Community Led Housing: How to Guides

7. Self-build

Down to Earth

7. Self-build

Contents

1. Introduction

CLH groups are by definition aiming to create housing where residents and local people have more control over the aims, design, construction and management of housing, than that provided by other developers. Self-building is taking it a step further, where residents (and sometimes other people) take on an active involvement in the construction of homes.

Self-building can be a huge undertaking, involving a massive commitment of time, energy and often emotional strain, however the rewards can be equally great. It can allow your group to create housing which truly reflects your vision and aims, and which was physically built by the residents in a very real way.

The phrase often heard by the groups who self-built their homes is: “It was totally worth the hard work, but I would never ever do it again”. Therefore, as well as the huge benefits, it’s worth being aware of the reality of self-building before jumping in feet first.

This chapter will look at the range of self-build options available , the benefits and challenges, how people are rewarded for their hard work, timescales involved, how these projects are funded and how other groups have gone about it.

This chapter will focus on the models which involve some level of practical involvement in the construction process by residents. Self-management and other options which allow more control over the design and construction process without getting your hands dirty, are covered in chapter 9 Procurement Process.

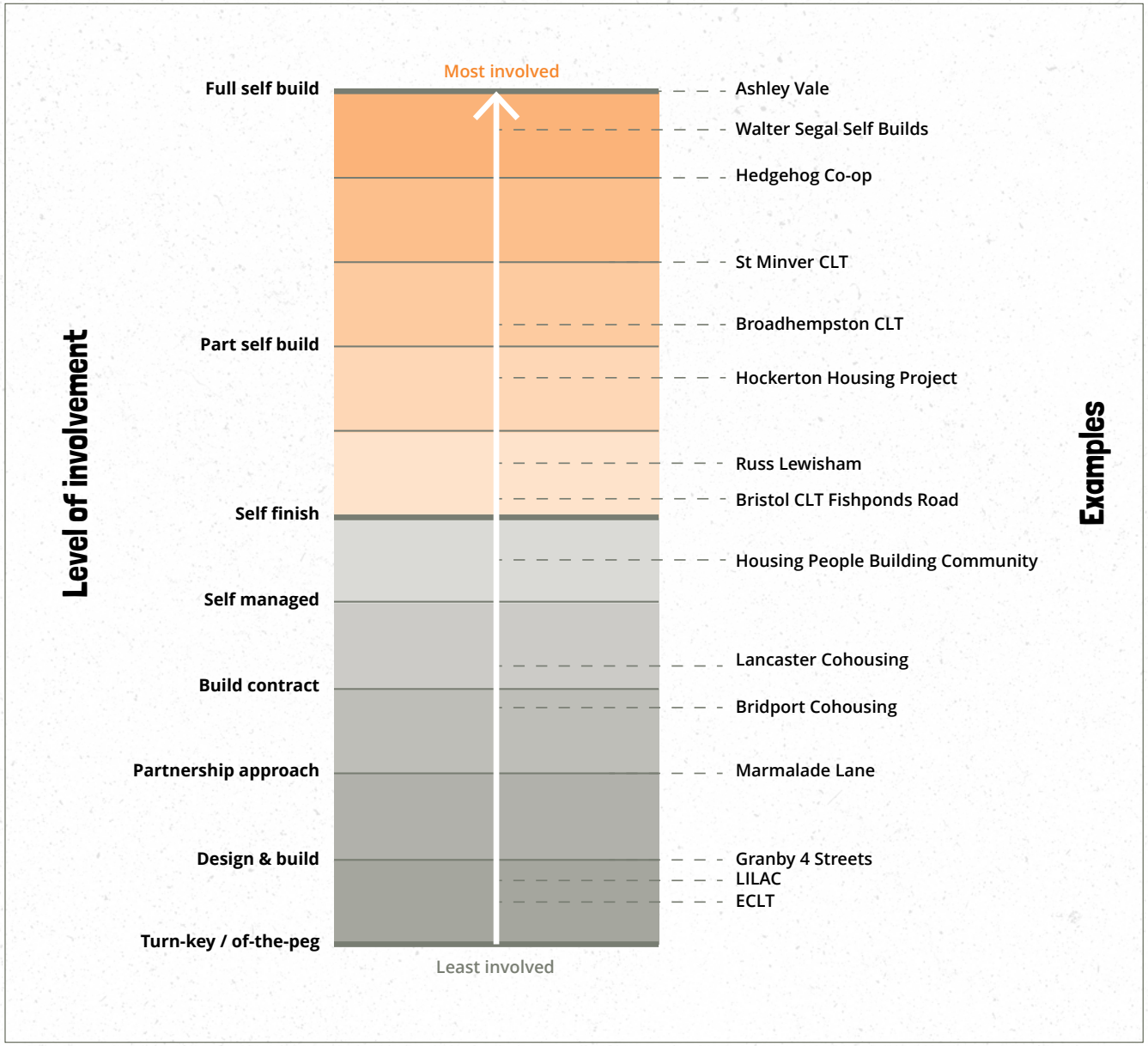
The number of self-built homes in the UK is very low compared to other countries, with only 7% of new homes being self-built, compared to 60% in Germany and 80% in Austria. We also have some of the worst-value-for money when buying a home in any advanced economy, in terms of size and quality (as published by the Resolution Foundation).

There is therefore a strong desire for people to be more involved in building their own home, and a community-led approach is a great way to work together as a group to create better designed, built and managed housing.

Terminology

The usage of the term 'self-build' in the UK can be confusing at times, used to describe a broad range of options, from practically building a house yourself, to housing which is instigated by the resident but in every other way is indistinguishable from a home built by a developer. There is currently no widely used alternative term to describe housing which is initiated and managed by residents but which is physically built by a contractor.

For the purposes of this guide, the term 'self-build' is used to describe housing where some element of the construction is physically carried out by residents.



There is therefore a strong desire for people to be more involved in building their own home, and a community-led approach is a great way to work together as a group to create better designed, built and managed housing.

2. Types of self–build

There is a wide spectrum of self-build housing projects, ranging from full self-build, where residents do almost everything themselves, to custom build, where all of the work and even management of the build is done by contractors, but the project is instigated and important decisions are made by the client i.e. your group and/or residents.

The route you and your group choose will be based on a number of factors:

- **Timescale** – Self-building invariably takes longer than contractor built housing. Therefore, do you need housing urgently or do you have more time to play with?
- **Capacity of members and residents** – Does your group actually have the time to put in week-on-week, not just to the building, but the extra admin and organising involved in self-build?
- **Desire for control over design and construction** – How much involvement do you want in decisions, throughout the design and construction process?
- **Finances** – The availability of finance and when this is available. Do you need to work on a shoestring doing as much yourself as possible, or can you buy in more of the labour?
- **The commitment and ability of residents** – Self building is a huge undertaking, are your potential self-builders motivated and committed, can they physically do the work that needs to be done?
- **The demographic of residents** – Are you providing housing for older people or wheelchair users, can you make self-building work for them?
- **The groups' appetite for risk and uncertainty** – Self-building is often more risky and there is more to go wrong. Are you willing to pay the extra costs if it does?

Full self–build

Full self-build is the most involved method at the far extreme of the spectrum, where residents complete almost all of the construction work themselves, often managing the process as well. This requires an enormous commitment of time and energy, but gives maximum control over the process, and can massively reduce the cost of building a home. It is also hugely satisfying to live in a home you have hand built from scratch, with very little professional help! Usually self-builders leave at least electrics and plumbing to professionals, as they require qualifications to sign-off, but there are examples where self-builders have even done enabling works for electricians and plumbers to save costs.

There are two types of full self-build available for CLH groups, group self-build (called Baugruppen, 'group-build' in German) and individual self-build plots.

↑ **Lammas, Pembrokeshire**

Group self-build

Group self-build is where all residents work on all of the houses until they are complete. Individuals or groups may specialise in certain areas and complete that task across all of the houses, for example tiling, fixing external wall cladding or painting. This allows people to become skilled in that area, and therefore increase their productivity. Some groups have provided onsite childcare, and taken it in turns to look after children so parents can have more time on the build. A choice will need to be made at which point residents are responsible for finishing their own homes. This could be the full internal fit out (fitting kitchens, skirting boards, hanging doors etc.), just painting and decorating, or everyone moves into a fully finished home.

Examples

- Hedgehog Co-operative, Brighton
- Walters Way, London

↑ Hedgehog Co-operative

Individual self-build plots

This is where a site is divided into plots, with individual households being responsible for building their own house in its entirety. Plots are usually provided with services and access, as this is much cheaper and easier to do for the whole site at the same time. Normally plots are handed over with full or outline planning permission, or alternatively this can be left up to the individual plot holders. This gives households more control over their own home's design and the quality of the build, and means those wanting to build quickly are not held back by those who have less time pressure. It does mean that self-builders need to learn every part of the build process, rather than specialising, which can make the process take longer. You will also miss out on cost-savings from purchasing materials and contractor labour at scale, which can be significant.

Examples

- Lyvennet CLT, Cumbria (self-build plots)
- Ashley Vale, Bristol
- Lammas, Pembrokeshire
- Graven Hill, Oxfordshire
- Rhiw Las, Carmarthenshire

Part self-build

Part-self build is where self-builders work alongside professional builders and contractors, throughout the whole construction process. This allows for cost savings from the self-builders labour, but jobs which can be done quicker and sometimes more cheaply by trades people, are left to the professionals. Like with full self-build, residents can choose to work across all houses, or concentrate on just their own.

The way the work is split between self-builders and contractors varies, some groups choosing to have a contractor do the groundworks and major structural work and then take over, or work alongside contractors throughout the construction process. This final option requires finding a contractor who is supportive, and understands how to manage a build process with inexperienced or semi-skilled self-builders, which is not always the case.

Examples

- Broadhempston CLT, Devon
- Housing People Building Community, Liverpool
- St Minver CLT, Cornwall
- Hockerton Housing Project, Nottinghamshire

Self-finish

With self-finish, a contractor is responsible for constructing the homes to a certain point after which the self-finishers take over. Usually contractors complete the external shell of the building which self-finishers then complete internally. This means the work of the self-finishers and the contractor is kept separate, which can make the project simpler and less reliant on finding a contractor willing to work with non-professionals. It also means self-finishers are working mainly in a water-tight environment which is significantly more pleasant and can present less dangers. As with other self-build options, groups can choose to either work on all of the houses until complete (Bristol CLT) or just work on their own house (The RUSS). The latter gives the opportunity of providing a range of options for when individual households takeover the construction process, based on individuals' ability or desire for involvement. For example some very committed members could take over a 'shell' (i.e. a house complete on the outside, but completely empty on the inside) and do all of the internal work, and others with less time could just decorate the house, with the amount of sweat equity they receive varying accordingly.

Examples:

- RUSS, London
- Bristol CLT, Bristol (Fishponds Road & Merry Hill)

↓ RUSS, London

3. Benefits and challenges of self-build

Benefits

Cost – Self-building can significantly reduce the cost of a home, firstly with money which would otherwise be paid to tradespeople being retained by self-builders, and secondly by reducing or entirely removing the need for developer overheads and profit (often a significant proportion of the cost of a new home).

Opening up homeownership – Sweat equity earned by contributing to the build process, especially when the level of equity is above 10% of market value, is accepted by some lenders as a deposit, so for those for whom this is a barrier to homeownership, self-building can allow them to get their first foot on the housing ladder.

Quality – The quality of self-build homes is often higher than that of developer/contractor built housing, firstly due to the added control over the construction process, and secondly because cost saving is not the primary motivation. Groups often choose higher quality designs and products.

Innovation is design – Many self-build groups choose to adopt more innovative materials or designs than would be taken on by conventional contractors. For example natural building materials such as straw bale or cobb (earth building), can create amazing, high performing buildings, but can take longer and require skills not present in the mainstream construction workforce, so are often not considered viable by conventional contractors or tradespeople.

Control – There is more control over the entire construction process, so decisions cannot be made which could compromise the vision of the group. For example ensuring all products used are low-carbon or that airtightness standards are reached throughout the build.

Building skills – Through training and practical work, those involved can build skills and knowledge of construction which can lead to employment and further opportunities. Many self-builders have gone on to work in construction, whether that is management or as a tradesperson.

Satisfaction – There is a huge amount of satisfaction living in a home which you have physically designed and built yourself, which also creates a deep connection between residents and their built environment, something which most people in the UK don't get to experience. This can be a big motivation to get you through the hard work and challenges that will arise along the journey.

Community spirit – The process of physically building the houses and overcoming challenges together can build a strong sense of community which often continues well after homes are complete. Many self-build groups describe the process of building the homes together as crucial to the continued strong sense of community they feel with their neighbours.

Challenges

Capacity – Developing community-led housing takes a lot of time and effort, and self-build housing is the next step beyond this. Not everyone is able to invest the enormous amount of time required, and fit this around busy work and family lives.

Risk – The more involvement you have in the construction process, the more responsibility you have if something goes wrong. Construction is a complex and dynamic process, with unforeseen issues almost constantly arising, and the more control you have over the process, the more of these you will have to deal with yourselves.

Uncertainty of cost – Conventional 'design and build' contracts mean that a price is agreed before construction starts, and if costs rise then this is paid for by the contractor, whereas with self-build this will likely have to be covered by the CLH group.

Distrust of self-build in the UK – Self-build in the UK represents a niche area of new housing development, and there can be a distrust amongst lenders, local authorities and funders that ordinary people can build their own houses. This distrust is obviously unfounded, and does not exist elsewhere in Europe where self-building is widespread, but it can make winning support that bit harder.

Managing group dynamics – Spending so much time working together in a sometimes high pressure environment can be stressful, and disagreements need to be carefully managed so they don't jeopardize the construction process.

Financing – Although commercial mortgages for self-build are available from specialist lenders, where money is released at defined points in the construction process, they tend to be higher interest, and lenders may offer a lower loan-to-value ratio (i.e. lend you less money compared to the value of the land's value).

Finding supportive contractors – If working alongside other professionals, it is important that they understand your vision, and the idiosyncrasies of working alongside unskilled or low-skilled self-builders. This is possible, and many groups have done so, but it can be tricky, and reduces the options available.

Balancing and calculating sweat equity – Sweat equity must be calculated carefully to reflect the costs which are offset by the reduction in paid labour (carpenters, decorators etc.) which can be difficult to predict. Ensuring self-builders do enough work to make up their sweat equity, whilst not doing more work than can be reimbursed, adds a complexity to the programming of works.

Social housing allocations – Social and 'affordable' housing is usually allocated to those in the most urgent housing need, whereas a self-build housing scheme takes time to develop, and then obviously time to build, which doesn't necessarily fit with the conventional model for allocating social/affordable housing. Houses must be allocated before construction starts, and often months before, and this requires some flex from funders and local authorities, which can be hard won. Additionally those in urgent housing need, may not have the time to spend years building their home.

4. The ratio of self–builder to contractor labour

Whichever self-build model you choose, you will need to decide before you start building, how much of the work you will do yourselves, and which tasks you will be involved in.

1. Amount of work (how much time?)

A key consideration when working up a self-build model will be how much of the work self-builders want to take on themselves, and how much contractors will do. This needs to be worked out for (a) how many hours per week self-builders contribute, and secondly (b) how long the process takes (e.g. number of months on site). Finding this out could involve:

- Surveying existing members (where the group is already formed).
- Market research – Surveying potential resident groups (through an online survey or contacting your email own mailing list).
- Researching other similar projects.
- This could be defined as a total number of hours to work across the whole construction period (Housing People Building Community, Liverpool) or hours per week for a set period of time (Bristol CLT).

2. The work activities (which tasks?)

Additionally you will need to define which tasks will be carried out by self-builders, and which by skilled tradespeople. This can take two routes:

1. Hard-split: In this route self-builders' and contractors' work is defined and separate, where contractors are responsible for a certain package of works, and self-builders others, and they are never onsite at the same time. For example contractors could build the frame of the house, after which the self-builders take over the site and the work. Alternatively, very keen self-builders could take over the build after a contractor has poured foundations and installed services to the site. The benefits of this are:

- **Health and Safety** – Contractors are used to working in environments with trained and experienced workers, so may not factor in the extra safety considerations required when working with self-builders. It also limits times when self-builders are on site whilst heavy machinery is operating, which adds significant danger to workers.
- **Finding an understanding contractor** – Due to self-build of any form being unusual in the UK, contractors aren't used to working alongside non-professionals, so it may be hard finding a company that is willing to do so. Construction companies are used to coming onto site and completing a job as quickly as possible, so they can move onto the next one, and they could see having non-professionals on site as a barrier to this. Having a defined package which they are responsible for, and then handing over, would alleviate much of the nervousness they may have.
- **Self-builder experience** – The seasons and variable weather in the UK mean that some jobs are more pleasant than others, especially in winter. Having self-builders come on site after certain tasks have been completed, for example: completed ground works (no mud), a functioning roof (some protection from weather) or the building is watertight (always working inside), can improve their experience and therefore morale and commitment.

2. Working alongside contractors: The second option is for the split between self-builders and contractors to be less defined, with both working on site throughout the construction period. This could be led by the contractor with work 'sub-contracted' back to the self-builders (Housing People Building Community, Bristol CLT), or led by the CLH group, with contractors being brought in to support them (Broadhempston CLT).

Some benefits of this could be:

- **Training opportunities** – This allows self-builders maximum experience and training, they are part of the entire process so gain a broad range of skills and knowledge.
- **Sweat equity** – Self-builders have more flexibility in how they accrue their sweat equity, than if they are only involved for a shorter set period. They could either increase their equity by working the same hours for a longer period, or work less hours per week over a longer period, which may make self-building easier to fit around work and family life.

5. When to leave it to the professionals

Some jobs are best left to the professionals. Sometimes tasks legally require qualifications (such as gas fitting and electrical installation), sometimes formal qualifications are advisable and some jobs are just much more efficiently done by professionals with lots of experience.

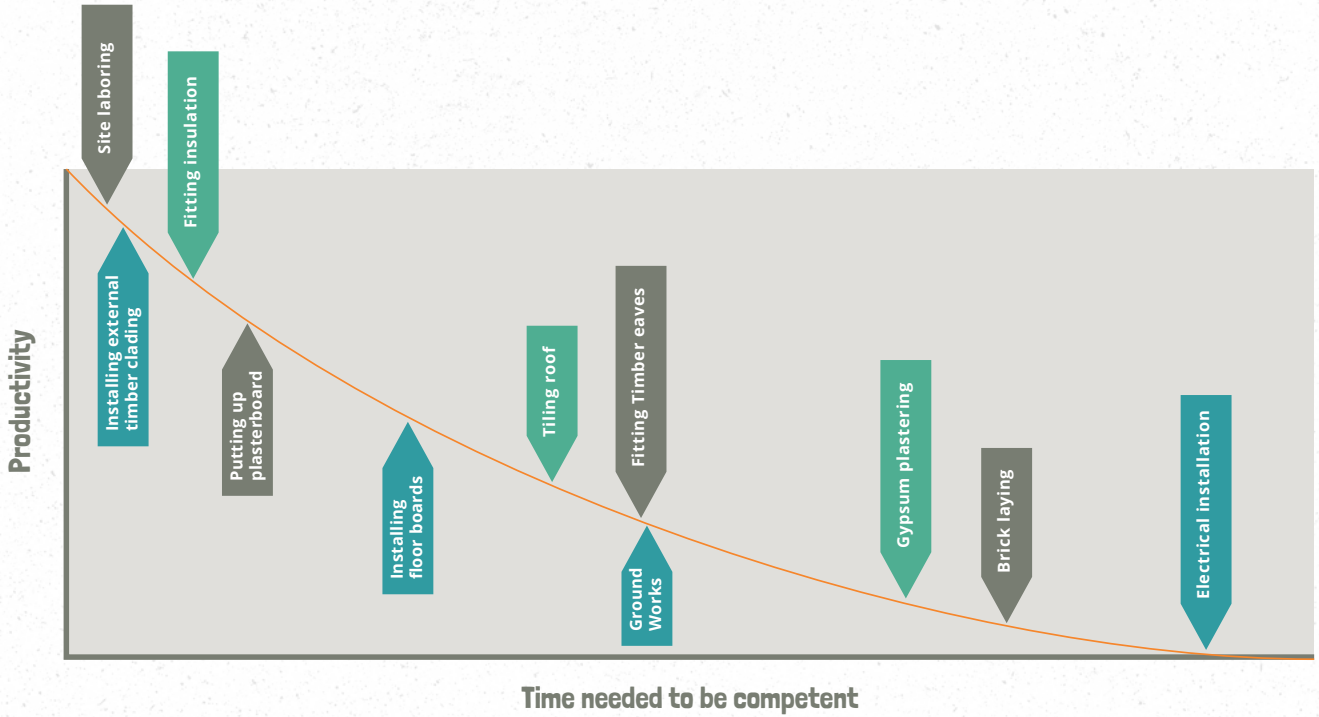
Efficiency and self-building

It is always worth considering how to maximise the efficiency of both self-builders' time and contractors' labour. There are some tasks which non-professionals can inherently become competent and efficient in fairly quickly, and where productivity will not be far off that of a professional tradesperson, which tend to be the more repetitive, simple and extensive tasks. Examples would include painting walls, installing timber cladding, putting up plaster board and site labouring (i.e. tidying and moving things around).

At the other end of the spectrum there are specialist tasks which require a lot of experience and training, specialist tools and possibly qualifications, to become competent and productive. Tradespeople who are doing these jobs day in day out will do them very quickly, but a non-professional will spend much more time learning, than actually completing the job. This could be tasks such as plastering, electrical installation and groundworks (i.e. marking and digging foundations). Across most construction projects there is a law of diminishing returns when it comes to self-building, as you move into the more specialist jobs.

It is therefore sensible to look realistically at which tasks are best done by self-builders, and which by professionals in relation to the specifics of your group and your vision. It is certainly possible to do almost all the work on your houses yourself (minus gas and electrics) and it has been done (Hedgehog Housing Co-op and Walters Way), but this will require a very large time commitment and a long build timeline. It could also be more expensive, when you factor in interest rates during construction, residents renting properties while they build, and other ongoing revenue costs such as insurance and professional fees (project management, accountancy etc.), discussed below.

The below image maps some of the tasks and roughly where they fall on the spectrum, with tasks at the top of the curve being the most easily and efficiently done by non-professional self-builders and those at the bottom best left to professionals. This is to give an indication only, a detailed programme of works would need to be drawn up by a construction project manager.



6. Sweat equity models

'Sweat equity' is used here to broadly describe the process by which self-builders are rewarded for the labour they put into the construction of their homes. This can be applied in several ways depending on your organisation's self-build model and eventual tenure model (rental, shared ownership, full-ownership, see chapter 5 Tenure Model for more information). As a general rule, in order for the project to be viable, i.e. not lose money, the amount self-builders are reimbursed must roughly equate to the value of the professional work which they have offset.

Total amount of sweat equity paid to self-builders = **The amount costs are reduced by self-builders' labour**

Types of sweat equity:

Below are some of the ways in which 'sweat equity' can be paid to self-builders, along with the tenure and self-build models which they could apply to.

1. Reduced sale price

Applicable models: Shared ownership or full ownership – full self-build, self-finish or self-build plots

This is the simplest model, where individuals take on the house in an unfinished form for a reduced price and complete the work themselves. Self-builders can either source and pay for materials themselves or these can be included in the sale price.

Examples:

- RUSS, London
- Lyvennet CLT, Cumbria (self-build plots)

2. Sweat equity in home

Applicable models: Shared ownership or full ownership - Group self-build, part self-build, self-finish

Self-builders are given an equity share in their home in exchange for their labour. This is calculated based on the number of hours contributed per household, either as a set amount over the build period (Housing People Building Communities, Liverpool), or a certain number of hours per week for some or all of the construction process (Broadhempston CLT and Bristol CLT). This is paid as either a percentage of the value of the home, or as a set cash discount. For simplicity, in some projects the number of hours can be the same across all householders with everyone receiving the same equity. Alternatively, the number of hours and therefore self-builders equity can vary based on their contribution. For the latter this must usually be consistent week-on-week and decided on in advance, so an effective programme of works can be drawn up. A variation of this model could be applied to Mutual Home Ownership Schemes, where sweat equity in the co-operative's assets as a whole is given in exchange for labour. This option was explored by LILAC, but in the end was scrapped due to viability.

Examples

- Broadhempston CLT, Devon
- Housing People Building Community, Liverpool
- Bristol CLT, Bristol (shared ownership housing)

3. Rent reduction

Applicable models: Rental – group self-build, part self-build, self-finish

A reduction in rent over the lifetime of the tenancy or for a set period is given in exchange for input into the build. Usually a lifetime tenancy is included in the exchange, meaning the self-builder has the right to occupy the house until they die, and are often able to pass this onto a relative.

Capital reimbursement on leaving - Some rent reduction models involve a capital payment to individuals if they choose to leave, which allows them to be rewarded for their contribution even where their circumstances change. This could be staged, with the amount someone leaving their home receives reducing over time.

Housing allowance and social rent - Practically, this can be an issue for those receiving housing allowance where the benefit is only paid up to the cost of their rent. These residents would not see the benefit of the rent reduction as their housing allowance would be reduced accordingly, which they would need to be aware of before committing to this model.

Examples

- Hedgehog Housing Co-operative, Brighton
- Walters Way, Bristol CLT (social rental housing), Bristol

4. No sweat equity

Applicable models: Rental – group self-build, part self-build, self-finish

Some co-operatives have chosen not to, or have not been able to, offer any direct reimbursement to their members, but they are repaid by the opportunity to live in the housing once complete. This collaborative approach means the benefit of individuals' labour is shared between members and those who join when they leave.

Examples

- Golem Housing Co-operative, Swansea
- Brithdir Mawr, Pembrokeshire

Calculating sweat equity

Valuing sweat equity

To have a viable model, the total amount paid out in sweat equity to all members, must be roughly equal to the amount of paid labour which has been offset.

Due to the fact self-builders are likely to require more training, and complete tasks more slowly than professionals, at least at the beginning, this will likely not be an hour-for-hour swap out. It will require making an informed estimate as to how long it will take self-builders to complete tasks, and comparing this to how much it would cost a professional to do the job.

If a standard sweat equity rate is to be found, this calculation will need to be done across all of the tasks to be completed by self-builders and an average hourly or daily rate found.

Below is an example calculation:

It takes 2 self-builders 2 weeks to externally timber clad one house including training time = 20 days labour.

It would take 2 professional carpenters 1 week to do the same job = 10 days labour (priced @ £200 per day).

The sweat equity calculation in this case would be:

Cost of professional labour
(cost per day x the number of days)
x
How much longer it has taken for the self builders
(in this case it has taken twice as long)
=
Total cost of days
(Total cost of days / total number of days worked by self builders)
=
Cost per day

There are two self builders in this case therefore:

Cost per day / number of self builders
=
Cost per day per person

Then finally, assuming an 8 hour day:

Cost per day per person / 8
=
The value of the sweat equity per person per hour.

For this example it would look like:

Total cost of days = £200 x 10 x 2 = £4000

Cost per day = £4000 / 20 = £200

Cost per day per person = £200 / 2 = £100

Value of sweat equity = £100 / 8

= £12.50 per hour per person

This process would be carried out during the detailed costing process, and would usually be done by a quantity surveyor or cost consultant, ideally one who has experience of calculating sweat equity. However, having an idea of how sweat equity is valued early on will allow you to plan for how much involvement residents are going to have in the build.

Some considerations for calculating 'sweat equity'

What work is counted towards sweat equity?

You will also need to define what work counts towards sweat equity, whether it is earned for purely practical construction tasks, or whether other roles such as administration or management of the project are able to count towards sweat equity hours.

This will be influenced by practical considerations (i.e. can you afford to pay sweat equity for that type of work) as well as the skill set and ability amongst the self-builders. One obvious benefit of having a broader range of job roles is that those who are less physically able or have skills in non-construction areas can be rewarded for their time.

It is unusual for time contributed towards the forming of the project before the start of construction to be counted as sweat equity, because this work is not 'off-setting' work which would have otherwise have to be paid for, although Lancaster Cohousing is an example of one group who did manage to pay members for their time organising the project during the pre-development phase.

Is it equal across job roles?

In a commercial setting, different job roles attract different levels of pay. You will need to decide if all self-builders get the same equity for their time, or if those with specialist and financially valuable skills, i.e. architects or electricians are paid more for their time. There can be financial benefits of this to both the CLH organisation and individuals, but it could make for a difficult dynamic within the group with some self-builders being paid more than others.

Are there options for paid job roles for residents?

Some CLH groups have chosen to employ members of the group in paid roles, either organisational roles (e.g. project/site management or administration) or practical roles (skilled trades), beyond their sweat equity hours. Examples include Broadhempston CLT and Lancaster Cohousing. Members will often have a detailed knowledge of the project, and professional skills they can bring, and during the construction phase they will be onsite anyway to complete their sweat equity hours, so this has definite benefits.

7. Case studies

Ashley Vale, Bristol

Twenty self-build homes on a 2.1 acre ex-industrial site in St Werburghs near the centre of Bristol. The community group formed a non-profit company Ashley Vale Action Group (AVAG) which purchased the site and applied for planning permission, then divided the site into serviced plots. Twenty of these were sold to individual self-builders, who were responsible for building their own home, whilst the rest were developed by AVAG, and then self-finished by the residents who bought them.

The cost of the plots was kept low, and because of the homes being self-built, it allowed many first time buyers to own their home.

Type of self-build: Mixed individual self-build plots, with a mix of full self-build and self-finish

Build timeline: 5 years (Build times varied greatly. Some houses were finished within a year, and almost all within five years. One house has made little progress and is still unfinished).

Completed: 2006

Contractor/self-builder split:

Self-builders: Plot owners were responsible for building their own house, some people did all the work themselves, others did some of the work and hired in professionals for the rest.

Self-finish bungalows: Those who bought the six bungalows came into a finished shell, which was built by AVAG, with some of the self-builders being employed as trades.

Build method: Timber frame with mixed lime render and cedar/larch cladding external finish. (Designs varied hugely, but the 'palette' of materials was agreed upon for all the houses, which meant there was a consistent aesthetic)

Hours per week: Huge variation, many people worked on their home full time (35+ hours a week).

Total cost per home: £40,000-£125,000 (£66,000 - £207,000 adjusted to 2024 prices)

Build cost per home: £35,000 – £100,000 (£58,000 - £165,000 adjusted to 2023 prices)

Cost per m²: Average £500 p/m² (£830 adjusted for inflation)

Financial sweat equity model:

Self-builders: Households bought their plot at cost price (well below market value) and funded the construction themselves.

Self-finish bungalows: Households bought the shells for market value and then self-finished.

Sweat equity offered: Unknown

Learning points:

- Although residents were responsible for their own homes, they helped and advised each other throughout the process, which was seen to be very valuable.
- There was no mechanism to keep the houses affordable, so once complete some householders chose to sell up and make large profits.
- A maximum height for houses was stipulated, which meant that most people built to that height, so the houses are much bigger than houses in the surrounding area.
- Most residents had to use personal savings or borrow money from relatives. Although a small number of residents managed to get a commercial loan, lenders needed full planning and building regs approval which needed upfront capital from members to subsidise those who couldn't afford this initially.

Hedgehog Housing Co-operative, Brighton

Ten self-build bungalows on the outskirts of Brighton, developed in partnership with a housing association who bought the site and financed the build. The residents, who had limited or zero construction experience, did all of the work themselves, barre some of the electrics and plumbing. This project was built using a design based on the accessible self-build methods developed by Walter Segal in the 1980s and was one of 200 homes across the UK built in this way in the 1990s and early 2000s.

The development featured on the TV series Grand Designs and is summed up by the following quote from presenter Kevin McCloud:

> ***Of all the films we have made, that is the one of which I am most proud. Partly this is because we were able to explore the principles of true affordability and sweat equity, where people on the social-housing waiting list were able to toil to build their own homes in return for an assured tenancy and a reduced rent."***

Type of self-build: Full group self-build

Build timeline: 2.5 years

Completed: 1999

Contractor/self-builder split: Entirely built by residents, with only plumbing and electrics contracted out. A site manager and trainer was on-site 2.5 days a week, and was the only professional employed for the duration of the project.

Build method: Timber frame and cladding, using the Segal method of simple accessible design, designed with self-building in mind.

Hours per week: 30 hours per week per household

Total cost per home: Build cost per home: £60,000 (£110,000 adjusted to 2024 prices)

Cost per m²: Unknown

Sweat equity model: Residents were given a 30% lifetime reduction in rent below social rent levels. An undefined cash amount will be given when they move out.

Sweat equity offered: Homes are rented, with self-builders getting a 30% reduction for life.

Learning points:

- The build process was arduous at times as self-builders did everything themselves, and took much longer than if they had been built by professional contractors.
- The group supported each other and had an on-site crèche for children, which they took in turns to manage.
- Although the members did decide which house would go to each member beforehand, all the members worked on all the houses until they were finished, which built a strong sense of community.
- Health and safety procedures in construction are now incredibly rigorous for very good reason. This was not necessarily the case during the construction of Hedgehog's homes, which can be seen in videos and photos of the build process. The ad hoc approach adopted by the group would need to be adapted to a more safety orientated context if undertaken today.

Broadhempston CLT, Devon

Six 3 and 4 bed homes on a rural exception site on the outskirts of a village in Devon. All the self-builders were local people in need of affordable housing, and they worked on the houses in the evenings and at weekends. The build was entirely self-managed by the CLT, with some of the work being sub contracted to builders, electricians and plumbers.

All the members worked on all the houses, but some became specialised in certain areas, and carried out that same task on all the houses. For example, two self-builders tiled all of the roofs, and one member worked with the electrician to run all the cabling around the house (checked and signed off by the electrician).

The group identified a local builder who was supportive and willing to offer training and work alongside self-builders. The site was managed by one of the self-builders, who was paid for his time beyond his sweat equity hours, an arrangement which worked well, as the self-builder was consistently on site and had a good understanding of the design and construction methods.

Type of self-build: Part self-build/self-managed, group self-build alongside contractors.

Build timeline: 1 year

Completed: 2013

Self-builders and contractors: 50% self-build, 50% contractors. The contractor's work was heavily front loaded, they completed the groundworks and put the timber frame up and made the roofs water tight. After this, the residents worked alongside a very small team of local builders to completion.

Build method: Timber frame with straw bale insulation and passive solar design.

Hours per week: 20 (although most members voluntarily went over this to get the houses finished)

Total cost per home: £170,000 (£228,000 adjusted for inflation)

Build cost per home: £140,000 (£188,000 adjusted for inflation)

Cost per m²: Unknown

Sweat equity offered: 25% of the value of the home

Learning points:

- For mainly psychological reasons Broadhempston CLT highly recommended having contractors carry out the groundworks and putting up the frames, as this meant the self-builders had a dry space to work, and the homes were nearly half way built when they started.
- The use of straw bales was highly praised by the self-builders, due to the high level of insulation, the ease of installation and their environmental credentials.

RUSS (Rural Urban Synthesis Society), London

36 mixed tenure 1-4 bed flats in inner city London built on land leased on a long-term basis from Lewisham Council. The design is intended to promote social interactions with shared outdoor space and balconies, and lots of sustainability features such as air source heat pumps and high levels of insulation.

The residents were heavily involved in the design and concept creation, with RUSS managing the construction process, retaining as much control as possible, to make sure it stayed true to their vision.

Type of self-build: Mixed self-finish and contractor built

Build timeline: 19 months construction

Completed: 2024

Contractor/self-builder split:

Residents were offered three options:

- **Shell only** – Residents take over the flat from the contractor as a shell, where all labour and materials are procured and completed by the residents.
- **Self-finish** – Residents carry out internal fit out and finishing works with materials supplied by the contractor.
- **Contractor finish** – Contractors completed the flat, with residents just doing the decorating and floor finishes.

Build method: GGBS eco-concrete structure with fibre cement cladding.

Hours per week: Unknown

Total cost per home: £238,888 (average, 2023 prices)

Build cost per home: £238,888 (average, 2023 prices)

Cost per m²: Unknown

Sweat equity model: Residents could choose different levels of self-finish, from working alongside contractors, to contractors doing all of the work, in exchange for the equivalent value of sweat equity.

Sweat equity offered: A reduction of up to £25,000 in purchase price depending on the level of self-finish, or a reduction in rent for social rental housing.

Learning points:

- RUSS explored a timber frame and cladding construction, but due to the perceived fire risk in light of the Grenfell Tower disaster amongst residents, they decided to use concrete substitutes. This shows how decisions often have to adapt to changing external environments and events.
- Due to the four storey design, there needed to be contractor involvement throughout the process, and particularly in the construction of the structure of the building, therefore full self-build was not possible.

Housing People Building Community, Liverpool

↑ **Housing People, Building Communities, St Bernards Church, Liverpool**
Photo courtesy of Ainsley Gommon Architects

Eleven 3-storey, 3-4 bedroom affordable houses in a former church building, four new 2-bed apartments and a 3-bed house in the grounds. Residents or 'home partners' contributed their time to help finish and decorate homes, or to other aspects of the organisation, for example landscaping, administration or helping run the organisation.

Volunteers in the form of friends and family members could donate their time to home partners to help them meet their required number of hours. The sweat equity earned through their labour was enough for most residents to put down a deposit and get one foot on the housing ladder for those who would not usually be able to.

Type of self-build: Self-finish

Build timeline: 1.5 years

Contractor/self-builder split: Contractors mainly constructed buildings, with 'home partners' working alongside as on-site labour or working on the finishing of the homes.

Build method: Refurbishment of a former church, with some traditional brick and block new build.

Hours per week: 500 hours in total per household

Total cost per home: £137,500 average (£169,000 adjusted for 2024 prices)

Build cost per home: £137,500 average (£169,000 adjusted for 2024 prices)

Cost per m²: Unknown

Sweat equity offered: £10,000 per home in exchange for 500 hours work (£12,300 adjusted for inflation)

Learning points:

- The building contractor was very supportive and bought into the vision, making sure residents were able to complete their sweat equity hours. This is very important, as contractors often look to complete the contract as cheaply and quickly as possible, which can mean they do not accommodate self-builders or finishers.

Other self–build schemes

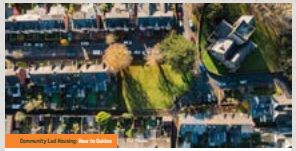
- St Minver, Cornwall
- Hockerton Housing Project, Nottinghamshire
- Bristol CLT – Fishponds road and Shaldon Road
- Bristol CLT - Shaldon Road scheme
- The Streets, Graven Hill, Oxfordshire
- Consortium Self-build, London – 9 single person homes built by young people
- Nubia Way Self-build Co-op, London
- Chinbrook Meadows, London
- Roxborough Hosuing Co-op, Colchester – self build scheme for disabled people
- Diggers Self-build Co-op, Brighton
- Walter Way Self-builds, London – 13 self-build homes in Lewisham

Community Led Housing:

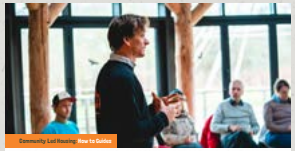
How to Guides

Introduction

1. Organisation



2. Site



3. Funding

4. Business Plan

5. Tenure Model

6. Planning Permission and Building Control

7. Self-build

8. Design

9. Procurement Routes

10. Construction

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