APPENDIX 1

Draft Black Country Air Quality Supplementary Planning Document (SPD)

November 2015



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1: Introduction and Aims

The Black Country comprises four local authorities – Dudley, Sandwell, Walsall and Wolverhampton. All four of the Black Country Authorities have declared the whole of their areas as Air Quality Management Areas (AQMAs) for the purpose of redressing levels of nitrogen dioxide, primarily associated with vehicle emissions.

The planning process has a significant role to play in helping to better integrate existing landuse and new development to encourage more sustainable development, and to secure future improvements in air quality.

Air quality is not limited to local authority boundaries, rather the associated effects of development can have impacts across wider regional areas. Therefore, to enable a consistent approach to implementation across the Black Country, this joint Supplementary Planning Document (SPD) has been developed to cover all four local authority areas.

Recognising the wider relevance to neighbouring local authorities and air quality initiatives across the whole West Midlands, this SPD set outs simplified guidance for dealing with air quality and is aimed at all those involved in the submission and determination of planning applications where air quality needs to be addressed.

Aiming to provide transparency and consistency to developers, landowners, and the community regarding the basis for identifying and calculating the air quality impact and mitigation requirements for new developments, the SPD should be read in conjunction with other relevant policies and strategies.

The SPD supplements Policy ENV8 (Air Quality) of the adopted Black Country Core Strategy (2011), and embraces the West Midlands Good Practice Air Quality Planning Guidance (2014), produced as part of the West Midlands Low Emissions Towns & Cities Programme.

Compliance with this SPD is a material consideration in the determination of planning applications across the Black Country and will carry significant weight in the decision making process.

In summary this SPD is designed to:

- Explain why air quality is important in the Black Country and describe the existing policy framework;
- Incorporate air quality mitigation measures within new developments to offset the incremental creep in pollutant emissions;
- Present the method for identifying development proposals where an air quality assessment will be required, and the processes involved;
- Propose various options for site specific mitigation to protect future occupiers from poor air and how such measures will be secured and delivered.
- Confirm where a damage calculation is required and payment made to the Local Authority where mitigation is not appropriate.

2: Background

Why is there a need to deal with poor air quality?

The quality of the air we breathe can have an adverse effect on human health and quality of life. It can also have major impacts on ecosystems and the climate.

The United Kingdom's Air Quality Strategy was published in 2007 and provides an outline of the UK Government's ambient (outdoor) air quality policy, including targets, objectives and measures for reducing levels of pollutants that are linked to health impacts. There are currently objectives for seven key airborne pollutants and dates by which they should be achieved. The principle aim of the objectives is to protect human health, however it is currently acknowledged there is no safe level in the case of particulate matter and concentrations should be reduced as far as practicably possible.

Government Environmental Audit Committee Report – Action on Air Quality 2014

The Government's Environmental Audit Committee's Report cites air pollution as 'an invisible killer' and a 'public health imperative', for which there is no one single solution. The Committee finds it unacceptable that that a whole generation of people living in our towns and cities could have their health seriously impaired by air pollution above EU limits before this public health problem is brought under control. Furthermore, urgent change is needed in transport and planning policy to save lives and ensure that the UK meets European air quality standards.

The Report calls for a fresh approach to deal with the health challenge we face, coordinating action by local authorities and communities, as well as Central Government. It is acknowledged that new development can have an impact pollution arising from road traffic and in-turn on people's exposure. The National Planning Policy Framework consequently highlights that planning policies should sustain compliance with and contribute towards EU limit values and national objectives for pollutants, taking into account cumulative impacts on air quality.

Why does the Black Country need to address air quality?

The West Midlands suffers from the most extensive exceedence of the European Union (EU) health based limit value for Nitrogen Dioxide (NO_2) in the UK outside of London. Recent research has estimated that road transport emissions account for 630 premature deaths each year in the West Midlands¹. Exposure to poor air quality can also trigger and exacerbate asthma, increase the risk of low birth weight and can cause acute and chronic cardiovascular and pulmonary illnesses. The effect of air pollution is expected to reduce life expectancy in the UK by 6 months on average².

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¹ Public Health Impacts of Combustion Emissions in the United Kingdom; Steve H. L. Yim and Steven R. H. Barrett *

²Department for Environment Food & Rural Affairs Policy paper 2010 to 2015 government policy; environmental quality Published 7 May 2015

A report published by Public Health England in 2014³ highlighted the increase in mortality risk associated with long term exposure to particulate air pollution and estimated the Local Mortality Burden of fine particulate matter (PM_{2.5}) in all local Authority Areas. In 2010 there were 665 deaths attributable to exposure to particulate matter across the four Black Country Authorities and approximately 7016 associated life years lost.

The Black Country local authorities are committed to improving air quality. Local Authorities are required to produce an air quality action plan for all Air Quality Management Areas (AQMAs) addressing the areas where air quality objectives are not being met. There are a number of hotspots across the Black Country where on-going action and monitoring is required to reduce pollutant concentrations and minimise exposure to air quality that does not meet with national objectives.

Air Quality and Planning

New developments have the potential to adversely affect air quality or be affected by poor air quality. Air quality is capable of being a material consideration to be taken into account as part of the planning process in order to limit exposure and protect people from unacceptable risks to their health.

These considerations must, however, be balanced against other aims of the planning system in order to achieve social, economic and environmental goals and meet over-arching national policy requirements.

In the Black Country promoting healthy living is a key element of the Sustainable Communities direction of change, which underpins the vision of the Black Country Core Strategy.

³ Public Health England. Gowers, AM. Miller, BG and Stedman, JR. (2014) Estimating Local Mortality Burdens Associated with Particulate Air Pollution, pp.1 & 13

3: Policy Context

The National Planning Policy Framework (NPPF) (2012) sets out the Government's planning policies and how they are expected to be applied. The purpose of the planning system is to contribute to the achievement of sustainable development through three key roles; economic, social and environmental. In terms of the environmental role of the planning system the NPPF considers this to be:

"Contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy." (Paragraph 7)

Specifically, in relation to Air Quality, Paragraph 124 of the NPPF states that:

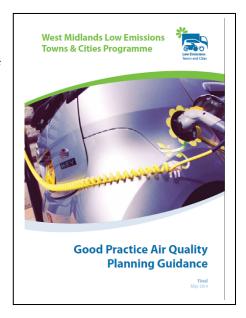
"Planning Policies should sustain compliance with and contribute towards EU limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and the cumulative impacts on air quality from individual sites in local areas. Planning decisions should ensure that any new development in Air Quality Management Areas is consistent with the local air quality action plan."

West Midlands Good Practice Air Quality Planning Guidance (2014)

Since production of the Black Country Core Strategy, the thinking on air quality and the assessment of the impacts has developed, in particular in respect of the consideration of cumulative impacts, as stated in the NPPF. In response to these changes the West Midlands authorities have developed the West Midlands Good Practice Air Quality Planning Guidance (2014) as part of the Defra funded West Midlands Low Emissions Towns & Cities Programme.

The West Midlands guidance aims to set out:

 A clear and consistent approach to assessment of planning applications, mitigation and compensation, thus defining what is meant by 'sustainable' in air quality terms;



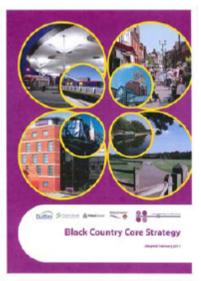
- Provision of a simplified approach, reducing the requirements for Air Quality assessment while promoting the integration of mitigation into scheme design; and
- Examples of existing West Midlands development schemes incorporating low emission initiatives.

This SPD supplements the Core Strategy Policy ENV8 by incorporating the spirit of the West Midlands guidance requiring mitigation for all developments classified as minor, medium or major. It also reduces the burden of undertaking air quality assessments on minor and medium developments and where relevant exposure is unlikely.

The Black Country Core Strategy (2011) sets out the Black Country's planning policies to achieve three major directions of change: Sustainable Communities; Environmental Transformation; and Economic Prosperity.

The scale of growth proposed in the Black Country Core Strategy will have impacts upon the local environment, including levels of air pollutants. New developments may have specific and/or cumulative impacts on air quality which require mitigation in order to make the developments acceptable.

Policy ENV8 (Air Quality) sets out the policy framework for addressing air quality through the planning system.



Policy ENV 8 - Air Quality

New residential or other sensitive development, such as schools, hospitals and care facilities, should, wherever possible, be located where air quality meets national air quality objectives.

Where development is proposed in areas where air quality does not meet (or is unlikely to meet) air quality objectives or where significant air quality impacts are likely to be generated by the development, an appropriate air quality assessment will be required. The assessment must take into account any potential cumulative impacts as a result of known proposals in the vicinity of the proposed development site, and should consider pollutant emissions generated by the development.

If an assessment which is acceptable to the local authority indicates that a proposal will result in exposure to pollutant concentrations that exceed national air quality objectives, adequate and satisfactory mitigation measures which are capable of implementation must be secured before planning permission is granted.

Policy TRAN2 sets out the policy framework for managing the transport impacts of new developments.

Policy TRAN2 – Managing Transport Impacts of New Development

Planning permission will not be granted for development proposals that are likely to have significant transport implications unless applications are accompanied by proposals to provide an acceptable level of accessibility and safety by all modes of transport to and from all parts of a development including, in particular, access by walking, cycling, public transport and car sharing. These proposals should be in accordance with an agreed Transport Assessment, where required, and include implementation of measures to promote and improve such sustainable transport facilities through agreed Travel Plans and similar measures.

Policy ENV 8 clearly stipulates that adequate and satisfactory mitigation measures are required for situations where assessment indicates proposal will result in exposure to pollutant concentrations that exceed national air quality objectives.

The SPD specifies which developments are considered likely to generate air quality impacts in the immediate area, and also which developments require an air quality appraisal.

In addition this SPD identifies, that for all other situations whether or not exceedances of the national air quality objectives are identified, sustainable mitigation measures will need to be implemented. This is because the majority of developments will have a moderate air quality impact which can be dealt with through standard mitigation measures, without the need for an air quality appraisal. These standard mitigation measures are designed to deal with the cumulative impact of many moderate impact developments over time and over a wide area.

Individual Authorities

The Black Country authorities each have their own Air Quality Action Plans and other planning guidance related to air quality which should be read alongside this SPD. See Appendix 4 for further details.

4: 4-Step Approach to assessing planning proposals

The 4-Step approach is taken from the West Midlands LETCP guidance and as outlined below sets out the process for assessing planning applications that either:

- a) Have the potential to create relevant exposure to road transport emissions for existing and / or future occupiers of a development; or
- b) Where the proposed development has the potential to increase concentrations of pollutants from road transport emissions.

Step 1 – Development Proposal / Pre-Application Discussion

It is important that planning authority requirements regarding scheme sustainability and the planning application validation process are identified at the earliest stage possible.

For this reason pre-application discussion involving planning development management and air quality professionals should take place at the outset, particularly for major schemes, to ensure optimum scheme design and avoid unnecessary delays in the planning process.

External agencies may also need to input into the planning process with respect to air quality, notably Highways England for road traffic issues and the Environment Agency for any relevant emissions from industrial installations they may regulate.

Step 2 - Classification of the Proposed Development

When a planning application is received, the development proposal will be classified according to its potential impact on air quality. The classification system is based on the Department for Transport's 2007 'Threshold Criteria for Transport Assessments and Travel Plans', which enables a consistent approach based on the development use and gross floor area. Details are set out in Appendix 5. Each development will be classified as Minor, Medium or Major which reflects its potential air quality impact and the classification system is presented in Table 1 below.

The Black Country Local Authorities will reflect this development classification in their validation requirements for planning applications so that they can obtain the necessary information, assessments and provisions for mitigation measures as appropriate.

Table 1: Classification system for developments in relation to potential Air Quality impacts

Scheme Type	Minor	Medium	Major
Threshold	Below threshold criteria for Transport Assessment	Meets threshold criteria for Transport Assessment	Developments classified as medium which also trigger any of the following criteria:
		Where development meets	i) Where development requires an EIA ¹⁵
		Df T threshold criteria for a Transport Assessment based on considerations	ii) Where development is likely to increase traffic flows by more than 5% on roads with >10,000
		other than size or scale of land use	AADT ¹⁶ or change average vehicle speeds by > 10 kph/likely to cause increased congestion (DfT Congestion)
			iii) Where a proposal is likely to increase traffic by more than 5% on road canyons with > 5,000 AADT
		classification ¹⁴	iv) Where a development requires a Transport Assessment and HGV movements are =≥ 10% of total trips
			v) Where significant demolition and construction works are proposed
Assessment	None (other than for exposure)	None (other than for exposure)	Air Quality Assessment required including an evaluation of changes in vehicle related emissions ¹⁷

AADT - Annual Average Daily Traffic Flow

Based upon DfT Threshold Criteria for Transport Assessments
https://www.gov.uk/government/publications/guidance-on-transport-assessment (adapted for Air Quality Purposes
– see Appendix 5 to this SPD) and Defra Technical Guidance [TG (09)] into minor, medium and major
classifications (See Table 1)13.

Where emissions will lead to relevant exposure or exacerbation of an existing air quality objective, a detailed air quality mitigation plan shall be submitted and approved in writing by the Local Authority. Applications may be refused where mitigation measures cannot make the development sustainable in terms of air quality,

Emissions from point sources (Chimneys/vents serving industrial operations)

When it is proposed to locate new industry or a significant combustion installation near to an existing residential or other sensitive development, an account of the potential effects of emissions from chimneys/vents must be taken. For this purpose detailed modelling of emissions and consideration of vehicle movements and associated emissions must be made. Damage costs should be calculated and mitigation measures commensurate with the emissions calculated shall be agreed or required by condition. Where mitigation measures are not feasible or offsetting the impact is not possible, a recommendation for refusal may be made.

Step 3- Assess if relevant exposure may arise and evaluation of all other development classifications

A – Assessment where relevant exposure may arise and for Major Developments

The determination of relevant exposure should be ascertained through discussions with the Local Authority's officers dealing with air quality and reference made to the local authority's latest reviews and assessments. (Where available, future air quality forecasts and local authority exceedance maps may also be consulted though detailed assessments may nonetheless be required on a case by case basis).

Where relevant exposure is anticipated and for all major developments, an air quality assessment will be required and it should include the consideration of potential increased exposure for relevant receptors affected by the development.

Where relevant exposure has been identified it is important that careful consideration is given to proposed mitigation, to prevent exposure to air pollutants associated with development. Local authorities may give weight to the following mitigation measures:

- Increasing the distance between the development facade and the pollution source,
- Improving public transport access to a development;
- Implementing a travel plan to reduce the number of trips generated;
- Implementing Low Emission Strategies
- The design of schemes to place residential units at the rear of the development or on higher floors
- Design of schemes to avoid the creation of canyons, allowing a greater degree of pollutant dispersal
- Mechanical ventilation (although this should not automatically be seen as providing
 effective mitigation against exposure and should be scrutinized carefully, not only in
 terms of the acceptability of providing living conditions in what could be described as a
 hermetically sealed unit, but also in terms of the increase in energy requirements,
 maintenance that is incurred and the attendant secondary noise effects that can arise.

This list is not exhaustive – and the 4 Black Country Authorities shall encourage and welcome innovative mitigation measures).

Step 3

B - Assessment of minor and medium development classifications where relevant exposure is not a concern

All developments classified as minor or medium, where relevant exposure is not a concern, do not require an Air Quality Appraisal, however mitigation to make the development sustainable is specified for each classification of development and is termed either Type 1 or Type 2.

Step 4 – Determination of Suitable Mitigation Measures

To reduce the cumulative impact of development and render it sustainable in terms of air quality, mitigation measures are required for all developments irrespective of whether they are sited in an area which exceeds the air quality objectives. The type of assessment, mitigation and/or compensation required for each of the development classifications is summarised below.

Compensation requirements

Development	Assessment Required	Mitigation	Compensation
Туре			
Minor	None (other than for exposure)	Type 1	None
Medium	None (other than for exposure)	Types 1 and 2	None
Major	Full Air Quality Assessment in line with Council Guidance, including evaluation of emission and concentration changes	Types 1, 2 and 3	Type 3

The required mitigation is summarised as:

- Type 1 Electric Vehicle charging points and the adoption of an agreed protocol to control emissions from construction sites.
- Type 2 Practical mitigation measures supported by national policy and guidance; and
- Type 3 Additional measures that may be required by either planning condition or planning obligation to make the development acceptable.

See section 5 for further details on mitigation and compensation.

Minor and medium developments are required to implement Type 1 or Type 1 and 2 mitigation measures respectively. Where appropriate mitigation measures have been incorporated into a development, it will be deemed sustainable in air quality terms and should not have a significant impact on air quality.

All major developments are required to quantify the emission impact(s) of the development on air quality and calculate this in terms of a monetary damage cost. The process for the calculation of damage costs in set out in Appendix 3. The damage cost calculation can be used to determine the level of Type 3 mitigation and/or compensation required to make the development acceptable in terms of air quality.

Major development schemes may contribute to an exacerbation of air quality exceedances within an AQMA or trigger the designation of an AQMA, as ascertained through an air quality assessment. Planning authorities will make a decision as to whether a proposed development is an appropriate use of land and this may be influenced by the impact on air quality.

In certain circumstances it may be justifiable to recommend refusal for development if there is an unacceptable impact on air quality and appropriate mitigation measures are not feasible.

Further information on Mitigation and Compensation is provided in Section 5 of this SPD.

5 – Minimising unacceptable Air Quality Impacts through Mitigation and Compensation

National Planning Practice Guidance states that, where necessary, air quality mitigation:

- Will be location specific;
- Will depend on the proposed development; and
- Should be proportionate to the likely impact.

http://planningguidance.planningportal.gov.uk/blog/guidance/air-quality/how-can-impacts-on-air-quality-be-mitigated/

Applicants are required to work with the relevant Black Country Authority to consider appropriate mitigation so as to ensure that new development is appropriate for its location and unacceptable impacts and risks are prevented.

Innovative solutions to air quality mitigation are encouraged. The type of mitigation required on a particular development will be informed by:

- Outcomes from the Transport Statement / Assessment / Emission profiling
- Specific needs identified in site specific spatial policy allocations
- Travel Awareness / Planning and Highway Development requirements
- Latest Defra air quality guidance (Defra Measures Guidance)
- Measures supported by the West Midlands Low Emissions Strategy
- Relevant technical guidance and acknowledged best practice.

Default mitigation and compensation measures for the 3 different 'Types' are set out below:

Type 1 –Electric Vehicle Charging Points

As a minimum, new developments should include the provision of electric vehicle charging points plus any mitigation requirements arising from the exposure assessment where applicable. The UK Electric Vehicle Supply Equipment Association has produced a guide⁴ which is aimed at anyone involved in providing electric vehicle charging points.

The electric vehicle charging point rates are set out below, further details can be found in Appendix 2:

	Residential	Other
Provision	An external weatherproof and lockable covered	5% of parking provision will be
Rate*	32 Amp external 7 pin charging socket to	sought with charging points to
	comply with EN 62196-2 and be compatible	comply with EN 62196-2 (J1772)
	with a J1772 Type 2 connector. The charging	Type 2, Mode 3, 7 pin, 32 amp, 7kw.
	unit should feature a Mode 3 (IEC 61851)	
	communication module.	Appropriate cable provision shall be
		in place for a further 5% to meet any
	Wherever possible the power supply and	future increase in demand.
	charging point should both be phase 3	

⁴ Making the right connections: General procurement guidance for electric vehicle charging points, UK Electric Vehicle Supply Equipment Association (April 2015)

compatible and be located near the parking area for each dwelling. Where only single phase power supply is available the charging unit should be capable of handling 3 phase power if supply is subsequently upgraded.

Each charging unit to be supplied by its own independent radial circuit.

Units with unallocated parking e.g. apartments – 1 charging point per 10 spaces.

Type 2- Practical Mitigation Measures Supported by National Guidance

There are a variety of other measures that can be incorporated into developments to mitigate air quality impacts. The appropriateness of each measure for individual developments must be assessed on a site by site basis. The list below is not exhaustive and alternative innovative measures will be welcomed where considered appropriate.

All Development:

- Travel Planning including mechanisms for discouraging high emission vehicle use and encouraging modal shift (i.e. public transport, cycling and walking) as well as the uptake of low emission fuels and technologies;
- Designation of parking spaces for low emission vehicles;
- Differential parking charges depending on vehicle emissions;
- Public transport subsidy for residents / employees
- Improved convenient and segregated cycle paths to link cycle network

Commercial Development – additional types of mitigation:

- All commercial vehicles should comply with either current or previous European Emission Standards from the development opening, to be progressively maintained for the lifetime of the development.
- Fleet operations should provide a strategy for considering and reducing emissions, including possibilities for the take up of low emission fuels and technologies.
- Use of ultra low emission (i.e. electric/gas) service vehicles.

Type 3 – Additional Measures

For major developments, adverse impacts on air quality, as defined in Table 1, are to be mitigated or compensated for by evaluating their contribution to increased ambient concentrations due to emissions and then translating such additional emissions into damage costs.

^{*}All wiring should comply with BS 7671 or an equivalent standard.

This approach allows the costing of additional measures, in scale and kind with the development and in line with any relevant Air Quality Action Plan, which may be required to make a development acceptable.

The formula and data required to calculate the damage costs of a particular development are set out in Appendix 3 of this SPD.

Once the damage cost has been calculated by the developer for a particular development it is then possible to determine which range of measures are suitable to offset this damage cost. A range of mitigation measures are set out below; again this list is not exhaustive and other innovative mitigation measures are welcomed where appropriate to the specific development:

- On-Street electric vehicle charging points
- Contribution to low emission vehicle refueling infrastructure
- Car Clubs
- Low emission bus service provision
- Low emission waste collection services
- Bike / e-bike hire schemes
- Contribution to renewable fuel and energy generation projects
- Incentives for the take-up of low emission vehicle technologies and fuels
- Public transport subsidy for residents / employees
- Any other measures within an Air Quality Action Plan or Low Emission Strategy relevant to the development

Emissions from Construction Sites

For all types of development the control of emissions from construction sites will be agreed with the local authority pollution control section.

Use of Planning Obligations, Planning Conditions and Community Infrastructure Levy (CIL)

Air quality mitigation measures are ideally integrated into a development's design and implementation. Where this is not the case, there are a range of tools that can be used within the planning process to secure any required mitigation.

Planning Conditions

Many planning applications are granted permission subject to conditions. Conditions are useful to enhance the quality of a development and to reduce any adverse impacts that might follow from a development. Government guidance advises that where there is a choice between imposing a planning condition and requiring the developer to enter into a planning obligation / S106 Agreement, the imposition of a planning condition is preferable.

On-site air quality mitigation measures will normally be secured by planning condition(s). A range of template planning conditions for different types of mitigation are set out in Appendix 6.

Planning Obligations

As set out within the Community Infrastructure Levy (CIL) Regulations 2010 (as amended), Planning Obligations can only be used when they meet all of the following three tests:

- Necessary to make the development acceptable in planning terms;
- Directly related to the development; and
- Fairly and reasonably related in scale and kind to the development.

For developments where on-site mitigation is not possible, then off-site compensation / mitigation may be required through the use of planning obligations, usually secured through S106 Agreements; for example Travel Plan requirements.

This approach is supported by the NPPF (para. 152) which states that "where adequate mitigation measures are not possible, compensatory measures may be appropriate." Additionally Planning Policy Guidance states in relation to air quality that "Planning conditions and obligations can be used to secure mitigation where the relevant tests are met."

Planning obligations are an appropriate mechanism for mitigating or compensating against the impact of large scale major developments through the requirement to deliver Type 3 measures.

Planning obligations or conditions to improve air quality may take a number of forms and may require the following issues to be considered:

Construction Phase

- Restricting certain types of vehicles
- Setting emission standards for vehicles used on site

Operational Phase

- Required submission of an emissions assessment and a low emission strategy for the site
- Measures to reduce emissions
- Restricting on site car parking
- Making provision for alternative forms of transport such as car pooling, electric vehicle charging points and public transport improvements
- Making a one-off financial contribution to an air quality action fund or initiative

Community Infrastructure Levy (CIL)

CIL is a charge that Councils can charge on most types of new development. The proceeds of CIL are to be spent on local infrastructure and, where necessary, sub-regional infrastructure to support the new development.

Where mitigation / infrastructure measures are being sought through Planning Obligations then contributions for the same infrastructure can't also be sought through CIL.

Viability

It is recognised that in dealing with development proposals, exceptional circumstances may occasionally arise which result in genuine financial viability concerns (for example where remediation costs are above what could reasonably have been foreseen).

If a developer believes there are exceptional circumstances (not including land purchase costs) which would render a scheme unviable if the full level of Air Quality mitigation and compensation measures were required in line with this SPD, the following process is to be followed:

- (a) The applicant approaches the Local Planning Authority (LPA), ideally at development concept stage so that requirements can be established at pre-application stage, and submits a detailed financial viability appraisal signed by a suitably qualified professional, to support their case. The financial viability appraisal should follow an open-book approach and include the following information as a minimum, with supporting evidence and justification where appropriate:
 - A breakdown of all cost variables and development value including level of developers profit;
 - Identification of any exceptional cost items;
 - Explanation of all assumptions made concerning the provision of mitigation;
 - Identification in cash flow terms of the effect of deferred payments.
- (b) Once the financial viability appraisal has been received from the applicant, the LPA arranges for it to be assessed by an independent, suitably qualified professional of the LPA's choosing, to inform the LPA in the decision-making process. The applicant will be required to meet the costs of this independent financial assessment and any other expert advice that the LPA considers it requires.
- (c) The independent financial assessment is usually carried out using industry standard software and normally follows a Residual Land Value approach. For larger schemes that are likely to be completed over a longer period of time a Cash Flow based approach may also be used. Once completed, results of the independent financial assessment are provided to the LPA and the applicant will be advised by the LPA of the conclusions of the assessment.
- (d) The Council's objective in viability negotiations is to secure the maximum value of obligations to mitigate the impact of development, whilst working with developers to enable developments to come forward. To this end the Council may consider the use of one or more of a range of 'Value Engineering' mechanisms, depending on the results of the independent financial assessment, including, but not restricted to:
 - Deferred or Staged Payments
 - Clawback
 - Phased Viability Assessments
 - Time Constrained Planning Permissions

(e)	The LPA will have due regard to the independent financial assessment results and the use of any appropriate 'value engineering' mechanisms, and take into account all other planning considerations, when determining a planning application.

Appendix 1 – Air Quality Assessment Protocol (taken from Annex 1 of the West Midlands Low Emissions Good Practice Air Quality Planning Guidance)

The purpose of any air quality assessment is to quantify changes in pollutant concentrations and/or exposure to poor air quality at relevant receptors resulting from the proposed development, and in turn the significance of impacts. Impacts must be assessed in the context of relevant national and international objectives and targets, together with any local planning or other policies or guidance where appropriate.

An assessment must take into account the individual and cumulative air quality impacts of committed developments and schemes (i.e. including proposals and schemes that have been granted planning permission at the time the assessment is undertaken). This ensures that 'with development' and 'without development' scenarios are represented as accurately as possible.

A suitable assessment may need to incorporate the completion of a detailed air quality modelling study, and from time to time specific pollutant monitoring may also be required. Modelling should only be carried out once information to be used has been agreed with the Local Authority.

Typically, this would include:

- Traffic data used for the assessment including trip rates associated with the development, the frequency of the trips, the length and route of the trips, traffic congestion and the nature and types of vehicles being used;
- Emission source data:
- Meteorological data and representation of area over a suitable time frame;
- Baseline pollutant concentration(s) including any monitoring undertaken;
- Background pollutant concentration(s);
- Choice of base year;
- Basis for NO_x:NO₂ calculations

Modelling should be carried out using a recognised local scale dispersion model to be agreed with the Local Authority **prior to commencement of work**. The study normally comprises four simple steps:

- Assessment of the existing air quality situation in the study area for the baseline year(s)
 and agreement of specific receptor points with the Local Authority prior to
 commencement. The model should be validated against council (or other) monitoring
 data where available which can usually be supplied on request.
- 2. Prediction of future air quality without the proposed development in place using geographical and pollutant source data.
- 3. Prediction of future road transport emissions and air quality with the proposed development in place.
- 4. An assessment of the effect(s) the proposed development will have on air quality associated with road transport emissions, including proposed mitigation measures.

Note: for Stages 2 and 3 above, the future scenario year(s) will need to be agreed in advance with the Local Authority prior to commencement of work.

The assessment will also need to include:

- The relevant details of the proposed development
- Details of relevant air quality standards and objectives
- Details of the agreed assessment method
- Vehicle fleet composition and emission factors
- An assessment, where appropriate, of construction related air quality impacts
- Details of the modeling software and its validation
- Results of the modeling exercise including uncertainties, errors, adjustments and verification
- A sensitivity test which assumes that there will be no reduction in traffic related emission factors from the baseline year
- Summary of the assessment results and air quality impacts arising
- Mitigation measures to be taken to protect air quality.

Appendix 2 – Electric Vehicle Charging Point Specification (taken from Annex 5 of the West Midlands Low Emissions Good Practice Air Quality Planning Guidance)

EV ready domestic installations

Cable and circuitry ratings should be of adequate size to ensure a minimum continuous current demand for the vehicle of 16A and a maximum demand of 32A (which is recommended for Eco developments).

- A separate dedicated circuit protected by an RCBO should be provided from the main distribution board to a suitably enclosed termination point within a garage, or an accessible enclosed termination point for future connection to an external charge point.
- The electrical circuit shall comply with the electrical requirements of BS7671:2008 as well as conform to the IET code of practice on Electric Vehicle Charging Equipment Installation 2012 ISBN 978-1-84919-515-7 (PDF)
- If installed in a garage all conductive surfaces should be protected by supplementary protective equipotential bonding. For vehicle connecting points installed such that the vehicle can only be charged within the building, e.g. in a garage with a (non-extended) tethered lead, the PME earth may be used. For external installations the risk assessment outlined in the IET code of practice must be adopted, and may require an additional earth stake or mat for the EV charging circuit. This should be installed as part of the EV ready installation to avoid significant on cost later.

EV ready commercial installations

Commercial and industrial installations may have private 11,000/400 V substations where a TN-S supply may be available, simplifying the vehicle charging installation design and risk analysis. It is therefore essential for developers to determine a building's earthing arrangements before installation.

Commercial vehicles have a range of charge rates and it is appropriate to consider a 3-phase and neutral supply on a dedicated circuit emanating from a distribution board. More than one EV charging station can be derived from a source circuit, but each outlet should be rated for a continuous demand of 63Amps. No diversity should be applied throughout the EV circuitry. 3 phase RCBOs should be installed and the supply terminated in a switched lockable enclosure. If an external application (for example car park or goods yard) is selected, the supply should be terminated in a feeder pillar equipped with a multi-pole isolation switch, typically a 300mA RCD, a sub-distribution board (if more than one outlet is fed from the pillar). If an additional earthing solution is required, the earth stake can be terminated within this pillar. See IET guideline risk assessment.

EV Charging Point Specifications may alter. We would recommend that all electric vehicle charging point installations should comply with the Institute of Engineering and Technology (IET) Code of Practice for Electric Vehicle Charging Equipment Installation. (http://www.theiet.org/resources/standards/ev-charging-cop.cfm)

Appendix 3 – Damage Costs Type 3 Compensation Calculation and Formulas (taken from Annex 1 of the West Midlands Low Emissions Good Practice Air Quality Planning Guidance)

Damage Costs Calculation for Major Schemes

The impact of the development can be quantified in terms of damage costs by estimating the emissions of NOx and Particulate Matter. The method is summarised as follows:

Road Transport Emission Increase =

 Σ [Estimated trip rate for 5 years X Emission rate per 10 km* per vehicle type X Damage costs]

The road transport emission increase should be annualised and totalled for a period of 5 years. A trip length of 10km should be used which is derived from the Department of Transport National Travel Surveys estimation of average trip length. The emission total for the scheme can then be monetised by using the damage costs provided by the Inter Governmental Department on Costs and Benefits (IGCB, Defra). A table of the damage costs per tonne of air quality pollutants is provided in Table 2 below.

Table 2: IGCB Air Quality Damage Costs per Tonne, 2010 prices

		Sensitivities	
	Central Estimate (1)	Low Central Range (2)	High Central Range (2)
NOx	£955	£744	£1,085
SOx	£1,633	£1,320	£1,856
Ammonia	£1,972	£1,538	£2,241
PM Domestic	£28,140	£22,033	£31,978
PM Agriculture	£9,703	£7,598	£11,027
PM Waste	£20,862	£16,335	£23,708
PM Industry	£25,229	£19,753	£28,669
PM ESI	£2,426	£1,900	£2,757
PM Transport Average	£48,517	£37,987	£55,133
PM Transport Central London	£221,726	£173,601	£251,961
PM Transport Inner London	£228,033	£178,540	£259,129
PM Transport Outer London	£148,949	£116,621	£169,261
PM Transport Inner Conurbation	£117,899	£92,309	£133,975
PM Transport Outer Conurbation	£73,261	£57,362	£83,252
PM Transport Urban Big	£87,332	£68,377	£99,241
PM Transport Urban Large	£70,351	£55,081	£79,944
PM Transport Urban Medium	£55,310	£43,305	£62,853
PM Transport Urban Small	£34,932	£27,351	£39,696
PM Rural	£15,041	£11,776	£17,091

© Defra 2012

Notes:

(1) This estimate is intended for use only where a single point estimate is necessary and should always be accompanied by the central range.

- (2) Variation between the central values reflects uncertainty about the lag between exposure and the associated health impact.
- (3) Trip Rates are sourced from the Transport Assessments and local authority where available.
- (4) Trip length uses the National Travel Survey (UK average = 10km).
- (5) The IGCB damage costs are the central estimates (currently NO_x =£955/tonne & PM₁₀ transport average £48,517).

The damage cost calculation can be undertaken using the Defra Emissions Factor Toolkit (EFT), see: http://laqm.defra.gov.uk/review-and-assessment/tools/emissions.html for a worked example.

Appendix 4 – Specific guidance and local policy context for each Black Country Local Authority area (correct at time of adoption of this SPD)

Dudley:

The Black Country Core Strategy policies support the delivery of Dudley's Sustainable Community Strategy and other Council strategies and plans.

Local Planning Policies:

Black Country Core Strategy Policy ENV8 (Air Quality) has replaced policy EP5 (Air Quality) from the Unitary Development Plan (2005).

The emerging Dudley Borough Development Strategy (DPD) will be the replacement Plan for the UDP (2005) and will provide detail on delivering the strategic vision and aims of the Black Country Core Strategy within Dudley; it will contain Development Control/ Development Management policies including one on Air Pollution.

The Planning Obligations SPD (2011) sets out that the Council's preference is for approved mitigation measures to be provided through on site provision however in some instances it may be appropriate for a financial contribution to be made.

Emerging Community Infrastructure Levy (CIL)

Dudley Council is currently progressing the adoption of a CIL; one adopted it is intended that aspects of Air Quality infrastructure will be delivered through CIL, site specific mitigation for air quality will continue to be sought through Planning Obligations / S106 Agreements where appropriate.

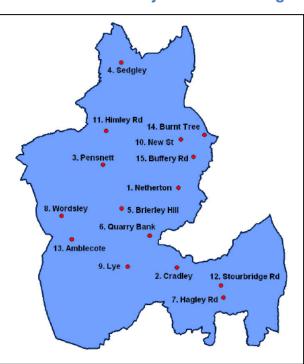
Parking Standards SPD (2013) supports the use of low emission vehicles by requiring the provision of infrastructure to support electric vehicle technology in the form of electric vehicle

charging points at development sites. This is in accordance with the NPPF which requires local planning authorities to reduce the use of high emission vehicles.

Dudley Council's Air Quality Action Plan (AQAP) was adopted by the Council in September 2011.

The AQAP states that, in Dudley, the monitoring of air quality has demonstrated that objectives are being met for six of the seven nationally recognised pollutants: the only exception is nitrogen dioxide (N02), the main source of which has been identified as road vehicle exhaust fumes. Further action is now required to ensure that NO2 concentrations do not increase in the future and are ultimately reduced to achieve compliance with government objectives. Clearly, there is a tie in here with spatial planning, not only in terms of transport planning in general, but also in promoting

Figure 1: Areas in Dudley Borough that exceed national objectives on nitrogen



development which is sustainably located including access to a variety of transport modes.

Section 7 of the AQAP details the actions DMBC wish to take to help improve air quality. The AQAP is a living document and is due to be revised in 2015.

Dudley Metropolitan Borough Council declared a Borough wide Air Quality Management Area (AQMA) in December 2007 with respect to exceedances at several roadside locations of the annual mean national air quality objective for NO₂ which is based upon the E U limit value. Figure 1 identifies the 15 areas in the borough that exceed the national objectives for nitrogen dioxide.

Sandwell:

Site Allocations and Delivery Development Plan Document (2012) The Site Allocations and Delivery Development Plan Document (SADDPD) identifies sufficient sites and areas to meet the Borough's housing and employment needs, and protects the Borough's historic, built and green infrastructure. Which plan for development in a sustainable way helping to improve air quality across the borough. It also contains Development Management policies.

West Bromwich AAP (2012) The Plan concentrates on developing a strategy to capture the growth required to make West Bromwich a strategic town centre within the Black Country Sub-Region, as well as looking at the wider area to support the housing needs for the town. The AAP contains polices that complement the work of the AQAP for the Borough around travel plans and the natural environment.

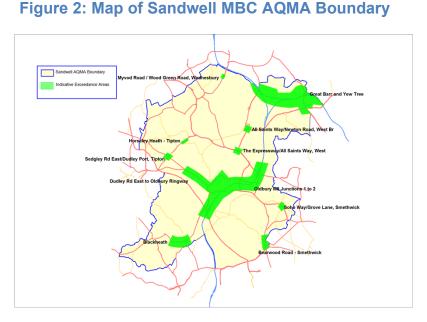
The Planning Obligations SPD (2011) provides clarity for developers and other interested parties about what contributions are required in connection with a development, and to offer an indication of the amount of the contribution, indicating the formula where appropriate. It was adopted on 29th September 2009, and update in October 2011 following the adoption of the Black Country Core Strategy in February 2011. Sandwell Council intends to produce a new Planning Obligations SPD in line with the proposals for introducing Community Infrastructure Levy, it is expected that this will be adopted in 2015.

Emerging Community Infrastructure Levy (CIL)

CIL was implemented on 1st April 2015 from this date it will be applied as a mandatory charge within the borough on all new eligible development in accordance with the charging schedule and legislative framework

Sandwell Council's Air Quality Action Plan

Sandwell Metropolitan Borough Council declared a borough wide Air Quality Management Area (AQMA) in 2005 for exceedances of the annual mean nitrogen dioxide air quality objective. Road transport emissions considered are pollution in of primary source Sandwell. The council has developed an Air Quality Action Plan (AQAP) which was published in 2009 in order to work towards improving air quality discharging its obligations under Part IV of the Environmental Act 1995.



The action plan sets out a range of

measures that are currently being undertaken or are proposed for future implementation to improve air quality within areas that exceed the annual mean nitrogen dioxide objective. The plan includes a total of 23 site specific actions to reduce NO_2 within the areas of exceedance and 30 borough wide actions to improve NO_2 concentrations across the region.

Walsall:

Presently, Walsall Council is using the Black Country Core Strategy together with the provisions of the NPPF and national Planning Practice Guidance as the basis to address air quality issues in planning decisions.

Walsall Site Allocation Document and Walsall Town Centre Area Action Plan: the Council is currently working on the preparation of these two plans. These are, respectively, to allocate development sites across the borough, and to plan for investment in and improvements to Walsall town centre. Decisions on proposed allocations and policies have taken air quality issues into account.

Emerging Community Infrastructure Levy (CIL): the Council is currently working towards the introduction of a CIL charging regime to provide funding for infrastructure provision. It is intended this should be in place by the end of 2016. Where appropriate it should be able to fund infrastructure measures to mitigate air quality. However, site-specific measures will be likely to continue to be secured through planning conditions and planning obligations as at present.

Walsall Council's Air Quality Action Plan

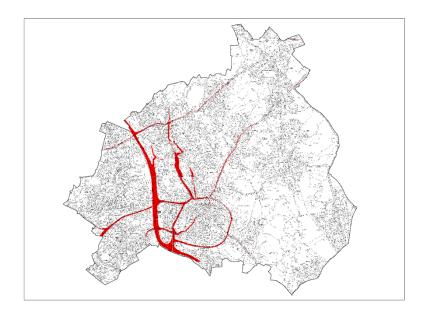
In 2002 Walsall Council declared five AQMAs following a review and assessment of air quality conducted in partnership with the six other West Midlands local authorities. The basis for the Council's AQMA declarations was due to predicted exceedances of the annual mean nitrogen dioxide air quality objective - which remains set at a concentration of 40 μgm^{-3} - principally due to traffic using the M6 motorway corridor and major roads within the borough.

Following the declarations Walsall Council was tasked with examining each AQMA in more detail to accurately determine the extent of nitrogen dioxide exceedances. This culminated in an air quality report being submitted to DEFRA in May 2005 (referred to as the 'Stage 4 Report') which confirmed the need for the AQMAs and also demonstrated that the extent of impact was actually wider than had originally been modelled. Notably, predicted exceedances were verified along the length of the M6 motorway corridor and the main arterial road network. As a consequence, cabinet approval was given to consolidate the AQMAs and a borough-wide AQMA to deal with nitrogen dioxide was declared by order in August 2006.

Resulting from this, Walsall Council commissioned consultants to prepare an Air Quality Action Plan. In June 2008 a Pre-Draft Air Quality Action Plan was circulated among targeted consultees within the council and forwarded to DEFRA to seek initial comments to steer its development. This was favourably received, following on from which a number of matters and recommendations were raised for further refinement.

A statutory consultation on the final Air Quality Action Plan was carried out under cabinet approval between December 2008 and March 2009. In March 2009 the council's borough-wide Air Quality Action Plan (AQAP) was accepted on behalf of the Secretary of State for the Environment and implemented as of June that year. The Plan contains a series of actions designed to improve air quality to meet objectives set out in a national air quality strategy published by the government and will be revised and updated following completion of the West Midlands Low Emissions Towns and Cities Programmes' Low Emissions Strategy.

Figure 3: Areas of Nitrogen Dioxide Exceedance - Walsall 2014



Air Quality Actions/Measures specific to Walsall

A source apportionment study was carried out in order to inform and aid the targeting of measures within the Action Plan, which contains a series of proposed actions, including improving the road network to reduce congestion; real-time traffic flow monitoring systems to assess / mitigate traffic congestion using the West Midlands Urban Traffic Control scheme; promotion of alternative methods of transport and transport initiatives; and provision of information to road user via traffic/vehicle management systems.

Wolverhampton:

Wolverhampton Council's Air Quality Action Plan

Wolverhampton City Council declared a City wide Air Quality Management Area in 2005 with respect to exceedences of the annual mean national air quality objective for nitrogen dioxide and particles in parts of the City Centre and at certain busy road junctions. As a result of this declaration the council produced and adopted an Air Quality Action Plan (AQAP), in March 2006

Adma boundary

Pennetrot

Bushoury

Admirectory

Pennetrot

Compton

Griff
Bushoury

Astronomic Bushoury

Astronomic Bushoury

Astronomic Bushoury

Astronomic Bushoury

Astronomic Bushoury

Bushoury

Astronomic Bushoury

Figure 4: Map of Wolverhampton City Council AQMA Boundary

Within the City of Wolverhampton, as with most urban environments (including much of the West Midlands conurbation), the principal source of nitrogen dioxide and particles are vehicle emissions.

The AQAP sets out a series of measures aimed at improving air quality in order to discharge Wolverhampton City Council's obligations in respect of the Environment Act 1995 Part IV. The AQAP is a living document and is due to be revised in 2015. The LETCP "Good Practice Air Quality Planning Guidance" together with the over-arching Low Emissions Strategy document will form the basis of future revisions to the action plan.

Appendix 5 – Criteria for Transport Assessments to enable classification of developments

Land use	Description	Transport Assessment/Travel Plan required		
Food retail (A1)	Retail sale of food goods to the public – food superstores, supermarkets, convenience food stores	>800sq m.		
Non-food retail (A1)	Retail sale of non-food goods to the public; but includes sandwich bars- sandwiches or other cold food purchased and consumed off the premises	>1500 sq.m		
A2 Financial and professional services	Financial Services – banks, building societies and bureau de change, professional services (other than medical) – estate	>2500 sq.m		
A3 restaurants and cafes	Restaurants and cafes – use of food for consumption on the premises, excludes internet cafes (now A1)	>2500 sq.m		
A4 Drinking establishments	Use as a public house, wine-bar or other drinking establishment	>600 sq.m		
A5 Hot food takeaway	Use for the sale of hot food for the consumption on or off the premises	>500 sq.m		
B1 Business	(a) Offices other than in use within Class A2 (financial and professional services) (b) Research and development – laboratories, studios (c) Light industry	>2,500 sq.m		
B2 General industrial	General industry (other than classified as in B1)	>4000sq.m		
B8 Storage and distribution	Storage or distribution centres – wholesale warehouse, distribution centre and repositories	>5000 sq.m		
C1 Hotels	Hotels, boarding houses and guests houses.	>100 bedrooms		
C2 Residential institutions – hospitals, nursing homes	Used for the provision of residential accommodation and care to people in need of care.	>50 beds		
C2 Residential institutions – residential educations	Boarding schools and training centres	>150 students		
C2 Residential institutions – institutional hostels	Institutional hostels and homeless shelters, accommodation for people with learning difficulties and people on probation	>400 residents		
C3 Dwelling houses	Dwellings for individuals, families or not more than six people living together as a single household.	>80 units		
D1 Non residential institutions	Medical and health services – clinics and health centres, crèches, day nurseries, day centres and consulting rooms (not attached to the consultant's or doctor's house), museums, public libraries, art galleries exhibitions halls, non-residential education and training centres, places of worship, religious instruction and church halls.	>1000sq.m		
D2 Assembly and leisure	Cinemas, dance and concert halls, sports halls, swimming baths, skating rinks, gymnasiums, bingo halls and casinos, other indoor and outdoor sports and leisure uses not involving motorised vehicles or firearms.	>1500 sq.m		
Other considerations				
1	Any development generating 30 or more two-way vehicle movements in any hour.			
2	Any development generating 100 or more two-way vehicle movements per day.			
3	Any development proposing 100 or more parking spaces.			
4	Any development generating significant freight or HGV movements per day or significant abnormal loads per year.			
5	Any development proposed in a location where the local transport infrastructure is inadequate.			
6	6 Any development proposed in a location within or adjacent to an Air Quality Management Area (AQMA)			

Source: Taken from 'Guidance on transport assessment' (DfT 2007)

https://www.gov.uk/government/publications/guidance-on-transport-assessment The Black Country planning and highways authorities consider that the thresholds contained in that guidance provide the best basis for a shared consistent approach to assessment across their areas

Appendix 6 – Examples of Air Quality mitigation Planning Conditions

Low Emission Strategies

The following conditions may be suitable for medium and major outline applications:

Development shall not commence until a low emissions strategy for mitigating air quality impacts of the development including demolition and construction at the application site and vehicle movements around the Borough has been submitted to and approved in writing by the local planning authority. All works which form part of the approved scheme shall be completed before occupation of the proposed development unless otherwise agreed in writing by the local planning authority. The measures in the agreed scheme shall be maintained throughout the life of the development. The Low Emissions Strategy shall have targets for emission reduction and timescales, with pollution savings quantified. At the end of each calendar year for the next 5 years an implementation plan shall be submitted for approval in writing by the local planning authority which on approval shall be fully implemented in accordance with the details and measures so approved. The Low Emission Strategy shall take in to account future changing standards and available technologies and be updated accordingly in agreement with the local planning authority.

OR

Development shall not commence, excluding demolition, until a low emissions strategy for mitigating the air quality impacts of the development is submitted to and approved in writing by the local planning authority. All works which form part of the approved scheme shall be completed before occupation of the development unless otherwise agreed in writing by the local planning authority. The measures in the agreed scheme shall be maintained throughout the life of the development.

Demolition and Construction

Work shall not begin on the demolition and construction of the development until a method statement for the control of dust and emissions arising from the demolition and construction of the development has been submitted to and approved by the local planning authority. All works which form part of the approved scheme shall be implemented throughout the construction and demolition phase of the development.

Electric Vehicle Charging Points- Condition (Residential):

No development shall commence until details of the electric vehicle charging points, to be provided for the dwellings in accordance with the Council's standard (Parking Standards SPD), shall be submitted to and approved in writing by the Local Planning Authority. Prior to first occupation the electric vehicle charging points shall be provided in accordance with the approved details prior to first occupation of the development and shall be maintained for the life of the development.

Electric Vehicle Charging Points- Condition (Other):

No development shall commence until details of the electric vehicle charging bays, each with an electric vehicle charging point, to be provided in accordance with the Council's standard (Parking Standards SPD) shall be submitted and approved in writing by the Local Planning Authority. The details shall include signs and bay markings indicating that bays will be used for parking of electric vehicles only whilst being charged. Prior to first occupation the electric charging points and bays shall be installed in accordance with the approved details and shall thereafter be maintained for the life of the development.

And for both conditions:

Electric Vehicle Charging Points - Reason:

In the interests of creating a sustainable form of development and to encourage the use of vehicles that are not powered by non renewable energy in accordance with Policies ENV8 (Air Quality) and DEL 1 (Infrastructure Provision) of the Black Country Core Strategy.