

The page is decorated with various botanical illustrations. In the top-left corner, there are clusters of yellow and orange leaves, some with small red berries. The top-right corner features a large teal leaf, a smaller orange leaf, and a branch with green leaves and red berries. The bottom-left corner has a teal leaf and a branch with green leaves. The bottom-right corner shows a yellow leaf, a teal leaf, and a branch with green leaves and red berries. The background is white with light teal wavy shapes at the top and bottom.

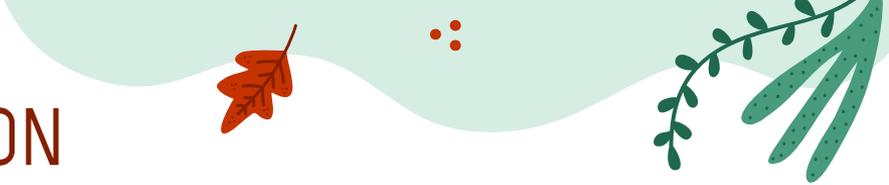
# HIRAETH

Jemma Sargeant & Katherine Chapman  
Thomas Gainsborough Sixth Form  
17 - Year 13

# LOCATION



<https://www.google.com/maps/@52.0398303,0.7449513,3a,90y,356.44h,72.39t/data=!3m6!1e1!3m4!1sXMxCeSNS3EpVRfA6-Ay d5w!2e0!7i13312!8i6656>



# LOCATION

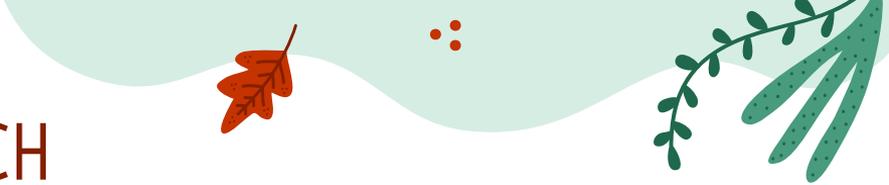
This brownfield site is located in Sudbury, Suffolk adjacent to Newton Road. This road is a busy road and is just past a roundabout that leads to the town centre, Great Cornard, Melford, Foxearth, Newton, Lavenham and other areas. Two of the junctions off of this roundabout provide a fairly direct route to Bury St Edmunds and Ipswich. This location is just a short walking distance to the historic town centre and is conveniently located close to a restaurant, The Maldon Grey and a retail park with a variety of services such as: KFC, Carpetright, Halfords, Farmfoods, ToppsTiles and Poundland.

Delphi was a large manufacturing company for diesel engines that relocated presumably due to exogenous factors such as government policy aiming to ban the sale of new diesel and petrol cars by 2050, and cheaper labour costs elsewhere - primarily in low income countries. Delphi operated on a 22 acre site with 348,000 sq ft of industrial accomodation in which we plan to repurpose and redesign to develop a sustainable shopping centre.

<https://www.coxsboxes.com/>

[https://assets.savills.com/properties/GB0404SI3069/45022e444aa7da7b63d8bc7437c6a9fb\\_Sudbury\\_Delphi\\_Site.pdf](https://assets.savills.com/properties/GB0404SI3069/45022e444aa7da7b63d8bc7437c6a9fb_Sudbury_Delphi_Site.pdf)





# RESEARCH

98% of people living in the area in which the site is located are all White, British.

78.2% of people living in this area are of a Christian religion.

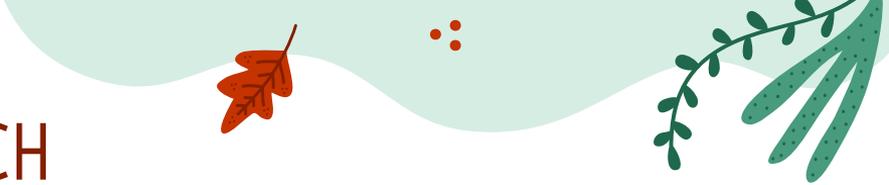
15.2% of people in this area are of no religion.

This shows that the area is in need of some cultural development in order to encourage diversity and attract new services and a new demographic to Sudbury. This will produce revenue to further rebrand Sudbury whilst supporting its history in the textile industry and through Thomas Gainsborough.

We aim to achieve these different cultures through small design features in our proposal such as using bamboo: which is a symbol of strength, flexibility, and health. Its strength teaches us to stand upright and its flexibility teaches us to adapt to the harshest circumstances. The combination of these virtues teaches us how to find balance and inner peace in our lives, in turn improving our health. This will be used to help consumers relax in a busy environment as well as representing a small part of Japanese culture.



<https://cozyearth.com/blogs/news/the-symbolism-of-bamboo#:~:text=In%20summary%2C%20bamboo%20is%20a,in%20turn%20improving%20our%20health.>  
<https://datashine.org.uk/#table=QS803EW&col=QS803EW0003&ramp=YlOrRd&layers=BTTT&zoom=12&lon=-0.1500&lat=51.5200>



# RESEARCH

In most areas of Sudbury, ~ between 5-20% of people walk to work.  
0-2% get on a bus to get to work.  
Between 0-5% use a bicycle to travel to work.  
~ 30-50% of people drive to work.  
0-8% of people work from home.

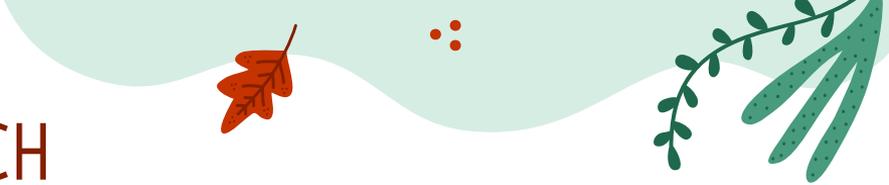
In order to make our shopping centre eco friendly we aim to reduce the numbers of visitors travelling in a vehicle that produces greenhouse gases (petrol and diesel engines). We have several measures in which we would implement in order to reduce our carbon footprint:

Restricted number of parking spaces. We plan to use the existing car park and install five charging stations for electric cars which will then encourage more people to purchase an electric car. More stations can be installed if demands increase. We will not, however, charge people for their parking as it may put them off from visiting the centre.

There will be a bus stop right outside the shopping centre and a large turning circle to allow flows of traffic without congestion. This will encourage more people to use public transport which is a better alternative than driving a car as its carbon footprint is much smaller.

Bike racks and shelters will be installed to encourage the use of bicycles which do not produce any greenhouse gases. These shelters will be built using reclaimed materials.





# RESEARCH

“Unfortunately his knowledge did not include the fact that it fed on the leaves of the white mulberry, not the black variety which his government was supplying for planting, and the attempt proved abortive.

Today, five silk firms carry on this proud and long history of textile manufacture in Sudbury and we can proudly claim to be the silk capital of England with an estimated 110 metric tons of China silk coming annually into the town. Four are involved in the actual production process.” ( <https://virtualmuseum.sudburysuffolk.co.uk/recent-research/sudbury-and-silk/> )

History:

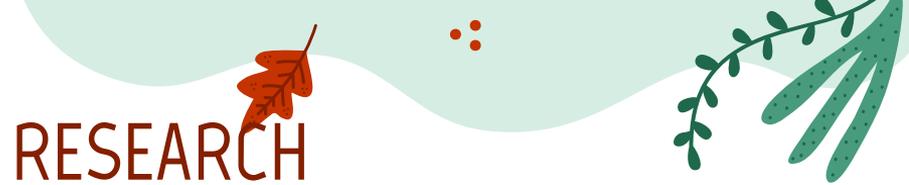
<https://stephenwalters.co.uk/history/>

<https://vanners.com/history.html>

<https://gainsborough.co.uk/recreate/> <https://gainsborough.co.uk/wallpaper/>

<https://gainsborough.co.uk/>





# CASE STUDIES/ RESEARCH

<https://www.theguardian.com/cities/2017/apr/03/small-green-and-open-air-bangkoks-new-breed-of-community-shopping-malls>

<https://www.camdenmarket.com/join-camden#market-stall>

<https://www.bioregional.com/projects-and-services/case-studies/bedzed-the-uks-first-large-scale-eco-village>

[https://storage.googleapis.com/www.bioregional.com/downloads/The-BedZED-Story\\_Bioregional\\_2017.pdf](https://storage.googleapis.com/www.bioregional.com/downloads/The-BedZED-Story_Bioregional_2017.pdf)





# PROPOSAL

## 1

Our intention for this site is to create a sustainable shopping centre that embraces the town's history in its design. We want to build from the ground up which would mean knocking down the existing building. Many of the raw materials used to manufacture this site will be reused in the construction of the new shopping centre. The build will incorporate the community centre and Gainsborough Silk Weaving in order to bring both the community and the history of the town together.

## 2

The shops that we intend to have in the centre will be primarily local independent stores: Duck in Boots, Cox's Boxes, Gainsborough Silk Weaving as well as food and produce stores which will be situated in the market area on the ground floor. We plan to have a small pharmacy in the centre to take pressure off of businesses such as Boots, especially during times such as Covid-19. This pharmacy will sell other products such as sanitary products, shower products, cosmetic products and cleaning products. This will help to boost the revenue of the shopping centre.

## 3

Initially we plan to refurbish the community centre and rent this out in the summer months in order to gain some revenue to pay for planning and the launch of the project. Ideally this would be used for weddings and events which can be carried on in the future. The existing interior will be updated through upcycling existing products and through purchasing items from charity shops which is one of our ways of paying forward to the community.





# PROPOSAL

## 4

We plan for the centre to be self sustainable by producing our own renewable energy by installing 30 solar panels onto the roof of the building whilst using this as a design feature. There will also be one small panel on each of the sheds in the allotment. We also intend to design and create two water features at the front of the building that will provide us with hydroelectric power as an alternative energy source on overcast days and in the winter months.

## 5

We would like to support the local community in this centre, not only through the community centre but through the creative residents of Sudbury. The ground floor of the shopping centre will have a corner stage that can be used for musical performances and is welcome to buskers that want to express their passion for music. The entire ground floor will be intertwined by screens and stud walls whilst feeling open plan. These spaces would be open for any artwork from the community to be displayed free of charge and an opportunity for schools to exhibit their student's work.

## 6

The Gainsborough Silk factory will remain a detached building but customers will have access through the shopping centre to their showroom and can sign up to workshops via the welcome hut. These workshops are designed to give an experience to the community to get them interested and therefore give them a chance to get involved in keeping the textile industry prosperous in Sudbury. We would like to keep the archaic textile machinery whilst remodelling and refurbishing the building to make it more aesthetically pleasing.





# PROPOSAL

## 7

We would like to take full advantage of the stunning agricultural landscape that Sudbury as a market town brings to us. To do this we plan to have access routes to the roof which will have safe outdoor seating areas that seamlessly blend into the surrounding environment. These seating areas will be designed using a combination of planting and seating areas.

We plan to create pergola esc seating in the corners of the roof with climbing plants to allow for seating while still creating a comfortable, natural feel.

We also aim to place strong sky lights on the roof to draw lots of natural light into the building below.



## 8

In order for the building to achieve the aesthetic that we want, we would need to soften the edges of the building by allowing the environment to naturally claim the landscape. This will be achieved through the materials that we have outlined in the materials list and through planters and fast growing plants.

We also intend to achieve this via an allotment that will be available for public use with private access. This will be situated at the back of the property and hidden by a row of shallow hedges. This makes it less vulnerable to vandalism.

## 9

The garden area of the shopping centre will be located to the rear of the property which will provide a more secluded environment away from the sound and smells of the traffic on the roundabout and Newton Road. The garden will be inspired by Sudbury's history and its meadows. We will plant 20 white mulberry trees that will be dispersed through the garden. There will be a gravel path that keeps visitors from disturbing the wildlife. The sections in between the meandering pathway will be filled by grass and plants that are commonly seen on Frias Meadows.





# PROPOSAL

## 10

The garden area will also have other features that are designed to attract a wider variety of wildlife to increase the sites biodiversity. This will be achieved by installing ten bee hives in which honey will be collected and sold in the market environment. Eating locally produced honey can help with allergies such as hay fever. A wetland area with a rockery and ferns will also be implemented next to a small pond that is shallow to mitigate any risk to life of our visitors.

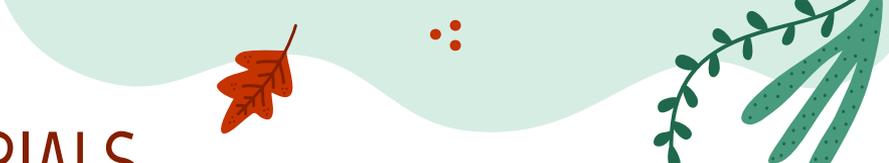
## 11

To incorporate the idea of having different cultures in this centre, we will provide a secluded seating area / pavillion for visitors to sit and enjoy the company of nature. This will be surrounded, and the path to this area will be guided by the use of bamboo which helps people to relax and experience a sense of calm and relaxation away from the hustle and bustle of our daily lives.

## 12

Based on the data that we have collected, we will be using the existing car park as the main car park for visitors which will be adapted to meet the current needs of the population with bicycle shelters, charging stations for electric cars, a bus stop and a turning circle for a bus to easily maneuver as well as reducing congestion from other road users. These methods will be introduced with the intention to reduce greenhouse gas emissions and promote investment in carbon neutral modes of transport.





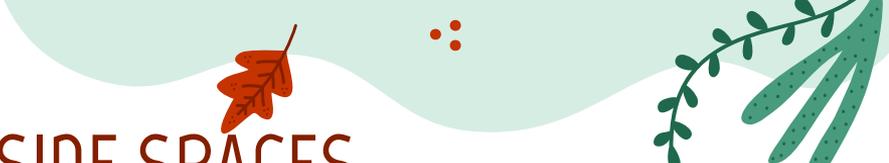
# KEY MATERIALS

Larch cladding on the outside of the building. Larch is fast growing and easily worked which makes it suitable for its purpose. In order to prevent the cost of finishes to be applied to the wood, it will be charred on the outside which will provide a natural barrier from the environment and will help it to blend into the existing environment.

Any plumbing for this centre will be done in copper, not plastic. This will prolong the life of the plumbing and will require little maintenance. This will also reduce the amount of plastic waste that is being produced across the world.

The indoor





# DESIGN IDEAS: INSIDE SPACES

Silk/ woven wall as you enter: reminder of the towns industrial past.

In the garden areas: Tire planters/ outdoor seating as a nod to the old purpose of the site.

Bottom level: a small stage for potential talks or buskers in a back corner. A cafe and seating for socialising and taking a shopping break. Market stalls similar to those found on market day in the town, a classical greengrocers or inside markets such as Borough and Camden markets in London.

Photos in the cafe: shows how the town and surrounding areas have changed over time.

1st floor: open space in the middle looking down below with a railing and path. Full time rooms for local/ independent shops to rent out/ buy > a permanent fixture which provides a more normal shopping environment.





# DESIGN IDEAS: OUTSIDE SPACES

We originally intended to gain inspiration from places such as those on Grand Designs to create a green space on the roof of the shopping centre. At first we intended this to just be a green eco roof which would need limited taming but would be an easy way to reduce carbon emissions in the area however, we then decided that we would use this space as a communal area. This would still include many plants but would also have pergola seating areas and two large skylights in the middle of the space in order to provide lots of natural light in the area below.

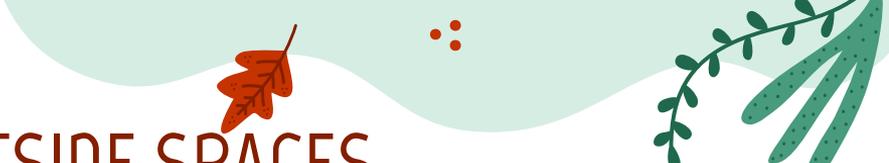
In our green spaces we want to use fast growing yet high carbon intaking plants and foliage such as bamboo and mosses.

We intend on having a large pond outside with water lilies in and another water feature outside the centre.

We also intend to transform the grass area that is currently just open space into two new green spaces: a large 'garden' and allotments (see following slide). These gardens will have an Edwardian-like layout in order to allow us to create lots of different, interesting spaces to accommodate everyone in the community and local wildlife.

One specific piece of planting we are passionate about is including mulberry trees/ bushes. In our research of the local silk industry we learnt that in the 17th century, in trying to encourage the UK silk industry King James I encouraged planting Mulberry trees as silkworms fed on the leaves. As however, this is only the case for white and not black trees as the King suggested we want to incorporate white Mulberry trees in our designs.





# DESIGN IDEAS: OUTSIDE SPACES

## *Planting research.*

<https://www.nationaltrust.org.uk/features/20th-century-gardens-edwardian-gardens-to-present-day>

<https://www.gardeningknowhow.com/ornamental/trees/fruitless-mulberry/caring-for-white-mulberry-trees.htm>

<https://www.rhs.org.uk/advice/profile?pid=642>

[https://www.rhs.org.uk/Plants/99897/nymphaea-paul-hariot-\(h\)/Details](https://www.rhs.org.uk/Plants/99897/nymphaea-paul-hariot-(h)/Details)

[https://www.rhs.org.uk/Plants/97341/nymphaea-escarboucle-\(h\)/Details](https://www.rhs.org.uk/Plants/97341/nymphaea-escarboucle-(h)/Details)

<https://www.rhs.org.uk/advice/profile?pid=79>

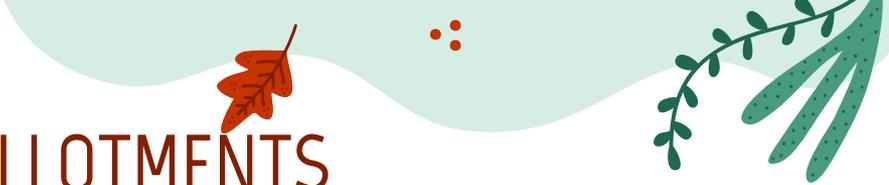
<https://www.rhs.org.uk/plants/details%3Fplantid=1450>

<https://www.rhs.org.uk/plants/details%3Fplantid=1823>

<https://www.rhs.org.uk/plants/details%3Fplantid=1453>

<https://www.rhs.org.uk/advice/profile?pid=848>





# DESIGN IDEAS: ALLOTMENTS

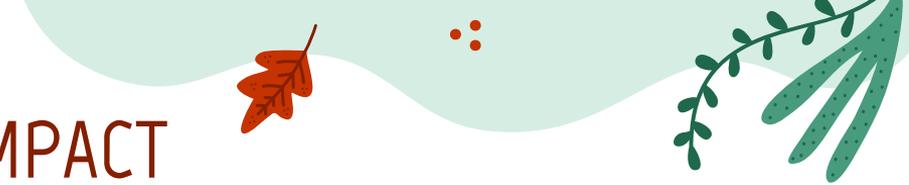
We aim to create a set of allotments towards the back of the currently open grass area for contributing businesses, us and members of the local community to use.

We decided to place this at the back of the space as it is still close to the shopping area but has an element of privacy for local users and means that members of the public will be less able to enter this space if not an owner. There will be a passage between the allotments and the gardens area made of bamboo as a more natural alternative to fencing but as a distinct source of separation while continuing the planted theme.

There will be a large greenhouse at the end of the allotment space for everyone to have use of and each allotment owner will also have the use of two raised beds for their own use. They will also have some small, shared shed space as small sheds will be placed in between two plots. These sheds will also each have a solar panel on them in order to generate green energy which will power lights inside these sheds.

<https://www.sudburytowncouncil.co.uk/allotments>





# SOCIAL IMPACT

We hope that these spaces will act as a social place for members of the local community to enjoy and come together (when social distancing allows).

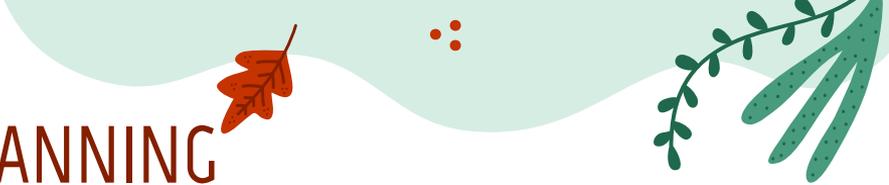
For the large elderly community we hope that this space will be a close place for them to enjoy and get some shopping without having to make their way all the way to town from the Great Cornard area while maintaining relationships with others in a friendly, helpful environment.

In our garden we hope that families of all kinds will be able to enjoy these spaces together and want to include native plants from Poland and Turkey as there are growing communities from these countries locally as well.

By having these eco friendly spaces we hope that more people will realise how easy it is to make some green swaps to become more environmentally friendly and that they will create a more tight-knit community feel for people. This will be helped by keeping the community centre to run event in as it may become a new community hub while maintaining some continuity for local residents.

Finally, this new design will also benefit local producers and shop owners as it may help these independants to form a community to help and support one another as they grow and work to establish themselves.

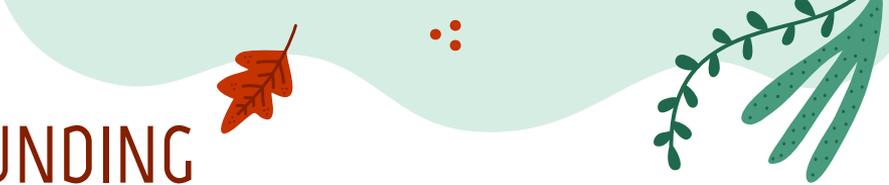




# STAGE I - PLANNING

Planning permission from the local council needs to be granted before any work can begin, we will layout our proposal with the intended floor plan. At this point we will have a structural engineer onboard along with an architect to draw our plans and guide us on what is achievable and what isn't.





## STAGE 2 - FUNDING

The initial stages of funding will be through collaboration with large businesses with a similar view on sustainability.

100% of the profits made from this centre will go straight back into the community to help to regenerate areas and develop sustainably in the future.

By refurbishing the community centre ourselves before main construction takes place it will allow us to establish ourselves and our plans which may bring in more local support and funding from residents. By doing this ourselves this will limit any massive costs and by running and renting out event space in this building we can generate our own income to put towards creating this project.





## STAGE 3 - SOURCING MATERIALS

The materials that we intend to use will reflect the local geology of London brick in some of our architectural features.

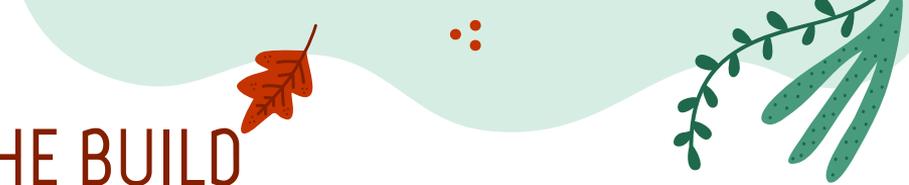
Local trades will be used rather than a multinational company to help the people of the community out by providing a significant source of jobs and income.

This will also promote collaboration between small trade gangers in order to make the building process as efficient as possible.

In a similar way to the “BedZED” eco village, we intend to source a lot of our materials from those used on the original site (which will also limit transit and therefore will reduce both carbon emissions and time waiting for materials to arrive) and potentially materials from other, similar sites such as railway sleepers.

Some materials such as the plants and foliage as well as things to reduce our carbon emissions and environmental impact over time such as double/ triple glazed glass and any solar panels will need to be sourced externally but we aim to research these external companies prior to purchasing to ensure their environmental aims line up with our own.





## STAGE 4 - THE BUILD

Once planning has been approved and we have achieved the funding that we need, footings will start to be dug out and drainage will be installed.

The foundations can then be poured using a non permeable material that has less of an impact on the environment than concrete. Soakaways will be filled with bricks and rocks that have been revealed during the disassembly of the existing building.

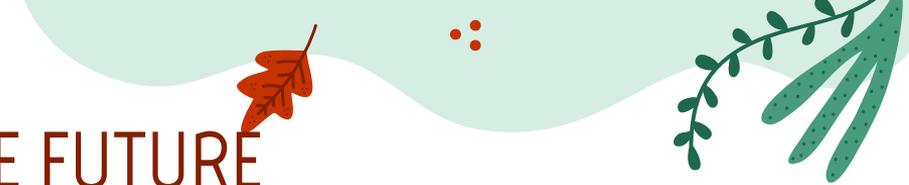
Local trades can begin to build the shopping centre, this will be out of steel to provide structural stability of the building and extend its life cycle to be able to withstand more extreme weather as climate change continues to evolve.

Electricians and plumbers will do their fixes to the building.

Decoration begins...

Once all heavy machinery has been finished with, renovation of the outdoor areas can start.





## STAGE 5 - THE FUTURE

We hope that this shopping centre can continue to thrive whilst small adaptations can be made to the building and outside spaces in order to meet the needs of the users at that time.

The revenue that the centre makes will go straight back into the community to encourage further sustainable development such as this.

We hope that the ideas behind this project will inspire other designers to use similar methods in the future in order to bring new investment into the town whilst preserving its history.

