



Meldreth, South Cambridgeshire

Introducing Land east of Whitecroft Road, Meldreth

November 2021

Introduction

Context

This report provides an objective assessment by Gladman Developments setting out the socio-economic sustainability of Meldreth including the significant connectivity of the settlement to wider region.

The Settlement: Meldreth

Meldreth is a village located within South Cambridgeshire. The centre of the village, measured from the village hall, is located approximately 12.5 miles from the centre of Cambridge via the road network and approximately 20 minutes by train from Meldreth Station. The village is located in a key strategic highway location in close proximity to the A10, M11, A505, A1 and M1.

The settlement contains a number of facilities including public houses, a primary school, shop village hall and accompanying sports facilities. Further amenities and services can be found in the adjacent settlement of Melbourn which include a health centre, a number of shops and employment opportunities alongside education facilities.

The 2001 Census ascertained that there was a population of 1,636 people. In 2020, it was estimated that 1,978 people lived in the parish of Meldreth, marking an increase of 342 people in 19 years (Sources: 2001 Census & 2020 Population).

Correspondingly the approximate number of dwellings has increased from 648 in 2001 to approximately 840 dwellings in 2017, an increase of 192 houses (Sources: 2001 Census & Meldreth Report)



Meldreth Parish Area. Source: Census, 2011

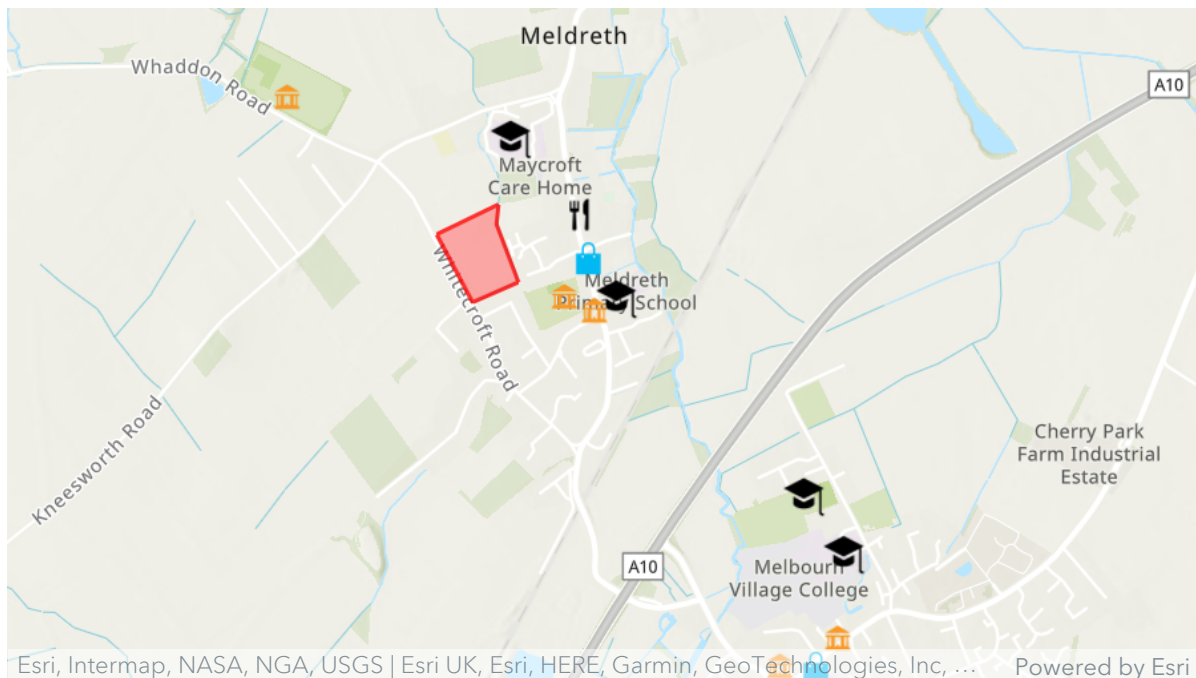
Sustainability of Meldreth

Facilities and Amenities

Meldreth has a number of facilities and services, including a local convenience store, primary education provision, a public house

and community facilities. In addition, the centre of Meldreth (measured from the village hall) to the High Street in Melbourn which is home to a number of further facilities is located 1.5 km away.

The map below highlights key services and facilities which serve Meldreth and the wider area, alongside highlighting Gladman's land interests at Whitecroft Road, Meldreth.



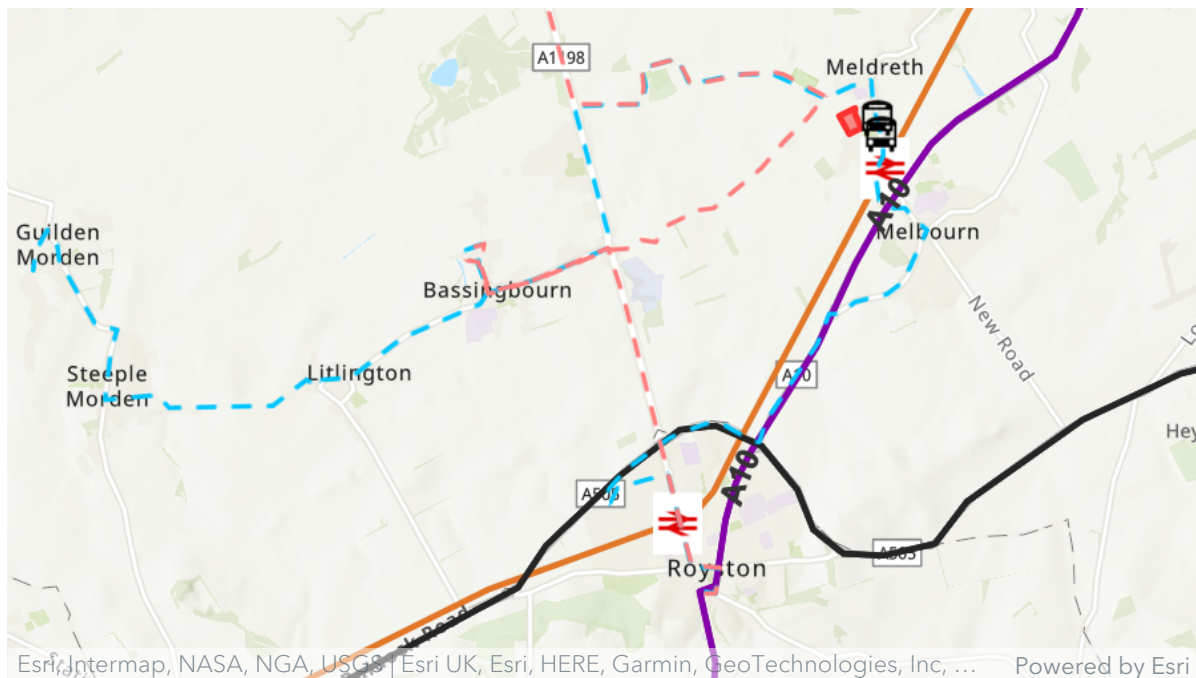
Facilities and Amenities serving Meldreth

In addition to the facilities and amenities detailed above, Meldreth is home to numerous businesses and employment opportunities notably to the south of the village at Station Road, alongside the Care Home and schools.

Melbourn provides additional employment facilities at Melbourn Science Park and Back Lane, while key employment destinations of Cambridge, London and other smaller settlements such as Royston can be easily travelled to via rail.

Transport and Connectivity

The following map sets out the key transport links and connectivity of Meldreth.



Transport connections in Meldreth

As previously highlighted, the centre of Meldreth (from the village hall) is located approximately 12.5 miles from the centre of Cambridge via the road network and approximately 20 minutes by train from Meldreth Station. The village is located in a key strategic highway location in close proximity to the A10, M11, A505, A1 and M1.

Meldreth train station is located to the south of the village on Railway Close and provides hourly services to Cambridge and London Kings Cross. Prior to the COVID-19 pandemic the route offered half hourly services from Meldreth, these service frequencies are likely to become viable once more as working patterns stabilise over future months.

The station provide significant connectivity to employment hubs and offers services to suit all working patterns with direct services to London starting at 05:42, finishing 22:42 while services to Cambridge start 06:39 and finish 02:13.

There are two bus services serving Meldreth however, the frequency of the services mean that they are currently not viable or suitable for people to use as a reliable means to get to work, school or for other activities. More details can be found by clicking the services on the above map.

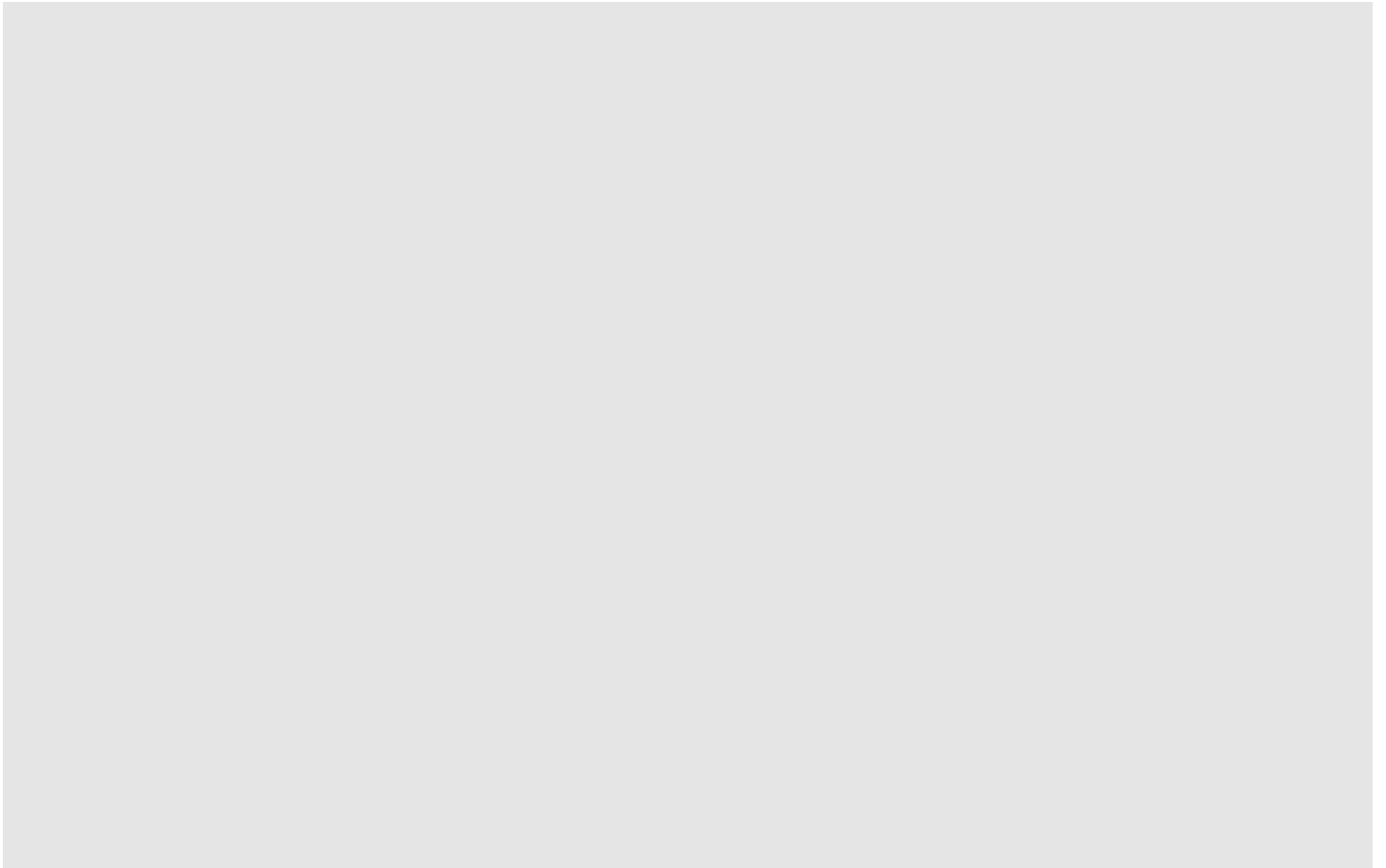
The emerging Local Plan places significant priority in achieving net carbon zero in Greater Cambridgeshire by 2050. An important aspect of this must be locating development in sustainable locations and is served, or can be served, by low carbon transport links.

In addition, the latest iteration of the emerging Local Plan seeks to deliver sustainable and inclusive communities by minimising the need to travel, ensuring effective and sufficient sustainable transport mode and located development to promote sustainable transport.

Meldreth is clearly served by a sustainable, regular rail service provision with direct routes to Cambridge City centre, London Kings Cross and numerous other settlements with significant employment and leisure offerings.

Planned Transport Infrastructure Projects

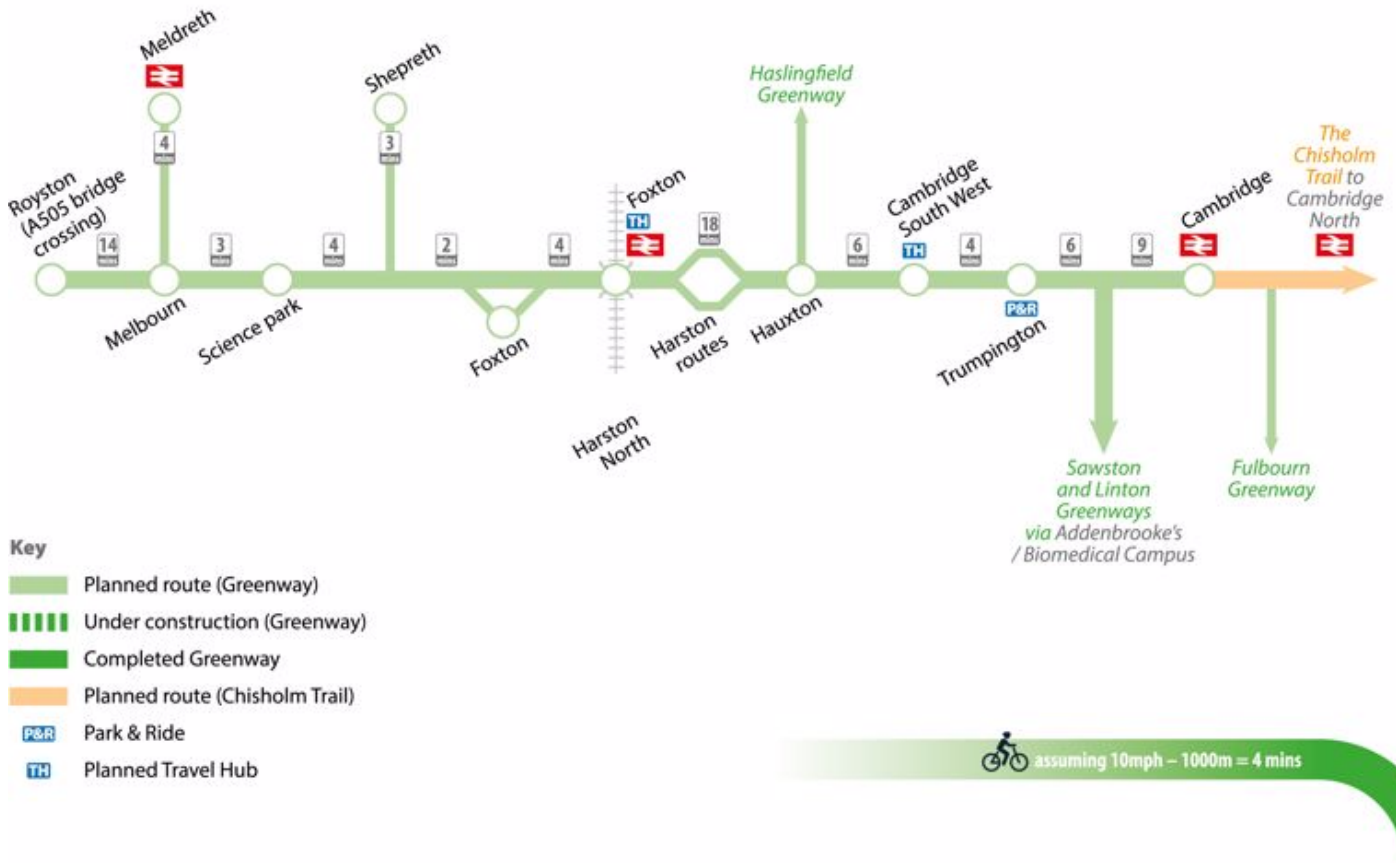
This section will highlight future planned transport infrastructure projects in and in close proximity to the settlement that will benefit current and future residents of Meldreth.



1 Melbourn Greenway

Melbourn Greenway

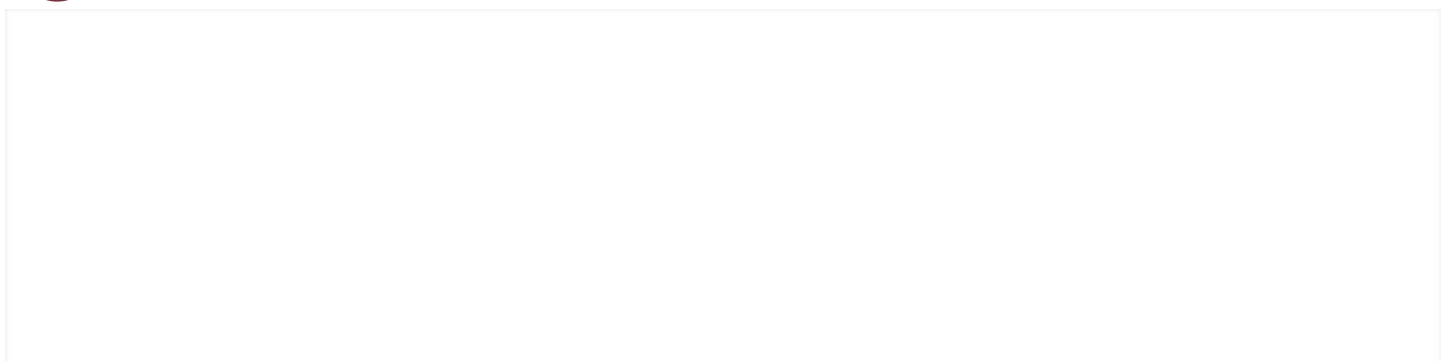
Summer 2021



The Melbourn Greenway will be an active travel route to make it easier for walkers, cyclists and horse riders to travel from Melbourn into Cambridge. It is one of twelve Greater Cambridge Greenways. They will also help to make local journeys such as school and nursery runs safer and easier. In some cases these are new routes, or routes with new sections, while others will be based on existing paths.

A link from Meldreth Station will connect the village to the route.

2 Foxton Travel Hub





The Greater Cambridge Partnership is working on an infrastructure programme to improve connectivity and quality of life for thousands of people. A travel hub at Foxton could provide in the region of 500 car parking spaces and in the region of 150 high quality cycle parking in close proximity to the train station.

The Council recognise the train service at Foxton as being able to accommodate future growth to Cambridge and reduce the traffic levels and congestion. Meldreth train station must also be recognised in being able to facilitate further public transport usage.

3

Cambridge South Station



Network Rail has submitted a Transport and Works Act Order application for a new station in the vicinity of the Cambridge Biomedical Campus to improve connectivity in Cambridgeshire and beyond.

The station would provide access to a growing area of high-quality employment and help relieve congestion in the local area by supporting the development of environmentally sustainable transport in Cambridge.

Meldreth is ideally located along the rail and A10 transport corridor to accommodate new employees including key workers, who are able to commute using low-carbon, mass transit.

The train services from Meldreth towards Kings Lynn would pass through this station offering further accessibility to key and growing employment opportunities located at Cambridge Biomedical Campus.

The new station would be approximately 10-15 minutes train journey from Meldreth.

Summary

Failure to direct additional growth to Meldreth would contradict the proposed policy directions and aspirations within the emerging Greater Cambridge Local Plan First Proposals

document in terms of delivery sustainable development to achieve net carbon zero by 2050.

Meldreth is a clearly sustainable settlement with access to frequent transport services to Cambridge and beyond, alongside planned transport infrastructure provision which will increase connectivity with other settlements and key local services and employment.

Residential growth in Meldreth could also facilitate improvements to bus service provisions and ensure the future vitality and sustainability of the settlement. Gladman would welcome a conversation with the Council around the ability of new development to accommodate key workers employed at the biomedical campus and surrounding hospitals.

Housing Delivery

In the present iteration of the emerging Local Plan, 0 new homes are directed towards Meldreth despite the sustainability and connectivity of the settlement previously discussed.

In October 2017, Cambridgeshire ACRE in behalf of Meldreth Parish Council produced a 'Housing Need Survey Results Report for Meldreth' specifically seeking to understand the need and value of new affordable housing provision in the Parish.

The report recommended that to fulfil the affordable housing need in Meldreth, 45 new affordable houses would need to be delivered.

Since the publication of the report, two residential planning applications have been approved for a total of 33 dwellings. However, these applications only propose to deliver a total of 6 affordable dwellings.

Application Reference	Market Homes	Affordable Homes	Decision Date
S/1502/17/FL	22	0	Dec-19
S/1124/17/OL	11	7	Feb-18
Total	33	7	

Housing delivery in Meldreth since October 2017.

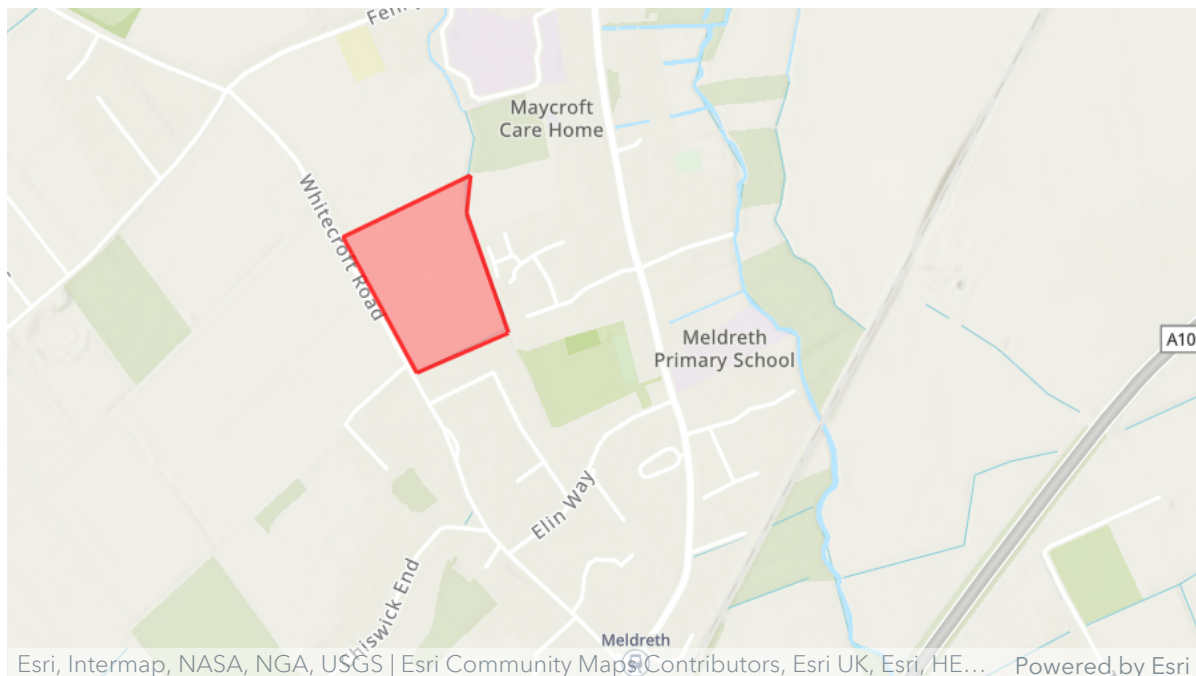
The Housing Needs Survey did not provide a comprehensive assessment of the need for market homes, nonetheless, following the report and the subsequent applications it is clear that further residential development is required in the settlement to meet identified needs.

Gladman Developments highlight Land east of Whitecroft Road which is suitable, sustainable and deliverable for up to 90 dwellings including 36 affordable dwellings which would help to deliver the identified needs of the Parish.

Land east of Whitecroft Road, Meldreth

Site Context

The 3.77 hectare (ha) site comprises a grassed field, with cleared wooded vegetation, natural woodland and remains of a previous development. The site is bounded by Whitecroft Road along the western boundary, private residential development along the south and east boundaries and equine fields along the northern boundary. There is a smaller area of natural woodland / wooded vegetation adjacent to the north-east corner of the Site. The site is currently accessed from mid-way along the western boundary off Whitecroft Road.



Whitecroft Road, Meldreth - Gladman Developments' Site

The site is located approximately 700 metres from Meldreth train station which provides frequent service provision to key employment and leisure hubs according with the aspiration of the emerging Local Plan to locate development to promote sustainable transport. In addition, the site is a short walk from the the primary school and other community facilities on the High Street. Development at this location offers significant opportunities for community benefits through CIL-compliant financial contributions and increased local spending through new residents. The site is unconstrained by flooding

Gladman are promoting the site for residential development of up to 90 homes, including 36 affordable dwellings.

Flood Risk Considerations

Enzygo Ltd were commissioned by Gladman Developments Ltd to undertake a hydraulic modelling investigation for a proposed residential development on land east of Whitecroft Road, Meldreth, Cambridgeshire, SG8 6LP.

Environment Agency online flood mapping (Figure 1) shows the Study Site is largely located within Flood Zone 1, which is land outside the extent of the 1 in 1000-year (<0.1% AEP) risk of flooding, at 'low' risk. The Environment Agency consider that

there is a fluvial flow pathway running through the Site from the south west corner towards the north east corner for Flood Zones 2 (1 in 1000-year {between 1.0% and 0.1% AEP}) and 3 (1 in 100-year {>1.0% AEP}). The fluvial flood extents do not show any fluvial flooding along the un-named 'ordinary watercourse' (hereafter referred to as Watercourse 1) located along the southern and eastern boundaries of the Site.



Figure 1: Environment Agency Flood Zones. Source: [Environment Agency Flood Map for Planning](#).

Environment Agency complex surface water mapping shows the Site is at low risk of flooding (Figure 2).

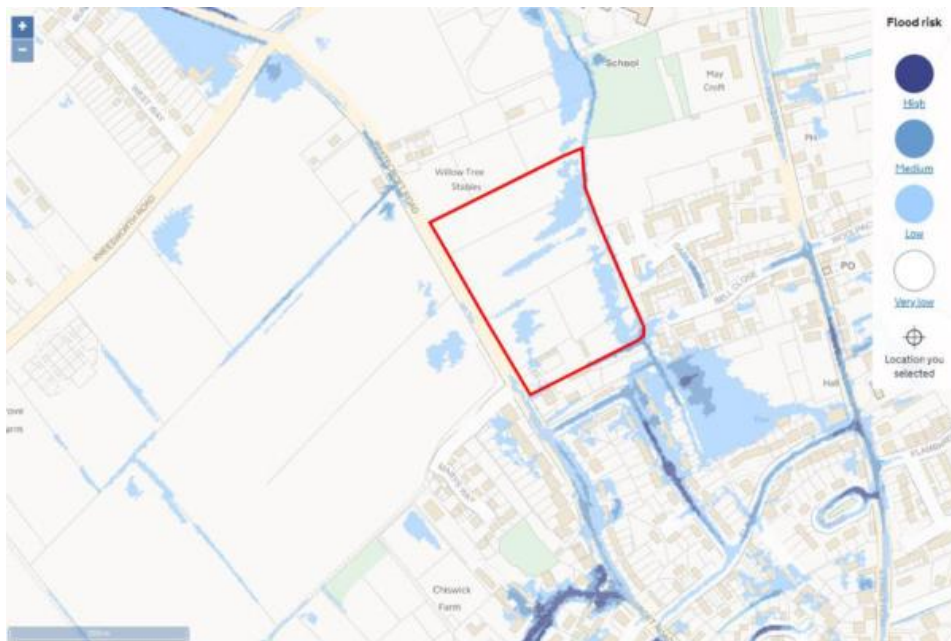


Figure 2: Surface Water Flooding. Source: [Environment Agency Check Long Term Flood Risk](#)

A bespoke hydraulic modelling investigation has been undertaken to refine the fluvial flood outline within the Site boundary, taking into consideration the conveyance capacity of Watercourse 1, as well as upstream and downstream channels and structures (culverts and free spanning bridges for driveway access).

A bespoke 1D2D linked ESTRY TUFLOW model of Watercourse 1 has been constructed using detailed channel survey data and hydrological flow inputs. The model was run for the 1 in 20-year, 100-year, and 1000-year fluvial events as well as the latest climate change allowances 35% and 65% for the 1 in 100-year event.

In addition to sensitivity of model results, blockage assessments have been undertaken for key structures along Watercourse 1 which demonstrate that blockage of Culvert 2 (Whitecroft Road culvert) would result in inundation to a maximum depth of 150mm within the south west area of the Site.

Flood outlines within the Site are shown to be significantly reduced when compared to the Environment Agency mapping with the complete removal of an overland flow path through the centre of the Site. Floodwater now routes around the perimeter of the Site, following the watercourse channel.

The modelled outlines represent a significant reduction in flood extent when compared to Environment Agency flood map for planning. The flow path across the centre of the Site is completely removed with floodwater now following the watercourse channel around the perimeter of the Site.

The following map shows the indicative modelled flood risk outlines.



Modelled Flood Risk at Whitecroft Road, Meldreth

The investigation shows that the site is located entirely within Flood Zone 1.

The modelling exercise has determined that flood outlines, as shown on the Environment Agency flood map for planning, are largely overestimated within the Site and should be superseded by the Enzygo modelled outlines through a flood map challenge.

Further information can be found in Enzygo's Technical Note on the Hydraulic Modelling Report for proposed residential development on land east of Whitecroft Road, Meldreth.

Housing and Economic Land Availability Assessment

Land east of Whitecroft Road, Meldreth was assessed in the Greater Cambridge Housing and Economic Land Availability Assessment (HELAA) 2021 under site reference: 40338.

The site assessment concluded that the site was available and achievable for development, however, the suitability of the site was assessed as 'Amber'.

Criteria	Outcome
Suitable	Amber
Available	Green
Achievable	Green

HELAA Site Reference: 40338 Site Assessment Summary

The site scored Amber in terms of suitability for development due to a number of concerns including Flood Risk, Biodiversity & Geodiversity, Accessibility to Services & Facilities and Transport & Roads. Concerns relating to these matters are addressed below:

Flood Risk

As highlighted above, Enzygo on behalf of Gladman, have undertaken detailed flood modelling that has determined that flood outlines, as shown on the Environment Agency flood map for planning, are largely overestimated within the Site and should be superseded by the Enzygo modelled outlines through a flood map challenge.

The modelling shows that the site is located entirely within Flood Zone 1.

Flood zone 1 is defined as having low probability of flooding, where land has a less than 1 in 1,000 annual probability of river or sea flooding.

Biodiversity and Geodiversity

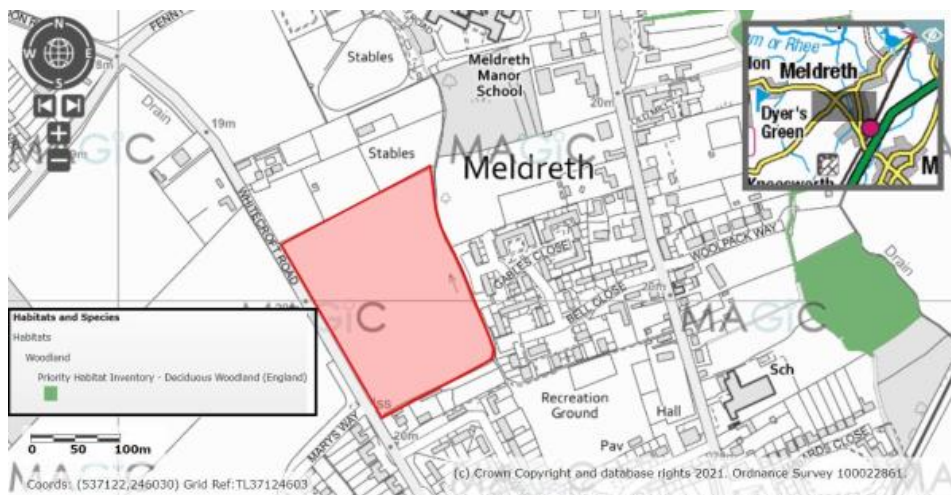
The HELAA assesses that the above criteria as 'Amber' in relation to suitability, notably because the site contains traditional orchards and deciduous woodland, despite clearance having occurred over the previous years.

There are currently no orchards or deciduous woodland on site, this is confirmed by overhead imagery.



Whitecroft Road, Meldreth

In addition 'Magic Maps' which details data provided by Natural England highlights that no Priority Habitat - Deciduous Woodland is present on the site.



Priority Inventory - Deciduous Woodland (Source: Magic Maps)

It is considered that the site should score 'Green' in relation to Biodiversity and Geodiversity.

Accessibility to Services and Facilities

The HELAA used ten different access categories and assessed suitability in terms of the distance from these categories.

Category	Green	Amber	Red
Health	<720m	720-2000m	>2000m
City, District or Rural Centre	<720m	720-2000m	>2000m
Local, Neighbourhood or Minor Rural centre	<720m	720-2000m	>2000m
Rapid Public Transport	<1800m	>1800m	-
Future Rapid Public Transport	<1800m	>1800m	-
Public Transport	<450m	450-1000m	>1000m
Primary School	<450m	450-1000m	>1000m
Secondary School	<900m	900-2000m	>2000m
Major employment sites	<1800m	>1800m	-
Cycle network	<800m	800-1600m	>1600m

HELAA Accessibility Categories

Where sites were assessed as 'Green' against the categories they scored 2 points, 'Amber' scored 1 points and 'Red' scored 0 points. The aggregate score for each site was applied to a threshold to achieve a final RAG rating. The thresholds used were

- Overall Accessibility Green RAG score: 12-20;
- Overall Accessibility Amber RAG score: 6-11.

Gladman are concerned that the assessments and category thresholds are rigid and do not effectively account for facilities or services which fall just outside the proximities set. The table below highlights Gladman's considerations of the accessibility to services and facilities of the site alongside detailing factors which appear not to have been accounted for in the Council's assessment. This table employs the Council's methodology criteria.

ASSESSIBILITY TO SERVICES AND FACILITIES			
CATEGORY	GLADMAN ASSESSMENT	POINTS	COMMENTARY
Health	AMBER	1	Melbourn Village College located 2,425 metres away.
City, District or Rural Centre	RED	0	No comment.
Local, Neighbourhood or Minor Rural Centre	AMBER	1	1,690 metres from Station Rd and High St Junction in Melbourn
Rapid Public Transport	GREEN	2	Site is located approx. 725 metres from Meldreth Train Station
Future Rapid Public Transport	RED	0	Does not account for Foxton Transport Hub which is accessible for Train or proposed Melbourn Greenway
Public Transport	GREEN	2	Located 725 metres from Meldreth Train Station and in close proximity to bus stops.
Primary School	GREEN	2	Located approx 650 metres from Meldreth Primary School
Secondary School	AMBER	1	Melbourn Village College located 2,425 metres away
Major Employment Sites	RED	0	Located 2,500 metres from Melbourn Science Park, also will be accessible via Melbourn Greenway
Cycle Network	GREEN	2	Melbourn Greenway will link Meldreth Station
TOTAL	AMBER	11	

Gladman accessibility assessment

The revised assessment scores 11 (Amber), however this is because facilities such as Melbourn College and Science Park fall just beyond the thresholds employed by the Council. One more point would show the site and settlement as 'Green', the Council should consider the inherent sustainability of Meldreth and the site. The Council's assessment criteria does not account for future infrastructure projects, such as Melbourn Greenway which would facilitate sustainable transport between the site and facilities, nor do the Council acknowledge the inherent sustainability of being able to travel to other rural or local centres in minutes by rail. A low-carbon, sustainable form of transport, which would support the Council's aspirations in the emerging Local Plan.

The Council's methodological criteria for 'Accessibility to Services and Facilities' is primarily measured using distances, thereby focussing on walkability. While such a measurement should be considered, the threshold criteria do not allow consideration of accessibility and connectivity provided by public transport.

Gladman have provided alternative 'Accessibility to Services and Facilities' information for 'land east of Whitecroft road' whereby the facilities and services accessible via rail are acknowledged.

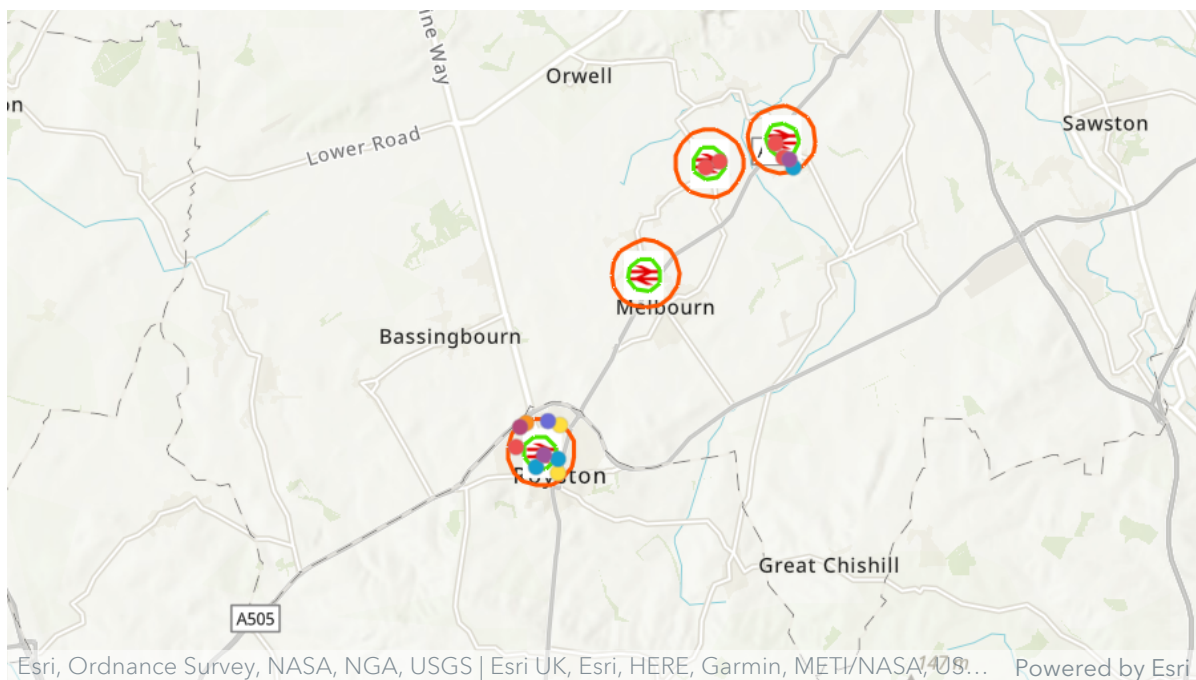
This assessment does not set criteria which are measured using thresholds of distances in metres but rather considers travel times to facilities.

The following table sets out the travel distances from Meldreth Station to settlements located 15 minutes or less from Meldreth by rail.

TRAVEL TIMES BY RAIL					
	ROYSTON	SHEPRETH	FOXTON	BALDOCK	CAMBRIDGE SOUTH (PROPOSED)
Travel time from Meldreth Station (minutes)	4	4	6	14	10-15

Travel times by Rail

The following map highlights settlements which can be accessed by rail from Meldreth in 15 minutes or less before analysing walking distances from each station to key services and facilities.



Facilities accessible by Rail.

Land at Whitecroft Road is located approximately a 7 minute walk from Meldreth Station, so factoring service travel times it would take a resident of the proposed scheme 11 minutes to travel to Royston and Shepreth, 13 minutes to Foxton, 21 minutes to Baldock and between 17-22 minutes to Cambridge South.

The following table sets out the travel distances to services and facilities by foot from the aforementioned stations.

WALK FROM STATION (MINUTES)					
FACILITIES	ROYSTON	SHEPRETH	FOXTON	BALDOCK	CAMBRIDGE SOUTH (PROPOSED)
Primary School	5	N/A	10	5	N/A
Secondary School	10	N/A	N/A	N/A	10
Shop	2	N/A	N/A	4	N/A
Supermarket	10	N/A	N/A	11	N/A
Employment	5	5	5	6	5
Health Centre	5	N/A	N/A	11	N/A
Hospital	N/A	N/A	N/A	N/A	5
Transport Hub	N/A	N/A	2	N/A	0

Walk time from stations to services and facilities.

In essence, the information set out above shows that a resident of Whitecroft Road could access employment and health facilities in Royston in approximately 18 minutes. While secondary education could be accessed in around 21 minutes.

Significant employment opportunities exist across the A10 and rail corridor, notably at the Biomedical Campus in Cambridge which Cambridge South Station will enable rapid access from Meldreth. Health services and employment opportunities here will take approximately 15-20 minutes to access for new residents of Whitecroft Road, Meldreth.

Based upon the travel times outlined above and the existing facilities within Meldreth, alongside the proposed Melbourn Greenway, Gladman have produced the following assessment.

The assessment employs a RAG system but rather setting thresholds based upon metre proximity to services and facilities, travel time is employed which considers rail and walking modes. The assessment uses the same point scoring system as the Council, whereby Green equates to 2 points, Amber 1 and Red 0.

A category is deemed to score Green where it is accessible in 0-10 minutes, Amber 11-25 minutes and Red 26+ minutes.

ASSESSIBILITY TO SERVICES AND FACILITIES			
CATEGORY	GLADMAN ASSESSMENT	POINTS	KEY
Health	AMBER	1	<p>GREEN = 0 - 10 Minute travel time</p> <p>AMBER = 11 - 25 Minute travel time</p> <p>RED = 26+ Minute travel time</p>
City, District or Rural Centre	GREEN	2	
Local, Neighbourhood or Minor Rural Centre	GREEN	2	
Rapid Public Transport	GREEN	2	
Future Rapid Public Transport	AMBER	1	
PublicTransport	GREEN	2	
Primary School	GREEN	2	
Secondary School	AMBER	1	
Major Employment Sites	AMBER	1	
Cycle Network	GREEN	2	
TOTAL	GREEN	16	

Alternative Accessibility to Services and Facilities Assessment

Considering the travel times to facilities and services when utilising rapid public transport options, it is clear that Meldreth represents a sustainable location to direct future development.

Summary

Gladman consider that the site is Suitable, Available and Deliverable for residential development and is situated in a sustainable location close to amenities, transport connections and employment centres.

The above information addresses concerns raised in the HELAA assessment and details that the site can deliver sustainable development to meet the needs of the settlement and district.

Framework Plan

The following Concept Development Framework Plan provides an indication of how the proposals would sit in the context of the village including access points, pedestrian connectivity and landscape planting and open space provision.



Concept Development Framework Plan

Conclusions

The emerging Local Plan places significant priority in achieving net carbon zero in Greater Cambridgeshire by 2050. An important aspect of this must be locating development in sustainable locations and is served, or can be served, by low carbon transport links. In addition, the latest iteration of the emerging Local Plan seeks to deliver sustainable and inclusive communities by minimising the need to travel, ensuring effective

and sufficient sustainable transport mode and located development to promote sustainable transport.

Directing residential growth towards Meldreth offers the opportunity to deliver development in walkable proximity to a frequent, sustainable mode of transit which provides quick and reliable services to key employment and leisure hubs. Additional development may also offer the opportunity to improve the bus service provision in the settlement, further helping to achieve the Council's aspirations of achieving net carbon zero by 2050.

In addition, further development can help to meet the affordable needs identified through the Parish Council in 2017 which have so far failed to materialise.

Gladman highlight land interests at Whitecroft Road, which are located sustainably in close proximity to the village core and train station and can deliver up to 90 houses including 36 affordable homes.