

Guildford Residents Associations Response

**20/P/02155: Weyside Urban Village (Slyfield Regeneration Programme), Slyfield Green, Guildford**

*Hybrid planning application for redevelopment of part of allocated site for the Slyfield Area*

*Regeneration Project for a mixed-use development (known as Weyside Urban Village) comprising:*

*A. Outline planning approval for:*

- demolition of existing buildings and infrastructure*
- up to 1550 dwellings*
- local centre comprising up to 1800 sqm of retail (inc. convenience store), healthcare, community, nursery and flexible employment uses (Use Class E)*
- up to 500 sqm of flexible community facilities (Use Classes E/F1/F2)*
- up to 6,600 sqm of flexible employment space (Use Classes E/B2/B8)*
- up to 30,000 sqm for new Council Depot Site (Use Classes E/B8)*
- 6 Gypsy and Traveller pitches (Use Class C3)*
- associated road infrastructure, landscaping (including Sustainable Drainage Systems) and amenity space.*

*B. Full planning permission for:*

- development of primary and secondary site accesses, internal access roads and associated landscaping.*

*C. Full planning permission for:*

- engineering operations associated with remediation and infrastructure, including primary and secondary substations*
- utilities and drainage (including Sustainable Drainage Systems).*

GRA welcomes the principle of a well-designed scheme on this site of appropriate scale that is sensitive to the Wey Corridor and provides supporting infrastructure. At the Local Plan Examination, GRA congratulated GBC for its commitment to bringing this site forward. This requires satisfactory execution.

**Regrettably, we oppose the current proposal. We hope that with amendments an appropriate scheme can be brought forward.**

**In its current form, we consider that the proposal:**

- has an unacceptable impact on the Wey corridor and adjoining Green Belt due to its height and inadequate buffer and set back,**
- offers an inappropriate spine road design and alignment, failing to deliver an effective, purpose-built section of the “sustainable movement corridor”,**
- and represents over development. Pressure for homes and the need for investment to bring this site forward do not justify overdevelopment. Exceeding the number of homes in the Local Plan allocation results in an unsatisfactory layout and massing.**

**We agree with the four highway accesses, but we do not agree that the impact of the development on traffic conditions is ‘not material’. In particular, the primary access on Woking Road will add traffic in an already busy section of road between two junctions.**

**We are also concerned that the consequences of the combination of high ground water levels, contamination and land instability have been insufficiently addressed.**

**We comment separately on the proposed SANG application, which we welcome subject to amendment, but we draw attention to the need for satisfactory pedestrian bridges across the river and Clay Lane being included in this application as an unambiguous planning requirement.**

**We welcome the approach of establishing a Design Code and Parameter Plans for the development, while seeking changes to these.**

**We note the importance of finding a way forward on the issue of the allotments that meets the needs of the allotment holders and is acceptable to the local community.**

We have divided our comments into issues that render the scheme unacceptable unless amended and issues on which we seek assurances that our concerns would be met.

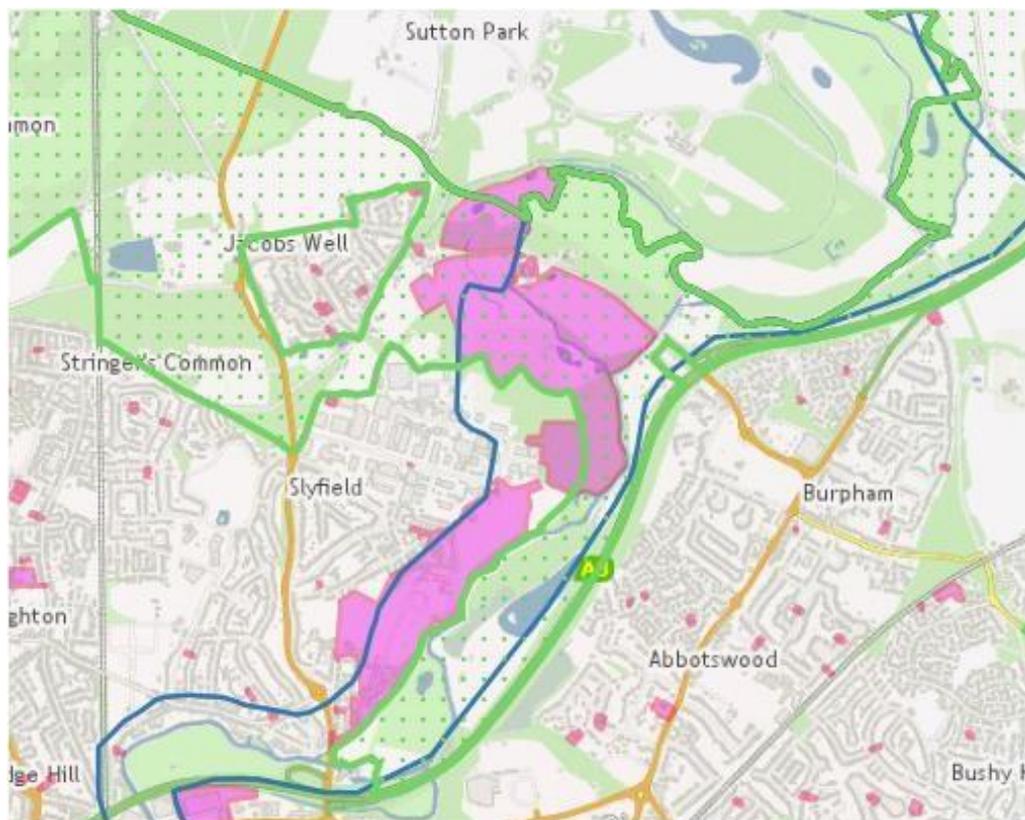
**1) Unacceptable unless amend:**

**1) Insufficient set back from the Wey and inadequate natural buffer**

We welcome the proposed fingers between blocks but the buffer and screening along river corridor would be wholly inadequate. Even various proposed amenity uses along the river would have an urbanising effect. The Inspector at the 2019 Local Plan examination was persuaded of the importance of effective buffers to soften the boundary between development and adjoining green areas including Green Belt. Indeed, the Inspector strengthened this requirement for all strategic sites in the Plan including this one. The expectation of a soft transition, with a robust natural buffer, is overwhelming for this Green Belt boundary and riverside setting, but the current layout and design fail to satisfy this. **Greater set back and a more effective and natural buffer are required to meet the requirement for green approaches.**

The site abuts Green Belt countryside. The adjoining Wey and Godalming Navigation is designated a Conservation Area.

2019 Local Plan POLICY A24 (6) requires “**Sensitive design at site boundaries that has significant regard to the transition from urban to Green Belt, particularly with regards to the open fields between Clay Lane and the site, and the visual setting of the Navigations and the River Wey Conservation Area**”. It also expects “(7) **Green corridors and linkages to habitats outside of the site, given the site’s proximity to greenfield, natural floodplain and SNCI**” .



Green Belt – green dots

Relating to Place Shaping, paragraph 4.5.9 of the 2019 Local Plan also expects “*development to respond to local character and history, reflecting the identity of its context*” which should consider “**the effects upon views, topography, natural features, skylines, landscape setting and character, and the setting of designated and non-designated heritage assets.** The relationship of the built environment to the landscape must be taken into account and **the transition from urban to rural character will need to be reflected in the design of new development with the green approaches to settlements respected**”.

2003 Local Plan Saved Policy G11 specifies that development within the Wey corridor should (1) **protect or improve the special character of the River Wey and the Navigation, in particular their visual setting, amenities, ecological value, architectural and historic interest**, and that (5) **the Nature Conservation value of the site should be protected or improved**. Policy HE10 states “**The Borough Council will not grant permission for development which would harm the setting of conservation area, or views into or out of that area.**” Paragraph 11.32 is clear that development adjacent to a conservation area, even at some distance, or on the skyline, where the height of new buildings could be significant, could affect sensitive views into and out of the conservation area. The National Trust’s Environmental Strategy, which the Council expects development to support, also expects the protection and enhancement of views and the protection of nature conservation interests.

We submit that the buffer in the application document is inadequate along much of the frontage for this highly sensitive location. It is significantly reduced from that shown in the Strategic Development Framework SPD or envisaged in the Local Plan. The anticipated urbanising effect of the proposed buffer is demonstrated in this artists impression of the Riverside Wharf. It should also be noted that the impact of taller, 6-storey buildings behind is not clearly shown.



In addition to impact on landscape and character, an adequate buffer is of environmental significance.

2019 Local Plan POLICY ID4 (7) states “*The ecological, landscape and recreational value of watercourses will be protected and enhanced. **Development proposals that are likely to have an adverse impact on the functions (including across their catchments) and setting of watercourses and their corridors will not be permitted. Proposals must demonstrate how they will support the achievement of Water Framework Directive objectives**”*

The Environment Agency sets out a clear expectation (EIA Scoping Report) that, **in order to protect the River Wey and associated biodiversity, a 10m minimum ecological buffer will be required between the top of the riverbank and any development.** It explains that rivers and the land adjacent to them form a vital part of green infrastructure provision and are required:

(i) To **provide a wildlife corridor** that links a number of habitats and affording species a wider and therefore more robust and sustainable range of linked habitats.

(ii) To allow the watercourse to undergo natural processes of erosion and deposition, and associated changes in alignment and bank profile, without the need for artificial bank protection works and the associated destruction of natural bank habitat.

(iii) To provide for the terrestrial life stages of aquatic insects, for nesting of water related bird species, and for bank dwelling small mammals.

(iv) To **allow for the maintenance of a zone of natural character** with vegetation that gives rise to a range of conditions of light and shade in the watercourse itself.

(v) To allow, where appropriate, for the regrading of banks to a lower and safer profile, in areas where there is public access.

(vi) To prevent overshadowing of watercourses by buildings.

(vii) To **reduce the risk of accidental pollution from run-off.**

The Environment Agency goes on to specify that “**the buffer must be free from all built development including domestic gardens, formal landscaping, lighting/light, formal footpaths and hardstanding and must not be used to store or transport any material/equipment.** The buffer must be **managed for biodiversity so that it can act as a wildlife corridor**”.

The application does not satisfy this requirement. Development is not at least 10m from the top of the riverbank throughout and the zone includes formal landscaping and footpaths. In order to properly meet this requirement there should be a 10m strip between the footpath and river for an ecological buffer and informal screening. It also appears the buffer may be affected by the proposed Thames Water foul water tunnel sewer and requisite access shafts. (The redline boundary along the river is inconsistent in various drawings making exact alignment hard to judge).

The buffer would not be sufficient to screen the river or the riverside nature reserve from lighting from properties or the proposed section of road running along the side of the river. The Environment Agency states that: “Lighting should be scoped in, in relation to biodiversity, based on the ecological sensitivity of the River Wey”. The EA is concerned that “increased lighting could impact on protected wildlife including bats commuting and foraging on Site and along the River Wey” and seeks “to ensure there shall be no light spill into adjacent natural terrestrial and aquatic habitats, including buffer zones. Artificial lighting disrupts the natural diurnal rhythms of a range of wildlife using/inhabiting the river and its corridor habitat. River channels and waterbodies with their wider corridors should be considered Intrinsically Dark Areas.”

The site falls within the River Wey (& tributaries) Biodiversity Opportunity Area and the Environment Agency proposes that the scheme should include the restoration and creation of Priority habitats and give regard to the recovery of Priority species populations. The River Wey (Shalford to Thames) waterbody is currently failing to achieve its Water Framework Directive objectives, and the EA identifies that re-naturalising riverbanks and establishing vegetated buffer zones (using native species only) along both rivers must be explored.

Impact on amenity is yet another reason for a substantial buffer. Riverside Park on the opposite bank is an extremely popular SANG. It is much-valued for walking in an attractive, wildlife-rich environment. If residents instead look across the water to an extensive, obtrusive 6 storey development, that will erode their experience and any sense of being in semi-natural surroundings.

ii) Strongly oppose alignment of the road along the southern riverside and “Wey Walk Community” green finger.

It has been a long-established principle that **the principal road running through the Slyfield Regeneration Area should be set back from the riverside boundary**. This would avoid impact on the river and adjoining habitats, prevent light pollution when looking toward the site across Green Belt and wildlife amenity areas, and better serve residents. This approach was supported by the Surrey Waste Plan inspector and reflected in the Strategic Development Framework SPD which includes the following layout:

Strategic Development Framework SPD Extract

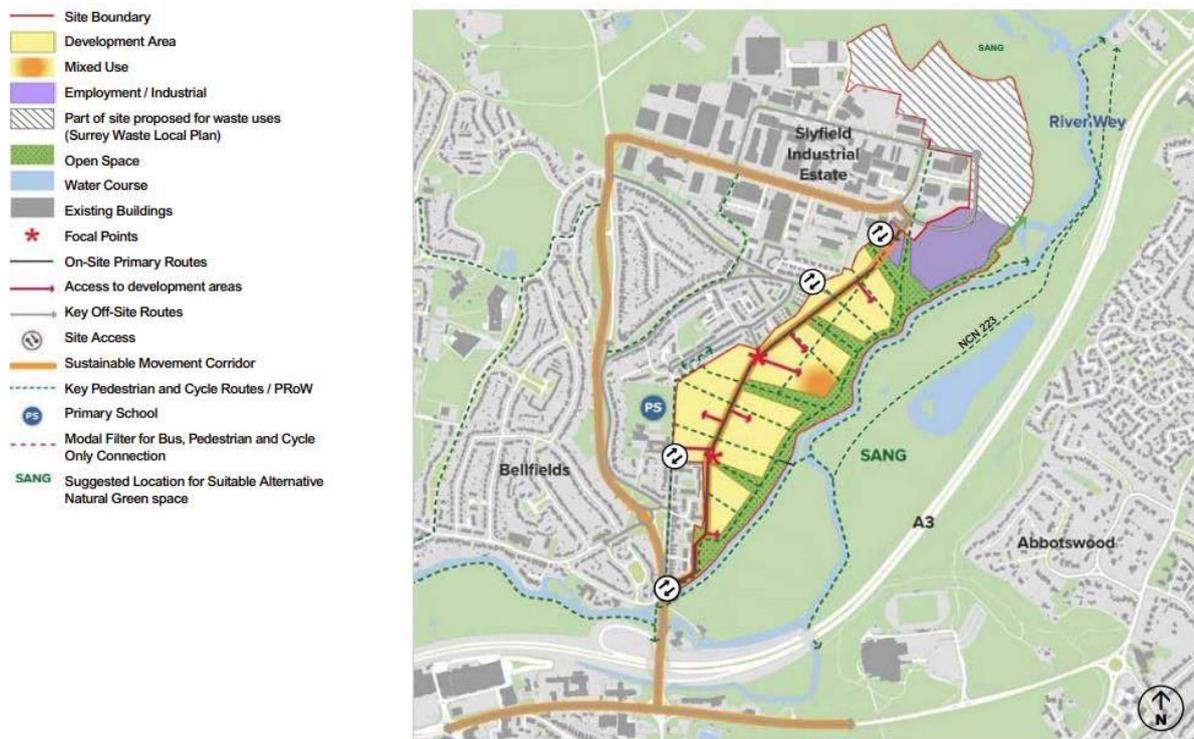
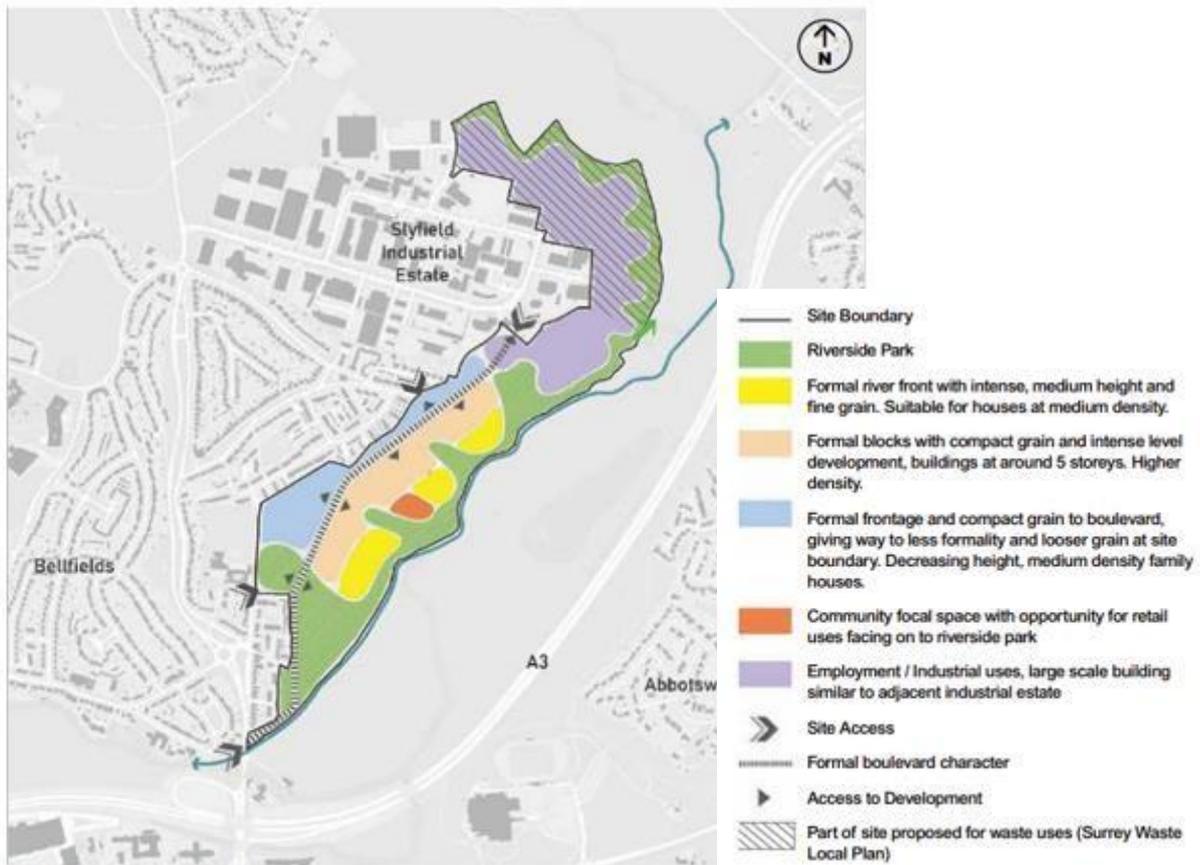


Fig 16: Illustrative application of master plan principles to Slyfield

The assessment of spine road options, on pages 202-205 of the Design and Access statement, lacks credibility. It gives high weighting to creating large development blocks, gives little weight to the various impacts on the river, flood risk or accessibility for neighbourhood users, and ignores the impact of running the spine road along the “Wey Walk Community” green finger undermining its amenity value. ‘Proximity to the river’ in one section scores amber whereas ‘impact on blocks’ in a section scores red. Running the road along the river, especially raised as proposed, would have consequences for the character, amenity and environment of the Wey corridor. It would be an unnecessary and avoidable urban incursion. Light pollution and noise from traffic would be issues. There would a greater risk of runoff from the road surface onto sensitive habitat. The wisdom of a raised road section so close to the river is also questioned. It would have consequences for the flow of water to and from the river with knock on effects on where water collects in this flood prone part of the site. Culverts tend to block during events and create maintenance issues. It is also notable that the area in question is shown as a green space in the Strategic Development Framework SPD.



**iii) We are concerned at proposed land raising in the southern section**

It is acknowledged that the southern part of that site is expected to flood and proposed that, if the southern access junction with the A320 floods, alternative access routes are available throughout the remainder of the site. It is intended that the spine road would be raised in this area. We are concerned that the consequences of land raising in the 1 in 100 yr + 35% climate change floodplain extent have not been adequately assessed. The applicant’s suggestion that the design of floodplain storage compensation would be confirmed at the detailed design stage is unacceptable. This is a full application “for the development of primary and secondary site accesses, internal access roads and associated landscaping”. Clear compensatory arrangements are required. It is suggested that flood relief culverts would be provided beneath the proposed raised section of the southern access road to maintain exiting flow routes. We consider road raising would introduce an unnecessary vulnerability and the consequences of blockage should be understood.

The extent of floor raising is unclear and would have consequences for floodplain capacity. Flood risk in the southern section is incompatible with the development proposed.

**iv) The scheme represents over development: building heights and density are too high for the sensitive setting of the Wey corridor and Riverside Park and exceed housing figures in the Local Plan allocation.**

Assessing the proposed scheme, we come to the conclusion 1550 represents too many units. Further, this cannot credibly be characterised as an urban village and should be referred to as “Weyside”.

We consider that the technical assessments and detailed design work demonstrate **the proposed density of 116 dwellings per hectare is inappropriate for the location**. It is now clear from this scheme that the indicative density of 107 dwellings per hectare, in the Strategic Development Framework SPD, would also be extremely high for this site.

**A scheme of six storey buildings and the dense, if lower, wall of development along the water’s edge would have an unacceptable impact on near and far views, including from designated areas, and would be inappropriate in this riverside nature park setting.**

The urban village concept started to be promoted by the government in the late 1990s, although Poundbury in Dorset is an early example. The aspiration is to combine the sense of community inherent in a village with the scale, practical efficiencies and amenities of urban development; to reduce reliance on cars and promote cycling, walking and public transport in part due to a high level of self-containment. An urban village would be characterised by medium density housing, good public transport and an emphasis on pedestrianisation and public space. There are influences from the Garden City movement and environmental determinism is important ie that the design concept be rooted in its surroundings. Master planning at scale enables original design solutions to be employed that turn vision into a reality.

Experience elsewhere confirms that the creativity that was initially used to sell the concept is prone to getting dropped. GBC has set itself a major challenge in view of the substantial constraints. Already the undertaking to develop the site in a sustainable manner based on a sustainable movement corridor has been diluted. The cost of remediation leads to a risk this scheme will fall prey to the well-known pressures that have resulted in so many poor, large-scale attempts at mass housing. The applicant therefore needs to provide sufficient detail to demonstrate that the development can be implemented technically, financially and sustainably to provide a high-quality living environment whilst avoiding unacceptable adverse impacts. Any consent needs to be sufficiently constrained to ensure that the vision is translated into reality and not compromised when unforeseen problems arise.

The one local area that might be considered an urban village is Onslow Village characterised by meandering roads and natural vegetation giving privacy to human scale dwellings using traditional construction techniques. A higher density version of this, perhaps incorporating short three-storey terraces might sit better in Surrey than pastiche converted warehouses which have their roots in inner city Dockland conversions. We do not feel the gridiron street plan is appropriate in Surrey and it does not relate adequately to the River Wey. Reduced heights close to the river are recognised but the fundamental flaw is maintaining a predetermined density which requires excessive heights elsewhere to compensate. There is too much urban and not enough village in the master plan concept. Development has spread into areas shown as parkland in the SPD and the fingers seek to accommodate so many amenity and infrastructure requirements that they have become overly crammed with extensive hard surfacing.

We do not think the design aesthetic of the taller buildings is persuasive. Pitched roofs are taken from the local vernacular says the design guide; yes, but only at two or three storeys. Either the

heights need reducing or more original design reflecting the open countryside should be considered. There needs to be greater space between the taller buildings, and space which is not just the main road, car parking or a drainage ditch, but space which provides meaningful amenity and links to the countryside.

The number of dwellings in the scheme increased from 1000 to around 1500 dwellings to help cover the cost of relocating the sewage works. Whilst this higher number is included in the Local Plan, it is on the basis that the development can be undertaken on a sustainable basis. This application, which pushes the number even higher to 1550, fails to demonstrate that it can be. There are far too many unacceptable compromises in the design that will negatively impact the living conditions. We do not believe reversing into a density to cover the abnormal costs is the appropriate methodology for establishing an appropriate density.

**It is not simply the visual impact of height. Taller buildings need greater space between them in order that they are not oppressive.** Here the buildings seem tightly packed on blocks better suited to lower density. More dwellings mean more cars on an already overloaded existing network and more land within the scheme devoted to the parking. Many existing medium-rise residential schemes sit blighted in a sea of parked cars. The scheme is justified as a means of increasing the density, whilst limiting the height, but wide-ranging negatives flow from excessive density.

**v) Although we welcome the intention to create character areas they are compromised by density, cramming and excessive hard surfacing relative to green space. The development will erode, rather than sit well within, the riverside setting.**

The choice of areas from which character inspiration is drawn is questioned. The properties highlighted from Boxgrove Gardens are of a cramped design that abuts and overhangs the road. Valued design qualities such as the importance of a robust green buffer so the site is not seen from Merrow Down AONB or of a mature central green are not featured. It is worth reflecting that **Boxgrove Gardens has 40 dwellings per hectare compared with 116 for Weyside.** The fact that Chantry Quarry properties are extremely hard to sell is not picked up.

Excessive hard surfacing is proposed including along the river, especially in front of the central finger.

The Design Guide does not appear to go beyond the statutory minima. Other local authorities adopt higher standards - for instance as to room sizes or daylight. In promoting an urban village GBC should consider the broader societal benefits of housing standards above the minimum.

We support the principle that building heights should diminish towards the periphery of the site and believe integrating this development with its neighbouring urban and rural surroundings is the key to creating a successful urban village.

Greater guidance is needed as to what criteria would be used to judge the quality of design when deciding whether a landmark building could be accepted (Design Guide: Built Form Building Heights). All too often, the concept is used to legitimise an overly large, obtrusive building ill-suited to its setting. Various disliked buildings in Guildford are landmarks! Could there be one or two for the scheme, or one or two for each Quarter? We should be wary of a row of landmark penthouse buildings occupying prime riverside locations; or otherwise undistinguished buildings posing as landmarks with a veneer of gimmickry.

The plan on page 86 suggests there might be 21 landmark buildings. We would be happy to see 21 buildings of exceptional quality and design genius but would be strongly opposed to 21 buildings that breached the rules.

We believe the statement "landmark buildings can be codebreakers" lacks clarity and could be a hostage to fortune. It needs to be clear that this exception cannot be abused. Used correctly there could be a double benefit if additional density derived from the landmark building were used to reduce the density elsewhere, otherwise the overall density could be materially breached. Such a proviso should be included in the code. This approach also needs to be grounded in the context that intrusion into the Wey corridor landscape setting would be a negative effect.

We are concerned at the suggestion that warehouse type buildings could be 12 metres internal clear space or 18 m to the ridge. The Design Code (page 86) states that the storey height of such buildings is typically 8 m implying a ridge height of around 10 m. We believe that buildings above this level should not be permitted save for exceptional reasons. They should not therefore be provided speculatively but possibly considered in response to a particular need and should be subjected to additional impact studies, views modelling and screening requirements prior to approval.

**vi) Traffic - We welcome the commitment to developing a sustainable transport network on the site, and to meeting the requirements for mitigation measures on the local highway network and the Sustainable Movement Corridor, but we are concerned about traffic, and the quality of walking and cycling routes to and from the site.**

Traffic:

The Transport Assessment includes an analysis of traffic conditions in 2033 when the development is planned to be complete. The method adopted for this work uses forecasts of traffic in peak hours on the local roads extracted from SINTRAM results for 2031. This traffic model was developed by SCC and was used to help in the preparation of the Local Plans in Guildford and Waverley. The scenario used to derive growth factors in the WUV analysis was the Sc1 Do-Minimum, which only includes approved developments to 2016. The developments in the Local Plan were not included. In this case, there are links for which the 2031 volume is lower than in 2009 (the model base year). The derived growth factors have been applied to 2014 traffic counts to arrive at 2033 traffic volumes. We know that the A320 is a busy road in peak periods, and so are most of the side roads. **The forecasts used in this analysis should not be considered a reliable guide to traffic levels in 2033.** A more robust approach is required (such as that originally proposed by Markides Associates in their scoping report).

A sensitivity test was requested by Highways England for a scenario including the growth included in the Local Plan. The growth factors for this scenario 4 show even higher reductions in flow on key links. For example, on the A320 between the A3 on-slip and Bellfields Road -34% n-bound and -27% s-bound in the AM peak. **These cannot be relied on to gauge the effect of the development and the design of the junctions.** More work is needed.

Mitigation measures:

The mitigation measures included in the Transport Assessment report should not be regarded as firm proposals, but as indicative of potential schemes. The main reason for this is that the traffic forecasts that have been used cannot be relied on, as explained earlier. Secondly, the LPSS includes the infrastructure project SMC5, the section of the Sustainable Movement Corridor that uses Woking

road (A320) and Moorfield Road, as well as serving the WUV site. As the Transport Assessment report says in para 2.4.19, there are no firm proposals for the SMC, except the western section (SMC1). It is GBC's stated intention to produce an SPD on the SMC. So far there is little in the way of published material, though there is a report prepared by Aecom in 2016 which indicates that the A320 between Bellfields Road and Woodlands Road can only accommodate what is referred to as 'SMC light'. The mitigation measures being proposed appear not take account of the potential implications of the SMC.

**The A320 from the A25 junction to the Bellfields Road/Stoughton Road junction is made up of a series of intersections with relatively short distances between them. This requires detailed analysis with traffic forecasts that take account of the planned growth in the borough included in the local plan.**

Northbound traffic turning right into the Depot Access has minimal space to queue; the proposal risks being unsafe and causing peak-time congestion on the A320.

We note that a through-route will not be available on the site until Phase 4 (ref Travel Plan para 7.2.32) and, also, that a bus route must be available from the early phases. We suggest that consideration should be given to providing space for turning vehicles on the SMC, for use by buses, servicing vehicles and emergency vehicles.

Walking and cycling:

On-site measures to encourage walking and cycling are welcome. We support the concept of the Mobility Hub. However, the ability to achieve modal shift and an increase in the non-motorised travel will be affected by the quality of the connections to other parts of the town, particularly the town centre. The expected SPD on the Sustainable Movement Corridor will no doubt address the challenges of routes from the Stoke A25/A320 junction to the town. The environment at the A3/A320 junction is quite hostile to pedestrians and cyclists, and we would like to see measures to improve it.

The Primary Movement Corridor now incorporates a two-way cycle lane 3.5 m wide. Much of this is dangerous as it directly adjoins the highway with a real risk of head-on collision. Cyclists need to overtake one another, particularly if-as should be the case-young children are cycling to school. It would be very easy to wobble off the cycle route into the path of an oncoming vehicle. Hoping that cars will keep to 20 mph on an open road wide enough for buses is unrealistic, and safety should not depend on this. **There should be a landscape strip separating the cycle lane from the highway to reduce these risks and crucially to make the cycle lane appear safe to parents and users.**

This type of safe, segregated cycleway is proposed for roughly half the length of the PMC where a five meter swale separates the cycle lane from the highway. We believe the other two typographies depicted on pages 55 - 57 of the Design Code are dangerous and we object to this aspect accordingly. The explanation provided is that separation is incorporated where there is sufficient space. However, this scheme is being drawn up with very few constraints. The reality is that safety is being sacrificed for density. This is a further justification of our objection to the fundamental overdevelopment of the site. (The labelling as between page 55 and 57 as to where Type 1 goes appears contradictory.)

A safe, convenient and pleasant active travel route to the amenities of the town centre is required to reduce reliance on private cars. The Woodbridge Road A3 underpass and A25 Crossing are extremely hostile and the proposals are inadequate. Improvements need to provide, at the very least, a safe and smooth experience over the A3 slip and A25 rather than a series of stop-starts through a

succession of Toucan crossings. The potential to put the cycle route behind the eastern bridge columns by digging out the triangular area behind as has been done to relocate the hard shoulder when widening motorways should be considered. This would enable preservation of the third Lane northbound beneath the flyover because it is well used contrary to the TA and its removal will cause substantial traffic backup onto A25. Lighting, decoration, sound attenuation and planting would all help to reduce intimidation felt by cyclists and pedestrians.

The TA includes detailed assessments of several other routes for non-motorised users (NMUs) such as cyclists, wheelchair users and those with pushchairs, to Guildford town centre. These typically offer poor connectivity or directness, and the proposals for upgrading them are very limited, so we do not consider that they will provide practical transport options for other than very few cyclists, and no other classes of NMU for whom further detours are required. It is misleading to suggest that they can contribute to the sustainability of the scheme because they are inadequate to attract people out of their cars.

Perhaps the opportunity of combining an improved northern half of **Route 1** with a safe direct crossing of the A25 with Woodbridge Meadows/Walnut Tree Close could be a solution, as the latter takes on the character of a low-traffic university campus, and the intimidating sections of the A3 underpass at Woodbridge Road and A25 would be avoided.

Part of **Route 6** is a narrow strip at the side of the road with the upgrade limited to repainting. Crucial requirements to offset the inadequate width or a smooth uniform road surface and in particular the avoidance of dropped storm drains, raised manhole covers etc.

There is potential for better linking of the site to the Spectrum and Stoke Park.

#### **ix) Parking - We think that 0.9 spaces per dwelling is too low.**

The number of parking spaces specified is far below the current standard. It is noted that the provision is higher for early phases, and is reduced in later phases. It is partly dependent on the assumption that affordable housing will require fewer spaces than private housing. Given the uncertainties associated with this level of change in private motoring compared to today, we would prefer to see more spaces included in the plan, which could be removed in the later phases if not needed.

It should be noted that GBC's draft Development Management Policy on Parking Standards includes minimum parking standards for the borough, which if applied to WUV would require many more spaces than currently included in the site plan. We agree with the first of the Residential Parking Principles in the Design Code (Parking Typologies section) that 'each dwelling should be provided with sufficient parking to meet the minimum standards required by local policy at the time a Reserved Matters application is submitted'.

We also think that the spaces for the car club should be increased. Overproviding early on in anticipation of demand would promote this option and influence behavior.

## 2) Issues on which we seek assurances that our concerns would be met:

### i) Quality of remediation especially in view of riverside location, movement of water through the site to the Wey and its floodplain, and absence of survey data for crucial parts of the site.

The site has contamination associated with the existing Sewage Treatment Works, the GBC Depot, the former sludge lagoons and former landfill, which present different types and levels of contamination. It is significant that the landfill, established in the 1960s, was uncontrolled, took industrial, commercial, household and inert wastes and was formed partly on an old gravel extraction site and partly over a sludge lagoon. It is unlined so it disperses contaminants into the surrounding areas, has a capping of variable thickness and materials, and has had a gas barrier with vents added by the industrial estate. Due to the nature of the landfill the material and composition encountered varied significantly. The sludge lagoon has a high organic matter as well as metal and ash. There have been a number of waste facilities in the area with various impacts, some of which are no longer operating.

**We draw attention to the fact that significant parts of the site were inaccessible or restricted during the 2020 ground investigation**, notably the SCC waste facility, Sewage Treatment Works, former sludge lagoons and existing allotments. **It is essential that a full understanding of contamination across the site is obtained to inform remediation plans**. Supplementary ground investigations will also be required as the existing infrastructure is demolished. We note additional sampling is also required to allow vapour risk to be further assessed and establish the extent of vapour protection measures required. This work should include identifying the sources of trichloroethene and tetrachloroethene, which resulted in high vapour levels in some areas, and assessing whether benzo(a)pyrene is widespread in Made Ground or an issue in specific areas. The interplay between ground gas and groundwater levels also needs to be appreciated and taken into account in assessing risk to future residents.

Based on the ground investigations undertaken so far, the Geo-Environmental Report on Assessed Risk to Human Health from Soil and Groundwater Contamination indicates that, in all areas investigated where Made Ground was present, concentrations of potential contaminants above the criteria for the proposed end use were recorded. The characteristic contaminants identified include polycyclic aromatic hydrocarbons (PAH) and metals, notably lead and arsenic. Arsenic was also reported at concentrations above the screening criteria in some samples of natural soils. Asbestos is relatively widespread, and asbestos was detected in all areas sampled for this. Asbestos concentrations in samples were relatively low but due to the widespread and variable distribution of the Made Ground across the Site, it is recognised that asbestos may be encountered at greater frequencies and higher concentrations during the construction phase than those identified by the ground investigation.

Contamination will reduce scope for re-using excavated material on site. Any soil excavated will need chemical verification testing and earthworks testing (e.g. gradings and compaction) before it can be considered for reuse. Areas of Made Ground are likely to require removal or processing in order to remediate the site. It is likely that clean imported material (i.e topsoil/subsoil) will be needed. An adequate depth of safe earth is required.

Much reliance is being placed on planning conditions and further testing. **In view of the variability across the site, in addition to sampling, best practice live inspection and testing will be required during works. Residents consider it will be essential to ensure the highest standards of testing and**

compliance are enforced, and trust there will be a permanent presence on site with the expertise, authority and independence to monitor and enforce.

Groundwater and river water quality monitoring will also be required linked to a strategy of preventing mobilisation of pollutants. The whole area falls within a Source Protection Zone for public drinking water supply. There is a license for groundwater abstraction less than 500m southwest of the site. Water connects between the gravel aquifer and the River Wey acting as a pathway for contamination. The Wey is already classified as a “failing” water body under the Water Framework Directive due to its chemical status. The potential for mobilisation of existing onsite contaminants is a concern. For example, the Environment Agency is concerned about release of ammonia to the Wey during construction and due to disturbance. Geo-environmental report results showed some exceedances of Drinking Water Standards within groundwater samples collected from the gravel aquifer. The soil leachate and groundwater results showed elevated concentrations of ammoniacal nitrogen. Further surface water monitoring and sampling should be undertaken to investigate and assess the longer-term water chemistry of the River Wey, both upstream and downstream of the Site.

## **ii) High Groundwater levels require resilient design and pollution management**

We consider it is essential for the interplay between types of flood risk, and with pollution, to be factored into the design and development of this site.

It is challenging to interpret the mix of flood risk and water borne contamination sources. In parts, the natural flood plain has been disrupted by the landfill being capped off above natural ground level disguising the extent of saturation below the surface. Flooding in the centre of the site (eg 2000, 2003) is from lagoons that took overflow from the sewage treatment works. These would be remediated as part of the relocation. The site includes a former river that ran through the north of the site. This was infilled in the 1920s with the likely effect that diverted flows still arise below the surface.

The site is underlain by gravels which sit on London Clay. Groundwater collects in the clay basin and permeates the gravel and lies very close to the surface. Groundwater flows through the gravels carrying pollutants from the application site throughout the floodplain. The Environment Agency confirms groundwater monitoring has detected high levels of ammonia within Slyfield Meadow and Riverside Park Site of Nature Conservation Importance (part of Riverside Local Nature Reserve) and Burpham Court Farm. This contamination is likely to be associated with the adjacent landfill and is at concentrations toxic to aquatic life. The Wey is a “failing” water body. The construction phase of the proposed development could mobilise contamination which would be dispersed by ground water, including to the River Wey and its associated wetland features. An approach of avoidance and mitigation, such as a well-designed buffer strip, is required.

While flood risk from the river is an issue in specific parts of the site (close to the water’s edge, by the southern entry and to the east), groundwater flood risk is widespread. During the recent ground investigation, the exploratory holes found groundwater flow and seepage at ground level. The majority of the site has ‘potential for groundwater flooding of property situated below ground level’. The northern-most and eastern boundary has the ‘potential for groundwater flooding to occur at the surface’.

**Properties should be designed with risk of groundwater flooding in mind.** Groundwater flooding tends to be a longer-term issue than other potentially shorter duration flood events. Sustained resilience, that is effective over protracted periods of high water levels, is required. The associated risk of sewer flooding needs to be appreciated. The Sewer Record Flood Map indicates that the Site is located within a postcode area which has 23 recorded sewer flooding incidences from internal and external sources.

Due to the presence of shallow groundwater encountered across the site, the ground conditions are unlikely to be suitable for the use of shallow soakaways and soakaways are not recommended in the area of landfill due to the potential to drive leachates towards the river. Shallow excavations are likely to encounter groundwater and may not remain dry.

**iii) Detailed SuDS design and layout, with a robust maintenance strategy, are required at this stage to inform the development**

We welcome the approach of integrating sustainable drainage as an important and positive feature of this scheme. We hope this will be designed with natural planting to be a unifying, wildlife-rich, place-making feature of the scheme.

We seek rigorous assessment of the proposals. It should be clearly appreciated which SuDS features will be dry when not collecting surface water in major rainfall events and which will contain some water at all times. Will water be surface water or groundwater? How will water quality be maintained without a sweetening flow? Algal bloom is an issue for water bodies in the vicinity. We are pleased to see the scheme seeks to mitigate the potential effects of extreme rainfall events by identifying safe routes through the proposed development. How will the quality of this be assured?

We note the Environment Agency is concerned about the use of infiltration SuDS at this site on account of the shallow groundwater level and the likelihood of existing ground contamination. The Agency states that if infiltration SuDS are proposed, they must be accompanied by a risk assessment and management strategy, including a series of treatment options to reduce risk of pollution to groundwater.

Arrangements must be put in place for the management and maintenance of the SuDS over their full lifetime.

**iv) The Issue of Land Stability should not be underestimated.**

The assessments confirm that land stability will be a major issue. The Made Ground is highly variable and presents construction challenges. Water is near the surface. **Major investment will be required to prevent significant total and differential settlement. Extensive removal and replacement, or compaction, of soft material will be required.**

The undulating surface at the Moorfield Road end of Westfield Road is an impressive reminder of what happens when the preparatory works are inadequate, and the construction method lacks the resilience required.



**v) Link to SANG essential**

We comment separately on the proposed SANG application, which we welcome subject to amendment, but we draw attention to the **need for satisfactory pedestrian bridges across the river and Clay Lane being included in this application as an unambiguous planning requirement.**

**vi) Allotments**

It appears that there was little or no discussion with the allotment holders on the new proposals being put to the Secretary of State, and we find this disappointing. We trust that a solution will be found to provide sufficient allotments of a suitable soil quality in an appropriate location.