UK Cohousing

Basic principles of Cohousing design

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the common house   1&2 bed flats   2&3 bed houses

- This overview of Cohousing design is an introduction to creating the vitality that is consistently recognised in such neighbourhoods.

- Designing such settings involves a unique combination of principles for the built environment and principles for the social size of the neighbourhood community.

- These principles will apply both to new-build projects and to the 'retrofitting' of existing buildings into Cohousing use.

- This overview should be read in conjunction with the '**UKCN Practical Guide to Cohousing' – November 2020**

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Core principles of Cohousing design (1)

Cohousing projects have:

- **Designs** for the physical form and layout of their neighbourhoods to maximise incidental and organised contact between neighbours

- **Self-contained accommodation** plus significant common facilities and spaces, of which a 'Common House' is crucial for communal activities

- **A size and scale** of each neighbourhood setting that is appropriate to underpin sustainable community dynamics

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Core principles of Cohousing design (2)

This means Cohousing projects seek to have:

Core principles of Cohousing design (3)

- Designs of all buildings and spaces that will make them all opportunities for social interaction

- A 'Common House' or similar facilities that will be at the heart of all neighbourhood activities

- The optimum number of dwellings and residents to sustain meaningful contacts and relationships :

  between 20-50 adults (+ children, if the project is multi-generational)

# Site types, orientation and access (1)

- A central principle of Cohousing is to use the positioning of the Common House as a focus of access into the Cohousing neighbourhood.

- The Common House will be positioned closest to main point through which residents enter a site (such as the examples provided of indicative square or rectangular sites) in order to access common areas and dwellings beyond.

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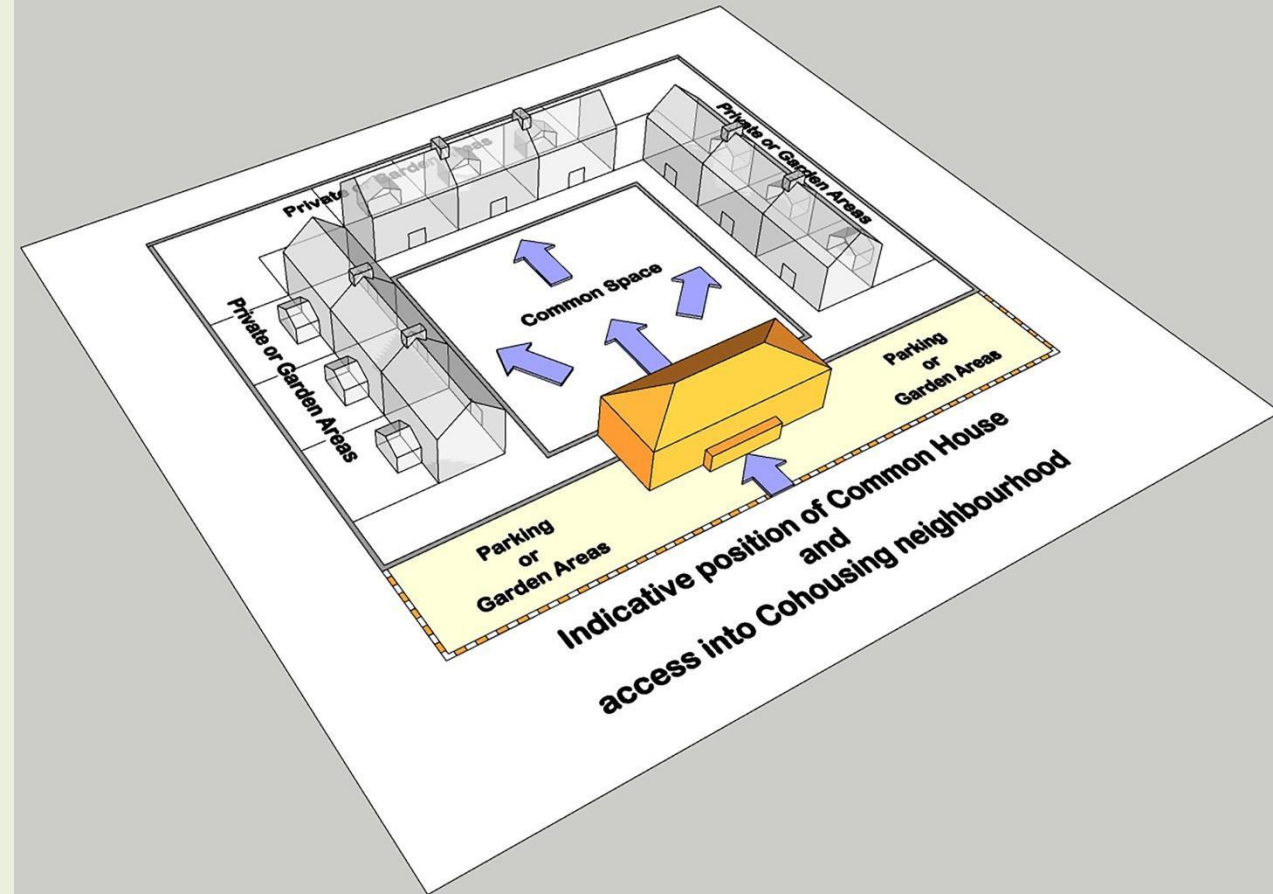
The diagram shows a further example of a focused access to the site via the Common House. Such a layout may prove suitable when planning higher numbers of dwellings on larger square or rectangular sites.
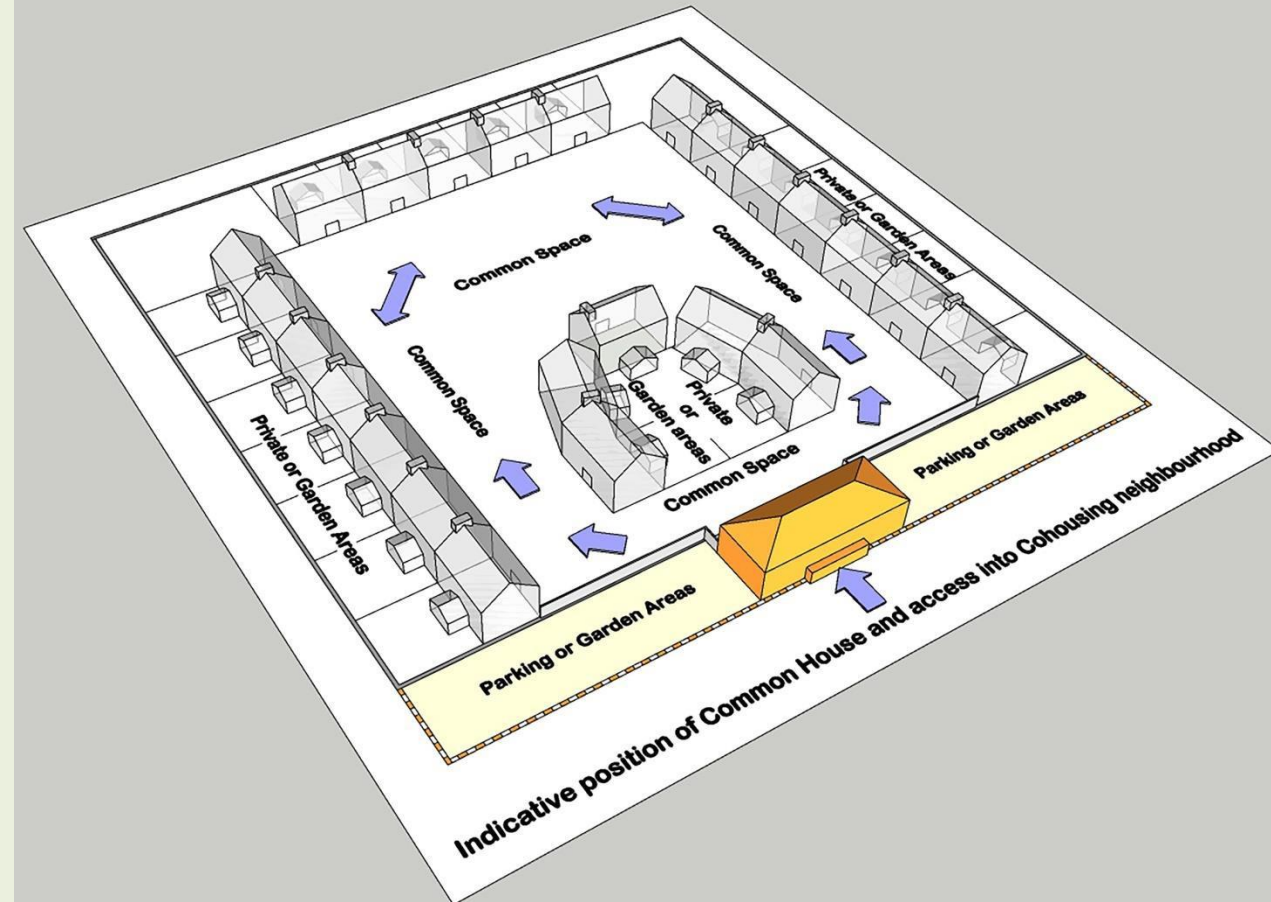
Site plan of LILAC, Leeds

Ex-school site in dense urban area, dwellings arranged around central common areas

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1. Parking Area
2. Common House
3. Pedestrian Street
4. Shared Houses
5. Houses
6. Flats
7. Studios

A central Common House on a steeply sloping site

ChaCo
CHAPELTOWN COHOUSING

5-room shared house

4-bed house

3-bed house

3-bed duplex over 1-bed flat

2-bed duplex over 1-bed flat

4-bed house

3-bed house

3-bed duplex over 1-bed flat

4-bed house

150m² common house with 3x 2-bed duplex above

5 self-build plots

• affordable
• low energy
• rent or buy
• community-led
• co-operative

Private homes with shared facilities:
• laundry
• guest rooms
• big hall and kitchen
• garden
• workshop etc

Site of ChaCo, Leeds

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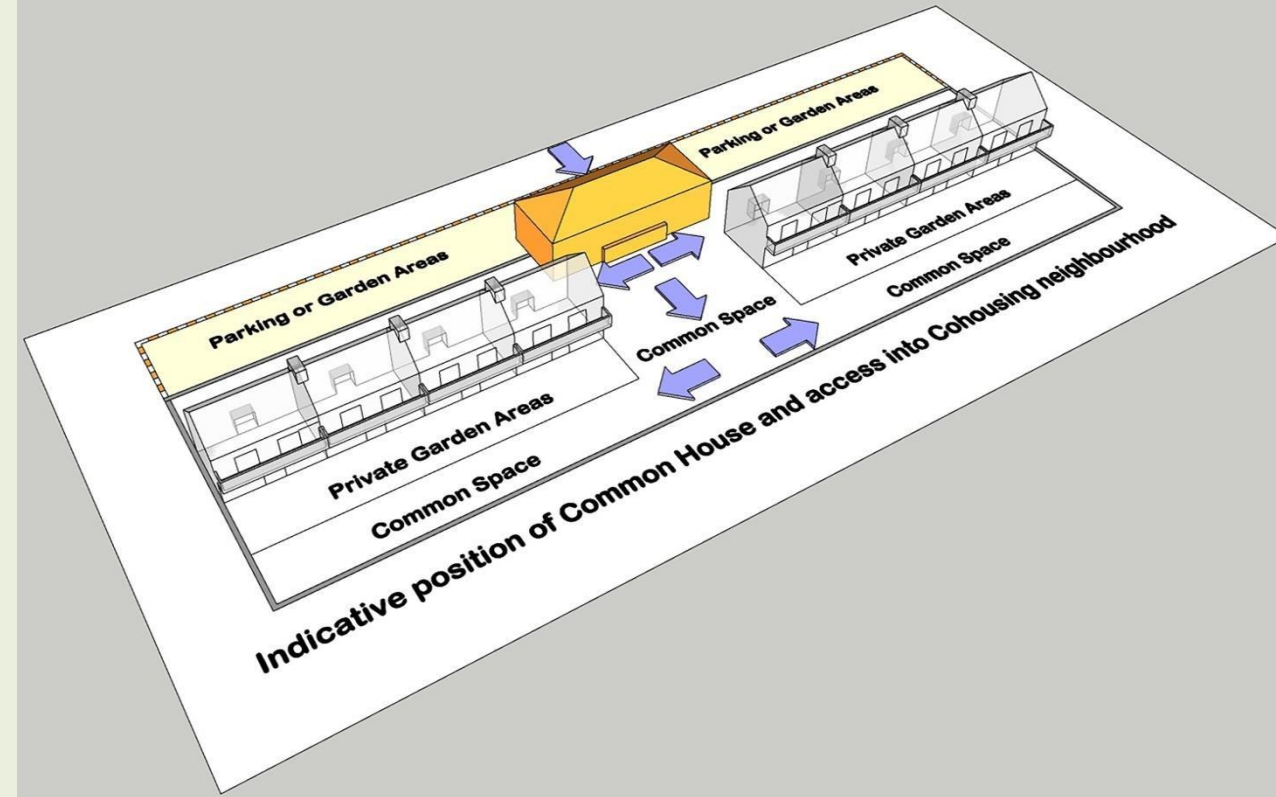# Site types, orientation and access (2)

The diagram shows an example of positioning the Common House closest to the main point of entering <u>at one end</u> of a linear or elongated site, and then to access common areas and dwellings beyond.

Indicative position of Common House and access into Cohousing neighbourhood

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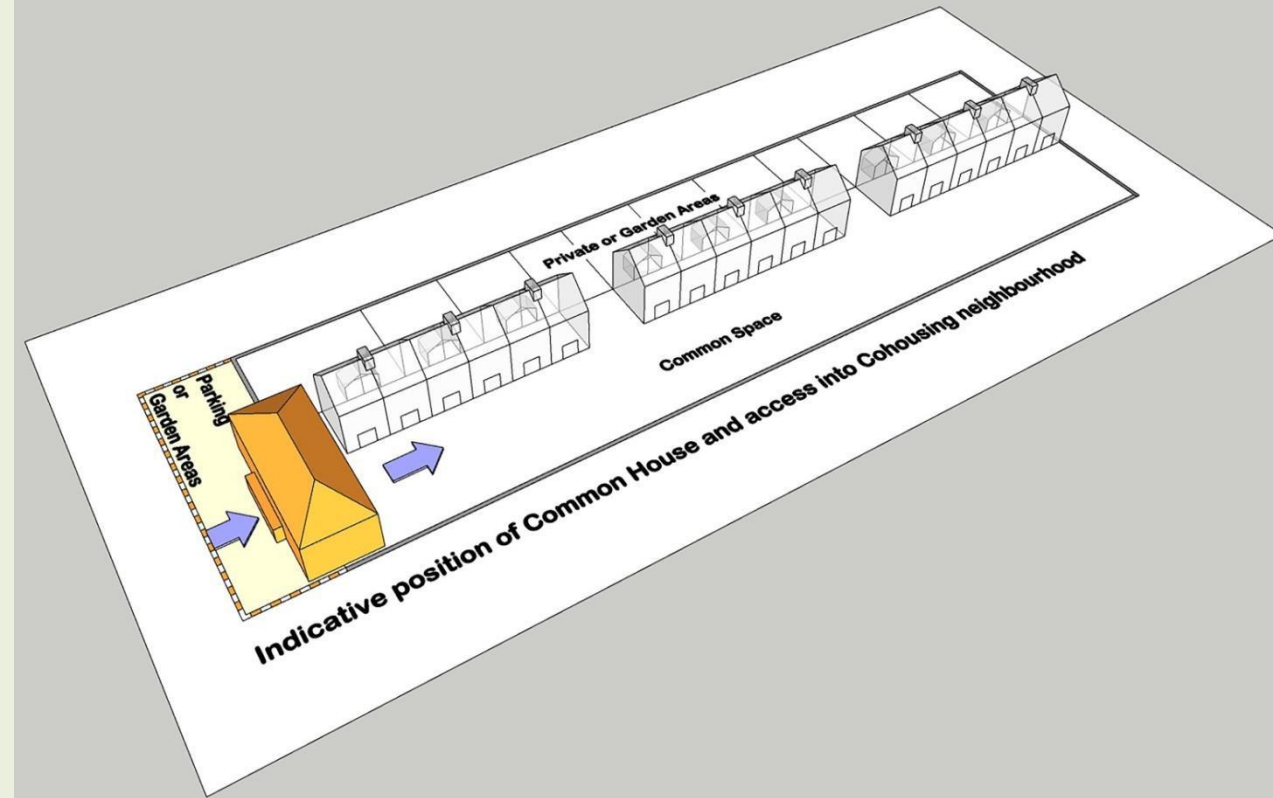
The diagram shows an example of positioning the Common House closest to main point of entering a linear or elongated site **at a mid-point** in order to access common areas and dwellings beyond.

Parking or Garden Areas

Parking or Garden Areas

Private Garden Areas

Common Space

Private Garden Areas

Common Space

Common Space

Private Garden Areas

Common Space

Indicative position of Common House and access into Cohousing neighbourhood

Site plan of Forge Bank, Lancaster

A linear site, accessed from one end, with the Common House on the main thoroughfare

# Site plan of Cannock Mill, Colchester

Cannock Mill is a on steep sloping site, with the Common House and other shared facilities located some way in from the entrance road at the bottom, and with dwellings located along the drive up the slopes.

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The diagram shows how the Common House and other shared facilities can be positioned closest to main point of entering a multi-storey setting (usually on the ground floor).
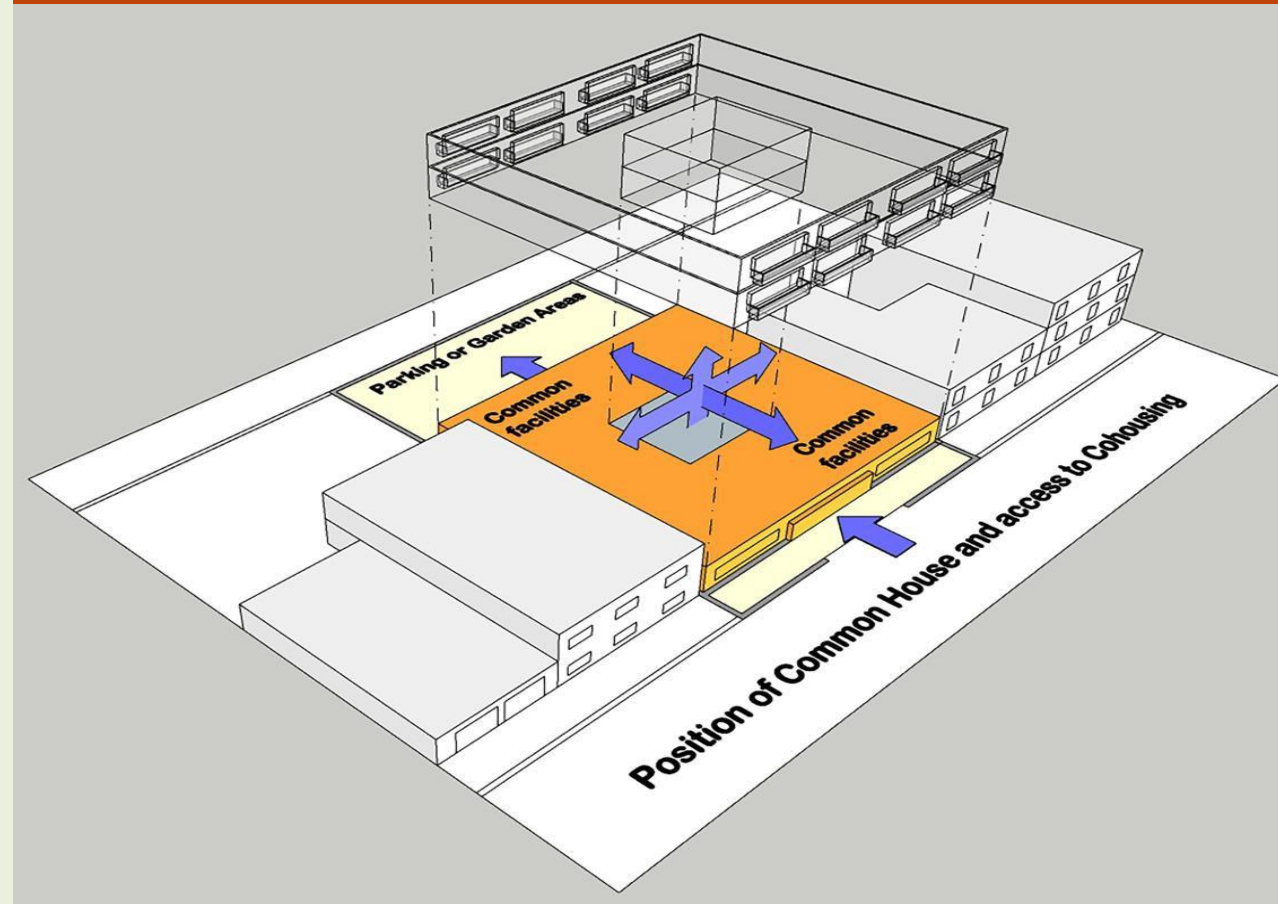
Site plan of New Ground / OWCH

Access into the New Ground site is via the Common House area, off the external street, with dwellings above and on either side of the shared facilities.

Indicative placement of dwellings (1)

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Square or rectangular sites, with dwellings distributed around common areas, to encourage residents to connect with each other, rather than coming and going in private……
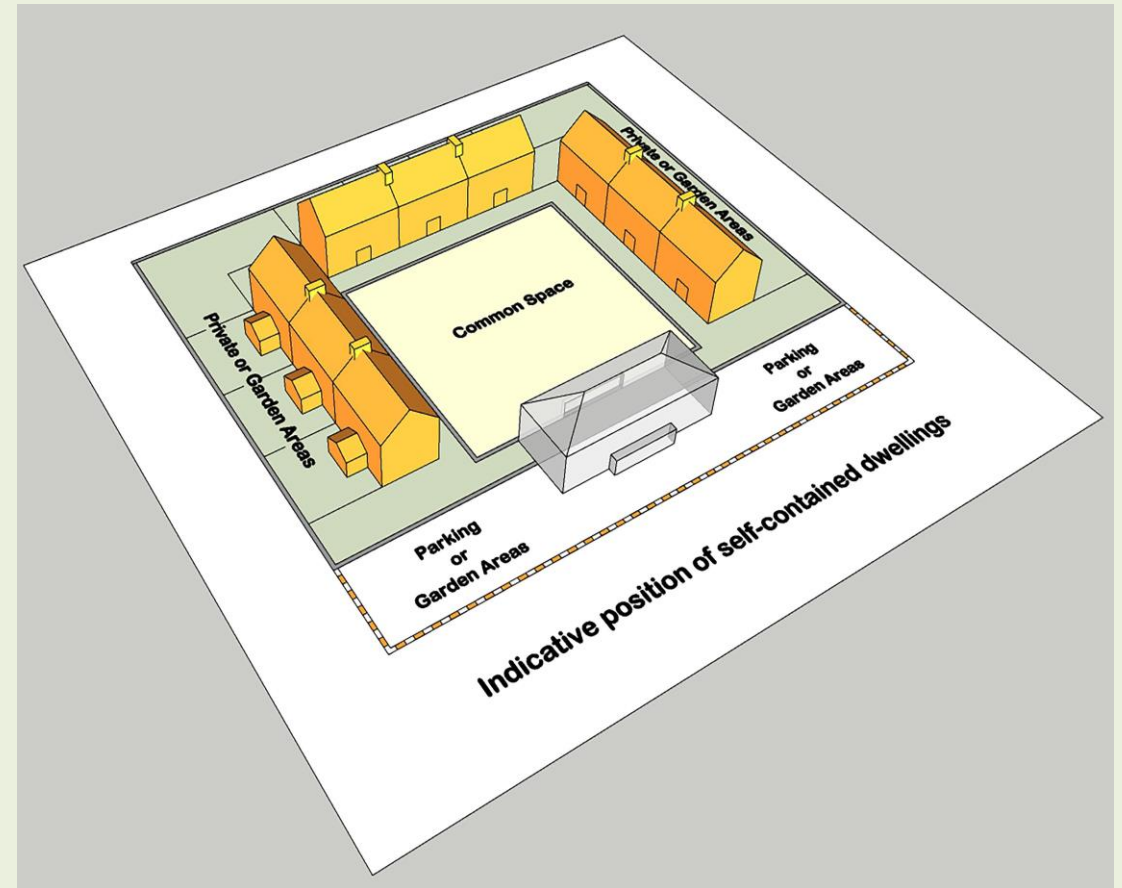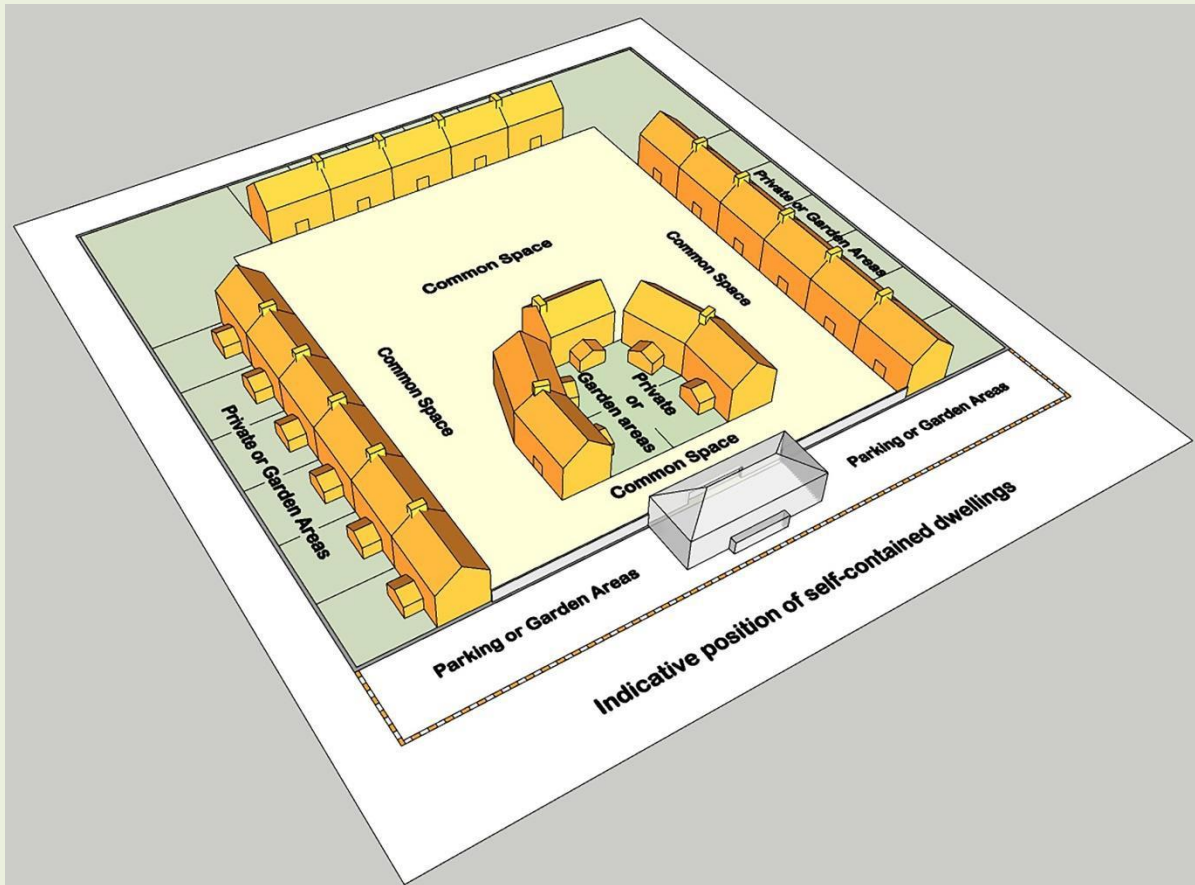
Threshold Centre, Dorset

The Threshold Centre is a compact rural setting, with dwellings and the Common House arranged in a 'horseshoe' layout
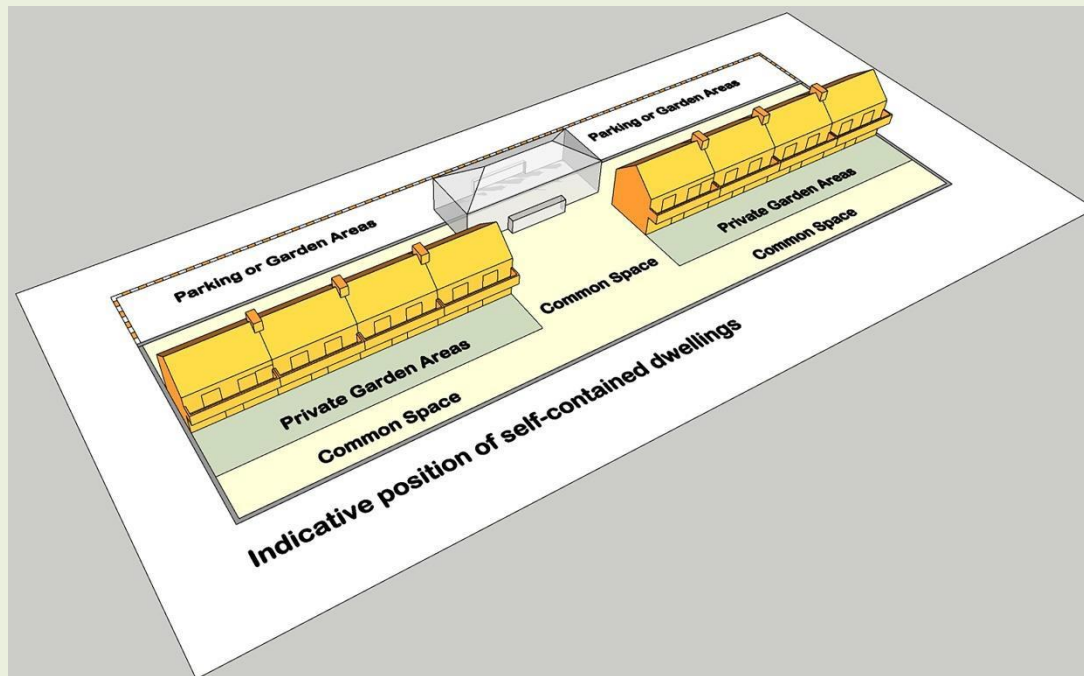
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LILAC, Leeds

LILAC is a compact urban setting, with access into the area by the side of the Common House, positioned central to dwellings on all sides

Indicative placement of dwellings (2)

On elongated sites, dwellings can be sited in a linear direction, after access to the site via the Common house area
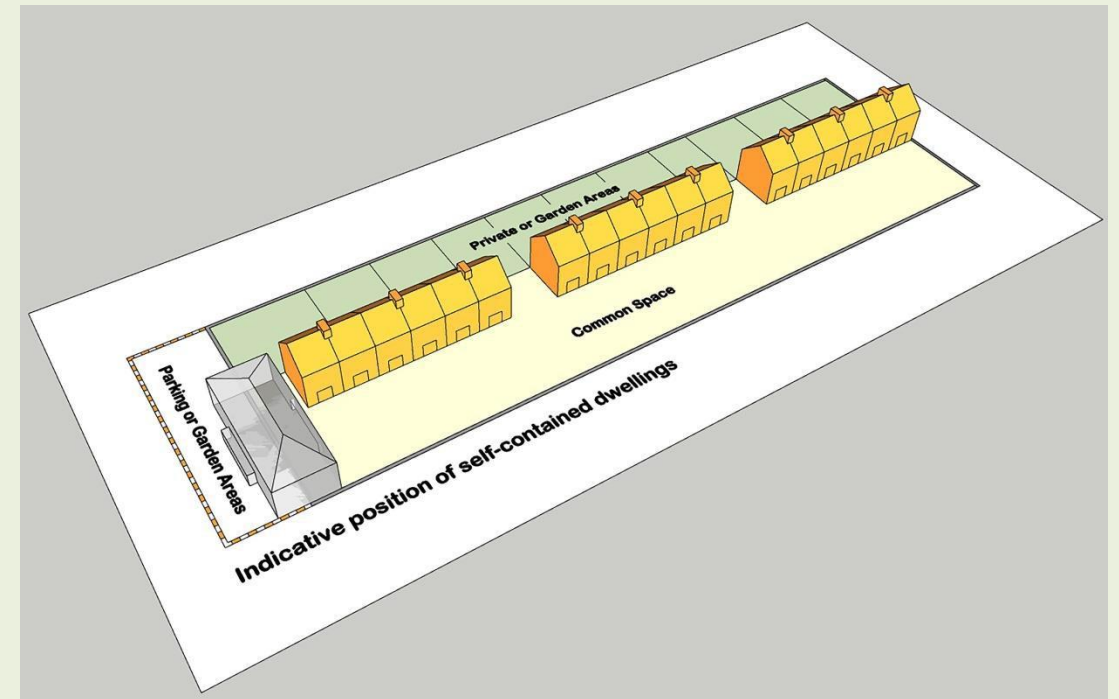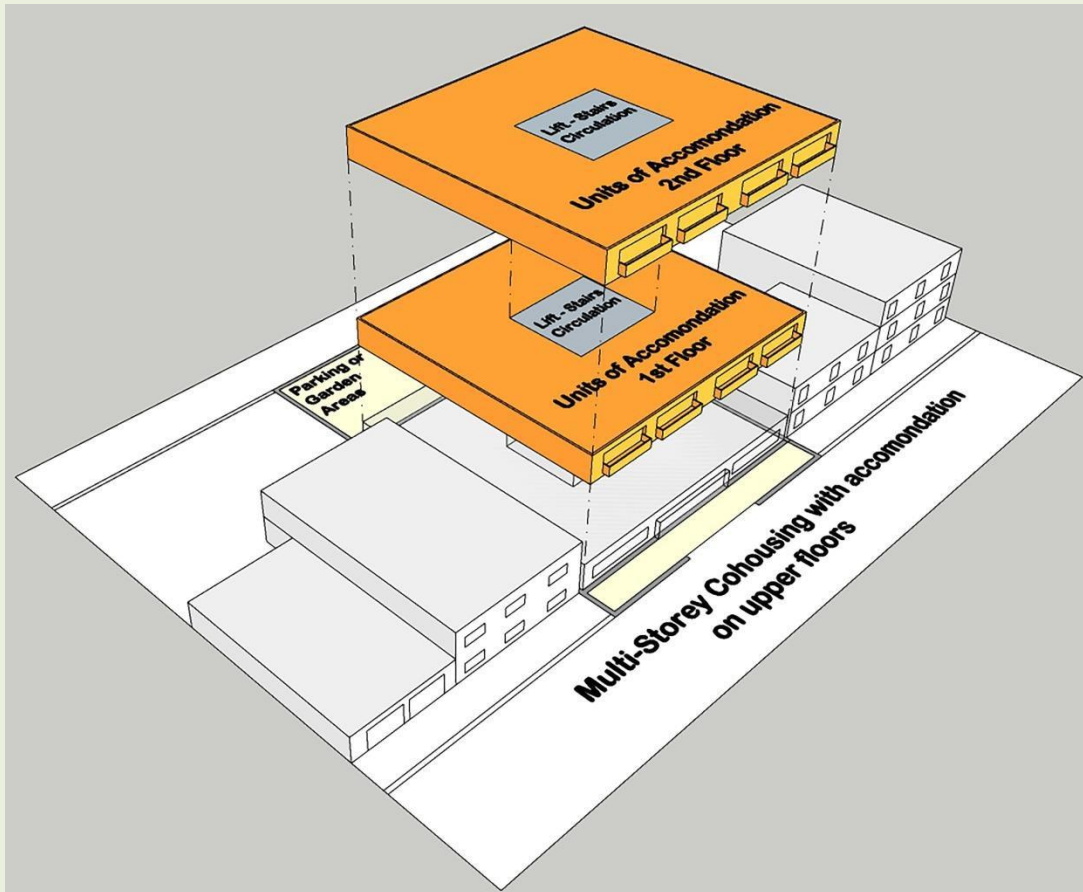
Forgebank, Lancaster

Forgebank is a long site, following the bank of the River Lune. A hosts a line of family-sized accommodation, with the Common House located within this line, by the main thoroughfare.

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Cannock Mill, Colchester

Cannock Mill features an elongated access through the site up the slopes

Indicative placement of dwellings (3)

- New dwellings can be designed above and around ground floor common areas (in multi-story floors)
- One or more floors of dwellings can be sited above other facilities on the ground floor level.
- Such projects could be a conversion of empty office or factory buildings, or of a larger mansion.

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New Ground / OWCH, Barnet

New Ground is the original UK Cohousing project for 'senior' members. It was co-designed and created by and for women over 50 and has dwellings over three floors and above the Common House, with communal gardens.

Canon Frome, Herefordshire

Canon Frome is the retrofit of

a large mansion and

extensive grounds to create

an 'intentional community' .

![UKCohousing logo]

Thundercliffe Grange, nr Rotherham

Thundercliffe Grange

is an early example of

retrofitting a large

mansion. Common

facilities on the ground

floor, with apartments

on upper floors and in

outbuildings.

Parking provisions

- Cohousing neighbourhoods work best when car use is restricted to just the edge of a site. This allows for incidental interactions between residents when moving between homes and cars.

- As people live in Cohousing, they tend to find they need fewer cars than they first expected – more car sharing takes place and parking needs are reduced.

Laughton Lodge, Sussex

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Parking areas

Places to park vehicles just inside a site's main entrance or at its edges - not attached to individual properties.

Springhill, Stroud


K1 / Marmalade Lane, Cambridge

Common Houses and shared facilities

- May be built from new, or reconditioned from existing properties
- Are designed to be the centre of community contacts - the 'heart' of neighbourhood activities,
- Should be large enough for all members to congregate together
- Are the natural place for common meals and sitting areas
- Can include guest room(s), laundry facilities, mail boxes and work rooms

Threshold Centre, Dorset

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Common House - Chapletown Cohousing
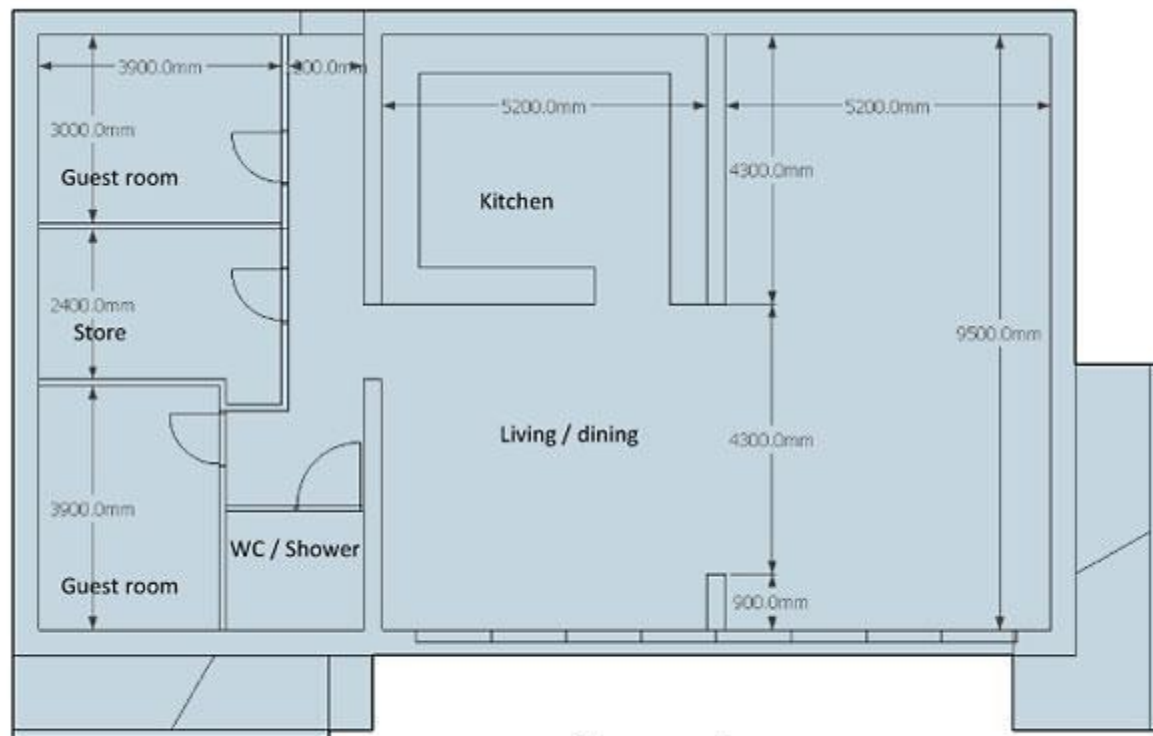
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ChaCo: "The essence of cohousing is sharing…………….. at the heart of the site there's a 'Common House [which is the location for]:
• shared meals and cooking
• meetings (maybe including 'community centre' type events)
• play space
• guest rooms
• a laundry
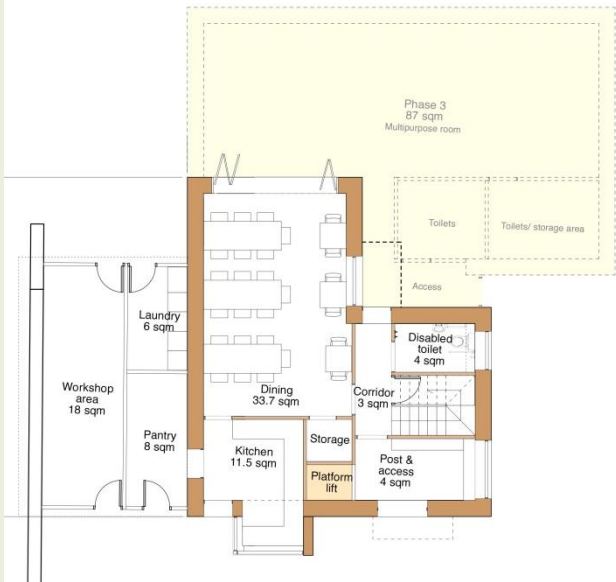• a workshop"

Common House - Springhill

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The Common House at Springhill has three floors. It includes a kitchen, dining area, and spaces for meetings and other leisure uses

The Common House at LILAC has two floors and includes a kitchen, dining and meeting rooms and guest space

First Floor

Phase 3 (roof garden)

LILAC office 12 sqm

Roof (Shed)

Room 29 sqm

Snower room 4 sqm

Platform lift

Sitting area 9 sqm

Window seat

Balcony over bow window

Ground Floor

Phase 3 87 sqm Multipurpose room

Toilets

Toilets/ storage area

Access

Laundry 6 sqm

Disabled toilet 4 sqm

Workshop area 18 sqm

Dining 33.7 sqm

Corridor 3 sqm

Pantry 8 sqm

Kitchen 11.5 sqm

Storage

Post & access 4 sqm

Platform lift
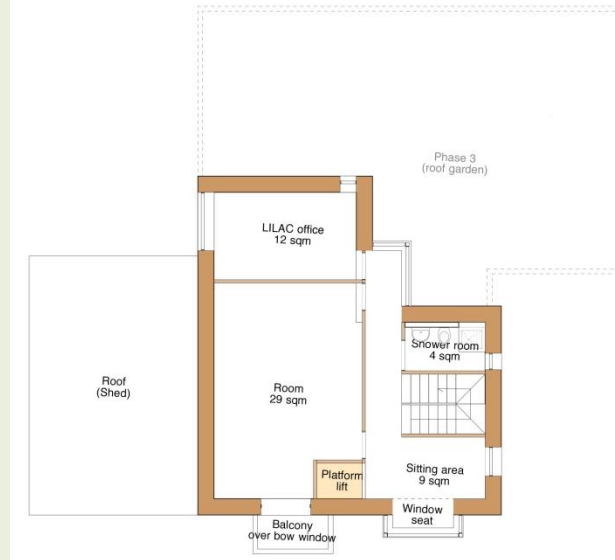
Common House - Forge Bank

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The Common House at Forgebank includes kitchen, dining and leisure areas

Common House – Boston, USA

At Cambridge Cohousing in Boston USA, the Common House provides parking in the basement with common facilities on the ground floor, besides entrances to townhouses and apartments.

Interior of the Common house

Vehicle-free external spaces

Walkway, Forgebank

Pedestrian Street, Marmalade Lane

Spaces as venues for communal and external interests.

Mill Pond, Cannock Mill

Garden areas

Private and shared garden spaces all operate as places of contact.

Springhill

Laughton Lodge

Threshold Centre

New Ground

Marmalade Lane

'Internal streets'

Jystrup, DK

Blangstedgaard, DK

Blangstedgaard, DK

Jystrup, DK

Some settings incorporate other internal spaces where residents can mix and relax.

Blangstedgaard, DK

Energy banks – Canon Frome

Other facilities

Other community provisions (where space has allowed).

Performance space –
Laughton Lodge

Composting –
Threshold Centre

Workshops – Marmalade Lane

Designing 'for life'

- Cohousing sites, spaces and dwellings should be accessible to all mobility and access needs.

- Dwellings should be adaptable and flexible to meet changes in personal circumstances.

- Dwellings should be designed so that they can be accessed and visited by all residents.

- Colours, contrasts, materials and surfaces should be chosen to be inclusive – especially within the Common House and areas of other common facilities.

Sustainable Design - Site and Buildings

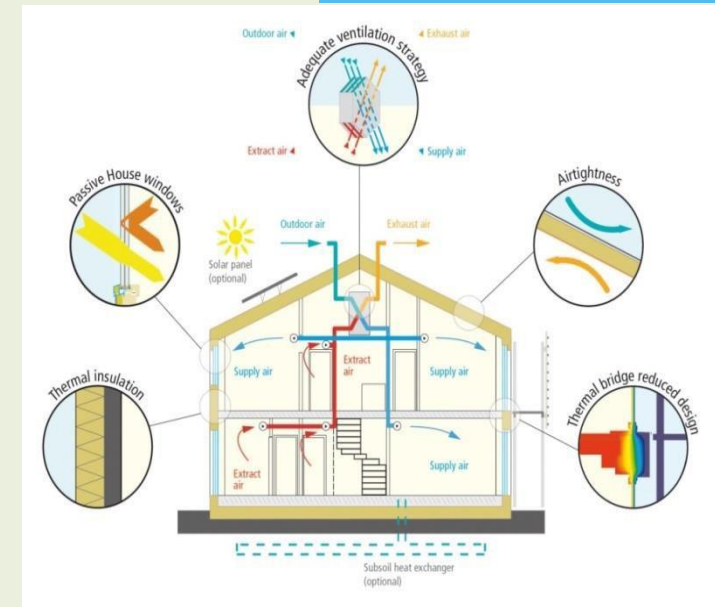Designing to meet sustainability standards means consideration of factors like:

- Low energy design that takes prime account the "building fabric" such as **Passivhaus standard** for new properties and the **Enerphit** version for retrofits.

- Enhancement to existing biodiversity as beneficial to the local climate and to residents.

- Buildings orientated and positioned to provide useful solar gain and daylight, but to avoid overheating.

- Buildings orientated to maximise incidental contact between neighbours.

- Using low or zero carbon technologies: see https://www.leti.London/cedg for evaluation

- Green roofs, rainwater harvesting and water recycling as part of the Sustainable Urban Drainage and flood protection strategy and reduction of water consumption onsite

Sustainable Design - Passivhaus Standard

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Source: *Passive House Institute*

Building to Passivhaus standards involves:

- High levels of continuous insulation

- High performance triple-glazed windows

- Airtight building fabric

- 'Thermal bridge'-free designs

- Mechanical ventilation and heat recovery

Performance targets:

- Space Heating Demand: ≤ 15kWh annually or 10W (peak demand) as per square metre of usable floor space.
- Primary Energy Demand: ≤ 120kWh annually as per square metre of usable floor space
- Airtightness: ≤ 0.6 air changes per hour at 50 Pascals overpressure (about the same as a 20 mile per hour wind).
- Thermal Comfort: year-round but with less than 10% of hours over 25°C

● *Video about Passivhaus click here*   ● *UK Passivhaus Trust click here*

Neighbourhood life and Climate Change

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- Energy and utility efficiencies within Cohousing neighbourhoods can reduce household costs from sharing meals and other resources.

- Allotments can contribute to local food production and enhance community wellbeing

- Comprehensive use of land through Permaculture and similar practices can utilise rainwater harvesting and other sustainable techniques.

Greenhouses, Threshold Centre

Cohousing in relation to very large and small sites

- Use size Guidelines to design more than one 'cluster' on a large site

- Consider separate Cohousing projects in a larger site for different ambitions – intergenerational families; seniors; etc.

- Intermingle Cohousing clusters alongside groups of conventional residences

- Orient small sites to use spaces between dwellings to maximise neighbour contact

Marmalade Lane, in Orchard Park Cambridge

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Publications with details of Cohousing design

'Cohousing', K McCamant and C Durrett (1994), 2011 ISBN 0898155398

'Creating Cohousing', K McCamant and C Durrett (2011) ISBN 9780865716728

'Thinking About Cohousing', Martin Field (2004), ISBN 0951494570

'The Cohousing Approach to Lifetime Neighbourhoods', M Brenton (2008),
www.housingcare.org/downloads/kbase/3140.pdf

'Senior Cohousing', M Brenton (2013), ISBN 9781859359266

'The Senior Cohousing Handbook', Charles Durrett (2009), ISBN 0865716110

'Cohousing in Britain – a Diggers & Dreamers Review', (2011) ISBN 9780954575731

Websites with information on Cohousing design

UK Cohousing Network
www.cohousing.org.uk

New Ground
www.owch.org.uk/resources

US Cohousing
www.cohousing.org

German approaches to 'CoHousing' and other collaborative housing projects
www.cohousing-inclusive.net/the-book

Housing our Ageing Population Panel for Innovation (HAPPI) –
www.housinglin.org.uk/Topics/browse/Design-building/Neighbourhoods/

'Designing the Cohousing Common House', G Kim (2006)
www.schemataworkshop.com