

Council's Response to Representation by Basement Force (Force Foundations Ltd) in support of submitted Response Form, RBKC, April 2014

Section 1. Introduction

1. Although we do not consider it necessary for RBKC to have a specific policy within the Core Strategy governing proposals for development underground, we do not object to the existence of an appropriate policy. However, the proposed policy is profoundly flawed for a number of interrelating reasons.
2. The criteria are, in the main,
 - a. demonstrably arbitrary, conflicting with good evidence provided to the Council at earlier stages of consultation; and/or
 - b. unsupported by the Council's own evidence; and/or
 - c. imposed in defiance of logic; and/or
 - d. impose greater burdens on developers of basements than would be imposed on developers above ground without good reason.
3. Our arguments are set out in the this representation which makes clear which policy criterion and paragraph is being referred to (as requested by the response form) and makes reference to the following evidence, submitted with this representation :-
 - a. Information provided to RBKC Basement Working Group on trees and planting
 - b. Review of RBKC Basements Visual Evidence March 2014
 - c. Soils in RBKC - example boreholes - March 2014
 - d. Above ground extension and subterranean development - life cycle carbon review and analysis - August 2013 - Ashmount Consulting Engineers
 - e. Operational carbon report - March 2014 - Ashmount Consulting Engineers
 - f. Examples of the extent of glazing allowed in above ground extensions.
 - g. Underpinning under listed buildings - examples of foundation repairs to listed buildings by underpinning
 - h. Example of contractor not following existing traffic management plan.
 - i. Council e mail to Ashmount Consulting regarding source of construction carbon factor.
 - j. Review of RBKC Planning Policy CE1 Climate Change
 - k. Letter from Abba Energy relating to classification and treatment of excavated inert ground under BREEAM.
 - l. RBKC Arboricultural Observations, 29 Brompton Square SW3, App No. PP/07/0649 & 650, dated 26/3/07; RBKC Principal Arboricultural Officer
 - m. Planting on garden basements - March 2014

- n. RBKC publication planning policy arboricultural input - Landmark Trees - March 2014
- o. Hydrologic review of second draft policy for public consultation - 29 April 2013. Ove Arup & Partners Ltd
- p. RBKC Arboricultural Observations, RBKC Principal Arboricult
- q. Comments on the RBKC report "The potential of basement excavation on biodiversity" - 19 March 2014; GS Ecology Ltd.
- r. Basement Force Freedom of Information request - 18 Feb 2014
- s. RBKC response to BF FOI 2014-276 - 27 Feb 2014
- t. Basement Force reply to RBKC FOI response - 18 Feb 2014
- u. Representations submitted to the July 2013 Publication Draft Policy on behalf of Basement Force

4. The following initial points are made

- a. The Core Strategy was considered sound in 2010 without a specific criteria based policy and that continues to be the case. The Policy Formulation Report of the Council states specifically that the NPPF has not rendered the approach taken within the existing Core Strategy out of date.
- b. The SPD includes some arbitrary criteria and appears not to be considered satisfactory by the Council. We recognise therefore that the policy context within which basement development proposals are considered could be improved, while contending that it is not strictly necessary to alter the Core Strategy. In other words it should not be assumed that we support the status quo as expressed in the SPD and that policy should not be assumed to be sound.
The SPD is not subject to the soundness consultation.
- c. By the same token we do not object in principle to the inclusion of a criteria based policy which draws together the particular considerations relevant to basement development within the Core Strategy.
- d. That policy should be consistent with the rest of the Development Plan: the rest of the Core Strategy and the London Plan. The proposed policy by the Council is assessed within its own evidence to be anti-growth. It is no answer that other parts of the plan are pro-growth (a point made repeatedly by the Council in its response to consultation). The plan is read as a whole and should pull in the same direction unless there are very clear reasons why basement development per se should be discouraged. There are none, and the Council has repeatedly claimed not to be seeking to reduce basement development in itself but to prevent harmful development. It is our view that the proposed policy will deter beneficial development and not prevent harmful development. It will not be effective at delivering the stated aim.
The policy is not anti-growth but proposes sustainable development.

Section 2. Proposed changes to the policy

5. The dispute appears to be over how to promote good development while preventing harmful development. There appears to be no fundamental dispute over what is good basement development: it is development
 - a. With an acceptable¹ impact on the street scene;
 - b. With an acceptable impact on any heritage assets including, where relevant, the building itself;
 - c. With an acceptable impact on the amenity of neighbours and those using the public spaces around the building including the street;
 - d. Which promotes, in a proportionate way, sustainable development – in relation to UK carbon emissions;
 - e. Which does not cause an unsympathetic alteration to the leafy and well-treed character or negatively impact the bio-diversity of the Borough's gardens;
 - f. Which incorporates SUDS and deals acceptably with other hydrological matters;
 - g. Which is well designed (including protection from flooding and other technical matters);
 - h. Which does not cause an adverse impact on the structural stability of any building. It must be recognised that planning policy cannot itself prevent a proposal being implemented in a way which causes an adverse impact on the structural stability of neighbouring buildings, just as it cannot prevent a proposal being implemented in a way which causes a nuisance (in both cases it is the quality of the workmanship and professionalism of the organisation implementing the permission which is the only sure safeguard against harm). However, planning policy can reduce the risk by encouraging the sector to innovate and develop.

The criteria stated above would leave all aspects of the policy open to interpretation offering no certainty to applicants or the planning officers. Para 154 of the NPPF refers "Only policies that provide a clear indication of how a decision maker should react to a development proposal should be included in the plan".

The criteria above seeks to promote 'acceptable' development in most cases. Objective CO5 of the Core Strategy states "Our strategic objective to renew the legacy is not simply to ensure no diminution in the excellence we have inherited, but to pass to the next generation a Borough that is better than today, of the highest quality and inclusive for all. This will be achieved by taking great care to maintain, conserve and enhance the glorious built heritage we have inherited and to ensure that where new development takes place it enhances the Borough." Clearly as proposed the policy is neither compliant with the NPPF nor the relevant Core Strategy objective.

6. Basement Force recommends the adoption of a simple criteria based policy based on the above

7. We consider the Council's draft policy is not sound because it is not Positively Prepared, it is not Justified by the Council's own evidence, and/or the evidence we have obtained, and it is not Effective. When we say the Council's policy will not be Effective, we mean that it will not effectively distinguish "good" basement development from bad basement development. It will not be effective if, for example, it would prevent development taking place which has an acceptable impact on each of the above considerations, while providing the benefits of an expanded living space within the existing urban area.

See comment above regarding acceptable impact.

¹ This may be not significantly harmful, neutral, or beneficial.

8. The formulation of planning policy should not be used simply to deliver administrative convenience to the Council and/or deliver political objectives which may have developed as a result of articulate lobbying from some residents in the Borough. However the following gives us cause for concern in particular:

a. In its Policy Formulation Report and elsewhere the Council has treated the number of applications for planning permission as the basis for concluding that the existing policies are not “effective”. We do not think this a proper measure of whether policies are effective. We propose to comment further on this point once we have received the decision letters relied upon by the Council in the production of table 5 their report “Basement Development Data”.

The Council has not stated in any document that “the number of applications for planning permission as the basis for concluding that the existing policies are not “effective”.” (see para 4.2 of the Policy Formulation Report, RBKC, Feb 2014). The increase in number of applications indicates that the cumulative impact of basement development is an important planning issue for the Borough to consider in its planning policies.

b. 7.2 of the Policy Formulation Report confirms that “Whilst in the Council’s view the policy as proposed was sound, it was considered that it would be helpful for the examination process if the evidence base was made even more clear.” Nowhere is the simple criteria based policy suggested above shown to be inadequate. Of course it could not be shown to be inadequate: such policies are drafted and applied all over the country by planning officers and they serve their purpose well. A policy of this kind is also consistent with the presumption in favour of sustainable development in sharp contrast to the reactionary and negative policy promoted by the Council.

See comment to para 5 above.

c. It is therefore inexplicable that, in the evidence obtained by the Council since the July-September 2013 consultation, there is a no reasoned response to, or even acknowledgement of, the points made at considerable trouble and expense by consultees such as Basement Force and many others.

Planning Regulations do not require local authorities to provide a response to a publication consultation. However, the Council is providing a response to the February 2014 publication consultation to assist the process of examination.

9. We also consider the policy should recognise the comparative benefits of subterranean development on the carbon emissions of a building over its lifetime when compared to above ground extensions that can provide similar size increases in living space, whereas the Council’s proposed policy is based upon the opposite approach. We provided evidence² to this effect in the July-September 2013 consultation and this has been ignored.

Please refer to Life Cycle Carbon Analysis, Eight Associates, Feb 2014.

² Supporting evidence - Above ground extension and subterranean development - life cycle carbon review and analysis - August 2013 - Ashmount Consulting Engineers

Section 3. Legal compliance

10. The planning policy document is not considered to be legally compliant as:

- a. The plan does not conform generally to the London Plan.
- b. The sustainability appraisal process is flawed.

General conformity with the London Plan

11. It is a legal requirement that the Core Strategy be in general conformity with the London Plan: section 24(1) of the Planning and Compulsory Purchase Act 2004. The Mayor's opinion must be sought under Regulation 21, and given by about the 20 August 2013. Basement Force will read it with interest when it is made available.
12. Our concern is that a policy which will have a negative effect on growth and development (construction being a key economic driver), deter innovation and investment, and particularly affect the high end residential market (key to maintaining and developing London's global role) will do considerable damage to the objectives particularly of Policy 2.1 which lies at the heart of the London Plan. There may well be other policies which this would conflict with and, if so, we reserve the right to refer to them in due course.
13. It is also possible that the policy would affect the ability of the Opportunity Area designated in the London Plan at Earls Court [see 2.13] to achieve its objectives.
14. The Council appears not to have recognised
 - a. that the policy will impact adversely on the ability of this part of London to plan for and to accommodate beneficial growth through basement development; and
 - b. that this impact is highly significant and could take the Core Strategy out of general conformity with the London Plan.
15. At the same time the Council appears to have misinterpreted policy 3.5 of the London Plan and for no sound reason has relied upon the London Plan's recognition of the valuable role played by back gardens. As explained elsewhere in this representation, basement development need have no adverse impact on that role, or on the character of a garden.
16. As we have said before the Council's own documentation (Sustainability Appraisal December 2012) recognises a likely negative impact on economic growth associated with the "preferred option", as did table 4.5 of the April 2013 report. In subsequent appraisals the opportunity is not taken to respond to the representations of those who work in the development industry but instead to insist on leaving certain of the scores within the SA assessment matrix as a "?". As explained below we believe the Sustainability Appraisal has been used quite blatantly as a tool to support the preferred option and that this undermines the integrity of the entire process.

17. Returning to the legal requirement that the policy does not take the Plan out of general conformity with the London Plan, please see in this connection the Policy Formulation Report February 2014 which
- a. simply does not consider the pro-growth aspect of the London Plan at all, suggesting that the Council has ignored the implications for conformity with the London Plan of the admitted negative impact on economic activity, and of innovation within the high end residential development market;
 - b. instead refers (at 3.18) to the London Plan Policy 3.5, saying that LDFs may include a presumption against development on back gardens, but the quote is not taken from the policy. The London Plan text does enable local authorities to do this (paragraph 3.34) but the Council's reliance on this makes their judgement legally questionable. The benefit of a basement is precisely (in part) that the back garden can be preserved. This policy therefore only lends support for basement development of all sizes.
18. The role of basement development (a) within the local economy; (b) in supporting the growth of London's population in a sustainable way; and (c) in the maintenance of London's global profile have all been grossly under-appreciated by the Council.
19. In short, the relationship of the Core Strategy to the London Plan has not yet been considered adequately if at all, and yet the new Basement Policy may cause the Core Strategy to be out of general conformity with the London Plan.

The Council has received a letter of compliance from the GLA. GLA's Draft Sustainable Design and Construction SPG, July 2013 (page 12, 27 and para 2.2.25) lists London Plan Policy 3.5 as relevant to basement development.

Sustainability Appraisal including Strategic Environmental Assessment

20. We are particularly disappointed that the Sustainability Appraisal has not taken on board our criticisms set out in our response to consultation in August 2013 (save one which is identified below). The SA is very obviously the same document aside from minor alterations to reflect the changes to the wording of the policy. We find the document self serving and not objective. Accordingly we see no reason to alter the representations we made on the point, which follow.
21. The legal requirement is that a plan such as the Core Strategy is subject to Sustainability Appraisal (SA) including Strategic Environmental Assessment (SEA). It is governed, in the UK by the SEA Regulations 2004 [SI 2004/1633]. The Council may not adopt the plan until it has taken into account an environmental report (which meets the requirements of the Regulations) and responses to consultation thereon [Regulation 8].
22. By Schedule 2, the report needs to include An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken ... [paragraph 8 of Schedule 2].
23. We are concerned that the SA/SEA process is fundamentally flawed by the failure to assess obvious reasonable alternatives to the options preferred by the Council (including

the simple approach proposed in our representation, namely the use of criteria based on the quality and impact of development rather than the imposition of prescriptive prohibitions; and including, in relation to the cap of 75% proposed in December 2012, the option of no cap).

Consideration of alternatives is required at an early stage and was done in the SA/SEA of the Draft Policy in December 2012. The criteria based policy suggested is not a reasonable option as set out above in response to para 5. This also has 'no cap' on extent into the garden.

When drafting the existing subterranean development SPD in 2009, the Council carried out a sustainability appraisal of the SPD, where the Council assessed the business as usual scenario (UDP policy CD32) and adopting the SPD. These were both reasonable alternatives. CD32 had been in place since 1998 so the council has had a policy approach to subterranean development since then. Therefore, the 'no policy' option has not been a reality for a significant amount of time. For this reason, for the proposed policy, it is justified to not have appraised the option of 'no policy' at all, as this has not been an alternative option since before the UDP was adopted in 1998. CD32 also had the option of maximum 'no cap' and it was found that this was not a satisfactory approach when compared with the option of having a cap. Appraising a no cap option is also unreasonable given the SPD has been in force since 2009.

24. Further to this we are concerned that nowhere is there an outline of the reasons for selecting the alternatives dealt with so as to satisfy paragraph 8 of Schedule 2 to the Regulations.

Please refer to SA/SEA of the Draft Policy, December 2012 and Appendix B of Basements Draft Policy for Public Consultation and other matters, December 2012.

25. We are concerned that the SA/SEA process is also flawed by a failure to recognise that there are negative impacts associated with the proposed policy, and the lack of any positive environmental effect when the preferred option is compared with the current policy approach. Elaborating on this point, we are concerned that the reasons for rejecting the Core Strategy status quo and any alternatives to the proposed policy are inadequate and confused. If the true reason for doing is that set out at 5.3 of the Policy Formulation Report of 2013, repeated in the Policy Formulation Report of 2014 at 6.3.... two further years of basement construction across the Borough have highlighted that the policies (and associated procedures) have not always have been as effective as intended.... it is not backed up or explained.

Please refer to the reasoned justification of the policy and the range of supporting documents produced by the Council.

26. Overall we find the three (now four) SA/SEA reports to be insubstantial, self serving, and confusing. They do not fulfil the role required by the Regulations.

The SA process has been undertaken in parallel with the policy and meets the requirements of the Regulations.

27. Further, paragraph 4.6 of the July 2013 Policy Formulation Report leaves the reader with a significant question: It states Any conflicts with the SA objectives are only slight and are outweighed by the considerable benefits associated with the policy. The 2014 SA

corrects this saying that the Council considers protecting the amenity of local people and the character of the area outweigh these disbenefits [paragraph 5.10]. Our argument is simply that the policy is a sledgehammer to crack this nut and will do great damage unnecessarily: why not simply require that the amenities of local people and the character of the local area are not materially harmed by the development? This question is not answered by the SA and it should be addressed objectively, a factor which speaks volumes about the political drivers behind this policy review

The author's suggested approach to a criteria based policy has been responded to above in para 23.

*The author also seems to believe that all policies will always only have positive impacts on Sustainability objectives. The National Planning Practice Guidance states "The sustainability appraisal should only focus on what is needed to assess the likely significant effects of the Local Plan. It should focus on the environmental, economic and social impacts that **are likely to be significant**. It does not need to be done in any more detail, or using more resources, than is considered to be appropriate for the content and level of detail in the Local Plan" (our emphasis).*

*As stated In the SA/SEA, RBKC, Feb 2014 at para 5.2 "The Council is of the view that, even where the relationship with these indicators(SA Objective 3: Economic Growth and SA Objective 9a: Prioritising development on previously developed land) may be negative, the impact is **likely to be not significant**." (our emphasis)*

It should also be noted that the author focuses only on the potential negative impact on SA Objective 3 and not on the negative impact on SA Objective 9a. The NPPF precludes private residential gardens from the definition of previously developed land.

28. A lack of outline reasons for rejecting policy options underpinned the successful challenge to the Joint Core Strategy in **Heard v Broadland District Council and others** [2012] Env LR 23. Also relevant to these issues is **Save Historic Newmarket v Forest Heath DC** [2011] EWHC 606 (Admin) per Collins J at 17 and 40.

Please refer to SA/SEA of the Draft Policy, December 2012 and Appendix B of Basements Draft Policy for Public Consultation and other matters, December 2012.

Section 4. General points on the evidence and the Council's approach to the evidence

29. In this section we make six general points which provide general context to the more detailed sections which follow it. These take each of the planning issues listed under paragraph 5 above and explain why the Council's approach to that issue is not sound.

(1) The apparent underlying reason for the policy is flawed.

30. It would seem that there are perceived to have been simply too many basement developments causing a generally negative impact on the amenity of neighbours, residents and others (34.3.49 and 34.3.50 of the supporting text refer). These state

- a. 34.3.49 In the Royal Borough, the construction of new basements has an impact on the quality of life, traffic management and the living conditions of nearby residents and is a material planning consideration. This is because the Borough is very densely developed and populated. It has the second highest population density and the highest household density per square km in England and Wales. Tight knit streets of terraced and semi-detached houses can have several basement developments under way at any one time. The excavation process can create noise and disturbance and the removal of spoil can involve a large number of vehicle movements.
- b. 34.3.50 A basement development next door has an immediacy which can have a serious impact on the quality of life, whilst the effect of multiple excavations in many streets can be the equivalent of having a permanent inappropriate use in a residential area. Planning deals with the use of land and it is expedient to deal with these issues proactively and address the long term harm to residents' living conditions rather than rely only on mitigation. For all these reasons the Council considers that careful control is required over the scale, form and extent of basements.

31. The Council has provided:

- a. No evidence that the impact from the basement construction phase of a project is worse than the construction impact from above ground building projects. The comparable project would be above ground work involving major internal structural alterations
The Council has undertaken surveys of neighbours and residents in relation to basement development. The written responses show the type of impacts faced by neighbours. Policy CL2 (d) (i) of the Core Strategy requires (amongst other criteria) above ground extensions "to be visually subordinate to the original building;" The Royal Borough also has a very special historic character with 70% within designated conservation areas and 4,000 listed buildings. As a result above ground extensions are proportionally small compared to the host building. Basement development on the other hand can introduce large increases in floorspace by adding a whole new floor under the footprint and into the large majority of the garden in accordance with the existing policy. Also see para 12.2 of Alan Baxter Associates Basements Report (Mar 2013).

- b. No evidence that basement construction continues for longer than for above ground extensions. Major above ground refurbishment projects can take more than 18 months. Basement construction of similar floor area can take less than six months.

The author refers to major above ground refurbishment and similar sized basements. The policy is not curtailing all basements and as described may well be within the limits proposed in the policy.

- c. No evidence that the excavation process has a high impact on neighbours - the responses to the residents' surveys do not distinguish between the basement and the above ground building works; the respondents will probably have considered all building work where a basement was or has been built as being due to the

basement construction. The additional RBKC Impact on Residents, Feb 2014 evidence reports that less than one complaint every three weeks about noise, vibration and dust has been received by the council's Noise and Nuisance Team during the period July 2010 to September 2013.

The Council does not agree with these assertions regarding the residents and neighbours surveys. The survey forms were clear that information was being collected about basement development including the title. It is also clear from the written responses in the surveys that the respondents were writing about basement development.

Please also refer to Council's response to Noise and Nuisance Issues raised in Basement Force Representation, RBKC, April 2014

32. Construction impact can only be reliably assessed on a case by case basis. Neighbours move and their patterns of life change. Residents who go to work during the day will experience little impact from noise, vibration, dust and increased road traffic. The impact on neighbours' amenity does not necessarily march in step with the number of applications or even the number of developments actually carried out. Equally it is wrong to adopt a policy across the Borough in response to a perceived problem which is local to parts of the Borough (those parts where basement developments are perceived to have been carried out in high numbers). The Council's own evidence demonstrates the very patchy pattern of basement development to date and it is simply unreasonable to apply policies designed to address problems perceived to have arisen in the red areas (or even the red and yellow areas) shown in "Basements Development Data" dated February 2014 throughout the Borough.

This is the author's opinion that the issues experienced by residents are perceived and ignores the evidence available. The Council's evidence does not demonstrate patchy pattern of basement development. The maps in Basements Development Data, Feb 2014 show this to be trend in all residential areas of the Borough.

33. That the Council appears to be seeking to control construction impact indirectly by restricting the scale of basement developments, policies CL7 (a) 50% of gardens and (b) not comprise more than one storey, is one reason the proposed policy is so awkward and at times perverse. An example of this sort of perverse outcome is that the proposed policy would allow a large single storey basement under a large house with a large garden but would limit the basement under a small property with a small garden to 50% of that garden even if there was no other design or technical reason for doing so. Further the council's own January 2014 study by its consultants Alan Baxter and Associates states, somewhat counter intuitively but supporting the point that basement size is a poor proxy for construction impact, that "the study suggests that there is no clear correlation between the time taken to excavate the basement and the overall size or volume of the basement³." If the proposed planning policy were based on quality and impact rather than size it would be more appropriate, justifiable and effective.

The proposed policy is based on quality and impact and the proposed limits are an essential strand to achieving this for all the reasons set out in the Policy Formulation Report, RBKC, Feb 2014. The policy is not just about construction impacts and will have many benefits. It is not relevant to compare large and small gardens but what happens on each individual site.

34. Further to this, it is repeatedly suggested by the Council that its policies have not been

effective because of the number of planning applications. This is a sign of the health of the sector and therefore the potential significance of the adverse effects of the policy. It is also a sign that the Council's well advertised attempt to pull up the drawbridge has had the effect of stimulating demand (Basement Force has direct experience of this); several tens of enquiries from RBKC residents have been received from people who state that they are only considering a basement development because of the proposed change in planning policy and its perception as likely to be the precursor to an effective broad ban. Finally, it is irrelevant to the planning merits of basement development.

Acknowledgement of Council's consultation as "well advertised" is noted.

³ Case Studies of basement excavation in relation to programme and vehicle movements. Prepared for RBKC. Alan Baxter and Associates. January 2014.

(2) The Council's concern about the impact of basement development on the character of and biodiversity in gardens is flawed.

35. The Council uses a perceived negative impact on gardens as a justification for limiting the size of basements under gardens, see supporting text paragraphs 34.3.50, 51, and 55 which state

The impacts are not perceived but based on a range of evidence as set out in the Policy Formulation Report, RBKC, Feb 2014.

- a. 34.3.50 There are also concerns over the structural stability of adjacent property, character of rear gardens, sustainable drainage and the impact on carbon emissions.. For all these reasons the Council considers that careful control is required over the scale, form and extent of basements.
- b. 34.3.51 The policy therefore restricts the extent of basement excavation under gardens to no more than half the garden....
- c. 34.3.55 Whilst basements can preserve the remaining openness of the townscape compared with other development forms, it can also introduce a degree of artificiality into the garden area and restrict the range of planting. Retaining at least half of each garden will enable natural landscape and character to be maintained, give flexibility in future planting (including major trees), support biodiversity....

36. The supporting text in 34.3.55 does not state what is meant by character of rear gardens. It has taken the conditional 'can also introduce a degree of artificiality' and uses it as a definite to justify a restriction.

Para 34.3.55 recognises the potential impact on the character of the and refers to supporting documents Trees and Basements, RBKC, Feb 2014 and Basements Visual Evidence, RBKC, Feb 2014. The preceding sentence states "rear gardens are often a contrast, with an informal picturesque and tranquil ambience, regardless of their size."

37. Any garden can thrive on top of a garden basement which has one metre of soil above it. That is, any and every species of tree, plant or shrub that lives in the UK can be planted, grow to maturity and live for a full life span on a garden basement that complies with the current (2009) SPD. There is no restriction in planting - the supporting text is simply wrong. The additional evidence provided in the council's recent 'Trees and basements' report is weak and seeks to support a position that trees on garden basement roofs are prone to failure based on the observation that 'There is a good example of this in the brick courtyard outside Kensington Town Hall where there are two moribund trees standing in less than a metre of soil above the basement car park⁴.' The council is seeking to use its own inability for good design as a basis for restrictive planning policy and, inexplicably, relying on an example in which the trees stand in less than a metre of soil.

The author has not provided examples of large trees thriving on top of a basement in a residential garden. Also see Council's Response to Arboricultural Issues raised by Cranbrook Basements and Basement Force, RBKC, April 2014.

38. The Council's own Principal Arboricultural Officer's view is that one metre of soil on top of a garden basement roof will allow future flexibility in planting, support sensible trees and support vegetation sustainably. He has stated:

"To support vegetation sustainably and to allow future flexibility in planting I would like to see the standard 1000mm".⁵

The Council is not disputing that planting cannot be carried out on 1m of soil (see Council's supporting document Trees and Basements, RBKC, Feb 2014). The submitted arboricultural observation from Basement Force shows that prior to the 2009 SPD the Council was requiring 1m of soil. This relates to the author's comments on the Council's visual evidence which state that examples used by the Council prior to the 2009 SPD are invalid as the Council did not require 1m of soil.

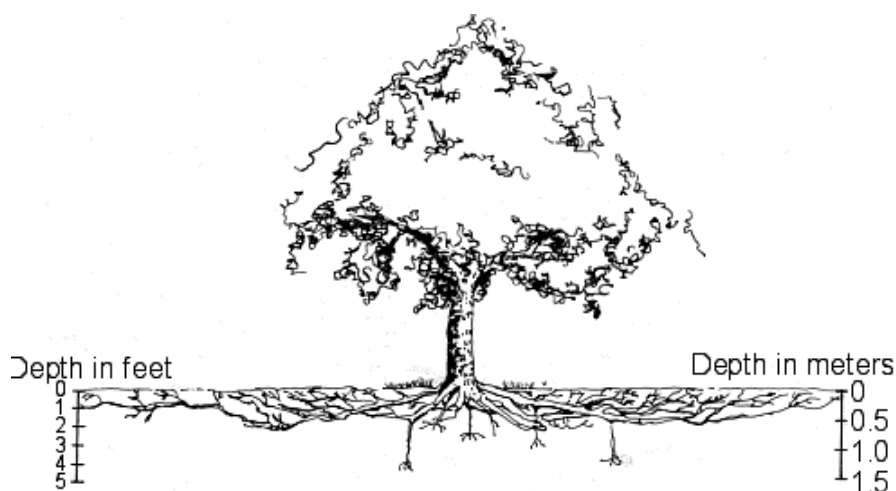
⁴ Trees and Basement. RBKC. February 2014 at paragraph 4.1

⁵ RBKC Arboricultural Observations, RBKC Principal Arboricultural Officer, 29 Brompton Square SW3, App No. PP/07/0649 & 650, dated 26/3/07

39. We have demonstrated by expert report and visual evidence that rear gardens of excellent character can, in every case, be placed on top of garden basements that comply with the current (2009) SPD on basement development including:

- a. Information given to RBKC Basement Working Group and that is on the RBKC planning website⁶:
 - i. Input from arboriculturalist stating that any tree, shrub or bush can live, and indeed thrive, on a garden basement roof with one metre of soil
 - ii. Examples of basements in London with mature trees grow on top of the basements (Bloomsbury Square car park, Hyde Park car park, Cavendish Square car park)
- b. Submission by arboriculturalist Adam Hollis MSc Arb FAbroA MICFor HND Hort to second draft policy.
- c. Adam Hollis' submission is clear in its four summary points:
 - i. The undulation of a garden over a basement is not restricted in any way. A garden over a basement can be as undulating as desired now and at any time into the future.
 - ii. Ground of one metre depth over a concrete basement roof does not restrict the range of planting in any way, including major trees.
 - iii. Any major tree grown in the UK can reach maturity and live for a normal life span in 600mm of fertile soil. One metre is more than adequate.
 - iv. One metre of soil is more than adequate to structurally support any major tree grown in the UK.

40. The diagram below was included in Adam Hollis' submission but was not included in the council's published response to comments.



⁶ Supporting evidence - Information provided to RBKC Basement Working Group on trees and planting

Fig.1: in mature trees the tap root is either lost or reduced in size. The vast majority of the root system is composed of horizontally oriented lateral roots

Fig 1 is from Harris RW et al 2004; Arboriculture Fourth Edition, Prentice Hall, NJ, America

41. We have suggested ways in which planning policy could be used to maintain and enhance the character of rear gardens by requiring a garden landscaping plan be part of the planning application - Basement Working Group meeting 18 Feb 2013 followed by 7 March additional points note, currently on RBKC planning website.

"RBKC basement planning policy could include conditions about garden planting that would positively improve the greenification, biodiversity and mature tree planting of the borough."

42. In this way the council's justification in 34.3.55 "informal picturesque and tranquil ambience" and "natural landscape and character to be maintained, give flexibility in future planting (including major trees), support biodiversity" can all be achieved by condition without the need for restricting garden basement size.
43. This suggestion has been ignored.
44. We have provided an example where a rear garden basement will improve the character of a rear garden. The example was provided to the RBKC Basement Working Group and is currently on the RBKC planning website - Bedford Gardens renders, planting and pictures (existing)⁷. The rear garden was originally a 100% paved yard with no planting and all surface water draining into the combined sewer system. The new garden is currently under construction and will have a naturally planted tree on top of the garden basement roof, this tree will grow to full size for the species, approximately five metres height, and live a full life span. In addition there will be borders and large potted plants. The main point is that a full size tree will be on the basement roof. Also the surface water will now drain into the new one metre of soil and be transpired by the tree rather than be directed into the combined sewer system. Both the garden and the surface water drainage have been improved by the garden basement development.
45. The council has dismissed or ignored or all of this evidence. Instead the council continues to state, wrongly, that a garden basement size limitation is required to improve or maintain garden character.

Comments on arboricultural issues are provided in the Council's Response to Arboricultural Issues raised by Cranbrook Basements and Basement Force, RBKC, April 2014.

46. To this end the council has now gathered visual evidence on 102 example properties (increased from the 25 examples from the July 2013 report) to support the idea that gardens on top of basements harm the character of rear gardens, see Basements Visual Evidence (February 2014) which purports to show pictures of rear gardens before and after basement construction in order to demonstrate harm to rear garden character, and a further council report, Basements Visual Evidence: External Manifestations (February 2014) showing external pictures of lightwells and gardens.

47. These reports contains multiple flaws⁸:

- a. 44 of the 102 example basements in the Basements Visual Evidence received planning permission prior to the introduction of the 2009 basement policy that requires one metre of soil on top of garden basement roofs. These examples do not show the impact of the current policy.

See comment above to para 38 "The submitted arboricultural observation from Basement Force shows that prior to the 2009 SPD the Council was requiring 1m of soil. Also see para 1.7 of Basements Visual Evidence, RBKC, February 2014.

- b. 24 of the 102 case examples show pictures of the basements while still under construction and uses these pictures of construction sites as demonstrating negative garden appearance. This is clearly wrong.

See para 1.9 and 1.11 of Basements Visual Evidence, RBKC, February 2014.

Para 1.11 states "Some sites in the aerial photographs are under construction. It is acknowledged that the appearance of these sites would improve once the landscaping in place. However these are considered relevant as they demonstrate the scale of excavation into the gardens and replacement of soil with impermeable materials. These images also show that in reality, the visual impact of the 85% limit, translates to (in many cases) the appearance that the entire garden has been excavated. This is because the majority of the garden has been excavated with only a 15% area, usually an inconspicuous strip along the side or bottom of the garden retained."

- c. In at least 12 of the cases with post 2009 planning permissions the gardens do not show any negative change in garden character beyond slightly increased terrace sizes in a couple of instances.

The objective of the report was to present evidence of a range of gardens. The policy is based on what happens in a large majority of cases.

- d. In one case, 32 Oakley Street, the garden appears to have been improved from being a paved garden before basement construction to a planted garden after basement construction.

The policy is not based on a single case.

- e. There are at least three examples where the gardens shown in the council's year dated pictures did not, at the time of the aerial pictures, have basements underneath them.

- i. 48 Drayton Gardens.
- ii. 50 Drayton Gardens.
- iii. 28 Abbotsbury Road.

This means that the council is using pictures of gardens with no basements underneath them as evidence that basements underneath gardens cause a negative impact. This is clearly flawed.

As stated above the objective of the report was to present evidence of a

range of gardens. The document Review of RBKC Basements Visual Evidence July 2013 (dated 16 March 2014) submitted by Basement Force shows a section of the basement at 48 Drayton Gardens with a small basement extension into the rear garden. It is accepted that 50 Drayton Gardens and 28 Abbotsbury Road did not have a basement at the time of the 2013 aerial survey. This is a desktop study and there will be a margin of error. Basement Force has methodically gone through every site in their document Review of RBKC Basements Visual Evidence July 2013 (dated 16 March 2014) and found 3 of the 102 cases presented (of which one does have a small basement). The policy as stated above is based on a large majority of cases and continues to present the visual evidence of the impact of basement development on private residential gardens in this Borough.

- e. One further case, 5 Addison Crescent, either has no basement underneath it or should be commended as an example where it is not possible to discern that a basement has been built underneath it.

As stated above the objective of the report was to present evidence of a range of gardens.

- f. The identification of multiple occurrences in the council's report where a garden without a basement has been identified and pictured as a garden with a basement raises doubts over the validity of the other examples provided. We have not had time to check every location but there is a reasonable chance that further addresses do in fact not have garden basements underneath them.

See response to point d above.

- h. Further the council's error negates the statement in the Council's basement visual report, page 6, Conclusion, that "It is clear from the aerial photographs that gardens that have been subject to basement development underneath can generally be distinguished from those without basement development." The council has demonstrably not been able to distinguish between the two.

The word 'generally' has been used in the Council's report and the Council is not claiming this will happen in every single case. Visual impact is part of the reason behind the policy which is based on a range of different issues.

⁸ Our Supporting evidence - Review of RBKC Basements Visual Evidence March 2014 provides additional detail.

- i. 31 Brompton Square - this project should not be used to demonstrate why the 2009 policy needs to be changed. This project gained planning permission prior to the 2009 basement policy. The owner then built beyond the permission he was given in plan area and depth, and removed a protected tree. This is patently not a correct example to use to demonstrate a requirement to alter the 2009 basement policy.

The case is relevant as it shows the extent of the basement into the garden.

- j. One case, 46 Eggerton Crescent, is given twice.

Noted.

- k. All of the pictures dated 2013, the last in each of the time series, is taken at a time of year where the trees are not in leaf. The introduction to the report states 'It is acknowledged that the aerial photography for 2013 is in a period when trees are not in leaf (early spring). However, data set for the summer of 2013 was not available when this report was compiled. This may give a more stark appearance to the gardens in 2013, however the time series of photos overall do present a reliable comparator.' We reject this assertion. A photograph of gardens not-in-leaf in spring / winter does not allow for a comparison with gardens in-leaf in summer. The 2013 pictures appear to show London as barren of trees both in its gardens and lining the streets. All of the 2013 pictures should clearly not be used.

The Council can only use the information available at the time of writing the report and as stated this is acknowledged in the report.

- l. In only seven of the 102 cases was planning permission granted in 2009 or after, so under current planning rules, and there is a discernible negative change shown in the photographs provided.

The relevance of photos of permissions granted before 2009 is stated under point a. above.

- m. The same flaws seem to apply to the roof lights shown in the second, External Manifestations, report. Planning dates are not given and the full addresses have not been given so the planning dates cannot be confirmed. The two examples that are, by chance, known both received planning before the introduction of the May 2009 SPD. The remaining roof lights and light wells would not appear to comply with the May 2009 SPD and so are not valid examples for inclusion. The report is therefore flawed and misleading.

The report simply shows that if appropriate planning policies are not in place, the widely held view that basements are invisible and therefore do not cause any harm to the character or appearance of an area is not accurate. As stated in para 1.3 of the report "Basement development is considered less visually intrusive than above ground development. However, the photographs in this document demonstrate that the external manifestations of basements such as lightwells, roof lights, railings, staircases etc. can have adverse visual impacts. It is acknowledged that many of these examples predate the existing basement policy. It is also acknowledged that not all basement developments will result in the type of visual impacts shown in these photographs. Nevertheless the photographs demonstrate the need to introduce a planning policy that requires

basement developments to consider the external manifestations carefully. This should also be considered in light of the numbers of basement planning applications and the special character of the Royal Borough”.

- n. It has also been ignored that:
- i. For recent basement builds the planting on top of the garden basement roof will also be recent. Any trees or large plants have not grown to maturity and will not be visible from aerial photographs for several years. On this basis alone none of the council's recent visual evidence is meaningful.
Examples have been provided from over 10 years ago. Whilst Basement Force does not agree these are relevant, the Council considers these are very relevant as outlined in the response to point a. above.
 - ii. The council has, by use of condition, the ability to control garden landscaping. Any lack of planting or character in gardens over recent basement developments demonstrates that the council has not been using its existing powers effectively. The Council does use landscaping conditions when necessary but clearly this reactive approach is not working. In addition considerations for each planning applications take into account individual circumstances. Planning policy takes a broader borough wide view and a proactive approach is needed.

48. The wording of 34.3.50 suggests that existing protected trees are at risk - this is not the case, existing trees are protected by TPOs or under conservation area rules and by an appropriate and enforceable criterion – good design avoids harm to trees.

Construction can harm existing trees if not properly considered. Just because trees are protected by TPOs or in conservation areas does not mean they will not be harmed during construction and text in para 34.3.59 (not 34.3.50) makes clear “Works to and in the vicinity of trees, need to be planned and executed with very close attention to detail.”

49. The beneficial effects of full landscaping on the soil in gardens has been ignored. The soils in the borough's existing gardens is generally thin (less than 100mm) or non-existent, and is often 'made ground', that is manmade fill or deposits/building waste⁹ and not what could be considered soil at all. Building a basement and introducing a good depth of topsoil, far less than one metre, will be a significant improvement over the existing soil conditions. This has been raised previously by our arboricultural expert, Adam Hollis, but has been ignored.

Basement Force's document Soils in RBKC - example boreholes dated 16 March 2014 contains a handful of borehole results from RBKC all showing made ground above the sub soil layer. It then suggests in the conclusion that this is the norm within the borough, which is not the case. However, this submission is irrelevant as there are no known plant health/establishment issues in the borough.

50. A new piece of supporting evidence, Impact of Basement Development on Biodiversity, seeks to demonstrate that basement development under gardens will have a negative impact on biodiversity across the borough.

51. We have included expert opinion¹⁰ that this is not the case. The main points of this opinion are:

- a. The policy will restrict development and will not minimise impacts or provide net gains in biodiversity.
- b. This is because the proposed policy places an arbitrary limit of 50% of the garden that can be built under rather than considering the ecological value of the garden prior to development and then avoiding and mitigating any adverse impacts.
- c. If prior to construction a garden were to be of limited ecological value and a wildlife friendly landscaping scheme was implemented, the proposals are likely to result in a net biodiversity gain.
- d. That it would be appropriate to reword the policy so that it states that basement developments will be acceptable where it has been demonstrated that any temporary adverse impacts upon biodiversity will be kept to a minimum and adequately mitigated, and that, through appropriate wildlife friendly landscaping and space for large canopy trees, a long term net gain in biodiversity is achieved.

The policy is taking a proactive approach rather than a reactive one as suggested. The policy is also based on a number of issues as outlined in the Policy Formulation Report, RBKC, April 2014.

(3) Structural stability issues.

52. No evidence has been given that garden basements have caused structural stability problems with adjacent property.

53. The RBKC Alan Baxter report does not link structural stability problems with garden basement size in any way.

54. There is no link between the size of garden basements and structural stability of

adjoining buildings. The additional size of garden basements is nearly always at the rear of the garden and away from other buildings.

Structural stability is not part of the reasoned justification for restricting basement development under gardens.

⁹ Our supporting evidence - Soils in RBKC - example boreholes - March 2014.

¹⁰ Supporting evidence - Comments on the RBKC's draft basement policy (Biodiversity) - GS Ecology

55. No evidence has been given that multi-level basements have either (i) caused structural stability issues, or (ii) have caused more structural stability issues than single level basements.
56. Structural stability concerns can and should be addressed by other means.
57. A chartered engineer is currently required to oversee works. In some cases the correct level of supervision is not taking place. In short, existing policy is adequate but it is not being enforced effectively. The suggestion of improving enforcement of the existing policy through the use of Building Control officers who already visit site routinely was made in the RBKC Basement Working Group. This suggestion was dismissed.
58. Other suggestions for allaying structural stability concerns is to require:
- a. Contractors undertaking basement construction work to be members of a reputable trade body such as the Association of Specialist Underpinning Contractors (ASUC). This could be an effective means of reducing the concern about structural stability. Currently the Grosvenor Estate require that contractors undertaking basement construction work on the estate must be ASUC members.
 - b. Property owners have first person indemnity latent defects insurance in place. This would be in addition to the contractor's standard public liability and professional indemnity insurance. This requirement is being introduced by Grosvenor Estates as another method for increasing the level of competence and responsibility of contractors.
 - c. Non-negligent insurance to be in place.
59. Measures like these could be taken into account in the context of a simple criteria based policy along the lines we suggest.

Structural stability is not part of the reasoned justification for restricting basement development under gardens. Comment on criteria based policy is set out under para 5 above.

(4) The Council's view that the carbon emission of basements are greater than those of above ground developments per square metre over the building's lifetime is wrong.

Comments made in July 2013 were on the 2010 Report. The Council accepted that this report had some arithmetical errors, it was out of date and relied on a small number of case studies. As a result this report was superseded by Life Cycle Carbon Analysis, Eight Associates, Feb 2014 report.

Response to Basement Force regarding extension of consultation period was made at the time of request.

Response to new points raised in the Basement Force submission titled Above Ground Extension and Subterranean Development Operational Carbon Review and Analysis (17th March 2014) is provided in Response to Operational Carbon report submitted by Ashmount Consulting prepared for the Council by Eight Associates, April 2014.

60. The supporting text states:

34.3.53 The carbon emissions of basements are greater than those of above ground developments per square metre over the building's life cycle....

61. This statement is wrong. It is an oversimplification of the true case. The same point was made in the July 2013 draft policy and has been the subject of an expert report prepared for Basement Force and submitted as part of the consultation on that draft policy. The Council's most recent report by Eight Associates - Life Cycle Carbon Analysis; Extensions and Subterranean Development in RBKC, is dated 10 Feb 2014.
62. The report compares four above ground extensions with seven single storey basement extensions and five multi-storey basement extensions. However it is clear on examination that the different categories of extension are not comparable and notable that there is no consideration of the expert report we submitted.
63. We have felt considerably disadvantaged by being given such a large volume of expert material which does not respond to our previous representations, but simply carries out a new exercise designed to support the policy as already drafted. We have asked for more time in the consultation process in order to instruct our expert to consider this and respond so that our response to consultation can be as constructive as possible but this has been refused. Accordingly we will have to reserve our right to elaborate upon and justify the arguments we had already made through our expert, and to respond to the detail within the new report within our evidence to the examination.
64. We have, however, completed a comparison of similar sized above ground and basement extensions, which shows:
 - a. For comparable size large extensions (70m²) basements, when considered on a correct full life basis, produce less carbon emissions than above ground extensions provided that the basement structure lasts for more than 44 years¹¹. This result was presented in September 2013 but was ignored and has not been countered.
 - i. Further to this, we showed that when the likely longer building life of a reinforced concrete basement is considered against the almost certainly shorter life of an above ground extension the carbon performance of the basement is significantly better than for the above ground extension.
 - ii. Our analysis shows that for larger extensions (70m²) basements have 25% better carbon performance on a like-for-like basis than above ground extensions using the reasonable expected life spans for 120 years for a basement structure and 40 years for the above ground extension.
65. The better carbon performance of basements for large (70m²) extensions has two drivers:
 - a. Basements have better occupied carbon emissions performance - their roofs are better insulated and the temperature difference between the internal space and the immediate external surrounds are always more favourable for the basement than the above ground extension where the external winter temperature is lower than that of the relatively warm ground below the surface. For example the

ground below the surface never freezes.

- b. The reinforced concrete basement structure has a longer expected lifespan than the equivalent above ground extension.

¹¹ Supporting evidence - Above ground extension and subterranean development - life cycle carbon review and analysis - August 2013 - Ashmount Consulting Engineers

- i. Property owners frequently demolish and replace extensions because of a desire to change and modernise. This is not the case for a reinforced concrete basement structure.
 - ii. Above ground buildings have a demonstrated average life in the United Kingdom of 59 years. Reinforced concrete structures have a general minimum design life of 100 years and a likely practical life span significantly longer than this.
66. The Eight Associates' July 2013 report is thought likely to remain part of the evidence base for the Publication Draft of the Plan. Therefore, we draw the Council's attention once again to the points we made in response to consultation in August 2013 in the following four paragraphs.
67. The Report by Eight Associates dated July 2013 is flawed in several ways. It contains multiple input mistakes, omissions, mathematical errors, flawed logic and poor methodology. An example of a basic error is that the amount of spoil produced in excavating a single storey basement with an area of 75m² is given as 1,200m³. This is clearly wrong.
68. The incorrect results of the Eight Associates' analysis lead directly to the false conclusion that basements are more carbon negative than above ground extensions. The statement "Limiting the size of basements will therefore limit carbon emissions and contribute to mitigating climate change." should therefore be changed to a statement supporting basement development as a more carbon friendly sustainable alternative to above ground development.
69. It follows from the above that any additional environmental requirements for basements should be removed from the proposed policy.
70. Further, any parts of the policy justified by the false assumption that basements have poor carbon performance should be removed.

(5) The reliance on Policy 3.5 of the London Plan is flawed.

The Council has received a letter of compliance from the GLA. GLA's Draft Sustainable Design and Construction SPG, July 2013 (page 12, 27 and para 2.2.25) lists London Plan Policy 3.5 as relevant to basement development.

71. In its responses to comments on the second draft policy the Council has attempted to use the London Plan Policy to justify limiting the size of rear garden basements. The following section is taken from the Council's Consultation Responses on Second Draft Basements Policy, July 2013, page 81; response to Rob Withers, ASUC. The same response is given several times to different people.

Reasoned justification to Policy 3.5 states that "back gardens play important roles in addressing many of these policy concerns, as well as being a much cherished part of the London townscape contributing to communities' sense of place and quality of life."

The London Plan Housing SPG (para 1.2.18) further amplifies the roles that gardens play including

- “defining local context and character including local social, physical, cultural, historical, environmental and economic characteristics,
- Providing safe, secure and sustainable environments and play spaces,
- Supporting biodiversity, protecting London’s trees, ‘green corridors and networks’, abating flood risk and mitigating the effects of climate change including the ‘heat island’ effect, and
- Enhancing the distinct character of suburban London.”

Para 1.2.22 of the London Plan Housing SPG further states “Gardens can clearly be very much part of form, function and structure which warrants respect and protection.”

Development both above or below ground can alter the character of gardens and adversely impact on the roles defined in the London Plan Housing SPG. It is reasonable to expect a significant proportion of gardens to be kept free of any development to allow their natural character to be maintained.

Para 53 of the NPPF also states “Local planning authorities should consider the case for setting out policies to resist inappropriate development of residential gardens, for example where development would cause harm to the local area.”

72. Basements under gardens with one metre of soil do not conflict with any of the extracts from the London Plan Policy or NPPF that have been quoted above by the council. Therefore the wording from the London Plan and the NPPF does not justify the limitation in size proposed in the policy.

The Council’s view is, and is supported by the evidence, that unrestricted basement development can (from the above list) impact on historical character, biodiversity, trees, green corridors and networks, surface water flooding, climate change (carbon emissions).

73. No evidence has been provided that a basement under a garden that allows full, flexible future planting of all trees and plants, maintains groundwater drainage, meets SUDs, maintains the full and flexible use of the garden space for usual garden activities, mitigates the heat island effect, maintains or improves biodiversity, and that could be landscaped to meet the council’s requirements, does not meet any of the requirements of the London Plan and the Mayor of London’s Housing SPG9 (justification 34.3.55).

74. The Council appears to be misrepresenting and misusing the London Plan Policy out of context in order to justify the policy.

(6) The imposition of prescriptive prohibitions is flawed.

75. Quality and impact not size should be the measures by which the development is judged.

76. Quality should be assessed based against the following sound criteria:

- a. Having an acceptable impact on the street scene;
- b. Having an acceptable impact on any heritage assets including, where relevant, the building itself;
- c. Having an acceptable impact on the amenity of neighbours and those using the public spaces around the building including the street;
- d. Promoting, in a proportionate way, sustainable development – in relation to UK carbon emissions;
- e. Not causing an unsympathetic alteration to the leafy and well-treed character of the Borough's gardens or negatively impacting their bio-diversity;
- f. Incorporating SUDS and dealing acceptably with other hydrological matters;
- g. Being well designed (including protection from flooding and other technical matters);
- h. Not causing an adverse impact on the structural stability of any building.

See response to para 5 above.

Section 5. Impact of proposed development on the street scene

77. The Council proposes the following policies and supporting justification.

CL7 d. not cause loss, damage or long term threat to trees of townscape or amenity value;

CL7 h. not introduce light wells and railings to the front or side of the property unless they are already an established and positive feature of the local streetscape;

CL7 i. maintain and take opportunities to improve the character or appearance of the building, garden or wider area, with external elements such as light wells, roof lights, plant and means of escape being sensitively designed and discreetly sited;

34.3.63 In conservation areas, development should preserve or enhance the character or appearance of the conservation area. Basements by themselves with no external manifestations are not considered to affect the character or appearance of conservation areas. It is the other aspects such as the externally visible elements that can affect their character or appearance.

34.3.66 It is very important to minimise the visual impact of light wells, roof lights, railings, steps, emergency accesses, plant and other externally visible elements. Care should be taken to avoid disturbance to neighbours from light pollution through roof lights and other forms of lighting. Introducing light wells where they are not an established and positive feature of the streetscape can harm the character or appearance of an area. Where external visible elements are allowed they need to be located near the building, and sensitively designed reflecting the existing character and appearance of the building, streetscape and gardens in the vicinity.

The Council's evidence

78. Elsewhere in the supporting text it is stated:

34.3.47 Basements are a useful way to add extra accommodation to homes and commercial buildings. Whilst roof extensions and rear extensions add visibly to the amount of built development, basements can be built with much less long term visual impact – provided appropriate rules are followed.

79. Little or no weight appears to have been given to the Council's own statement that basements can be built with much less long term visual impact than other forms of development. The proposed policy is more stringent than for general above ground planning policy by not allowing visible changes such as railings or light wells unless they are already an established and positive feature of the local streetscape.

*As stated in para 34.3.47 "Whilst roof extensions and rear extensions add visibly to the amount of built development, basements can be built with much less long term visual impact – **provided appropriate rules are followed**" (our emphasis). The policy sets out those rules. The proposed policy takes a considered approach to basement development based on a range of issues. For example above ground policy CL2 (d) (i) of the Core Strategy requires (amongst other criteria) above ground extensions "to be visually subordinate to the original building;". Adding one or more*

floors across the entire footprint of properties on the roof are also normally not allowed. It is not reasonable or relevant to draw comparisons with above ground policies.

80. Given the statement in 34.3.47 the policy should, all other things being equal and being pro-growth in line with the London Plan and sustainable development, be supportive of basement development rather than be seeking to add more onerous restrictions than are required for above ground development.

See response to para 79 above.

81. The Council has not shown that basement developments have a negative impact on the street scene. The RBKC Basements Visual Evidence: External Manifestations February 2014 gives one example of a front garden in Drayton Gardens. If this is considered harmful it could be prevented with a simple criteria based policy such as we propose.

Comment on the criteria based policy is presented under para 5.

Our evidence / analysis and how this has been responded to by the Council to date

The Council has provided the original response and sees no merit in providing another response to further responses. These comments do not address the soundness consultation.

82. We made the following comments in response to the relevant supporting text in the second draft policy.

There are existing planning policies for above ground work. The externally visible elements are standard above ground building work and should be judged in line with other existing/standard general policies. There is no justification for a more restrictive approach to basements.

It is excessive to require that a light well is already part of the existing street scene as officers can judge whether a new light well does any harm in the particular case. There can be a general criterion covering the externally visible elements of a basement development and that they should not harm the character or appearance of the local street scene.

83. The Council responded:

The Core Strategy should be read as a whole. As stated the Council does have extensive policies for above ground development. If no distinction was made between above and below ground development, basements would be precluded to a large extent. Basement development has become increasingly popular as policies do not allow above ground development to the same extent. Addition of new light wells where there are no existing ones will change the character or appearance of the street.

84. There are several points to be made about this response:

- a. It does not answer the comment made. Our comment clearly states that the above ground element of basement developments should be judged in line with other existing / standard general policies. To reply "If no distinction was made

between above and below ground development, basements would be precluded to a large extent." simply does not make sense.

- b. There should be no need for a specific policy on light wells and the existing general planning policy should suffice. Alternatively, a criterion addressing the potential for adverse impact on the character and appearance of the street would cover the point.
- c. The Council states that "Addition of new light wells where there are no existing ones will change the character or appearance of the street." This is true. However change to the character or appearance of a street is not necessarily harmful, even if in a conservation area. The Council's response demonstrates that the proposed policy is based on the assumption that development should be restricted even if not harmful.
- d. The policy should, in line with the NPPF and the London Plan, be pro-growth in line with sustainable development. The policy should support development unless it causes unacceptable harm. The proposed policy steps beyond this and seeks to limit development even when no harm would be caused.
- e. The Council states ' Basement development has become increasingly popular as policies do not allow above ground development to the same extent..' This is correct. In line with sustainable development the Council should be welcoming the opportunity for development that can achieve an increase in accommodation with minimal external impact.

85. We made the following comments in response to the draft policy on this issue in the second draft policy consultation.

Should be redrafted to reflect the policy comments above in relation to 37.3.70.

It is quite possible the light well or railings (existing or proposed) are not visible from the street which renders this criterion meaningless. What matters is whether the proposed basement will cause any harm to the character or appearance of the area or street scene. That is a criterion I could support and which planning officers are very used to applying properly to the individual circumstances of the site and the proposal in question.

86. The council responded:

Noted. The planning test relates to character or appearance. Light wells are an external manifestation of basements and where they are not present but are introduced they would harm the character if not the appearance.

87. We would make the following further points :

- a. The Council has not responded to the comment that light wells could quite possibly not be visible from the street . Features that cannot be seen from the street clearly do not harm the street scene and should probably be treated in a similar manner to features in rear gardens that can be seen by neighbours but not by others.

- b. The council's response states that light wells ' would harm the character if not the appearance'. This is clearly incorrect. Light wells may harm the character or appearance. Whether a light well will or will not cause harm to character or appearance can only be judged on a case by case basis. It is not true that the introduction of a light well will cause harm to character or appearance on every occasion. A well designed light well could maintain or enhance the street scene even if there were none previously present.

Soundness of the Council's approach

88. The Council's approach is not sound because it is not positively prepared, justified or effective.
89. The policy does not objectively assess development rather it seeks to limit development on a blanket basis that if a feature does not exist in the street scene then it cannot be introduced.
90. A further example is the Council's requirement in 34.3.66 'Where external visible elements are allowed they need to be located near the building.' The requirement for the location of light wells to be near the building does not allow objective assessment of a development. An external visible element away from the building could be designed to cause no harm and should therefore be allowed. No evidence has been given to support the requirement that external visible elements be located near the building.

Planning works on the basis that "Planning decisions must be taken in accordance with the development plan unless material considerations indicate otherwise" (Section 38(6) of the Planning and Compulsory Purchase Act 2004). The policy is the starting point and each case is assessed on its own merit. Policies are written to address most cases rather than the exceptions.

91. The proposed policy does not allow innovative solutions to be developed in order for the design to respond positively to its particular context.
92. For example the requirement to avoid light pollution could be achieved by:
- a. Use of blackout blinds / light shutters that close automatically when internal lights are switched on.
 - b. Use of electronically operated opaque / transparent glass. This technology is not at the point to provide 100% darkness but given a market, like basements in London, innovation of this sort of product would be incentivised.

These are unrealistic and reactive solutions relying on technology to work and are part of internal fixtures which cannot be secured through the planning permission.

93. The policy will reduce the number of basement developments as basements without light wells are less useful or attractive as living space. This will result in reduced economic growth even when no other negative impact has been demonstrated. This is not consistent with achieving sustainable development.

The policy is not banning lightwells, but providing guidelines of how their impact can be minimised by placing them close to the building line. The author refers to

innovative solutions in para 91 which can respond to the proposed policy.

94. The policy is not supported by a proportional evidence base. No clear evidence has been provided that light wells always cause harm to the street scene. One picture of an unattractive roof light in an unspecified front garden in Drayton Gardens is not considered sufficient.

Planning works on the basis that "Planning decisions must be taken in accordance with the development plan unless material considerations indicate otherwise" (Section 38(6) of the Planning and Compulsory Purchase Act 2004). The policy is the starting point and each case is assessed on its own merit. Policies are written to address most cases rather than the exceptions.

95. The policy is not proportionate as above ground extensions are not required to avoid light pollution in the same way.¹² We note too that the concern in the text about light pollution is one of neighbouring amenity not the character and appearance of the street. In either event, provided a source of light avoids harm to these two material issues it is surely acceptable.

Light pollution is a valid planning issue see NPPF para 125 and is a consideration in above ground development.

96. The policy is not the most appropriate strategy when considered against the alternatives. We have proposed a more appropriate strategy, namely to allow development that has an acceptable impact on the street scene.

Comment on the criteria based policy is provided under para 5.

¹² Supporting evidence - Examples of the extent of glazing allowed in above ground extensions.

97. The policy will not be effective and will have some perverse consequences. We know of one real example that will happen within the next year. In this real example there are currently no light wells in the specific part of the street, so light wells are not allowed. However planning permission was given for one development some time ago that will be built shortly. From that point on light wells will be a feature of the street scene and will be allowed by the policy even if the first light well detracts from the street scene. This is a perverse situation.

Adding one light well does not translate to light wells becoming an established part of the street scene.

98. The policy will not effectively deliver the legitimate aim of the policy, namely to deter only those basement developments which would cause material harm.

99. In contrast, our suggested approach would allow development that has an acceptable impact on the street scene and it would be appropriate to include a criterion to that effect. In addition, there would be no objection to criterion d.

Section 6. Impact of proposed development on any heritage assets

Please refer to the Council's Response to Cranbrook Basements comments related to Listed Buildings, RBKC, April 2014. Whilst this report relates to comments made by Cranbrook Basements, similar points have been made by Basement Force below.

See Council's supporting document Basements in Gardens of Listed Buildings, Alan Baxter and Associates, Feb 2014 and London Terrace Houses 1660 - 1860, English Heritage, 1996

100. The Council proposes the following policies and supporting justification.

CL7 e. not cause harm to the significance of heritage assets;

CL7 f. not involve excavation underneath a listed building (including pavement vaults);

CL7 g. demonstrate there is no harm to the special architectural and historic interest of the listed building when proposed in the garden;

34.3.60 The significance of heritage assets needs to be identified so that the significance is not harmed.

34.3.61 The special architectural or historic interest of listed buildings goes beyond appearance. It includes the location and hierarchy of rooms and historic floor levels, foundations, the original purpose of the building, its historic integrity, scale, plan form and fabric among other things. Consequently, the addition of a new floor level underneath the original lowest floor level of a listed building, or any extension of an original basement, cellar or vault, may affect the hierarchy of the historic floor levels, and hence the original building's historic integrity. Basements under listed buildings are therefore resisted by the policy.

34.3.62 Basements in the gardens of listed buildings can result in modifications to the building's foundations. This can harm the historic integrity and pose risks of structural damage to the building. Evidence suggests that where a basement is built only in the garden it is beneficial for the adjoining buildings if this basement is structurally independent of the adjoining houses and executed with special care. The link between the listed building and the basement should be discreet and of an appropriate design.

34.3.65 The impact of basements on non-designated heritage assets must be assessed on their merits to avoid harm to their significance.

The Council's evidence

101. The Council's own March 2013 report by Alan Baxter Associates states on Page 85

Question 10

Are there particular risks associated to listed buildings, many of which are properties which have shallow foundations? If there is a greater risk to such buildings should this be mitigated by “exclusion zones” of basement development from listed structures?

Answer

From a structural engineering viewpoint there is little difference in risk between a listed and unlisted building. However one difference is that some listed buildings may be more likely to have delicate or special finishes which might be more susceptible to cracking as a result of ground movements and be more difficult to repair. Structurally older buildings tend to be more able to accommodate ground movements than more modern brittle structures. The objection to basements under listed buildings primarily relates to how a building is used rather than any particular structural risk.

102. Therefore the Council's own engineering report does not support the justification in 34.3.62 that work underneath the foundations of listed buildings '... pose risks of structural damage to the building.' and any justification or policy using this justification should be removed.
103. The council stated in its 2nd Draft Policy, reasoned justification 34.3.65 that:
- Consequently, the addition of a new floor level underneath the original lowest floor level of a listed building, or any extension of an original basement, cellar or vault, will in the great majority of cases affect the hierarchy of the historic floor levels, and hence the original building's historic integrity.
104. By the above statement the Council recognised that at least in a minority of cases a new floor level underneath the original lowest floor level of a listed building will not affect the hierarchy of the historic floor levels, and hence not affect the original building's historic integrity. In these minority of cases the Council should not oppose development.
105. The Council has removed this section from the proposed policy justification but that does not diminish the fact that the Council has made a statement in a draft policy that acknowledges that in some cases development beneath a listed building will not affect the building's historic integrity.
106. The council has included at this round of increase evidence a report on London Terrace House by English Heritage that states that the plan form and general treatment of the interiors are of special interest and that the structural integrity and fabric of a listed building should always be carefully preserved. This information does not support the blanket ban on basements under listed buildings. Instead it supports a policy where each development is assessed on a case by case basis and, if features of significance were to be harmed, development should be resisted.
107. As an example there are numerous cases where the plan form and hierarchy of floors of a listed building have already been lost due to major structural work in the last 30 years. This structural work is usually at the rear of the house where above ground extensions and internal adaptations have taken place. In these cases the proposed development should not, in line with the English Heritage report, be resisted.

Our evidence / analysis and how this has been responded to by the Council to date
The Council has provided the original response and sees no merit in providing another response to further responses. These comments do not address the soundness consultation.

108. We made the following comments in response to the supporting text on this issue in the second draft policy.

Building a basement under a listed building strengthens the foundations and will often increase the structural longevity of the listed building – underpinning is frequently carried out to old/ancient buildings as a foundation repair solution. So building a basement under a listed building will often preserve and improve the stability of a heritage asset.

The introduction of a new floor underneath a listed building need not have an adverse impact on the significance of the heritage asset. This will depend on the nature of that significance in the particular case. There is no sound basis for preventing new basements in all old or historic buildings. In any building for which it does constitute harm, criterion d would cover the point. [Note: criterion d in the second draft policy was 'The scheme must not cause substantial harm to heritage assets']

The Alan Baxter report recognises that there are no particular risks to a listed building from construction underneath or within its garden. Paragraph 34.3.66 implies the contrary and is therefore not justified by evidence.

109. The council responded:

Noted. The Council's existing policy precludes basements underneath listed buildings. This part is not a new policy that is being introduced.

There is no structural risk from building in the garden as long as it can be done without causing extensive modifications to the foundations of the listed building. The reasoned justification recognises this and includes an exception.

110. There are several points to be made:

- a. The Council appears to assume that elements of the new policy that are covered under the existing policy (expressed in SPD) should not be assessed as part of the process for introducing the new policy. This assumption is not correct. All parts of the new policy should be assessed equally for legal compliance and soundness.
- b. The Council's response does not address the following comments:
 - i. That underpinning the foundations of a listed building is potentially beneficial as it will extend the life of the listed building, especially if the building has shallow foundations which is the case for many of the Victorian, Georgian and older buildings.

- ii. That introducing a new floor underneath a listed building need not have an adverse impact on the significance of the heritage asset.
- iii. That each case should be addressed individually with regard to the nature of the significance in that case.
- iv. That criterion d¹³ would cover the requirement to avoid harm to heritage assets.

111. We made the following comments in response to the policy on this area in the second draft policy.

This criterion is unnecessary because criterion d protects the special interest of a listed building.

Since the text itself recognises that there are some cases where development will not affect the hierarchy of the historic floor levels, the criterion is not justified by the text

112. The council responded:

Noted. The Council's existing policy precludes basements underneath listed buildings. This has been upheld on appeal. Core Strategy policy Policy (sic) CL2 (g) (i) should be referred to.

The policy explains that the exception for sites with a large garden is linked to the fact that basements should not result in extensive modifications to the foundations of listed buildings. This can harm both the historic and architectural significance of the listed building and pose a risk to the structure of the building itself.

Text will be amended as addition of a new floor underneath a listed building will alter the plan-form and harm the historic and architectural significance of the building.

113. There are several points to be made:

- a. Again the Council mistakenly assume that parts of the policy that are the same or similar to existing policy do not need to be assessed for legal compliance or planning soundness.
- b. The Council seems to assume that because an individual case or cases have been upheld on appeal that this demonstrates that the policy is sound. This is not true. An individual case being upheld on appeal demonstrates that that case should not be granted planning permission and no more.
- c. The reference to structural risk to foundations as justification for policy should be removed given that the Council's own engineering report states that "From a structural engineering viewpoint there is little difference in risk between a listed and unlisted building."

Soundness of the Council's approach

114. The Council's approach to policy e is considered sound.

115. Policy e is considered sufficient on its own as it protects the significance of listed buildings and any other heritage assets.

Noted.

¹³ Criterion d in the second draft policy was - "The scheme must not cause substantial harm to heritage assets"

116. The Council's approach, other than to policy e, is not sound because it is not positively prepared, justified or effective. It duplicates criterion e.
117. The Council's approach, other than to policy e, is not positively prepared as it seeks to impose a blanket ban on all development under even when this development would meet all other objectively assessed criteria and would not cause any harm to the special interest of the heritage asset.
118. The council's own reasoned justification accepts that there will be instances where a basement extension under a listed building will not affect or harm the hierarchy of the historic floor levels and therefore not harm the original building's historic integrity - reasoned justification 34.3.62 "the addition of a new floor level underneath the original lowest floor level of a listed building, or any extension of an original basement, cellar or vault, may affect the hierarchy of the historic floor levels, and hence the original building's historic integrity." This statement allows that there will be instances where the hierarchy of the historic floor levels will not be affected.
119. The proposed policy, other than to policy e, does not have objectively assessed criteria rather it will impose a blanket ban. The July 2013 draft of the policy also banned excavation under the garden of a listed building save "on large sites" and the change is considered a step in the right direction. Nevertheless the principle of a blanket ban is wrong as these paragraphs are intended to show.
120. The proposed policy, other than to policy e, is not aligned with the central tenet of sustainable development - "meeting the needs of the present without compromising the ability of future generations to meet their own needs". The policy does not seek to support growth where it is possible rather the policy seeks to curtail all development underneath listed buildings even if all other objectively assessed criteria are met and either:
- a. No harm is caused to the significance of the heritage asset, or
 - b. The public benefit of any less than substantial harm is demonstrated to outweigh any harm to the significance of the heritage asset.
121. Underpinning is used to extend the life of listed buildings by strengthening their foundations¹⁴. Building a basement under a listed building by underpinning will have the same effect and if done correctly will extend the structural life of the listed building. This work would be aligned with English Heritage's intention of preserving heritage, the policy's aim of preserving heritage assets and sustainable development's intention to enable future generations to meet their own needs. As such underpinning to listed buildings should, all other things being equal, be positively encouraged by the policy.
122. The proposed policy, other than policy e, has not been justified. The Council states several absolutes without providing any supporting evidence as to why this is the case. In each case the wording should include or be replaced by the conditional 'may'. The

¹⁴ Supporting evidence - Underpinning under listed buildings: examples of foundation repairs to listed buildings by underpinning

following sentences have been identified - the relevant word(s) in each sentence have been underlined:

- a. The special architectural or historic interest of listed buildings goes beyond appearance. (34.3.61)
- b. It includes the location and hierarchy of rooms and historic floor levels, foundations, the original purpose of the building, its historic integrity, scale, plan form and fabric among other things. (34.3.61)

123. The statement of the above sentences as absolutes gives the justification unwarranted authority.

124. English Heritage commented on the first draft policy. Their comment made it clear that they would see no reason to oppose a policy that allowed development underneath listed buildings provided that either no harm was caused to heritage assets or that any less than substantial harm caused had demonstrable public benefits that outweighed the harm to the significance of the heritage assets.

This is factually incorrect English Heritage did not state "they would see no reason to oppose a policy that allowed development underneath listed buildings". They simply directed attention to the NPPF.

125. First Consultation Response draft policy March 2013, page 100, English Heritage (Richard Parish) comment:

CL7d Policy CL7d states that "The scheme must not cause substantial harm to heritage assets".

The phrase "substantial harm" reflects the Government's published National Planning Policy Framework which sets out the considerations which must be taken into account when a development proposal causes "substantial" or "less than substantial harm" to heritage assets. As the proposed policy refers only to substantial harm clarification should be provided in respect of proposals which are considered to cause "less than substantial harm". We would recommend that this Policy is amended as follows. "The scheme must not cause substantial harm to heritage assets. Where proposals are considered to cause harm that is less than substantial the scheme must demonstrate that the public benefits outweigh any harm to the significance of the heritage asset."

126. English Heritage's comments demonstrate that the proposed policy is not justified.

The Council made the following response to English Heritage's response - Noted. The word 'substantial' may be removed in the document Consultation Responses to Draft Basements Policy, RBKC, March 2013. Letter received by English Heritage on 3 September 2013 states "English Heritage has reviewed the document in light of the National Planning Policy Framework (NPPF), which includes, as one of its core principles, that heritage assets be conserved in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of this and future generations. Having done this, English Heritage advises that we are broadly content with the soundness of the proposed revisions in terms of the historic environment."

127. English Heritage's comments propose a more appropriate strategy, except for policy e which is accepted, of assessing the harm that will be caused to heritage assets for a development on a case by case basis.

128. The Council's proposed policy will not deliver effectively the legitimate aim of the policy, namely to deter only those basement developments which would cause material harm.

129. In contrast, our suggested approach would only allow development that has an acceptable impact on any heritage assets including, where relevant, the building itself.

130 It would also be capable of supporting the longevity of listed buildings by allowing their foundations to be underpinned as part of a basement development. The Council would preclude this foundation strengthening **until** signs of structural damage were evident and foundation repair work was required.

Section 7. Impact of proposed development on the amenity of neighbours and those using the public spaces around the building including the street

131. The Council proposes the following policies and supporting justification.

CL7 l. ensure that traffic and construction activity does not harm pedestrian, cycle, vehicular and road safety, affect bus or other transport operations (e.g. cycle hire), significantly increase traffic congestion, nor place unreasonable inconvenience on the day to day life of those living, working and visiting nearby;

CL7 m. ensure that construction impacts such as noise, vibration and dust are kept to acceptable levels for the duration of the works;

34.3.49 In the Royal Borough, the construction of new basements has an impact on the quality of life, traffic management and the living conditions of nearby residents and is a material planning consideration. This is because the Borough is very densely developed and populated. It has the second highest population density and the highest household density per square km in England and Wales. Tight knit streets of terraced and semi-detached houses can have several basement developments under way at any one time. The excavation process can create noise and disturbance and the removal of spoil can involve a large number of vehicle movements.

34.3.50 A basement development next door has an immediacy which can have a serious impact on the quality of life, whilst the effect of multiple excavations in many streets can be the equivalent of having a permanent inappropriate use in a residential area. There are also concerns over the structural stability of adjacent property, character of rear gardens, sustainable drainage and the impact on carbon emissions. Planning deals with the use of land and it is expedient to deal with these issues proactively and address the long term harm to residents' living conditions rather than rely only on mitigation. For all these reasons the Council considers that careful control is required over the scale, form and extent of basements.

34.3.51 The policy therefore restricts the extent of basement excavation under

gardens to no more than half the garden and limits the depth of excavation to a single storey in most cases. The extent of basements will be measured as gross external area (GEA).

34.3.53 Restricting the size of basements will help protect residential living conditions in the Borough by limiting the extent and duration of construction and by reducing the volume of soil to be excavated. Large basement construction in residential neighbourhoods can affect the health and well-being of residents with issues such as dust, noise and vibration experienced for a prolonged period. A limit on the size of basements will reduce this impact.

34.3.70 Basement construction can cause nuisance and disturbance for neighbours and others in the vicinity, through construction traffic, parking suspensions and the noise, dust and vibration of construction itself. The applicant must demonstrate that these impacts are kept to acceptable levels under the relevant acts and guidance,

taking the cumulative impacts of other development proposals into account. The building compound and the skip location should be accommodated on site or in exceptional circumstances in the highway immediately outside the application site.

132. In addition the Council seek to address this issue through arbitrary controls on the scale of development. In this section we look at the justification for criterion L. Criterion M is not unduly onerous and no objection is made to it save that it is difficult to enforce in the form in which it is written.

The Council's own evidence

133. The results from the Council's Basement Developments - Neighbours survey - November 2012 on construction impact are summarised below.
134. The following four subparagraphs give the responses to the tick box section of the questionnaire.
- a. Traffic associated with the development caused minimal disruption:
 - i. **8.8%** of all questioned disagree / strongly disagree (53% of those who responded)
 - ii. **91.2%** of all questioned agree/strongly agree/neither agree nor disagree / no response(47% of those who responded)
 - b. The level of noise from the development was kept within acceptable limits:
 - i. **10.1%** of all questioned disagree / strongly disagree (60% of those who responded)
 - ii. **89.9%** of all questioned agree/strongly agree/neither agree nor disagree / no response (40% of those who responded)
 - c. The level of vibration from the development was kept within acceptable limits:
 - i. **8.4%** of all questioned disagree / strongly disagree (50% of those who responded)
 - ii. **91.6%** of all questioned agree/strongly agree/neither agree nor disagree / no response(50% of those who responded)
 - d. Any dust from the site was kept within acceptable limits:
 - i. **9.1%** of all questioned disagree / strongly disagree (54% of those who responded)
 - ii. **90.9%** of all questioned agree/strongly agree/neither agree nor disagree / no response (46% of those who responded)

135. 8,000 residents were sent questionnaires.
136. **Less than one in ten residents (9.1%)** questioned were sufficiently motivated to respond by completing a tick box form stating that construction impact caused more than minimal traffic disruption or that levels of noise, vibration or dust were not acceptable.
137. The following three subparagraphs give summary data on the number of respondents who were sufficiently motivated by their level of unhappiness with the construction impact of basement developments to submit a written comment.
- a. Traffic - **1.6%** of all questioned. (124 written comments).
 - b. Noise and dust - **4.2%** of all questioned. (339 written comments).
 - c. Dirt and debris - **3.1%** of all questioned. (251 written comments).
138. The Council's data from the questionnaires does not appear to demonstrate that the concerns of residents over construction impact are as broadly based as asserted. An alternative view is that a minority of residents have been negatively impacted possibly by inconsiderate or poorly performing contractors whose actions on site have not been sufficiently overseen or enforced.
139. The evidence base is further undermined when it is considered:
- a. The questionnaires were sent to residents who live in the vicinity of properties where planning permission has been sought for a basement development - Council Response to Second Draft Responses, page 36 "The surveys were specifically targeted at those who had real experience of living close to a basement construction". These residents are likely to have lived in close proximity to basement developments. There is nothing wrong with selecting a sample to question in this way but it should be remembered that the sample is skewed and does not represent the overall RBKC population.
 - b. It would be reasonable to assume that, given the weight in the proposed policy that the Council has placed on the significant negative construction impact of basement development, the residents in this skewed sample would be strongly motivated to respond in high numbers and to express in a significant majority of cases that basement development had a severe negative construction impact. Any other outcome than this could reasonably be taken to demonstrate that the Council's assumption that basement development causes broad severe negative construction impact is over stated. A response rate of less than 10% is not a significant majority.
 - c. Respondents who had strong feelings about negative experiences could reasonably be expected to have completed a written comment in addition to ticking the questionnaire boxes. The level of written response was between 1 in 60 and 1 in 24 of all those questioned for the different types of construction impact. This level of response could reasonably support a view that the Council's

assumption that basement development causes severe negative construction impact is over stated.

- d. There is a reasonable likelihood that those who have had negative experiences will be motivated to respond while those who have had neutral or positive experiences are less likely to be motivated to respond.
- e. The first question on traffic is poorly wording asking if the traffic associated with the development caused 'minimal disruption' rather than the probably more correct in planning terms, 'acceptable disruption.'

140. It should be remembered that:

- a. The Council has not demonstrated that the construction impact that the respondents thought was due to basement construction was in reality due to basement construction. It could have been, in reality, due to other above ground structural work at the same address.
- c. The Council has not demonstrated that the impact from the basement construction phase of a project is worse than the construction impact from above ground building projects. No distinction was made in the questionnaires and it is unlikely that respondents would be able to tell the difference.

The Council received 1,254 responses to the surveys. This was a 17% response rate which is considered a high rate of response. The author makes several assumptions about how residents perceived the questionnaire. The survey forms were clear that information was being collected about basement development including the title. It is also clear from the written responses in the surveys that the respondents were writing about basement development.

141. At this round of consultation the Council has included the additional report "Basement Works - Impacts on Residents February 2014". This report is based on information from the Borough's Noise and Nuisance Team.

Separate response to the noise and nuisance issues raised by Basement Force is presented in Council's response to Noise and Nuisance Issues raised in Basement Force Representation, RBKC, April 2014.

142. The report states:

- a. The period covered is July 2013 to Sep 2013 - 39 months (169 weeks).
- b. 129 complaints were recorded as being about basement construction.
- c. Of these 53 complaints were recorded as being about noise, vibration and dust from basement construction projects.
- d. 5,700 noise complaints in total (so from all sources of noise) were received by the Noise and Nuisance Team during this period.

143. These results mean, assuming that all the complainants were correct in thinking that basement construction was the cause of the disruption rather than being from other above ground building work, that:
- a. On average one complaint due to basement works across the borough was received every 1.3 weeks.
 - b. On average one complaint due to noise, vibration and dust from basement works across the borough was received every 3.2 weeks.
 - c. 2.26% of total complaints received by the Noise and Nuisance Team were reported as being due to basement construction.
 - d. The Borough's population is given by the Council as 158,000 residents. This means that over the period 1 in every 1,225 residents (0.08%) made a complaint about basement construction to the team
144. The complaint figures from the Council's Noise and Nuisance Team do not seem unreasonably high and do not seem to support the basic assumption of the proposed policy that basement construction impact is unreasonably high.
145. Furthermore in considering construction impact:
- a. There is a reasonable possibility that some of the developments that have caused negative construction impact have been run by poor quality inconsiderate contractors.
 - b. There will be a Construction Traffic Management Plan in the usual case where planning is required (as opposed to permitted development where a CTMP is not required), but inconsiderate contractors may not be working to this plan. We believe that this is frequently the case and have included some evidence of this.
 - c. The Council's report by Alan Baxter Associates supports the possibility that poor quality contractors are a major cause of negative construction impact. See RBKC Alan Baxter Associates, Residential Basement Study Report, March 2013, page 85. I have underlined the relevant sections.

Question 8

Does the method of construction have implications on risk, be this concerning structural stability or upon noise and vibration?

Answer

The method and sequence of construction is probably the most important aspect of basement construction. When problems such as movements of adjacent properties arise, it is nearly always because either design or the method of construction is flawed, or there is a lack of adequate temporary works. There is a close relationship between the design of a basement and the method of construction. This is sometimes not adequately understood or reflected in the way basement projects are procured.

It is essential that both the design team and the contractors are carefully selected, that they work closely together and that they can demonstrate a track record of design and construction of basements.

- d. A further section in the Alan Baxter Associates report, page 86, referring to Construction Management Statements further supports the importance of only using competent contractors.

"Similarly the Contractors should also be able to demonstrate a track record of successful projects."

146. We would support the Council in publicising the benefits of using only quality contractors at all stages of the project. This would be a more proportionate and ultimately successful means of controlling the impact of construction than through changes to Core Strategy policy and these arbitrary controls on the scale of development.
147. Comments in the Council's Basement Developments - Neighbours survey - November 2012 support the hypothesis that poor contractors are the cause of at least some of the problems:
- a. "Contractors totally oblivious to neighbours needs." - page 82
 - b. " swearing, shouting, traffic, building rubble in street" - page 83
 - c. "Constant illegal parking in resident spaces" - page 83
 - d. "blocked access because of builders vans" - page 84
 - e. "Particularly traffic blocking the road at crucial times" - page 84. This should not be the case if the delivery and collection times given in the Construction Traffic Management Plan are followed.
 - f. "very unhelpful developer" - page 84
 - g. "lorries being parked across the drive" - page 84
 - h. "builders closing the road without permission" - page 84
 - i. "illegal parking in residents' bays" - page 85

- j. "Once my car covered in dust builder would not accept responsibility" - page 87
 - k. "vibration from pile driving" - page 88. Pile driving or pneumatic trench sheet piling should not be used in an urban area.
 - l. "Obligated to walk in the street as footpath was consistently in use by builders" - page 89. The footpath should not be block by contractors.
 - m. "with obstruction of pavement with overhead conveyor." - page 89. The conveyor should not obstruct the pavement.
 - n. "Skips, trucks etc all should be arranged outside peak rush hours!!! (Address removed) is causing absolute mayhem!!!" - page 89. Deliveries and collections are not allowed in peak hours according to approved Construction Traffic Management Plans. (CTMP)
 - o. "The builders did not adhere to the traffic plan and blocked the road very often." - page 90
 - p. "Traffic, parking problems, dirt on roads, noise, unhelpful builders." - page 90
 - q. "access issues due to illegal double parking by the builders" - page 90
 - r. "Workers parking up to 11 vans and trucks" - page 91. This cannot be in line with the CTMP.
148. Currently there is no requirement for contractors to demonstrate competence in order to undertake basement construction work within RBKC.
149. There is a requirement for Chartered Civil Engineer or Structural Engineer to oversee the development.
150. Grosvenor Estates require that all basement construction contractors are members of the Association of Specialist Underpinning Contractors. This is a trade body open for membership to any contractor in the underpinning or basement construction sector. Contractors applying for membership need to demonstrate high health and safety standards, technical competence, appropriate insurances and financial strength.
- The Council conditions the use of members of the Considerate Constructors scheme in implementing basements. The Council cannot require membership of a trade body.*
151. There is a reasonable possibility that a significant cause of construction impact problems are due to a lack of enforcement of existing controls on development (eg the requirement to provide and follow a traffic management plan) rather than matters that require more restrictive policy¹⁵.
- The Council does take enforcement action where CTMPs are breached and reported.*
152. **Health** - reasoned justification 34.3.53 states - "Large basement construction in residential neighbourhoods can affect the health and well-being of residents"

153. The Council's Basement Developments - Neighbours survey - November 2012 collected comments on health matters. The summary of this data is:

¹⁵ Supporting evidence - Example of contractor not following existing traffic management plan.

- a. 3 written comments from 8,000 questionnaires (0.04%)

154. It is questionable if a response rate of 0.04% can be viewed as a proportionate evidence base for including a matter as part of the reasoned justification in the proposed planning policy.

The Council is not claiming there have been wide spread health issues related to basements.

155. **Safety** - policy CL7 L. states "ensure that traffic and construction activity does not harm pedestrian, cycle, vehicular and road safety"

156. The Council's Basement Developments - Neighbours survey - November 2012 had a general section for 'Others' comments. Comments on road safety could have been put into this section. The summary of comments on road safety is given below :

- a. 0 written comments from 8,000 questionnaires (0.0%)

This is in response to TfL's comments received on the Second Draft Policy. TfL stated "Policy CL7 could be amended as follows: j :Include specific reference to pedestrian, cyclist and vehicular safety instead of just road safety and also mention bus operations and other transport operations (e.g. cycle hire) and requiring proposals to ensure that visitors as well as those living and working nearby are not inconvenienced." The Council accepted these changes.

157. It seems reasonable to conclude that road safety problems caused by basement developments are not a major concern for residents.

158. The council's own evidence does not support the proposed policies link between basement size, which is used as part of the justification for limiting garden basements to 50% and to being single storey, and construction impact:

- a. Reasoned justification 34.3.53 states "Restricting the size of basements will help protect residential living conditions in the Borough by limiting the extent and duration of construction and by reducing the volume of soil to be excavated" - however this is not supported by the Council's latest report on the matter. See Alan Baxter and Associates. Case Studies of basement excavation in relation to programme and vehicle movements. Prepared for RBKC. January 2014, page 4, para 6.1 "The conclusion of the study suggests that there is no clear correlation between the time taken to excavate the basement and the overall size or volume of the basement. However and not unsurprisingly, the excavation times relate to the site constraints and the methods used to construct the basement."
- b. This point, that basement size and construction time/impact, are not well correlated, is shown in figures 1, 2, 3 and 4 of the same report.
The Case Studies of basement excavation in relation to programme and vehicle movements by Alan Baxter and Associates, Jan 2014 does show a direct correlation between volume of excavation and total number of lorry movements. A smaller basement on each individual site will result in smaller construction as stated in the reasoned justification quoted above.

- c. Para 6.2 goes on to say "there is a slight trend that larger basements take slightly longer to build which appears to mostly relate to the additional time required to fit out a larger basement." It should be noted that fitting out the internal area has a low construction impact compared to either above ground building or the main structural construction phase of a basement.

159. Therefore, based on the council's own evidence, there is no basis for limiting the size of basements under gardens (CL7 a) or to not comprise more than one storey (CL7 b) based on construction impact.

Our evidence / analysis and how this has been responded to by the Council to date

The Council has provided the original response and sees no merit in providing another response to further responses. These comments do not address the soundness consultation.

160. We made the following comments in response to the supporting text on this issue in the second draft policy.

While it is recognised that the impact of construction, whether above or below ground, on the amenities of the locality is a material consideration it is generally controlled successfully by condition or (occasionally) by planning obligation under s.106.

Highways issues and the convenience of road users: developers work with the highway authority who ensure their proposals for traffic management are reasonable. If agreed measures are not adhered to, it becomes a matter for enforcement. Meanwhile any obstruction to the highway which is not legitimately sanctioned is a public nuisance. In short, highways issues will almost never be a basis for refusing planning permission as they can and should be controlled.

The siting of the skip and building compound should not be set in stone within the policy but should be determined in response to the applicant's proposals by those who know the area and can judge its suitability in the individual case.

Other amenity issues arising from the noise dust and vibration of construction are generally controlled by condition and the common law of nuisance.

This paragraph should therefore be redrafted in a way which recognises the role of conditions and other agencies in regulating the impact of construction both on highways users and neighbours.

161. The council responded:

Noted.

Planning applications are assessed on the basis that development should take place in accordance with the development plan unless material considerations indicate otherwise.

Amendments will be made to the text to draw attention to the range of acts and

guidance that should be followed. However, given the scale and proportion of basement development and major excavation involved in their construction the requirement to be able to assess the impacts at an early stage are reasonable.

162. There are several points to be made:

- a. The second paragraph, starting 'Planning applications are assessed on....' does not answer our original comment.
- b. The question on the use of planning conditions and occasionally by planning obligation by the use of s106 has not been answered.
- c. Our comment on highways issues almost never being the basis for refusing planning permission has not been answered.
- d. Our comment on the siting of skips and building compounds has not been answered.

- e. Our comment on the use of conditions and the common law of nuisance to control amenity issues arising from noise, dust and vibration has not been answered.
- f. The Council states 'However, given the scale and proportion of basement development and major excavation involved in their construction.' This seems to imply that all basement developments are significant construction projects. This is not the case. A small cellar extension, say deepening a 10m² cellar by one metre with one 2m² light well will be counted as a basement development and will have to fulfil all of the planning criteria within this policy. This is not a proportionate requirement.

163. We made the following comments in response to the policy on this issue in the second draft policy.

The formulation of the policy criterion is also confusing and unhelpful: the criterion is applied when assessing the suitability of proposals for development at application stage. It should be drafted with that in mind, as follows

Permission will be granted where....

j. the impact of traffic and construction activity on road safety, and the amenity of those living and working nearby, is acceptable having regard to any proposals for traffic management and other conditions which may be imposed.

164. The council responded:

Noted. Text will be amended to improve clarity where appropriate.

165. The only point to be made is that the text that has been amended has not improved clarity.

Soundness of the Council's approach

166. The Council's approach to this issue is not sound because it is not positively prepared, justified or effective.

167. The policy uses excessively onerous tests which cannot be satisfied. For example:

- a. It is not possible to 'ensure that traffic and construction activity does not harm pedestrian, cycle, vehicular and road safety.' [my underlining for emphasis]. It is only possible to take measures aimed at achieving an acceptable impact. The only way of ensuring no harm is not to drive any vehicle on any street at any time, which is clearly unreasonable and cannot be assessed objectively.
The author seems to expect that the policy should allow some harm to pedestrian, cycle, vehicular and road safety.
- b. It is not possible to ensure that traffic and construction activity does not 'affect bus or other transport operations' unless no vehicles are put on the road. This is clearly unreasonable and cannot be assessed objectively.
The author seems to expect the policy should actively allow some disruption to

bus or other transport operations.

- c. It is not possible to ensure that development does not 'significantly increase traffic congestion' which varies in London from day to day in any event. This is an issue for the contractor.
- c. 'nor place unreasonable inconvenience on the day to day life of those living, working and visiting nearby.' - again this wording does not allow objective assessment with regard to development.

It is unclear from the above points how the author considers the policy to be unsound in this respect as the policy will be written to ensure 'no harm' rather than allow 'some harm' on these issues. The policy is the starting point and each case is assessed on its own merit.

168. The proposed policy does not seek to support sustainable development in that it is imposing an unduly high barrier to development based upon a criterion which is impossible to meet. In so doing it limits growth and compromises the ability of future generations to meet their own needs.

169. The proposed policy has not been justified by the Council's research that shows that:

- a. less than one in ten of those questioned who live near a recent basement development responded to say that they found the perceived construction impact caused by basements unacceptable.
- b. Less than one complaint per week about basement construction across the whole of the borough is received by the Council's Noise and Nuisance team.

170. The Council's research has not demonstrated to a reasonable extent that the construction impact reported by respondents to the residents' questionnaire was in fact due to basement development and was not due to some other above ground development.

Repeats the points at para 140 and 141.

171. The Council has not demonstrated to a reasonable extent that that the perceived problems of construction impact due to basement development has not been due to a lack of enforcement rather than a need for more restrictive policy.

Repeats the point made at 151.

172. The Council makes assumptions and statements of absolutes in its reasoned justification that have not been supported by evidence. The relevant words are underlined. These include:

- a. Planning deals with the use of land and it is expedient to deal with these issues proactively and address the long term harm to residents' living conditions rather than rely only on mitigation. (34.3.50)
 - i. The expediency of dealing with construction impact proactively has not been supported or justified.
 - iii. There is a lack of evidence about the long term harm to residents'

living conditions.

Expediency is explained at para 34.348 – 34.3.50.

173. The Council makes several conditional statements where something may or may not occur, and then uses this to justify broad restrictive policies:

- a. 34.3.49 The excavation process can create noise and disturbance and the removal of spoil can involve a large number of vehicle movements.
- b. 34.3.50 A basement development next door has an immediacy which can have a serious impact on the quality of life, whilst the effect of multiple excavations in many streets can be the equivalent of having a permanent inappropriate use in a residential area.
- c. The above series of conditional statements are then used to justify the 50% of garden restriction and the limitation to a single storey - 34.3.51 "The policy therefore restricts the extent of basement excavation to no more than under half the garden or open part of the site and limits the depth of excavation to a single storey in most cases".

174. Furthermore the Council's own recent evidence¹⁶ directly opposes the justification of using construction impact to limit basement size:

- a. "The conclusion of the study suggests that there is no clear correlation between the time taken to excavate the basement and the overall size or volume of the basement. However and not unsurprisingly, the excavation times relate to the site constraints and the methods used to construct the basement."
- c. "there is a slight trend that larger basements take slightly longer to build which appears to mostly relate to the additional time required to fit out a larger basement."

Repeats point made at 158.

175. In support of the contention that the impact of construction on the amenity of the locality would be better mitigated by effective enforcement rather than more restrictive policy are the following points:

- a. Grosvenor Estates requires all contractors undertaking basement development to be members of an approved trade body
The Council is not a freeholder of all residential properties in the Borough and cannot act like Grosvenor Estates. The Council cannot require membership of a trades body.
- b. The Council's Alan Baxter Report states that contractors should be carefully selected and have a track record of successful projects.
This is more of an advisory note for applicants. The Council requires membership of the Considerate Constructor scheme.
- c. The system for reporting problems with sites in RBKC does not work well. I have tried to report two sites in Chelsea for poor site set-up and traffic management. I telephoned RBKC Highways and RBKC Building Control and was told by both

that this was not their responsibility and to call the other. I was unable to make an effective complaint or to get a confirmation of action by anyone within the Council.

Planning enforcement deals with enforcement of CTMPs. Reporting issues and cross cutting working of enforcement across departments is in the process of being improved within the Council.

- d. The number and type of comment about inconsiderate contractors made by respondents to the Council's Basement Developments - Neighbours survey - November 2012, outlined previously.
- e. Our finding from one twenty minute drive through the borough in the rush hour of a contractor on a site with a basement receiving deliveries and controlling the traffic on a road in direct contravention of the traffic management plan which

¹⁶ Alan Baxter and Associates. Case Studies of basement excavation in relation to programme and vehicle movements. Prepared for RBKC. January 2014

states that deliveries and collections will be between the hours of 9.30am and 3.00pm only¹⁷.

The Council is aware that CTMPs can be breached and where reported are enforced.

176. The inclusion of health problems as a reasoned justification for any policy has not been founded on any disclosed evidence.

Repeats points made at 154.

177. The inclusion of road safety as a specific planning policy has not been supported in the proposed planning policy by any reasoned justification in the policy document and has not been supported by any disclosed evidence.

Repeats point made at 156.

178. The proposed policy is not the most appropriate when considered against the reasonable alternatives. As previously stated more appropriate strategies would be:

- a. To control local amenity by planning condition or (occasionally) by planning obligation under s. 106.
- b. For developers to work with the highway authority who should ensure their proposals for traffic management are reasonable. If agreed measures are not adhered to, it becomes a matter for enforcement. Meanwhile any obstruction to the highway which is not legitimately sanctioned is a public nuisance and is better controlled by other existing regulation.
- c. That the siting of the skip and building compound should not be set in stone within the policy but should be determined in response to the applicant's proposals by those who know the area and can judge its suitability in the individual case.
- d. That other amenity issues arising from the noise dust and vibration of construction are generally more appropriately controlled by condition and the common law of nuisance.
- e. That enforcement of the planning conditions and obligations should be the priority rather than the introduction of additional policy.

179. In contrast, our approach would allow development which is judged at the time of the application as being likely to have an acceptable impact on the amenity of neighbours and those using the public spaces around the building including the street. In judging this impact the measures put in place to encourage consideration for those living working and visiting the immediate locality should be assumed to be followed – and they should be enforced where they are not followed.

Comment on the suggested criteria based policy are at para 5.

¹⁷ Supporting evidence - Example of contractor not following existing traffic management plan

Section 8. Sustainable design in relation to carbon emissions

Comments made in July 2013 were on the 2010 Report. The Council accepted that this report had some arithmetical errors, it was out of date and relied on a small number of case studies. As a result this report was superseded by Life Cycle Carbon Analysis, Eight Associates, Feb 2014 report.

Response to Basement Force regarding extension of consultation period was made at the time of request.

Response to new points raised in the Basement Force submission titled Above Ground Extension and Subterranean Development Operational Carbon Review and Analysis (17th March 2014) is provided in Response to Operational Carbon report submitted by Ashmount Consulting prepared for the Council by Eight Associates, April 2014.

Where comments have been made on Council's response to the second draft the Council has not responded. The Council has provided the original response and sees no merit in providing another response to further responses. These comments do not address the soundness consultation.

180. The Council proposes the following policies and supporting justification.

CL7 k. ensure that any new building which includes a basement, and any existing dwelling or commercial property related to a new basement, is adapted to a high level of performance in respect of energy, waste and water to be verified at pre-assessment stage and after construction has been completed;

34.3.50 A basement development next door has an immediacy which can have a serious impact on the quality of life, whilst the effect of multiple excavations in many streets can be the equivalent of having a permanent inappropriate use in a residential area. There are also concerns over the structural stability of adjacent property, character of rear gardens, sustainable drainage and the impact on carbon emissions. Planning deals with the use of land and it is expedient to deal with these issues proactively and address the long term harm to residents' living conditions rather than rely only on mitigation. For all these reasons the Council considers that careful control is required over the scale, form and extent of basements.

34.3.51 The policy therefore restricts the extent of basement excavation to no more than under half the garden or open part of the site and limits the depth of excavation to a single storey in most cases. The extent of basements will be measured as gross external area (GEA).

34.3.54 The carbon emissions of basements are greater than those of above ground developments per square metre over the building's life cycle. This is because of the extensive use of concrete which has a high level of embodied carbon. In particular multi storey basements are more carbon intensive when compared to above ground extensions or single storey basements during their life cycle. Limiting the size of basements will therefore limit carbon emissions and contribute to mitigating climate change.

34.3.68 The carbon emissions of basements are greater than the equivalent above

ground development and the policy contains a provision to mitigate this impact. A BREEAM methodology is used as a proxy to achieve energy savings across a whole dwelling or commercial property to which the basement relates. For residential development (including listed buildings), the standard is BREEAM Domestic Refurbishment “very good” including a minimum standard of “excellent” in the energy section and a minimum of 80% of credits in the waste category. For non-residential development, the standard is BREEAM “very good”. This approach is in-line with the London Plan requiring targets for carbon dioxide to be achieved on-site.

The Council's evidence

181. The Council's Alan Baxter Associates report page 37, paragraph 11.5, states:

“basements tend to perform much better in environmental terms than above ground construction”

182. The Council's supporting text ignores the Alan Baxter Associates report on this matter.
183. The Council's specific carbon emissions evidence consists of two reports by Eight Associates, one dated July 2013 and one dated February 2014. These have been looked at briefly in Section 4 of this document and will be considered further later in this section.

Our evidence / analysis and how this has been responded to by the Council to date

184. We made the following comments in response to the reasoned justification on this area in the second draft policy.

Carbon emissions should be considered on a full life time basis not on an immediate one off and a full lifetime study should be completed before a policy like this is introduced. Doing so would provide a clearer picture of the merits of the proposals in environmental terms, particularly as “basements tend to perform much better in environmental terms than above ground construction” [Alan Baxter at paragraph 11.5 page 37].

Requiring what would be an arbitrary environmental offset to the carbon emissions involved in construction (using current methods) by an improvement to the rest of the house, is unwarranted and disproportionate. It does not reflect properly the presumption in favour of sustainable development.

185. The council responded:

This requirement is in recognition of the fact that basements have a higher carbon embodiment compared to an equivalent above ground development. This requirement is to offset the additional carbon generated by constructing basements.

This is an existing policy and its supporting evidence will be published in due course.

Policy 5.4: Retrofitting of the London Plan should be referred to.

186. There are several points to be made:
- a. The comment that carbon emissions should be considered on a full life time basis has not been answered.
 - b. The Council has not responded to the section from the Alan Baxter Associates report that basements tend to perform much better in environmental terms than above ground construction.
 - c. The council states that 'This is an existing policy.' This is not correct.

- i. The existing control is made by the July 2009 Subterranean Development SPD and is not described at planning policy level.
 - ii. The existing policy requires compliance with Level 4 of the Code for Sustainable Homes (Eco-homes) for residential developments. The proposed policy requires compliance with BREEAM. They are not the same. BREEAM is more restrictive.
- d. The Council seems to hold that because they view the policy requirement as existing it should not be reviewed under the consultation process. That a policy is existing does not mean that it should not be assessed for legal compliance and planning soundness.
- e. Our comment on the presumption in favour of sustainable development has not been answered.

187. We made the following comments in response to the policy on this area in the second draft policy.

There is no objection to the requirement that any new building associated with new basement development is constructed to a high level of performance in respect of energy, waste and water and no objection to the verification requirement proposed – although this is a matter properly dealt with by condition and referred to elsewhere within the Core Strategy. Here, as elsewhere therefore there is a degree of duplication.

Given the long term sustainability benefits of basement development there is no reasonable basis for requiring extraneous benefits in the environmental performance of a building where the project involves the construction of a basement only. This would also be onerous from a practical point of view, and could increase significantly the impact of the works on the surrounding area.

188. The council responded:

Basements have a much higher carbon embodiment compared to above ground development. This requirement is to offset the additional carbon generated in constructing the basement by upgrading the existing building to BREEAM domestic refurbishment 'very good' standard.

Basements in particular have high embodied carbon therefore it makes more sense to have this requirement as part of the basement policy.

Core Strategy policy CE1: Climate Change has targets for all new development and also for large extensions.

189. There are several points to be made:

- a. The Council appeared to state that its policy on upgrading the existing building to BREEAM domestic refurbishment 'very good' standard is based on the higher embodied carbon of basements compared to above ground development. It

ignored the fact that carbon emissions and environmental performance should be based on a building's full life cycle.

- b. London Plan Policy 5.3 Sustainable Design and Construction states that carbon emissions and environmental performance should be based on a development's full life cycle. Two paragraphs from the London Plan are given below, relevant sections underlined.

Strategic. A. The highest standards of sustainable design and construction should be achieved in London to improve the environmental performance of new developments and to adapt to the effects of climate change over their lifetime.

Planning decisions. B. Development proposals should demonstrate that sustainable design standards are integral to the proposal, including its construction and operation, and ensure that they are considered at the beginning of the design process.

- c. The London Plan is clear that sustainable development should be considered over the development's lifetime and should include its construction and operation. The London Plan does not emphasise or add more weight to embodied carbon compared to carbon emissions generated during the development's operating life. The Council should deal with a development's carbon emissions over its full lifetime and not place emphasis on embodied carbon.

Soundness of the Council's approach

190. The first Eight Associates report of July 2013 was flawed in several ways. It contained multiple input mistakes, omissions, mathematical errors, flawed logic and poor methodology¹⁸. An example of a basic error is that the amount of spoil produced in excavating a single storey basement with an area of 75m² is given as 1,200m³. This is clearly wrong.
191. The incorrect results of the first Eight Associates' analysis led to the conclusion that basements are more carbon negative than above ground extensions and that "Limiting the size of basements will therefore limit carbon emissions and contribute to mitigating climate change."
192. The Council's reasoned justification 34.3.68, based on the second Eight Associates report (Feb 2014) states "The carbon emissions of basements are greater than the equivalent above ground development". However the evidence to support this assertion is not provided by the case studies in the second Eight Associates report (Feb 2014) which do not compare basements with their above ground equivalent.
193. The second Eight Associates report, February 2014, chooses case studies of above ground extensions and basement extensions of very different sizes and layout and makes the assumption that these are substitutable and comparable.

¹⁸ Above ground extension and subterranean development - life cycle carbon review and analysis - August 2013 - Ashmount Consulting Engineers

194. The reasons that above and below ground extensions of similar sizes should be compared are:
- a. The council's reasoned justification states that the carbon emissions for basements and above ground extensions are based on equivalent structures.
 - b. In development terms the extensions need to be broadly substitutable to be meaningful. Comparable extensions logically need to be practical alternatives for the developer. A small extension will not satisfy the development need of a large extension and visa versa.
 - c. Small above ground extensions can be positioned in certain limited physical situations where they make use of existing structures and are therefore carbon efficient. These potentially atypical examples give a misleading comparison of above ground and below ground extensions, in this case in favour of above ground extensions, when reduced to a per square metre basis. They should therefore not be used as the basis for a general comparison.
195. A correct conclusion from the Eight Associates Feb 2014 report would be that 'small above ground in-fill extensions have a better whole life carbon performance on a per square metre basis than large basement developments'. This statement clearly does not match the Council's reasoned justification 34.3.68 that equivalent structures have been considered.
196. A more appropriate comparison with an above ground in-fill extension would be the whole life carbon performance of a basement development between two existing basements, where the side walls would have already been built and where there would be no heat loss through the side walls. We reserve the right to add this sort of analysis in due course.
197. In addition it has not been possible to examine the Eight Associates Feb 2014 report's input data and calculations and confirm that they are correct. Insufficient information is given in the report and answers to a Freedom of Information (FOI) request to the council¹⁹ have not provided adequate additional information.^{20 21}
198. There is some concern over the inputs and models used in the SAP calculations.
- a. It does not appear as if structural steel and foundations for the above ground extensions (where needed) have been included. This mistake was also made in the previous July 2013 Eight Associates report.
 - b. We cannot tell if the benefit of being sheltered below ground has been included in the assumptions for the basement examples. At one metre depth the ground is generally considered as being permanently at 10°C meaning that heat loss is almost halved in winter compared to above ground buildings.

¹⁹ Supporting evidence - Basement Force Freedom of Information request to RBKC, 18 Feb 2014.

²⁰ Supporting evidence - RBKC response to BF FOI 2014-276 - 27 Feb 2014

²¹ Supporting evidence - Basement Force reply to RBKC FOI response - 18 Feb 2014

c. We cannot verify if the calculations of operational carbon in the report are correct. The Eight Associates report states that:

- i. Operational carbon was calculated using standard SAP software, and that
- ii. All inputs and assumptions are included in the report.

We could not find inputs for various items in the report or for the SAP calculation, and asked for these in our Freedom of Information Request. The Council's response was that:

"The spreadsheets used for calculations are Eight Associates property and the disclosure of such information was not included in the original contractual agreement. Also, the release of this information would involve the disclosure of third party proprietary information, under confidential agreements."²²

The Council's response to the FOI request means that:

- iii. The calculations for the operational carbon cannot be checked for correctness and,
- iv. At least one non-standard input, assumption, other proprietary material or calculation has been used in the operational carbon model which is contrary to statements on the same matter in the Feb 2014 Eight Associates report.

199. We instructed an independent environmental consultancy, Ashmount Consulting Engineers Ltd, to complete analysis of equivalent above ground and basement extensions of equivalent size in terms of their full life cycle carbon emissions. However due to a lack of time we were unable to complete our analysis. We have included the partially completed study, March 2014 Ashmount report²³.

200. This report examined one of the RBKC case studies, 16 Radnor Walk, and compared the basement development operational carbon with the operational carbon of a similar sized above ground extension. The initial findings were that when comparing developments with like-for-like floor areas the Operational Carbon emissions for an above ground extension is significantly greater than for those of a basement development.

201. Ashmount Consulting had also completed a study for the July-September consultation²⁴. The results of this study remain valid and have not been countered by the Council.

202. This study analysed the whole life carbon emissions for a 70m² basement development and a same size above ground extension. This report found that:

²² RBKC response to Basement Force FOI, dated 27 Feb 2014.

²³ Supporting evidence - Operational Carbon Report - March 2014 - Ashmount Consulting

²⁴ Supporting evidence - Above ground extension and subterranean development - life cycle carbon review and analysis - August 2013

- a. Basements have lower carbon emissions over their lifetime than above ground extensions provided that the concrete basement's structural lifetime is at least 44 years²⁵.
 - b. Reinforced concrete basements generally have a minimum design life of 100 years. At this time, even if the above ground extension has lasted 100 years without rebuild, the basement has 13% lower carbon emissions than the above ground development.
 - c. Basements have significantly better carbon emissions performance when the likely longer life of the concrete basement over that of the above ground extension is considered. Basements are likely to have longer life spans than above ground extensions because:
 - i. The general design life of reinforced concrete structures is 100 years.
 - ii. Further to this the life span of below ground structures would be expected to be greater than the design life because:
 1. Structure is not subject to freeze / thaw.
 2. Lack of exposure to air decreases the carbonisation of the concrete.
 - iii. Demonstrated average life of above ground houses in England is 60 years²⁶.
 - iv. Empirical occurrence of above ground extensions being demolished and replaced for aesthetic reasons particularly in high end residential market further lowering the expected life.
 - d. A reasonable case was considered with a basement life of 120 years and an above ground extension life of 40 years. It was assumed that each would be rebuilt at the end of its building life period.
 - e. In this case basements have 25% lower carbon emissions than above ground extensions.
203. Therefore the evidence does not show that carbon emissions are worse than other types of development and the Council should not use this incorrect assertion as the basis for any part of the planning policy.
204. The following paragraphs reiterate the response we gave in August 2013 as they remain unaffected by the Council's new evidence.

²⁵ Graph on page 13 of Above ground extension and subterranean development - life cycle carbon review and analysis - August 2013 - Ashmount Consulting Engineers

²⁶ English Housing Survey, Housing stock report 2008, Department for Communities and Local Government, ISBN 978-1-4098-2601-9

205. Basement developments should not be required to comply with environmental controls that are stricter than for above ground development or extensions.
206. Further to this, given that for larger structures basements have superior carbon performance than above ground extensions, they should be a preferred form of development for larger additions to existing buildings.
207. The council has adopted the BREEAM Domestic Refurbishment scheme. In order to assess the suitability of the scheme for basement development we instructed a review by Ashmount Consulting Engineers²⁷.
208. The conclusions of this report are that:
- a. BREEAM Domestic Refurbishment **is suitable** for whole house refurbishment projects
 - b. BREEAM Domestic Refurbishment **is not suitable** for basement extension projects where no improvements are being made to the existing dwelling as a whole.
 - c. Achieving BREEAM Domestic Refurbishment is not viable for many existing RBKC properties.
 - d. Achieving BREEAM Domestic Refurbishment 'Very Good' **is disproportionate** for some basement projects for example where a cellar is being made habitable by the addition of a single, small light well.
209. The report proposes that when there are no works being carried out to the existing house that rather than require a whole house assessment methodology, like BREEAM, a more practical assessment would be a stepped improvement of the Energy Efficiency Rating. This would encourage people with currently poor ratings to make practical improvements such as boiler replacements rather than see them make no improvements due to the impracticality of the proposed requirements and resultant termination of any planned works.
210. A separate matter with BREEAM Domestic Refurbishment is the treatment of excavated ground.
211. A possible conflict was identified whereby inert excavated ground may need to be transported significant distances to land redevelopment sites (quarries and golf courses) solely in order to meet BREEAM criteria. Inert spoil transportation over long distances for no other reason than to meet a BREEAM criterion would run contrary to the environmental intention of BREEAM.
212. We instructed Abba Energy Ltd, an environmental consultancy, to investigate this matter and they have confirmed the unresolved issue with the Council²⁸

²⁷ Supporting evidence - Review of RBKC Planning Policy CE1 Climate Change

The main points raised in the letter from Abba Energy Ltd and the Council's response based on consultants advice is as below –

1. *'I am assuming that all subterranean developments would have a construction cost (labour and materials, contract sum only) of over £300K excluding VAT.'*
- 1A. *BREEAM refurbishment waste points are available for projects up to 100K, 300K and over 300K.*
2. *'the use of the Exemplary Was2 credit within the 80%, or its use as an 'addition' to it in order to make up the score, requires clarification by RBKC'*
- 2A. *The 80% credit is based on achieving 4 out of the 5 points available in the normal credits. Exemplary credits may be used as alternatives where they are additive and it is not possible to achieve 4 out of 5 credits due to site conditions.*
3. *'Therefore this re-use of spoil will be curtailed when quarries and golf courses are 'full'. What happens then; will the 80% rule be relaxed?'*
- 3A. *We understand that reuse of brown clay for other purposes is currently possible. We can't predict the future availability of secondary uses.*

213. This unresolved issue of the treatment of inert ground under BREEAM demonstrates that the policy may not be consistent with achieving sustainable development and is unlikely to be the most appropriate strategy when considered against the reasonable alternatives.

214. In contrast our approach is proportionate and would encourage sustainable development in accordance with the London Plan, while being capable of preventing development which does not meet appropriate standards.

215. The issue identified in section 2 of this document on proposed changes to the policy is "Promoting, in a proportionate way, sustainable development – in relation to UK carbon emissions". The policy as ultimately drafted needs to be sufficiently flexible to enable the Council to take advantage of technological innovation as and when it is available. It is the objective of the policy which should be identified in the Core Strategy.

²⁸ Letter from Abba Energy to Council relating to classification and treatment of excavated inert ground under BREEAM.

Section 9. Impact of proposed development on the leafy and well-treed character of the Borough's gardens and biodiversity

216. The Council proposes the following policies and supporting justification.

CL7 a. not exceed a maximum of 50% of each garden or open part of the site. The unaffected garden must be in a single area and where relevant should form a continuous area with other neighbouring gardens. Exceptions may be made on large sites;

CL7 d. not cause loss, damage or long term threat to trees of townscape or amenity value;

CL7 j. include a sustainable urban drainage scheme (SUDs), including a minimum of one metre of permeable soil above any part of the basement beneath a garden. Where the character of the gardens within an urban block is small paved courtyards SUDs may be provided in other ways;

34.3.50 A basement development next door has an immediacy which can have a serious impact on the quality of life, whilst the effect of multiple excavations in many streets can be the equivalent of having a permanent inappropriate use in a residential area. There are also concerns over the structural stability of adjacent property, character of rear gardens, sustainable drainage and the impact on carbon emissions. Planning deals with the use of land and it is expedient to deal with these issues proactively and address the long term harm to residents' living conditions rather than rely only on mitigation. For all these reasons the Council considers that careful control is required over the scale, form and extent of basements.

34.3.51 The policy therefore restricts the extent of basement excavation under gardens to no more than half the garden and limits the depth of excavation to a single storey in most cases. The extent of basements will be measured as gross external area (GEA).

34.3.55 The townscape of the Borough is urban and tightly developed in character. However, rear gardens are often a contrast, with an informal picturesque and tranquil ambience, regardless of their size. Whilst basements can preserve the remaining openness of the townscape compared with other development forms, it can also introduce a degree of artificiality into the garden area and restrict the range of planting. Retaining at least half of each garden will enable natural landscape and character to be maintained, give flexibility in future planting (including major trees), support biodiversity and allow water to drain through to the 'Upper Aquifer'. This policy takes into account the London Plan and the Mayor of London's Housing SPG both of which emphasise the important role of gardens. The National Planning Policy Framework (NPPF) also supports local policies to resist inappropriate development of residential gardens and excludes private gardens from the definition of previously developed land.

34.3.56 Keeping the unexcavated area of a garden in a single area and adjacent to similar areas in other plots allows better drainage, and continuity of larger planting supporting biodiversity. In back gardens this area will usually be the end of the garden furthest from the building.

34.3.59 Trees make a much valued contribution to the character of the Borough, and bring biodiversity and public health benefits. Works to, and in the vicinity of, trees, need to be planned and executed with very close attention to detail. All applications

for basements likely to affect trees either on-site or nearby must be accompanied by a full tree survey and tree protection proposal for the construction phase. Core Strategy Policy CR6 Trees and Landscape will also apply.

34.3.67 Policy CE 2 of the Core Strategy requires surface water run-off to be managed as close to its source as possible. A minimum of one metre of suitably drained permeable soil above any part of a basement within a garden provides for both reducing the amount and speed of water runoff to the drainage system and the long term future of shrub and other garden planting. Care should be taken that the original garden level is maintained and the 1m of permeable soil is connected to the unaffected part of the garden. Other SUDs measures may also be required.

The Council's evidence

217. The supporting text states

34.3.55 basements can preserve the remaining openness of the townscape compared with other development forms.....

218. The Council does not appear to have given weight to their own statement above that recognises that basement development under gardens is attractive in urban areas as it allows development without negative impact on the openness of the townscape.

The Council has given weight to this statement and is not banning basements but proposing limits to achieve sustainable development.

219. The results from the Council's Basement Developments - Neighbours survey - November 2012 on the appearance of gardens are summarised below.

220. Responses to the tick box section of the questionnaire.

a. Question - Would you say that basement development has had any impact on the way the property and its garden looks?

i. **4.1%** of all questioned said slightly worse / much worse (24% of those who responded)

ii. **95.9%** of all questioned said much better / slightly better / no change / cannot say / no response (76% of those who responded)

221. Of the 8,000 residents questioned 15 (**0.2%**) were sufficiently motivated to make comments about the loss of trees and planting.

222. The responses to the Council's own questionnaire do not appear to support the Council's stance that garden basements generally have a negative impact on the character of gardens.

Please refer to Council's supporting document Basements Visual Evidence, RBKC, Feb 2014.

Our evidence / analysis and how this has been responded to by the Council to date

The Council has provided the original response and sees no merit in providing another response to further responses. These comments do not address the soundness consultation.

223. Simon Haslam of Basement Force was a member of the RBKC Basements Working

Group and attended meetings with the Planners, representatives of some of the residents' associations and others. The following information was given to the Basement Working Group²⁹:

- a. Technical expert's opinion that trees and all other forms of planting can be accommodated on top of a garden basement in the one metre of permeable soil.
- b. Photographs of trees in London living on top of basement structures (Hyde Park car park, Cavendish Square Gardens and Bloomsbury Square Gardens)
- c. Evidence to show improvement of a rear garden in Notting Hill by a garden basement development,
 - i. Photograph of existing rear garden showing fully paved yard with no planting of any kind.
 - ii. Garden plan and images of the proposed rear garden showing a mature tree to be planted in the one metre of soil on top of the rear garden basement.

224. This was raised in our general comments to the responses to the second draft policy:

Factual evidence and expert opinion supporting basement development that runs counter to the first draft policy has been ignored or superficially dismissed

As a member of the Basements Working Group I have given Council officers information to show that trees can be grown on garden basement roofs (report from our arboriculturalist to say that trees will grow on basement roofs; pictures of big trees growing on garden basement roof [Cavendish Square car park, Bloomsbury Square Gardens car park; Hyde Park car park]). Second draft policy then written and issued that does not take account of this. The impression given is that the Council is drafting policy which is not justified by the evidence available to them.

225. The Council responded:

Evidence has not been disregarded by the Council. The proposals with car parks underneath are from a different policy era. The policy objective is to retain a significant proportion of natural gardens and the reasons relate to planting but also to character of gardens and natural drainage.

226. The Council's response that "car parks underneath are from a different policy era" has no bearing on the evidence presented that mature trees can be grown on the roofs of garden basements.

227. The Council has not responded to the modern basement example referred to above that is currently being built in RBKC based on recent planning permission where the garden and planting has been improved by the basement development.

²⁹ Supporting evidence - Information provided to RBKC Basement Working Group on trees and planting

228. We made the following comments in response to the supporting text on this issue in the second draft policy.

The 50% cap is arbitrary, over-prescriptive and not justified by the evidence.

The claimed rationale for the policy within this text is threefold

- a. The ability to provide appropriate landscaping and planting within gardens including the ability for flexibility in future mature tree planting.
- b. The impact on drainage especially into the sewer system.
- c. Construction impact on amenity

The policy should include criteria relating to these concerns rather than impose an unjustified cap on size. The applicant can be required to provide appropriate technical reports and, to the extent necessary, permission can be controlled by conditions and section 106 obligations.

The text also mis-applies the London Plan policy 3.5 A which states

Housing developments should be of the highest quality internally, externally and in relation to their context and to the wider environment, taking account of strategic policies in this Plan to protect and enhance London's residential environment and attractiveness as a place to live. Boroughs may in their LDFs introduce a resumption against development on back gardens or other private residential gardens where this can be locally justified.

It addresses very different planning issues which are not engaged by building under gardens.

On the question of landscaping, I have already provided arboricultural evidence to the Council which demonstrates that substantial trees can be planted over garden basement roofs.

On the question of drainage, the 50% figure is not supported even by the evidence claimed to be relied on by the Council, Alan Baxter's report. Standard engineering techniques can achieve the objectives of the policy for drainage to the Upper Aquifer and for avoiding an increase in surface water flow into the sewer system. We have taken expert advice that supports this view.

On the question of construction impact, it fails to recognise that while some vocal individuals have been affected by basement development, there are many parts of the Borough capable of being developed in this way without undue impact on the surrounding environment.

229. The council responded:

Noted. The policy objective is to retain a significant proportion of gardens in their natural state so they can perform the range of roles set out in the London Plan Housing SPG. Basements also have a high carbon embodiment and limiting their extent will help reduce carbon emissions. This will be made clear at the next stage.

When applying policy, the policy objectives should be considered. While seeking to stop infill development the reasons to stop such developments apply equally to basement development.

Reasoned justification to Policy 3.5 states that “back gardens play important roles in addressing many of these policy concerns, as well as being a much cherished part of the London townscape contributing to communities’ sense of place and quality of life.” The London Plan Housing SPG (para 1.2.18) further amplifies the roles that gardens play including

- “defining local context and character including local social, physical, cultural, historical, environmental and economic characteristics,
- Providing safe, secure and sustainable environments and play spaces,
- Supporting biodiversity, protecting London’s trees, ‘green corridors and networks’, abating flood risk and mitigating the effects of climate change including the ‘heat island’ effect, and
- Enhancing the distinct character of suburban London.”

Para 1.2.22 of the London Plan Housing SPG further states “Gardens can clearly be very much part of form, function and structure which warrants respect and protection.”

Development both above or below ground can alter the character of gardens and adversely impact on the roles defined in the London Plan Housing SPG. It is reasonable to expect a significant proportion of gardens to be kept free of any development to allow their natural character to be maintained.

Para 53 of the NPPF also states “Local planning authorities should consider the case for setting out policies to resist inappropriate development of residential gardens, for example where development would cause harm to the local area.”

Private residential gardens are not considered brownfield sites by national planning guidance. The National Planning Policy Framework (NPPF) categorically excludes them from the definition of previously developed land.

The policy makes an exception for larger comprehensively planned sites in recognition of the fact that on some large sites large development is possible without adversely impacting on residential amenity.

Noted. The policy objective is to retain a significant proportion of gardens in their natural state so they can perform the range of roles set out in the London Plan Housing SPG. Basements also have a high carbon embodiment and limiting their extent will help reduce carbon emissions. This will be made clear at the next stage.

230. We made the following comments in response to the policy on this area in the second draft policy.

The 50% cap is arbitrary, over-prescriptive and not justified by the evidence.

Please see further representations on the text supporting the policy above.

In addition:

The arbitrary cap of 50% is a further 25% lower than was proposed in the first round of consultation and both are without sound justification. This lower figure is not even supported by Alan Baxter's report.

Three reasons for it are given in the response to consultation on the first draft policy and none of them justifies the lower figure. Together they suggest that the Council is taking an emotional anti-basement stance which is entirely contrary to the principles of the NPPF.

The commercial opportunities of larger basements will attract the more innovative, skilled, more expensive and ultimately higher quality developers. This is a highly competitive sector and the demand for basements will not go away. This policy could have a profoundly damaging effect on investment at the top end and, ultimately, the objective of the Council which must be to foster sustainable development – in the case of basements this means basements of the highest quality on appropriate sites.

231. The council responded:

The objective is to retain a significant proportion of gardens in their natural form to allow the continuation of the different roles that gardens play but at the same time allow development to take place. The second draft policy states that 50% is a maximum figure so the policy objective is to retain at least 50% natural gardens.

The London Plan Housing SPG (para 1.2.18) further amplifies the roles that gardens play including

- “defining local context and character including local social, physical, cultural, historical, environmental and economic characteristics,
- Providing safe, secure and sustainable environments and play spaces,

- Supporting biodiversity, protecting London's trees, 'green corridors and networks', abating flood risk and mitigating the effects of climate change including the 'heat island' effect, and
- Enhancing the distinct character of suburban London."

Para 1.2.22 of the London Plan Housing SPG further states "Gardens can clearly be very much part of form, function and structure which warrants respect and protection."

Basements can impact on the natural character of garden, and create issues relating to drainage which are linked to flood risk, restrict flexibility in planting and have an impact on biodiversity. Therefore it is reasonable to expect a significant proportion to be retained in its natural form.

232. Our position on the supporting text and the proposed policy has been given previously in Section 4. We repeat briefly:

Response is provided in Section 4.

- a. The Council take the phrase 'concerns over the structural stability of adjacent property, character of rear gardens' and then applies this as if the meaning were 'will impact on the character of rear gardens'. The character of any garden is largely down to the preference of the owner.
- b. Any tree, bush, plant or shrub that is natural to the UK can grow to full size and live a full life span in the one metre of soil on top of a garden basements. We have given this evidence to the council several times.
- d. The Council's own Principal Arboricultural Officer's view is that one metre of soil on top of a garden basement roof will allow future flexibility in planting, support sensible trees and support vegetation sustainably.³⁰
See response to above points in Council's Response to Arboricultural Issues raised by Cranbrook Basements and Basement Force, RBKC, April 2014.
- e. Basements under gardens with one metre of soil do not conflict with any of the extracts from the London Plan Policy that have been quoted above by the council. The wording from the London Plan does not justify the limitation in size proposed in the policy.
Repeats points made at para 47 and elsewhere.
- f. The council appears to be misrepresenting and misusing the London Plan Policy out of context in order to justify the policy.
Repeats points made at para 47 and elsewhere.
- g. The Council seems to imply that basement development is allowed to harm protected trees. This is not the case.
Repeats points made at para 48.

- h. The council's Basements Visual Evidence is flawed³¹ as:
Repeats points made at para 46.

- i. Many (44) of the 102 example basements gained planning permission before the 2009 basement policy that requires one metre of soil to allow

³⁰ RBKC Arboricultural Observations, 29 Brompton Square SW3, App No. PP/07/0649 & 650, dated 26/3/07;
RBKC Principal Arboricultural Officer

³¹ Supporting evidence - Review of RBKC Basements Visual Evidence March 2014

planting. Therefore the report does not demonstrate a failing in the current policy but in the previous pre-2009 policy.

- ii. Even for the post-2009 examples the council could have imposed a planning condition requiring acceptable planting. Therefore any lack of appropriate planting is either:
1. Evidence of the current planning rules not being used fully, or
 2. Due to the plants of an appropriate landscaping scheme not having had time to grow and mature since the construction of the basement.
- iii. There are several examples (48 and 50 Drayton Gardens, and 28 Abbotsbury Road) where the gardens shown as examples of gardens with poor character due to having rear garden basements do, in fact, not have garden basements underneath them in any of the aerial photographs. In the case of 48 and 50 Drayton Gardens this has been pointed out previously and been ignored.
- iv. The garden (31 Brompton Square) of a person who illegally removed a protected tree and built beyond the permission of his planning permission has been used as part of the evidence.
- v. 24 examples have been used where the aerial photographs show that construction is taking place at the site and no garden can be seen.
- vi. All of the last photographs, dated 2013, have been taken during the winter period when none of the trees are in leaf giving the impression that there are few trees in any of the gardens or streets.
- vii. In one case the appearance of the garden appears to have been improved.
- viii. In 12 other cases there does not appear to have been any significant negative change.
- ix. One case, 46 Eggerton Crescent, is included twice.

233. The council has provided two further reports:

- a. Trees and basements.

b. Impact of Basement Development on Biodiversity.

234. The Trees and Basements report aims to justify the limitation to 50% of basements under gardens. This report is flawed as:

- a. It makes the incorrect assumption that finding a tree root at below one metre means that trees need to have this depth of soil in order to grown to maturity. Trees need well aerated, fertile soil.
- b. Good quality soil is generally lacking in the borough where the upper soils are nearly all poor quality made ground (man-made fill) so introducing soil onto a garden basement will improve the existing growing conditions. We have included example boreholes from eleven gardens in the borough as evidence³². The council has many such boreholes from basement planning applications on the planning website. It is difficult to find any gardens with more than 100mm depth of soil.
- c. It supposes that the volume of soil available above a basement will be inadequate. This is incorrect. Tree roots need a sufficient volume of good soil (approximately 4.3m³ for a small tree, 17m³ for a medium sized tree and 48m³ for a large tree)³³ in order to grow to maturity. These volumes of soil can be readily provided above a garden basement that would accommodate an appropriate sized tree. A garden of 5 metres x 10 metres, with one metre of soil depth, will support a large tree. This is not a large garden and it is unlikely that an owner will want a large tree to be planted in a garden of this limited size.
- g. It makes the assertion, page 6 of RBKC Trees and Basements report, that the trees on top of garden basements are similar to those in the 'brick courtyard outside Kensington Town Hall where there are two moribund trees standing in less than a metre of soil above the basement car park'. This is not the case. The council appears to be using one example of a supposed inability to grow trees in planters as the justification for its basement planning policy. This should be compared to the tree nursery industry which grows semi-mature medium to large trees for sale in small (1 to 5 m³) soil volumes, examples are shown in the Landmark Trees supporting evidence. In addition the trees to which the council refers in its report outside Kensington Town Hall are pictured in the Landmark Trees' report and appear to be in good health despite the Council's claim.
See response to above points in Council's Response to Arboricultural Issues raised by Cranbrook Basements and Basement Force, RBKC, April 2014.

235. The RBKC Feb 2014 Impact of Basement Development on Biodiversity report concludes that "measures to restrict/limit basement extents are recommended and deemed prudent." This conclusion is flawed as the report:

- a. Incorrectly assumes that large trees cannot be grown on garden basement roofs. We have demonstrated that this is not the case several times.
See response in Council's Response to Arboricultural Issues raised by Cranbrook Basements and Basement Force, RBKC, April 2014.
No relevant evidence apart from a small multi-stemmed ornamental tree recently planted on top of a garden basement has been provided.
- b. Assumes incorrectly that the existing garden has a higher ecological current and/or potential than a garden on top of a basement.

- c. Ignores the fact that the council can require the developer to demonstrate that the proposals will not adversely affect biodiversity and, in line with the NPPF, provide a net gain where possible.

³² Supporting evidence - Soils in RBKC - example boreholes. March 2014.

³³ Supporting evidence - RBKC publication planning policy arboricultural input - Landmark Trees - March 2014.

- d. Assumes in paragraph 4.7 that "we cannot dictate what homeowners should grow in their private gardens." This is incorrect. As stated above when a homeowner builds a basement the Council can require by condition an ecological assessment and landscaping plan that will provide a net gain in biodiversity.

- e. Ignores the fact that the council can require that the structure/drainage etc. on top of a garden basement allows future flexibility in planting and biodiversity in perpetuity.

The Council is taking a proactive approach rather than relying on conditioning biodiversity in every basement planning application to mitigate harm after it has occurred. It should also be noted that potential impact on biodiversity is one strand of the reasons behind the policy. Given the Council's evidence on visual impacts, trees, biodiversity and carbon emissions the Council sees no merit in an over reliance on mitigating through conditions. The planning policy is seeking to address Borough wide issues and cannot be predicated on significant issues being dealt with through planning conditions. Also see response to para 236 d. below.

236. We have had expert opinion³⁴ that states that:

- a. The policy will restrict development and will not minimise impacts or provide net gains in biodiversity.

It is unclear how a policy that proposes to protect half the garden in its natural state as opposed to the policy proposed by Basement Force with 'no cap' on extent will not minimise impacts on biodiversity.

- b. This is because the proposed policy places an arbitrary limit of 50% of the garden that can be built under rather than considering the ecological value of the garden prior to development and then avoiding and mitigating any adverse impacts.

- c. The temporary loss of wildlife habitat is unlikely to be of significance and can be easily mitigated; the loss and movement of soil invertebrates and micro-organisms is unlikely to be of significance and in any case be controlled by a condition requiring the implementation of a sustainable soil strategy in line with DEFRA guidance, and; as long as it can be demonstrated that a mature and wildlife friendly landscaping scheme with space for large canopy trees as appropriate can be provided there should be no biodiversity reasons for limiting the extent of basement developments to 50% of the garden area.

See response to 235 points d. and e. above.

- d. In line with national planning policy (paragraphs 109 and 117 of the NPPF) and wildlife legislation (the "Biodiversity Duty" as set out in section 40 of the 2006

Natural Environment Act which requires all public bodies to have regard to biodiversity conservation when carrying out their functions) it would be appropriate to reword the policy so that it states that basement developments will be acceptable where it has been demonstrated that any temporary adverse impacts upon biodiversity will be kept to a minimum and adequately mitigated, and that, through appropriate wildlife friendly landscaping and space for large canopy trees, a long term net gain in biodiversity is achieved.

The Council's proposed policy is compliant with this duty. The author's suggested approach is reliant on mitigation after harm has occurred not conservation. Also see response to points 235 d. and e. above.

Soundness of the Council's approach

237. Policy CL7 d. not cause loss, damage or long term threat to trees of townscape or amenity value, is sound, as is supporting justification 34.3.59. These are entirely consistent with the approach we have proposed.

238. However the council's policy CL7 a. and supporting reasoned justifications 34.3.50, 34.3.51, 34.3.55 and 34.3.56 are unsound as they have not been positively prepared, have not been justified and will not be effective.

239. In terms of the evidence:

³⁴ Supporting evidence - Comments on the RBKC's draft basement policy (Biodiversity) - GS Ecology

- a. The Basements Visual Evidence is incorrect or flawed and cannot be considered as credible evidence - there is no proven causation between the character of a garden and the existence or absence of a basement underneath it, with a metre of soil between it and the surface. The character of a person's garden reflects their lifestyle and design preferences, not the development of a basement.
Repeats points made at para 46 and elsewhere. Council's response is provided at para 46.
- b. The council's own Neighbour's Survey shows that, contrary to the reasoned justification and policy, changes in the appearance or character of gardens is not of significant concern.
Council's evidence is presented in Basements Visual Evidence, Trees and Basements, Feb 2014 and Impact of Basement Development on Biodiversity, Feb 2014 .
- c. The Trees and Basements report fails to recognise that, as has been demonstrated previously on several occasions, that trees and plants of any size can be grown to full size and maturity on a basement roof with one metre of soil, and that in most cases this will be an improvement over the thin and poorly soiled gardens in the borough.
See response in Council's Response to Arboricultural Issues raised by Cranbrook Basements and Basement Force, RBKC, April 2014.
- d. The Impact of Basement Development on Biodiversity makes incorrect assumptions on the ability to plant trees on top of basements, ignores the Council's ability to control by condition biodiversity and landscaping / planting, and assumes incorrectly that the garden on top of a basement cannot have greater biodiversity and ecological value than an existing garden.
Repeats points made at para 235 (e).
- e. The Conclusion of the Council's Basement Visual evidence contradicts the Council's Impact of Basement Development on Biodiversity report. Para 1.12 of the Council's Basements Visual Evidence Feb 2014 states:

"It can be acknowledged that garden designs can be changed as a result of above ground extensions or just because the owner wishes to change the design of the garden as this may not fall within the definition of development. However, this does not seem to be a wide spread trend..."

The Council's Biodiversity report directly contradicts this stating (para 3.1):

"A recent report (Smith, 2010) investigating gardens in London shows that garden composition is changing dramatically, largely due to changes in garden design and management."

The Basements Visual Evidence, RBKC, Feb 2014 is based on a desktop study of a limited sample within the Royal Borough. Whilst it was not evident from this study that garden designs were changing as a result of above ground

extensions, it was evident that they were changing as a result of basements. The London-wide study extends beyond the Royal Borough covering the whole of London. Whilst the stated reasons for the change in the two reports may be different the conclusion remains garden character is changing. The London-wide report attributes the changes to development as well. As stated above the permanence of a basement should be noted when drawing comparisons with a garden that is simply hard paved.

Also see maps 1 to 4 of this study underlining the Royal Borough as one of the deficient areas which can benefit from the creation of more gardens or improved access to gardening projects or other green spaces.

It would seem sensible then that, if the council wishes to improve garden biodiversity, the Council should take the opportunity to impose planning conditions on positive landscaping and biodiversity by encouraging development of garden basements.

Repeats points made at para 235 (e) and elsewhere.

- f. The Council's Basement Visual Evidence ignores the Council's own evidence on the recent changes in garden composition being due to changes in garden design and management that have nothing to do with basement development and, moving freely from the conditional states (para 1.10) "The cumulative impact of a large number of basements can change the character of the gardens in the borough..." to the absolute statement "This will fundamentally change the character of the borough..." The council has ignored its own evidence when it runs contrary to supporting the policy, made statements without evidential basis and concluded an absolute outcome from a possibility.

Repeats points made at para 239 (e).

240. In contrast considerable evidence has been presented that garden basements do not need to cause harm to the character of rear gardens:

*Council agrees garden basements **do not need to cause harm to the character of rear gardens (our emphasis)**. The Council's policy seeks to achieve this not only in relation to rear gardens but also front gardens.*

- a. Information provided to the Basement Working Group from a technical expert, and evidence of mature tree planting on basement roofs and evidence to show improvement in the garden's character with a basement development. We present further evidence on the case of improvement as this project approaches completion³⁵. In this case the original fully paved garden with all surface water being drained into the sewer system is now a garden with a 50 year old mature tree planted in soil surrounded by strips of border and potted planting and with the surface water now being recycled or drained into the ground. The garden basement development has caused a significant improvement in mature tree planting, greenification, biodiversity and hydrology / reduction in surface water entering the sewer system.
- b. Evidence from tree expert, Adam Hollis, that gardens of any sort can be planted

on top of garden basements. An updated report from Adam Hollis is included with this representation³⁶. Gardens on top of basements offer the opportunity for improving mature tree planting, greenification and biodiversity.

241. We have also recently noticed that the Council's own Principal Arboricultural Officer (PAO), Mr Angus Morrison, has stated in previous notes on planning applications his view that one metre of soil on top of a garden basement roof will allow future flexibility in planting, support sensible trees and support vegetation sustainably, see below extract from RBKC Arboricultural Observations, 29 Brompton Square SW3, App No. PP/07/0649 & 650, dated 26/3/07.³⁷

"The applicants have submitted a landscaping scheme which includes the replanting of 4 sensible replacement trees (Drawing ELB-108). The only problem I have is that only 500mm of soil is shown above the basement in the sections. To support vegetation sustainably and to allow future flexibility in planting I would like to see the standard 1000mm."

This note only demonstrates that the Council required 1m of soil before the 2009 SPD. The Council is not disputing that the 1m of soil can support vegetation and it is one of the reasons why this is continued to be required by the Council. See Council's supporting document Trees and Basements, Feb 2014.

242. The policy and reasoned justification concerning CL7 a. "The unaffected garden must be in a single area and where relevant should form a continuous area with other neighbouring gardens" are not sound with regard to the character of gardens as:

- a. No evidence has been given to support the policy or justification.
- b. The garden being in a single area and adjacent to similar areas does not, all other things being equal, allow better drainage, support continuity of larger planting or support biodiversity.

³⁵ Planting on garden basements - March 2014.

³⁶ Supporting evidence - RBKC publication planning policy arboricultural input - Landmark Trees - March 2014

³⁷ Supporting evidence - RBKC Arboricultural Observations, 29 Brompton Square SW3, App No. PP/07/0649 & 650, dated 26/3/07

- c. Larger planting is not restricted in any way by garden basements with one metre of soil on top.
 - d. Biodiversity is not restricted in any way by garden basements.
243. The use of planning conditions was proposed to allow the enhancement of rear gardens where garden basements are developed. This suggestion, which would have resulted in an appropriate and sustainable strategy, was ignored.
244. The policy does not seek to objectively assess development requirements. Rather it uses a broad brush and coarse restriction as a proxy for protecting or enhancing the character of gardens.
245. The logic behind the 50% restriction as a proxy for preserving the character of gardens is flawed. There is no proven causal relationship between constructing a basement and making a modern garden: people may use the fact that they are constructing a basement to alter their garden, but there is no reason to think they would not do so anyway if prevented from constructing a basement. Since a naturalistic garden is perfectly possible over a basement, it is obviously for reasons of preference, taste and ease of maintenance that people have chosen to modernise their garden design.
246. The proposed policy will not effectively deliver the only legitimate aim of the policy, namely to prevent basement developments where they would cause material harm but to permit a specialist sector of the construction industry to assist in meeting the development needs of the Borough, in the social economic and environmental interest of the public.
247. In contrast with the Council's arbitrary set of prescriptive limitations on scale, we have suggested a criteria-based policy coupled with the use of planning conditions which would avoid harm and could be used to maintain or improve the leafy, bio diverse and well-treed character of the Borough's gardens.
248. This suggested approach would prevent any unsympathetic alteration to the leafy and well-treed character or biodiversity of the Borough's gardens.
All the points above have been made before in this document and the Council has provided a response.

Section 10. Incorporation of SUDS and other hydrological matters

249. The Council proposes the following policies and supporting justification.

a. not exceed a maximum of 50% of each garden or open part of the site. The unaffected garden must be in a single area and where relevant should form a continuous area with other neighbouring gardens. Exceptions may be made on large sites;

CL7 j. include a sustainable urban drainage scheme (SUDs), including a minimum of one metre of permeable soil above any part of the basement beneath a garden. Where the character of the gardens within an urban block is small paved courtyards SUDs may be provided in other ways;

34.3.50 A basement development next door has an immediacy which can have a serious impact on the quality of life, whilst the effect of multiple excavations in many streets can be the equivalent of having a permanent inappropriate use in a residential area. There are also concerns over the structural stability of adjacent property, character of rear gardens, sustainable drainage and the impact on carbon emissions. Planning deals with the use of land and it is expedient to deal with these issues proactively and address the long term harm to residents' living conditions rather than rely only on mitigation. For all these reasons the Council considers that careful control is required over the scale, form and extent of basements.

34.3.51 The policy therefore restricts the extent of basement excavation to no more than under half the garden or open part of the site and limits the depth of excavation to a single storey in most cases. The extent of basements will be measured as gross external area (GEA).

34.3.55 The townscape of the Borough is urban and tightly developed in character. However, rear gardens are often a contrast, with an informal picturesque and tranquil ambience, regardless of their size. Whilst basements can preserve the remaining openness of the townscape compared with other development forms, it can also introduce a degree of artificiality into the garden area and restrict the range of planting. Retaining at least half of each garden will enable natural landscape and character to be maintained, give flexibility in future planting (including major trees), support biodiversity and allow water to drain through to the 'Upper Aquifer'. This policy takes into account the London Plan and the Mayor of London's Housing SPG both of which emphasise the important role of gardens. The National Planning Policy Framework (NPPF) also supports local policies to resist inappropriate development of residential gardens and excludes private gardens from the definition of previously developed land.

34.3.56 Keeping the unexcavated area of a garden in a single area and adjacent to similar areas in other plots allows better drainage, and continuity of larger planting supporting biodiversity. In back gardens this area will usually be the end of the garden furthest from the building.

34.3.67 Policy CE 2 of the Core Strategy requires surface water run-off to be managed as close to its source as possible. A minimum of one metre of suitably drained permeable soil above any part of a basement within a garden provides for both reducing the amount and speed of water runoff to the drainage system and the long term future of shrub and other garden planting. Care should be taken that the original garden level is maintained and the 1m of permeable soil is connected to the unaffected part of the garden. Other SUDs measures may also be required.

The Council's evidence

250. The council is using the incorporation of SUDS and drainage as a justification for limiting the size of garden basements to 50%.

251. The Alan Baxter report states:

Page 32. 9.8.3 Where the near surface subsoil is gravel... ...As a rule of thumb, 25% of the garden area is likely to be sufficient to enable this to happen. On this basis a new basement should not occupy more than 75% of the area of a garden.

Page 32. 9.8.3 Where the near surface subsoil is clay....There is no simple rule of thumb that can be applied here, but in situations where the garden and adjoining gardens are level, all water falling on the garden and basement footprint of the development property, should be retained on that property (or drained away using an attenuated system). To enable the clay subsoil to absorb some of the rainwater, a proportion of the garden should not be built under and on clay sites this might be between 25% and 50%. On this basis a new basement should not occupy more than between 50% and 75% of the area of a garden on clay sites.

252. In summary The Alan Baxter report states that in areas of gravel 25% of the garden should be retained for drainage and between 25% and 50% in clay areas.

253. The Council has used the drainage argument, based on the Alan Baxter report, as support for the 50% garden limitation. When questioned on this the Council has given responses such as:

The figure is not based only on the drainage issues set out in Alan Baxter and Associates report. (Second Draft Response page 182)

254. In response to this we commissioned a review of the proposed policy and supporting documents with respect to hydrological matters by the Infrastructure London Group at the engineers Ove Arup & Partners Ltd³⁸.

255. Arup's summary recommendation was that with respect to drainage and hydrological matters:

We recommend that the policy be revised such that applications which are demonstrably not worse than current conditions (regardless of project size) and satisfy all other planning constraints (including demonstration that current conditions are satisfactory) be considered for approval.

³⁸ Supporting evidence - Hydrologic review of second draft policy for public consultation - 29 April 2013. Ove Arup & Partners Ltd

256. The Arup report was prepared by hydrologists and hydrogeologists. The Alan Baxter Associates is not believed to have been prepared by qualified hydrologists and hydrogeologists.

Our evidence / analysis and how this has been responded to by the Council to date

The Council has provided the original response and sees no merit in providing another response to further responses. These comments do not address the soundness consultation.

257. We made the following comments in response to the reasoned justification on this area in the second draft policy.

You need only SUDS – saying that you need one metre of permeable soil is telling you how to achieve SUDS.

The justification for SUDS is to avoid additional surface water causing flooding of the sewer system. It doesn't need any more than this.

258. The council responded:

Noted. The 1m of soil has two purposes; for SUDs as well as for planting. Para 34.3.71 states that where the character within an urban block is small paved courtyard SUDs can be provided in other ways.

Noted. The text is brief and is considered necessary.

259. There is one point to be made:

- a. The Council's response does not justify why the policy within criterion "i" persists in directing the developer how to achieve SUDS . The point is that SUDS can be achieved in multiple ways and does not require one metre of soil. Planting requires soil. The one metre of soil needs only to be part of the planting requirement. Linking SUDS to having one metre of soil is not necessary and adds complication to the policy.

260. We made no additional comments on the proposed policy.

Soundness of the Council's approach

261. The intention of policy CL7 j - the inclusion of SUDS - is considered sound. However, linking the one metre of permeable soil to the SUDS requirement is not sound because:

- a. It limits the options open to designers and therefore stifles innovation, an aim of sustainable development.

The 1m of soil is there to ensure gardens in the Borough do not translate to the hard roof of basements and as stated before serves a dual function to provide soft landscaping as well as SuDs.

- b. No evidence for the link between SUDS and the one metre of soil has been

provided.

Unclear what evidence is required. Use of SuDs is established in national and local policies.

- c. It is not the most appropriate strategy. The most appropriate strategy being to require SUDS and then leave the designer to achieve the objectively set criteria. *This may be the case for above ground extensions but not for basements which can extend into large parts of the garden (at present and even with the 50% limit). Above ground extensions are required to be visually subordinate to the host building and are generally small in comparison. See response to point a. above.*
- d. It adds unnecessary complexity which reduces the effectiveness of the policy. *The Council does not agree due to the reasons stated under points a. to c. above.*

262. With regard to policy CL7 a and reasoned justifications 34.3.50 and 34.3.55 being used to limit the size of garden basements they are all unsound because the proposed approach:

a. Uses arbitrary criteria, not even supported by the council's own technical report, rather than using objectively assessed criteria.

Surface water drainage is one strand of the justification. See the Policy Formulation Report, RBKC, Feb 2014 for the range of reasons.

b. Limits development without good reason and is therefore not consistent with achieving sustainable development.

Council has produced extensive evidence supporting the proposed policy.

c. Is not based on the evidence - in gravel areas the policy requirement is demonstrably more limiting than recommended by the council's technical report and in areas of clay runs counter to the council's technical report which states that "There is no simple rule of thumb that can be applied here".

See response to point a. above.

d. Is not the most appropriate strategy when viewed against the reasonable alternatives, namely that proposed by the hydrologists and geohydrologists of the Infrastructure London Group at Ove Arup Ltd who state that project size should not be a criteria when considering drainage matters.

See response to para 5 regarding a case by case approach. Also see response to point a. above.

e. Given all of the above decisions are likely to be subjected to unnecessary appeals .

"Planning decisions must be taken in accordance with the development plan unless material considerations indicate otherwise" (Section 38(6) of the Planning and Compulsory Purchase Act 2004). The proposed policy has clear criteria and it is not evident why decisions will be subject to unnecessary appeals as proposals compliant with the policy will be permitted without delay. The author's suggested approach which is open to interpretation is more likely to result in unexpected outcomes and be subject to unnecessary appeals.

263. With regard to the supporting text 34.3.56 using drainage as part the justification for keeping the unexcavated area of a garden in a single area and adjacent to similar areas in other plots this is not viewed as sound because:

a. No evidence has been provided to support the restriction which is arbitrary.

b. Limits design options without good reason and therefore is not consistent with sustainable development.

c. Decisions are likely to be subject to unnecessary appeals with the expense and delay this causes.

The benefits are evident as they allow large areas of natural gardens to be consolidated with linked benefits to trees, biodiversity and surface

water drainage. See response to 262 e. above in relation to point c. about appeals.

264. In contrast, our suggested approach is to require proposals to incorporate SUDS and to deal acceptably with other hydrological matters, in that applications which are demonstrably not worse than current conditions (regardless of project size) and satisfy all other planning constraints (including demonstration that current conditions are satisfactory) be considered for approval.

The policy is not about maintaining the status quo but about improving the existing baseline.

Section 11. Well designed including protection from sewer flooding

265. The Council proposes the following policies and supporting justification.

CL7 o. be protected from sewer flooding through the installation of a suitable pumped device.

34.3.71 Given their nature, basements are more susceptible to flooding, both from surface water and sewage, than conventional extensions, and applicants are advised to see Policy CE2: Flooding. Fitting basements with a 'positive pumped device (or equivalent reflecting technological advances) will ensure that they are protected from sewer flooding. Fitting only a 'non return valve' is not acceptable as this is not effective in directing the flow of sewage away from the building.

The Council's evidence

266. The Alan Baxter report states:

Page 29. 9.5.5.2 Basements planned in these areas will need to be designed to take account of these increased flood risks. To do this, those designing and building new basements need a thorough understanding of the flood risks and conditions.

267. The report does not state how the basements should be protected from flooding.

Our evidence / analysis and how this has been responded to by the Council to date

The Council has provided the original response and sees no merit in providing another response to further responses. These comments do not address the soundness consultation.

268. We made the following comments in response to the reasoned justification on this area in the second draft policy.

This is a proper concern of Building Control and an obvious statement both as to the risks and as to the importance of safeguarding against them, but the planning policy seeks to overreach itself and is over prescriptive both within the text and the policy.

The correct way to protect a dwelling from sewer flooding is given in British Standards, the highly readable BS EN 12056-4 - Gravity drainage systems

inside building - Part 4: Wastewater lifting plants – Layout and calculation. No doubt this will change and be updated over the years.

269. The council responded:

The Borough has experienced flooding incidents in the past 20 years. Many related to the inability of the Counters Creek, the Victorian sewer system to cope with the amount of surface and foul water entering the system during significant rainfall event.

This issue was raised by Thames Water in the representation to the last consultation. The intention is to ensure that basements are designed so that they are protected from sewer flooding. Thames Water's regulator Ofwat agree this is the most suitable technology.

The text gives the flexibility to respond to changes in technology.

270. We made the following comments in response to the policy on this area in the second draft policy.

It is a statement of the obvious that all basement development should be protected from sewer flooding. The criterion

- a. Is unnecessary and
- b. should not prescribe how the protection should be provided

271. The council responded:

Noted. This issue was raised by Thames Water in the representation to the last consultation. The intention is to ensure that basements are designed so that they are protected from sewer flooding. Thames Water's regulator Ofwat agree this is the most suitable technology.

As noted in the text, other devices (in-line with technical advances) can be used.

272. The only point to be made is one of drafting. Basements should be protected from flooding. However there is a correct British Standard in place, BS EN 12056-4. The policy could be better worded than proposed to make it simpler and to have more ability to cope with future technology developments.

Soundness of the Council's approach

273. The intention of policy CL7 o is sound.

274. However the policy wording could be simplified and made more generic in order to increase simplicity and improve the ability to cope with future technical developments.

275. In contrast, our suggested approach is that basements should be well designed (including protection from flooding and other technical matters);

The policy will not preclude use of other appropriate means of protecting basements from sewer flooding. As stated by the Council previously this requirement was added in response to representations from Thames Water. When the Subterranean SPD is revised in due course further guidance can be provided.

Section 12. Impact on the structural stability of any building or structure

276. The Council proposes the following policies and supporting justification.

CL7 b. not comprise more than one storey. Exceptions may be made on large sites;

n. be designed to safeguard the structural stability of the application building, nearby buildings and other infrastructure including London Underground tunnels and the highway;

34.3.50 A basement development next door has an immediacy which can have a serious impact on the quality of life, whilst the effect of multiple excavations in many streets can be the equivalent of having a permanent inappropriate use in a residential area. There are also concerns over the structural stability of adjacent property, character of rear gardens, sustainable drainage and the impact on carbon emissions. Planning deals with the use of land and it is expedient to deal with these issues proactively and address the long term harm to residents' living conditions rather than rely only on mitigation. For all these reasons the Council considers that careful control is required over the scale, form and extent of basements.

34.3.58 Where a basement has already been implemented following the grant of planning permission or through the exercise of permitted development rights, the policy does not allow further basement floors or basement extensions that would exceed 50% of the garden or open part of the site. This is to ensure consistency of approach.

34.3.70 Basement development can affect the structure of existing buildings. The applicant must thoroughly investigate the ground and hydrological conditions of the site and demonstrate how the excavation, demolition, and construction work (including temporary propping and other temporary works) can be carried out whilst safeguarding structural stability. The structural stability of the development itself is not controlled through the planning system but through Building Regulations. The Party Wall Act is more suited to dealing with damage related issues.

The Council's evidence

277. First Consultation Response draft policy March 2013, page 120,

Alan Baxter and Associates response: Geotechnical consultants can advise re ground movements regarding changes in load. However it is likely that the majority of movements are as a result of the method and sequence of construction, the temporary works and the care and diligence of the contractor.

278. The critical points to take from the council's technical expert are:

a. While the method, sequence of construction and temporary works can be proposed in outline at planning stage they cannot be set as absolute requirements at that point. This means that a planning requirement for highly detailed method statements and construction sequences as part of the planning process is somewhat pointless as they will often be changed at a later time, possibly up to three years later when the develop commences.

- b. Detailed construction statements and methods can give a false sense of security over the management of the construction risk.
- c. More important is the quality of the contractor undertaking the works.
- d. Some form of contractor quality control or site enforcement would probably be a more effective and appropriate approach to reducing the risk to structural stability of basement developments rather than overly emphasising the need for more and greater detailed information at the planning stage.

279. First Consultation Response draft policy March 2013, page 96, Edward Barker

We do not feel that it should be as simplistic as allowing only one basement level. We feel that each scheme should be decided on its merits, for instance a two storey basement may well be appropriate on a more spacious and less restricted site.

Alan Baxter and Associates response: Each scheme needs to be considered on its merits.

Alan Baxter's report does not suggest restricting basements to one level only, only requesting 'special care' is taken in their design

Alan Baxter and Associates response: Agreed.

There are several aspects of a basement more important to its impact than the depth of the excavation (such as its

proposed construction method, careful selection of the right contractors to carry out the work etc.)

Alan Baxter and Associates response: Agreed.

280. Alan Baxter and Associates, the council's technical expert, do not " suggest restricting basements to one level only, only requesting 'special care' is taken in their design"

Our evidence / analysis and how this has been responded to by the Council to date

281. We made several comments to the reasoned justification and policy on this area in the second draft policy.

282. Second draft responses page 69 para 34.3.58

The Baxter Report itself recognises the importance of good design and workmanship for all basement projects, not only the deeper or larger proposals. The response by Alan Baxter & Associates to Edward Barker in the Consultation Responses to Draft Basements Policy March 2013, page 96, recognises that there are several more important factors than basement depth causing construction impact.

283. The council responded:

Noted.

284. Second draft responses page 97 para 34.3.61 - 62

Construction risk is regulated by other regimes and the planning system should not use it to justify constraints on development: the same argument could be used to prevent all technically complex or risky development projects and thereby stifle innovation.

285. The council responded:

The policy is seeking to protect the high quality built environment of the Borough. Constructing a basement underneath or in close proximity to existing buildings can cause structural damage to neighbouring buildings. These risks are greater for multi-storey basements and are highlighted in the Alan Baxter and Associates report. Similar issues are not seen to occur in above ground development.

286. Second draft responses page 192 CL7 b

This criterion is arbitrary and not justified by reliable evidence. It is legitimate to seek to ensure high quality design and workmanship in all development projects, particularly given the construction risks associated with all basement development, but this is not achieved by blanket bans on second storeys.

287. The council responded:

Noted.

288. The main point to note is that the Council has not followed the advice of its technical expert who expressly states that they do not suggest restricting basement development to one level only.

Soundness of the Council's approach

289. The council's approach is not sound as it is not positively prepared, not justified and is unlikely to be effective.

290. The council has not provided evidence that basements of more than one level have caused structural problems despite being asked to do so, including:

The Council's policy is not limiting basements to a single storey based on structural reasons. The criteria is there to ensure no harm is caused to the built environment (which related to character or appearance) as a result of basement development. Also see National Planning Practice Guidance: Land Stability which demonstrates how planning can work alongside other regimes.

- a. Second draft responses, page 92; 34.3.61; Panorama Property Services (James Agace); "Have there been more problems with multi-level basements than single level basements?"

- b. Council response "The evidence that multi-storey basements are more complex and challenging than single storey basements is in the Alan Baxter and Associates report."

291. The Council's proposed approach is not the most appropriate strategy from a structural stability point of view - the Council's own technical expert states that "Each scheme needs to be considered on its merits." In the face of this opinion from its own expert the Council continues to use structural stability as a justification for limiting basements to a single storey in most cases.
292. The criteria of limiting basements to a single storey is arbitrary and does not seek to objectively assess development requirements. There are single level basements that will have greater risk than some double level basements. As Alan Baxter Associates state each scheme should be considered on its own merits.
293. Policy CL7 b will not be effective in terms of ensuring structural stability as it does not, according to the Council's expert, directly address the relevant matters.
294. In contrast, our suggested approach is to require consideration whether an adverse impact on the structural stability of any building is likely. This is positively prepared and aligned with the Council's technical expert.