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Lovegreen Stage A-B Feasibility Report



Lovegreen

Stage A-B Feasibility Report

Prepared on behalf of Lovegreen Developments Ltd

Sub-Consultancy Team

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Prepared by greenwell design

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preface and executive summary

- The Lovegreen project takes its name from the street which once occupied the site of the present surface car park in Sidegate.
- The new vision for Lovegreen is an eco-community comprising 36 townhouses, 4 executive houses and 75 prestige riverside apartments, all designed to low/zero carbon standards a flagship scheme for the County Durham Plan.
- A key goal of the vision is the relocation of the existing primary substation from Framwelgate Waterside to a less intrusive site. It is an expensive undertaking which may be accomplished by the critical mass and ambition of the masterplan, pursued in a spirit of public/private sector partnership.
- The ideas and suggestions in this report are robust, and are the outcome of in-depth consultations with stakeholders who have given their unanimous support and encouragement.
- This report is not a Design Statement, although it is based on thorough site analysis and research. It is a means to understand the issues affecting the creation of a sustainable and regenerated community in the heart of Durham City.
- The key to project delivery is the generation of land value and how, through consensus, it can be used to create a sustainable and quality development in one of Durham's finest riverside locations. The mechanism for achieving this goal is outlined in the development appraisal in appendix B. The net land value is in excess of £6m.
- Lovegreen is a windfall project which delivers a capital receipt to Durham County Council and significant council tax revenue in addition to the relocation of the substation. The vision can come about through teamwork and a common purpose. The ideas are feasible and deliverable but need to be consolidated by further attention to detail. We believe these findings could be the catalyst for its successful realisation.

1.0 Project Background and Protocols

Greenwell Design currently act for Mr. Peter Smith with instructions to explore the potential for residential development on Mr. Smith's plot in Sidegate, together with adjacent land to the east.

The site context clearly suggests a town house scheme and this will ultimately be justified in a design and access statement. The layout should be designed so that each parcel of land may be independently developed. Commercial advice from Knight Frank indicates that town houses between 1500 and 2000 sq ft with 100% car parking provision is a viable solution for this location.

The aim is to brand this an eco scheme. The site is inherently sustainable in energy terms, facing almost due south and therefore well oriented for passive solar gain. This should mitigate extra over costs attendant on higher Code for Sustainable Homes levels. Code level 4 is the design aim, mainly delivered through fabric design, but with a design that permits easy upgrade to levels 5 and 6 retrospectively.

In a meeting with Council planning officers and English Heritage on 08 January 2010 it was felt that contextual considerations ought to cover the impact of any new development on the setting of Crook Hall, the development potential of the nearby NEDL primary substation site and the council's own landholding on the north side of Sidegate.

Through a process of consultation with the stakeholders it became apparent that from the original and relatively modest proposal to redevelop Sidegate House, a more ambitious vision was emerging with the capacity to create a sustainable and distinctive community in an important, yet overlooked, part of the city.

Indeed it could be argued that such a plan, sympathetic to historic development and former land use, could be deemed as truly restorative, and this masterplan draws on the historic development of the Framwelgate area when it was a densely populated and vibrant mixed use quarter.

A significant obstacle to the delivery of a fully aspirational plan, however, is the presence of NEDL's primary substation, which occupies a pivotal riverside site (refer to figure 01). The substation has been the subject of a previous initiative by the developers of the Radisson Hotel where, as part of an enabling scheme to kickstart the hotel development, it was to have been relocated to the rear of the council car park, releasing its existing site for a substantial apartment scheme. Eventually this project foundered due to major engineering costs, and the hotel was built regardless, as outlined in the following section.



figure 01 NEDL primary substation

Whilst the substation does not in itself predude the development of the other component sites in the masterplan it is nevertheless widely accepted as being visually and environmentally detrimental to the character of Sidegate and Framwelgate Waterside.

It can be seen then, that from initial guidance on the scope of the study area advised by English Heritage and DCC, an opportunity has presented itself to reinvigorate a neglected part of the city for which Sidegate House is the catalyst.

The purpose of this report is to explore the possibility of creating an exemplar low carbon intervention in a sensitive location, sympathetic to the conservation issues and yet in tune with the County's ambitious aspirations for the City. This can not be robustly demonstrated, however, without an analysis of cost issues and delivery mechanisms which are set out in Section 8 of the report and the Development Appraisal.

Public consultation, as such, has been limited to discussions with Keith and Maggie Bell, the owners of Crook Hall, and their immediate neighbours Christopher Plummer of North Bam and George O'Donnell of Crook Hall Farmhouse. They are firmly supportive of the aims of the masterplan.

2.0 Recent Developments and Planning Approvals

In 2008 the Radisson hotel opened for business on the site of the former gasworks and electricity board depot. Built at a cost of over £30m the 207 room 4* business class hotel with a quality health and fitness facility, business centre and banqueting suite, has quickly established itself as a major asset to Durham's hospitality offer.



figure 02 The Radisson Blu Hotel

In parallel with this, applications were submitted in March 2005 for the relocation of the NEDL primary substation from the adjacent site to the north side of the council's surface car park, and the associated redevelopment of the substation site with a residential scheme comprising 142 apartments with parking provision for 72 cars. The scheme was contemporary in character, rising to 8 storeys in height. Planning permission was granted in November 2005 but the project was never built out and is now time-barred under condition 1 of the approval.

3.0 Planning Policy Issues

Under the previous City of Durham LDF the preferred option for the composite site (A) was allocation for residential development in the period 2006-2011. Site (A1) is in the North Durham Green Belt, in an AHLV and within the City Conservation Area. Sidegate House and garden also lie outside the City settlement boundary in the current Local Plan. The remainder of the site (A2) lies within the settlement boundary of Durham City. Under the LDF, in order to allocate this site for development in the period up to 2011 Sidegate House and garden would have to be removed from the green belt and included in the

settlement boundary. In addition an exceptionally high quality of design would be required due to its location in the AHLV and the City Conservation Area.

Previous independent planning opinion concluded that there has been a clear consistency in allocating the site, and this may be seen as constituting emerging policy.

The Council-owned land lies largely within the settlement boundary and is brownfield.

4.0 Durham City Vision

Although the Sidegate/Crook Hall quarter is not a key element in the Durham City Vision masterplan, it is nevertheless pivotally-sited in relation to Framwelgate Peth, Millburngate House and Necklace Park. The NEDL substation is recognised as a serious impediment to the vision for the riverside and previous consideration has been given to its long term future.

Harvey Dowdy and her team have been most helpful in sharing their views on the scope for improvement of this site and this is dealt with in some detail later in the report.

5.0 The County Durham Plan

This masterplan is driven by the emerging County Durham Plan and the Sustainable Community Strategy. It is cognisant of the priorities to build a vibrant economy with Durham City at its heart, married to a green agenda.

6.0 The Physical Context

6.1 The Wider Study Area and Ownerships (Refer to drawing FSD 01)

Land use historically has been diverse. Whilst the site now occupied by the Radisson hotel was formerly in industrial and sports/recreational use, The present NEDL site and the southern fringe of the council land were built up with approximately 40 terraced houses (Lovegreen Street, Sidegate and Lishman's Buildings). The northern and western fringes of the council land were quarried and an aerial cableway crossed the Sidegate House plot from mineworkings to the north to the old gasworks on Framwelgate Waterside.

The sewage works to the north-east occupies previously industrialised land and the likelihood of this installation ever being relocated to a more environmentally appropriate site is remote.

The plant has recently undergone a welcome upgrade to neutralise odours emanating from the site.

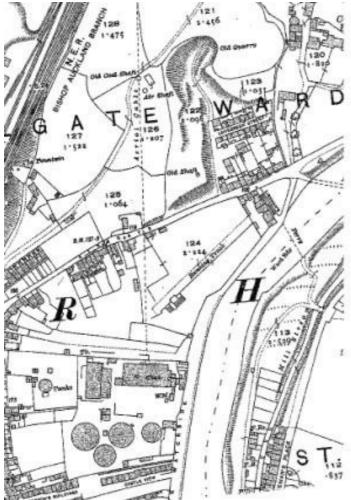


figure 03 historic plan-Lovegreen Street

The land between Frankland Lane and the precincts of Crook Hall is occupied by an assemblage of workshops and office accommodation.

6.2 The Masterplan Site Area (refer to drawing FSD 02)



figure 04 Lovegfigure 04 Lovegreeen. Aerial View from the South

6.3 The World Heritage Site and Crook Hall

Apart from a 5m strip of land at the eastern extremity, the application site (A) is obscured from views of the World heritage site by the Radisson hotel and Milburngate House. The remainder of the masterplan site is visible from the top of the Cathedral tower but from discussions with English Heritage this does not have major visual impact value.



figure 05 View to the masterplan site from the2nd floor of Crook Hall

The setting of Crook Hall in relation to the masterplan is also largely unaffected because of topography, although the eastern edge of site (A) is visible from the Hall's 2nd floor private quarters and so is the existing council car park, which is deemed by the residents of Sidegate and Crook Hall to attract nuisance activities in the evenings after working hours.

6.4 Topography

The land slopes from north to south across the application site (A) terminating at the site boundary in a stone revetment introduced to suit the Sidegate street level. The western part of the site, Sidegate House, was originally occupied by an old bath house. The rest of the site edge lay undeveloped, and the likely reason for this, given its suitability for continuing street frontage, is probably the difficult site levels and historical mining activities.

The Council land also slopes from North to South. It is topographically complicated due to the quarrying and covered in unmanaged scrub, with mature tree specimens forming a green buffer to the eastern boundary.

6.5 Urban Grain

The urban grain in the locale is indistinct due to low densities and the presence of large floorplate buildings such as Milburngate House and the Radisson. Historically, though, the grain followed the line of Framwellgate and Sidegate until demolitions in the 1960's.

6.6 Views and Vistas

As mentioned earlier, long distance views of the site are occluded by the Radisson hotel and the lie of the land. Key views have been identified to and from the site. These are indicated on drawing FSD 01 and the salient photographs are set out below. Views from distance are limited to vantage points from the Sands and the east bank of the River Wear to the existing council surface car park located on site B.



figure 06 view 01 to masterplan site



figure 07 view 02 to masterplan site



figure 08 view 03 to masterplan site



figure 09 view 04 to masterplan site

6.7 Scale, Height and Massing

Scale, height and massing vary greatly, and it is this variety which gives the wider study area its character. It is epitomised by the contrast of the grade 1 Crook Hall Hamlet and the brutalist Milburngate House. The intervening Radisson Hotel is a step down in scale from Milburngate House and when the Milburngate House site is eventually redeveloped the Radisson would in scale and height be probably the dominant building in the area. At a depth of 17m the bedroom block of the Radisson is much shallower than the plan of Milburngate House and more sympathetic to the domestic architecture of Sidegate and Highgate but is nevertheless double the prevalent house plan depths. The existing terraced housing in Sidegate is generally narrow frontage, common to much of the city, and 2 storeys high. The Highgate development is generally 3 storeys high.

6.8 Flood Risk

The finished floor level to the Radisson Blu hotel is at 32.20 AOD, a level advised by the Environment Agency. The lowest habitable FFL in the masterplan, although still to be determined, will be at a significantly higher level than this.

Flood risk predictions in the vicinity of the sewage works site for the relocation of the NEDL substation are at 1 in 1000 years (the presence in that area of an existing substation should also be noted).

6.9 Highways

Consultations on the masterplan have taken place with Mr McVicker of County Highways who on the basis of previous models in the area anticipates no problem with this level of new development in terms of traffic impact.

6.10 Ecology

Discussions with the County Ecology department have identified the need for an impact assessment dealing with *inter alia* bat and badger surveys under a future planning application. Otters are also known to frequent the stretch of river bank that runs parallel to Frankland Lane north from the old Penny Ferry landing steps.

Of particular interest is the existence of a colony of a rare species of woodlouse which has probably existed since the abandonment of the quarry workings. The colony is located to the west of the car park surfacing and it is proposed to protect and relocate it in an improved habitat on site in accordance with advice from County Ecology.

It is assumed that a tree survey will be required although the vegetation consists mainly of scrub and semi mature trees.

6.11 Archaeology

Discussions with the County Archaeology Department have established that an archaeological desk top assessment would be required to support any planning application

6.12 Infrastructure and the NEDL Primary Substation.

In discussions with Durham City Vision, options for the relocation of the NEDL substation, other than that in the previously consented scheme (refer to Section 2.0) emerged. In summary they are as follows:

- Relocation to the Radisson Blu car park site
- Relocation on land adjacent to the NW sewage works in Barkers Haugh
- Rationalism of the existing substation installation on NEDL land

The original proposal is considered unviable due to the sterilising effect it has on the County Council land.

None of these potentially viable options are deliverable without the cooperation of NEDL, and previous negotiations with the utility were reopened with this wider agenda. Primary substations are expensive to move (a cost in excess of £4m effectively aborted the original scheme) and it is implicit that this will be a major factor in the masterplan development appraisal. Discussions with NEDL, however, have established a willingness to re-engage in the process in the interests of regeneration and environmental improvement, but it must be recognised that there is no financial incentive, per se, for NEDL to relocate. Whilst existing apparatus periodically requires renewal, with its attendant costs, it bears no comparison with wholesale relocation.

- Relocation in the Radisson Blu car park

Discussions have taken place with the Hotel Management Company, Closegate, to assess the practical and commercial issues. Despite the loss of car parking spaces, Closegate are willing in principle to consider accommodating the substation but the terms and conditions would revolve around the land value and number of car spaces lost, the redevelopment opportunity presented to Closegate on the existing NEDL site and the "environmental" value of the offer to accommodate the substation. Central to this would be the planning viability of Closegate's original apartment scheme. Closegate in effect have the ability, subject to negotiations with NEDL, the County Estate and Babcock and Brown, to assemble the triangle site, secure a planning consent, and deliver a solution unilaterally.

- Relocation on Land Adjacent to the NW Sewage Works at Barkers Haugh

A meeting to review these possibilities was held on 28th May 2010 with Louise Baker, Northumbrian Water. A council-owned site adjacent to the sewage works was identified as being acceptable to NW in terms of respective access issues. It is hypothetically acceptable to NEDL and they are currently appraising the technical issues and costs. Such a move would be consistent with CE Electric's own environmental mission statement.

- Rationalisation of the Existing Substation Installation on NEDL Land

Discussions with NEDL to assimilate an upgraded substation on the triangle site (C) have not been encouraging and it is unlikely that the substation can remain on site long term alongside another form of development. This is explored in detail in the masterplan options study.

7.0 A Sustainable Masterplan

7.1 Masterplan Concept and Components (Refer to drawing FSD 02).

The masterplan is divided into 3 separate character area sites.

Site (A) is defined as the original planning application site although it comprises 2 separate ownerships — Mr Smith's and Durham County Council's.

Site (B) comprises the remainder of the quarry site and includes the existing surface car park.

Site (C) is the triangle of land bounded by Sidegate, Framwelgate Waterside and the northern boundary to the Radisson Hotel.

The Lovegreen Vision is responsive to thorough site analysis, commenced under the original brief to look at Site (A), and expanded to meet the parameters of the masterplan. It draws on the historic development of the Framwellgate area and is evocative of its time as a densely populated, vibrant community.

The masterplan is residential. Efforts have been made to establish a demand for leisure, retail and commercial uses without success, but the presence of the Radisson Hotel, together with the footbridge link to

Freemans Place means that the proposed residential stock is an intrinsic part of a mixed-use sector in the city.

Sites (A) and (B) are dedicated entirely to family dwellings in the form of townhouses and hillside executive houses. The triangle site (C), because of its increased exposure to flood risk on the riverside frontage, and relationship with the hotel, requires a different approach. As the original Closegate application concluded, car parking is best located in an undercroft and any phased approach which assumes the ultimate relocation off-site of the substation militates against family housing.

Drawings FSD 02 and 04 graphically explain the quantum of development and the phasing issues attendant on the opportunity presented by the relocation offsite of the substation. The tenure is of necessity based on leasehold and the scheme content is a quality apartment product appropriate to such a prestige riverside location. From an examination of the previous Closegate scheme it is feasible to provide car parking at a ratio approaching 100%.

7.2 NEDL Primary Substation Options Study

7.2.1 Baseline Option

This option assumes that the substation remains in its present position in perpetuity and unless it can be screened in some way it may prejudice the setting of quality executive housing. Unfortunately NEDL have indicated that the existing apparatus may not be roofed over.

A cost effective way to improve or sanitise its appearance would simply be the introduction of semi-mature street trees around the perimeter of the compound, along the south side of Sidegate. These would need to occupy a number of council owned on-street car spaces, and there would be a time element in the trees reaching full size and maturity. This solution would be low on cost and maintenance and totally sustainable but further discussions would be needed with NEDL to establish whether locating trees next to their compound is technically acceptable.

In addition to screening, or even in lieu of it, the houses fronting Sidegate could, by virtue of façade and fenestration modelling, be designed in such a way that overlooking of the substation from the houses is eliminated.

7.2.2 Radisson Blu Option

Using data contained in the previous planning application submitted by Closegate Homes (Durham) Ltd. for the relocation of the primary substation on the council owned car park, drawing FSD 01 shows a

reduction in hotel visitor car parking spaces. This is considered by the management company to be acceptable in terms of operational usage.

7.2.3 Barkers Haugh Option

Drawing FSD 01 also shows a suggested layout plan for a new substation adjacent to the entrance to the NW sewage works. It has the advantage of being owned by the Council, concentrating two utilities in one location, and it is also acceptable in principle to Development Control. In terms of existing NEDL services it is also a less onerous engineering proposition than relocation to the Radisson Blu. As mentioned in Section 6.8 its feasibility has also been addressed under flood risk and the Environment Agency are satisfied that it presents no problems as long as the provisions of the flood model are observed. The site lies in a zone 2 area with a 1 in 1000 year flood risk and the EA have indicated a FFL of 32.74 AOD in an undefended scenario.

The western part of the site is currently occupied by a pair of derelict semi-detached houses and a collection of semi-mature and unmanaged garden trees.

Although the site is situated in the green belt, Development Control have informally endorsed its suitability for utilities use and are in favour of the establishment of a utilities node in the Barkers Haugh area.

In terms of ecology, Great Crested Newts are known to forage in the Barkers Haugh area and any planning application would need to be supported by an appropriate appraisal.

7.3 Scale

The townhouse element to the Sidegate frontage and council car park is generally 2.5-3 storeyed, consistent with eaves heights in the locale, whilst the executive houses vary from 2-3 storeys.

The triangle site presents an opportunity to increase scale due to its proximity to the Radisson Hotel and the riverside. Generally it is proposed to build to 4 storeys over an undercroft carpark, with an additional set-back penthouse level.

7.4 Character, Materials and Detailing

The conceptual approach is one of contemporary architecture which addresses extant policies on conservation and sustainability—

• Simple robust shapes with limited external materials and elevations which favour solid wall over openings.

- Simple tradition roof forms with no long continuous eaves and ridge lines.
- High quality design.
- Materials sympathetic to the locale.

Current Greenwell Design projects include Hillside Eco Houses similar to the executive house concept proposed here (refer to figure 11 below).

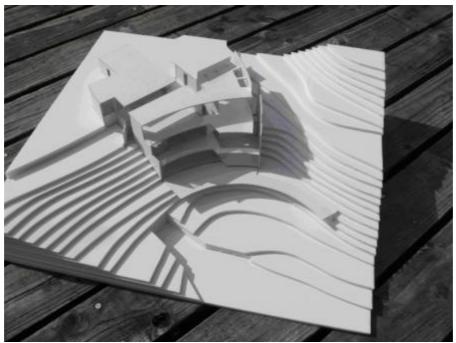


figure 11 Greenwell Design current project

7.5 Visual Impact

For reasons of topography and existing built form, the masterplan site is not particularly prominent, with the exception of the triangle site which has already been tested under the previous planning consent.

It is assumed though that an assessment of visual impact will be a key part of any future planning application, with particular reference to the setting of Crook Hall.

7.6 Landscape

The council-owned former quarry site (B), unlike the other two component sites, is covered in dense scrub with a wedge of screen vegetation between the car park and the eastern boundary to Crook Hall Farmhouse. It is intended that this green wedge is reinforced, as a buffer to the Crook Hall hamlet and the northern areas of the site thinned and managed for the insertion of the 4 executive ecohouses.

7.7 Sustainability

The masterplan site is inherently sustainable. It has good connections and is a short walk away from Durham City Centre and main transport nodes. It has been proven to lie above the 100 year flood level and it has the benefit of a gentle south-facing slope with consequent solar capture potential.

Considering that it is also brownfield the likelihood of achieving a high Code for Sustainable Homes rating is realistic, and this is a core driver of the concept.

Although the masterplan is beset with the cost of the NEDL substation the natural site assets make it feasible to achieve code level 4 by virtue of fabric design alone, with scope to reach zero carbon performance with the addition of renewable technology.

The DCC sustainability officer has been consulted on the sustainability potential and he shares our belief that Lovegreen has the capacity to act as an exemplar for the country's sustainability agenda and its ambitions for Durham City.

7.8 Affordable Housing

Affordability and social inclusion are in themselves an expression of sustainability. An appropriate response to these issues will be fully explored in the masterplan.

8.0 Project Delivery

8.1 Site Assembly. NB - All area calculations are subject to agreement and confirmation.

The land which forms the masterplan site is the subject of several ownerships as follows.

-	site (A1)	Mr Peter Smith	(0.40 acres)
-	site (A2)	Durham County Council	(0.32 acres)
-	site (B)	Durham County Council	(2.66 acres)
-	site (C)	Durham County Council	(0.04 acres)
		NEDL	(0.45 acres)
		Babcock and Brown	(0.12 acres)

The NEDL substation site options are under title as follows:

Radisson Hotel Car Park

Babcock & Brown freehold title with lease to Closegate Projects Ltd

Land adjacent NW Sew age w orks

DCC (0.95acres)

The NE apex of the triangle site (C) is adopted highway, and if developed subject to a road closure. It is not included in these cost analyses and area calculations.

8.2 Planning Permission

Planning risk is a combination of policy and conservation issues.

The original red line site (A) was earmarked for residential development until local government reorganisation intervened. The triangle site (C) has the precedent of a previous permission for a substantial development and the council owned land is brownfield.

English Heritage's view of the masterplan's impact on local context and the setting of Crook Hall will be crucial and they have already expressed a willingness to engage in the design process under development control protocols.

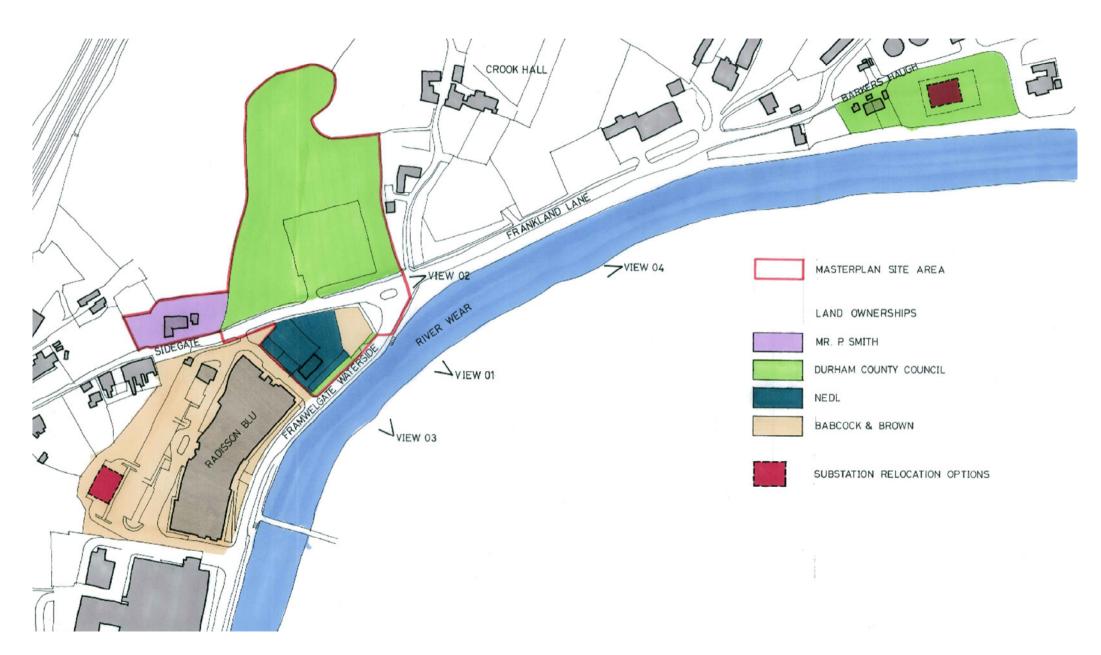
8.2.1 Programme

A site start will be a product of the willingness of all parties to engage in the process and the technical obstacles facing the project. This report has demonstrated that in terms of the latter there are grounds for optimism and the next step would be to consider how the masterplan could be managed within the emerging LDF.

Financially, there would appear to be an opportunity to secure once and for all the removal of the NEDL substation if the masterplan landowners jointly agree to subsidise the move from land sale receipts. A mechanism for this is outlined in the development appraisal.

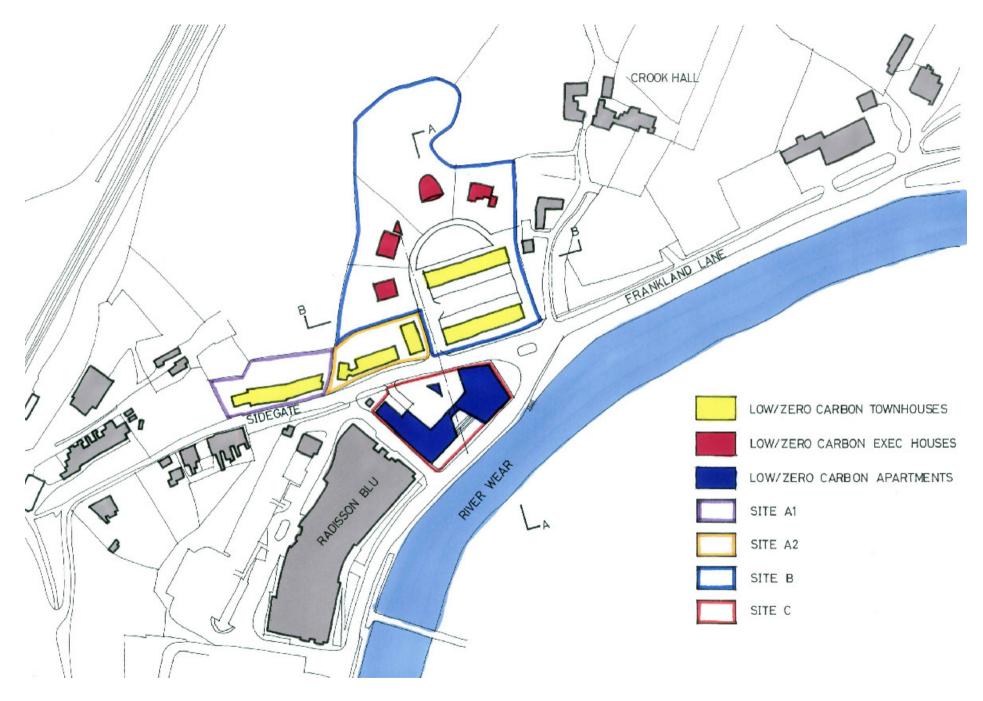
appendix A drawings referred to in the report

- FSD 01 the study area
- FSD 02 the masterplan
- FSD 03 masterplan site sections
- FSD 04 the masterplan vision drawing



the study area FSD 01 Lovegreen

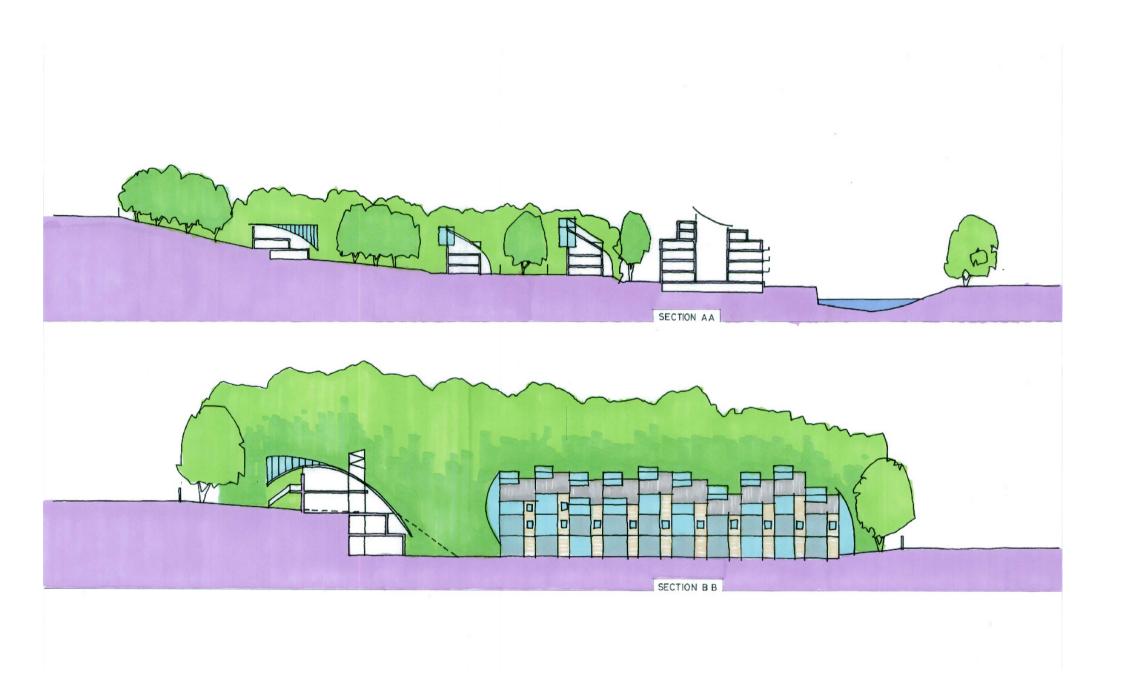
138 Gilesgate, Durham, DH1 1QQ



masterplan FSD 02 Lovegreen

138 Gilesgate, Durham, DH1 1QQ

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Lovegreen site sections FSD 03 greenwell design

