

INFORMAL PLANNING POLICY GUIDANCE

The Reduction of Carbon in New Development



Report of Consultation

May 2022

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1.0 Name of Document

- 1.1 The Reduction of Carbon in New Development Informal Planning Policy Guidance.

2.0 Purpose of the SPD

- 2.1 This Informal Planning Policy Guidance seeks to support the City Council's agreed Action Plan to achieve Carbon Neutrality by 2028. It provides further guidance on the policies of the Aligned Core Strategy and Land and Planning Policies Document (LAPP) and will be a material consideration in the determination of planning applications.
- 2.2 Primarily, it explains the implications of Policies CC1 to CC3 in the LAPP, however, other LAPP policies are also relevant when considering carbon such as those relating to transport, landscaping and biodiversity. It seeks to explain and encourage the incorporation of carbon reducing techniques in new development, building on existing Local Plan policies.

3.0 Persons/bodies/groups consulted

- 3.1 Consultation has been undertaken with statutory bodies, local businesses, citizens, agents and developers, wider interest groups and stakeholders, local councillors, and Nottingham City Council officers. E-mails/letters providing details of the consultation were sent to all contacts on the Local Plan database of consultees (Inovem).

4.0 Ways in which consultation was undertaken

- 4.1 In line with the City Council's [Interim Statement of Community Involvement \(SCI\), 2020](#) consultation was undertaken online, being available to view and download from the City Council's web site. It was also available for inspection at the City Council offices. E-mails and letters were sent to interested parties and a press release was also issued and picked up by local media.
- 4.2 Comments on the draft Guidance were invited for a 6-week period from 18 October until 29 November 2021.

5.0 Representations

- 5.1 There were 18 respondees in total, equating to over 80 individual comments (not including City Council colleagues). All comments have been considered and a number of changes to the Guidance are proposed as a result. Appendix 1 sets out a summary of the comments made and the City Council's responses to them, together with any recommended changes to the Guidance.

6.0 Sustainability Appraisal

- 6.1 Undertaking a Sustainability Appraisal (SA) is a statutory requirement/ process, which must be undertaken for any new planning document in accordance with the Planning and Compulsory Purchase Act (2004). The purpose of an SA is to assess the economic, social and environmental impacts of projects, strategies or plans, so that the preferred option promotes, rather than inhibits sustainable development. In addition to an SA, European directive 2001/42/EC (commonly referred to as Strategic Environmental Assessment or SEA), requires that Local Authorities undertake an “environmental assessment” of any plans and programmes they prepare that are likely to have a significant effect upon the environment.
- 6.2 The requirements of the SEA were incorporated into the SA for the Local Plan Part 2 - 2020(LAPP). The process appraised social, environmental and economic effects. It was undertaken from the start of the LAPP process and through its various preparation stages. In doing so it ensured that the decisions made on policies contributed to achieving sustainable development. Furthermore, the SA recommended some changes to ensure that the LAPP was as sustainable as possible. The SA facilitated the evaluation of alternatives and also considered the cumulative, synergistic and secondary impacts of the LAPP policies and sites.
- 6.3 The SA also demonstrated that the Plan was an appropriate approach when considering reasonable alternatives and, where negative impacts were found, suggested mitigation measures overcome them. Monitoring arrangements were also proposed to ensure that the impact of the policies can be properly evaluated. Accordingly, as an SA was undertaken on the LAPP, a separate SA is not required for this document.
- 6.4 Full details of the SA process, and methodology can be found at www.nottinghamcity.gov.uk/localplan.

Appendix 1: Summary of Comments Received, Officer Responses and Proposed Changes

Summary of comments	City Council response
<p>ARUP</p> <p>The guide needs to explain the Council’s proposed definition of zero carbon and to what benchmark and reporting standards the carbon calculation requirements are needed. It should only focus on carbon within building construction. It isn’t an overall sustainability guide and other things are creeping in (drainage, water, health and wellbeing – all of which are important but not carbon). The ambition of the council is to be zero carbon by 2028 but this guide doesn’t define carbon in buildings and at its bare root, only asks for a sustainability report of the buildings credentials.</p> <p>The guide should define the council’s ambition to zero carbon, using other standards and framework (like the UKGBC) to define and set benchmarks for reporting on carbon</p> <ul style="list-style-type: none"> ○ The definition of the government, is only for greenhouse gases. This doesn’t include embodied carbon which are a large impact of the carbon emissions for a building, over the lifetime. Embodied carbon is mentioned in the reporting appendix. ○ What is the council’s ambition? Is it zero carbon in operation or for whole life carbon, which, would include embodied too? ○ The council wouldn’t need to create its own definition but adopt others, such as the UKGBC framework definition: LINK 	<p>A definition of zero carbon is included in the glossary. The Council’s ‘definition’ is clearly set out in Para 5.8 and further explained in paras 5.9 to 5.16. The informal guidance seeks to raise awareness/consideration of a wide range of issues that generate carbon as set out in the Council’s Carbon Neutral Action Plan. This informal guidance does not seek to introduce/impose targets, rather the forthcoming SPD will consider issues such as benchmarks, targets and reporting. Links to other reference sources relating to Zero Carbon/Carbon calculations etc. will be included in the final guidance.</p>

Summary of comments	City Council response
<ul style="list-style-type: none"> ○ Carbon calculations can be reported using the UKGBC Framework; namely Appendix 1 and 2 ○ Industry benchmarks to be compared against (such as LETI) but not necessarily held against (as LETI can be very onerous in parts and not always pragmatic in certain scenarios) ○ The guide should makes reference to a whole life carbon assessment – something the UKGBC council are pushing and lobbying organisations for. 	
<p>For the energy reporting;</p> <ul style="list-style-type: none"> ● This report needs to be split into simpler settings so that it can be adapted easier in later editions. I would recommend it follows a similar process to the The London Plan SI2 A: Be Lean, Be Clean, Be Green and Be Seen. That gives the backbone to the Energy Statement (included for in SI2B) 	<p>The contents of the energy statement have been agreed with energy colleagues who will assess/monitor it. It is not intended to have later editions of this informal guidance, rather that it will be supplemented by an SPD which will draw on current best practice including the London Plan.</p>
Ecological Homes Consultancy	
<p>3.7 The intention is that the SPD would follow once the interim targets have been adopted and taken on board by the industry. It would complement the FHS and FBS and encourage further carbon emission reductions in new homes and non-domestic buildings prior to the introduction of the full FHS in 2025, when carbon emissions in new homes will reduce by a further 75-80%.</p> <p>This should read “will be reduced in total by 75-80%”</p>	<p>Agreed. Text will be amended text accordingly.</p>

Summary of comments	City Council response
<p>5.2 The government consulted on Future Homes Standards in 2019 with the aim of bringing these new standards into force in 2025. The proposals amount to a near zero carbon Future Homes Standard.</p> <p>I don't think an 80% reduction can be called near zero - in my opinion. That last 20% is as big a challenge as the first 80%.</p>	<p>Agreed, the text will be replaced with 'a significant reduction in carbon' ...</p>
<p>The table on Nottingham's GHG Emissions by Source is missing the 15% in the key</p>	<p>Noted. A revised diagram will be included in the final guidance.</p>
<p>5.13 Some key aspirations/actions of the Action Plan that are covered by this guidance are listed below: these are not really resilience measures, they are carbon reduction measures, same as section 1. What's left to say about resilience measures could be incorporated into section 4 - I think you only need 3 sections.</p>	<p>This section of the document reflects the structure and wording of the revised 2028 Carbon Neutral Action Plan. Therefore, no change proposed.</p>
<p>6.2 "The guidance states that development plan policies can set energy performance standards for housing that are higher than building regulations up to the equivalent of Code for Sustainable Homes Level 4."</p> <p>Any moves beyond national legislation have to be taken carefully and where possible in line with future trajectories, the issue of embodied carbon needs to be pushed. The statement "Whilst we strongly encourage this statement to address issues of embodied carbon in materials, the Council recognises planning policy can have a limited influence over construction materials and methods." could be strengthened because there are areas where the embodied carbon calculation is quite straightforward and can be taken into consideration.</p>	<p>Consideration of Embodied Carbon is covered in this guidance and will be explored further in the forthcoming SPD as will benchmarks and targets relating to this. It is the second bullet point of the Carbon Reduction/Energy Statement. The Glossary will include a definition of Embodied Carbon along with links to guidance that can assist such considerations e.g. LETI. However, this guidance is not intended to introduce targets relating to embodied carbon, rather it seeks to encourage developers to 'consider' this aspect of their proposal.</p>

Summary of comments	City Council response
Environment Agency	
<p>Para 7.6. In order to highlight a consideration of the cost of disposal of water we would recommend the insertion of the emboldened wording into the first sentence, as follows: <i>"...there remains a carbon footprint to wastewater and mains potable water through its abstraction, treatment and distribution".</i></p>	<p>Agreed. Guidance will be amended accordingly.</p>
Extinction Rebellion Nottingham	
<p>The main issue we would like to comment on is the fact that this is only Informal Planning Guidance and thus will contain little in the way of legal requirements for developments to take into consideration at the design stage. Indeed, it relies on the educated and persuasive negotiating powers of an under-resourced Planning Department and/or a greater groundswell of support for CN2028 to be effective in improving new building performance in the next 4-5 years until the Future Homes and Future Buildings standard comes fully into force in 2025-7.</p> <p>We have already seen how developers are prepared to defy council policy to the extent of submitting Energy Statements that explicitly refuse to incorporate any energy efficiency measures beyond the bare minimum required by the outgoing building regulations (ref document 210308_LRN_PO2.6.1_210611_VBSL Energy Appraisal and Statement(Revised 11.6.21) section 0.1.1 paras 3 & 4).</p> <p>Legal precedent has shown (ref: William Davis Ltd & Ors v Charnwood Borough Council [2017], Skipton Properties Ltd v Craven District Council [2017]) that the use of SPD's to define new policy is not robust. A Guidance Document which has no legal powers to enforce improved standards</p>	<p>As explained in the draft informal guidance the intention is to produce a supplementary planning document in order to help deliver the Council's aspirations to become Carbon Neutral by 2028. It is one of a number of tools to facilitate this including the Design Quality Framework and a Carbon Neutral Design Panel. A Carbon Neutral/Carbon Reduction Policy will be included in the emerging Greater Nottingham Strategic Plan which is a Development Plan Document thus affording it material weight.</p>

Summary of comments	City Council response
<p>will lack the teeth required to prevent the continuing construction of sub-optimal buildings that will become an expensive and embarrassing legacy for the city and compromise any attempt to meet CN28 aspirations.</p> <p>The consultation talks of the Planning Guidance being a stop-gap measure pending the implementation of the FHS in 2025. However once the transitional periods are included in the timescales for FHS & FBS, the scope for the continued construction of buildings that are not fit for purpose for zero carbon operation will make CN28 unattainable. In order to preserve the CN28 targets it is essential that the requirements are embodied in a DPD. Until this is done the Council Planning Committee will be in the uncomfortable position of being obliged to grant permission to developments that are contrary to the spirit and letter of CN28. We understand that the City Council is concerned about the cost and staffing resources necessary to go through the process of attaching a stringent DPD to the Local Plan, and that there are concerns within the council that there could be a kick back from Central Government. However, we believe that the clarification embedded in the response to the consultation on FHS, (and noted in Clause 5.3), alongside changing public opinion, the UK Roadmap, the promises from COP26 and an increasing number of Local Authorities taking this course, should reassure the council that the Government now recognises the need for local regulation to insist on effective environmental design. We would therefore urge the City Council see this Informal Planning Guidance as only a first stage, effectively a statement of intent, and to move rapidly to introduce a DPD to require appropriate standards pending the implementation of FHS & FBS.</p>	

Summary of comments	City Council response
<p>We believe the important steps being taken in this document are: -</p> <ul style="list-style-type: none"> • To set out formally what the Carbon Reduction/Energy Statement should contain 	<p>Noted, further details on the contents of the energy statement will be included in the final version of the guidance.</p>
<ul style="list-style-type: none"> • To start to clarify how this is linked to supporting CN2028 	<p>The Carbon Neutral aspirations of the council are set out in detail in this guidance. Specific actions and targets etc. relating to CN2028 will be considered in the forthcoming SPD.</p>
<ul style="list-style-type: none"> • To start to illustrate in more detail the implications of Policies CC1-CC3 in the Local Plan. These are currently very general in scope and can be interpreted in many ways when considering an approach to development. The link to making progress to CN2028 is vital to explain. 	<p>Links to the full policies are provided in the guidance and the questions associated with the checklist are structured in order to relate directly to the relevant policies. It is considered that the document fully explains the link to CN2028. Therefore no change proposed.</p>
<p>Different parts of the document are presented is graphically quite different and we believe it would benefit from more consistency across those parts.</p>	<p>Formatting and presentation will be consistent in the final document.</p>
<p>It is not clear from the document whether the provisions of the Planning and Energy Act/NPPF are being exercised by the City and that the minimum requirement for energy performance standards until the 2022/3 Future Homes uplift will be Code 4 of the CSH. If this is indeed being adopted, then under Fabric First in the checklist it would be good to state what that increase over current Building Regs is and use it as the base point.</p>	<p>The Council has not adopted minimum energy performance standards above those required under building regulations. These are intended to be considered further in the forthcoming SPD. Therefore no change proposed.</p>
<p>7.00 Energy Efficiency and Adaptation There is no mention of passive design techniques in this section and it is only tangentially mentioned in the Appendices. The use of mass in construction and of shading – particularly in larger buildings will have a</p>	<p>The title of this section is energy efficiency hence the focus on energy. Passive Design Techniques will be expanded upon further in the Sustainable Design Section of this informal guidance which will also cross reference the relevant section of the Design Quality Framework. A question</p>

Summary of comments	City Council response
<p>significant effect on cooling loads, thermal comfort and therefore energy efficiency. One of the biggest adaptation issues we will have is summer overheating in dwellings but the only adaptation issue mentioned is water shortage. We think this section needs to be more balanced as it primarily focusses on energy.</p>	<p>will be added to the checklist asking for details of passive ventilation measures.</p>
<p>Somewhere in the document it would be good to have a better explanation about embodied carbon. The section in Appendix 1 asks the question of reuse but nowhere is it explained how much embodied carbon is in existing buildings and that demolition should be a last resort. It is also important to explain the difference between achievable standards in new and refurbished buildings.</p>	<p>Agreed, further explanatory text about embodied carbon will be included in the final document and it will be defined in the Glossary. Reference will also be made to the desirability of retaining existing buildings and links will be included to best practice guidance for refurbished buildings.</p>
<p>At the moment the document is open to the applicant to fill in but carries no comparisons to what would be necessary to actively support CN2028. We believe it would encourage better practice and make it easier for the adjudication of the scheme if each section (where relevant) contained a note of the desired target. This has been done for Water use, but could just as easily be done for a number of other categories as suggested below. It could be in the form of a third appendix.</p> <p>Fabric First: Apart from the comment above about level 4 of the CSH, we believe that there should be a statement about the Fabric First strategy which includes Airtightness targets, ventilation strategy, orientation strategy, form factor, window area, solar shading/heating and the employment of mass to stabilise comfort levels. This would link then with Appendix 2.</p>	<p>Targets are not proposed in this guidance and it is therefore considered that a revised/expanded Appendix 2 will adequately address this point. These will be considered further in the forthcoming SPD.</p> <p>Fabric First will be explained in more detail in the revised IPG.</p>

Summary of comments	City Council response
<p>Fabric U-values, air tightness, thermal bridging, G value of glass, MVHR, Suggested window areas and Form factor to meet CN2028 should be stated so there is a sense of the aspiration and eventual essential goal.</p>	<p>The guidance includes many such references and Form Factor will be added to it. However, targets and essential goals are beyond the scope of informal guidance and will be considered as part of the emerging SPD.</p>
<p>Appropriate standards should be included in the Guidance Document and the Energy Statement should be required to give technical justification for any significant deviation from these standards.</p> <p>Embodied carbon: This is a complicated subject and we are not sure how you will assess the answers you get. In order that applicants can understand the options open to them in their environmental development strategy we think you should point them to the excellent documents on this subject produced by LETI.</p>	<p>Standards are not proposed in this guidance as it represents informal guidance only. They will be considered in the forthcoming SPD.</p> <p>Links to the LETI guidance suggested will be included in the revised guidance and, given that this is informal guidance only, developers are 'encouraged' rather than 'required' to consider the embodied carbon in their proposed materials as per the second bullet of the Checklist – Embodied Carbon.</p>
<p>Energy: There should be a clearer distinction between energy use, energy reduction and energy generation.</p>	<p>Section 7 on Energy efficiency and adaptation has been amended to aid clarity and an illustration of the energy hierarchy included. The questions in the checklist also cover this point.</p>
<p>Energy Use The figures for energy use should be in the form of Total Energy Use Intensity Proposed Energy Use Targets to meet CN2028: Dwellings: 35 kWh/m² /yr. Schools: 65 kWh/m² /yr. Offices: 55 kWh/m² /yr. Maximum Space Heating Allowance 15 kWh/m² /yr. Heating and hot water should not be achieved using fossil fuels. Significant deviations from targets should be justified in the Energy Assessment accompanied by analysis of potential alternative solutions that could be employed to achieve compliance. Energy Reduction: This requires the description of a strategy – which could include the issues we have</p>	<p>The Council currently does not have the policies in place to secure/require this, rather it will seek to encourage this through the guidance and assess how this could be promoted further in the SPD.</p>

Summary of comments	City Council response
mentioned above under Fabric First. This could be in Appendix 2.	
Energy Generation: It would be good to ask for a figure for the proposed percentage of energy required from the grid p.a. compared to what is generated on-site.	Agreed, this question will be added to the checklist.
<p>Note: We have noticed in previous submissions that estimates for PV Generation have been wrongly calculated by a substantial margin, so justification of energy yield from Solar PV in the form of panel area and expected generation should be submitted. Where on-site photovoltaic generation is proposed the Energy Assessment should give details of:</p> <ul style="list-style-type: none"> • Roof area within the development that is available for the installation of photovoltaic or solar thermal panels • Details of the number of panels proposed and their peak power rating • Details of their proposed inclination and orientation • Details of any possible shading from existing or potential future buildings or vegetation • Analysis of the projected output using recognised data and methodology (the EC PVGIS – method see: https://re.jrc.ec.europa.eu/pvg_tools/en/#PVP is robust) • Analysis of whether the energy generated will be consumed on site or need to be exported • Calculation of the CO2 savings expected and the percentage of total energy requirement this equates to relative to the energy to be imported from the grid <p>This clearly is important for other methods of generation also although it is recognised that it is unlikely that building mounted wind generation would be suitable for urban areas.</p>	<p>A question re: the percentage of total energy requirement that is proposed to be taken from the grid will be added to the checklist. The checklist already includes a question relating to proposed renewable/low energy generation. In addition, a link to NPPF and Planning Practice Guidance will provide further details on what an energy statement should contain.</p>

Summary of comments	City Council response
<p>Solar Gain: A description of the strategic response is clearly needed here. But if that response is as simple as using solar control glass, there needs to be some consideration of the effect that it will have on lighting levels and the increase in energy using artificial light that will occur. Any calculations of summer overheating that may occur should take into account future climate predictions to be useful.</p>	<p>Agreed. The issue of Solar Gain will be explored further in Appendix 2 - Sustainable development and construction principles guidance. Reference will be made to the balancing of the benefits of solar controlled glass with the associated potential need for increased lighting levels when it is employed.</p>
<p>Proposed Future Climate Predictions Source: CIBSE provide a source of future weather data that can be used to predict a range of likely temperatures for use in designing buildings that can adapt to the Climate Crisis.</p> <p>Future CIBSE TRY/DSY Hourly Weather Data (14 sites) Future hourly weather files, based on the existing Design Summer Years (DSYs) and Test Reference Years (TRYs) which incorporate the UKCIP09 climate change scenarios, are available for 14 sites, for three time periods (2020s (2011-2040), 2050s (2041-2070) and 2080s (2071-2100)), for the following emissions scenarios:</p> <ul style="list-style-type: none"> - 2020s – High emissions scenario – 10th, 50th, 90th percentile, - 2050s – Medium – 10th, 50th, 90th, - 2050s – High – 10th, 50th, 90th, - 2080s – Low, 10th, 50th, 90th, - 2080s – Medium – 10th, 50th, 90th, - 2080s – High – 10th, 50th, 90th. <p>Water (usage): It would be good to mention that the eventual (Code 6 CSH) target for water use is 80 litres per person per day and ask if the development has a strategy for retrofitting to this level.</p> <p>Water (waste). Flood sumps perhaps could be mentioned. Permeable ground surfaces are also important and maybe</p>	<p>A link to more detailed information on SuDs will be included in the revised guidance. <u>New water saving measures to safeguard supplies - GOV.UK (www.gov.uk)</u> suggests target of 110 by 2050.</p>

Summary of comments	City Council response
<p>should be more obviously mentioned than just implied in the surface water run-off figures.</p>	
<p>Roofs: A useful addition would be to ask if the roofs are reflective to help combat the Heat Island effect in the City. See https://www.theguardian.com/australia-news/2021/nov/21/hot-in-the-citycan-a-ban-on-dark-roofs-cool-sydney</p>	<p>Reflective roofs will be referenced in the guidance; however, the merits of the roof treatment will be considered on an individual basis. A green or brown roof, for example, would help combat the Heat Island effect and also contribute to biodiversity.</p>
<p>Carbon Offsetting: Carbon offsetting has a very chequered reputation with many schemes being seen as dubious, with benefits occurring too far in the future to be relevant to the climate crisis. Any proposals for carbon offsetting should be assessed against the WWF Gold Standard system as a way of checking the suitability of a scheme.</p>	<p>This Informal Guidance does not propose targets for carbon reduction and therefore carbon offsetting has not been covered in any detail beyond that relating to the Council's 2028 Carbon Neutral Action Plan. However, the issue of carbon offsetting will be given further consideration in the forthcoming SPD.</p>
<p>Urban Landscaping: The use of reflective and light coloured surfaces is important in combatting the heat island effect and we would support its inclusion as a category.</p>	<p>Reference to materials and their heat reflecting qualities will be made in the revised guidance.</p>
<p>Natural Environment: A general principle should be adopted whereby the planting of new immature trees is not seen as adequate measure to replace older existing trees.</p>	<p>Reference to a mature standard tree will be made in the revised guidance.</p>
<p>There should be a recognition that sites may be cleared prior to the developer beginning the planning process and it is possible that it is at this stage that the worst damage to existing habitats is carried out. It may be possible to require restoration of historic habitats as part of the development.</p>	<p>The Council is currently undertaking Biodiversity Mapping work which will clearly record current habitats across the City. It is also progressing a Nature Recovery Plan and Local Environment Improvement plan which will all be used to protect existing habitats and restore lost habitats. Under the Environment Act 2021, developers will be required to demonstrate a 10% Biodiversity Gain on land proposed for development.</p>

Summary of comments	City Council response
<p>Transport: electric charging - can all vehicles be charged off-road? If not, how will charging be achieved? With all sales of new diesel and petrol cars ceasing in 2030 there will be a need to be able to charge all the vehicles associated with the building.</p> <p>Electric Charging Points: How many fast charging points? Is the grid connection to the development capable of multiple simultaneous vehicle charging (& discharge to grid under vehicle-to-grid supply conditions)?</p>	<p>A link will be provided to the Council's dedicated transport webpage for further guidance.</p>
<p>Waste (recycling) - it would be good to have a corresponding explanation about the importance of increasing the recycling of waste in Appendix 2.</p>	<p>Further detail on the benefits of recycling and the circular economy will be included in the final document.</p>
<p>Enforcement/monitoring - this is a very important point to be emphasising, but again it would be good to emphasise that in order to get to CN2028, buildings will need to undergo regular post occupancy evaluation and maintenance checks to ensure that their promised performance is being maintained.</p>	<p>Reference to enforcement/monitoring is made in Appendix 1. Post occupancy evaluation and maintenance checks are beyond the scope of this informal guidance.</p>
<p>Appendix 2: Sustainable development and construction principles guidance - to make sense of Appendix 1, Appendix 2 needs to cover all the elements mentioned in Appendix 1 and not just elements of a passive design approach. There are some areas that are somewhat over-simplistic and would benefit from careful review and rethinking.</p>	<p>Appendix 2 will be revised/expanded upon in light of all comments made and cross checked to cover all the elements in Appendix 1. Links will also be inserted to the Council's Carbon Neutral Design Guide.</p>
<p>Maximising site potential - as currently written the section on Maximising Site potential is a little confusing. Firstly the Commercial Building section is titled but the Domestic section is not. Secondly, the use of Passivhaus suggests it is the only approach that should be considered,</p>	<p>Agreed, details of and links to other standards will be included in the final guidance eg LETI guidance, AECB Silver Standard etc.</p>

Summary of comments	City Council response
<p>whilst there are other equally applicable standards such as AECB Silver Standard etc. Using Passivhaus as the exemplar causes difficulty later on when covering the situation of domestic ventilation. It would be better to just state the preferable orientation and explain why.</p>	
<p>It is important to separate out the situations where there is the potential for positive use of solar gain and when it is important to protect buildings from it. Summer overheating is likely to become a greater issue than winter heat loss in the not too distant future. Methods of protection and the need for them varies with orientation and this needs some coverage here.</p> <p>A diagram of how to bring south light into the building using clerestory glazing to benefit light levels in winter time whilst avoiding overheating in summer would be helpful.</p>	<p>Agree. Reference to overheating and clerestory glazing will be included in the final document.</p>
<p>It would be good to describe the building size and compactness as the 'form factor' and explain how it is measured so it can be linked to a target range for the type of building it is. In the past the argument for forms with low surface area to volume area have been used to justify deep plan, artificially lit and mechanically conditioned buildings so caution is required.</p>	<p>Agree. Reference to 'form factor' will be included in the revised guidance. However, targets relating to it are beyond the scope of this informal guidance.</p>
<p>Commercial buildings - offices We don't think you can suggest a correct orientation for offices as their design tends to be much more sophisticated with façade design that incorporates shading, solar assisted ventilation or heat balancing across north and south façade zones. It would be better to encourage a decent passive design approach that shows examples of the different fabric based systems that have been used to avoid air-conditioning.</p>	<p>Agree. This section will be revised in order to make reference to passive design and façade design options.</p>

Summary of comments	City Council response
<p>Minimising energy use - it would be good to link this to thermal comfort as a complementary issue.</p>	<p>Agree, thermal comfort will be referenced in the revised document.</p>
<p>Glazing – worth mentioning the use of in-cavity venetian blinds which can keep out excessive sun/glare when required and act to stop heat loss from windows at night.</p>	<p>Agree. In cavity venetian blinds will be referenced in the revised document.</p>
<p>Ventilation – cross ventilation needs a mention here as well as sky lights and roof glazing. The avoidance of mechanical ventilation (other than MHRV in housing) should be a primary goal achieved through passive means.</p>	<p>Agree. Such a reference will be made in the revised guidance.</p>
<p>Mass – the effective use of mass needs to be designed in strategically as part of building design and will not work with walls that are internally insulated or are finished in in dot/dab plasterboard systems.</p>	<p>Agree. Reference to Mass will be made in the revised guidance.</p>
<p>Landscaping and green and brown roofs - we think the mention of green walls should be qualified. Some green wall plants such as Ivy do not require irrigation but do require maintenance. Irrigated commercial green wall systems require energy to maintain them and constant maintenance and commitment for them to survive.</p>	<p>Agree. Reference to further guidance on this topic will be included in the revised guidance.</p>
<p>Just as SUDS is covered, we think there should be sections describing methods of reducing water use, examples of reflective external works, a discussion on energy generation and type of fuel use, transport issues and finally much more on monitoring, maintenance and post occupancy evaluation. It is suggested that details of standards and specifications that are appropriate for achieving CN28 target low carbon buildings should be given within the Planning Guidance Document, perhaps as a third appendix. This would allow the core assumptions</p>	<p>Targets are beyond the scope of this informal guidance and will be considered in the forthcoming SPD.</p>

Summary of comments	City Council response
<p>and aspirations of the proposed design to be readily assessed against consistent values that are proven to give satisfactory performance.</p>	
Forestry Commission	
<p>As a Non-Ministerial Government Department we provide no opinion supporting or objecting to a policy. However, the information below is provided to assist you- in assessing the Planning Policy Guidance in the light of Central Government policy with regard to the reduction of carbon in development.</p> <p>The Governments 25 Year Environment Plan states, ‘We will also work with industry and support Grown in Britain to increase the amount of home grown timber used in England in construction, creating a conveyor belt of locked-in carbon in our homes and buildings.’</p> <p>https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/693158/25-year-environment-plan.pdf</p> <p>The Clean growth strategy states, ‘We will work with industry to increase the amount of UK timber used in construction, creating a conveyor belt of locked-in carbon in our homes and buildings.’</p> <p>https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/700496/clean-growth-strategy-correction-april-2018.pdf</p> <p>Other points that are worth consideration include:</p> <ul style="list-style-type: none"> • The UK imports around 80% of the wood it consumes annually, we are the second biggest timber importer in the world • All of the woodlands in England have been managed for fuel and timber production in the past and this has shaped habitats that support the biodiversity we value today. 	<p>Reference to using sustainable UK sourced timber in construction will be made in the final guidance under bullet point 2 of the carbon reduction checklist/energy statement.</p>

Summary of comments	City Council response
<ul style="list-style-type: none"> Increasing levels of woodland management by increasing demand for locally grown timber can help improve the habitat condition of neglected woodlands and also allow owners to address tree disease problems and increase resilience to climate change. The use of timber in construction and wood for heat and power generation and woodland creation could play an important role in post COVID19 green economic recovery. <p>I hope the above information, links and the attachment will help your Council effectively deliver on sustainable construction and carbon reduction.</p>	
Gedling Borough Council	
<p>A well-written document that provides informal planning guidance to supplement and expand on the adopted Nottingham City Local Plan Aligned Core Strategy and Land and Planning Policies Document. It is considered that the document is consistent with the scope of the wider Nottinghamshire work on sustainability and low carbon guidance undertaken on behalf of the Nottinghamshire Environmental Strategy Group. It is similar in scope and nature to GBC's Low carbon informal planning guidance. https://www.gedling.gov.uk/media/gedlingboroughcouncil/documents/planningpolicy/supplementaryplanningdocuments/Low%20carbon%20planning%20guidance%20for%20GBC%20-%20FINAL.pdf</p> <p>The document is supported.</p>	Support noted.
It is commendably brief and links back nicely to the supporting strategic and local plan policies with helpful hyperlinks for the user. Perhaps the document could	Nottingham specific illustrations are included and may be supplemented in the final guidance.

Summary of comments	City Council response
include some examples and pictures of good practice from within the Nottingham City area.	
Paragraph 3.2 - the development thresholds of 10 or more dwellings or 1,000 sq. m or more is consistent with the approach adopted by Gedling Borough Council. It may be helpful to state that this threshold is the same as the definition for “major” development, which would fit with the wording in the document’s glossary.	Agree, the final document will refer to ‘major development’.
Paragraph 3.5 - the intention to produce a new SPD on the subject and approximate time line is noted and Gedling Borough Council is considering a similar approach. The need to produce the SPD to follow the Government’s implementation of the interim uplift of Part L of the Building Regulations (from 2022) and in time for the move towards the Government’s Future Homes Standard in 2025 is clear and understood. In this context, Paragraph 3.7 refers to: The City Council will also look to further enhance the policy basis for carbon emission reduction through the review of the Greater Nottingham Strategic Plan. It is anticipated that the preparation of the GNSP would be well advanced during this period (up to 2025) with a submission draft available in 2023 and adoption in 2024. Perhaps the last sentence of paragraph 3.7 could be expanded to outline that this emerging GNSP document could potentially provide a Policy “hook” for the forthcoming SPD to be prepared by Nottingham City Council and potentially the other partner Councils across the HMA.	Agree. Para 3.7 will be amended to state ‘A Carbon Neutral/Carbon Reduction Policy will be included in the emerging Greater Nottingham Strategic Plan which is a Development Plan Document.’ This could potentially provide a Policy “hook” for the forthcoming SPD to be prepared by Nottingham City Council and the other partner Greater Nottingham authorities.
Paragraph 5.1 - makes reference to the 2008 Climate Change Act and the various national targets for greenhouse gas emissions including commitments to achieve a 78% reduction by 2035, relative to the levels	Section on Climate Change Act etc. will be re-drafted in order to make the emerging requirements clearer.

Summary of comments	City Council response
<p>measured in 1990. In addition to this, the CCA imposes an interim CO₂ reduction target of 34% relative to 1990 levels by 2020. Given the 2020 date has now passed it may be helpful to include some comments on progress with these national emissions targets. The UK Climate Change Committee advisor to the UK government on emissions targets and progress in reducing greenhouse gas emissions reported in June 2021 (CCC June 2021 Progress Report to Parliament) summarises progress as follows:</p> <p>UK emissions were 48% below 1990 levels in 2020. This reduction reflects the impact COVID-19 had on emissions in 2020, much of which is not expected to be permanent. The fall in emissions between 2019 and 1990 was 40%.</p> <p>The first (2008-12) and the second carbon budget (2013-17) have been met and the UK is on track to meet the third (2018-22) carbon budget, but is not on track to meet the fourth, which covers the period 2023-27 or the fifth, which covers (2028-32).</p>	
<p>Paragraph 5.7 - the text would benefit by referring more to the chart and, in particular, to explain what the category “imported consumption” means – the carbon locked into goods, food and services that are brought into the area (it is by far the largest source of emissions on the chart). We would also suggest a different colour is used for this category on the chart as on the key it appears similar to the blue colour used for industrial and commercial buildings. Please note the source of the chart is not very clear.</p>	<p>Agree, suggested amendments will be made in the final guidance and the illustration will be corrected/replaced.</p>

Summary of comments	City Council response
<p>Paragraph 5.13 - perhaps include a cross reference to the document's glossary for an explanation of the acronym BREEAM.</p>	<p>Agree. A definition of BREEAM will be included in the glossary.</p>
<p>Paragraph 6.2 - again perhaps include a cross reference to the document's glossary for an explanation of the Code for Sustainable Homes. It might be worth acknowledging that the UK Government has withdrawn this guidance and replaced it with new technical standards. However, the Code for Sustainable Homes remains a well-established reference point for local planning authorities and developers. Please note references to the NPPF and its content will need updating following the publication of the NPPF 2021.</p>	<p>Agree. The guidance will be amended accordingly. References to the NPPF and its content to be updated in line with the publication of the NPPF 2021.</p>
<p>Paragraph 7.4 - suggest consideration is given to including the energy hierarchy in a diagrammatic form as this may help presentation.</p>	<p>Agree. A diagram will be included in final guidance.</p>
<p>Section 8 - suggest consideration is given to using mapping data from the Climate Just tool to illustrate vulnerability of Nottingham residents to flood risk. Mapping data is available as open data for local planning authorities to use subject to identifying the source from the following website: https://www.climatejust.org.uk/map Data is also available for heat vulnerability and fuel poverty to LSOA level.</p>	<p>Agree. This resource will be referenced in the final document and a link provided.</p>
<p>Appendix 1 - noted and is consistent with GBC's approach set out in the Low carbon planning guidance.</p>	<p>Noted.</p>
<p>Appendix 2 - possibly in the waste section - encourage minimising the use of primary minerals e.g. in the use of</p>	<p>Agree. Highlighted text will be added to the revised document.</p>

Summary of comments	City Council response
<p>renewable materials, recycled and secondary aggregates, and other recycled and reused materials.</p> <ul style="list-style-type: none"> • Possibly, in the waste section - encourage the re-use of demolition/excavation material from the proposed works on site? • Solar gain – perhaps expand this part of the table to include more details of the sort of measures sought to address the contribution of solar gain towards passive heating and also to address the negative impact of overheating issues through passive ventilation. It may be read as simply addressing passive solar heating. 	
Historic England	
<p>We note the focus is on new development but it is not clear whether this relates to demolition of non-designated or un-designated heritage assets in terms of embodied carbon considerations e.g. if demolition is sought to facilitate redevelopment of a site. This could be addressed in part through including a reference to heritage matters in Paragraph 1.2.</p> <p>We welcome the reference to embodied carbon in BP6 of the first section of Appendix 1.</p>	<p>The guidance promotes re-use of buildings as a more sustainable option and a question relating to this is included in the checklist. Reference to the demolition of heritage assets is beyond the scope of this informal guidance addressed in complementary Local Plan policies.</p> <p>Support noted.</p>
Local Access Forum	
<p>This comment is made on behalf of the Nottingham Local Access Forum, a statutory advisor made up of volunteers who advise the Council and other relevant bodies (Section 94 bodies under the Countryside and Rights of Way Act 2000) on the improvement of public rights of way and access to and through Nottingham.</p>	<p>Disagree, Appendix 1 seeks to establish all the carbon reduction measures associated directly and indirectly from the proposed major developments, a ‘fuller focus on buildings’ could result in the omission of other positive interventions.</p> <p>Agree. The guidance is intended to relate to major new development where it is considered that it would make most impact. Many of the measures detailed could be applied to changes of use and therefore the scope of the guidance</p>

Summary of comments	City Council response
<p>Nottingham Local Access Forum (LAF) supports the broad thrust of the consultation draft informal planning guidance (IPG) The Reduction of Carbon in New Residential and Commercial Development but the document needs to be clearer about its brief. The proposed requirement that major planning applications must include a carbon reduction/energy statement is the core of the IPG and one LAF strongly supports but as set out in Appendix 1 it appears to be a catch all for everything beneficial pertaining to our 2028 Carbon neutral target.</p> <p>We recommend Appendix 1 should be revised to give it a fuller focus on buildings in line with the primary purpose of the IPG, which is to set out the implications of policies CC1 to CC3. Policy CC1 refers not only to new buildings but also to change of use proposals. Reflecting this, and the stated primary purpose of the IPG, consideration should be given to rewording the title of the IPG along the lines of 'The Reduction of Carbon in Residential and Commercial Buildings'.</p>	<p>will increased to cover Change of Use applications above 1000m2. In addition the title will be reworded to 'The Reduction of Carbon in New Development'.</p>
<p>We further recommend that other aspects, particularly transport and active travel deserve equal status in planning guidance and documents. The council should urgently consider the available options, which include a new IPG or SPD. The 2028 Carbon Neutral Action Plan sets out the high level objectives that must underpin how we achieve sustainable development in all its aspects. The Local Access Forum believes that despite reference in Appendix 1 the need for a Transport SPD is now compelling.</p>	<p>The merits of a transport SPD are beyond the scope of this guidance. The final guidance will however reference active travel.</p>
<p>LAF also highlights the urgency of the task. Planning guidance has an extensive timescale which includes drafting, internal and public consultations then adoption,</p>	<p>Agree. Additional questions will be added to the checklist in order to capture transport issues further.</p>

Summary of comments	City Council response
<p>but these matters must not be allowed to slip and the 2022 target for the SPD must not be dependent on industry adoption of interim standards, as set out in paragraph 3.7 of the IPG. This urgency should be applied also to an SPD on transport.</p> <p>As an interim measure, until an IPG or SPD on Transport is produced, Appendix 1 should be strengthened on Transport aspects. In Decarbonising Transport (2021) the Government's aims to make public transport and active travel the natural first choice for daily activities. We want to see how this aim is enabled by the design of the residential or commercial development in question. The carbon reduction/energy statement should include factors that show how easily and safely new developments will be accessible and navigable by foot and bike and enable easy access to public transport. In addition to the factors listed already, these should include:</p> <p>What provision for safe and attractive walking and cycling routes are included? How do these link to local facilities, including schools, and public transport routes? How do these connect safely to and enhance existing and proposed footpath, footway and cycle networks? Are there any dedicated routes for pedestrians and cyclists? What other sustainable proposals are aimed at actively encouraging walking, cycling or public transport as the first choice for daily activities?</p>	
Ministry of Defence	
<p>The Defence Infrastructure Organisation (DIO) Safeguarding Team represents the Ministry of Defence (MOD) as a statutory consultee in the UK planning system to ensure designated zones around key operational defence sites such as aerodromes, explosives storage sites, air weapon ranges, and technical sites are not</p>	<p>The MOD, as a statutory consultee would be consulted on any proposal to create such an environment or erect wind turbines etc. and therefore this issue is considered to be beyond the scope of this informal planning guidance. However, the following could be added to the final document as a 'capture all'. 'It should be noted that major development proposals are subject to consultation with statutory bodies and others and proposals relating to</p>

Summary of comments	City Council response
<p>adversely affected by development outside the MOD estate. For clarity, this response relates to MOD Safeguarding concerns only and should be read in conjunction with any other submissions that might be provided by other MOD sites or departments.</p> <p>DIO safeguarding have an area of interest in RAF Syerston, which lies approximately 15 KM to the East of Nottingham City Council's authority area, specifically the Statutory Birdstrike Safeguarding Zone surrounding the aerodrome</p> <p>Having reviewed the supporting documentation in respect of Nottingham City Council and their Reduction of Carbon in New Residential and Commercial Development draft Informal Planning Policy Guidance there are two areas of potential concern for the MOD.</p> <p>Firstly, within the statutory consultation areas associated with aerodromes are zones that are designed to remove or mitigate birdstrike risk. The Birdstrike safeguarding zone is 12.87km/8miles in diameter, surrounding certain military aerodromes designed to regulate developments that could introduce or support populations of large and/or, flocking birds hazardous to aircraft. The creation of environments attractive to those large and flocking bird species that pose a hazard to aviation safety can have a significant effect. This can include landscaping schemes associated with large developments as well as the creation of new waterbodies. Sustainable Urban Drainage Systems (SUDS) additionally provide an opportunity for habitats within and around a development. The incorporation of open water, both permanent and temporary, and associated reedbeds, wetlands ponds and ditches provide a range of habitats for wildlife, potentially increasing the creation of attractant environments for large and flocking bird species hazardous to aviation.</p>	<p>reducing carbon may need to be further refined/revisited in light of comments received.'</p>

Summary of comments	City Council response
<p>Secondly, where development falls outside designated safeguarding zones the MOD may also have an interest, particularly where the development is of a type likely to have an impact on operational capability. Examples of this type of development are the installation of renewable energy generation systems and their associated infrastructure. The MOD has, in principle, no issue or objection to renewable energy development though some methods of renewable energy generation, for example wind turbine generators or solar photo voltaic panels can, by virtue of their physical dimensions and properties, impact upon military aviation activities, cause obstruction to protected critical airspace encompassing military aerodromes, and impede the operation of safeguarded defence technical installations. In addition, where turbines are erected in line of sight to defence radars and other types of defence technical installations, the rotating motion of their blades can degrade and cause interference to the effective operation of these types of installations with associated impacts upon aviation safety and operational capability. Planning Practice Guidance published on the Gov.uk website acknowledges the potential effect of wind turbine generators and directs developers and Local Planning Authorities to consult the MOD where a proposed turbine has a tip height of or exceeding 11m or has a rotor diameter of 2m or more.</p>	
<p>In summary, the MOD request that developers are made aware, through policy provisions, that development that might result in the creation of attractive environments for large and flocking bird species hazardous to aviation will be subject to scrutiny, and that those schemes where risk cannot be removed or mitigated will be refused. Additionally, in order to provide a broader representation of</p>	<p>This informal guidance cannot introduce new planning policies, rather it seeks to explain existing Local Plan policies. As such it cannot include the suggestion re: supporting applications for development.</p>

Summary of comments	City Council response
<p>MOD interests, and to ensure developers are made aware of the implications of developing within an area containing MOD safeguarded zones, policy provision is provided that applications for development that would not compromise, restrict or otherwise degrade the operational capability of safeguarded MOD sites and assets will be supported.</p>	
Pedals	
<p>Pedals would like to see the transport aspects of this draft document revised to take the opportunity to raise the profile of active travel and issues directly relating to that such as more secure (and covered) cycle parking, and the need for aspirations for the growth of active travel generally to be raised in line with the most recent Government policy documents, particular the Transport Decarbonisation Strategy (and the emphasis since the launch of the Draft Strategy by the Minister for Transport, Grant Shapps, on “making cycling and walking the default modes for shorter trips in urban areas”, as well as the DfT “Gear Change” Strategy Report of July 2020 and accompanying DfT Local Transport Note 1/20 with its clear aims not just of further growth in cycling but also in the quality and quantity of cycle infrastructure.</p>	<p>Agreed. Reference will be made to further guidance in respect of Transport and other topics covered by the guidance.</p>
<p>The conclusions / recommendations / implications of all these documents (including the Gear Change Annual Report published this July) should all be clearly reflected in the ambitions of local planning and transport plans and policy documents.</p>	<p>Transport colleagues have helped to shape this document to ensure these ambitions are reflected.</p>
<p>Pedals would also like to see a clear commitment in the final document to the importance of working towards implementation of the concept of the “15-minute” city, with</p>	<p>Reference to the 15 minute neighbourhood will be included in the final document. To help realise the full potential for the concept of a 15/20-minute City, new development will be encouraged to strengthen and improve the safety of established pedestrian and cycle routes to services and facilities</p>

Summary of comments	City Council response
<p>most facilities that people need being available within easy cycling and walking distance.</p>	<p>through improved priority at junctions and crossings, environmental improvements and new proposed uses.</p>
Planning Committee	
<p>Reference should be made to: Heat pumps Air conditioning The challenge of green energy technologies i.e. when wind doesn't blow or sun isn't out. Potential for liquid metal batteries to be used.</p>	<p>Reference is made to heat pumps and natural ventilation being desirable as opposed to mechanical air conditioning. Reference to the potential to support green energy technologies with liquid metal batteries will be included in the final guidance.</p>
Representor	
<p>Is the new commercial development needed?</p> <p>What opportunities are there for the new residents to trade (are there any ground floor shops or boutiques?) and assemble? I fear that any reduction of carbon may prove to be illusory falling in the category of "how long is a piece of string".</p> <p>Representor went on to outline his work in relation to health, education and the economy.</p>	<p>Comments noted, no change to guidance proposed as it does not seek to promote new commercial development, rather secure better carbon credentials.</p> <p>This remainder of the response is beyond the scope of this Informal Guidance.</p>
Ruddington Parish Council	
<p>Ruddington Parish Council support the proposals within this consultation.</p>	<p>Support noted.</p>
Severn Trent	
<p>Severn Trent are generally supportive of the principles outlined within the guidance on Carbon Neutral Developments, as recognised within the guidance, Severn Trent have implemented our own carbon neutral policies to try and limit the impact of our operations on climate change.</p>	<p>Support noted.</p>

Summary of comments	City Council response
<p>One element we are promoting that your guidance document supports is the need to minimise water consumption we therefore welcome the content of bullet point 7.6. We would also note that water efficient technology is often also energy efficient due to the reduced need to heat water for example. We are supportive of the inclusion of water efficiency and rainwater harvesting through the document in particular the reference to the optional Water efficiency Target from Building Regulations Part G of 110 l/hd/d and the mention support the document provides for developers requiring SuDS that are designed in accordance with current industry best practice delivering multiple benefits (Water quality, water quantity, biodiversity and amenity) and the need for SuDS to discharge sustainable in accordance with the drainage Hierarchy.</p>	
<p>Please keep us informed when your plans are further developed when we will be able to offer more detailed comments and advice. For your information we have set out some general guidelines that may be useful to you. Position Statement.</p> <p>As a water company we have an obligation to provide water supplies and sewage treatment capacity for future development. It is important for us to work collaboratively with Local Planning Authorities to provide relevant assessments of the impacts of future developments. For outline proposals we are able to provide general comments. Once detailed developments and site specific locations are confirmed by local councils, we are able to provide more specific comments and modelling of the network if required. For most developments we do not foresee any particular issues. Where we consider there may be an issue we would discuss in further detail with the Local Planning Authority. We will complete any necessary</p>	<p>Reference to the Position Statement and Sewage Strategy is beyond the scope of this guidance, however, the information will be shared with relevant officers in the Council and Severn Trent will be engaged fully in the preparation of the Strategic Plan.</p>

Summary of comments	City Council response
<p>improvements to provide additional capacity once we have sufficient confidence that a development will go ahead. We do this to avoid making investments on speculative developments to minimise customer bills.</p> <p>Sewage Strategy - once detailed plans are available and we have modelled the additional capacity, in areas where sufficient capacity is not currently available and we have sufficient confidence that developments will be built, we will complete necessary improvements to provide the capacity. We will ensure that our assets have no adverse effect on the environment and that we provide appropriate levels of treatment at each of our sewage treatment works. Surface Water and Sewer Flooding We expect surface water to be managed in line with the Government's Water Strategy, Future Water. The strategy sets out a vision for more effective management of surface water to deal with the dual pressures of climate change and housing development. Surface water needs to be managed sustainably. For new developments we would not expect surface water to be conveyed to our foul or combined sewage system and, where practicable, we support the removal of surface water already connected to foul or combined sewer. We believe that greater emphasis needs to be paid to consequences of extreme rainfall. In the past, even outside of the flood plain, some properties have been built in natural drainage paths. We request that developers providing sewers on new developments should safely accommodate floods which exceed the design capacity of the sewers. To encourage developers to consider sustainable drainage, Severn Trent currently offer a 100% discount on the sewerage infrastructure charge if there is no surface water connection and a 75% discount if there is a surface water connection via a sustainable drainage system. More details can be found on our website</p>	

Summary of comments	City Council response
<p> https://www.stwater.co.uk/building-and-developing/regulations-and-forms/application-forms-andguidance/infrastructure-charges/ Water Quality Good quality river water and groundwater is vital for provision of good quality drinking water. We work closely with the Environment Agency and local farmers to ensure that water quality of supplies are not impacted by our or others operations. The Environment Agency's Source Protection Zone (SPZ) and Safe Guarding Zone policy should provide guidance on development. Any proposals should take into account the principles of the Water Framework Directive and River Basin Management Plan for the Severn River basin unit as prepared by the Environment Agency. Water Supply When specific detail of planned development location and sizes are available a site specific assessment of the capacity of our water supply network could be made. Any assessment will involve carrying out a network analysis exercise to investigate any potential impacts. We would not anticipate capacity problems within the urban areas of our network, any issues can be addressed through reinforcing our network. However, the ability to support significant development in the rural areas is likely to have a greater impact and require greater reinforcement to accommodate greater demands. Water Efficiency Part G of Building Regulations specify that new homes must consume no more than 125 litres of water per person per day. We recommend that you consider taking an approach of installing 3 specifically designed water efficient fittings in all areas of the property rather than focus on the overall consumption of the property. This should help to achieve a lower overall consumption than the maximum volume specified in the Building Regulations. We recommend that in all cases you consider: <ul style="list-style-type: none"> • Single flush siphon toilet cistern and those with a flush volume of 4 litres. • Showers designed to operate efficiently and with a maximum flow </p>	<p>The City Council currently imposes a planning condition requiring new dwellings to meet a water requirement of 110 litres per person per day in order to ensure the efficient use of water resources and comply with Policy CC1 of the Nottingham Local Plan and this will be referenced in section 8 of the Guidance.</p>

Summary of comments	City Council response
<p>rate of 8 litres per minute. • Hand wash basin taps with low flow rates of 4 litres per minute or less. • Water butts for external use in properties with gardens. To further encourage developers to act sustainably Severn Trent currently offer a 100% discount on the clean water infrastructure charge if properties are built so consumption per person is 110 litres per person per day or less. More details can be found on our website https://www.stwater.co.uk/building-and-developing/regulations-and-forms/application-forms-andguidance/infrastructure-charges/ We would encourage you to impose the expectation on developers that properties are built to the optional requirement in Building Regulations of 110 litres of water per person per day. We would also encourage the use of rainwater harvesting on larger developments, either residential or commercial. This helps to reduce the demand on public supply, associated carbon impact of supply and also reduced site run off and sewer flows. Rainwater Harvesting as a development rather than on a property by property basis is more cost efficient and can produce greater benefits. Both the River Severn River Basin Management Plan (Page 52) and the Humber River Basin Management Plan (page 46) recommend that Local Plan set out policies requiring homes to meet the tighter water efficiency standard of 110 litres per person per day as described in Part G of Schedule 1 to the Building Regulations 2010. As such Severn Trent's recommendation is consistent with wider objectives within our water supply regions.</p>	
<p>Sherwood resident</p>	
<p>I applaud the City's efforts towards a carbon neutral city. Energy efficiency, sustainable building methods etc. are all vital to preventing climate breakdown in the (near) future. This is really what the Government should be legislating for. Why aren't the</p>	<p>Support noted. Solar panels are referenced in this guidance along with other renewable energy solutions.</p>

Summary of comments	City Council response
<p>huge distribution centres across the country covered in solar panels?</p>	
<p>This report is very least we should be doing. I would have liked to see a wildlife element in there....such as protection of trees, protection of special sites and planting expectations, green roofs etc as well as energy production - both can be achieved in the same space.</p>	<p>Reference is made to these matters in the section relating to the Council's Action Plan and also in Appendix 1 – Sustainable Design, construction and climate change mitigation and adaptation and Natural Environment and Appendix 2 – Minimising Energy Use and Landscaping and Green and Brown roofs - of the document. This Informal Guidance is also supported by relevant local plan policies and Supplementary Planning Documents relating to Open Space and Biodiversity.</p>
<p>Sport England</p>	
<p>Sport England works with local authorities to ensure their Local Plan is underpinned by robust and up to date evidence. In line with Par 99 of the NPPF, this takes the form of assessments of need and strategies for indoor and outdoor sports facilities. A neighbourhood planning body should look to see if the relevant local authority has prepared a playing pitch strategy or other indoor/outdoor sports facility strategy. If it has then this could provide useful evidence for the neighbourhood plan and save the neighbourhood planning body time and resources gathering their own evidence. It is important that a neighbourhood plan reflects the recommendations and actions set out in any such strategies, including those which may specifically relate to the neighbourhood area, and that any local investment opportunities, such as the Community Infrastructure Levy, are utilised to support their delivery.</p> <p>Where such evidence does not already exist then relevant planning policies in a neighbourhood plan should be based on a proportionate assessment of the need for sporting provision in its area. Developed in consultation with the local sporting and wider community any assessment</p>	<p>Comments relate to neighbourhood planning and Active Design are outside the scope of this guidance, however, healthy lifestyles as they relate to active travel/walking and consideration of cycling are promoted in the Transport section of Appendix 1 as is the concept of the 15/20 minute neighbourhood.</p>

Summary of comments	City Council response
<p>should be used to provide key recommendations and deliverable actions. These should set out what provision is required to ensure the current and future needs of the community for sport can be met and, in turn, be able to support the development and implementation of planning policies. Sport England’s guidance on assessing needs may help with such work.</p> <p>http://www.sportengland.org/planningtoolsandguidance</p> <p>If new or improved sports facilities are proposed Sport England recommend you ensure they are fit for purpose and designed in accordance with our design guidance notes.</p> <p>http://www.sportengland.org/facilities-planning/tools-guidance/design-and-cost-guidance/</p> <p>Any new housing developments will generate additional demand for sport. If existing sports facilities do not have the capacity to absorb the additional demand, then planning policies should look to ensure that new sports facilities, or improvements to existing sports facilities, are secured and delivered. Proposed actions to meet the demand should accord with any approved local plan or neighbourhood plan policy for social infrastructure, along with priorities resulting from any assessment of need, or set out in any playing pitch or other indoor and/or outdoor sports facility strategy that the local authority has in place. In line with the Government’s NPPF (including Section 8) and its Planning Practice Guidance (Health and wellbeing section), links below, consideration should also be given to how any new development, especially for new housing, will provide opportunities for people to lead healthy lifestyles and create healthy communities. Sport England’s Active Design guidance can be used to help with this when developing planning policies and developing or assessing individual proposals.</p>	

Summary of comments	City Council response
<p>Active Design, which includes a model planning policy, provides ten principles to help ensure the design and layout of development encourages and promotes participation in sport and physical activity. The guidance, and its accompanying checklist, could also be used at the evidence gathering stage of developing a neighbourhood plan to help undertake an assessment of how the design and layout of the area currently enables people to lead active lifestyles and what could be improved.</p> <p>NPPF Section 8: https://www.gov.uk/guidance/national-planning-policy-framework/8-promoting-healthy-communities</p> <p>PPG Health and wellbeing section: https://www.gov.uk/guidance/health-and-wellbeing</p> <p>Sport England's Active Design Guidance: https://www.sportengland.org/activedesign</p>	
The Coal Authority	
<p>The Coal Authority is a non-departmental public body sponsored by the Department of Business, Energy & Industrial Strategy. As a statutory consultee, The Coal Authority has a duty to respond to planning applications and development plans in order to protect the public and the environment in mining areas.</p> <p>Our records indicate that there is recorded risk features arising from past coal mining activity at surface and shallow depth in the Nottingham City area. These recorded features include; 199 mine entries, recorded and unrecorded shallow workings and surface mining activity. However, it is noted that this current consultation relates to Informal Planning Policy Guidance on the reduction of carbon in development proposals. I can confirm that the Planning team at the Coal Authority have no specific comments to make on this guidance document.</p>	Noted.

Summary of comments	City Council response
The Theatres Trust	
<p>Theatres Trust has signed up to the Culture Declares Emergency campaign and has set out commitments to help influence and improve the sector's sustainability. Nottingham contains a number of theatres and performance venues. These are vital cultural and community spaces that enable local people to enjoy live performance and contribute to wellbeing, inclusion and placemaking. Theatres, like all public buildings, have an impact on the environment so efforts to improve their sustainability will generally be supported. To that end the Trust has made grants available to theatres undertaking such projects and we are a source of free advice and support where works or new developments are proposed. Therefore we are supportive of this guidance coming forward, however given the impact on sustainability of demolition and construction versus retention and retrofitting we consider there to be great merit in expanding the scope of the document beyond just new development. This would go further towards the Council's target for carbon neutrality by 2028 and assist a greater number of projects.</p>	<p>Agree. An additional question relating to the retention and retrofitting of existing buildings has been added to the carbon reduction/energy statement.</p>
University of Nottingham	
<p>Shared responsibility - there is a need to contextualise why this is needed upfront as contextualising the wider problem sets a different tone, one where we are all responsible for doing this and the council is aiding us to achieve this objective, as oppose to the feel that the council is enforcing carbon neutrality</p>	<p>Consider that this is already adequately covered. Reference is made throughout the document of the need for us all to tackle the 'climate emergency'. In addition, the Council's pledge and action plan are referenced as is how this guidance seeks to deliver Carbon Neutrality by 2028 to meet the Councils pledge.</p>
<p>Language consistency - there is a lot of confusion between terms. Sometimes the document refers to sustainable development, other times it refers to the need to deliver</p>	<p>Disagree. This document builds on guidance that the GN authorities are all signed up to and is structured to reflect the aspirations of the Council as set out in the 2028 Carbon Neutral Action Plan. The sustainability references are</p>

Summary of comments	City Council response
<p>carbon emissions reductions in the built environment and other times is talks about energy. We understood this is meant as a guidance for carbon emissions reduction in buildings; therefore, other aspects of sustainability (such as water, waste, biodiversity, transport) should be removed to keep the guidance straight forward. The alternative is to change this to a sustainability guide, but then the whole document needs reshaping.</p>	<p>intended to demonstrate how sustainable design considerations can contribute to lower energy use and a range of other carbon reducing measures therefore securing better carbon credentials for development proposals.</p>
<p>Display of information - we believe there is a lot of power in simple graphics that designers, developers and planning officers can use to gain immediate insight into the proposition. We suggest that this is incorporated, and we can help make this happen.</p>	<p>Agree, additional graphics will be included in the final guidance.</p>
<p>Clear targets and metrics must be used everywhere so everyone is working towards the same objectives and using the same language. This will enable all parties to prove achievements and monitor progress. We mentioned a number of existing frameworks that can be used – we don't need to reinvent the wheel.</p>	<p>Targets will be explored as part of the emerging SPD. They are not intended to be included in this guidance, however, metrics will be referenced in the final document.</p>
<p>Embodied carbon is a must, even if you are not in a position to request proof of meeting metrics at this stage (we all struggle there). The need to reduce building more buildings, using more materials, designing for low maintenance etc is atemporal and will be of benefit to all.</p>	<p>Embodied carbon is referenced in the document and defined in the glossary. Links to relevant metrics will be included for information in the final guidance.</p>
<p>Retrofit must come into the picture, particularly major projects. These will have to meet the Future Buildings Standard so why not encourage from now? The reality is that addressing carbon emissions from the existing stock should be our immediate priority, and we have a lot of this to do.</p>	<p>This guidance is intended to address development which requires planning permission and therefore retrofitting is beyond its scope. However, it will be referenced in relation to the potential retention of any buildings on site subject to the planning application.</p>

Summary of comments

City Council response

This should refer to the sustainable development goals, the World Green Building Council provides clear guidance here - <https://www.worldgbc.org/green-building-sustainable-development-goals>. There is also a need to contextualise why this is needed upfront – buildings are responsible for % of emissions etc... Contextualising the wider problem sets a different tone, one where we are responsible for doing this and the council is aiding us to achieve this objective, as oppose to the council is enforcing carbon neutrality.

Operational carbon is seen as the priority for this guidance. Other sources of Greenhouse Gas Emissions are also explored. Reference will also be made to the metrics for embodied carbon.



Figure 1: World Green Building Council alignment of buildings impact on Sustainable Development Goals

Summary of comments	City Council response
<p>3.3 - should say 'sustainable design, building and operating'.</p> <p>3.4 - unclear paragraph. We suggest it should talk about operational carbon and embodied carbon as these are immediately recognisable terms. If this is an 'Informal Planning Policy Guidance' why can it not cover embodied carbon? It is a guidance and therefore it must provide guidance for embodied carbon. The phrase "the Council recognises planning policy can have a limited influence over construction materials and methods" is incorrect, does not planning for example influence aesthetics and integration into the neighbourhood? Another issue that should be considered for integration is flexibility and adaptability to extend lifespan of buildings.</p>	
<p>3.5 - should say Future Buildings Standards and Future Homes Standards as these are different. Acronyms should appear in this paragraph and not the subsequent one.</p>	<p>Agreed. Document will be amended accordingly.</p>
<p>3.7 - we are not sure 'reduced by a further 75-80%', we believe it is reduce by 80% from current standards and not from whatever has been achieved in the interim targets,</p>	<p>Wording will be changed to add clarity to this section of the guidance.</p>
<p>5.4 - use % for consistency with the rest of the document</p>	<p>Agree.</p>
<p>5.7 - confusing phrase that needs to be rewritten. So far the document referred to carbon neutral or zero carbon buildings. Here the reference is for nearly zero-energy buildings. It is very important to have clarity and consistency as all those terms are different. We strongly urge you to use the industry recognised definitions; which can be found at:</p>	<p>Agree. UK Green Building Council definitions and references will be included in the final guidance.</p>

Summary of comments	City Council response
<p>UK Green Building Council Net Zero Carbon Buildings: A Framework Definition -https://www.ukgbc.org/ukgbc-work/net-zero-carbon-buildings-a-framework-definition/ Improving Consistency in Whole Life Carbon Assessment and Reporting May 2021: Carbon Definitions for the Built Environment, Buildings and Infrastructure - https://b80d7a04-1c28-45e2-b904-e0715cface93.filesusr.com/ugd/252d09_879cb72cebea4587aa860b05e187a32a.pdf</p>	