

Scout Dike Land off Huddersfield Road A629

Proposed dwelling

Architects Statement 28/3/14

Site History – Scout dike is a man-made area constructed around 1920, and owned by the water board. Much of the surrounding land was used as a dumping ground for water board excavation. The present building was constructed around 1935 by the American military and was used to house G.I. servicemen who were working in munitions. It was later used by the outward bound centre as storage for canoes. It has always been heavily serviced by vehicles.

There was also a caretakers dwelling about 60m to the south of the existing until the 1970's evidence of this still remains.

Existing site – The site is a brownfield site adjacent the A629 it contains a permanent single storey brick structure with a steel truss and purlin pitched roof covered in asbestos sheeting. (see site photographs and photograph key plan)

The site is suffering to some degree from fly tipping, this will be stopped if the proposal is permitted



It is our intention to replace this building with a small eco dwelling to be built to passivhaus standards. The building will sit on the same footprint as the existing and as such will be the same in floor area as the existing. We are hoping to utilise the existing concrete slab which seems to be in good order to support the new structure. Concrete is high in embodied energy, by using the existing slab we are not adding to the carbon footprint. The building will be single storey and very similar in form to the existing and thus not materially larger within its site.

We recognise the site is in green belt and we have demonstrated through design that there will be no conflict with UDP policy GS6/WR10. We apply for permission under para 80 and 89 of the National Planning Policy Framework. In addition we have sought to demonstrate that the proposal is sustainable and of very little environmental impact, we have done this through design development via the planning officers and the design review panel.

PARA 80

The question is - under para 80 would the proposal be classed as inappropriate development within the green belt under the five headings of this para

- 1 To check unrestricted sprawl of large built up areas
- 2 To prevent neighbouring towns merging into one another
- 3 To assist in safeguarding the countryside from encroachment
- 4 To preserve the setting and special character of historic towns
- 5 To assist in urban regeneration by encouraging the recycling of derelict and other urban land

Item 1 The building and site has an established use historically both for living and in connection with the outward bound centre and would in my opinion not contradict this part of para 80

Item 2 this is not relevant to this proposal

Item 3 Again the building and use have been established on the site. The proposal seeks only to replace the existing building, indeed the existing floor slab will be retained to restrict the building to the same size as the existing. The design then seeks to contain all elements of domesticity within the new shell. The existing access will be reused and a system used to insure that the natural vegetation continues to grow(vehicular mat as described in the ecologists report) there will be no footpaths or visible turning heads for vehicles within the site, the impact on openness will be no greater than the existing building.

Item 4 this would not apply to the application

Item 5 There would be limited impact

It is our opinion that the development would not be classed as inappropriate within the green belt. Thus the test will be para 89

PARA 89

Para 89 states that the construction of new buildings within the green belt is classed as inappropriate development, except for partial or complete development of previously developed sites (brownfield land) **whether redundant or in continuous use** (not including temporary buildings) which would not have a greater impact on openness of the green belt and the purpose of including land within it than the existing development.

It is my opinion that the building meets this part of para 89, the existing building can certainly be classed as permanent due to its continuous use from 1920 up until around 2008 it has had water electricity and drainage. There is also definite dry stone wall boundaries to the north and west which define the site together with the existing vehicular access.

By definition if para 89 is met then special circumstances noted in para 55 need not be consequential. Notwithstanding this the highest levels of design and sustainability have been demonstrated through and endorsed by the design review panel.

The proposal demonstrated in the design drawings will not affect the openness of the site, it will be built on the existing building footprint and have no form of domestic external trappings. As noted at design review for much of the year when trees are in leaf the site is hidden completely from public



Summer view of site from A629

Summer pic 6 the building is concealed by foliage

view. The building sits in a natural clearing created at the time of construction of the existing and this will remain, the existing trees will largely remain in place and the proposal has been discussed with the tree preservation office .Selective removal and lifting and crowning is described in the bio diversity report and shown on drawing rh/sd/14/8 proposed site plan.

DESIGN and CONSTRUCTION

The design demonstrates the reuse of a brownfield site to the very highest levels of design and sustainability passivhaus standard is exacting. The proposal also seeks to achieve very low carbon embodied energy and in use energy through the use of natural materials, namely timber for the construction By reusing the existing concrete slab and designing out cement based products normally used in construction the embodied energy within the building is extremely low. Windows are kept to the south side for maximum solar gain, the main road is to the north which remains largely windowless thus reducing heat loss and maintaining good acoustic insulation. All windows are triple glazed

Photo voltaic panels (4kw system) to the south facing roof will make the dwelling a net exporter of electricity to the grid. In line with passivhaus requirements there will be a MVHR (mechanical ventilation and heat recovery system) installed but no heating system.

To lessen impact on the site the building shell will be prefabricated off site as a series of cassettes insulated with recycled newspaper and brought to site on 8m long ridged axel vehicles, (2 deliveries only) the stoned up area for the future turning head within the site will be used for offloading, after construction a vehicular mat as noted in the bio diversity report will be laid and seeded with meadow mix as the bio diversity report. Drawing rh/sd/14/7 shows the methodology behind this

The roof, floor and walls are all constructed of timber insulated with recycled newspaper and made air tight all to passivhaus standard. In short the building will be almost entirely biodegradable if left to nature over time.

The complete shell assembly will take approx. 4 days using a telehandler which will be positioned on the natural clearing in front of the building, this will avoid disturbance to existing trees. This area will then be planted with meadow mix as part of reinstatement

The form of the building relates to the shape of the existing building which is to be demolished respecting the history of the site, however the materials and form also reflect local rural and agricultural forms as discussed at design review. This coupled with no external domestic elements sets the building as a rustic form. When not in use the sliding shutter walls slide across the windows to create one homogeneous timber envelope. . The natural landscape invades the building only separated by a 450mm wide service strip of either washed beech pebbles or bark.

There will be no external paths, washing lines, patios, lawns etc the idea being that the landscape allows the building to exist rather than the building dominating the landscape.

For now the building is shown with only one bedroom as that suits our current life style. However as noted at design review there may be a time in the life of the building when an extra bed room is required.

The layout, position of services and wall floor and roof construction are so designed to allow 3m of the garage in future to become a second bedroom, this could be used for a carer perhaps if required in our later years. This along with other features such as walk in shower area, wide doors level access etc make the building gold standard for life time homes. As shown on drawing rh/sd/14/9

The existing brick building will be upcycled and reused on the build, eg, the steel trusses will be cut and refabricated to make the structure for the garage doors as well as bench framing within the garage and the log store. The brickwork will be reused for the soakaway infill and substructure for the turning area. Some will also be cleaned and used as piers to support the new building.

ACCESS

There is an existing vehicular access to site which will be maintained, visibility from this entrance has been checked by highways and found to be satisfactory. The route from the highway to the building is overgrown but at least the first 12m appears to be concrete, this will be uncovered and remain for future use if in good condition, if not it will be replaced with permeable ground reinforcement grid as used elsewhere as a natural landscape.

The site plan shows the landscape and vehicular movement within the site, a sufficient turning head has been given to allow a septic tank emptying vehicle to turn around within the site to enable access and egress to be in a forward gear

TREE PRESERVATION

The site has many trees and saplings mainly self seeded, non of which are rare or under any preservation order. The site plan rh/sd/14/8 indicates the removal of certain trees and the planting back programme to enrich the sites bio diversity.

EXISTING WILDLIFE

A full bio diversity report by a local ecologist forms part of this statement.

It is shown here our proposals to improve the bio diversity on this site.

BMBC UDP relevant policies

Policy GS6

THE GREEN BELT BROADLY COVERS THE LAND AROUND AND BETWEEN THE BUILT-UP AREAS WITHIN THE BOROUGH. THE DETAILED BOUNDARIES ARE DEFINED ON THE PROPOSALS MAPS. POLICIES GS8, GS9 AND ASSOCIATED DEVELOPMENT CONTROL POLICIES WILL APPLY TO DEVELOPMENT PROPOSALS IN THE GREEN BELT.

Policy GS7

WITHOUT PREJUDICE AND SUBJECT TO THE APPLICATION OF POLICIES GS8, GS8A, GS8B, GS8C, GS8D, GS8E AND GS9 IN THIS PLAN, DEVELOPMENT WITHIN THE GREEN BELT WILL NOT BE PERMITTED UNLESS IT MAINTAINS THE OPENNESS OF, AND DOES NOT CONFLICT WITH THE PURPOSES OF INCLUDING LAND IN, THE GREEN BELT

The building sits on the existing footprint of the demolished building it is not materially larger in volume and is of the same form. The design shows that there will be no external paths patios lawns etc. There will only be a 450mm wide gravel service margin around the building, the natural landscape will meet this margin. There is an existing access which will be reused, it appears this extends up to the existing building, a turning head will be provided this will be landscaped in gridded system to allow the meadow mix grass to grow through. The building will contain an interior drying area. All this serves to protect the openness of the site. The proposal will have less visual impact on the surroundings due to the natural materials to be used, mainly western red cedar left natural which will weather to a silver grey to blend with the surrounding silver birch trees

Policy GS9

DEVELOPMENT WITHIN THE GREEN BELT, OR CONSPICUOUS FROM IT, SHOULD NOT BY REASON OF ITS SITING, MATERIALS OR DESIGN RESULT IN SIGNIFICANT HARM TO THE VISUAL AMENITY OF THE GREEN BELT.

The existing building is a brick structure with a sand cement render finish and an asbestos corrugated roof, these materials are not sympathetic to the natural wooded environment.

The proposal will use materials more fitting to this setting namely natural western red cedar to respect the surrounding foliage.

Although this is a single dwelling on a brown field site, we have sought to achieve the very highest levels of design.

The design process was subject to design review and commended.

Recommendations of the Design Panel

- Sketches need to be produced to show how the building sits in the landscape and how it affects any future proposals. Plans need to show surrounding soft and hard landscaping including the existing driveway. **See site plan rh/sd/14/8**
- Achieving the Passiv Haus standard would set a high standard of design in terms of the development being innovative. **This will be achieved by building in a prefabricated timber cassette system, consultations are on going with timber fabrication specialists**
- There is a need to look at ways to prevent the proposed high standards of sustainability being reduced by future occupants of the dwelling. For example a potential reduction in the size of the garage element could be investigated.

The future plan rh/sd/14/9 shows how the building can be adapted for future use under life time homes standard, this modification can be accommodated within the building foot print. The elevations and form of the building would not be affected, there would be one new window required, the opening for this being pre formed ready during this build to maintain the air tight and thermal properties of the building envelope

CSP 2 Sustainable Construction

Development will be expected to demonstrate how it minimises resource and energy consumption, compared to the minimum target under current Building Regulations legislation, and how it is located and designed to withstand the longer term impacts of climate change.

All new dwellings will be expected to achieve at least a level 3 rating under the Code for Sustainable Homes or equivalent. This requirement will rise over the plan period and by 2013 new dwellings should achieve at least level 4, rising to level 6 by 2016.

All non-residential development will be expected to achieve at least BREEAM standard of 'very good' or equivalent.

The building will be built to passivhaus standard which is the highest standard of design in Europe, this effectively means there will be no heating system within the building and energy in use is minimal. The building will also be certified AECB silver standard however this design goes beyond energy in use, we have also looked at energy in construction (embodied energy) and sustainable materials. The design seeks to provide an almost entirely bio degradable building, the whole structure is timber which will be clad in western red cedar boarding to the walls and western red cedar timber shingles for the roof all from sustainable forests. The insulation will be warmcel (recycled newspaper) There will be no cement based products, all other construction elements will be recyclable. There will be a 4kw photo voltaic electrical system on a feed in tariff. Due to the low energy demand we anticipate being a net exporter of energy to the national grid.



CSP 36 Biodiversity and Geodiversity

Development will be expected to conserve and enhance the biodiversity and geological features of the borough by:

protecting and improving habitats, species, sites of ecological value and sites of geological value with particular regard to designated wildlife and geological sites of international, national and local significance, ancient woodland and species and habitats of principal importance identified in Section 74 of the Countryside and Rights of Way Act 2000 and in the Barnsley Biodiversity Action Plan

maximising biodiversity and geodiversity opportunities in and around new developments
conserving and enhancing the form, local character and distinctiveness of the river corridors of the Dearne and Dove as natural floodplains and important strategic wildlife corridors

Development which may harm a biodiversity or geological feature will not be permitted unless effective mitigation and/or compensatory measures can be ensured.

The attached bio diversity report by Mr P Middleton ecologists sets out the poor state of the current site and suggests ways in which the site can be improved upon to attract further species. There will also be a management plan set up to enable us to protect the bio diversity of the site and immediate surrounding area.

Nationally there is a decline in a number of bird species, particularly in rural farming areas where modern farming methods are reducing food sources for birds and nest sites. There is also a nationwide loss of wild flower meadows as highlighted recently on BBC's Countryfile. There is a drive supported by Kew Gardens to encourage more wild flower meadow planting, this as the effect of increasing bio diversity not only in the flowers but in the insect life including bees and butterflies which are all in decline. These in turn provide food for birds. Our proposal of re-planting wild flower meadow to the natural clearing and the access route will create a swathe of wild flower meadow which will address this issue and provide a positive bio diversity gain for the site.

The building itself will also be used, note the bat box on the south east gable, there will also be a system of bird nesting boxes installed and maintained. Log piles will be introduced by using the trunks of any trees to be felled. These will serve a dual function- to indicate the edge of the vehicular matt but also to provide habitat for insects and small rodents.

Because the building will sit on the footprint of the existing building there will be no impact on the surrounding land. We have also considered any impact on bio diversity during construction and the methodology of this is explained on the construction method plan rh/sd/14/7

We see this approach as a great improvement to the bio diversity of the site

CSP 3 Sustainable Drainage Systems (SuDS)

All development will be expected to use Sustainable drainage systems (SuDS).

Only in exceptional circumstances, where it can be demonstrated that all types of SuDS are impractical, will other drainage management systems be permitted.

Planning applications must include an assessment to show that SuDS will work and be maintained. Measures should be taken to avoid water contamination and safeguard groundwater supply.

The drainage system proposed is simple and non invasive, surface water from the building will be no different to the existing building on site i.e. via soakaway. The vehicular route is permeable and will drain naturally through the planted vehicular matting.

Foul water will be taken to a septic tank with an outfall drainage field, Porosity tests show good natural drainage, this will be confirmed at building regulation stage

CSP 26 Highway Safety

The existing access will be reused, this gives a clear view in both directions of 250m

At least the first 12m of this access is concrete draining to the natural ground either side, this will remain.

Csp 4 Flood risk

The site does not fall into any flood risk area

CONCLUSION

This small dwelling is designed not with profit or speculation in mind it is designed as a response to our need for basic shelter built in such a way so as not to harm the environment in construction or in use. The size meets our basic needs not the market needs we only want to expend carbon energy to build the minimum size for our use.

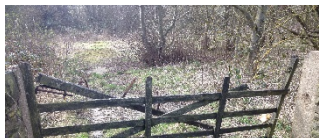
We have particularly chosen materials that if left indefinitely would reduce back to mother earth, obviously there will be some materials which cannot naturally bio degrade, glass being an example but wherever possible all other materials will be recyclable.

The western red cedar shingles and boarding used for the roof and walls can be left untreated and will last for 60 years, they will weather to a silvery grey thus blending subtly into the surrounding foilage



Roy Harrison Architect

Site pictures



Pic 5



Pic 1

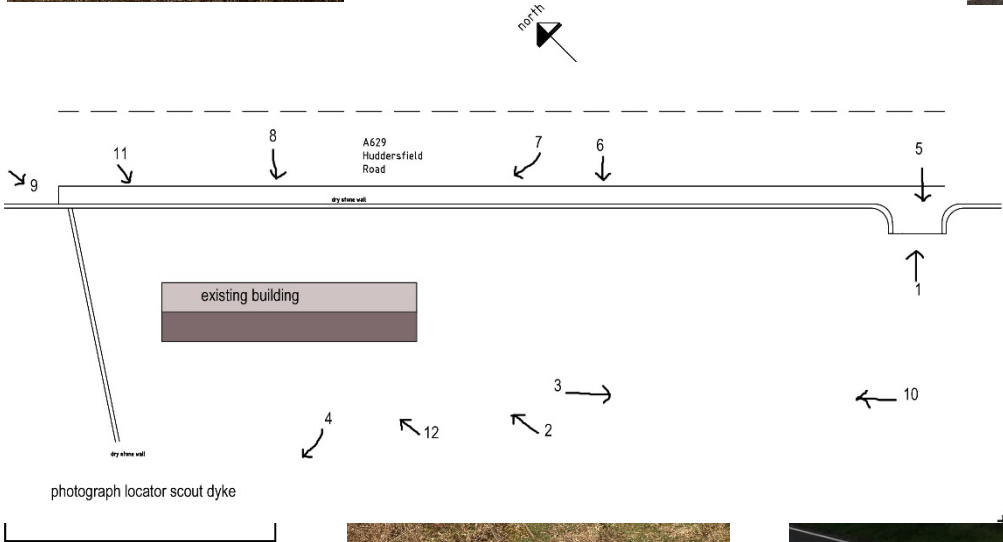
Pic 6 winter



Pic 2



Pic 7 winter



Pic 8 winter

