

# SITE DESIGN CONTINUED

## Character Area Analysis

### 4.05 Character Area 1 summary

The Church, Carn Thomas and Buzza Hill area can be summarised by the presence of substantial houses and institutional buildings in their own grounds around the low ridge forming the eastern extent of Hugh Town. Trees, garden greenery, open spaces and prominent landforms contribute a strong 'natural' element.

### 4.06 Area regeneration opportunities : -

#### 1. **Maintain the strong natural boundary to the historic settlement area.**

- Any development should avoid interruption or masking of the natural landforms that provide a strong visual break between Hugh Town and the area to the east.
- New and replacement planting is to be considered to ensure long term continuity of 'green gateway' to Hugh Town.
- Avoid development that infills gardens

#### 2. **Create Public Realm Improvements.**

- Enhance the eastern gateway through additional planting and or the creation of a distinctive feature at the entrance of Porthmellon Industrial Estate (immediately outside the character area boundary).



**Key**

	Character Area boundary
	Scheduled Monument
	Listed Building
	Other Historic Building
	Historic Plot

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- Create a new public access vantage point on the summit of Jackson's Hill in any future development of the Secondary School site.
- 3. Prepare comprehensive development briefs for major sites.** (i.e SWEB & Secondary School sites)
- Ensure replacement proposals enhance the character of the area in respect of both scale and height.
  - Redevelopment to beneficially incorporate a strong landscaping and planting element to reinforce the green natural component in the character area.

## 4.07 Relationship with adjoining Character areas.

Due to Hugh Town's small scale and also the fact that the Carn Thomas site is located at the confluence of both character areas 2 (Church Street and the Parade) and 3 (Town Beach Thoroughfare and Strand) combined with the fact that its re-allocation under Policy LC6 H1 with an expectation to deliver up to 26 new dwellings will thus into only lead to a change in use but also to some degree character through increased coverage. Therefore to analyse the character and Architecture of the two aforementioned neighbouring areas, where residential density is greater would appear to be logical and entirely consistent with aims of the IoS Design Guide.

## 4.08 Character Area 2 Summary

The Church Street and the Parade area of Hugh Town was formed during the nineteenth century expansion from the historic core and comprises of 'polite' houses, terraces and institutional buildings of high quality in a formal townscape setting often with short defensible set backs.

In term of massing, most terraces and houses exist in two and two and half storey formats, that combined creates a horizontal character to the street scene. Generally constructed from and elevated with large format randomly coursed granite, but with examples also of painted render, mostly below simple dual pitched slate roofs that are punctuated by dormer windows and chimney stacks. Windows are nearly always portrait in format with dressed sub-cills.



*Terraced Housing with defensible front walls along Church Street looking east.*

## 4.09 Character Area 3 Summary



*Terraced Housing with small set backs along The Strand Street looking west.*

The Town Beach, Thoroughfare and Strand character area which forms the main gateway for people arriving from the north by sea is set against the town's historic working foreshore and consequently the buildings located here were originally associated with maritime activities.

Comprising predominately of long terraces of housing, constructed from large format random rubble granite with portrait regularly spaced openings under shallow dual pitched pantile clad roofs punctuated at ridge level by chimney stacks the lower and upper reaches of the Strand acts as a promenade. The houses here

# SITE DESIGN CONTINUED

## Character Area Analysis continued.

are modest two storey vernacular terraces albeit with significant panels of masonry over the first floor windows due the fact the roofs have no eaves overhangs and have instead planted fascia's. The continuous roofline and frontage of the Strand, with its short paved set back nevertheless forms a prominent feature with a strong horizontal proportion that consequently frames the harbour.

Back Lane immediately to the south of the Higher Strand is an informal lane with a 'mews' character. Thoroughfare behind the Lower Stand is also of a similar character but differs due to its mixed uses and also by virtue of having a greater sense of enclosure.



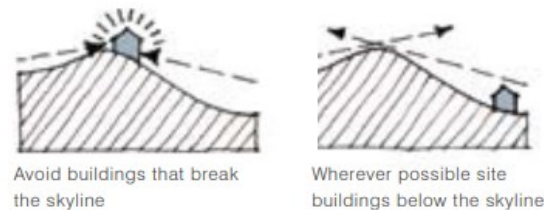
## Site Design

### 4.10 Site & Landscape Setting

In accordance with the Isles of Scilly Design Guide further consideration in terms of impact of any proposal on a site's setting or context

has been undertaken.

Indeed, as a direct result of the its topography and in particular the prominence of the high plateau to the south (as also confirmed by the findings of the Landscape and Visual Assess Impact Assessment prepared by Foxford Design), a conscious decision was made to avoid any built development on the upper part of the site.



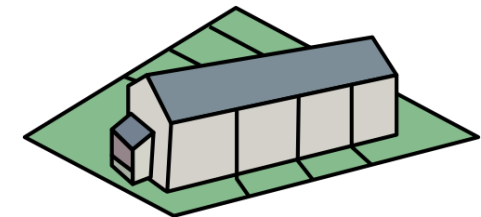
### 4.11 Weathering and shelter

Apart from the visual implications of siting structures above the skyline there are also very practical reasons, for instance, when storms hit the Isles of Scilly for locating buildings in sheltered locations on the lee of a hill or a tuck of the landscape (like Carn Thomas). Due in part also to the damaging effects of the weather (i.e wind blown sand) this led to the evolution a simple palette but yet robust use of materials (i.e. large format random rubble granite, painted render, fascia's and barge boards) that is atypical of the Isles of Scilly.

### 4.12 Integration with the settlement.

As previously stated the built fabric of the Carn Thomas and Buzza Hill area of Hugh Town is generally characterised by the existence of both residential and institutional buildings often located on large plots. However it is also recognised that the subsequent redesignation and adoption of the former Secondary School site for a major residential development under the IoS policy LC6 would inevitably lead due to the size of the allocation to a change in the urban grain of the area.

Nevertheless, before demolition the former school buildings due to their scale, massing and location on the site, (especially the old western block which was built right up to the back of footpath) had a very dominant, incongruous and overbearing presence on the south side of Telegraph Road.



To ensure therefore that any new proposals contributed positively to the new street scene, design cues were taken from the neighbouring character areas of Church Street and the Stand, both dominated by



blocks of terraced housing. To reflect however the edge of settlement location of Carn Thomas the proposed grouping of short terraces of accommodation fronting Telegraph Road giving rise to an overall horizontal proportion was thus deemed appropriate.

#### 4.13 Impact on adjacent properties

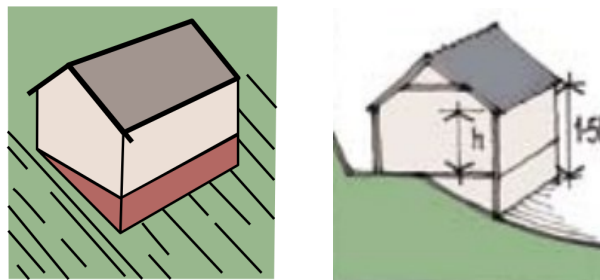
To ensure that any new proposals for the site did not adversely affect the amenity of the existing neighbouring buildings careful consideration in respect of maintaining privacy and loss of light was taken into account. As a baseline, the massing of the Former Secondary School buildings were modelled to determine the degree of overshadowing that once existed not only at key times during the day but also for each winter and summer equinox and solstice.

As a direct result of this exercise it was decided to move the western most block of the proposals further eastwards along the Telegraph Road frontage and the proposed east block further forwards when compared to that of the Former School buildings. Another later modification to the layout to avoid loss of amenity to neighbouring properties along the eastern boundary of the site was to increase the acuteness of the angle between the two proposed terraces of accommodation, with the added benefit of improving sea views towards and over Porth Mellon Beach. (please refer to Sun path and shadow study on page 24 & 25)

#### 4.14 The site – choosing where to build.

To avoid incurring significant costs and also to take advantage of the level platforms created by the demolition of the former Secondary School buildings, the decision to position the majority of new residential development along Telegraph Road, where the site is flattest and access easiest seemed logical especially as this would also contribute towards the creation of a coherent and positive street frontage. However in order to get close to the proposed H1 allocation of 26 new dwellings, a second terrace of accommodation built into the topography of the site was conceived, although as previously indicated carefully positioned to avoid 'sky line' development.

#### 4.15 Development of Sloping Sites



Due to the scarcity of suitable development land, the Isles of Scilly Design Guide provides very specific advice when building on sloping

hillsides. To avoid excessive excavation that can lead to permanent scarring of the landscape by the creation of level platforms that appear unrelated to the surrounding landform the IoS Design Guide recommends building along the contours of a site and minimising any under build so that the overall height of an elevation is no greater than one and half storeys of the accommodation proposed.

To accord with this advice particularly in relation to upper southern terrace of proposed development comprising of semi detached and detached family homes, these have been purposely designed as reverse level full split dwellings. This configuration not only avoids under-build but also enables the main living spaces to benefit from a south facing garden,

Please refer to the proposed site sections through the development as shown on page 32.

#### 4.16 Development Orientation

To make the most of the sites' south east to north west orientation the layout of proposed scheme has deliberately been arranged into two terraces of development all to be constructed with 35 degree minimum pitched rear roof slopes also orientated within 30 degrees of due south thus



## SITE LAYOUT - EVOLUTION



*Initial proving layout, prepared for Campbell Raith report*

Showing a layout based on 21 new dwellings comprising of a mix of terraced houses and a block of flats (with shared entrances) predominantly located along the flat northern site boundary presenting a positive street frontage to Telegraph Road together with larger 3 or 4 bedroom family dwellings arranged remotely on the elevated southern plateau some distance from the vehicular site access. This layout also indicates 21 car parking spaces (a 100% provision) which later was recommended to be reduced to 33.3% .



*LDA development capacity housing study*

Commissioned as a due diligence exercise to confirm the housing capacity of land allocation H1, the LDA layout showing 24 new dwellings is predominantly based on the arrangement of 21 flats all with shared communal entrances with no defensible set backs but nevertheless fronting Telegraph Road. This layout also relies on the provision of three remote family dwellings located on the exposed upper southern plateau. In terms of car parking for residents this is shown at the centre of the site in a parking court albeit with a much reduced 33.3% provision.



*DMA initial site layout proposals*

Having deduced that the southern elevated part of the site is effectively sterilised from development due to a combination of topography, ease of emergency access, inter-visibility from key distant vantage points and reasonable distance for residents to travel, a second upper terrace of accommodation comprising of full split reverse level family housing built into the slope of the site along with an additional terrace of maisonette housing built over the footplates of the lower ground floor flats along Telegraph Road was conceived. To achieve also LiveWest's requirement that all new dwellings should have separate entrances (to reduce management company overheads) an intermediate transfer deck or inner mews street providing access to all levels from a central flight of communal steps was devised.



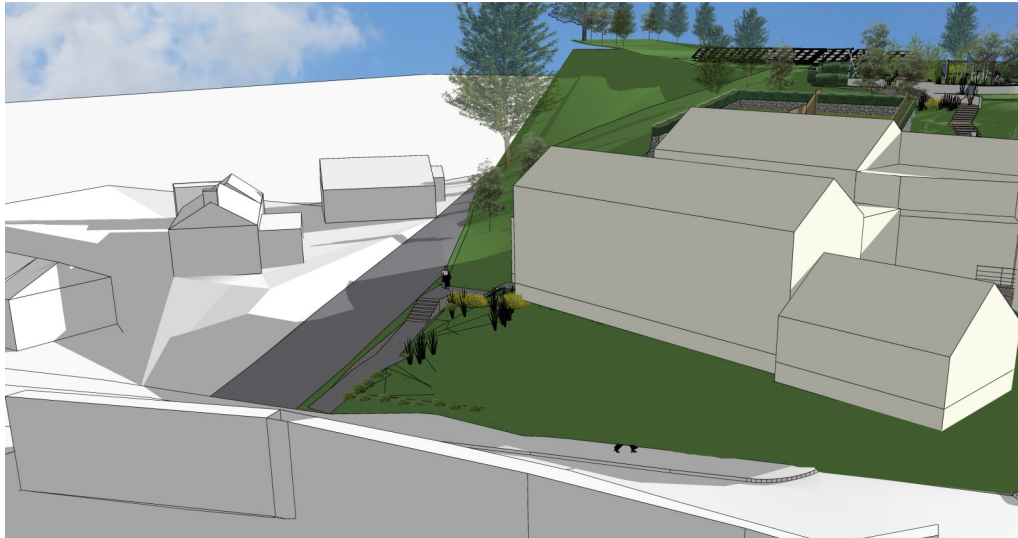
*DMA Final site layout proposals*

The final iteration of the site layout has been shaped by the decision to reorientate the central parking court to enable communal refuse and cycle stores to be also accommodated at the centre of the site together with the design of a more efficient flight of steps thus connecting all three housing levels including the proposed external communal open space located on the upper reaches of the southern plateau. To respond more sensitively to the rise in levels along Telegraph Road from Port Mellon beach it was also decided to step the massing of the eastern block, by book ending the 2.5 storey component with two, two storey block of one bedroom flats, again each with its own dedicated entrance porch and lobby.



# Site sun path and shadow studies

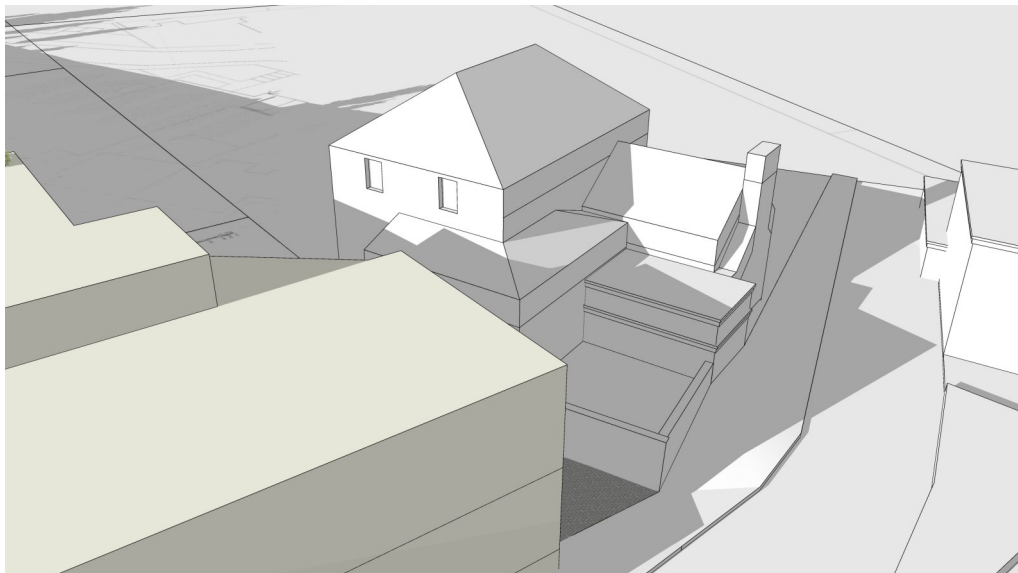
Comparison impact study - between former Secondary School and scheme proposals



Shadow cast by Former Secondary School along eastern boundary of site



Shadow cast by Scheme proposals along eastern boundary of site



Shadow cast by Former Secondary School along western boundary of site

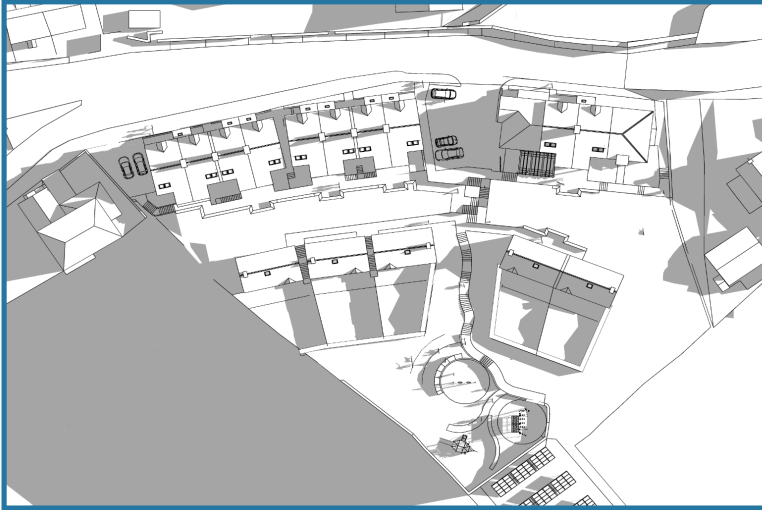


Shadow cast by Scheme proposals along western boundary of site

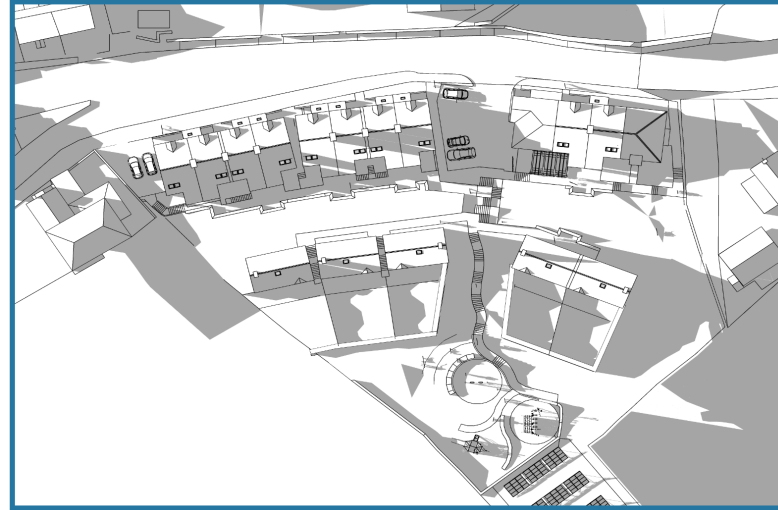


## Solar panel shadow path study

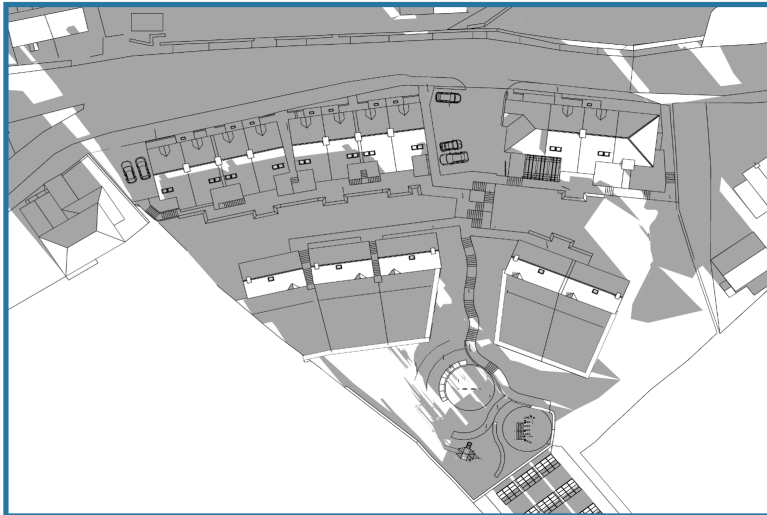
Summer : Morning



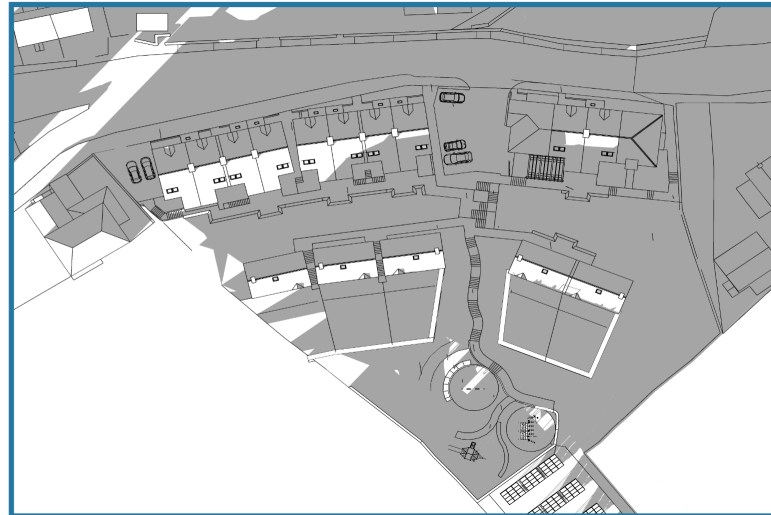
Summer : Evening



Winter : Morning

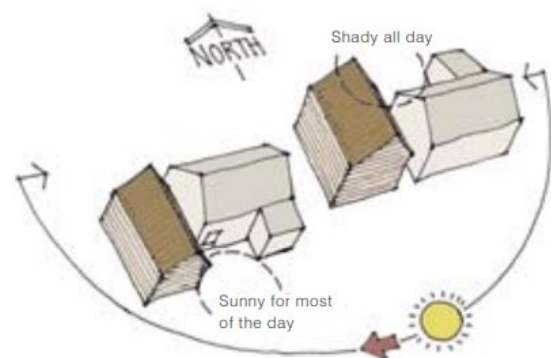


Winter : Evening



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maximising the opportunity to allow for the installation of solar panel arrays.



Although due to the steepness of the sites' topography the proposed upper terrace of development will overshadow that fronting Telegraph Road (as illustrated by the sun path studies on page 27) the opportunity to also locate a 50Kw solar farm on the former tennis court is more than able to compensate.

Another advantage of the sites' orientation is the ability to reduce energy consumption by implementing the benefits of Passive Solar Design (PSD) whilst also affording shelter from the weather, particularly the prevailing south westerly winds by virtue of being located in the lee of a hill on the north facing coast of St Mary's. The principles of PSD, which rely on many factors such as having smaller windows on north facing elevations and placing living /

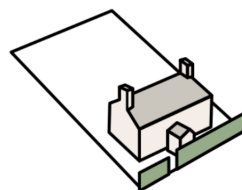
working spaces on southern facing parts of buildings with larger openings for passive solar gain, whilst weighing against heat losses in winter and overheating in summer, have been considered and subsequently exploited.

## 4.17 Linking with the Landscape

The natural landscape is acknowledged to be one of the greatest assets of the Isles of Scilly and the way it envelopes the built man-made environment is one of its key characteristics. The task of integrating any new buildings into the landscape is therefore acknowledged to be of paramount importance.

At Carn Thomas the intention to retain as many hedgerows, trees and stone walls as possible whilst avoiding car dominated street scenes and manicured areas of high maintenance soft landscaping was considered from the beginning of the design process.

## 4.18 New boundaries and entrances



To help integrate any new development into its surrounding landscape and street scene the use of new boundaries and entrances are regarded in the IoS Design Guide to be key components in delivering a successful scheme.

Influenced initially by the post demolition remains of the low level large format random rubble granite plinth of the former secondary school, it was decided early in the design process to create not only a defensible wall feature that grounded the scheme along the sites' road frontage but also to set back the main building line of the proposed development in order to reduce its impact on Telegraph Road. By doing so, in the space created, the opportunity to form lean-to storm entrance porches to all of the proposed dwellings accessed directly off the road frontage was established.

Further into the centre of the proposed development the use of planted margins and increased areas of indigenous soft landscaping, especially between the two proposed terraces of accommodation was considered to be a more appropriate and less 'urban' solution to reduce the visual bulk of the scheme up the slope of the site towards the build free zone of the southern 'green' plateau. This concept is further intended to be reinforced by the proposed use of stone faced hedge banks (also planted with natural species), that are commonly found especially in edge of settlement locations on the Isles of Scilly in order to define the rear gardens of the larger family homes to the south.

# BUILDING DESIGN

## Building Design

According to the IoS Design Guide character and sustainability are the two mainstays of an appropriate design response that can only be achieved by getting proportion, form and massing right thus enabling the detailed elements to fall easily into place.

### 4.20 Local distinctiveness and sustainability

To attain local distinctiveness the following historic characteristics of the Scilly's built fabric was considered:-

- Simplicity of form
- Use of robust durable materials
- Well proportioned & balanced facades
- Substance to what is built – creating a sense of weight and strength
- An absence of frills

In respect of sustainability to reflect the additional challenges of living on the Islands new buildings are expected :-

- To be cheaper to run
- To be healthier to live in,
- To reduce demands on natural resources
- To utilise environmentally friendly green technologies.

### 4.21 Scale and massing

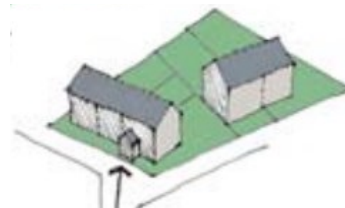
Scale and massing are considered important aspects of good design in creating developments that are appropriately proportioned.



*Repeat housing arranged in Terraces gives rise to a unified horizontal proportion*



*Terraces with less repetition and consisting of several house types are deemed suitable against landscaped backgrounds*



*Buildings on the Scilly Isles generally have a parallel alignment to adjacent streets or lanes*

Most (domestic) buildings on the Scillies are rectangular in plan and have low profiles giving rise especially when combined in terraces to an overall horizontal proportion.



*Proposed western terraced blocks along Telegraph Road*



*Proposed eastern terraced block along Telegraph Road*

From the two images shown above of the development proposals along Telegraph Road the aforementioned principles of scale and massing can clearly be seen to have been followed.

Although the western block has been designed to give the appearance of a two and a half storey terrace of town houses, it actually comprises of a low rise block of flats each with its own dedicated entrance in order to accord with Livewest' design brief to avoid communal



## Massing study - comparison of proposals with former Secondary School



Massing comparison at western end of site looking east



Massing comparison at centre of site looking west.



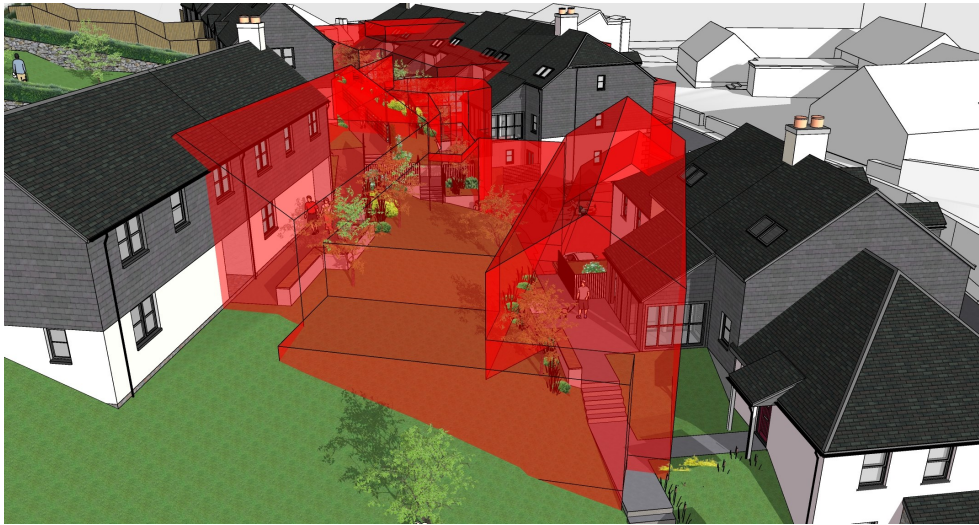
Massing comparison at centre of site looking east.



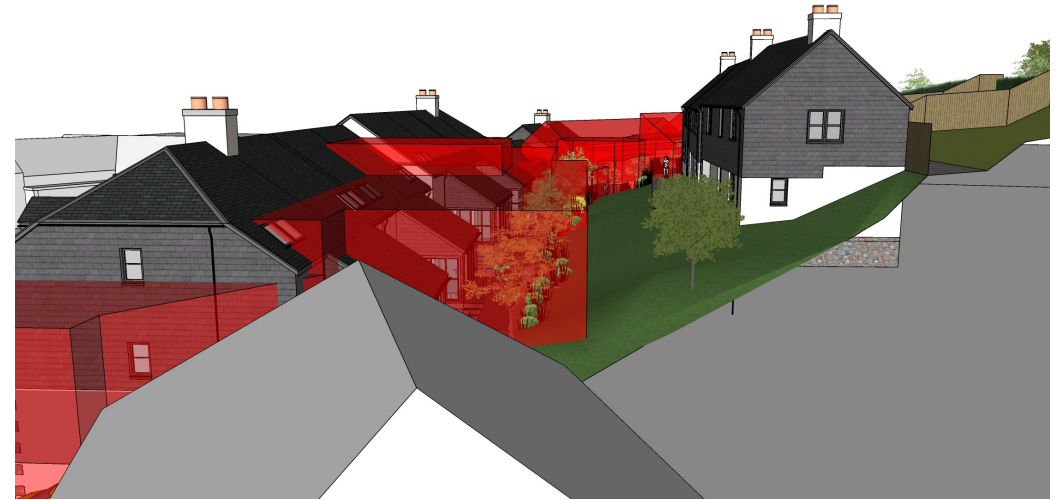
Birds eye view of site massing comparison.

 **Massing of demolished school building**

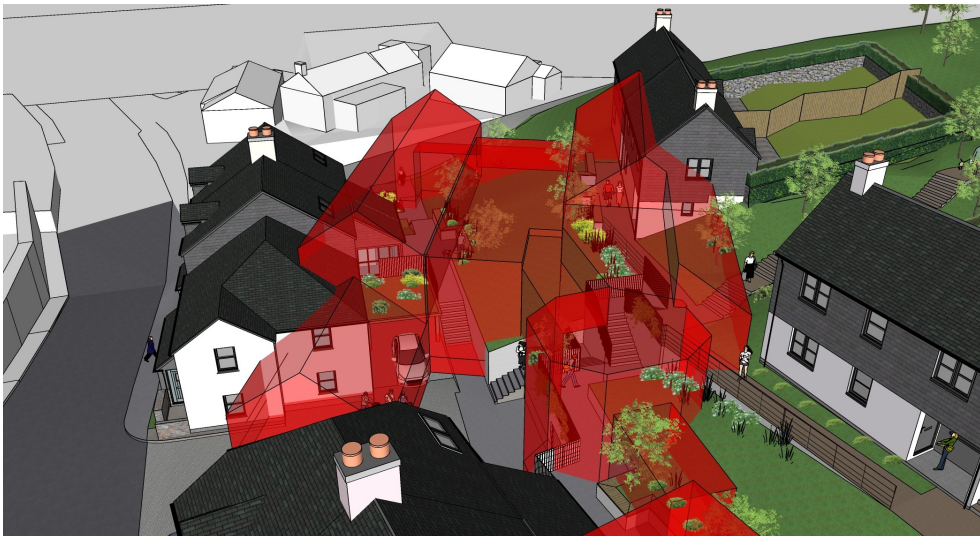




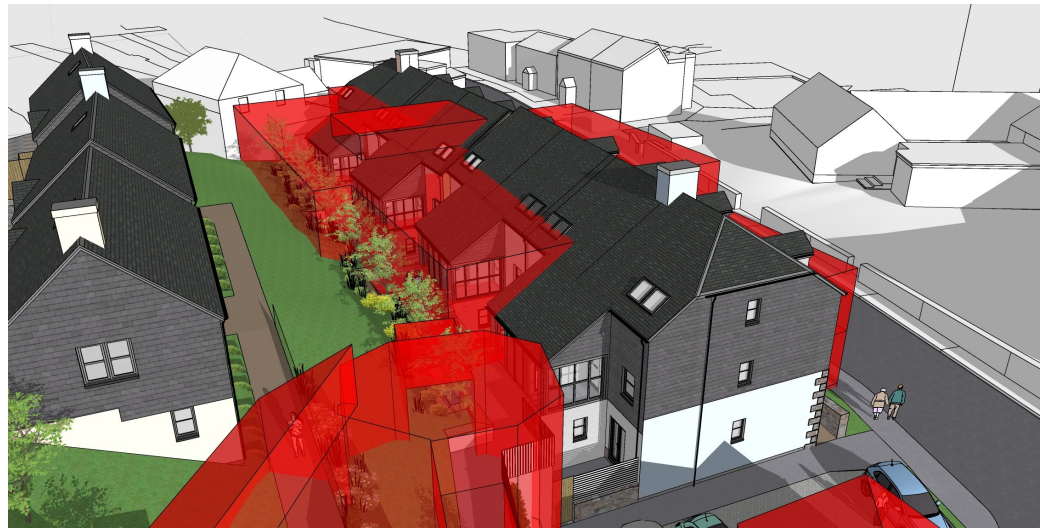
Birds eye view of massing comparison through the centre of the site from eastern boundary looking west



Birds eye view of massing comparison through the centre of the site from western boundary looking east



Birds eye view of massing comparison through the centre of the site looking East



Birds eye view of massing comparison through the centre of the site looking west