

Masterplan for the East of Halewood

Sustainable Urban Extension

Option Testing & Preferred Option Report

Client: Knowsley Metropolitan Borough Council

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> Purpose of the report

1.1 Optimised Environments (OPEN) have been commissioned to work alongside Knowsley Metropolitan Borough Council (KMBC) to develop a framework masterplan for the East of Halewood Sustainable Urban Extension.

1.2 This report sets out the proposed masterplan vision and principles which underpin the framework masterplan. It also summarises some of the key technical constraints and opportunities affecting the site as well as other impacting considerations such as land ownership boundaries.

1.3 Following this, the report also documents the process of option development, stakeholder consultation and subsequent development of a preferred spatial framework.

1.4 This report forms the basis onto which a masterplan framework and supporting report will be formulated.

Key stages of the process that form the basis of this masterplan report

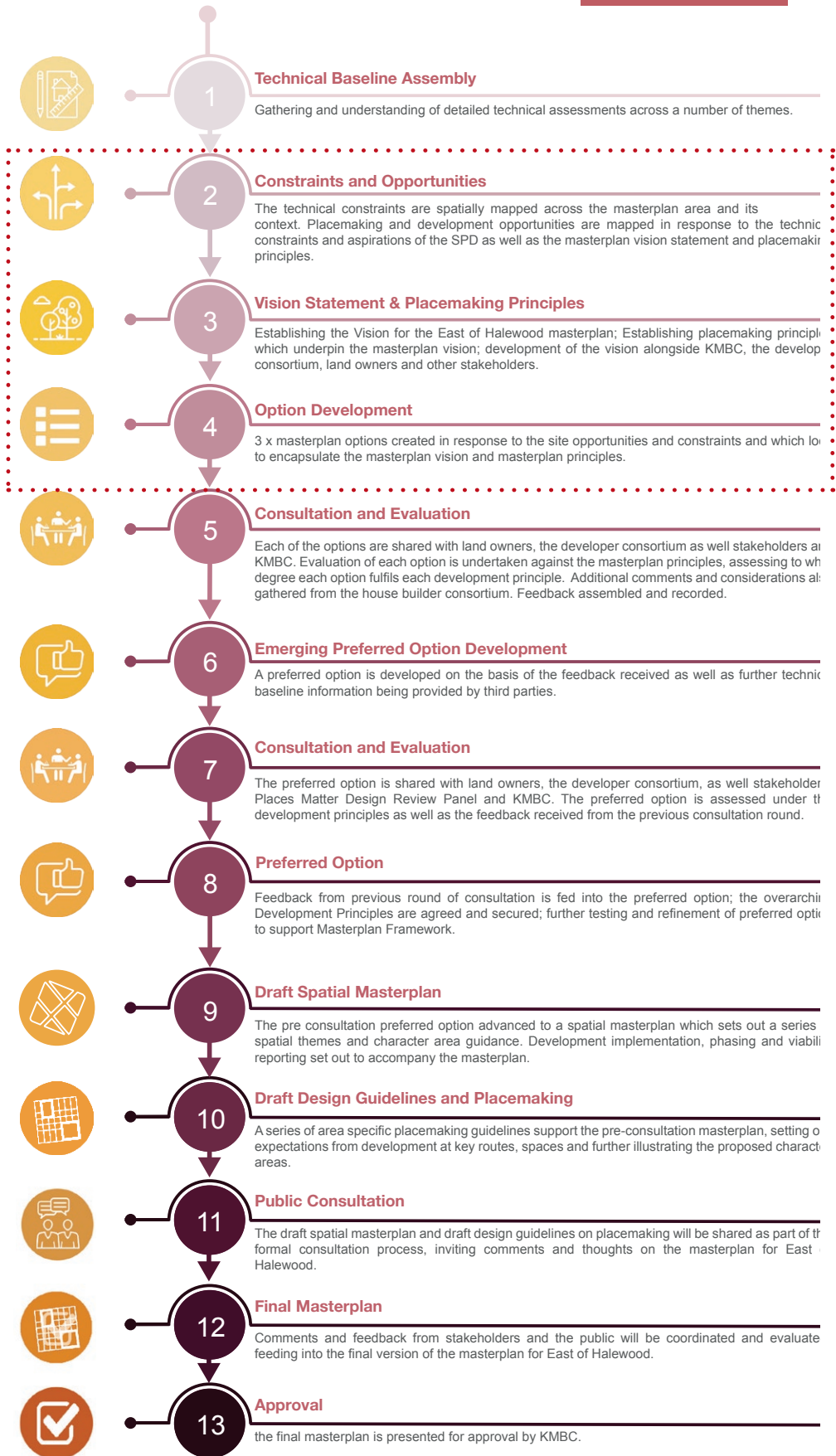


Figure 1.1 Masterplanning process

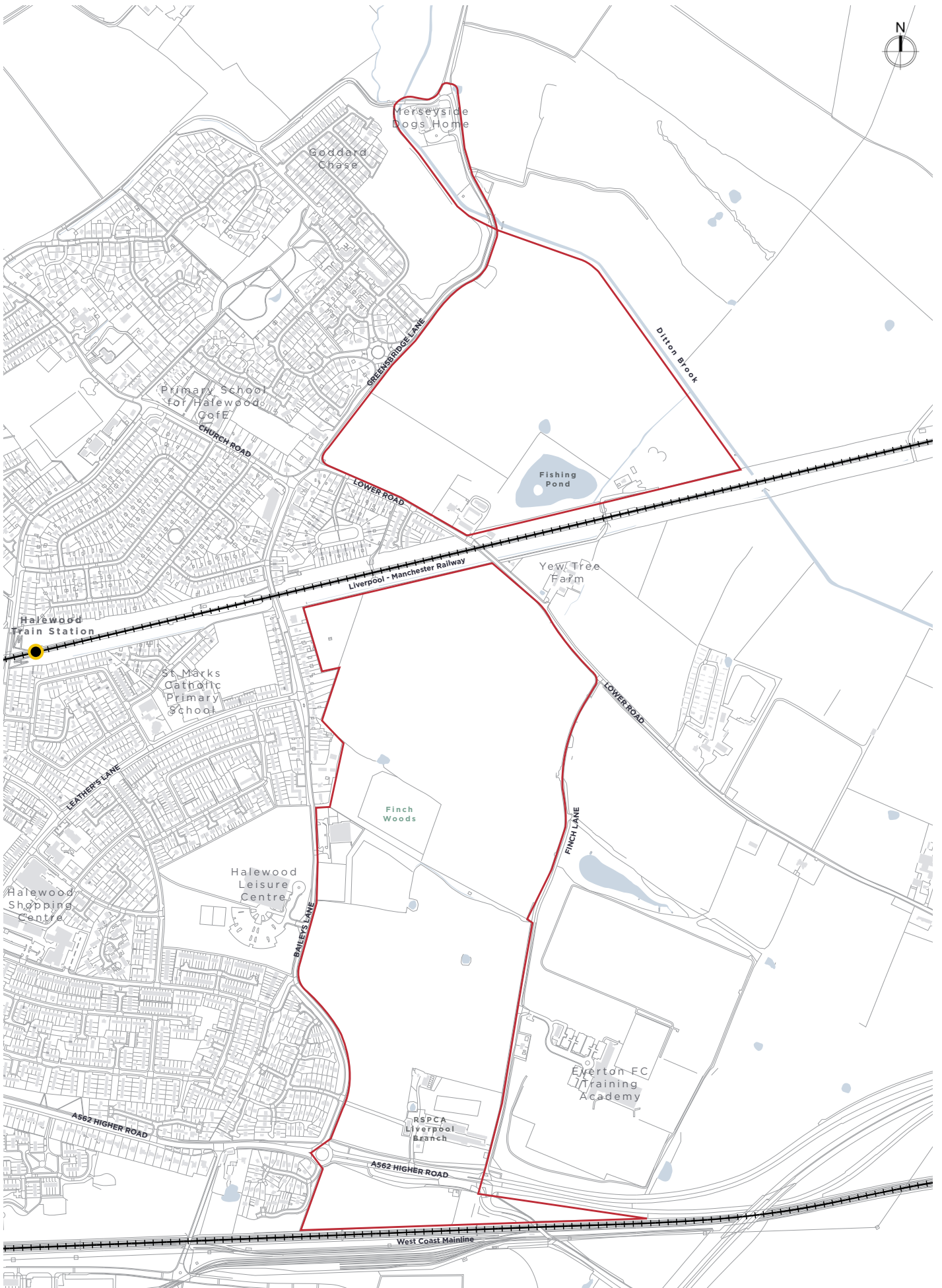


Figure 1.2 East of Halewood site boundary and local facilities
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> Emerging vision and objectives

02

2.1 The Vision Statement and Vision Concept have been developed through a series of workshops, both with KMBC as well as the consortium of Developers, Landowners and Stakeholders. Their feedback and priorities have been recorded and fed into the development of the emerging vision.

2.2 Through a process of refinement, the vision has been developed to ensure that it captures the potential of the masterplan allocation and maximises the ambition of creating a high quality new residential community to the East of Halewood.

2.3 The Vision Statement articulates the overarching ambition of the masterplan. The Vision Concept further elaborates as to what the masterplan vision should set out to deliver.

Vision Statement:

“East of Halewood will provide a high-quality and distinctive new residential offer for Halewood. It will be the most sought after and significant scheme of its type in the south of the City Region.”

Vision concept:

East of Halewood will:

- be a place that is **seamlessly connected with the local community** and its existing facilities;
- be a place which is **integrated with the surrounding natural environment** through its own attractive open spaces. The **enhancement of Finch Woods** will provide a focal point for the development and will be **a purposeful and attractive green space that is a destination** in its own right;
- be well connected with a **high quality streetscape and hierarchy** that will allow residents and visitors, whether on foot or in a vehicle, to **safely and easily navigate** their way to, around, through and from the development;
- encourage all residents and visitors to **make the most of outdoor life**, offering opportunities to unwind, access quality greenspace and explore, encouraging an active lifestyle for Halewood and;
- create a new **strong and interesting edge to Halewood**, integrating new homes with existing hedgerows, movement routes, residential communities and the country side beyond.

Masterplan principles



1. Connectivity

Easy to get to and move through

2. Facilities

Services to support a growing community



3. Housing

The homes for a mixed and sustainable community

4. Built form

A place of quality and character



5. Public realm

People-focused streets and purposeful and useable open spaces

6. Comprehensive development

Maximising the opportunity



Masterplan principles explained

1. Connectivity

Easy to get to and move through



C1

A street layout that looks outward as well as inward; connecting meaningfully to the rest of Halewood and addressing the urban edge.

C2

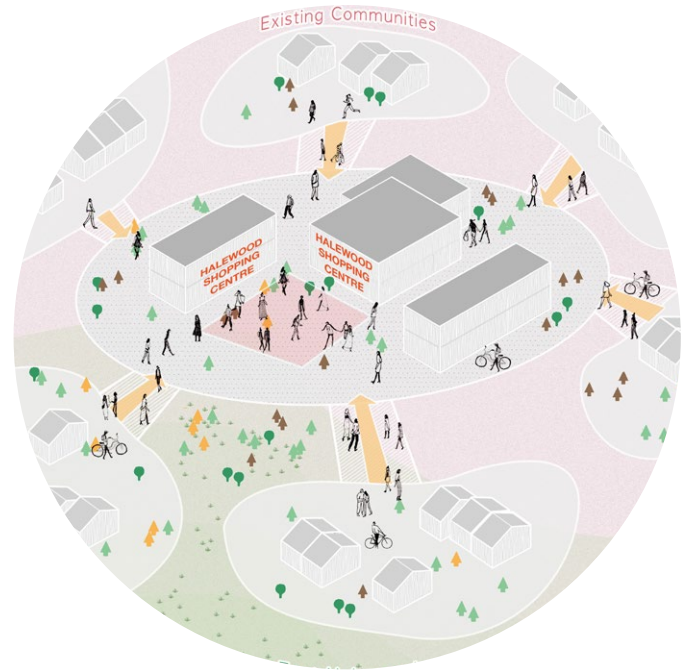
Sustainable links to connect people to employment, to recreation opportunities and to local services and facilities; these should be provided and should accommodate a variety of modes of transport.

C3

Possibilities for connections between the northern and southern parcels.

2. Facilities

Services to support a growing community



F1

Reinforce existing local centres and support independent businesses.

F2

Future proofed physical and social infrastructure, which is designed to meet the current and future needs of the community it serves.

3. Housing

The homes for a mixed and sustainable community



H1

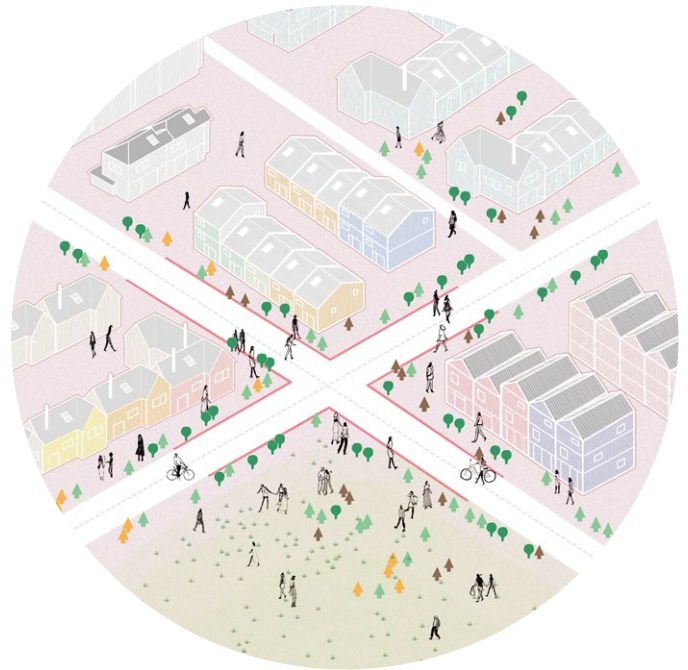
Housing types and products, including Affordable Housing, that can attract a range of new people to live in the area and help to address current local and city region needs.

H2

The right homes in the right places.

4. Built form

A place of quality and character



B1

A high quality built-form that makes a positive impact on Halewood.

B2

Creating character areas and responding to context.

5. Public realm

People-focused streets and purposeful and useable open spaces



P1

A network of well-connected green spaces with a strong purpose.

P2

Creating a coordinated and balanced streetscape, that promotes walking and cycling.

P3

People focused street design and calming traffic speeds.

P4

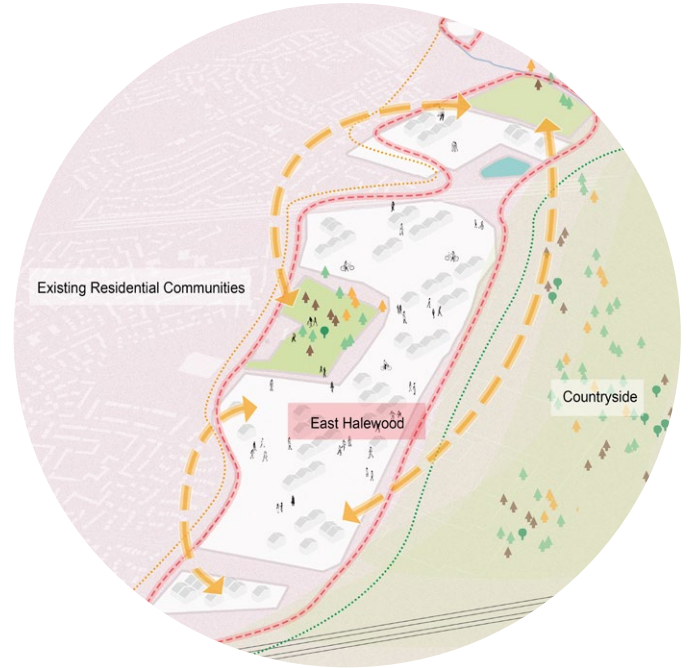
Incorporating sustainable urban drainage solutions.

P5

Incorporating landscape features as part of the built environment.

6. Comprehensive development

Maximising the opportunity



CH1

A masterplan which positively considers the whole of the site.

CH2

Ensuring appropriate and effective phasing and delivery.

Masterplan principle indicators

2.4 The masterplan principles build upon the Vision Statement and Concept, which have been arranged into a series of thematic principles, including: Each of the masterplan principles have a number of indicators associated with them which provide further elaboration and

detail as to how the application of any principle would be manifested through the delivery of the masterplan.

2.5 The indicators for each of the principles are listed in table 1 below:

Table 2.1 Masterplan principles and indicators

Principle	Indicator
C1	<ul style="list-style-type: none"> connections between the site and its surroundings designed to promote a variety of modes of movement, from vehicular to walking, to ensure that development creates a natural and functional extension to Halewood; a layout that ensures existing local centre and facilities are easily accessible by the future residents of East of Halewood; respect the function of the existing Public Right of Way (PRoW); design features which help to overcome existing barriers to local movement such as Higher Road and the railway line; avoidance of cul de sacs to ensure place making, place finding and ensuring legibility through the entire site.
C2	<ul style="list-style-type: none"> inclusive walking and cycling links should be provided across the masterplan, which are people-friendly, easy and pleasant to use; a street network that is legible and permeable, capable of accommodating all modes of transport in a balanced manner; direct linkages that support use of nearby bus and rail stops; location of new or relocated bus stops to serve the development.
C3	<ul style="list-style-type: none"> clear vehicular, walking and cycling connections between the development parcels; a legible north – south internal spine route which connects the northern and southern parcels, possibly in the form of a highway linkage, but certainly as part of the overall green infrastructure network.
F1	<ul style="list-style-type: none"> the inclusion of (and the extent and position of) any non-residential uses carefully considered to support and reinforce the vitality of existing local centres; provide support for existing businesses, such as Yew Tree Farm and create opportunities for additional independent businesses to take root.
F2	<ul style="list-style-type: none"> new primary school and early years provision made within close proximity to the site; the use of a variety of technologies, including provision of electric vehicle charging points, super-fast broadband, solar panels and rainwater harvesting to be integrated within the development.
H1	<ul style="list-style-type: none"> improving the range and the quality to provide an expanded offer – a new type of choice for Halewood; a range of house types, sizes and formats that can support and sustain a mixed community; 25% of the housing should be affordable and integrated across the masterplan to ensure it is tenure blind; building for Life 12 (3rd Edition) will be used as an assessment tool to ensure the design principles are retained through the delivery of the development.

Table 2.1 Masterplan principles and indicators (cont.)

Principle	Indicator
H2	<ul style="list-style-type: none"> • establishing a density gradient across the masterplan that allows both successful integration with wider Halewood as well as establishing a positive and appropriate new development edge; • affordable housing should be meaningfully distributed across the masterplan.
B1	<ul style="list-style-type: none"> • an outward facing development with strong and positive frontage presence, particularly around key arrival points; • the use of good quality materials across the public realm, buildings and their curtilages; • the combination of house types and roof materials to relate to their neighbours and sit comfortably within an overall streetscape composition. A designed roofscape should be expressed that manages variation in a controlled and coordinated manner; • a clear and considered rationale for changes in scale with taller properties sited to accentuate key nodes / spaces / routes.
B2	<ul style="list-style-type: none"> • a range of character areas that respond to aspects of open space, movement and context (such as urban and rural interfaces), rather than land ownership or development boundaries; • thoughtful handling of materials to create subtle variety within a coherent and consistent palette; • design features reflecting the best of distinctive local development: using vernacular materials such as red sandstone in a contemporary manner and inclusion of locally prevalent features, such as low front garden walls.
P1	<ul style="list-style-type: none"> • a connected green infrastructure network that promotes healthy lifestyles and wellbeing for residents across the area, through encouraging the use of existing spaces and by creating new, meaningful green spaces; • open spaces that work with walking and cycling routes to increase their impact and provide access to surrounding open countryside and neighbouring green spaces; • accessible spaces of a scale ensuring they offer a recreational and amenity function and respond to existing characteristics or key features such as Ditton Brook and Finch Woods; • establishing a series of multifunctional, purposeful and useable green open spaces which are truly integral to the development layout and structure.
P2	<ul style="list-style-type: none"> • a layout and parking mix that ensures streets are not visually dominated by parked cars; • consideration given to how boundary treatments, street planting and parking arrangements create a balanced street composition; • considered and consistent planting and use of materials in the public realm with seamless connection across development boundaries.
P3	<ul style="list-style-type: none"> • manual for Streets approach to design to ensure that vehicle speeds are controlled and managed; • speed management considered from the outset with traffic calming responding to pedestrian desire lines and built form.

Table 2.1 Masterplan principles and indicators (cont.)

Principle	Indicator
P4	<ul style="list-style-type: none"> • sustainable urban drainage solutions employed to handle run off on-site where practicable, before discharging into wider networks, contributing to purposeful and useable open space; • drainage solutions handled in a positive manner, integrating these elements within the design of streets and spaces.
P5	<ul style="list-style-type: none"> • the use of soft landscape features should be fully incorporated within the design of streets, spaces and development parcels to contribute to the overall character of the place; • a variety of landscape features, for example tree planting both within the street and front gardens, hedgerows, and boundary treatments should be incorporated.
CH1	<ul style="list-style-type: none"> • every part of the site should be positively masterplanned to consider how buildings, streets and spaces work in harmony to create a successful new residential environment.
CH2	<ul style="list-style-type: none"> • effective collaboration and partnership working ensuring that development is designed and implemented to deliver the comprehensive delivery of East of Halewood as a whole, including the timely and coordinated provision of physical and community infrastructure; • each part of the site will facilitate comprehensive delivery, demonstrating positive connections and comprehensive infrastructure approach to the rest of the site - no part of the site will prevent any other part coming forward.

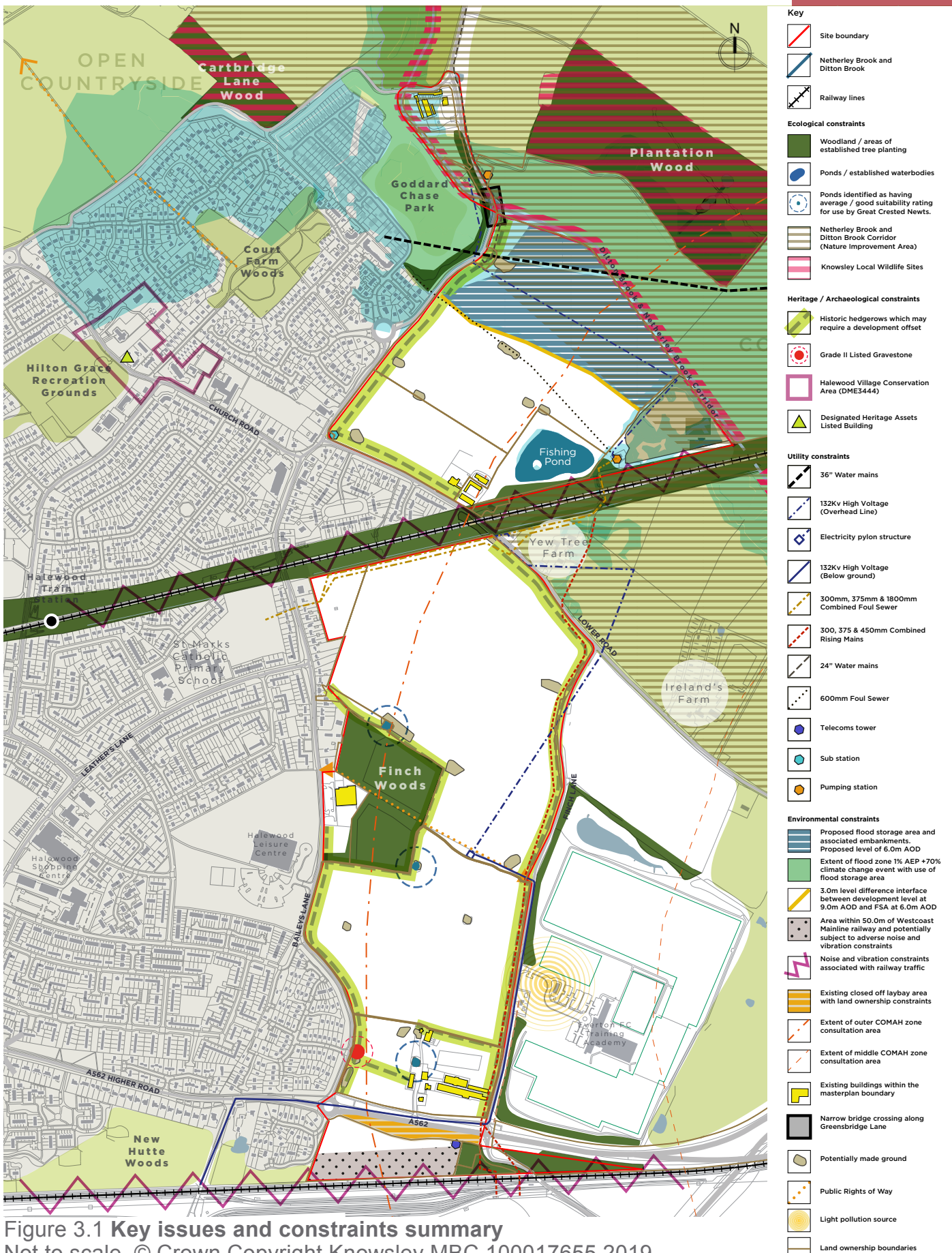


Figure 3.1 Key issues and constraints summary
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3.1 The following summary table 2 provides an overview of the main constraints affecting the site, which have been informed by the suite of technical baseline reports (please refer to separate Baseline Summary Report for more detailed explanation of the constraints).

3.2 The potential opportunities affecting the site are also summarised in the following table.

3.3 These seek to encapsulate the aspirations of the masterplan vision and masterplan principles whilst also responding to the technical constraints affecting the site.

Table 3.1: **Summary of issues and constraints**

Theme	Summary of constraints
Geo-environment	<ul style="list-style-type: none"> • some localised areas of made ground around the existing in-filled ponds
Noise	<ul style="list-style-type: none"> • likely noise impacts from the surrounding existing highway infrastructure, namely the A562 Higher Road; • the two railway lines will have a noise and vibration impact upon the site; • the Hesketh Land parcel, to the south of the site, is most likely impacted by noise and vibration impacts from the West Coast Mainline. The current baseline position assumes that a 50m offset is created from the railway line as an area where typical, residential development could not be delivered without mitigation to form / building openings / acoustic screening and bunding. This serves as a baseline position until further, more detailed assessments are carried out; • the Merseyside Dogs Home as a continuing noise source if it remains in situ; • the phased closure of the RSPCA site may cause noise issues associated with its current use if it continues until its closure whilst future residential development is delivered simultaneously; • the Everton Training Academy training pitches are a source of noise when in use as well as a light pollution source when the floodlights are in use.
Air Quality	<ul style="list-style-type: none"> • a range of potential sensitive receptors identified in close proximity to the site. These are subject to a more detailed assessment through future planning applications; • potential for adverse air quality impacts arising from construction process and during site occupation caused by exhaust emissions.
Utilities	<ul style="list-style-type: none"> • the overhead (o/h) 132KV power line runs north-easterly across the site, crossing Lower Road and the Liverpool – Manchester railway line and United Utilities compound. It runs below ground from the PRoW and along Finch Lane and southwards to Jaguar Land Rover and requires a 5m setback. If the o/h section of the powerline is to remain in situ, it severs the potential developable area and creates challenging visual and built form relationships with new residential development and open spaces; • 36” Rising Main steel pipe runs along the northern parcel of the site. This is identified by United Utilities as a significant piece of infrastructure, with substantial challenges facing it’s diversion or alteration. If it is to remain in situ an 8m easement strip is required; • combined foul sewer runs to the southern extent of the Manchester - Liverpool railway - requires 10m setback from the rail line, within which a 7m protective strip is required; • combined Rising Mains run along the eastern boundary of the site, to the west of Finch Lane and require a 7m protective strip; • extra High voltage power line runs along the northern extent of the northern parcel, crossing Greensbridge Lane and the smaller western parcel; • foul wastewater pipe runs east-west through the northern parcel of the site to a pumping station before passing along the northern boundary of the central parcel. A 7m easement strip is required;

Table 3.1 Summary of issues and constraints (cont.)

Theme	Summary of the constraints
	<ul style="list-style-type: none"> • sub station located at south-west corner of northern parcel occupying a visually prominent part of the parcel. Initial discussions with Scottish Power suggest that this could be relocated to the centre of the new load generating area; • responses from utility providers have indicated that new development will require network upgrades and reinforcement will be required which will incur costs to complete; • plans for thre future use of the United Utilities compound is currently unknown and creates visual issues when considered in proximity to residential development. This facility will require continued access by United Utilities; • a telecommunications tower is located to the south of Lower Road, within the southernmost land parcel.
<p>Flood Risk & Drainage</p>	<ul style="list-style-type: none"> • flood zones 2&3 encroaches significantly into the northern parcel from the Ditton Brook; • flood Modelling work has been undertaken by Waterco to reduce the area affected by 1:1000 (+ 70% for climate change) flood event. The mitigation approach is to create a Flood Storage Area to the south of the Ditton Brook at 6m Above Ordnance Datum (AOD). The created development area is raised out of the flood risk area and sits at a level of 9m AOD; • the embankments along the Ditton Brook, which are recognised as major flood defences in the area, are identified as being in very poor condition.
<p>Heritage & Archaeology</p>	<ul style="list-style-type: none"> • grade II listed building, along the western edge of the southern parcel along Baileys Lane, is identified as the grave of 'Blackie the Warhorse'; • historic hedgerows identified along boundaries of northern and central parcels; • the master plan should consider the development response in relation to buildings with local historic interest, both within and beyond the site. These include historic buildings within the RSPCA parcel (such as remaining barn elements of an 18th century farm and a pet cemetery) as well as the adjacent Conservation Area to the west of the site and a number of historic properties along Baileys Lane; • the assessments have also considered the potential for as-yet to be discovered archaeological assets within the site.
<p>Transport</p>	<ul style="list-style-type: none"> • limited potential for pedestrian connection between parcels due to infrastructure barriers, namely the elevated position of the Liverpool – Manchester railway line and its associated embankment; • A562, Finch Lane/Higher Road junction is restricted in terms of site access potential. It also creates a significant barrier to pedestrian connectivity between the southernmost parcel of land and the current RSPCA land. There are no footpaths on Finch Lane north of Finch Farm access. Similarly there is limited pedestrian footpath provision along Greensbridge Lane and Lower Road, with footpath provision on one side; • existing properties fronting along Baileys Lane limit access to the parcel Existing Public Right of Way cuts across central parcel from Leisure Centre/ Baileys Lane towards Finch Lane; • signalised narrow bridge with no pedestrian facilities on Greensbridge Lane; • a package of off site junction and route improvement works will be required in order to mitigate against the impacts of new development; • local bus services to East of Halewood run along Baileys Lane until Leathers Lane, excluding the southern portion of the master plan. Areas to the south eastern corner of the master plan are currently beyond a 10 minute walk to Halewood train station. The frequency of services to and from Liverpool and Manchester to the station is low.

Table 3.1 Summary of issues and constraints (cont.)

Theme	Summary of the constraints
Ecology	<ul style="list-style-type: none"> • Invasive species have been noted on the site and a Management Plan is advised; • the Netherley Brook and Ditton Brook Corridor is allocated as a Nature Improvement Area (NIA) which looks to incorporate ecological priorities including habitat creation and management. The master plan should look to avoid development within the NIA and a development buffer will be required from the NIA in response to ecological habitats within the corridor. The specific type buffer enhancements will depend upon the form and scale of development proposed within the master plan; • existing ponds have been identified as potential habitats for protected species and further investigation will be required; • finch woods, pocket of woodland to East of Leathers Lane/Baileys Lane and rail corridor with broadleaf and deciduous species identified as potential habitats; • the Netherley Brook and Ditton Brook are also designated as Local Wildlife sites as it provides habitat for water vole. Cartbridge Lane Wood is also designated as it is a broadleaf woodland which supports Bluebell as well as reports of Water Vole.
Landscape	<ul style="list-style-type: none"> • existing woodland and historic hedgerows serve as landscape features across the site; • Nature Improvement Area along the Ditton Brook encroaches into northern parcel. Consideration to the provision of an adequate buffer will be required.
Townscape	<ul style="list-style-type: none"> • the master plan should consider how future development will integrate with its existing edges, which range from existing residential development along Higher Road, properties which back onto the site from Baileys Lane as well as Finch Woods Academy and the character of Finch Lane; • the existing built form of East of Halewood faces away from site. Combined with the presence of high, historic hedgerows, the master plan must consider how future development can become part of an overall cohesive environment across East of Halewood.
COMAH	<ul style="list-style-type: none"> • the majority of the site falls under regulations as set out under the Control of Major Accident Hazards (COMAH) consultation zone. Residential development is identified as level 3 sensitivity ('Do not advise against'), however schools, nurseries and creches, which exceed a total site area of 1.4ha are classified as having a sensitivity level 3 and would not be supported by the HSE. Restrictions would also apply to institutional residential uses such as extra care or residential care home.

Table 3.1 Summary of issues and constraints (cont.)

Theme	Summary of the constraints
Education	<ul style="list-style-type: none"> • Halewood has a wide range of schools and nurseries, including a secondary school, six primary schools and numerous nurseries, as well as Finch Woods Academy, a SEND school within the East of Halewood site. Schools within Liverpool also provide spaces for children living in Halewood. • Capacity in the three nearest primary schools to the site - Plantation, St.Mark's and Halewood CofE - is limited. To meet need arising from the development for primary and early years' places, extended capacity will be needed.
Health	<ul style="list-style-type: none"> • Halewood is well served by existing GP surgery facilities, and by nearby hospitals in Whiston and Liverpool. • To meet additional GP service demand arising from the East of Halewood site, additional surgery capacity will be required.
Public Open Space	<ul style="list-style-type: none"> • Halewood generally is well served by a number of public open spaces, across the Parks and Gardens, Amenity Greenspace, Children and Young People, and Allotment typologies. However, parts of Halewood suffer a deficit in different typologies; nearest to the East of Halewood site, there is a particular shortage of Parks and Gardens spaces. The East of Halewood site will need to be self-sufficient in public open space, against the Council's standards for provision. • Finch Woods public open space is within the site, and must be retained for this use. The area is currently under used, with poor public access and surveillance, and under-maintained woodland areas dominating the site. • Halewood Community Area contains a number of outdoor sports facilities, including those directly adjacent to the site at Halewood Leisure Centre, and the proposed community pitches north of Everton's Finch Farm Academy. Against the Council's standards, there is a deficit of pitches in the area, which means the East of Halewood development will need to make a contribution towards the provision of new/improved pitches.



Table 3.2: Summary of key opportunities

Theme	Key opportunities to be maximised
Geo-environment	<ul style="list-style-type: none"> relatively flat, previously undeveloped site with limited underground constraints identified, allowing for flexibility in the provision of developable areas across the site; ground conditions favourable for typical residential foundations.
Noise	<ul style="list-style-type: none"> noise constraints across the majority of the site can be overcome through a range of mitigation measures, including landscape bunds if necessary. Potential to successfully incorporate bunding into a wider, cohesive landscape structure.
Air Quality	<ul style="list-style-type: none"> generally good air quality within the study area, with air quality monitoring confirming that there were no exceedances of the relevant air quality standards in this location.
Utilities	<ul style="list-style-type: none"> main utility constraints run through north parcel where development stand-off is already likely to be required for flood risk and Nature Improvement Area mitigation reasons; ongoing discussions with utility providers are underway and an agreement to the principle to divert and underground the 132KV overhead cables has been reached. This maximises the available developable land and reduces the risk of unsightly and visually dominant power cables; ongoing discussions with utility providers are underway to relocate the existing substation on the corner of Greensbridge Lane and Lower Road to a more suitable location; existing network of services in close proximity to the site providing a variety of viable connection points to the existing network infrastructure.
Flood Risk & Drainage	<ul style="list-style-type: none"> very low risk of flooding (Flood Zone 1) across the site area south of Lower Road; only localised areas of surface water flooding due to localised depressions in the land form, which can be regraded through future development; potential to use the proposed Flood Storage Area to create an improved landscape setting and potentially an area for ecological / habitat improvement along the Ditton and Netherley Brook corridor and within the Nature Improvement Area; opportunity to establish a connected Surface Water Drainage Strategy across the entirety of the site, which is integrated with the landscape framework and a potential exemplar in surface water drainage management.
Heritage & archaeology	<ul style="list-style-type: none"> opportunity to celebrate the location and local heritage of the Grade II Listed 'Blackie the Warhorse' structure, improving its setting and visual prominence; opportunity to consider the re-use the 18th barn as part of the RSPCA site as part of new development proposal
Transport	<ul style="list-style-type: none"> reconsider role and nature of Baileys/Greenbridge Lane, around the Leisure Centre and the junction with Greensbridge Lane and Lower Road, to establish a stronger relationship with rest of Halewood and help to redefine the currently disjointed urban character along Baileys Lane and Lower Road. work the existing PROW into a new pedestrian and cycle movement network across the entirety of the site; potential to draw upon or reinforce the accessible existing public transport links serving existing residents and Halewood Local Centre; opportunity to close Higher Road layby to the north of Hesketh land parcel and consolidate the land gained for future development as part of the Hesketh land parcel;

Table 3.2 Summary of key opportunities (cont.)

Theme	Key opportunities to be maximised
Transport	<ul style="list-style-type: none"> • open up a currently redundant railway arch adjacent to Lower Road to create a pedestrian and cycle connection between the northern and southern master plan parcels; • opportunity to re-configure Higher Road and provide junction upgrades to reduce vehicle speeds, to better manage vehicle movements and conflicts as well as improving the character of the highway in response to future development coming forward. As part of the proposals, improved accessibility could also be achieved for the Hesketh parcel.
Ecology	<ul style="list-style-type: none"> • the existing Finch Woods and ponds are potential features that the development can react to, creating areas of interest and character within the master plan, which sit within a coherent landscape structure; • usage of the Flood Storage Area to create an improved landscape setting and potentially an area for ecological / habitat improvement along the Ditton Brook and within the Nature Improvement Area.
Landscape	<ul style="list-style-type: none"> • Finch Woods can sit at the heart of a landscape structure across the master plan. The woods could be redefined, altered and improved to provide a positive, high quality landscape destination within the master plan for new and existing residents of Halewood to enjoy; • the existing PROW could form basis for new green corridors; • historic hedgerows can be worked into the scheme to provide visual shelter from busier roads which surround the master plan; • the Flood Storage Area can serve a dual purpose in providing an improved landscape setting for future development, which provides a buffer area to the Ditton Brook, as well as creating positive visual amenity to the north, complementing long range views towards Plantation Wood; • long range views from the northern portion of the site are framed by Plantation Wood and could offer an attractive setting for future development; • opportunity to widen the existing central reservation along Higher Road to allow create a more substantial landscaped / planted feature as part of potential improvements to Higher Road.
Townscape	<ul style="list-style-type: none"> • existing strong boundaries to the site can be worked into development form; • lack of any overriding architectural style or built character in the surrounding area and the positive acceptance of recent new development offers the opportunity to define a distinctive new character for East of Halewood, through the delivery of good quality, modern housing; • some architectural detailing cues visible from historic barns and cottages in the area, could be re-interpreted and integrated within the design finishes of the new forms of housing, as an acknowledgement of the local vernacular of Halewood; • opportunity to establish positive edges to the site, namely along Higher Road, Lower Road, Finch Lane and Greensbridge Lane, creating an arrival experience to Halewood Village from the east; • opportunity to redefine the character of Baileys Lane through the introduction of new development frontage which is orientated onto the existing street;

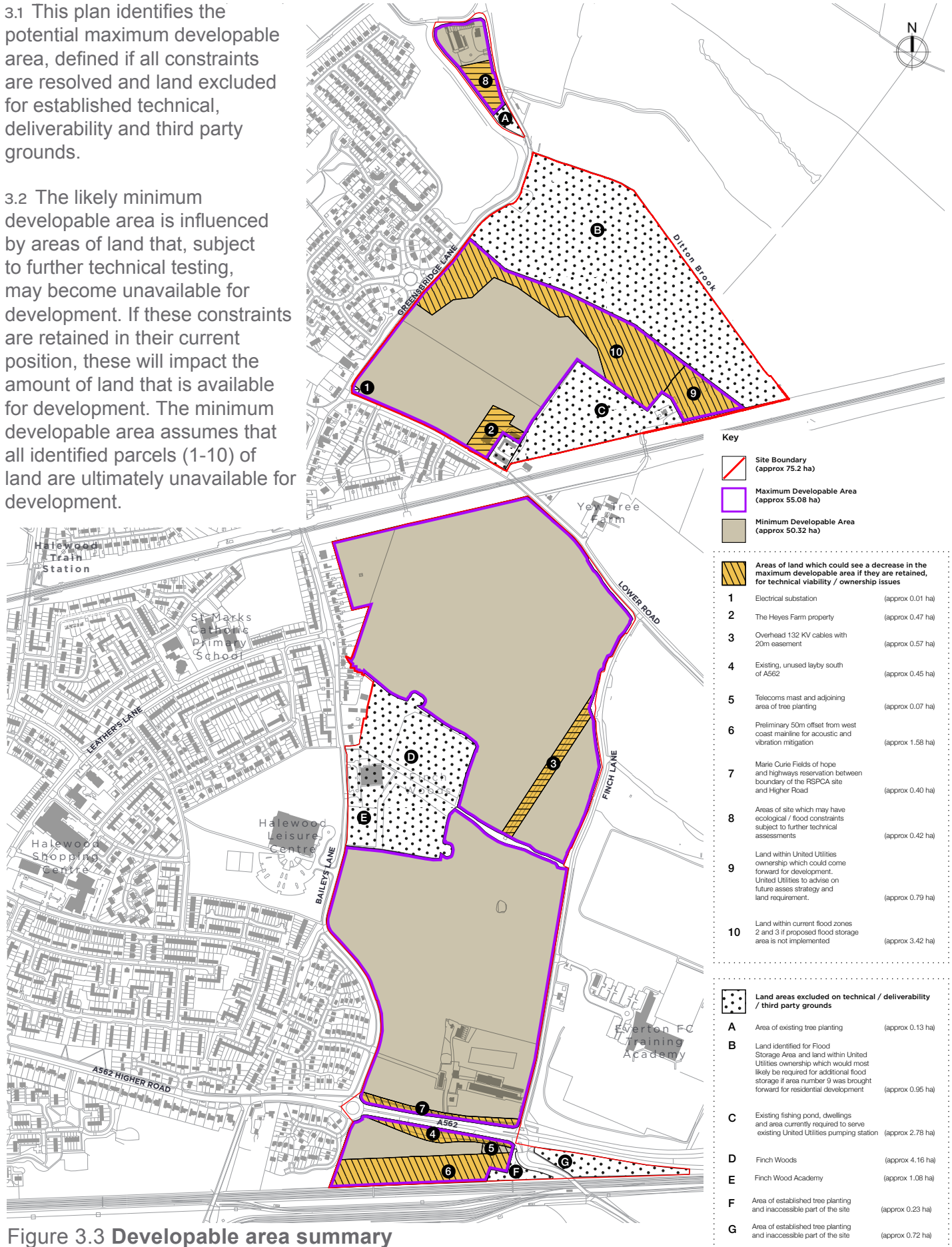
Table 3.2 Summary of key opportunities (cont.)

Theme	Key opportunities to be maximised
Townscape Cont.	<ul style="list-style-type: none"> • opportunity to introduce higher density development at each end of Higher Road, establishing a gateway and built form presence onto this approach link to East of Halewood; • opportunity to introduce higher density development at each end of Higher Road, establishing a gateway and built form presence onto this approach link to East of Halewood; • future development should positively address Finch Woods and incorporate it within the wider master plan. There is an opportunity for the townscape response along Finch Woods to create a unique placemaking character through the use of a larger format, more bespoke dwelling type that fronts onto the woodland.
Education	<ul style="list-style-type: none"> • The development of the East of Halewood site brings significant opportunities for investment and expansion of existing primary schools and early years' facilities in Halewood.
Health	<ul style="list-style-type: none"> • New GP services can be provided at existing health care sites, including the Halewood Centre which is a short walk and easily accessible from the East of Halewood site. • There are other opportunities to incorporate health-focussed initiatives within the East of Halewood site, including walking/cycling routes and recreation opportunities.
Public Open Space	<ul style="list-style-type: none"> • Finch Woods is an existing public open space within the site that offers a significant opportunity for investment and upgrading, to better serve existing and new residents. • The extent of other public open spaces required within the site, including for drainage, easements and attenuation purposes, presents a significant opportunity for delivery of new green infrastructure and connected public open spaces. • Halewood Leisure Centre is directly adjacent to the site, offering a variety of sporting and leisure activities. The centre has proposals to expand its offer to include indoor play uses and new outdoor sports facilities. The Leisure Centre sits within a large landscaped sites, offering further opportunities for investment and upgrading of facilities.

Developable area summary

3.1 This plan identifies the potential maximum developable area, defined if all constraints are resolved and land excluded for established technical, deliverability and third party grounds.

3.2 The likely minimum developable area is influenced by areas of land that, subject to further technical testing, may become unavailable for development. If these constraints are retained in their current position, these will impact the amount of land that is available for development. The minimum developable area assumes that all identified parcels (1-10) of land are ultimately unavailable for development.



Key	
	Site Boundary (approx 75.2 ha)
	Maximum Developable Area (approx 55.08 ha)
	Minimum Developable Area (approx 50.32 ha)
	Areas of land which could see a decrease in the maximum developable area if they are retained, for technical viability / ownership issues
1	Electrical substation (approx 0.01 ha)
2	The Heyes Farm property (approx 0.47 ha)
3	Overhead 132 KV cables with 20m easement (approx 0.57 ha)
4	Existing, unused layby south of A562 (approx 0.45 ha)
5	Telecoms mast and adjoining area of tree planting (approx 0.07 ha)
6	Preliminary 50m offset from west coast mainline for acoustic and vibration mitigation (approx 1.58 ha)
7	Marie Curie Fields of hope and highways reservation between boundary of the RSPCA site and Higher Road (approx 0.40 ha)
8	Areas of site which may have ecological / flood constraints subject to further technical assessments (approx 0.42 ha)
9	Land within United Utilities ownership which could come forward for development. United Utilities to advise on future assess strategy and land requirement. (approx 0.79 ha)
10	Land within current flood zones 2 and 3 if proposed flood storage area is not implemented (approx 3.42 ha)
	Land areas excluded on technical / deliverability / third party grounds
A	Area of existing tree planting (approx 0.13 ha)
B	Land identified for Flood Storage Area and land within United Utilities ownership which would most likely be required for additional flood storage if area number 9 was brought forward for residential development (approx 0.95 ha)
C	Existing fishing pond, dwellings and area currently required to serve existing United Utilities pumping station (approx 2.78 ha)
D	Finch Woods (approx 4.16 ha)
E	Finch Wood Academy (approx 1.08 ha)
F	Area of established tree planting and inaccessible part of the site (approx 0.23 ha)
G	Area of established tree planting and inaccessible part of the site (approx 0.72 ha)

Figure 3.3 Developable area summary
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Strengths, weaknesses, opportunities & threats (SWOT) summary



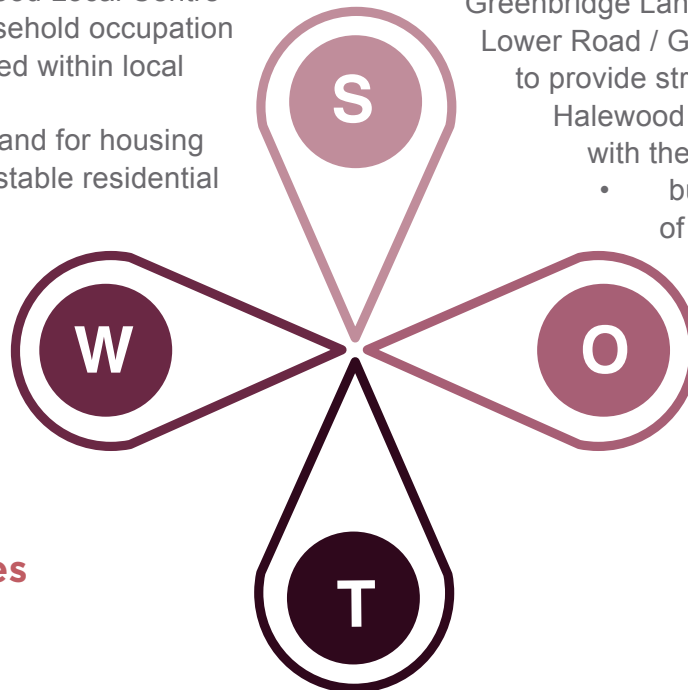
Strengths

- site removed from Green Belt and allocated for residential development;
- relatively flat previously undeveloped site with limited on-site constraints which can be mitigated against;
- consolidated land ownership & some developer agreements already in place;
- proximity of major employers and site well located in terms of road and rail transport for residents to access employment opportunities;
- proximity to Halewood Local Centre and additional household occupation expenditure captured within local centre;
- relatively high demand for housing with moderate but stable residential values.



Opportunities

- potential to draw upon and reinforce existing community and retail facilities and public transport links;
- use flood zone affected land to provide landscape amenity and an appropriate ecological buffer to the Nature Improvement Area;
- existing Finch Woods, ponds and PRow could form basis for a series of new green corridors;
- retained Finch Woods can become a positive and accessible landscape and ecological feature within a wider landscape framework;
- reconsider the role and nature of Baileys Lane/ Greenbridge Lane around the Leisure Centre and Lower Road / Greensbridge Lane cross-roads, to provide stronger relationship with rest of Halewood and reinforce the relationship with the local centre;
 - build on the positive acceptance of recent new development through delivery of good quality, modern housing;.
 - close existing layby along Higher Road and consolidate as a future development parcel.



Weaknesses

- railway and road infrastructure divides the study area and limits sense of north - south connection between parcels;
- treatment of current settlement edge has development facing away from site, affecting ability to create a cohesive extension;
- lingering poor perceptions relating to quality of provision within the centre of Halewood;
- noise impacts to the south of the masterplan may severely limit the viability of the land parcel being developed for family housing.



Threats

- Merseyside Dogs Home and RSPCA Liverpool Branch unable to find alternative sites / remain at their current facilities;
- any partial closure could lead to issues regarding interface;
- limited capacity in existing social and physical infrastructure may lead to unanticipated costs;
- current pattern of residents accessing schooling outside the borough is prevented through increased competition;
- phasing of development across ownership boundaries not coordinated to achieve optimum integration with surrounding area & between parcels;
- unable to divert the 132KV overhead cables due to cost;
- unlikely to divert 36" mains pipe. Potential negative visual and connectivity impact on Ditton Brook flood storage and landscape/ ecological enhancement area.

> Summary of known infrastructure requirements

Table 4.1 Summary of known infrastructure requirements

Infrastructure Category	Baseline provision
Highways	<p>The site is accessible via Greensbridge Lane, Lower Road, Baileys Lane, Aldersgate Drive, and potentially Higher Road, subject to removal of layby.</p> <p>Scale of development will generate the need for off-site highways / junctions improvements, proportionate to the impact of the development.</p>
Flood risk mitigation / safety	<p>Part of northern site in Flood Zone 2 and 3 (highest zones). Developer proposal to engineer site levels to create Flood Storage Area to mitigate flood risk / maximise developable area.</p>
Public transport	<p>The site is near Halewood railway station, and Halewood bus terminal. There are local bus stops on Baileys Lane and Lower Road.</p>
Walking and cycling	<p>The site has limited accessibility for walking and cycling currently, links to public transport hubs and local facilities need improvement. There is a PROW across the site between Baileys Lane and Finch Lane, via Finch Woods.</p>
Public open space - Children and Young People, Allotments, Parks and Gardens, Amenity greenspace	<p>The site is within its own Substantial Residential Area for Public Open Space and therefore should be self-sufficient. Neighbouring SRAs are in overall deficit for POS. Opportunity through masterplan to provide various attenuation, mitigation and place-making functions through on site POS.</p>

In-kind provision by developers	Scope of developer contributions
<p>New highway access points and internal highway distribution to be provided by developers in accordance with the Access and Movement Plan.</p> <p>Developers will be expected to work together to identify and deliver the necessary off-site highway and junction improvement works, to be agreed with the Council through the s278 process.</p> <p>Works also required to incorporate existing layby off Higher Road into the development site, and to improve the environment of the Higher Road corridor.</p>	n/a
<p>Part of northern site in Flood Zone 2 and 3 (highest zones). Developer proposal to engineer site levels to create Flood Storage Area to mitigate flood risk / maximise developable area.</p>	n/a
<p>A new bus route through the site will be pursued; this will require wider carriageways and two new bus stops, in accordance with the Access and Movement Plan.</p>	Developer contributions will be sought towards improved/relocated bus stops off site as necessary.
<p>Walking/cycling access points and internal routes to be provided by developers in accordance with the Access and Movement Framework Plan. PROWs to be maintained within site.</p> <p>Developers will be expected to work together to deliver the necessary off site walking/cycling improvements, including access to transport hubs.</p>	Specific scheme to be developed to enhance connectivity through the Halewood Leisure Centre site, towards Halewood Shopping Centre – potentially delivered by the Council/ Volair using developer contributions.
<p>Public open space to be provided on site by developers in accordance with the Green Infrastructure and Public Open Space Framework plans. See Tier guidance for further details.</p> <p>Developers will need to make arrangements for the long term maintenance of POS.</p>	Developer contributions will be sought towards works to Finch Woods, and long term maintenance of this area.

Infrastructure Category	Baseline provision	
Outdoor sports	There is insufficient surplus capacity to accommodate the demand arising from new development.	
Education – Primary	There is insufficient local capacity to accommodate the demand arising from new development. Pupil generation rate of 0.3 per new home to be used.	
Education – Early years	There is insufficient local capacity to accommodate the demand arising from new development. Child per home rate to be confirmed.	
Health care	There is insufficient built capacity currently available to accommodate the demand arising from new development, in particular for GP surgery space.	
Public realm enhancements	Public realm within / adjacent to the site may require improvement to reflect greater usage.	
Affordable housing	Local Plan policy requires 25% of the new housing to be provided within affordable tenures – including affordable rent and intermediate (shared ownership / affordable home ownership) products.	
Decentralised energy	Local Plan policy seeks consideration of delivery of decentralised energy schemes outside of the Knowsley Business Park priority zone, only where deliverable.	
Utilities – electricity	Easements / rerouting for existing infrastructure required. Significant restrictions for access over Finch Lane. Rerouting of 132kv cable required. Relocation of existing substation (Lower Road/Greensbridge Lane) required.	
Utilities – gas	Cadent confirmed reinforcements needed to deliver capacity to support new development.	
Utilities – water supply	Easements / rerouting for existing infrastructure required. Water main to north of site cannot be rerouted.	
Utilities – waste water	Easements / rerouting for existing infrastructure required. Requirement for one new waste water pumping stations. Existing pumping stations may need further development.	

In-kind provision by developers	Scope of developer contributions
n/a	Developer contributions will be sought towards off site provision of pitches, ideally to be located within Halewood Leisure Centre estate due to proximity to development.
n/a	Developer contributions will be sought towards expansion of existing school(s). Likely to use cost per pupil formula.
n/a	Developer contributions will be sought towards expansion of existing facility and/or new facilities. Likely to use cost per pupil formula.
n/a	Developer contributions will be sought towards refurbishment of capacity within existing health centre(s) in Halewood, to be delivered by Knowsley Clinical Commissioning Group.
n/a	If needed, developer contributions will be sought towards enhancement of local public realm to mitigate the impacts of development.
Developers will be expected to provide policy-compliant levels of affordable housing on site.	S106 legal agreements can be used to secure affordable housing provision within the site, including ensuring perpetuity of tenure. Financial developer contributions not considered necessary due to in kind provision.
Such solutions will be encouraged. Practically, these will only be delivered by developers if there is sufficient viability in the scheme, or if there is a business case for doing so which benefits the developers.	n/a
Developers to provide new electricity infrastructure on site, and will appropriately deal with existing infrastructure. Requirement for new primary substation and secondary substations; developers obliged to relocate existing substation.	n/a
Developers to provide reinforcements on / to the site.	n/a
Developers to provide new water supply facilities on site and will appropriately deal with existing infrastructure.	n/a
Developers to provide new sewers / pumping stations on site and will appropriately deal with existing infrastructure.	n/a

Infrastructure Category	Baseline provision	
Sustainable Drainage	<p>Easement for Finch Lane required to maintain access to drainage ditches.</p> <p>SUDs to manage surface water drainage and prevent use of sewer drainage for surface water. Solution for RSPCA/Miller Homes parcel still to be determined.</p>	
Ecology	Nature Improvement Area / Local Wildlife Site along Ditton Brook corridor. Presence of protected species on the site to be confirmed.	
Ecology – European Habitats	Likely to create recreational pressure on functionally linked protected habitats, hence mitigation required.	
Arboriculture	2-for-1 replacement policy for all tree loss. Likely to be net increase in tree planting across the site as a result of the development.	
Ground conditions	Evidence to be established; no early indication of significant ground conditions issues.	
Control of Major Accident Hazards	Majority of the site sits within the Outer Consultation Zone for Vertellus. The HSE will not advise against general residential or commercial development in this location, but would advise against school uses (1.4ha+) or institutional residential uses.	
Noise, vibration and air quality attenuation	The site contains several noise generators, including highways, railways and animal rescue centres. Highway and railways also generate vibration and air quality issues. Attenuation needed.	
Social value	New Supplementary Planning Document seeks that developer prepare Social Value Strategy to accompany development proposals.	
Electric Vehicle Charging Points	Amendment to Supplementary Planning Document seeks that charging points are provided as part of new development.	

In-kind provision by developers	Scope of developer contributions
<p>Developers to provide drainage infrastructure on site, in accordance with the Framework Plans.</p> <p>Long term maintenance arrangements required. UU may adopt SUDs if of sufficient quality / specification.</p>	n/a
<p>On site ecological mitigation to be provided by developers, including appropriate response to NIA along Ditton Brook.</p>	<p>If needed, developer contributions could be sought towards delivery of off-site mitigation.</p>
<p>Likely to take the form of information packs for new residents.</p>	<p>S106 legal agreement may be needed to secure provision of information packs, no financial contributions necessary.</p>
<p>On site re-provision by developers, to minimum 2-for-1 standard.</p>	n/a
<p>Developers will manage ground conditions within their own parcels, considering impacts on neighbouring land.</p>	n/a
<p>Public information packs to be sent by developers to all new residents on occupation.</p>	<p>S106 legal agreement may be needed to secure provision of information packs, no financial contributions necessary.</p>
<p>Appropriate attenuation to be provided on site by developers in accordance with the Framework Plans. Temporary additional on-site attenuation may be required if RSPCA remains in situ.</p>	n/a
<p>Developers will be expected to prepare a Social Value Strategy, and provide resources to meet the set targets for training, apprenticeships and local employment.</p>	<p>S106 can be used to secure outputs from Social Value Strategy if necessary, and to collect any financial contributions necessary towards preparation and monitoring of the strategy.</p>
<p>To be delivered by developer in kind as part of design / delivery of new homes.</p>	n/a

> Summary of land ownerships

05

5.1 The East of Halewood allocation currently comprises 19 land ownerships according to Land Registry data. This includes Finch Woods which is under KMBC ownership, as well as areas of unregistered / unidentified land ownerships.

5.2 A consortium of developers comprising of Bellway Homes, Miller Homes and Redrow Homes have engaged with a number of the landowners and have negotiated working under option agreements.

5.3 The scale and comprehensive coverage of the land ownerships has the potential to facilitate a connected and integrated development across the SUE. It is essential to consider and coordinate all land ownerships as part of a comprehensive approach.

5.4 The distribution of ownerships and current developer option agreements is illustrated on the adjacent land ownerships plan and described in the table below.

Table 5.1: Summary of land ownerships

Parcel No.	Current land owner	Developer	Area (Ha)	Current Use
1	Parcel A	TBC	1.09	Dog Rescue Centre
1	Environment Agency	TBC	0.23	Woodland
2	Parcel B	Redrow Homes	15.71	Agricultural use
2	Parcel C	Bellway Homes	4.23	Agricultural use and occupied dwelling
2	Scottish Power (Manweb Plc)	TBC (Bellway to acquire)	0.02	Electrical substation
2	United Utilities Water Ltd (west)	N/A	0.09	Waste water pumping station
2	United Utilities Water Ltd (east)	N/A	2.46	Waste water pumping station and scrub land
2	Parcel D	TBC	2.40	Occupied dwellings, fishing pond
3	Parcel E	Redrow Homes	20.34	Agricultural use Scottish Power O/H 132KV Power Lines
3	Parcel F	TBC	0.97	Scrub / woodland
3	Parcel G	TBC	0.27	Scrub / woodland Occupied dwelling (Baileys Lane)
3	Parcel H	Bellway Homes	12.28	Former agricultural use
3	RSPCA Liverpool Branch	Miller Homes	4.57	Pet rescue centre, Occupied dwellings, Paddocks, Animal cemetery / Listed Building
3	Knowsley Metropolitan Borough Council (Finch Woods)	N/A	3.95	Woodland
3	Adelaide Academy Trust (KMBC Freehold)	N/A	1.08	SEND School
4	Hesketh Estate	TBC	2.53	Paddocks
4	Unregistered land (layby)	TBC (Developer who delivers Hesketh Estate Land)	0.4	Layby and verge
4	P Holmes Properties Ltd	N/A	0.15	Mobile phone mast
4	Cheshire East Borough Council	N/A	0.71	Scrub / woodland
4	Network Rail	TBC	0.26	Scrub / woodland
N/A	Unregistered / Unidentified	N/A	0.46	
Between parcels 2 & 3	Network Rail	N/A		Railway infrastructure and arches

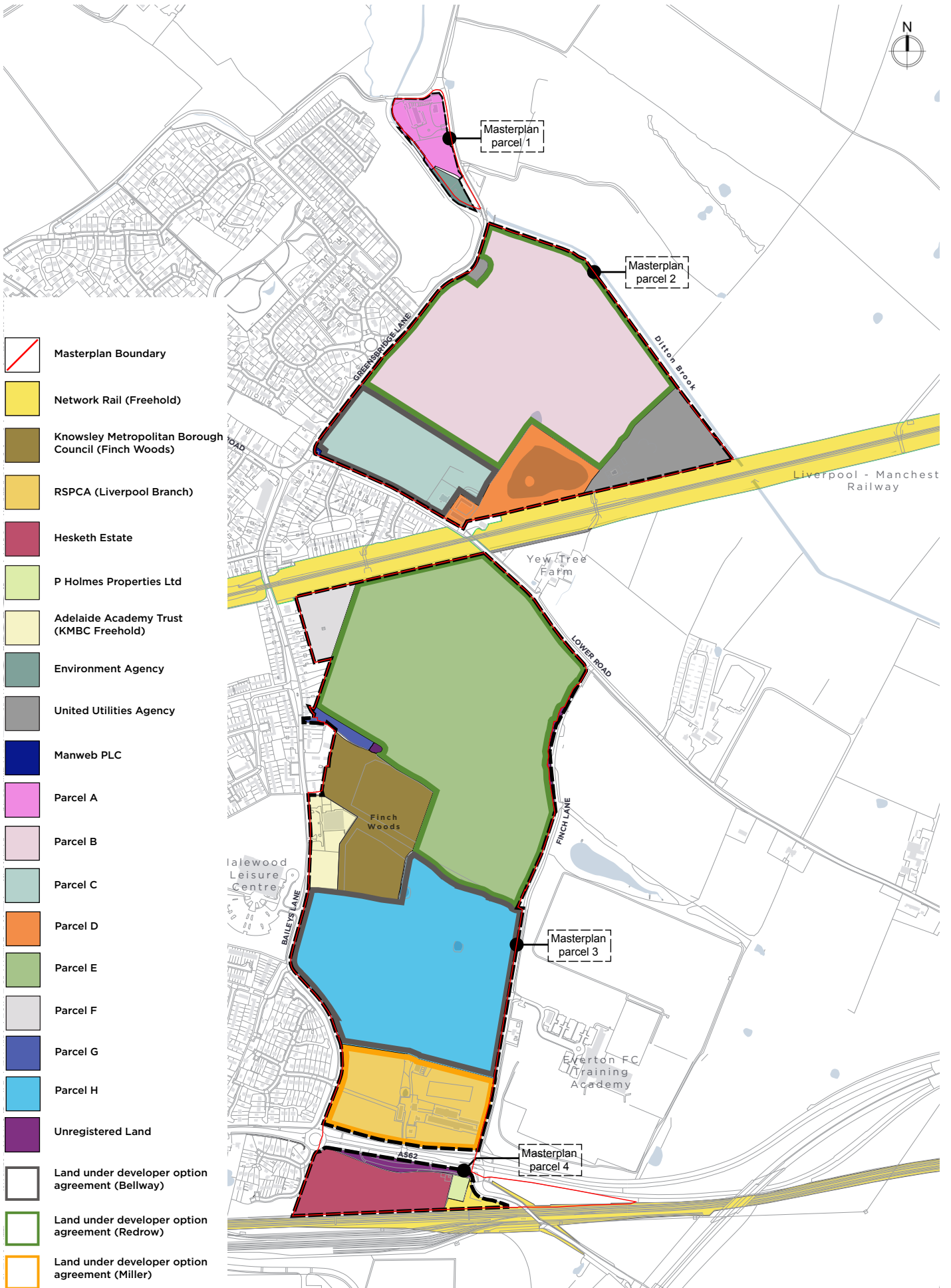


Figure 5.1 Existing land ownership

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> Description and assessment of development options

6.1 The purpose of developing masterplan options is to:

- test and refine the overall development opportunity;
- provide a common point of discussion and enable engagement with key internal and external stakeholders;
- frame and refine the development of the preferred option, which informs the spatial masterplan for the site.

6.2 The process of option development builds upon the following key drivers:

- technical baseline assessment - integrating and responding to the site constraints;
- responding to the inherent and potential opportunities both within the site as well as beyond;
- encapsulates the overarching vision and it's supporting development principles.

6.3 Three potential development options were explored, tested and reviewed. The testing of each option was carried out with a number of stakeholders including:






- members of the KMBC Major Development Team including Planning Officers;
- land owners within the

- masterplan allocation;
- consortium of developers who are under option agreements.

6.4 The assessment and testing of the options was carried out through a series of workshops and briefing presentations.

6.5 The informal and collaborative assessment of options was structured to capture the positive and negative merits of each of the options.

6.6 Each option was also assessed against each of the development principle indicators described as part of the vision and were scored under the headings below:

-  Strong
-  Positive
-  Neutral
-  Weak
-  Detrimental

6.7 This chapter outlines the option development process and how each has performed against the assessment criteria. The testing, review and development of each of the options has led to the development of a preferred option, which follows this chapter.

Option 1

Gateway routes

6.8 Option 1 explores an approach which fully integrates with Halewood, both in terms of vehicle connectivity and as an urban extension to the existing settlement.

6.9 This approach generates direct and accessible linkages into East of Halewood from Lower Road and Higher Road.

6.10 It also looks to capitalise upon the existing characteristics and location of Finch Woods, drawing out its landscape and woodland character towards Finch Lane.

6.11 The key characteristics of the option are set out below:

- open up new direct **'gateway' routes to connect into East of Halewood** with high levels of accessibility to the existing local centre;
- **potential downgrade to a section of Baileys Lane** to encourage more pedestrian connectivity across;
- 2 key **purposeful green spaces** that offer recreational and greenspace amenity: Finch Woods character pushes east towards Finch Lane & Ditton Brook Wetland Park established as a greenspace destination;
- **pocket spaces located off key movement routes**, existing ponds and the Grade II listed Gravestone;
- more urban residential typologies to south of A562 with medium density housing.

Figure 6.1 Option 1 Concept plan



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Initial indicative development capacity

1,303 new homes @ 30 dph

1,520 new homes @ 35 dph

1,737 new homes @ 40 dph

Option 1 - Feedback Summary

6.12 The feedback responses to the option evaluation are summarised below. The option was evaluated against each of the masterplan principles and ultimately the masterplan vision.

6.13 For a full breakdown of responses please refer to Appendix 1.



Table 6.1 Option 1 feedback summary

Principle	Strengths	Score	Weaknesses	Score
Connectivity Easy to get to and move through	<ul style="list-style-type: none"> embraces Halewood through direct vehicular and pedestrian 'Gateways'; strong link onto Baileys Lane opens up complimentary commercial opportunities; connectivity through the leisure centre would bring major benefits and unlock potential development; proposed linkages help make new development feel like a cohesive extension of Halewood; strong connections to green spaces and the countryside; good accessibility to and through the site. 		<ul style="list-style-type: none"> challenges around the deliverability of infrastructure due to land / property acquisition to facilitate new link road; downgrade of Baileys Lane seen as duplicating existing infrastructure for little placemaking benefit; Baileys Lane downgrade could create a rat run; missed opportunity to open up connections under the railway; lack / quality of vehicular connections between parcels north/south of Finch Woods, which could create a sense of isolation within the masterplan; lack of a legible route network in the northern parcel to provide access to the wetland recreational area; could provide better connectivity from the northern parcel to Halewood Village; poor sense of arrival or lack of gateway impact from Baileys Lane into the development. 	
Facilities Services to support a growing community	<ul style="list-style-type: none"> strong opportunity for the new community to access existing facilities in Halewood with direct connections to schools, shopping / health centre, leisure centre, railway station, bus terminus; viability and vitality of local centre improved; existing peripheral businesses such as Yew Tree farm shop and café readily accessed; strong opportunity for existing Halewood residents to access new open spaces through the Public Right of Way alignment and proposed new vehicular connection from Baileys Lane to Lower Road. 		<ul style="list-style-type: none"> small and dispersed provision of play spaces may result in multiple low value facilities; layout of northern parcel does not seem to be oriented to support existing local businesses; fishing pond is not incorporated within the development; new linkage from Lower Road to Baileys Lane has potential to reduce passing trade from Halewood Village & Baileys Lane. 	
Housing The homes for a mixed and sustainable community	<ul style="list-style-type: none"> opportunity to focus density on main routes allowing for a logical density gradient; focuses enclosure along key routes; ability to exceed Local Plan estimated capacity, delivering more housing choice & potential to change perceptions of Halewood. 		<ul style="list-style-type: none"> maximised connectivity with the existing Halewood settlement may affect perception of the housing offer as an extension to Halewood rather than as a part of the wider South Liverpool housing market. 	

Table 6.1 Option 1 feedback summary (cont.)

Principle	Strengths	Score	Weaknesses	Score
<p>Built form</p> <p>A place of quality and character</p>	<ul style="list-style-type: none"> positive open space created around the Grade II Listed Building; building orientation has potential to enhance long range views towards Ditton Brook, Plantation Wood and open countryside; opportunity to enclose the Greensbridge Lane and Lower Road junction; northern and southern parcels developed as distinct character areas, offering differentiation in the built form & create strong sense of place around Finch Wood; presents opportunity for built form to positively address and enclose Higher Road. 	+	<ul style="list-style-type: none"> lower opportunity for lower density housing towards the east, which would not sensitively address the transition from urban development to open countryside; the urban grain of the northern parcel does not reflect the existing townscape; creating very strong gateways might result in the new development seeming separate to Halewood rather than an extension to it. 	-
<p>Public realm</p> <p>People-focused streets and purposeful and useable open spaces</p>	<ul style="list-style-type: none"> opening up of Finch Woods character creates potential for a range of public open space typologies and a continuation of landscape character to the east of the masterplan; creates strong green corridor links through to Finch Lane boundary green links emanating from Finch Woods encourages greater use of the woods; Flood Storage Area shown as wetland park, which could become a destination greenspace serving the wider area. 	+	<ul style="list-style-type: none"> many smaller pocket parks / incidental landscape which may not deliver purposeful open space & opportunities for anti-social behaviour across them; does not present obvious opportunities for sustainable drainage solutions. Potential to create better water features through the use of swales; residential development directly adjacent to UU pumping station may risk noise / odour impacts on adjacent properties; “Ditton Brook as a ‘Wetland Park’ is considered unnecessary as it will not be experienced as a wetland; public open spaces in the northern parcel, the landscape buffer north of Higher Road and the green space around the Listed Building parcel are considered to be overscaled. 	-

Table 6.1 Option 1 feedback summary (cont.)

Principle	Strengths	Score	Weaknesses	Score
<p>Comprehensive development</p> <p>Maximising the opportunity</p>	<ul style="list-style-type: none"> the approach is aligned to land ownership and considers where ownership boundaries fall within the masterplan; facilitates direct access for each of the large parcels currently under developer option agreements; does not rely on completion of strategic highway cutting across multiple ownerships; phasable development structure; inclusion of smaller pocket parks moves towards each parcel being self sufficient in terms of open space provision; proposed removal of closed layby, maximises developable area within the Hesketh parcel and maximises the opportunity to deliver development in this parcel. 		<ul style="list-style-type: none"> does not positively deal with the private fishing pond, missing an opportunity to incorporate into northern parcel; developer concerns over the practicality of moving sub station; potential for piecemeal isolated housing parcels south to north; main link through Bellway / Miller at risk if RSPCA remain on site; major services in the Baileys Lane/ Higher Road/Sandhurst Road location highway/pavements are extremely costly to divert as part of any highways works; the requirement to acquire third party land, whether in one or multiple ownerships could delay development and could result in it becoming undeliverable; does not allow for any of the parcels to be accessed independently which will have a detrimental impact on delivery. 	

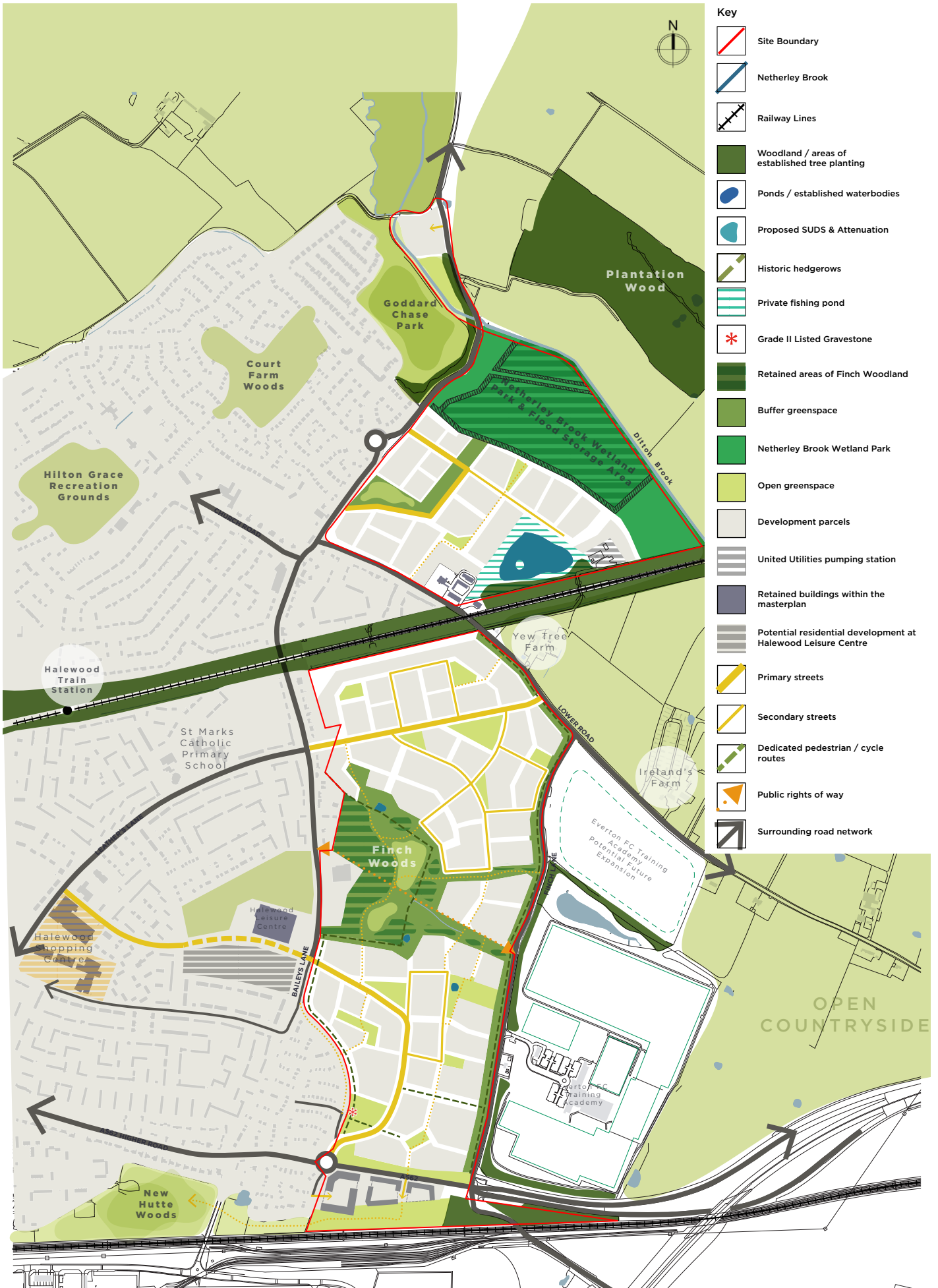


Figure 6.2 Option 1 - Framework

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Option 2

Green spine

6.14 Option 2 explores an approach which looks to create maximum connectivity from north to south through a continuous green spine. This serves as the focal point for the masterplan. A series of east to west green links connect the green spine to its boundaries as well as a movement network which serves a series of discrete development parcels.

6.15 The key characteristics of the option are set out below:

- development structured around **a continuous “green spine” running north-south** providing high levels of accessibility to green space and a sustainable transport corridor;
- primary access routes create loops that serve individual development areas but connect to provide **a permeable street pattern**. This network works with, but sits independent from, the green spine;
- **2 purposeful green spaces** that offer recreational and greenspace amenity: **Finch Woods is opened up** with through routes, play spaces and formal park spaces off the green spine whilst Ditton Brook Wetland Park established as a northern greenspace destination;
- green links emanate from the green spine containing SUDs features and retained ponds, the Grade II listed Gravestone and potentially the RSPCA building.

Figure 6.3 Option 2 Concept plan



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Initial indicative development capacity

1,300 new homes @ 30 dph

1,517 new homes @ 35 dph

1,733 new homes @ 40 dph

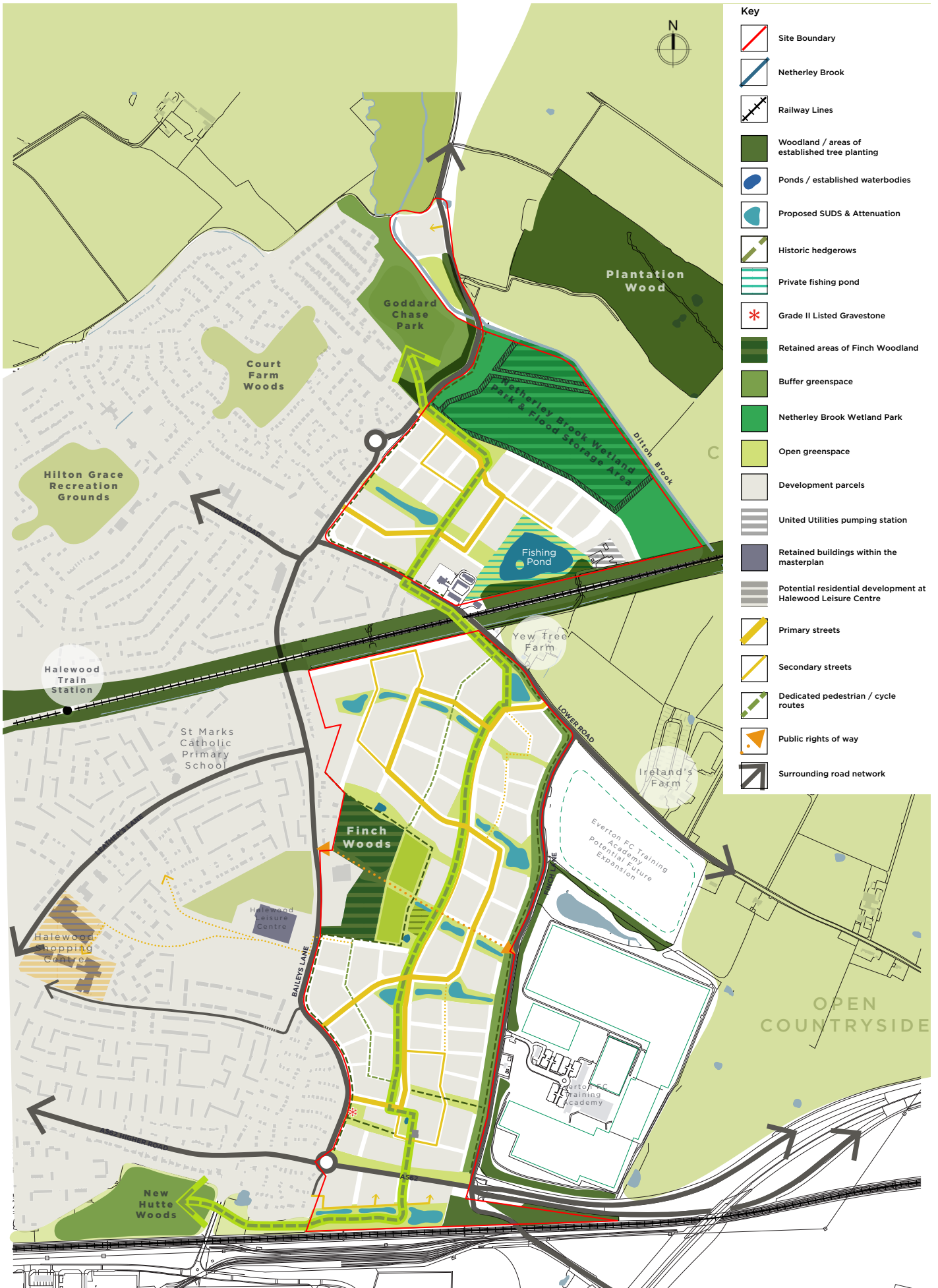
Option 2 - Feedback summary

Table 6.2 Option 2 feedback summary

Principle	Strengths	Score	Weaknesses	Score
<p>Connectivity</p> <p>Easy to get to and move through</p>	<ul style="list-style-type: none"> maximises connectivity between northern & southern parcels through unused railway arch for pedestrian and cycling linkages; effectively connects whole of southern land ownerships through a strong green spine for walking and cycling; green spine offers a new type of connection (something different to existing highway links); internal primary highway layout would restrict rat-run traffic; route layout would encourage traffic calming & provide good permeability through the development. 	○	<ul style="list-style-type: none"> less connectivity with Halewood Centre with the northern section of the southern parcel (risk of creating isolated car dependent settlement); poor links to the local centre; segregation of pedestrians and cyclists from the highway network onto the green spine may not deliver people focused street design; over permeable street pattern risks losing highway functionality, efficiency and legibility; the Redrow land parcel within the southern parcel would require a loop primary road to ensure that it is satisfactory to Highways and Emergency Services; pedestrian link across Higher Road would require significant highway works to make safe; Network Rail in ownership over archways proposed to be opened. Opportunity not in control of the masterplan and poses a risk to deliverability. 	⊖
<p>Facilities</p> <p>Services to support a growing community</p>	<ul style="list-style-type: none"> strong opportunity for the new community to access existing facilities; positive approach across Lower Road facing on Yew Tree farm. Green spine through the site should encourage pedestrian and cycling access to this business; the play spaces seem well sited adjacent to other facilities and character areas. 	⊕	<ul style="list-style-type: none"> opportunity to open up leisure centre site to provide further connectivity with Halewood is lost; less connectivity to Halewood which minimises opportunities for connection to existing facilities including schools, shopping centre, leisure centre and parade of shops at Halewood Village. 	⊖
<p>Housing</p> <p>The homes for a mixed and sustainable community</p>	<ul style="list-style-type: none"> ability to exceed Local Plan estimated capacity, delivering more housing choice; insular nature of site layout creates potential to generate new market area within Halewood, distinct from the existing settlement, and diversifying the housing market; opportunity to create positive frontage on Baileys Lane. 	⊕	<ul style="list-style-type: none"> uniform block layout and only one main road does not give as much ability to vary the density of housing around key routes or gateways; residential development directly adjacent to UU pumping station may risk noise / odour impacts on adjacent properties. 	○
<p>Built form</p> <p>A place of quality and character</p>	<ul style="list-style-type: none"> potential to build historic character around the Grade II Listed Building and retention of historic building; the SUDs feature along Lower Road presents a less dense urban frontage in this location; 		<ul style="list-style-type: none"> limited impact on Halewood built form the meandering road, uniform densities and similar house types could lead to poor legibility; an inward looking development focused on the green spine and not toward Halewood; 	

Table 6.2 Option 2 feedback summary (cont.)

Principle	Strengths	Score	Weaknesses	Score
<p>Built form</p> <p>A place of quality and character</p>	<ul style="list-style-type: none"> • best land-use option, with a more suburban residential typology for the Hesketh land; • opportunity to enclose the Greensbridge Lane and Lower Road junction. 	○	<ul style="list-style-type: none"> • challenges raised over the retention of the existing building within the RSPCA land as there is no perceived value in its current built form and value as a residential conversion. 	⊖
<p>Public realm</p> <p>People-focused streets and purposeful and useable open spaces</p>	<ul style="list-style-type: none"> • strong green spine encourages connectivity between greenspaces both within and outside of the site; • green links emanating from the spine should encourage further use of the spine from residents living in different parts of the site; • significant opportunities throughout to incorporate SUDs adding character to the development; • the provision of space is generally equalised across the three principle developers. 	+	<ul style="list-style-type: none"> • smaller stand off Listed Building setting negatively affected by proximity of access; • additional SUDs spaces which detract from the use of purposeful open space & could present amenity and safety problems; • SUDs need to be in the lowest part of the site and would not be deliverable; • buffer spaces may result in being 'land left over' and without purpose. • Finch Woods is isolated from green spine; • green spine uses significant amounts of public open space which may limit provision elsewhere; • the North-South spine does not inspire desire line connections as the perceived drive would be for links from East to West. 	⊖
<p>Comprehensive development</p> <p>Maximising the opportunity</p>	<ul style="list-style-type: none"> • proposed removal of closed layby, maximises developable area within the Hesketh parcel and maximises the opportunity to deliver development; • aligned to land ownerships; • facilitates direct access for each of the large parcels currently under developer option agreements. 	+	<ul style="list-style-type: none"> • linked main highway routes and green spine necessitates joint infrastructure approach, which could present deliverability challenges; • second main access required for Redrow parcel north of southern parcel to accommodate number of potential dwellings. Current approach requires dependency on Bellway to facilitate a second primary access on behalf of Redrow, which is a potential deliverability issue; • Network Rail cooperation required to delivery link under railway arches; • the integrity of the green spine and delivery depends upon developers to agree the same specification; • the option shows the inclusion of the Private fishing Pond (Third Party Land ownership) to the North of the site. This cannot be included as it is within Third Party ownership. 	⊖



- Key**
-  Site Boundary
 -  Netherley Brook
 -  Railway Lines
 -  Woodland / areas of established tree planting
 -  Ponds / established waterbodies
 -  Proposed SUDS & Attenuation
 -  Historic hedgerows
 -  Private fishing pond
 -  Grade II Listed Gravestone
 -  Retained areas of Finch Woodland
 -  Buffer greenspace
 -  Netherley Brook Wetland Park
 -  Open greenspace
 -  Development parcels
 -  United Utilities pumping station
 -  Retained buildings within the masterplan
 -  Potential residential development at Halewood Leisure Centre
 -  Primary streets
 -  Secondary streets
 -  Dedicated pedestrian / cycle routes
 -  Public rights of way
 -  Surrounding road network

Figure 6.4 Option 2 Concept plan

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Option 3

Landscape loops

6.16 Option 3 explores a spatial concept of layering different movement networks. A series of well defined strategic green links connect Finch Woods to a landscape buffer to the east of the masterplan. A secondary layer of movement loops serve a number of development parcels and as well as connecting to strategic green links.

6.17 The key characteristics of the option are set out below:

- residential **development zones defined by landscape and recreational routes** with a strong green setting for all development;
- possible connection through woodland area to Baileys Lane with some acquisition/re-configuration;
- retention of hedgerows and introduction of green space on eastern boundary, **offering a permanent green edge** to the urban area;
- 2 key purposeful green spaces that offer recreational and greenspace amenity: Finch Woods & Ditton Brook established as **greenspace destinations within a wider green space network**;
- fewer pocket spaces with open space focused within this network;
- element of commercial use to south of A562 with direct access taken from existing slip road system.

Figure 6.5 Option 3 Concept plan



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Initial indicative development capacity

1,219 new homes @ 30 dph

1,422 new homes @ 35 dph

1,626 new homes @ 40 dph

Option 3 - Feedback Summary

Table 6.3 Option 3 feedback summary

Principle	Strengths	Score	Weaknesses	Score
<p>Connectivity</p> <p>Easy to get to and move through</p>	<ul style="list-style-type: none"> maximises connectivity between northern & southern parcels with a good balance of E-W & N-S connectivity; maximises pedestrian / cycling connections between northern and southern parcels, through using route under railway arch; strong sustainable transport links through the site, directly through Finch Woods; pedestrian route through to Halewood Local Centre provides a meaningful connection; highway layout and configuration well defined and logical layout arrangement, particularly north of A562; roads orientated to naturally reduce speeds. 	○	<ul style="list-style-type: none"> link under rail line may be challenging requiring consents from Rail authorities. Likely to create significant anti-social behaviour risk with low levels of usage; inward-looking highway network which does not maximise opportunities to link with Halewood; the internal loop arrangement creates a road dominant layout of primary streets and could affect legibility / wayfinding; the internal road alignment on the northern parcel has the potential to encourage rat-running; limited links to the Halewood Centre from Redrow parcel south of Lower Road; additional roads reduces the housing density and delivery across the site; can cause issues for KMBC highways authority upon the acceptance of private driveways which would have to feature in order to facilitate views overlooking these links; the Redrow land parcel within the southern parcel would require two access points to ensure that it is satisfactory to Highways and Emergency Services. 	●-
<p>Facilities</p> <p>Services to support a growing community</p>	<ul style="list-style-type: none"> the vehicular and pedestrian routes to Lower Road have potential to support Yew Tree Farm business; the direct pedestrian connection to Halewood Lane from the northern parcel will give support to those existing businesses along the parade of shops; good connections to Halewood Local Centre and the wider areas through pedestrian/cycle links; opening up access and use of Finch Woods through pedestrian / cycle connections to local facilities; opportunity to bring former dairy back into use through new pedestrian connection. 	●++	<ul style="list-style-type: none"> less vehicular connectivity with Halewood from the southern parcel. This minimises opportunities for east and west connections to existing facilities including schools, shopping centre, leisure centre; the opportunity to maximise the potential of the Leisure Centre to provide further connectivity is lost; opening up commercial opportunities to the south potentially competes with the existing Halewood Local centre and which could undermine independent businesses in the area; the two play spaces in close proximity in northern part of southern parcel seem unnecessary. In contrast, the play space in south part of southern parcel seems a little isolated. 	●--
<p>Housing</p> <p>The homes for a mixed and sustainable community</p>	<ul style="list-style-type: none"> insular nature of site layout creates potential to generate new market area within Halewood, distinct from the existing settlement, and diversifying the housing market. 	●+	<ul style="list-style-type: none"> marginally less residential capacity than the other options, but still exceeds Local Plan indicative capacity for the site. 	○

Table 6.3 Option 3 feedback summary (cont.)







Principle	Strengths	Score	Weaknesses	Score
<p>Built form</p> <p>A place of quality and character</p>	<ul style="list-style-type: none"> • approach to Greensbridge Lane / Lower Road junction presents opportunity to open up shared “village green” between existing and new settlement; • the proposed structure allows for several zones of built form and the opportunity to build distinct character areas; • loops also appear in other parts of Halewood (e.g. Okell Drive estate) and hence replicate the road patterns elsewhere in the settlement, lending coherence; • quite strong character created by the road layout in the northern part of the southern parcel; • proposed vehicular gateway on to Lower Road from southern parcel (with substantial SUDs feature and landscaping) presents rural feel; • good street frontage onto Baileys Lane. 		<ul style="list-style-type: none"> • weak built form approach to the Greensbridge Lane / Lower Road junction, which misses the opportunity to complete the built form and enclosure of this node; • a weak approach to built form along Higher Road, a lost opportunity for a positive frontage to the main visibility for the site; • the loop arrangement of roads leads to excessive infrastructure; • some frontage provided onto Finch Woods, however there is greater opportunity to increase frontage onto the woods. 	
<p>Public realm</p> <p>People-focused streets and purposeful and useable open spaces</p>	<ul style="list-style-type: none"> • strategic approach to the provision of open space across the masterplan that creates purposeful spaces with sufficient size to benefit the wider community; • the open space along Eastern edge allows for substantial set off to the utilities infrastructure running along Finch Lane, and also allows for noise/light impacts from Everton training camp to be adequately mitigated; • greenspace buffer around UU pumping station will reduce risk of negative impacts; • the Eastern edge buffer space handles the transition from urban to rural more sensitively; • strategic use of existing water courses for SUDs and works with the topography of the site; • green links through site are positive with Finch Woods sitting as the hub of the development. Most open space is within one location on each parcel which enables better use and maintenance of these areas; • the pedestrian / cycle connection into Finch Woods was welcomed by developers. 		<ul style="list-style-type: none"> • listed building setting may be negatively affected by proximity of vehicular access to the site; • this space was viewed as not to offer quality public space for people to be able to use; • the eastern and southern buffer greenspace areas are seen as excessive in their scale and would unduly restrict developable areas as well as provision of purposeful recreational space; • location of a pond/ greenspace next to a substation may cause anti social behavior / noise / aesthetic issues. 	

Table 6.3 Option 3 feedback summary (cont.)

Principle	Strengths	Score	Weaknesses	Score
<p>Comprehensive development Maximising the opportunity</p>	<ul style="list-style-type: none"> the option ties the area together across ownerships and promotes independent access to each parcel which is fundamental to the timely delivery of homes on the allocation; primary and secondary highway routes are shown within the parcels to allow each land ownership, while not hindering potential cycle/pedestrian connections and secondary vehicular connections if required; this option creates the opportunity for collaborative development avoiding separate housing estates; the option incorporates the fishing pond and surrounding land to be incorporated within greenspace network . 		<ul style="list-style-type: none"> the location of specific locations for attenuation basins should be strategically connected across the site if they are to serve the entirety of the site; deliverability challenges associated with acquisition of property on Baileys Lane, to allow for pedestrian access through from the site; linked main highway routes and sustainable travel routes (particularly through southern parcel) necessitates joint infrastructure approach, which could present deliverability challenges; proposes continued use of existing layby on Higher Road as new slip access to the Hesketh parcel, hence opportunity to remove layby and incorporate land into the developable area is lost; deliverability challenges with the link under the railway arch which requires engagement with Network Rail. concerns over development facing fishing pond because it is outside of housebuilder’s control; the proposed primary routes between parcels would pose a significant risk to delivery by the developers, due to the reliance on other house builders to deliver connecting infrastructure. There is a significant risk of primary roads not connecting. 	

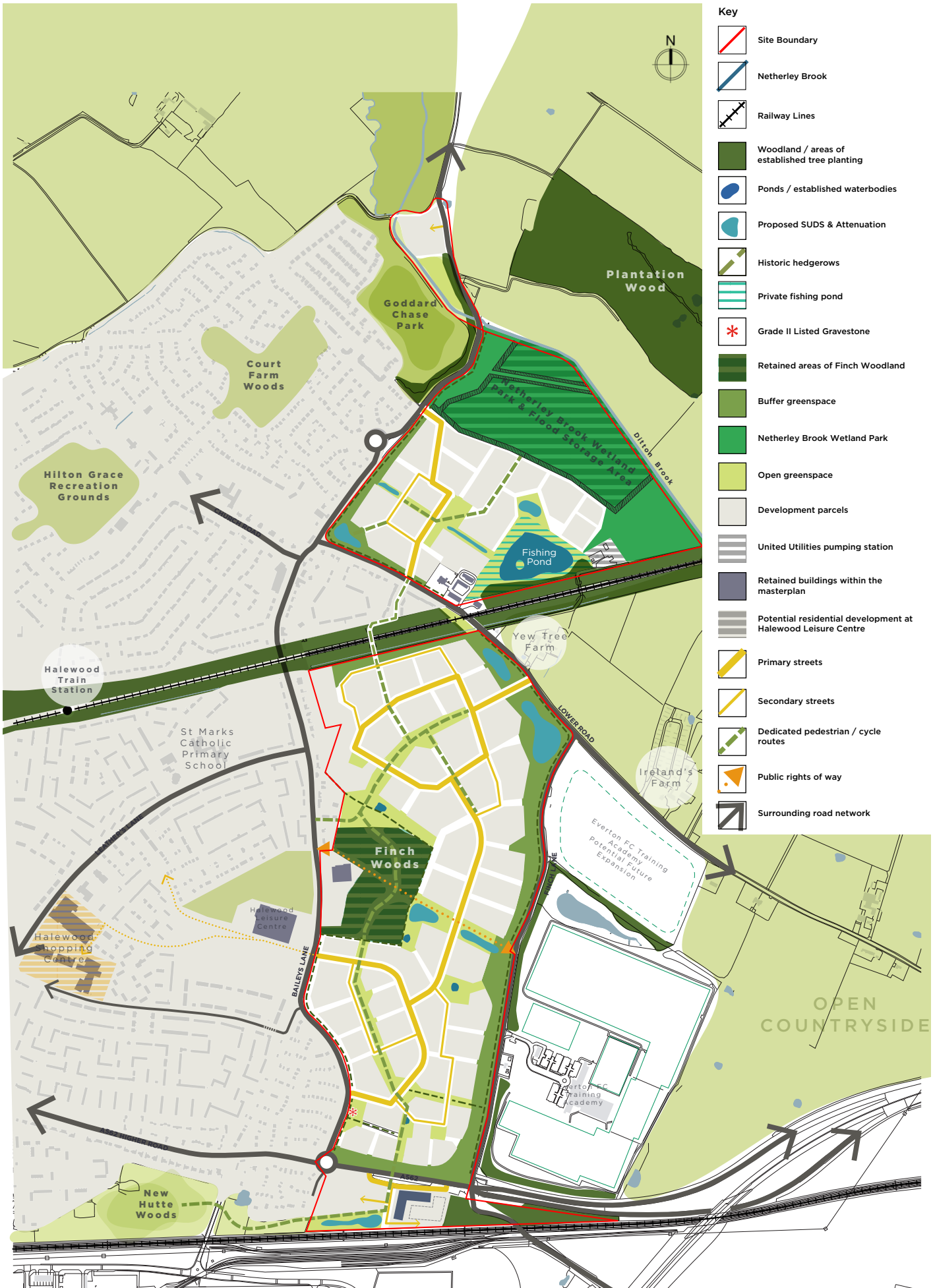


Figure 6.6 Option 3 Framework
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View northwards along Greensbridge Lane towards the Ditton Brook

› Emerging preferred option

7.1 The process of exploration, consultation and evaluation outlined above helped to shape a development concept that integrates a blend of the most positive placemaking approaches whilst also looking to ensure that deliverability of the preferred option is considered in balance.

7.2 The process of evaluation and critical appraisal has demonstrated that there are a number of key challenges that the preferred option should look to balance as best as it can. These are:

- **to achieve balanced integration; creating a development structure that is seen as a cohesive extension to Halewood but to also create a new residential neighbourhood with its own sense of identity and place - a new housing offer for Halewood;**
- **to create a development structure that maximises the physical connectivity to Halewood but to also ensure that new areas of housing are not dominated by streets and through traffic;**
- **to support the vitality and success of the existing Halewood Local Centre as well as maximising new connections to the local centre by potentially opening up the Leisure Centre site;**
- **to create purposeful open spaces of a scale within the development whilst also integrating these as part of Finch Woods and the Flood Storage Area to the north;**
- **to establish an internally connected residential environment across the whole of the masterplan, through not only streets but through the open space network and SUD network, whilst also ensuring that the preferred option is a deliverable proposition within the context of land ownerships and future developer option agreements;**
- **a representation that best fulfils the masterplan vision and principles as well as a representation of stakeholder views and considerations.**

7.3 Within this context, we believe that the emerging preferred approach should not be based on one of the previous options, but rather a response which encapsulates the positive elements across options 1 and 3. Options 1 and 3 were more generally preferred over option 2 through the evaluation process; however there are influences from option 2 which have been introduced.

7.4 The approach of integrating the strongest elements of options 1 and 3 into a cohesive, distinctive and connected masterplan

is done to ensure that the preferred option is a genuine distinction or 'new offer' to what was developed beforehand and should represent the most favourable elements emerging from the evaluation process. This also achieves the best balance between placemaking, key development objectives, constraints and infrastructure and deliverability.

7.5 The emerging preferred option constitutes the below elements from each of the previous options:

Option 1

- direct connectivity across the site from Lower Road to Baileys Lane;
- Finch Woods character pushing eastwards towards Finch Lane;
- connecting the northern landscape space back to the historic Halewood Centre.

Option 3

- strong inter-parcel connectivity;
- residential street network based on a loop system to establish character areas and legibility;
- SUDs integrated as part of the landscape framework;
- Finch Woods sitting at the heart of the open space framework;
- fewer pocket spaces and more strategically located public open space.

Influences from Option 2

- a pedestrian & cycle linkage which connects purposeful open spaces across the masterplan;
- residential uses on the Hesketh land parcel;
- the stopping up and integration of the disused layby into a development parcel.

7.6 The key characteristics of the option are set out below:

- residential **development zones defined by landscape and recreational routes** with a strong green setting for all development;
- a new **primary connection through** part of Finch Woods to Baileys Lane;
- direct connectivity between residential development through the existing Halewood Leisure Centre to Halewood Local Centre;
- retention of hedgerows and introduction of green buffer on eastern boundary, **incorporating the existing historic hedgerows & Sustainable Urban Drainage**;
- **Finch Woods character pushes east** towards Finch Lane , incorporating Sustainable Urban Drainage and park spaces;
- a north - south pedestrian & cycle network which links **greenspace destinations** as well as two purposeful green spaces;
- residential uses to the south utilising the redundant layby.

Figure 7.1 Emerging Preferred Option Concept plan



Not to scale. © Crown Copyright Knowsley MBC 100017655.2019

Initial indicative development capacity

- 1,219 new homes @ 30 dph
- 1,422 new homes @ 35 dph
- 1,626 new homes @ 40 dph



Figure 7.2 Emerging Preferred Option - Framework
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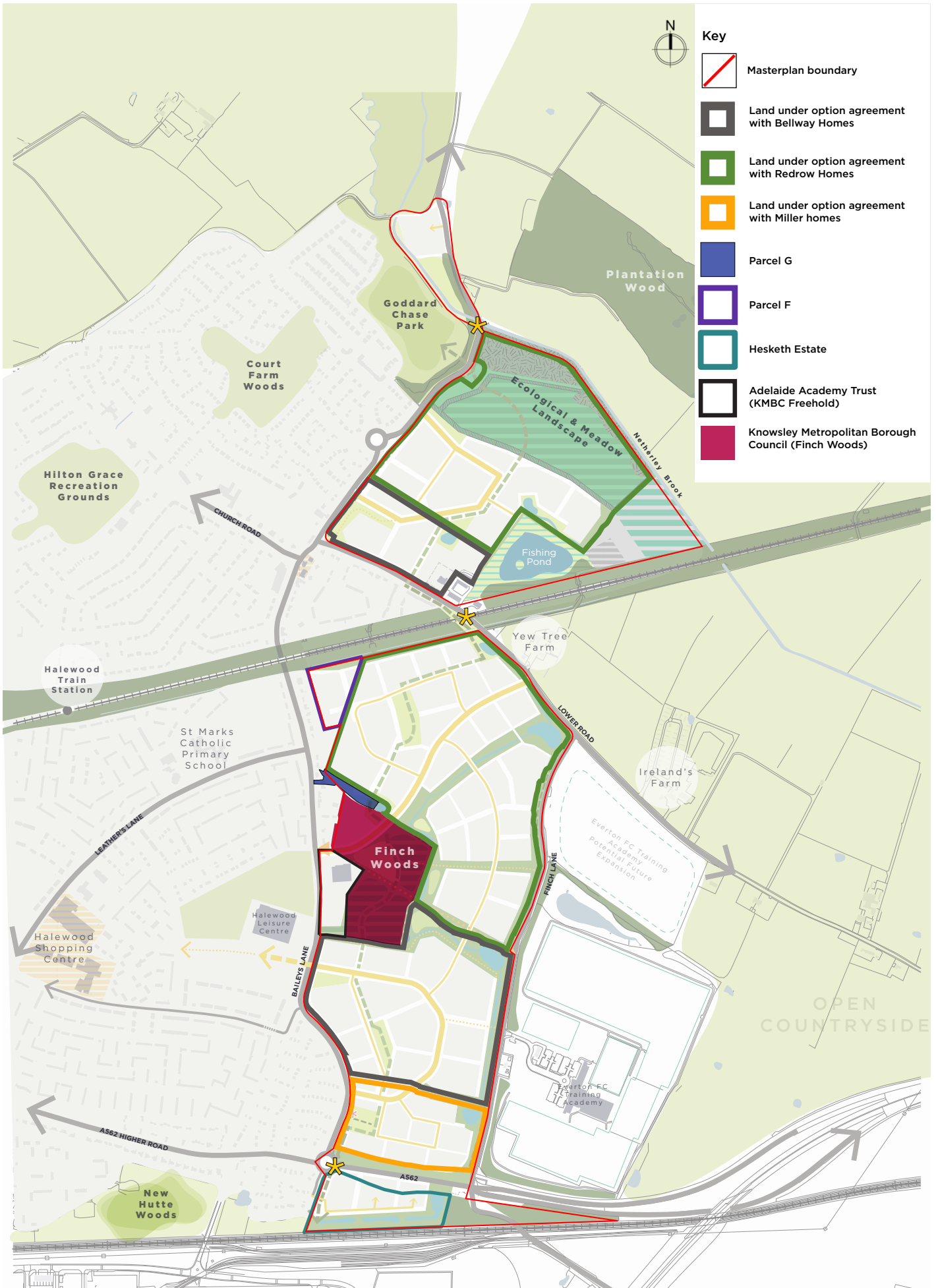


Figure 7.3 Emerging Preferred Option - Land ownerships

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Emerging preferred option - layering the response

Figure 7.4 Access and Connectivity

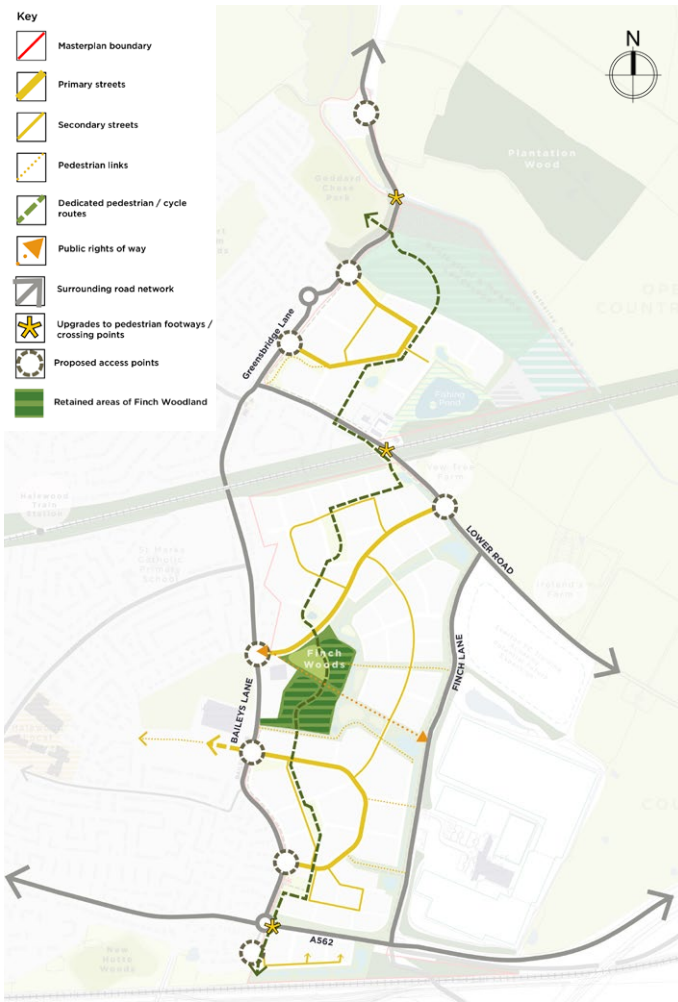


Figure 7.5 Open spaces and landscape structure



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- a new primary street that provides a direct connection from Lower Road to Baileys Lane;
- two new primary street access points south of Finch Woods;
- two new primary street access points from Greensbridge Lane;
- an internal street network which is legible and connects each development parcel;
- pedestrian and cycle routes connect internal green spaces to surrounding streets;
- a connected north-south pedestrian / cycle connection through Finch Woods;
- upgrades to footways / pedestrian crossings required where pedestrian access is restricted / difficult.

- Finch Woods sits at the heart of the landscape framework;
- series of linear green corridors push eastwards towards Finch Lane;
- number of purposeful green spaces connected through the north-south pedestrian / cycle route;
- Series of arrival green spaces complimenting primary street access points;
- Grade II Listed Building has an improved setting within open greenspace, improving its visibility and celebrating its heritage significance;
- Flood Storage area enhanced –ecological and habitat creation as well as creation of a new landscape (wildflower meadows).

Figure 7.6 Surface water drainage management



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- a series of attenuation basins located in lowest parts of the site;
- a water management system with a dual purpose –connected yet independent;
- attenuation basins connected across the site by a network of swales and drainage corridors;
- swales integrated within parts of the landscape framework;
- each parcel can also work independently and manage its own surface run off requirements;
- Flood Storage Area to the south of Ditton Brook stores flood water for 1:1000 year flood event +70% climate change.

Summary of option financial appraisals

7.7 The Council wishes to understand the relative viability of the development proposals. Keppie Massie have been commissioned by the Council to undertake a high level viability assessment of each option. At this stage the assessments are based upon the broad land use proposals identified in the option plans, with no allowances made for abnormal development costs or s106 contributions.

Assumptions

7.8 The local plan requires the provision of 25% affordable housing on the site. The financial appraisals are inclusive of 25% on site provision on the basis of a tenure split of 45% affordable rent and 55% intermediate. In preparing the viability assessments Keppie Massie have been asked to assume the below housing mix:

7.9 Based on the mix and dwelling sizes identified in the tables above a high level construction cost assessment was prepared for each of the options. The assessments include the cost of the dwellings together with external works, estate roads, drainage and incoming services. Based upon the option plans, the costs also include allowances for main roads, cycle ways and footpaths, open space and

Table 7.1 Housing mix assumed for testing

Tenure	1 bed	2 bed	3 bed	4 bed	5 bed
Market	-	10%	40%	40%	10%
Rent (45%)	50%	50%	-	-	-
Intermediate (65%)	-	40%	50%	10%	-

The following assumptions were also considered for dwelling sizes:

Table 7.2 Summary of dwelling sizes assumed

	1 bed	2 bed	3 bed	4 bed	5 bed
sq.m	60	70	85	105	125
sq.ft	645	753	915	1,130	1,345

ecological works. As appropriate, allowances are also included for off-site works,. The costs are also inclusive of professional fees and a contingency.

7.10 In determining the values for the completed dwellings Keppie Massie have assumed a net selling price for the market units of £2,368 per sq.m (£220 per sq.ft) which is comparable with other similar market locations both in Knowsley and South Liverpool.

7.11 In terms of the affordable dwellings, it is assumed that the affordable rented units will sell at 45% of market value and the intermediate dwellings at 70% of market value.

7.12 It is assumed that sales will take place at a

rate of 6 units per month. This is considered to be slightly conservative given the likelihood of multiple sales outlets, but is robustly cautious for the purpose of this assessment. There is no inclusion for any ground rents given the Governments proposals to legislate against these.

7.13 The table below contains details of the other appraisal assumptions that have been adopted for the purpose of the viability assessments.

Table 7.3 Other appraisal assumptions

Item	
Stamp duty on land acquisition	Based on new HMRC rates
Agents fee on acquisition	1%
Legal fee on acquisition	0.8%
Sales and marketing costs (market housing)	3.5% of GDV
Affordable housing transfer fee	£600 per dwelling
Finance rate (inc all fees)	7%
S106 contributions	None included
Profit return	20% GDV

Methodology

7.14 The financial appraisals adopt a residual methodology. This is where the costs of undertaking the development including the developers profit are deducted from the value of the completed dwellings to leave a residual land value.

7.15 The financial appraisals have been prepared using Argus developer software which is a well regarded, industry standard cashflow model. The model allows the timing of costs and receipts to be modelled to allow an accurate calculation of finance costs.

7.16 Given the size of the site, capacity and hence the length of the development programme it is unlikely that the entire site would be drawn down and paid for on day1 of development. It has therefore been assumed that the land will be developed and paid for based on 5 phases over a 12 year period. Hence the model has been adjusted to assume 5 equal residual land payments over this period.

Results

7.17 Based on each of the 4 options, the table below contains details of the resultant residual land values generated by the financial appraisals.

7.18 The results of the appraisals show that on a high level basis, the viability proposition for each option is broadly similar. The overall residual land value varies between £45.5m and £49.1m dependent on the capacity and net developable area; however based on the land value per acre and hectare, there is a more limited difference. The range is only £10,000 per net acre at £448,983 to £458,560 per acre.

Table 7.4 Results of financial appraisals

Option	Residual land value	Residual land value (per ha.)	Residual land value (per acre)
1	£48,163,408	£1,108,989	£448,983
2	£49,077,336	£1,132,641	£458,560
3	£45,561,002	£1,121,363	£452,993
Preferred	£46,816,952	£1,123,517	£454,865

Conclusions

7.19 Keppie Massie have prepared a high level viability assessment for each of the 4 options being considered in relation to East of Halewood masterplan. Each of these options has been assessed based on the parameter plans that have been prepared with suitable allowances made for items such as open space and new roads. At the present time, the appraisals do not include any allowances for abnormal development costs which may become apparent as investigations progress nor do they include any section 106 contributions that ultimately will be required.

7.20 The results of the viability assessments demonstrates that there is very limited difference in viability terms between each of the four options considered. Although the total residual land value differs dependent on capacity and site size, the actual land value per net developable acre only varies within £10,000 per net developable acre across the four options.

7.21 As the proposals for the site evolve, the financial appraisals will need to be refined to reflect abnormal costs that are identified, S106 contributions and potentially other uses such as commercial. At this stage however in comparative terms there is little difference in viability between the 4 options considered.

Places Matter design review panel response to emerging preferred option

7.22 Places Matter undertook a design review of the masterplan options for East of Halewood on the 18th October 2018 at the request of KMBC and OPEN.

7.23 The review consisted of an introduction to the site through a detailed site tour, followed by a presentation by the masterplan team to the design review panel.

7.24 The presentation session set out the key constraints and opportunities affecting the site as well as introducing the panel to the three development approaches and the preferred option.

Summary of key responses from Places Matter!

The panel endorsed the combined client and design team approach. The team are encouraged to check back on the masterplan's key moves as the preferred option is developed and refined to a draft masterplan, including:

- connections through the masterplan and connections back towards Baileys Lane and Halewood;
- what are your priority set piece interventions and clarity around non negotiable items;
- interactions with Halewood and blending new development back with Halewood;
- green infrastructure functionality; and
- the character of the new eastern edge of the development area.

Connections

- the opportunity for the masterplan to positively connect back into East of Halewood local centre, through improvements to wider connections, should be developed further. This is to ensure that they offer genuine opportunities to access existing local amenities;
- pedestrian journeys to Halewood train station and other public transport nodes should be clearly shown. On foot journeys to the train station should be promoted in order to encourage train operators to increase the frequency of local services in response to the rise in local population;
- opportunities to fully integrate a cycle network that connects wider opportunities to connect to longer distance activities.

Landscape

- consider the nature and quality of the proposed corridor which connects existing street trees, hedgerows, Finch Woods and potential SUDs areas;
- opportunity to integrate existing trees and ponds with proposed groups of housing appropriately placed around them; a opportunity to add value and character to the development;
- Finch Woods should remain in public use and further detail provided on the potential future use of the woodland, including outdoor wild adventure play and Forest Schools should be explored, offering the chance for children to 'break free from the urban area'. Improvements and maintenance requirements of the woodland for improved public access should be considered in more detail to help inform Section 106 contributions;
- proposals for 'green fingers' was supported by the panel; however further consideration should be given to what housing typologies

should be situated along the fingers to take best advantage of the green infrastructure whilst limiting the impact of vehicular access and infrastructure. Upton Dene, Chester, by Morris Homes was cited as a successful example;

- further thinking is required on the flood storage basin and how this could work as a space when it is dry. A naturalistic approach to the basin design was also raised. The functionality of the basin should be maximised for the benefits of the community. Clearer detail on this can help set the aspirations with the house builder consortium. Beam Parklands (managed by The Land Trust) was cited as a successful example.

Built form

- the primary link road from Lower Road to Baileys Lane was seen as too sinuous and could encourage higher vehicle speeds. The alignment of this route should be considered so that it balances good accessibility to Baileys Lane whilst managing vehicle speeds;
- intervention along the southern entry to the site may be needed to control entry speeds to Finch Lane, Baileys Lane, Lower Road and the Hesketh parcel;
- ensure that new development effectively links with Halewood, blurring the boundaries between the two, avoiding a bland, suburbia outcome;
- new pedestrian routes would also connect back to the Goddard Chase development and the existing parade of shops along Baileys Lane. These should compliment the sense of arrival when crossing the traffic controlled bridge and provide safe connection to Goddard Chase;
- the character of the place needs to be developed further, now that the structural principles are in place. Consider the personality of the place and what we

envisage each of the areas within the masterplan being. Existing character should be referenced but there is also an opportunity to interpret these in more contemporary ways.

Design code and comprehensive development

- an urban design code should be in place early on to avoid a drop to standardised housebuilder products across the whole of the masterplan;
- the design code could define the broad expectations of the masterplan, avoiding a full account of every detail and within which housebuilder expertise on detailing can be applied;
- more incorporation of more irregular parcels of land where encouraged, as they could drive more bespoke and higher quality approaches;
- the whole site should be considered and that each developer must look beyond their own red line.

Next steps

7.25 The feedback and suggestions made by Places Matter will be reviewed and explored, through the development of a preferred option and onwards the draft masterplan for East of Halewood. The suggestions and advice raised by Places Matter will be considered alongside the responses from the developer consortium and KMBC officers as part of the development of the preferred option.

Landowner and house builder consortium feedback to emerging preferred option

7.26 KMBC officers and members of the masterplanning team presented the emerging preferred option to the house builder consortium on 19th October 2018. The session took the form of a presentation of the preferred option, followed by a workshop session with the consortium members to discuss the preferred option in more detail.

7.27 Table 7.5 below summarises the main comments and concerns raised by the consortium.

Table 7.5 Summary of consortium and land owner feedback

Land parcel within the emerging preferred option	Feedback from landowners and consortium members
United Utilities parcel	<ul style="list-style-type: none"> the consortium raised queries over the nature of the potential use of the land parcel as well as its existing topography and suitability.
Existing fishing pond	<ul style="list-style-type: none"> the fishing pond was fairly well maintained and the future relationship of development with the pond was queried. The consortium expressed concerns over potential anti-social behaviour issues if it was opened up to the public.
Bellway and Redrow northern parcels	<ul style="list-style-type: none"> Bellway expressed concerns over the deliverability and reliance on 3rd party land to deliver the pedestrian and cycle link through the railway arch; both Redrow and Bellway raised concerns of a primary route being shown to connect both parcels; Redrow expressed concern over the length of cul-de-sac from a single access road (additional emergency access may be required onto Greensbridge Lane); access from Greensbridge Lane roundabout was considered an undeliverable option by the consortium; the relocation of the existing substation on the corner of Greensbridge Lane and Lower Road was seen as a development risk by Bellway due to reliance on 3rd party land; Redrow indicated that a SUDs pond should be located in the north-western corner of the northern parcel; Redrow explained that they had no further aspirations for the flood storage area post engineering works as it would be returned to agricultural land; Redrow confirmed that they are in agreement with the access location shown.
Redrow southern parcel	<ul style="list-style-type: none"> the proposed new linkage between Lower Road and Baileys Lane raised concerns given the reliance on 3rd party land to deliver it (which could stall the delivery of development) as a primary access route within the masterplan. There would be a preference to instead have a pedestrian and cycle connection through to Baileys Lane. In this instance Redrow would require a secondary access route onto Lower Road to facilitate emergency access;

Table 7.5 Summary of consortium and land owner feedback (cont.)

Land parcel within the emerging preferred option	Feedback from consortium members and landowners
Redrow southern parcel (cont.)	<ul style="list-style-type: none"> the aspiration for Redrow’s SUDs requirement for this land parcel was to hold the total requirement in the north eastern corner of the masterplan. This could form part of the positive gateway / arrival experience into the development; both Redrow and Bellway queried the rationale of having linear green spaces emanating eastwards towards Finch Lane.
Bellway southern parcel	<ul style="list-style-type: none"> Bellway expressed objection to the location of swales along the eastern edge of the masterplan, in close proximity to existing utilities and infrastructure; the cross-road junction configuration was queried as to whether it was the correct response to best facilitate all mode movement. The consortium instead proposed a staggered signalised junction; SUDs strategy has to work within the ownership boundaries as reliance on 3rd party land for delivery is not a viable delivery option for the developers.
Finch Woods	<ul style="list-style-type: none"> both Redrow and Bellway believe that Finch Woods is currently being underplayed through its proposed relationship with future development. A primary north - south route / or avenue could run to the east of Finch Woods, accommodating vehicular, pedestrian / cycle and swales. This could open it up to the development and to visitors, allowing more development to front onto it and to celebrate it as a key asset within the masterplan.
RSPCA Land/ Southern parcel	<ul style="list-style-type: none"> surface water drainage for this site must be delivered through a pumping station, which is required in location of proposed SUDS pond; current approach relies on out-falling into existing ditch on 3rd party land; the amount of public open space and type of potential space around the Grade II Listed Building was queried? The consortium expressed a desire for a smaller, more purposeful and controlled space which could become a memorial space. A preference to focus public open space elsewhere within the masterplan.
Leisure Centre site	<ul style="list-style-type: none"> enhanced connections may create an increase in traffic for the local centre.
Hesketh Land	<ul style="list-style-type: none"> the landowner agent wishes to promote the site for commercial uses. The house builders feedback was that this parcel is not suitable for the volume house builder market; Miller have no concerns of such uses in proximity to their site due to the separation caused by Higher Road; a desire by house builders to see additional landscape planting along the Higher Road verges.
General comments	<ul style="list-style-type: none"> all house builders feel that the preferred option over provides the quantum of required greenspace and that all green space requirements should be focused on Finch Woods; Redrow intend to develop two distinct character areas, which will be characterised by density and property typologies; the consortium expressed a need for clarity on what is fixed and what is indicative; Redrow confirmed that the under ground cable would be buried and re-aligned with a 20m easement provided.

Final changes to the Emerging Preferred Option

7.28 Upon final review of the emerging preferred option, and following consideration of the views of Places Matter! and the developer consortium and landowners, KMBC identified five areas of the preferred option plan needing further attention. These are set out in Table 7.6.

Table 7.6 Summary of matters requiring further resolution

	Matter	Further exploratory discussion	Resolution
1.	Vehicular access from Finch Lane	All access points proposed are currently taken from Baileys Lane and Lower Road, with no potential vehicular access taken from Finch Lane into the masterplan. Are there opportunities to create new vehicular linkages onto Finch Lane?	The number of existing technical constraints along Finch Lane mean that establishing a deliverable and viable vehicular access point(s) along Finch Lane is significantly challenging.
2.	Finch Lane Higher Road junction	The existing junction arrangement is prohibitive to west bound journeys from Finch Lane towards Halewood.	Preferred option to identify opportunities for junction improvements and traffic calming.
3.	Vehicular access to Baileys Lane	Concern that rat running may be encouraged from Lower Road through to Baileys Lane, which could also mean that existing businesses within Halewood Village could miss passing trade. The likely alignment of the linkage would travel through Finch Woods, seeing a loss in a small number of trees as well as reliance upon Finch Woods Academy to create a junction onto Baileys Lane.	Facilitate pedestrian and cycle access points through to Baileys Lane but prevent vehicular access through to Baileys Lane from Lower Road.
4.	Vehicular access to Baileys Lane	Concern over the location of access points onto this stretch of Baileys Lane given the geometry of the carriageway and speeds of traffic.	Address the current character of Baileys Lane, which in part will be managed through the creation of two new access points, altering the existing hedgerows if needed, as well new development addressing the street.
5.	Access to Halewood Leisure Centre	Concern over the opportunity to create rat-running through the Halewood Leisure Centre site as well as the nature of the proposed cross road junction in this location for safe access and pedestrian & cycle crossing.	Preferred option to identify this junction as key pedestrian and cycle crossing point, which could be signalled to create a safe pedestrian and cycle crossing point.

Location of elements of final changes to emerging preferred option



Figure 7.7 Location of final changes to emerging preferred option
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> Preferred option

08

8.1 The process of option assessment, consultation and evaluation outlined in the previous chapters has helped the team to develop a preferred option.

8.2 The preferred option seeks to: balance the positive elements from previous options; respond and encapsulate the various inputs and feedback from stakeholders as far as practically possible; ensure the Masterplan Vision, Vision Concept and Masterplan principles are achieved; and work with the technical constraints on the site to ensure that the integrity of masterplan deliverability is achieved.

8.3 The Vision statement and Concept have been reviewed and reconsidered in light of the stakeholder comments and feedback through the options testing process. A renewed Vision Statement and Vision Concept have been set out below.

Vision Statement:

“East of Halewood will provide a high-quality and distinctive new residential offer for Halewood; a place served by excellent infrastructure and accessible to all. It will be the most sought after and significant scheme of its type in the south of the City Region.”

Vision concept:

East of Halewood will:

- be a place that is **seamlessly connected with the local community** and its existing facilities, while delivering new amenities for wider community use;
- be a place which is **integrated with the surrounding natural environment** through its own attractive open spaces. The **retention and enhancement of Finch Woods** will provide a focal point for the development and will be **a purposeful and attractive green space that is destination** in its own right;
- be well connected with a **high quality and accessible streetscape and hierarchy** that will allow residents and visitors, whether on foot or in a vehicle, to **safely and easily navigate** their way to, around, through and from the development, whilst also improving the existing highway network and creating safe and convenient links across existing streets;
- encourage all residents and visitors to **make the most of outdoor life**, offering opportunities to unwind, access quality greenspace and explore, encouraging an active lifestyle for Halewood and;
- create a new **strong and interesting edge to Halewood**, integrating new homes with existing hedgerows, movement routes, residential communities and the country side beyond.

Preferred option

A balanced approach

8.4 A key challenge emerging from the feedback with stakeholders was to create a movement structure which connects back to East of Halewood; which achieves quality linkages between the northern and southern parcels; and which fosters legible, direct and sustainable connections within both the northern and southern parcels respectively.

8.5 The main characteristics of the option are set out below:

- creates **direct and accessible vehicular, cycle and pedestrian linkages into East of Halewood**;
- Finch Wood is celebrated as a purposeful greenspace, a **high quality landscape at the heart of the development**. It is connected through a series of linear greenspaces and a network of pedestrian and cycle routes;
- **purposeful linear green spaces** draw out Finch Woods landscape and woodland character towards Finch Lane and Lower Road;
- **potential downgrade to Higher Road** with the landscaped expansion of the existing central reservation;
- flood storage area becomes an ecologically enhanced and meadow landscape, offering pleasant views and quality landscape setting;
- **residential led mixed use development parcel** sits to the south of the A562.

Figure 8.1 Preferred Option Concept plan



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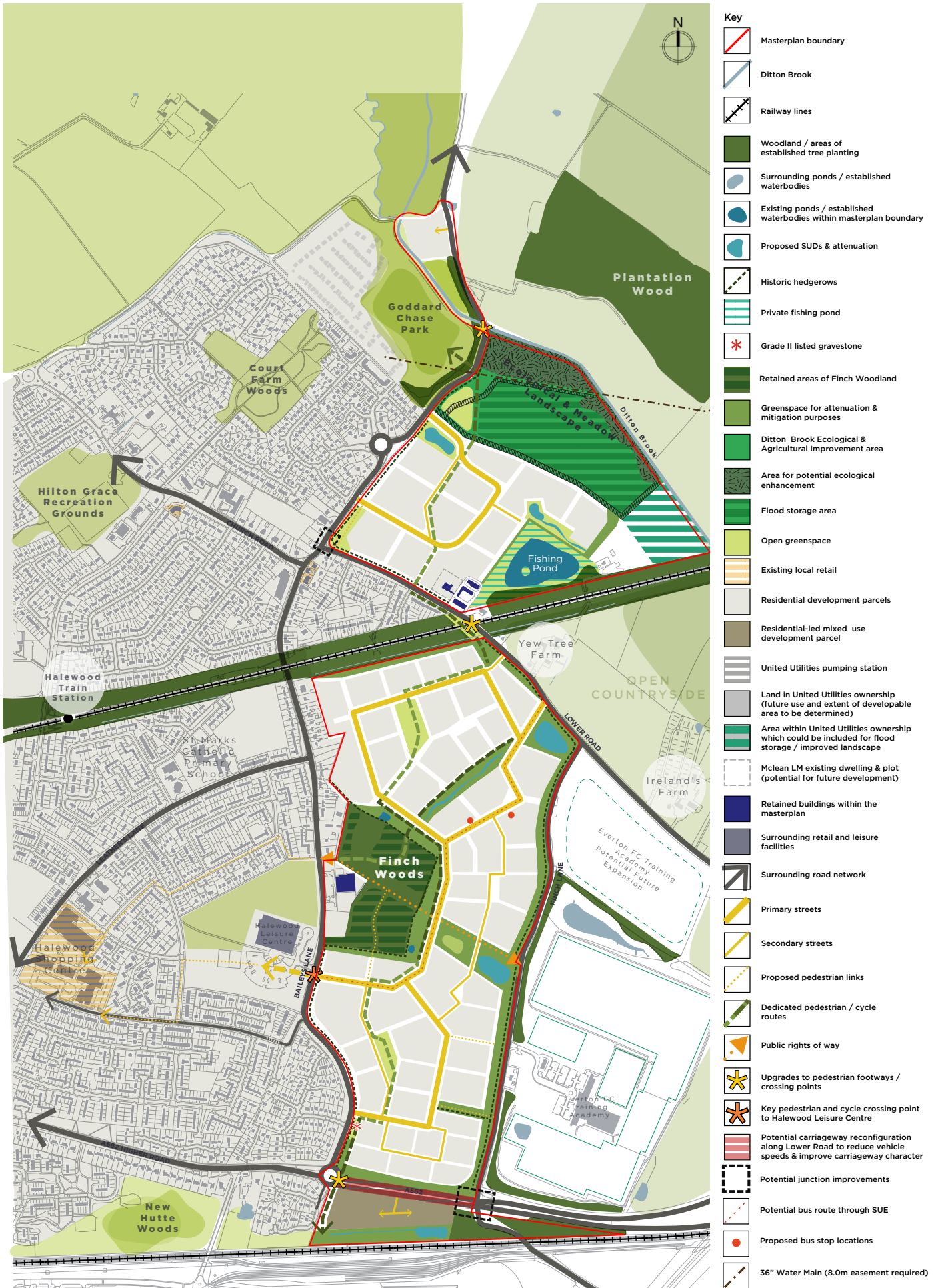


Figure 8.2 Preferred Option - Composite Framework
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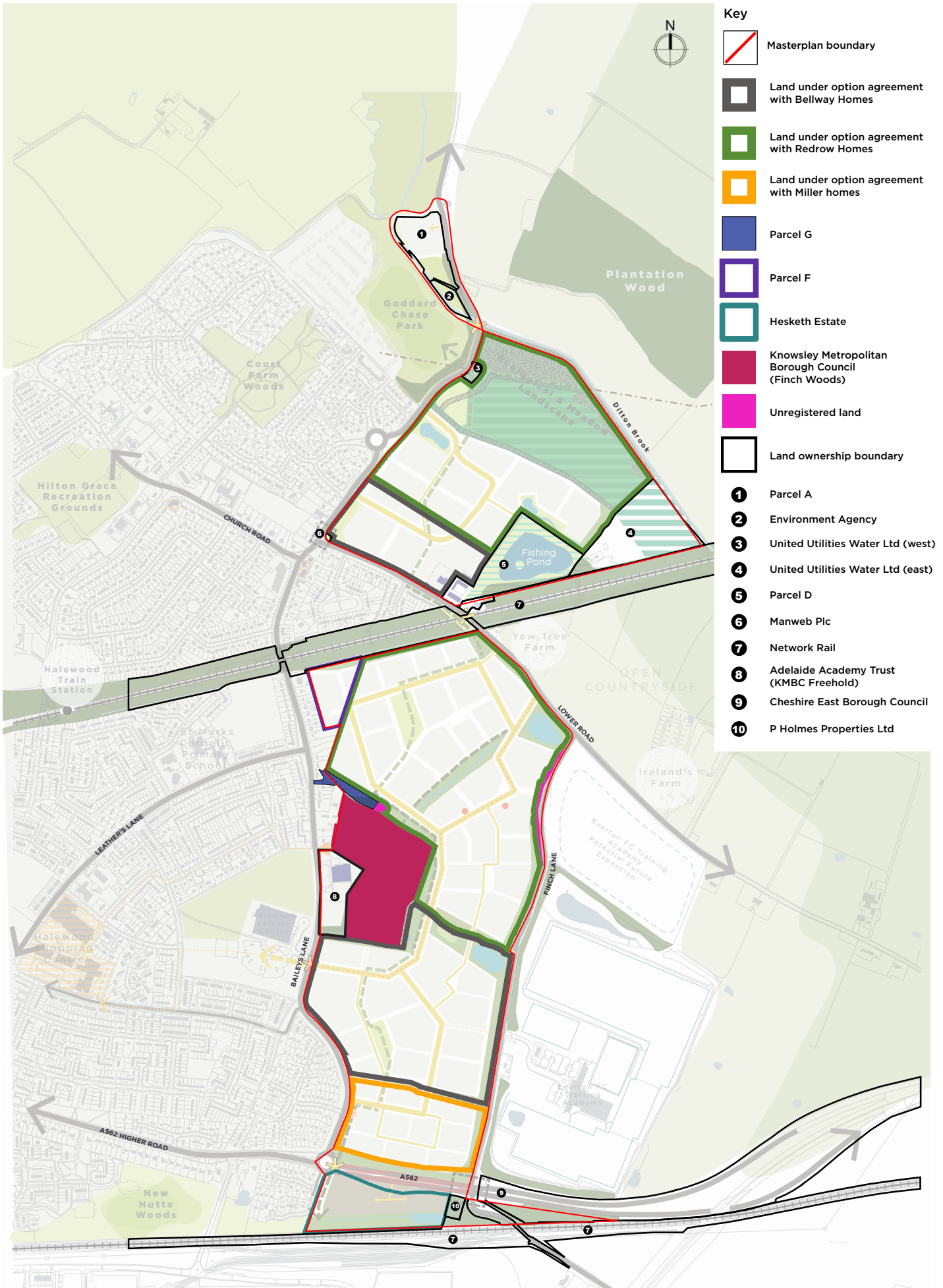


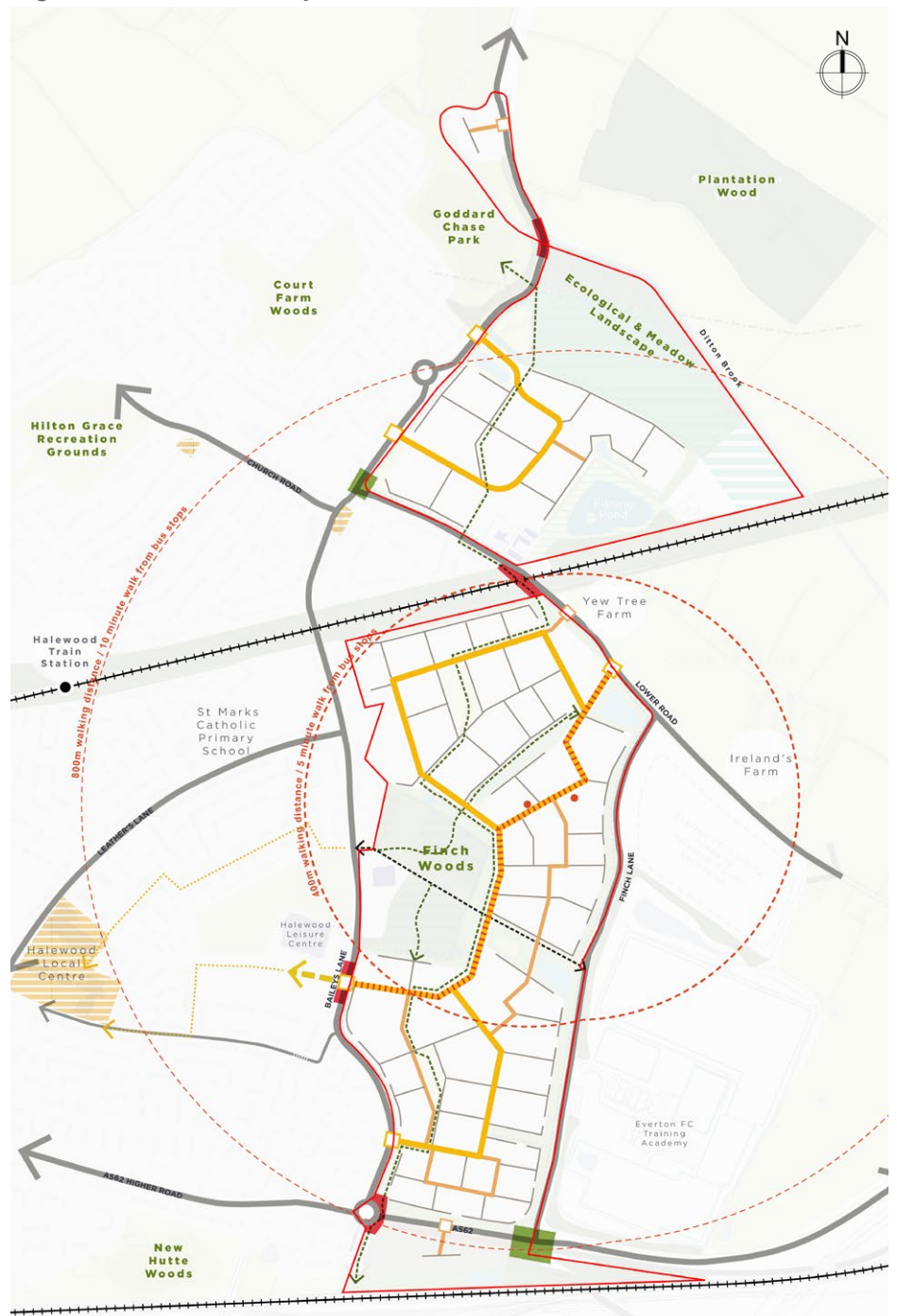
Figure 8.3 Preferred Option - Land ownerships

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Preferred option - movement

- a new primary street network that provides a connection from Lower Road to Baileys Lane and which can accommodate bus services through the masterplan;
- two new primary street access points south of Finch Woods onto Baileys Lane;
- a primary street access point and secondary street access point from Lower Road;
- primary street access from a reconfigured Higher Road carriageway into Hesketh parcel;
- two new primary street access points from Greensbridge Lane;
- a primary street access point from Greensbridge Lane into the current Merseyside Dogs Home;
- an internal street network which is legible and connects each development parcel;
- pedestrian and cycle routes connect internal green spaces to surrounding streets, to Finch Woods and to the open green space along Ditton Brook;
- upgrades to pedestrian crossing points to improve access to existing facilities;
- potential junction improvements along Higher Road and Greensbridge Lane - Lower Road junction.

Figure 8.4 Preferred Option- movement



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Key			
	Masterplan boundary		Proposed bus route
	Existing road network		Proposed bus stops
	Railway lines		Upgrades to pedestrian footways / crossing points
	Existing local retail		Potential junction improvements
	Primary streets		Upgrades to existing pedestrian routes
	Secondary streets		Public rights of way
	Local streets		Access points
	Proposed pedestrian / cycle links		

Preferred option - open spaces and landscape structure

- Finch Woods is retained and enhanced, sitting at the heart of a connected landscape framework;
- two linear green corridors push eastwards towards SUDs features and proposed green buffer along Finch Lane;
- number of purposeful green spaces connected through a north-south pedestrian / cycle route;
- SUDs and attenuation located to the eastern edge, working with existing site levels, drainage ditches as well as the providing a transition to the adjacent rural character;
- Grade II Listed Building has an improved setting within open greenspace, improving its visibility and celebrating its heritage significance;
- Flood Storage Area enhanced –ecological and habitat creation as well as creation of a new landscape (wildflower meadows);
- a new public open space sits at the junction of Lower Road and Greensbridge Lane, creating a positive relationship to existing historic buildings immediately adjacent;
- public space along Lower Road, provides a transition space under the opened and restored viaduct.

Figure 8.5 Preferred Option - open spaces and landscape structure



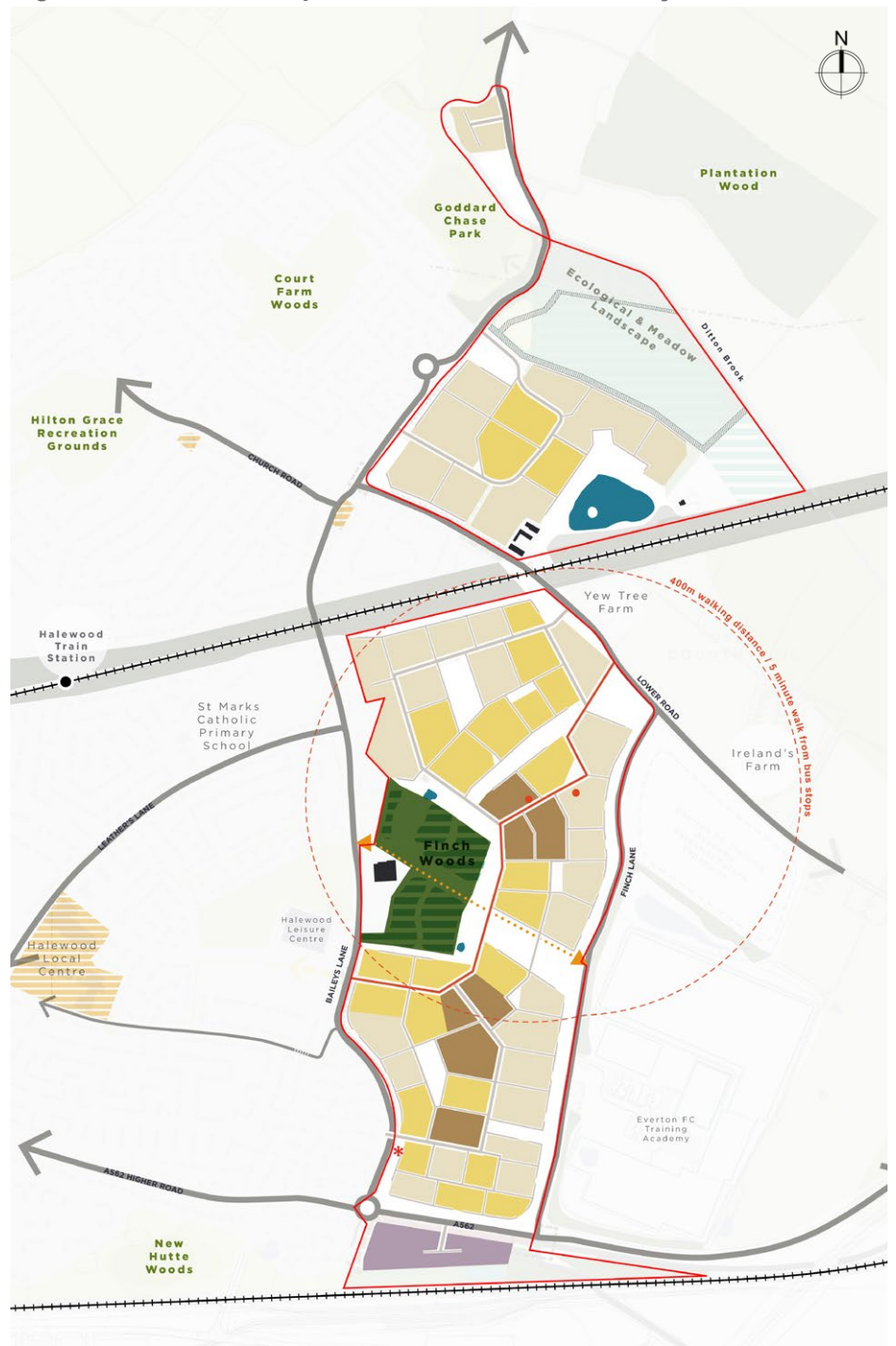
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Key			
	Masterplan boundary		Historic hedgerows
	Existing road network		Surrounding countryside
	Railway lines		Proposed pedestrian / cycle links
	Existing areas of public open space		Private fishing pond
	Existing blocks of woodland		Public rights of way
	Ditton Brook Ecological & Agricultural Improvement area		Area for potential ecological enhancement
	Flood storage area		Buffer landscape planting
	Public open space		Proposed SUDs and attenuation
	Grade II listed gravestone		

Preferred option - land use and density

- the density principles applied across the masterplan are coordinated to reinforce a variety of development settings across the masterplan;
- higher density parcels define and accentuate the internal primary street, which links Lower Road with Baileys Lane;
- higher density parcels are located within close proximity to proposed bus stop locations, promoting high levels of accessibility to sustainable transport nodes;
- the northern site has a density cluster at its centre, creating a defined nodal point at its heart;
- lower densities address outward facing elements of the masterplan, with lower density edge interfacing with the natural environment;
- Finch Woods is enclosed by 35-40 dwellings per hectare parcels, creating higher levels of passive surveillance and presence onto this revitalised public open space;
- the density profile on access points from Baileys Lane is higher to accentuate gateway points into the masterplan.

Figure 8.6 Preferred Option- land use and density



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Key			
	Masterplan boundary		Historic hedgerows
	Existing road network		Surrounding countryside
	Railway lines		Existing retained buildings within the masterplan
	Existing local retail		Private fishing pond and existing ponds
	Retained Finch Woods		Grade II listed gravestone
	Proposed street network		Proposed bus route
	Proposed bus stops		400m / 5 minute walk from proposed bus stops within masterplan
	30 dwellings per hectare		35 dwellings per hectare
	40 dwellings per hectare		Residential-led mixed use development parcel (50 dwellings per hectare)
	Public rights of way		

Indicative land budget

8.6 As the preferred option has been developed, further refinement of the development structure has been undertaken, as well as some initial thinking on density principles that could be applied across the masterplan. These will be further tested and fixed through the masterplan development stage.

8.7 Density assumptions are based on a range of 30-40 dwellings per hectare, creating a neighbourhood character which responds to its context as a sustainable urban extension. The densities applied to each parcel on the adjacent plan and table below are averaged across the parcel. A more refined capacity assessment will be undertaken through the draft masterplan development process.

Figure 8.7 Preferred Option- indicative land budget



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Table 8.1 Indicative preferred option land budget

Parcel Reference	Gross Developable Area (m2)	Gross Developable Area (Ha)	Landuse	% of residential within parcel	Net Developable Area (Ha)	Average Parcel Density (Dwellings Per Ha)	Total No. of Units
1	7,028	0.7028	Residential	90%	0.6325	30	19
2	25,530	2.5530	Residential	90%	2.2977	32.5	75
3	32,760	3.2760	Residential	90%	2.9484	32.5	96
4	20,950	2.0950	Residential	90%	1.8855	30	57
5	14,120	1.4120	Residential	90%	1.2708	32.5	41
6	48,155	4.8155	Residential	90%	4.3340	30	130
7	49,192	4.9192	Residential	90%	4.4273	35	155
8	48,829	4.8829	Residential	90%	4.3946	37.5	165
9	24,991	2.4991	Residential	90%	2.2492	32.5	73
10	32,998	3.2998	Residential	90%	2.9698	32.5	97
11	24,961	2.4961	Residential	90%	2.2465	37.5	84
12	40,807	4.0807	Residential	90%	3.6726	35	129
13	24,206	2.4206	Residential	90%	2.1785	32.5	71
14	18,539	1.8539	Residential	90%	1.6685	32.5	54
15	16,041	1.6041	Mixed Use Residential	40%	0.6416	50	32
TOTALS	429,107	42.9107			37.8176		1,277

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Knowsley Metropolitan Borough Council (KMBC)



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