SG
supplementary
GUIDANCE

Residential Development Guide

West Lothian Council

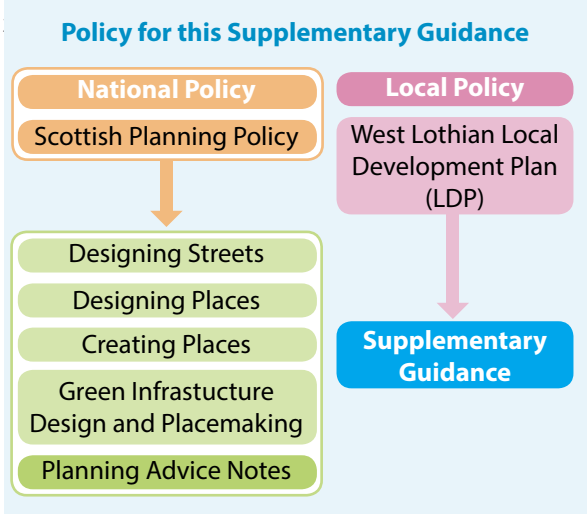
Contents

* The section on Domestic Household Waste (pages 72 and 73) was updated to reflect current practice in October 2023.

This SG was approved by West Lothian Council Executive in November 2017 and amended in February 2019. It was subsequently adopted as statutory Supplementary Guidance (SG) in April 2019.

INTRODUCTION

1. This supplementary guidance aims to assist developers make better planning applications and, ultimately, achieve better development on the ground. The guidance supplements the requirements of national and local planning policy and the diagram below illustrates the relevant planning policy context.



3. All development must have regard to and be compliant with all relevant national planning policies, policies which are set out in the Strategic Development Plan and policies of the West Lothian Local Development Plan. Together with this supplementary guidance, which has been produced to explain how particular Local Development Plan policies should be interpreted and applied in practice, they establish the policy framework within which all proposals for residential development within West Lothian will be assessed and determined. This guidance sets out detailed criteria to assist the development and assessment of proposals for residential development across the plan area and specifically supports policies DES 1, HOU 1 and HOU 3 of the new West Lothian Local Development Plan (WLLDP) but it is also pertinent to a much wider range of subject matters addressed by policies CDA 1, HOU 4, HOU 5, HOU 7, HOU 8, INF 1, INF 2, TRAN 1, TRAN 2, TRAN 3, ENV 1. ENV 2, ENV 4, ENV 5, ENV 7, ENV 8, ENV 9, ENV 10, ENV 11, ENV 12, ENV 13, ENV 17, ENV 18, ENV 19, ENV 20, ENV 21, ENV 22, ENV 23, ENV 24, ENV 25, ENV 27, ENV 28, ENV 29, ENV 30, ENV 31, ENV 32. ENV 33, ENV 34, NRG 1, NRG 2, NRG 5, EMG 1, EMG 2, EMG 3, EMG 4, EMG 5, EMG 6 and MRW 7.

4. The guidance within this SG may be amended through future revisions to take account of changes to national guidance, evolving technology and the changing needs of individuals and communities.

5. For the most part, this Residential Development Guide relates to medium to large scale residential developments, i.e. where more than 10 dwellings are proposed, or, in the case of applications for planning permission in principle, sites with a capacity for more than 10 dwellings. Guidance relative to single plot and small scale infill development, and specifically addressing the different characteristics of development not exceeding 10 units, is set out in the final chapter.

6. This SG seeks to ensure a consistent application of policy and to provide a design framework for all who are involved in the provision of new residential development within West Lothian: it brings together all the elements that help contribute towards cohesive housing layout design.

7. Council officers and elected members will use this guidance when assessing and determining planning applications, as will local communities and others when being consulted on new residential development in their locality.

8. The SG encourages high quality and innovative housing developments that are fit for purpose, visually attractive, well integrated into their surroundings, designed on environmental sustainability principles with excellent walking, cycling and public transport accessibility to facilities such as shops and schools, low in carbon emissions and offer a good standard of amenity to new and future occupants while at the same time protecting the amenity of existing residents.

9. Fundamental to the successful implementation of this guidance is the emphasis on a robust and integrated design process where all elements are considered as one, rather than in isolation, and, at the earliest possible stage in the design process.

10. Experience has shown that good design is not a quality that can be added to a scheme later by retro-fit amendments. It is only achieved by having a thorough understanding and appreciation of the development site in its wider context from the outset.

11. The benefits of good residential design are considerable: it improves socio-economic wellbeing and quality of life by reducing crime, improving public health, increasing property values, attracting investment to an area and improving civic pride and confidence. An increasing number of developers are also recognising that higher quality development can help to maximise returns on their investment. This SG unashamedly promotes and champions high quality residential development.

12. Key objectives of the guide are:

- to reduce the amount of countryside, (and other *greenfield* land), being built on and give priority to new homes on previously developed *brownfield* sites;
- to create more homes and generally utilise land more efficiently and effectively, by optimizing densities where appropriate;
- to encourage development in areas of higher accessibility such as within public transport corridors;
- to achieve layouts where high accessibility and connectivity encourages sustainable travel such as walking, cycling and the use of public transport ahead of the car;
- to make places for living that are of high quality design and distinctiveness and respect and enhance local character;
- to create environments that are secure and enable residents to live without the fear of crime;
- to improve the quality and choice of housing with particular regard to size, household composition, tenure, price, and accessibility;
- to create attractive, people-friendly places that are easy to get to and move around in, focusing on the needs of pedestrians rather than cars;
- to reduce the vulnerability of existing and future developments to flooding and to prevent development that would have a significant probability of being affected by flooding or would increase the probability of flooding elsewhere;
- to protect and enhance biodiversity by providing habitats for flora and fauna to establish and thrive and to promote and incorporate the principles of sustainable development;
- to promote design and site planning principles that aim to increase energy efficiency in all new residential development;
- to create vibrant and diverse residential neighbourhoods which are at the same time capable of accommodating the needs of the people living there in terms of accessible and localised community, amenity and retail facilities; and
- to contribute to the delivery of the Central Scotland Green Network (CSGN), a strategic network of woodland and other habitats, active travel routes, greenspace links, watercourses and waterways, providing an enhanced setting for development and other land uses and improved opportunities for outdoor recreation and culture activity, embraced and bringing together many of the objectives detailed above.

13. All elements of this guidance have to work together to produce quality places and its individual sections should not be read in isolation. This guidance requires to be read in conjunction with the prevailing development plan, other policy documents, other SGs, planning briefs and planning guidelines that identify site specific requirements. Of particular relevance will be technical advice provided by the Roads and Transportation Manager on road and access requirements and set out in the *National Roads Development Guide* 2014.

14. A pre-application checklist has been produced, and while not exhaustive, identifies key areas of research that should typically be completed before any design work commences. Details of the various contacts referred to throughout the document and are provided in Appendix 5.

PRE-APPLICATION CHECKLIST

ISSUE	RESEARCH REQUIRED	
Planning background	○	Identify relevant Development Plan allocations and policies.
	○	Identify other planning constraints (conservation areas, designed landscapes, listed buildings, tree preservation orders etc).
	○	Identify all relevant planning guidance (see Appendix 4 of the LDP), planning briefs , and also identify specific site requirements (Appendix 2 of the LDP).
	○	Identify any live planning permissions on the site or in the immediate vicinity.
	○	Undertake a search of the planning history of the site.
Geology, ground conditions and contaminated land	○	Undertake a desktop study and follow through with intrusive investigations where necessary.
	○	Establish whether the site lies within an area of past mining activity.
	○	Contact and seek advice from the council's Building Standards team, Contaminated Land Officer and The Coal Authority.
	○	Have regard to Planning Guidance (PG) concerning Contaminated Land.
Aviation safeguarding	○	Establish whether the site lies within the Aviation Safeguarding Zone for Edinburgh Airport.
	○	Where development might impact on the operations of Edinburgh Airport, contact and seek detailed advice from Development Management and Edinburgh Airport Limited.
Pipeline safeguarding	○	Establish whether the site lies within the hazardous installation consultation zones which have been designated around existing pipelines.
	○	Contact and seek detailed advice from Development Management and the relevant pipeline operator to identify any pipeline or hazardous installation consultation zones.
Risk of flooding	○	Check SEPA flood maps.
	○	Contact and seek site specific advice from the council's Flood Risk Management Team.
	○	Have regard to Supplementary Guidance (SG) concerning Flooding and Drainage.
	○	If necessary, prepare and submit a Flood Risk Assessment (FRA) for all developments deemed to be at risk of flooding.
Archaeology	○	Undertake a desktop study.
	○	Contact and seek advice from Development Management and the West of Scotland Archaeology Service (WoSAS).
	○	Where development might directly impact of sites of scheduled archaeology, advice should be sought from Historic Environment Scotland.
Sustainable / low carbon house building	○	Contact and seek advice from the Energy Saving Trust and the council's Climate Change Officer.
Biodiversity	○	Undertake a site survey, take account of Local Biodiversity/Local Geodiversity sites (and potential sites) and prepare a species and or habitat protection and enhancement plan if required.
	○	Establish whether the site is designated as a Site of Special Scientific Interest (SSSI), Special Area of Conservation (SAC) or Special Protected Area (SPA). Where such designations apply, there may be a requirement for a Habitats Regulations Appraisal to be submitted as part of a planning application.
	○	Where necessary, identify any protected species of flora, fauna and wildlife that may be present. Consult SNH web site for additional information or assistance. Also have regard to supplementary guidance *Planning for Nature: Development Management and Wildlife*.
	○	Where appropriate, commission an arboricultural survey and biodiversity study.
Landscape interest	○	Establish whether the site is subject to any landscape designations. Where appropriate, commission a landscape and visual impact assessment.

ISSUE	RESEARCH REQUIRED	
Open space	○	Contact NETs, Land and Countryside Services to consider open space criteria.
Connectivity	○	Identify existing and potential walking, cycling and public transport access routes between the development site and community facilities.
	○	Contact and seek advice from the council's Transportation Engineers /cycling officer and NETs, Land and Countryside Services regarding the opportunities for providing on road and off road cycling facilities.
Noise	○	Undertake a site visit and identify any noise generating sources which may present an impediment to development.
	○	Have regard to Supplementary Guidance (SG) concerning Noise.
	○	Where necessary, seek advice from Environmental Health officers.
	○	Where appropriate, commission a noise survey (having first agreed the terms and methodology with officers of the council).
Air quality	○	Undertake a site visit and identify any air polluting sources which may present an impediment to development.
	○	Contact and seek advice from Environmental Health.
	○	Establish whether there are any existing or proposed Air Quality Management Areas in the vicinity of the site which may in turn be affected by traffic associated with the development.
Drainage and water supply	○	Contact Scottish Water and SEPA to establish availability of capacity/supply and to identify their adoptable standards and key requirements for SUDs.
	○	Where necessary, seek advice from Flood Risk Management Team and Roads and Transportation Manager to identify their key requirements for SUDs.
Utilities	○	Contact the main utility providers and identify works required to enable development and establish any hidden costs.
Waste Management	○	Contact and seek advice from WLC Waste Management to establish requirements for refuse and recycling facilities, particularly as to how they may affect street design.
Education	○	Contact and seek advice from the council's Education Planning officer to establish availability of primary and secondary school capacity and identify relevant developer contributions.
	○	Establish whether there is any site specific Education Planning Guidance (PG) relative to the site in question.
Public Transport	○	Establish where existing bus stops and shelters are located and confirm with the Public Transport service whether there are any improvements to existing facilities planned or required, including foot/cycle path connections to bus stops and secure cycle parking at main bus stops, to be provided by the developer.
Transportation	○	Contact and seek advice from the council's Transportation Engineers about access constraints, specific development requirements, design standards, road drainage, materials, etc. Where appropriate, the method and scoping of transport assessments should be agreed.

ISSUE	RESEARCH REQUIRED	
Health and community impact	○	Contact and seek advice from Development Management to establish whether a Health Impact Assessment (HIA) is required to accompany a planning application for the proposed development. These are required to accompany applications for Major residential developments (currently defined as 50 units or more) and those developments requiring an Environmental Impact Assessment which are most likely to impact on human health.
	○	Where appropriate, the method and scoping of HIAs should be agreed with Development Management who will be advised by Environmental Health officers, the council's Health Improvement service and NHS Lothian. Supplementary Guidance on HIAs has been prepared.
	○	Contact West Lothian Health and Social Care Partnership to identify likely impacts of proposed development on health and social care infrastructure and seek advice on solutions.

15. Colleagues specialising in matters such as roads, flood risk, education, conservation, contaminated land, noise and air quality etc, can be introduced to developers and the council can also facilitate discussions with statutory consultees and other external organisations. Such discussions are of course without prejudice to the decision that might be taken by the council if and when an application is pursued.

16. In so far as larger developments are concerned, the council also encourages early and constructive dialogue between developers and the local community to establish their aspirations and capture their knowledge of the site - the objective being to ensure that new development contributes towards the qualities of a community. Effective public consultation can also help to test the design approach, and, where appropriate, test options. As a consequence of the *Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2008*, there is now a ***statutory requirement*** for developers to undertake pre-application consultation for some major residential developments and this is explained later in this document in Appendix 1.

Pre-Application Enquiry

17. The council offers a pre-application advice service which you can use to find out whether your proposals would be likely to secure planning permission. You should however be aware that there is a fee for this service. To find out more go to the Pre-Application Enquiry webpage and the related scale of planning fees. Fees are calculated with regard to the complexity of the proposals and there are additional charges for site visits and meetings.

18. To obtain further information and advice, please contact: Development Management, West Lothian Council, Civic Centre, Howden South Road, Livingston, EH49 6FF or telephone 01506 280000 and ask to speak to a Development Management Planning Officer for the area in which you propose to develop.

OVERVIEW

19. The council supports and endorses a design-led approach to the planning of sites in order to achieve high standards of development, attractive, successful and sustainable environments where people will wish to live, work and relax.

20. The design of new development should be based on an understanding of its context, respecting the character of the surrounding area, protecting and enhancing local distinctiveness and contributing positively to the quality of the built and natural environment.

21. New development must be designed to a high-quality and demonstrate adherence to the Scottish Government's Designing Streets policy (March 2010), the six qualities of successful places as set out in *Creating Places* policy (June 2013), the requirement to contribute to the creation of successful and sustainable places identified in SPP (June 2014) and/or any other development guidance issued by the council.

22. There are circumstances where certain applications for planning permission can be statutorily required to be accompanied by a Design Statement explaining the design principles and concepts that have been applied to the proposal.

23. The detailed requirements for Design Statements are to be found in The Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013 and apply when development sites embrace:

- a World Heritage Site;
- a Conservation Area;
- a Historic Garden or Designed Landscape;
- a National Scenic Area;
- the site of a Scheduled Monument; or the curtilage of a Category A Listed Building, and
- National and Major Category applications

24. Design Statements should ensure that development proposals are based on a carefully considered design process and should explain clearly the design rationale behind the proposal.

25. Where none of the aforementioned circumstances apply, the Council may nevertheless decide that a Design Statement would be beneficial, often in the case of otherwise sensitive or larger scale residential proposals, and applicants may be invited to provide a Design Statement to support their application. The reasons for this will be communicated to applicants as early as possible in the planning process or identified as a development requirement relating to an allocated site, or specified by a Planning Brief or Planning Guidelines. The council will seek to agree with the applicant a timescale for preparation and submission of the Design Statement and the form and content shall generally be in accordance with Planning Advice Note (PAN) 68.

26. For larger sites, such as those classified as 'major' or 'national' developments, as defined by the Scottish Government, the council may consider it appropriate that a masterplan is submitted by the applicant as part of a planning application. In determining the need for a masterplan, particular consideration shall be given to creating a vision for an area and illustrating how a site or series of sites shall be designed and developed to achieve such a vision. In respect of the form and content of masterplans, the council will be guided by PAN 83.

27. Design is an important material consideration in the determination of a planning application and good design is indivisible from good planning. Proposals deemed to be of poor design and damaging to the character or appearance of the locality will not be supported.

CONTEXT, CHARACTER AND IDENTITY

28. An often cited and sometimes valid criticism of new residential developments has been their failure to satisfactorily respond to what is usually called the *context* of the site. Too many new developments are lacking in distinctiveness, and could, geographically, be just about anywhere.

29. In going forward, and certainly before drawing up proposals, applicants will be expected to have thoroughly researched the site in order to identify the factors that influence the type and form of development that may be appropriate to the location. The design process must above all be analysis based.

30. It will be important to demonstrate that a proper analysis of the site and its surroundings has been undertaken and that the context has been understood and given due regard, together with all of the other detailed considerations contained in the SG.

31. The challenge for developers is to create not just stand alone functional housing, that's the easy part, but places with their own distinctive character and identity that respect and embrace the local context. The design response to any site should be innovative and site-responsive, offering a good choice of housing and facilitating access to, or in some instances providing the full range of social and commercial amenities that help to make *real* communities.

32. The following list, while not exhaustive, suggests some of the most important considerations that should be analysed and assessed;

- site location – e.g. urban infill, urban extension, village infill, village extension, isolated rural;
- topography;
- landscape;
- biodiversity;
- existing settlement pattern, including street patterns and widths;
- surrounding land uses, existing buildings and site features;
- established building heights and lines, scale and massing and relationship with buildings adjacent to the site;
- local building traditions, architectural detailing and materials;
- site drainage and potential flood risk;
- prominence/visibility and important views into, across and out of the site;
- orientation and microclimate – shelter, shadow, prevailing wind, time and path of the sun;
- trees/woodland on the site (and the potential need for an arboricultural survey)
- patterns of movement and uses; access to the site, linkages with the surrounding area, local facilities, public transport networks and established walking and cycling routes;
- existing settlement edge (if applicable);
- constraints such as archaeology, contamination, proximity to major transport corridors or noisy/polluting uses;

33. In the majority of cases, the existing context will provide clear indicators as to how any new development should be sited and designed.

34. However, it is recognised that in some locations the surrounding environment may have few distinctive qualities or character, or will have a poor layout or design of buildings. In these circumstances, developers may be given greater latitude to innovate and to create an imaginative and locally distinctive high quality development.

35. Developers will be encouraged to move away from utilising *identikit* layouts and from designing to a standard formula that takes little or no account of a site and its unique characteristics.

36. The over use of generic house types is especially problematic, although they need not in themselves necessarily inhibit the creation of a diverse and interesting built environment, provided they do not end up dictating the layout and form of a development, and the distribution of houses is not overly repetitive. In such circumstances, it is better if dwellings have a common design approach with small clusters of different design styles that help reduce the massing of a development and add visual interest.

37. While the council will not seek to impose unsubstantiated requirements to conform to particular building styles or taste, it will, quite reasonably, insist on applicants providing robust evidence as to how their proposals build upon and/or create local distinctiveness and acknowledge the vernacular context.

38. Planning Advice Note (PAN) 44, *Fitting new housing developments into the landscape*, offers suggestions to help developers achieve residential developments that are in harmony with their landscape setting.

39. Planning Advice Note (PAN) 67, *Housing quality* is also a useful source of information and highlights the need for good design in the development of housing.

DESIGN AND LAYOUT PRINCIPLES

40. For buildings and neighbourhoods to provide attractive, safe and accessible places, it is important that a design framework establishes the physical structure of new residential developments by arranging, positioning and linking buildings, open spaces, foot paths/cycle paths and structural landscaping in order to shape the character of the whole area as this requires consideration to be given to a number of key subject areas.

Place

41. It is essential that an analysis of the surrounding area is undertaken to establish the prevailing character of an area. This requires an appreciation of the proportion of buildings to open spaces, the scale of any open spaces and street patterns. How existing streets are shaped by plot width and size, storey height, building height, rooflines and materials all contribute to the understanding of the context for new development.

42. Thoughtful and well designed streets can make a significant contribution to the quality of the built environment and they play a key role in the creation of sustainable, inclusive and mixed communities.

43. The design of developments should not be dominated by road geometry and engineering standards. The housing layout should be developed **in tandem** with an assessment of the area's character, together with proper regard to the functionality of roads and streets.

44. Features can be created, such as corner elements, landmarks and areas of different character, all of which help create distinctive and recognisable places.

45. For the most part, houses should front onto streets and public areas. Building frontages should create a positive relationship between the houses and the street to reinforce the character of the street as a public, social space, providing definition and enclosure.

Movement

46. The success of new residential development depends on how well it is connected to existing areas, established routes and local facilities. Layouts should be simple and integrate into the surrounding area by working with the network of routes and its hierarchy and streets should provide a series of interesting, welcoming and people-friendly connections as opposed to dead ends. The most successful connections are deemed to be those that offer a distinct advantage over using the private car (particularly for shorter journeys) through their design and which often reflect key desire lines.

47. While short culs-de-sac with activity throughout the day can provide some natural surveillance against crime and a relatively safe place for children to play, layouts based on conventional culs-de-sac and loops without inter-connection will generally be discouraged as they have a tendency to encourage car use rather than walking or cycling and result in higher traffic volumes on feeder roads.

48. By contrast, layouts based on linked networks are more likely to encourage pedestrian movement and cycling. They provide a greater choice of route, more visual interest and generate higher levels of pedestrian activity.

Density

49. Housing density should **always** relate to the character of the wider area and its accessibility.

50. However, in order to sustainably meet long term-housing needs, it is important that new developments are designed to make the best and most efficient use of the land available.

51. Typically, higher densities help to reduce land take and contribute to the viability of local services and public transport, and, as a general rule, the council will encourage higher density housing developments within and adjacent to town centres, adjacent to public transport facilities and along key transportation corridors where appropriate. Development which would result in town cramming will not be supported.

52. Delivering high density development must not, however, be at the expense of amenity and the quality of the environment, resulting in a reduction of space in and around dwellings and giving rise to what has come to be known as **town cramming**. Developments must always provide for adequate private and public amenity space, circulation and good pedestrian and cycle accessibility and connectivity to local facilities. And where the local context suggests a lower density response, then high density development is unlikely to be appropriate. Proposals which would result in town cramming will not be supported.

53. Uniform densities across a development are rarely successful and should generally be avoided, particularly within larger scale developments where a range of house types should be employed to encourage diversity. The appropriate density for a specific site will vary and will be assessed on merit, taking into account the character of the site, its size, adjacent densities and traffic and services considerations.

54. While Appendix 2 of the *Local Development Plan* identifies notional capacities for the allocated housing sites, the council may support increasing these numbers where a detailed layout satisfactorily demonstrates that a high quality design solution, which delivers the requisite level of residential amenity, can be achieved and that any additional infrastructure impact can be accommodated.

55. To sustain local services and public transport, minimise land take for new development and promote social inclusion, new strategic housing developments and those within the Core Development Areas (CDAs) established under the West Lothian Local Plan at Armadale, East Broxburn and Winchburgh and Livingston and the Almond Valley, are expected to provide a diversity of house types, tenures and densities. Within mixed use areas within CDAs, net housing densities should average at least 25 residential units per hectare.

56. Density measures can be useful planning tools at the beginning of a project, and can be used for assessing outcomes at the end. However, there is often confusion about the various measures of density, what they describe, and how they should be used. It is, therefore, important that there should be clarity and agreement on the base land area calculation - i.e. what is included and what is excluded. HIgh density is deemed to be 45 units per hectare, medium density 30 units per hectare and low density 15 units per hectare. For the purpose of calculating and indicating density, measurement should be based on the gross site area and **not** an approximation of what might otherwise be termed the *developable* area. Furthermore, measurements should be expressed in hectares.

Tenure and housing mix

57. Developments are known to be more successful when they avoid large concentrations of housing of the same type. Furthermore, and particularly in the case of large developments, mixed tenure, containing private market housing, social housing, rented accommodation and shared ownership properties are desirable for the creation of balanced and sustainable communities and addressing the wider development plan objectives of the council.

58. Developers will ordinarily be required to provide a range of house sizes and types, which provide for the housing needs of a cross section of the population and facilitate a broad mixture of households of different ages and economic status. Developers should take account of the council's housing need assessment in determining the appropriate mix of housing.

59. Particular attention is drawn to the council's policies on affordable housing, amplified in a separate SG. The most current iteration of the guidance can be found on the council's website.

60. Scottish Planning Policy and Planning Advice Note (PAN) 2/2010, *Affordable housing and housing land audits* make the point that affordable housing ought to be, as far as possible, indistinguishable from the general mix of other houses on a site in terms of style and layout, ideally concentrated in small groups, and not, as sometimes happened in the past, consigned to the periphery of the development. These requirements are equally applicable to new house building initiatives undertaken by the council and other social housing providers.

61. Developments of all sizes should also consider opportunities for accommodating compatible non-residential uses of appropriate scale in accessible locations to serve existing and potential needs without increasing reliance on the car.

Scale, height and massing

62. Scale it is not a precise measurement and determining the appropriate scale, heights and massing of new developments will depend upon the following:

- the location of the site;
- the physical characteristics and conditions of the site;
- the scale and proportion of the surroundings; and
- the relationship with adjoining buildings, the spaces around them, the topography, the general patterns of heights in the area, views and landmarks.

63. The massing, meaning the three-dimensional expression of the amount of development on a site, and height, should not overshadow, overlook and overwhelm any adjacent buildings and spaces. Particularly in larger developments, building heights should be varied in order to add visual interest and break up the overall mass of the development.

Plot coverage

64. There are differing definitions of what plot coverage means in the development industry. For the purpose of this guidance it should be interpreted quite specifically as a measure of the proportional relationship between the built footprint of a house (including all integral and detached garages) and the area of the plot on which it stands. It is a useful tool to help control the bulk and mass of buildings, avoid town cramming and in establishing the characteristics of density and privacy.

65. In order to prevent sites being over-developed and to leave sufficient open space around a new dwelling for outdoor activity and for possible future extensions, the following plot ratio standards will apply to new residential developments:

- for detached and semi-detached dwellings, the proportion of plot area to building footprint should be 70:30
- for terraced houses the minimum proportion of plot area to building footprint should be 60:40

66. These figures should, however, be regarded as averages for the development site as a whole and some variation within a development is permissible in order to accommodate choice and achieve diversity.

Design and access statements

67. Many of the foregoing considerations can be expressed through the preparation of a design and access statement, often a written document, but it can include drawings, annotated plans and photographs illustrating the various issues which the scheme has responded to.

68. Design and access statements help applicants to properly consider all relevant policies as well as the site's constraints and opportunities at the time of making a planning application. They can provide an effective and useful way to discuss a proposal throughout the design process, but more particularly when presented at the pre-application discussion stage of more complicated or challenging sites. This enables the council and other consultees to properly understand and give consideration to the particular proposals.

69. A statement should explain and justify in a structured way the design principles and concepts that have been applied to particular aspects of a proposal - these are the number of proposed residential units, layout, scale, landscaping and appearance of the development. And it should demonstrate that the proposal has been based and developed upon an understanding of the site in question, its local context and the constraints and opportunities that these provide. Where the development proposed is within or adjacent to a conservation area, the statement should demonstrate, with photographs, drawings and sketches, how the proposal relates to the particular character of the conservation area.

70. The access component of the statement relates to *access to the development* and should explain how the design ensures that all users will have equal and convenient access to it.

71. The approach used will be influenced by the scale, nature, complexity and potential sensitivity of the site and of the proposed development. What is important is that statements are concise and takes a proportionate approach, while effectively covering all of the design and access issues relative to the proposed development.

72. It should also be remembered that as they will be available alongside the application for planning permission for anyone to read, they should avoid jargon or overly technical language.

73. The Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2008 introduced a statutory requirement for a design and access statement to be submitted with certain types of planning application for national and major development and these criterion are explained in Appendix 1, entitled New Planning Application Procedures.

74. The council believes that such statements could also be useful when processing planning applications for more modest residential development falling within the local category of development, and it may invite developers to submit a design and access statement. It is hoped that developers will engage in this process and recognise the benefits of doing so.

75. In preparing statements, applicants and their agents are encouraged to have regard to the advice contained in Planning Advice Note (PAN) 68, *Design Statements* or any future iteration of this guidance.

DESIGN AND LAYOUT DETAILS

House design

76. To a very large extent, the house building industry in the UK is dependent on the use of standardised house types and new private sector housing has, for the most part, come to be regarded as a mass produced product.

77. While the economics of this are well understood, and it is acknowledged that standardisation has helped bring about improvements to consistency, reliability and build quality, there is always a danger that a *one size fits all* approach can end up delivering bland and characterless developments. It is therefore essential that the house types chosen are, at the very least, sympathetic to the locality of a given site, have full regard to their role in the making of streetscapes and the creation of places, (as well as taking account of other factors in *Designing Streets*) and are as varied and diverse as practicable.

78. Traditional houses are composed of simple forms, normally rectangular with the pitched roofs spanning the narrower plan dimension. The main problem with contemporary housing is that they are often composed of too many elements and are set to a uniform building line and spaced at too regular an interval.

79. Developments that are inward looking and turn their back on their surroundings should, for the most part, also be avoided. As a general rule, dwelling frontages, windows and entrances should face and overlook streets and public space. In many cases, direct frontage access will be possible. Where it is not, single sided development may sometimes be necessary to achieve an attractive frontage.

80. *Setback* refers to the distance that a building is located from its boundaries to the street and to neighbouring properties. Building setbacks should respect the character of the local area and the setback of other buildings in the street.

81. The setback of a dwelling from the street can have a significant impact on the character of the street. Generally, setback should be smaller (0 - 2m) where a more urban, higher density, pedestrian friendly character is to be achieved. In lower density areas, building lines (and therefore setbacks) can be more variable.

82. The principal entry point of larger development sites (primarily those with more than 100 dwellings and built out by a single developer) should be made a distinctive feature in order to enhance its identity. This could embrace the public art requirements which are set out in SG on the subject later in this document. Adambrae in Livingston is highlighted as a good case in point.

Roads and streets

83. In 2010, the Scottish Government issued significant new policy guidance on street design entitled *Designing Streets*. It reinforces the link between roads engineering, planning and urban design and promotes the need to pursue a design-led approach to street design that takes into account site-specific requirements and moves away from a rigid application of standards.

84. It provides a framework for more collaborative working and significantly raises the importance of pre-application meetings and discussion between developers, their agents and officers of the council.

85. *Designing Streets* supports the Scottish Government's place-making agenda. In so far as it emphasises the importance of the connectivity and interrelationship of streets to other networks, for example the green network, it is also consistent with the objectives of the Central Scotland Green Network (CSGN) which the council fully subscribes to and champions.

86. There has also been a fundamental change in emphasis, away from a system where the principal focus has previously been on the functions of streets as corridors for motor vehicles, and instead calls for them to be made places in their own right. While this creates opportunities for new and innovative layouts, it also presents challenges and the onus will be on developers to demonstrate the appropriateness of their proposals.

87. It is anticipated that the appraisal of new and novel street layouts by the council's transportation engineers is likely to be a detailed and, occasionally time consuming exercise. It would therefore be to the benefit of developers to initiate contact with planning and roads officers at the earliest possible opportunity, preferably before a layout has even been commissioned.

88. Residential streets must be designed as pedestrian friendly places, not just as a means of getting from one place to another by car or a place to park cars. They should be designed as places for people, not places predominantly for cars.

89. Street design can also be positively used to help reduce traffic speed which in turn helps people feel more confident about being on their local street and enables them to travel safely. Lower speeds can make walking and cycling more attractive options, improve the environment, encourage greater social interaction, ease traffic congestion and reduce the severity of road traffic accidents. The council has produced an Active Travel Plan which specifically promotes walking and cycling and encourages developers to embrace and facilitate other sustainable modes of transport.

90. *Designing Streets* confers the highest priority on meeting the needs of pedestrians, cyclists and public transport users, so that growth in these modes of travel is encouraged in line with national and local sustainable transport policy. Developers should therefore be aiming to create compact, walkable neighbourhoods with routes that link up with modes of public transport to help reduce reliance on the car.

91. While a formal and prescriptive hierarchy of street typologies no longer forms part of the guidance, in so far as urban development spaces linked with buildings and supporting a range of uses is concerned, practical consideration of the likely users (and level of use) of each street and place must of course still be taken into account and the council will need to be convinced of the practicalities of layouts which are proposed.

92. Guidance on the local context within which the principles of *Designing Streets* can be applied is set out in the *National Roads Development Guide* 2014 and to encourages more thought and consideration of the principles of place and movement in the design of new development.

Materials

93. The long-term appearance of buildings and their impact on the character of the area is greatly influenced by the type of external materials used.

94. There should be a clear and defined rationale behind the selection and use of materials within a development and the council expects all developers to produce a materials palette.

95. The selection of materials for new developments should:

- generally respect and complement the range of materials prevalent in the surrounding area to ensure coherence, particularly on smaller developments or in sensitive locations; and
- be good quality and low maintenance for an attractive yet enduring appearance with the key considerations being durability, water run-off and the ability to withstand weathering.

96. Innovative use of materials, especially when associated with sustainability and energy efficiency, is encouraged. When selecting construction materials, preference should be given to:

- naturally renewable materials, for example timber and timber products certified by the Forestry Stewardship Council (FSC);
- reused materials such as locally available demolition materials available from local West Lothian bings for foundations, paths etc;
- materials with a high recycled content such as plastics; and
- locally produced and sourced materials (to minimise transport costs).

Boundary treatments

97. The choice of boundary treatments must be appropriate and sympathetic to their function. For example they:

- help to define space;
- provide security;
- create a link between the buildings and landscape;
- provide a barrier between private and public uses; and
- influence the microclimate depending upon the type of treatment.

98. Attractive walls and railings at site entrances and within estates at key locations will be encouraged while long sections of unrelieved garden fencing in prominent locations should be avoided.

99. In developments with grass service strips, fencing or other physical boundary treatments should be avoided. Developers are required to make it clear in the title deeds that service strips are in the ownership of the property owners and that owners are responsible for their maintenance.

100. Rear gardens which face onto roads and footpaths are particularly conspicuous and should be afforded enhanced treatment, including the use of soft landscaping.

101. To add interest, colour and variety to a residential development, hedge planting may substitute for fencing. However fast growing conifers will not ordinarily be permitted. Instead, beech or hawthorn hedging forms good boundary screening.

Community safety

102. Ensuring a safe and more secure environment is fundamental to creating successful residential developments and must be considered during the early stages of the design and planning process.

103. The following measures can make a significant contribution:

- there should be a clear definition of public, semi-public and private spaces by the inclusion of appropriate boundary, surfaces and entrance treatments:
- layouts should avoid the creation of *hiding places*;
- developments should contain a variety of house types, attracting a mixture of people with different life styles to help achieve continuous surveillance;
- dwellings should be grouped to allow mutual supervision;
- dwellings should be designed so that windows and doors face onto the street and create *active frontages* that allow overlooking to occur;
- there should be surveillance of parking areas and open spaces with dwellings fronting onto these areas;
- footpath links into developments should be designed to avoid excessive and unsupervised escape options and long sections of enclosed alleyways;
- footpaths running between the back of dwellings should be avoided;
- footpath routes should be direct, with pedestrians able to view the full length of the path on entry;
- lighting should have an even spread of illumination that avoids pools of light and shadow; and
- landscape schemes should be designed with community safety in mind and as a general rule, shrub planting adjacent to footpaths should not exceed 1m in height.

104. Further guidance is available in Planning Advice Note (PAN) 77, *Designing Safer Places*.

105. It has been demonstrated that the opportunities for crime can be significantly reduced through good thoughtful design and West Lothian Council is pleased to support *Secured by Design* (SBD).

106. SBD is a police initiative that encourages the development industry to adopt a series of crime prevention methods that assist in reducing the opportunity for crime and the fear of crime.

107. It focuses on crime prevention being planned into developments at the design, layout and construction stage and promotes the use of security standards for a wide range of applications and products. Developers who gain SBD certification often benefit from a significant marketing advantage.

108. For more information and advice on how to build to SBD specifications and reducing crime through environmental design, developers and their agents are encouraged to contact Police Scotland Architectural Liason Service who can provide information on the local crime profile of an area so that appropriate crime prevention measures can be established. Practical measures and advice can also be given.

109. All planning applications for residential development should demonstrate how security and crime prevention measures have been considered.

Miscellaneous provisions

110. It shall be the responsibility of developers to finance the position and installation of street signs, litter waste bins and dog fouling waste bins within all new residential developments, as and where deemed appropriate by the council.

111. Contributions will also be sought from developers for the provision of household waste and recycling bins in these circumstances. This will be determined as part of the planning application process and will be secured by planning conditions and/or developer contributions by Planning Obligations consistent with Circular 3/2012 Planning Obligations and Good Neighbour Agreements.

NB: household waste bins will be specified and supplied (at cost to developers) by West Lothian Council to ensure they are compliant with the council's current requirements.

112. There are specific standards, specifications and positioning requirements for these items which must be adhered to, and prior to undertaking their procurement and installation, it is necessary that developers seek advice and agree their proposals with the particular council service area.

113. The council's powers to control development are set out in the various planning acts and their accompanying regulations. There are, however, a number of issues in the development of new housing that the council recognises that it has no control over but nevertheless wishes to encourage developers to consider. These are set out below.

- The maintenance of the fabric of a development is important in so far as it has direct consequences for amenity, physical appearance and indeed the value of properties. Flats pose particular issues with regard to ongoing maintenance and running costs, for example door entry systems, stair lighting and elevators. While there is currently no legal requirement for a factor to be appointed, the council considers it good practice for developers to do so and would wish to see evidence of this presented with the planning submission.
- Clear numbering and identifying flats and houses is good practice;
- The council encourages higher noise insulation standards than those set out in the Building Standards regulations to try and minimise future noise disturbance. (The council's environmental health service advises that tests should be done with materials that are bonded down and which cannot subsequently be removed).
- Utility meters should be discretely located to avoid being a dominant element on principal elevations;
- Substations should be located and designed with sensitivity to the visual and environmental amenity of their immediate surroundings;
- External pipework and cable runs at the front of the property should be avoided; and
- Communal satellite receivers and/or cable ducting should be provided in flatted developments where practicable.

Green infrastructure

114. Green infrastructure is the component parts of a network of green spaces, new and existing, rural and urban, which supports the natural and ecological processes and which also contribute to the health and quality of life of sustainable communities. It includes parks, open spaces, playing fields, woodlands, wetlands, road verges, allotments and private gardens.

115. Green infrastructure should be thought about at every scale of planning, from the strategic framework (allowing cross boundary issues to be considered) right down through neighbourhoods and within streets to the individual house or flat.

116. SPP indicates that linking greenspaces in and around settlements through green networks can deliver benefits for people and nature. By encouraging connectivity between habitats, green networks can improve the viability of species and the health and viability of previously isolated habitats and ecosystems, supporting adaptation to climate change. Wherever possible, planning authorities and developers should identify opportunities to create and enhance networks between open spaces and avoid fragmentation.

117. It is important that any existing green space is respected and that existing landscape features be incorporated and enhanced within new housing developments. The spaces around and between buildings and the wider green network are just as important to consider in the design process as the houses themselves.

118. Green space has the potential to enhance local landscape character, protect and enhance local biodiversity and offers opportunities for recreation and for accommodating sustainable urban drainage systems (SUDs).

119. Green infrastructure can also play a role in making streets pedestrian, cycle and vehicle-friendly. For example, street trees can be incorporated as a traffic calming measure which also help soften the street scene by creating visual interest, improving the microclimate and providing valuable wildlife habitats. Vegetation can be used to limit traffic speeds by limiting excessive forward visibility, whilst still maintaining appropriate driver sightlines.

120. When designing a new housing development, regardless of the scale, it is important that all of the participants think more laterally about how the many diverse elements of a scheme can best fit together so that the sum of the whole makes a greater environmental contribution than the sum of its parts. Opportunities for incorporating green infrastructure within a development that connects to the wider green infrastructure network beyond the site should be fully explored and considered. In practical terms, a *multi discipline* approach is encouraged where different aspects of a proposal can be pulled together.

121. Early consideration of green infrastructure allows developers to meet many of the statutory requirements within a development scheme whilst benefiting many other social, economic and environmental objectives. A network of well-designed and managed greenspaces and links can make a significant contribution to creating a distinctive identity and sense of place.

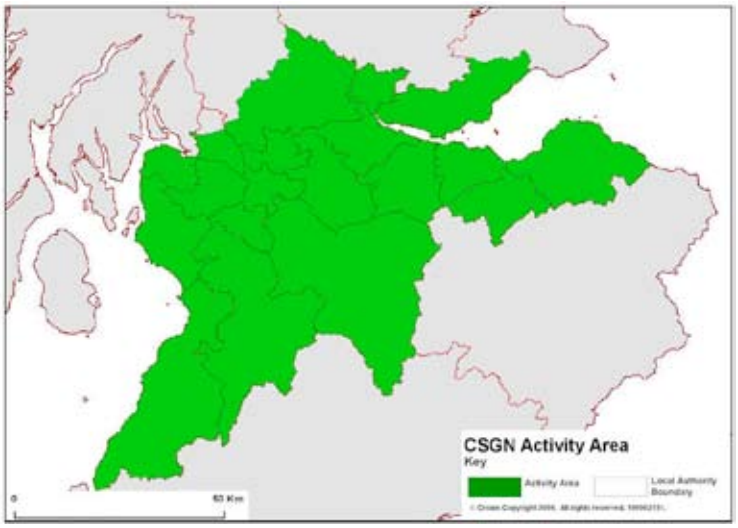
The Central Scotland Green Network

122. The protection and development of green networks is increasingly seen as crucial to sustainable economic development and quality of life in Scotland. As a consequence, the Central Scotland Green Network (CSGN) is one of 14 national developments designated in the *National Planning Framework for Scotland 3* (NPF3) - published in June 2014.

123. The aim of the CSGN initiative is to deliver nothing less than a step change in the quality of the environment, woodland cover and recreational opportunities across Central Scotland. It is also charged with helping to increase levels of economic activity and improve the health and wellbeing of the population.

124. Change is to be achieved through the establishment of strategic and local networks of *green* (and also *blue* spaces) in towns and cities with the wider countryside and the coast. These include parks, public spaces, gardens, woodlands, hedgerows, rivers, streams, ponds, wetlands and man-made structures such as canals and *sustainable urban drainage systems* and existing path and cycle networks.

125. It is envisaged that this network will address a range of natural heritage and environmental objectives which in turn support social and economic ones by improving the setting for development and investment, enhancing provision of outdoor recreation and a range of cultural activity and providing opportunities for new business.



126. To succeed, it requires public agencies and stakeholders to work together to align their policies, programmes and actions to restore and improve the rural and urban landscape throughout Central Scotland.

127. It is proposed that the CSGN is achieved, in part, through the delivery of well-designed development which protects and improves the local environment and which at the same time helps to secure key *green* or *blue* connections.

128. West Lothian Council has a statutory obligation to take account of the NPF, and, in any event, actively supports the CSGN. Therefore, when processing planning applications for new residential development, it will seek to promote and secure contributions to and benefits from the national and local green networks where this is legitimate and considered appropriate to do so. The council has produced draft supplementary guidance on the subject of the West Lothian place-based *Green Network* and developers are encouraged to familiarise themselves with this.

Other layout considerations

129. The provision of useable and appropriate private and public amenity space is a necessary component of all residential proposals and this is discussed in more detail in a subsequent chapter of this document. However, as a general rule, open spaces must have a clearly defined identity and purpose and attention must be afforded as to how they are linked, particularly with regard to contributing to the wider aims of the CSGN.

130. A conscious effort must be made at the design stage to avoid what is sometimes referred to as SLOAP (space left over after planning). These are often irregular defined areas of open space which have no clearly defined purpose, are inaccessible, cannot be satisfactorily maintained and generally make little or no contributions to the overall development.

131. All layouts must incorporate the space and design requirements of the necessary sustainable urban drainage systems (SUDs) scheme and satisfactory on site provision must be made for refuse and recycling storage. These requirements need to be taken account of and embraced into the site layout and design of all new development from the outset.

132. Layouts should ordinarily be designed so that excessive re-grading is not required. Details of any site re-grading works (incorporating before and after contours) must be submitted at the time a planning application is made.

133. Within the larger developments and, particularly those within the previously identified CDA's, land should be identified and safeguarded to accommodate neighbourhood shops and local services for the new and expanded communities, ideally at an early juncture.

134. The dearth of genuinely local retail provision in some existing developments, or significant delays in its provisioning, is a recurring complaint when house buyer satisfaction surveys are analysed.

135. While recognising that there are invariably commercial considerations to take account of, the council is, nevertheless, keen to encourage developers to identify, safeguard and promote land that is capable of accommodating neighbourhood shops and/or local services, particularly in the CDAs and other larger development sites.

AMENITY AND PRIVACY

136. Amenity and privacy are important *quality of life* factors and it is essential that when planning and designing new residential developments proper and sensitive consideration is given to maintaining access to natural light, outlook and privacy for the occupants of adjoining dwellings and the intended occupants of new dwellings.

Daylight

137. New development should not cause an unacceptable loss of daylight to habitable rooms of existing neighbouring properties and all new dwellings must also receive an adequate amount of daylight. For the purpose of this guidance, habitable rooms are defined as a living room, bedroom and dining room. Non-habitable rooms include bathrooms, utility rooms, staircases, halls, landings, etc.

138. The orientation and position of windows and the location of gardens in relation to a proposed new development are especially important considerations and new dwellings must be designed with this in mind.

139. Technical calculations can be undertaken to determine whether daylighting to existing buildings will be adversely affected, and if there is any suggestion that new housing could cause excessive loss of light or overshadowing of neighbouring properties, applicants may be required to support their proposals. Specific assessment methods are set out in the Building Research Establishment Report *Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice* 2nd edition by P J Littlefair (2011), demonstrating both before and after circumstances in order to ensure acceptable interior and exterior conditions.

Sunlight

140. New development should not cause an unacceptable loss of sunlight to neighbouring properties and their gardens and all new dwellings and their private gardens must also be adequately sunlit.

141. Proposals that would result in the loss of sunlight, leading to overshadowing for a significant part of the day, or which would have a visually intrusive impact, will also not be supported. It is an established planning principle that new development should not *borrow* amenity from adjacent land, and, as a general rule, the greater part of any overshadowing caused by a new building must be confined to the developers own land.

142. New dwellings should be constructed to take advantage of sunlight to provide a pleasant living environment and to maximise solar gain. This can be achieved by positioning main living areas, conservatories and rear gardens to generally face south or south-west where practicable.

143. It is, however, important to note that while housing layouts should be designed to maximise daylight and sunlight to dwellings, this should not be to the exclusion of other considerations such as privacy or the achievement of more intimate and attractive streetscapes. As in all things, it is a matter of achieving the right balance.

Distances between buildings

144. Privacy in the home is a fundamental necessity for most people, particularly as far as the lounge, dining room, kitchen and principal bedrooms are concerned.

145. Although space in new housing developments is often at a premium, individual dwellings must be sited and designed in such a way that provides the maximum amount of privacy for the benefit of occupants, and, at the same time, avoids over-shadowing and minimises the physical dominance of new development over neighbouring dwellings.

146. It is therefore appropriate to prescribe minimum standards controlling the distance between buildings, and the following dimensions will apply for single and two storey buildings:

Front to front distances	Rear to rear distances	Rear to side distances	Front to side distances	Side to side distances
18m	18m	12m	15m	A minimum of 1m either side of the mutual boundary will be expected. If there is a minor window on a gable (serving a hall, stair or landing etc), a minimum of 4m between buildings should be provided.

147. Where the height of a building is greater than two storey, the separation distance between buildings may require to be increased to ensure that daylighting standards are met.

148. Where developments are affected by significant changes of level, developers may be required to submit details of existing and proposed ground and finished floor levels and to demonstrate that reasonable internal privacy can be satisfactorily achieved.

149. Notwithstanding the foregoing, the council recognises that adherence to minimum distances between buildings can discourage innovative design and reinforce the use of standard layouts. Consequently, the council will not ordinarily impose these standards on dwellings which face each other across an adopted residential street and it will be prepared to consider a relaxation of separation distances in circumstances where it is presented with innovative solutions that can be employed to maintain privacy including: varied floor levels; staggered facing windows; using louvers or opaque glazing; and high/low level and shaped windows. It does however reserve the right to rely on these standards should proposals prove otherwise unsatisfactory.

Distances to boundaries

150. New buildings close to plot boundaries, particularly flats, can also be intrusive when seen from existing gardens or from within existing dwellings. The following minimum dimensions will therefore apply, measured from the nearest point of the rear elevation of the development to the nearest boundary:

Single and two storey	Three storey	Four storey	Five storey	Greater than five storey
9m	11m	13m	15m	Development above five storeys will be judged on its merits but the distance shall not ordinarily be less than 15m.

151. These dimensions may similarly be relaxed, but again, only where it can be satisfactorily demonstrated that residential and environmental amenity will not suffer for either the new or existing buildings. The council reserves the right to rely on these standards should proposals prove otherwise unsatisfactory.

152. In order to avoid town cramming and the terracing effect of dwellings being sited too close together, a minimum distance of 1m should ordinarily be provided between the dwelling and the boundary.

Distances between windows

153. New dwellings must also be sensitively positioned to ensure that windows in principal elevations, above ground floor level, do not directly overlook neighbouring property.

154. In general, a minimum 18m privacy zone should be maintained between windows of habitable rooms that are directly opposite each other. However, the council encourages imaginative design solutions and in doing so may accept the need for a flexible approach to privacy distances between new dwellings within a development site where a satisfactory design solution has been employed to retain privacy and protect existing residents' amenity: If buildings are separated by a public road, the above standards may also be relaxed.

155. The council may also choose to apply the above standards more flexibly, depending on the context of the site e.g. in conservation areas where back-to-back distances are characteristically less than those detailed above. It does however reserve the right to rely on these standards should the proposals prove otherwise unsatisfactory.

156. Where windows are at an angle to each other, the minimum distance can be reduced in accordance with the following table:

		Angle (in degrees) at window of building to be erected not more than									
		90	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**	**0**
Degree of angle at window of any other building not more than	**90**	18	18	18	18	13	9	6	4	3	2
	80	18	18	18	13	9	6	4	3	2	
	70	18	18	13	9	6	4	3	2		
	60	18	13	9	6	4	3	2			
	50	13	9	6	4	3	2				
	40	9	6	4	3	2					
	30	6	4	3	2						
	20	4	3	2							
	10	3	2								
	0	2									

Note:

1. Angle means the horizontal angle between:
   - the shortest line joining any part of one window opening to any of the other
   - the vertical pane of the opening window
2. Distances shall be interpreted for intermediate angles;

Internal floorspace

157. Internal space provision is routinely criticised by occupiers responding to consumer surveys of new housing developments and it has been shown that the UK has by far the smallest newly built dwellings and average room sizes in Western Europe.

158. Adequate space in and around new houses and flats is important and in order to protect the amenity and well-being of the occupants, each dwelling should be adequate for the family or household which is likely to occupy it. New housing is expected to be big enough to meet the needs of the occupants for living, cooking, dining, sleeping, washing and storage of household items with convenient access to adequate residential amenity space.

159. Developers are encouraged to provide more generously proportioned houses which will also allow them to be adapted to meet the changing needs of families over time and considerably extending their useful life and contribute to sustainability.

Other amenity/privacy considerations

160. The council will seek to guide new residential development to the most appropriate locations where external/environmental noise should not be an issue, and this subject matter is specifically addressed in a later section (Noise).

161. However noise -(or unwanted sound as it is best defined) that can be transmitted between residential properties, particularly flats and semi-detached dwellings, is a well documented source of irritation and stress that can have a significant and detrimental effect on the quality of life enjoyed by people in their homes.

162. Party walls and floors must therefore be adequately sound insulated as part of the standard build specification to ensure acoustic separation between dwellings, and while the Scottish Building Standards identify minimum statutory requirements in this respect, the council encourages developers to consider adopting higher standards.

163. The design and internal layout of new houses and flats should also be conceived to minimize problems such as noise, fumes and vibration from adjacent roads and activities that can spoil the enjoyment and privacy of dwellings and their gardens.

GARDENS AND PRIVATE OPEN SPACE

164. Gardens are an essential part of the amenities of any residential development and it is important that all detached, semi-detached and terraced houses are provided with an enclosed private garden.

165. Gardens should satisfactorily reflect the type of dwelling proposed, the size of plot and the general character of the area in which the development is located. They should be functional and capable of providing adequate private space, not overlooked by others, suitable for sitting out, accommodating children's play, the drying of laundry, the storage of household refuse and also have some capacity for facilitating an extension of the property at a future date. While few **gardens** are completely flat they should for the most part be level and not exceed a 1 in 12 slope with any retaining walls being capable of accommodating lateral loading.

166. For the purpose of this guidance, usable private garden ground is defined as being land that is under the exclusive control of the applicant and within the curtilage of the dwelling. It should only include ground that has been adequately screened, usually to the rear and side of the property, and driveways and vehicle hard standings should be excluded from the calculation.

167. The council will not require developers to apply uniform standard garden sizes across an entire residential development since it is recognised that a degree of flexibility is necessary in order to facilitate varied and more interesting layouts. Nevertheless, the following guidelines are provided as indicators of average minimum standards and these will be used by the council when assessing the general appropriateness of garden provision within a development.

All houses with five and more bedrooms	not less than 100m^2
Three and four bedroomed detached and semi-detached houses	not less than 80m^2
Two bedroomed detached and semi-detached houses	not less than 60m^2
Terraced houses	not less than 50m^2

168. All of these figures exclude any garage area and assume a minimum rear depth of 9m. This should allow for a drying area and play/amenity space. Furthermore, proposals that arithmetically achieve the specified area of private garden ground, but only by aggregating an assortment of irregular pieces of land, i.e. narrow strips or verges to the side of the dwelling or ground which is significantly sloping, will not be deemed acceptable.

169. Dwellings specifically designed for single people or for the elderly may justify moderately less garden ground and will be considered as an exception on a case by case basis. Provision may also be relaxed in conservation areas and other situations where, for townscape reasons, less onerous requirements can be satisfactorily justified.

170. Proposals for sites that cannot provide adequate private garden space or would result in over intensive residential use will not be supported.

171. While occupiers of flatted developments generally do not seek or expect the same level of garden amenity space as house dwellers they should ideally still have access to amenity open space, particularly as there are often many families with young children living in flatted accommodation.

OPEN SPACE

172. High quality open space is an essential component of any new housing development. Not only does it make a significant contribution to its physical character, establishing the setting

of new homes and enhancing visual amenity, it can also help to introduce life and vibrancy into communities, provide opportunities for recreation and contribute to a sustainable natural environment. It must however be considered from the outset as part of the overall design and layout of a new development and most definitely **not as an afterthought**.

173. Provision of public realm/ high quality open space is considered to be an integral part of creating a good quality development environment, and the consequent land requirements or financial implications that this implies should be fully taken into account by developers when carrying out site appraisals. It is reasonable to expect that new developments will meet the open space needs generated by their development, with public open space provided or paid for by the developer and this should be recognised as a development cost by the industry and reflected in the price paid for land.

174. It is the council's objective to encourage the provision and enhancement of high quality open space through the planning system, recognising that there is a need to ensure there is adequate provision of open space for recreational and for amenity purpose to serve new residential developments and that those areas are properly managed and maintained post establishment.

175. National policy guidance on open space and recreational facilities is contained in SPP and Planning Advice Note (PAN) 65, *Planning and Open Space*.

176. SPP 2014 encourages planning authorities and developers to identify opportunities to create and enhance green networks between open spaces as an integral part of the overall development proposals and presents an opportunity to further the goals of the CSGN discussed earlier.

177. PAN 65 identifies a typology of open space and suggests different approaches to assessing future requirements depending on the type of open space. The *Local Development Plan* is consistent with this approach in so far as it acknowledges that open space provision will vary depending on local circumstances, including proximity of existing provision.

178. It is also important that proper arrangements are in place for the long term management of any proposed open space, landscaping and other common facilities.

179. Open space in new residential areas essentially comprises three elements:

- Gardens and private open space;
- Active open space (including informal play/ recreational space, equipped play areas and sports pitches); and
- Passive open space (including amenity greenspace / landscaped areas providing visual or separating different buildings or land uses, green corridors and areas of undeveloped or previously developed land with residual natural habitats).

180. Garden provision has already been addressed. This section of the guide is dedicated to the remaining elements.

Active open space

181. Until quite recently in Scotland, it had been difficult to gauge what levels of open space provision were required, particularly in new developments, and due in part to the absence of a nationally recognised set of standards for open space.

182. In common with many other local authorities, West Lothian Council has adhered to a mechanism loosely based on The Six Acre Standard, a publication from the National Playing Field Association (now Fields in Trust) and latterly re-issued under the new name Guidance for Outdoor Sport and Play. There is guidance specifically for Scotland and which now recognises issues associated with the type and quality of provision.

183. In 2016 the Scottish Government also added a new National Indicator to its Performance Framework: "Improve access to local greenspace" and this has provided a more responsive tool which can be used to help identify the effectiveness of provision. The indicator measures the proportion of adults who perceive that they live within a five minute walk of their local greenspace (e.g. park, wood, countryside etc) and is sourced from the Scottish Household Survey. The indicator recognises the substantial environmental, health, social and community impacts of access to greenspace and also notes that those living in the least deprived areas are more likely to have easy access to greenspace than those in the most deprived. Having established what the percentage is, the challenge is to at least sustain but ideally increase it. Further information can be obtained from the Scottish Government's website.

184. Active open space requirements for new residential development have traditionally been predicated on the number of new houses to be built, and this alone has dictated the level of open space provision developers have been required to make on a particular site. However, it has been observed that adherence to this basic formulaic approach has often resulted in only low level local provision being achieved, typically an equipped play space for younger children. For the most part, it has failed to deliver quality open spaces, such as game playing areas, places where people can simply get out of doors, relax, walk the dog and meet one another or public parks.

185. The main flaw identified with the previous approach is that it has not taken sufficient account of local circumstances and has not been designed to remedy deficiencies identified in a particular settlement or neighbourhood.

186. It is also recognised that residents are not, in the main, overly keen to have active open space, especially play space, located in close proximity to their homes (for fear of nuisance) and they often feel aggrieved that the facilities which have been provided are used or frequented by children from outwith the new development and who are (wrongly) considered not entitled to use them. On occasion this has resulted in conflict between residents and third parties.

187. Taking account of all these factors, the council has reconsidered what should be provided by developers in terms of active open space and how it should be paid for and maintained.

188. It has adopted a significantly different approach, one which has been deliberately conceived to be more responsive to local needs and more holistic in nature. It is explicitly aligned with the council's *Open Space Strategy,* a strategy that provides the framework for forward planning to cater for the needs of the population as a whole through a system of public parks, amenity open spaces and sports pitches / facilities.

189. The council has developed a detailed understanding of open space on a settlement by settlement basis, and this resource has been used to inform this approach. It has enabled the council to identify areas where open spaces are in good supply, where they are needed and where the quality of the open spaces offered could be improved.

190. At its heart is the recognition that new residential development imposes greater pressure and burdens on whatever open space provision there may already be in the locality of the development site, in addition to generating its own requirement.

191. This approach is, therefore, primarily designed to re-provide what is being diminished and to enhance, augment and make the most of existing open spaces and play facilities for the benefit of both new and established communities wherever this is possible.

192. For provision to be effective, it needs to be based on an appraisal of what is actually required in a geographical area and not just meeting an arbitrary threshold, as the previous strategy has done. There is an overwhelming need to see *the bigger picture* and to move away from providing random, disconnected facilities on a piecemeal basis.

193. With few exceptions, most of the towns and villages in West Lothian already have established areas of active open space and play facilities which serve these communities and it is recognised that they have the potential of also serving new residential developments within the identified catchment areas of the community.

194. Currently, however, these sites tend to be under-specified and may be unable to cope with the increased usage that new development would place on them without investment and refurbishment to bring them up to current standards.

195. There is a realisation that it is not always necessary, or best, for open spaces to be provided within new developments. Some developments are too small and some areas are already well served by good quality open spaces. In these circumstances open space contributions could be best directed to established facilities and the wider Green Network which will come under greater use as a result of new residential development. For the most part, the council would rather see new development contributing to the improvement in quality of existing open space than the provision of new areas.

196. It makes more sense to invest in the sites and facilities which already exist rather than unnecessarily replicate them. Crucially, this also means that a more modest capital investment is ultimately required to realise the creation of the more difficult to achieve areas of open space, such as neighbourhood parks. By rationalising, consolidating and growing the provision of active open space in this manner there are significant efficiency and benefits to be had, and in the present challenging economic climate it behoves all parties to maximise benefits and minimise costs.

197. Importantly, it provides a new level of certainty for developers. It enables them to establish the likely contributions they will be required to make at an early stage in the development process, and by making over a pre-determined sum of money they will derive benefit from being relieved of the inconvenience and expense of having to engage design professionals, procure play equipment from suppliers and secure insurance liability. Factoring and/or maintenance arrangements can also be significantly reduced. At the same time, the occupants of the new houses will have less burdens and responsibility for the facilities usually present within a new development.

198. From a practical point of view, it resolves the conflict of interests which can arise when trying to identify appropriate locations for play facilities that are sufficiently close to houses but not so close as to give rise to nuisance. This has been a particularly difficult issue for residents, developers and council officials alike as alluded to earlier.

199. It also means that developments can be laid out more efficiently as a consequence of not having to always accommodate active open space and play facilities on site and this holds out the prospect of being able to facilitate a modest increase in the number of dwellings, which in some instances could more than offset the required financial contributions.

200. For the council, this approach is consistent with its declared vision of providing for high quality open spaces that contribute to the quality of life and quality of environment and which help to support economic prosperity, sustainable communities, and the delivery of Best Value for all and it goes a long way towards achieving the key aims of the *Open Space Strategy*. It also resonates with, and helps to secure, the outcomes of the CSGN.

201. Open space within new developments should not be viewed in complete isolation. Of just as much importance are the connections between open spaces as these can enhance the opportunities for biodiversity and access to the wider open space network. Where possible, so called *green corridors* should be used to connect the open spaces and the countryside beyond.

202. There have always been costs associated with the provision of open space and play facilities and the development industry is accustomed to dealing with such matters when carrying out site appraisals and by reflecting development costs in the price paid for the land. It is suggested that these new arrangements are taken account of in much the same way.

General provision

203. Developers will be required to address active open space as follows:

- There will be an initial presumption in favour of trying to satisfy active open space requirements (including play space) associated with a proposed residential development through the upgrading of any existing facilities in the immediate locality, i.e. *off site*. The council's *Open Space Strategy* will be used to identify where off-site open space provision is more appropriate and the areas where financial contributions towards off-site provision will be invested.
- This will, however, always be dependent on the site specific requirements of the proposal being able to be satisfactorily met in this manner, with particular regard to the distance and accessibility of the existing facilities which are to be upgraded and invested in. The council's *Open Space Strategy* assumes 0.5 km as being the maximum walking distance to play facilities and a local park and 1 km to a neighbourhood park. Where this is not practicable or desirable, the council reserves the right to require on site provision at a level to be determined on a case by case basis and in consultation with the council's NETs, Land and Countryside Services Manager and will be intimated to developers at the earliest opportunity. Developers will, of course, have to make their own arrangements for maintenance and will thereafter be responsible for their assets.
- It is also envisaged that there may occasionally be instances where there are compelling reasons to satisfy open space provision on site. Such a scenario could arise, for example, when significant parts of a site are physically or uneconomically developable for housing but might otherwise satisfactorily function as open space. In these clearly defined circumstances the council may, on request, be prepared to waive the applicable standard financial contributions that would ordinarily have been payable, accepting a reduced payment of £800 per dwelling in situations where only off site play provision was to be provided for (this figure will be subject to periodic review).
- There may also be situations where it is desirable, perhaps for design associated reasons, to have some element of open space provided on site, but with the balance of provision being met by investment in off site facilities. In these circumstances, the standard financial contribution payable by developers would be proportionately reduced / discounted to recognise these arrangements.
- Except in areas where there is an identified surplus of active open space (deemed by the council to satisfy the requirements of a new development), or in the previously identified CDAs where other specific provisions apply, the default position is that developers of **all** new residential developments (comprising + 10 dwellings) are required to make a financial payment to the council in accordance with the tariff set out in the financial contributions table.
- For the avoidance of doubt, payments are required to be made in respect of **houses and flats**. Furthermore, payments will apply equally to social housing developments and residential developments undertaken by or on behalf of the council.

204. Woodlands and structural landscaping on the periphery or within housing sites has its own particular function and this will **not** be embraced by the aforementioned payments. Developers will continue to be required to make on site provision where appropriate and put in place an acceptable maintenance regime.

Financial contributions

205. An original base tariff of £1,500 was established in 2012 and it was advised that this would be updated in successive years by being linked to the Building Tender Price Index (using third quarter 2012 as the base date). This iteration of the Residential Development Guide takes the opportunity to apply the indexing to the tariff with the resultant charges detailed in the table below. Going forward, this will be updated by being linked to the Building Tender Price Index (using the second quarter 2016 as the base date). Developers are nevertheless still advised to seek confirmation of the current tariff in force before embarking on projects.

SIZE OF DWELLING (house or flat)	PERCENTAGE OF THE FULL TARIFF	CONTRIBUTION
One bedroom	20%	£390
Two or three bedrooms	100%	£1,955
Four or more bed rooms	120%	£2,345

206. Payments will ordinarily be secured by a planning agreement, concluded between the council and the developer before the release of a planning permission. However, subject to discussion, the council may agree to a less formal arrangement for the collection of payments.

207. Circular 3/2012, published in December 2012, sets out circumstances where a planning agreement can be used and the required tests are; necessity/planning purpose/ relationship to proposed development/scale and kind and reasonableness. The council is satisfied that the use of a planning agreement, to secure a legitimate development cost, is appropriate and therefore justified in these circumstances.

208. The council may decide to accumulate payments in a dedicated account, effectively pooling contributions from a number of developments, and it is therefore possible that implementation of works may be deferred until such time as the necessary scale of funding has been secured to meet the costs of a comprehensive and worthwhile programme of works.

209. It will be at the discretion of the council how payments are to be used, and in particular, which existing facilities are to be invested in and over what period of time. These decisions will be arrived at in consultation with the NETs, Land and Countryside Services Manager and will be determined after an analysis of current open space provision in the locality has been undertaken by the council.

210. In some circumstances, the council may choose to consult with local communities about where and how investment should be made but payments must, in any event, be meaningfully related and give some benefit to the development sites which are the source of funding the works.

211. If there are no appropriate open spaces within the minimum walking distances then the contributions will either be put towards: the creation of a new open space as close to the development site as is practicable; or improving the quality of open space as close to the development site as is practicable. Alternatively, where the new development is in an urban fringe location, investment may be directed towards landscape and access improvement opportunities which contribute towards the CSGN.

212. In the event that the council is not able to spend developer contributions appropriately within ten years of receiving them, developers will be entitled, on written request, to have them repaid, plus any accrued interest at the lowest bank rate.

Open space in the previously established Core Development Areas

213. The provision of active open space in relation to new residential development in the Core Development Areas (CDAs) located at Armadale, Livingston and Almond Valley and Winchburgh / East Broxburn require a different approach since there is, by and large, insufficient existing provision to build upon and augment.

214. Within the CDAs the opportunity exists, and the council will demand, that strategic open space be identified and provided for by developers at the outset through the master planning process. This plan will need to show how the various elements of open space are to be met (including details of phasing). The aim is to ensure adequate and coherent provision of open space for the site as a whole.

215. Thereafter, the responsibility for ongoing maintenance, whether it falls jointly to a consortium or separately to each builder, will require to be clearly established and secured by a legal agreement between the developer and the council.

216. In addition to conventional open space provision, new strategic residential developments and those within the previously identified CDAs may also be required to provide for indoor and outdoor sports facilities over and above the open space requirements already described. Such provision should in any event be in accordance with the approved strategies of the council, specifically the *West Lothian Sports and Recreation Facilities Strategy* and the *West Lothian Outdoor Facilities Strategy*. All new or upgraded pitch and pavilion developments should also meet Sportscotland and the relevant sports governing body recommendations applicable at the time. The council will advise developers on a site by site basis of any specific requirements for indoor and outdoor sports facilities in the course of pre-application discussions.

Passive open space

217. Without exception, passive open space, circulation space and landscaping must be an integral part of the detailed layout of **all** new residential developments. Developments should have large accessible greenspaces that provide recreation opportunities for a broad range of people. The land around and between buildings must be thoughtfully designed and laid out from the outset and always to the highest standard. It must not simply be an amalgam of *left over* spaces after the planning process has been concluded.

218. The extent of passive open space and landscaping will largely be dependent upon the size of the development and will be assessed on a site by site basis. It is however important that there is sufficient provision to avoid developments being overly dominated by roads and buildings and any suggestion of *cramming* will be vigorously resisted.

219. Such spaces ideally lend themselves to being used for informal or passive recreation, for example walking, cycling, jogging, dog exercising and many other outdoor activities, and they can take up minimal areas of land which often have no overt commercial value to developers.

220. They can also be linked together by *green corridors* which function as safe, convenient and alternative off-road access to shops, schools, places of employment and leisure facilities. They can encompass foot and cycle paths and at the same time provide habitats for wildlife, all of which contributes to biodiversity and the overall visual amenity of the development. Passive open spaces present the opportunity to enhance and extend local biodiversity. They should be exploited to create new habitats and improve the ecological connectivity between sites wherever practicable.

221. In order to make best us of passive open spaces and *green corridors*, it is important that residents and the local community are aware of their existence and this calls for the provision of strategically placed and appropriate signage.

222. The council will proactively encourage and support the development of a green network of connected open spaces, helping to integrate and connect new housing with other facilities, and with access routes to the wider countryside wherever practicable.

223. Where larger residential sites that are to be compartmentalised/phased and developed by either a consortium or single developer, applicants will be required to satisfy these standards within the context of the comprehensive masterplan for the development approved by the council and to comply with the terms of any agreement or condition.

Maintenance of incidental open space and landscaped areas

224. It is important that binding and enduring arrangements for the maintenance of amenity and incidental open space and landscaped areas are secured in relation to all new residential developments. Full consideration should be given to the sustainable management of passive open spaces and they must be safeguarded for the longer term. Future maintenance and durability should be factored into their design.

225. A detailed plan showing private and common areas and a copy of the maintenance agreement should, ideally, be provided as part of the planning application submission, clearly setting out the responsibilities of the property owners and any factor or other parties involved. In any event, development will not be permitted to commence until maintenance arrangements have been approved by the council.

226. It should be appreciated that this is a particularly sensitive issue. It routinely provokes a disproportionately high level of response and complaint each time the council has surveyed homeowners as part of it's Customer Excellence initiatives and it is therefore important that house purchasers (and their legal advisers) are made fully aware of the arrangements for the management and maintenance of common areas which have been put in place before a property is sold.

227. A study undertaken by the Scottish Government (and the Office of Fair Trading) concluded that householders do not always understand their rights and obligations, and do not have a clear understanding of the standards they can expect from a property manager. Developers can help by ensuring that this information is pro-actively communicated to prospective customers.

228. There are several mechanisms for providing for the long-term management and maintenance of open space and landscaped areas in new developments.

229. The council continues to offer developers (and formally constituted residents groups) an open space adoption service where aspects of the management and maintenance of communal open space are vested in the council on receipt of a commuted sum, currently equivalent to thirty times the annual maintenance costs plus compounded interest. Further information on adoption procedures is available from the council's NETs, Land and Countryside Services.

230. Alternatively, common ownership by homeowners of open space (who may manage the areas directly or appoint a third party to do so) and transferring ownership to a third party such as a commercial land management company or environmental trust are legitimate options.

231. As indicated above, passing responsibility for areas of shelter belt and woodland to homeowners through title conditions is not acceptable. These areas must be transferred to the council or a competent organisation approved by the council.

232. The council will secure appropriate arrangements by planning conditions.

LANDSCAPE DESIGN

233. Well designed and executed landscape areas help define the different function of spaces and routes throughout a development and are an integral component, essential to enhance it's overall appearance.

234. The retention of worthwhile existing features, particularly those that contribute to the natural biodiversity of an area, can help a new development to fit more comfortably with its surroundings and give it a more mature feel. The addition of new landscaping can also enhance the quality (and value) of the development.

235. A comprehensive landscaping scheme must be prepared for all new residential developments, unless otherwise agreed. Furthermore, landscape proposals must be conceived as an integral part of the initial design process and not as an afterthought or as a means of simply filling left over spaces.

236. A survey of the site should form the basis for the layout of the proposed development. Designers should make the most of the existing vegetation, forms of enclosure and views, and relate the development to the site by preserving trees and hedges which are worthy of retention and avoid the destruction of natural features and habitats.

237. Proposals should have particular regard to:

- ***topography*** - ground levels, slopes;
- ***drainage*** - ponds, ditches, wet areas; natural or artificial, and opportunities for integrating SUDs;
- ***soil analysis*** - clay, sand or loam; acid or calcareous;
- ***vegetation*** - the height, species, crown spread and condition of trees, shrubs and hedges on or adjacent to the site. These should be accurately plotted, including overhanging trees from adjacent sites;
- ***weed eradication*** – Section 14 of the Wildlife and Natural Environment (Scotland) Act 2011 clarifies responsibilities for the control of non native species such as Giant Hogweed and Japanese Knotweed.
- ***wildlife interest/nature conservation*** - the presence of any protected species ascertained and opportunities to create new wildlife habitats and promote biodiversity maximised;
- ***boundary analysis*** - walls and fences indicating materials and building styles
- ***existing underground and overhead services*** - public sewers, electricity, gas and water supply;
- ***statutory and non statutory designations*** - for example the Aviation Safeguarding Zone around Edinburgh Airport and how this may affect the choice of plant species and the inclusion of open water bodies;
- ***site features*** - including buildings, steps and paths (particularly public footpaths and other rights of way) observed and provided for;

- ***views*** - good and poor views within the site, views from the site outwards and from outside viewpoints such as from roads and properties into the site;
- ***climatic conditions*** - prevailing winds, sheltered, sunny or shaded areas; and the potential for using structural landscaping to modify the microclimate;
- ***the Central Scotland Green Network (CSGN)*** and how the particular site fits with the strategic vision of this initiative;
- ***Scottish Government's guidance*** entitled *Green Infrastructure: Design and Placemaking* which builds on *Designing Streets* and promotes a sustainable and environmentally friendly approach to land development, growth management and built infrastructure planning.

238. It is also important that adequate provision is made for landscape works in development budgets. All too often landscaping is regarded as an optional add-on and it is frequently the first casualty of cost cutting. This is not acceptable.

239. The council encourages the submission of landscape proposals as part of the initial planning application or shortly thereafter. In any event, conditions will ordinarily be imposed which will require landscape proposals to be implemented within a specific timescale and these conditions will be rigorously monitored and enforced.

240. Landscape proposals should be prepared by an experienced landscape specialist, preferably an accredited member of a recognised professional body. It is also recommended that their commission be extended to the supervision of the landscape works on site to ensure full compliance with the approved landscape plan. There is little point in producing a high quality scheme if it is not competently executed and maintained.

241. Landscape proposals should comply with BS 4428:1989 *Code of practice for general landscape* operations (excluding hard surfaces) or any future equivalent standard. Attention is also drawn to the guidance issued by the council with planning permissions in the form of *Landscape Specifications*.

TREES

242. Trees play a crucial role in landscape design and contribute to the sustainability and the place-making of an urban development. They can give a unique sense of attractiveness and maturity to an area, provide a setting for new buildings, help define open spaces, create enclosure and enhance privacy between properties and other land uses.

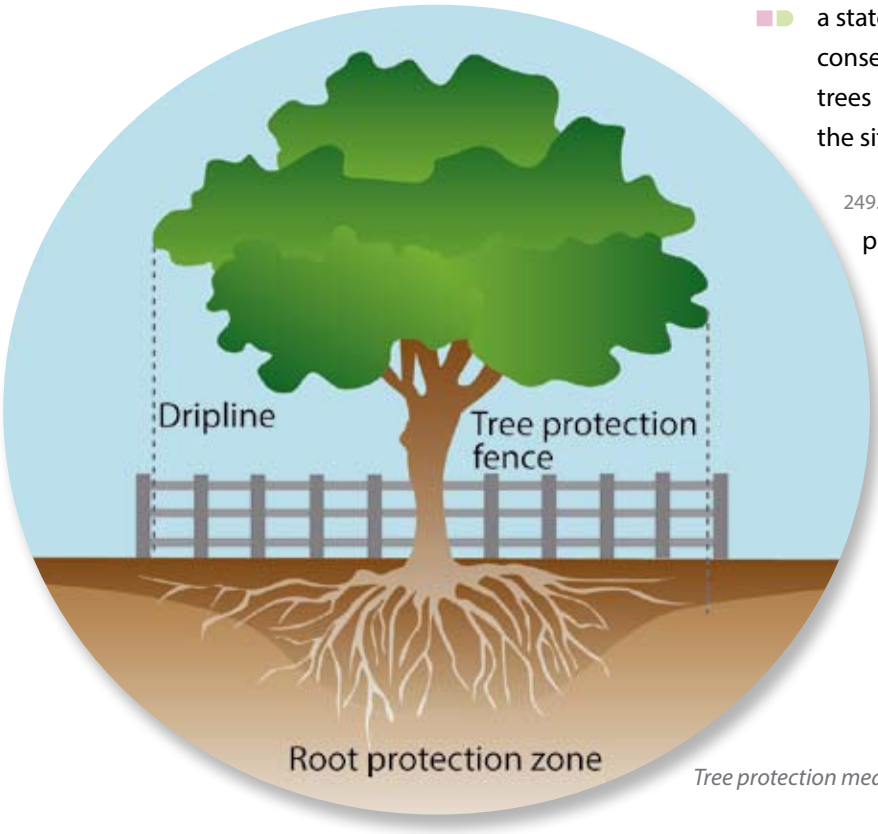
243. Trees also play a role in absorbing CO_2, thereby contributing to local air quality, and they help to reduce water run-off by absorbing significant quantities of rainwater through leaves and roots. They provide a cooling effect and shade in summer and deciduous trees contribute to the maintenance and intensification of biodiversity by providing a habitat for birds, bats, invertebrates and flora.

Retention and protection of existing trees

244. The council has a statutory obligation to ensure that adequate provision is made for the protection of existing trees and the planting of new trees.

245. Trees which are in good condition and a feature of the site, the street scene or the surrounding landscape should, therefore, be retained unless there is a substantiated risk to public safety which cannot reasonably be reduced by judicious surgery or intervention.

246. Trees are sensitive living organisms that are easily damaged or destroyed and it is therefore essential for their wellbeing that they are protected throughout the construction phase and often beyond the completion of a development. Ground levels below the spread of the branches should not be altered and tree roots should not be cut. Protective fencing should be erected (and maintained in situ), and warning signs posted which prohibit vehicle parking and the stock piling of soil, fuel or building materials within the crown spread.



Tree protection measures

247. Where trees are present on a development site, and/or on an adjacent site, and have the potential to be affected by the proposed development, developers will be required to survey these trees and to provide a detailed arboriculturist report and risk assessment.

248. The submission should include the following:

- a scaled plan showing the crown spread of all existing trees and hedges within or adjacent to the site. (They should be separately identified from proposed planting).
- a tree schedule listing all essential tree data, including genus, species, vigour, age, safe useful life expectancy, height, stem diameter, crown spread and status;
- a brief description and evaluation of the health and condition of the trees;
- a detailed risk assessment for all trees/ woodlands (premised on the proposed development taking place);
- a statement confirming the amenity and conservation value and overall condition of trees or woodlands within and/or adjacent to the site.

249. Arboricultural reports should be prepared by a qualified arboriculturalist or forester familiar with current arboricultural practices.

250. All tree related works should comply with BS 3998:2010 *Tree Work - Recommendations* or any future equivalent standard.

New planting

251. All but the smallest and most restricted of developments will be expected to incorporate proposals for the planting of new trees. Schemes should be designed for a hierarchy of different types of planting including avenue planting, boundary planting, open space planting and small garden trees, but should, ultimately, be appropriate to the scale and character of the specific development site.

252. While there may be a temptation to plant larger trees (in order to create a more instant effect) it is generally acknowledged that younger nursery stock actually transplant better and will often develop faster.

253. On the whole, there should be a predominance of British native or naturalized tree species for structure planting. Trees and planting along the site boundaries should also aim to provide all year coverage, incorporating a mixture of evergreen and deciduous species.

254. It is important that all new trees, shrubs and other plant material are from a reputable source, have a high quality specification, that good working practice for the storage and transportation of plants are observed and that heavy vehicles, materials and storage areas are kept off land to be planted.

255. To ensure that contractors conform to correct soil handling, and to avoid compaction, it is recommended that works accord with NBS (National Building Specification) Sections D20 and Q28 which specifically deal with soil handling. If the soil is very compact, subsoil ripping may be required as well as surface cultivation.

256. Drainage and ventilation details should be included for standard tree pits (and for all larger trees). This can include a ventilation/drainage pipe and/or an aggregate layer at the base.

257. The duration of after-care must be incorporated into all landscape schemes. After-care is essential until such time as the tree or trees can survive without protection, support, weed control or artificial irrigation.

258. Particular care should be taken where trees and buildings will be in close proximity to each other. And where shrinkable clay soil is prevalent, as it is in much of West Lothian, the choice and position of trees needs to be given even more detailed attention as it can lead to subsidence issues in drought conditions. In all cases it is prudent to consult a qualified expert so that appropriate provision can be made, but as a general guide, the following distances are indicative of likely minimum requirements:

Species	Distance from house
Oak	18m
Elm	19m
Hawthorn	12m
Ash	10m
Birch	4m
Maple	9m to 12m
Popular	20m
Willow	18m
Cyprus	2.5m
Horse Chestnut	15m
Beech	9m
Plane	10m

259. ***NB:*** *These distances ONLY apply to shrinkable clay soil.*

260. The ultimate height and spread and the effects of shading will, of course, influence the choice of species and location.

261. Where more substantive areas of structure planting are required, for example, on sites which are close to the edge of settlements, it should be noted that the minimum width of a new woodland shelter belt should be at least 20m in order to provide long term landscape value and a viable habitat. Climax species, field woodland and forest trees should be planted in the centre of shelterbelts with smaller trees and hedge shrubs defining the transition zone at the edge. Woodland planting also needs to be selectively thinned and managed as it matures and satisfactory arrangements for the longer term maintenance of trees, planting and other landscaped areas must, in all circumstances, be considered and costed from the outset. Where appropriate, planning conditions will be used to secure this.

262. When selecting the location for trees and shrubs, developers are reminded of the need to ensure that they do not conflict, or have the potential to conflict, with underground services, particularly sewers and sustainable urban drainage systems (SUDs). Detailed guidance on minimum planting distances can be found in the Scottish Water document *Sewers for Scotland 3*.

263. Forethought is also required to avoiding creating the conditions which may have adverse consequences for neighbouring occupants at a later date and which would perhaps necessitate remedial action under the High Hedges (Scotland) Act 2013.

CAR PARKING STANDARDS

264. An increasingly observed problem with residential developments is cars parked on verges, on pavements and on streets that are not designed to accommodate them. This gives rise to safety issues for both pedestrians and road users, impedes vehicular access for emergency vehicles and bin lorries and generally presents a cluttered and untidy streetscene.

265. Despite aspirations for more sustainable development and reduced car usage, the inescapable fact is that car ownership continues to increase and the problems identified above will prevail unless appropriate measures are taken when designing new developments to ensure that adequate parking provision is made for both residents and visitors. The goal is to generate parking levels that are high enough to meet the needs whilst low enough to make the most efficient use of development land and avoid the creation of car-dominated environments.

266. The council has responded to this problem by overhauling residential parking standards and new development should be in accordance with these, as appropriate.

267. Developers of major developments, particularly those with high accessibility to local facilities and rail services, are encouraged to consider the establishment of Car Clubs, in association with one of the national operators. This has the potential to significantly lower individual parking requirements, perhaps creating an opportunity for some additional houses, while almost certainly encouraging and giving rise to more healthy and carbon-reduced lifestyles.

Class 9 – houses				
Land use	**Vehicle maximum**		**Disabled persons parking spaces minimum**	**Cycle minimum**
	***Town centre**	**Elsewhere**		
General housing and housing associations Up to three bedrooms	At least one space per dwelling. In addition 40% of private houses should have a garage or space for one. Also a minimum of 30% visitor parking should be provided	One space per dwelling plus half a space provided communal	N/A	One per dwelling (where residents have access to a garden or garage no provision is necessary)
General housing and housing associations Four or more bedrooms		Two spaces per dwelling plus half a space provided communal	N/A	N/A
Flats, general housing and housing associations Up to three bedrooms	One space per dwelling plus 30% communal for new build. Existing buildings consideration for reduction based on available parking	One space per dwelling plus half a communal space.	N/A	One space per dwelling (where residents have access to a garden or garage no provision is necessary)
Sheltered housing	One space per warden plus one space per five units	One space per warden plus one space per three units	N/A	One space per dwelling (where residents have access to a garden or garage no provision is necessary)
Special needs	One space per warden plus 1.25 space per unit	One space per warden plus 1.25 space per unit	N/A	N/A
Student accommodation	One space per warden plus one space per five beds	One space per warden plus one space per five beds	N/A	One space per six staff / students
Multiple occupancies	0.5 space per bedroom	One space per bedroom	N/A	One space per dwelling (where residents have access to a garden or garage no provision is necessary)

*Town centre – the parking standards shown shall be adhered to unless there are particular alternative public transport options allowing a reduced level to be considered.

ACCOMMODATING CAR PARKING

268. The Scottish Government's general planning policy for car parking is set out in Annex B of SPP 2014. This promotes a well intergrated design-led approach to the provision of car parking.

269. The type and location of car parking can have a significant visual impact on the quality of a development. It must be part of an overall car parking strategy and developers will need to balance a number of requirements, including:

- avoiding domination of the *public realm* by cars;
- considering the proportion of allocated and non-allocated parking spaces;
- providing sufficient activity within the street;
- accommodating space for gardens; and
- ensuring an acceptable level of security for vehicles and properties.

270. There is no single best solution to providing car parking and it is anticipated that a range of different parking solutions, both on-street and off-street, will be employed within each development, depending on the context and character of a particular site and balancing the convenience and needs of residents with visual and environmental amenity considerations.

271. Parking within individual curtilages or on-plot, and usually in the form of driveways to the front of houses, is one of the most common solutions employed by developers. It is clearly liked by residents who, understandably, want to park their cars within sight and easy reach, but it is also one of the least flexible solutions as only the occupier can use the spaces and they remain an unused resource if the occupier does not own a car.

272. On-plot parking is least intrusive when integral garages are incorporated into L-shaped house types, where it is located to the side of a house in front of a garage or on a hardstanding behind the main building line where the car is largely hidden, or to the rear of the house as a *drive through* to a hardstanding within the rear garden. It is important, therefore, that not all front gardens are given over wholly to car parking and that these options/variations are considered as a matter of routine. Judicious tree planting and landscaping can of course also help ensure that parking does not overly dominate in these circumstances.

273. Off-street parking provides for a diverse range of layout options for shared parking to be employed and embraces off-street courtyards, rear courtyards and even basement and undercroft parking. However, regardless of what solution is adopted, it is important that parking is integrated within the overall development. It should also be conveniently located where it can be supervised in an area that is well lit and has good natural surveillance from the main elevations of nearby houses.

274. Shared parking areas should typically be small and comprise less than 10 parking spaces. If more spaces are necessary then they should be broken up with appropriate landscaping so that it is not an overly dominant feature of the development.

275. As a general rule, when designing parking for flats, it is necessary to ensure that there are adequate spaces for disabled people close to entrances. It is important to control parking to maintain adequate room for wheelchair users, pushchairs and people with mobility difficulties.

276. Whilst a key principle of designing car parking is to reduce the visual impact of cars, some judiciously located on-street parking can nevertheless make a positive contribution to a development when designed into a layout at the outset. Street based parking solutions tend to cater for different types of users at different times of the day. They are convenient for visitors, as they are usually located near front doors, they can bring activity to the street and can also have a traffic calming effect. They can be counted towards the overall provision required in new developments, both for residents and visitors, but cannot be allocated to individual properties. The downside is that on-street parking can be visually dominant if over used and therefore tends to work better when provided in small groups of not more than five spaces. Trees, planting, extended pavements and street furniture can be used to discourage indiscriminate on-street parking in a subtle yet effective way.

PROVISION OF PARKING BAYS & CHARGING POINTS FOR ULTRA LOW EMISSION VEHICLES (ULEVS) IN NEW RESIDENTIAL DEVELOPMENTS

277. Reducing our carbon emissions and adapting to climate change is a theme which is central to the National Planning Framework (NPF3) and Scottish Planning Policy (SPP). Scotland's Climate Change Plan has also set specific targets for a 66 per cent reduction in carbon emissions by 2032 and highlights vehicle emissions as one of the areas where action should be taken.

278. Contaminated air, much of it derived from traffic emissions, has been identified as the single biggest environmental risk to human health, and as a direct response, the Scottish government has pledged to phase out new petrol and diesel cars and vans across Scotland by 2032, eight years ahead of a target previously announced by the UK Government.

279. Technological advancements have already seen many of the leading vehicle manufacturers introduce plug-in hybrid vehicles and fully electric vehicles to their ranges as an alternative to diesel and petrol engines and many have ambitious plans to significantly increase their production of electric vehicles, some even going as far as announcing their intention to phase out the production of models that rely on the internal combustion engine altogether.

280. While the council recognises that electric or hybrid electric/oil fuel powered vehicles currently only form a small proportion of the total number of vehicles on the road, this is destined to change rapidly and it is therefore important that new residential development being planned for now and which will be delivered in the coming years anticipates and makes practical provision for the consequences of a substantive shift to electric vehicles. The availability of accessible and affordable domestic charging points is key to increasing the uptake of plug-in vehicles and it is significantly cheaper and less disruptive to install ULEV infrastructure during construction than to retrofit later.

281. Specifically, developers should make provision in accordance with the requirements set out in the table below for developments in excess of 10 residential units or a site area of more than 0.5ha.

Provision of Parking Bays & Charging Points for ULEV in New Residential Development
For residential developments of ten or more residential units or a site area of more than 0.5Ha the following will apply;
Off Street
• Where off-street parking is provided, one in every six residential units shall have an active ready to use electric vehicle charging point (7kw) located either in a garage or in close proximity to a dedicated car parking place within the driveway of the property. For all other residential units with off-street parking, passive provision (cabling and individual fuse boxes provided) shall be provided to enable easy conversion to an active charging point should demand manifest itself.
On Street
• For on-street parking, one in every six spaces shall have a fully connected, active and ready to use electric vehicle charging point (slow 7kw). Electric vehicle parking spaces should be counted as part of the overall car parking provision and not in addition to it.
Plans detailing who will be responsible for managing and maintaining charging infrastructure should be submitted with planning applications. Details should include arrangements for managing access to EV charging spaces and arrangements for paying for the electricity used during charging.

282. Given the evolving technologies involved, the onus will be on the developer to provide suitable specifications for the development for approval by the council. Developers may wish to refer to BEAMA's "A guide to electric vehicle infrastructure".

283. Details of electric vehicle charging points must accompany Full and MSC planning applications. Applications for planning permission in principle need only identify a commitment to provide details at the MSC stage. The works shall be implemented in accordance with the approved details prior to first occupation of the relevant house/flat and thereafter retained in accordance with the approved details.

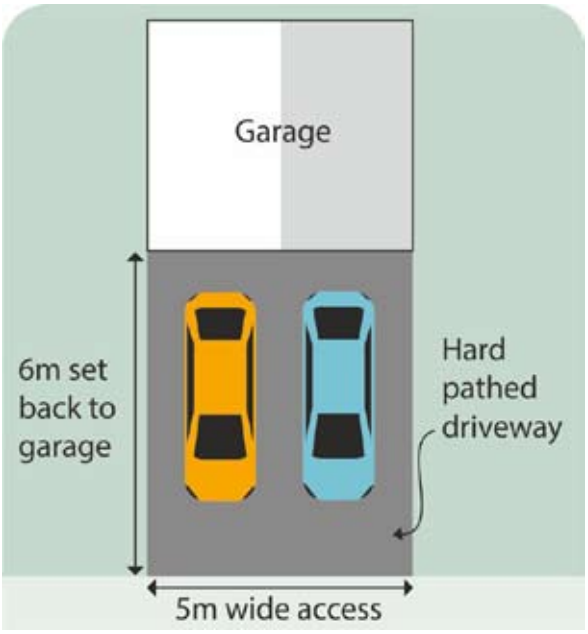
284. Developers must also engage with electricity providers to ensure that the entire electricity supply infrastructure will have sufficient capacity to enable all charge points to operate simultaneously. The developer will be required to meet the cost of any upgrades needed. Large developments with dedicated electricity sub-stations must specify the sub-station to a sufficient capacity to fully cater for all EV charging requirements.

GARAGES

285. In addition to their designed and intended function, it is widely recognised that garages are routinely used for the storage of garden equipment, bicycles and other household items. In some instances cars are permanently displaced and end up being parked on driveways or on the street, the consequence of which is visual clutter and attendant road safety implications. It is therefore sensible to anticipate and provide for this and developers are encouraged to build in some additional storage capacity.

DRIVEWAYS

286. Driveways should be wide enough to allow for the opening of car doors and access to both sides of a parked car and also, on one side, allow for an accessible route to the dwelling. Single driveways should be at least 6 metres in length and with a minimum width of 3.5 metres and clear of any obstruction. Driveways for two vehicles shall be either 6 metres long and 5



metres wide or 12 metres long and 2.5 metres wide except for the length used as a path to the front door where the width shall be 3.5 metres for the driveway.

287. Driveways should be surfaced in porous materials, or constructed in a manner which allows run off to a drain or soakaway. To avoid driveways being too steep and vehicles grounding, the maximum gradient for the first 2.5m of all driveways should not exceed 1:30. The maximum gradient for the remainder of all driveways should not exceed 1:12 if it also functions as an access path.

BUS STOPS AND SHELTERS

288. While there has been significant investment in new rail infrastructure in West Lothian, and several new and refurbished stations have been opened, buses are still likely to be the most common form of public transport available to the residents of new developments and it is therefore important that the experience of using them is made as attractive as possible, particularly if it is going to succeed in encouraging people to reduce their reliance on the private car.

289. In practical terms, developers may be required by planning conditions to specifically provide for bus stops and bus shelters to meet the needs of prospective residents, and it is important that this is taken account of and integrated into the design of streets at an early stage.

290. Where bus stops are required (or re-located) within a development, they should be:

- sited to maximise their walking catchments
- located at natural focal points;
- spaced at around 600 metres to 800 metres apart, taking account of density; and
- located away from the immediate frontages of residential properties.

291. All bus stops should be provided with some form of shelter, which is thoughtfully designed and located to afford protection from the elements and incorporates lighting and some seating. The design must address and be sympathetic to the needs of the disabled, elderly and young children and developers are encouraged to consult with, and seek advice from, the council's Public Transport service and Disability West Lothian. Contact details are at the end of this document.

CYCLING AND WALKING

292. Cycling is a particularly sustainable form of transport. It fits perfectly with a range of national, regional and local policies on transport, health, the environment and CO_2 reduction. Accommodating cycling needn't be onerous or always mean having to provide cycle-specific infrastructure. What is key is that designers need to employ the correct mindset, one which is much bolder than previous approaches, in order to achieve a genuinely cycle/pedestrian-friendly environment.

293. The quality of the streetscape has an immediate impact on people's desire to cycle and walk and new residential development must, therefore, provide an attractive, safe and secure cycling and walking environment.

294. Within new residential developments priority for cyclists and pedestrians should be the norm, this being made obvious to drivers from the design and any necessary signage. Careful consideration should be given to the choice of materials and to detailed design, so as to provide the best possible connections for cycling and walking.

295. It is particularly important to be aware of and to understand cyclist and pedestrian desire lines, taking into account the location of the site, the pattern of existing infrastructure and the location of important destinations such as shops, schools, rail stations, bus routes, leisure facilities etc.

296. It is essential that connections are provided to such facilities and it is equally important that they are direct and convenient, as well as safe and welcoming. Cycling and pedestrian routes may often be located along residential roads (also providing natural surveillance) where these are direct, but with path links to provide direct access to facilities where motorised traffic takes a more circuitous route. Where road crossings are required, toucan and/or pedestrian only crossings may have to be provided, as appropriate to the location, with consideration given to cyclist/pedestrian priority at such crossings.

297. Consideration should also be given to the likely routes away from a development, particularly where this can create opportunities to enhance the green network. Encouraging residents to use the green network for short journeys rather than using cars, helps reduce emissions and promotes more healthier and active lifestyles. Footpath and cycle networks, and greened transport corridors can make a significant contribution towards delivering the CSGN.

298. *Designing Streets* and *Creating Places* are the key design policy statements for Scotland. *Designing Streets*, in particular, acknowledges that walking and cycling are important modes of travel, and although somewhat neglected in the past, must be given primacy when designing new residential development.

CYCLE STORAGE AND CYCLE PARKING

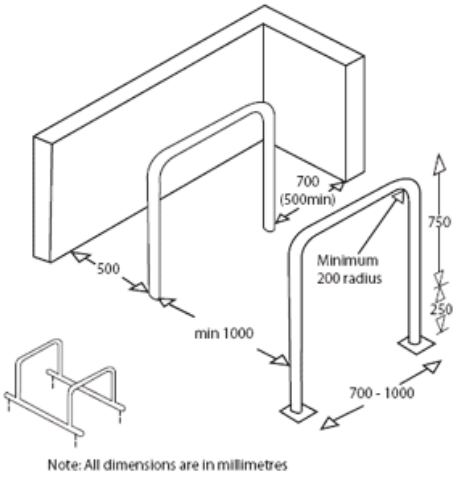
299. Providing safe and convenient cycle storage space, particularly for flats, is important. Small halls and flats up stairs cause real problems for those wishing to cycle and deter those who might otherwise use a bicycle as a means of transport.

300. New residential developments should therefore provide either a space inside a block of flats to secure bikes or provide separate cycle stores elsewhere within the development. When provided separately, cycle storage should be located close to building entrances to enhance convenience and security for users and be covered, secure and well lit.

301. Short-term cycle parking, particularly for visitors, is also important when planning new developments and appropriate provision should be made which should similarly be secure and enclosed.

302. Where bike storage is being provided (whether within or outwith the residential building, it is important that developers put in place adequate management arrangements to ensure security and the ongoing maintenance of the facility.

303. *Cycle by Design* is published by Transport Scotland for use by practitioners throughout Scotland and provides useful and detailed guidance.



Note: All dimensions are in millimetres

The *Sheffield Stand* provides good support to the cycle and allows the cyclist to secure both the frame and wheels without risk of damage.

PUBLIC RIGHTS OF WAY

304. In almost all situations, public rights of way must be incorporated into new housing developments. Where this is not feasible, permission for any diversion shall be sought from the council with the diversion following, as close as possible, the line of the existing right of way. All related costs associated with diversion and re-establishment (physical, administrative and legal) will require to be borne by the developer.

305. New development should also have regard to the council's Core Paths Plan. This is an important document for anyone involved in access issues as it outlines the importance of access, its protection, management and the potential improvement to urban and rural paths across West Lothian.

TRANSPORT ASSESSMENTS (TA)

306. Applications which are expected to have a significant transport impact must be accompanied by a Transport Assessment. In the majority of cases this will be largely dependant upon the scale of the impact of the proposals and is therefore more likely to be required for larger developments. Nevertheless, the need for a Transport Assessment and it's scoping should be agreed with the council's Roads and Transportation Manager as part of the pre-application process. Issues relative to public transport, pedestrian movement, cycling and private vehicles should be addressed by a TA and should take full cogniscance of the transport related element of this guide.

QUALITY AUDITS (QA)

307. *Designing Streets* seeks to promote innovative design solutions and encourages developers to *think out of the box*. As a consequence, many tried and tested road engineering standards which have been applied in the past, and which are proven to work from a technical / safety standpoint, may increasingly become redundant as new proposals are brought forward.

308. While the council is always open and receptive to new solutions, it does nevertheless have a responsibility to ensure that they are both functional and safe, and to this end *Designing Streets* introduces the process of a Quality Audit.

309. A Quality Audit draws together assessments by various professionals and by grouping the assessments together, any potential compromises in the design should become evident.

310. Where required, a Quality Audit must be integral to the design and implementation of a development. A typical audit may include some of the following assessments but the content will invariably depend on the type of scheme and the objective which the scheme is seeking to meet:

- an audit of visual quality;
- a review of how the street will be used by the community;
- a road safety audit;
- an inclusive access audit;
- a walking audit; and
- a cycling audit.

311. It is therefore important that Quality Audits are scoped and agreed with the council's Transport Manager and Development Management Manager as part of the pre-application discussion process.

ROAD SAFETY AUDITS (RSA)

312. The purpose of the RSA is to identify potential road safety problems. Road Safety Audits can be a key component within an overall Quality Audit but may also be required as a stand alone submission.

313. The Roads and Transportation Manager will advise developers on a case by case basis whether a particular proposal will require to be supported by a RSA and, as always, pre-application discussion is encouraged.

ROAD CONSTRUCTION CONSENT (RCC)

314. At the time of publication of this SG, the *Roads (Scotland) Act 1984* is the primary legislation for new roads, and all new roads must receive RCC under Section 21 of that act prior to construction.

315. *Designing Streets* promotes an integrated approach to approval, involving collaboration between planning officers and road engineers. Ideally, discussions should take place as early as possible - even before a layout is worked up or a planning application submitted.

TRAVEL PLANNING

316. The council is committed to the active promotion of sustainable development and transport is a key factor affecting sustainability. Travel planning can help to mitigate the adverse effects of less sustainable travel through the promotion of better use of the most sustainable modes of transport.

317. Developers will be rquired to submit travel plans to support their applications and the council will explore innovative ways in which a travel co-ordination service should be delivered, which could involve developers carrying out their own monitoring and submitting the results to the council.

318. Residential developers may also be required to produce a *Sustainable Travel Information Pack* (IP) to be provided in each new home. The contents of the pack will be site specific and should be integrated with wider information on local amenities and services. The pack is to be produced by the developer and will require council approval as part of planning consent. The council will specify the requirements for the contents of the pack on a case-by-case basis, but generally, it should include information on the location of local services and amenities and provide information of the options for travel to and from the development. The TC will work closely with developers to provide advice on the content of the IP. Developers will be required to regularly monitor and revise the IP.

319. The council's *Active Travel Plan* identifies considerations to be taken into account within new development.

TECHNICAL GUIDANCE FOR STREETS

320. As previously indicated, detailed technical advice relative to the design and construction of roads for adoption is set out in *Scots National Roads Development Guide* 2014 which is interactive and facilitates access to variation by local authority.

BIODIVERSITY

321. Biodiversity can be defined as the variety of life in an identified area and development can put pressure on the natural environment both directly and indirectly.

322. Conserving biodiversity is not just about protecting rare species and designated nature conservation sites, although these are important. It also encompasses the more common and widespread species and habitats. Biodiversity interest is also not confined to just rural areas - biodiversity is equally important in an urban location and on brownfield sites.

323. The council is committed to conserving and enhancing the biodiversity of West Lothian and existing features of ecological interest should always be retained within a development site and incorporated into open space networks or corridors which can serve a number of functions, such as wildlife corridors and refuges; surface water discharge; shelter belts and for noise and pollution absorption. This will contribute to biodiversity, whilst providing local features of visual interest and will simultaneously advance the aims of the CSGN.

324. The council has a statutory duty under the *Nature Conservation (Scotland) Act 2004* and the *Wildlife and Natural Environment (Scotland) Act 2011* to protect and conserve biodiversity and the *West Lothian Local Biodiversity Action Plan* (2005) identifies particular habitats and species of significance to the local area. Any new development must therefore ensure that any adverse impact on wildlife and habitat resources is minimised.

325. Developers will be required to assess the biodiversity status of sites by undertaking an ecological survey, and the outcomes, which can sometimes have a profound effect on developability and the development programme, should be used to influence the design of the residential development in order to conserve, enhance and create further opportunities for biodiversity.

326. It is important that surveys are carried out at the right time of year when species are more likely to be present on the site and the results should be submitted with the planning application. This requires a significant degree of forward planning and early consultation is therefore encouraged to try and avoid delays. Developers may also be required to liaise with Scottish Natural Heritage (SNH) local area officer or specialist advisors regarding these matters.

327. Applications for planning permission that are submitted without the required supporting ecological information are unlikely to be approved as there would be insufficient information to determine the impact of the proposed development.

328. It is also important to consider any indirect effects on nearby sites since development can have unforseen consequences, particularly on drainage.

329. When giving consideration to the biodiversity of a site, the following general points should be taken into account:

- use specialist input from ecologists, landscape architects, arborists and other appropriately qualified persons;
- ensure that features with established ecological or landscape value are protected throughout site clearance and during the construction phases of development;
- compensate for any loss of biodiversity elsewhere on site or, in some instances, off site if necessary;
- design in new features to enhance biodiversity, for example by using native trees or developing the ecological value of sustainable urban drainage features; and
- put in place mechanisms for positive and sustainable management and aftercare of landscape and ecological resources.

330. There are many ways developers can achieve gains for biodiversity and the *subject policies* relative to Landscape and Natural Heritage and Protected Species in SPP sets out the methods in which biodiversity can be conserved or enhanced through the planning process.

331. Detailed guidance is also available from the council in a separate document entitled *Planning for biodiversity action in West Lothian*.

PROTECTING EXISTING WILDLIFE AND NATURAL HABITATS

332. The enhancement of water courses, rivers, lochs and wetlands habitats and the promotion of natural flood risk management should be an integral part of development proposals. Moving all water bodies towards good ecological status will help protect the wildlife and natural habitats associated with these areas.

333. As West Lothian is part of the Central Scotland Green Network (CSGN), opportunities to contribute to this should be seen as a priority, particularly for large scale developments. Green networks help the delivery of high quality sustainable places and more efficient use of land as well as supporting the long term CSGN concept.

334. Green networks provide opportunities for physical activity and access to the outdoors and increase accessibility within settlements and to the surrounding countryside. The goal should be to link greenspaces, watercourses and waterways in order to provide an enhanced setting for development. In addition to linking people and places, green networks also provide habitat networks for species movement and can all be provided on one site. Local Biodiversity Sites (LBS) are also important contributions to the wider green network and there are approximately 130 in West Lothian, though most are along riparian corridors. Following an audit and field survey by the British Geological Survey, the 50 most important Local Geodiversity Sites (LGS) in West Lothian are identified in the council's draft West Lothian place-based Green Network supplementary guidance.

335. Everyday contact with the natural environment makes an important contribution to quality of life and retaining and creating wildlife features can result in a more attractive and desirable development. They can also benefit the development as they provide interest and help to assimilate into its surroundings.

336. There is a significant amount of legislation protecting wildlife and the natural environment and it is the responsibility of developers to undertake the necessary surveys and investigations before any works commence and to ensure they do not contravene the law.

337. The key legislation is, the *Wildlife & Countryside Act 1981,* the *Nature Conservation (Scotland) Act 2004*, The *Protection of Badgers Act 1992*, the *Protection of Wild Mammals (Scotland) Act 2002* and *The Wildlife and Natural Environment (Scotland) Act 2011*. There are also species protected under the *European Habitats Directive*, such as bats, otters and great crested newts.

338. A summary of the law relating to this subject is set out in the leaflet *Scotland's wildlife: the law and you*. It has been produced by Scottish Nature Heritage (SNH) which is particularly well placed to advise on all matters of this nature and the relevant contact details are provided at the end of this document.

339. It is important to be aware that it is a criminal offence to damage or destroy a breeding site or a resting place of a protected species, punishable by a fine and even imprisonment. If developers are unsure about what protected animal or plant species may be present on or adjacent to a particular site, discussions should be held with the SNH area officer and the council at an early stage so that issues and potential solutions can be discussed.

340. The following general principles should be applied to the protection of wildlife and natural habitats and natural drainage patterns;

- existing features of wildlife value should be retained and enhanced wherever possible;
- development should avoid adverse impacts on protected nature conservation sites such as Sites of Special Scientific Interest (SSSIs), local biodiversity sites and Local Nature Reserves (LNRs), Special Protection Areas (SPAs) and Special Areas of Conservation (SACs);
- development should have regard to any potential impact on protected rare and endangered species (listed in the *UK Biodiversity Action Plan*),
- piping and canalisation of watercourses should be avoided. The preference is for all watercourses to be as natural as possible and improvements such as deculverting and reinstating natural channels will be encouraged;
- during construction, robust physical measures should be taken to isolate habitats within and adjacent to development areas. Where appropriate to do so, the creation of habitat links through and within developments should be provided;
- mechanisms for preventing damage or interruption to natural drainage patterns should be implemented;
- SUDs discharge into woodland should be avoided in order to prevent the destabilisation of trees; and
- existing ground levels adjacent to wildlife habitats should be maintained and undisturbed.

341. Additional guidance is set out in the leaflet *Planning Permission and Wildlife: what you need to know*.

342. The council's draft *West Lothian place-based Green Network supplementary guidance* is also a useful source of information.

SUSTAINABLE HOUSING DEVELOPMENT

343. Land is a valuable commodity and it is important that the most efficient and optimum use is made of it.

344. Sustainable development aims to meet our needs while preserving the environment so that these needs can be met not only in the present, but also for future generations; it is the core principle underpinning planning and the delivery of sustainable homes and places and is arguably one of the most important challenges of our time.

345. The location of new residential development relative to where people are expected to work, and the schools, shopping, leisure and community facilities they will use, is one of the most important factors in ensuring a sustainable and energy minimising development.

346. Without the provision of direct, welcoming and safe cycling and walking routes and easy and convenient accessibility to public transport connecting to these facilities, the sustainability of a development can be fundamentally undermined.

347. Building in a manner to minimise the use of energy and natural resources is a necessity and environmental sustainability should be a fundamental thread that runs throughout all aspects of new residential development.

348. More sustainable dwellings can be achieved by making relatively minor changes and amendments to standard building types which allow sufficient flexibility to adapt to residents' changing needs and circumstances over time. If these are considered and incorporated at the design stage they can often help achieve successful, sustainable development at minimum additional cost.

349. SPP directs that the planning system should promote sustainable development by ensuring that development incorporates design and methods of construction which achieve this goal. There are many practical aspects of the design and planning process that can have a significant impact and which can contribute towards achieving a sustainable residential development.

350. The layout and design of new residential development must support a sustainable environment and should therefore have regard to the following principles of sustainability:

- reduce demand for energy;
- reduce demand for water;
- provide energy in sustainable ways;
- foster and maintain biodiversity;
- treat / attenuate run-off to minimise pollution and the risk of flooding;
- make reducing / recycling waste easy;
- build in accessibility and adaptability;
- make alternative means of transport other than the private car easier to use; and
- use sustainable materials.

351. The *Sustainable Housing Design Guide for Scotland*, first published in 2000 by Communities Scotland (abolished in 2008), is still an invaluable reference. The document remains a comprehensive and user friendly guidance to the incorporation of sustainability principles into developing housing. It is a helpful source of information for housing providers who wish to move toward more sustainable development.

ENERGY EFFICIENCY

352. The planning system, together with the building standards regime, are jointly charged with ensuring that new development minimises the demand for and the consumption of energy.

353. The Climate Change (Scotland) Act directs that local development plans must require all new buildings to be designed to avoid a specified and rising proportion of the projected greenhouse gas emissions from their use through the installation and operation of low and zero carbon generating technologies.

354. The residential sector accounts for 30% of total energy demand and a similar percentage of CO_2 emissions in Scotland and improving residential energy efficiency is, therefore, one of the most cost-effective ways of reducing carbon emissions.

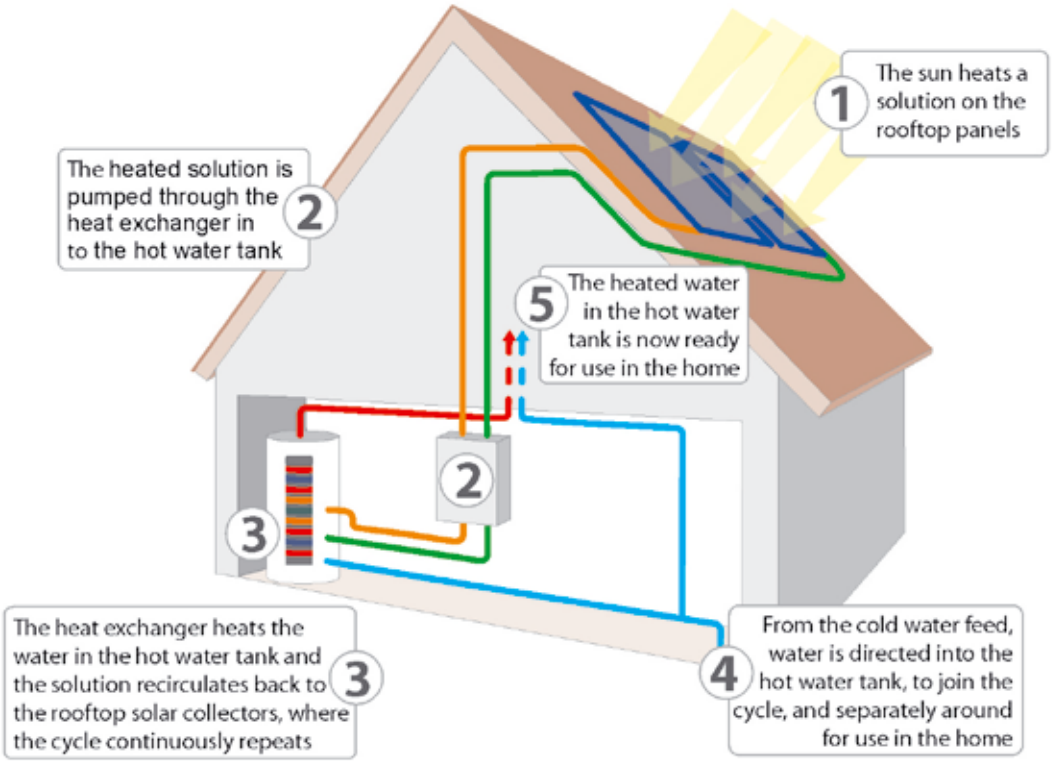
355. Staged improvements in Building Standards towards zero-carbon new buildings have already made a significant impact on emissions from new housing and helped increase energy efficiency, with the majority of this improvement relating to space and water heating. However, it is probable that the EU, UK and Scottish Governments will continue to set challenging targets to reduce energy consumption and carbon emissions and, as a consequence, it is prudent for developers to be ever more ambitious, even to the point of exceeding current targets.

356. The design of new development should, therefore, purposefully minimise carbon and other greenhouse gas emissions and should include features that provide effective adaption to the predicted effects of climate change.

357. There is a wide variety of ways that developers can contribute to improved energy efficiency when bringing forward proposals for new residential development but, as in most other things, it is important that these are taken into account as early as possible in the development process as this provides for a wider range of viable options and the solutions are likely to be more cost effective.

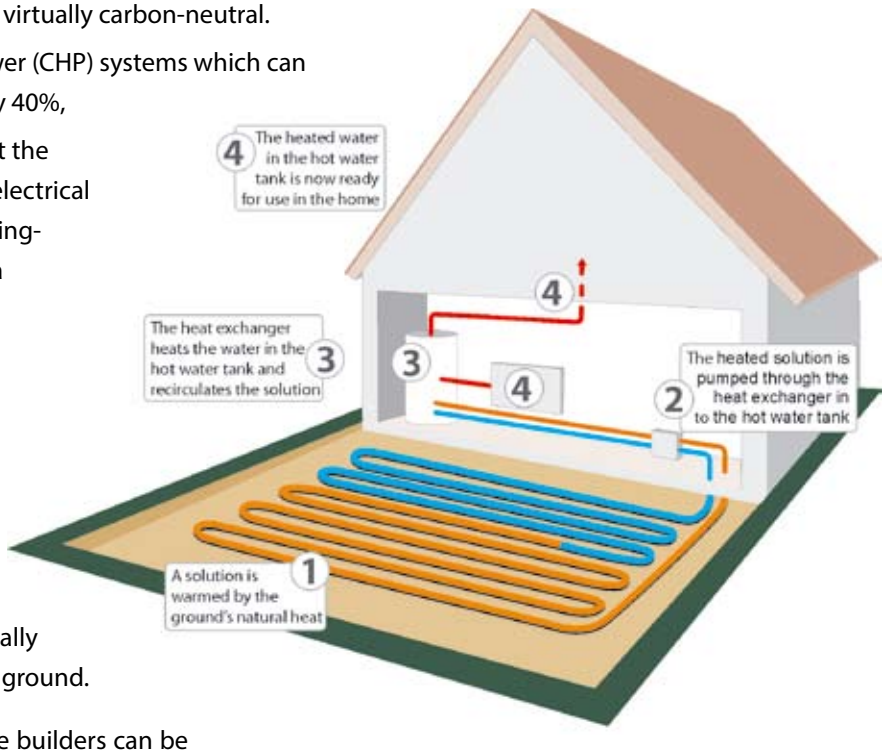
358. These include:

- locating new developments near public transport hubs;
- locating new development within easy walking and cycling distance of shops, schools and other community and leisure and facilities;
- designing layouts which facilitate walking and cycling to the nearest local services and bus stops, thereby reducing the need to use private cars for shorter journeys;
- maximising density where this is appropriate and justified;
- orientating buildings to make the best use of natural energy sources to provide natural light and heat;
- designing habitable rooms with large areas of clear glazing to make the most of the available daylight;
- creating sustainable microclimates, by retaining and using dense tree planting and earth mounding and shelterbelts to minimise wind chill and to reduce potential heat loss to buildings;
- employing building materials which have high value thermal insulation properties which meet or perhaps exceed current standards;
- taking the opportunity to insulate walls, lofts and floors at the construction stage, to build in the benefits of thermal insulation for future occupants ;
- fitting out developments with energy and water efficient appliances;
- incorporating photovoltaic (PV) panels into roof profiles in order to convert solar energy directly into electricity; and
- fitting solar thermal panels onto roofs in order to heat water stored in domestic water cylinders. Solar thermal energy is particularly efficient and can cost a lot less to install than other micro-generation technologies.



359. When planning larger developments, developers should consider the opportunities for decentralised and local renewable or low carbon sources of heat and power. These could include:

- biomass heating systems which use simple and well proven technology to produce energy. Biomass fuels (solid or liquid) are virtually carbon-neutral.
- combined heat and power (CHP) systems which can reduce CO_2 emissions by 40%,
- wind turbines to convert the power in the wind into electrical energy using rotating wing-like blades which drive a generator.
- ground source heat pumps, which work on much the same principle as a refrigerator, but in reverse, and use pipes which are buried in gardens to extract naturally occurring heat from the ground.



360. Specific advice for house builders can be obtained from the **eEnergy Savings Trust** and the **Carbon Trust**.

ADAPTABLE BUILDINGS

361. In the interest of sustainability, buildings and spaces should be sufficiently flexible to respond to changes in the occupants needs, lifestyle and aspirations over time, i.e. people have children, they age and may become less physically mobile.

362. The most important consideration in designing a robust and adaptable home is the area of space it provides and can potentially accommodate in the future. There are also practical construction methods which can also be employed to make the execution of changes that much easier.

363. The Scottish Government Building Standards Division, part of the Built Environment Directorate, has made changes to the Building Regulations to specifically *future proof* dwellings to be more readily altered at a later date.

364. Advanced building technology can also contribute to the environmental performance of a house. In this regard, the council has produced guidance on the subject of digital ducting. It has been approved by the Council Executive and was written for the benefit of developers who wish to consider the laying of digital ducting, for the delivery of digital data services that are fit for purpose for digital service provision now and into the future. This can be viewed online on our supplementary guidance page.

THE WATER ENVIRONMENT

Water management

365. Water is a vital and increasingly scarce resource and the use per person has increased significantly over recent decades, mainly down to the growth in the number of households and greater use of water intensive white goods.

366. By incorporating water conservation measures into new developments, significant savings in water use can be made for the long-term benefit of the environment and with the added bonus of leaving home owners less vulnerable to possible future increases in water charges. Developers are therefore invited to consider:

- installing systems for recycling *greywater* for purposes such as flushing toilets and irrigation that do not require mains supplies;
- providing water efficient showers, toilets, taps and other appliances as standard; and
- providing water butts or community storage facilities to collect rainwater;.

Watercourses and culverting

367. Developers will be required to integrate existing watercourses within a development rather than shutting them out, or worse still, culverting them. Both the council and SEPA have policies which presume against culverting. Culverting watercourses causes loss of important habitats, has a harmful affect on water quality and can increase the risk of flooding.

368. Policy EMG1 of the West Lothian LDP advises that proposals for the culverting of a watercourse will be considered with reference to SEPA's position statement entitled The Culverting of Watercourses: *Responding to Licence applications and planning consultations or other enquiries*.

369. Wherever a culvert exists within an application site boundary the default requirement shall be to re-open it, re-naturalise channels, remove or modify man-made barriers to improve fish passage and sediment transport, incorporate appropriate buffer strips to watercourses and enhance their wildlife and biodiversity value. (Where development sites lie within the Aviation Safeguarding Zone of Edinburgh Airport, it is advisable to seek site specific advice as there may be associated safety implications related to bodies of water and birds).

370. All such proposals must of course include consideration of potential flood risk aspects and any proposals to undertake alterations to, or works on, the bank or bed of the watercourse constitutes an activity which requires to be authorised under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) (CAR). Cumulatively, these restorative measures will assist in delivering improvements to the water environment and accords with the objectives of the Water Framework Directive (WFD). The WFD obliges European Union states to achieve good qualitative and quantitative status of all water bodies and prescribes steps to reach a common goal rather than adopting the more traditional limit value approach. Planning authorities are expected to help to deliver WFD objectives by identifying the water management issues that are relevant to spatial planning - planning policies should influence the design and location of new development to ensure it does not create adverse pressures on the water environment that could compromise WFD objectives and including policies on sustainable water management in their development plans.

371. Developers will be required to install trash screens at the entrance to all culverts on site or on watercourses leading from sites, and additionally, in some circumstances, a security device to deter access. Trash and security screens must be designed in accordance with *Trash and Security Screens: a guide for flood risk management* (2009) which is produced by the Environment Agency in England.

372. Developers will be required to clarify which management agent will be responsible for the maintenance of culverts and screens where these do not form part of the surface water sewer to be maintained by Scottish Water. Passing responsibility to home owners by title conditions is not acceptable.

373. Other water bodies (eg. lochs and wetlands) should also be integrated into new developments.

374. Further advice can be obtained by referring to *Watercourses in the Community* (2010) by the Scottish Environment Protection Agency (SEPA) and *Liquid Assets - making the most of our urban watercourses* (1998) published by the Institute of Civil Engineers.

375. SEPA's Habitat Enhancement Publications

Flooding

376. Flooding (associated with watercourses) is a natural phenomenon, however the effects of a changing climate suggest that development can also be at risk from surface water runoff from higher ground and from limited capacity in traditional drainage systems. In West Lothian, obstruction and a lack of capacity associated with culverts has also been shown to be a significant cause of flooding.

377. As a general rule, the functional flood plains should be safeguarded from built development and/or included as part of the open space provision or green network, and the key principles of integrated drainage should be practiced, i.e.

- increased permeable surfacing;
- dealing with run-off as close to source as possible;
- minimising the amount going to underground drainage;
- maximising opportunities to manage surface water before it enters the sewer; and
- designing for exceedance by ensuring developments have flood plains /safe flow paths

378. The Flood Risk Management (Scotland) Act 2009 has placed new responsibilities on SEPA, Scottish Water and local authorities to reduce overall flood risk and promote sustainable flood risk management.

379. To support the principles of this act, the council has adopted a precautionary approach to managing flood risk through avoidance as a first principle, considering flooding from all sources and working towards sustainable flood management. With predicted climate changes the incidence and extent of flooding is likely to increase in the future and the role of sustainable flood risk management should also be recognised as an important climate change adaption measure.

380. It is the responsibility of developers and the council to ensure that future development is not located on functional flood plains or in areas of significant flood risk. SEPA has produced helpful online advice for developers on the subject of flood risk and the council has produced new supplementary guidance (SG) on *Flooding and Drainage*.

381. The SEPA website hosts the *National Flood Risk Assessment* which displays Local Plan Districts and Potentially Vulnerable Areas. These should be the first point of reference for developers. While the information is not definitive, and does not deal with all types of flooding, it is a very useful initial guide. Additionally, the council holds some of its own information on historical flood events and this data can be shared with developers on request to the Flood Risk Management Team (see useful contacts at the end of document).

382. In accordance with the SEPA/ Planning Authority Protocol, SEPA works with local authorities to access flood risk issues associated with new developments and is a statutory consultee for developments that are likely to result in a material increase in the number of buildings at risk of flooding. The interim protocol can also be viewed on the SEPA website.

383. The SEPA Interim Position Statement on Planning and Flooding sets out more fully its role and policy position on flooding relative to land use planning.

384. It is incumbent upon prospective developers to take flood risk into account before committing themselves to a site or project, to undertake robust flood risk assessment and drainage assessment when required and to implement agreed measures to deal with flood risk.

385. It is also important that developers consult and liaise with the council's Flood Risk Management Team, Development Management, Transportation and Scottish Water.

386. Where a development site is in an area where there is a limited drainage capacity or considered by the council susceptible to flooding, or where the proposals are likely to exacerbate an existing flood risk, developers will be required to assess the risk posed by their development (e.g. possible effect on flood risk elsewhere, and consider the specific risk of flooding to the proposed development over its expected lifetime taking into account the effects of the changing climate). Ordinarily, this will require the commissioning and submission of:

- a drainage assessment in order to evaluate the overall impact of development on land drainage, surface and wastewater networks; and / or
- a flood risk assessment in order to address flood risk to the proposed development from any source and the implications on other areas if the site were to be developed. The FRA should also consider the impact of the proposals on existing watercourses and natural drainage measures (land drains/culverts etc) that drain through the proposed site. These may be unknown but can be affected by the development.

387. As these are highly specialised undertakings they must be carried out by competent hydrological and engineering professionals with demonstrable experience of this type of work and must conform to the requirements set out in the new *Water Assessment and Drainage Assessment Guide published by SUDSWP*.

388. The subject policy relative to planning and flooding in SPP sets out the national context for planning and flooding.

389. The council's supplementary guidance on Flooding and Drainage is a helpful source of information.

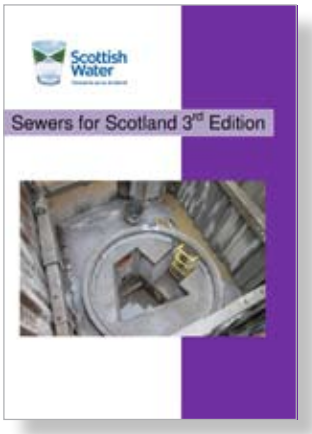
Sustainable Urban Drainage System (SUDs)

390. Development reduces surface permeability by replacing previously vegetated ground with roofs and paved areas and through compaction of other areas by vehicular movements. This reduces the amount of water infiltrating into the ground and increases the speed of surface run-off. Any built-up area therefore needs to be drained to remove the excess water or it will flood.

391. Traditional drainage techniques include the use of underground pipe systems, designed to convey water away as quickly as possible and thus prevent flooding locally. This however has been shown to cause flooding and, in some instances, pollution downstream of urban areas. Legislation has prompted the adoption of more sustainable solutions for dealing with surface water drainage.

392. Sustainable urban drainage systems (SUDs) use techniques to control and manage surface water run-off as close to its sources as possible before entering a watercourse. SUDs can contribute to the recharge of groundwater and, when incorporated into roads design, can reduce pollution.

393. The provision of SUDs, in managing surface water run-off, is a key requirement of nearly all residential development schemes and developers must establish the extent and destination of post-development run-off and provide on site treatment and attenuation proposals acceptable to both the council, SEPA and Scottish Water.



394. Surface water must be drained to a water course, overland discharge area or surface water sewer. Only if this cannot be achieved should permission be sought to attenuate and drain to a combined sewer, but such approval cannot be assumed or guaranteed and will be at the discretion of Scottish Water on a case by case basis. Scottish Water usually insist that run off be attenuated.

395. To be successfully accommodated, SUDs must be considered as early as possible in the site evaluation and design process and not introduced as an afterthought. **The SUDs strategy must inform the layout of a development, not the reverse.**

396. The *SUDS Manual (C753)*, published by the construction industry research and information association (CIRIA), is a highly regarded source of knowledge and guidance and has recently been updated to incorporate the latest technical advice and adaptable processes to assist in the planning, design, construction, management and maintenance of good SUDS. The update has resulted in a change in the way SUDS are designed and takes a more risk-based approach than was previously the case.

397. Table 4.3 of the SUDS Manual sets out the water quality management approach for differing land uses and for most developments there is a "Simple Index Tool" that can be used to select SUDS, the outputs from which should be submitted with any Drainage Assessment to the council and SEPA. Developers may wish to contact SEPA directly to discuss these requirements.

398. Planning applications, whether in principle or detailed, will require to demonstrate how SUDs will be incorporated into development proposals together with the extent of land required.

399. The impact of development on the whole surface water catchment area must be considered, particularly the potential for adverse affects such as flooding or pollution beyond the site.

400. Site layout should seek to minimise impacts on the natural, built and water environment by reducing the quantity and impact of surface water run off, improving its quality and maximising the creation of amenity and habitats.

401. The council promotes the inclusion of SUDS as an integral part of the open space provision within a development. SUDS should be designed to deliver improved water quality, reduce water quantity and improve the amenity and enhance biodiversity, sometimes referred to as the four pillars of sustainable drainage. The ecological value of SUDS is encouraged and should, where possible, include retention and enhancement of natural drainage systems and features.

402. Developers are also encouraged to investigate and incorporate other innovative design features in their layouts. For example, *raingardens* have the ability to make a significant improvement to flood risk and water quality. Raingardens are vegetated features which hold rain or surface water, slowly releasing it, helping to reduce the likelihood or severity of flooding. They can also help to reduce pollution by catching contaminants collected by rainwater and surface run off, before it enters rivers. *The Scottish Green Infrastructure Forum* and the *Central Scotland Green Network Trust* have particularly good guidance and advice on this subject.

403. The council, (specifically Development Management, Roads and Transportation and the Flood Risk Management Team) Scottish Water and SEPA must be consulted on the selection and design of SUDS proposals and conditions will be imposed on planning permission to secure the implementation of the necessary works.

404. Where developers are proposing an open water body for the treatment and attenuation of surface water from the site, attention is drawn to the need for a risk assessment. It is recommended that reference be made to the RoSPA publication *Safety at Inland Water Sites - Operational Guidelines* First edition, 1999 (ISBN No. 1 85088 092 1).

405. New bodies of open water, within the safeguarding zone of Edinburgh airport will be the subject of statutory consultation with BAA as they can potentially create an increased bird strike risk.

406. It is generally expected that surface water drainage systems will be vested in Scottish Water as drainage authority and will, as a consequence, be designed and constructed in accord with their requirements. Information/details should also be submitted on how surface water run-off will be managed during the construction period to ensure constructed SuDS measures will be protected prior to completion of the development.

407. There have been particular difficulties associated with pumping stations provided by developers, but not yet adopted by Scottish Water, which have failed on development sites that are already occupied and in circumstances where the developer may have gone out of business or is financially unable to resource the necessary remedial works. In attempting to address this issue, Development Management will ascertain from Scottish Water whether a pumping station is required for a particular development, and steps will then be taken to ensure that this is explicitly provided for as part of the application for planning permission. Enforcement will however remain the responsibility of Scottish Water.

408. Scottish Water has produced a comprehensive guide for obtaining new water and waste water services.

409. In 2008, the council approved guidance on SUDS and developers are encouraged to familiarise themselves with this. It can be found on our supplementary guidance webpage

410. Further guidance is available in Planning Advice Note (PAN) 79, *Water and Drainage*.

411. Under the *Roads (Scotland) Act 1984*, the council, as roads authority, is responsible for the provision of surface water drainage for adopted public roads. Effective road drainage is fundamental for road safety and to the integrity and structural stability of the road. When considering construction consents, the roads authority will need to be satisfied that sustainable drainage systems satisfy road drainage requirements and will not be too onerous to maintain.

412. A best practice guidance manual entitled *SUDs For Roads* has been produced by industry professionals and academics.

ENVIRONMENTAL CONDITIONS

Ground conditions

413. West Lothian has a history of past coal mining activity and this has left a legacy of potentially suspect ground conditions. It is therefore important that development proposals afford due consideration to the presence of mining hazards, such as entries (shafts and adits) and shallow mine workings.

414. Within known areas of past mining activity, Coal Mining Development Referral Areas (CMDRAs), the council will require planning applications to be accompanied by a coal mining risk assessment, informed by up to date coal mining information for the site, with appropriate remedial measures identified, if necessary to ensure the safety and stability of new development.

415. The council can advise developers if a site lies within a CMDRA, or it can be checked online at http://coal.decc.gov.uk/assets/coal/whatwedo/west_lothian_referral.pdf

416. It is important that a risk assessment is undertaken by an appropriately qualified and competent person who is familiar with ground stability and mining legacy related issues, preferably, an accredited member of a professional institution such as the Geological Society, the Institute of Civil Engineers, the Institution of Mining and Metallurgy or the Royal Institute of Chartered Surveyors.

417. The Coal Authority holds and maintains the national coal mining database and also offers a mining reports service. It can be contacted at http://coal.decc.gov.uk/en/coal/cms/contact/contact.aspx

418. In line with SPP 2014, new development proposals within areas of surface coal resources should explore opportunities for prior extraction of the resource to avoid it being sterilised unnecessarily. Prior extraction of remnant shallow coal can also prove to be a more economically viable method of remediation than ground filling of voids.

Management of soils

419. One of the most recurring complaints from residents concerns poor garden drainage, and these are usually received some time after a development has been completed. These typically cite garden ground as being impermeable and therefore more prone to flooding and becoming waterlogged in the winter months and baked dry in the summer.

420. Research undertaken for the *West Lothian Soil Sustainability Report*, published by the council in 2004, indicated that the majority of soils in West Lothian ranged from boulder clay to sandy loam and that poor natural drainage was to be expected. However the source of complaints, for the most part, was more directly attributable to the mismanagement of soils on development sites. Materials tend to be moved by vehicles and these operate on the subsoil layer, tracking nearly all parts of the site and in all weathers. It is therefore little surprise that compaction ensues.

421. Unfortunately, it has not been unknown for developers to address subsoil compaction by simply over laying the completed ground with topsoil. This is, however, a purely cosmetic exercise. It does not satisfactorily address the problem and is wholly unacceptable.

422. The storage of topsoil and the drainage of "permeable" areas" such as gardens and public open space should be identified and addressed as part of any Drainage Assessment that is submitted as part of a planning application.

423. The report sets out good soil management practices which developers are required to have regard to and which include:

- storing topsoil in accordance with agreed guidelines to maintain its health and vitality and to avoid contamination, it is particularly important that there is no intermixing of subsoil with topsoil;
- minimising the area of disturbance during construction and fencing areas where soils and vegetation are to remain undisturbed; and
- not handling and trafficking soil during periods of wet weather and saturated ground conditions.

424. Additional practical advice for developers is also contained in the *Construction Code of Practice for the Sustainable Use of Soils in Construction Sites*. Produced by the UK Government Department for Environment, Food & Affairs, it is nevertheless equally relevant to developments in Scotland.

425. To ensure that contractors conform to correct soil handling, and to avoid compaction, it is recommended that works accord with NBS (National Building Specification) Sections D20 and Q28 which specifically deal with soil handling.

426. Policy ENV 5 of the *Local Development Plan* requires applications for all greenfield development sites in excess of 1ha to be accompanied by an assessment of soils. A distinct Development Management policy, *The management and after-use of soils on development sites*, consistent with this policy, has also been produced and additionally embraces development on large brownfield sites and other smaller sites.

Contaminated land

427. An increasing number of new dwellings are being constructed on previously developed sites, i.e., on *brownfield* land, and developers need to be aware that such sites are often more prone to contamination and should be prepared to undertake site investigations and any necessary remedial action.

428. Land which is contaminated can render potential development sites incapable of beneficial use unless hazards capable of causing harm to human health or the wider environment are assessed and dealt with. Land may be contaminated by a wide range of substances and materials in the form of solids, liquids or gases and each site will require specific investigation dependent on its former and proposed uses.

429. Ordinarily, there will be a general presumption in favour of proposals for the rehabilitation of derelict and contaminated sites, where there is no significant immediate or long-term threat to local amenity and the environment, and where proposals are consistent with other policies.

430. In 2009, the council approved separate guidance entitled *Development of land potentially affected by contamination* and developers are encouraged to familiarise themselves with this.

431. The guidance sets out what is required from developers as part of the planning process when contamination of land is suspected and should be read very carefully. It includes the stages of site investigation and risk assessment which are needed to determine the nature of the contamination; and the standard of remediation which is required to ensure the land is suitable for the intended use. Residential development as an end use for a contaminated site will, justifiably, require the most rigorous standard of land remediation.

432. Site investigation and contaminated land risk assessment is a complex process and must be undertaken by appropriately qualified and competent individuals. West Lothian Council will only accept site investigation reports that have been carried out in accordance with the relevant British Standards, good practice and current authoritative guidance.

433. Applications for planning permission and building warrants may be refused where the council is not satisfied that the site has been fully characterised, or that appropriate measures are in place to ensure the safe remediation of the site.

434. Further guidance on the development of contaminated land is set out in Scottish Government Planning Advice Note (PAN) 33, *Development of Contaminated Land* and by contacting the council's Contaminated Land Officer whose details are at the end of this document.

Major accident hazard pipelines and potential hazard zones

435. There is a well established network of underground pipelines throughout West Lothian in both urban and rural locations, mainly gas and ethylene and operated by National Grid, BP and ESSAR OIL UK (formerly Shell Oil UK). There are also other locations, mainly industrial, where significant quantities of chemical or potentially hazardous materials are stored.

436. These may not always be obvious and it is therefore extremely important that developers make themselves aware of the existence of such pipelines and installations and how they relate to a potential development site as early as possible.

437. Development Management maintain a record of notified pipeline routes and installations, designated by virtue of the quantities of hazardous substance present, and are also able to advise on the relevant consultation zone details. Where necessary, developers can also be helped with contacting the appropriate operator.

438. Developers may wish to refer to advice on the siting of development in the vicinity of major hazard sites contained in the HSE Document PADHI – HSE's *Land Use Planning Methodology*

439. As local planning authority, the council has a statutory duty to exert control over the kinds of development in the vicinity of these installations, to prevent and limit the consequences of accidents and to maintain appropriate distances between such establishments and residential areas, areas of public use and sensitive environments. Where a proposed development would be near to a major hazard pipeline or installation, the council is required to refer the planning application to the Health and Safety Executive (HSE) and to then have regard to it's response when determining the application.

Air quality

440. Clean air is an essential ingredient of a good quality of life and people have a right to expect that the air they breathe will not harm them.

441. Developers seeking planning permission have a joint responsibility with the council to ensure that appropriate standards of air quality are maintained or improved and consideration should therefore be given to the impact of development on air quality. Developers must, at the very least, be able to demonstrate that their proposals will not give rise to any further deterioration of existing air quality

442. The council's Environmental Health service regularly reviews and assesses air quality throughout West Lothian to determine whether or not the air quality objectives are likely to be achieved. Air quality data, together with details of air quality management areas and the most up to date 2016 Air Quality Progress Report can be accessed from the Air pollution webpage.

443. Planning applications in respect of proposals that are considered to impact on or be affected by air quality issues will be required to be supported by a statement indicating:

- the change in air quality resulting from the proposed development; and
- what actions have been considered to reduce the impact of the proposal on air quality.

444. In some instances the council's Environmental Health service may require air quality monitoring to be undertaken and/or the commissioning of an Air Quality Impact Assessment in support of a planning application. Where this is the case it is important that such works are undertaken by appropriately qualified and competent individuals. Conditions may subsequently be imposed on the grant of a planning permission requiring air quality monitoring apparatus to be installed for a specified period of time and the costs of this shall be borne by the developer. In circumstances where the council has already established a monitoring presence, developer contributions may instead be acceptable.

445. Planning Advice Note (PAN) 51, *Planning, Environmental Protection and Regulation is a useful source of information and should be read in conjunction with the council's (draft) supplementary guidance on the subject of Air Quality.*

446. Developers are also encouraged to consult with the council's Environmental Health and Trading Standards section for specific guidance and advice at the earliest opportunity. Contact details are at the end of this document.

Radon gas

447. Radon is a naturally occurring radioactive gas and is the most common source of public radiation exposure in the UK. Every building contains radon but the levels are usually low. The chances of a higher level depend on the type of ground.

448. Recent mapping information, issued by Public Health England, shows that the main areas with elevated radon are to be found in Aberdeenshire, Highland and Orkney but it has also identified a number of pockets of elevated radon potential in the central belt of Scotland, including parts of West Lothian, which are at risk of exceeding recommended levels. In these locations, additional safeguarding measures will require to be implemented if new development is to take place.

449. The new indicative map of radon in Scotland can be viewed at http://www.ukradon.org.

450. A range of techniques to combat high indoor radon concentrations are available to developers and these are detailed in a report published by the Health Protection Agency entitled An Analysis Of Radon Remediation Methods.

451. The government is also amending building regulations guidance to ensure that all new buildings and new extensions proposed within identified risk areas are constructed with the required radon protection measures.

452. Developers seeking further information and advice should contact Public Health England. Contact details are at the end of this document.

Noise

453. It can be difficult to reconcile housing with other activities which have the potential to generate high levels of noise and all new dwellings must be sensitively located so that they are a satisfactory distance away from major roads and specific land uses such as railways, airports, flight paths, industrial premises, distribution depots, sports facilities, and, increasingly, businesses operating 24 hours or which are part of the so called *night time* economy.

454. Consideration must also be afforded to committed proposals which have planning permission or which benefit from a local plan allocation and which may present a potential noise source in the future.

455. In some instances physical noise mitigating measures may be required to make development proposals acceptable. These measures might require buildings to be screened by landscaped bunds and the use of acoustic fencing and sound insulating materials. For maximum effect, barriers should be as near to the noise source as possible.

456. All housing should be built with acoustic insulation and tested to current Building Standards, but acoustic insulation should not be relied upon as the only means of limiting noise. Internal layouts should also be configured to avoid incompatible room uses and to limit the effect of noise transfer from adjoining or stacked properties. To be effective, such considerations must be taken proper account of at the design stage.

457. Care must however be taken to ensure that the use of noise attenuation measures outlined above, does not result in a development layout which is in direct conflict with good urban design principles.

458. Where mitigation of noise impact is considered necessary and acceptable, the council will impose conditions to achieve the required measures on the planning consent. However, if noise issues cannot be satisfactorily overcome, planning permission may be refused.

459. The council has provided guidance on the subject of *Planning and noise* and developers are encouraged to familiarise themselves with this.

460. The SG takes into account current policy in relation to planning and noise and provides guidance on undertaking noise assessments which may be required in support of a planning application.

461. Where a noise impact assessment is required, it should be scoped and agreed with the council's Environmental Health Manager as part of the pre-application process and must then be undertaken by appropriately qualified and competent individuals, usually a noise consultant. Contact details are at the end of this document.

462. Further guidance is set out in Planning Advice Note 1/2011, *Planning and Noise*.

Light pollution

463. The manner in which residential developments are lit can make a positive contribution to the environment and the following general principles should be taken into consideration in designing lighting within a new development:

- street lighting should be planned as an integral part of the development;
- all public areas should be well lit and street lighting should illuminate both the carriageway and the footway;
- Lighting should be thoughtfully designed to avoid unnecessary clutter and possible problems of light pollution. For sites within the Aviation Safeguarding Zone of Edinburgh Airport, there is an additional safety dimension to consider and site specific advice should be sought from Development Management.
- consideration should be given to attaching lighting units to buildings;
- all pathways and parking areas should be lit for safety; and
- lighting fixtures should be selected for their energy efficiency properties as much as for their design and appearance. They should be strong and durable and easily maintainable.

464. Lighting should generally be in accordance with these building standards: BSEN 13201-2, BSEN 13201-3, and BSEN 13201-4.

465. Light pollution is a *statutory nuisance* under Part III of the *Environmental Protection Act 1990*, as introduced by the *Public Health etc (Scotland) Act 2008*, and Planning Advice Note (PAN) 51, *Planning, Environmental Protection and Regulation* makes it clear that it is the responsibility of planning authorities and the environmental protection bodies to collaborate in the task of protecting the environment, to apply controls so that duplication is minimised and to ensure overlap is avoided whenever possible.

466. The council will therefore seek to prevent statutory nuisances where lighting forms part of a planning application and may seek to regulate lighting as part of planning conditions and obligations.

467. In 2009 the council adopted guidance entitled *Controlling light pollution and reducing lighting energy consumption*. Developers may wish to familiarise themselves with this in the interim until such time as the guidance is replaced.

ENVIRONMENTAL ASSESSMENT

468. Environmental Impact Assessment (EIA) is a tool used to predict the environmental impacts of a project. It presents an opportunity to fully explore the extent of impacts upon the environment, consider where alternative approaches may be more suitable and to consider where appropriate mitigation measures will be required.

469. The *Town and County Planning (Environmental Impact Assessment) (Scotland) Regulations* 2011 require planning applications for a wide range of development projects, mostly of a major scale, to be accompanied by an Environmental Assessment (EA).

470. Some projects (known as Annex 1) must **always** be subject to EIA, while other projects (Annex 2) need only be subject to EIA when they are likely to have significant effects on the environment by virtue of their size or location.

471. As far as residential development is concerned, it is not the type of development embraced by Annex 1. It could however potentially constitute an Annex 2 project under the category of *urban development projects*, if the area of the development site is in excess of 0.5 hectares and where residential development is likely to have significant environmental effects because of factors such as its nature, size or location. In such circumstances, a formal determination of whether or not EIA is required must be sought from the council and this should be done as early as possible.

472. Additional guidance can be found in Planning Advice Note (PAN) 58, *Environmental Impact Assessment*, *The Environmental Impact Assessment (Scotland) Amendment Regulations 2009* and Circular 8/2007 (As Amended): *The Environmental Impact Assessment (Scotland) Regulations 1999*.

CONSTRUCTION WASTE

473. The Scottish Government has adopted Zero Waste as a goal and in 2010 published the *Zero Waste Plan* (ZWP). In accordance with SPP, the goal of Zero Waste means following a *waste hierarchy* (an order of preference) for how waste is dealt with i.e. elimating the unnecessary use of raw materials, then reusing and recycling products with disposal the last option.

474. Site Waste Management Plans (SWMP) can help achieve this objective during the construction and operation of developments. Further advice on the reuse of demolition and excavation materials is available from the Waste and Resources Action Programme. http://www.wrap.org.uk/

475. Additional guidance can also be found at SEPAs webite http://sepa.org.uk/ and at http://www.netregs.org.uk/legislation/scotland-environmental-legislation/current-legislation/waste/

476. The council is obliged to ensure that both the necessary policies and facilities are in place to reduce the amount of waste generated, to increase the amount of re-use and recycling and to encourage householders to engage and participate more effectively.

477. Consistent with this strategic direction, policy MRW 7 of the *Local Development Plan* advises that proposals for new housing must demonstrate to the satisfaction of the council that the generation of waste during the construction period has been minimised and that any residual waste will be managed in a sustainable manner.

478. The best way to tackle the problem of waste during construction is of course for developers to produce less of it. Storing materials correctly and adopting a more rigorous ordering regime in order to minimise waste can all help.

479. Waste from development sites can contain a variety of different materials and if not disposed of properly, there is a risk of pollution. Harmful, even dangerous substances, e.g. asbestos, are sometimes contained in building waste and these need to be removed carefully.

480. Generally, any waste removed from a development site must be deposited either at a site properly licensed by SEPA or at a site for which a relevant exempt activity has been registered.

481. SEPA produces extensive guidance on the subject of waste and waste management.

DOMESTIC HOUSEHOLD WASTE

482. With regard to the necessary provisions for the treatment and disposal of household waste, it is important that developers take cognisance as early as possible of the requirement to provide for dedicated bin storage/recyclable/compostable waste storage space in their developments to accommodate:

- provision within dwellings for facilities to separate and store different types of waste at source;
- provision within the curtilage of dwellings or within the development for composting;
- kerbside collections, including adequate vehicle turning facilities; and
- centralised facilities within the development for the public to deposit materials for recycling and recovery.

483. Bin storage areas should be clearly shown in drawings attached to planning applications. Exact dimensions of bin stores and number of bins per waste stream inside them should be clearly indicated in the legend of those drawings.

484. The council currently operates various multi bin collection systems, depending on the form and geographical location of the residential property, and developers will need to establish at an early stage which arrangement they should be designing for.

485. Developers should be aware that it is council policy that they incur the cost of the appropriate household waste and recycling collection bins (the council will source and supply) as *part of the developer's contributions under section 75* and that this will also be made a condition of any planning permission granted for residential properties.

486. In larger scale residential developments, including those site which form part of the established CDAs, developers will also be required to make opportunities available for recycling facilities such as glass, paper banks and textile banks.

487. As a general rule, bin storage areas should be sensitively designed to minimise their visual impact, covered, secured, and made easily accessible to all residents and collection operatives.

- bin stores should be constructed in brick or timber and should have metal protection plates on the inner walls to prevent damage by bins;
- there must be sufficient room within each bin store to accommodate the bins and to facilitate access and movement (required by residents, factors and waste operatives) without having to move other bins;
- to allow sufficient access/ egress, entry/exit should be a minimum width of 1500 mm;
- bin stores should be constructed to allow bins to be forward facing so they can be identified;
- the maintenance of bin stores should be covered by a factoring arrangement; and
- the surfaces in bin stores must be a paved or hard finished, which must be smooth, where possible, without steps or kerbs with a minimum width of 1.5 metres and clear headroom of 2 metres.

IMPORTANT UPDATE

Please be advised that updated waste and recycling guidance for new development in West Lothian has been introduced since this Residential Development Guide was adopted.

Where the requirements of the waste and recycling guidance does not accord with this supplementary guidance the waste and recycling guidance will prevail.

For convenience the updated waste and recycling guidance has been added to this supplementary guidance as Appendix 6.

It remains important that Waste Services are consulted at an early design stage of a proposal.

*Typical bin dimensions**

	HEIGHT	WIDTH	DEPTH
140 litres	1065 mm	500 mm	570 mm
240 litres	1075 mm	580 mm	725 mm
1100 litres	1450 mm	1380 mm	1075 mm

*Access for service vehicles**

488. Roads should ordinarily be constructed to an adoptable standard and constructed to withstand a gross vehicle weight of 26 tonnes and axle loading of 11.5 tonnes. Manhole covers, gratings etc situated in the road must also be capable of withstanding these loads. Direct vehicle access is required to all locations at all times including phased construction sites;

489. Road widths and turning heads must be able to accommodate waste collection vehicles;

490. If hammerheads and turning circles are required they should be designed to prevent parking from obstructing access to the site.

491. Refuse collection vehicles should not be expected to reverse over any great distances to or from the collection point. The need for reversing should be removed altogether by providing turning facilities.

492. The following dimensions relate to the largest vehicle likely to service waste containers in new developments.

Maximum operating length	12 metres
Maximum width	2.55 metres
Maximum height	4.5 metres
Maximum laden weight	26 tonnes
Turning circle	18 metres

493. ** It should be noted that these specifications are correct at the time of writing. However, they may be subject to change in the future and developers should liaise directly with the Waste Services Manager to establish their current requirements and contact details are provided at the end of this document.*

494. Residents will be required to bring their refuse and recycling containers to their front property boundary, and the design should facilitate this with a view to ameliorating the problems of multiple bins obstructing footways.

495. Where roads are not constructed to an adoptable standard, or where the development includes private accesses or parking courts, it should be noted that the council will only collect bins from the public highway. Satisfactory provision must therefore be made for residents to get the bins to an agreed collection point (in line with previous noted standards re size of store/area and within kerbside collection criteria including distance from kerbside path to vehicle requirements).

496. The distance between individual properties and the bin store requires to be agreed with Waste Management Services in consultation with Environmental Health & Trading Standards.

- dropped kerbs should be provided at the entrance to bin stores to a width of at least 600mm;
- where a communal bin store is to be provided, it should be no more than 10 metres from a dropped kerb and the collection vehicle must also be able to access the dropped kerb where the bins will come off; and
- surfaces should be able to be cleaned without risk of permanent staining.

497. Waste and recycling is a rapidly changing field and the council may over time have additional requirements regarding refuse, green waste and recycling. It is therefore important that Waste Services are consulted at an early design stage of any proposal.

IMPACT OF CONSTRUCTION WORKS

498. Developers will be required to submit a written statement to the council which outlines the measures to be taken to reduce the impact of construction work on the environment and to have it approved by the council prior to starting works on site.

499. In particular, the statement should detail the measures which the developer will take to:

- avoid substances seeping into watercourses;
- avoid noise, vibration and dust nuisance;
- ensure that roads and footpaths in the vicinity of the site are kept debris free;
- ensure that disturbance to existing residents from construction traffic is minimised; and
- ensure that road gulleys remain clean and free from obstruction pre-adoption.

500. Proposed locations for site compounds, soil storage and temporary car parks for contractors and employees must be provided as part of this statement.

501. Developers are reminded that the council has powers under the *Roads (Scotland) Act 1984* to serve notices requiring public roads and footpaths to be kept mud free and vehicle operators and contractors who deposit mud on the road are potentially liable for a range of offences. The council also has powers under the *Environmental Protection Act 1990* to deal with statutory nuisance. SEPA also has powers to deal with developers who pollute watercourses.

502. Developers are required to minimise the occurrence of mud on roads from sites they are developing, in the interests of road safety.

THE HISTORIC ENVIRONMENT

503. While it is only very rarely likely to be the case that significant new residential development will be proposed in locations of a highly sensitive historic nature, for example, within a conservation area or a designed landscape, it is recognised that new development on the periphery of such areas can also have an effect on their character and setting, and also on specific listed buildings and scheduled ancient monuments.

504. In such circumstances, developers are encouraged to have regard to recently published guidance by Historic Environment Scotland entitled *New Design in Historic Settings* which provides a helpful toolkit and design standards for new design in historic places.

PUBLIC ART

505. In order to enhance the new environments being created, developers of larger housing schemes, and certain other significant developments, are required to contribute to public art in one of two ways.

506. Some may commission, implement and own art while others may agree to make a contribution to the council's Public Art Fund. This fund is designed to assist the gathering of smaller contributions from a number of developments over time in order to support the commissioning of projects in the area in which the development is located.

507. The councils Public Art Strategy is set out in supplementary guidance.

508. A statement outlining how the applicant intends to address the requirements for contributions towards public art should accompany any planning application for qualifying developments. Where the developer intends to commission and implement a project rather than make a financial contribution the planning application should include a Public Art Plan.

509. It is important that developers engage in early pre-application discussions with the council Arts Officer so that the requirements for public art can be identified and addressed. Contact details are at the end of this document.

510. Further advice, together with details of the most up to date requirements of the council will be set out in SG Developer contributions towards public art.

DEVELOPER CONTRIBUTIONS

511. Developer contributions enable the council to ensure that developments are properly provided with infrastructure, services and facilities. They enable developments to proceed that might otherwise be refused planning permission.

512. The principle of developers making contributions (financial or in kind) towards the provision of the necessary infrastructure to support their developments is well established, both in law and in practice across the UK.

513. West Lothian Council provides clear and comprehensive guidance for land owners and developers to ensure that they can take the cost of these requirements into account even before engaging in the formal development planning process. Specifically, it has put in place a series of guidance that supports the implementation of the *Local Development Plan*.

514. The guidance will set out developer contribution requirements and/or identify principles that will be adopted by the council in preparing strategies for the provision of new infrastructure and/or facilities that developers will be required to contribute to. The guidance will be a material consideration in the determination of planning applications.

515. No application will be reported to elected members with a favourable recommendation until at least the heads of terms have been agreed in writing with the council on the scale and precise nature of developer contributions necessary.

516. The SGs will be kept under review and it is likely that further SGs will be prepared and adopted in due course. Developers are therefore advised to seek confirmation of the SGs in force before embarking on projects.

517. Guidance can be viewed and downloaded on the Planning Guidance supporting the LDP web page.

518. Developer contributions are most commonly secured through a Section 75 obligation or other legal agreement which will require to be concluded with the council before a planning permission can be released. In some instances the paying over of a cheque or bankers draft may suffice and Development Management officers will be pleased to advise.

519. Circular 3/2012, *Planning Obligations and Good Neighbour Agreements* provides guidance on the circumstances where planning agreements can be used. In general, contributions can only be sought where they are required in order for the development to proceed and where the contribution concerned is related in scale and kind to the proposed development.

520. Other necessary off-site works may be dealt with by the use of suspensive conditions but only where this is deemed to be appropriate.

521. It is extremely important to discuss the likely level of contributions with council officers as early as possible in order that the costs can be built into developers' and landowners' financial appraisals, ideally before any property transactions have been completed.

PLANNING FOR EDUCATION

522. Such is the importance of this issue that it merits being discussed separately from other infrastructure considerations.

523. New residential communities can generate a demand for a significant number of new school places, particularly where families are attracted to the area. In such cases, it is vital to the process of supporting sustainable communities that the planning system facilitates the timely provision of new school buildings and/or school provision.

524. The complexity of the situation in West Lothian, however demands, that Development Management take advice on the education provision implications of each proposal for residential development from Education Planning and no application will be concluded until a rigorous assessment of existing schools capacity and/or the provision of new school facilities allied to the proposed development has been completed.

525. The response of Education and Planning will be informed by school roll projections produced by a forecasting model.

526. In the interests of transparency, this will be explained in greater detail is the SG entitled *Planning and Education*.

527. It is particularly important that developers/landowners engage in early discussions with the council so that education issues can be identified and addressed. Enquiries should, in the first instance, be directed to Development Management staff.

SINGLE PLOT AND SMALL SCALE INFILL RESIDENTIAL DEVELOPMENT IN URBAN AREAS

528. This section of the guidance is specifically related to single plot and small-scale infill residential development in urban areas not exceeding 10 units and is intended to amplify policy HOU 3 of the *Local Development Plan*. This supports infill development within recognised settlement boundaries, subject to specific provisos intended to protect the character of an area and the residential amenity enjoyed by existing residents and others.

529. The guidance applies to situations where it is proposed to develop a small gap site in an existing street frontage, develop land which is situated behind existing properties or sub divide and develop the curtilage of an existing house, either by infilling along a frontage or within areas of rear gardens.

530. The guidance is central to ensuring that only appropriate development is permitted. Proposals that fail to satisfy the requirements of this guidance will not be supported.

531. Infill development sites can range from small sites suitable for only a single house to larger areas with a capacity for several houses and are predominantly within residential areas. They comprise land, often garden ground, but sometimes private open space or redundant commercial premises. Where sites do not have a direct main street frontage they invariably have an independent vehicular access from the side or rear in the form of an un-adopted private driveway or road.

532. Tandem development is a particular form of infill development where a new house is located immediately behind an existing house and shares the same vehicular access. Ordinarily, tandem development will not be supported because of the inherent problems of overlooking, noise disturbance, loss of amenity, cramming and the adverse impact on the general character of an area. Only in exceptional circumstances, and on large, individual plots (in excess of 0.4ha / 1 acre) might it be possible to achieve sufficient separation between houses to overcome the difficulties described above. It is very unlikely that a satisfactory development can be achieved on a site of a lesser size.

533. While this guidance has been written on the assumption that the sites will be developed for housing it does not mean that non-residential uses are necessarily precluded. However, should these be proposed, it will be necessary for applicants to comply with this guidance and to submit additional information to enable a more in depth assessment of other pertinent issues, including noise, odour and traffic generation in order to demonstrate that the proposal will have no significant adverse environmental or amenity impacts on the site or its surroundings.

Infill development and town cramming

534. In the right circumstances infill development can constitute a sustainable and efficient use of land and resources. It can also make a useful contribution to the housing land supply and add to the overall quality of the townscape. This is especially the case where a conscious effort has been made to complement the local area in terms of design, scale, building density and layout so that the new infill development appears to belong and looks as though it had been planned as part of the original area.

535. However, it also has the potential to create problems and, if not dealt with sensitively, can cause a significant loss of amenity to existing properties including erosion of privacy, loss of daylight, overlooking, visual intrusion, noise disturbance, reduced space around buildings, loss of car parking, loss of mature vegetation or landscape screening and can erode the established character of an area.

536. Invariably, there is temptation for developers to try to cram as much development as physically possible onto a site. However in areas of established residential development the council's overriding objective will be to avoid any significant erosion of the local character and the environmental quality, amenity and privacy enjoyed by the people who currently live there and also to secure a satisfactory level of amenity for the future residents of the new property. Experience shows that an overly dense development results in houses with very small rooms, insufficient circulation space and little or no storage capacity. These houses are also often characterised by having irregularly shaped and unacceptably small gardens that lack privacy and function and the overall visual impression is of simply too much built development.

537. While recognising that higher density development may be more acceptable within town centres, it remains the case that infill residential development must not be allowed to contribute to the phenomenon that has come to be known as town cramming and any damage to areas of distinctive townscape character will be vigorously resisted.

538. There is also a danger of piecemeal development occurring where proposals are put forward for land in an individual ownership when a more sensible solution may be to assemble land from a number of adjoining rear gardens to enable a small group of houses to be developed. Where the separation distance prevents any significant overlooking of accommodation or private amenity areas, the amalgamation of plots to form sites large enough to provide two or more houses served by a separate adoptable road or a shared private drive is often a more satisfactory and sustainable means of developing infill sites and the council may resist individual proposals where it is likely to prejudice the potential for the satisfactory development of a larger area.

539. As a consequence, development will only be supported where full account has been taken of the potential effect that it will have on neighbouring properties and on the character of an area and also where the proposal does not prejudice the development potential of any adjacent site. The overarching purpose of this SG is to strike the right ***balance***.

Detailed requirements

Physical relationship and layout

540. The layout, scale and form of any development must be compatible with the established building pattern and the predominant character of the established housing in the area. However, in order to avoid sites being over-developed the following plot ratio standards should be observed:

- for new detached and semi-detached houses, the optimum proportion of garden to building should be 70 : 30; and
- for new terraced houses the minimum proportion of plot area to building footprint should be 60 : 40.

541. Existing garden and boundary walls, hedges and railing fences provide important features in the street scene and have a unifying effect which can contribute greatly to the local environment. These features should be retained and reflected in the design of the new property.

542. New houses should not detract from the individuality of any existing house where their siting contributes to the character of the area. This is particularly important in the case of corner sites. Where these contribute to the character of the area, their openness will be protected by resisting any intrusion into the corner ground.

543. Sites must be sufficiently wide enough to accommodate buildings of an appropriate frontage width and provide adequate visual separation between houses. The width of the building plot and the width of the proposed house should be similar to that prevailing in the immediate street frontage.

544. The height of new buildings should be subordinate to the frontage housing and the general roof form should reflect existing neighbouring houses.

545. The open space between existing houses on a street frontage must be treated sympathetically, and when contemplating infill development in such circumstances, it may require to be retained in whole or in part in order to avoid the creation of a terrace effect.

546. The distance between buildings is an important factor that has consequences for overshadowing, privacy, daylighting and functionality, particularly when developing smaller sites. The following guidance will apply for single and two storey buildings:

Front to front distances	Rear to rear distances	Rear to side distances	Front to side distances	Side to side distances
18m	18m	12m	15m	A minimum of 1m either side of the mutual boundary will be expected. If there is a minor window on a gable (serving a hall, stair or landing etc), a minimum of 4m between buildings should be provided.

547. New development should not cause an unacceptable loss of privacy or daylight to habitable rooms of existing neighbouring properties and all new dwellings must also receive an adequate amount of daylight. For the purpose of this guidance, habitable rooms are defined as a living room, bedroom and dining room. Non-habitable rooms include bathrooms, utility rooms, staircases, halls, landings, etc.

548. Proposals that would result in the loss of sunlight, leading to overshadowing for a significant part of the day or which would have a visually intrusive impact will also not be supported. It is an established planning principle that new development should not borrow amenity from adjacent land and, as a general rule, the greater part of any overshadowing caused by a new building must be confined to the developers own land.

549. The back gardens of single and two storey houses shall be a minimum length of 9m, and in the case of three story houses 11m.These dimensions should be increased where levels change and may only be reduced where it can be demonstrated that residential and environmental amenity will not suffer for either the new or existing buildings.

550. Technical calculations can be undertaken to determine whether daylighting to existing buildings will be adversely affected, and if there is any suggestion that new housing could cause excessive loss of light or overshadowing of neighbouring properties, applicants may be required to support their proposals. Specific assessment methods are set out in the Building Research Establishment Report Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice 2nd edition by P J Littlefair (2011), demonstrating both before and after circumstances in order to ensure acceptable interior and exterior conditions. New houses must be sensitively positioned off common boundaries to ensure that windows in principal elevations, above ground floor level, do not directly neighbouring property.

551. The acceptable minimum distance between windows of habitable rooms that are directly facing each other is 18m. If the windows are at an angle to each other, the minimum distance can be reduced. Room windows should not directly overlook the private areas of a neighbouring garden. The minimum distances do not apply to bathrooms halls and landings. The minimum distances may be relaxed for new ground floor windows where effective permanent screening is employed to protect privacy or prevent overlooking.

		Angle (in degrees) at window of building to be erected not more than									
		90	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**	**0**
Degree of angle at window of any other building not more than	**90**	18	18	18	18	13	9	6	4	3	2
	80	18	18	18	13	9	6	4	3	2	
	70	18	18	13	9	6	4	3	2		
	60	18	13	9	6	4	3	2			
	50	13	9	6	4	3	2				
	40	9	6	4	3	2					
	30	6	4	3	2						
	20	4	3	2							
	10	3	2								
	0	2									

Note: 1. Angle means the horizontal angle between:
- the shortest line joining any part of one window opening to any of the other
- the vertical pane of the opening window

2. Distances shall be interpreted for intermediate angles;

552. Gardens are an essential part of the amenities of any residential development and it is important that all detached, semi-detached and terraced houses are provided with an enclosed private garden.

553. Gardens should satisfactorily reflect the size and type of dwelling proposed, the size of plot and the general character of the area in which the development is located. They should be functional and capable of providing adequate private space, not overlooked by others, suitable for sitting out, accommodating children's play, the drying of laundry, the storage of household refuse and also have some capacity for facilitating an extension of the property at a future date. While few gardens are completely flat they should for the most part be level and not exceed a 1 in 12 slope with any retaining walls being capable of accommodating lateral loading.

554. For the purpose of this guidance, usable private garden ground is defined as being land that is under the exclusive control of the applicant and within the curtilage of the dwelling.

555. It should only include ground that has been adequately screened, usually to the rear and side of the property, and driveways and vehicle hard standings should be excluded from the calculation.

556. The council will not require developers to apply uniform standard garden sizes across an entire residential development since it is recognised that a degree of flexibility is necessary in order to facilitate varied and more interesting layouts. Nevertheless, the following guidelines are provided as indicators of average minimum standards and these will be used by the council when assessing the general appropriateness of garden provision within a development.

All houses with five and more bedrooms	not less than 100m^2
Three and four bedroomed detached and semi-detached houses	not less than 80m^2
Two bedroomed detached and semi-detached houses	not less than 60m^2
Terraced houses	not less than 50m^2

557. All of these figures exclude any garage area and assume a minimum rear depth of 9m. This should allow for a drying area and play/amenity space. Furthermore, proposals that arithmetically achieve the specified area of private garden ground, but only by aggregating an assortment of irregular pieces of land, i.e. narrow strips or verges to the side of the dwelling or ground which is significantly sloping, will not be deemed acceptable.

558. Dwellings specifically designed for single people or for the elderly may justify moderately less garden ground and will be considered as an exception on a case by case basis. Provision may also be relaxed in conservation areas and other situations where, for townscape reasons, less onerous requirements can be satisfactorily justified.

559. Proposals for sites that cannot provide adequate private garden space or would result in over intensive residential use will not be supported.

560. While occupiers of flatted developments generally do not seek or expect the same level of garden amenity space as house dwellers they should ideally still have access to amenity open space, particularly as there are often many families with young children living in flatted accommodation.

561. It is important that a property providing land for infill development is not left without a satisfactory element of garden ground and car parking. The fact that the occupier of an existing house may be prepared to tolerate a lower level of amenity in order to facilitate a development is not sufficient reason to permit it. The planning system operates in the wider public interest and over time, occupancy of property changes and the general level of the quality of the environment must be safeguarded. A satisfactory level of residential amenity is maintained for the occupants of the original property.

Form and materials

562. The scale, height and massing of new houses should reflect and be sympathetic to those around them. A three-storey house, for example, will not generally be accepted in close proximity to an area of single storey properties. Applicants may be required to demonstrate how the scale of proposed development relates to its surroundings.

563. New developments should generally maintain existing site levels and make use of any slope to provide accommodation, e.g., split level rather than large amounts of underbuilding and unsightly blank walls.

564. The design, appearance and the materials of proposed houses should complement the character of the existing built frontage. New buildings should reflect local identity and materials used should have a unifying effect. This does not however necessarily mean 'copying' existing buildings. There is scope and encouragement for exciting and modern design providing the new development employs, in a creative way, design elements that contribute to the identity of the surrounding area.

Parking

565. It is ordinarily the case that a ***minimum*** of one dedicated parking space will be required to serve a new house. (Garages will not be taken into account when assessing the allocation). Only in exceptional circumstances will this be relaxed, for example, in town centres where there is an abundance of unrestricted off street car parking available in close proximity to the development site.

Access

566. Satisfactory vehicular and pedestrian access to the site must be achieved without having an adverse effect on the amenity of existing and proposed residents and road safety. Developments comprising up to four houses can usually be served by one private shared driveway (where two units are served off both sides of a shared driveway). The use of a previously single access point for an increased number of houses can however create traffic hazards for both vehicles and pedestrians and proposals that cannot incorporate any necessary improvements will not be supported.

567. Where there is no existing vehicular access to a site the demolition of an existing house or part of a house to create an access will not ordinarily be supported, particularly if it creates an unattractive breach in a consistent street frontage, or impacts in a detrimental way upon a conservation area.

568. The length of the vehicular access must not exceed 45m and should be at least 3.5m wide. If the development is to share an access with a non-residential use a greater width will be required.

569. A turning space should be provided either as part of the access road or on the plot it serves. Adequate visibility splays should be provided for the safety of both vehicles and pedestrians.

570. An inclusive design approach is required to incorporate access facilities for disabled people in compliance with the Disability Discrimination Act 1995.

571. When an access may be acceptable on grounds of flow, safety and other traffic criteria it may be refused if it would have an adverse impact and cause significant nuisance to neighbouring properties, e.g. too close or too noisy through serving a number of houses.

Refuse disposal

572. Contributions will be sought from developers for the provision of household waste and recycling bins. This will be determined as part of the planning application process and will be secured by planning conditions and/or developer contributions by Planning Obligations consistent with Circular 3/2012 Planning Obligations and Good Neighbour Agreements.

NB: household waste bins will be specified and supplied at cost to developers by West Lothian Council to ensure they are compliant with the council's current requirements.

573. Developers should be aware that it is council policy that they incur the cost of the appropriate household waste and recycling collection bins (the council will source and supply) as part of the developer's contributions under section 75 and that this will also be made a condition of any planning permission granted for residential properties.

Services

574. In particular, detailed arrangements for the supply of water and the treatment of foul and surface water drainage require to be agreed in consultation with SEPA and Scottish Water at an early stage in the design process. Occasionally, there may also be a requirement for the council's Flood Risk Management Team and Roads and Transportation Manager to be consulted.

575. Developers should be aware that SEPA will require drainage proposals for all new developments to comply with the Water Environment (Controlled Activities) (Scotland) Regulations 2005. Furthermore, foul discharges which are not connecting to a Scottish Water sewage network will require SEPA authorisation and surface water drainage will be required not to result in pollution of the water environment. Information on flooding and SUDs can be found on SEPA's website.

576. Developers are also encouraged to have regard to the council's guidance on flooding and drainage.

Boundary treatments

577. The choice of boundary treatments must be appropriate and sympathetic to their function. For example they:

- help to define space;
- provide security;
- create a link between the buildings and landscape;
- provide a barrier between private and public uses; and
- influence the microclimate depending upon the type of treatment.

578. Attractive walls and railings at site entrances and within estates at key locations will be encouraged while long sections of unrelieved garden fencing in prominent locations should be avoided.

579. In developments with grass service strips, fencing or other physical boundary treatments should be avoided. Developers are required to make it clear and un-ambigious in the title deeds that service strips are in the ownership of the property owners and that owners are responsible for their maintenance.

580. Rear gardens at corner plots and those alongside link footpaths are particularly conspicuous and should be screened by walls, rather than timber fencing or open railings.

581. To add interest, colour and variety to a residential development, hedge planting may substitute for fencing. However fast growing conifers will not ordinarily be permitted. Beech or hawthorn hedging forms more attractive and manageable boundary screening.

Landscaping

582. Significant, existing landscape features should be retained, particularly along property boundaries or where they have high public amenity value or help maintain privacy. Plots should therefore be sized in order to accommodate this.

583. Landscaping should be used to help integrate new development and proposals should be formulated as an integral part of the design process rather than as an afterthought. It is therefore preferable if landscape proposals are submitted with the planning application.

584. Landscape details should include a full planting schedule showing levels, service runs, lighting and drainage. Schemes should specify plant species, planting times, ground preparation and protection measures to ensure the establishment of new plants during their first five years. New planting should take account of local vegetation and provide a strong link between the new development and its surroundings.

585. Choose the right plant for the right place - select appropriate species for the location, confirming that the ultimate height and spread of plants aren't going to cause problems, such as obstructing paths, when fully grown.

586. With the exception of single house plots, arrangements for the future maintenance of all landscaping should be submitted with the planning applications.

587. In assessing any application, regard will be afforded to the value of any trees on site, the impact of the development on these trees and proposals for replacement trees on and around the site. Ordinarily, existing healthy trees should be protected and retained. In the interests of residential amenity, where the site layout accommodates the trees in rear gardens of new houses, the building should normally be sited at least 11.5m beyond the crown spread of the established tree. This distance may be reduced to 6m for front garden areas and 2m in the case of flank walls. Similarly it is advised that new trees are carefully sited and appropriate species chosen to avoid these types of problem and developers are advised to ensure that works comply with BS 4428 : 1989 *Code of Practice for general landscape operations (excluding hard surfaces).*

588. Developments which are dependent on the felling of, or significant works to trees, and particularly those sites which are protected by a Tree Preservation Orders (TPO) or located in a conservation area, will not generally be supported if the felling or works to the trees are judged to adversely affect the visual amenity and character of the site and its surroundings.

Conservation areas and listed buildings

589. There are different considerations relevant to applications in conservation areas and in close Proximity to listed buildings. In such circumstances reference should be made to Historic Environment Scotland's website. Historic Environment Scotland has been established as the national body for the historic environment.

590. In considering proposals for development in or affecting conservation areas, the first priority of the council will be to have regard to the special architectural and visual qualities that gave rise to the designation in the first instance. Development which does not closely follow the scale, design and detailing of existing buildings or which does not serve to preserve or enhance the character or appearance of the conservation area or listed building will not be supported.

591. The council will not ordinarily support proposals to develop open spaces in conservation areas because of the positive contribution such spaces make to the character and appearance of conservation areas.

592. Development within the curtilage of listed buildings will only be supported in very rare circumstances and must in any event have full regard to the following:

- the listed building should be retained as the visually prominent building.
- the principal elevations of the listed building should remain visible from all important viewpoints. New buildings should not breach any close formal relationship between the listed building and traditional outbuildings or any other sensitive part of its setting.
- formal gardens should not be adversely affected.
- developments in front gardens that damage the relationship of the building with the street on which it is located will not be supported; and
- if a listed building is to be upgraded as part of any development, works will require to be implemented to the listed building as the first stage or as part of an agreed phasing scheme.

Sustainability

593. The council encourages developers to design and construct new houses in ways that contribute to achieving the highest standards of sustainable development. These will include measures to:

- re-use land and buildings;
- conserve energy, materials, water and other resources through design;
- ensure designs make the most of natural systems both within, in and around the building;
- reduce the impacts of noise, pollution, flooding and micro-climatic effects;
- treat and attenuate water to minimise pollution and the risk of flooding;
- build in accessibility and adaptability; and
- foster and maintain biodiversity

594. The council is committed to producing separate planning guidance on micro renewables as a first step in expanding guidance in compliance with national planning policy.

Biodiversity

595. The council is committed to preserving and enhancing the biodiversity of West Lothian through the Development Management process. Where appropriate, applicants will be required to assess the value of the site as a habitat for plants, birds and animals prior to planning applications being determined.

Making a planning application for small scale infill residential development"

596. While compliance with these guidelines is essential it does not in itself guarantee that planning permission will be granted for a particular proposal because it is not possible to anticipate the precise circumstances of every proposal which may come forward. There may be other material considerations that the council is also required to have regard to and a decision can only be made once all relevant considerations have been taken into account.

597. When seeking planning permission for infill development it is the council's preference that an application is made for full permission. However, if an application for planning permission in principle is submitted, details of siting must be included at that time and not as a reserved matter. In addition, sketch details of access, scale, design and materials etc. will be required. Only applications for full permission are acceptable in conservation areas.

598. If it is concluded that insufficient details have been provided to enable the council to determine the application then a formal notification to submit details of reserved matters may be made by the council under Article 4(3) of the Town and Country Planning (General Development Procedure) (Scotland) Order 1992. Failure to respond satisfactorily to such a request may result in permission being refused.

599. Applicants for full permission should include a written statement setting out design principles as well as illustrative plans and elevations with their proposals. An extensive statement should not be necessary but sufficient information should be included to justify the scheme. Photographs / photomontages or drawing of the area around the site may be sufficient along with drawings of the proposals to show how the development would relate to the surrounding area.

600. In addition to the conventional package of plans and elevational drawings the council may require additional information to be submitted in support of a planning application in the circumstances described in this guidance. These may include:

- a location plan, demonstrating the area's spatial character;
- site levels and cross-sections;
- a plan of all existing landscape features including a tree survey;
- a landscape proposals plan;
- plot coverage calculations;
- window to window calculations;
- overshadowing calculations; and
- details of the eaves and ridge heights of neighbouring properties.

(this list is not exhaustive)

601. In some instances developers may be required to physically plot out the position of a proposed new house on a site as this is often the most reliable way to judge the acceptability of a proposal.

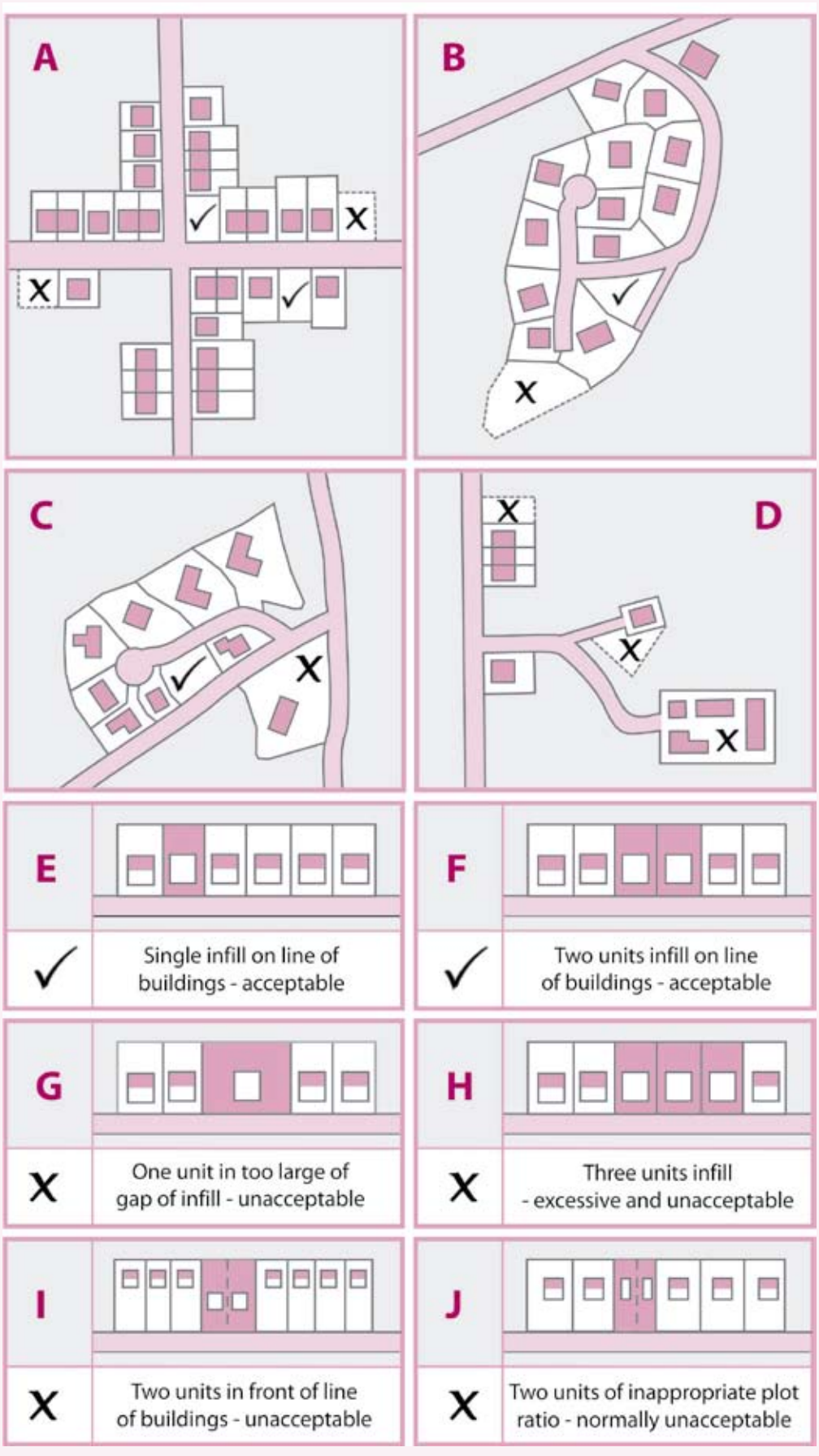
602. The imposition of planning conditions on a planning permission will also vary from site to site. However, it is not unusual for the council to remove the permitted development rights of new houses on infill sites by condition in order to protect the continuing amenity of the occupants of neighbouring residential properties. Permitted development rights ordinarily enable minor extensions and alterations to be made to a house, for example the erection of conservatories and garages, without the need to obtain planning approval. Conditions withdrawing such rights are, however, only imposed where it is considered that a particular development would be unacceptable without them.

A checklist for applicants

Some key points to remember when considering a single plot or small scale infill residential development:

○	Proposals must be in harmony with the prevailing form of development and the form, architectural style and character of the locality;
○	The site must be large enough to accommodate all of the development including parking, turning, functional garden ground and landscaping;
○	Proposals that constitute tandem development will in most instances be unacceptable;
○	Proposals should not adversely affect the existing amenity, privacy or levels of daylight currently enjoyed by the occupants of neighbouring properties;
○	The sites must have safe access to a road;
○	Proposals should not sterilise other potential developable land;
○	Preparatory works to trees on or adjacent to a site should not be undertaken without first checking to see if they are protected;
○	Pre-application discussion is encouraged in all instances but particularly where proposals may impact on a conservation area or a listed building.

Some common examples of proposals for infill development



Appendix 1

PLANNING APPLICATION PROCEDURES

Hierarchy of development

New requirements for processing planning applications were introduced under the *Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2008* and it is important that developers understand how these relate to their proposals, particularly with regard to the possible time and resource implications.

Of particular relevance is the introduction of the *hierarchy of development* concept. The hierarchy sets out the approach to be used for dealing with planning applications depending on which of the three categories a proposal falls within and the procedures for making and handling planning applications varies between these three categories.

National developments are designated in the National Planning Framework and would not ordinarily embrace residential development.

603. A residential development will, instead, fall within either the *major* or *local* development classification with *major* proposals being defined as those comprising 50 or more dwellings (this includes flats as well as houses); or where the area of the application site exceeds 2 hectares. By default, *local* developments are those that are neither *national* nor *major*. The main practical implications of a proposals being deemed to be *major* are:

- they become subject to a statutory pre-application consultation process between the developer and local communities;
- a *pre-application consultation notice* must be lodged with the council at least 12 weeks prior to the submission of an application for planning permission;
- major planning application requires to be accompanied by *Design and Access Statements*.

Proposals which affect a conservation area, a historic garden or designed landscape, a *National Scenic Area*, the site of a scheduled monument or the curtilage of a category A listed building will also require to be accompanied by a design statement.

If a *Design and Access Statement* is statutorily required but is not submitted with the planning application, then the application may be invalidated until the statement is subsequently lodged.

Appendix 2

SUPPORTING INFORMATION

Applications for planning permission should be accompanied by appropriate supporting studies to explain and justify the development. The scope of information to be submitted with an application should be the subject of discussions at pre-application stage but could include:

- Environmental Statement;
- Ecological Survey;
- Arboricultural Survey;
- Drainage Assessment;
- Flood Risk Assessment;
- Noise Survey;
- Air Quality Survey;
- Transport Statement / Transport Assessment;
- Archaeology Survey;
- Coal Mining Risk Assessment
- Contamination & Remediation Assessment;
- Masterplan
- Design & Access Statement;
- Open Space Assessment;
- Streetscape views for infill sites, larger scale residential development or sites within a conservation area;
- Public Art Plan; and
- Details of how planning obligation provisions are to be met (perhaps including draft heads of terms)

This list is by no means exhaustive and will vary depending on the specific development proposals and the location of the site. Developers should not underestimate the time and cost to prepare these necessary studies required for the council to consider the grant of planning permission.

For sites which are allocated in the development plan, a response to any issues identified in Appendix 2 of the *Local Development Plan* should be provided.

Appendix 3

CHECKLIST OF KEY CONSIDERATIONS

○	Has an analysis of the site and its context been undertaken?
○	Has this resulted in a clear design concept for the site being established?
○	Does the proposed design respond to local identity and is it specific to the scheme?
○	Does the proposed development feel like a place with a distinctive character?
○	Does the development make the most beneficial use of the site opportunities?
○	Are streets defined by a well-structured building layout?
○	Does the layout make it easy to navigate through the development?
○	Does the layout create a connected network of public streets and spaces that are accessible to all?
○	Have existing movement routes and connections to surrounding areas been considered?
○	Are new or improved connections created to existing facilities?
○	Do the buildings and spaces take priority over roads and car parking so that the roads do not dominate?
○	Does the proposal minimise the need for car travel and promote other more sustainable modes of transport?
○	Has priority been given to pedestrians and cyclists within the road and street network?
○	Is the development well-connected to community facilities, such as a school, parks, play areas, shops etc?
○	Does the development have easy access to public transport?
○	Does the development extend or provide new public transport services?
○	Have amenity considerations (privacy, daylighting, etc) been taken full account of?
○	Has each dwelling adequate external amenity space related to its size?
○	Do amenity open spaces form a purposeful and positive part of the layout?
○	Has active open space and play space provision been identified and agreed?
○	Have appropriate management arrangements been put in place for public spaces?
○	Are public spaces and pedestrian routes overlooked and do they feel safe?
○	Has the layout been checked against the Secure by Design checklist?
○	Are building materials robust, high quality, durable and from sustainable sources?
○	Have measures been identified for safeguarding existing landscape features
○	Have landscaping proposals addressed biodiversity, drainage and aesthetic factors?
○	Have a range of parking solutions been used to suit the site specific requirements?
○	Has car parking been well integrated and does it avoid being overly dominant?
○	Have the needs of cyclists been addressed?
○	Has a detailed assessment of wildlife and habitat been undertaken?
○	Has the layout been designed to optimize the microclimate, (solar gain etc)?
○	Have measures been taken to address sustainability and energy efficiency?
○	Have accessibility and adaptability been incorporated into the design of dwellings?
○	Has flood risk been assessed and are any specific measures to be implemented?
○	Does the development make satisfactory provision for surface water run-off?
○	Do drainage arrangements have the provisional approval of SEPA / Scottish Water?
○	Has the site been screened for any Major Accident Hazard Pipeline within it or within its vicinity?
○	Has the site been screened for land instability / mining issues?

○	Has the site been screened for contamination and are remedial works proposed?
○	Will the development be affected by any noise and air quality issues?
○	Have requirements for the storage and collection of waste been satisfied?
○	Has the impact of construction works been addressed and provided for?
○	Have all developer contributions been identified and accounted for?
○	Have areas of habitat been retained or created for the benefit of local species?

Appendix 4

COSTS FOR OPEN SPACE PROVISION

An explanation of how financial contributions have been derived

Where the entire open space requirement generated by a development is to be provided off-site, a commuted sum towards the qualitative improvement of nearby open spaces, or towards provision of new open space will be required to be paid to the council by the developer of the site.

Developing a cost for open space provision has been based on two factors, namely the Open Space Requirement (OSR) and the cost for maintaining and reconstructing that open space, the Open Space Cost (OSC).

Calculating the Open Space Requirement (OSR)

The *West Lothian Open Space Strategy* has set an aspirational standard of all development having access to 2.4 ha (6 acres) of open space per 1000 people and an attempt has been made to translate this into an open space requirement specifically for new residential development.

A quantitative audit of open space revealed the respective proportions of public open space that existed within settlement boundaries as follows:

Type of open space	Proportion of overall public open space
Public parks and gardens	25%
Amenity greenspace	19%
Sports areas	16%
Natural/semi-natural	21%
Other open space	19%

Fig 1. *Breakdown of overall public open space by open space type*

Not every piece of open ground is functional open space. The open space audit does not distinguish between functional and non-functional open space. It is therefore reasonable to make some allowance for areas of non functional open space in the overall 2.4 ha standard. For the purpose of this exercise the following has been assumed:

- the entirety of public parks and gardens, sports areas and other open spaces are functional;
- one third of amenity green space is deemed functional;
- half of natural / semi-natural open space deemed functional.

This leaves an overall requirement for 1.9 ha of open space per 1000 people.

Based on the estimated population of Scotland in mid-2015, household figures issued by the General Register Office for Scotland suggests West Lothian has an average household size of 2.33 people per house. Assuming that each dwelling will accommodate on average 2.33 people this equates to 44m^2 per dwelling.

Calculating the Open Space Cost (OSC)

The cost has been established using two elements, namely the replacement element, i.e., what it would cost to replace a park, and the maintenance element.

In 2012, when the formula was originally established, an average cost per m^2 was derived which was based on a number of park improvements and these were factored up over a period of thirty years. The replacement element was evaluated at that time as £12 per m^2 and the maintenance element was evaluated as £24 per m^2 resulting in a total of £36 per m^2. For the average West Lothian household, having a requirement of 44m^2, this yielded a contribution of £1,500 per dwelling and this figure became the base tariff.

It was indicated that the base tariff would be updated in successive years by being linked to the Building Tender Price Index (using third quarter 2012 as the base date), and this iteration of the Residential Development Guide takes the opportunity to apply the indexing to the tariff with the result that it currently has a value of £1,955. Going forward, this will be updated by being linked to the Building Tender Price Index (using the second quarter 2016 as the base date).

Appendix 5

OTHER USEFUL CONTACTS

WLC Development Management
Planning applications
t: 01506 280000
e: planning@westlothian.gov.uk

WLC Development Planning
Planning policy / development plans
t: 01506 280000
e: dpgeneral@westlothian.gov.uk

WLC Building Standards
t: 01506 280000
e: buildingstandards@westlothian.gov.uk

WLC Flood Risk Management Team
t: 01506 280000
e: graeme.hedger@westlothian.gov.uk

Police Scotland
The Architectural Liaison Officer
t: 101
e: Architectural.Liaison@scotland.pnn.police.uk

Scottish Environment Protection Agency (SEPA)
t: 0131 449 7296
e: planning.se@sepa.org.uk

Scottish Water Customer Connections
t: 0845 601 8855
e: connectionssupport@scottishwater.co.uk

Scottish Natural Heritage
Tel : 0131 316 2600
e: ian.rennick@snh.gov.uk

Disability West Lothian
t: 01506 774030
e: enquiries@dwl.demon.uk

Central Scotland Green Network Trust (CSGNT)
t: 01501 822 019
e: contact@csgnt.org.uk

Historic Environment Scotland
t: 0131 668 8600
e: HMenquiries@HES.scot

Public Health England, Centre for Radiation, Chemical and Environmental Hazards
t: 01325 822 622
w: http://www.ukradon.org/contactform

Edinburgh Airport Limited
t: 0131 344 3592
e: nyree_bell@edinburghairport.com

Essar Oil UK
t: 01506 280000
w: http://www.essaroil.co.uk/contact-us/?form=1#form

WLC Visual and Public Art
t: 01506 280000
e: arts@westlothian.gov.uk

WLC Public Transport
t: 01506 280000
e: publictransport@westlothian.gov.uk

WLC Environmental Health & Trading Standards
t: 01506 280000
e: environmentalhealth@westlothian.gov.uk

WLC Recycling & Waste Services
t: 01506 280000
e: waste.services@westlothian.gov.uk

WLC Roads & Transportation
t: 01506 280000
e: chris.nicol@westlothian.gov.uk

WLC NETS, Land & Countryside Services
t: 01506 280000
e: andy.johnston@westlothian.gov.uk

WLC Education Planning
t: 01506 280000
e: dpgeneral@westlothian.gov.uk

Supplementary

Appendix 6

Added October 2023

WASTE AND RECYCLING GUIDANCE FOR NEW DEVELOPMENTS IN WEST LOTHIAN

Conditions for Planning Consent

Last updated by Waste Services - January 2022

Contents

Introduction

In order for West Lothian Council to provide a recycling and waste collection service to new developments or converted properties (e.g. a conversion of a house into flats), the information outlined in this document must be fully considered before submitting plans during the planning application process.

Under the Environmental Protection Act 1990, West Lothian Council is only required to provide a waste collection service to developments/properties should they conform to our specified requirements.

Ultimately It is **YOUR** responsibility to develop a waste management strategy for your development which:

- Is operationally viable for Waste Services and in particular takes into account the vehicle dimensions and Swept Path Analysis;
- Is compliant with the Council's own strategies and provides residents with a fully integrated and comprehensive recycling and waste collection service;
- Is safe and practicable for both residents and collection staff to operate.

This document provides generic waste management requirements for all new developments. More detailed advice can be provided during the planning application stage, but if you would like to contact Waste Services at an earlier stage please email waste waste.services@westlothian.gov.uk with the reference of the New Development

Please provide the following information:

- Your name and contact details: address, phone and email;
- Location(s) of new property/ properties- including postcodes or addresses if known;
- Any available lay out plans;
- Details of any reference for Planning Application (if known)

Other information

WLC currently operates household waste collections only.

If your proposed development includes waste from other sources (commercial and Industrial), as well as privately managed open spaces, it is important that you also consider how those wastes will be managed, and who will collect them.

In particular you must consider the requirements of the Waste (Scotland) Regulations (2012) which require the separate collection of specific waste types to facilitate recycling.

You must make provision for the management of all wastes and litter during the build process, and the cleansing of streets and surfaces, until such time as the Council assumes any responsibilities which it has.

1. Requirements for Bin Provision

Waste Services will advise you as the most appropriate collection system for the development. The decision as to which service will be provided will be made by Waste Services.

If your development does not meet the requirements in this document, Waste Services may not be able to provide a full Kerbside collection Service for entire development or the affected properties.

1.1 Domestic Households Serviced by the 4 Bin System

All domestic properties require an appropriate storage area for 1 x 140 litre bin and 3 x 240 litre bin (1x 140 for general waste, 1 x 240 for garden and food waste, and 2 x 240 for recycling) and access to wheel the bins from the storage area to collection point, usually the kerbside, where they must be presented for collection.

Dimensions

Capacity (litres)	Length(mm)	Depth (mm)	Height (mm)
140	500	570	1065
240	580	725	1075

It is responsibility of residents to present their individual bins for 7 am on the day of collection to the agreed collection point and remove these as soon as possible after collection.

1.2 Flatted Properties

All flatted properties require a communal area to store one of the following bin options:

- 1 x 140 litre bins (general waste)
- 1 x 240 litre bins (blue bin for paper and cardboard recycling)
- 1x 240 litre bins (green bin for plastics, tins and cans recycling)
- 1 x 23 litre caddy (for food waste)
- 1 x 240 litre bin for garden waste (where appropriate)
- a combination of larger bins to equate the same capacity as above

Dimensions

Capacity (litres)	Length(mm)	Depth (mm)	Height (mm)
140	500	570	1065
23	320	400	400
240	580	725	1075
1100	1380	1075	1450

It is preferable for residents (where space allows) to have individual bins rather than using communal facilities.

1.3 Bin storage areas. Design considerations.

1. Bin stores must be external to buildings i.e. stand-alone completely independent from any building.
2. Bin stores must not have a roof, gates, locks or latches.
3. Bin stores must be 100% dedicated to storing only bins. For example, it is not acceptable bins and bikes being stored together.
4. Bins should always be easily accessible to crews and residents so they can be brought out and returned without the need to move other bins (avoid placing them in rows one behind another)
5. A maximum walking distance is required for the householder (from home to bin) no greater than 30 metres (BS5906:2005)
6. Bin stores should be of sufficient size to store all the required bins. To ensure that crews and residents can safely access and manoeuvre communal bins a minimum clear space of 30 cm between communal containers is required (this space can be reduced to 15 cm if individual bin are used). This clear space would need to be increased to 50 cm if locking posts are fitted to prevent communal bins from being moved around or stolen.
7. The road and pavement from the bin collection point to the refuse collection vehicle must be a minimum of 2 m wide and at maximum 10 metres long and constructed of hard-standing surface. Therefore, bin stores should be within 10 m of the Refuse collection vehicle. It must have a level gradient (maximum 1:12) and a smooth surface; use dropped kerbs where appropriate. Note that the maximum distance of 10 m is from the closest adopted road.
8. The entrance should be of a minimum width 1.5 m width. There should also be a minimum width of 1.5 m inside for crews to be able to manoeuvre communal bins safely.
9. Bin stores must not be blocked by parking spaces.
10. The need for reversing should be removed altogether, where possible, by providing turning facilities.
11. Separated bin stores for commercial and residential use are required If the building has a mix of flatted properties and commercial premises.

Bin storage areas should be clearly shown in drawings attached to planning applications. Exact dimensions of bin stores and number of bins per waste stream inside them should be clearly indicated in the legend of those drawings.

Please note that only communal bins will be taken out and back in from residential bin stores by WLC collection crews. If individual bins are chosen, residents will have to present their bins for 7 am on agreed collection point, usually the kerbside.

1.4 Domestic Properties in Rural Area's

If the properties can be accessed safely through an adopted road by service vehicles then condition 1.1 must be followed and kerbside collection will be provided. However, if the properties cannot be accessed safely through an adopted road then provision must be made at the road end for the safe storage and servicing of the bin(s) in which case condition 1.2 must be followed.

Note that a lay-by of suitable dimensions for our Refuse Collection Vehicles may be required to ensure the safety of our collection crews if the proposed collection point at the road end is located on a stretch of road with reduced visibility (blind summit or a bent etc) or a busy road.

1.5 Ordering bins

Developers should be aware that it is council policy that they incur the initial cost of the appropriate household waste and recycling collection bins (the council will source and supply) as part of the developer's contributions under section 75 and that this will also be made a condition of any planning permission granted for residential properties.

All bins must be ordered from the council 8 weeks in advance of the first occupation to ensure they are available for delivery to site prior to residents moving in.

After agreeing the right bin provision for the development please email waste.services@westlothian.gov.uk to order bins.

2. Vehicle and Operative Access

2.1 Access and egress

Many deaths and serious injuries involving vehicles at work happen during reversing. There are several measures that can help to reduce the risk of reversing accidents, but removing the need for reversing is the most effective.

To avoid reversing, the lay out of the development should make provision for access and egress in a forward gear for the refuse collection vehicle.

RCVs should not be expected to reverse over any great distances to or from the collection point. The need for reversing should be removed altogether by providing turning facilities.

Turning areas such as roundabouts, “banjo type, hammerheads or stubs are required for dead ends. Yellow line marking (hatching) must be provided to stop people parking and causing access problems at the hammerhead.

Where a development is built in phases and drive through road are discontinued temporary turning facilities will be required to allow safe turning of collection vehicles.

Therefore, roads with inadequate width or turning facilities that would be inaccessible to collection vehicles should have designated collection points on or near a nearby public highway.

Note that designated collection points should be of hard standing surface and have enough space for two bins being presented per property. Bins should never block pavement and public path.

The following space requirements must be fulfilled for a refuse collection vehicle to service the site:

Height	4.5m
Width	2.54m (+ width of mirrors)
Length – for reversing and turning	12 m
Length - for vehicle with container in emptying position	13 m
Area required for operatives to stand clear of bin whilst being lifted	3 m length x 3.5m width
Turning circle (diameter)	22.4 m

In order to ensure safe and efficient access, a swept path analysis must be provided to demonstrate that the access is compatible with our vehicles which dimension can be consulted on the table above.

The swept path analysis must also demonstrate access and egress to/from the development or properties. You should note in particular that manoeuvring vehicles MUST NOT overhang or protrude onto pavements or other pedestrian areas.

Loading / storage areas

1. **Surfaces**: The refuse collection operative must have clear access to the bin storage area and where possible the surfaces must be a paved or hard finished, which must be smooth, where possible, without steps or kerbs with a minimum width of 1.5 metres and clear headroom of 2 metres.

2. **Working Area Dimensions;** Where a refuse vehicle is required to drive onto a site or to work under any structure there should be a minimum height clearance of 4.5 metres, with a minimum working area of 3.5 metres width by 4 metres length where the emptying of the containers will take place.

3. The lengths of refuse collection vehicles vary between 10 to 12 metres, with a width of 2.54 metres (width of mirrors extra) the working length should take account of the size of the container, making the length of the vehicle with the container in emptying position one metre longer. A further 3 metres is required for operatives to stand clear of the bin whilst being lifted, therefore a minimum of 16 metres is required.

4. The emptying position that the vehicle manoeuvres to and operates from should be relatively level and flat for the entire length of vehicle and container. Any slopes or gradients (other than those necessary for surface water drainage) should be avoided

2.2 Vehicle Turning Requirement

The turning circle (diameter) required for refuse collection vehicles is 22.4 meters.

2.3 Road Specifications

All vehicle access roads that the refuse collection vehicles will be required to use must be adopted by the Council and constructed to withstand a gross vehicle weight of 32 tonnes and axle loading of 11.5 tonnes. Manhole covers, gratings etc situated in the road must also be capable of withstanding these loads.

Where roads are not constructed to an adoptable standard, or where the development includes private accesses or parking courts, it should be noted that the council will only collect bins from the public highway unless all the conditions below are met:

The council may provide kerbside refuse/recycling collections to properties located on a private road, **only if all of the following conditions are met:**

1. the private road serves a settlement, or settlements, rather than sporadic individual properties (as a guide, a settlement is a grouping of six or more properties);

2. there is sufficient turning space for a refuse collection vehicle at the road end (i.e. a turning circle, t-junction or hammerhead), or if the vehicle can enter/exit the road by other safe means;

3. the condition of the road surface is acceptable for a refuse collection vehicle to access;

4. sufficient and safe access for the refuse collection vehicle is maintained (i.e. absence of overhanging branches / over grown bushes acceptable surface condition etc).

5. the owner of the private road agrees to indemnify the council (through a signed waiver) against any damage caused from reasonable use of the road by a refuse collection vehicle;
6. any bridges or other structures along the private road are certified by a competent person to be safe and meet West Lothian Council health & safety requirements. It is the responsibility of the owner(s) of the road to demonstrate the safety of these structures;

Please note that ultimately the decision as to which service will be provided will be made by Waste Services.

For phased developments, where properties are to be occupied prior to the adoption of roads, it may be necessary to make temporary arrangements for the storage and collection of bins at the boundary of the development.

The road and pavement from the bin collection point to the refuse collection vehicle must be 2 metres wide at maximum 10 metres and a hard standing surface. It must have a level gradient (maximum 1:12) and a smooth surface; use dropped kerbs where appropriate.

3. Recycling Facilities

3.1 New Housing Schemes

A scheme for the provision of recycling facilities at a suitable location and appropriate to the scale of the development must be submitted for further approval. As a guidance any development that has more than 200 units requires a recycling facility. This facility should be implemented prior to the occupation of the tenth dwelling house on any of the plots.

The site should be:
• Flat and of hard standing surface.
• Easily accessible for residents and collection crews.
• Free of overhead cables.
• Minimum foot print of 26.5 m2.
• Well-lit and,
• Ideally at least a minimum of 50 metres away from the closest residential properties.

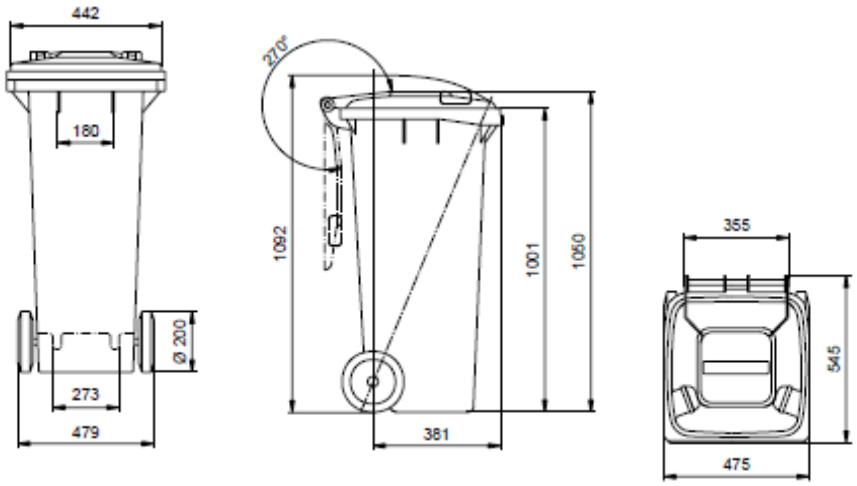
3.2 Industrial Parks/ Estates and Commercial Developments

A scheme for the provision of recycling facilities at a suitable location and appropriate to the scale of the development must be submitted for the further approval.

Appendix 1. Approximate Bin sizes.

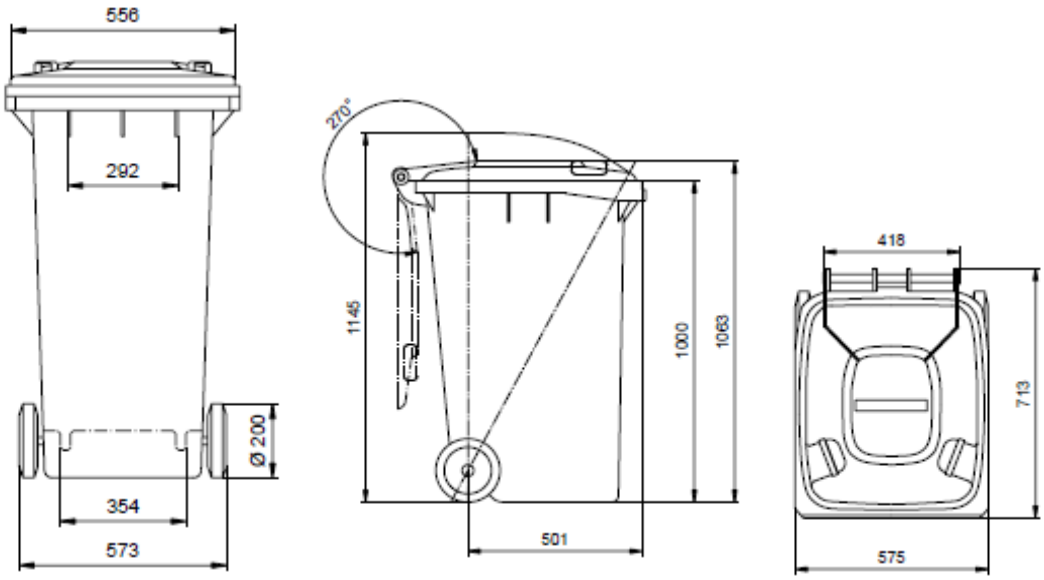
***Please note that bins are provided from a range of suppliers and their dimensions will differ slightly. The dimensions in the tables below shows the largest dimensions used.**

140L bin used for residual waste



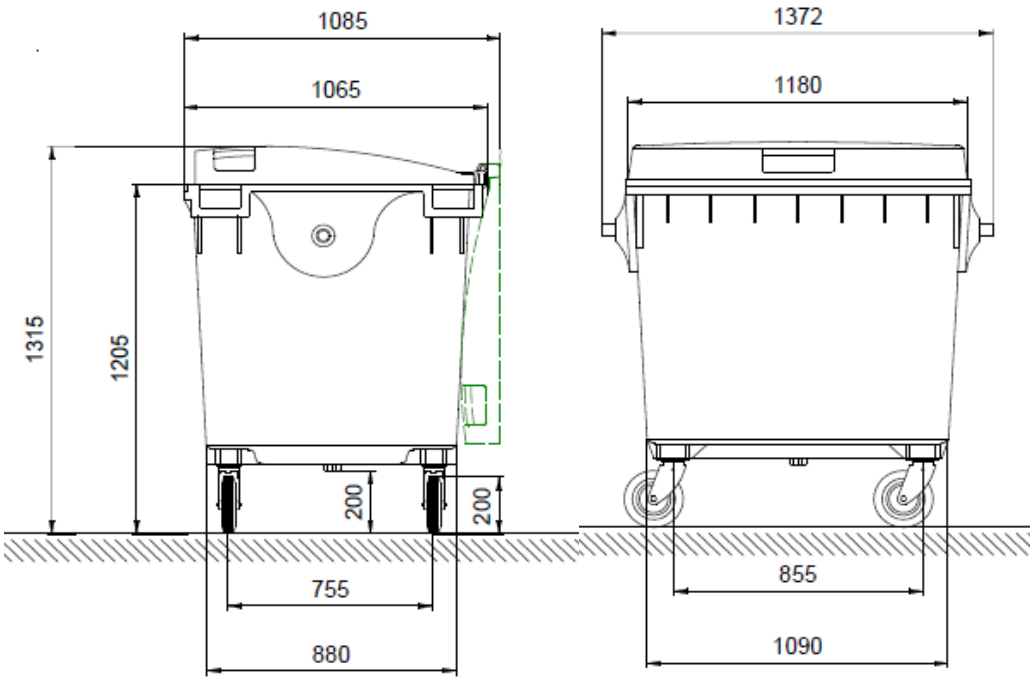
Capacity (litres)	Length(mm)	Depth (mm)	Height (mm)
140	500	570	1065

240L bin used for recycling bins (blue and green) and brown garden and food waste bin.



Capacity (litres)	Length(mm)	Depth (mm)	Height (mm)
240	580	725	1075

1100L bin used for communal collections- residual and recycling only.



Capacity (litres)	Length(mm)	Depth (mm)	Height (mm)
1100	1380	1075	1450

Appendix 2. Vehicle Dimensions

Mercedes Econic 2630L ENA 6x2 is the most common vehicle in our fleet but new site should be accessible enough for the largest RCV. For planning purposes specs for a 32 Tn RCV can been consulted below.

OLYMPUS - 8x4MS Wide - Smooth Body RCV

Elite 6 - 8x4MS Wide Track — **Euro 6** SPECIFICATIONS

Vehicle model		OL-27W 8x4MS
Compaction body type - effective volume(s)		Olympus 27W (26.5 m³)
Elite chassis type		8x4MS (Mid Steer) Wide Track
GVW (Gross Vehicle Weight)		32000
Front axle plated weight		9000
Rear axle/bogie plated weight		24000
Recycling box type		-
Recycling box type (capacity m³)		-
V1	Overall wheelbase	6400
Turning circle - overall (metres)		22.4***
Vehicle unladen weight**		15900
V2	Overall length[5]	10200
	Overall length - tailgate raised[5]	11120
V3	Front axle to front of compaction body	650
V4	Front overhang	1665
	Front overhang - cab tilted	3465
V5	Rear overhang	2225
	Rear overhang - tailgate raised	3085
V6	Overall height	3450
	Overall height - tailgate raised	5100
V7	Height at exhaust tip - nominal	3500
V8	Cab roof height	3130
	Cab roof height - cab tilted	3690
V9	Cab floor height	925 Driver side, 985 Passenger side
V10	First cab step height from ground	695
V11	Rear rail height	1050
V12	Ground clearance at lowest part of vehicle	250
V13	Ground clearance - tailgate	435
V14	Approach angle	16.5°
V15	Departure angle	15°

(**) Typical rear mounted lifting device equipment will add up to 1200 kg.
(***) Turning circle shown is for best case.
(5) Excludes front view mirror which adds approx. 230 mm

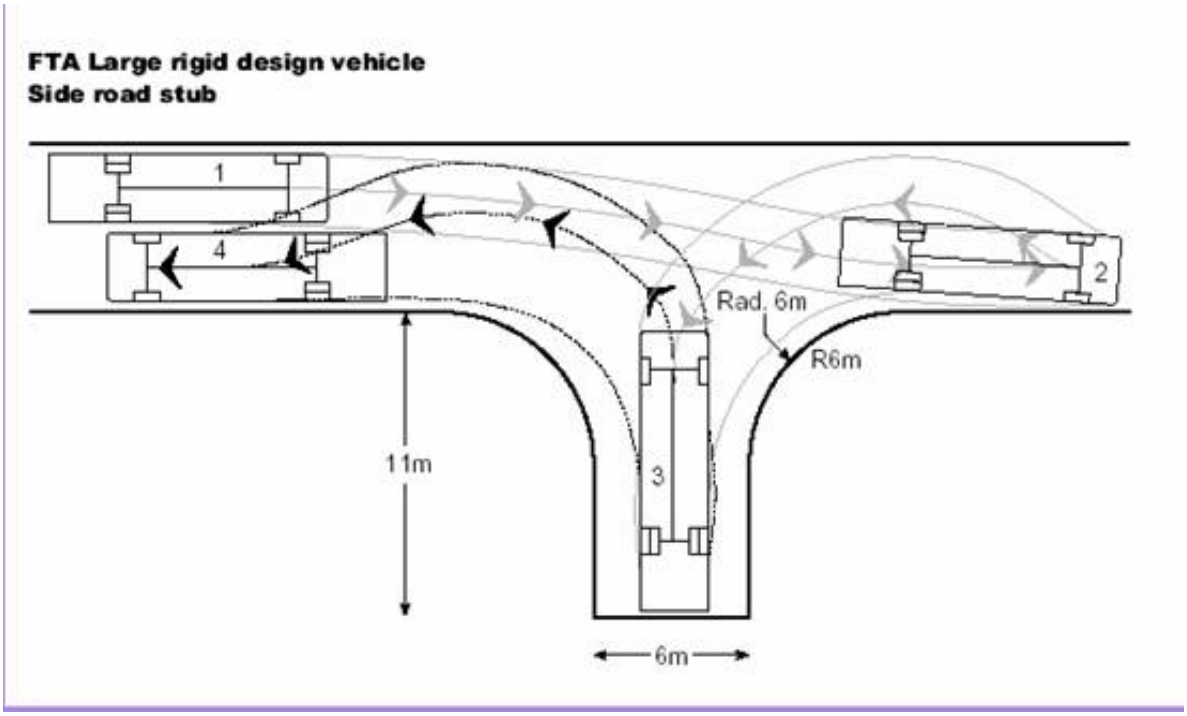
NOTE: Unless otherwise stated, all dimensions are nominal, in mm and represent an unladen vehicle without a lifting device and fitted with standard tyres, tyre deflection is not included. All specifications are subject to manufacturers tolerances, an allowance of +/- 2% should be made for all weights. All weights are in kgs and include oil and water, and on diesel fuelled vehicles, AdBlue and 50 litres of fuel. Additional equipment may alter dimensions and weights quoted.

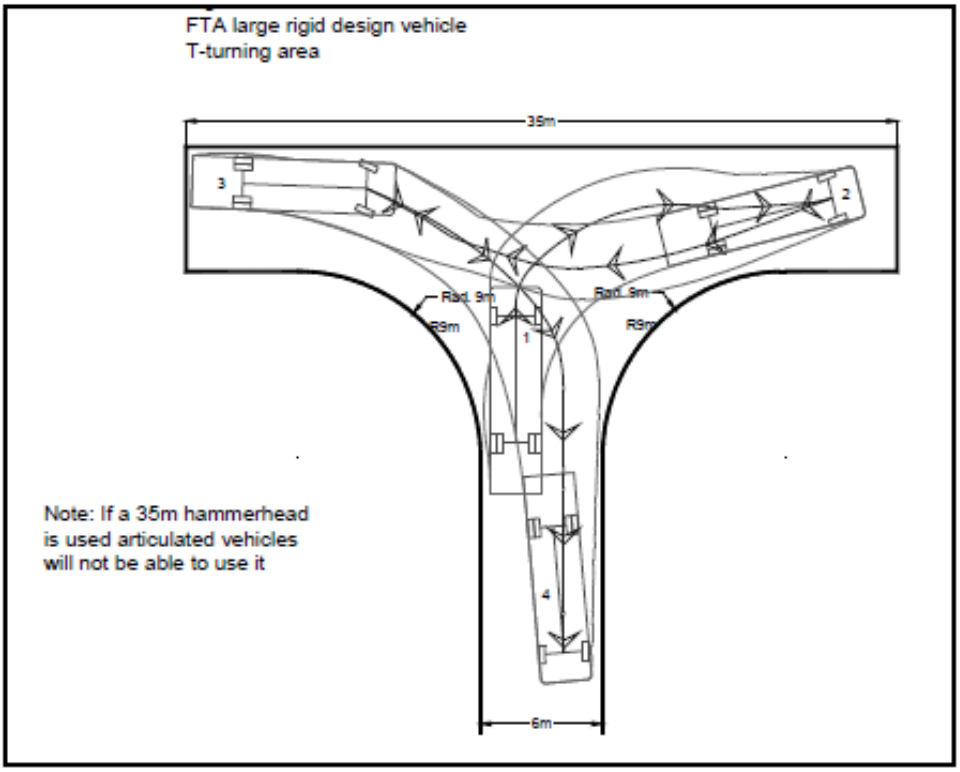
DENNIS EAGLE
RosRoca

October 30/2013
DV-EBMW-OSX-GBUK-1303

Appendix 3. Turning Facilities.

Side stubs and T-turning areas produced by FTA (Freight Transport Association)





West Lothian Council