21/01331/F - Caravan Club, Cumberland Road, Bristol BS1 6XG

Erection of residential dwellings (166), commercial floorspace, integrated car and bicycle parking, refuse storage, landscaping and associated infrastructure and services.

The Bristol Tree Forum objects to this application as currently formulated. The application:

- Does not comply with Bristol Core Strategy (BCS9), Development Management Policies (DM15, DM17 and DM19) or provisions set out in the Bristol Central Area Plan, adopted in March 2015 (Policy BCAP41[1]).
- Does not apply the environmental objectives of the NPPF.
- Is contrary to Bristol City Councils declarations of Climate and Ecological Emergencies and commitments made in the One City Plan to be Carbon Neutral by 2030 and to double tree canopy cover by 2046.
- Does not make the required mitigation for the proposed loss of trees.

Summary

Bristol City Council has declared both climate and environmental emergencies and is committed to tackling the causes and consequences of climate change and to improving the city's biodiversity, including doubling the city's tree canopy cover by 2046. Under the proposed Environment Bill 2020 (now progressing through Parliament), a statutory obligation will require all new developments to provide a 10% Biodiversity Net Gain (BNG) before any proposal is approved.

The National Planning Policy Framework, the Mitigation Hierarchy and Bristol's core planning policy, BCS9 – Green Infrastructure and DM15: Green Infrastructure Provision, are the basis on which these goals may be achieved within the planning context now, whether or not the Environment Bill has been enacted by the time this application is decided.

The applicant's proposal will result in a loss of the ecoservices, habitat and tree canopy provided by the 74 trees it plans to remove, rather different to the "some existing trees" described in the Goram Homes promotional material. Little if any justification is given for the removal of these trees; neither has sufficient mitigation been proposed to compensate for their removal if there is no other option but to remove them.

The planning context

The National Planning Policy Framework

The National Planning Policy Framework (NPPF) seeks to ensure that new development is sustainable. It stresses the importance of green Infrastructure as one of three overarching, interdependent objectives – economic, social, and environmental. This means that

[1]https://www.bristol.gov.uk/documents/20182/34540/BCAP%20Adopted%20March%202015%20-%20Main%20Document%20&%20Annex%20-%20Web%20PDF.pdf/d05a0c22-ab91-4530-926a-f26160ab72a5 - page 71.

sustainable environmental development is no less important than the economic and social development objectives.

Trees are an integral part of this because of their importance to the management of air, soil and water quality, along with other associated ecosystem services, climate change adaptions and beneficial health effects. The NPPF also seeks to protect and enhance landscapes and achieve Net Gain in biodiversity.

The Biodiversity Metric[2] provides a way of measuring and accounting for biodiversity losses and gains resulting from development or land management change. It defines Net Gain as an:

> *…approach to development that aims to leave the natural environment in a measurably better state than beforehand. This means protecting existing habitats and ensuring that lost or degraded environmental features are compensated for by restoring or creating environmental features that are of greater value to wildlife and people. It does not change the fact that losses should be avoided where possible, a key part of adhering to a core environmental planning principle called the mitigation hierarchy.*

The Mitigation Hierarchy

Trees should not be removed merely to facilitate the developer's vision. Ideally, development should always be planned around existing trees. This is because, in all cases, a tree retained offers far more benefits and ecoservices than newly planted trees, no matter how many, whose potential will take decades to be realised, if indeed it ever is.

The mitigation hierarchy provides a cascading decision process: only if the preceding choice is unavailable is the next one considered.

- Avoid - Where possible, habitat damage should be avoided.
- Minimise - Where possible, habitat damage and loss should be minimised.
- Remediate - Where possible, any damage or lost habitat should be restored.
- Compensate - As a last resort, damaged or lost habitat should be compensated for.

Local Planning Authorities in the UK have a statutory duty to consider both the protection and planting of trees when considering planning applications. The potential impact of development on all trees is therefore a material consideration.

BCS9 – Green Infrastructure

BCS9 of Bristol's Core Strategy[3] states that 'Individual green assets should be retained wherever possible and integrated into new development'. BCS9 is one of the *Key Policies* for the development of the Harbourside in the Bristol Centre Area Plan[4].

BTRS and the Biodiversity Metric are two tools which the planning authority can use to ensure

[2] http://publications.naturalengland.org.uk/publication/5850908674228224.
[3] https://www.bristol.gov.uk/documents/20182/34540/Core+Strategy+WEB+PDF+(low+res+with+links)_0.pdf
[4] 9.7 Harbourside *(including Hotwells)* - page 72

that:

- the integrity and connectivity of the strategic green infrastructure network will be maintained, protected and enhanced
- opportunities to extend the coverage and connectivity of the existing strategic green infrastructure network are taken
- individual green assets are retained wherever possible and integrated into new development
- appropriate mitigation of the lost green infrastructure assets is required
- development should incorporate new and/or enhanced green infrastructure of an appropriate type, standard and size
- where on-site provision of green infrastructure is not possible, contributions will be sought to make appropriate provision for green infrastructure off site.

DM15: Green Infrastructure Provision

Trees

The provision of additional and/or improved management of existing trees will be expected as part of the landscape treatment of new development. The design, size, species and placement of trees provided as part of the landscape treatment will be expected to take practicable opportunities to:

- Connect the development site to the Strategic Green Infrastructure Network, and/or Bristol Wildlife Network; and
- Assist in reducing or mitigating run-off and flood risk on the development site; and
- Assist in providing shade and shelter to address urban cooling; and
- Create a strong framework of street trees to enclose or mitigate the visual impact of a development.

We have set out Bristol's planning policies as they relate to trees in more detail here - Planning obligations in relation to trees in Bristol.

Caravan Club - tree survey analysis

This analysis is based on the applicant's Arboricultural Method Statement dated 4 December 2020, which is in turn based on the tree survey undertaken by AECOM on 20 June 2019. The survey was undertaken in compliance with *BS5837:2012 Trees in relation to design, demolition and construction – Recommendations*. It is assumed that the survey data provided for grouped trees are based on the averaged measurements of the trees in each group. The key data used in this analysis are set out in **Appendix 1**.

The survey identifies 48 tree features, of which 28 are individual trees and 20 are tree groups.

Whilst the numbers of trees in each group are not given (even though essential for a BTRS[5] calculation), we have been able to identify and count 71 trees for the tree groups shown in the tree constraints plan in **Appendix 2** of the tree survey and by using Google Earth images. On this basis, 99 trees were surveyed, of which 91 are growing onsite.

The plan is to remove 16 individual trees and 11 tree groups containing 52 trees. The trees in groups G19/G20 & G26 will be partially removed. The number of trees to be removed in these groups is not stated, but examination of Drawing D8074.003 – Ecological Enhancement Plan (**Appendix 3**) annexed to the applicant's Biodiversity Enhancement and Mitigation Scheme[6] shows that only one tree will be retained from groups G19/G20 and two from G26. On this basis, 74 trees will be removed.

The application of BTRS

The application of the BTRS calculation means that **210 new trees** would need to be planted to replace these lost trees. The applicant plans to plant 31 trees on site.[7] This means that the balance of 179 replacement trees would need to be planted elsewhere under BTRS. Whilst the application of BTRS is discussed, no BTRS calculation has been provided by the applicant.

Biodiversity Net Gain analysis

The applicant's survey gives the four cardinal point tree crown radii of the trees surveyed. The averages of these have been used to calculate the tree canopy cover for each tree (TCC). Using this information, we calculate that the total TCC on this 0.85-hectare site[8] is 0.42 hectares. If the applicant's plans are approved 0.37 hectares of TCC will be removed leaving just 0.05 hectares of the original TCC, which the trees on the site currently provide.

We have also undertaken four desktop surveys of the site using a modified version of i-Tree Canopy[9] which we have developed.[10] Each survey uses 200 or 400 points (a total of 1,200 points) randomly distributed within the boundary of the site. These are then examined using images made in April 2020 and published on Google Earth. If a point falls within the canopy of a tree it is recorded as a tree. If it does not, then no tree is recorded.

Taken together, these show that the site has a TCC of 30.42% with a 95% confidence Interval between 27.8% to 33.0%. This method only analyses points within the site boundary. Canopy extending beyond the boundary is ignored, even though this canopy is being provided by trees growing within the site. This difference accounts for the apparent disparity between the TCC results of the tree survey and the random points surveyed above. We have applied the tree survey baseline value of 0.41 hectares of TCC as this best reflects the true habitat provided by the trees growing on this site.

[5] Bristol Core Strategies BCS9 & BCS11 – known as the Bristol Tree Replacement Standard (BTRS).
[6] 21_01331_F-BIODIVERSITY_ENHANCEMENT_AND_MITIGATION_SCHEME-2896065.pdf.
[7] Paragraph 3.6 of the Biodiversity Enhancement and Mitigation Scheme.
[8] The applicant gives the area as 0.88 hectares.
[9] https://canopy.itreetools.org/.
[10] https://bristoltrees.space/trees/i-Tree/canopy.xq?

Using the Biodiversity Metric, we have categorised the trees growing on the site as *Urban - Woodland* with medium habitat distinctiveness, moderate habitat condition and medium ecological connectivity. The site is within an area formally identified in the local strategy and is adjacent to the SNCI along the River Avon New Cut to the south. On this basis, the trees provide 4.25 Habitat Units.

We note that the applicant has dismissed the habitat provided by the trees growing on the site altogether. This is even though the trees comprise a diverse mix of 19 early-mature to mature mostly native species, most of which are reported by AECOM to be in fair to good condition, and are well-connected with the housing estate to the east and the River Avon New Cut to the south. This is our analysis of the species mix:

Tree Species	Count	%
Ash (*Fraxinus excelsior*)	1	2%
Aspen (*Populus tremula*)	2	3%
Cherry Plum (*Prunus cerasifera*)	2	3%
Common Alder (*Alnus glutinosa*)	6	10%
Elder (*Sambucus nigra*)	1	2%
Grey Poplar (*Populus canescens*)	1	2%
Hawthorn (*Crataegus monogyna*)	4	7%
Hornbeam (*Carpinus betulus*)	2	3%
Italian Alder (*Alnus cordata*)	1	2%
London plane (*Platanus x acerifolia*)	1	2%
Norway Maple (*Acer platanoides*)	9	15%
Red Maple (*Acer rubrum*)	1	2%
Rowan (*Sorbus aucuparia*)	1	2%
Silver Birch (*Betula pendula*)	1	2%
Swedish Whitebeam (*Sorbus intermedia*)	6	10%
Sycamore (*Acer pseudoplatanus*)	2	3%
Whitebeam (*Sorbus aria*)	3	5%
Whitebeam species (*Sorbus sp.*)	2	3%
Wild Cherry (*Prunus avium*)	15	25%

The applicant's Biodiversity Enhancement and Mitigation Scheme states that 'a total of 0.69ha of the site is covered by a mixture of bare ground and hardstanding which equates to 80.60% of the site. These areas of bare ground and hardstanding offer no features suitable to support local wildlife'. Under the Biodiversity Metric, this habitat is called *Urban - Developed land; sealed surface* and has zero habitat value. The applicant has ignored the fact that much of this feature has tree canopy growing above it. We have therefore reduced this valueless habitat feature to 0.29 hectares to allow for the habitat provided by the trees growing above.

The applicant has also identified two other canopy features but gives no habitat parameters or Habitat Units for these:

> *'Amenity grassland covers 0.13ha (15.4%) of the site…*
>
> *Introduced shrub accounts for 0.01 ha (1%) of the site.'*

We have included both these habitats in our Biodiversity Metric baseline calculations, giving them the same parameter values as we have to the tree habitat: medium habitat distinctiveness, moderate habitat condition and medium ecological connectivity and within an area formally identified in the local strategy.

The applicant has also ignored the well-established and healthy native Hawthorn hedge[11] growing all along the boundary between the site and the floating harbour. On the basis that this can be categorised under the Biodiversity Metric as a 0.08-kilometre linear *Native Hedgerow* with low habitat distinctiveness, good habitat condition and medium ecological connectivity within an area formally identified in the local strategy, we calculate that it provides 0.61 Hedgerow Units.

On this basis, the baseline Habitat Units for the site are 4.96 and 0.61 Hedgerow Units.

In the absence of a Biodiversity Metric calculation, it has not been possible to ascertain whether the applicant's proposal will provide any Biodiversity Net Gain, let alone the 10% net gain proposed in the Environment Bill 2020. We have asked for a copy of the Biodiversity Metric calculation, assuming one has been made.

We submit that this 10% target is the minimum Net Gain percentage that the planning authority should require. Whether or not the Environment Bill has been enacted by the time this application comes to be decided, the planning policies the city has adopted already permit this.

As currently proposed, this development fails to do this and so should be refused.

Bristol Tree Forum

01 May 2021

[11] The hedge is composed of Hawthorn with some ivy growing on it towards the western end. It is approx. 1.9 m tall x 1.6m deep x about 80 metres long. Foliage extends to ground level.

Appendix 1 – Trees Surveyed in the AECOM tree survey undertaken on 20th June 2019

Tree ID	BS 5837 Category	Tree Count	Trees to Remove	Stem Diameter (cm)	Average Crown Radius (m)
T1	C1,2	1	0	24	2.75
T2	C1,2	1	0	32	2.75
G3	B2	2	2	30	4.00
G4	C1,2	3	3	20	2.50
T5	C1,2	1	1	26	2.75
T6	B1,2	1	1	40	4.50
G7	B2	3	3	43	4.50
G8	C1,2	6	6	36	4.00
T9	C1	1	1	17	2.63
T10	C1	1	1	17	2.50
T11	C1	1	1	17	2.50
T12	B1	1	1	23	3.50
T13	C1,2	1	1	28	2.88
G14	B2	4	4	39	5.00
T15	C1,2	1	0	24	2.63
T16	C1	1	0	22	2.50
T17	C1	1	1	8	1.00
T18	C1,2	1	0	22	2.50
G19*	B2	1	0	35	4.00
G20	C2	4	4	8	1.00
G21	C2	1	0	8	1.00
G22	C1,2	1	0	42	3.88
T23	C1,2	1	0	35	3.50
G24	C1,2	1	0	32	3.38
G25*	B2	1	0	45	3.38
G26	C1,2	3	1	30	2.88
T27	C1,2	1	1	47	3.50
T28	B1,2	1	0	28	3.50
T29	B1,2	1	1	35	5.00
G30	B2	6	6	35	4.00
G31	C2	1	1	19	3.50
T32*	C1	1	0	15	2.50
T33*	C1	1	0	22	3.50

Tree ID	BS 5837 Category	Tree Count	Trees to Remove	Stem Diameter (cm)	Average Crown Radius (m)
G34*	C2	1	0	10	2.50
T35*	C1,2	1	0	34	3.00
T36*	C1,2	1	0	25	3.00
G37	B2	12	12	40	4.00
G38	B2	13	13	35	5.00
T39*	C1,2	1	1	30	2.50
T40	C1	1	1	26	2.25
G41	B2	2	2	71	5.00
T42*	C1,2	1	0	15	2.50
T43*	U1	1	1	30	3.00
G44*	B2	1	0	20	2.50
G45	B2	2	0	35	4.00
T46	C1	1	0	29	2.50
T47	C1,2	1	0	28	2.63
T46	C1	1	0	29	2.50

Appendix 2 - Planned tree removals - taken from the Arboricultural Method Statement

Table 8: Summary of Tree Works

No.	Species	Works	Category
G3	Norway Maple	Fell trees to ground level; remove stump	B2
G4	Cherry plum	Fell trees to ground level; remove stump	C1,2
T5	Wild Cherry	Fell tree to ground level; grind out stump	C1,2
T6	Italian Alder	Fell tree to ground level; grind out stump	B1,2
G7	Wild Cherry	Fell trees to ground level; remove stump	B2
G8	Various	Fell trees to ground level; remove stump	C1,2
T9	Wild Cherry	Fell tree to ground level; grind out stump	C1
T10	Hawthorn	Fell tree to ground level; grind out stump	C1
T11	Hawthorn	Fell tree to ground level; grind out stump	C1
T12	Hornbeam	Fell tree to ground level; grind out stump	B1
T13	Wild Cherry	Fell tree to ground level; grind out stump	C1,2
G14	Norway Maple	Fell trees to ground level; remove stump	B2
T16	Wild Cherry	Fell tree to ground level; grind out stump	C1
T17	Wild Cherry	Fell tree to ground level; grind out stump	C1
T18	Norway Maple	Fell tree to ground level; grind out stump	C1,2
G19	Various	Partial removal of group: fell trees to ground level; grind out stump.	B2
G20	Hawthorn	Partial removal of group: fell trees to ground level; grind out stump.	C2
G22	Norway Maple	Fell trees to ground level; remove stump	C1,2
G24	Various	Prune back 3m to south	C1,2
G26	Various	Partial removal of group: fell trees to ground level; grind out stump.	C1,2
T27	Aspen	Fell tree to ground level; grind out stump	C1,2
T29	London Plane	Fell tree to ground level; grind out stump	B1,2

No.	Species	Works	Category
G30	Various	Fell trees to ground level; remove stump	B2
G31	Norway Maple	Fell trees to ground level; remove stump	C2
G37	Various	Fell trees to ground level; remove stump	B2
G38	Various	Fell trees to ground level; remove stump	B2
T39	Wild Cherry	Fell tree to ground level; grind out stump	C1,2
T40	Whitebeam	Fell tree to ground level; grind out stump	C1
G41	Grey Poplar	Fell trees to ground level; remove stump	B2
T43	Whitebeam	Fell tree to ground level; grind out stump	U
T48	Wild Cherry	Fell tree to ground level; grind out stump	C1

Appendix 3 – Drawing D8074.003 – Ecological Enhancement Plan