

# Facing Materials

The proposed buildings will be constructed with a variety of facing materials, selected to reflect locally traditional patterns of building and to be deliverable with modern sustainable construction methods.

## Roofs

Pitched roofing materials can include plain or multi pantiles in a range of orange, red and brown tones, plain tiles in similar tones, and slate.

## Walls

Wall facing materials can include bricks, in a variety of shades from dark red through to light cream / gault. Render is also characteristic of the area, with a range of lighter and pastel tones evident (generally not the more vibrant tones characteristic of north Essex). Horizontal boarding will also be used, again with a variety of lighter tones and also black.

## Variety and Distribution

As a general principle, each building should be constructed with one predominant wall facing material and one roof facing material. The sense of variety characteristic of the region will be achieved through the juxtaposition of buildings each with different facing materials.

The distribution of facing materials can also be used to enhance the status of key feature buildings through facing them in contrasting tones and textures to their neighbours.

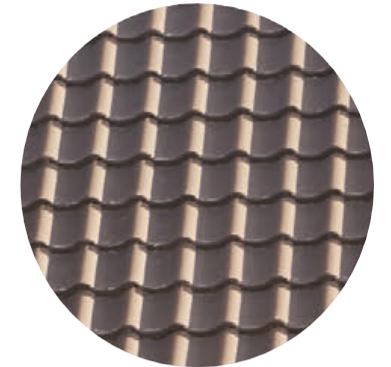
Outbuildings will generally be constructed with the same wall facing material as their 'parent' building, although roof facing materials can be different to reflect local patterns and express a subsidiary relationship. Where brick walls form the means of enclosure, the facing brick chosen will match its 'parent' building or a neighbouring building where the 'parent' building is not faced in brick.



Pantiles (plain, orange / red)



Pantiles (multi, orange / red)



Pantiles (orange / brown)



Plain tiles (orange / brown)



Plain tiles (orange)



Slates



Roofs



Brick (dark red multi)



Brick (plain red)



Brick (light red multi)



Brick (orange / brown multi)



Brick (yellow stock)



Brick (cream / gault)



Render (pastel green / blue)



Render (cream)



Render (white)



Horizontal boarding (white)



Horizontal boarding (pastel grey/blue)



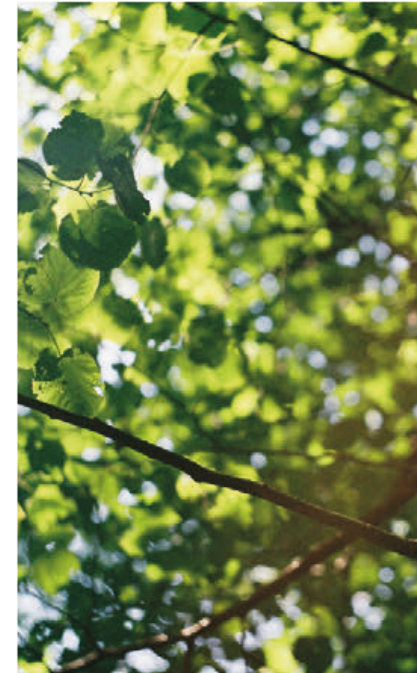
Horizontal boarding (black)



## Walls



# Sustainability



**The key features of the masterplan layout are set out below.**

The proposed development incorporates a range of sustainable design measures to deliver new homes which mitigate and adapt to the effects of climate change, as well as delivering social and economic benefits and measures to protect and enhance the environment. An Energy Statement has been prepared to support the application which sets out the sustainable design incorporated at this stage and to be considered further as part of the detailed design of the development to help deliver sustainable development.

## Sustainable Location

The development is in a sustainable location due its integration with the existing settlement of Thundersley, giving rise to access to the multitude of services and facilities within the settlement, all within walking or cycling distance. The proposed extension to the existing bus routes through the development, the provision of a bus only route through the middle of the site, provision of walking and cycling facilities and provision of over 50% multi functional open space will reduce the reliance on the private car, especially for short distance journeys, improving the sustainability credentials of the development.





## Socio-economic benefits

The development at will generate a range of socio-economic benefits for future residents and the wider area and local economy:

- The proposed development has been designed with the health and wellbeing of future residents acting as a guiding principle to the creation of a sustainable community, by integrating Active Design Principles and the 20 Minute Neighbourhood principles into the masterplan. Other elements that will contribute towards a balanced and sustainable community are:
- 40% affordable housing integrated throughout the development
- The new local centre, including a community and sports hub, a medical centre and an early years facility, will deliver social value and benefits, creating a close knit community
- Up to 15 hectares of multi functional open space, (over 50% of the total site area), with excellent accessibility and adjoining pedestrian routes, alongside natural drainage areas, children's play areas and other natural habitats such as grassland and wetlands.
- An emphasis on the edible landscape, with new allotments and orchard, to provide access to healthier food and encouraging community connection and productivity

## Economic benefits

The proposed development will contribute to positive economic growth, providing employment opportunities during the construction phases and generating demand for local goods and services during construction and occupation. In the longer term, new jobs will be created on site via the new health facility, community building and early years childcare centre. The development will also generate additional Council Tax revenue to support local Council services. The proposed new community floorspace will create employment opportunities within the community.

## Environmental Protection and Enhancement

Through a range of design measures the development aims to protect and enhance the local environment. Key measures include buildings designed to make use of sustainable materials, provision of measures to protect and enhance site ecology, including new site habitats to achieve a net gain in biodiversity. The development will plant 1 new tree for every new resident (approximately 2,880 trees). The development will also make provision for measures to minimise waste and encourage recycling through construction and operation; these will be detailed in a Site Waste Management Strategy, approval of which will be a condition of the granting of outline planning permission.

## Mitigating and Adapting to Climate Change

This Land Development Limited are committed to delivering development which reduces carbon emissions and is resilient to the future effects of climate change. UKCP18 climate projections show the UK will experience rising annual temperatures, reducing summer rainfall, increasing winter rainfall and an increase in extreme weather events.

Water – to reduce the pressure on potable water availability, new homes will be designed to reduce water consumption such as water meter and low flow fittings. This will achieve a water consumption rate of 110 l/p/d.

Biodiversity – The development will achieve at least a 10% net gain in biodiversity, using climate tolerant species where possible.

Overheating – to minimise the risk of increasing summer temperatures on overheating, buildings will undergo thermal dynamic modelling using future climate projections to inform design to minimise overheating

Flood Risk – the development is not at risk of river flooding and the use of Sustainable Urban Drainage Systems will attenuate surface water to the 1 in 100 year event plus a 40% allowance for climate change.

Carbon Emissions – to mitigate the impact of the development, a range of measures will be incorporated to reduce carbon emissions through construction and operation, including:

- Delivering homes which go beyond the requirements of Part L 2013 achieving at least a 31% reduction in carbon emissions through reducing the energy demand through the fabric first approach.
- The detailed design of the development will explore options for the use of low carbon, renewable energy systems, such as solar PV. It is intended that the use of gas will be avoided.
- EV charging points will be provided.

## Waste and Recycling

The proposed new development is a sustainable and waste-efficient scheme. This efficiency is achieved by a commitment to reduce construction waste and ensuring that there is a robust operational waste strategy in place. The anticipated construction waste arising from the development is 10,771 tonnes based on This Land's waste intensity of 8.8t / 100m<sup>2</sup>. A target of 90% diversion from landfill has been set for the development, so approximately 9,694 tonnes will be diverted from landfill and reused or recycled.

From an operational perspective, appropriate waste and recycling management facilities at the building level will be provided. Currently, the proposed waste strategy is for a conventional system, comprising wheelie bins for individual houses and compounds for non-domestic buildings. Households and business will be encouraged to reduce, reuse and recycle as much as possible to avoid waste going to landfill.

# Parameters Plan - Land Use and Vehicular Access

**As this is an application for Outline Planning Permission, matters such as the detailed location, scale and appearance of buildings, and the layout of development parcels, are all reserved for later approval at the Reserved Matters stage, and no details on these matters are provided as part of this Application.**

**However, in order to set a framework for the submission of future Reserved Matters applications, Parameter Plans have been prepared, covering Land Use and Vehicular Access, Building Scale, Multi Functional Open Space, and Non-Vehicular Access.**

Together, these four Parameter Plans define:

- The location for the principal areas of built-development within the overall application site boundary;
- The principal routes of movement for vehicular and non-vehicular traffic;
- The height of development;
- The overall extent of land which may be used for open space, landscaping, surface water storage and other 'green infrastructure'.

## Land Use and Vehicular Access Parameters Plan

The land use and vehicular access parameter plan (right) sets out the land uses and spatial organisation of the masterplan, showing the residential development envelope, the potential location of the non residential uses within the site, as well the proposed vehicular access points.

### New homes

The land use and vehicular access parameters plan identifies the extent of the potential developable area. Within this area, this new neighbourhood will provide up to 455 new homes, which will comprise a range of residential typologies and tenures.

Providing a range of housing of different sizes and types is critical in creating places which are vibrant, welcoming and where families can put down roots and grow over time.

In terms of housing types, the majority of apartments are likely to be located within the western edge of the neighbourhood and close to the Village Centre, to create a critical mass. It is envisaged that some apartment buildings will be sited along the gateway into the site, forming a formal frontage to the Stadium Way. Additional apartment buildings will also be positioned at strategic locations within the site to assist legibility.

Houses of all sizes and types are located throughout the neighbourhood, with larger properties tending to be located towards the more rural, open eastern edge, responding to the prevalent patterns along Daws Heath Road.

## Multi-functional open space

The plan identifies the extent of the multifunctional open space within the site. This measures 14.27 hectares (35.26 acres) in total. This area has been described in detail earlier within the DAS and is also defined in greater detail on the Multi Functional Open Space parameters plan.

### Non-residential uses

The non residential facilities in the new neighbourhood have been co-located to form a vibrant and mixed use hub, centred around the village green. The hub will include a medical centre, a community / sports hall and an early years centre. The locations for these uses and indicative locations of respective buildings are marked on the parameters plan.

It is envisaged that the community / sports hall could feature a number of 'pop up' facilities like art exhibitions or yoga classes. It could also offer a cafe with workspaces or a workshop space, allowing local businesses to prosper in a supportive environment.

## Access

Two new vehicular access points are proposed; the primary one being from Stadium Way and the secondary one from Daws Heath Road. An existing vehicular access point off Daws Heath Road, serving an existing area excluded from the proposed development, is also retained.

## Movement

The parameters plan defines the indicative location of the central spine street within the development, which runs between the new vehicular access points on Stadium Way and Daws Heath Road. The design of this street and other subsidiary access streets within the layout will reflect the principles identified earlier within the DAS.

### Bus route

The spine street will facilitate the creation of a bus link across the site between Stadium Way and Daws Heath Road. Emergency vehicles, cyclists and pedestrians will also be able to use this route. Around the Village Square, at the heart of the neighbourhood, restrictions will prevent other vehicular traffic from using this route across the site to travel between Daws Heath Road and Stadium Way.



# KEY

- Application site area - 27.89ha
  
- Developable area - 13.62ha  
(49% of site area)  
Including all buildings, streets, parking,  
private gardens, some play areas, hard  
and soft landscaping and other incidental  
open space
  
- Multi functional open space -  
(51% of site area)  
Multi functional open space is described in  
the Design and Access Statement and  
shown in greater detail on the Multi  
Functional Open Space Parameters Plan
  
- Medical centre - 0.31ha  
(indicative location)
  
- Community/sports hall - 0.29ha  
(indicative location)
  
- Early years centre - 0.13ha  
(indicative location)
  
- ✱ Indicative location of local  
centre building
  
- Vehicular access - main  
(indicative location)
  
- Vehicular access - private  
(indicative location)
  
- Main street (indicative)
  
- Bus only link (indicative)
  
- Private vehicular access to  
third party land
  
- SuDS  
(indicative extent)
  
- Retained ornamental lake





# Parameters Plan - Building Heights

## Building Heights Parameters Plan

The building heights parameters plan (right) sets out the potential maximum building heights within different parts of the potential developable area within the site. Establishment of these parameters has been based on the following principles:

- The tallest buildings will be located at the gateway of the site and around the Village Green, signifying the civic role of these parts of the development, drawing people to them and helping people to navigate through the development. In this area, buildings will generally be up to 3 storeys.
- Building heights will vary within the rest of the site, and the building massing will ensure vertical articulation and fine grained appearance to the form. This will allow a softer, more rural edge to the development along the eastern edge and a gradual transition from urban edge into the landscape.
- The height bands allow for some flexibility in design at reserved matters stage to use taller buildings to achieve place making whilst still restricting overall height. For example allowing taller buildings to enclose larger spaces or mark a prominent location in street network as a landmarks.

## Heights up to 11 metres

Buildings within these areas will vary in height, up to a maximum ridgeline height of 11 metres above finished floor level. It is anticipated that the majority of buildings in these areas will be two storeys in scale. A proportion of buildings here are likely to be less than two storeys (for example outbuildings such as garages, or where bungalows are located). Two storey buildings with rooms in the roof would also be possible, as long as the overall built volume falls within the height parameter, and unacceptable overlooking is avoided.

## Heights up to 13 metres

Buildings within these areas will vary in height, up to a maximum ridgeline height of 13 metres above finished floor level. This allows for the use of three storey apartment buildings or town houses. However it is anticipated that a significant proportion of buildings in these areas will be less than three storeys in scale.

It should be noted that no areas of development adjoining existing neighbouring homes fall within this higher scale area.



2 storey precedent (Rayleigh Road)



2 storey precedent adjoining site (Asquith Gardens)



2.5 storey precedent adjoining site (Daws Heath Road)



2 storey precedent adjoining site (Firfield Road)




1 to 3 storey precedent adjoining site (Daws Heath Road)



2 to 2.5 storey precedent adjoining site (Daws Heath Road)




## KEY

 Application site area - 27.89ha

 Up to 2 Storey - Max 11m

 Up to 3 Storey - Max 13m

 Multi functional open space -  
Including all elements of multi functional  
open space, as described in the Design  
and Access Statement.

NB: Building Heights in Metres to the ridgeline from the  
Finished Floor Level (FFL). Additional elements (e.g.  
chimneys) may protrude by a further 1m above ridgeline.





# Parameters Plan - Multi-functional Open Space

## Multi Functional Open Space Parameters Plan

This parameters plan sets out the distribution of the various proposed habitat types outside the development area within the proposed layout, together comprising the Multi Functional Open Space provided.

The proposed habitat types are shown opposite and described below.

### Woodland and Scrub

The existing parcels of woodland will be retained across the site and subject to a woodland management plan to bring these woodlands back into active management. This plan will include a regime of management to allow a multi-dimensional woodland structure to develop.

Species rich scrub will be created providing ecological connectivity west to east, mimicking those species within lowland mixed deciduous woodland. The areas of woodland will be linked together by new hedgerows, newly planted areas of scrub, and scrub grassland that create 'green corridors' across the site facilitating the movement of faunal species. The woodland edge along the eastern boundary will grade into secondary woodland before transitioning into species-rich wet grassland.

### Hedgerows

Wherever possible the existing hedgerows across the site will be retained and enhanced through regular hedge laying and infilling using a palette of native species. New species-rich hedgerows will also be created using native species. The newly planted hedgerows will create green corridors that facilitate movement across the site as well as improving connectivity to the wider landscape and creating additional habitat and resources for farmland bird species.

### Grassland

Rough grassland along with native scrub planting in areas of open space will provide opportunities for birds such as barn owl, mammals including hedgehog, invertebrates, reptiles and amphibians including great crested newts. The mosaic of mixed species scrub will transition to bramble and rose, then tall herbaceous species before finally giving way to rough grassland. The aim will be to produce a habitat of varied age and structure that is capable of attracting a variety of species.

Dedicated areas of open space along the eastern boundary of the site will be given over to the creation of species-rich neutral grassland. The grasslands will be seeded from a local source where possible or similar species composition if not. Once established the grassland will provide opportunities for birds such as barn owl, foraging bats, reptiles and pollinators.

Areas of wet grassland will be created in both the north-western corner and within areas used as SuDS. The newly created habitats will benefit invertebrates, birds and reptile species including grass snake.

### Traditional Orchard

Traditional orchard habitat will connect the centrally located woodland to the parkland and woodland on the southern boundary. The orchard will be planted with species of local provenance to Essex and will create an attractive destination for recreation as well as a valuable biodiverse habitat. The orchard will be set within a newly seeded wildflower grassland. Given the anticipated footfall the selected wildflower mix will be a more robust blend containing trefoils and red and white clover. Mown pathways will guide visitors through the orchard whilst the remainder of the grassland will be cut on a bi-annual regime in high summer and late autumn.

In order for the orchard to flourish a variety of trees of varying age will be required. Fruit trees are generally, although not necessarily, short-lived trees compared to other hardwood species. This means that they begin to produce veteran tree features such as hollow trunks, rot holes, split bark, tears, lightning strikes and sap runs relatively quickly. Because of the wide tree spacing in orchards compared to woodland, the dead and decaying wood is usually in open, sunny locations. These conditions create good habitat for insects and other invertebrate species which depend on decaying wood habitats.

### Allotments

The allotment areas will include traditional allotment beds, a small parking facility and a composting toilet. The allotments will be accessible on foot via the multiple new active travel routes.

### Standing Water

The retained fishing lake within the eastern portion of the site will be enhanced and managed for the benefit of wildlife. The margins for the lake will be enhanced through the planting of flowering riparian species providing valuable resources for invertebrates. The margins of the lake will be managed to maximise the extent of the reedbed habitat benefiting birds including reed warbler and waterfowl.







# Parameters Plan - Non-Vehicular Access

## Non-Vehicular Access Parameters Plan

The non-vehicular access parameter plan (right) includes for context much of the key information from the Land Use and Vehicular Access parameters plan, showing the residential development envelope and the potential location of the non residential uses within the site.

Within this context, this plan shows the following:

### Key cycle routes

Key cycle routes through the layout are identified. These are located either:

- alongside the Spine Street;
- as other defined routes, either within the wider street network, or;
- passing through areas of landscaping.

## Cycle access points

The plan identifies access points into the site for cycles. As well as the Spine Street junctions onto Stadium Way, three other access points are identified:

- Onto Daws Heath Road near the south-western corner of the site, via the existing access track serving the retained uses within the wider site but excluded from the application, providing a link southwards;
- Onto Asquith Avenue, providing a link south-westwards towards the centre of Thundersley;
- Onto Rayleigh Road at the north-western corner of the site, providing a direct link onto the A129.

### Key pedestrian routes

Key pedestrian routes through and within the layout are identified. These are located either:

- alongside the Spine Street;
- alongside the other key cycle routes;
- as other defined routes, either within the wider street network, or;
- passing through areas of landscaping.

## Pedestrian access points

The plan identifies access points into the site for cycles. As well as the Spine Street junctions onto Stadium Way, and the other cycle access points identified above, four other access points are identified:

- Onto Daws Heath Road just to the west of the new vehicular access junction, providing a direct link to Daws Heath Road for the greenway routes within this part of the layout;
- Onto Firfield Road near the south-western corner of the site, providing a link south-westwards towards the centre of Thundersley;
- Onto Rayleigh Road at the western edge of the site, providing a direct link onto the A129 close to the existing pedestrian access point;
- Onto the existing public right of way that runs just outside the site along its northern boundary, providing a direct link to the adjoining employment uses.

These access points respond to existing pedestrian routes and facilitate the extensive new network of routes within the proposals.



# KEY

- Application site area - 27.89ha
- Developable area
- Multi functional open space
- Medical centre (indicative location)
- Community/sports hall (indicative location)
- Early years centre (indicative location)
- ✱ Indicative location of local centre building
- Pedestrian and cycle access - main (indicative location)
- Pedestrian and cycle access (indicative location)
- Pedestrian access (indicative location)
- Pedestrian and cycle route - Main street (indicative)
- Bus only link (indicative)
- Pedestrian and cycle route
- Pedestrian route
- SuDS (indicative extent)
- Retained ornamental lake









## Chapter 6.

## Summary

*This section summarises how the proposals deliver the vision for the site, and outlines potential next steps towards implementing their delivery*



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DESIGN AND ACCESS  
STATEMENT







## Summary

**This site at Land East of Rayleigh Road provides a vibrant new community for Thundersley, offering high quality housing and landscape. It will have its own unique identity inspired by the site's landscape setting, offering much needed new homes and exemplary health, education and community infrastructure, to create a place that will stand the test of time.**

The proposals described within this document have been derived from careful analysis of:

- Local and national planning policy;
- The site's wider strategic context;
- The site's physical history;
- Setting within existing landscape context and character;
- Setting in relation to existing neighbours and their varied patterns of built form;
- Existing facilities, community, retail and commercial uses in proximity to the site;
- Existing landscape features and topography within the site, including site boundaries;
- Existing infrastructure constraints, including below ground services and flood risk.

The design process has responded to the opportunities identified for the provision of:

- Vehicular access for the site via Stadium Way to the north and Daws Heath Road to the south, with the only vehicular link through the site between the access points reserved for buses, and emergency vehicles;
- An urban design framework using a mix of urban design approaches, to create an attractive green, parkland environment, integrated into the existing landscape and topography, retaining as far as possible established tree-lined boundaries, trees and hedgerows;
- Multi-user access through the site, linking to the existing network of green infrastructure, providing opportunity for active travel and recreation;
- An increase in public open space provision across the site, delivering children's play equipment and additional accessible natural green space to meet daily needs of new residents and to divert and deflect visitors from Habitats sites;
- A measurable net gain in biodiversity;
- Sustainable drainage measures to ensure no increase in the risk of surface water flooding to the site or nearby properties;
- A multi-use community hall;
- Land or a suitable building to provide up to 1000sqm of space for healthcare services;
- Land for a stand-alone early years and childcare nursery.

The proposals create a unique landscaped framework within which a series of character areas are created that relate to each part of the site's landscape features and setting, when considered as a whole providing:

- Attractive and accessible open space, providing biodiversity net gain;
- An integrated network of pedestrian and cycle paths, supporting active travel;
- A necklace of new greenways linking to the existing network of Green Infrastructure;
- Areas for allotments and community food production;
- Sustainable drainage throughout the site;
- A dedicated public transport link through the site, connecting up with existing routes;
- A multi use community hall;
- Land for the provision of a healthcare facility building;
- Land for the provision of an early years and childcare nursery;
- Up to 455 new homes of varying types and tenures.



Land East of Rayleigh  
Road, Thundersley

[www.this-land.co.uk](http://www.this-land.co.uk)



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