

WARD: Brislington West

SITE ADDRESS: 493 - 499 Bath Road Brislington Bristol BS4 3JU

APPLICATION NO: 18/05023/F Full Planning

DETERMINATION DEADLINE: 29 March 2019

Demolition of existing building and redevelopment of the site for 146 residential units, including apartments and houses (Use Class C3), with associated car parking, landscaping and works. (Major application).

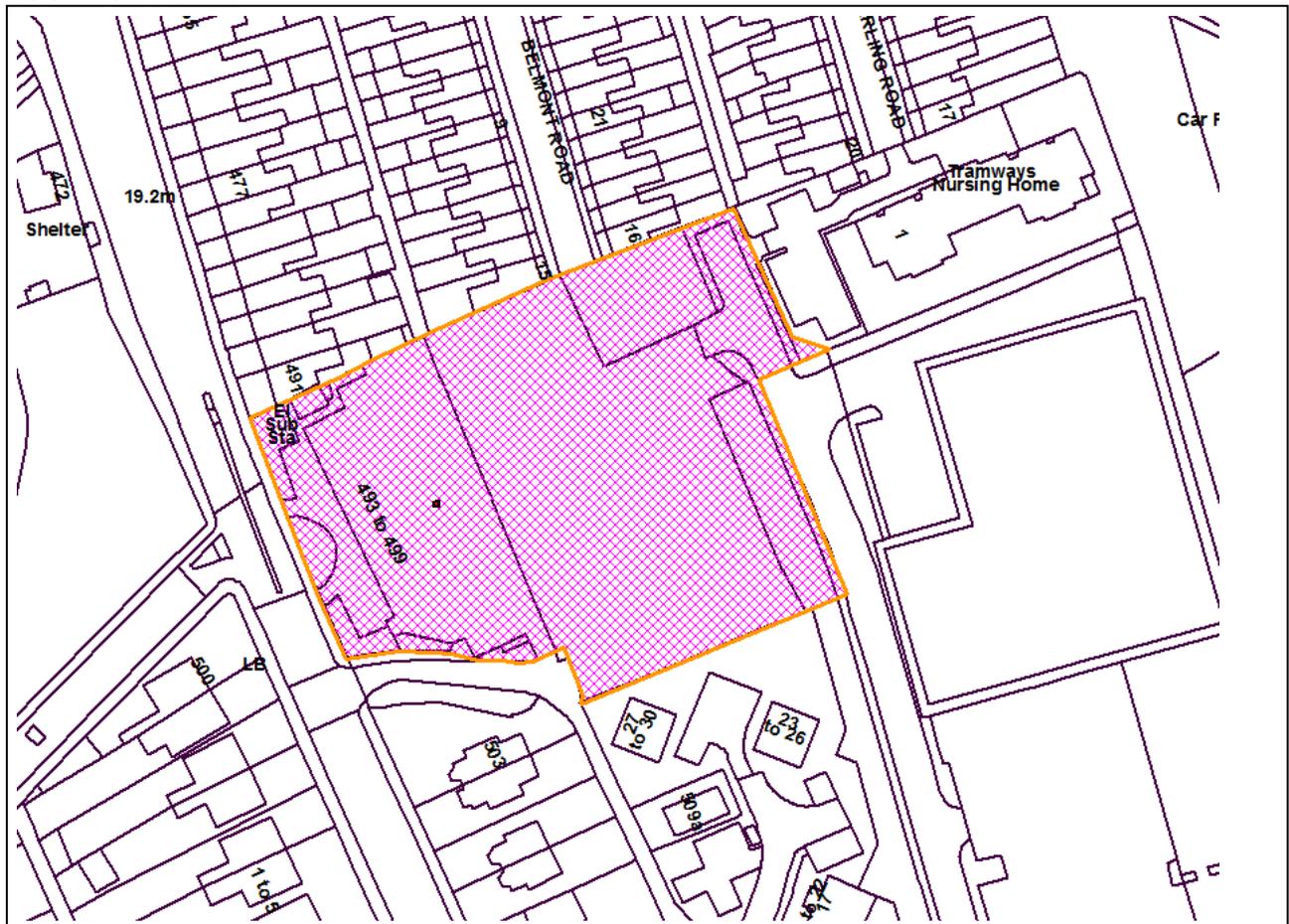
RECOMMENDATION: Refuse

AGENT: Savills (L&P) Plc
Embassy House
Queens Avenue
Bristol
BS8 1SB

APPLICANT: Sovereign Housing Association
C/o Savills

The following plan is for illustrative purposes only, and cannot be guaranteed to be up to date.

LOCATION PLAN:



Development Control Committee A – 4 March 2021**Application No. 18/05023/F : 493 - 499 Bath Road Brislington Bristol BS4 3JU****INTRODUCTION**

This is an update to the Committee Report and Amendment Sheet presented to Development Control Committee A on 2 September 2020.

The application presented to Members on 2 September 2020 was recommended for refusal on three grounds:

1. The proposed development would not provide an energy solution which sits within the Heat Hierarchy set out in Policy BCS14 of the Bristol Core Strategy and the submitted Technical and Financial Appraisal: The Heat Hierarchy, Communal Heating and Heat Pumps (Updated Strategy and Consolidated Report), has not demonstrated adequately that it is not viable or not feasible to meet the heat hierarchy. This is contrary to Policy BCS14 of the Core Strategy, as well as guidance within Section 14 of the National Planning Policy Framework.

2. The proposed development by reason of its height, scale, massing, public realm, and overall design quality, would be unacceptable in design terms and the impact on the amenity of future occupiers. This would be contrary to Section 12 of the National Planning Policy Framework (February 2019); Policy BCS21 of the Bristol Core Strategy (June 2011); Policies DM26, DM27, DM28 and DM29 of the Site Allocations and Development Management Policies (July 2014); and the Urban Living SPD (November 2018).

3. The proposed development fails to make an appropriate contribution towards the provision of affordable housing and is therefore contrary to Core Strategy Policy BCS17.

At the meeting of Development Control Committee A on 2 September 2020, the motion passed was:

“Resolved – that a decision on the application be deferred until a future Meeting of the Committee pending compliance with Heat Hierarchy measures, the amenity space and relationship between Blocks A and B being improved, wider design issues including the long corridors and light entering the dwellings being improved.”

The Committee Report for the meeting on 2 September 2020 notes the policy compliant aspects of the application for key issues relating to residential amenity for existing neighbouring properties; transport; contamination; flood risk/drainage; and air quality. These key issues were all considered to be acceptable subject to conditions/obligations and are not repeated within this Update Report.

This Update Report is focussed on the grounds that this application was previously recommended for refusal and the matters on which decision on the application was deferred. Members should not and cannot confine their consideration of the application solely to the updates made since September 2020. Members must consider the whole application on its merits against all of the relevant policies and all material planning considerations.

OVERVIEW OF CHANGES TO THE APPLICATION SINCE SEPTEMBER 2020

Following the Committee Meeting, a Briefing was provided by the Applicant to Members of Development Control Committee A on 30 September 2020.

Since the Committee Meeting and the Briefing, the following changes have been made to the application for determination.

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- Revised Energy Strategy: The Applicant has increased the number of units served by air source heat pumps from 12 dwellings (8.2%) to 37 dwellings (25%), with electric resistive heating to be used for the remaining 109 dwellings (75%).

The amenity space and relationship between Blocks A and B being improved:

- Design Changes: Amendments have been made to the internal configurations of the apartments in Block B, this has comprised the relocation of the patio doors to face the courtyard between Blocks A and B; and the relocation of a 2 bedroom unit to the apex.

Wider design issues including the long corridors and light entering the dwellings being improved

- No wider design changes have been made.
- No improvements have been made to the corridors or the light entering the dwellings.

SITE DESCRIPTION

This application relates to land to the east of Bath Road, south Bristol within the Brislington West ward of the city.

The western part of the site is currently occupied by a four-storey vacant building known as 493 – 499 Bath Road, formerly in use as a tailoring factory and occupied by the Russian Anglo Oil Company and the eastern part is hardstanding formerly occupied by Bristol Commercial Vehicles.

The site is bounded to the north and south by residential properties and to the east by Tramway Road which features a residential care home and business / retail units.

The surrounding area is characterised by two- and three-storey terraced residential properties.

The application site is allocated for Housing (site reference: BSA1207) in the Bristol Local Plan Site Allocations and Development Management Policies.

On the western side of Bath Road is Arnos Court Park, a designated Conservation Area, Local Historic Park and Garden, and Important Open Space. A Grade II Listed former convent to the rear of Parkside Hotel is located approximately 180 metres to the north.

To the east of the site lies the Wildlife Corridor Site, known as 'Dismantled Railway near Tramway Road'. The site is located within an Air Quality Management Area.

APPLICATION

The application seeks full planning permission for the erection of 146no. dwellings, including flatted dwellings and dwellinghouses (use class C3) with associated car parking and landscaping. The existing buildings on site would be demolished to enable development.

The application proposes 32 affordable units (22%) for social rent to be secured by a s106 planning obligation, with the remaining 114 units (78%) to be provided as affordable housing.

The scheme proposes 5no. blocks of varied heights:

- Block A: 4 – 5 storeys
- Block B: 6 storeys
- Block C: 7 storeys
- Block D: 2 – 4 storeys
- Block E: 2 storeys

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The housing mix is:

- 143no. self-contained apartments:
 - o Block A: 21 apartments
 - o Block B: 53 apartments
 - o Block C: 60 apartments
 - o Block D: 9 apartments
- Block E: 3no. three-bedroom terraced dwellinghouses

The bed space mix is:

Type of dwelling	No. of dwellings
1 bed, 2 person	63
2 bed, 3 person	74
2 bed, 4 person	6
3 bed, 5 person dwellinghouse	2
3 bed, 6 person dwellinghouse	1
Total	146

The proposed blocks would be constructed in brick, render and metal cladding with stone capping and would have glass balconies, windows and doors.

The proposed cycle and car parking would be:

Block	Cycle Parking	Car Parking
A	130	44
B	0	0
C	94	35
D	8	9
E	6	6
Visitor	42	3
Total	280	97

PRE-APPLICATION COMMUNITY CONSULTATION

The Applicant submitted a Statement of Community Involvement with the application, which states that pre-application consultation with the local community was carried out between December 2016 and July 2018. This consisted of; letters sent to councillors and community groups in December 2016; a presentation to the Greater Brislington Neighbourhood Planning Partnership in March 2017; and, a community consultation event held in July 2017. Leaflets were distributed to approximately 2,000 local residents and the event had an estimated attendance of 46 people. The feedback received from the event is provided in the Statement of Community Involvement submitted by the Applicant.

EQUALITIES IMPACT ASSESSMENT

During the determination of this application due regard has been given to the impact of this scheme in relation to the Equalities Act 2010 in terms of its impact upon key equalities protected characteristics. These characteristics are age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex and sexual orientation. Overall, it is considered that the approval of this application would not have any significant adverse impact upon different groups or implications for the Equalities Act 2010. In this case the design and access to the development have been assessed with particular regard to disability, age and pregnancy and maternity issues.

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The application was submitted and validated in October 2018. In response to the proposals as submitted, 13no. comments were received from interested parties to the application. All 13 comments received were in objection.

Revised plans were submitted in March 2019 comprising the following changes: amendments to the car parking design and layout; creation of additional amenity spaces; amendments to main entrances to the buildings and façade detailing.

Neighbours were reconsulted in April 2019. In response to the revised plans, 11 comments were received from interested parties. Of the 11 comments, 10 comments were in objection and 1 neutral comment was received in response to the revised plans.

Further revised plans were submitted in February 2020 comprising the following changes: removal of top floor of Block A and re-distribution of 3no. flats to Block B; internal re-ordering of Blocks A, B and C to achieve increased dual aspect and relocate the stair cores. Neighbours were re-consulted in February 2020. In response to the revised plans, 10 comments were received all in objection to the proposed development.

Issues raised were consistent at each stage and included the following concerns:

- Lack of parking and impacts on traffic and access.
- Over development of the site.
- Building heights, particularly Building A fronting Bath Road and Building C to the rear.
- Massing and scale of the scheme not considered in keeping with the local architecture.
- Design quality and living environment for future residents.
- Opening of access at the top of Belmont Road for pedestrians and cyclists.
- Impact on privacy, amenity, light/air pollution for existing residents.
- Demolition of existing building and lack of mixed uses proposed.
- Insufficient number of affordable homes.

Following the publication of the 2 September Committee Report for this application, two further public comments were received. One comment was neutral (neither in support or objection to the application); and one comment was in support of the application.

In terms of the neutral comment this did not object to the redevelopment of the site, it related to Roman Walk and car parking pressures in the area.

In terms of the comment in support of the application, it cited:

- The lack of affordable and social housing in Bristol and the length of the waiting list for council property, and the length of time that this site is still not under construction.
- Brislington is a sought after area for housing and the demand is likely to increase after the new university campus opens.
- Consider that the site has been well designed; the blocks are not too high, there is public space with planting, and good availability of bicycle and car parking.
- Consider this type of development is preferable to the spread of HMOs in existing terraced housing which is considered a problem in Brislington.
- Cite that this is not the easiest site and the application makes good use of it.
- There have not been a huge number of local objections.
- Note the disagreement over the proposed heating systems and suggested if this could be made a condition of acceptance.

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Overall the comment in support of the application states, the application offers a good number of social and affordable units which are desperately needed, in a location in reach of the city centre employment, and they would not want to see further delays in the utilization of the site.

INTERNAL CONSULTEES

In this report, only consultation responses are included from internal consultees relevant to the grounds that this application was previously recommended for refusal and the matters on which decision on the application was deferred

SUSTAINABLE CITY AND CLIMATE CHANGE TEAM – Objection

Bristol City Council Sustainable Cities and Climate Change Team made the following comments in response to the Committee Meeting on 2 September 2020, the briefing by representatives of Sovereign Housing to Members on 30 September 2020, and the submission of the presentation slides (updated November 2020), the 'Heat Hierarchy Summary Matrix' and Revised Energy Strategy Summary (November 2020).

Detailed comments from the Sustainable City and Climate Change Team (9 pages) are appended to this Report.

A summary of comments from Sustainable City and Climate Change Officer are included below:

- We acknowledge that the carbon intensity of grid electricity was significantly higher when current planning policies were adopted in 2011 than today. Despite this reduction and the fact that resistive electric heating is the cheapest form of heating to install, this is not in our judgement justification for allowing the use of electric resistive heating in new dwellings.
- Electric resistive heating continues to be excluded from the BCS14 heat hierarchy for the following reasons:
 - Electric resistive heating is not as efficient as other forms of renewable heating such as heat pumps which are allowable under the heat hierarchy, and therefore generate more CO2 emissions (approx. 2 – 5 times more).
 - Widespread use of resistive electric heating will significantly increase the annual demand and peak demand for electricity (on top of the increased demand from the electrification of transport and heat through heat pumps), increasing the amount of energy that will have to be generated renewably for the grid, making it harder to decarbonise the energy system as a whole.
- This is in line with government policy as set out in the Future Homes Standard Consultation (2019), the Future Buildings Standard Consultation (2021) and independent advice provided to the council on the decarbonisation of heat, which is not advocating the use of electric resistive heating in new dwellings.
- Under the current proposals only 37 units (25%) comply with policy BCS14. 109 units (75%) do not comply. We consider that it is technically feasible and financially viable to deliver significantly more units on this site in compliance with policy BCS14 as follows:
 - From a technical standpoint (in addition to the individual air source heat pumps already proposed in other units), there is scope to provide heating and hot water to a number of additional units (58-75 no.) using a communal ground source heat pump system. This system is not a new concept. It has been used extensively in the refurbishment of existing buildings including flatted developments, including those owned by local authorities and housing associations, often to replace electric resistive heating, and in new-build. The suggested extra-over costs per unit for this type of system are, in our judgement, unrealistically high and have not been justified with supporting information and have not taken into account the availability of funding from BCC for some of these costs.
 - A communal air source heat pump system using an ambient loop is technically feasible. The suggested costs do not appear to consider whether the option of

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omitting the metering and billing and instead aggregating the cost of the provision of ambient heat into the service charge could be possible, nor do they consider the availability of funding from BCC for some of these costs.

- We continue to have concerns about the energy running costs of electric resistive heating which reflect concerns raised by the government and advice from the Centre for Sustainable Energy. Electric resistive heating is less efficient and therefore more costly to operate than heat pumps.
- For these reasons we continue to object to this application.

CITY DESIGN GROUP – Objection

Comments on the revised plans submitted in November 2020:

Comments on the revised plans submitted in November 2020 are set out below:

It is disappointing that the current revision has yet not tackled the fundamental issue of reducing the excessive intensity of the proposed development. The height, scale and massing of blocks A, B and C are still unacceptable. The minor design reconfiguration of block B does not overcome the issues previously mentioned of the amenity value of the courtyard.

Comments on the revised plans submitted in February 2020 below remain adding the following:

Outdoor Spaces:

The Urban Living SPD states:

Private open space can make an important contribution to quality and liveability of new housing developments. Private and communal open space should be designed to be safe, accessible, inviting and well used, without the fear of crime. It should encourage an appropriate sense of ownership and should be managed to ensure that it remains useful and welcoming to all residents

There is no provision of private amenity space to Block C, nor to Block D. UL SPD recommendations for Block C is 372m² and Block D is 51m². These have not been followed.

Density and Liveability

The Urban Living SPD promotes an optimum density on all sites in Bristol. This site is not an exception. Allocated for housing in the *Sites Allocation and Development Management Local Plan*, the site was marked with an estimated number of 85 units. Although the increase of estimated residential units is not uncommon when a scheme is worked up in more detail, expanding from 85 to 146 dwellings in this site means 208 units/ha. This is 3.4 times higher than the prevailing density in the area which is approximately 60dph; and differs from the recommended 120dph identified as optimum in the SPD.

Although design recommendations have been given through the planning process to overcome fundamental shortcomings, it is disappointing to see no progress to unlock what would be an important affordable housing scheme. Making the offer 100% affordable does not mean that all Urban Living objectives have to be overlooked, the opposite is true for schemes which propose densities significantly higher than those set out in guidance.

Given the lack of wider design changes, the comments from CDG on the Committee Report presented to Development Control Committee A on 2 September 2020 below.

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Detailed comments and an assessment against the Urban Living SPD were provided on the proposed development in January 2019.

Comments on the revised plans submitted in February 2020 are set out below:

The revised application and the detailed explanation on the DAS dated 31st January 2020 for February re-submission are welcome. The design work taken to address outstanding issues is acknowledged and improvements of some aspects are evident. However, the proposal has not reduced the excessive intensity of development. Therefore, it is considered that the fundamental issue of unacceptable height, scale and massing of blocks A, B and C is still unresolved. Together with the lack of response to address the recommendations given on the Urban Living SPD, the scheme cannot be supported on design grounds.

The following comments are focused on the design issues headlines:

1. Bath Road Elevation
2. Building A/B Courtyard
3. Liveability

1) Bath Road Elevation

The reduction of a top floor and the rationalised stepping of the façade to a single step are considered positive. However, even with these improvements, the proposed block does not positively contribute to the local character and distinctiveness of this area along Bath Road as established in DM26. The height is still excessive and incongruous; the design still fails to harmoniously blend with the neighbouring properties; and the block still obstructs the south west sunlight penetration to the courtyard behind it. Report on Daylight and Sunlight and Shadow Analysis have not been submitted.

2) Building A/B courtyard

The amenity value of this courtyard space is still compromised. Considerations expressed on DAS page 27 give no comfort to compliance of DM29. In the absence of following advice given and no further amendments, previous comments remain.

3) Liveability

Dual aspects - Swapping stair cores with adjacent flats to increase the number of corner flats is welcome. However, the missed opportunity of increasing dual aspect units on the first and second floor of Block A and on Block B is disappointing. Having more than half of the units as single aspect is still not acceptable and does not allow the support of such intense development.

Internal circulations – Although repositioning of stair cores works well for increasing number of corner flats there is no change in the fact, they serve more than six flats per core. We disagree with the assertions on DAS page 25. There would not be light infiltration to the long internal corridors.

A recommendation is given in the Urban Living SPD:

“Avoiding long, narrow internal corridors - each core should be accessible to generally no more than six dwellings on each floor. Where numbers exceed this, ‘dwell’ spaces should be designed in which are naturally lit, perhaps with bay window seating, access to a communal balcony or enlarged areas of circulation with the introduction of daylight and views.”

This has not been followed.

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Revised National Planning Policy Framework – February 2019

Bristol Local Plan comprising Core Strategy (Adopted June 2011), Site Allocations and Development Management Policies (Adopted July 2014) and (as appropriate) the Bristol Central Area Plan (Adopted March 2015) and (as appropriate) the Old Market Quarter Neighbourhood Development Plan 2016, Lawrence Weston Neighbourhood Development Plan 2017, Urban Living SPD (November 2018) and Progressing Bristol's Development (October 2020).

In determining this application, the Local Planning Authority has had regard to all relevant policies of the Bristol Local Plan and relevant guidance.

KEY ISSUES**A. IS THE PROPOSED DEVELOPMENT ACCEPTABLE IN PRINCIPLE AND IS THE HOUSING TYPE AND MIX APPROPRIATE?**Principle:

Section 5 of the NPPF sets out the approach to 'Delivering a sufficient supply of homes'. It states the importance of having a sufficient amount and variety of land coming forward to meet housing requirements.

Policy BCS5 sets out that the Core Strategy (2011) aims to deliver new homes within Bristol's existing built up areas to contribute towards accommodating a growing number of people and households in the city. Between 2006 and 2026, 30,600 new homes will be provided in Bristol.

Policy BCS18 supports a neighbourhood with a mix of housing tenures, types and sizes to meet the changing needs and aspirations of its residents.

Policy BCS20 of the Core Strategy states that development should maximise opportunities to re-use previously developed land.

The Bristol Local Plan – Site Allocations and Development Management Policies - Adopted July 2014 allocates this site (Site reference: BSA1207) for housing, with an estimated number of homes of 85.

In providing 146no. residential units, the proposed development would contribute to meeting the Core Strategy minimum target of providing 26,400 new homes in the period 2006-2026 and reflects the Core Strategy approach to the location of new housing by developing new homes on previously developed sites. The principle of residential development is therefore found acceptable in land use terms and would contribute positively to the stock of housing in Bristol in accordance with policies BCS5.

The surrounding area has a largely residential context and the proposed development would be situated on a brownfield site, of which the existing buildings on site are vacant and underused. Therefore, the proposed development represents a good use of land in line with part of Core Strategy Policy BCS20 Effective and Efficient Use of Land.

The site is in a sustainable location approximately 300m from the shops and services of Sandy Park Road Local Centre and close to the supermarket at Castle Court and bus routes along Bath Road.

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The site is situated within both the Kensington Park and Bath Road Local Super Output Areas (LSOA). Within the Bath Road LSOA, 76% of dwellings are houses; with the remaining 23% are flats, maisonettes or apartments; versus 77% houses and 22% flats in Kensington Park. In terms of dwelling size; 19% of dwellings in the Bath Road LSOA have one 1 bedroom, 9% of dwellings have 2 bedrooms, 47% of dwellings have 3 bedrooms. Whilst 12.5% of dwellings in Kensington Park have 1 bedroom, 13.8% have 2 bedrooms and 60% have 3 bedrooms.

The proposed development would provide 63no. one-bedroom dwellings, 80no. two-bedroom dwellings and 3no. three-bedroom dwellings. This demonstrates that the prevailing dwelling-type would be smaller residences, rather than family-sized accommodation. It is considered that the proposed development would provide a diverse housing mix to cater to a variety of needs within the local area and would contribute to creating a mixed community.

Summary:

The application site is allocated within the Development Plan. Therefore, the development of the site for housing is considered to be acceptable and complies with the NPPF, BCS5, BCS18 and BCS20 (in so far as it relates to the reuse of previously developed land).

The application would provide additional housing which is a benefit that should be afforded significant weight in the planning balance.

B. IS THE PROPOSED DEVELOPMENT VIABLE, AND DOES IT PROVIDE AN APPROPRIATE LEVEL OF AFFORDABLE HOUSING?

The proposed development falls within Use Class C3 of the Use Classes Order, meaning that it is required to address the Council's Affordable Housing Policies. It comprises 146 dwellings and therefore it is required to comply with Core Strategy Policy BCS17, which seeks the provision of up to 30% affordable housing (44 affordable dwellings) subject to scheme viability.

The National Planning Policy Framework (NPPF) and the associated Planning Practice Guidance (PPG) were revised in 2019, and these revisions are pertinent to the assessment of scheme viability.

In simple terms, a development is considered to be viable if the Residual Land Value (RLV) of the development is greater than the Benchmark Land Value (BLV).

The RLV is calculated by ascertaining the value of the completed development, and subtracting from this all the costs involved in bringing the development forward (e.g. build costs, professional fees, legal costs, financing costs etc.) and the developers profit. All inputs are based on present day costs and values.

The revised PPG includes the following statements about BLV:

To define land value for any viability assessment, a benchmark land value should be established on the basis of the existing use value (EUV) of the land, plus a premium for the landowner.

The Applicant had originally claimed that, to remain viable in planning terms, the proposed scheme was unable to provide any affordable housing. A detailed viability appraisal and supporting commentary was submitted by Savills on behalf of the Applicant in support of the claimed viability position. This was undertaken on the basis that the scheme would comprise 86 open market

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dwellings, and a block comprising 60 Private Rented Sector (PRS) dwellings. It should be noted that the Description of Development as set out by the Applicant, does not differentiate between open market and PRS dwellings, it merely states that 146 residential units are being applied for.

The viability of PRS is assessed differently from open market dwellings, and will result in a different result, and therefore a different level of affordable housing provision. As the viability undertaken by Savills on behalf of the Applicant has been based on a PRS / open market mix, officers are of the view that should a consent be granted, a condition should be applied requiring the housing mix to be as per that submitted for viability testing.

As set out elsewhere in this report, the Council and the Applicant have not been able to reach agreement on issues relating to the provision of Heat Hierarchy measures, and this has been the case since the application was first submitted. The provision of Heat Hierarchy measures will have a significant impact on the viability of the scheme. Based on the information provided by the Applicant, Heat Hierarchy measures over and above those preferred by the Applicant would increase costs by £968,000 (Communal Heating), £845,000 (Communal Air Source Heat Pumps), or £963,000 (Ground Source Heat Pumps). In addition, renewable energy costs in the form of PV cells would cost a further £577,931. The Applicant has agreed that the PV cells will be provided.

Officers commissioned BNP Paribas to assess the viability information and advise the Council as to whether the Applicant's claim that no affordable housing could be provided was reasonable. However, due to the Heat Hierarchy issue, BNP Paribas were asked to exclude the costs of Heat Hierarchy measures from their assessment. This would enable an assessment to be made of the level of affordable housing that could be provided (excluding Heat Hierarchy measures), with the intention that once Heat Hierarchy measures were agreed; the relevant costs could be input to identify what impact this had on the level of affordable housing.

BNP Paribas disagreed with a number of the inputs used by Savills including key elements such as development values, build costs and the Benchmark Land Value. Following significant levels of correspondence and discussions between Savills and BNP Paribas, in November 2019, BNP Paribas concluded that (excluding Heat Hierarchy measures) the scheme could provide 32 affordable dwellings (22%), and that is the position that officers have taken.

In February 2020, the Applicant submitted a Planning Statement Addendum, in which they reiterated their view that they disagreed with the conclusions reached by BNP Paribas. However, in the Planning Statement Addendum they stated the following:

"... Sovereign have recently discussed the proposals with Homes England and BCC's Housing Enabling Team. As a result of these discussions and to seek to find a positive resolution to this situation, Sovereign are offering to enter in to a S106 that would secure 22% affordable housing ..."

The Applicant has requested that all of the affordable dwellings secured via the Section 106 Agreement are to be for Social Rent, and the Council's Housing Enabling Team are agreeable to this request.

Consequently, if no additional Heat Hierarchy measures are to be incorporated, officers are satisfied that the provision of 32 affordable dwellings (22%) for Social Rent is an appropriate level of affordable housing, and is in compliance with Core Strategy Policy BCS17.

As part of the viability process, BNP Paribas undertook sensitivity testing including Heat Hierarchy costs at £950,000, and the PV cells. At the time of writing this report it is understood that the Applicant is not offering to provide the Heat Hierarchy measures. However, if this position were to change, the sensitivity testing indicated that by incorporating Heat Hierarchy measures, the level of affordable housing would drop to in the region of 6% (approximately 9 affordable dwellings). The

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exact level of reduction would not be known until the cost of the relevant Heat Hierarchy measures was clarified.

Conclusion:

Assuming Heat Hierarchy measures are not included, the provision of 32 affordable dwellings (22%) for Social Rent is an appropriate level of affordable housing, and is in compliance with Core Strategy Policy BCS17. This should be secured through a Section 106 Agreement.

If Heat Hierarchy measures are offered and subsequently prioritised by committee, then a lower level of affordable housing would be appropriate. The level would need to be identified through further viability testing which would need to be undertaken after this committee meeting. The resulting amount should be secured through a Section 106 Agreement.

Should committee be minded to refuse the application, then one of the reasons must be due to a lack of affordable housing provision. This is because there is currently not a Section 106 Agreement in place to secure the affordable housing. However, if the Applicant wished to appeal the refusal, the lack of affordable housing reason could be overcome by the Applicant and the Council concluding a Section 106 Agreement to secure the affordable housing, and presenting it to the inspector prior to the subsequent appeal.

C. DOES THE PROPOSED DEVELOPMENT GIVE SUFFICIENT CONSIDERATION OF SUSTAINABLE DESIGN AND CONSTRUCTION?

Policy BCS13 sets out that development should contribute to both mitigating and adapting to climate change, and to meeting targets to reduce carbon dioxide emissions.

Policy BCS14 sets out that development in Bristol should include measures to reduce carbon dioxide emissions from energy use by minimising energy requirements, incorporating renewable energy sources and low-energy carbon sources. Development will be expected to provide sufficient renewable energy generation to reduce carbon dioxide emissions from residual energy use in the buildings by at least 20%.

Policy BCS15 sets out that sustainable design and construction should be integral to new development in Bristol. Consideration of energy efficiency, recycling, flood adaptation, material consumption and biodiversity should be included as part of a sustainability or energy statement.

Section 14 of the NPPF sets out how the planning system should support the transition to a low carbon future in a changing climate.

Paragraph 148 of the NPPF sets out that:

*“The planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to: shape places in ways that **contribute to radical reductions in greenhouse gas emissions**, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; **and support renewable and low carbon energy and associated infrastructure.**”*

Paragraph 150(b) states that:

“New development should be planned for in ways that can help to reduce greenhouse gas emissions, such as through its location, orientation and design.”

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Paragraph 151(a) states that:

“To help increase the use and supply of renewable and low carbon energy and heat, plans should provide a positive strategy for energy from these sources, that maximises the potential for suitable development, while ensuring that the adverse impacts are addressed satisfactorily (including cumulative landscape and visual impacts).”

As noted in the previous comments from the Sustainable City and Climate Change Team and the Members Briefing there has been a series of discussions with the Applicant on the proposed energy strategy since 2017. Matters relating to sustainable design and BREEAM have largely been resolved by way of further information provided or subject to details that could be resolved by way of condition.

Compliance with BCS14 and the proposed energy strategy for the scheme has been the principal matter not agreed between both parties. Set out below is a summary of the compliance of the proposed energy strategy with Policy BCS14 as a whole, taking account of amendments made since the 2 September Committee Report.

Policy BCS14

“Proposals for the utilisation, distribution and development of renewable and low carbon sources of energy, including large-scale freestanding installations, will be encouraged. In assessing such proposals the environmental and economic benefits of the proposed development will be afforded significant weight, alongside considerations of public health and safety and impacts on biodiversity, landscape character, the historic environment and the residential amenity of the surrounding area.

Development in Bristol should include measures to reduce carbon dioxide emissions from energy use in accordance with the following energy hierarchy:

- 1. Minimising energy requirements;*
- 2. Incorporating renewable energy sources;*
- 3. Incorporating low-carbon energy sources.*

Consistent with stage two of the above energy hierarchy, development will be expected to provide sufficient renewable energy generation to reduce carbon dioxide emissions from residual energy use in the buildings by at least 20%. An exception will only be made in the case where a development is appropriate and necessary but where it is demonstrated that meeting the required standard would not be feasible or viable....”

The energy strategy in the Planning Application as originally submitted in 2018 proposed an electric heating and hot water system serving the apartments (Blocks A – D) and gas boilers serving the houses (Block E) supported by photovoltaics to achieve a 20% reduction in carbon dioxide emissions.

The energy strategy submitted in February 2020 proposed an electric heating and hot water system serving Blocks A, B and C (132 dwellings), with air source heat pumps serving Blocks D and E (12 dwellings) supported by photovoltaics to achieve a 20% reduction in carbon dioxide emissions.

Since the 2 September Committee Meeting, the revised energy strategy submitted in November 2020, the PV quantum has been altered to allow for further heat pumps. Overall CO2 savings from renewable energy from the revisions proposed would be 23%, up from the previous provision of 20%. In terms of the requirement of the first part of BCS14 regarding the incorporation of renewable energy to reduce residual energy use by 20%, the proposed energy strategy would achieve this.

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“... The use of combined heat and power (CHP), combined cooling, heat and power (CCHP) and district heating will be encouraged. Within Heat Priority Areas, major development will be expected to incorporate, where feasible, infrastructure for district heating, and will be expected to connect to existing systems where available.

New development will be expected to demonstrate that the heating and cooling systems have been selected according to the following heat hierarchy:

- 1. Connection to existing CHP/CCHP distribution networks*
- 2. Site-wide renewable CHP/CCHP*
- 3. Site-wide gas-fired CHP/CCHP*
- 4. Site-wide renewable community heating/cooling*
- 5. Site-wide gas-fired community heating/cooling*
- 6. Individual building renewable heating”*

In terms of the heating and cooling systems proposed Blocks D and E (12 dwellings) would use air source heat pumps. Since the September Committee, the revised energy strategy submitted in November 2020, now also proposes the inclusion of 25 no. air source heat pump units for Blocks A, B and C serving a further 25 dwellings.

The Applicant has therefore increased the number of units served by air source heat pumps from 12 dwellings (8.2%) to 37 dwellings (25%). The energy strategy for this part of the proposed development would be in accordance with BCS14.

In relation to the proposed electric heating and hot water system for the remaining 109 dwellings (75%), the proposed system is not on the heat hierarchy set out above. In cases where it can be demonstrated that systems on the heat hierarchy are either not feasible or not viable, alternative systems that are not on the hierarchy may be acceptable. This is not the case for this development. The Sustainable City and Climate Change Team in their comments consider that it is technically feasible and financially viable to design this development to be policy compliant.

In relation to the policy direction of travel on the heat hierarchy, whilst of limited weight, the Draft Policy CCS2: Towards zero carbon development of the Bristol Local Plan Review (March 2019) shows the emerging Heating and Cooling Systems and electric resistive heating is not listed. This is in alignment with government policy set out in the Future Homes Standard Consultation, which is not advocating the use of electric resistive heating in new dwellings and independent advice provided to the Council on the decarbonisation of heat, as referenced in the detailed comments of the Sustainable City and Climate Change Team.

Considering the Policy as a whole, it is stated that:

“An exception will only be made in the case where a development is appropriate and necessary but where it is demonstrated that meeting the required standard would not be feasible or viable.”

With regards to technical feasibility, as detailed in the comments from the Sustainable City and Climate Change Team they remain of the view that to date, the Applicant has not demonstrated adequately either that it is not feasible or not viable to meet policy BCS14 on this scheme.

Based on an assessment of the information provided on this development and the delivery by other developers, of successful compliant heating systems at numerous sites in Bristol, the Sustainable City and Climate Change Team consider that it is technically feasible to design a development of this type which is policy compliant.

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From a technical standpoint (in addition to the air source heat pumps already proposed), the Sustainable City and Climate Change Team consider that there is scope to provide heating and hot water to a number of units (58-75 no.) using a communal ground source heat pump system; and/or a communal air source heat pump system using an ambient loop, subject to further consideration of costs and funding options.

In terms of viability, this has been considered within Key Issue B of this Report. As part of the viability process, sensitivity testing was undertaken including Heat Hierarchy costs. The sensitivity testing indicated that by incorporating Heat Hierarchy measures, the level of affordable housing would drop to in the region of 6% (by approximately 9 affordable dwellings). The exact level of reduction would not be known until the cost of the relevant Heat Hierarchy measures was clarified; however, this has not been forthcoming from the Applicant.

Summary:

On review of the justification as to why electric heating and hot water system should be allowable in this case, the Sustainable City and Climate Change Team is not persuaded that there is sufficient justification to set aside the provisions of BCS14 for this development. It is considered that there are feasible and viable heating systems in the Heat Hierarchy that could be implemented, and therefore, in the absence of further amendments to the Energy Strategy, their recommendation is to refuse this application.

D. WOULD THE PROPOSED DEVELOPMENT BE OF A SUFFICIENTLY HIGH-QUALITY DESIGN?

Policy BCS20 sets out that an appropriate density should be informed by the characteristics of the site and the local context.

Policy BCS21 advocates that new development should deliver high quality urban design that contributes positively to an area's character and identity, whilst safeguarding the amenity of existing development. Policies DM26-29 (inclusive) of the Site Allocations & Development Management Policies require development to contribute to the character of an area through its layout, form, public realm and building design.

The Urban Living SPD is clear that an optimal density in new development is considered to be one that balances the efficient and effective use of land, with aspirations for a positive response to context, successful placemaking and liveability.

The NPPF, in Paragraph 124, is clear that high quality design is a key aspect of sustainable development. The Urban Living SPD advocates a design-led approach to optimising density based on an evaluation of the site's attributes, its surrounding context, capacity for growth and the most appropriate development form, as supported by Paragraph 126 of the NPPF.

Detailed comments and an assessment of the application proposals against the Urban Living SPD by City Design Group (CDG) was provided to the Applicant in January 2019. In those comments it was noted that:

It is acknowledged that density is only a measure. It is a product of design, not a determinant of it.

Allocated for housing in the Sites Allocation and Development Management Local Plan, the site was marked with an estimated number of 85 units. Although the increase of estimated residential units is not uncommon when a scheme is worked in more detail, expanding from 85 to 146 dwellings in this site means 208 dwellings per hectare. This is 3.4 times higher than the prevailing density in the area which is approximately 60dph.

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A design-led approach will face serious challenges managing this kind of density if the trade-off is a high quality of life, excellent urban quality and outstanding architecture design in a sustainable location.

A series of revisions were made to the application proposals to address CDG comments. The work taken to address outstanding issues is acknowledged and improvements of some aspects are evident. However, the proposal has not reduced the excessive intensity of development. Therefore, CDG consider that the fundamental issue of height, scale and massing of blocks A, B and C is still unresolved. Together with the lack of response to address the recommendations given on the Urban Living SPD, the scheme cannot be supported on design grounds.

The outstanding design issues relate to the following aspects of the proposals.

i) Height, scale and massing

Bath Road Elevation

The reduction of a top floor and the rationalised stepping of the façade of Block A to a single step are considered positive. However, even with these improvements, the proposed block does not positively contribute to the local character and distinctiveness of this area along Bath Road as established in DM26. The height is still excessive and incongruous; the design still fails to harmoniously blend with the neighbouring properties; and the block still obstructs the south west sunlight penetration to the courtyard behind it.

Height of Blocks B and C

At six and seven storeys respectively, Blocks B and C are considered to be out of character with the surrounding area. The buildings would be between 40 and 50 metres in width and more than 15 metres in depth. This, coupled with the height, would result in a development of excessive massing compared to the immediate context and the character of the area, contrary to Policy BCS21, DM26 and DM27.

ii) Liveability/Amenity for Future Occupiers

Space standards

The Urban Living Assessment indicates that each of the proposed dwellings would meet the nationally described space standards in terms of total floorspace, bedroom sizes and built-in storage.

Single aspect/dual aspect

City Design Group raised concerns that proposed development as submitted included 77% of the proposed apartments (110 out of the total 143 apartments) which were single aspect. Following CDG advice, revised plans were submitted re-ordering the internal layout and making changes to stair cores to increase the number of corner flats to provide 66 apartments out of 143 as dual aspect (ca. 46%), with 77 out of 143 apartments as single aspect (ca. 54%).

CDG consider there was a missed opportunity of increasing dual aspect units on the first and second floors of Block A and on Block B. The proposals still include a majority of units as single aspect, this is still not considered to be acceptable and would not support the case for such an intense development.

Development Control Committee A – 4 March 2021**Application No. 18/05023/F : 493 - 499 Bath Road Brislington Bristol BS4 3JU***Block A / Block B and Courtyard*

'Proposed Site Plan Rev 11' 'demonstrates that Block B would be located between 2 and 13 metres from the rear elevation of Block A of which both elevations feature windows. The proposed distance between flats would be unacceptable and would result in unacceptable levels of overlooking for future occupiers.

The amenity value of the courtyard space between Block A and Block B is still considered to be compromised. The close proximity of the two blocks would likely result in this space being frequently in shadow, with limited levels of daylight and sunlight, and the buildings would create an unpleasant sense of enclosure.

Considerations expressed on DAS page 27 give no comfort to compliance of DM29 (and no Daylight and Sunlight Assessment or Shadow Study has been provided). In the absence of following the advice given by CDG and no further amendments, previous concerns remain.

Block B / Block C

Windows on Block C would be located approximately 17 metres from the rear elevation of Block B. Whilst less than ideal, a distance of ca. 17 metres could be considered acceptable given the urban nature of the surrounding area. However, the separation distances are worsened by the fact that 60% of the flatted dwellings would be single aspect, no private amenity space is provided to Block C and would therefore not create high quality living environments for future occupiers.

In terms of daylight and sunlight; a 45-degree shadow assessment was carried out and the proposed development would not cross the 45-degree line on plan or elevation.

Internal circulation

Although repositioning of stair cores has increased the number of corner flats, there is no change to the number of flats served by each core. CDG also consider that there would be limited light infiltration to the long internal corridors proposed.

Summary:

It is considered that the application proposals do not comply with Core Strategy BCS21; and Site Allocations and Development Management Plan DM26, DM27, DM28 and DM29.

The proposed development would result in an unacceptable impact upon residential amenity in terms of overlooking and overbearing and would fail to create a high-quality living environment for future occupiers, contrary to Policies BCS21 and DM29.

PRESUMPTION IN FAVOUR OF SUSTAINABLE DEVELOPMENTHousing Delivery Position Since September 2020

Progressing Bristol's Development published in October 2020 confirmed that the Council does not have a five year deliverable housing supply and therefore the presumption in favour of sustainable development, as set out in Paragraph 11(d) of the Revised NPPF is applicable in Bristol.

Paragraph 11(d) of the Revised NPPF provides that in the context of the presumption in favour of granting planning permission for sustainable development, decision making entails that:

d) where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date [7], granting permission unless:

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- i. the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed [6]; or*
- ii. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole.*

There is a footnote to “out-of-date”. Footnote 7 referenced in Paragraph 11(d) is set out below:

[7] This includes, for applications involving the provision of housing, situations where the local planning authority cannot demonstrate a five year supply of deliverable housing sites (with the appropriate buffer, as set out in paragraph 73); or where the Housing Delivery Test indicates that the delivery of housing was substantially below (less than 75% of) the housing requirement over the previous three years.

This application involves the provision of housing. As aforementioned., the LPA does not have a five year deliverable housing supply. Ministry of Housing, Communities & Local Government published the Housing Delivery Test Results 2020 on Tuesday 19 January 2021. The Housing Delivery Test 2020 is an annual measurement of housing delivery in the area of relevant plan-making authorities.

The 2020 results showed that Bristol delivered 72% (4,703 homes delivered) of the delivery target (6,505 homes required) over the three year period 2017 to 2020. Therefore, the delivery of housing in the HDT Results 2020 was substantially below (less than 75% of) the housing requirement over the previous three years.

There is another Footnote referenced in Paragraph 11(d)(i). Footnote 6 is set out below:

[6] The policies referred to are those in this Framework (rather than those in development plans) relating to: habitats sites (and those sites listed in paragraph 176) and/or designated as Sites of Special Scientific Interest; land designated as Green Belt, Local Green Space, an Area of Outstanding Natural Beauty, a National Park (or within the Broads Authority) or defined as Heritage Coast; irreplaceable habitats; designated heritage assets (and other heritage assets of archaeological interest referred to in footnote 63); and areas at risk of flooding or coastal change.

In relation to this application there are no policies in the Framework that protect areas or assets of particular importance which would provide a clear reason for refusal.

For this application Paragraph 11(d) is engaged, and the presumption in favour of sustainable development applies.

Weighing the benefits and disbenefits of the application

The proposed development would give rise to a number of benefits, which are assessed and summarised, before moving on to consider the disbenefits, which arise as a result of conflict with the Development Plan. In assessing the likely benefits / disbenefits of the proposal, there has also been regard to how they might assist / impact on fulfilling the economic, social and environmental objectives of achieving sustainable development, as set out in Paragraph 8 of the Revised NPPF. The NPPF states that the three overarching objectives are interdependent and need to be pursued in mutually supportive ways.

Benefits

The proposal would deliver 146 new homes, giving rise to some economic benefits as a result of the jobs created during the construction phase and the increased spending power of new residents within the local economy. They do constitute economic benefits which should be acknowledged. It

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is considered that these economic benefits should carry moderate weight, and would go towards satisfying the NPPF's economic objective, in the context of achieving sustainable development.

The first part of the social objective, as set out in the NPPF, is to support strong, vibrant, and healthy communities by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations. The proposed development would go some way towards satisfying this objective, by providing 146 much needed new homes through a mix of 1 and 2 bedroom apartments geared towards 'urban living' and three 3 bed terraced dwellings.

This would result in an increase in the housing stock, which has to be seen as being of a clear benefit at a time when the Council is failing to keep up with the required rate of housing delivery. It is considered that the provision of new homes through this scheme should carry significant weight.

The proposed development would also provide 22% affordable dwellings, which in this case would amount to 32 new affordable homes. This amount of affordable housing should be seen as a significant benefit and it should also be afforded significant weight. This would assist in achieving the Framework's social objective.

The environmental objective of sustainable development is to contribute to protecting and enhancing the natural, built, and historic environment, including making effective use of land and using natural resources prudently. As the proposed development would deliver an allocated site in the Development Plan and would take place on previously developed land, it would accord with the thrust of this objective, and this would be a clear benefit of the proposal.

The provision of a pedestrian and cycle way through the heart of the scheme linking through to Belmont Road is seen as an overall benefit. The connection would be available to the wider community, and not just residents of the proposed development.

Disbenefits

Disbenefits flow from matters where there is conflict with the Development Plan or NPPF, as has been detailed above.

It is considered that the proposed development would provide an energy solution which conflicts with the Heat Hierarchy set out in Policy BCS14. This is also considered to be in conflict with achieving the NPPF's environmental objective as it relates to mitigating and adapting to climate change and moving to a low carbon economy.

The disbenefits of the proposal to use electric resistive heating is as follows:

- Electric resistive heating is not as efficient as other forms of renewable heating such as heat pumps which are allowable under the BCS14 heat hierarchy, and therefore increase energy consumption and generate more CO2 emissions (approx. 2 – 5 times more).
- Concerns about the energy running costs of electric resistive heating which reflect concerns raised by the government and advice from the Centre for Sustainable Energy. Electric resistive heating is (approx. 2-5 times) less efficient and therefore (2-5 times) more costly to operate than heat pumps.
- Widespread use of resistive electric heating would significantly increase the annual demand and peak demand for electricity (on top of the increased demand from the electrification of transport and heat through heat pumps). This is in opposition to NPPF Paragraph 148 requirement for the planning system to help shape places that 'support renewable and low carbon energy and associated infrastructure'.
- The use of resistive electric heating will mean that more renewable and low carbon energy and associated infrastructure will be required to decarbonise the national grid, making it harder to decarbonise the energy system as a whole than if a BCS14 heat hierarchy compliant heat pump system was installed. This does not align with NPPF paragraph 151(a)

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because it does not increase the use of renewable heat, and it creates adverse impacts on the energy system as a whole i.e. it makes decarbonisation of the national grid harder.

The social objective also seeks a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being.

It is not considered that the proposed development would comprise high quality design that would enhance the character and appearance of the surrounding area. As set out in Key Issue D the proposed development is not considered to present a positive response to its context in relation to Block A with Bath Road, and the height, scale and massing of Blocks B and C. The relationship between Block A and Block B is not considered to be acceptable. This is in conflict with achieving NPPFs social objective of achieving a well-designed built environment.

Concerns have been raised regarding the living conditions for future residents. Overall, the majority of units (54%) are single aspect, this is not considered to support the case for such an intense development. Despite amends made to the internal configuration of the units within the apex of Block B, this elevation is still located between 2 – 13 metres from Block A, with unacceptable levels of overlooking for future occupiers.

Dwellings within Block B (facing the courtyard) have limited outlook and are considered to be likely to be in shadow for long parts of the day. This conflicts with the NPPFs social objective in the context of supporting communities health, social and cultural well-being, as adequate levels of daylight/sunlight are not achieved.

The proposed development is not considered to provide acceptable amenity space for future residents. No private amenity space is provided to Block C or Block D. For Block A and Block B the amenity value of the courtyard space for future occupiers is considered to be compromised as outlined above. The close proximity of the two blocks would likely result in this space being frequently in shadow, with limited levels of daylight and sunlight, and the buildings would create an unpleasant sense of enclosure.

This is considered to be in conflict with the NPPFs social objective requires open spaces that reflect current and future needs as well as requirement of the Urban Living SPD for developments to provide attractive, well designed and well maintained private outdoor spaces. Overall, Officers consider that the proposed development would not provide a high quality environment for all future residents.

These conflicts are considered to be disbenefits of the proposal, and as such it is considered that overall, the proposed development would not satisfy the social objective of sustainable development.

CONCLUSION

Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires that a determination made under the planning acts must be made in accordance with the development plan unless material considerations indicate otherwise.

Having regards to the matters detailed above, applying the presumption in favour of sustainable development as set out in Framework Paragraph 11(d)(ii) means that planning permission should be granted unless any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole.

For the reasons set out above, and reported to Members in September 2020, the proposed development fails to comply with a range of Development Plan policies related to sustainable

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energy, design, and living conditions for future occupiers. Despite the further changes that have been made by the Applicant, Officers consider that the proposed development conflicts with the Development Plan as a whole.

The policies that are most important for determining the application are deemed out of date by virtue of NPPF Footnote 7 and the Council not having a 5 year housing land supply. The NPPF at Annex 1: Implementation, Paragraph 213 it states that “*due weight*” should be given to existing policies “*according to their degree of consistency with this Framework (the closer the policies in the plan to the policies in the Framework, the greater the weight that may be given).*”

The NPPF, at Paragraph 148, outlines that the planning system should help: “*shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure.*” The BCS14 heat hierarchy is in alignment with this paragraph.

The NPPF, at paragraph 150(b) also states that: “*New development should be planned for in ways that can help to reduce greenhouse gas emissions, such as through its location, orientation and design.*” The BCS14 heat hierarchy is in alignment with this paragraph.

Paragraph 151(a) states that: “*To help increase the use and supply of renewable and low carbon energy and heat, plans should provide a positive strategy for energy from these sources, that maximises the potential for suitable development, while ensuring that the adverse impacts are addressed satisfactorily (including cumulative landscape and visual impacts).*” The BCS14 heat hierarchy is in alignment with this paragraph.

Policies BCS21 and DM26 to DM29 are considered to be consistent with Paragraph 124 of the NPPF, which states that good design is “a key aspect of sustainable development”, and Paragraph 127, which lists design considerations for planning decisions. Within the terms of the Urban Living SPD, the need for a positive response to context and the need to achieve successful placemaking must also be considered. This is consistent with Paragraph 126 of the NPPF.

The requirements of existing Development Plan policies BCS14, BCS21 and DM26 to DM29 have to be taken into account.

It is considered that the proposed development conflicts with the Development Plan and the NPPF, when read as a whole. The starting point is therefore that permission should be refused in accordance with the statutory presumption in favour of the Development Plan. The policies of the Development Plan relevant to decision making in this application are considered to be consistent with the NPPF and should therefore be given significant weight.

In the assessment of the application by Officers, balancing the benefits and disbenefits as detailed above, indicates that the adverse impacts of approving this proposal would significantly and demonstrably outweigh the benefits, when assessed against the policies in the Framework taken as a whole.

The application is not considered to constitute sustainable development, for the reasons set out above, and therefore the Officer Recommendation is that this application should be refused for the reasons as listed below.

Should Members form a different view in your consideration of the application, that adverse impacts do not significantly and demonstrably outweigh the benefits when assessed against the Development Plan and the NPPF, then Officers would need to work with the Applicant on a schedule of conditions and a Section 106 Agreement to secure the 32 affordable housing dwellings proposed.

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COMMUNITY INFRASTRUCTURE LEVY

This development is liable for CIL totalling £747,662.73.

Development that incorporates social housing is entitled to mandatory relief from CIL on the social housing element of the development. In this case, as the whole of the development will be social housing, the CIL liability would be reduced to £0.

RECOMMENDED REFUSE

The following reason(s) for refusal are associated with this decision:

1. The proposed development would not provide an energy solution which sits within the Heat Hierarchy set out in Policy BCS14 of the Bristol Core Strategy and the submitted Technical and Financial Appraisal: The Heat Hierarchy, Communal Heating and Heat Pumps (Updated Strategy and Consolidated Report), has not demonstrated adequately that it is not viable or not feasible to meet the heat hierarchy. This is contrary to Policy BCS14 of the Core Strategy, as well as guidance within Section 14 of the National Planning Policy Framework.
2. The proposed development by reason of its height, scale, massing, public realm and overall design quality, would be unacceptable in design terms and the impact on the amenity of future occupiers. This would be contrary to Section 12 of the National Planning Policy Framework (February 2019); Policy BCS21 of the Bristol Core Strategy (June 2011); Policies DM26, DM27, DM28 and DM29 of the Site Allocations and Development Management Policies (July 2014); and the Urban Living SPD (November 2018).
3. The proposed development fails to make an appropriate contribution towards the provision of affordable housing and is therefore contrary to Core Strategy Policy BCS17.

Supporting Documents

2. 493 - 499 Bath Road, Brislington, BS4 3JU.

1. Sustainable City Team – Further comments with reference to DC Committee 02-09-2020.



Bristol City Council

Sustainable City Team

To: David Grattan

From: Mark Letcher and Amy Harvey

Subject: Further comments with reference to presentation to DC committee 02-09-2020

Planning ref: 18/05023/F

These comments have been prepared in response to the committee hearing on 2nd September 2020, the briefing by representatives of Sovereign Housing to committee members on 30th September 2020, the submission of the presentation slides (updated Nov 2020) the 'Heat Hierarchy Summary Matrix', and the Revised Energy Strategy Summary (November 2020).

They address points raised in the discussion with members following the briefing presentation, particularly with respect to the implications for BCC planning policies of the decarbonisation of (grid) electricity. They also provide further commentary on the technical feasibility and cost of complying with policy BCS14 for this scheme.

Much of the commentary provided by the applicant focusses on a comparison between electric resistive heating and heat supplied from the heat network or a communal gas system. As indicated previously Bristol City Council is *not* seeking connection to the heat network or a communal gas system in this instance, therefore we have not provided further commentary on the comparison between heat supplied from the heat network or communal gas and electric heating. Heat pumps would be a BCS14 heat hierarchy compliant system, and we have therefore provided further details on the differences between electric resistive heating and heat supplied by heat pumps.

'Electric resistive heating', also known as 'direct electric heating', refers to space heating from electric panel heaters, (which are being proposed by the applicant) as well as electric boilers, night-storage heaters, and includes hot water supplied by an electric immersion heater. Resistive heating provides 1 unit of heat for 1 unit of electricity consumed. 'Heat pumps' refer to individual air source heat pumps, communal ground source heat pumps¹ and hybrid heat pump systems². Heat pumps provide between 2-5 units of heat for 1 unit of electricity consumed.

These comments should be read in conjunction with previous comments on this planning application.

¹ Communal ground source heat pump systems: a ground source heat pump in each dwelling served by a communal ground array in which boreholes are used to extract heat from the ground.

² For example communal heat pump systems where a centralised air source heat pump produces ambient temperature heat (20 deg C) which is circulated around the building. An individual water to water source heat pump in each unit is used to raise the temperature of this heat for space heating and hot water.

General remarks

Implications of the reduction in the carbon intensity of grid (mains) electricity for BCC's policy on sustainable energy

- During the briefing to members on 30th September 2020 it was suggested that the reduction in the carbon intensity of grid electricity has come as a surprise to sustainability officers and that we have failed to take this into account in the interpretation and implementation of policy. In fact, we have been considering the implications for current and emerging policies on energy and climate change, and the heat hierarchy³, since early 2016.
- In 2011 when current planning policies were adopted the carbon intensity of grid electricity was 0.441kgCO₂/kWh⁴. Between 2008 and 2018 the carbon intensity of grid electricity reduced by almost 60%⁵ from 0.495kgCO₂/kWh to 0.207kgCO₂/kWh. The figure for carbon intensity of grid electricity most recently consulted upon as part of the next iteration of the building regulations Part L calculation methodology (SAP 10.1) is 0.136kgCO₂/kWh. This reduction is welcome and extremely important in reducing CO₂ emissions from electricity use within Bristol and nationally. However, for the reasons discussed below, it does not in our judgement justify relaxation of the heat hierarchy, which excludes the use of electric resistive heating.
- The government and advisory bodies such as the Committee on Climate Change expect this downward trend in emissions from electricity to continue in the future. This is essential if the UK is to reach net zero emissions across all sectors. It is particularly important given the electrification of heat through the use of heat pumps and heat networks⁶ replacing fossil-fuel heating (i.e. gas, oil, and coal) and the electrification of transport, displacing petrol and diesel vehicles with electric vehicles.
 - It is important to note that the projected and on-going decrease in the carbon intensity of electricity is not a foregone conclusion and is based on a broad range of assumptions about energy generation and energy demand up to 2050, for example.
 - The planned retirement of some nuclear power plant and anticipated increase in electricity demand from heating and transport mean that nationally low carbon generation will need to increase by 15TWh each year between now and 2030 to achieve the government's interim target of reducing the carbon intensity of electricity to 0.100kgCO₂/kWh⁷.
- In our judgement the reduction in the carbon intensity of mains electricity leads to two changes in the way we need to consider current and emerging policies on sustainable energy and carbon reduction:
 - Firstly, we need to consider the cumulative impact of individual developments and whether the energy strategy proposed by developers will make it easier or harder to decarbonise the

³ Under policy BCS14 heating and hot water systems are expected to be selected in accordance with the heat hierarchy.

⁴ <https://interactive.carbonbrief.org/how-uk-transformed-electricity-supply-decade/#>

⁵ <https://interactive.carbonbrief.org/how-uk-transformed-electricity-supply-decade/>

⁶ Where ultimately heat will be generated renewably or come from the recovery of waste heat.

⁷ <https://www.carbonbrief.org/analysis-uk-low-carbon-electricity-generation-stalls-in-2019>

energy system as a whole. This has *always* been the case but it is particularly important now given the objective of decarbonising both heat and transport at the same time and implications in terms of the generation, supply and local distribution of electricity in Bristol.

- A study⁸ undertaken by the Centre for Sustainable Energy on behalf of Bristol City Council suggests that demand for electricity in Bristol will need to increase by 50% by 2030, (as result of the electrification of heating and transport), and that *‘if resistive electric heating (direct electric like panel radiators or storage heaters) were installed instead of heat pumps, the demand increase will be at least double this and heating bills would similarly be very significantly higher.’* This is supported by another study undertaken by Element Energy for BCC⁹, which notes that *‘for every direct (resistive) electric heater that is installed in place of a heat pump, the carbon emissions are expected to be 2 to 5 times greater’*. Additional electricity demand increases the requirement for new power generation and capacity of the electrical distribution network the costs of which are expected to be met by consumers through their energy bills.

In the applicant’s submission 'Technical and Financial Appraisal: The Heat Hierarchy, Communal Heating and Heat Pumps' (Feb 2020) JS Lewis suggests that a report by Element Energy 'Hybrid Heat Pumps - Final report for Department for Business, Energy & Industrial Strategy' (December 2017) shows that heat pumps provide 'little benefit' over electric resistive heating. We do not consider this to be true, the reasons for which are appended to these comments (appendix A).

- Secondly, CO₂ becomes less important as a measure or indicator of energy efficiency. Under the current Building Regulations (Part L 2013) the performance standards for new dwellings are based on the CO₂ emissions of the dwelling. However, as the carbon intensity of electricity reduces, in new dwellings heated electrically CO₂ becomes a less important measure of performance because ultimately the electricity will come from a grid that produces very low or zero emissions.
 - For example a new but very poorly insulated and draughty dwelling, heated using electric panel heaters, could be classed as ‘low carbon’. Similarly, a ‘G-rated’ appliance such as a fridge-freezer or washing machine could also be low carbon. Both result in low in-use CO₂ emissions, but neither would be ‘sustainable’, and they would have very high energy use and running costs, and require more low carbon electricity to be generated and transmitted to meet their power demands.
 - The government has recognised the implications of lower carbon electricity in assessing the performance of new buildings. In the 2019 Future Homes Standard Consultation it proposed an amendment to Part L of the Building Regulations. This would replace CO₂ as the key metric for measuring performance with four metrics: a

⁸ Bristol net zero by 2030: The evidence base Report to Bristol City Council of analysis of how the city can achieve net zero greenhouse gas emissions (scopes 1 and 2) by 2030 Centre for Sustainable Energy with Ricardo and Eunomia. December 2019.

⁹ An evidence based strategy for delivering zero carbon heat in Bristol, Element Energy. October 2018.

primary energy¹⁰ (target), a CO₂ emission target, a householder affordability rating, and minimum standards for fabric and fixed building services, illustrating the shift away from CO₂ as the primary indicator of sustainability.

Alignment with government policy and independent advice on the decarbonisation of heat in Bristol

- We remain strongly of the view that our implementation of the heat hierarchy, which excludes electric resistive heating, aligns with government policy and thinking on the decarbonisation of heat, and the independent advice we have received on the decarbonisation of heat in Bristol.
- Despite the fact that electric resistive heating is by far the cheapest form of heating to install and maintain and the reduction in the carbon intensity of grid electricity discussed above, the government is *not* advocating the widespread adoption of electric resistive heating in new dwellings as the means of decarbonising heat.
 - Section 2.13 of the government’s 2019 Future Homes consultation says¹¹: *‘We anticipate that direct electric heating will play a minor role in our plan for the future of low carbon heat. Direct electric heating is a well-established technology that produces heat through a near-100% efficient process, with no emissions at the point of use. Despite this, direct electric heaters can be very expensive to run, and if deployed at scale may have a significant effect on the national grid. Under some circumstances it may be an appropriate technology in applications where heat demand is particularly low, for instance where a home is built to the very highest fabric standards.’*
 - ‘The very highest fabric standards’ is not defined. However, given that the government has stated that it anticipates electric heating playing a minor role for the future of low carbon heat, it is clear that the updated Part L building regulations standards themselves are not intended to be reflective of the ‘very highest fabric standards’. Comparing the proposed fabric specification for this development with the revised Part L 2021 building regulations notional standards shows that the proposed fabric specification is likely to be broadly similar in performance to a development built to comply with Part L 2021, and is therefore not reflective of ‘the very highest fabric standards’.
 - BCC’s position set out in the Climate Change and Sustainability Practice note is that ‘the very highest fabric standards’ are equivalent to the fabric standards required to meet the certified Passivhaus standard.
- ‘An evidence based strategy for delivering zero carbon heat in Bristol¹²’ produced by Element Energy on behalf of Bristol City Council in October 2018 made the following point on the cumulative impact of electric resistive heating: *‘The impact on the electricity grid of deploying direct (resistive) electric heating for new buildings is likely to be significant. The peak electric load of direct (resistive) electric heaters*

¹⁰ Primary energy means energy from renewable and non-renewable sources that has not undergone any conversion or transformation process. Primary energy differs from delivered energy in that, delivered energy is that consumed by the building, and reflects how efficiently a building meets its energy demand.

¹¹

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/852605/Future_Homes_Standard_2019_Consultation.pdf

¹²

<https://www.bristol.gov.uk/documents/20182/3368102/An+evidence+based+strategy+for+delivering+zero+carbon+heat+in+Bristol.pdf/39cb877b-6de0-c2d0-9865-d8cc4c8d599c>

relative to heat pumps is likely to be greater by at least a factor of their efficiency (2 to 5). The additional load associated with electric heating may require costly grid reinforcements that could therefore be reduced by using a more efficient form of heating, such as heat pumps’.

- A criticism of heat pumps, and argument made in favour of direct electric heating by the applicant is that efficiency of air source heat pumps (also known as the Coefficient of Performance¹³) reduces with external temperature. The Element Energy study acknowledges this, as do we, but also notes that: *‘a recent report by Element Energy¹⁴ for BEIS suggests that even when operating at an external temperature of -7°C, the efficiency of a heat pump can be above 2 with a heat supply temperature of 45°C – which is sufficiently high for energy efficient new buildings. Therefore, the peak electricity demand should be reduced by at least a factor of two relative to direct (resistive) electric heating. The contribution of direct (resistive) electric heaters versus heat pumps to the peak electricity demand may be even higher than a factor of 2 – 5. This is because heat pumps are likely to be used in a more continuous, less ‘peaky’ way than direct (resistive) electric heaters’.*

Summary of key points on grid decarbonisation and cumulative impacts of electric resistive heating

- The reduction in the carbon intensity of grid electricity since 2011, and the further reductions expected between now and 2030 are welcome and critical to reducing CO₂ emissions from buildings and transport in Bristol and across the UK.
- Sustainability and planning policy officers have been considering the implications of these changes for current and emerging planning policies, since 2016.
- Though welcome this reduction does not justify relaxation of the heat hierarchy or suggest that the use of electric resistive heating is now appropriate in new development.
- The reduction in the carbon intensity of grid electricity does reduce the significance of CO₂ emissions as an indicator of energy efficiency and sustainability. It also requires us to consider the cumulative impacts of the energy strategies for new development, and whether these will make it harder and more expensive to decarbonise heat and transport in Bristol.
- The implementation of current policy (BCS14) and heat hierarchy which excludes the use of electric resistive heating, aligns with government thinking (as indicated in the 2019 Future Homes consultation) and is supported by the independent advice provided to the council by the Centre for Sustainable Energy and Element Energy Ltd on the strategy for decarbonising heat in Bristol.

Technical feasibility

¹³ The Coefficient of Performance (CoP) is the ratio of electrical energy used to operate the heat pump to useful heat produced by heat pump. A heat pump with a CoP of 3 produces 3 units of heat for one unit of electricity. This is also referred to as an efficiency of 300%. Electric resistive heating has an efficiency of 100% equivalent to a CoP of 1.

¹⁴ Element Energy for BEIS, Hybrid Heat Pumps (December 2017)

Individual Air Source Heat Pumps: The applicant has revised the proposal to include 25 units to be served by individual ASHPs in addition to the previously proposed 12 ASHPs. This is a welcome change, however 109 units (75% of the units) are still not compliant with planning policy, which we do not consider to be acceptable given that there are additional technically feasible solutions available as listed below.

Communal ground source heat pump system: The applicant has suggested that technically it would only be feasible to serve 58 of the units with a communal ground source heat pump system. Advice to us from Kensa Heat Pumps Ltd is that this could be increased to 75 units.

The applicant has also suggested that this type of system is a 'new concept'. In fact this type of system has been used extensively in the refurbishment of existing buildings including flatted developments, including those owned by local authorities and housing associations, often to replace electric resistive heating, and in new-build.

As discussed in previous comments recent examples of this approach in Bristol include Alderman Moores (Ashton Rise) developed by Bristol City Council, Hartcliffe Campus, and Passage Road:

***Alderman Moores Land To Rear Of Silbury Road (Ashton Rise), Alderman Moores, Bristol.** Planning ref: 17/06559/FB. Erection of 133no. dwellings with associated access, landscaping and services.*

Approved energy strategy is for space heating and domestic hot water to be provided using ground source heat pumps using shared ground arrays.

***Hartcliffe Campus, Hawkfield Road, Bristol.** Planning ref: 19/02242/M Application for approval of reserved matters following outline approval 18/02055/P - Reserved matters (appearance, landscaping, layout and scale) for 350 residential dwellings, along with associated open space and landscaping, including information pursuant to outline planning permission (ref. 18/02044/P).*

Approved energy strategy is for space heating and domestic hot water to be provided using ground source heat pumps with shared ground arrays.

***Brandon Trust, 185 Passage Road, Henbury.** Planning ref: 16/06016/F. Demolition of existing building and erection of 2-storey supported housing development, comprising 8 self-contained flats and supporting accommodation.*

Approved energy strategy was for ground source heat pumps to provide space heating and domestic hot water.

Communal air source heat pump system (ambient loop): The presentation to committee (16.11.20) refers to an assessment of communal air source heat pump (ambient loop). This type of system would see a communal air source heat pump which circulates low temperature heat around the building and individual heat pumps inside each unit where heat would be upgraded further, giving residents greater control over their individual heat use and costs. The applicant concludes that this system would be technically feasible for the development. The costs associated with metering and billing the heat associated with the central plant have been raised as a key concern by the applicant, however the option of aggregating the cost of the provision of ambient heat to the development into the service charge and omitting the need to meter and bill residents separately does not appear to have been considered. Should this be possible, this could significantly reduce the costs for the applicant and residents and provide another option for a heat hierarchy compliant system.

Cost of compliance with BCS14

The applicant has suggested that the extra-over cost of using a communal ground source heat pump system (of the sort used at Ashton Rise) would be £18,000 per unit when taking into consideration the wider implications for site management, programme costs and site preliminaries, meaning financial viability of this option is not achievable. There is a reference in the Heat Hierarchy Summary to ‘application submission material’ but justification of this figure has not been provided. We consider this figure to be unrealistically high. Evidence from the communal ground source heat pump system installed at Ashton Rise is that extra-over cost was ~£7000 per unit, which takes into consideration the costs for site management, programme costs and site preliminaries.

We also draw attention to the funding made available by Bristol City Council under Supplementary Grant Arrangements, discussed in previous comments, for the delivery of corporate objectives. This provides up to £10,000 per unit (subject to a grant application) for rented or shared ownership units on schemes delivered principally on private land to assist Housing Associations to deliver BCC policy requirements through the heat hierarchy.

Affordability

We continue to have very strong concerns about the affordability and energy running costs of electric resistive heating. This reflects concerns raised by the government in the Future Homes Consultation and Centre for Sustainable Energy in their ‘*Bristol net zero by 2030*’ report. Both heat pumps and electric resistive heating require electricity to operate, however electric resistive heating is (approx. 2-5 times) less efficient and therefore (2-5 times) more costly to operate than heat pumps.

There is good evidence to show that unless dwellings are constructed in accordance with very strict quality control processes (such as that required to certify the Passivhaus Standard) the actual energy demand and running costs are likely to be higher than figures predicted at the design stage. This difference is known as the ‘performance gap’. Actual energy demand has been shown to be 2 to 4 times greater than predicted demand, increasing the energy demand and running costs of homes where electric resistive heating is installed.

Conclusions

The conclusions from their comments are:

- We acknowledge that the carbon intensity of grid electricity was significantly higher when current planning policies were adopted in 2011 than today. Despite this reduction and the fact that resistive electric heating is the cheapest form of heating to install, this is not in our judgement justification for allowing the use of electric resistive heating in new dwellings. Electric resistive heating continues to be excluded from the BCS14 heat hierarchy for the following reasons:
 - Electric resistive heating is not as efficient as other forms of renewable heating such as heat pumps which are allowable under the heat hierarchy, and therefore generate more CO2 emissions (approx. 2 – 5 times more).
 - Widespread use of resistive electric heating will significantly increase the annual demand and peak demand for electricity (on top of the increased demand from the electrification of transport and heat through heat pumps), increasing the amount of energy that will have to be generated renewably for the grid, making it harder to decarbonise the energy system as a whole.

This is in line with government policy as set out in the Future Homes Standard Consultation (2019), the Future Buildings Standard Consultation (2021) and independent advice provided to the council on the decarbonisation of heat, which is not advocating the use of electric resistive heating in new dwellings.

- Under the current proposals only 37 units (25%) comply with policy BCS14. 109 units (75%) do not comply. We consider that it is technically feasible and financially viable to deliver significantly more units on this site in compliance with policy BCS14 as follows:
 - From a technical standpoint (in addition to the individual air source heat pumps already proposed in other units), there is scope to provide heating and hot water to a number of additional units (58-75 no.) using a communal ground source heat pump system. This system is not a new concept. It has been used extensively in the refurbishment of existing buildings including flatted developments, including those owned by local authorities and housing associations, often to replace electric resistive heating, and in new-build. The suggested extra-over costs per unit for this type of system are, in our judgement, unrealistically high and have not been justified with supporting information and have not taken into account the availability of funding from BCC for some of these costs.
 - A communal air source heat pump system using an ambient loop is technically feasible. The suggested costs do not appear to consider whether the option of omitting the metering and billing and instead aggregating the cost of the provision of ambient heat into the service charge could be possible, nor do they consider the availability of funding from BCC for some of these costs.
- We continue to have concerns about the energy running costs of electric resistive heating which reflect concerns raised by the government and advice from the Centre for Sustainable Energy. Electric resistive heating is less efficient and therefore more costly to operate than heat pumps.
- **For these reasons we continue to object to this application.**

Appendix A – Heat Pump efficiency compared to resistive electric heating

BCC has given the cumulative impact of electric resistive heating on electricity demand as one of its reasons for its exclusion from the heat hierarchy in BCS14.

In the applicant's submission '*Technical and Financial Appraisal: The Heat Hierarchy, Communal Heating and Heat Pumps*' (Feb 2020) JS Lewis suggests that a report by Element Energy '*Hybrid Heat Pumps - Final report for Department for Business, Energy & Industrial Strategy*' (December 2017) shows that heat pumps provide 'little benefit' over electric resistive heating. The Sustainable City Team do not consider this to be an accurate statement for the following reasons:

- The report is primarily focused on the potential role of hybrid heat pumps (meaning systems combining a heat pump and gas boiler) for the decarbonisation of heat. As stated in JS Lewis's report it suggests that under certain conditions the coefficient of performance (efficiency) of an air source heat pump can reduce to between 1.26 and 1.0 on the coldest day in a 'one-in-20' year. (For comparison electric resistive heating is 100% efficient and has a coefficient of performance of 1.0).
- The variation in the energy efficiency an air source heat pump is a physical characteristic of the heat pump itself. The efficiency with which the heat pump converts electrical energy into useful heat is related to the difference between temperature of the heat source (the external air in the case of an air source heat pump) and the temperature of the heat being supplied - to the radiators in the case of domestic space heating. If the temperature of the heat supplied to the radiators remains constant the efficiency of the heat pump will fall as the outside air temperature decreases, and the efficiency will increase as the air temperature rises.
- Whilst we do not dispute the seasonal variation in the efficiency of an air source heat pump the figures quoted in the Element Energy report should not in our view, be taken as indicative of the minimum energy efficiency of an air source heat pump operating in this development for the following reasons. The figures quoted from Element study refer to a semi-detached dwelling rather than a flat. And they relate to a 'typical' semi-detached dwelling which will have lower thermal efficiency than a new flat constructed to current Building Regulation standards (and BCC planning policies). Because they relate to an exceptional (one-in-20) year they should not be taken as indicative of average efficiency.
- Whilst not disputing the variation in the efficiency of an air source heat pump, for the majority of time the efficiency of a heat pump will be significantly higher than resistive electric heating which cannot increase above 100%. The seasonal efficiency (meaning the average efficiency across a year) of an air source heat pump is in the order of 250%, and 300% for a ground source heat pump. This compares with electric heating which has a seasonal efficiency of 100%. This means that less energy has to be generated to produce the heat. In a dwelling requiring 5000kWh of heat a year, 5000kWh of electrical energy will be required when using direct electric heating. This drops to 2000kWh a year when using an air source heat pump (with an efficiency of 250%), and 1667kWh when using a ground source heat pump (with an efficiency of 300%).