

Sustainable Density

Introduction

In Uttlesford, buildings and transport account for 88% of carbon emissions. The UK is also facing an acute housing crisis. The challenge then is to provide much-needed homes which are designed to be sustainable and help to mitigate climate change.

More sustainable towns that offer a high quality of life whilst also minimising resource consumption (such as energy, land, and water), require a minimum number of homes within a given area to enable sustainable (active and public) transport, economic viability, and support of non-residential uses such as commercial, retail, and education. This minimum sustainable number of homes within a given area could be referred to as a sustainable density.¹

It is generally accepted that these sustainable densities start at a minimum of 50 dwellings per hectare (dph) but ideally at least 65dph or over², with sustainability generally increasing with density as average resource use reduces and public transport and non-residential use options increase. A general profile of higher density towards the centre of a neighbourhood allows for lower densities towards any rural edges. However, smaller increases in density can still make a difference, by making places closer together they allow people to walk (or cycle) instead of drive, and it means that less land is required to be built upon.

Sustainable densities are achieved by utilising typologies such as terraces, courtyard houses, apartments, and mixed-use/shared-use³ buildings. These typologies would be used alongside detached and semi-detached homes (particularly in the context of Uttlesford) as a range of housing should be provided. Smaller and less connected settlements in Uttlesford will not be likely to technically support sustainable density of this kind, however, new settlements, towns, (and possibly village clusters in the vein of Velocity⁴) might. Fundamentally, densities are inextricably linked to transport options (and the availability of alternatives to the car).

Overall, this report aims to:

- Summarise the opportunities offered by building at sustainable densities.
- Summarise the challenges faced when building at sustainable densities.
- Differentiate between approaches taken for new settlements, extensions or infill to existing places, and smaller more remote places.
- Demonstrate that typologies associated with sustainable densities can create excellent places if well designed.

¹ The Essex Design Guide puts it this way: *'The location of substantial residential and business uses within easy walking distance of an urban or neighbourhood centre is the principal platform for sustainable development. This catchment of at least 5000 homes for a typical, sustainable neighbourhood can support a bus route and a variety of shops and services and can attract other commercial investment.'*

² The Essex Design Guide

³ Mixed use development refers to different co-located uses, which might be vertically mixed within a building (e.g. residential above retail) or neighbouring in the immediate area. Shared use refers to flexible properties which accommodate different users or uses at different times (e.g. a school which acts an out-of-school hours community resource) and/or cooperative type arrangements which share communal facilities for greater efficiency, e.g. co-housing and co-working (text from UDC Interim Climate Change Policy)

⁴ Please see introductory video: [| VeloCity \(velocityplacemaking.co.uk\) \(accessed 19.07.21\)](https://www.velocityplacemaking.co.uk)

Defining density

The Royal Institute of Chartered Surveyors defines **gross** density as: '...a measure that includes all aspects of a site of any size, including the housing, commercial space, roads, open and public realm, schools and their grounds, and other uses. It is calculated using site area.'

And **net** density as: '...a measure that includes everything that is developed but excludes major roads, open and public realm, schools, and their grounds, and commercial and community buildings. It is calculated using net development area.'

There are many measures of 'amount of development per area' including coverage rates, plot ratios, habitable rooms, bedrooms, or people per given area, but this report uses the most common measure of **net 'dwellings per hectare' (dph)**.

Uttlesford proposed density range

For reference, the information below has been reproduced from the Strategic Land Availability Assessment Methodology April 2021. Informed by assumptions used for the withdrawn Submission Local Plan, the densities in the following table are considered to reflect existing local densities.

Location	Density	Justification
Within Saffron Walden or Great Dunmow	35-67 dph	Allows a mix of housing types comprising houses, terraces, and apartments
Within any other settlement	30-50 dph	Respects the rural character of Uttlesford
Adjacent to any settlement	30-50 dph	Respects the rural character of Uttlesford
New settlement	30-67 dph	Allows a mix of housing types comprising houses, terraces and apartments

The estimation of development potential will be based on the net developable area of a site. Smaller sites will typically make use of existing roads and facilities, potentially enabling up to 100% of the site area to be developed. However, larger sites will require space for internal access roads, strategic open space, and landscaping so the developable area will be reduced. Informed by assumptions used for the withdrawn Submission Local Plan, the ratios identified in the following table will be used to calculate the net developable area of each site.

Site size	Gross to net ratio
Up to 0.4 hectares	100%
0.4 – 2 hectares	90%
2 – 15 hectares	75%
15 hectares and above	60%

Uttlesford Interim Climate Change Policy

Key points from the Uttlesford Interim Climate Change Policy about sustainable densities:

4.2 'More compact forms of development are fundamental to sustainable development patterns, not least by protecting the countryside and walkable access to it from self-perpetuating car-orientated sprawl. However, it needs to be tailored and selectively applied to the local context...'

4.3 'The design of higher density development needs to be focussed on enhanced efficiency and place-making, to maximise the benefits of close-knit communities, whilst mitigating possible problems, ensuring quality standards are still met...'

4.5 'There is growing recognition at the national level that sprawling single use developments such as out-of-town retail and office parks servicing suburban housing estates are damaging local communities and the environment, by fostering a self-perpetuating car-dependent society...'

Please see 'Development Densities' sections 4.2 – 4.36 for more detail.

Opportunities

Environmental

The top 3 factors for carbon emissions associated with new development are transport, 'embodied' carbon (carbon emissions associated with building materials and processes) and 'in-use' carbon (carbon emissions associated with heating, cooling, and using buildings).

Sustainable densities can reduce emissions associated with **transport** as they enable shorter travel distances which in turn: encourage greater modal shift towards public transport/active travel (walking, cycling etc), and increase viability of public transport, car share clubs, cycle and walking infrastructure etc. A reduction in car parking provision is generally enabled/required and can help make undercroft or basement parking viable. This reduction in car parking is what will make increased densities in much of Uttlesford challenging beyond a certain point, as the rural nature of the district makes low car ownership an unrealistic goal in many villages.

Sustainable densities can reduce emissions associated with **embodied carbon** as viability is increased and more innovative technologies such as mass timber and modern methods of construction are enabled. Terraced and apartment typologies enable a more efficient use of construction materials by volume but also general construction process (compared to detached/semi-detached homes).

Sustainable densities can reduce emissions associated with **in-use** (heating, cooling etc) carbon because terraced and apartment typologies enable a more efficient use of energy as they have a more efficient external envelope to floor space ratio (compared to detached/semi-detached homes).

Sustainable densities also have the following general benefits for the environment: Less pollution due to lower reliance on private cars, increased viability enables better public open space within and outside of new developments including maintenance, reduction of overall demand for development land reducing pressure on landscape assets, and higher efficiencies reduce resource consumption generally.

Economic

Sustainable density generally enhances the economic viability of development therefore enabling more elements which typically affect these calculations including affordable and social housing, non-residential uses, green and blue spaces including street trees and quality sustainable urban drainage. Increased viability also enables innovative delivery models to be part of a balanced solution including co-housing, self-build, custom-build, and community land trust models. Building at a sustainable density improves economies of infrastructure enabling new schools, roads etc to be funded, and local businesses and high streets benefit from higher footfall and activity.

Social

The wider range of typologies (terraces, apartments etc) that are required to achieve (and are therefore enabled by) sustainable densities help to meet a broader range of needs including first time buyers and downsizers, and enable innovative typologies that explore multigenerational, intergenerational, and co-living – helping to create mixed and balanced communities. Social proximity encourages positive interaction and diversity, improves viability of and access to community service, and enables more and better integrated social housing

Garden City Principles

Sustainable densities are inherent in the principles that define Garden Cities. Without providing the right employment, community facilities and range of housing, new garden communities risk becoming dormitory commuter suburbs which is the antithesis of the following principles:⁵

- Land value capture for the benefit of the community.
- Strong vision, leadership, and community engagement.
- Community ownership of land and long-term stewardship of assets.
- Mixed-tenure homes and housing types that are genuinely affordable.
- A wide range of local jobs in the Garden City within easy commuting distance of homes.
- Beautifully and imaginatively designed homes with gardens, combining the best of town and country to create healthy communities, and including opportunities to grow food.
- Development that enhances the natural environment, providing a comprehensive green infrastructure network and net biodiversity gains, and that uses zero-carbon and energy-positive technology to ensure climate resilience.
- Strong cultural, recreational, and shopping facilities in walkable, vibrant, sociable neighbourhoods.
- Integrated and accessible transport systems, with walking, cycling and public transport designed to be the most attractive forms of local transport.

⁵ The Town and Country Planning Association

Challenges

Perception that quality decreases with density

The Urban Design Compendium states that:

'Some people continue to equate higher densities with poor urban quality, such as overcrowding and reduced space standards. This misses a fundamental point. Density is only a measure. It is a product of design, not a determinant of it. The aim should therefore be not to achieve a given residential density, but to generate a critical mass of people able to support urban services such as public transport, local shops, and schools.'

Density is just one narrow measure of built form and cannot be used to determine what the resulting development will be like as a place. It is a high-level measure used to make general assumptions about a development. The quality of place is determined by the quality of the design process, not the density.

The average density of many well-loved Georgian, Victorian and Edwardian terraces is much higher than the density limits in many local plans yet they help to create very attractive townscapes.⁶ Higher densities are often equated with high rise, however, the tower blocks of the 1960s were actually built to low densities in ill-defined and poorly used open space, with neglectful management regimes, inappropriate materials, and with little regard to context.

Good designers now understand that when designing at sustainable densities it is possible to create high quality places by ensuring that buildings, streets and places are of a human scale; moderating the mass of a building or group of buildings in relation to other buildings and the landscape; and using high quality landscaping to soften perceptions of a place.

Designers also vary the density based on the location with higher densities towards the centre of a place (where main transport connections are) and lower densities towards the edges of a place, which are less connected to transport and interface with surrounding landscape. This also helps to create distinctive and varied places.

By contrast, poorly designed suburban neighbourhoods which have been based on an imposed density figure (i.e. driven by density rather than design) tend to be flat and featureless with no distinctive places or parts, with little hierarchy of activity or built form. If located in well-connected places, these kinds of development are a missed opportunity and are wasteful of land and infrastructure.

Best practice design is a process rather than purely an outcome. It considers much more than just aesthetics. High quality places can be made at any density when designed by a skilled and experienced team who holistically synthesise the following factors as a minimum:

- Environmental sustainability, economic, and social sustainability
- Heritage, conservation, character, and identity
- Landscape, ecology, open spaces, and amenity
- Movement, access, connectivity, transport
- Built form, materiality, uses, typologies, homes, and buildings

⁶ Contemporary terraces (if well designed) have much better spatial layouts and quality of internal space when compared to the heritage buildings mentioned here which were generally compromised.

Connectivity

The Essex Design Guide states that:

'It is important not to seek high-density development on land that is poorly connected to other places by public transport. Doing so increases the number of unnecessary journeys made by car, adding to local traffic congestion, pollution and carbon emissions. Such developments are the parts of an urban area that are least likely to become sustainable communities; in these situations, it is preferable to keep densities below 50 dwellings per hectare.'

With regards to public transport, 45dph is around the lower limit of density needed to support a bus service (dependent on overall size of settlement and the location of the settlement on any existing or potential public transport route)⁷ and these points are relevant in Uttlesford where poor public transport connectivity (and/or limited potential to improve) will limit possible densities, particularly in villages and some edge of settlement conditions. The issue is not so much density of individual places, but the numbers of homes in these places, and overall low population density of Uttlesford being generally unable to support the required level of public transport.

Broadly speaking, if sustainable transport cannot be provided to these places, then development should be limited in nature and large-scale development will need to be provided elsewhere. Provision of a varied approach to housing delivery across the district is the key challenge for Uttlesford. Sustainable transport improvements to enable expansion of existing settlements are required as new settlements cannot be solely relied upon to deliver new homes.

Flexible standards

The Urban Design Compendium states that:

'Research has shown that there is no correlation between [place] quality and density. Developments driven by average densities and shaped by blanket standards (relating to privacy, open space, parking and highway geometry, for example) stultify design and tend to produce lowest common-denominator blandness. The recommended approach is design-led, concentrating on sustainable quality [of place]. This ... makes density a measure of the product, not a determinant of it.'

This again highlights the importance of design, and the negative effect that blanket (rather than flexible) standards for parking, privacy, amenity, and highway geometry can have. This is explored in more detail below:

Car parking standards

Incorporating car parking is a design challenge common to all developments but is particularly relevant in Uttlesford where reliance on the car is so high. There are many examples of where car parking can be sensitively integrated into the street scene with careful placement and soft landscaping etc, but the specific challenge in relation to density and therefore sustainability, is the efficient use of land.

⁷ Research suggests net densities of 100 persons per hectare (pph) are necessary to sustain a good bus service (LGMB, 1995). Taking the 800m (10 minute) walking distance as a starting point (generating a walkable neighbourhood of 97.5 ha - see 3.1), this equates to 45 dph if the average UK household size of 2.2 persons is applied. In more central locations, 240 persons/ha (or 60dph) will sustain a tram service (urban design compendium)

Certain numbers of car parking spaces per dwelling are not achievable above a certain density, because the land take for the car parking spaces generally is so high. Provision of 2-3 parking spaces per home restricts densities to around 30-40dph and densities higher than this generally require a reduction in parking provision (see table on page 10 for more details). Solutions to mitigate this reduced provision include encouraging modal shift to other methods of transport to reduce reliance on the car, or more flexible provision, for example, on-street parking controlled by permit to enable parking to respond directly to need, rather than providing blanket maximum numbers of spaces.

Privacy and amenity (garden) standards

As mentioned previously, Georgian, Victorian, and Edwardian approaches to mass housing which are generally well loved achieved high densities. One way they did this was through smaller privacy and amenity standards than are generally included in most local plans, particularly rural plans such as Uttlesford. Large amenity areas of 100sqm+ and privacy distances of 22m+ generally restrict densities to around 30-40dph. To enable more sustainable densities these standards can be reduced, but only with input from skilled designers who holistically consider the issues alongside placemaking and landscape etc. Many innovative housing typologies exist which balance these issues carefully, including courtyard houses, and communal back gardens.

Highways standards

Designing for the largest vehicle (usually refuse or fire vehicles) and approaches to road safety which rely on placing the car at the top of the hierarchy result in much wider carriageways and layouts,⁸ radii etc which greatly increase land take. Taking a more people centred approach can result in reduction of the size of road infrastructure and therefore help to raise densities.

Scales of development

New settlements

New settlements in well-connected locations are a good way to achieve sustainable densities. At a high level a minimum 'sustainable unit' comprises 5000 people in ~2000 homes @ 65dph over min. 50 hectares within a circle of 400m radius.⁹

This represents a comfortable, 5-minute walking distance for most able-bodied people. These schemes should aim to contribute substantially to the employment needs of the town and be largely self-sufficient for all primary services. Projects would generally be expected to include sustainable energy and waste recycling infrastructure sufficient to meet 100% of the needs of the development.¹⁰

In forecasting pupil numbers ECC works on the basis that 100 houses will on average generate demand for 30 primary main stream state school places and 20 secondary school places (excluding 6th form). These estimates are halved for apartments and bungalows. There are also a number of dwelling types, such as single bedroom properties and others unlikely to house children, which are excluded from such calculations.

⁸ Manual for Streets 2007

⁹ Essex Design Guide 2018

¹⁰ Essex Design Guide 2018

Using the factor of 0.3 primary school pupils per house (30 per 100) a development of 700 houses would equate to demand for 210 primary school places, which is one form of entry i.e. seven year groups of thirty pupils in each class. It should be noted that the Education Funding Agency currently looks to establish two form entry primary schools (420 places) wherever feasible.

ECC supports this approach and, thereby, when considering new primary school sites an area of 2.1 hectares will usually be sought as a minimum. Generally, secondary schools accommodate at least four forms of entry (600 places). To ensure long term viability, ECC will usually look to establish a new school only where demand for six forms of entry has been established (approximately 4,500 homes).¹¹

Overall, the minimum requirement for a sustainable well-connected new settlement is around 4,500-5000 homes, in 'sustainable units' as above, with sites located next to existing facilities able to be viable and sustainable with fewer homes. The advantages of being able to provide a secondary school on site are considerable, as this means secondary pupils are able to access education without leaving the settlement.

Extensions to existing settlements

Existing settlements such as Great Dunmow and Saffron Walden can grow sustainably as far as the facilities and transport options at the existing settlement allow. Once this capacity is reached then more infrastructure (particularly sustainable transport, including better support for walking and cycling) is required, with these elements of infrastructure requiring a certain number of homes to be viably 'triggered' (see previous point about schools in 'New Settlements' section).

Infill within existing settlements

Infill within existing settlements will generally be sustainable as will likely be within close distance of existing facilities. The existing medieval and market town layouts of Saffron Walden, Great Dunmow and other settlements in Uttlesford lend themselves very well to typologies associated with sustainable densities such as terraces, apartments, and apartments over ground floor retail. The tight street layouts, access to facilities, and a general lack of space support a reduction of parking in these places, which is already seen in several developments in the district.

Smaller, village, and remote sites

Based upon the established principle that density is linked to connectivity, many remote and village sites in Uttlesford will be restricted to lower density development (~30dph) and will grow sustainably as far as the facilities and transport options at the existing settlement allow.

¹¹ Essex County Council's Neighbourhood Planning Guide 2019

General layout principles

The diagram below is from the Essex Design Guide and shows how places should ideally be considered in 'sustainable units' which have transport and other facilities within a 400m radius. This represents a 5 minute walking distance, which means a round walk across the neighbourhood (to pick up a pint of milk, or collect children from school, for example) takes 20 minutes.



- a. Settlement centre
- b. Neighbourhoods within settlement
- c. Sustainable extension to existing settlement
- d. Infill within existing settlement (large)
- e. Infill within existing settlement (small)
- f. Railway station (or Rapid Transit bus stop)
- g. Green space
- h. Bus route

The table below has been included to illustrate the general relationships between parking, housing typologies, and possible densities. It does not represent proposals for Uttlesford at this stage.

Residential typology	Storeys	Car parking spaces	
		High parking prov. (2-3 per dwelling)	Low parking prov. (1 per dwelling)
Arcadia (homes in landscape)	2	8 dwellings per hectare net (dph) ¹³ Parking on plot	<i>Rarely built</i>
Boulevard (tree lined boulevards)	2	13-20dph ¹⁴ Parking on plot	<i>Rarely built</i>
Letchworth Garden City	2-4	15-20dph Parking on plot	<i>Rarely built</i>
Standard suburban layouts (detached and semi-detached houses)	2	20-30dph ¹⁵ Parking on plot and on street	30-40dph (estimated) Parking on plot and on street
Terraced houses	2-3	Max 30dph ¹⁶	50-80dph ¹⁷ Parking on street
Maisonette and apartment (stacked)	3	Max 45dph ¹⁸ <i>Rarely viable</i>	50-75dph ¹⁹ Parking on street
Maisonettes (stacked)	4	Max 45dph ²⁰ <i>Rarely viable</i>	50-75dph ²¹ Parking on street
Apartments and terraced houses (50/50)	2-3	Max 40dph ²² <i>Rarely viable</i>	50-75dph ²³ Parking on street
Maisonettes (stacked) and apartments (50/50)	3-4	Max 45dph ²⁴ <i>Rarely viable</i>	75-100dph ²⁵ On street/undercroft
Apartments	3	Max 45dph ²⁶ <i>Rarely viable</i>	75-100dph ²⁷ On street/undercroft
Apartments with mixed-use ground storey	4	<i>Rarely viable</i>	75-100dph ²⁸ On street/undercroft
Apartments	4	<i>Rarely viable</i>	100-125dph ²⁹ On street/undercroft

¹³ [Criteria for Layout at Densities Below 20 Dwellings Per Hectare | Essex Design Guide](#) (accessed 17.06.21)

¹⁴ [Criteria for Layout at Densities Below 20 Dwellings Per Hectare | Essex Design Guide](#) (accessed 17.06.21)

¹⁵ The Housing Design Handbook (2nd edition)

¹⁶ Manual of Housing Density, Blue Pencil Designs, 2016

¹⁷ The Housing Design Handbook (1st edition)

¹⁸ Manual of Housing Density, Blue Pencil Designs, 2016

¹⁹ The Housing Design Handbook (1st edition)

²⁰ Manual of Housing Density, Blue Pencil Designs, 2016

²¹ The Housing Design Handbook (1st edition)

²² Manual of Housing Density, Blue Pencil Designs, 2016

²³ The Housing Design Handbook (1st edition)

²⁴ Manual of Housing Density, Blue Pencil Designs, 2016

²⁵ The Housing Design Handbook (1st edition)

²⁶ Manual of Housing Density, Blue Pencil Designs, 2016

²⁷ The Housing Design Handbook (1st edition)

²⁸ The Housing Design Handbook (1st edition)

²⁹ The Housing Design Handbook (1st edition)

Sustainable density example places

Precedents shown here explore the terraced, maisonette, and apartment typologies which would be required to reach sustainable average densities over 50dph. Typologies associated with lower densities such as detached and semi-detached homes are not explored here as they are already well understood and represented in Uttlesford (it is important to note there should always be innovation with these typologies/densities too as shown by the the Velocity³⁰ proposal, and The Avenue³¹). The Council's emerging Building for Healthy Life document explores examples of good existing schemes in Uttlesford, some of which are towards the end of this document ('Example places within Uttlesford' section).

The density pyramid

The higher density typologies would be part of a mixed solution depending on the context and size of site. As a rule, for new settlements and settlement extensions, the 'density pyramid' can be employed. This requires the positioning of lower density (~30dph) forms at the edges of the project and the higher density (~70dph+) forms around and in the local centre, with a gradation of types and sizes in-between, creating an overall average density (~50dph+).³² This approach is particularly relevant in Uttlesford where developments are likely to have sensitive landscape edges.

Low rise, sustainable density

From the Urban Design Compendium:

'In many ... situations [low] rise, [sustainable] density buildings (of about 3 – 4 storeys) in general provide an optimum form that maximises density whilst minimising perceived intensity or overcrowding. They can also be designed to be attractive, energy efficient and mixed use, whilst reducing costs of land acquisition and site infrastructure; avoiding costs of lifts and other services; providing a robust form that allows for changes in use over time; and forming terraces or low-rise apartments (the most cost-effective building form in housing). These types of buildings can also provide desirable features of typical suburban places namely private entrances at ground level, adequate garden sizes, convenient car parking, significant public space and a pleasant aspect for windows.'

³⁰ [VeloCity \(velocityplacemaking.co.uk\)](http://velocityplacemaking.co.uk) accessed 18.06.21

³¹ [The Avenue → Pollard Thomas Edwards](#) accessed 18.06.21

³² Urban Design Compendium 2007

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Example places

Design for Homes have produced the following videos (please follow the link – all accessed 19.07.21) which explore some exemplar places which are of a relevant density and context to this report and Uttlesford.

Infill within existing settlements

[Tibby's Triangle, Southwold | Design For Homes](#)

Themes: Existing settlement infill, local vernacular, private terraces. mixed-use, houses, apartments

[Hortsley, Seaford | Design For Homes](#)

Themes: Existing settlement infill, over 55s, apartments, local materials, good transport connections

[Parkside, Matlock, Derbyshire | Design For Homes](#)

Themes: Existing settlement infill, over 55s, apartments, local materials, mixed-use

Extensions to existing settlements

[Officer's Field, Osprey Quay, Portland | Design For Homes](#)

Themes: Environmental sustainability, local materials, innovative house and parking typologies

[Goldsmith Street, Norwich | Design For Homes](#)

Themes: Environmental sustainability, terraced homes, apartments, innovative streets and gardens

New settlements

[Hanham Hall, Near Bristol | Design For Homes](#)

Themes: Environmental sustainability, terraced homes, apartments, landscape setting, open space

['Be', New Hall, Harlow | Design For Homes](#)

Themes: Courtyard homes, apartments, local vernacular, landscaped streets

[Abode, Great Kneighton | Design For Homes](#)

Themes: Innovative typologies, landscaped streets, apartments, courtyard homes

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Example places within Uttlesford

Saffron Walden Market Square - These apartments are positioned over ground floor retail units and the building is arranged to form one side of the market square.



The Avenue, Saffron Walden - This image shows the age restricted housing (over 55s) part of this scheme which is an apartment block in the 'Essex barn' style.



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Audley End and Wendens Ambo terraced cottages - These represent well-built terraced homes, and the 1.5 storey cottages could be a model for older people's housing which is more sociable and land efficient than a bungalow, with a 'room in the roof' for visitors or carers to stay.



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Reynhams, Saffron Walden This scheme is an example of terraced townhouses on an infill site in Saffron Walden. The development takes advantage of an existing basement to create underground parking, and detailing is high quality using reclaimed historic materials and components (image rights Design for Homes).



Thorpe Lea Close, Great Chesterford is an example of an extension to an existing settlement which has a good variety of typologies from terraced homes to farmstead. (image rights Design for Homes).



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Mill End, Thaxted utilises existing heritage buildings in a sensitive and resourceful way. The development also includes apartment and terraced typologies (image rights Design for Homes)



Dairy Lane, Stansted Mountfitchet is a well-designed scheme which utilises typologies from apartments, to terraces, semi-detached and detached, with a good mix of on-plot and on-street parking.



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Further examples (national)

Marmalade Lane, Cambridge is a co-housing development which utilises terraces and apartments arranged around an open green space with allotments



The Piggeries, Frome — Town centre mixed housing development providing 70 units on steeply sloping south facing site within conservation area (More details in Urban Design Compendium).



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Timekeeper's Square 36 townhouses in Salford. The development in a conservation area with the neo-classical Grade II* listed St Phillips Church at its centre.



Accordia, Cambridge is a well-established exemplar housing scheme which has typologies including terraces, apartments, and innovative courtyard homes.



Springhill Cohousing, Stroud is another co-housing scheme which has houses and apartments and includes a common house with some shared facilities such as café, dining, laundry etc.



Channels, Chelmsford has recently won a Housing Design award and has detached, semi-detached, terraced and apartment homes which draw from the Essex vernacular.

