



**Loreburn Housing Association Ltd**

**PROPOSED DEVELOPMENT, MURTHOLM FARM, LANGHOLM (LHM.H4)**

**Masterplan**

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## **1. Introduction**

- 1.1 This Masterplan sets out the overall development concept, the main planning and design principles on which development of the site will be based and the approach to be adopted for a wide range of key components to ensure a successful development.
- 1.2 The site will be developed in phases over a period of at least 10 - 20 years so the aim of this Masterplan is to help deliver a high quality of development and ensure the development, as a whole, accords with local and national policy and that development of no part of the allocated housing sites are prejudiced or restricted.
- 1.3 The Masterplan provides a structured approach and the context within which future planning applications for the individual phases will be developed, and against which they will be assessed, as well as setting out how the design and consultation process has progressed to date and how it is likely to evolve.
- 1.4 The Masterplan specifically provides a framework for the development of this site in relation to the following:
  - o Access and Roads Network;
  - o Open Space and Landscaping Strategy;
  - o Affordable Housing provision;
  - o Density and Land Use;
  - o Drainage and SuDS Strategy;
  - o Flood Risk Management Strategy;
  - o Design Approach;
  - o Integration with Existing Settlement;
  - o Phasing;
  - o Developer Contributions.

## **2. Vision**

- 2.1 To create a high quality, sustainable and deliverable residential neighbourhood as an extension to the existing settlement of Langholm. It will help cater for the town's anticipated growth and housing need over the next 10 - 20 years and support and help sustain existing services, facilities and assets in the immediate locality and wider settlement.
- 2.2 The identified objectives reflect the key issues to be addressed in order to achieve the vision. The Masterplan for allocated site will:
  - o Consist of a series of well-connected areas, experiences and environments which will consist of approximately 130 No. high-quality homes, of which around 70% will be affordable;
  - o Create a distinctive and welcoming place which is integrated with, and well connected to, the surrounding neighbourhoods, wider settlement, countryside and landscape;
  - o Be developed around existing vistas, landscape and heritage assets to protect and enhance positive features. New areas of open space will form an integrated network of green infrastructure to ensure the delivery of a healthy natural environment benefiting the existing community, wildlife and biodiversity;



- Provide a mixture of housing tenures, types and sizes reflecting the diverse needs of Langholm's growing and ageing population; including extra care housing both linked to the proposed communal/support facilities, general needs and amenity affordable housing to the southern section of the site and private housing to the northern section of the site;
- Create a new road access junction will serve the site from the A7 which will form a primary spine route through the site that will be designed to accommodate cars, buses and bicycles;
- Create a new foot bridge for pedestrians/cyclists will cross the River Esk linking the site to Langholm located to the north and vice versa. This foot bridge will be formed during the first phase of the development;
- Consist of a clear street hierarchy which will radiate away from the primary spine road running through the site and will include secondary and tertiary road links throughout the development based on Designing Street principles;
- Create a network of open spaces, connecting to the wider countryside. A key central area of open space to serve the allocated site will provide a natural focal point for the whole site and link the north and south sections of the allocated site. This area will be designed as a key publicly useable open space with landscaping, planting, growing spaces, walks and opportunities for play and wider community uses;
- Provide high-quality amenities including allotments/growing spaces and play areas to meet identified needs. These will be predominately located in accessible areas of the key publicly useable open space and delivered early in line with the development phasing plan;
- Create an effective and efficient local transport and highway network which promotes sustainable modes of transport;
- Be developed with sustainable drainage forming an integrated part of the landscape created on the site to ensure that draining and flood risk issues are fully addressed whilst connecting with and enhancing green infrastructure and wildlife value of the local area;
- Create an integrated services infrastructure solution for the entire allocated site; and
- Design and construct modern housing that will use high levels of insulation and timber kit construction to the highest specifications to deliver low energy usage and low energy bills for the future occupants, addressing rural fuel poverty. The use of sustainable energy generation within the individual houses will be incorporated into the house design. The inclusion of affordable certified Passive Houses to the southern section site is key vision to deliver a local sustainable development.

2.3 The **core principles** for the Masterplan for the site are aimed to creating a development with:

- A strong sense of place;
- Distinctive character;
- Integrated neighbourhood linked to the wider area;
- Well-connected streets;
- A sustainable and walkable neighbourhood;
- A well-balanced mixed community;
- Safe environment for all;
- Promote healthy lifestyles through outdoor activity;
- High quality open spaces and green networks;



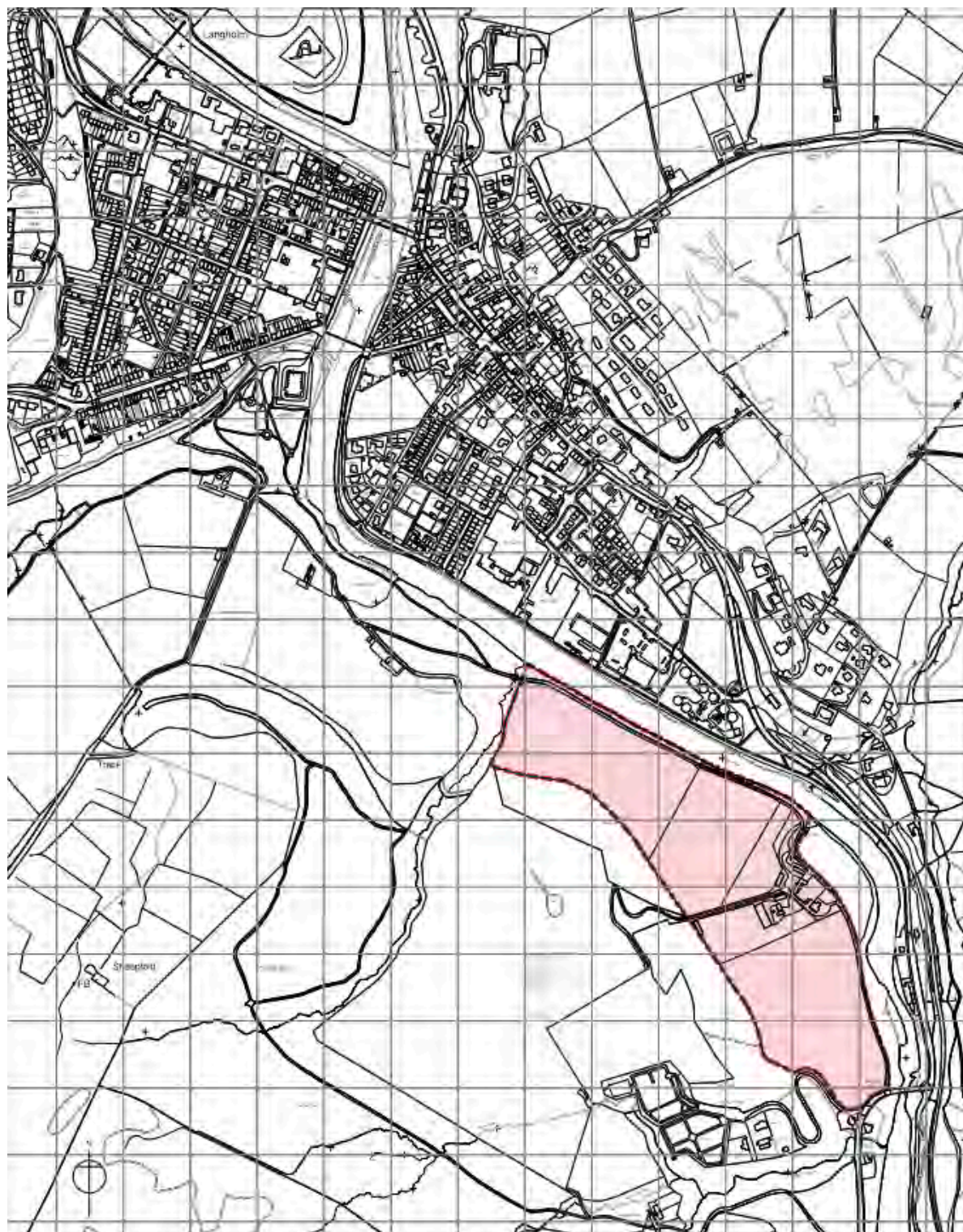
- Protection of ancient woodlands;
- Integrated SuDS and open space;
- Integrated service infrastructure; and
- Sustainable and energy efficient modern housing.

### **3. Site Analysis**

#### **3.1 Wider Neighbourhood and Context**

- 3.1.1 The settlement of Langholm is located in Annandale and Eskdale in the east of Dumfries & Galloway. Langholm is defined as a District Centre in the Eskdale Housing Market Area and is strategically located on the A7.
- 3.1.2 Langholm lies between four hills in the valley of the River Esk in the Southern Uplands. Langholm is characterised by the River Esk running through the settlement, the floodplain of which limits development potential along with the hills that surround the settlement. There are numerous rural paths and tracks linking Langholm to the wider countryside.
- 3.1.3 Historically the only bridge crossing the River Esk was located to the south of Langholm, at Skipper's Bridge. This location restricted the growth of the settlement to the east side of the river. This pattern of development changed in 1788 when the Duke of Buccleuch founded what was originally called New Langholm as a grid-plan settlement on the west bank of the River Esk, connected to the existing settlement by a new bridge, Langholm Bridge. This area of the town has developed as the main centre of the settlement with the majority of community facilities and more recent bridge crossing concentrated in this area. Langholm Bridge (to the west) and Skipper's Bridge (to the east) remain the key vehicular access bridges in Langholm.
- 3.1.4 The site is connected in terms of vehicular access to a key transport route. The site located to the north of the A7 and east of Cemetery Road U253a. This site is remote from Langholm, separated by the River Esk to the north. A footway runs across the site frontage to the south over Category A Listed Skipper's Bridge along the A7 leading back into Langholm.
- 3.1.5 Located directly to the south of the site there is an existing access point adjacent to the Category A Listed Skipper's Bridge to the A7 major trunk road. The A7 runs south from Edinburgh to Carlisle in North West England. The A7 passes directly through Langholm town centre via the High Street and leads to surrounding villages and towns in Dumfries & Galloway and nearby towns and villages in the Borders and Cumbria.
- 3.1.6 The A7 is a key route into Langholm and therefore it is recognised that the site frontage to the south onto the A7 is of great importance for the development and the town of Langholm particularly when approaching from the south.
- 3.1.7 The bus terminal is located in the town centre providing local services together with a stop for the strategic Edinburgh - Carlisle bus service that travels on the A7.
- 3.1.8 The site is well located within reasonable distance of an assortment of key community amenities within the settlement. The majority of key amenities are located in or to the north of Langholm town centre such as the Community Centre, Library / Customer Service, The Buccleuch Centre, Thomas Hope Community Hospital and adjoining Langholm Health Centre, Langholm Primary and Academy, Eskdale Sports Centre and employment opportunities. The town centre contains a number of independent shops, hotels, public houses as well as other small businesses.
- 3.1.9 A key local amenity located in close proximity of the allocated site is The Co-operative Food superstore which is located directly north across the River Esk. This superstore vehicle access is taken directly from Glenesk Road with a bus stop being located adjacent to the superstore confirming importance to the local community. Such close proximity provides great opportunities for wider connection and consideration of pedestrian and cycle access and safe routes to schools through and adjacent to the allocated site.





Location Plan – site indicated in red line.



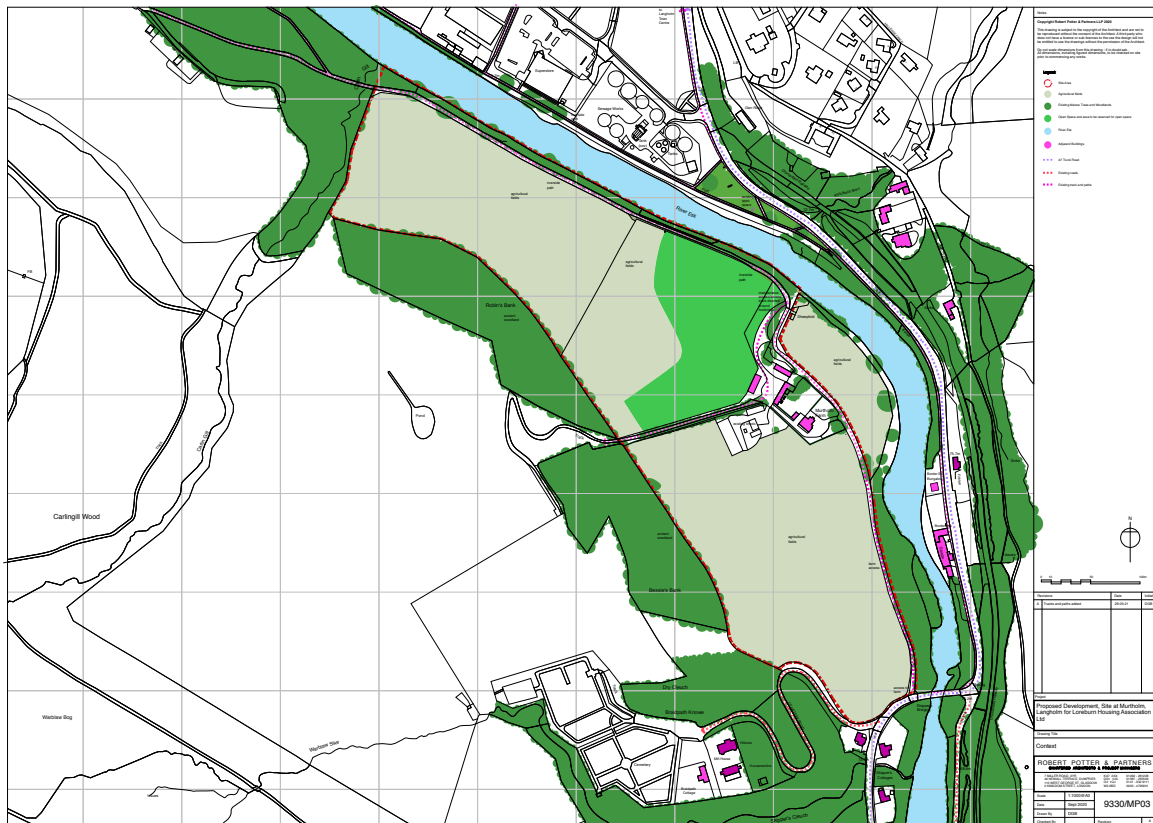


### **3.2 Site Location and Description**

- 3.2.1 The site which is subject of this Masterplan is approximately 13.39ha as indicated on the location plan. The allocated site ref: LHM.H4 indicated on the Local Development Plan 2 Inset Map is a reduced area due to the anticipated extent of flooding to the area which is approximately 9.70ha in size and is a greenfield site located approximately 0.5km from Langholm town centre, across the River Esk on the southern eastern edge of the town. Site OS Grid Reference (Easting, Northing): 336744, 583700.
- 3.2.2 The site is located within the Langholm Hills Regional Scenic Area (RSA) designation. It centres on the combinations of Upland Glen and other attractive valley landscapes of Eskdale and the Ewes Water valley and adjacent Southern Uplands.
- 3.2.3 Historical Ordnance Survey Maps from 1857 to 2014 have been reviewed and there is no evidence of development on the site from these maps. The site appears to have only ever been used from agricultural purposes which remains its current use.
- 3.2.4 The site is currently used as agricultural grazing land and remains active. Murtholm Farm steading and agricultural out-buildings are located within the allocated site boundary. The site is made up of a series of four large agricultural fields bordered with ancient woodland to the north and west boundaries, hedgerows to the south boundary and stock fencing / access track running along the east boundary.
- 3.2.5 The River Esk is located along the north and east of the site. Ancient woodlands are located along the north and west boundaries of the site. The site is surrounded and crossed by a number of footpaths used for leisure and recreation including riverside, woodland and countryside walks. The historic landscape of Langholm Cemetery is located directly to the south of the allocated site accessed from Cemetery Road which winds up the hillside through woodlands with the cemetery located at the top. Sports and leisure facilities including Langholm Bowling Club, Townfoot Sports Centre and Langholm Golf Club are located in close proximity of site across the River Esk.
- 3.2.6 The topography of the site slopes from south to north towards the River Esk. There are sections of steeply sloping terrain to the north-west and south-west corners of the site where adjacent to the ancient woodland. The terrain of the ancient woodland running along the western boundary rise steeply up hillside. Along the riverside to the south-east boundary there is a further agricultural field that lies at a lower level towards the River Esk.
- 3.2.7 Electrical overhead cables and water main cross the site at several locations.
- 3.2.8 The A7 provides the main trunk road vehicular access route into Langholm from south, runs along the south eastern boundary of the site. There is an agricultural vehicle track accessed direct from the A7 that runs along the northern boundary leading to Murtholm Farm steading and beyond following the River Esk. This access track is traffic light controlled at the A7.
- 3.2.9 Existing agricultural tracks cross the site from Murtholm Farm leading to the surrounding countryside which split the large open fields. The agricultural fields along these tracks are defined by hedgerows. Cemetery Road is located to the south of the site accessed directly from the A7 leading to the nearby cemetery to the top of the hill.
- 3.2.10 These agricultural fields are generally open with no mature trees or planting located within these areas. There are prominent lines of mature trees most notably along the north and east boundaries running along the river side forming a strong riparian corridor. There are a cluster of mature trees located around Murtholm Farm. Ancient woodland runs along the north and west boundaries along the allocated site boundaries.



- 3.2.11 The majority of the bridges crossing the River Esk are located to the west of Langholm, to the north of the allocated site. The only bridge located in the east of Langholm and the nearest bridge to the allocated site is the Category A Listed Skipper's Bridge. The bridge crosses the River Esk in very close proximity to south end of the site where bounding the A7. Skipper's Bridge is predominately a vehicle bridge with very restricted accessibility for pedestrians and cyclists. The nearest bridge located north of the allocated site is the suspension foot bridge connecting Caroline Street with John Street which is located approximately 500m away. The location across the River Esk, distance from existing bridges and situated to the south of the Langholm results in site being considered remote and detached from the settlement of Langholm.
- 3.2.12 An established business and industry site is located directly opposite the allocated site to the north across the River Esk. This site includes local amenity including the Co-operative superstore and former mills Langholm Waste Water Treatment Works is located to the east of the superstore. This business and industry site is accessed by Glenesk Road. The back of this site is the main visual link from the allocated site looking northwards towards the settlement of Langholm albeit screened with the mature trees and planting that lines the river banks.
- 3.2.13 Beyond this established business and industry site the predominate land use is residential with housing located to east along the river side on Waverly Road and to the north on Glenesk Road and Hillside Crescent. There is no visual link to the existing residential areas from the allocated site. The existing residential areas to the north and west comprise a mix of low and medium density, mixed tenure, single and two-storey, detached, semi-detached and terraced housing.
- 3.2.14 DGC Open Space Strategy identifies there is a good range of provision but a large accessibility gap of publicly useable open space to the south / east of Langholm. Specific priorities are for new housing development to contribute to providing additional space where necessary to meet any new accessibility requirements. There is only one area of protected open space designated in the LDP2 that is located in close proximity of the allocated site. This open space is located to the north of the site across the River Esk at the settlement entrance on the A7. There is no current provision of designated open space to the south of Langholm across the River Esk. The delivery of the Masterplan will provide high-quality publicly useable open space for the allocated site whilst also having the added benefit of addressing the large accessibility gap to open space the south / east of Langholm. It should therefore be recognised through the delivery of this Masterplan for the allocated site there will be significant added benefits to both the level and quality and accessible open space provision in the south / east of Langholm.
- 3.2.15 There are currently no formal cycle paths in the immediate vicinity of the site.
- 3.2.16 The site is located within the wider context of Annandale and Eskdale. The local economy of Langholm has undergone a period of change recently with the decline of the textile industry resulting in the historic mills all now being closed. The Edinburgh Woollen Mill which employed around 300 people locally closed their Langholm base and relocated to nearby Carlisle in 2018. The former site of the Edinburgh Woollen Mill of Scotland is located in close proximity of the allocated site.
- 3.2.17 In addition the recent closures of local employers included Reid and Taylor, Border Fine Arts and T Graham & Sons (Builders) Ltd have all contributed to the recent job losses in the settlement. There is therefore a clear, urgent and growing need for affordable housing to be provided to the local area and in particular within the settlement boundary of Langholm.
- 3.2.18 Existing site layout diagram below demonstrates the contextual analysis indicated below.



#### 4. Site Opportunities and Constraints

##### Opportunities:

- There is a unique opportunity to create distinctiveness and a sense of place;
- The development provides an opportunity to provide much needed affordable housing to meet the local need, as defined in the Local Housing Strategy and Housing Needs and Demand Assessment;
- The site location across the River Esk to the south provides the opportunity to form a new gateway entrance to Langholm from the south, prior to crossing of Skipper's Bridge;
- The opportunity for the development to improve to existing road junction with the A7;
- Scope to encourage sustainable transport including walking and cycling by creating new pedestrian and cycle networks. There are strategic public transport routes running along the A7 that passes the site frontage close proximity to the site;
- The development provides the opportunity to deliver a network of safe and attractive links within and through the new development and adjacent areas. This includes a new foot bridge to connect the site with Langholm and vice versa;
- The development provides the opportunity to reduce the traffic speed from Skipper's Bridge and thereafter leading up to the existing settlement gateway which will provide a safer pedestrian route along the existing footpath on the A7;
- The site lies close to existing local employment areas and within reasonable distances of existing amenities;



- The development provides the opportunity to address the publicly usable open space accessibility gap to the south / east of Langholm by providing open space provision which will ensure all households located in Langholm are within a 5-minute walk of a publicly usable space of at least 0.2 hectares;
- The development presents opportunities to enhance the green space network and to link the site with Langholm and the wider countryside. This includes links to the ancient woodland to the north;
- The existing landscape features including river, hedgerows and trees provide an opportunity to incorporate mature planting within the overall open space and develop a landscape strategy that reflects local character and need;
- The development location provides opportunities to enhance the wildlife corridor and habitat connectivity;
- Scope to preserve and integrate the existing Murtholm farmhouse and steadings into the new development;
- Scope to form a coordinated approach to servicing, phasing and delivering the entire site.

**Constraints:**

There are **significant constraints** to the site which impact on Masterplan proposals these include:

- The only large site allocated in the Local Development Plan for housing within the settlement boundary of Langholm;
- Large greenfield site detached from Langholm and existing services infrastructure by the River Esk;
- The site is vulnerable to flooding from the River Esk which significantly reduces the extent of developable land and therefore overall number of units achievable. The extent of flooding is larger than indicated on the area identified for the allocated site in the LDP2 Inset Map, to and results in the separation of the developable northern and southern sections of the site. In addition, compensatory storage will have to be provided for any loss of flood storage volume;
- Existing flood risk to the site also restricts the location of the proposed extra care accommodation on the site;
- Limited road access options due to isolated nature of the site to existing road infrastructure due to the River Esk being located directly to the North and the ancient woodland being located directly to the West. The only opportunity to form road access point to the site is to the southern section of the site adjacent to A7;
- Requirement for a minimum of two points of access to the site to be formed along a very limited and restricted site frontage to the A7;
- Limited scope to alter the existing road arrangement to the A7 due to land being out-with the control of the applicant;
- Close proximity of Category A Listed Skipper's Bridge to the south of the site bounding the A7;
- The long and narrow shape of the site will require an extensive length of new internal road network in order to service the northern developable section of the site;
- Gas infrastructure serving Langholm is located on the north side of the River Esk and is not viable to form a connection to the allocated site;



- Langholm Waste Water Treatment Works is on the opposite side of the River Esk and a new Waste Water Pumping Station will be required to pump across the river;
- Existing electricity overhead power lines cross the site at several locations and will require diversions;
- Existing water main runs through the south of the site and will require diversion;
- Development costs associated with all infrastructure requirements to service the site including the requirement for service connections to be taken below the River Esk and electrical substations to the site; and
- No opportunity for service connections across the River Esk to be incorporated into the foot bridge design. Public utilities providers and Dumfries and Galloway Council will not permit adopted services within the footbridge. Scottish Water will only permit services to be provided below the River Esk with directional drilling.
- Existing industrial/commercial land use and Langholm Waste Water Treatment Works along the north bank of the River Esk acting as a barrier to wider connections leading towards Langholm town centre;
- The presence of a historic foot and mouth pyre being recorded on the site;
- The site being located in a radon affected area;
- The site being within Langholm Hills Regional Scenic Area (RSA);
- Requirement for a nominal 15m stand-off distance is maintained clear within the site between the ancient woodland running along the western/northern boundaries and any proposed development;
- The site being potential including badgers, otters, bats, red squirrels and birds;
- Steeply sloping terrain to the north west and south west corners of the site;
- Constraints significantly restrict the total number of units that can be accommodated which is less than the 200 No. units allocated in LDP2

## **5. Relevant Policies and Guidance**

### **5.1 National Policy and Guidance**

5.1.1 In preparing the Masterplan there has been regard for the following national policy and guidance:

- Scottish Planning Policy;
- National Planning Framework;
- Designing Streets: A Policy Statement for Scotland;
- Creating Places.
- Planning Advice Notes (PANs);
  - PAN 61 Planning and Sustainable Urban Drainage Systems,
  - PAN 65 Planning and Open Space,
  - PAN 67 Housing Quality,
  - PAN 77 Designing Safer Places,
  - PAN 78 Inclusive Design,
  - PAN 79 Water and Drainage,
  - PAN 83 Masterplanning.



## 5.2 Local Policy and Guidance

- 5.2.1 The site is an allocated housing site ref: LHM.H4 – Murtholm Farm within the Dumfries & Galloway Council Local Development Plan 2 (LDP2), adopted in October 2019. The entire site is located within the settlement boundary of Langholm.
- 5.2.2 The site has been allocated for residential use up to 200 No. units allocated up to 2029 in the LDP2. The principle of housing development to the allocated site therefore has been confirmed by Dumfries & Galloway Council as acceptable.
- 5.2.3 LDP2 Site guidance requires a Masterplan to be submitted as part of any application for Planning Permission. This supporting information has been developed to demonstrate a clear understanding of the site context and constraints with an initial Masterplan developed in response to these challenges and opportunities. Extract on inset map and site guidance from LDP2 are indicated on the next pages.

### LHM.H4 Murtholm Farm (200 units allocated up to 2029)

A Masterplan is required to be submitted as part of any planning application and agreed by the Council outlining the phasing of the entire site. A Transport Assessment will also be required. The first phase of the development must include a foot bridge to accommodate easy access for pedestrians and cyclists to the town centre. Road junction improvements with the site and the A7 are also required. A minimum of two points of access would be required.

Site has benefit of Flood Risk Assessment which may require to be reviewed and mitigation measures require to be implemented. A Water Impact Assessment and Drainage Impact Assessment are required to establish what impact the development would have on existing networks.

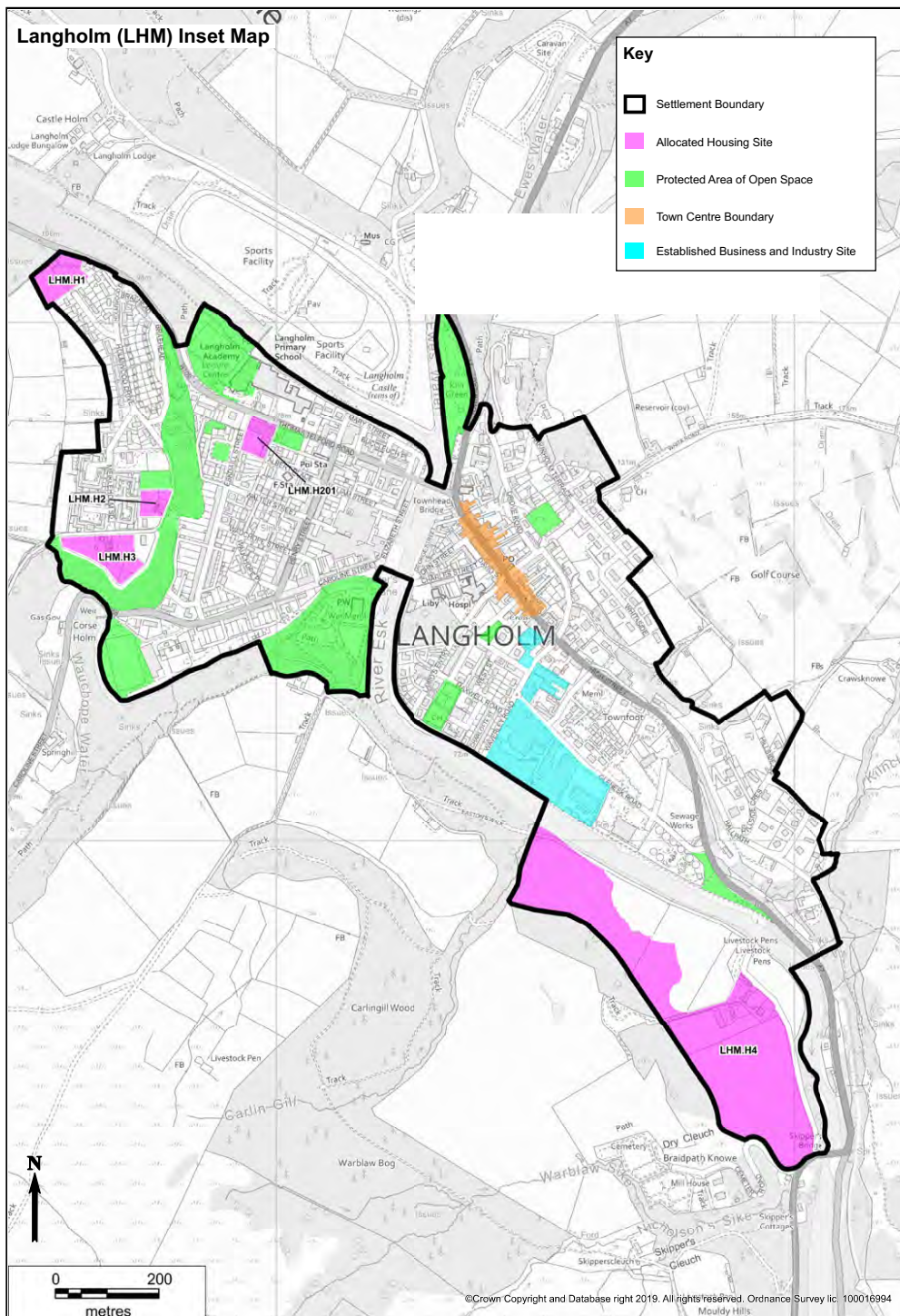
The trees and hedgerow boundaries should be retained subject to pedestrian/cycle/vehicular access points. Pedestrian links should be developed to the core path network. Potential impact on the adjacent ancient woodland will require to be assessed along with any mitigation. Development should take account of the setting of Skippers Bridge, a listed structure. An archaeological evaluation will be required of the prehistoric burial mound to the north west of the site at Carlingill Wood.

- 5.2.4 The site is the largest housing site allocated in the LDP2 for Langholm. The LDP2 has designated a further three housing sites in Langholm (LHM.H1 Holmwood Crescent (5 units), LHM.H2 Meikleholm Cottage (5 units), LHM.H3 South of Meikleholm (5 units) and LHM.H201 Former Primary School (10 units). These sites are all located in the north west of Langholm and are small in comparison to LHM.H4, allocating only 25 units in total. It is therefore acknowledged in the LDP2 the LHM.H4 - Murtholm Farm site represents the main focus of growth for the settlement. All of the housing allocation was included in LDP1 with the exception of LHM.201 which is a new allocation for LDP2.





*Dumfries and Galloway Council Local Development Plan 2*

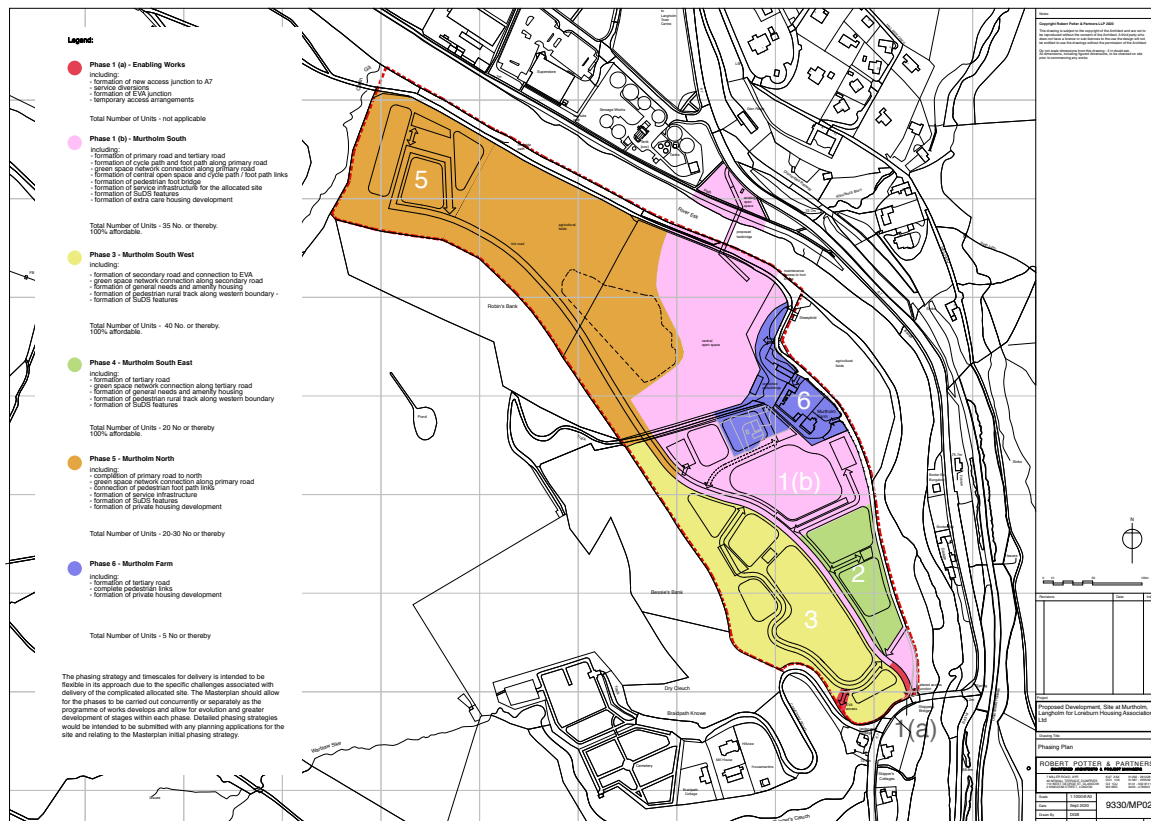


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Extract of LDP2 – Inset Map of Langholm



- 5.2.5 Three of the sites allocated for housing development in the LDP2 were included in the previous Local Plan; the only new allocation is the site at Holmwood Crescent. Local road network constraints limit the number of units that can be developed on LHM.H1, H2 and H3 to a maximum of 5 No. units.
- 5.2.6 Development proposals will be assessed against the current Local Development Plan and associated Supplementary Guidance.
- 5.2.7 In recognition that the site will be developed in a series of phases over the next 10-20 years, or possibly longer, and to ensure that future development within the Masterplan area complies with the policies of future Local Development Plans, which supersede the above, it is proposed to review the content of this Masterplan in 5 years from the date of its approval or on adoption of a new Local Development Plan, whichever is soonest. Phasing plan is indicated below.



- 5.2.8 The key policy documents relevant to the enquiry proposal have been considered when preparing the initial Masterplan:

**Dumfries & Galloway Local Development Plan (LDP2) (October 2019)**

- OP1 - Development Considerations
- OP2 - Design Quality and Placemaking
- OP3 - Developer Contributions
- H1 - Housing Land
- H5 - Affordable Housing
- HE1 - Listed Building
- HE3 - Archaeology
- NE8 - Trees and Development
- CF3 - Open Space
- CF4 - Access Routes
- IN6 - Waste Management Requirements for New Development
- IN7 - Flooding and Development
- IN8 - Surface Water Drainage and Sustainable Drainage Systems (SuDS)



- IN9 - Waste Water Drainage
- T2 - Location of Development / Accessibility

5.2.9 The key supplementary guidance relevant to the enquiry proposal have been considered when preparing the initial Masterplan

#### **Dumfries & Galloway Statutory Supplementary Guidance (SG)**

- Design Quality and Placemaking;
- Developer Contributions;
- Affordable Housing;
- Housing in the Countryside
- Historic Built Environment;
- Trees and Development;
- Open Space Strategy;
- Open Space Strategy Annex 1: Open Space Audit;
- Open Space and New Development;
- Flooding and Development;
- Surface Water and Sustainable Urban Drainage Systems.

#### **Dumfries & Galloway Non-Statutory Supplementary Guidance**

- Masterplans: A guide for Developers;
- Local Biodiversity Action Plan.

5.2.10 Dumfries & Galloway Council's Supplementary Guidance Design Quality and Placemaking dated February 2020 should be referred to in the development of the proposals. In turn this should also take cognisance of Designing Streets.

5.2.11 Specific reference should be made to Design Quality and Placemaking. The relevant design principles of this Supplementary Guidance will be demonstrated through the Design and Access Statements provided for future applications for Planning Permission. These will be specific to the applications however relate to the entirety of the Masterplan concept and phasing strategy. Such Design and Access Statements have to take cognisance of the developed designs beyond this Masterplan to be relevant to the Planning applications.

5.2.12 Designing Streets is adopted by Dumfries & Galloway Council and should be utilised in the development of the site in adherence of policies for Designing Streets particularly relating to street design and must consider place before movement and development and the surrounding access could have ease of movement through the site for pedestrians, cycle access, public transport and vehicle movement.

5.2.13 The Scottish Government Policy on alteration or change in the historic environment are set out in SPP. Historic Environment Scotland (HES) provides detail on how the policies of SPP should be applied. HES guidance documents relevant to the enquiry proposal have been considered when preparing the initial Masterplan:

- Managing Change in the Historic Environment

HES advice provides best practice for change considering key issues that may arise, how best to deal with such issues and the reasoning for the advice. \



## **6 Technical Reports**

### **6.1 Transportation**

6.1.1 A Transport Assessment has been undertaken by ECS Transport Planning Ltd. The Transport Assessment Report was concluded in June 2020. The Transport Assessment was carried out for the development of 150 residential dwellings plus community allotments and orchards. The conclusions of the Transport Assessment were:

- Pedestrian and cycle path links are heavily integrated within the Masterplan which create safe and pleasant routes throughout the site.
- The proposed footbridge across the River Esk connects with existing paths alongside both sides of the River bringing wider community benefit. The footbridge provides a direct connection between the development and an existing Supermarket.
- The Development will link to the existing A7 footpath. This existing footpath is of a good standard apart from the section across Skipper's Bridge (A7) where it is particularly narrow. The development and new footbridge will provide a safe route for pedestrians and cyclists to Langholm Cemetery.
- The street designs provide good connectivity for all modes of movement and all groups of street users.
- Vehicular site access will be provided to the site through the upgrade of the existing access off the A7 trunk road at skipper's Bridge. The new access will be under signalised control and has been designed to accommodate a bus route into the site. A Planning Application and Road Construction Consent Application have been lodged with Dumfries and Galloway Council for the junction upgrade works.
- An Emergency Vehicle Access will be provided off Cemetery Road. Locating this EVA at Cemetery Road will provide sufficient separation from the Skipper's Bridge site access.
- A People trip Assessment was undertaken for sustainable modes of transport. The assessment indicated that the development will create a demand for walking, cycling and public transport.
- Public Transport facilities within the recommended maximum walking distance within PAN75 provide the site with sustainable travel options to key employment centres.
- A robust analysis of the road networks indicates that the proposed site access can accommodate traffic associated with the development site.
- A review of the increase in vehicle trips associated with the full development and detailed capacity analysis of the surrounding road network determined that the road network will continue to operate satisfactorily. The only road improvements required are those at the site access junction with the A7.
- The Transport Assessment demonstrates that the proposed site satisfies all policy requirements in transportation terms.

#### **6.1.2 A7 Trunk Road Junction – DMRB Departure Application**

An application for a Departure from DMRB Standards for the new site access has been agreed with Transport Scotland. The only Departure from Standards required for the new site access relates to the inter-visibility of junctions. This is an existing issue and not an issue created by the proposals, nor is it made worse by the proposals. Inter-visibility of the 4 arms of the Skipper's Bridge junction is not possible due to the existing bridge parapets, vegetation, mature planting and third-party land.



An assessment of the visibility available from the proposed stop line within the site has been undertaken and it would be possible to see vehicles crossing Skipper's Bridge from the stop line position within the site. Transport Scotland have accepted this Departure from Standard. Speeds of vehicles crossing the bridge will be low due to the traffic signals and road geometry leading to the bridge from the north.

The Departure from Standards was identified through the Agreement in Principle process with Transport Scotland which has been concluded and agreed.

#### 6.1.3 **New Site Access off A7 – Transport Scotland Planning Consultation Response**

A Planning Application for the site access upgrade works has been submitted to Dumfries and Galloway Council. Transport Scotland have provided their Consultation Response to the Planning Application. Transport Scotland advise that the following conditions are attached to any permission the council may give:

- Prior to construction of the development hereby permitted, the proposed upgrade to the A7 / B6318 / Murtholm Farm Access signalised system at Skippers Bridge, to include a realigned Murtholm Farm Access, generally as illustrated on the ECS Transport Planning Ltd Drawing No. 18091\_008, shall be implemented to the satisfaction of the Planning Authority, after consultation with Transport Scotland.
- Prior to the occupation of any of the consented residential development hereby permitted, the works for an overbridge, suitable for pedestrians and cyclists across the River Esk linking Langholm to the Murtholm Farm site, shall be constructed in accordance with a design to be agreed with the Planning Authority, following consultation with Transport Scotland. The location of the proposed overbridge to be generally as indicated on the Robert Potter & Partners Drawing No. 9330/SK02 Rev. B titled "Masterplan" (dated 3rd August 2020).
- Prior to commencement of the development, a Construction Traffic Management Plan (CTMP) shall be submitted to, and approved by, the Planning Authority. Thereafter, all construction traffic associated with the development shall conform to the requirements of the agreed Plan.

Conditions 1 and 2 are as proposed within the Masterplan and the Developer recognises the significance and importance of a robust detailed Construction Traffic Management Plan which will be developed and agreed between all stakeholders.

- 6.1.4 Transport Assessment concludes it is not feasible to form a bus stop for strategic bus service on the A7 however demonstrates the development site can be accessed safely from the A7 with EVA from Cemetery Lane and can be accessed by sustainable modes of travel. Outline detailed designs for the upgraded site access have been developed and agreed in principle with Transport Scotland. Input and view of Transport Scotland in relation to the A7 are fully concluded.
- 6.1.5 It would be proposed that the local Langholm bus service is extended to serve the development to provide opportunity for the residents of the development to access Langholm for connecting services and also for the residents of Langholm to access the proposed Extra Care Housing. A suitable bus loop will be incorporated into the road design of the development. Dumfries & Galloway Roads Department have requested any bus routes within the development to be a minimum of 6m wide with 2m service strips to either side. A number of bus stops will be provided on the proposed bus route within the site.
- 6.1.6 A new foot bridge for pedestrian/cyclists will be constructed to the northern end of the site to link to the site to Langholm. The footbridge will be aligned with existing core path routes. The foot bridge will be illuminated by street lighting, so it is suitable and safe for pedestrians at night and will be designed to be accessible by all utilising ramped approaches.
- 6.1.7 The Masterplan has been developed entirely in accordance with the findings of the Transport Assessment. Detailed design proposals will similarly be developed based on the completed Transport Assessment and these reports will also be submitted with future planning applications for the site.



6.1.8 It should also be emphasised as part of assessment for inclusion in LDP2 confirms traffic levels and trip generation proposed from the site are acceptable for a total of 200 No. residential units.

## 6.2 Hydrology

6.2.1 The River Esk is located immediately to the north of the allocated site. Carlin Gill water course runs through the woodlands to the north west of the allocated site.

6.2.2 There is a known history of flooding in Langholm. Dumfries & Galloway Council appointed RPS to undertake Flood Modelling of Langholm. The study area covered by this modelling included the site.

6.2.3 The site has been assessed to be at a risk of river flooding and of surface water (pluvial) flooding. Flood risk and benefit of FRA is identified in LDP2 Site Guidance however this is not accurately reflected in the LDP2 site allocation based on present information from the FRA.

6.2.4 The initial FRA was carried out by RPS with an update in 2017. The report included flood mapping for both the 1:200 and 1:1000 year events, however the mapping did not cover the entire allocated site. The mapping also does not include an allowance for freeboard, which may be an additional 600mm above the flood levels already indicated.

6.2.5 Dumfries & Galloway Council Flood Risk Management Team were contacted to request permission to utilise the existing flood study information and the model built by RPS. RPS were appointed to model the extent of flooding on the development site in further detail. This included the commissioning of a topographical survey of the site to provide an accurate representation of the land within the RPS flood model.

6.2.6 RPS carried out the detailed flood modelling for the site and have produced a number of plans indicating the extents of flooding in a number of events. The modelling also specifically targeted the impact of a new footbridge across the River Esk and also a new road proposed for accessing the northern end of the development.

6.2.7 The findings of the updated modelling and report show a greater risk of flooding, with flooding predicted to affect a wider area of the site than the present LDP2 allocation, including creating islands of developable ground. The updated 1:200 and 1 in 1000 year flood mapping shows that the north west of the site is effectively cut off from the south of the site by the increased flood plain. A road would require to be constructed through the floodplain to provide connectivity to the northwest area of the site. The design levels of this proposed road would be related to the vulnerability of the use of the northwest of the site, where provision of general needs and amenity housing would be based on the 1:200 year event and provision of extra care housing would be based on the 1:1000 year event.

6.2.8 The updated flood mapping by RPS shows the southern part of the site outwith the 1:1000 year flooding extents while the majority of the north part of the site is within the 1:1000 year flood plain.

6.2.9 As well as the updated flood mapping, RPS have also undertaken hydraulic modelling to consider the effects of the proposed spine road through the north part of the site, and the proposed pedestrian bridge, on flooding. Mitigation measures have been considered by RPS to ensure that both of these aspects can be achieved without increased risk of flooding on or off the site.

6.2.10 The Masterplan has been developed entirely in accordance with these findings and the completed FRA. This is included as part of the Masterplan. Detailed design proposals will similarly be developed based on the completed FRA and these reports will also be submitted with future planning applications for the site.



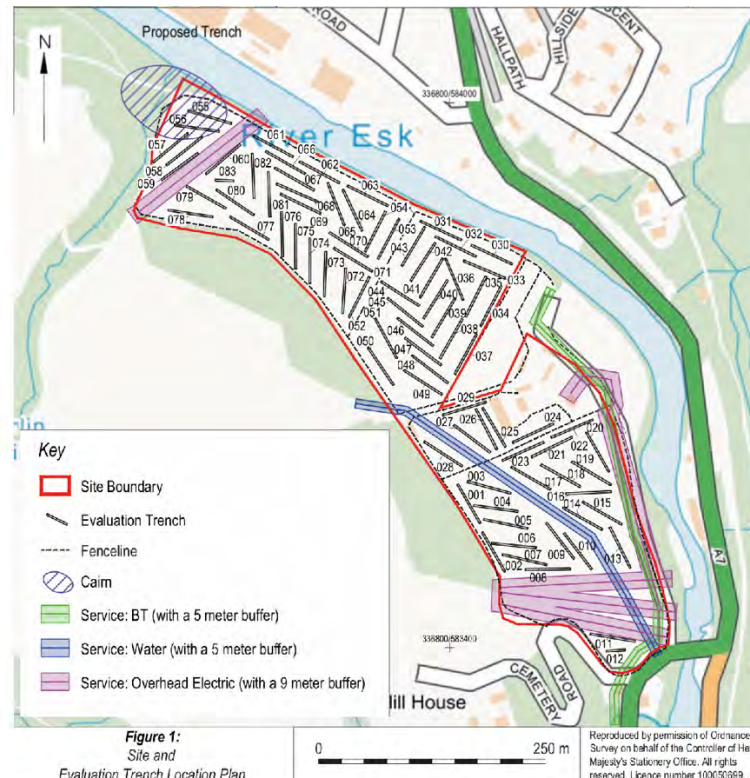


### **6.3 Ground Conditions**

- 6.3.1 Site Investigation has been carried out by Geo-Environmental in January 2019 to the allocated site to assess ground conditions and contamination. The fieldworks have been completed on site including a number of boreholes and trial pits to determine the underlying ground conditions and their suitability for development. The results indicated an average topsoil depth of 300mm across the site overlying sands and gravels. Bands of silt were encountered in some trial locations to varying depths (maximum depth 1.2m), as a result widened foundations may be required for proposed buildings on the site. Generally, the ground conditions encountered during the site investigation are satisfactory for development.
- 6.3.2 Further Site Investigation to north of river was carried out by Ian Farmer Associates in October 2019. The north bank primarily consists of made ground and soft silt to around 5m depth, therefore piled foundations are likely to be required for the proposed foot bridge structure. There was no contamination identified in the made ground. The ground conditions on the south west bank consisted of dense gravelly sand down to bedrock at varying depth of 3m to 6m. The wastewater rising main from the pumping station on site requires to be directionally drilled below the River Esk and will therefore encounter bedrock at a shallow depth which is not considered to be an issue.
- 6.3.3 Due to the lack of historical development on the site, there, contaminative activities resulting from historical use are minimal. The site has no made ground and potential sources of contamination arising from the site are therefore all low.
- 6.3.4 The site is currently in use as agricultural land and is classed as a greenfield site. The low lying area to the north of Murtholm Farm Steading is believed to have been used in part as a location for a Burning Pyre during the Foot and Mouth Disease outbreak in 2001. Discussions with Dumfries & Galloway Council Contaminated Land Officer have determined that the Pyre was used to destroy approximately 170 cattle and 1370 sheep on the site. Both SEPA and the Animal and Plant Health Agency (APHA) have been contacted. Neither of these agencies hold records of the exact location of the pyre. SEPA and APHA have confirmed that there are no restrictions to developing or excavating land used for foot and mouth burning pyres. This area is however located in the area forming the central open space for the site as part of the Masterplan.
- 6.3.5 No remanence of the pyre was found during the excavation for the ground investigation. Dumfries & Galloway Council's Contaminated Land Officer has been consulted during the course of the site investigation to locate the pyre. A watching brief will be employed during excavations in the area believed to have previously been used as a foot and mouth pyre and remedial measures implemented if any contamination is encountered.
- 6.3.6 Soakaway tests were carried out during the site investigations and it has been established that the underlying soils have good soakaway potential, it would be intended to utilise this within the SuDS drainage design for the development.
- 6.3.7 Gas and ground water level monitoring have been carried out and completed. Readings confirmed methane and carbon dioxide levels to be below the threshold for protective measures to be required however radon protection measures will be required throughout.
- 6.3.8 The Masterplan takes account of these findings in the development of the design proposals and the Site Investigation reports will be submitted with any planning application for the site and discussed with Dumfries & Galloway Council's Contaminated Land Officer if required.

### **6.4 Archaeology and Heritage**

- 6.4.1 An Archaeological Evaluation of the allocated site was carried out by Guard Archaeology in February 2019. A Written Scheme of Investigation (WSI) has been submitted and agreed with Dumfries & Galloway Council's Archaeology Service (DGCAS). Extract of evaluation trenches is indicated below.



- 6.4.2 There are no statutorily protected buildings within the site. Murtholm farmhouse is not designated however is an attractive traditional farmhouse set within its own defined grounds bound by hedgerows and mature trees. The farmhouse is accessed from the existing track with a gated entrance and short private driveway leading to the south facing elevation. To the north of the farmhouse are two traditional steading buildings set form in a courtyard arrangement.
- 6.4.3 The existing site feature of Murtholm Farm is an opportunity to make a positive contribution to local character and distinctiveness with the new development. The Masterplan therefore intends to preserve and integrate the existing Murtholm farmhouse steading into the new development.
- 6.4.4 Heritage assets known to be located out-with the site boundary include:
- A prehistoric burial mound to the north-west of the site at Carlingill Wood;
  - A large cairn was recorded in 1912 by Hyslop as to be located where the roadway between Stubholm and Murtholm dips into the plantation;
  - Category A Listed building Skipper's bridge (A7 over River Esk) (ref: LB9764) is located south of the southern edge of the site;
  - Category B Listed building Waverly Mills (ref: LB37116) is located directly north of the site across the River Esk. The former railway station and line was formerly located adjacent to this area of the settlement prior to redevelopment;
  - Undesignated Distillery buildings are located directly north of the allocated site across the River Esk;
  - Langholm Cemetery is located directly south of the allocated site located at the top of Cemetery Lane;
  - Langholm Town Centre Conservation Area is in relatively close proximity of the allocated site.



- 6.4.5 In accordance with the recommendations from DGCAS, an archaeological evaluation of the development area will be undertaken to establish the presence, extent and nature of any significant archaeological remains. This will include an 8% archaeological evaluation within the allocated to establish the presence or absence of any archaeological remains, and their character, date and extent if surviving. This archaeological fieldwork was carried out in February 2019.
- 6.4.6 Heritage assets will contribute to the character and uniqueness of place. Whilst relatively isolated within the site the existing heritage assets will provide a key connection to the development of the site, not only to reinforce place making but also to preserve the long-term future of heritage assets. The settings around identified heritage assets such as Skipper's Bridge and Murtholm Farm will require to be carefully considered and integrated into the Masterplan to ensure their setting as integral parts of the new development is both preserved and maintained.
- 6.4.7 The new development will require to be sympathetic of existing heritage assets particularly the site frontage to the south and access improvements to the A7 where adjacent to Category A Listed Skipper's Bridge. The Masterplan development will take account of any archaeological findings and existing heritage assets in the development of the design proposals and these reports will be submitted with any planning application for the site. Historic Environment Scotland has been consulted as part of the development of the Masterplan and no adverse comments have been provided.

## **6.5 Ecology**

- 6.5.1 A Preliminary Ecological Appraisal (PEA) of the allocated site was carried out in December 2018 by Applied Ecology Ltd.
- 6.5.2 The PEA was required in order to determine the likely ecological constraints and opportunities associated with the development of the allocated site. The PEA has also informed the need to establish the potential scope of any detailed ecological surveys which may be required to support any future planning applications.
- 6.5.3 The majority of the allocated site was found to comprise improved grasslands of limited intrinsic ecological value but there were features within and immediately adjacent to the allocated site with higher value, including hedgerows and edges of woodland, the River Esk and woodland to the south-west, where a badger latrine was found.
- 6.5.4 Additional surveys will therefore be needed at the allocated site, including:
- Badger Survey for the site and 50m buffer;
  - Otter Survey for the site and 250m buffer;
  - Preliminary Roost Appraisal of buildings within the site for roosting bats, if they are to be affected by the development;
  - Ground Level Assessment of potential roost features of mature trees within the Site and along the boundary, if they are to be affected by the development;
  - Red Squirrel Survey within the site and 50m buffer;
  - Breeding Bird Visits to focus on the potential raptor nest identified in Robin's Bank.
- 6.5.5 Key recommendations provided by PEA to be considered as part of the Masterplan for the allocated site include:
- A minimum 15m stand-off distance is maintained between the development and the ancient woodlands, and that this buffer zone is carefully designed to avoid other potential sources of impact such as the dumping of garden waste and disturbance caused to flora and fauna through informal access into the woodlands;



- A Recreational Management Plan is produced which will detail how recreational activities arising from the development will be managed so as to prevent the deterioration of the ancient woodlands through disturbance, fly-tipping, soil compaction or erosion, dog waste and littering;
- Biodiversity enhancement measures for birds are considered as part of the landscape strategy including the use of native tree species and new berry-producing hedgerows;
- Provision of integrated bird nest boxes on houses are considered for nesting common swifts and house sparrows.

6.5.6 Detailed design proposals beyond the Masterplan will incorporate the above recommendations and additional survey reports as required by the PEA will be submitted with any planning applications for the site.

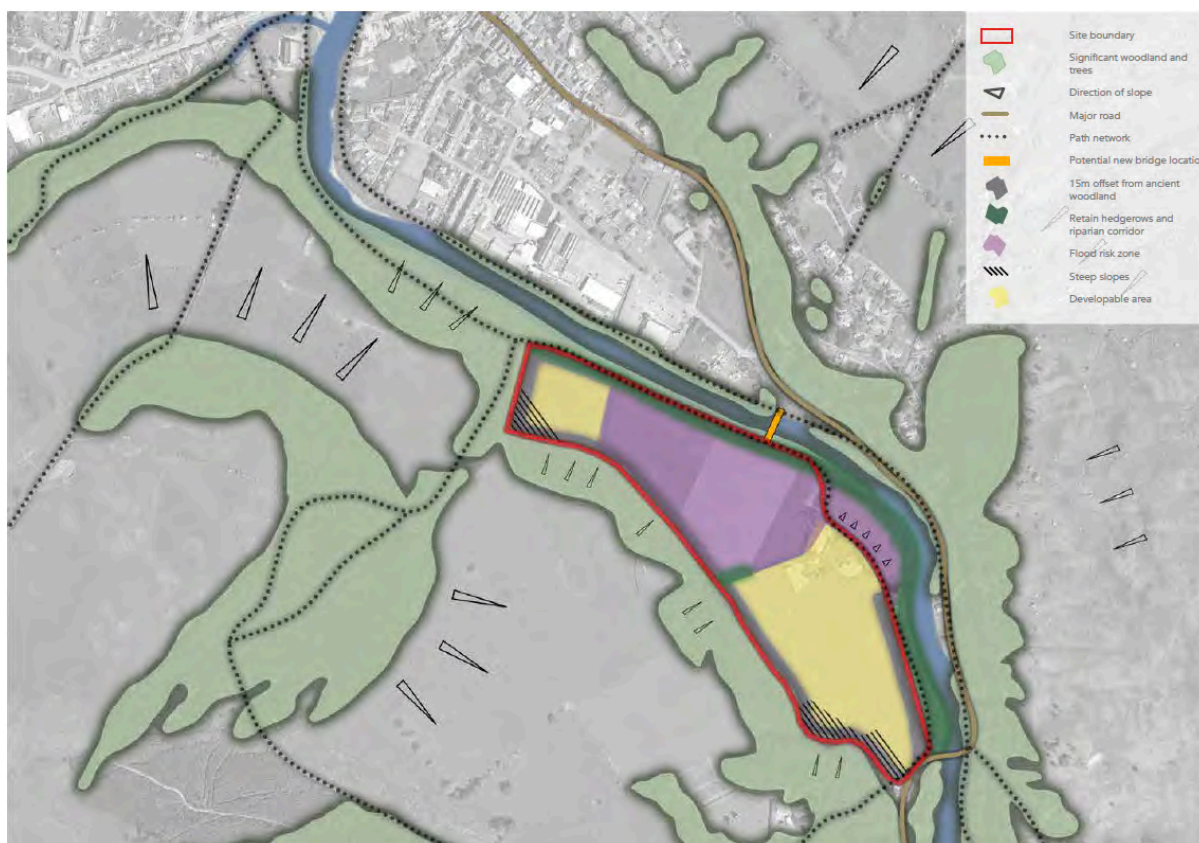
## **7. Development Principles**

### **7.1 Masterplan Principles**

7.1.1 The design principles have been established using the existing landscape capacity, existing development and site topography. The Masterplan seeks to mitigate the anticipated impact of the proposed development on the surrounding landscape while at the same time creating high quality residential amenity and place making. Please refer to drawings in Appendices 2 and 3 indicating the Masterplan and including Land and Visual Appraisal incorporating landscape capacity and character assessment along with impact appraisal and justification and context for the Masterplan. Landscape Appraisal drawing is included below along with images of existing context.







7.1.2 The key Masterplan design principles proposed include:

#### Key Principles

- A unified and coordinated approach between what should be clearly accepted as two distinct existing areas of the allocated site – linked with a central open space leading to the foot bridge;
- Development of a landscape and open space strategy creating a suitable development edge to Langholm and variety of functional open green spaces;
- Creating a well-connected layout which links Langholm with the surrounding core path network ensuring the development is accessible to modes of transport other than the car;
- Development of a wide range of high quality and sustainable affordable house designs – including an extra care housing development;
- Creating a hierarchy of open space providing a range of play and recreation facilities whilst also retaining an area for agricultural grazing;
- Connection of the key public open spaces either side of the River Esk;
- Protection and enhancement of ecology to surrounding countryside, woodland and River Esk;
- Developing a street structure following the design guidance of Designing Streets providing a permeable street structure through the use of materials, street widths and use of planting, ensuring pedestrians have priority over vehicles;
- Protection of open space buffer to the south and north boundaries – landscaped to a high standard providing shelter and screening to the site;

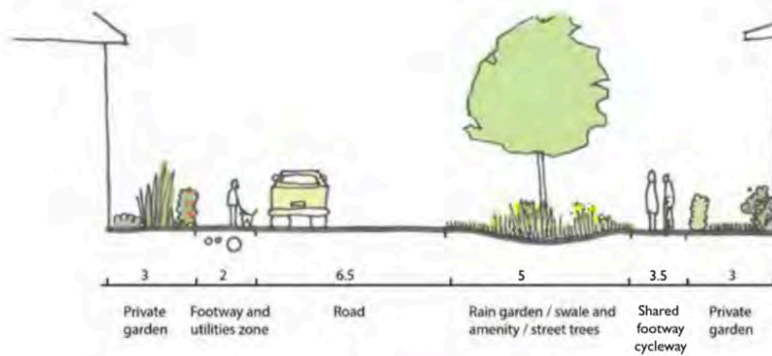


- o Protection of ancient woodlands to the north and west boundaries;
- o Retention and incorporation of Murtholm Farm as part of the development proposals; and
- o Creation of a safe environment through ensuring public open space and walkways are overlooked.

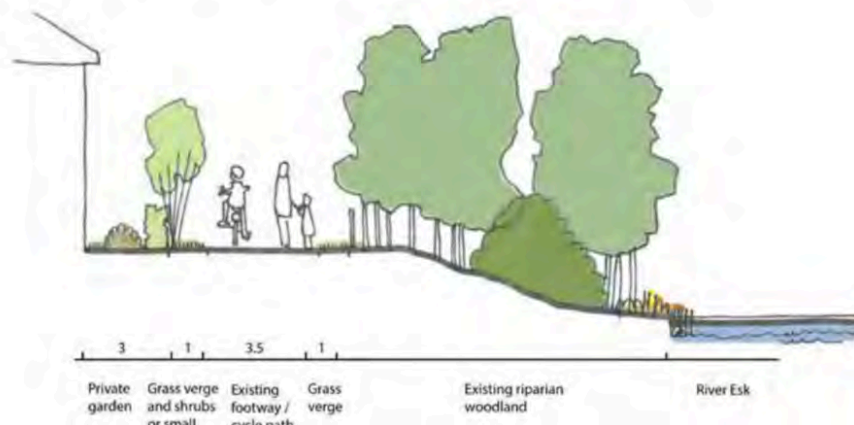
Key Masterplan principles relating to landscape strategy and central open space are included below.



Protection of open space and street structure are demonstrated by site sections below.



**Typical Sections 1:100**  
 Murtholm, Langholm  
 Primary Street – A

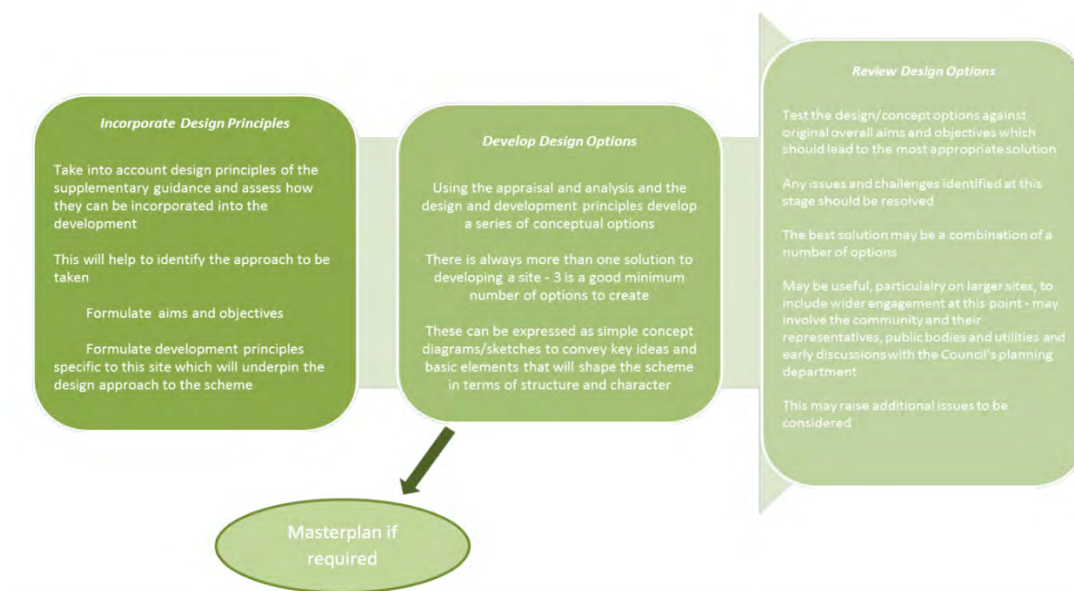


**Typical Sections 1:100**  
 Murtholm, Langholm  
 Riverside Path – B





7.1.3 The principles set out for the design development options and development of the masterplan are as the procedure and parameters as set out in Supplementary Guidance for Design Quality of New Development and in accordance with the following:

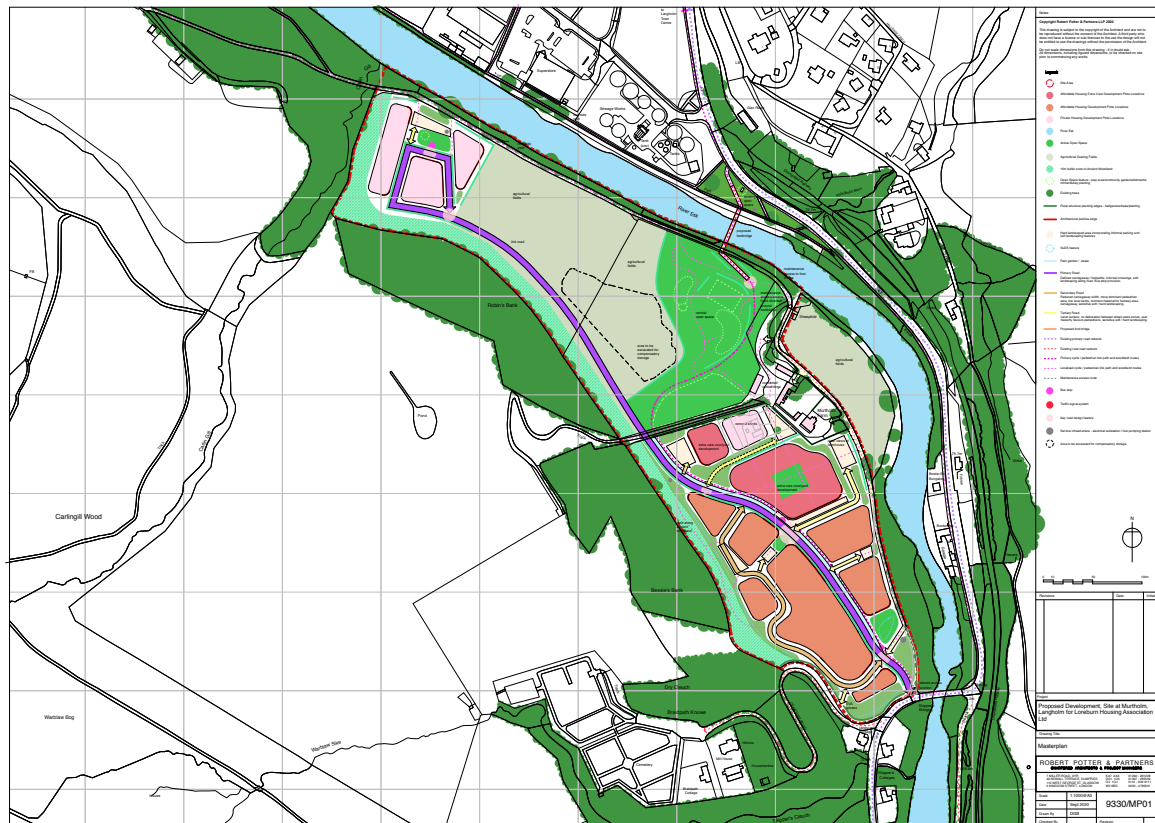


7.1.4 This development process will then develop to the detailed design solutions defined in the relevant planning applications Design and Access Statements and setting out the links between the site appraisal and the design of the proposals.

7.1.5 The key structuring moves in looking to create the Masterplan in accordance with the design principles are detailed in this section. As a large detached allocated site which doesn't integrate into the existing settlement area there is an opportunity to integrate the new development with the existing settlement by implementing these key structuring moves detailed.

## 7.2 Land Use

7.2.1 The Masterplan aims to provide a considered overall plan for the site, further developing a concept layout developed in conjunction with Dumfries & Galloway Council and the community of Langholm. The intention is to provide key design principles and the basic site layout upon which detailed planning applications can be based. Please refer to drawings in Appendices 2 and 3 indicating the Masterplan. Overall Masterplan 9330/MP01 is indicated over.

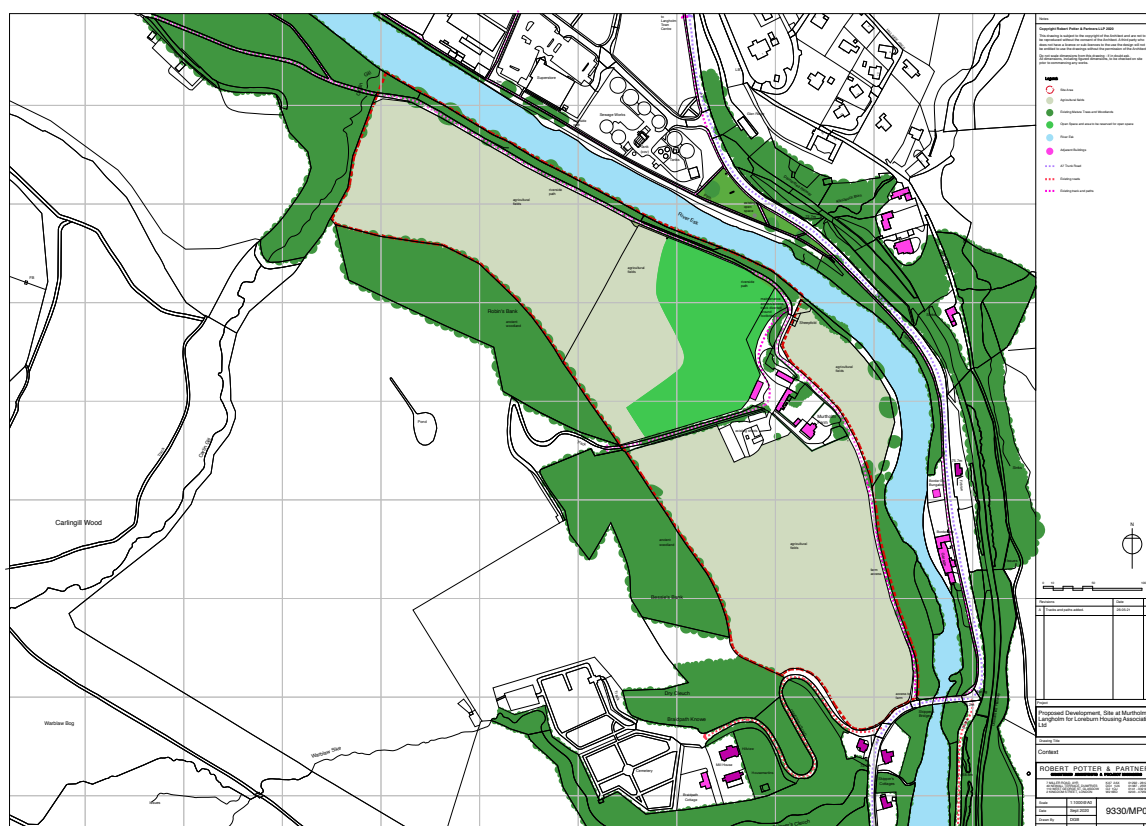


- 7.2.2 The overarching concept is for the development of a phased residential development within a connected hierarchy of streets with the associated open space, access and sustainable urban drainage system.
- 7.2.3 The development will be residential with the majority being affordable housing comprising a mixed range of property and types and sizes specifically developed to suit the needs and demands of the housing market area and affordable housing needs. This allocation is provided to the southern section of the site along with the intention to include an increased number of dedicated extra care, wheelchair houses and bungalows. The affordable units would be available for rent.
- 7.2.4 The aim of the development is to support and help sustain existing services, facilities and assets in the immediate locality and wider settlement. The site will be residential incorporating extra care supported housing proposed as part of the affordable housing mix and indeed the wider community need.
- 7.2.5 The proposals include for an extra care housing development. This new facility will be an important addition for the community and be at the forefront of promoting healthy lifestyles and providing health service for the town and surrounding area.
- 7.2.6 The extra care units are intended to be clustered around courtyard(s) or landscaped areas. The supported accommodation will have centrally located communal facilities serving the extra care units. These buildings are all proposed to be single-storey to maximise accessibility for all users. The Masterplan proposes for the extra care housing to be located towards the north of the southern section of the site adjacent to the northern boundary to promote close links with the settlement, central open space (including community growing spaces), proposed foot bridge and have positive outlooks over the River Esk and nearby open spaces. The extra care housing in this location will ensure integration within the development whilst at the same time offering some protection/screening from the A7 to the south.



- 7.2.7 The following key adjacencies have been considered in developing the Masterplan:
- Proximity to existing residential area together with its use and tenure across the River Esk to the north;
  - Proximity to community facilities including the nearby superstore, including Langholm Bowling Club, Townfoot Sports Centre, Langholm Golf Course across River Esk to the north and beyond to the settlement of Langholm;
  - Proximity to open space to the settlement entrance to the north, River Esk to the north east and wider countryside to the south;
  - Proximity to ancient woodland to the southern boundary; and
  - Proximity to transport networks particularly A7.

This is demonstrated in the context drawing indicated below.

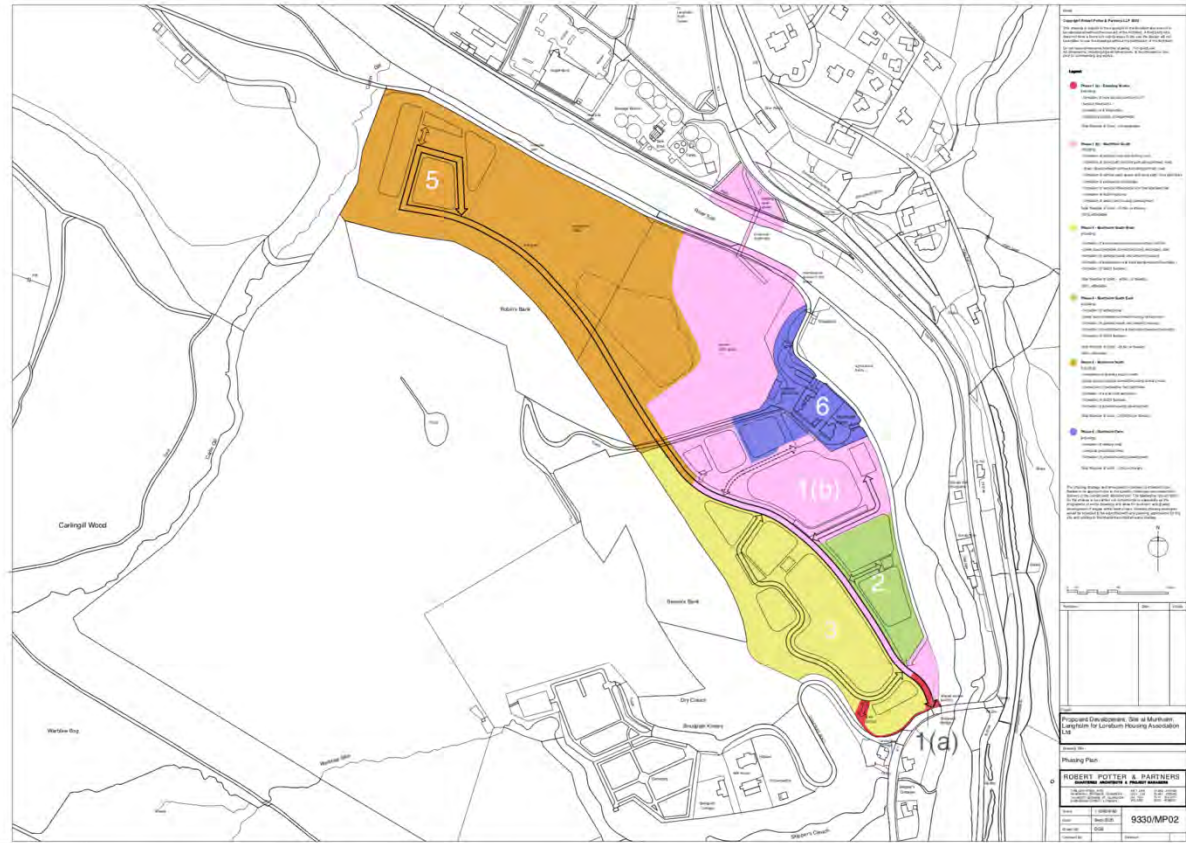


- 7.2.8 Affordable housing demand within the area is high and covers a broad range of property types and requirements for affordable housing. This development is crucial in meeting the needs of local population for affordable housing. The site is allocated in LDP2 for up to 200 No. units.
- 7.2.9 Considering a development to this site entirely and taking into account the technical reports provided for the site in relation to Flood Risk Assessment and Transportation Assessment particularly, but also in relation to assessment of open space, protection of ancient woodland and service infrastructure requirements, a development in the region of 130 No. residential units is considered achievable. To achieve this number of units requires the development to be separated into two developable sections a larger area to the south and a smaller area to the north with a central open space between. This is indicated in Masterplan drawing 9330/MP01 included above.
- 7.2.10 Development to this number will be significant in achieving targets for affordable housing in the area and be of particular benefit in meeting the local housing demand.





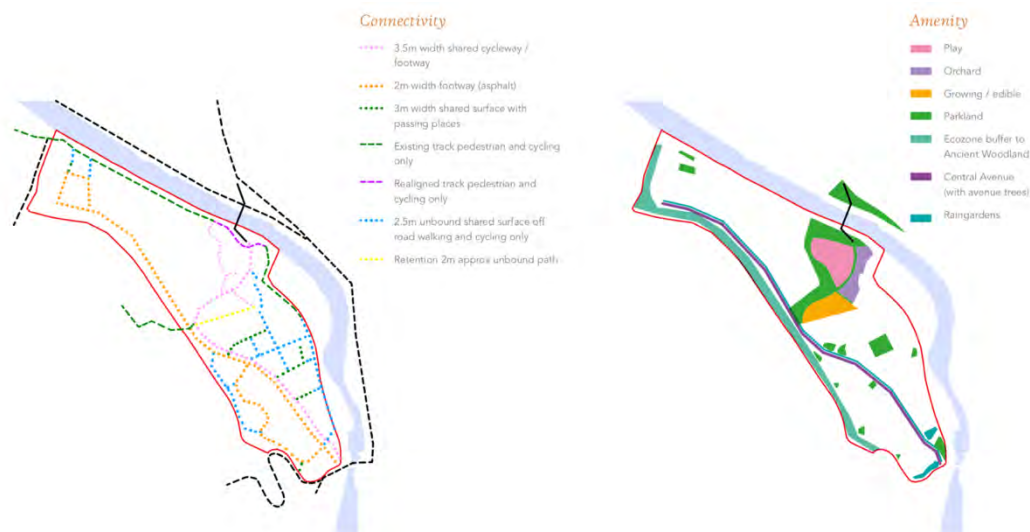
7.2.11 The Masterplan phasing strategy as included in the Appendices clearly sets out concept is for the development of a phased residential development in relation to the infrastructure requirements. Phasing drawing is indicated below.



### 7.3 Development Form

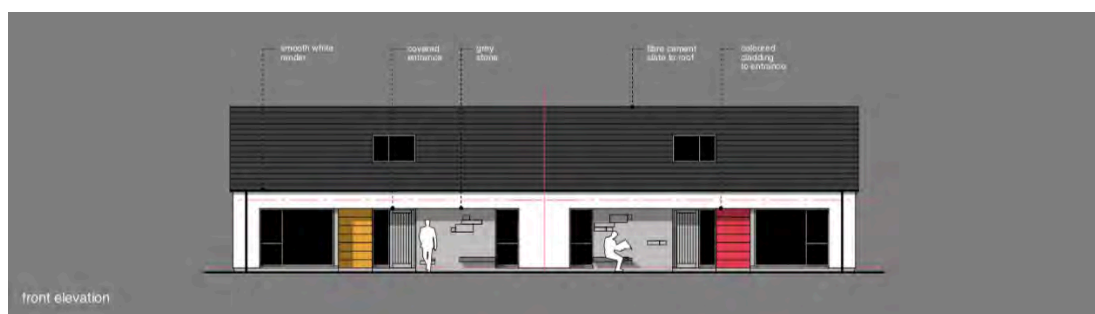
7.3.1 The aim is to create a pleasant and welcoming residential environment. Working with existing ground levels and landscape features will support the creation of a distinctive and varied development with a positive sense of place. The development will take the form of a permeable network of well-connected streets, paths, lanes, courtyards, squares, foot bridge and open spaces leading to the settlement of Langholm, River Esk and wider countryside. This arrangement is demonstrated in the drawings incorporated in Appendices 2 and 3 and as drawings and examples indicated below to demonstrate the connectivity and integration of amenity within the overall development.





## 7.4 Housing Mix and House Types

- 7.4.1 In order to achieve a well-balanced, mixed and sustainable community and cater for the increasing number and variety of households the development will offer a range of house types, sizes and densities together with an appropriate mix of tenures specific to the local need throughout the Masterplan area.
- 7.4.2 The development will include a mixture of single and two-storey, detached, semi-detached and terraced houses. The house types are carefully considered to ensure they are adaptable to the changing needs of their occupants. All housing to be located on the southern section of the site will be 100% affordable and funded by Scottish Government. The standards the guidance advocates are intended to ensure that housing is accessible, fit for its purpose, adaptable for different needs and over its lifetime represents good value for money. As such all housing will require to be designed in accordance with the requirements of Housing for Varying Needs for general needs, amenity and wheelchair uses.
- 7.4.3 The mix of high-quality housing will meet the requirements of young couples and first time buyers, as well as families and the elderly who will all have specific needs in terms of accessibility and affordability. Evidence suggests that over the next decade the number of family households will decrease while the over 75 age group households will increase. It has been identified that much of the existing housing stock is of an unsuitable size for the decreasing household sizes.
- 7.4.4 The new build development will provide a contemporary and honest design approach to maintain and enhance the character of the local area and Langholm. The choice of materials will be appropriate to the site context and local characteristics. The number of materials and colours to be used in the new development will be limited to a small palette range, both within an elevation, within the wider street and to the development as a whole. Example of elevational treatment for a typical single storey house reflecting the local context is provided below.





- 7.4.5 The designs for the site would meet the key aspirations and contribute to improving the locality by:
- Relating well to the scale, density, massing, character, appearance and use of materials of the existing building / surrounding area ensuring the design is sympathetic to local built forms as well as respecting important physical, historic and landscape features of the site and its locality;
  - Considering form and function, efficiency and effectiveness and their impact on wellbeing. This is integral to contribute a positive sense of place and local distinctiveness, a key aim for developments which include accommodation for elderly tenants;
  - Being designed with people, not vehicles, as the primary focus, incorporating the principles in 'Designing Streets' and increase connectivity to nearby places, paths, streets and open spaces;
  - Ensuring any open / communal spaces are high quality, appropriate and integrated to the development providing linkages to the wider green network;
  - Being designed to create safe, accessible, inclusive places for all people that are well integrated into existing building / surrounding area;
  - Being designed to allow tenants the security and privacy of their own self-contained home; the care and support tailored to their needs; and access to facilities enabling them to enjoy a higher quality of life;
  - Being designed to adapt to changing circumstances / demands offering real benefits in terms of the use of resources and the physical / social stability of the locality, encouraging sustainable communities;
  - Integrating sustainable energy measures to enhance the new development adding social, architectural value;
  - Being designed to a high standard with components, materials, detailing all specified to be practical, durable, affordable and attractive;
  - Being a sympathetic design that compliments and enhances the existing traditional building of Murtholm Farm and setting including the proximity of Category A Listed Skipper's Bridge.
- 7.4.6 A flexible approach is intended to ensure variation of design and variation throughout the development. This will create greater interest and is considered of greater importance than a strict regimented use of material choices throughout a development of this size and nature.
- 7.4.7 The materials selected in the new build development will be robust, durable and low maintenance, reflective of their context and capable of retaining their appearance over time. The reasoning behind the selection of materials intended will be set out in the Design and Access Statement which will be submitted with any future applications for Planning Permission.
- 7.4.8 Extra Care Housing is a new form of development to be provided in Dumfries and Galloway and this will be one of the first such developments in the region. Examples and additional information on the specific form and design of the Extra Care Housing is included in Appendix 1. Examples of extra care units clustered around courtyard and integrated with landscape features to provide raised bed planting, amenity areas with seating all interconnected with footpaths are provided below.







## **7.5 Density**

- 7.5.1 The LDP2 allocates the site for 200 No. units. Considering the numerous and significant constraints associated with the site including the areas of the allocated site that are undevelopable due to flood risk and buffer zone required along the ancient woodland the number of units that can be accommodates equate to approximately 130 No. units,
- 7.5.2 In order to achieve the housing allocation of 130 No. units the site will need to be developed at an average density up to 30 units per hectare. This density will vary throughout the various phases of the development to reflect the different land uses house types being built and to reflect the density of the surrounding developments.
- 7.5.3 The housing element of the development to the southern section will not only meet the local need for more affordable housing but also the needs of the areas ageing population and smaller households. This will provide adequate affordable housing provision for the entire allocated site.
- 7.5.4 Given the nature of surrounding development and a demand for market housing at the more affordable end of the market it is proposed to build smaller house types in phases 2 and 3 i.e. single and two-storey, semi-detached and terraced, 1, 2 and 3 bedroom houses. In addition, 1 and 2 bedrooms flats will be considered with a limited number of larger 4 bedroom family houses if demand is demonstrated. Proposals for the site will be advertised locally and start gathering data to determine the exact type of property types needed locally which will inform the proposals developed for an application for Planning Permission.
- 7.5.5 The extra care housing will all be single-storey and cater specifically for elderly tenants needs. This section of the development will be based on 1 and 2 bed houses formed in courtyard arrangements. These houses will be designed to meet the needs of the individual tenants and will include wheelchair friendly houses. A staff base and communal facility will be attached to the extra care housing and will incorporate office/meeting accommodation, communal dining/living areas, activity room, treatment room and support facilities.
- 7.5.6 The housing mix, type and density of the private housing element of the development to the northern section will be developed and considered as part of the later phases of the Masterplan delivery.
- 7.5.7 The housing mix will maintain variety of character, scale and distinctiveness and provide a good range of choice. This arrangement is demonstrated in the drawings incorporated in Appendices 2 and 3.

## **7.6 Site Frontages and Streetscapes**

- 7.6.1 In recognition of its importance to the development and Langholm as a whole, the area of land to the south of the Masterplan area which fronts onto the A7 will be developed for housing, open space and landscaping to serve as an attractive and welcoming entrance to the development and the town of Langholm.
- 7.6.2 The allocated site has great potential to incorporate Passive House standard and create a low energy design which provides opportunities to showcase low energy and sustainable credentials for the development. The orientation of buildings, streets and open space should maximise environmental benefits and therefore this site is proposed to be set out on a south-north axis to provide suitable orientation for Passive House standard design.
- 7.6.3 The proposed site layout is formed to be very efficient in terms of land utilisation allowing accessibility and legibility. This creates a more permeable form of development which is safer, providing a strong definition between public open and private space with opportunities for surveillance and safe enclosure.
- 7.6.4 The residential blocks are capable of accommodating all dwelling types including courtyards, terraces, townhouses, semi-detached and detached dwellings. This incorporates a low scale development of single and two storey units reflecting the surrounding area. The internal areas of blocks are intended to be utilised as private garden space for houses, communal garden space for extra care units and curtilage parking.



- 7.6.5 The urban form intends to be distinctive with landmarks and vistas that provide good orientation and navigation of an area. Proposals will include landmarks such as well-designed buildings, open spaces and public art. Landmark buildings and features are proposed to be at key locations reinforcing the character of the area and provide strategic points that can be identifiable by local people.
- 7.6.6 Selective use of interesting features on buildings that reflect the history of the area and its future aspirations would act as key landmarks, provide focal points and visual quality. The designs of the new buildings are intended to complement the existing historic character and features of the settlement by being a well-designed modern interpretation with a local distinctiveness that is clearly identifiable with the locals and residents. Incorporation of materials to the building designs will be important to consider to reflect and respect the historic setting of Langholm as a whole. Integration of landscape along with connectivity and variation of streetscape for low scale development are provided with the examples provided below.



## **7.7 Energy Efficiency**

- 7.7.1 In addition to the development being designed to encourage active and sustainable travel and reduce car dependence, renewable sources for the production of heat and electricity will potentially be considered at a domestic level.
- 7.7.2 All houses and buildings will be designed and constructed to the highest standards in terms of thermal efficiency and air leakage compliance, in excess of the current Building Standards requirements and will make use of, and incorporate wherever practicable the latest solar photovoltaic technologies.
- 7.7.3 All of the proposed housing will use high levels of insulation and modern timber kit construction to the highest specifications to deliver low energy usage and low energy bills for the future occupants, addressing rural fuel poverty. The use of sustainable energy generation within the individual houses will be incorporated into the house design. The inclusion of affordable housing designed to achieve Passive House standards to the southern section of the allocated is key vision to deliver a local sustainable development
- 7.7.4 The new-build element to the southern section of the site is intended for all affordable housing to be designed to achieve a Passive House standard. These will be designed in accordance with the Passivehaus Institut in Darmstadt, Germany and will ensure an advanced design of housing providing very low energy consuming housing to Passive House standards.
- 7.7.5 The requirement for a Passive House standard to be achieved to the housing to the southern section of the allocated site requires the site layout planning to be developed that considers proximity of neighbouring building, existing woodland that will shade the site, site shape, orientation and topography.
- 7.7.6 The proposed houses and buildings designed to a Passive House standard will be located, orientated and designed to maximise solar gain. The Masterplan has been prepared on the principles of maximising passive solar gain and solar technologies.
- 7.7.7 The residential development has been designed with sustainable features at the core of the design. The site is accessible by modes of transport other than the car with excellent public transport links and cycle and core paths routes. In addition, the scheme will incorporate SuDS as part of the landscape and street design.



- 7.7.8 Infrastructure will be provided to the curtilage of each house for electric car charging points in accordance with current requirements of Dumfries and Galloway Council.
- 7.7.9 The restoration, conversion and adaptive reuse of the Murtholm Farm for residential use is considered a key component of creating a sustainable development. This will provide the local community with a distinctive feature to the new development that they will be able to relate to and recognise.
- 7.7.10 This therefore has the opportunity not to relate to a specific street pattern or built fabric but create a new arrangement for modern living as a truly sustainable development on the basis of the LDP2's aspirations. In developing the design layout for the new housing, we are seeking a layout which meets the aspiration of Designing Streets while providing a highly sustainable group of homes of character.
- 7.7.11 In 2019 Dumfries and Galloway Council made a Climate Emergency Declaration. The commitments made by the Council in this declaration will greatly be benefitted by realization of this development.

## **7.8 Affordable Housing**

- 7.8.1 Affordable housing will be provided at a rate of 20% in accordance with the proposed LDP2 and Dumfries & Galloway Local Housing Strategy. Based on an approximate capacity of 130 No. units over the entire Masterplan area the affordable housing requirement would equate to 30 No. units. This allocation will be met with phases 1 -3.
- 7.8.2 There is a significant demographic shift occurring in Langholm which reflects the wider region. Dumfries & Galloway will see a decline in the working age population and an increase in the number of over 65s and the number of over 85s doubling within the next 20 years. Langholm is already demographically imbalanced towards older people and these trends will clearly have an impact on the settlement's future development. This is particularly significant with regard to affordable housing and the provision of health and social care accommodation.
- 7.8.3 The existing affordable housing options in Langholm for young families are very limited. Langholm's only care home closed in 2013 and therefore supported accommodation for older people is also a high priority for the settlement. There is therefore a clear, urgent and growing need for affordable housing and supported accommodation to be provided to the local area and in particular within the settlement boundary of Langholm.
- 7.8.4 The Masterplan is based on a Registered Social Landlord developing the southern section of the site as a multi-use development comprising extra care housing associated with dedicated communal facilities, flatted units, general needs housing and amenity bungalows. All housing on this section of the allocated site would be 100% affordable and would equate to between 110-120 No. units in total exceeding the require number of affordable housing over the entire allocate site.
- 7.8.5 The affordable housing serving the development will:
- Meet the local need, as defined in the Local Housing Strategy and Housing Needs and Demand Assessment;
  - Exceed the 20% affordable housing allocation requirement of the Dumfries & Galloway Council's LDP 2;
  - Be delivered through a range of housing types, tenures and sizes;
  - Be delivered during early Phases 1b, 2 & 3;
  - Be indistinguishable from market housing in terms of type, design, quality, materials and detail; and
  - Be of high-quality and well-designed.



- 7.8.6 The affordable housing component of the development will be delivered as supported housing providing up to 35 No. extra care units in Phase 1b with the remaining 75-85 No. general needs and amenity affordable housing units provided during Phases 2 and 3. This is intended to ensure the affordable housing element is delivered at the earliest phases of the Masterplan delivery.
- 7.8.7 The social rented accommodation would be delivered and managed by a Registered Social Landlord for which there is provision for in the Dumfries & Galloway Council's Strategic Housing Investment Plan (SHIP).
- 7.8.8 Affordable housing in the form of the lower total number of approximately 110 No. social rented units would represent provision of 73.3% of the total number of units allocated over the Masterplan area (130 No. units).
- 7.8.9 The areas to the northern section of the site is intended to be carried out during Phase 4 and the redevelopment of the farmhouse to be carried out during Phase 5 are both to be developed by a private developer. As the affordable provision for the entire allocated site is met and exceed by the earlier phases, no affordable element is required for Phase 4 and 5.
- 7.8.10 All affordable housing to be located to the southern section of the allocated site will be part funded by Scottish Government. The standards the guidance advocates are intended to ensure that housing is accessible, fit for its purpose, adaptable for different needs and over its lifetime represents good value for money. As such all affordable housing will require to be designed in accordance with the requirements of Housing for Varying Needs for General Needs, Amenity and Wheelchair uses.
- 7.8.11 Secured by Design is a police initiative to guide and encourage new residential developments to adopt crime prevention measures to reduce the opportunity for crime and the fear of crime, creating safer, more secure and sustainable environments. The proposals for the Masterplan and all housing has been developed and designed to achieve Secured by Design – Gold Level accreditation. The Masterplan has been prepared on the principles of achieving Secured by Design – Gold Level accreditation in close liaison with Police Scotland's Architectural Liaison Officer for the local area.

## **7.9 Access**

- 7.9.1 The Masterplan area will be a well-connected, inclusive environment enabling ease of movement for all. All development proposals will meet the aims of Designing Streets. Design led solutions will consider place before movement and people before vehicles. There will be a commitment to creating a positive sense of place that is supported by an appropriate movement pattern. The development will be designed to facilitate walking and cycling as well as accommodating vehicular movement.
- 7.9.2 The Transportation Assessment has highlighted the proximity of local sustainable transport facilities. These can be utilised and extended / linked by the new development.

### **General Design Requirements**

- Should encourage sustainable forms of transport; i.e. by encouraging people to walk, cycle and use public transport;
- Should accord with principles and requirements of inclusive design legislation;
- Should promote a safe and pleasant environment for the movement of all groups and ages through and about the development;
- Should promote social interaction; houses should address the street, junctions should be designed as informal gathering spaces as well as movement places;
- Design of street and junctions should contribute to legibility; i.e. junctions and crossing points have distinct identities and street have a consistency in materials, etc;



- Should contribute to the 'sense of place' for the development i.e by the use of events/features such as punctuation points, vistas or significant trees, etc;
  - Must accommodate existing pedestrian path routes through the site; and
  - Should maximise pedestrian and cycle links along desire lines and to the adjacent roads/residential areas
- 7.9.3 The only suitable public road access to the development is the A7 road located to the south of the site. It is proposed that the site access will be taken at the existing A7 and Murtholm Farm junction. This junction is currently under the traffic lights controlling traffic across Skippers Bridge. The existing junction will require upgrading in accordance with Transport Scotland and the Design Manual for Roads and Bridges (DMRB) standards. Any connection to or amendment to the trunk road will require consent from Transport Scotland. ECS Transport Planning have undertaken traffic count and speed studies on the A7 at Skippers Bridge to inform design of the improved road junction.
- 7.9.4 Access to the site from A7 requires to adequate for the development of the entire allocated site. LDP2 site guidance requires two separate points of access to the allocated site. ECS have reviewed this requirement and due to existing site restrictions two separate points of access are not viable. A single point of vehicular access from A7 with Emergency Vehicle Access from Cemetery Lane are therefore proposed to access the allocated site and the development of up to 130 No. units.
- 7.9.5 The current development proposals are for a residential-led development consisting of approx. 130 No. residential units and open space. Based on this the proposal is a single primary access point from the A7 with an emergency vehicle access (EVA) taken from Cemetery Lane along with the proposed footbridge.

#### **Pedestrians and Cyclists**

- 7.9.6 Pedestrian access has been considered as a priority through the site. Pedestrian and cycle path links are heavily integrated to the proposed Masterplan with the aim of creating safe and pleasant routes through and beyond the site. The layout uses the existing connections to the surrounding area as a starting point. It will be a permeable, walkable development. Walking and cycling routes will be determined by clear desire lines and will connect to established pedestrian, cycle and public transport providing greater access for all to adjoining neighbourhood services, the town centre and the countryside and encouraging sustainable active travel.
- 7.9.7 The key principle of the integration of pedestrian and cycle path links across the River Esk between Langholm and the site will be the formation of a foot bridge for pedestrians/cyclists;
- 7.9.8 A combination of straight, direct streets which aid navigation and enhance personal security will encourage walking; and irregular streets will contribute to visual variety and diversity making for a pleasant walking or cycling experience. All routes will be well lit, directly overlooked and designed to promote high standards of safety and security.
- 7.9.9 Existing pedestrian routes are extended through the site to provide easy desire lines connecting through to local amenities and services whilst new pedestrian routes are formed where this would benefit the development and the local area as a whole.
- 7.9.10 There will be a hierarchy of pedestrian/cycle routes with primary routes following key desire lines through the site with more localised pedestrian/cycle routes providing more informal local access. These generally correspond with the proposed street hierarchy.
- 7.9.11 It is intended to provide convenient cycle parking to the homes and other locations for both residents and visitors. This is critical to increasing the use of cycles. Cycle parking is also proposed in locations to the central open space adjacent to the foot bridge. Sustrans has had a key and early involvement in the development particularly relating to cycle usage. Parking and storage for cycles will be incorporated to the developed in accordance with NRDG guidance





and as approved by Dumfries and Galloway Council. This will also include secure covered areas specific to housing mix and curtilages as required by NRDG.

7.9.12 The balance between place and movement has been carefully defined with the creation of a walkable neighbourhood connecting to the wider area with the key principle ensuring the site is easy to move around whilst being a safe and pleasant experience.

7.9.13 Safe routes to schools will be considered as part of the access for the development. This will help to inform wider pedestrian routes within the development to create a cohesive and safe pedestrian and cycle network throughout the site leading across the foot bridge to and from the existing settlement of Langholm.

### Core Path Network

7.9.14 The current use as entirely for agricultural land and being a greenfield site located across the River Esk from the settlement of Langholm presents a unique opportunity for the enhanced connection of established walking routes and linking of green spaces through and adjacent to the allocated site. The site is in close proximity to the River Esk to the north which connects local walking routes as part of the Core Path Network and The Langholm Walks. Drawing of path networks included below.

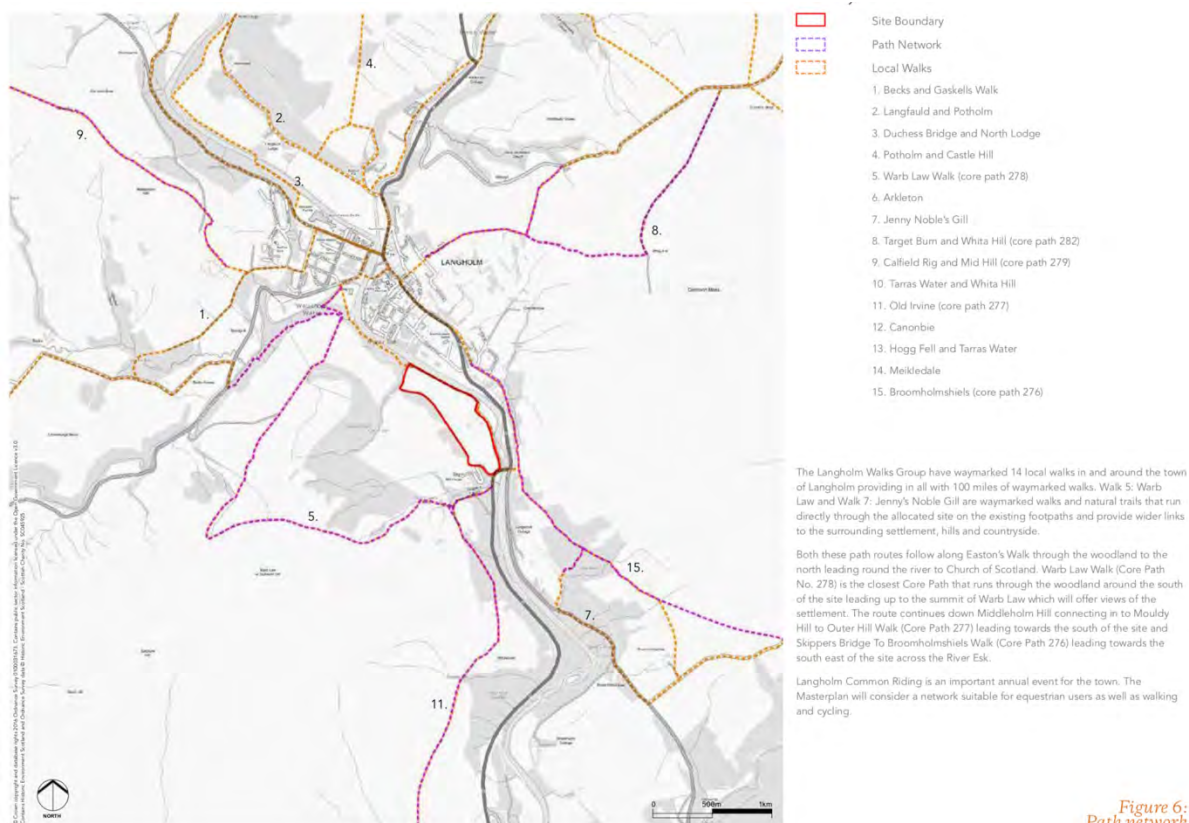


Figure 6:  
Path network

7.9.15 The Langholm Walks Group have waymarked 14 local walks in and around the town of Langholm providing in all with 100 miles of waymarked walks. Walk 5: Warb Law and Walk 7: Jenny's Noble Gill are waymarked walks and natural trails that run directly through the allocated site on the existing footpaths and provide wider links to the surrounding settlement, hills and countryside. Both these path routes follow along Easton's Walk through the woodland to the north leading round the river to Church of Scotland.



- 7.9.16 The Core Path Network also runs adjacent to the allocated site using some of the routes waymarked on The Langholm Walks. Warb Law Walk (Core Path No. 278) is the closest Core Path that runs through the woodland around the south of the site leading up to the summit of Warb Law which will offer views of the settlement. The route continues down Middleholm Hill connecting in to Mouldy Hill to Outer Hill Walk (Core Path 277) leading towards the south of the site and Skippers Bridge to Broomholmshiels Walk (Core Path 276) leading towards the south east of the site across the River Esk. Improvement of the pedestrian links leading to the site and through the development connecting to the Core Path Network have been carefully considered in the Masterplan.
- 7.9.17 The surrounding countryside riverside walks, walking paths, natural trails, country roads, hillside single tracks, open moors and woodland running through and in close proximity of the allocated site will offer the opportunity for wider accessibility and participation in outdoor activities Langholm is known through The Muckle Toon Adventure Festival. This would include walking, rambling, trail running, cycling and mountain biking and would contribute to healthy living and wellbeing which is a key guiding principle for the development and the Masterplan.

### **Foot Bridge**

- 7.9.18 The proposed development borders the River Esk, which currently restricts access in to the town of Langholm from the site. To prevent this the proposed Masterplan includes a pedestrian footbridge to link the East and West sides of the river and allow pedestrians and cyclists easy access to the town. The footbridge would also improve access from Langholm to the existing public core paths on the West of the river.
- 7.9.19 The majority of the bridges crossing the River Esk are located to the west of Langholm, to the north of the allocated site. The only bridge located in the east of Langholm and the nearest bridge to the allocated site is the Category A Listed Skipper's Bridge. The bridge crosses the River Esk in very close proximity to south end of the site where bounding the A7. Skipper's Bridge is predominately a vehicle bridge with restricted accessibility for pedestrians and cyclists. The nearest bridge located north of the allocated site is the suspension foot bridge connecting Caroline Street with John Street which is located approximately 500m away.
- 7.9.20 The location across the River Esk, distance from existing bridges and situated to the south of the Langholm results in site being considered remote and detached from the settlement of Langholm. For this reason, the LDP2 requires a foot bridge for pedestrians/cyclists to be formed during the first phase of development.
- 7.9.21 The permeability along the north bank is very restricted due to the location of the existing mills and Langholm Waste Water Treatment Works. Whilst the riverside paths run along towards the east and west the opportunity to connect northwards towards the settlement in close proximity of the allocated site is a constraint.
- 7.9.22 On the north bank the only potential options for onwards pedestrian connections to the nearest adopted foot paths would be along the informal but direct footpath which runs northwards along the western boundary of the superstore connecting the riverside path on the north bank of the River Esk to Glenesk Road or forming a new foot path connection across the protected open space at the settlement entrance along the A7.
- 7.9.23 The location of the proposed foot bridge has been considered as part of the Masterplan. Two locations for the foot bridge were considered due to constraints of site location, flood risk and the restricted permeability of the north bank of the River Esk. Option 1 was to locate the foot bridge to the northern section of the site directly south of the existing superstore with Option 2 was to locate the foot bridge to central section of the site directly south of the existing protected area of open space to the southern entrance of Langholm.
- 7.9.24 Both foot bridge options are located in close proximity of the surrounding neighbourhoods and wider settlement across the River Esk to the north.



- 7.9.25 The flood risk to the site from the River Esk significantly reduces the extent of developable land and separates the developable northern and southern sections of the site. The options for the locations of the foot bridge were considered as part of the FRA developed for the site and mitigation for the ramps incorporated into the modelling.
- 7.9.26 The location of the foot bridge requires to take into account legally protected wildlife either within existing embankments or using the River Esk being crossed. An Otter Survey has been recommended to be carried out as part of the Preliminary Ecology Appraisal conclusion. The Preliminary Ecology Appraisal in particular has informed selection of the foot bridge location.
- 7.9.27 The location of the foot bridge and ramps also requires to consider the location of existing mature trees on the north bank with a view to ensuring these are retained. Option 1 has existing mature trees located on the north bank which would require to be removed to allow the formation of the foot bridge and landings due to the limited space in this location whilst the option 2 has a more space on the north landing point to allow the foot bridge and ramps to be designed to be formed around the existing mature trees.
- 7.9.28 Option 2 was considered the most viable and preferred option for the foot bridge for the following reasons:
- Located in close proximity to the larger section of the proposed development to the south (approx. 110-120 No. units) which is due to be completed during the earlier phases of the overall development;
  - Located in very close proximity of the proposed extra care housing development;
  - The foot bridge landing point on the north bank is located on the only designated open space within close proximity of the proposed development allowing the foot bridge to connect an existing open space with the new central open space for the development on the south bank;
  - Located on a larger area of land to the north bank to accommodate the ramps and avoid the removal of mature trees and allow for connections to existing foot paths running along the river bank;
  - Located directly adjacent to the proposed central open space for the allocated site allowing direct access from the settlement of Langholm to the proposed play facilities and growing zones;
  - Located in a developable area of the site allowing for the opportunity to form a gateway feature and site frontage when arriving to the site from crossing the foot bridge from the settlement. In addition, the existing landmark gateway leading from the development to the settlement of Langholm is enhanced and reinforced;
  - Located in close proximity of the existing adopted foot path at the settlement entrance on the north bank of the River Esk providing a direct connection of the proposed pedestrian and cycle path between the settlement of Langholm and site;
  - Located in close proximity of existing sports facilities to the east of Langholm including Langholm Bowling Club, Townfoot Sports Centre and Langholm Golf Club;
  - Ensuring the key desire line between the site and the settlement of Langholm is achieved, providing better integration and connection when compared with Option 1;
  - Foot bridge ramp lengths and foot bridge span are reduced for foot bridge location when compared with Option 1;
  - Located northwards along the River Esk around 500m clear round a bend from the Category A Listed Skipper's Bridge therefore considering the setting of the listed building by minimising visual impact;



- Land ownership constraints and restrictions are less of an issue when compared with Option 1; and
  - Located on a larger area on both the south and north landing points that will allow for more appropriate arrangement for construction, future access and maintenance arrangements when compared with Option 1.
- 7.9.29 The foot bridge locations - Options 1 & 2 were both tabled at the PAC public event and general preference from the community was for Option 2.
- 7.9.30 Due to the expected flooding issues on the River Esk, a Flood Risk Assessment has been carried out. The hydraulic flood model includes the bridge approaches, footings and parapets to assess their impact within the flood model. Based on the result of the assessment the level of the bridge deck will be elevated to a level above the anticipated high-water level to ensure the foot bridge does not have a negative effect during flooding events.
- 7.9.31 The requirement for the new foot bridge for pedestrians/cyclists to be formed during Phase 1 of development is essential to integrate and link site to settlement and key amenities. There is scope to encourage sustainable transport including walking and cycling leading from the allocated site over the proposed foot bridge and towards Langholm town centre.
- 7.9.32 Pedestrian and cycle links will be created by forming the foot bridge crossing to local sporting facilities located in close proximity of the site including Langholm Bowling Club, Townfoot Sports Centre and Langholm Golf Club all located north of the River Esk. Wider connections to existing sporting facilities including Langholm Cricket Club and Langholm Rugby Club will also be created which will be a key benefit in delivery of this Masterplan.
- 7.9.33 The foot bridge for pedestrians/cyclists will be designed to:
- Be a modern lightweight structure and feel spacious to the user even at busy times;
  - Form a direct route avoiding deviation where possible following key desire lines, avoiding right angled turns on approach paths, which are difficult to negotiate;
  - Maintain the existing riverside walks running along the north and south banks of the River Esk;
  - Minimise the effect of any approach gradients ideally achieving 1 in 20 to ensure the foot bridge is appropriate and accessible for all user groups;
  - Achieve a deck width should allow for effect of parapets with a minimum width of 3.5m and be appropriate for both pedestrians and cyclist use;
  - Be a safe and attractive route between the site and settlement with lighting forming an integral part of the foot bridge structure, rather than an add on; and
  - Consider future access and maintenance.
- 7.9.34 No services are intended to be incorporated in the foot bridge as this would require diversions if the foot bridge was ever removed for maintenance. Directional drilling methods for services requiring to cross the River Esk independently from the foot bridge are therefore proposed.
- 7.9.35 It is proposed that the foot bridge will be adopted by Dumfries & Galloway Council. Dumfries & Galloway Council Bridges Department will be consulted with throughout the design to ensure the bridge is designed and constructed to an adoptable standard. Dumfries and Galloway Council have confirmed intentions for the bridge to be adopted.
- 7.9.36 The proposed foot bridge for pedestrians/cyclists is critical to ensuring households forming part of the new development are able to access these key local amenities across the River Esk.



### **Public Transport**

- 7.9.37 The existing bus routes closest to the allocated site is the Langholm – Annan (122/123) service and Langholm – Newcastleton (127) service which runs along the A7 passing the allocated site entrance. There is no existing bus stop located on the A7 in close proximity of the allocated site entrance.
- 7.9.38 Strategic bus routes also operate on the A7 that passes across the site frontage and entrance to the south including the Edinburgh – Carlisle (X95) service. There are however no existing bus stops or safe crossing points located on the A7 in close proximity of the site. The main bus stop for the Edinburgh – Carlisle (X95) service is located in Langholm town centre on the High Street.
- 7.9.39 The site is connected in terms of vehicular access to a key transport route. Located directly to the south of the site there is an existing access point adjacent to the Category A Listed Skipper's Bridge to the A7 major trunk road. The A7 runs south from Edinburgh to Carlisle in North West England. The A7 passes directly through Langholm town centre via the High Street. The A7 is a key route into Langholm and therefore it is recognised that the site frontage to the south onto the A7 is of great importance for the development and the town of Langholm particularly when approaching from the south.
- 7.9.40 The Langholm – New Langholm Town Service (120) and the Langholm – Nether Cassock Service 124 provision which both currently stop at The Co-operative, Glenesk Road located to the north of the site across the River Esk. These local Town Centre bus services do not currently cross the River Esk at Skipper's Bridge on the A7 southwards to the allocated site entrance.
- 7.9.41 Bus route provision will be reinforced and enhanced adjacent to and within the development. Discussions with public transport operators and the Roads Department will be required to consider the best siting of public transport stops based on proposed pedestrian desire lines to finalise the locations.
- 7.9.42 The proposed development has been designed to integrate with existing public transport routes. The main internal road network within the development is proposed to be designed as a bus route. The bus stop locations indicated on the Masterplan have been sited so they can be easily accessed by all pedestrians and are adjacent to key open spaces and road/cycle link networks.
- 7.9.43 All homes will be located within 400m (5-minute walk) of a bus stop to ensure good access to public transport for all residents. The road network where the bus stops are proposed would be intended to stop on the street and not in a lay-by arrangement. The focus on public transport and active travel networks will discourage car dependence.
- 7.9.44 Langholm does not currently have a railway line with railway station following closure in 1967. The railway station was located in close proximity of the site directly north of the Waverly Mills which was redeveloped for residential and industrial use. There have been discussions of a potential of a new train station in the town which could be delivered in a proposed extension of the Borders Railway to Carlisle.

### **7.10 Roads Infrastructure**

#### **Transport Assessment**

- 7.10.1 A Transport Assessment has been carried out by ECS Transport Consultants in December 2018 to determine the cumulative impact of the whole development on the local road and trunk road networks.
- 7.10.2 Transport Assessment concludes it is not feasible to form a bus stop for strategic bus service on the A7 however demonstrates the development site can be accessed safely from the A7 with EVA from Cemetery Lane and can be accessed by sustainable modes of travel.
- 7.10.3 Sustainable Accessibility is incorporated into the Transport Assessment.





- 7.10.4 Road Safety Audit Stage 1 has been carried out as part of the Masterplan. Road Safety Audit Stage 2 will be progressed to accompany any future application for Planning Permission.
- 7.10.5 An outline design for the new site access has been developed and this design has been accepted by Transport Scotland. Road Safety Audit was previously accepted by Transport Scotland and provides agreement in principle from Transport Scotland to the site access at this location. There is a requirement for the traffic light signal system to be designed for the new access.
- 7.10.6 Transport Assessment prepared on the basis on foot bridge location - Option 2 and takes into account potential off-site upgrade works required to the road junction to Glenesk Road.
- 7.10.7 Transport Assessment considers the potential for the foot bridge being able to provide a safe and connected pedestrian / cycle link through the development site, over the River Esk and into the settlement of Langholm, particularly as the Skipper's Bridge being considered not safe for pedestrians and cyclists at present.

### **Hierarchy of Streets**

- 7.10.8 The access and junction improvement works to the A7 is critical to unlocking the development potential of this site.
- 7.10.9 The location and form of the point of access into the development from the A7 will be determined in consultation with the Dumfries & Galloway Council's Planning and Roads Department together with Transport Scotland. It is recognised that the junction location and design are paramount to prevent prejudicing development of the Masterplan area.
- 7.10.10 The street hierarchy within the development will evolve as a result of connections with existing development and street networks together with the topography and shape of the site. A key constraint to the site is the lack of any potential for vehicular connection anywhere other than the south end of the site.

### **Primary Spine Route**

- The primary spine route through the site will be accessed direct from the A7 to the south of the site leading northwards through the southern section of the site, through the central open space connecting up with the development to the northern section of the site;
- This road will be designed to include a cycle lane, bus stops, key pedestrian crossing points for strong community connections, and side access roads;
- The route requires street frontages and should clearly provide a visual connection with the new development it will pass through. The corridor should incorporate appropriate separation of sensitive frontages from the route by green spaces and landscape (including rain gardens), in itself adding a distinct character and value to those properties;
- The road should be punctuated by key feature points to create an attractive and recognisable street;
- Carriageway material will be rolled asphalt but should be broken up at key junctions and feature points with other suitable materials. Footways will be dense bitumen.

### **Secondary Routes**

- Secondary routes will take direct access from the primary route at specific locations to suit the housing layout. Traffic calming measures will be required at all junction points;
- Secondary routes will have a reduced carriageway width, more dominant pedestrian area, low level kerbs, common material for footway area carriageway, sensitive soft / hard landscaping;



- These routes will be designed to include cycle lanes on both sides and bus stops, key pedestrian crossing points for community connections, and side access roads;
- The road should be punctuated by squares and feature points to create an attractive and recognisable street.

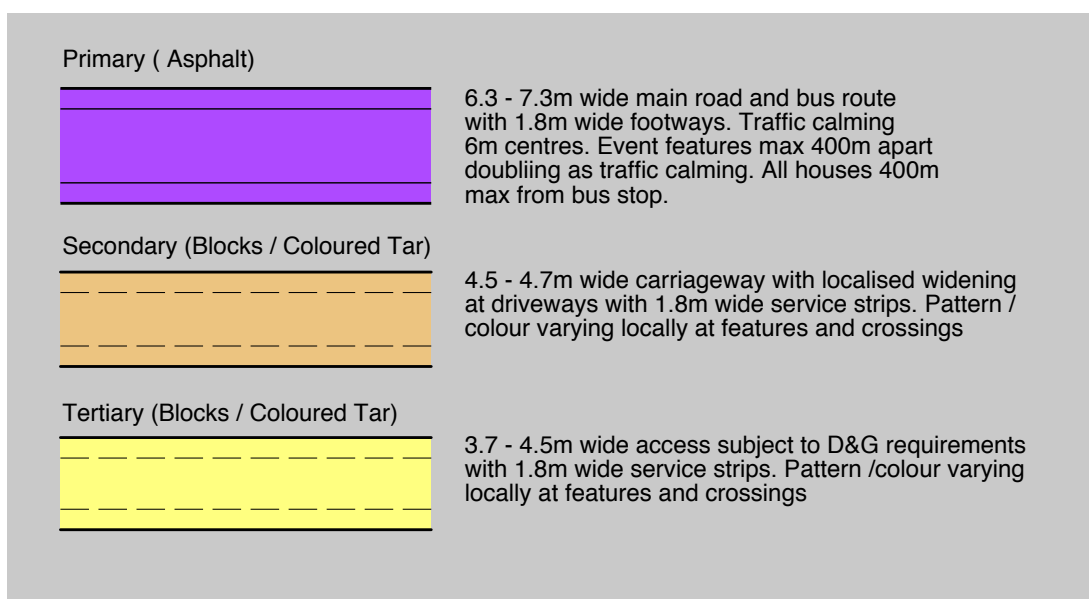
### Tertiary Routes

- These routes form key connections from residential areas to secondary and primary routes. They provide safe travel to important destinations around the community. Traffic calming measures will be required at all junctions.
- Tertiary routes will be level surface, no delineation between street users' zones, user hierarchy favours pedestrians, sensitive soft / hard landscaping. These will provide further permeability through the sites connecting from secondary roads to the primary road. These roads are also formed along main open spaces and pedestrian linking mainly running east-west through both sections of the site;
- These routes should be designed for low traffic speeds to create a more intimate, pedestrian friendly character.

### Green Lane:

- The green lanes will be located at the edges of development and run next to and potentially the primary spine route where this transitions through the central open green space where the intention is to minimise vehicular dominance;
- Green lanes will include native hedgerows, tree and shrub planting to create a rural appearance and give priority to pedestrians and cyclists whilst maintain permeability for vehicles.

7.10.11 Street hierarchy is summarised for road design based on following diagram. This sets out parameters for a Design Code for the road network within the development itself. The purpose is to stipulate requirements for finishes, footways and road widths, which thereafter will be implemented to each of the hierarchy of road types creating a consistency across the development in terms of appearance, purpose and therefore use of roads. It is intended that the Design Code is expanded upon in the detailed design of road networks accompanying individual applications for Planning Permission.





- 7.10.12 The street design will be inclusive, providing for all people regardless of age or ability which is a key principle for this development due to the proposed land and building uses.
- 7.10.13 The site will be developed with streets and houses located / positioned and orientated using existing ground levels to minimise the level of cut and fill, need for retaining structures and impact on residential amenity. Use of the existing topography and landscape features will enhance the sense of distinctiveness throughout the development. Construction materials should reflect the character of the surrounding area.
- 7.10.14 Streets will be designed to encourage social interaction and the creation of a sense of community. The arrangement and orientation of the dwellings is crucial. Dwellings will front on to the routes as to increase the feeling of enclosure and together with junction design and landscaped features, including street trees, will naturally encourage drivers using this route to travel more slowly and create a positive sense of place. There will be a strong emphasis on shared access and shared spaces in line with Designing Streets. Shared surface examples are provided below.



- 7.10.15 All internal roads will be designed in accordance with The National Roads Development Guide and Dumfries & Galloway Council standards, with the intention of all roads being adopted Dumfries & Galloway Council upon completion.

#### **Traffic Speed**

- 7.10.16 Within the development streets will be designed to influence driver behaviour to reduce vehicle speed to levels that are appropriate for the local context and deliver a safe environment for all. Designed in traffic calming measures will include shared pedestrian, cycle and vehicle routes, street dimensions (i.e. short lengths of street, reduced carriageway width and radii at corners and junctions), reductions in forward visibility, changes in priority or no priority at junctions, physical features involving horizontal deflection and materials. Such natural traffic-calming features will be built into the layout of the streets at intervals of around 60 - 80m in order to achieve speeds of 20 mph or less and there will be minimal use of traffic signs, road markings and other traffic management features.

#### **Parking**

- 7.10.17 Residential parking provision will be provided in accordance with Dumfries & Galloway Council standards i.e. two car parking spaces per unit within curtilage plus 25% on-street unallocated for visitors. The applicant will provide adequate justification will be provided for any reduced levels of car parking associated with extra care housing.
- 7.10.18 Parking will be accommodated by a variety of means to provide flexibility and lessen visual impact of front driveways and parked cars. The development will be designed to accommodate parking without compromising the positive sense of place. Parking will be designed so as not to dominate the streetscape and will predominantly be located behind the building line. Parking in front garden areas will generally be avoided.
- 7.10.19 The parking to the extra care housing will be off-street in grouped landscaped courts overlooked by buildings. The parking courts will be fragmented to a maximum of ten parking spaces and will be broken up with low level landscaping.



7.10.20 On-street parking will be limited to visitor parking allocation in small groups not exceeding five spaces to ensure even spacing through the site. No garages are proposed as part of the car parking proposals.

7.10.21 To deliver a successful development where functionality is accommodated within a high quality residential environment requires a multi-disciplinary collaborative approach. As a result, applications for Road Construction Consent will be progressed in parallel with all future planning applications.

#### **Emergency and Service Vehicles**

7.10.22 Swept-path analysis will be used to demonstrate that the road network is capable of accommodating large vehicles.

7.10.23 An Emergency Vehicle Access (EVA) point is proposed to the south west corner of the allocated site accessed from Cemetery Road.

#### **Utilities**

7.10.24 The accommodation of services will not determine the layout of streets or footways but will be considered at an early stage. Utilities such as gas, electricity, water and telecommunications will be located within service strips / corridors. The layout of servicing routes should not prejudice the layout of future phases of the development.

#### **Lighting**

7.10.25 Street lighting will be:

- Designed as an integral part of the street design;
- Appropriate and sympathetic to the context;
- Discrete;
- Designed in accordance with Secured by Design – Gold Level certification requirements;
- Designed to limit light pollution.

#### **Street Furniture and Signage**

7.10.26 The use and placement of street furniture will:

- Be kept to a minimum;
- Be robust, high quality and durable;
- Reflect the direction of pedestrian movement to ensure clear unimpeded routes;
- Seating will be orientated towards areas of open space;
- Signage will be fixed to existing poles and will be kept to a minimum, only being used when required;
- Reflect local character and setting;
- Designed and located in accordance with Secured by Design – Gold Level certification requirements.

### **7.11 Open Space and Green Infrastructure**

7.11.1 Supplementary Guidance on Open Space set out the requirements for provision of open space under the terms of LDP2 policy CF3 (Open Space).



- 7.11.2 Open space makes an important contribution to the quality of residential areas. The aim is to provide all residents with access to a network of linked, high quality and safe, formal and informal, active and passive open spaces within the development which will be valued by the community, and be of benefit to wildlife.

#### **Quantity**

- 7.11.3 The Open Space Strategy sets a target of 6 hectares of publicly usable open space per 1000 population and that every household should be within a 5 minute walk of a publicly usable space of at least 0.2 hectares. Langholm has approximately 35.58 hectares of publicly usable open space. This equates to 16.55 hectares of publicly usable open space per 1000 population which is higher than the quantity standard for Dumfries & Galloway as a whole.
- 7.11.4 The quantity and accessibility analysis of Langholm as carried out as part of the Open Space Audit in 2014 identified Langholm having a good range of provision.
- 7.11.5 The most prominent forms of open space provision in Langholm are outdoor sports facilities and natural and semi-natural greenspace. There is also a park adjacent to the river and play areas throughout the settlement. The multi-functionality of many of the sites is also recognised as contributing to the overall variety of provision. For example, the Castleholm Wood site is highly valued because of its multi-functional role, as it provides recreational and sporting opportunities. Kilngreen Amenity Space has a number of facilities and features including car parking, picnic tables and a play area. Ardill Road Amenity Space contains attractive landscaped features and there is a play facility located within the site, which adds to its overall quality and value.

#### **Accessibility**

- 7.11.6 Currently, approximately 86% of households are within a 5-minute walk of publicly usable open space of at least 0.2 hectares in size, however there is a large accessibility gap to south and east. The households beyond this threshold are located to the south east of the settlement, with the allocated housing site falling within this accessibility gap. The allocated site is therefore located in this area of significant accessibility issues for open space. Please see Langholm Open Space Provision on the next page.
- 7.11.7 There is a therefore specific priority for the development to the allocated site to contribute to improve existing space and providing additional space where necessary to meet any new accessibility requirements. The provision of a foot bridge for pedestrians/cyclists crossing the River Esk will ensure connectivity and accessibility of the new publicly usable open space proposed as part of the Masterplan.
- 7.11.8 The allocated site due to its size and current lack of existing nearby provision, would need to provide sufficient additional on-site open space to serve the development, especially as it is located across the river from other spaces in the settlement. The proposed foot bridge for pedestrians/cyclists will allow for the wider connection of existing and proposed publicly useable open spaces.
- 7.11.9 A strong network of recreational routes connecting open spaces within the site will be developed, and promoting links to the wider countryside and other key areas of open space elsewhere in Langholm, such as Kilngreen.
- 7.11.10 Open space will be distributed throughout the development to ensure appropriate accessibility for every household. The key constraint of flood risk to an extensive area of the allocated site has resulted in a large central green space being designated for publicly useable open space due to no development being able to be formed on this area of land. To ensure the viability of the development the Masterplan proposes a section of the central space to be developed as publicly useable open space. The overall area equates to 4.2 hectare (excluding stand-off zone along ancient woodlands).



- 7.11.11 A section of the central area is intended to be developed as open space and indicated on the Masterplan landscaping proposals. The area equates to 1.5 hectare which greatly exceeds the 0.2 hectare requirement stated in the Open Space Strategy and will provide publicly useable open space for the entire allocated development and address the deficiencies to the nearby areas of the settlement.
- 7.11.12 The remainder of this area is intended to be retained as agricultural grazing land as part of the landscaping proposals, retaining a significant and purposeful landscaping use which is in-keeping with the current use of the allocated site.
- 7.11.13 The central publicly useable open space is critical to the Masterplan in terms of connecting the southern section of the development to the northern section to the foot bridge and then integrating with settlement and Langholm town centre. The foot bridge is intended to land on the north bank to the existing protected open space therefore enhancing connectivity between open space and green infrastructure to the south east of the settlement of Langholm. Typical section through the central space is indicated below.

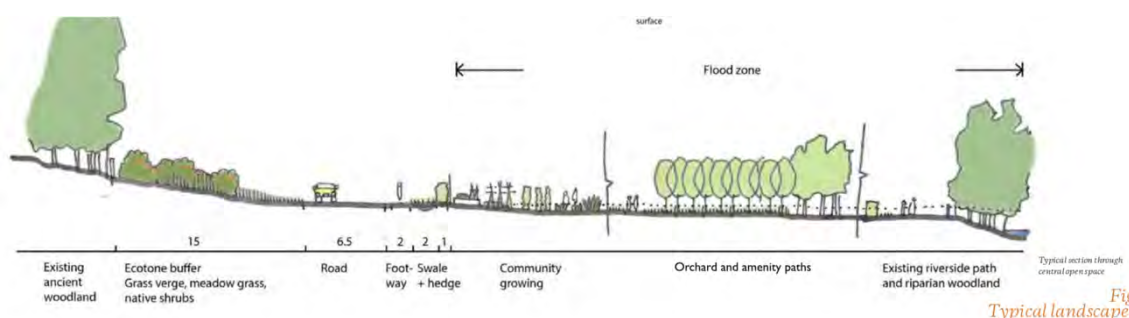
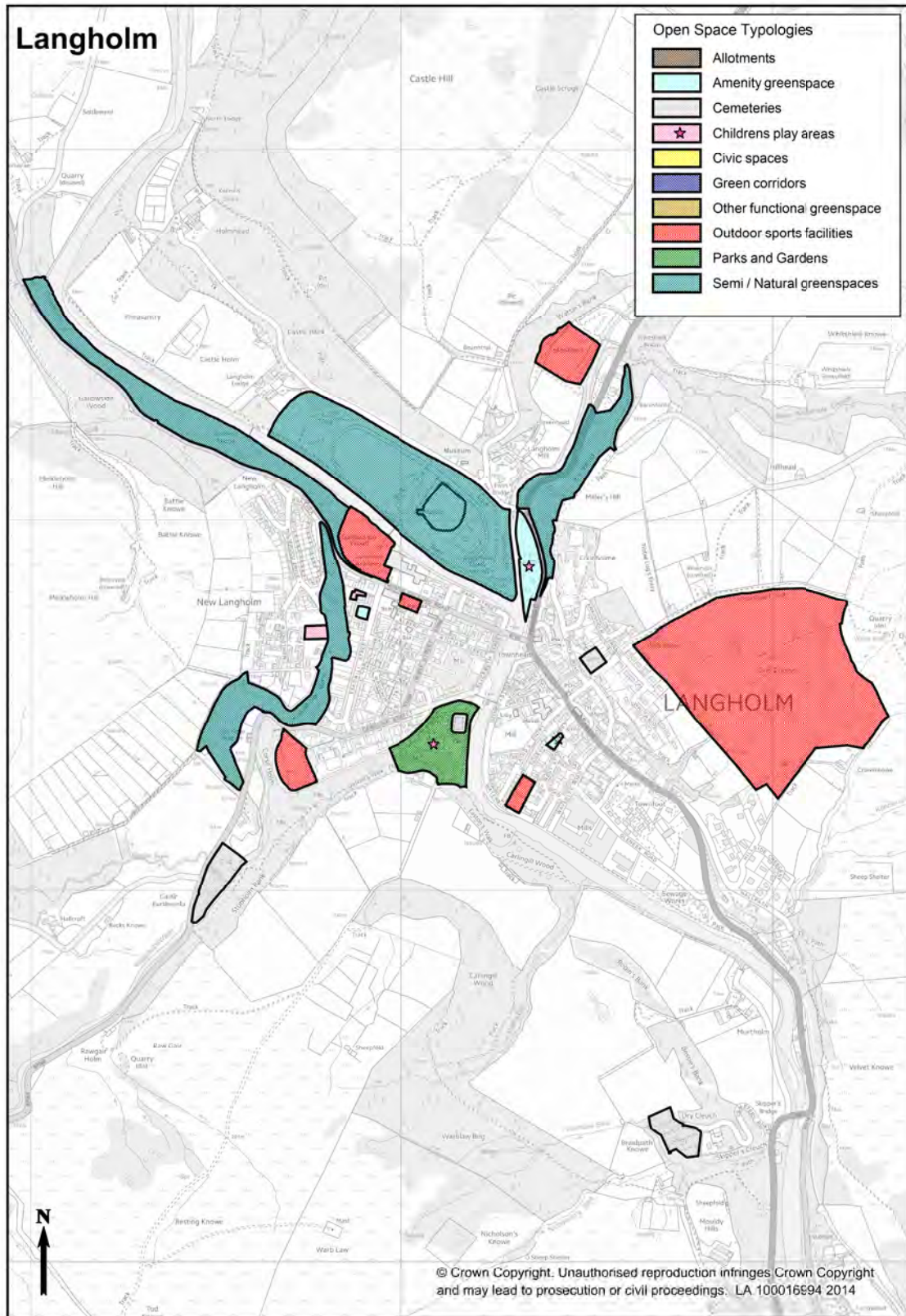


Figure 10:  
 Typical landscape sections

- 7.11.14 The central open space is proposed to be carried out as part of Phase 1b to link the southern section of the development to the pedestrian and cycle bridge. The central open space to the development will also provide publicly useable open space to the households of east Langholm who currently are out-with the 5-minute waking distance zone. This is seen as a key benefit to the settlement for the delivery of this Masterplan.
- 7.11.15 The new development areas are proposed to be sandwiched between the existing mature planting along the River Esk to the east and the existing ancient woodland to the west with an open central space between the north and south developments. These developable areas will be formed around a framework of public open spaces linked by streets or footpaths, sited in easily accessible locations. These will be high quality links for pedestrians and cyclists connecting all parts of the site to well-located open spaces with high quality facilities. This will encourage active travel, reducing the demand for vehicular travel by local residents.





Langholm Existing Open Space Provision



## Quality

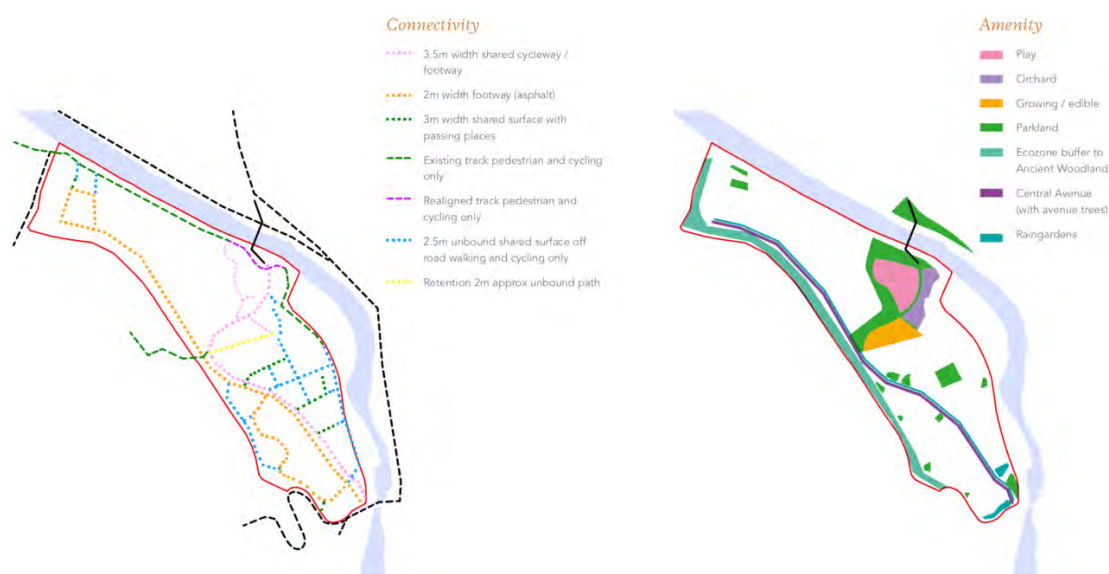
7.11.16 Quantity of provision is important, but providing high quality landscapes that are easily accessible are essential to the success of any new open space within a development. This extends all through the design process from: efficient site planning that maximises the resources of the site; through to careful detail design and specification; good quality of workmanship during construction and eventually to the quality of landscape maintenance and management operations of the site in perpetuity.

## General Principles for Delivery

7.11.17 Open space within the development will be delivered in the following way:

- The type and amount of open space will be determined with consultation with local officers, the identified needs of the settlement, and will comply with the Local Authority's Open Space Strategy and related Supplementary Guidance;
- All households should be within a five minute walk of open space of at least 0.2 hectares but ideally of larger areas; this would be identified through a network analysis using actual routes and taking account of potential barriers to access, particularly relating to the crossing of the River Esk;
- The provision high quality areas of open space will be delivered in earlier phases to support early establishment of the open space and integration to the existing settlement and new development from the outset.

7.11.18 These key aspects are demonstrated in the drawings incorporated in Appendices 2 and 3 and the particularly the provision of connectivity and amenity as indicated below.



## 7.12 Green Infrastructure

7.12.1 Green infrastructure is the use of ecosystems, green spaces and water to deliver environmental and quality of life benefits. It should perform a number of functions, providing multiple benefits from one site. Potential functions include: a habitat network; active travel network; rainwater management; microclimate; landscape structure and visual amenity; play and edible landscapes. Key principles of GI should be multi-functional; a key part of placemaking; efficient use of resources; long term sustainability and an alternative to grey infrastructure.



- 7.12.2 At Murtholm, the green infrastructure will comprise of informal amenity through open space parkland; strengthening of wildlife corridors; incorporation of at-surface SuDS integrated with the landscape; ensure capacity for occasional flood events; integrate informal play and areas of potential community food growing and edible planting throughout.
- 7.12.3 The landscape strategy includes the retention and enhancement of existing landscape features where possible, the protection of adjoining ancient and riparian woodland habitats through an offset buffer from development, together with the provision of new landscape proposals.
- 7.12.4 These aspects are demonstrated in the drawings incorporated in Appendices 2 and 3.

#### **Landscape Setting**

- 7.12.5 A Landscape and Visual Appraisal of the site has been prepared by RFB Landscape Architects in February 2019.
- 7.12.6 The allocated site is a low-lying well-defined site although detached from the main settlement of Langholm. The surrounding area however has an extensive network of country walks and Public Rights of Way providing good opportunities further linkages for recreation.
- 7.12.7 Key open spaces located in close proximity of the allocated site include:
- Carlingill Wood ancient woodland is located along the north and west boundaries of the allocated site;
  - Riverside, woodland and countryside walks running around the perimeter of the site;
  - The historic landscape of Langholm Cemetery is located directly to the south of the allocated site accessed from Cemetery Road which winds up the hillside through woodlands with the cemetery located at the top;
  - Langholm Golf Course is a nine-hole course located directly to the north of the allocated site across the River Esk and A7 set on the lower slopes of Whita Hill;
  - The surrounding Langholm Hills are clearly visible from the site including most prominently Whita Hill to the north.
- 7.12.8 The settlement to the north is separated by the meandering River Esk with the buildings generally presenting their backs to the site particularly along the north bank where the business and industrial uses generally face inwards towards Glenesk Road. These physical and visual barriers are further constrained by the adjacent Langholm Waste Water Treatment Works providing a restrictive urban edge directly opposite the site.
- 7.12.9 The site whilst located to the south in the countryside is relatively naturally screened and protected due to the surrounding topography, existing wooded slopes, with a narrow site frontage running along the A7. The majority of views are gained from nearby point of access at the site frontage, from the riverside paths and particularly centrally to the site from the opposite bank of the River to the east.
- 7.12.10 These immediate views throughout the development are relatively restricted from the wider context due to the site being along the winding valley floor; the long and narrow shape of the site; the imposing ancient woodland that bound the site to the west and north which rise up the steep hillside; the mature trees that line both sides of the riverbank which partially screen the site particularly when viewing southwards across the riverside and the restrictive urban edge running along the north bank of the River Esk. The views at present across the site are views of open fields with fragmented hedgerows and tree lines. The ancient woodland along the north and west boundary provides a particularly imposing natural backdrop to the site.



- 7.12.11 Overlooking glimpses of the southern section are most prominent when approaching the corner on the A7 leading towards Skipper's Bridge, when crossing Skipper's Bridge when travelling south and when on Cemetery Road as it meanders up the hillside adjacent to the site. These viewpoints are partially screened by existing hedgerows and mature trees that line the site boundaries in these locations, and that will be retained. Category A Listed Skipper's Bridge is generally obscured from the main areas of the site except when standing directly adjacent to the bridge at the southern access point of the site. The site is perhaps most prominent on the landscape when viewing Langholm settlement as a whole from height looking southwards from the slopes of the nearby Whita Hill, but the scale of development, position of the site and height of buildings will be in keeping with, and appropriate to the settlement pattern.
- 7.12.12 Murtholm Farm steading is a key focal point on the site due to being the only building currently located on the site. The principal elevation faces south towards the existing access point with the track leading up to the farmhouse.
- 7.12.13 Vistas of the historic built environment are present in the distance in the skyline when standing in the centre of the site. This includes the imposing Waverly Mills and Erskine Church spire located in Langholm town centre looking towards the north west.
- 7.12.14 The surrounding Langholm Hills are visible generally to the north beyond the settlement of Langholm and provide an impressive natural backdrop to the site. These views are particularly unobscured when viewed from the centre of the site looking towards Whita Hill, Langholm Golf Course and the key local landmark of the Malcom Monument at the top of Whita Hill.
- 7.12.15 The lines of overhead electricity cables that cross the site are visible running north-south particularly as these run directly down the slopes of the surrounding hills through the valley, across the river and up the opposite hillside.
- 7.12.16 The landscape strategy to be implemented throughout the site will seek to minimise the visual impact of development from key view-points by retaining and enhancing existing woodland, tree lines and hedgerows.
- 7.12.17 A Tree survey of the existing trees and hedges within and adjacent to site boundary, the ancient woodland in particular, has been carried out. This includes existing mature riparian trees and hedges located on both sides of the riverbank next to the proposed foot bridge connection point. There are no know Tree Preservation Orders within the site boundaries.
- 7.12.18 There is an opportunity to provide relatively flat pedestrian and cycle access from Langholm town centre over the proposed foot bridge crossing the River Esk providing a greater connection, particularly to the east of Langholm with these key existing open spaces to the south and wider countryside. The development will enable greater ease of access for pedestrians and cyclists wishing to visit the historic landscape of Langholm cemetery through a well-connected and attractive green network.
- 7.12.19 The following **landscape design principles** will be applied:
- Retain, protect and enhance existing woodland, trees and hedgerows, where possible on the site as these natural heritage assets will positively contribute to the setting of the new development from day one;
  - A minimum 15m stand-off distance is maintained between any development and the ancient woodland, and that this buffer zone is carefully designed to reduce the likelihood of further direct or indirect negative impacts on the woodland;
  - Create a distinct, high quality landscape frontage to the south on the A7 and from the foot bridge for pedestrians/cyclists to the north;
  - Create multi-functional SuDS and flood capacity landscapes which also contribute to the public amenity and enhance bio-diversity;
  - Enhance the connectivity and functionality of designated wildlife corridors and green network links through and beyond the site;



- Create a large central public open space incorporating play park to be located in the area of land between the north and south sections of the allocated site. This would be located directly adjacent to the north boundary of the larger southern section of the site in close proximity of the extra care housing. The location of the central open space is well placed to connect with the main routes and green network running through the allocated site. The central location is in close proximity of all residential units forming new development and with the enhanced transport links and core paths will allow potential use by adjacent residents including a key pedestrian link to the foot bridge. This is the largest publicly useable green space and will be the focus for a range of community activities. The area will include areas for seating and informal recreation;
- Form the large central public open space clear of the proposed road link and associated area of land required to be excavated for compensatory storage as part of the flood risk mitigation measures as part of the later phases of the development of the allocated site;
- Retention of agricultural grazing land to the central open space between the north and south sections of the allocated site; and
- Consider the incorporation of public art in key publicly useable open spaces which can enhance the aesthetic environment and reflect local character. A good local example of this is the MacDiarmid Memorial at the base of Whita Hill and the gateway sculpture at the current settlement entrance on the A7.

7.12.20 The Masterplan has been developed with a landscape-led approach directing the layout of the buildings within the developable areas of the site. This is very much to reflect the current greenfield landscape setting of the site, importance of the surrounding landscape and indeed the local character of Langholm. Some key landscape elements include:

- Primary spine route is multi-functional and is a green street linking to the open space incorporating street trees, surface water drainage i.e. swale, filter strip, rain gardens and amenity.
- The supported accommodation is arranged around lush courtyards with outward views from the buildings overlooking the central open space to the north and the river views to the east;
- The central open space / flood zone includes a community growing area with orchard, glasshouse (for the chillis), allotment / growing beds and fruiting bushes and shrubs to the west, woodland and pathways through parkland trees set in meadow grassland to the east;
- A north south aligned tree lined road and softening of the edge of the existing riverside footpath will help to reduce visual impact of development, when looking from the east and higher ground such as the Malcom Monument;
- A 15m standoff area between the ancient woodland and development along the western and northern boundaries.

These aspects are demonstrated in the drawings incorporated in Appendices 2 and 3 including an indicative design for the central open space as indicated below.





Figure 13:  
Proposed Central Open Space Layout

### Allotments and Community Growing Spaces

7.12.21 There are currently no allotments, community growing space or community garden provision in Langholm. Given the settlement's ageing population and its relative distance from other settlements, and indeed the proposed land use, housing mix and tenant group to the southern section of the allocated, it is considered this would be appropriate for provision of this type to be established in the open space within the development.

7.12.22 These will be located providing walkable/cyclable access for residents throughout all the development. In general allotments should be designed in accordance with current best practice:

- o Good site access;
- o Good security;
- o Well-maintained and lit paths; and
- o Adequate water provision.

7.12.23 Any community growing areas should be well integrated within the overall landscape plan and be designed to avoid over dominant high fencing.

7.12.24 Langholm Chili Club is potentially a local community led project that could inspire part of the growing spaces strategy allowing the new development to strengthen a link with the existing residents and building on this interesting community inspired project. There is the potential for modest glasshouse or a polytunnel to be linked to the extra care courtyards.



7.12.25 The Masterplan proposals for a community growing zone to be located to the central open space. This will include provision for sheds, greenhouse, poly tunnel, allotment, orchard trees, fruiting hedges, raised beds and composting areas. The area identified for this community growing zone is located to the southern end of the central open space to the north of the farm and proposed extra care housing development.

### **Play Areas**

7.12.26 Provision of play facilities are in general seen as good but consultation highlights a need for a greater provision and range of play equipment, in particular to cater towards teenagers as there is currently no appropriate provision (e.g. youth shelter, adventure equipment) in Langholm. The site therefore requires to include a mixture of informal play areas and equipped areas for play.

7.12.27 The type, design and locations of the landscaping and play facilities are proposed to take influence from the local character and need for Langholm whilst reflecting the countryside location of the site. Providing opportunities for new landscaping features and play facilities that encourage outdoor activities and participation will align with 'The Muckle Toon' Adventure Festival the flagship outdoor adventure event in the south of Scotland.

7.12.28 Detailed design of the play areas will be developed in liaison with Dumfries & Galloway Council to ensure a range of play experiences. In addition to the requirements for open space, play areas will:

- Be centrally located in a visually prominent location within the development, and incorporating a buffer zone between it and adjacent dwellings;
- Be located so that it be reached within reasonable walking distance of the identified catchment area;
- Be distant from busy road junctions;
- Where equipped, be equipped with good quality play equipment in accordance with BSEN1176 and BSEN1177 and appropriate safety surfacing;
- Be developed as a playful landscape that considers topography, vegetation, and surfacing to create a distinct character and is well integrated with the landscape;
- Achieve Secured by Design – Gold Level certification; and
- Provide a range of play equipment suitable for children of different ages.

7.12.29 The Masterplan proposals for play facilities to the central open space are currently based on the following being provided:

- Teen zone – consisting of picnic tables, basketball hoop and static outdoor gym equipment - parallel bars, vault, bench, chin up bars and wall, and steps;
- Toddler & younger kids – consisting of 20x30 m amenity grass kickabout area, swings and basket swing, including roundabout area, picnic area, sandpit with diggers, rockers, hammock and small play frame and slope; and
- Incidental play on way to nursery / school / shops – consisting of stepping stones, willow tunnel, balance beams and boulders.

### **Therapeutic Landscaping**

7.12.30 The landscape associated with extra care housing will function on several levels, including providing both stimulating views from within and offer the potential for extending internal activities into the immediate outdoors.



- 7.12.31 The extra care housing and communal facilities will be centered around landscaped courtyards and community garden areas that will offer flexibility for activities such as outside eating or communal garden parties. Planting will consider microclimate, shade and solar gain. Enriching the external environment to encourage wildlife such as birds to feed, and to enhance biodiversity will be a key element.
- 7.12.32 Safe and accessible routes will be integrated into the design to provide opportunities for exercise and social interaction. Seating points should be strategically located to allow for resting.
- 7.12.33 Small patios to the extra care housing will provide residents with an outside area and an opportunity to personalise this space. Raised beds more easily enable frail or wheelchair bound residents to appreciate the planting and the opportunity to contribute to gardening activities. There is also an opportunity for the development to grow some of its own food. These spaces will be an important contributor to the health and wellbeing of its residents.
- 7.12.34 The planting strategy will stimulate the senses whilst minimising maintenance burden and provide opportunities for resident participation. Planting design will include structural diversity, tactile and sensory variety, and provide year-round interest.

### **Management and Maintenance**

- 7.12.35 All areas of public open space will be designed to the standards required by the Local Authority. A scheme for the future maintenance of all areas of open space and landscaping will be submitted together with all future planning applications.
- 7.12.36 Areas of open space will be privately maintained in perpetuity to the satisfaction of the planning authority through, for example, a factoring agreement. A legal agreement will be required to secure the future management and maintenance of all areas of open space within the Masterplan area unless/until adopted. Management and maintenance can be transferred to an entity other than the developer by means of a Deed of Conditions which shall be approved by Dumfries & Galloway Council.

## **7.13 Servicing**

### **Public Utilities**

- 7.13.1 The current Public Utility records from third parties such as Scottish Power, BT, SGN and Scottish Water have been investigated to understand the extent of the existing utility infrastructure, in and around the proposed site. These plans Public Utility records have been initially reviewed to determine the impact that the Masterplan may have with respect to diversions, and new works/alterations, to ensure the development can be fully serviced. Further works may be required to facilitate the full Masterplan; however, these would form part of future phases.

### **Electricity**

- 7.13.2 The existing electrical infrastructure contained within the site boundary comprises of both overhead 11kV and 33kV lines. This information has been gained from Scottish Power records of the local Langholm area. The overhead lines run in a south easterly direction from the Langholm Primary sub-station, along the outside of the site boundary and then running easterly across the southern side of the site crossing before crossing the River Esk and splitting north/south to continue the HV ring. The 11kV line spurs off and crosses the northern tip of the site, over the River Esk to serve a local sub-station located to the north across the River Esk and located at the Co-operative superstore. A diversion of both 11kV and 33kV overhead lines would be required at both the north and south of the site to facilitate any future developments and would require to be carried out in compliance with Scottish Power.



7.13.3 An initial undiversified load estimate for the overall Masterplan would equate to 2MVA. This is based on unable to facilitate the site with a gas connection, therefore utilising electric heating and hot water throughout the development. To service the site we would anticipate two 1MVA transformers would be required. Phases 1 & 2 would be served by their own transformers with the remaining Phases 3, 4 & 5 serviced via the second transformer. It is anticipated the new connection could be derived from the local HV ring, however the spare capacity on the local network is currently unknown therefore further assessments and discussions with Scottish Power will be carried out to determine this.

7.13.4 To cater for the site demand we would propose the new sub-stations are strategically located to provide the load capacity at the correct location whilst taking account of the construction phasing requirements. Approximate loads for the future phases have been considered as part of the overall site demand, therefore it is not anticipated future phases would require additional sub-stations. Street lighting and amenity lighting will be supplied from the site sub-station.

### **Gas**

7.13.5 There is no existing SGN mains infrastructure within the proposed development area. There is existing infrastructure to the north of the proposed development area which serves the nearby Co-operative superstore. This is located to the north of the site across the River Esk.

7.13.6 The proposed Points of Connection to the existing gas network and the route to site will need to be from the opposite side of the River Esk. The order of the SGN budget quote obtained confirmed providing gas to the site was not viable.

### **Alternative Heating**

7.13.7 On the basis the SGN budget quote is cost prohibitive to provide a new gas supply to the site then alternative means of providing heating and hot water need to be considered. This would potentially allow a greater use of renewable/low zero carbon technologies such as electric heating, air source heat pumps, ground source heat pumps or biomass to be utilised. The design to Passive House standard will significantly reduce the extent of demand for heating as part of the new development.

### **Telecommunication**

7.13.8 An existing overhead BT route exists within the development zone to the east side of the site running parallel to the River Esk. The route runs north to Murtholm before crossing the river and continuing the network. A diversion would be required to the existing BT route to take the overhead lines out-with the boundary of the site. There is also existing BT is underground and in the verge of the existing access that will likely need to be diverted as part of the works. The full extent of the existing fibre services cannot be established at present however discussions are on-going with BT.

7.13.09 New BT ducts, manholes, above ground cabinets and network cabling will be installed to suit the site masterplan. The main spine network would be sized to suit the site masterplan and any potential future developments within the site boundary. Ducts would be run from the main spine routes to service the plots as required within each phase.

### **Foul Drainage**

7.13.10 Langholm Waste Water Treatment Works (WWTW) is on the opposite side of the River Esk.

7.13.11 Scottish Water asset search identified a capacity at the Langholm WWTW of 256 units.

7.13.12 Scottish Water Pre-Development Enquiry response received. Scottish Water have confirmed that the treatment works has adequate capacity to accept foul wastewater flows from the development.



7.13.13 A wastewater pumping station will be required to service the development. Scottish Water have advised that foul flow from the site is should be no greater than 5 l/s. The rising main from the pumping station will be required to cross the River Esk. Scottish Water do not want rising main incorporated into the footbridge design but have agreed in principle to directional drilling below the River Esk to allow connection of the water main infrastructure. A new Scottish Water vested wastewater network will be constructed on the site to serve the development.

#### **Water Supply**

7.13.14 Scottish Water Pre-Development Enquiry response received at the time of Masterplan development. Scottish Water have confirmed there is currently sufficient capacity in the Black Esk Water Treatment Works to service the proposed development.

7.13.15 Scottish Water have confirmed a Hydraulic Water Impact Assessment (WIA) is required for a development of this size. Scottish Water Horizons have completed a Water Impact Assessment which concluded there will be no adverse detrimental effects to the Scottish Water network as a result of supplying the development. A pressure reducing valve is needed at the point of connection to water supply network to regulate pressures on the development site.

7.13.16 An existing 6" Water Main runs through the allocated site which will require to be diverted. This is located close to the south west boundary of the allocated site.

#### **Sustainable Drainage Systems (SuDS)**

7.13.17 Surface water flows from the area will be directed via a network of landscape surface water drainage features including swales, filter trenches and rain gardens for filtration, attenuation and for the benefit of biodiversity and amenity. Treated and attenuated flows from the development will be discharged to the River Esk via a new outfall.

7.13.18 Percolation tests were undertaken during the ground investigation. The underlying soils presented good soakaway characteristics. Use of permeable surfaces throughout the development and infiltration of surface water into the ground will reduce the catchment area and surface water runoff to the suds feature. All infrastructure and pipework will be vested in Scottish Water upon completion.

7.13.19 Any post development flows to the River Esk will be limited to no more than the existing greenfield run off flows to the River Esk.

7.13.20 In determining a surface water drainage strategy for the Masterplan area, the recommendations must:

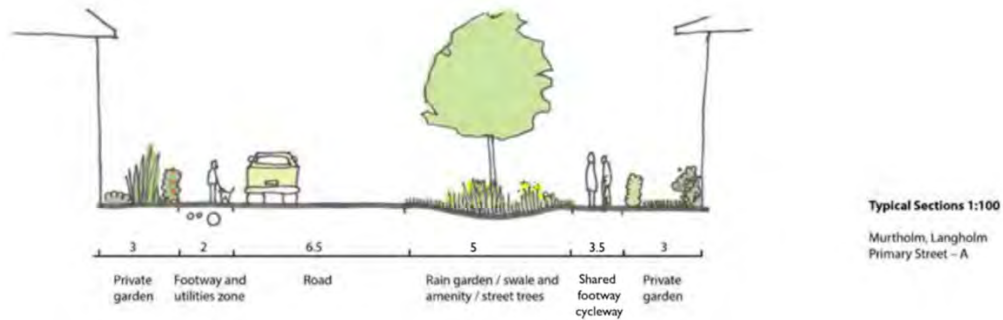
- Include surface water drainage as an integral part of the landscape;
- Ensure the proposals contribute to biodiversity, amenity and place-making;
- Integrate, where possible, SuDS into public open space provision however the central open space on this development is subject to flood risk and therefore has been required to be considered as part of the proposed surface water drainage strategy;
- Manage surface water run-off close to source control;
- Manage water quantity and quality using sustainable urban drainage systems in accordance with the CIRIA SuDS Design Manual C697;
- Install at least two levels of SuDS treatment to achieve the required water quality for surface water run off;
- Minimise the environmental impact of the proposed development;
- Incorporate public health and safety;
- Include long term maintenance and management arrangements.



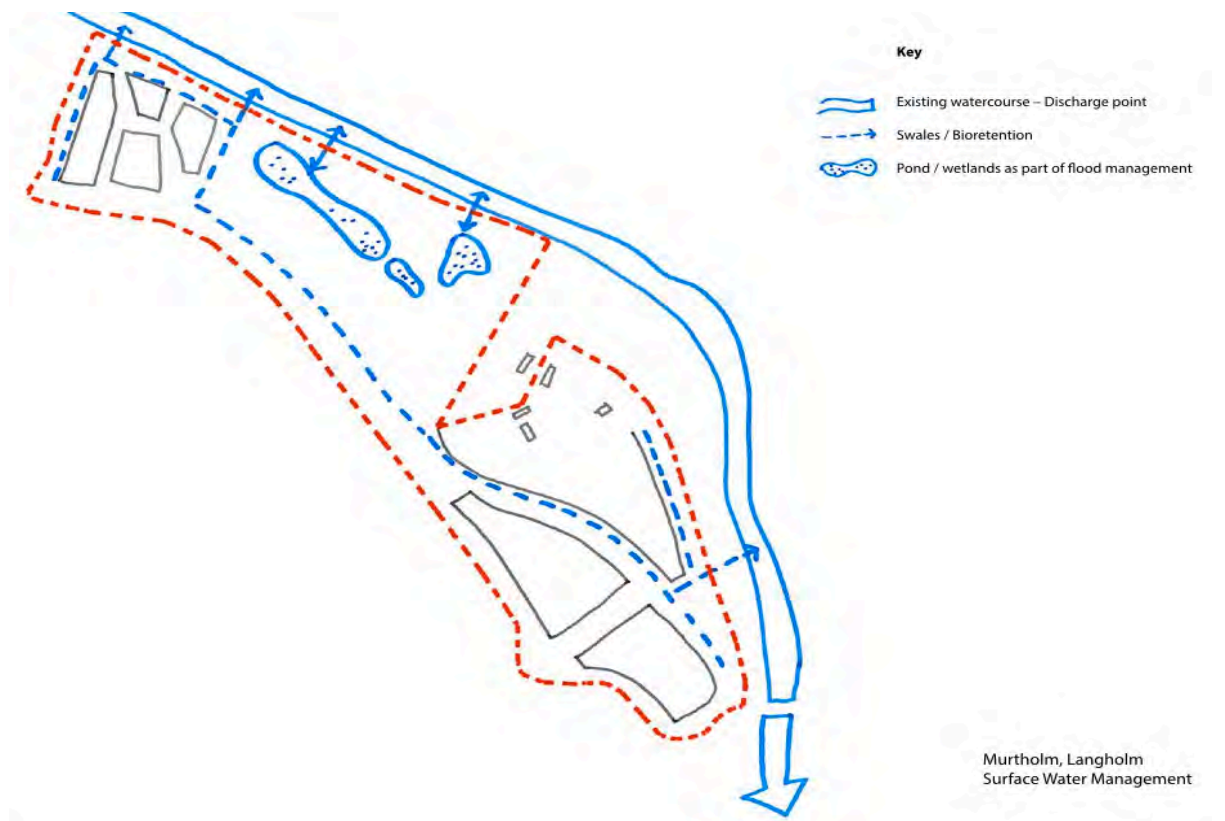


7.13.21 SuDS are not simply a technical requirement and emerging guidelines and good practice actively encourage the locating of SuDS within areas of open space within the developable areas. The surface water drainage proposals will need to form an integral part of the development.

7.13.22 When SuDS are integrated into areas public open space it can provide an excellent opportunity for recreational enjoyment, to enhance the amenity value of open space, encourage local wildlife as well as have a positive impact on house values by creating a high quality residential environment. This is demonstrated in the SuDS concept strategy below. Reference should also be made to the typical landscape section over.



7.13.23 Due to the restrictions of locating the SuDS into the central open space due to flood risk a surface water drainage strategy has been developed to integrate with the development proposals as a series of features as opposed to forming a large main SuDS feature. This is due to the limited areas where development can occur due to the extent of flood risk identified to the entire allocated site. SuDS features will be located in positions where there is natural surveillance, by way of properties facing onto the SuDS and open space, results in increased safety and reduces the potential for anti-social behaviour and fly-tipping. SuDS concept strategy is indicated below.





7.13.24 All SuDS proposals will:

- Be designed as an integral part of this future community to maximise the benefit to the residential area;
- Be designed to have a natural form and appearance to complement areas of open space and integrate into the landscape;
- Be designed within the context of an overall landscape plan to reinforce local landscape character and work with existing topography, hydrology and habitats;
- Be directly overlooked by the living areas of adjacent dwellings to ensure good passive surveillance, help to foster a feeling of safety and discourage anti-social behaviour;
- Not be located to the rear of dwellings;
- Be developed simultaneously with each phase of development;
- Be covered by an appropriate management and maintenance regime.

Examples for the types of SuDS features to be incorporated are provided below.



7.13.25 The primary access road leading to the northern open space crosses an existing access track, the road will need to be designed to meet this track at or close to the existing track level, circa 75mAOD. The southern end of primary access road will tie surrounding levels of circa 73mAOD to the southern end of the site. There is a natural gradual fall from north to south across the site. Drainage should fall from north to south in order to achieve efficient drainage design. The most efficient location for any main SuDS features and foul pumping station is at the southern end of the site.

7.13.26 The Primary Road through the site is likely to cater for more than 300 vehicle movements per day and therefore needs 2 stages of treatment (surface water passing through 2 different SuDS features) prior to discharge to restricted discharge to the River Esk. The swale / rain garden strip along the primary road could potentially be designed as with a filter strip and sub-surface filter drain below to provide the levels of treatment needed. Swales are generally shallow features which make them difficult to accept flows from a distance unless surrounding ground levels can be designed to fall towards them. The swale will not be able to provide all of the SuDS storage needed on the site. Given the shallow nature and overall 17m wide primary road catchment area that would drain to the swale there would be limited scope to accept additional areas from adjacent buildings and side roads.

7.13.27 Secondary and tertiary roads would require only 1 stage of treatment and could potentially be drained to gullies connected to surface water sewers discharging to an adopted SuDS basin or pond. All private parking areas could be constructed in permeable paving to reduce the catchment area discharging to a surface water sewer and SuDS basin.



- 7.13.28 It would be possible to make use of soakaways on the site to reduce the overall catchment area and size of any main SuDS feature. There are areas of open space throughout the site which could also provide opportunity for below ground storage features. Soakaways and infiltration trenches should be located at least 5m from plot boundaries and structures, some of the private gardens appear to be small to make use of individual soakaway features within the plots and may have to discharge to a surface water sewer and communal SuDS features.
- 7.13.29 The high level general surface water strategy for the Masterplan would be as follows:
- Primary Spine Route - Swale and raingarden;
  - Secondary and Tertiary Roads – Swales, gullies, surface water sewer, SuDS basins;
  - Private Parking and Courtyards - Permeable paving;
  - Roof Areas - Soakaways and infiltration trenches where possible, surface water sewer and SuDS basins. Cellular storage proposed below open space to reduce SuDS basins size.
- 7.13.30 A key principle would be to provide natural drainage channels and rain gardens to keep the water at surface and greatly reduce run off out-with the site. These would be intended to be fully integrated in the landscaped areas and would intend to enhance biodiversity to the site. Streets would also incorporate appropriate SuDS techniques as required.
- 7.13.31 Potential for green roofs to be considered to not least for positive rainwater management slowing, treating and potentially temporary storing before controlled discharge, but there are also potentially large biodiversity benefits to be gained as well as pollution filtering, cooling and carbon storage.
- 7.13.32 Consultation will be required for Permit to Discharge into the River Esk. This will require consultation with both SEPA and Environment Agency due to River Esk outfall. Permit is a detailed aspect beyond the scope of this Masterplan however the principles of drainage outfall has already been agreed.

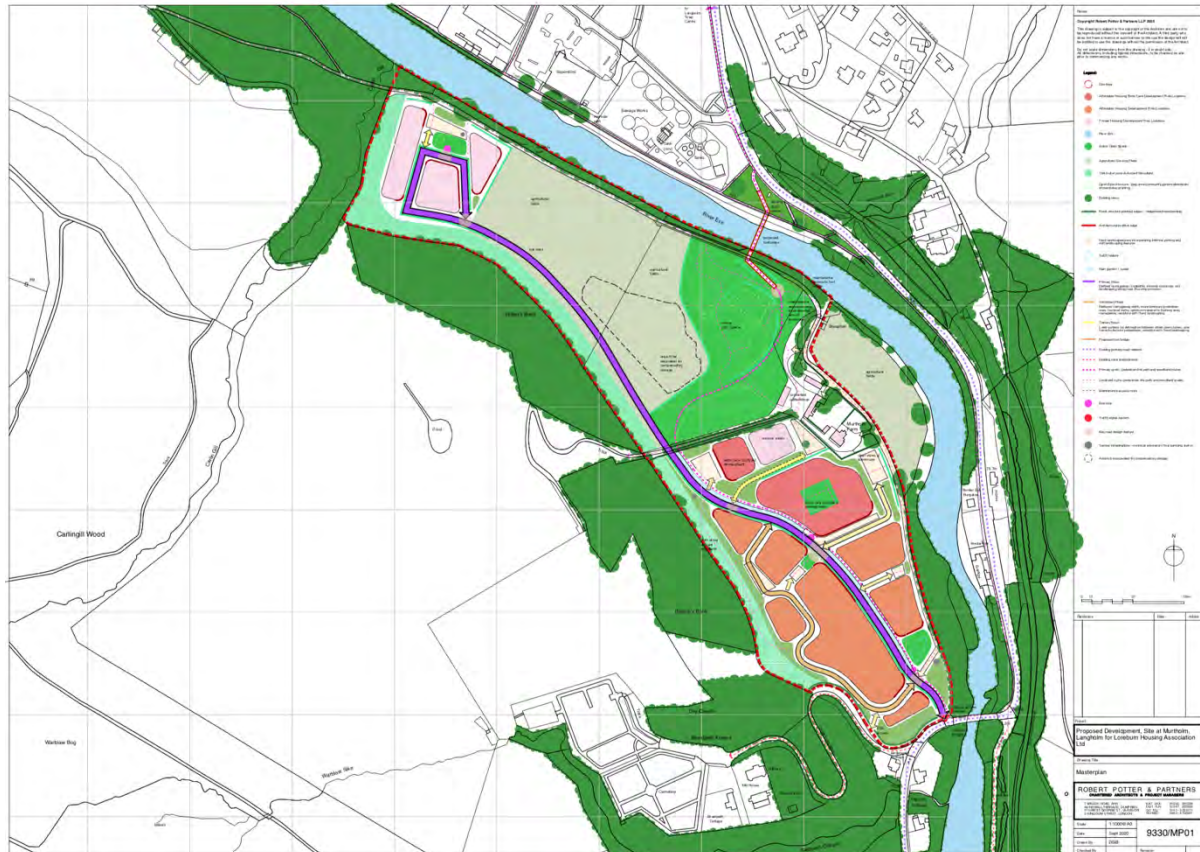
#### **7.14 Outcomes**

- 7.14.1 The careful development of the masterplan principles set out above and development of the design concept will achieve the masterplan vision outlined in this document. These principles in turn will be entirely in-line with the Supplementary Guidance for Design Quality of New Development as achieving a successful development. This will entail:
- Retain and incorporate existing site features and characteristics;
  - Respond appropriately to wider landscape character;
  - Protect and enhance attractive spaces and vistas;
  - Respond positively to landform and do not result in significant levelling off or use of mounds, platforms or underbuilding;
  - Usually avoid unnatural land changes and the use of retaining wall structures but instead incorporate slopes into overall design;
  - Incorporate key views, both into and out of the site;
  - Use views and landmarks to assist in orientation;
  - Ensure that the size and pattern of development is in keeping with the local area;
  - Respect and complement existing building materials in the area;
  - Seek to create a positive edge when located on the edge of settlements; and



- o Incorporate adequate and convenient bin storage facilities

7.14.2 Delivery of these outcomes will be achieved following acceptance of the Masterplan and implementing the Masterplan through subsequent planning approvals in accordance with the Masterplan phasing proposal. Overall Masterplan is included below.



## 8. Developer Contributions

- 8.1 Within the LDP2 where a development proposal creates a need for new, extended or improved infrastructure, community facilities and / or environmental amenity developer contributions will be sought. Developer contribution requirements need to be proportionate and reasonable, based on evidence and take into account the financial viability of developing the site.
- 8.2 If the provision of developer contributions makes the development unviable the developer will be required to provide a full development appraisal demonstrating the negative impact the contribution has on the development. Where it is considered that the burden imposed by the contribution is so great that the development would not otherwise take place the Council will negotiate with the developer. Negotiations will assess benefits the development brings to the community and determine if mitigation can be met through other means.
- 8.3 Dumfries & Galloway Council's Education Service indicates there is currently capacity within Langholm Primary school which is the catchment primary school for the Masterplan site. Langholm Primary School is located 2km away from the allocated site on Thomas Telford Road. It is understood there is remaining capacity at this school.
- 8.4 Dumfries & Galloway Council's Education Service indicates there is currently capacity within Langholm Academy which is the catchment secondary school for the Masterplan site. Langholm Academy is also located 2km away from the allocated site on Thomas Telford Road. It is understood there is remaining capacity at this school.
- 8.5 On average housing developments generate approximately 3 pupils per every 10 houses. Using this formula and based on the total allocation for the Masterplan area (130 No units), the development could create a need for an additional 45 places.





8.6 The development of approximately 110-120 No. houses proposed to the southern section of the allocated site as part of Phases 1, 2 & 3 are intended to be 100% affordable delivered by Registered Social Landlord. This development is therefore exempt from the developer contribution requirements. This will impose a burden on the Education Service in the provision of additional spaces. Affordable Housing provision for the entire allocated site will be met by Phases 1-3.

8.7 The development of approximately 30- 40 No. private housing as part of Phases 4 & 5 will require a developer contribution towards the additional costs of education provision. Excluding the affordable housing exempt from developer contributions for education this would equate for the need for an additional 15 places.

## **9. Phasing Plan**

9.1 This Masterplan sets the core factors for development of the proposals. The nature and size of the development would require a phased strategy to be developed. The phasing plan ensures the Masterplan area is developed in a logical, sequential manner; key infrastructure, open space and affordable housing are delivered in accordance with the development plan and development of no part of the Masterplan area is prejudiced.

9.2 The phasing will see the development delivered across 6 approximate phases. The phasing of the development will be crucial for coordinating and ensuring the success of the different areas of the site. The proposed Phasing Plan takes into account the need for infrastructure to be provided in a timely manner as part of the earliest phase.

9.3 The phasing also reflects the need to support the development of communities and to avoid the creation of pockets of development that are isolated from existing or proposed services and facilities. There is a clear requirement in the phasing the deliver the type of housing required by the local need during the earlier phases.

9.4 A key principle of the Phasing Plan is ensuring the infrastructure necessary to support and serve those development is in place or will be delivered followed closely by the first phase of residential development. The overall development for the allocated site would consist of an estimated 130 No. residential units in total.

9.5 All phases will be required to include the following as standard:

- SuDS and foul drainage;
- Road network designed in accordance with 'Designing Streets' principles;
- Pedestrian and cycle links;
- Open space in accordance with the Open Space Supplementary Guidance;
- Retention and enhancement of existing landscape features;
- Affordable housing.

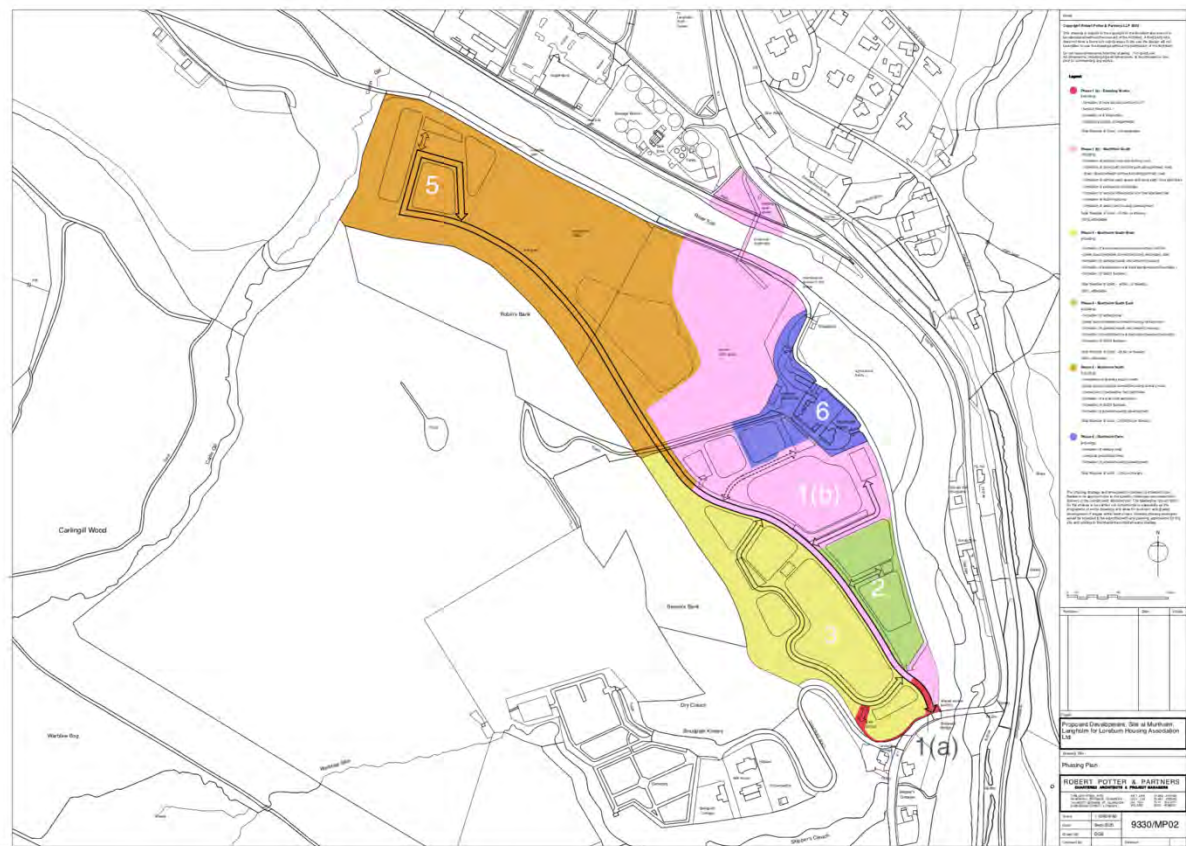
9.6 The development will be delivered based on the requirements of Planning Authority, Roads Authority, Transport Scotland and Public Utility company's requirements.

9.7 Public Utility diversions will be carried out as part of the initial work phase to enable later construction and limit the risk of "service strikes".

9.8 Consultation with Transport Scotland in relation to the upgraded A7 junction is concluded. This is intended to be fully constructed and implemented prior to development construction commencing to allow construction traffic to safely access and exit the site.



- 9.9 Engineering infrastructure will be delivered in phases where possible with the roads being constructed to serve the housing as and when required. There are engineering elements of the design that require to be fully implemented prior to occupation. For example, the road access, foot bridge and foul wastewater pumping station will require to be fully operational prior to any occupation.
- 9.10 The Phasing Plan proposes the first phase of the development will be split to ensure delivery of the extensive infrastructure required to service the site.
- 9.11 The estimated number of units indicated for each phase is purely indicative at this stage and is dependent on the brief requirements for each phase and the local housing demand. There is an expectation the number of units to the entire allocated will be in the order of 130 No. units in comparison to the 200 No. units designated for the allocated site in LDP2. A Phasing Plan is included in in Appendix 4 and indicated below.



- 9.12 The Phasing Plan proposed for the delivery of the Masterplan is initially based on the following:-

**Phase 1(a) – Enabling Works**

**Road access improvements and service infrastructure/diversions:**

The first part of phase 1 will require to deliver the road and access improvements to provide adequate access to the south of site from the A7. In addition, prior to commencement of the development in terms of housing will be the requirement to divert the existing water main and overhead electrical cables clear of the site. Infrastructure required to service the site gas, electricity, foul drainage and telecommunications that require to cross the River Esk is proposed to be carried out during this site enabling phase.

A temporary haul road either following the primary spine route through the site or existing track to the east of the site would be required to allow construction traffic to access the northern section of the site where the foot bridge is proposed.





### **Phase 1(b) – Murtholm South**

#### **Foot bridge for pedestrians/cyclists, extra care housing, primary spine road and associated secondary roads to the southern section of site and central open space:**

The second part of phase 1 would be the largest phase of the development in terms of infrastructure and will deliver the construction of the foot bridge for pedestrians and cyclists and associated connections. In addition, the extra care housing and associated communal facilities will be carried out during this phase. The units are proposed to be located in the north of the southern section of the site adjacent to Murtholm Farm. This ensures a key need for this type of accommodation in the settlement is delivered at the earliest stage.

The primary bus-permeable road running through the southern section of the site would be required to be formed during this phase to access these units. A turning head to the north of this section of the site would be required to be formed on the basis the primary spine road leading through the open space to the most northern section of the allocated site would not be completed until a later phase.

The secondary road to the south of the extra care housing would require to be formed together with the communal parking courts. Service infrastructure required for the development including utilities, drainage, surface water, electricity would require to be carried out during this phase in co-ordination with the primary road installation.

The main central open space to the centre of the allocated site and the strategic landscape enhancements along wildlife corridor would generally commence to be carried out during this phase incorporating foot paths, landscape works, equipped play area and growing spaces to all the households to the east of Langholm have accessibility to publicly useable open space at an early stage of the development.

The second part of Phase 1 would consist of an estimated 35 No units in total with all extra care housing carried out during this phase would be 100% affordable.

### **Phase 2 – Murtholm South West**

#### **General needs and amenity affordable housing to the western edge to the southern section of site:**

Phase 2 will deliver general needs and amenity units proposed to be located on western side to the southern section of the site. This would be the largest phase in terms of delivering houses and would link with the development completed in Phase 1 (b), creating connectivity and a sense of place in the short term and prevent isolated development and car dependence. This ensures a key need for a mixture of affordable housing in the settlement is delivered at the earliest stage.

Phase 2 would consist of an estimated 40 No. units in total with all housing carried out during this phase would be 100% affordable.

### **Phase 3 – Murtholm South East**

#### **General needs and amenity affordable housing to the eastern edge to the southern section of site:**

Phase 3 will deliver general needs and amenity units proposed to be located on the remainder southern section of the site. This would complete the new-build development to the southern section of the site further solidifying the connectivity and a sense of place. This ensures a key need for a mixture of affordable housing in the settlement is delivered at the earliest stage.

Phase 3 would consist of an estimated 20 No. units in total with all housing carried out during this phase would be 100% affordable.



#### **Phase 4 – Murtholm North**

##### **Private housing to the northern section of site:**

Phase 4 will deliver the private housing development to the northern section of the site and complete the gateway entrance to the site when approaching over the foot bridge. This will require the formation of the primary road linking the southern section to the northern section of the site which will run along the western boundary through the central open space.

Phase 4 would consist of an estimated 20-30 No. units in total.

#### **Phase 5 – Murtholm Farm**

##### **Murtholm Farm Steading to the southern section of site:**

Phase 5 will deliver the restoration and integration of Murtholm Farm. There is potential for Murtholm Farm house to be occupied at any stage of the phasing on the basis the house and grounds. There is potential scope to convert and form limited new-build housing in the location of the former agricultural out-buildings to the north of the farmhouse and new-build housing to the west of the farmhouse. Completion of this phase will complete the delivery of the Masterplan and the development as a whole.

Phase 5 would consist of an estimated 20-30 No. units in total.

- 9.13 The proposed Masterplan layout offers the opportunity to develop a phased strategy for construction. The above initial phasing strategy has been developed based on the practicalities of constructing the units and infrastructure associated with the allocated site to minimise disruption to nearby households and businesses.
- 9.14 The phasing should be regarded as indicative and will be applied with a degree of flexibility to enable the development to respond to changing circumstances over a period of time.
- 9.15 In order to demonstrate compliance with national and local policy on placemaking the planning application for each individual phase shall be accompanied by a statement which sets out how the development meets the aims and objectives of the current policy and the accepted Masterplan.

##### **Programme**

- 9.16 The overall development for the allocated site would consist of an estimated 130 No. residential units in total.
- 9.17 The proposed Masterplan layout offers the opportunity to develop a phased strategy for construction. The above initial phasing strategy has been developed based on the practicalities of constructing the units and infrastructure associated with the allocated site to minimise disruption to nearby residents.
- 9.18 The delivery of Phases 1a, 1b, 2 and 3 of the Masterplan would be envisaged during the duration of LDP2 and in accordance with site guidance for LDP2. The completion of Phases 4 & 5 is subject to delivery by a private developer the timescales of which will require to be determined.
- 9.19 The phasing strategy and timescales for delivery is intended to be flexible in its approach due to the specific challenges associated with delivery of the complicated allocated site. The Masterplan should allow for the phases to be carried out concurrently or separately as the programme of works develops and allow for evolution and greater development of stages within each phase. Detailed phasing strategies would be intended to be submitted with any planning applications for the site and relating to the Masterplan initial phasing strategy.



## **10 Community Engagement**

### **Background**

- 10.1 As a major application a Pre-application Consultation (PAC) process has been carried out in accordance with the statutory requirements for major applications to ensure the supported development of a Masterplan reflects the vision and aspirations of all key stakeholders.
- 10.2 The detailed planning application(s) will include further public engagement to address matters not previously informed by engagement on the Masterplan; however each application will be in conformity with the agreed Masterplan.

### **Pre-Application Consultation (PAC) Process**

- 10.3 A Pre-Application Notice (PAN) has been submitted in accordance with the statutory requirements for major applications.

### **Publicity**

- 10.4 A PAC report details the publicity required in accordance with the statutory requirements for major applications.

### **Appraisal**

- 10.5 A PAC report details the appraisal in accordance with the statutory requirements for major applications.

### **Feedback**

- 10.6 A PAC report is available and details the public feedback in accordance with the statutory requirements for major applications. This will be incorporated into any future applications for Planning Permission. The PAC report details feedback from the community and changes that have been undertaken as a result of community engagement.

## **11 Status of Masterplan**

- 11.1 The development is intended to be carried out in the short term and commence within the period of LDP2 and within the present allocation timescale.
- 11.2 This Masterplan was prepared in consultation with Planning Officers as part of a formal Pre-Application Consultation process.
- 11.3 The applicants have been in consultation with other stakeholders associated with the development and this will be extended to involve other potential stakeholders with an interest to delivery of the development.
- 11.4 Public Engagement and Community Consultations will require to be carried out as noted in the Masterplan document not least for a development of this size but due to the nature of use and developer aspirations.
- 11.5 The Masterplan is to be considered at Dumfries and Galloway Council Economy and Resources Committee and subject to committee acceptance, adopted as Planning Guidance to LDP2.



## **Appendix 1**

Extra Care Housing Design Guide

## APPENDIX 1

## Extra Care Housing

### The Benefits and What This Type of Housing Offers to People

#### What is extra Care Housing?

The term 'extra care' housing is used to describe developments that comprise aspirational self-contained homes with design features and support services available to enable self-care and independent living.

It comes in a huge variety of forms and may be described in different ways, for example:

- 'very sheltered housing'
- 'sheltered plus'
- 'housing with care'
- 'retirement communities' or 'villages'
- 'supported accommodation'
- 'supported living'

Occupants may be owners, part owners or tenants and all have legal rights to occupy underpinned by housing law (in contrast to residents in care homes).

#### What are the benefits of Extra Care Housing?

- Supports people in their own community for as long as they are able and wish to do so.
- Enables and assists people to live as independently as possible within their community, in their own home, for as long as possible by adopting an 'enabling approach' rather than a 'doing for' approach.
- Ensures people's dignity, safety and welfare are promoted and maintained.
- Promotes and supports the use of aids to daily living including the use of assistive technology to support people's independence and reduce risks to safety.
- Encourages people to express their own personal aspirations in the way they wish to live their life, and, on the outcomes, they would like to achieve.
- Enables people to exercise choice and control within available resources, or from their self-directed support care package.
- Gives people the opportunity, assistance and confidence to maintain or regain their daily living skills people may have lost as a consequence of, for example, poor health, disability or sensory impairment.
- Provides a flexible and responsive service.
- Delivers care and/or support at times people need it, with compassion and empathy in a respectful and non-judgmental way.
- Reduces inappropriate admissions to hospital.
- Facilitates timely discharge from an acute setting or community hospital.

- Prevents and or delays admission to a long term residential or nursing care setting.
- Ensures extra care schemes do not look like, or feel like, an institution.
- Undertakes assessment and allocation as a joint function between adult social care, the support/care provider and housing provider (landlord). Working together to provide an effective service to people.
- Ensures there is a positive attitude to mental health and support for people living with dementia.
- Helps to overcome social isolation and loneliness by becoming part of a community.

Type of Scheme	Description
Purpose built extra care scheme without community resources	<ul style="list-style-type: none"> <li>• 30-40 units of accommodation in one location</li> <li>• Apartments or Bungalows</li> <li>• For use by tenants only</li> <li>• Incorporates facilities such as communal lounge, café, restaurant, IT suite, activities area, guest suite, laundry, scooter store and lift/s.</li> </ul>
Purpose built extra care scheme with community resources	<ul style="list-style-type: none"> <li>• As above with attached community facilities, such as resource or activities centre, health and well-being, recreational and leisure facilities all of which are open to local communities.</li> </ul>
Core and cluster extra care scheme	<ul style="list-style-type: none"> <li>• Local housing units are often bungalows</li> <li>• Schemes often have a core central building, facilitating staff teams</li> <li>• The core central building also incorporates those community facilities described above</li> </ul>
Remodelled extra care scheme from existing sheltered housing or residential care home	<ul style="list-style-type: none"> <li>• 30-40 units to achieve economic viability</li> <li>• Tends to be of newer and larger sheltered housing schemes or homes</li> <li>• These schemes may not have all the facilities of a new build extra care scheme as described above.</li> </ul>
Extra care schemes for people with specialist needs	<ul style="list-style-type: none"> <li>• Smaller schemes offering around 20 units or fewer</li> <li>• Developed specifically for individuals with specialist needs, for example, cognitive impairment, autism, learning disability</li> <li>• Schemes often have a core central building facilitating staff teams and could incorporate a day resource for both people living in and out of the scheme with similar specialist needs</li> <li>• Can often be re-provisioned service for existing accommodation no longer considered fit for purpose.</li> </ul>



# Extra Care Housing Design Guide

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## 1 Introduction

Loreburn's vision is 'Creating Great Places to Live' and one of the key strategic commitments in LHA's Corporate Plan is a focus on the demand for the ageing population across the Dumfries & Galloway region. This includes a commitment to developing 'extra care housing' (ECH).

LHA's **Development Design Guide** sets out the commitment to continuous improvement and the provision of ECH to the housing portfolio brings additional requirements. This document aims to outline those design principles which underpin LHA's commitment to creating **GREAT Homes** and **GREAT Services** for our older population and those who require more specialised housing provision.

While this document sets out LHA's ambitions around high quality design specific to the needs of those living in ECH, there may be issues associated with individual sites, cost controls and affordability for end users which must also be considered and which may occasionally prohibit the achievement of all aspirational design features. Development partners and architects will be encouraged to demonstrate how they can be innovative in terms of design in both public spaces and within accommodation space to create a social environment that enhances wellbeing and builds communities where people want to live and stay. LHA's ECH developments will be:

- financially viable
- well designed and innovative
- functional
- affordable
- desirable

## 2 Design Principles & Aims

The design and development of new ECH should in all cases enshrine dignity and respect, security, social integration, quality and empowerment. LHA's design principles will encompass the following aims:

- To provide a 'Home for Life' – as far as is practically possible
- To create an enabling environment which is domestic in style
- To create GREAT buildings to be proud of
- To allow individuals to find privacy, comfort, support and companionship
- To enable staff teams to run and manage the building efficiently and to meet the care and support needs of individuals
- To create a resource for the local community
- To provide for the various staff requirements
- To achieve the required sustainability targets
- To design and build to Passivhaus standard wherever possible

## 3 Design Criteria – Meeting the Needs of End Users

End users include Residents, Staff and Visitors.

### 3.1 Residents

To complement the social and emotional support provided to residents by staff within ECH it is essential that the physical environment is enabling to meet the likely needs of those residents who will experience impairment associated with increasing age and frailty:

**Visual Impairment:** Consideration needs to be given to lighting, colour schemes and tonal contrast, casting of shadows, audible signals and tactile information. The RNIB have produced a number of publications that deal with design issues for people with a visual impairment: [www.rnib.org.uk](http://www.rnib.org.uk) In addition, the publication 'Good practice in the design of homes and living spaces for people with dementia and sight loss' by the University of Stirling is another useful reference tool. (People with very poor vision face a different but not entirely dissimilar set of challenges as those living with dementia and many design principles apply across both circumstances).

**Hearing Impairment:** Consideration needs to be given to the provision of hearing loops in communal spaces. Materials that reduce reverberation times are essential, particularly in larger spaces where acoustics can become a problem. Greater 'visual access' to a person's surroundings can help compensate for impaired hearing. The Action for Hearing Loss website can be used as a resource for further information: [www.actiononhearingloss.org.uk](http://www.actiononhearingloss.org.uk) (previously known as the RNID).

**Mobility Impairment:** Residents may use wheelchairs, walking frames, walking sticks or any combination of these. Space standards should accommodate the use of all. Floors should be level with no steps and be flush at junctions such as door thresholds, shower trays and changes in floor finish. Mobility impairments can also effect reach and dexterity and require that all ironmongery, fixtures and fittings be easily reached and easy to turn or operate.

**Cognitive Impairment:** The principles of design for those living with dementia illnesses must be included from the outset and most of these principles will benefit all users of the building. Design features to assist way finding and reduce frustration are key, e.g. maximising natural lighting and internal daylighting, creating landmark features and avoiding long monotonous corridors or ones with numerous changes in direction or dead ends. Further information to more detailed design guidance can be found in below in section 8 '**Key Design & Specification Considerations**' and using the Stirling Dementia Services Development Centre, University of Stirling, design guide and resources available at [www.stir.ac.uk/dsdc](http://www.stir.ac.uk/dsdc) Of specific use and interest is the document 'Improving the design of housing for people with dementia'.

**Learning Disabilities:** Many of the design principles recommended for those with learning disabilities echo those recommended for visual impairment and dementia design. Housing LIN Fact Sheet No. 3 'New Provision for Older People with Learning Disabilities' outlines issues and good practice in relation to the development of supported housing specifically for older people who have a learning disability and this includes Extra Care. The RNIB's design guidance mentioned above, although intended to assist people with visual impairment, will also be useful for designing for people with learning disabilities.

**Long-Term Illnesses & Health Conditions:** Designs should also accommodate the needs of residents with typical long-term conditions and health aspects associated with stroke, heart disease, cancer, diabetes and obesity. The building should be enabled for both Telecare and Telehealth equipment both in terms of hardwiring and WiFi enabled environments to accommodate future ICT developments and requirements.

### 3.2 Staff

Staff facilities in ECH settings should be treated with as much priority as residential areas. Staff require:

- Easy access to all areas of the building
- Conveniently located ancillary accommodation

- Comfortable and functional facilities, eg. changing area, rest room and office space
- The ability to provide care to residents discreetly. For example, staff should not need to take utility trolleys through public spaces

### 3.3 Visitors

- The entrance should be clear and welcoming
- The building layout should be simple to understand for way-finding
- It should be obvious what spaces are public and which are private or semi-private.
- Adequate parking spaces for visitors should be provided

When considering the initial brief, **Appendix II: Design Brief: Key Issues to Consider** may be a useful reference tool.

## 4 ECH Design Concept & Layout Considerations

It is acknowledged that within ECH full wheelchair accessibility standards apply throughout. In addition, the following design and layout arrangements should be adhered to:

### 4.1 Main Entrance Area: Location and Arrangement of Facilities

There are several facilities that work best when located 'front of house'. While these can end up competing for space near to the entrance, care must be taken not to clutter the front of the building - making it difficult to understand on entry, or to leave out key spaces such as scooter storage. A small sitting area at the main entrance for residents is useful and should be incorporated.

All ECH buildings should have a logical layout that can be clearly understood. Communal areas visited by the public, such as the lounge and the dining area, should lead from the main reception area if possible.

### 4.2 Progressive Privacy

ECH needs to create a balance of the various areas required for residents, staff and the wider community. There should be a clear separation between areas just for residents and staff and a distinction between those for the wider community. Progressive privacy is key to ensuring that residents have the privacy and security we all require within our own homes. Centrally located communal facilities should be designed with progressive privacy in mind.

Public spaces such as communal lounges and dining rooms along with ancillary spaces such as laundries and catering kitchens (where they may exist) should all be located centrally and away from residents' flats. Staff, visitors or day users of the building should not need to walk through corridors off which flats are accessed in order to reach their destination. Areas such as assisted bathrooms and guest rooms should be located away from the more public areas and closer to the individual dwellings. The entrance to service areas such as the boiler and plant room, refuse store, meter room (and any main kitchen if in existence) should be separated visually from the main entrance.

All site and building accesses should be securely controlled. The main entrance should be located close to the site edge. Entry points to the site should be kept to a minimum and, if more than one, should lead directly to the main entrance door or service area.

Access for residents should be via keyless electronic fob or access card whereby a resident's single device will allow access to the main entrance, facilities to which they have use of, along with their private accommodation. Residents will need to move freely around the building and restrictive

internal locking systems in corridors, staircases and communal spaces should be designed to be kept to a minimum, allowing a positive security aspect without creating an institutional look or feel to the environment.

### **4.3 Circulation**

Circulation areas should be adequately designed for wheelchair users and those with frailty and should avoid long, dull vistas. The general arrangement of circulation spaces in ECH should be clear and 'rational' to aid way-finding and assist people with dementia or memory loss. Breaking down the building into identifiable zones and the provision of visual clues (through pictures and graphics) and signage will greatly assist way-finding.

Careful planning can reduce the length of corridors, thereby reducing travel distances and minimising an institutional atmosphere. Walking distances for all users of the building can be kept to a minimum by the practical location of stairs and lifts. It is ideal for both a lift to all floors and stairs to be easily reached from the main entrance.

Small seating bays can break up walking distances for residents and are also popular with residents who want to meet in small groups for a chat, as well as providing a place to rest. Terminating corridors with an area to sit and enjoy a view can avoid the sense of frustration felt by residents with short term memory loss who might wander to the end of corridors.

### **4.4 Acoustics**

In planning the layout, the acoustic separation of noisy rooms such as laundries, lift motor rooms, plant rooms and other communal spaces from residents living, sitting and sleeping areas will be given due regard.

### **4.5 Grouping of Flats**

Most ECH schemes are designed with central communal facilities serving all residents and this may continue to be the case for LHA's future ECH developments. However, some future developments may need consideration in relation to the principle of 'clusters', with a small number of flats (8 – 10, for example, having an individual lounge and dining room (and possibly an assisted bathroom). Whether such an arrangement is appropriate or needed, needs to be considered at the very earliest stage of the design process taking into account whether the individual clusters are to provide for specific needs. This may be suitable where a development is intended to have a specific high needs dementia 'wing'.

### **4.6 Flexibility**

Flexibility should be a consideration in order to avoid redundant buildings in the future or the need for residents to move on to other accommodation. Expectations of subsequent generations and the 'younger old' will continue to rise in terms of what would be an acceptable home environment.

At any one time it is likely that only a small proportion of ECH residents will use a wheelchair. A resident may arrive in the scheme as a wheelchair user or the onset of mobility difficulties may occur at any time during a resident's tenancy. As maximum flexibility is essential, the architecture and structural designs should allow for this. Communal areas on the ground floor should be arranged within the footprint of flats above for structural design. Adequate storage provision is often overlooked and should be included from the outset.



Construction methods, flexible spaces and facilities, access to technology or the ability to install Smart technology and personal computer systems are means of trying to 'future-proof' our buildings and provide a good marketing opportunity.

Careful consideration should be given to the size of dwellings and the number of bedrooms. A balance needs to be struck between current cost constraints and likely future demand for increased space standards and a second bedroom. Evidence shows that a second bedroom is a high priority for residents. This could be used by either a partner, carer, visitor or used as a separate study, office or dining room etc.

#### **4.7 Site Specific Issues**

Each potential ECH site has the capacity to present its own issues. Adjoining buildings, existing trees, changes of level and location of mains services are a few of the factors effecting the size, height and siting of a new scheme. Considerations in particular might include:

- **Space:** Spaces should be arranged to take maximum advantage of what the site can offer, eg: locating individual dwellings toward the quieter areas of the site, making a focal point of an existing tree or providing views of street life. Flats and principal communal spaces should be orientated to ensure sunlight for part of the day to maximise natural light and to create a good balance of natural and artificial light. Shaded areas of the site can ideally be used for service spaces.
- **Site Layout:** Arrange the site layout to achieve usable external spaces; preferably a sheltered, fairly private south facing garden, directly accessed from the principle communal spaces. If possible arrange main circulation routes to overlook the garden, to assist orientation and to encourage a sense of community. A warm south facing courtyard will encourage residents to venture out and use outside space. The context, style and visual impact of the building must be considered, taking into account the characteristics of the local area.
- **External Circulation:** Establish a logical external circulation between the site entrance/car parking and building entrance. Ensure that residents can be dropped off and picked up by minibuses, taxis and ambulances close to the main entrance (preferably, wherever possible, under cover) and that larger vehicles, eg. refuse collection vehicles, where they have to enter the site, have adequate turning space.

## **5 Dementia Care**

People with dementia experience impaired memory, learning and reasoning and become more reliant on their senses. Those living with memory loss or confusion are less likely to become frustrated if they are able to clearly see and understand their surroundings. This is often referred to as providing a visually accessible environment. For example, an environment where there are good visual clues, such as views to the outside and views from circulation spaces into communal spaces. Glazed screens and doors to communal areas enable residents to enter a room with the confidence of knowing what is going on inside.

Design features should be incorporated that will help with orientation, recognition and familiarity. A simple floor plan should be provided to guide orientation with the help of cues and landmarks and by maximising the amount of natural light in the building, particularly where there is a change in level or direction. Technology can be of particular benefit to residents with dementia. For example,

movement through doors can be monitored with movement (PIR) sensors without encroaching on the freedom and privacy of residents.

Each individual will respond in a different way in terms of patterns and rate of deterioration. The universal characteristics of 'home' should be recognised to create a supportive, enabling environment that might ameliorate the degenerative process.

Design principles for short term memory loss include:

- A pleasant familiar domestic environment
- Domesticity in scale and character
- Space to be surrounded by personal possessions
- A simple, easily comprehensible layout
- Visual accessibility, key vistas, open plan, etc
- Visual cues; personalising entrances, use of colour, artwork etc.
- Small scale living – cluster arrangement
- A plan to facilitate wandering
- Elimination of 'dead-end' corridors
- Security
- Appropriate garden/amenity provision
- Integration with the community

For each new development, the principles of creating a dementia friendly building will be followed to achieve LHA's commitment to providing buildings that support those living with dementia and memory loss.

The following design guides should be referenced:

'Good practice in the design of homes and living spaces for people with dementia and sight loss' – University of Stirling

'Improving the design of housing for people with dementia' – Dementia Services Development Centre, Stirling University

## 6 Interior Design

High quality interior design incorporating dementia and sight friendly principles will provide atmosphere and ambience for key spaces and its importance should not be underestimated. Failure to consider this area can dramatically influence the success of a development, including initial lettings and developing the scheme's reputation in the early months post completion and beyond. Market appeal is critical for any sustainable development and a well-considered scheme will improve kerb appeal, provide enjoyment and a sense of pride, contributing to LHA's commitment to GREAT Homes. For these reasons, an experienced interior design consultant should be appointed for each new ECH development. In all cases, the following principles will help to achieve a high quality development:

**Contrast:** The effects of visual impairments can be reduced by incorporating colour schemes that use contrasting tones to highlight features within the building and avoid 'visual clutter'. There should be a contrast between the floor, walls and ceiling so that those with visual impairment can have an increased awareness of spatial dimensions. There should also be a contrast between ironmongery, doors, door frames and walls to distinguish these clearly.

**Specification of finishes:** Shiny surfaces should be avoided, especially shiny floor surfaces, as this confuses those with visual impairment. Highly patterned floor and worktop surfaces should also be avoided as this makes objects set against them harder to distinguish, eg. a set of keys which has fallen on the floor. Natural materials assist way finding, divide spaces, highlight level changes etc. and help create a warm and less clinical environment. Specify finishes for large spaces with higher ceilings such as lounges and dining rooms with a high acoustic absorbency, in order to reduce echoes for the benefit of those with hearing impairments.

**Dividing spaces:** Different spaces should be considered individually to enhance their function and create an ambience with a combination of lighting and subdivision of space. Large areas can be subdivided into smaller, more intimate spaces by the use of screening, indoor planting, variation in ceiling height, lighting and appropriate furnishing/flooring.

**Corridors:** Within corridors, it is important to create a domestic appearance with careful attention to floor finishes and choice of light fittings. Artwork may be themed, eg. to areas of local interest. Handrails, where these are provided, should also provide a contrast to assist visually. Changes in paint colour or wallpaper may also assist with recognition.

**Orientation:** The use of colour or themes is often an important tool for assisting with way-finding. Different colourways or use of themed wall art and photos can be adopted for different floors or areas of the building to assist with orientation. This is particularly successful at points of exit from a staircase or lift. A significant piece of artwork or structure can be especially useful, as well as providing an interesting focal and talking point.

**Signage:** The design of signage is paramount and a clear strategy should be developed which outlines its hierarchy, locations and style. Signage must comply with relevant Building Regulations, and meet recognised dementia friendly design standards. BS 8300-2:2018 provides additional points to consider.

## 7 Landscaping

Views of nature and opportunities to sit outside are important to wellbeing and the landscape setting must be structured with the specific needs of the residents in mind. Outside space should allow residents to continue interests in gardening, for example, through the use of raised beds. Communal gardens for the shared use of the residents and wider community are often provided along with private residents' gardens and individual private patios to ground floor flats.

**Gardens:** The gardens associated with ECH accommodation function on several levels, providing both stimulating views from within the building and potential for extending internal activities into the immediate surroundings. This external space can be divided into a sequence of activity zones: the location of terraces and patios alongside a lounge or conservatory enables the extension of living space out into the garden. These hard standings should be flush with internal floor levels and large enough to readily accommodate a table and chairs. The garden should also incorporate a large level grassed or paved open space to provide flexibility for activities such as outside eating or communal garden parties. Pergolas with climbing plants can provide immediate shading for south facing terraces or alternatively, they may be located remotely within the garden to shade seating areas. Water features can contribute to an aurally stimulating and tactile environment, and provide effective focal points for garden vistas, a centre piece for key spaces or even a means of establishing a physical connection between indoors and outdoors. Additional enhancements such as green roofs and bird and bat boxes can enhance biodiversity as well as providing interest.

**Seating:** This should be designed to facilitate access for residents of all abilities, particularly wheelchair users. Benches should be located at main entrances for those awaiting transport. The design and siting of seating must also consider the requirements for a minibus drop-off and to allow for the anticipated size of emergency and service vehicles and their turning heads.

**Resident participation:** Small, individual private gardens or patios provide residents with their own outside area and an opportunity to personalise this space with potted plants and garden furniture. Raised beds more easily enable frail or wheelchair bound residents to appreciate the planting and the opportunity to contribute to gardening activities. There is also an opportunity for the development to grow some of its own food. The open areas referred to above increase opportunities for other outside based activities, helping to promote healthy lifestyles.

If the site allows, an external drying area is useful, linked to the laundry area.

**Footpaths:** Secure wandering circuits of a suitable material should be integrated into the design to provide opportunities for exercise. Seating points should be strategically located to allow for resting. Loose gravel surface treatment should be avoided although resin bound gravel has been found to be more appropriate. Sudden unguarded changes in level are to be avoided; only very gentle ramps are acceptable. The route to the entrance from the parking area should be level or ramped at no greater than 1 in 20. Dropped kerbs should be provided to facilitate access from parking bays to the main entrance.

Where possible private patios should have direct links to communal paths. A minimum path width of 1200mm is adequate if wider wheelchair passing spaces are provided occasionally. All paths should provide a clear route back to their origin, and dead ends are to be avoided at all times. Short cuts should be readily anticipated.

**Planting:** The planting strategy should in principle provide a palette of plants to stimulate the senses and the planting specification should be carefully co-ordinated to minimise maintenance and provide opportunities for resident participation.

Planting should include tall sweeping forms to provide movement, varied textures to create interesting sounds and encourage the sense of touch, vibrant colours and highly aromatic plant mixes to give year-round interest. Watering points and storage facilities should also conveniently located to assist ongoing maintenance. Turf should be restricted to large open zones and ground cover utilised for smaller areas and thin strips to reduce mowing requirements.

Existing vegetation should be retained as appropriate to provide shading and an immediate sense of maturity. The retention of trees will be dependent on the findings of a detailed arboricultural survey and all trees found to be in a dangerous condition will be removed or surgically improved. If a tree survey is required this should be carried out at feasibility stage, as the location of individual trees or tree groups may influence the form of the building or location of terraces, paths and other hard standings.

**Boundaries:** The garden should be enclosed with appropriate fencing to ensure security and to avoid uncontrolled wandering. Early discussions with the local Crime Prevention Design Advisor should be carried out as these will influence the design and specification of the boundary treatment.

**External storage:** Adequate refuse and recycling storage will always be provided. The provision of clinical waste and the size and requirements for secure cycle storage must also be considered.

## 8 Key Design & Specification Considerations

### 8.1 Supporting Frailty and Impairments

- ‘Free-swing’ door closers linked to the fire alarm should be fitted to the front doors of flats and other doors regularly used by residents. Fire compartment doors in corridors should be held open on suitable magnetic or other devices, linked to the fire alarm, thereby removing obstructions and the hazards and frustration for residents moving around the building. Vision panels to doors along circulation routes and leading to communal rooms should be specified.
- Specify handrails along both sides of circulation routes that are appropriately scored to assist way-finding for those with visual impairments. Consider the design of handrails which return to the wall to avoid snagging of clothing on their free ends, which can easily lead to a fall for a frail older person.
- Specify appropriate ironmongery, taps and any other controls to meet the needs of those with limited dexterity.
- Ideally, at least one stretcher sized lift should be included to accommodate long-base wheelchairs/stretchers/coffins.
- Wheelchair standard design should be provided throughout the building. However, consideration should be given to the fact that certain areas such as residents’ individual kitchens can be designed for adaptation for people who do not use a wheelchair until a later stage in life, if at all. This will avoid costly fit outs at the initial stage and result in a more user friendly space for the majority of residents who will never use a wheelchair in the kitchen.
- Allowances for future changes should be designed in from the beginning: the construction and detailing of the building should allow for ceiling hoists to be retrofitted within flats and stud-partition walls should be reinforced for grab rails in bath and shower rooms.
- Level-threshold showers should be considered as flooding in bathrooms with flush showers has been found to be a problem frequently faced in this setting. Locate the shower away from doors and take care with building tolerances, detail a fall in the floor of the shower tray area only. Specify a shower head that can be tilted downwards and not fixed at one angle.
- Combine shower head rails with a grab rail to avoid residents pulling the shower rails off the wall in the event of slipping.
- Specify sockets and switches at an appropriate height
- Generally any ramps should, as a minimum, comply with the provisions of Part M of the Building Regulations.
- Acoustics: The importance of adequate sound separation and reduction of reverberation is especially important in ECH developments where some, but not all residents suffer from hearing impairments.

### 8.2 Way-finding

- Good use of natural light and views out are essential, particularly on circulation routes and at stair and lift landings.
- The use of clear glazed screens to communal areas greatly improves the feeling of light and space within the building and enables good visual access throughout. Floor to ceiling glazing could be introduced where it is safe to do so in order to create an open, contemporary feel.

- Good use of colour and tonal contrast and tactile materials aid orientation. These ensure that corridors do not become monotonous and assist way-finding. Use 'accent' colours to pick out important landmarks or entrances.
- Recessed doors to flats and kitchen window cills which face onto corridors provide a place for residents to display personal items which assist in distinguishing flats.
- Small seating bays along corridors or overlooking interesting outlooks are very popular with residents and help to create landmarks to aid orientation.

### 8.3 Lighting

Lighting design is crucial and a range of different luminaries and light sources should avoid glare and sharp shadows.

- Careful design of switching and dimming will ensure that different atmospheres can be created and different needs catered for.
- The importance of natural lighting is strongly emphasised as this can impact moods, way-finding, solar gain etc. Corridors should ideally be lit from windows or rooflights (including kitchen windows onto corridors) to avoid long, dull vistas. Where possible within individual design, balconies and winter gardens can enable natural light and views of nature – all of which contribute to wellbeing.
- Avoid numerous light fittings in a regimented arrangement, which may result in a clinical, institutional appearance. Balance ceiling mounted fittings with the use of wall mounted fittings and specify feature lights where appropriate with suitable lux levels, eg: communal lounges, winter gardens, halls etc.
- Avoid sharp contrasts between highly lit and dark spaces, as the ability of eyes to adapt to different levels of light decreases with age. Specify adjustable and flexible lighting to create various atmospheres or reduce/increase lighting levels to suit an activity.
- Install lighting along the main routes of pathways so that the garden can be used safely in the evening. Good lighting is also required to all parking areas to provide surveillance lighting and CCTV where it may be considered a requirement for security.

### 8.4 Assistive Technology

The use of Assistive Technology (AT) will be a fundamental part of the design criteria. The development should be enabled both in terms of hardwiring and Wi-Fi and any chosen system should have the capacity to accommodate future developments in the provision of Telecare and Telehealth.

Assistive technology can be split into four interconnecting elements when applied in an ECH setting:

- Property based technology
- Monitoring technology
- 'SMART' technology
- Security and Communication technology

**Property based technology:** It is possible to specify a platform of basic property based technology which can be built upon should the dependency of individual residents increase. (And conversely facilitating the withdrawal of equipment upon re-letting is important to avoid waste and to promote the independence of the new resident).



The property based platform in ECH is a common basic installation and for each new development, containing the following elements:

- Emergency alarm system capable of being linked to multiple sensors
- Personal alarm trigger - pendant, wrist, brooch
- Temperature extremes detector
- Smoke detectors linked to the fire alarm system
- 2 flood detectors (kitchen and bathroom, linked to automatic shut off valves)
- 2 movement detectors - An intruder alarm sensing movement within the unit using Passive Infra-Red (PIR)
- Pullcord in bathroom
- Remote door opener
- Video door entry
- Carbon Monoxide sensor (only where individual gas boilers are provided which may be unlikely in larger ECH developments)

Activation of any one of these will initiate a call to on-site staff or to a control centre. Equipment is programmed to identify the type of call and to prioritise calls on the emergency call system or the fire alarm system.

**Monitoring Technology:** The addition of 'bolt on' adaptations allowing increased monitoring or awareness of the state of health and/or safety of the resident, for example:

- By increasing the number of movement sensors the intruder alarm system can be used to detect a lack of movement thereby providing regular reassurance that all is well. For example, it could be programmed to run an emergency call if no movement is detected for a period of time, allowing support staff to call using the system to check if there is a problem.
- Movement monitors fitted to points of entry and exit which can alert carers to the fact that a resident had left their home; often used when those with dementia are prone to wandering. Dependent on the time of day and the outside temperature this could trigger an alarm or prompt staff action.
- An alert call can be raised if a resident gets out of bed at night but does not get back in within a specified time.
- Pre-recorded messages by a close family member can be used to remind those with dementia of where they are and what they need to do if they are worried or confused.
- Fall monitors alert staff to incidents wherever they occur on the premises

**'SMART' Technology:** SMART technology can be used to overcome physical disabilities. One such example that may feature in an ECH environment is overcoming the loss of function following a stroke or perhaps linked to dementia. Using a television and a remote keyboard, equipment can be used for the following:

- Opening and closing curtains and windows
- Checking callers to the door and opening the door
- Operating hoists and other equipment facilitating personal hygiene without support staff present
- Turning on and off individual lights and pieces of domestic equipment such as the radio and television
- Prompting someone with dementia with a messages about what to do next

- Pre-programmed lights to go on when the resident sits up in bed or gets up to go to the bathroom

Good practice would see all these adaptations facilitated through a tailored care and support plan and can be based upon the original property platform. Most of these functions need an electric motor or sensor which in turn requires the availability of electric power through a well-positioned socket outlet. Consideration of the number and location of socket outlets is crucial at the design stage to make this flexible provision of SMART home technology a reality in the years ahead.

**Security and Communication Technology:** In order to maximise safety and security, security for the development and individual units has to be to a high standard and well publicised. Excellent security measures also 'add value'. Amongst the measures appropriate, advice from crime prevention experts and building to 'Secured by Design' standards will also feature.

From a technology perspective the following should be considered:

- CCTV linked to a security monitoring system, offering high quality video recording
- Security cameras linked to the television can provide information as well as increased personal safety. Cameras can be positioned outside each front door so the occupier can identify a caller by tuning into a chosen channel on the television.
- Keyless door entry will present more of a challenge to intruders as well as being a very effective way of promoting independence for wheelchair users. This could be used for all communal points of access and for any doors internally between publicly used space and residents' space.
- Technology can also be used in the management of the site and the buildings to control lights, heating, ventilation and to report equipment failure, thus reducing staff costs and contributing to efficient energy usage.
- Contemporary expectations for entertainment at home demand a flexible approach to the provision of digital television signals and a choice of supplier via cable or satellite dependent on location.
- Choice is also needed for telephone subscription allowing occupiers the same options as in ordinary housing.
- The provision of broadband internet facilities will connect occupiers to the outside world even if they are housebound. There are also crucial links with Tele-medicine for the future which can use internet technology for remote diagnosis and health care monitoring.
- Demand for increased choice in services creates the need for more flexible charging facilities. In the future the service charge for an individual occupier could be different every week or month and payment will be by the electronic transfer of data.

**Installation and Maintenance of Equipment:** The considerable choice and diversity of products means it is likely maintenance contracts will have to be arranged with a range of manufacturers or their agents. Installation can be a problem in an ECH setting in that if a wide range of applications are built in it may be difficult (or impossible) to find a single supplier for all devices. The best solution may be to appoint a specialist in assistive technology to oversee and co-ordinate the installation and ensure compatibility of products.

A second installation issue concerns cabling. Advice at the time of construction should be sought as the progress of wireless and satellite based system is such that extensive built in cabling may become unnecessary. However, additional electrical and telephone sockets should be fitted for PC and internet access.

## 9 Summary

ECH can offer modern aspirational accommodation with access to a range of other services which support and promote independence. It can be an alternative to residential care, provide a setting for dementia care and can also be a resource for the local community if well designed and located. The specifics of each site, the local need, the scale and size of development, the types of service and care to be provided and both the capital and revenue funding available will determine the brief in each instance. The development of ECH requires an experienced team to implement the specialist design principle, and this includes not only LHA's team but those representing LHA also.

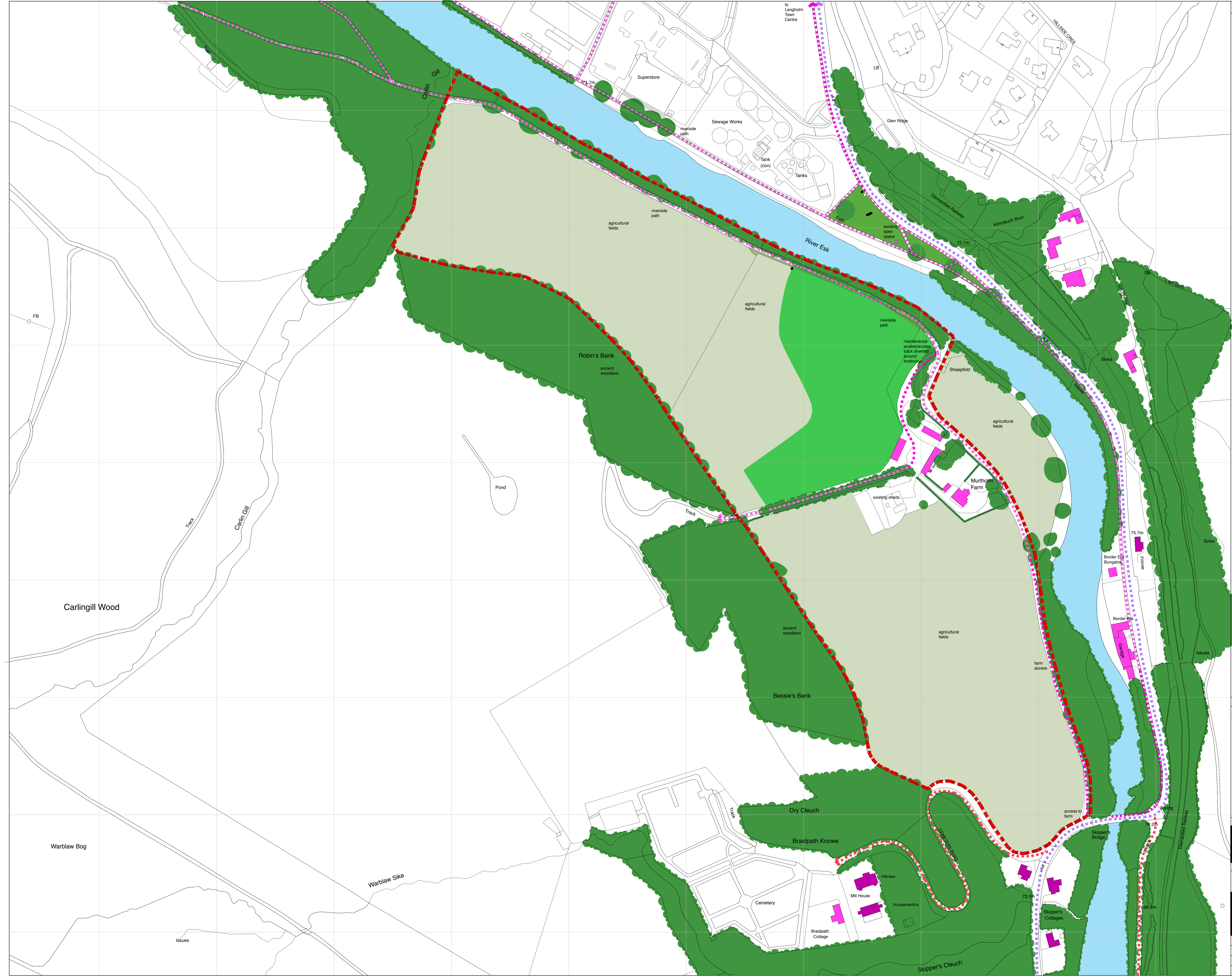
This design guide is intended to supplement LHA's general Development Design Guide. As such, there will be many other compulsory standards and areas for consideration around new developments not covered herein but contained within the general Development Design Guide together with design and quality standards set out in Building Standards Technical Handbooks (Domestic and Non-Domestic effective from the 1<sup>st</sup> of July 2017), 'Housing for Varying Needs' Parts 1 and 2; and Secured by Design standards.



## **Appendix 3**

Masterplan





**Notes**

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**Legend:**

- Site Area
- Agricultural fields
- Existing Mature Trees and Woodlands
- Open Space and area to be reserved for open space
- River Esk
- Adjacent Buildings
- A7 Trunk Road
- Existing roads
- Existing track and paths

**Revisions**

Revisions	Date	Initials
A	26-05-21	DGB

**Project**

**Proposed Development, Site at Murtholm, Langholm for Loreburn Housing Association Ltd**

**Drawing Title**

**Context**

**ROBERT POTTER & PARTNERS**  
 CHARTERED ARCHITECTS & PROJECT MANAGERS

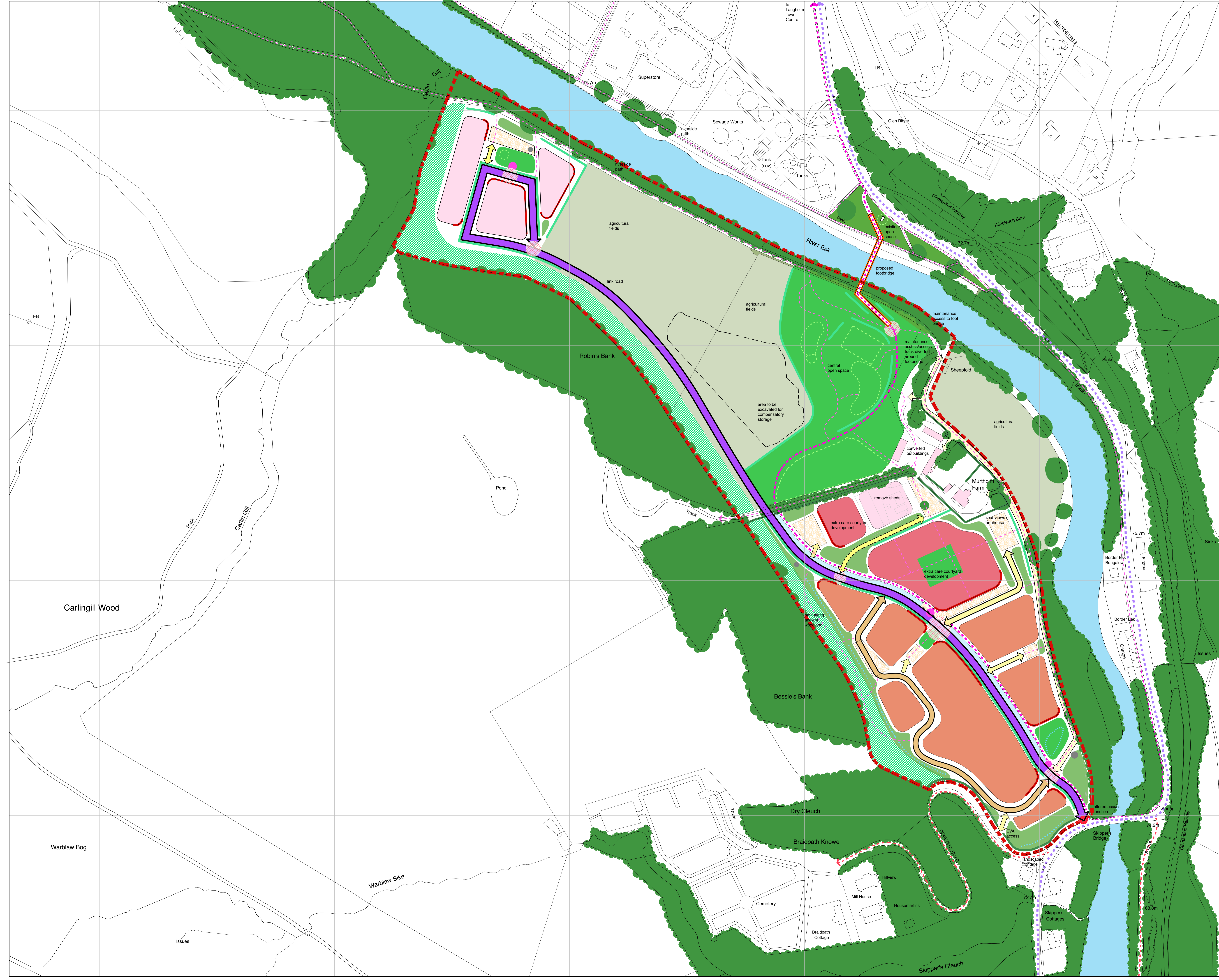
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 110 WEST GEORGE ST, GLASGOW G2 1QU 0141 - 335 9111  
 2 KINGDOM STREET, LONDON W2 6RD 0203 - 4796951

Scale: 1:1000@A0  
 Date: Sept 2020  
 Drawn By: DGB  
 Checked By:

**9330/MP03**

Revision: A





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All dimensions, including figured dimensions, to be checked on site prior to commencing any works.

**Legend:**

- Site Area
- Affordable Housing Extra Care Development Plots Locations
- Affordable Housing Development Plots Locations
- Private Housing Development Plots Locations
- River Esk
- Active Open Space
- Agricultural Grazing Fields
- 15m buffer zone to Ancient Woodland
- Open Space feature - play area/community garden/almshouses/orchards/key planting
- Existing trees
- Rural structure planting edges - hedgerows/trees/planting
- Architectural positive edge
- Hard landscaped area incorporating informal parking and soft landscaping features
- SUDS feature
- Rain garden / swale
- Primary Road  
Defined carriageway / footpaths, informal crossings, soft landscaping along road. Bus stop provision.
- Secondary Road  
Reduced carriageway width, more dominant pedestrian area, low level kerbs, common material for footway area, sensitive soft / hard landscaping.
- Tertiary Road  
Level surface, no delineation between street users zones, user hierarchy favours pedestrians, sensitive soft / hard landscaping.
- Proposed foot bridge
- Existing primary road network
- Existing rural road network
- Primary cycle / pedestrian link path and woodland routes
- Localised cycle / pedestrian link path and woodland routes
- Maintenance access route
- Bus stop
- Traffic signal system
- Key road design feature
- Service infrastructure - electrical substation / foul pumping station
- Area to be excavated for compensatory storage

0 10 50 100m

Revisions

Revisions	Date	Initials

Project

**Proposed Development, Site at Murtholm, Langholm for Loreburn Housing Association Ltd**

Drawing Title

**Masterplan**

**ROBERT POTTER & PARTNERS**  
CHARTERED ARCHITECTS & PROJECT MANAGERS

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110 WEST GEORGE ST, GLASGOW G2 1QU 0141 - 335 9111  
2 KINGDOM STREET, LONDON W2 6BD 0203 - 4769951

Scale 1:1000@A0  
Date Sept 2020  
Drawn By DGB  
Checked By

**9330/MP01**

Revision

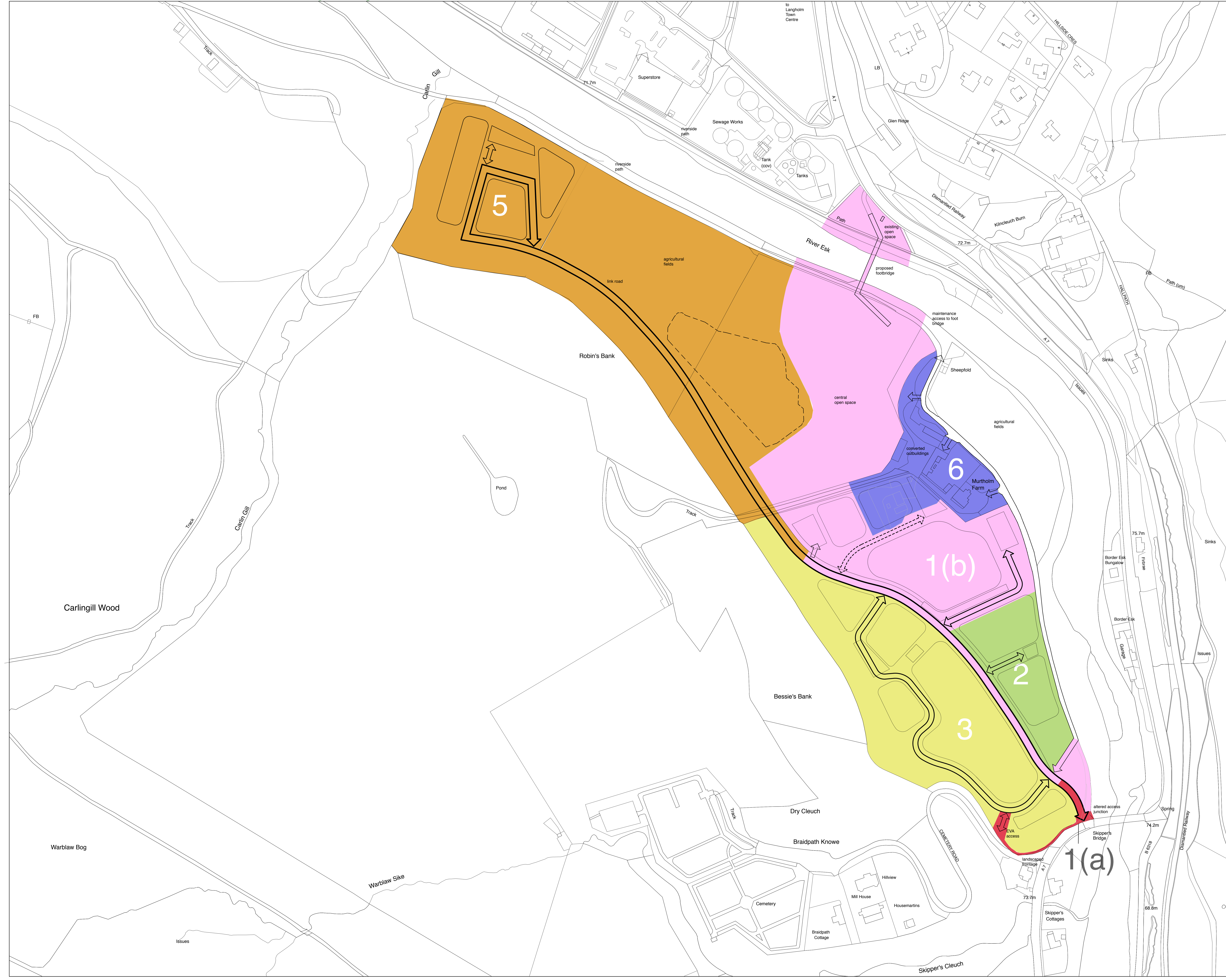




## **Appendix 4**

Phasing Plan





**Notes**

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**Legend:**

- Phase 1 (a) - Enabling Works** including:
  - formation of new access junction to A7
  - service diversions
  - formation of EVA junction
  - temporary access arrangements
  - Total Number of Units - not applicable
- Phase 1 (b) - Murtholm South** including:
  - formation of primary road and tertiary road
  - formation of cycle path and foot path along primary road
  - green space network connection along primary road
  - formation of central open space and cycle path / foot path links
  - formation of pedestrian foot bridge
  - formation of service infrastructure for the allocated site
  - formation of extra care housing development
  - Total Number of Units - 35 No. or thereby, 100% affordable.
- Phase 3 - Murtholm South West** including:
  - formation of secondary road and connection to EVA
  - green space network connection along secondary road
  - formation of general needs and amenity housing
  - formation of pedestrian rural track along western boundary
  - formation of SuDS features
  - Total Number of Units - 40 No. or thereby, 100% affordable.
- Phase 4 - Murtholm South East** including:
  - formation of tertiary road
  - green space network connection along tertiary road
  - formation of general needs and amenity housing
  - formation of pedestrian rural track along western boundary
  - formation of SuDS features
  - Total Number of Units - 20 No or thereby, 100% affordable.
- Phase 5 - Murtholm North** including:
  - completion of primary road to north
  - green space network connection along primary road
  - connection of pedestrian foot path links
  - formation of service infrastructure
  - formation of SuDS features
  - formation of private housing development
  - Total Number of Units - 20-30 No or thereby
- Phase 6 - Murtholm Farm** including:
  - formation of tertiary road
  - complete pedestrian links
  - formation of private housing development
  - Total Number of Units - 5 No or thereby

The phasing strategy and timescales for delivery is intended to be flexible in its approach due to the specific challenges associated with delivery of the complicated allocated site. The Masterplan should allow for the phases to be carried out concurrently or separately as the programme of works develops and allow for evolution and greater development of stages within each phase. Detailed phasing strategies would be intended to be submitted with any planning applications for the site and relating to the Masterplan initial phasing strategy.

**Revisions**

Revisions	Date	Initials

**Project**

Proposed Development, Site at Murtholm, Langholm for Loreburn Housing Association Ltd

**Drawing Title**

Phasing Plan

**ROBERT POTTER & PARTNERS**  
 CHARTERED ARCHITECTS & PROJECT MANAGERS

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**Scale** 1:1000@A0  
**Date** Sept 2020  
**Drawn By** DGB  
**Checked By**      **Revision**

**9330/MP02**





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