the safety of pedestrians and cyclists.*

## 5.1 OBJECTIVES

The developer will be required to ensure that the works are designed and carried out in such a way as to minimise disruptions to traffic flows causing inconvenience to the public or undermining the safety of road users. Disruptive effects of construction traffic on designated routes are to be minimised

All those working on a site must do so in such a way as to maintain, as far as reasonably practicable, existing public access routes and rights-of-way during construction. Where this cannot be achieved a suitable alternative route will be provided where practicable and will be sign-posted.

Where construction activities are planned on a number of sites in proximity to one another, contractors should where possible coordinate their requests for road closures, access routes, lorry movements, etc in order to reduce the impacts on the surrounding area for residents, businesses and other development projects and contractors.

## 5.2 REGULATORY OVERVIEW

The Highways Act 1980 (particularly Part IX) sets out requirements relating to construction work on or near the highway. The meaning of 'highway' for the purposes of the 1980 Act is defined as the whole or part of a highway, other than a ferry or waterway. The actual definition of a highway is set in common law, to be a way over which the public have the right to pass and repass. In practice, highways are classified as Special Roads, Trunk Roads, Classified Roads, Unclassified Roads, Public Footpaths and Bridleways.

Key requirements of the 1980 Act include:

- Permission by formal agreement from the Highway Authority is required for any works to highways.

## 5 Traffic and Transport

- Licences are required for permission to place temporary obstructions on the highway (e.g. hoardings, fenced storage areas, temporary crossovers, scaffolding, gantries and skips).
- Prior notification to the Highway Authority is required for construction of a vehicle cross-over on a highway and any application must be submitted with scaled plans/drawings.
- Deposition of mud or other such materials on the highway is prohibited. Measures to prevent this (e.g. wheel washing) can be required by order.
- Surface drainage from a construction site must not be allowed to run across the footway part of a public highway.

The New Roads and Street Works Act 1991 contains provisions for carrying out works to highways and construction of new roads. In conjunction with the Highways Act 1980, the



1991 Act also contains requirements for prior notification to the Highway Authority before commencing construction of a new highway crossing. A Street Works licence issued by the local authority is required for excavation of the highway (New Roads and Street Works Act 1991 (s.50)) only for accessing installation, repair, or removal of apparatus, (not for trial pits, which is under the provision of the Highway Act 1980).

The Town and Country Planning Act 1990 requires that a Public Right of Way may not be obstructed or diverted without an Order permitting it. In addition, the Highways Act 1980 also makes it an offence to obstruct a highway (including a Public Right of

Way); for example with builders materials which results in a public danger/nuisance. The 1990 Act also provides for traffic management conditions to be set in a planning permission.

The Traffic Management Act 2004 s16 and the Road Traffic Regulation Act 1984 s122 grant the council a 'network management duty' which includes the power to secure the 'expeditious movement of traffic' on its network. This can include pedestrian traffic. Examples of the way in which the council is able to use this power include controlling the

timing of the licences that it grants, for example, controlling timing of deliveries, requiring loading and unloading to take place in a specified location so as to minimise disruption, or even to grant only a single licence at a time. With this in mind applicants are advised to apply for licences in a timely manner, and not wait until the last moment to apply.

In addition to the above statute law, common law requires that contractors working on or over a highway owe a duty of care to other users of the highway. Contractors are liable for any personal injuries or property damage that may arise from a breach of that duty.

Construction professionals (e.g. engineers, surveyors) owe a duty of care to the employer when preparing design work and offering advice related to it. The professional has a duty 'to act diligently'.

The Highways Act 1980 (ss.148- 151) makes it an offence to deposit on a highway anything that is a nuisance (s.148). There is a statutory duty on the Highway Authority to clear soil which is washed onto, or falls onto, the highway (s.150) and the Highway Authority has powers to serve a notice on the occupier of a site to instigate works to prevent soil being deposited on the highway (s.151). In addition, the Environmental Protection Act 1990 (ss.79-82) provides for the control of 'statutory nuisance'. Where a situation arises that is considered a nuisance or injurious or dangerous to health, a local authority can serve a notice requiring the nuisance to be stopped.

### 5.3 WORKS TO ROADS AND FOOTPATHS

#### 5.3.1 TEMPORARY AND PERMANENT ROAD AND FOOTPATH CLOSURES AND DIVERSIONS

The developer's nominated representative must consult with the City Council with regard to the closure of roads and footpaths (Town and Country Planning Act 1990 (s.257) and Highways Act 1980 (s.137)) and the posting of notices informing local residents, businesses, etc. Where canal towpaths are affected, the nominated representative will also consult the Canal & River Trust. After award of contract, it will be the contractor's responsibility to finalise consultations and obtain written consent from the City Council.

The council is responsible for the determination of all closures / stopping up orders, whereas TROs can be determined by either TfL (on parts of the TLRN) or WCC on borough roads and on parts of the TLRN. A minimum of eight weeks' notice to the City Council is required in order that a Traffic Regulation Order (TRO) can be made by the City Council (Road Traffic Regulation Act 1984). Any Temporary Traffic Order required by the developer or contractor must be applied for at least eight weeks before commencement of any Order, and the relevant fee must be paid beforehand. Further details on the process for applying for this are available on the Council's website.

### 5.3.2 WORKS AFFECTING CARRIAGEWAYS AND FOOTWAYS

Before commencing works that will involve interference with a carriageway or footway, or works adjoining or underneath a highway, the Highway Authority must be consulted on: the proposed commencement date of these works, the area of the carriageway or footway to be occupied and duration, and the proposed methods of construction; in order to minimise inconvenience to the public (Highways Act 1980). All necessary consents and licences must be obtained in advance. A survey of the current condition of the highway will be undertaken by the Highway Authority in advance of any works. This may involve photographic or video surveys, or both. Where canal towpaths are affected the developer's nominated representative will also consult the Canal & River Trust.

The safety of the public must be ensured, with particular regard to the needs of vulnerable road users such as pedestrians and cyclists. In the case of temporary footways, reasonable access shall be provided for people, including those with disabilities, wheelchairs and pushchairs, in accordance with the following requirements:

- (a) Any temporary footways and carriageways will be constructed to the reasonable requirements of the Highway Authority. They should provide safe and direct routes for all users. They should have uniform surfaces with no steps and any gradient falls should be preferably 1 in 20 and no greater than 1 in 12. In the event where steps are unavoidable, an alternative route must be identified for people with mobility impairments or disabilities. While the use of enclosed footpaths is to be avoided if possible each site is unique and may require a specific response to meet the needs of the environs.



## 5 Traffic and Transport

- (b) Pavement ramps must be provided at all junctions of footways with carriageways. Gradient falls must not exceed 1 in 12 and the base of the ramp must be flush with the carriageway.
- (c) All temporary footways and ramps must be surfaced in non slip materials to the satisfaction of the Highway Authority.
- (d) All barriers, clutter, and storage of materials and equipment within the footway must be minimised.
- (e) Existing footway widths around construction sites will be maintained except where this exceeds 2 metres when the Highway Authority may accept a reduction to a clear width of not less than 2 metres or to a minimum clearance between street furniture, obstructions and temporary measures of 1.8 metres.
- (f) Heavily used footways, including at crossing points and transport hubs, may have to be maintained at their existing width, although the Highway Authority and the Police will normally accept a reduction to a clear width of 3.0 metres.
- (g) Clear signing must be provided at all times for pedestrian routes with the minimum number of changes to all temporary layouts in order to reduce confusion. Advance warning should, if possible, indicate alternative existing wheelchair-accessible routes.
- (h) Where it is necessary to excavate the highway for the purposes of accessing, installing, servicing or removing any form of apparatus, a streetworks licence is required under the New Roads and Streetworks Act 1991. The signing and guarding of the site is covered under Chapter 8 of the Traffic Signs Manual (2009). Signage should be assessed regularly for relevance and re-sited where necessary to take account of temporary and permanent changes to the development site footprint.
- (i) Where it is necessary to excavate the highway for the purpose of building works not involving apparatus under the highway (e.g. water proofing works), a licence is required under the Highways Act 1980. For shallow excavations a close boarded timber hoarding, 1.2 metres high, should fully enclose the site and be lit at night. For deeper excavations (shafts, chambers etc) a more substantial hoarding would be required.
- (j) Headroom clearance over footways will be a minimum of 2.44m. A preferred clearance of 2.75m should be provided if possible. A horizontal clearance of 0.6m will be provided from the kerb line, where practicable, for any hoarding projection less than 5.1m high, to avoid fouling by vehicles. If any projection is over the carriageway, the clearance must not be less than 5.1m.

## 5 Traffic and Transport

All pedestrian routes diverted onto the carriageway will be clearly defined by continuous barriers, constructed to the reasonable requirements of the Highway Authority, which will include a build-out and ramping parallel to the kerb line.

- (k) All pedestrian routes diverted onto the carriageway must be clearly defined by continuous barriers, constructed to the reasonable requirements of the Highway Authority, which will include a build-out and ramping parallel to the kerb line.
- (l) So far as is reasonably practicable, all footways and carriageways will be kept free from mud and other loose materials arising from the works.
- (m) Lorries entering or leaving the site will only be allowed to traverse crossovers under the control of an agreed sufficient number of competent banksmen. The Highways Authority will advise on the necessary number of banksmen.
- (n) After completion of the works all materials arising from the works will be cleared from the highway leaving the same in a clean, undamaged and tidy condition to the reasonable requirements of the Highway Authority.
- (o) Roll-on roll-off containers are not allowed on the highway and the council as Highway Authority will not grant consent for them.



### 5.3.3 MAINTENANCE AND REPAIR OF THE HIGHWAY

Contractors or sub-contractors will be responsible for any damage caused by their activities to the Highway in the vicinity of the worksite (Highways Act 1980 (ss.148-151)). Any defects caused by the developer or its contractors must be rectified immediately if dangerous (i.e. trip or depression of 20 mm or more in the footway, and 50mm or more in the carriageway) or otherwise within 24 hours. All repairs must be done on a recharge basis and carried out by the Highway Authority or an approved contractor. Defects which are less than these levels should be notified to the Highway Authority for investigation.

Permanent reinstatement of the highways will only be carried out by the Highway Authority or its contractor in accordance with the Highway Authority's specification and reasonable requirements and will be undertaken on a recharge basis.

### 5.3.4 STREET FURNITURE

No street furniture (electrical or non-electrical) may be removed or relocated by the developer or any of its contractors/sub-contractors. This work may only be carried out by the Highway Authority or its appointed contractor; these works will be carried out on a recharge basis. If the street furniture is electrical, allowances of up to eight weeks must be given to allow for any electrical works that may be required.

## 5.4 AVOIDANCE OF NUISANCE

### 5.4.1 MUD ON ROADS

The developer's nominated representative will ensure that strict measures are taken to minimise mud on roads, which is considered to be one of the main environmental nuisance problems from construction sites (Highways Act 1980 ss.148-151 and the Environmental Protection Act 1990). For Level 1 projects these measures will include, but not necessarily be limited to:

- (a) The provision of easily cleaned hardstandings for vehicles entering, parking and leaving the site.
- (b) The provision of wheel washing facilities including, where practicable, mechanical wheel spinners.
- (c) The use of an approved mechanical road sweeper to clean the site of hardstanding and any mud or debris deposited by the site vehicles on roads or footpaths in the vicinity of the site. The road sweeper is to be readily available whenever the need for cleaning arises and will be properly used and maintained.
- (d) The adequate sheeting of each lorry load of spoil removed, to prevent spoil falling off during its journey.
- (e) Measures should be taken to ensure that mud and detritus is not swept into gullies.

All those working on a site will also comply with the requirements regarding dust outlined in Chapter 7.

### 5.4.2 FLY -TIPPING

Fly-tipping will be strictly prohibited. Loads must only be deposited at licensed tips, designated sites or onto designated barges (see also Chapter 8).

## 5 Traffic and Transport

Deposition will be in accordance with the requirements of the Environment Agency under s.34 of the Environmental Protection Act 1990 making the duty of care in relation to waste disposal a statutory duty. In this context, the developer's nominated representative will follow the guidelines contained within the statutory guidance, Waste Management: The Duty of Care - A Code of Practice.

For Level 1 projects a ticket system will be operated at all sites to prove the correct depositing of excavated material and to prevent the occurrence of fly-tipping. The contractor will provide to the City Council's satisfaction a sequentially numbered ticket system for each of its worksites to confirm that each lorry load of spoil is deposited at an approved site.

The developer's nominated representative must also take responsibility for ensuring that fly-tipping by others does not take place on the construction site by ensuring adequate site security (see Section 3.6).

### 5.4.3 RESPONSIBILITY FOR ENFORCEMENT

The developer's nominated representative will be responsible for all the lorries delivering to, or exiting from, a worksite and will be required to ensure that the requirements of Sections 5.3 and 5.4 above and Chapter 7 are met.

## 5.5 ACCESS ROUTES

For Level 1 projects, and for Level 2 projects where required by the Highway Authority, the developer's nominated representative will be required to ensure use of designated construction traffic routes as directed by the Highway Authority and the Police. The number of lorry movements, hours of operation and any lorry holding areas will be agreed in advance with the Highway Authority and the Police. Where more than one construction site is located within an area lorry movements and freight consolidation should be coordinated across the sites where practicable. Plans will be required for each site showing the site entrances/exits and the agreed access roads for use to the nearest main road, and the routes to be used by lorries to/from the strategic road network. Where access is via narrow streets (e.g. small mews streets) the representative should ensure that there will be sufficient space for the proposed size of vehicles to pass without damaging parked vehicles or curbs.

In addition the developer's nominated representative shall maintain (and produce on request) an up to date log of all drivers that will include a written undertaking from them to adhere to the Highway Authority's approved routes for construction traffic. In the case of non-compliance, the contractor and/or their sub-contractor(s) would be in breach of contract, necessitating disciplinary action against individual drivers.

## 5 Traffic and Transport

The contractor must apply to the Highway Authority for approval for all temporary road signs on the public highway that indicate routes to the site, in accordance with the New Roads and Street Works Act 1991. The application for approval must be submitted at least six weeks in advance of the requirement for signage.

Temporary signage to be placed on street furniture will need to be agreed by the Highway Authority. The Highway Authority's highways term contractor will approve all necessary signage; this will be undertaken on a recharge basis.

### 5.6 SITE ACCESS

Lorries will enter and exit the site in a forward direction except in special cases where space restriction does not permit this. In such cases, the contractor will appoint a competent banksman to provide assistance. For Level 1 and Level 2 projects the entry/exit conditions will be submitted to and approved by the Highway Authority in liaison with the Police prior to commencement of development.



### 5.7 MARKING OF LORRIES

The contractor/sub-contractor may be required to provide lorry stickers uniquely identifying the group of construction sites included in each contract, details of which shall be submitted to the Highway Authority for approval. For identification purposes these will be fixed in a prominent position on all lorries frequently serving the construction site. The identification will need to be sufficiently large to be easily read from a distance of 20 metres.

### 5.8 TIMING OF MOVEMENTS

An in cab communication system shall be installed by the contractor to maintain control of lorry movements where considered necessary by the City Council. Sites requiring this will be identified and agreed prior to the commencement of the development, and the contractor shall be required to achieve specified objectives in the management of site traffic.

## 5.9 SAFETY OF CYCLISTS

In London lorries form about 4% of vehicle traffic but are responsible for about half of all cyclist deaths, with a preponderance of these involving construction lorries. In 2011, of the 16 cyclist deaths in London nine involved lorries, of which seven were construction vehicles. The Safer Lorry Scheme is now in operation in London. This requires minimum safety equipment to be fitted to all lorries entering the Low Emission Zone area. To further improve cycle safety contractors must comply with the following requirements:

### 1. Safety Equipment for HGVs over 3.5 tonnes in the fleet

All vehicles being used in association with the construction contract must:

- Have Side Guards fitted, unless it can be demonstrated to the reasonable satisfaction of the developer/client that the Lorry will not perform the function, for which it was built, if Side Guards are fitted
- Have a close proximity warning system (to address the blind spot close to and around the passenger door) fitted comprising:
  - o a front-mounted, rear-facing CCTV camera with in-cab live feed from the camera or, where Council's approval has been obtained, a Fresnel Lens (where this provides a reliable alternative to the CCTV camera); and
  - o a Close Proximity Sensor
- Audible means of warning other road users of the Lorry's imminent left manoeuvre fitted
- Have a Class VI Mirror (this is a front mounted wide view mirror that helps provide a view of the blindspot situated at the front of the driver's cab)
- Bear prominent signage on the rear of the vehicle to warn cyclists of the dangers of passing the vehicle on the inside.

The Council would also encourage use of vehicles with a lower cab and expanded side windows to give drivers a better view of the road. As the fleet is upgraded it is expected that new vehicles should have a lower cab and side window.

### 2. Driver Licence checks for all fleet drivers

- Before commencing work on the contract, each driver who works on the contract will have had a driving licence check with the DVLA and will have their licence rechecked on a regular basis.
- Drivers must let their employers know of any penalty points incurred within 5 days of receiving their notice.

### 3. Driver training for all fleet drivers



All drivers working on the contract will undertake the following training courses within 60 days of the Contract Date unless they have already undertaken such training in the last three years:

- Safe Urban Driving (SUD) approved driver training course, including the on-cycle hazard awareness training.
- Safe and Fuel Efficient Driving (SAFED) driver training course, or equivalent accredited course with similar content including a practical element.
- Fleet Operator Recognition Scheme (FORS) approved 'Congestion Busting' driver training course, if available.
- Complete a FORS e-learning Work Related Road Safety module (or an approved equivalent safety module) at least every 12 months.

#### 4. Driver health

- Drivers must advise their employers where health concerns may affect their ability to drive.

#### 5. Fleet Operator Recognition Scheme (FORS) membership

- To achieve and maintain FORS Silver level membership (if an operator does not already have this level of membership, they have 90 days to achieve this).
- To work towards achieving and maintaining progression through the FORS standards i.e. from FORS Silver to Gold

#### 6. CLOCS standard

Sites are expected to adopt the CLOCS (Construction Logistics and Cyclist Safety) standard as recommended by the Construction Industry Cycling Commission manifesto.

## 5 Traffic and Transport

- This aligns with the FORS accreditation scheme such that sites achieving a FORS Silver rating will automatically achieve the CLOCS standard.
- 7. Convex mirrors near construction sites**
- Convex road safety (trixi) mirrors must be fitted around construction sites at locations where HGVs make left turns.
- 8. Cycle safety campaigns**
- Contractors should organise safer cycling awareness events near to construction sites to help cyclists become more aware of the risks of cycling next to lorries.

### 5.10 ENVIRONMENTAL STANDARDS

The developer's nominated representative will give due regard to the environmental standards required by the various schemes used by TfL and WCC affecting the movements of lorries, e.g. the London Lorry Control Scheme. Measures for limiting emissions and avoiding nuisance from transport are set out in Chapter 7.

### 5.11 VEHICLE RESTRICTIONS

Restrictions on the size and weight of vehicles accessing each site may be imposed by WCC depending on agreed access routes.

### 5.12 PARKING

There should be no day time or overnight parking of lorries within the vicinity of any construction site without the agreement of the Highway Authority. This will only be given for parking in specified holding areas for lorries waiting to deliver or remove materials to or from the site. The suspension of parking bays must be agreed with the Highway Authority in every case. The Highway Authority is likely to require that impact on residential parking bays is minimised. While lorries are parked, in so far as is practical, engines must be turned off.



# 6 NOISE AND VIBRATION

*Summary: The levels of noise and vibration from the site must be monitored and controlled. Measures for reducing such levels are set out in this chapter. Level 1 and Level 2 projects will require prior approval via Section 61 of the Control of Pollution Act 1974, as will noisy demolition and construction activities outside of core hours on all sites.*

## 6.1 OBJECTIVES

Noise from building and construction is often cited by residents as a problem, hence the Westminster Noise Strategy 2010-2015 requires developers to limit and contain noise from construction sites. The developer's nominated representative must control and limit noise and vibration levels, as far as is reasonably practicable, so that dwellings and other sensitive receptors are protected from excessive noise and vibration levels arising from construction activities. The contractor will apply Best Practicable Means (BPM), as defined under Section 72 of the Control of Pollution Act (COPA) 1974, to all activities.

## 6.2 REGULATORY OVERVIEW

Noise and vibration are covered by the same legislative controls. The principal controls are contained within the COPA (Part III). In addition, statutory nuisance provisions contained within the Environmental Protection Act 1990 (ss.79-82) also apply to noise.

Key issues relating to noise from construction sites include:

- Prior permission must be sought from the Council's Environmental Health service for all Level 1 and Level 2 sites and for noisy demolition and construction activities outside of core hours on all sites (s.61 of COPA 1974). For basement development sites a section 61 prior consent can be sought. If no prior permission is sought where it is required the authority may serve a notice on the site/works setting conditions of permitted work (s.60 of COPA 1974).
- An action in statutory nuisance can be brought by a member of the public even if the works are being carried out in accordance with a prior approval or a notice.

British Standard 5228: Noise and vibration control on construction sites and open sites (BSI 2014) has been recognised by Statutory Order as the accepted guidance for noise control during construction work.

In addition, the planning permission for the development may include specific conditions relating to noise control, and consideration to minimising noise and vibration from construction should be given at planning application stage.

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.

### 6.3 NOISE CONTROL - GENERAL

To mitigate noise and vibration the nominated representative will ensure that contractors and others working on the site apply Best Practical Means (BPM), as defined under Section 72 of the Control of Pollution Act (COPA) 1974, to all activities.

For Level 1 and Level projects the developer's nominated representative will establish background baseline noise surveys in order to formulate acceptable noise levels for each



specific site; for basement development sites the City Council will notify the developer if this is required.

The City Council may also undertake noise level monitoring prior to commencement of development as a cross check for developers' readings and to establish ambient noise levels.

BPM will be used by the contractor in determining the method of work, type of plant to be used and noise mitigation measures for each construction site. Prior to commencement of work at any Level 1 and Level 2 project site the contractor will be required by the City Council to demonstrate the suitability of any proposals to reduce noise and vibration. The developer/contractor must demonstrate that their works will not give rise to nuisance nor generate unnecessary noise outside of permitted working hours.

For Level 1 and Level 2 projects, the contractor will apply to the Local Authority for formal consents in accordance with s.61 of the COPA. Applications under s.61 of the COPA must contain particulars of the works, working methods, noise predictions for the works proposed and details of the measures proposed to minimise noise resulting from the works. The contractor will also be required to comply with the other provisions of the COPA, Part III Noise, as amended. Noise trigger and action levels can be part of the section 61 prior consent.

## 6 Noise and Vibration

For basement development projects the City Council may require a s.61 of the COPA as well; the City Council will inform the developer/contractor accordingly.

In assessing the impact of any operations, the developer's nominated representative will comply with the recommendations set out in BS 5228 (Noise and Vibration Control on Construction and Open Sites).

Sound levels at Level 1 and Level 2 project sites will be monitored according to the methods set out in BS 5228. All measurements shall be made on a sound level meter complying with BS EN 61672: 2003 (Electro acoustics - Sound level meters - Specifications). Noise levels will be monitored by the nominated representative during the course of the works and compared with the agreed noise trigger and action levels. The City Council shall be given access to all noise readings if required as soon as they become available.

All personnel undertaking noise monitoring shall be sufficiently competent; as a minimum such personnel shall be a full or associate member of the Institute of Acoustics or experienced in managing construction noise and vibration, demonstrated by a summary of training and competence in environmental noise measurements unless otherwise agreed with Westminster City Council in writing.

Although the noise trigger and action levels to be included in a section 61 prior consent are the maximum to be allowed, at sensitive locations the nominated representative will be requested to take steps to ensure, where practicable, noise levels lower than the specified limits.

### 6.4 DETAILED NOISE CONTROL PROVISIONS: SELECTION AND USE OF EQUIPMENT

In achieving the specific noise criteria for each site, the developer's nominated representative will be required to consider the following detailed provisions. Some of the provisions will be made mandatory for specific sites.

All sites shall be entirely surrounded by fencing or hoarding to the required height and density appropriate to the noise sensitivity of the location concerned (see requirements Section 3.7). Any damage to the fencing or hoarding surrounding a worksite will be immediately repaired by the nominated representative.

All worksite gates will be controlled as described in Section 3.6. This will have the effect of keeping to a minimum the amount of time gates are open for passage of vehicles, and thus minimise stray noise to the external surrounding area.

WCC would encourage the use of electrically powered fixed items of construction plant rather than diesel- or petrol-driven plant as a way of achieving the specific noise criteria.

## 6 Noise and Vibration

Where this is not practicable, suitable attenuation measures will be provided as described below.

Vehicle and mechanical plant used for the purpose of the works shall be fitted with effective exhaust silencers, will be maintained in good and efficient working order and operated in such a manner as to minimise noise emissions. The Construction Plant and Equipment (Harmonisation of Noise Emission Standards) (Amendment) Regulations 1989 (SI 1985/1968) (as amended) require certain plant to carry a label indicating the sound level it produces.

On surface sites where environmental disturbance may arise, compressors must be "sound reduced". Models fitted with properly lined and sealed acoustic covers must be kept closed whenever the machines are in use. Pneumatic percussive tools must be fitted with the most effective muffler or silencer available and suitable for use with each particular item of plant.

Machines in intermittent use should be shut down in the intervening periods between works, or throttled down to a minimum. Noise emitting equipment that is required to run continuously may have to be housed in a suitable acoustic enclosure (see BS 5228).

Machines in intermittent use may also have to be housed in a suitable acoustic enclosure.

Equipment that breaks concrete by bending rather than by percussion or such other equipment as approved by the City Council should be used as far as is reasonably practicable.

The installation of a diesel or air driven impact or drop hammer are not usually acceptable on sites. Use of hydraulically operated or vibratory hammers may be necessary in these circumstances to drive and extract sheet piling, provided the soil strata are suitable for such equipment.

Rotary drills and bursters actuated by hydraulic or electrical power should be used for excavating hard material where practicable.

Noisy plant or equipment will be sited as far away as is practicable from noise sensitive buildings. The use of barriers, (e.g. soil mounds), site huts, acoustic sheds or partitions to deflect noise away from noise sensitive areas must be employed wherever practicable. Demolitions should be sequenced so as to leave structures in place that may shield sensitive buildings from noise for as long as practicable.

Care should be taken when loading or unloading vehicles or dismantling scaffolding or moving materials to reduce impact noise. Loading or unloading bays may have to be housed in suitable acoustic enclosures.

## 6 Noise and Vibration

For Level 1 and Level 2 sites a method statement (in accordance with the principles described in BS 5228) must be prepared as part of the SEMP / S61 application stating precisely the type of plant to be used including manufacturer's literature to advise of the sound power level of plant, noise predictions for work packages and the proposed noise control methods, incorporating a programme of work. An overview only will be required prior to commencement of work. Details will be required to be provided to Environmental Health once work commences.

If the contractor (Level 1 and Level 2 sites) wishes to change the type of plant or programme of work and to do so would affect environmental conditions, a submission shall be made to the City Council for prior consent of the proposed alteration and information required in Section 6.4.

The use of any plant or equipment required for any emergency situation which causes a departure from Section 6.4 shall be notified to the City Council as soon as is practicable. The developer's nominated representative will, without delay, request from the City Council a waiver if previously agreed noise levels are likely to be exceeded due to the adoption of alternative working methods.

### 6.5 VIBRATION

The contractor will ensure that measures are taken to:

- (a) protect the residents, users of nearby buildings and passers-by from nuisance or harm; and
- (b) protect buildings from physical damage.



Receptors which may be particularly sensitive to vibration (including, commercial, educational and community) will be subject to individual consideration by the Local Authority, taking into account the contents of British Standards on Construction Site Noise and Vibration BS5228 Part 2 Vibration. The contractor will be obliged to comply with the vibration levels established by agreement with the City Council on a site by site basis.

## 6 Noise and Vibration

The following factors will be considered:

- (a) Human Exposure: The contractor will comply with BS 6472: 2008 (Evaluation of Human Exposure to Vibration in Buildings). The standards for vibration assessment are defined in this British Standard.
- (b) Protection of Structures: Demolition and construction activities will be carried out in such a way that vibrations arising will not cause significant damage to adjacent structures. The contractor will comply with BS 5228, Part 2, 2014 (Code of Practice for noise and vibration control on Construction and Open Sites, Part 2: Vibration).

Compliance with these criteria shall not absolve the contractor from a duty of care and wider responsibilities under the contract. Vibration monitoring should be considered to reassure neighbours (particularly perhaps basement development in predominantly residential areas) and assist in demonstrating that levels do not exceed those which may cause structural damage to adjoining buildings. The council will require this for Level 1 projects.

All personnel undertaking vibration monitoring shall be sufficiently competent; as a minimum such personnel shall be a full or associate member of the Institute of Acoustics unless otherwise agreed with Westminster City Council in writing.

## 6.6 HOURS OF WORKING

The permitted hours of work for any works that are audible at the site boundary are:

Monday to Friday: 8.00am to 6.00pm

Saturday: 8.00am to 1.00pm

In residential areas noisy works associated with a development or basement excavation (demolition, piling and earthworks) will be limited to weekdays from 0800 to 1800 hours, unless otherwise agreed.

Noisy working as defined above is not permitted on Sundays and Bank Holidays.

Individual site requirements which differ from the above will be considered on a site by site basis.

Noisy operations shall not take place outside these hours without the prior approval of the City Council.

Should the developer's nominated representative propose any additional or alternative working hours for operational reasons, the prior agreement of the City Council must be obtained. A minimum of 14 days notification is required by the City Council, except in case of emergency or safety.

In the case of work required in response to an emergency, the City Council and local residents will be advised as soon as is reasonably practicable that the works are taking place and their likely duration.

# 7 DUST AND AIR POLLUTION

Summary: This chapter covers the management of dust and air pollution. Emissions to the atmosphere of gaseous and particulate pollutants from vehicles and plant used on site and dust from construction activities will be controlled and limited as far as is reasonably practicable.

## 7.1 OBJECTIVES

The demolition and construction phases of development can result in the generation of dust from grinding and cutting of materials, stockpiling of dusty materials and particles that are carried on the wheels of construction vehicles and deposited on roads. By controlling dust levels the impact on local air quality can be reduced, thereby also reducing negative health impacts and the numbers of complaints received. The nominated representative must ensure that the impacts of construction are managed and to ensure that any negative effect of such work on the environment and amenity is minimised. Stationary demolition and construction plant are also sources of pollution.

The contractor must comply with the latest version of the Mayor of London's Planning Guidance on 'The Control of Dust and Emissions during Construction and Demolition' and implement best practice mitigation measures (as described below). The contractor must work in such a way that emissions to the air of dust and pollutants are minimised and that the Best Practicable Means (BPM) are used to avoid creating a statutory nuisance. The nominated representative should ensure that the SEMP includes a statement that identifies proposed dust-control measures before work starts. Special precautions must be taken if materials containing asbestos are encountered.

## 7.2 REGULATORY OVERVIEW

The main regulatory controls over dust are the 'statutory nuisance' provisions contained in the Environmental Protection Act 1990. Dust can give rise to a statutory nuisance if it is considered to be 'prejudicial to health or a nuisance'. Smoke can also result in a statutory nuisance. Dark smoke for example from burning waste or materials on site is not permissible and is controlled by the Clean Air Act 1993.

The Environment Act 1995 required that, under the Local Air Quality Management (LAQM) regime, every local authority review the air quality within its area. Where air quality objectives are not achieved, an Air Quality Management Area (AQMA) had to be designated

and an Air Quality Action Plan (AQAP) implemented. Westminster has designated a borough wide AQMA for fine particulate matter and nitrogen dioxide, The Council's Air Quality Action Plan can be accessed at:

[https://www.westminster.gov.uk/sites/default/files/uploads/workspace/assets/publications/AQAP\\_2013-2018\\_FinalDraft\\_V1-re-1368525818.pdf](https://www.westminster.gov.uk/sites/default/files/uploads/workspace/assets/publications/AQAP_2013-2018_FinalDraft_V1-re-1368525818.pdf)

Vehicle emissions are regulated through the Road Vehicles (Construction and Use) (Amendment) Regulations 2012, the Motor Vehicles (Type Approval) (Great Britain) Regulations 2009 made under the Road Traffic Act 1988, and The Non-Road Mobile Machinery (Emission of Gaseous and Particulate Matter) Regulations 1999 as amended. Further amendments implement the European Directives on vehicle emissions known as the EURO standards. The EURO standards set emission limits for several pollutants from different types of vehicles. Construction vehicles will be required to comply with relevant EURO standards and Transport for London's Low Emission Zone controls.

Vehicle emissions are also controlled through the MOT. All vehicles used by contractors must comply with MOT emission standards at all times. Vehicle owners can be prosecuted if their vehicle is proven to have emissions in excess of the standards. The Vehicle Excise Duty (Reduced Pollution) (Amendment) Regulations 2003 enable HGVs meeting certain particulate emission standards to qualify for a Reduced Pollution Certificate.

Non road vehicles emissions are regulated through the Non-Road Mobile Machinery (Emission of Gaseous and Particulate Pollutants) Regulations 1999 (SI 1999/1053) and its amendments. The Regulations apply to new engines to be installed in non-road mobile machinery, intended and suited to move, or to be moved on the ground, either on or off the road.

### 7.3 DUST

Dust associated with construction sites is comprised of particulate matter which varies in size (i.e. the diameter or width of the particle). PM<sub>2.5</sub> means the mass per cubic metre of air of particles with a size (diameter) generally less than 2.5 micrometres ( $\mu\text{m}$ ). The negative health impacts of dust and particulate matter include long-term exposure to PM<sub>2.5</sub>, which increases the age-specific mortality risk, particularly from cardiovascular causes. Exposure to high concentrations of PM (e.g. during short-term pollution episodes) can also exacerbate lung and heart conditions, significantly affecting quality of life, and increase deaths and hospital admissions. Children, the elderly and those with predisposed respiratory and cardiovascular disease, are known to be more susceptible to the health impacts from air pollution.

The developer's nominated representative must ensure that all practicable measures are taken to avoid creating dust and air pollution (and, in particular, compliance with the latest

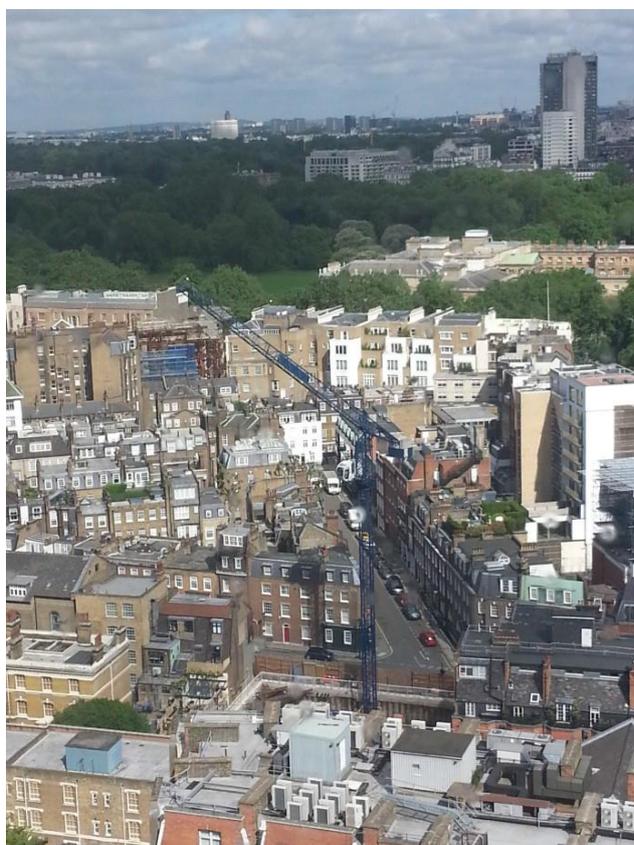
## 7 Dust and Air Pollution

version of the Mayor of London's Planning Guidance on 'The Control of Dust and Emissions during Construction and Demolition') and implement the appropriate best practice mitigation measures. Consideration as to how this will be achieved should be given at the earliest possible stage of project planning.

Developers of Level 1 & 2 developments, and where relevant other developments as required under the Mayor's SPG on 'The Control of Dust and Emissions during Construction and Demolition', should submit an Air Quality Statement to the council for approval, prior to any works being carried out - as part of their SEMP/CMP if required or as a separate Air Quality Statement if a SEMP/CMP is not required. This should include the Air Quality (Dust) Risk Assessment (as set out in the Mayor's Planning Guidance) and a timetable of construction and demolition activities accompanied with proposed dust and emissions control measures. These measures will be based on those set out in the Mayor's Planning Guidance.

The approved Air Quality Statement / SEMP will be complied with thereafter and should be kept under review to address any changes in the demolition / construction timetable or associated dust and NOx emitting activities.

All staff should have some training on on-site pollution policy, perhaps as part of induction training. For Level 1 & 2 developments at least one named individual or post should be given the responsibility for implementing dust and emission monitoring and control measures across the site and implementing any required remediation measures.



### 7.4 VEHICLE EMISSIONS

Measures that will be required for limiting emissions from vehicles and machinery onsite will include one or more of the following as appropriate and as far as reasonably practicable:

- (a) ensuring that the engines of all vehicles and plant on site are not left running unnecessarily to prevent exhaust emissions (and noise). It is an offence under Regulation 98 of the Road Vehicles (Construction and Use) Regulations 1986 to leave a

vehicle engine idling unnecessarily whilst stationary and Westminster has authorised its Traffic Marshalls to issue Fixed Penalty of £20 to drivers who allow their vehicle engines to run unnecessarily while the vehicle is stationary. A driver may be asked to switch off their engine if it is believed a stationary idling offence (under reg.98 of the Road Vehicles (Construction and Use) (Amended) Regulations 2003 (SI 1986/1806) is being committed.

- (b) using low emission vehicles and plant fitted with catalyts, diesel particulate filters or similar devices;
- (c) using ultra low sulphur fuels in plant and vehicles;
- (d) requiring that plant will be well maintained, with routine servicing of plant and vehicles to be completed in accordance with the manufacturer's recommendations and records maintained for the work undertaken;
- (e) requiring that all vehicles used, including off-road vehicles, will hold current MOT certificates, where required due to the age of the vehicle, (or to be tested to an equivalent standard) and that they will comply with exhaust emission regulations for their class;
- (f) siting haul routes and operating plant away from the site boundary and potential sensitive receptors such as houses, schools and hospitals;
- (g) avoiding the use of diesel or petrol powered generators and using mains electricity or battery powered equipment;
- (h) maximising energy efficiency (this may include using alternative modes of transport, maximising vehicle utilisation by ensuring full loading and efficient routing); and
- (i) all commercial road vehicles used in construction must meet the European Emission Standards pursuant to the EC Directive 98/69/EC (commonly known as Euro standards) of Euro 4 during any works.

### **7.5 NON-ROAD MOBILE MACHINERY (NRMM)**

In accordance with the latest version of the Mayor of London's Planning Guidance on 'The Control of Dust and Emissions during Construction and Demolition', from 1 September 2015 NRMM of net power between 37kW and 560kW will be required to meet the standards based upon the engine emissions standards in EU Directive 97/68/EC and its subsequent amendments. This will apply to both variable and constant speed engines for both NOx and PM. These standards are:

- (a) NRMM used on the site of any major development within Greater London will be required to meet Stage IIIA of the Directive as a minimum.

## 7 Dust and Air Pollution

- (b) NRMM used on any site within the Central Activity Zone or Canary Wharf will be required to meet Stage IIIB of the Directive as a minimum.

From 1 September 2020 the following changes will apply:

- (a) NRMM used on any site within Greater London will be required to meet Stage IIIB of the Directive as a minimum.
- (b) NRMM used on any site within the Central Activity Zone or Canary Wharf will be required to meet Stage IV of the Directive as a minimum.

The requirements may be met using the following techniques;

- (a) Reorganisation of NRMM fleet
- (b) Replacing equipment (with new or second hand equipment which meets the policy)
- (c) Retrofit abatement technologies
- (d) Re-engining

All eligible NRMM should meet the standards above unless it can be demonstrated that the machinery is not available or that a comprehensive retrofit to meet both PM and NOx emission standards is not feasible.

### 7.6 OTHER SITE EMISSIONS TO AIR

The developer's nominated representative must ensure compliance with the provisions of the Clean Air Act 1993, the Health and Safety at Work etc Act 1974, the Environmental Protection Act 1990 and the Non-Road Mobile Machinery (Emission of Gaseous and Particulate Pollutants) Regulations 1999 (SI 1999/1053).

The developer's nominated representative must also ensure compliance with the Control of Substances Hazardous to Health (COSHH) Regulations 2002, as amended. The developer/contractor must comply with HSE Guidance Note EH 40 on Workplace Exposure Limits (current version is EH40/2005, the second edition of which was published in 2011).

The developer/contractor must ensure compliance with the lead-in-air standards, which are set out in Appendix 1 of the Health and Safety Commission Approved Code of Practice: The Control of Lead at Works Regulations 2002.

The developer's nominated representative must ensure that all necessary precautions are taken to prevent the occurrence of smoke emissions or fumes from site plant or stored fuel oils for safety reasons and to prevent such emissions or fumes drifting into sensitive receptor areas. In particular, plant should be well maintained and measures taken to ensure that it is not left running for long periods when not directly in use.

## 7.7 SPECIAL PRECAUTIONS FOR ASBESTOS

For sites with potentially asbestos-containing materials, a separate Air Quality Statement will need to be produced by a specialist asbestos treatment contractor.

Special precautions must be taken if materials containing asbestos are encountered. The contractor must comply with The Control of Asbestos Regulations 2012 – (SI 2012/632). The Regulations prohibit the importation, supply and use of all forms of asbestos and introduce a duty to manage asbestos in non-domestic premises. HSE provide a step by step online guide to understanding this duty called ‘Managing my Asbestos’.

The contractor must adhere to the exposure limits and measurement methods for asbestos, which are set out in the Health and Safety Executive (HSE) Guidance Note EH10 Asbestos Exposure Limits and Measurements of Airborne Dust Concentrations 2001. The contractor must comply with:

- The most recent versions of relevant Health and Safety Commission Approved Codes of Practice (ACOP) on asbestos (at the time of writing there is a proposal to consolidate ‘The management of asbestos in non-domestic premises’ (L127) and ‘Work with materials containing asbestos’ (L143) into a single revised ACOP).
- The COSHH Regulations 2002 (SI 2002/2677).

Measures for managing asbestos in alteration, demolition and excavation works will include:

- (a) employing competent contractors to carry out alteration and demolition works;
- (b) contractors implementing a procedure for dealing with suspect materials exposed requiring sampling and analysis by an independent specialist consultant;
- (c) formal exchange of information before start of work, including relevant information from the Asbestos Register to clearly identify location of asbestos-containing materials; and
- (d) method statements for any works in the vicinity of asbestos-containing materials to avoid any disturbance to such materials which are not to be removed.

Measures for managing work involving asbestos-containing materials encountered in construction will include:

- (a) appointment of a specialist consultant independent of the asbestos treatment contractor;
- (b) ensuring any work with asbestos-containing materials is notified to the Health & Safety Executive;

## 7 Dust and Air Pollution

- (c) ensuring any work with asbestos-containing materials is carried out by licensed specialist asbestos treatment contractors in accordance with Asbestos ( Licensing ) Regulations 1983 ( SI 1983/1649 ) as amended in 1998 ( SI 1998/3233);
- (d) requiring method statement defining detailed control measures to be produced by the specialist asbestos treatment contractor and approved by the independent specialist consultant;
- (e) air sample monitoring by the independent specialist consultant of work to ensure required air quality standards are achieved; and
- (f) disposal of asbestos-containing materials to licensed waste sites in accordance with Special Wastes Regulations 1996 (SI 1976/972).



# 8 WASTE MANAGEMENT

Summary: This chapter covers waste management requirements. Any waste arising from the site must be properly categorised and dealt with in accordance with appropriate legislation. Opportunities for re-using or recycling construction and demolition waste should be explored and implemented as far as reasonably practicable.

## 8.1 OBJECTIVES

The contractor will be required to carry out the works in such a way that as far as is reasonably practicable the amount of spoil and waste (including waste water draining into groundwater, production waters and run-off) to be disposed of is minimised, and that any waste arising from the site is properly categorised and dealt with in accordance with the waste hierarchy (see below) and relevant legislation and guidance.

The developer's nominated representative will ensure compliance with the duty of care placed on all parties to take responsibility for protecting the interests and safety of others from the potential impacts of handling, storing, transporting and depositing of excavated materials and wastes.

## 8.2 REGULATORY OVERVIEW

The revised EU Waste Framework Directive provides the legislative framework for the collection, transport, recovery and disposal of waste. It introduced an amended waste management hierarchy. When waste is generated, the directive states that it is dealt with in a hierarchical fashion, favouring waste reduction as a priority, then re-use, then recycling, then other recovery such as energy recovery, and last of all disposal (for example to landfill).

This translates into UK law via the Waste (England and Wales) Regulations 2011 (as amended) which apply the requirements for following the waste hierarchy when it comes to disposing of generated waste.

The recovery and disposal of waste requires a permit under EU legislation with the principal objective of preventing harm to human health and the environment. These requirements are applied in England through the Environmental Permitting (England and Wales) Regulations 2010.

The identification and cleanup of contaminated land is governed by the Environmental Protection Act 1990 (Part IIA) and statutory regulations issued under the Act. The accompanying Contaminated Land (England) Regulations 2000 as amended (SI 2000/227) state the conditions under which land is defined as contaminated. The contractor will develop mitigation measures in accordance with these regulations.

## 8 Waste Management

Key relevant requirements are as follows:

- Waste must be collected and stored separately, so that it can be re-used or recycled as much as possible.
- Waste must be disposed of at a facility/site licensed to accept such waste (the nearer to site the better to follow the proximity principle).
- Waste may be transported off-site only in a vehicle with a waste carrier's registration.
- Charges are made for the transport and disposal of waste.
- Transport and disposal of special waste is subject to a rigorous procedure.

The Special Waste (Amendment) Regulations 1996 require producers of hazardous/special waste to be registered. A system of scaled charges applies according to the amount of hazardous waste produced, and whether it is recycled or sent for final disposal has been incorporated into the regulations.

The Environmental Protection Act 1990 (Part IIA) came in to force in April 2000 by enactment of Section 57 of the Environment Act 1995. The regime provides an explicit statutory definition of contaminated land, focusing on risks arising in the context of the current use and circumstances of land. It also provides detailed rules for assigning liabilities for contaminated land, based on the "polluter pays" principle.

The developer's nominated representative must comply with the Construction (Design and Management) Regulations 1994 (SI 1994/3140) and the Construction (Design and Management) Regulations 2015 (SI 2015/51) to ensure that adequate measures of health, safety and welfare for those directly or indirectly associated with the works are maintained at all times.

The Waste Management Licensing Regulations 1994 (as amended) provide a definition of 'Directive Waste'. Waste produced during construction falls within the definition of 'directive waste', and therefore controlled waste, and must be disposed of under duty of care provisions as set out in Section 34 of the Environmental Protection Act 1990.

A duty of care applies to everyone who produces, imports, carries, keeps, treats or disposes of waste. Materials requiring treatment or recycling, such as scrap metal or broken out concrete, are likely to be classified as waste and will be subject to the waste management regime and the duty of care. Statutory guidance on how to meet the duty of care, "Waste Management - The Duty of Care - A Code of Practice" was published in 1996; and a revised version has been consulted on at (<https://consult.defra.gov.uk/waste/the-revised-waste-duty-of-care-code-of-practice>). Contractors should ensure they comply with the latest

## 8 Waste Management

version of this guidance. The Waste Regulation section of the Environment Agency can provide further guidance if required.

Under this legislation, it is an offence to handle or dispose of controlled waste without a waste management licence or, in contravention of a license, handle or dispose of waste in a manner likely to cause pollution or harm to health. In addition, under the Control of Pollution (Amendment) Act 1989, it is an offence to transport controlled waste unless registered with the Environment Agency. It is part of the duty of care to ensure that waste carriers employed are registered.

### 8.3 SITE WASTE MANAGEMENT PLANS

The Government revoked the Site Waste Management Plan Regulations 2008 on 1st December 2013. These required a site waste management plan (SWMP) to be produced for construction projects with a cost greater than £300,000 excluding VAT (this includes all planning, design, management or other work involved in a project until the end of the construction phase). The aim was to reduce the amount of waste produced on construction sites and to prevent fly-tipping.

The City Council promotes efficient resource management including waste minimisation, reuse and recycling. The council will therefore continue to require production of an SWMP for all construction and demolition projects with a cost greater than £300,000. A SWMP will also be required for all basement developments. The SWMP should form a part of the SEMP.



All Level 1 and 2 projects, and any basement development, should develop a SWMP that

- Set project specific waste targets aiming for less than 13.3m<sup>3</sup> or 11.1 tonnes per 100sqm (gross internal floor area) with an aspiration towards achieving a more stringent target of less than 7.5m<sup>3</sup> or 6.5 tonnes per 100sqm where feasible.
- Minimises the amount of waste sent to landfill, ensuring that at least 85% of non-hazardous construction and demolition waste (in m<sup>3</sup>) is diverted from landfill (this will also enable the scheme to score BREEAM waste credits).

Guidance on producing a SWMP, including a SWMP template, is provided by the Waste and Resources Action Programme (WRAP, [www.wrap.org.uk](http://www.wrap.org.uk)). The section below on reuse of construction materials highlights key waste reduction and reuse measures to consider in the SWMP. The SMARTStart waste benchmarking/monitoring tool (see [www.smartwaste.co.uk/about.jsp](http://www.smartwaste.co.uk/about.jsp)) provides a simple method for recording information about the materials that leave site as waste.

### 8.4 GENERAL ARRANGEMENTS FOR STORAGE AND DISPOSAL

The developer's nominated representative must agree arrangements for storage and disposal of refuse with the City Council prior to commencement of the development. Health and Safety Guidance 51 provides guidance on the storage of flammable liquids.

### 8.5 CONTAMINATED WASTES

#### 8.5.1 GENERAL

The Contaminated Land Regulations (2006) (as amended) allow the Environment Agency and local authorities to take enforcement action against those responsible for having caused or knowingly permitted the substances, or any of the substances, by reason of which the contaminated land in question is contaminated land (defined in Part IIA of the Environmental Protection Act 1990), to be in, on or under that land; or the owner of that land.

A desk study of any site to be developed should be carried out in order to identify possible areas of contaminated land. The results of the desk study will be used to determine the necessity for any site investigation works and the scope of such works.

The scope of any site investigation works carried out must be sufficient to determine as far as is reasonably practicable the site conditions and allow for the proper analysis of the ground in terms of contamination and the works which are to be undertaken to remediate the contamination.

Prior to and during construction operations at certain sites it may be necessary to monitor emission of methane gas. Should this be the case, the developer's nominated representative will be required to establish a programme of testing for methane and other hazardous gases by a specialist practitioner.

Where contaminated wastes are found to be present, handling and disposal procedures must be proposed by the nominated representative and agreed by the City Council. The contractor will be required to comply with these procedures during site development. Where contaminated wastes are found to be present, the nominated representative will

## 8 Waste Management

ensure that a Workers' Safety Information Sheet covering hygiene, work practices, clothing requirements etc. is prominently displayed in rest/mess rooms and wash rooms.

Definitions contained within the Contaminated Land (England) Regulations 2006 (SI 2000/227) (as amended), indicate conditions which are deemed to be contaminated and which must be developed in accordance with the Environmental Protection Act (Part IIA) 1990.



The Pollution Prevention and Control (PPC) Regulations 2000 (SI 2000/1973) were replaced by on 6 April 2008 by the Environmental Permitting Regulations 2007 (EPR), which in turn were replaced by the EPR 2010.

The new Regulations bring together the PPC, Waste Management and groundwater and discharge consents licensing and permitting into one regulatory system.

The Aggregates Levy was introduced in April 2002 to reduce the demand on virgin aggregate resources and therefore reduce the environmental impact of the aggregate extractive industry. The levy is aimed primarily at commercial aggregate producers and includes mining, quarrying and dredging. Individual developments must be judged against the terms provided in the HM Customs and Excise Notice AGL1 (April 2011, or as updated) to determine whether the works fall within the scope of the levy.

## 8 Waste Management

The contractor will not be permitted to transport contaminated materials on canals, unless appropriate handling facilities and infrastructure are agreed with the Canal & River Trust and provided by the developer.

Empty containers that originally contained Hazardous Waste (waste which is harmful to human health or the environment) must themselves be treated as Hazardous Waste unless they hold less than 0.1% of their original contents. If the contents are of a very toxic or carcinogenic nature, that limit is further reduced to 0.01%. Detailed guidance on the definition and classification of Hazardous Waste is provided in Technical Guidance WM2 from the Environment agency (2013).

### 8.5.2 EXCAVATION MATERIALS

The developer/contractor must comply with any separate special procedures covering the development of contaminated sites.

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.

The contractor must take measures to prevent the contamination of surface watercourses and groundwater during excavation works (see requirements of Chapter 10).

### 8.5.3 DEMOLITION MATERIALS

The developer/contractor must comply with the provisions of the Environmental Protection Act 1990 and, if applicable, the Special Waste Regulations 1996 (as amended).

The developer/contractor must comply with the COSHH Regulations 2002 as amended and HSE Guidance Note EH 40/99 Occupational Exposure Limits 2002 to ensure that contaminated materials are handled and disposed of safely and properly.

The developer/contractor must comply with HSE Guidance Note GS 29/1 Health and Safety in Demolition Work: Part 1 (Preparation and Planning), Part 2 (Legislation) Part 3 (Techniques), and Part 4 (Health Hazards) and shall ensure that contaminated materials are handled and disposed of safely and properly.

If the works involve the removal of asbestos or the demolition of premises containing asbestos, the developer/contractor shall comply with the Control of Asbestos Regulations 2006 and the HSE Approved Code of Practice and Guidance Note L28 "Work with Asbestos Insulation, Asbestos Coating and Asbestos Insulating Board". The regulations include detailed advice on waste disposal:

## 8 Waste Management

- asbestos waste must be double sealed in receptacles which prevent the escape of dust;
- the receptacle must be labelled in accordance with the details in the regulations;
- in the case of crocidolite the receptacles shall be marked “contains crocidolite/blue asbestos”.

The disposal of waste materials containing asbestos to a licensed disposal site must be arranged in advance. Disposal sites shall be agreed by the developer/contractor with the City Council and the Environment Agency. The developer/contractor must obtain a licence from HSE to remove asbestos insulation or coating.

If materials containing lead are encountered, the developer/contractor must comply with The Control of Lead at Work Regulations 2002 (SI 2002/2676) and the associated Health and Safety Commission (HSC) Approved Code of Practice to ensure that the health, safety and welfare of those directly and indirectly exposed to lead is not compromised and that contaminated materials are handled and disposed of safely and properly.

### 8.6 RE-USE OF CONSTRUCTION MATERIALS

The London Plan 2011 sets a target of 95% for recycling/reuse of construction, excavation and demolition waste by 2020.

The developer’s nominated representative should ensure, in conjunction with contractors, that wherever possible waste is separated on site in order to maximise reuse and recycling of construction and demolition waste within the development.

Demolition arisings and waste will provide significant opportunity to reclaim, recycle and segregate materials on site. The following measures should, wherever practicable, be implemented in respect of demolition activities on site:

- where possible concrete, brick from walls, foundations, terraces, bases etc. should be crushed (subject to the appropriate licenses) and reused for temporary site roads and/or capping of permanent roads;



## 8 Waste Management

- live vegetation should be removed for composting;
- suitable inert earth spoil should be stockpiled for reuse in landscaping or general fill;
- bituminous road surfacing should be crushed for reuse as temporary footpaths on site;
- existing boundary fence panels should be reused as hardstandings;
- all metal components should be segregated for recycling; and
- existing strip-out materials should be segregated for resale/reuse off-site.

The reuse of materials will also reduce the number of vehicle movements to site.

Measures to reduce waste arising during construction should include the following, where practicable. Developers and contractors should work together to:

- plan early and define targets and processes in a SWMP;
- allocate sufficient space to be able to separate materials and store them separately;
- allocate sufficient storage space for materials which can be reused to avoid disposal;
- avoid over-ordering of materials;
- avoid damage on delivery by using a walled laid-out storage and off-loading area;
- use prefabrication, if feasible;
- avoid repetitive handling;
- segregate materials for recycling, such as timber and cardboard wrapping;
- salvage top soil for re-use; and
- recycle municipal waste from temporary welfare accommodation on site.

It is important to audit waste management practices on site, and contractors should monitor waste practices throughout the construction phase as part of their SEMP.

Guidance on the re-use and recycling of construction and demolition waste is available from WRAP ([www.wrap.org.uk](http://www.wrap.org.uk)) and London Remade ([www.londonremade.com](http://www.londonremade.com)).

### 8.7 PACKAGING WASTE

The Producer Responsibility Obligations (Packaging Waste) 2007 (as amended), state that companies who manufacture, convert, pack/fill, sell or import more than 50 tonnes of packaging or packaging material per year, and have a turnover of more than £2m per year, must register with the Environmental Regulator or a registered compliance scheme. Those registering with the Regulator must achieve targets for recycling and recovering packaging waste, and submit an annual certificate of compliance.

## 8 Waste Management

Packaging materials supplied to a construction site might include pallets, plastic wrapping, barrels and containers. Waste generation and waste disposal costs can be reduced if a supplier is selected that seeks to avoid excessive use of packaging and is prepared to take back reusable packaging and surplus materials for reuse.



# 9 WATER POLLUTION AND FLOOD RISK

*Summary: This chapter covers requirements for protecting surface and groundwater from pollution and other impacts; minimising the amounts of wastewater that need to be discharged; and ensuring that flood risk is managed safely throughout the construction period.*

## 9.1 OBJECTIVES

The developer's nominated representative must work with all involved on a site to develop and implement effective working methods to protect surface and groundwater from pollution and other adverse impacts including changes to water levels, flows and general water quality; and to protect against flooding. This will be completed in accordance with relevant legislative requirements and appropriate industry guidance.

## 9.2 REGULATORY OVERVIEW

### 9.2.1 WATER RESOURCES ACT 1991

The Water Resources Act 1991 (s.85) establishes that it is an offence to knowingly discharge any poisonous, noxious or polluting matter (liquid or solid) or solid waste matter to any controlled waters (including either surface or groundwater) without a discharge consent issued by the Environment Agency (under Part III Ch. II of the Water Resources Act 1991). Polluting materials include silt, cement, concrete, oil, petroleum spirit, sewage or other debris and waste materials. 'Controlled waters' include all watercourses and water contained in underground strata. Road drains and surface water gullies generally discharge into controlled waters and should be treated as such.

In addition, general good site management practice is essential to protect surface water and groundwater from accidental contamination.

Under the Water Industry Act 1991, it is an offence to discharge trade effluent to the public sewer or to a sewage treatment works without the consent of the Water Authority.

### 9.2.2 PETROLEUM REGULATIONS

There is a range of legislative measures that control the storage, transport and use of petroleum products in order to ensure safety to both people and property and the environment.

Storage of flammable petroleum spirits (including diesel oil, petrol, benzene) is regulated by licences issued by the London Fire and Emergency Planning Authority under provisions in the Petroleum (Consolidation) Act 1928 (as amended by Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR) and Petroleum (Transfer of Licences) Act 1936. A petroleum licence is required for storage of petroleum spirits at quantities above 15 litres. In seeking a licence to store quantities of petroleum spirit the applicant must demonstrate to the relevant authority that acceptable methods of storage will be put in place. Acceptable methods of storage are regulated under a range of legislative and guidance measures. These are summarised in Table 2 below.

**TABLE 4: GUIDANCE ON THE STORAGE OF PETROLEUM PRODUCTS**

<b>Title of Legislation / Guidance</b>	<b>Available from:</b>
Petroleum (Consolidation) Act 1928	Stationary Office/ <a href="http://www.legislation.gov.uk">www.legislation.gov.uk</a>
Petroleum (Transfer of Licences) Act 1936	Stationary Office/ <a href="http://www.legislation.gov.uk">www.legislation.gov.uk</a>
Petroleum Spirit (Motor Vehicles etc) Regulations 1929	Stationary Office/ <a href="http://www.legislation.gov.uk">www.legislation.gov.uk</a>
Petroleum Spirit (Plastic Containers) Regulations 1982	Stationary Office/ <a href="http://www.legislation.gov.uk">www.legislation.gov.uk</a>
Highly Flammable Liquids and Liquefied Petroleum Gases Regulations 1992	Health and Safety Executive (HSE)
Health and Safety Guidance Note HS(G)51 The Storage of Flammable Liquids in Containers	Health and Safety Executive (HSE)
Health and Safety Guidance Note HS(G)140 The Safe Use and Handling of Flammable Liquids	Health and Safety Executive (HSE)

### 9.2.3 CONTROL OF POLLUTION (OIL STORAGE) REGULATIONS 2001 (SI 2001/2954)

The Control of Pollution (Oil Storage) Regulations 2001 came into force in March 2003 with the objective of minimising the pollution of controlled waters resulting from spillage or leaking of oil. The Regulations impose a requirement on anyone storing more than 200 litres of oil based liquids outdoors to have in place storage facilities that comply with a comprehensive range of requirements, including but not limited to:

- The oil container must be of sufficient strength to ensure it is unlikely to leak.
- The container must be situated within a secondary containment system (SCS), which will prevent the release of any leaked oil.

For further detail on the requirements of the regulations it is advised that guidance is

sought from the Environment Agency.

## 9.3 MARINE MANAGEMENT

### 9.3.1 MARINE PLANNING

The Marine Management Organisation (MMO) is the marine planning authority for England, responsible for preparing marine plans for English inshore and offshore waters. At its landward extent, a marine plan will apply up to the mean high water springs mark, which includes the tidal extent of any rivers. As marine plan boundaries extend up to the level of the mean high water spring tides mark, there will be an overlap with terrestrial plans which generally extend to the mean low water springs mark. Marine plans will inform and guide decision makers on development in marine and coastal areas. The MMO is currently in the process of developing marine plans for the south inshore and offshore plan areas and has a requirement to develop plans for the remaining 7 marine plan areas by 2021.

For marine and coastal areas where a marine plan is not currently in place, the Marine Policy Statement provides guidance on any planning activity that includes a section of coastline or tidal river. All public authorities taking authorisation or enforcement decisions that affect or might affect the UK marine area must do so in accordance with the Marine and Coastal Access Act and the UK Marine Policy Statement unless relevant considerations indicate otherwise. Further online guidance can be obtained from the Marine Management Organisation and the Planning Advisory Service soundness self-assessment checklist.

### 9.3.2 MARINE LICENSING

Activities taking place below the mean high water mark may require a marine licence in accordance with the Marine and Coastal Access Act (MCAA) 2009. Such activities include the construction, alteration or improvement of any works, dredging, or a deposit or removal of a substance or object below the mean high water springs mark or in any tidal river to the extent of the tidal influence. You can also apply to the MMO for consent under the Electricity Act 1989 (as amended) for offshore generating stations between 1 and 100 megawatts in England and parts of Wales. The MMO is also the authority responsible for processing and determining harbour orders in England, and for some ports in Wales, and for granting consent under various local Acts and orders regarding harbours. A wildlife licence is also required for activities that that would affect a UK or European protected marine species.



### 9.4 DISPOSAL OF SEEPAGE, WASTEWATER AND GROUND WATER

Whenever possible, the contractor must seek to minimise the amounts of wastewater that need to be discharged and find alternative means of disposal. Such alternatives might include discharge to the foul sewer, subject to trade effluent obligations (Water Industry Act 1991), or disposal through a licensed waste management contractor in accordance with duty of care obligations. On the assumption that some wastewaters will require management, the following commitments must be applied throughout the works:

- Any seepage and wastewater arising from the works must be collected and discharged via a settlement tank. The standards for wastewater treatment prior to discharge must be agreed in advance with the City Council and, where applicable, satisfy the Environment Agency's requirements.
- Soakaway discharge must only be permitted where the effluent is proved to be of a quality that is acceptable to the Environment Agency. Contaminated water or water of an uncertain quality must be discharged into sewers by tankers or other approved means of disposal.
- Prior to any excavation below the water table, including any site de watering, the developer's nominated representative must inform the Environment Agency of the works to be conducted. The de-watering and disposal measures must be agreed in

advance with the Environment Agency and where required, an Abstraction Licence shall be obtained.

- The contractor must also comply with BS6031: 2009 Code of Practice for Earthworks, regarding the general control of site drainage.
- The contractor must ensure that any water that has come into contact with contaminated materials must be disposed of in accordance with the Water Industries Act 1991 (if discharged to sewer) and the Water Resources Act (if discharged to controlled waters) and all other related regulations and to the satisfaction of the Environment Agency and Thames Water (see Section 8.5). Any discharge to the River Thames, including the construction of surface water outfalls requires approval from the Port of London Authority (PLA).
- The developer's nominated representative will have to apply for consents and approvals as follows:
  - o A consignment note system must be applied to all liquid wastes that are removed by a licensed waste carrier in a road tanker in accordance with all relevant waste management legislation and duty of care regulations.
  - o For any discharge of wastewater into a surface watercourse, a discharge consent must be sought, if required, from the Environment Agency.
  - o For any discharge of wastewater into a sewer, a Trade Effluent Consent must be sought, if required, from Thames Water.
- The developer's nominated representative must make provisions to ensure that all hazardous substances including oil drums or containers on site are controlled in accordance with Control of Substances Hazardous to Health Regulations, are labelled appropriately and have a suitable secondary containment system (SCS) in place and that no oil or other contaminants are allowed to reach water courses or groundwater.
- Foul water and sewage effluents produced by the construction workforce on-site must be contained in temporary foul drainage facilities that are to be installed and subsequently disposed of off-site by a licensed waste contractor.

The developer's nominated representative must ensure continuous compliance with all the above conditions under the monitoring of the site project management staff (in compliance with Environment Agency regulations).

### 9.5 FLOODING

The developer's nominated representative must work with the contractor and others involved in the site to ensure as far as reasonably practicable that flood risk (river/tidal,

surface water, sewer surcharging and groundwater) is managed safely throughout the construction period.

The contractor will seek to control flood risk to appropriate levels set by the Environment Agency, using mitigation, compensation and/or monitoring where required.

For sites located close to the River Thames the site owner will be responsible for providing and maintaining continuous flood defence provision, for both permanent and temporary works. This is a requirement of the Thames River Protection of Floods Amendment Act 1879, and is essential to ensure that both the sites themselves and third-party land and assets in the surrounding area are protected from flooding. Flood defence consent will be required from the Environment Agency for any works on the bed or banks of a river or construction of any structure likely to impede the flow under the Land Drainage Act 1991. Consent is required to ensure works do not increase flood risk, damage flood defences, or harm the environment, fisheries, or wildlife.

The developer's nominated representative, in conjunction with the contractor, should also consider and implement appropriate measures to manage the potential risks of flooding from fluvial rivers, localised perched groundwater, overland surface water flows and sewer surcharging, in accordance with the details provided within the Flood Risk Assessment (where this has been completed). This should include consideration of potential flow paths within the site which could become active in the event of extreme rainfall and/or sewer surcharging, particularly during temporary works. Overland flow paths will be determined by site topography, therefore vulnerable operations and materials should be located within elevated parts of the site, away from potential flow paths. If this is not possible, other appropriate protection measures should be incorporated.

### 9.6 TEMPORARY AND PERMANENT CONNECTIONS TO SEWERS

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.

It is strongly recommended that all underground 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.

Wherever it is 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 often occur with this type of installation.

### 9.7 DRAINAGE ROUTES TO CANALS

The Land Drainage Act 1991 requires flood defence consent for any works on the bed and banks of a river or construction of any structure likely to impede the flow (see section on flooding above). Drainage to canals or other waterways will not be permitted without prior agreement with the Canal & River Trust. The Canal and River Trust will require identification of the source and quality of the water, and will liaise with the Environment Agency.

### 9.8 SPILL AND LEAK PROTECTION

Where development sites are adjacent to canals or other waterways, suitable precautions must be taken to prevent the entry of pollutants into the waterway to the satisfaction of the Environmental Inspector in liaison with the Canal and River Trust. It should be noted that oil stores within 10 metres of a watercourse must be considered “at significant risk” under the Control of Pollution (Oil Storage) Regulations 2001. Specific measures, such as placing oil stores at a distance from the canal and putting in place additional secondary containment system (SCS) measures, must be considered on a site by site basis. On sites adjacent to the canal, where there is a potential risk to the canal, emergency procedures to ensure containment and treatment in the event of a spill must be agreed in advance of any works with the City Council and the Canal and River Trust.



## 9.9 DRAINAGE OF WATERWAYS

Where it is proposed that canals or other waterways be drained in connection with construction, the developer's nominated representative must agree with the City Council and the Canal & River Trust details of the methodology to be employed prior to commencement of the development. Particular attention must be given to regular pest control treatment (particularly rats and flies); removal of sludge and other debris after drainage; prevention of leakage and ingress of surface water to minimise risk from legionella organisms; minimising smell nuisance from sludge and algae by measures including deodorising, hosing down etc. Safety measures must also be taken to protect both the general public and employees and to prevent fly tipping and illegal access.

## 9.10 WATER TRANSPORT

For construction sites located close to waterways, developers are strongly encouraged to assess the viability and feasibility for construction materials to be delivered or removed by this means, rather than by road. The benefit of this is the reduction in the number of trips made by HGVs on local roads, reducing local emissions.

If spoil removal and material delivery is to be made by barge, the developer's nominated representative must take appropriate measures to ensure that construction materials and spoil or other waste materials are not deposited either deliberately or by accident into surface water courses.

# 10 URBAN ECOLOGY

*Summary: This chapter outlines how disturbance to areas of nature conservation interest, protected species and priority species should be avoided or minimised. It also covers tree protection and tree replacement.*

## 10.1 OBJECTIVES

Green infrastructure in cities provides a number of benefits including reduced sickness absence and improved productivity, increases in property values, a reduction in air pollutants, biodiversity benefits, reduced pressure on drainage and flood defences and a mechanism to counteract the urban heat island effect, leading to a more sustainable and liveable city.

The developer's nominated representative must work with contractors and others on the site to ensure compliance with the relevant statutory provisions in respect of the protection of areas of nature conservation interest, protected species and priority species named on UK, London or Westminster Biodiversity Action Plans. In particular, any disturbance to such areas and such species must be controlled and limited as far as reasonably practicable

Where species are protected by specific legislation the developer's nominated representative, contractor and others on the site must follow approved guidance to comply with those requirements and allow sufficient time for any licences or consents to be obtained.

## 10.2 REGULATORY OVERVIEW

The table below lists the most significant pieces of legislation relating to wildlife and habitat conservation within and around the City of Westminster.

TABLE 5: LEGISLATION RELATING TO WILDLIFE AND HABITAT CONSERVATION

Legislation	Description
National Parks and Access to the Countryside Act 1949	Much of what this Act set out to achieve in designating and protecting sites for nature conservation and Areas of Outstanding Natural Beauty and addressing Public Rights of Way and access to open land, is now provided for to a greater extent under subsequent legislation, summarised below. This remains the primary legislation under which Local Nature Reserves are designated, of which there is currently one in Westminster, St John's Wood.
Wildlife and Countryside Act 1981, (as amended)	This is the principal mechanism for the legislative protection of wildlife in Great Britain. This Act provides varying degrees of protection to listed species of flora and fauna according to a number of Schedules; controls the release of non-native species, and deals

	with Public Rights of Way. Subject to exceptions, this Act prohibits some or all of: killing, injuring, disturbing, taking, sale/barter or possession of (protected) species and associated breeding and sheltering places. Nesting birds are protected under this Act; hence it is advisable that site clearance is undertaken outside of the bird breeding season.
Protection of Badgers Act 1992	This Act consolidates the previous Badgers Act 1973 and the Badger Setts Protection Act 1991. Badgers and their setts are strictly protected. This includes intentionally or recklessly damaging, destroying or obstructing access to a sett in use, or disturbing a badger whilst it is occupying a sett. Any activity affecting badgers or their setts must be carried out under a licence. These are issued by Natural England for specific purposes where there is suitable justification and the problem cannot be resolved by alternative means. Sett interference should be avoided between 1st December and 30th June, the breeding season for badgers.
Wild Mammals (Protection) Act 1996	This Act provides protection for wild mammals against acts of deliberate harm, i.e. with intent to inflict unnecessary suffering. This includes acts of crushing or asphyxiation, hence may apply during site clearance for development where burrowing mammals such as foxes and rabbits are present.
The Hedgerows Regulations 1997	These Regulations afford protection to “important” hedgerows and are primarily aimed at those in the countryside. This legislation does not apply to garden hedges. Criteria for identifying important hedgerows relate to their value from an archaeological, historical, landscape or wildlife perspective. This includes the presence of specific flora and fauna as set out in Schedule I Part II. Permission must be obtained from the local planning authority prior to the removal of such hedgerows.
Town and Country Planning (Trees) Regulations 1999	These Regulations provide for local authorities to protect trees by means of ‘tree preservation orders’. Consent of the local planning authority is required before any tree protected by an Order may be cut down, topped, lopped, uprooted, damaged or destroyed. Certain trees are exempted from this requirement (e.g. those that are dead or have become dangerous).
Countryside and Rights of Way Act 2000	This Act amends and strengthens existing legislation, including the wildlife enforcement provisions of the Wildlife and Countryside Act 1981. Schedule 12 strengthens the legal protection for threatened species, making certain offences ‘arrestable’, creating a new offence of reckless disturbance (to a protected animal, its nest, its place of rest or shelter), confers greater powers to police and wildlife inspectors, and enables heavier penalties on conviction of wildlife offences.
The Environmental Damage (Prevention and Remediation) Regulations 2009	These Regulations impose further obligations on operators, requiring them to prevent, limit or remediate environmental damage. Steps must be taken to prevent damage to species and habitats already protected under other legislation, extending to

<p>The Conservation of Habitat and Species Regulations 2010 (the Habitats Regulations)</p>	<p>include habitats and species beyond designated areas. This legislation consolidates all amendments to the Habitats Regulations made since 1994 [Conservation (Natural Habitats &amp;c.) Regulations, 1994]. It provides for the protection of sites in the UK that support habitats and species in need of conservation across Europe, and provides full protection of species of European importance regardless of whether or not they occur within designated sites. The Regulations make it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2, or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 4.</p>
--	---

### 10.3 WILDLIFE MITIGATION MEASURES

Mitigation measures to protect the wildlife and habitats associated with areas of nature conservation interest (sites designated as either a Local Nature Reserve or a Site of Interest for Conservation) or sites containing protected or priority species will be agreed with the City Council on a site by site basis and will include the following general principles:

- (a) Where practicable, demolition and site clearance works should be carried out outside of the bird breeding season (March to August inclusive).
- (b) Potential wildlife habitats to be disturbed by construction work should be surveyed by a qualified ecologist at the appropriate time of year and immediately prior to commencement of works. Multiple surveys may be necessary, and will include checking for presence of protected and priority species, surveying buildings for roosting and nesting by bats and birds, and consideration of the impact of noise, vibration and light spillage at night. The ecologist will be required to make recommendations on mitigation measures and restoration work to ensure that the site is of an equivalent or richer ecological status after work ceases.



- (c) Where protected species are identified either prior to the works, through surveys, or during the works, the developer's nominated representative must contact English Nature to agree appropriate measures. This may include post-development monitoring to check mitigation measures have been successful.
- (d) Where soil is stripped and intended to be reinstated, this must be appropriately stored to maintain soil structure and quality, and be of sufficient condition to promote aeration, drainage and root growth.
- (e) Areas of existing trees or vegetation to be retained must be suitably protected before any materials or machinery is brought on site.
- (f) If invasive non-native plant species are discovered on site, these must not be allowed to spread onto adjacent land. Control measures employed must prevent accidental spread by moving contaminated soil to another location or through the incorrect transportation and handling of contaminated material and plant cuttings.
- (g) Standards of dust and air pollution control, as set out in Chapter 7, must be applied at all construction sites to protect adjacent wildlife habitats.
- (h) Site lighting design, position and direction must include measures to prevent unnecessary disturbance to wildlife and ecologically sensitive areas.
- (i) Suitable precautions must be taken to prevent the entry of pollutants into any bodies of water (see also requirements of Chapter 10).
- (j) All construction site workers must be made aware of any ecological issues associated with the site. Areas of existing trees or vegetation to be retained, and those to be removed, should be clearly indicated on a plan.

### 10.4 PROTECTION OF TREES

The developer's nominated representative must ensure that the specific requirements agreed with the City Council or as subsequently agreed on site are followed. No trees shall be interfered with except with prior agreement, and regard shall be had to the Council's Tree Strategy, Trees and the Public Realm (2011)

Adverse effects on trees within or in the vicinity of worksites must be minimised by the adoption of suitable mitigation measures, including, but not limited to the following (as appropriate):

- (a) A tree assessment survey shall be undertaken by an arboricultural specialist to agree the most appropriate positions for working equipment and site storage facilities so that the risk of damage to trees is kept to an absolute minimum.

- (b) Any trees showing signs of stress during progress of works will require appropriate treatment to aid recovery at the time rather than waiting until completion of the scheme. Branch removal should only be undertaken as a last resort. Various alternatives should be considered before removal of major limbs. Tying back, erection of suitable temporary protection, adoption of alternative working methods should be considered as a first option. Where pruning is unavoidable “crown balancing” by removing material on both sides of canopies should be considered and implemented if felt desirable.
- (c) Suitable measures must be adopted to avoid ground compaction occurring at any time during the progress of the development. The use of matting around root zones to prevent compaction is unacceptable. Various alternatives are available and more appropriate including concrete aprons laid to falls above a membrane covering of heavy duty polythene.
- (d) The use of chestnut piling around the trunk to prevent damage has been found to be unsuitable. Suitable alternatives are included in BS 5837:2012 “Trees in relation to design, demolition and construction – Recommendations”. Instances will be encountered where bespoke scaffold walls to which debris netting is attached are required to adequately protect trees. It is imperative that protective fencing is installed before any works commence on site at a suitable distance from the tree’s trunk (see guidance in BS 5837).

### 10.5 TREE REPLACEMENT

Whilst every reasonable attempt must be made to preserve all mature trees, any tree that is cut down or dies as a consequence of the construction must be replaced by a suitably sized transplant determined by the City Council in an agreed location. There may be cases where more than one new tree will be required to adequately compensate for the loss of amenity. Any site for new planting must be thoroughly prepared prior to planting. Aftercare including irrigation must be implemented to all set horticultural and arboricultural standards for suitable periods. Any tree which dies within five years must be replaced with suitable new trees.

The supply, storage, handling, planting and maintenance of new planting will be undertaken in accordance with appropriate British Standards, including BS 5837 “Trees in relation to design, demolition and construction – Recommendations”; BS 8545 “Young trees – from the nursery to independence in the landscape”; BS 3998 “Tree Work. Recommendations”; and BS 4428 “Code of practice for general landscape operations (excluding hard surfaces)”.

# 11 HERITAGE ASSETS

*Summary: The chapter sets out requirements for assessing and planning for the archaeological implications of proposals. Impacts on listed buildings and conservation areas also need to be avoided or minimised and all historic fabric or features of significance must be protected.*

## 11.1 OBJECTIVES

Where development may affect land with archaeological significance or potential, the developer's nominated representative must properly assess and plan for the archaeological implications of their proposals.

The contractor shall ensure that the destruction of archaeological remains will be avoided wherever possible and should never take place without prior archaeological excavation and record.

The developer's nominated representative shall ensure that the results and finds from archaeological investigations arising from their development will be analysed, interpreted, presented to the public and curated for future use.

The developer's nominated representative shall ensure that the Code of Practice of The British Archaeologists and Developers Liaison Group is followed by contractors and others involved with the site.

The contractor must comply with all conditions, permissions and requirements of the relevant legislation in respect of listed buildings and conservation areas in order to ensure that no harm is caused to listed buildings, conservation areas and other heritage assets as a result of construction works.

## 11.2 REGULATORY OVERVIEW

### 11.2.1 ANCIENT MONUMENTS AND ARCHAEOLOGICAL AREAS ACT 1979

The Ancient Monuments and Archaeological Areas Act 1979, as amended by the National Heritage Act 1983, provides for the designation of certain ancient monuments as 'Scheduled Monuments' by the Secretary of State. Westminster has two scheduled ancient monuments: the Chapter House and Pyx Chamber at Westminster Abbey, and the Jewel Tower.

The Act defines an ancient monument as "any Scheduled Monument; and any other monument which in the opinion of the Secretary of State is of public interest by reason of

## 11 Heritage Assets

the historic, architectural, traditional, artistic or archaeological interest attaching to it" (Section 61(12)). In order to carry out works to these monuments the consent of the Secretary of State is required, although a special provision of the Act gives certain activities 'class consent'. The specific consent of the Secretary of State has to be given for:

- a) any works resulting in the demolition or destruction of or any damage to a Scheduled Monument;
- b) any works for the purpose of removing or repairing a Scheduled Monument or any part of it or of making any alteration or additions thereto; and
- c) any flooding or tipping operation on land in, on or under which there is a Scheduled Monument.

### 11.2.2 TOWN AND COUNTRY PLANNING ACT 1990

Although some nationally important monuments (see Section 12.2.1 above) are protected under the provisions of the Ancient Monuments and Archaeological Areas Act 1979, the only protection afforded to other sites is under the planning law.

In the Town and Country Planning General Permitted Development Order 1995 a site of archaeological interest is defined as "land which is included in the schedule of monuments compiled by the Secretary of State under Section 1 of the Ancient Monuments and Archaeological Areas Act 1979 (schedule of monuments), or is within an area of land which is designated as an area of archaeological importance under Section 33 of that Act (designation of areas of archaeological importance), or which is within a site registered in any record adopted by resolution by a county council and known as the County Sites and Monuments Record". In London this will be any site recorded in the Greater London Historic Environment Record (GLHER), including Westminster's Areas of Archaeological Priority.



### 11.2.3 THE PLANNING (LISTED BUILDINGS AND CONSERVATION AREAS) ACT 1990

## 11 Heritage Assets

This Act and subsequent amendments provide for the designation of any buildings judged to be of special architectural or historic interest on the list of such buildings, compiled by the Secretary of State.

Listing by the Secretary of State provides statutory protection for listed buildings and their settings from insensitive alteration, demolition and redevelopment. Provisions of the Act are implemented by the Planning (Listed Buildings and Conservation Areas) Regulations 1990 and subsequent amendments.

Listing applies to the whole of the building, including the interior. It also includes any object or structure fixed to the building; or any object or structure within the curtilage of the building which, although not fixed to the building, forms part of the land and has done so since before 1st July 1948.

A 'Listed Building' cannot be altered, demolished or extended in any way that affects its character, without the consent of the local planning authority.

Historic England must be notified of certain categories of application affecting listed buildings and conservation areas, but the local planning authority should usually be contacted for advice in the first instance. The Council's website includes a map and database of listed buildings.

Undertaking works to a listed building without consent is a criminal offence, and prosecution for unauthorised works to a listed building can result in imprisonment or an unlimited fine. This offence is committed by both those carrying out the work (the contractor/builder) and those who cause the works to be carried out (those instructing the builder).

'Conservation Areas' are designated by the local authority to protect areas of architectural or historic interest. Current Conservation Areas designated in Westminster can be found on the Council's website. Conservation area designation introduces a general control over the demolition of unlisted buildings. Any work planned to a tree in a conservation area must also be notified to the local planning authority six weeks in advance so that they may assess whether to make a tree preservation order.

### 11.2.4 MISCELLANEOUS ACTS

If any artefacts defined in the Treasure Act 1996 (e.g. human remains, finds of gold and silver) are discovered, the contractor shall follow the procedures under the Treasure Act Code of Conduct 1997 to address the discovery.

There are many other Acts and pieces of secondary legislation which contain points of significance to archaeology, as indicated in Appendix A. The Historic Parks and Gardens are listed in the National Heritage List for England.

### 11.3 GENERAL - ARCHAEOLOGY

Where an archaeological condition has been placed on the planning consent, or scheduled monument consent has been obtained, no development shall take place until the developer has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation, prepared by a professional archaeologist, which has been submitted by the developer and approved in writing by the City Council in consultation with the Greater London Archaeological Advice Service (GLAAS).

Any archaeological intervention must be carried out by an Institute for Archaeologists (IfA) registered archaeological organization in accordance with the terms of a written

specification, as above.



Prior to agreement of the final project design, access to the site by the archaeological organization must be agreed with the contractor, land- owner(s), relevant agents and, if thought appropriate, the highway authority and the Police.

Reasonable access to the site must be granted by the contractor to the planning and archaeological representatives of the City Council and GLAAS. It may be necessary through a number of site visits to ensure that archaeological works are being carried out to proper professional standards and in accordance with the agreements made.

The developer must provide all information reasonably obtainable on contamination and the location of live services before archaeological site works commence.

In order to define the exact area of archaeological interest, and to protect it from unauthorised works during the development of the remainder of the site, no development shall take place until a scheme for the fencing of the area identified has been submitted to and approved by the City Council in consultation with GLAAS. The scheme shall include details of the height, materials and location of the fencing. The fencing shall be erected in accordance with the approved details, and shall be maintained in situ until the archaeological investigation is complete.

## 11 Heritage Assets

The developer's nominated representative shall afford access at all reasonable times to any archaeologist recognised by the City Council or GLAAS, and shall allow them to observe the excavations and retrieve and record remains of archaeological interest which are disturbed. Fourteen days notice in writing shall be given to the City Council prior to the commencement of the development.

Planning conditions may also require a level of community involvement in any archaeological excavation, ranging from provision of viewing points and interpretation materials to public access to the sites through open days.

Even where no archaeological investigation is required by condition, developers and contractors are advised to be vigilant for archaeological deposits. This is particularly important if in an area of special archaeological priority or area of known archaeological potential. The Council has published supplementary planning guidance on Archaeology and Planning within Westminster which includes details of areas of special archaeological priority in Westminster. If any archaeological deposits are uncovered during the course of works, then the developer's nominated representative should alert GLAAS and Historic England immediately.

### 11.3.1 PLANNING POLICY GUIDANCE

The Government's policy for the historic environment is set out in the National Planning Policy Framework (NPPF). Westminster Council has produced a number of guidance notes on topics of relevance including:

- Repairs and Alterations to Listed Buildings SPG
- Development and Demolition in Conservation Areas SPG
- Architectural Theft and the Protection of Historic Buildings in Westminster.

### 11.4 OTHER CONSIDERATIONS

The developer must ensure that all works affecting listed buildings, whether they are repairs or alterations, will be carried out in a correct manner, under proper supervision, by specialist labour where appropriate.

The developer and contractor must ensure that alterations, extensions and other structural works to listed buildings will be carried out sensitively without putting any significant or historic fabric at risk.

Contractors should also ensure any temporary supports and scaffolds are installed sensitively to minimise impact on original fabric.

Should, during the course of approved works, part of a listed building be found to be insecure or unstable or otherwise affected by the works, the developer's nominated

## 11 Heritage Assets

representative must ensure that such measures as may be necessary to ensure the preservation of the building are taken. They should ensure the site is secure and contact a City Council Design and Conservation officer for advice before undertaking any further works.

Where they are of architectural or historic interest, the developer must ensure the retention and protection of all original internal and external decorative features. Particular care must be taken to ensure the site is secured when empty and protect fixtures such as fireplaces which may be vulnerable to theft.

Where historic fabric such as floor boards or roof slates are to be temporarily removed and reinstated as part of works, these should be recorded or numbered, carefully removed and securely stored on site. Temporary removal of valuable items should not be undertaken during construction works unless this has been agreed as part of a consent process.

A design and conservation officer should be consulted if any, even minor, changes to the approved scheme become necessary during the course of works.

Care should be taken to protect other features which contribute to the character of conservation areas and/or setting of listed buildings or other heritage assets, such as boundary walls. This includes historic floorscapes such as granite setts in mews which can be vulnerable to damage from heavy vehicles and skips during construction works.



# 12 PROTECTION OF EXISTING INSTALLATIONS

This chapter outlines the procedures to be adopted prior to construction, to protect existing infrastructure such as foundations, buildings, structures, walls, roadways, sewers, cables and other services, apparatus and installations. Requirements for condition surveys are also covered.

## 12.1 OBJECTIVES

The developer's nominated representative shall work with contractors and others involved with the site to ensure all practical steps are taken to protect existing buildings and infrastructure. The contractor will be required to make his own investigations and to take all appropriate actions concerning existing foundations, buildings, structures, walls, roadways, sewers, cables and other services, apparatus and installations.

Contractors involved in basement developments should have regard to the section on managing the impacts of construction in the City Council's Supplementary Planning Document on Basement Development or subsequent replacement version.

## 12.2 REGULATORY OVERVIEW

Building Control enforces minimum standards and issues associated with engineering design and structural stability and ensuring construction work undertaken is professional and competent and accords with the Building Regulations.

The Party Wall Act is in place to control development on each side of a party wall and maintain its integrity and function.

The provisions of the Control of Pollution Act (1974) are the principal mechanisms by which construction vibration is controlled.

## 12.3 SAFEGUARDING

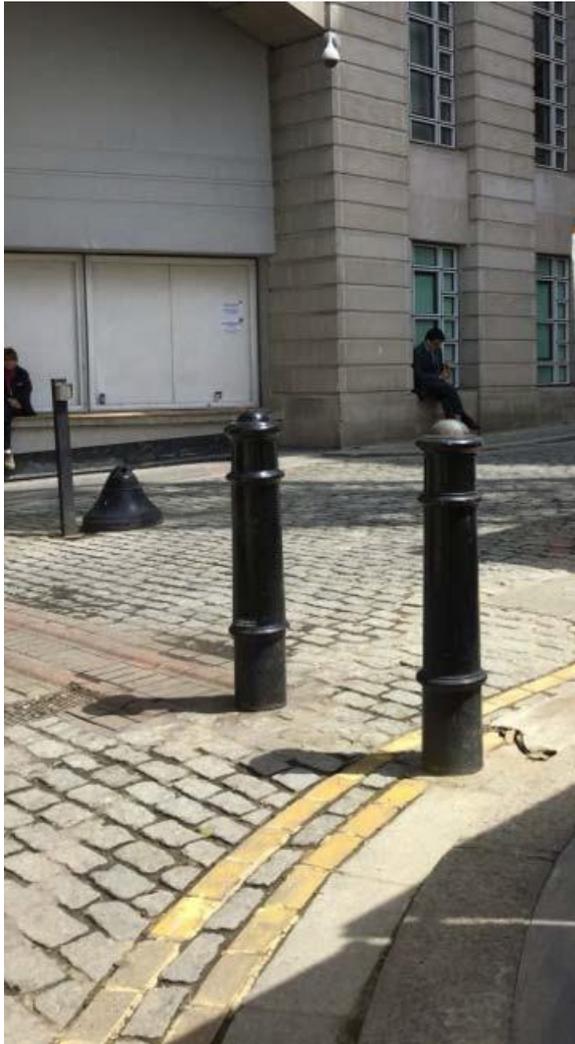
The developer's nominated representative and the contractor shall properly safeguard all buildings, structures, works, services or installations from harm, disturbance or deterioration during the construction period. The contractor shall take all necessary measures required for the support and protection of all buildings, structures, pipes, cables, sewers, railways and other apparatus during and immediately after the construction period.

## 12 Protection of Existing Installations

Details of any necessary protective works, including their design and the method of implementation will be established and agreement sought with the building owner, prior to protective works being carried out.

### 12.4 SURVEYS BEFORE CONSTRUCTION OF WORKS

Before commencing any piling, foundation excavation, or ground improvement works at the development site, the contractor shall use established methods to identify the risk of damage to buildings, structures and major utilities. The assessment shall identify those



properties which may be at risk from ground movement (settlement or heave) arising from the construction of the scheme.

An appropriate structural or condition survey will be undertaken (at the contractor's expense) prior to commencement of construction works for any buildings and infrastructure predicted to be potentially subject to ground settlement above threshold values which could possibly lead to damage.

Such surveys shall be carried out generally by agreement with the property owner, and by agreement with the Environment Agency for all such structures within 16 metres of tidal flood defences, or within 8 metres of non-tidal flood defences.

### 12.5 MONITORING

Monitoring of ground settlement will be carried out from the start of, during and after construction, where required by the City Council, to check that the recorded ground movement is within designed limits and therefore acceptable.

Monitoring of buildings/infrastructure will be carried out on case-by-case basis, depending upon the assessment of risk of damage. Monitoring will begin prior to commencement of construction work to enable base-line values to be determined accurately, and will continue until settlement due to the works, as shown by the monitoring, has effectively ceased.

Monitoring results will be made available for inspection by the relevant property owner, and, in the case of scheduled or listed buildings, by Heritage England.

## 12 Protection of Existing Installations

The developer's nominated representative will work with the contractor to develop an emergency response plan which will include appropriate trigger levels for action.

### **12.6 SURVEY AFTER CONSTRUCTION OF WORKS**

After the construction works have been completed and at any time up to two years after the opening of the scheme, an interested party may, upon providing the City Council or the developer's nominated representative with reasonable evidence of damage, request that a second structural or condition survey is undertaken. This shall take the same form as the first survey and shall be undertaken by the same firm of Chartered Surveyors or Engineers (provided that firm is still in practice) at the contractor's expense.

### **12.7 COSMETIC DAMAGE**

Minor cosmetic damage may, on occasion, occur as a consequence of construction. Where this is the case, provision will be made by the developer for repairing any material damage (that occurring in risk Categories Slight and above), as appropriate.

# APPENDIX A – CHECKLISTS

## CHECKLIST A: CODE OF CONSTRUCTION PRACTICE - LEVEL 1 AND LEVEL 2 DEVELOPMENTS

The following information is required to confer compliance with the Code of Construction Practice dated July 2016 (“CoCP”).

There are three main documents that must be provided to the council. These are:

- Site Environmental Management Plan (SEMP)
- Application for consent under Section 61 of the Control of Pollution Act 1974
- Completion of Appendix E relating to Employment and Skills (for Level 1 projects only)

The list below provides the specific details of what is required within each document. Please place a tick against every item in each category to confirm that relevant information will be provided to demonstrate compliance with the Code of Construction Practice. If the item is not considered applicable, please explain why.

This form should be returned to the Council’s Environmental Inspectorate team at:

[environmentalsciences2@westminster.gov.uk](mailto:environmentalsciences2@westminster.gov.uk)

Appendix A - Checklists

Relevant Document	Item to be included	Yes	Not applicable, please explain why
Site Environmental Management Plan	General site information		
Site Environmental Management Plan	Programme of works (demolition and construction)		
Site Environmental Management Plan	Working hours		
Site Environmental Management Plan	Demolition and construction (e.g. piling) methodology		
Site Environmental Management Plan	Site Plan		
Site Environmental Management Plan	Plan showing location of any potentially sensitive receptors		
Site Environmental Management Plan	Environmental management structure		
Site Environmental Management Plan	Roles and responsibilities		
Site Environmental Management Plan	Statement to confirm sign up to Considerate Constructors Scheme		
Site Environmental Management Plan	Summary of main works		
Site Environmental Management Plan	Public access and highways (including cycle safety)		
Site Environmental Management Plan	Potential for river transport/removal of spoil		
Site Environmental Management Plan	Routes for construction traffic and traffic management arrangements		
Site Environmental Management Plan	Road closures/abnormal loads		
Site Environmental Management Plan	Plans for site arrangement (including storage area) and monitoring equipment		
Site Environmental Management Plan	Noise and vibration		
Site Environmental Management Plan	Dust and Air Quality		
Site Environmental Management Plan	Waste management (to include SWMP, storage, handling, asbestos, contaminated land)		
Site Environmental Management Plan	Water Resources (to include site drainage, surface water and groundwater pollution control, flood risk)		
Site Environmental Management Plan	Urban ecology		

Appendix A - Checklists

Site Environmental Management Plan	Archaeology and built heritage		
Site Environmental Management Plan	Lighting		
Site Environmental Management Plan	Pest Control		
Site Environmental Management Plan	Protection of existing installations		
Site Environmental Management Plan	Emergency procedures (including environmental pollution incidents, spillages, health and safety)		
Site Environmental Management Plan	Liaison with the local neighbourhood		
Site Environmental Management Plan	Liaison with other sites to manage cumulative impacts		
Site Environmental Management Plan	Monitoring proposals, to include: Details of receptors; threshold values and analysis methods; procedures for recording and reporting monitoring results; remedial action in the event of any non-compliance		
Application for Section 61 consent	To include all relevant information as required by the application form including noise predictions.		
Local Employment/skills information	Completion of Appendix E of CoCP (only for Level 1 Projects)		

Appendix A - Checklists

**Please read each of these statements and confirm you have read and understood them by ticking in the corresponding box:**

I confirm we have read and understood the Code of Construction Practice

I confirm the relevant documents will be provided to Westminster City Council 40 working days prior to the commencement of development (to include site preparation works).

I confirm that development (to include site preparation works) will not commence on site until such time as the relevant documents have been approved by Westminster City Council in writing.

I confirm we will comply with the CoCP and the SEMP, and any condition relating to construction management and understand we could be subject to enforcement action should the CoCP and/or SEMP not be complied with.

I confirm we agree to pay the relevant fees as set out in Appendix F attached.

I confirm I understand this document constitutes an agreement between Westminster City Council and the applicant:

NAME.....

ADDRESS: .....

Signed:.....

Dated:.....

Position:.....

Signed by .....For and on behalf of .....

Appendix A - Checklists

Demolition Phase Approved by Environmental Inspectorate

Dated:

Signed by:

Earthwork & Piling Phase Approved by Environmental Inspectorate

Dated:

Signed by

Construction Phase Approved by Environmental Inspectorate

Dated:

Signed by

**NOTICE: THIS IS A LEGALLY BINDING DOCUMENT**

It creates a legally enforceable relationship between the above Signatory and Westminster City Council. It is essential that the person signing this document on behalf of the Developer has the authority to do so on the Developer's behalf, thus creating legal obligations on behalf of the Developer.

# APPENDIX A - CHECKLISTS

## CHECKLIST B: CODE OF CONSTRUCTION PRACTICE – BASEMENTS

The following information is required to confer compliance with the Code of Construction Practice dated July 2016 (“CoCP”).

A Construction Management Plan (CMP) must be provided to Westminster City Council. The list below provides the specific details of what is required within this document. Please place a tick against every item in each category to confirm that relevant information will be provided within the CMP to demonstrate compliance with the CoCP. If the item is not considered applicable, please explain why.

This form should be returned to the Council’s Environmental Inspectorate Team at [environmentalsciences2@westminster.gov.uk](mailto:environmentalsciences2@westminster.gov.uk)

<b>Item to be included</b>	<b>Yes</b>	<b>Not applicable, please explain why</b>
General site information		
Programme of works (demolition and construction)		
Working hours		
Demolition and construction (e.g. piling) methodology		
Site Plan		
Plan showing location of any potentially sensitive receptors		
Environmental management structure		
Roles and responsibilities		
Statement to confirm sign up to Considerate Constructors Scheme		
Summary of main works		
Public access and highways (including cycle safety)		
Potential for river transport/removal of spoil		
Routes for construction traffic and traffic management arrangements		
Road closures/ abnormal loads		
Plans for site arrangement (including storage area) and monitoring equipment		
Noise and vibration		
Protection of existing installations		
Emergency procedures (including environmental pollution incidents, spillages, health and safety)		
Liaison with the local neighbourhood including Party Wall agreements		
Dust and Air Quality		
Liaison with other sites to manage cumulative impacts		

Appendix A - Checklists

Please read each of these statements and confirm you have read and understood them by ticking in the corresponding box:

I confirm we have read and understood the Code of Construction Practice

I confirm the Construction Management Plan will be provided to Westminster City Council 40 working days prior to the commencement of development (to include site preparation works).

I confirm that development (to include site preparation works) will not commence on site until such time as the Construction Management Plan has been approved by Westminster City Council in writing.

I confirm we will comply with the CoCP and the CMP, and any condition relating to construction management and understand we could be subject to enforcement action should the CoCP and/or CMP not be complied with.

I confirm we agree to pay the relevant fees as set out in Appendix F attached.

I confirm I understand this document constitutes an agreement between Westminster City Council and the applicant:

NAME.....

ADDRESS: .....

Signed:.....

Dated:.....

Position:.....

Appendix A - Checklists

Demolition Phase Approved by Environmental Inspectorate

Dated:  
Signed by:

Earthwork & Piling Phase Approved by Environmental Inspectorate

Dated:  
Signed by

Construction Phase Approved by Environmental Inspectorate

Dated:  
Signed by

**NOTICE: THIS IS A LEGALLY BINDING DOCUMENT**

which creates a legally enforceable relationship between the above Signatory and Westminster City Council. It is essential that the person signing this document on behalf of the Developer has the authority to do so on the Developer's behalf, thus creating legal obligations on behalf of the Developer.

### **CHECKLIST C: CODE OF CONSTRUCTION PRACTICE - LEVEL 3 DEVELOPMENTS**

Level 3 schemes should refer to table 1 Key Issues in section 1.8 of this code for an indication of good practice measures which should be considered on all construction sites in Westminster.

These sites should also note that although generally not subject to formal obligations under the Code, in certain circumstances sites may be upgraded to a Level 2. Examples include particularly sensitive sites, for example located close to noise-sensitive receptors.

# APPENDIX B - LEGISLATION AND GUIDANCE

## TRAFFIC AND TRANSPORT

- Road Vehicles (Construction and Use) Regulations 1986 (as amended)
- Road Traffic (Vehicle Emissions) (Fixed Penalty) Regulations 1997 (as amended 2002)

## NOISE AND VIBRATION:

### Legislation:

- Control of Pollution Act 1974, Section 61
- Construction Plant and Equipment (harmonisation of noise emission standards) Regulations (1989)
- Environment Act 1995, as amended
- Environmental Protection Act 1990, as amended
- Noise Act 1996
- The Control of Noise at Work Regulations 2005 (Statutory Instrument (SI) 2005/1643)
- Pollution Prevention and Control Act 1999
- Environmental Permitting (England and Wales) Regulations 2010, as amended
- Public Health Acts 1936 and 1961

### British Standards:

- BS 5228: 2009 (Parts 1 and 2) Code of Practice for Noise and Vibration Control on Open Construction Sites, British Standards Institution
- BS 4142: 1997 Method for rating industrial noise affecting mixed residential and industrial areas, British Standards Institution
- BS 6472: 2009 Guide to evaluation of human exposure to vibration in buildings (1 Hz to 80 Hz), British Standards Institution
- BS EN 60651: 1994 Specification for sound level meters

### General guidelines:

- WCC 2010. Westminster Noise Strategy 2010-2015.
- GLA 2004. Sounder City. The Mayor's Ambient Noise Strategy. Greater London Authority.

## DUST AND AIR POLLUTION:

### Legislation:

- The Air Quality Standards Regulations 2010 (SI 2010/1001)
- The Air Quality Limit Values Regulations 2003 (SI 2003/2121)
- Environmental Protection Act 1990, as amended
- Clean Air Act 1993
- Pollution, Prevention and Control Act 1999
- Environmental Permitting (England and Wales) Regulations 2010, as amended
- The Control of Substances Hazardous to Health Regulations 2002 (SI 2002/2677)
- Control of Asbestos Regulations 2006 (SI 2006/2739)
- Asbestos (Licensing) Regulations 1983 (SI 1983/1649), as amended in 1998 (SI 1998/3233)
- Hazardous Waste (England and Wales) Regulations 2005, as amended

### Guidance:

- Westminster's Air Quality Action Plan 2013-2018
- The Control of Dust and Emissions during construction and demolition – Supplementary Planning Guidance (2014). Mayor of London.
- Department for the Environment Food and Rural Affairs. Air Quality Strategy for England, Scotland, Wales and Northern Ireland (July 2007)
- Buildings Research Establishment. Controlling particles, vapour and noise pollution from construction sites, parts 1 to 5 (2003)
- Asbestos: The survey guide (HSG 264), 2010. Health and Safety Executive

## WATER POLLUTION AND FLOODING:

### Legislation:

- Water Resources Act 1991, as amended by the Environment Act 1995
- Water Act 2003
- The Groundwater Regulations 2009 (SI 2009/2902).
- Control of Pollution (Oil Storage) (England) Regulations 2001 (SI 2001/2954)
- The Control of Substances Hazardous to Health Regulations 2002 (SI 2002/2677)
- The Groundwater (England and Wales) Regulations 2009, No. 2902
- The Environmental Permitting (England and Wales) Regulations 2010, as amended
- The Water Resources (Environmental Impact Assessment) (England and Wales) Regulations: SI 2003/164
- The Environmental Protection (Prescribed Processes and Substances) Regulations: SI 1991/472

## Appendix B - Legislation and Guidance

- Environmental Protection Regulations 2010
- Water Industry Act 1991
- Anti-Pollution Works Regulations 1999

### **British standards and other guidance:**

- British Standard: Code of Practice for Earthworks. BS6031:2009
- CIRIA C532 Control of water pollution from construction sites: Guidance for consultants and contractors
- CIRIA/EA Joint Guidelines: Concrete Bunds for Oil Storage Tanks
- CIRIA/EA Joint Guidelines: Masonry Bunds for Oil Storage Tanks
- EA Guidance Note: Piling into Contaminated Sites

## **WASTE, CONTAMINATED LAND AND ASBESTOS:**

### **Legislation:**

- Environmental Protection Act 1990
- Environmental Protection (Duty of Care) Regulations 1991 (as amended in 2003)
- The Waste (England and Wales) Regulations 2011
- The Environmental Permitting (England and Wales) Regulations 2010
- The Landfill (England and Wales) Regulations 2002 (SI 2002/1559), including Schedule 1: Waste Acceptance Criteria (WAC)
- The Hazardous Waste (England and Wales) Regulations 2005 (SI 2005/894) (as amended)
- The Waste Management Licensing Regulations 1994
- Control of Asbestos Regulations 2012 (SI 2012/2675)
- Asbestos (Licensing) Regulations 1983 (SI 1983/1649), as amended in 1998 (SI 1998/3233)
- EC Landfill Directive 1999 (Council Directive 99/31/EC)
- Landfill Tax (Qualifying Material) Order 2011 (SI 2011/1017)
- The Landfill (England and Wales) Regulations 2002 (SI 2002/1559),
- The Construction (Design and Management Regulations) 2015 (SI 2015/51)
- Water Resources Act 1991(WRA 1991)
- The Groundwater (England and Wales) Regulations 2009 (SI 2009/2902)
- The Animal Health Act 2002, Notifiable Disease Burial Sites
- The Control of Substances Hazardous to Health Regulations 2002 (SI 2002/2677), as amended in 2003, 2004
- The Contaminated Land (England) Regulations 2000 (as amended 2006 and 2012)
- Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations 1991

### **Guidance:**

## Appendix B - Legislation and Guidance

- EA Technical Guidance WM2: Interpretation and Classification of Hazardous Waste (April 2011)
- Definition of Waste: Redevelopment Industry Code of Practice (2011).The Contaminated Land (England) Regulations 2006 (SI 2006/1380)
- EA Guidance Note: Piling into Contaminated Sites
- CIRIA. A guide to safe working on Contaminated Sites, Report 132 (1996)
- CIRIA. Contaminated Land Risk Assessment: A Guide to Good Practice, Report C552 (2001)
- BSI. Investigation of Potentially Contaminated Sites. Code of Practice BS 10175 (2011)
- Defra/EA's Model Procedures for the Management of Land Contamination (Contaminated Land Report 11) (September 2004)
- CIRA. Unexploded Ordnance (UXO): A guide for the construction industry (C681) (2009)
- Asbestos: Exposure Limits and Measurement of Airborne Dust Concentrations (EH10 and MDHS 39/4). Health and Safety Executive, 1996
- Asbestos: The Survey Guide Health & Safety Executive guidance. HSG264 (2010)
- Waste Management – The Duty of Care, Code of Practice, HMSO (March 1996)
- Site Waste Management Plans – Guidance for Construction Contractors and Clients - Voluntary Code of Practice, Department of Trade & Industry ( July 2004)

### URBAN ECOLOGY:

#### Legislation:

- Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000)
- Habitats and Species Regulations 2010
- Protection of Badgers Act 1992
- The Animal Welfare Act 2006

#### Guidance:

- Guide for trees in relation to construction: BS5837
- Recommendations for Tree Works: BS3998
- Trees in the Hard Landscapes: A Guide for Delivery published by the Trees and Designs Action Group

### HISTORIC ENVIRONMENT AND ARCHAEOLOGY:

#### Legislation:

- Planning (Listed Buildings and Conservation Areas) Act 1990
- Ancient Monuments and Archaeological Areas Act 1979
- The Burial Act 1857
- Treasure Act Code of Conduct 1997

## Appendix B - Legislation and Guidance

- Treasure Act 1996

### **PROTECTION OF EXISTING INSTALLATIONS:**

#### **Guidance:**

- Basement development in Westminster. Interim Planning Guidance Note (October 2013)

# APPENDIX C - GLOSSARY

**Level 1 project:** Large/strategic proposals include proposals for 100 or more new or additional residential units or for the creation/ change of use of 10,000 sqm or more floorspace. Level 2 projects may be 'upgraded' to Level 1 projects due to the sensitivity of the local environment, which can include proximity of noise sensitive receptors or cumulative impacts.

**Level 2 project:** Developments involving the creation of 10 or more new build residential units, or buildings where the floorspace to be created is 1000 sqm or more or any basement developments. Level 3 projects may be 'upgraded' to Level 2 projects due to the sensitivity of the local environment, which can include proximity of noise sensitive receptors or cumulative impacts.

**Level 3 project:** All developments falling outside of the definitions of level 1 and 2 projects. Major Refurbishments: While generally not covered by the Code of Construction Practice, those which are of such a scale that the impacts are equivalent to those arising from a new build, e.g. where there is extensive demolition and rebuilding, significant new construction behind a retained façade etc. The 'Level' will depend on the size thresholds as outlined for Level 1, 2 and 3 projects above.

**Major Refurbishments:** While generally not covered by the Code of Construction Practice, those which are of such a scale that the impacts are equivalent to those arising from a new build, e.g. where there is extensive demolition and rebuilding, significant new construction behind a retained façade etc. The 'Level' will depend on the size thresholds as outlined for Level 1, 2 and 3 projects above.

**Noise Sensitive Receptors:** Comprises residential use, educational establishments, hospitals, hotels, hostels, concert halls, theatres, law courts, and broadcasting and recording studios and other commercial uses which require high acoustic quality which is core to their business.

## List of abbreviations:

ALG – Association of London Government (now known as London Councils)

BPG – Best Practice Guidance

BPM – Best Practicable Means

## Appendix C - Glossary

BS – British Standard

CAZ - Central Activities Zone

CCS - Considerate Constructors Scheme

CDM - Construction (Design & Management) Regulations 2015

CoCP – Code of Construction Practice

COPA - Control of Pollution Act 1974

COSHH - Control of Substances Hazardous to Health Regulations 2002

CMP – Construction Management Plan

HSE – Health and Safety Executive

KPI – Key Performance Indicator

LAQM - Local Air Quality Management

LFEPA - London Fire and Emergency Planning Authority

OHSAS - Occupational health and safety management systems

SCS – Secondary Containment System

SEMP – Site Environmental Management Plan

SWMP – Site Waste Management Plan

TRO - Traffic Regulation Order

WCC – Westminster City Council

# APPENDIX D - CONTACT DETAILS

Contact details for relevant WCC departments and key issues:

## WCC SERVICES:

- **Environmental Inspectorate / Environmental Sciences** (for all general queries relating to the Code of Construction practice) – [environmentalsciences2@westminster.gov.uk](mailto:environmentalsciences2@westminster.gov.uk)
- **Building Control** (queries relating to building control process; reports of dangerous structures; non-compliance with Building Regulations) – [districtsurveyors@westminster.gov.uk](mailto:districtsurveyors@westminster.gov.uk)
- **Planning enforcement** (reports of unauthorised development or breach of planning permission or conditions) – 020 7641 6500 / [planning.enforcement@westminster.gov.uk](mailto:planning.enforcement@westminster.gov.uk)
- **Highways** (Transport for London on Red Routes) – see key issues below
- **Complaints related to noise, vibration and dust:** Where complaints cannot be resolved these should be referred to WCC's Environmental Action Line: 020 7641 2000.
- **Contaminated land enquiries:** see <https://www.westminster.gov.uk/contaminated-land> or contact [contaminatedland@westminster.gov.uk](mailto:contaminatedland@westminster.gov.uk)

## EMPLOYMENT (CHAPTER 4)

Contact the Economic Development Team [businessunit@westminster.gov.uk](mailto:businessunit@westminster.gov.uk) for referral to the relevant employment and skills project leads.

- Other contacts:
- CITB Construction Skills 'Evolve shared apprenticeship scheme' [info@evolveuk.org](mailto:info@evolveuk.org).

# APPENDIX E - EMPLOYMENT AND SKILLS PLAN

As a minimum, the developer's nominated representative is expected to fill in the Employment and Skills Plan template (figure 3) based on the formulas in figures 1 and 2 and the requirements stated in the CoCP. The calculations should be based on the benchmarks provided by CITB and the requirements stated in the CoCP. Figures 1 and 2 below show the benchmarks for new build residential works and refurbishments. Figures provided in the Employment and Skills Plan template should reflect the total anticipated employment and skills opportunities based on the calculations below for the first two years of works, broken down to estimated employment on a quarterly basis. Definitions of key terms are provided below.

TABLE 6: BENCHMARKS FOR NEW BUILD RESIDENTIAL WORKS

Employment and skills area	Band															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	£1k - 100k	£100- 500k	£500- 1m	£1- 3.5m	£3.5- 6m	£6- 10m	£30- 40m	£40- 50m	£50- 60m	£60- 70m	£70- 80m	£80- 90m	£90- 100m	£30- 40m	£40- 50m	£50- 60m
Work placement (16-19 years) - persons	0	1	2	3	5	7	9	11	13	16	18	19	20	20	21	21
Work placement (14-16 years) - persons	0	0	0	0	1	1	2	3	3	4	4	4	5	5	5	5
Curriculum Support Activities - individual engagement	0	0	0	1	2	4	5	6	7	9	10	11	12	12	13	14
Graduates - persons	0	0	0	0	0	0	1	1	1	1	1	2	2	2	2	2
Apprentice Starts	See requirement in CoCP															
Existing apprentices - persons	0	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Apprentice completions - persons	0	0	0	0	0	2	3	4	5	5	6	6	6	7	7	7

Appendix E - Employment and Skills Plan

<b>Jobs advertised through local employment vehicles - no</b>	See requirement in CoCP															
<b>NVQ starts for subcontractors - persons</b>	0	0	0	1	2	3	6	8	10	13	15	17	19	21	23	24
<b>NVQ completions for subcontractors - no</b>	0	0	0	1	2	3	5	7	8	11	12	14	16	17	19	20
<b>Training Plans for subcontractors - no</b>	1	2	3	4	4	5	5	5	6	6	6	7	7	7	8	8
<b>Supervisor training for subcontractors - persons</b>	0	0	0	2	3	4	5	5	6	6	6	7	7	7	8	8
<b>Leadership and management training for subcontractors - persons</b>	0	0	0	1	1	2	3	3	4	4	5	5	6	6	7	7
<b>Advanced health and safety training for subcontractors - persons</b>	1	1	1	2	3	4	4	5	6	6	7	7	8	8	9	9

TABLE 7: BENCHMARKS FOR REFURBISHMENT WORKS

Employment and skills area	Band												
	1 £1- 3.5m	2 £3.5- 6m	3 £6- 10m	4 £10- 15m	5 £15- 20m	6 £20- 30m	7 £30- 40m	8 £40- 50m	9 £50- 60m	10 £60- 70m	11 £70- 80m	12 £80- 90m	13 £90- 100m
<b>Work placement (16-19 years) - persons</b>	2	4	5	6	8	9	11	13	13	14	14	15	15
<b>Work placement (14-16 years) - persons</b>	0	0	0	1	1	1	1	1	1	2	2	2	2

Appendix E - Employment and Skills Plan

<b>Curriculum Support Activities - individual engagement</b>	1	2	4	5	6	7	9	10	11	12	12	13	14
--	---	---	---	---	---	---	---	----	----	----	----	----	----

Appendix E - Employment and Skills Plan

<b>Graduates - persons</b>	0	0	0	1	1	1	1	1	1	1	1	1	1
<b>Apprentice Starts</b>	See requirement in CoCP												
<b>Existing apprentices - persons</b>	1	2	3	4	4	5	6	6	7	8	8	9	10
<b>Apprentice completions - persons</b>	0	0	1	2	3	4	4	4	4	4	5	5	5
<b>Jobs advertised through local employment vehicles - no</b>	See requirement in CoCP												
<b>NVQ starts for subcontractors - persons</b>	1	1	2	4	6	7	9	11	12	13	15	16	17
<b>NVQ completions for subcontractors - no</b>	1	1	2	4	5	6	8	8	10	11	12	13	14
<b>Training Plans for subcontractors - no</b>	2	2	3	3	3	4	4	4	4	4	4	5	5
<b>Supervisor training for subcontractors - persons</b>	1	2	3	4	4	4	4	5	5	5	5	6	6
<b>Leadership and management training for subcontractors - persons</b>	1	1	1	2	2	3	3	4	4	4	4	5	5
<b>Advanced health and safety training for subcontractors - persons</b>	2	3	4	4	6	7	7	8	8	9	9	10	10

TABLE 8: GLOSSARY OF ESP TERMS:

<b>Work Experience Placement (16-19 years)</b>	These placements support young people in full-time further education to gain experience in the construction industry. This includes CBE Diplomas which are designed for 14-19 year olds and which help prepare them for further study at university or employment in the Construction sector. Three levels of Diploma are available: Foundation, Higher and Advanced, all three of which incorporate work experience. Other construction courses
--	--

## Appendix E - Employment and Skills Plan

include BTEC and full-time craft courses. The minimum duration of a work experience placement should be 10 working days.

---

Appendix E - Employment and Skills Plan

	<p><b>Evidence:</b> Offer letter from either the project or employer detailing activity, plus attendance record and evaluation form</p> <p><b>Outcome:</b> 1 individual represents 1 outcome</p>
<b>Work Experience Placement (14-16 years)</b>	<p>These placements support young people during their school education in years 10 and 11. They can include block placements as part of their statutory work experience placement or CBE diploma or BTEC courses. They can also include one day a week placements as part of a young apprenticeship or alternative curriculum. The minimum period is 5 days.</p> <p><b>Evidence:</b> Offer letter from either the project or employer detailing activity, plus attendance record and evaluation form</p> <p><b>Outcome:</b> 1 individual represents 1 outcome</p>
<b>Curriculum Support Activities</b>	<p>These include carrying out workshops within schools or on site with students from schools or colleges, enabling the student to understand the practical applications of their studies.</p> <p><b>Evidence:</b> Confirmation from education establishment of individual employee contribution to classroom-based or site-based workshop activity</p> <p><b>Outcome:</b> 1 individual involved in delivering a workshop activity represents 1 outcome</p>
<b>Graduates</b>	<p>This target describes employment opportunities in relation to the project for university students who have graduated within 3 years of the start of their employment.</p> <p><b>Evidence:</b> Copy of offer of employment from employer</p> <p><b>Outcome:</b> 1 individual represents 1 outcome</p>
<b>Apprenticeship Starts</b>	<p>This target describes recruitment of either traditional, specialist, displaced or adult apprentices to the project workforce. An apprenticeship outcome is defined as an individual pursuing a formal apprenticeship framework incorporating either NVQ level 2 or 3.</p> <p><b>Evidence:</b> Apprenticeship registration documents</p> <p><b>Outcome:</b> 1 individual represents 1 outcome</p>
<b>Existing Apprentices</b>	<p>An apprentice who is working on the project who is already employed by a trade contractor or main contractor.</p> <p><b>Evidence:</b> Apprenticeship registration number</p> <p><b>Outcome:</b> 1 individual represents 1 outcome</p>
<b>Apprentice Completions</b>	<p>This target describes completion of a formal apprenticeship framework incorporating either NVQ level 2 or 3.</p> <p><b>Evidence:</b> completion certificates</p> <p><b>Outcome:</b> 1 individual represents 1 outcome</p>

## Appendix E - Employment and Skills Plan

<b>NVQ Starts for Subcontractors</b>	<p>This target describes NVQ starts at levels 2, 3, 4 or 5 for individuals working in the project supply chain, not directly employed by the main contractor.</p> <p><b>Evidence:</b> NVQ registration documents</p> <p><b>Outcome:</b> 1 individual represents 1 outcome</p>
<b>NVQ Completions for Subcontractors</b>	<p>This target describes NVQ completions at levels 2, 3, 4 or 5 for individuals working in the project supply chain, not directly employed by the main contractor.</p> <p><b>Evidence:</b> NVQ completion certificates</p> <p><b>Outcome:</b> 1 individual represents 1 outcome</p>
<b>Training Plans for Subcontractors</b>	<p>This target describes each instance of the creation of a supply chain company training plan.</p> <p><b>Evidence:</b> Company Training Plan</p> <p><b>Outcome:</b> 1 Company Training Plan represents 1 outcome</p>
<b>Supervisor Training for Subcontractors</b>	<p>This target describes training activity leading to formal accreditation such as Institute of Leadership and Management (ILM) qualifications. Courses delivered against this target must be at least one day in duration.</p> <p><b>Evidence:</b> Completion certificate</p> <p><b>Outcome:</b> 1 individual represents 1 outcome</p>
<b>Leadership and Management Training for Subcontractors</b>	<p>This target describes outputs involving individuals who wish to develop their leadership and management skills. Generic courses could include those linked with the Institute of Leadership and Management, Chartered Management Institute or alternatively training could be occupation specific. Courses delivered against this target must be at least one day in duration.</p> <p><b>Evidence:</b> Completion certificate</p> <p><b>Outcome:</b> 1 individual represents 1 outcome</p>
<b>Advanced Health and Safety Training for Subcontractors</b>	<p>Training which can be delivered against this target includes SMSTS (5 day and refresher), SSSTS (2 day), NEBOSH (National Examination Board in Occupational Safety and Health) or IOSH courses (Institute of Occupational Safety and Health).</p> <p><b>Evidence:</b> Completion certificate</p> <p><b>Outcome:</b> 1 individual represents 1 outcome</p>

Appendix E - Employment and Skills Plan

TABLE 9: EMPLOYMENT AND SKILLS TEMPLATE

Employment and Skills Areas	Year 1				Year 2				Total
	Q 1	Q 2	Q 3	Q 4	Q1	Q2	Q3	Q4	
Work placement (16-19 years) – person									
Work placement (14-16 years) – persons									
Curriculum Support Activities - individual engagement									
Graduates – persons									
Apprentice starts – persons <sup>2</sup>									
Existing apprentices – persons									
Apprentice completions – persons									
Jobs advertised through local employment vehicles - no									
NVQ starts for subcontractors – persons									
NVQ completions for subcontractors – no									
Training Plans for sub-contractors – no									
Supervisor training for subcontractors - persons									
Leadership & management training for subcontractors - persons									
Advanced health and safety training for subcontractors - persons									

<sup>2</sup> This calculation is based on 1 apprentice start for every £2 million in contract value

# APPENDIX F - CODE OF CONSTRUCTION CHARGES

## PHASE 1 BASEMENTS

The charges associated with the Code of Construction Practice in residential basement development schemes are set out below. It is intended that the first phase of this Code of Construction Practice will apply to basement extensions and excavations to residential buildings, and those immediately adjacent to residential buildings.

**Service offered under the Code of Construction Practice:** A schedule of fees and services to be offered has been developed in consultation with relevant services. For the Basements category this includes advice to applicants on their construction management plan, noise and dust mitigation, monitoring and site visits, and a role in community liaison and complaints follow up, although it should be noted that a key expectation of the Code of Construction Practice is for applicants to provide their own telephone complaints number, prominently displayed on the site, thus reducing the number of calls to the Council.

The costs set out below are based on estimates of time spent on services. The charges show hourly rates for different elements, and given an estimate of the likely costs based on estimate numbers of meetings etc. The actual charge will be based on actual costs incurred. Additionally these costs do not cover additional licenses, that may be required. Where sums paid on account are not spent they will be repaid to applicants.

TABLE 10: BASEMENT SITES:

	Basement excavation – costs and services	Chargeable element breakdown, to extent not chargeable under other powers
Environmental Inspectorate service provided	<ul style="list-style-type: none"> <li>Advice to applicants regarding environmental requirements, construction management plan, noise and dust mitigation measures</li> </ul>	Based on hourly rates (£68 average) Average: £1,020 (3 meetings and follow up emails)
	<ul style="list-style-type: none"> <li>Advice on site planning with regards to highways and traffic issues</li> </ul>	Based on hourly rates (£68 average) Average: £1020 (3 meetings and follow up emails)
	<ul style="list-style-type: none"> <li>Regular site visits to check compliance with agreed requirements</li> </ul>	Every fortnight over the duration of the development: £136 per visit Average: £3808 / year

## Appendix F - Code of Construction Charges

	<ul style="list-style-type: none"> <li>Review of the documents (Construction Management Plan) and agreement</li> </ul>	Based on hourly rates (£68 average) £680
	<ul style="list-style-type: none"> <li>Community Liaison and complaints follow up</li> </ul>	Based on hourly rates and experience: (£68 average) high cost - £2720 med cost - £1360 low cost - £680
<b>Cost estimates (per site), range and average</b>	£7208 - £9248 (depending on the level of complaints received) Average: £8228	
<b>Environmental Inspectorate</b>		

### Service

Note that cost ranges outlined above for the Code of Construction Practice do not include licences for the following elements which may not be required in all cases. Therefore charges are listed separately, and will apply as required.

For information the current levels of fees for licenses can be found on the Council’s website.

### PHASE 2 – LEVEL 1 SITES AND LEVEL 2 SITES

The charges associated with the Code of Construction Practice with regard to Level 1 sites and Level 2 sites are set out below.

**TABLE 11: LEVEL 1 SITES:**

	<b>Level 1 – major developments – costs and services</b>	<b>Chargeable element breakdown, to extent not chargeable under other powers</b>
<b>Environmental Inspectorate service provided</b>	<ul style="list-style-type: none"> <li>Advice to applicants regarding environmental requirements, Site Environmental Management Plan (SEMP), noise and dust mitigation measures, advice re s61 prior consent</li> <li>Advice on site planning with regards to site access and all highways and traffic issues</li> <li>Regular site visits to check compliance with agreed</li> </ul>	environmental and highways requirements

## Appendix F - Code of Construction Charges

Based on  
hourly rates  
(£68 average)  
Average: £3,400  
(10 meetings  
and follow up  
emails)

Based on  
hourly rates  
(£68 average)  
Average:  
£6,800 (20  
meetings  
and follow  
up emails)  
Twice a  
week over  
the  
duration of  
the  
developme  
nt:  
£13  
6  
per  
visit  
Ave  
rage  
:  
£14,  
144  
/  
year

## Appendix F - Code of Construction Charges

	<ul style="list-style-type: none"> <li>Review of the documents (SEMP, s61) and agreement</li> </ul>	Based on hourly rates (£68 average) £2,720
	<ul style="list-style-type: none"> <li>Community Liaison and complaints follow up</li> </ul>	Based on hourly rates and experience: (£68 average) high cost - £5,440 med cost - £2,720 low cost - £1,360
<b>Cost estimates (per site), range and average</b>	£28,424 - £32,504 (depending on the level of complaints received) Average: £30,464	
<b>Environmental Inspectorate</b>		
<b>Service</b>		

Note that cost ranges outlined above for the Code of Construction Practice do not include licences which may not be required in all cases.

For information the current levels of licence fees can be found on the Council's website.

**TABLE 12: LEVEL 2 SITES:**

	<b>Level 2 – medium size developments – costs and services</b>	<b>Chargeable element breakdown, to extent not chargeable under other powers</b>
<b>Environmental Inspectorate service provided</b>	<ul style="list-style-type: none"> <li>Advice to applicants regarding environmental requirements, Site Environmental Management Plan (SEMP), noise and dust mitigation measures, advice re s61 prior consent</li> </ul>	Based on hourly rates (£68 average) Average: £2,380 (7 meetings and follow up emails)
	<ul style="list-style-type: none"> <li>Advice on site planning with regards to site access and all highways and traffic issues</li> </ul>	Based on hourly rates (£68 average) Average: £4,080 (12 meetings and follow up emails)
	<ul style="list-style-type: none"> <li>Regular site visits to check compliance with agreed requirements</li> </ul>	Once a week over the duration of the development: £136 per visit Average: £7,072 / year
	<ul style="list-style-type: none"> <li>Review of the documents (SEMP, s61) and agreement</li> </ul>	Based on hourly rates (£68 average) £2,720
	<ul style="list-style-type: none"> <li>Community Liaison and complaints follow up</li> </ul>	Based on hourly rates and experience: (£68 average)

## Appendix F - Code of Construction Charges

		high cost - £5,440 med cost - £2,720 low cost - £1,360
<b>Cost estimates (per site), range and average Environmental Inspectorate Service</b>	£17,612 - £21,692 (depending on the level of complaints received and the complexity) Average: £19,652	

---

# APPENDIX G - SITE ENVIRONMENTAL MANAGEMENT PLAN TEMPLATE:

## INITIAL INFORMATION

Site address:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ Postcode: \_\_\_\_\_

Contact details for person responsible for completing this form:

Name: \_\_\_\_\_

Company \_\_\_\_\_

Position: \_\_\_\_\_

Address: \_\_\_\_\_

Tel number: \_\_\_\_\_

E-mail address: \_\_\_\_\_

Contact details of person to contact if a site visit is required:

Name: \_\_\_\_\_

Company \_\_\_\_\_

Position: \_\_\_\_\_

Address: \_\_\_\_\_

Tel number: \_\_\_\_\_

E-mail address: \_\_\_\_\_

## Appendix G - Draft Template SEMP

Planning application reference number (where applicable): \_\_\_\_\_

Brief description of development:

---

---

---

Anticipated duration of development: \_\_\_\_\_

Please attach the following:

- Site plan
- Plan detailing location of sensitive receptors.
- Programme of works including demolition and construction.
- Demolition and construction e.g. piling methodology
- Routes for construction traffic and traffic management arrangements
- Details of proposed road closures and abnormal loads
- Plans for site arrangement (including storage areas) and monitoring equipment
- Environmental management structure including roles and responsibilities of key staff
- Statement to confirm sign up to the Considerate Constructors.

### CONSULTATION

Details of pre submission neighbour consultation:

Details of consultation proposals during the works

## Appendix G - Draft Template SEMP

Details of how comments/concerns raised at planning or following notification in s2.3 are being addressed/mitigated.

Details of complaint investigation procedures

### ENVIRONMENTAL MANAGEMENT

#### 1) Working hours

Details of proposed working hours including out of hours work

#### 2) Noise and vibration

Details of noise predictions, managing risks, reducing impacts, location of monitoring points, threshold values, analysis methods, procedures for recording and reporting monitoring results



**3) Dust and Air Quality**

Details of the risk rating, managing risks and reducing impacts, location of monitoring points, threshold values, analysis methods, procedures for recording and reporting monitoring results



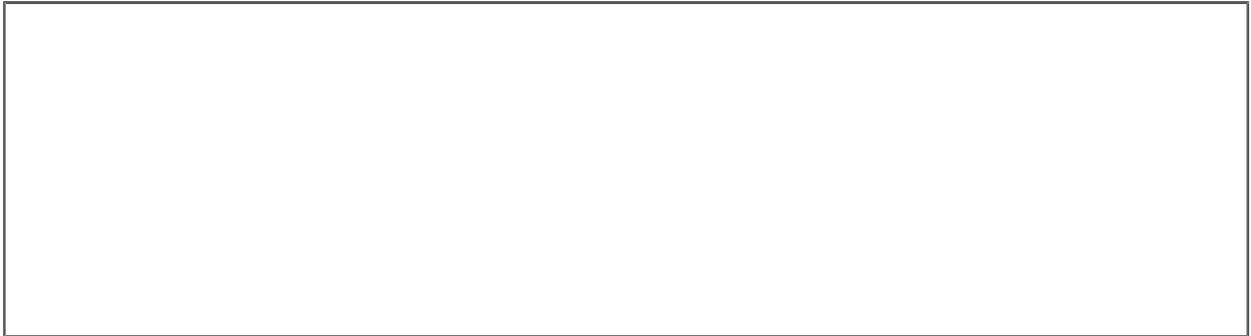
**4) Waste management**

Details of waste storage, handling, asbestos, contaminated land



**5) Water Resources**

Details of site drainage, surface water and groundwater pollution control and flood risk

A large, empty rectangular box with a thin black border, intended for providing details on site drainage, surface water, and groundwater pollution control and flood risk.

**6) Lighting**

Details of mitigation measures to prevent nuisance from artificial lighting

A large, empty rectangular box with a thin black border, intended for providing details on mitigation measures to prevent nuisance from artificial lighting.

**7) Archaeology and built heritage**

Details of mitigation measures to protect archaeology and built heritage

A large, empty rectangular box with a thin black border, intended for providing details on mitigation measures to protect archaeology and built heritage.

**8) Existing installations**

Details of measures to protect existing installations



**9) Urban ecology**

Details of measures to protect urban ecology



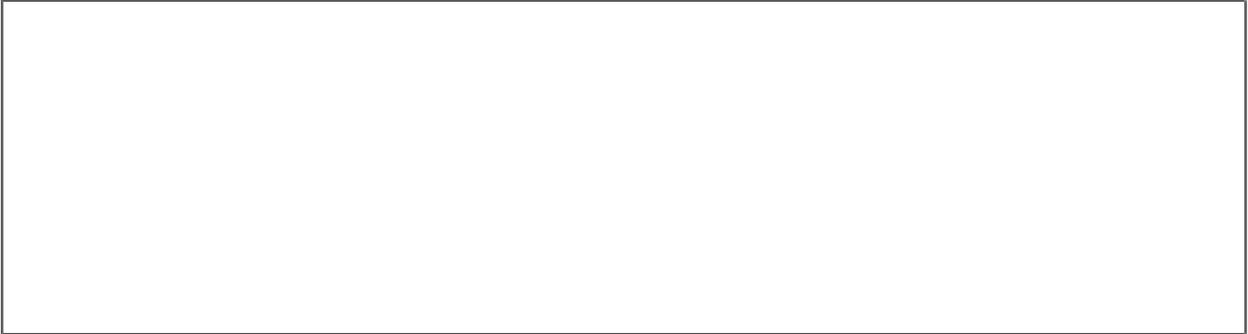
**10) Pest control**

Details of pest control measures



**11) Emergency procedures**

Details of procedures for emergency and environmental incidents e.g. health and safety procedures, dealing with spillages.



**12) Cumulative Impacts.**

Details of assessment and management of traffic arrangements with other sites including liaison arrangements to minimize cumulative impacts



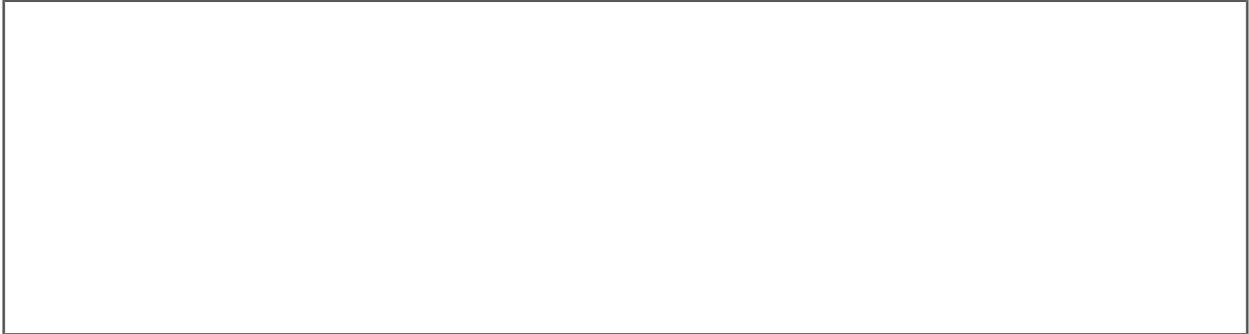
**13) Traffic management measures**

Details of public access and highways including parking, deliveries, loading/unloading, site access and egress, site hoardings.



**14) Potential for river transport**

Details of arrangements for use the river for site deliveries or removal of spoil.

A large, empty rectangular box with a thin black border, occupying the middle section of the page. It is intended for the user to provide details of arrangements for using the river for site deliveries or removal of spoil.

# APPENDIX H - CONSTRUCTION MANAGEMENT PLAN TEMPLATE:

## INITIAL INFORMATION

Site address:

---

---

---

---

Postcode: \_\_\_\_\_

Contact details for person responsible for completing this form:

Name: \_\_\_\_\_

Company \_\_\_\_\_

Position: \_\_\_\_\_

Address: \_\_\_\_\_

Tel number: \_\_\_\_\_

E-mail address: \_\_\_\_\_

Contact details of person to contact if a site visit is required:

Name: \_\_\_\_\_

Company \_\_\_\_\_

Position: \_\_\_\_\_

Address: \_\_\_\_\_

Tel number: \_\_\_\_\_

E-mail address: \_\_\_\_\_

Planning application reference number (where applicable): \_\_\_\_\_

Brief description of development and summary of works:

---

---

---

Anticipated duration of development: \_\_\_\_\_

Please attach the following:

- Site plan
- Plan detailing location of sensitive receptors.
- Programme of works including demolition and construction.
- Demolition and construction e.g. piling methodology
- Routes for construction traffic and traffic management arrangements
- Details of proposed road closures and abnormal loads
- Plans for site arrangement (including storage areas) and monitoring equipment
- Environmental management structure including roles and responsibilities of key staff
- Statement to confirm sign up to Considerate Constructors Scheme.

## CONSULTATION

Details of pre submission neighbour consultation (including Party Wall agreements):

Details of consultation proposals during the works

Details of how comments/concerns raised at planning or following notification in s2.3 are being addressed/mitigated.

Details of complaint investigation procedures

## **ENVIRONMENTAL MANAGEMENT**

### **1) Working hours**

Details of proposed working hours

### **2) Summary of main works**

**3) Existing installations**

Details of measures to protect existing installations

**4) Emergency procedures**

Details of procedures for emergency and environmental incidents e.g. health and safety procedures, dealing with spillages.

**5) Cumulative Impacts.**

Details of assessment and management of traffic arrangements with other sites including liaison arrangements to minimize cumulative impacts

**6) Traffic management measures**

Details of public access and highways including cycle safety, parking, deliveries, loading/unloading, site access and egress, site hoardings.

**7) Noise and vibration**

Details of noise predictions, managing risks, reducing impacts, location of monitoring points, threshold values, analysis methods, procedures for recording and reporting monitoring results

**8) Dust and Air Quality**

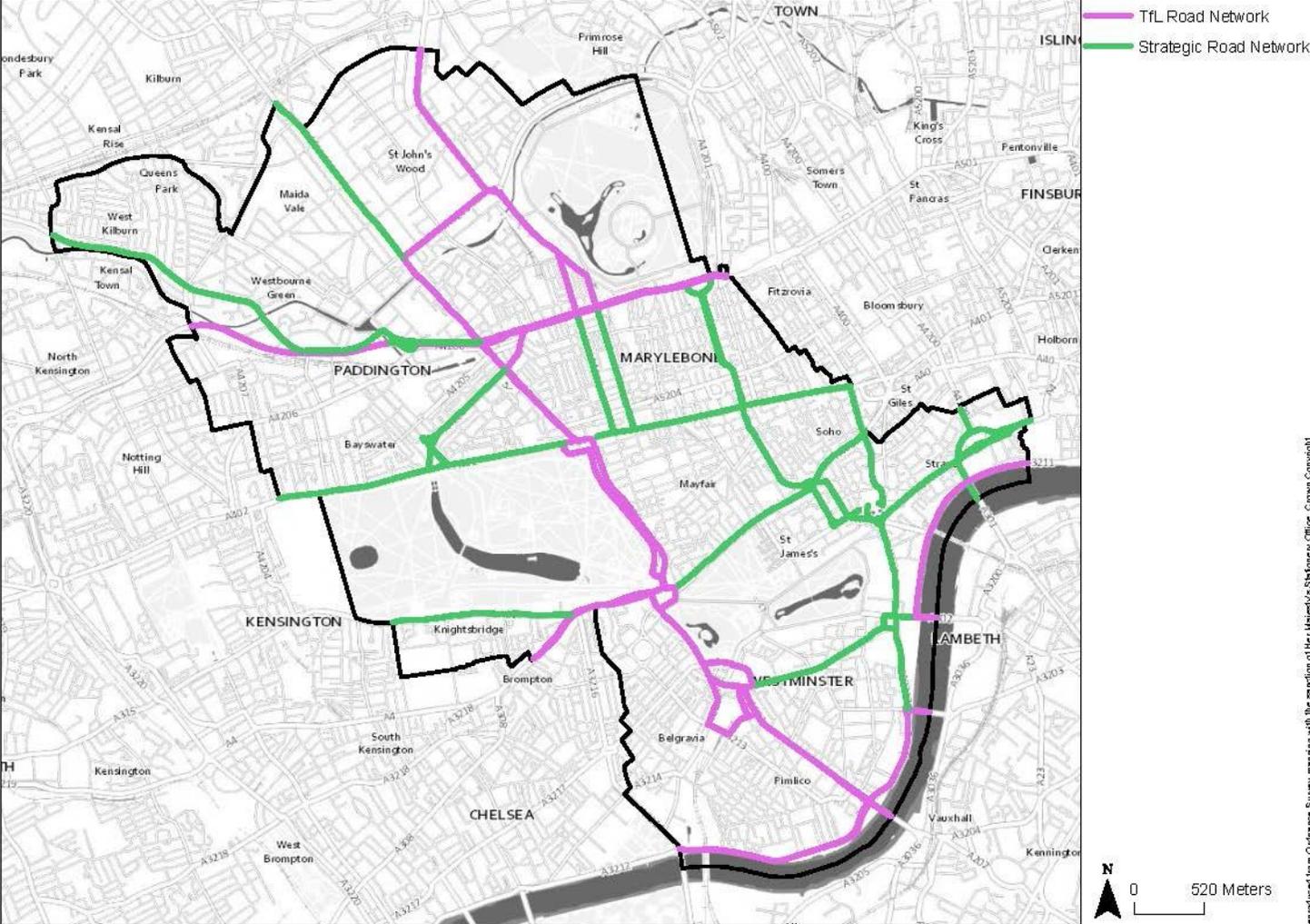
Details of the risk rating, managing risks and reducing impacts, location of monitoring points, threshold values, analysis methods, procedures for recording and reporting monitoring results

**9) Potential for river transport**

Details of arrangements for use the river for site deliveries or removal of spoil.

A large, empty rectangular box with a thin black border, occupying the middle section of the page. It is intended for the user to provide details of arrangements for using the river for site deliveries or removal of spoil.

# APPENDIX I – MAP OF TLRN AND SRN



Reproduced from Ordnance Survey mapping with the sanction of Her Majesty's Stationery Office. Crown Copyright. Unauthorised reproduction may lead to prosecution or civil proceedings. City of Westminster LA100018997 City Planning Delivery Unit

Photo credits:

All photos, Westminster City Council with the exception of:  
p23,32, 49, 72, all courtesy of Mace



University of Westminster

