





CHAPTER EIGHT

Evaluation

This chapter assesses the application proposals in terms of future sustainability and also their capacity to create a health promoting environment, describing strategies and objectives in each context.

8. Evaluation

8.1 Sustainability Strategies

JTP utilise their knowledge and experience in assessing each project for potential environmental design opportunities. These measures may range from the integration of passive solar design to the use of active energy-saving technologies.

At the outset of a project, we discuss with our clients what is feasible and where there are cost constraints. We will advise on the most cost-effective methods of achieving an environmentally responsive scheme. Some solutions are very simple; for example, changing the orientation of a scheme to embed passive design principles.

Other solutions may require rounds of testing to determine that they have the desired and anticipated impact. We have developed an in-house environmental assessment matrix whereby projects are reviewed under the following categories:

- Efficient use of resources
- Energy strategy
- Green infrastructure
- Blue infrastructure
- Movement strategy
- Health and happiness

This assessment tool enables us to capture the degree to which our projects embed the principles of sustainable design. For further information, refer to the supporting Sustainability and Energy Statements which align with these proposals.

EFFICIENT USE OF RESOURCES
TREADING LIGHTLY, USING RESOURCES WISELY

- During construction opportunities to utilise as much of the construction, demolition, and excavation material on site as possible will be sought and waste that does leave the site will be diverted from landfill as far as is feasible.
- All materials will be procured in line with a Sustainable Procurement Plan. Procurement of materials with environmental product declarations will also be considered and implemented where feasible to do so.
- During construction contractors will monitor and report on energy use, water use, waste generation and truck movements.
- Appropriate internal space for general, recyclable, and food waste storage will be utilised during operation.
- Land within the flood zone along the Lidsey Rife Valley has been designed as a linear park.

BLUE INFRASTRUCTURE
REDUCING WATER CONSUMPTION

- Greenfield runoff rates will be achieved through varied sustainable water management options including swales, rain gardens, tree pits etc.
- Key natural water features will be protected and celebrated in the urban design and landscaping strategy.
- Buildings and public realm will be designed to minimise the consumption of potable water.

ENERGY STRATEGY
REDUCING ENERGY CONSUMPTION & CARBON EMISSIONS

- Embodied carbon will be assessed in accordance with RICS methodology and a report on the embodied carbon of materials used in construction will be completed.
- Street and spaces will be designed to maximise the opportunity for solar gain, orientating houses southwards where possible, while retaining the design intent of the streets/spaces upon which they face.
- Buildings will be facilitated to reduce energy demand as far as possible. This could be achieved by deploying building fabric with high thermal performance, commensurate proportions of glazing and the use of exploring the use of MVHR to mitigate the risk of overheating and poor air quality.
- A sustainability champion role will be established during operation to regularly review opportunities for improvement.
- An energy strategy will be developed using the energy hierarchy, prioritising reducing demand, before supplying energy efficiently and innovatively, and finally deploying renewable technologies. The servicing will focus on providing efficient systems which look to minimise demand on the grid, consequently minimising both CO2 emissions and the cost of operation to the residents and tenants.
- Buildings will deploy a servicing strategy that enables a transition away from fossil fuels.

8.1 Sustainability Strategies

GREEN INFRASTRUCTURE

MAXIMISING OPPORTUNITIES FOR NATURE & BIODIVERSITY

- The new development will include a species-rich network of well-maintained and enhanced green spaces which respond to its local natural context, including the enhancement of existing green corridors.
- The development will exceed the emerging requirement to deliver a 10% biodiversity net gain. Measures will be undertaken to safeguard and deliver net gains where practicable for protected and notable species.
- BEW Parcel SC1 will encourage a diverse range of habitats through the diversification of grassland, enhancement of the Lidsey Rife and use of bird and bat boxes incorporated into buildings across the development.
- Native and marginal species will be utilised to provide resilience to future climate change.
- Green corridors will provide a network of integrated spaces and features with simultaneous ecological and sustainable benefits. A variety of landscape characters will provide multi-purpose, biodiverse spaces for all ages and demographics.
- A new linear park will follow the Lidsey Rife and provide recreational space and leisure routes including a ‘wellbeing trail’. The linear park will provide an opportunity to deliver strategic open space for the new development as well as Barnham, Eastergate and Westergate. The linear park will link into the green corridor network on the site, whilst providing key open space to the north and south of the site.
- There will be a strategy to ensure long-term stewardship of the landscape and public realm.
- Incidental green and open spaces within each parcel will encourage healthy lifestyles and engagement with nature.
- The green infrastructure strategy will be designed to encourage walking and cycling to nearby amenities with local shopping, business, schools, play space and Extra Care provision / care home all within close reach of homes.

HEALTH & HAPPINESS

ENHANCING QUALITY OF LIFE

- The new development will include a variety of house types at different price points to suit the needs of the community and cater to residents over their lifespan. Homes will be flexible and adaptable to meet changing demands as people age and families grow.
- The Lidsey Rife Linear Park will protect and enhance the historic setting of St George’s Church and Eastergate Church Lane Conservation Area.
- The provision and mix of facilities to be provided at BEW Parcel SC1, including educational facilities, and community infrastructure, will respond to the needs and priorities of the local community.
- A variety of intergenerational open spaces for people of all ages and demographics will provide active educational opportunities as well as an opportunity for play and relaxation. These will include play spaces, walking trails and orchards.
- There will be a strong community identity to the new settlement which is sensitive to existing settlements and communities.
- The flexible Neighbourhood Centre with varied offerings will promote community cohesion. Key amenities will be accessible to all and help provide a breadth of employment uses.
- The proposed cricket pitch and pavilion could host regular sporting and recreational events to bring the community together.
- Regular engagement sessions will be offered to inform and report feedback from the community and maintain multiple forums of community information e.g., App, website, information boards.
- A community mobiliser will be introduced from day 1 of occupation to provide support.
- Fibre-optic cables will be delivered to provide superfast broadband and extensive mobile connectivity to facilitate digital connectivity for businesses and flexible working for residents.
- Home and co-working could be facilitated, responding to the Covid-19 pandemic and beyond.
- Businesses, local amenities and homes will be located in the Neighbourhood Centre to promote inward investment and support local services. Local jobs will be created through the construction period and in the employment accommodation and wider community infrastructure.
- The 20ha multi-functional Lidsey Rife Linear Park will include a ‘wellbeing trail’ providing health, wellbeing, and ecological benefits.

MOVEMENT STRATEGY

CREATING WALKABLE & ACTIVE COMMUNITIES

- The majority of homes will be within 0.5km (typically between 5-15 minutes) of the Neighbourhood Centre.
- All homes will be within close walking distance of green space.
- All homes will be within walking distance of a bus stop. Pedestrian/cycle link to Barnham Station will be provided through the site.
- The development will target a shift to active modes and provide improvements to local cycle networks, both on and of site. Active modes of travel promote healthy people and a population who are walking and cycling within the development, rather than isolated within cars, are more likely to stop and talk to each other and take pride in their environment and community, fostering a cohesive society.
- Active travel and public transport will be encouraged. Homes will provide dedicated cycle storage space and appropriate EV charging infrastructure. E-bike, e-scooter, shuttle bus, and other micro-mobility solutions will be explored. Additional, convenient car parking at Barnham Station will aim to encourage public transport use for longer journeys.
- Off-street parking will be discrete and streetscapes will provide flexibility to adapt to a car-free future.
- The active travel network will be comprised of leisure routes along green corridors and infrastructure designed into all vehicular roads. Segregated cycle and pedestrian routes along the A29 will provide safe and direct north to south connections, along with a shared cycle and pedestrian routes along the East-West Link Road. A pedestrian/cycle link to the station will be provided from the earliest phase to ensure wider connectivity.
- The maximum speed on the realigned A29 will be 30mph road and all other roads including the East-West Link Road and secondary/tertiary roads will be 20mph, or below, to ensure safer streets.
- The proposed pedestrian and cycling network will connect into and enhance the surrounding existing network, encouraging active travel.

8. Evaluation

8.2 Healthy Placemaking

Public Health is an increasingly important matter on the agendas of local, national and international policy makers. This emerges in parallel with an increasing realisation that the way neighbourhoods of all sizes are planned and connected has a major part to play in alleviating a wide range of 'avoidable' health problems.

Built form, open space, movement and parking strategies all need to be balanced to create sustainable, liveable, healthy environments. Research shows that well-designed places that encourage regular exercise in daily life reduce our susceptibility to a wide range of diseases, including heart problems, type 2 diabetes and cancers, whilst good air quality limits asthma and other respiratory illnesses. Better health improves life quality and reduces time lost at work, thereby raising the productivity of businesses and the prosperity of employees. Reduced traffic congestion saves time and avoids boredom, tiredness, frustration and 'road rage'. Good placemaking produces convenient and harmonious environments that overcome many of these negative impacts and create healthier, wealthier societies. The health problems and the active ways to address, which have been shown in the table, have been identified through research into multiple publications; primary sources which include:

- Halpern, D. (1995) 'Mental Health and The Built Environment'. London, Routledge.
- Jones, R. & Yates, G. (2013) 'The Built Environment and Health: an evidence review'. Glasgow, Glasgow Centre for Population Health.



Healthy Placemaking Diagram

8. Evaluation

8.2 Healthy Placemaking

		Main Health Problems	Cardio-vascular disease, Type 2 Diabetes, and obesity, referred to as 'avoidable illnesses'. Several forms of cancer	Respiratory diseases including asthma	Mental illnesses	Transport related accidents	
		Causes	Sedentary lifestyles and lack of exercise	Poor diet and food poverty	Poor air quality	Loneliness, isolation, limited social interaction and fear of crime	Impacts of vehicles and interaction with cycles and pedestrians
	To what extent do the design proposals meet Healthy Placemaking principles?	Addressing the Causes	Enable exercise in daily life	Provide education, accessible facilities and available green spaces	Limit the causes and effect of vehicular emissions	Community facilities and safe, sociable, productive environments	Good urban and transport design
Urban Planning		Active travel is limited when dispersed uses lead to car-dependency					
Compact mixed use urban structures allow shorter travel distances and easier mobility	BEW Parcel SC1 is a mixed use development providing residential, retail and community uses to reduce travel distances and support active travel for future residents.						
This leads to reduced congestion, better air quality and healthier lifestyles	The number of cars will increase with new occupants, but the masterplan will encourage walking/cycling, supported by new mixed uses located along key green active travel routes. The realigned A29 with generous landscaping will take traffic through the centre of the development and reduce existing congestion.						
Inclusive, vibrant neighbourhoods generate a sense of community and wellbeing	New housing will support local demand including Extra Care provision and will provide a mix of tenures to enable multigenerational neighbourhoods. Streets and green spaces provide an environment for social interaction, including promoting intergenerational activities through orchards and play spaces.						
Walkable Communities		Motor vehicles, whether in motion or parked, take up too much space in towns					
We walk or cycle when our daily needs are easy to reach, benefitting from the exercise and saving time	A highly visible network of pedestrian and cycle routes will allow short travel distances to daily needs at the heart of the community.						
A lively, attractive public realm is stimulating and promotes social interaction	A lively and attractive Neighbourhood Centre will include a primary school, local businesses, local amenities, and homes to encourage inward investment and activity throughout the day.						
Health-supporting amenities like fresh food, healthcare and leisure facilities should also be nearby	The Neighbourhood Centre will connect to the wider site using a series of green corridors and leisure loops.						
Neighbourhood Building Blocks		Poor living conditions and social isolation diminish the quality of our lives					
Well-designed, well-managed buildings and public spaces generate a sense of security and ownership in the local community	New high quality private & affordable housing. Homes fronting onto the network of open space, including the linear park and green corridors, provide natural surveillance, encourage social interaction, and ensure long-term stewardship of the landscape and public realm.						
The combination of mixed uses and dwellings creates a local focus and reference point for adjacent neighbourhoods	The Neighbourhood Centre will complement and support existing local facilities.						
Movement Networks		People in cars tend to think traffic is caused by other people					
Taking advantage of the many options for sustainable 'active travel', makes getting about safer and breathing cleaner air	The new realigned A29 will create a key connection, serving both the new community and the wider area of Barnham, Eastergate and Westergate. An extensive network of pedestrian and cycle routes will connect to wider links. The link to the station will be implemented early in the programme to provide excellent wider connectivity from the earliest phases. Visitor and cycle parking for homes and electric car charging points in the local centre will also support sustainable travel. Car parking at Barnham Station will encourage public transport use for longer journeys. The Lidsey Rife Linear Park will include a 'wellbeing trail' providing health, wellbeing, and ecological benefits and a loop of green leisure routes will create slower links through the site.						
Vehicle accidents under 20 mph are unlikely to cause fatalities. The '20's Plenty!' concept is desirable for mixed use streets	20 is typically the maximum speed along new residential roads. The realigned A29 will have a maximum speed of 30.						
Environmental Integration		Time spent in green space is good for our physical and mental health					
Parks, play facilities, gardens and allotments are places that improve the quality of our lives and help to build communities	BEW Parcel SC1 will provide an extensive network of approximately 40ha of multi-functional open space. Green corridors will be integrated with play facilities, a cricket pitch and leisure routes.						
Trees and shrubs contribute to comfortable microclimates and biodiversity; a natural protection from flooding and strong winds	BEW Parcel SC1 will include tree-lined streets, with existing trees and hedgerows to be retained where possible and new trees planted. The Lidsey Rife Linear Park will act as a natural protection from flooding, whilst the proximity of homes to the Rife encourages an active lifestyle, with pedestrian and cycle routes linking to the wider open space network.						
Community Empowerment		Communities become emotionally attached to their neighbourhood's design, enhancing their quality of life					
Our imagination is captured when we work with our neighbours to improve the places where we live							
This sense of collaboration is a potent force that strengthens social networks, raises aspirations and leads to positive change	New homes and facilities will support the growth of the local community. There are opportunities to create social and multigenerational networks.						
Scoring:	Potentially improved Significantly improved						