



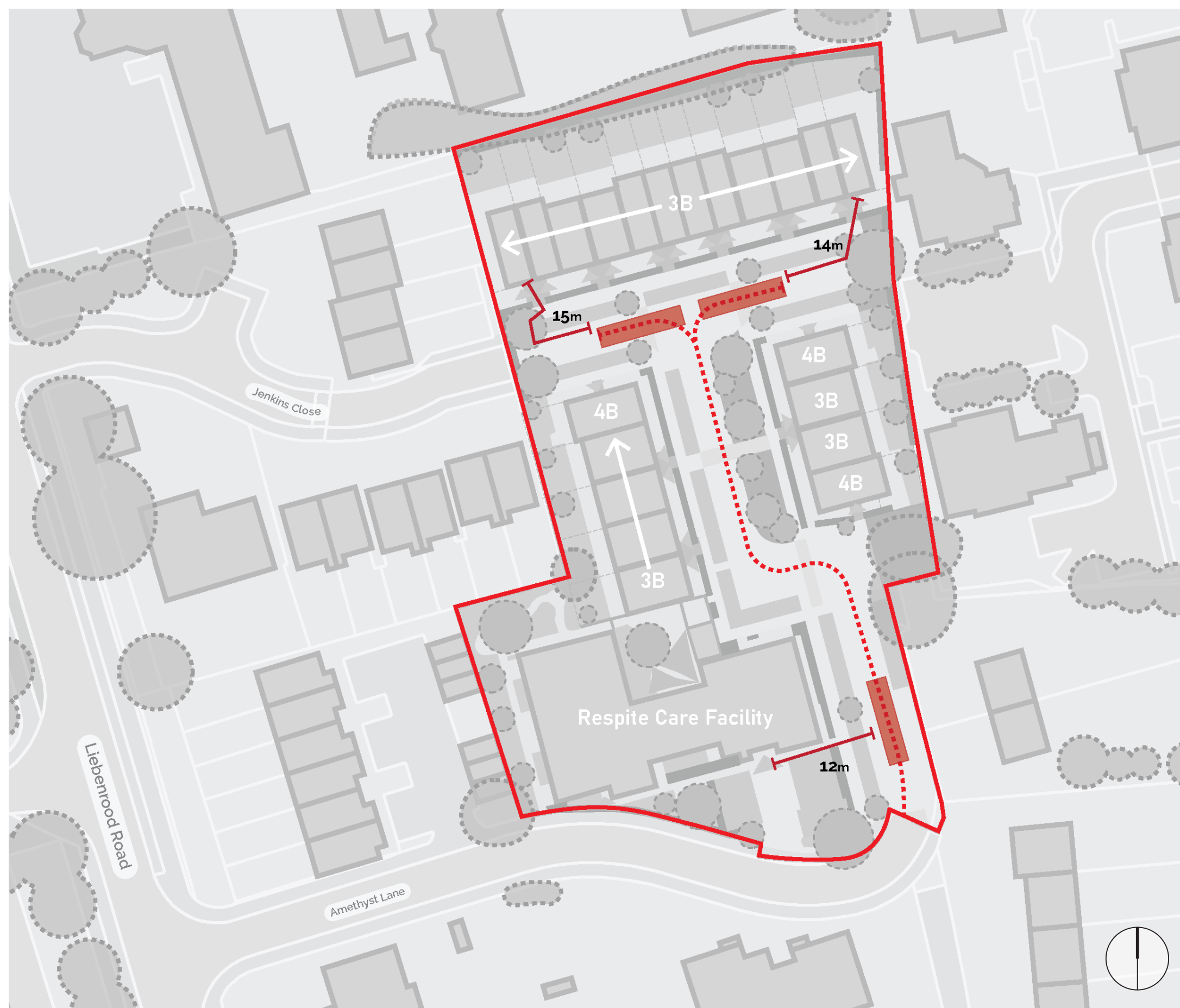
SITE STRATEGIES

7

7.1 Site Strategies

Emergency Access

- Emergency vehicle access has been tracked to ensure it can manoeuvre through the site, making a turn at the T-junction at the top of the site.
- All terraced homes can comply with the overall Building Regulation max. 45m hose length
- The Respite Care Facility is directly accessible via Amethyst Lane or the new street,

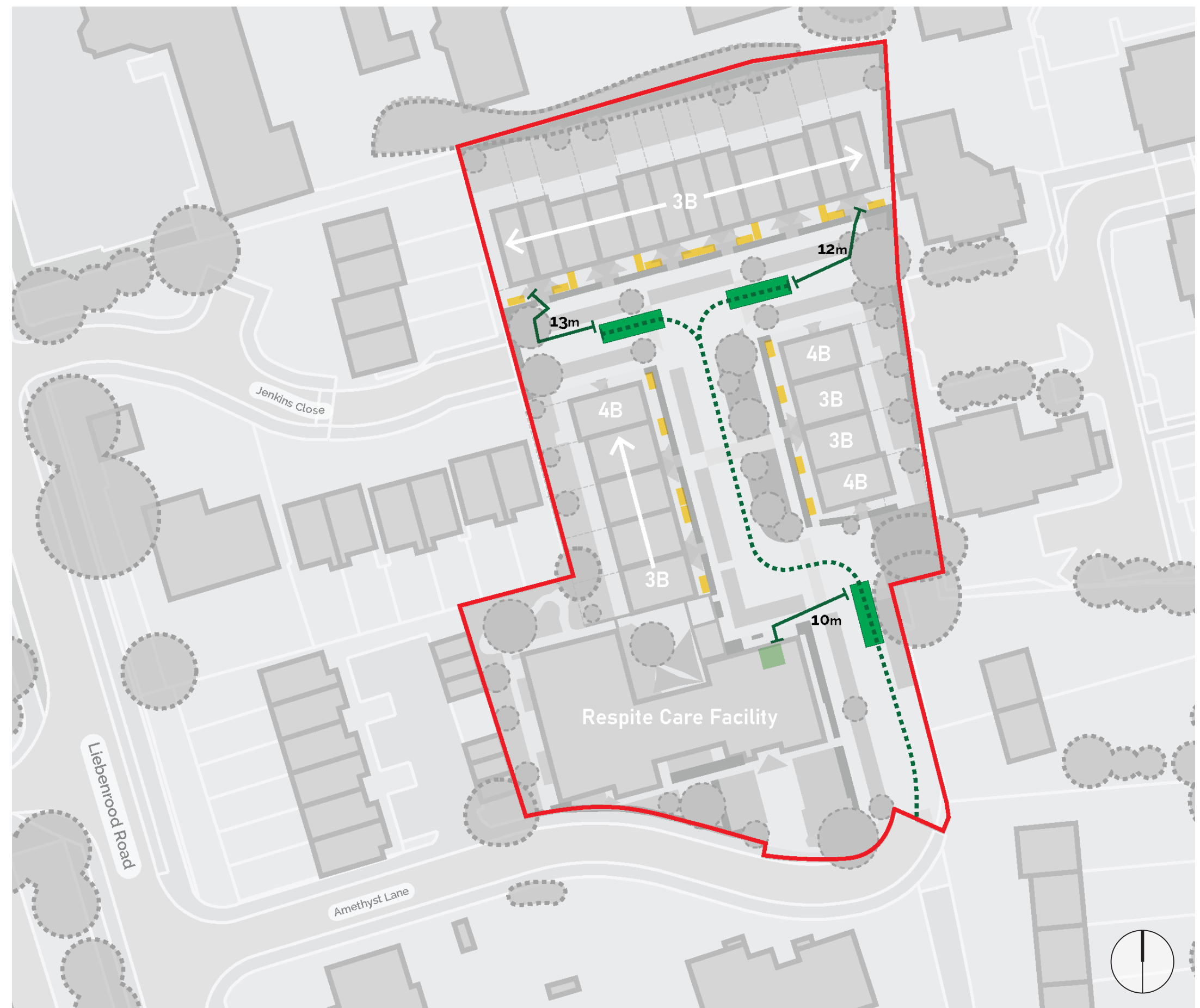


Fire Strategy Diagram

7.2 Site Strategies

Refuse Access

- The Refuse Vehicle used within Reading has been tracked to ensure it can manoeuvre through the site, making a turn at the T-junction at the top of the site.
- The terraced homes will house their bins in their front gardens and be collected from there.
- The Respite Care Centre will be designed to accommodate an integral communal bin store, housing 1100l eurobins for refuse and recycling on a weekly collection.



Key:

-  Refuse Vehicle
-  Operative Carry Distance
-  Daily Refuse Store
-  Collection Point
-  Communal Bin Store
-  Site Boundary

Refuse Strategy Diagram

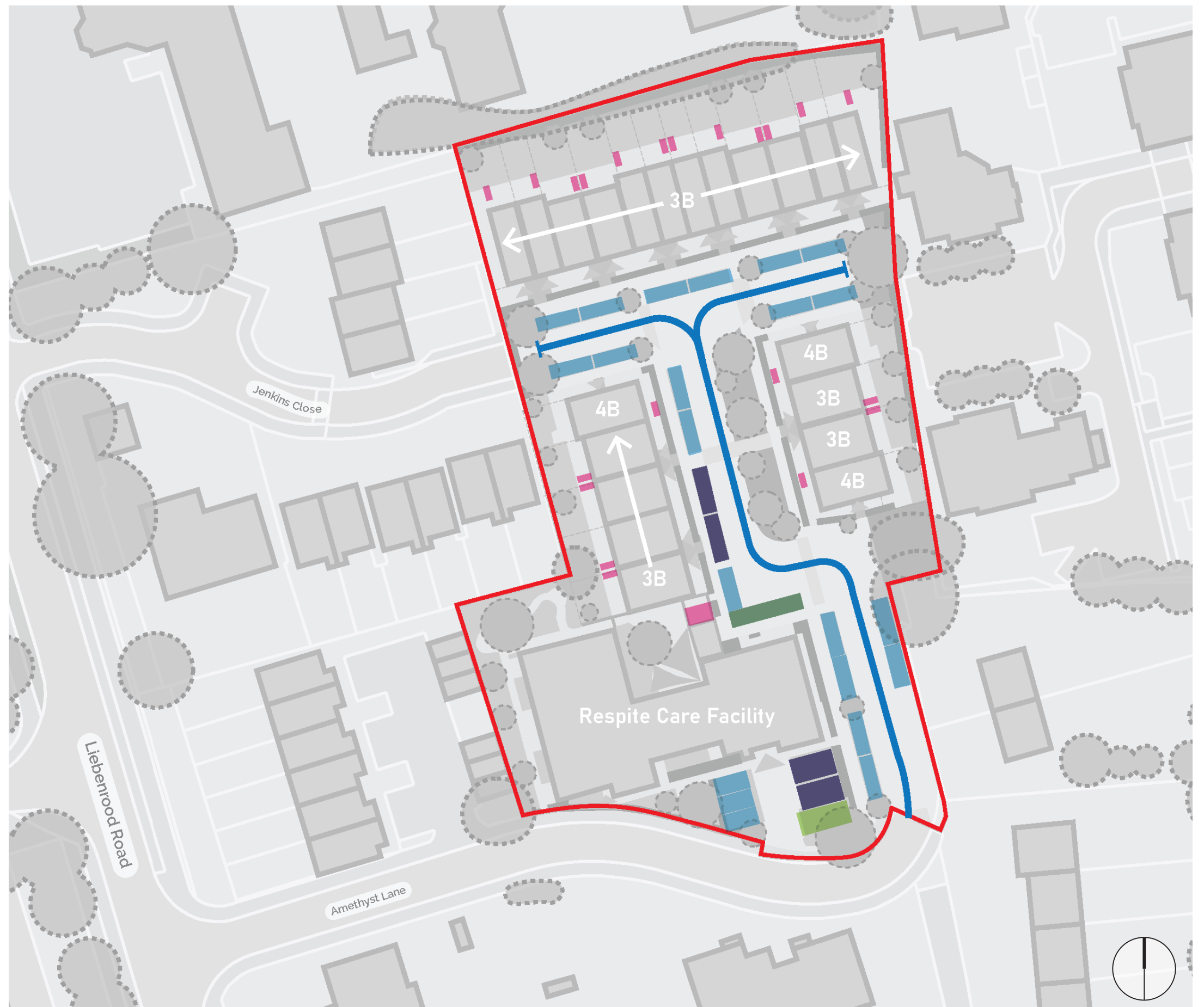
7.3 Site Strategies

Car & Cycle Parking

- 28 car parking spaces are proposed across the scheme in total.
- The new street provides 21 parallel car parking bays for the new homes
- 2 no wheelchair accessible bays have been accommodated within the centre of the site, allowing ease of access to all homes
- 7 parking spaces are provided for the Respite Care Facility, including 3 no standard bays, 2 no wheelchair accessible bays, a minibus parking bay and an oversized delivery/drop off parking bay
- A turning head has been provided within the new street, allowing adequate servicing access to homes by delivery and refuse vehicles, as well as access to the substation.
- All houses will have a secure bike store in their gardens. 42 cycle storage spaces are provided for homes.
- 4 no. cycle parking spaces for the Respite Care Facility

Key:

-  Vehicle Access
-  Bike Storage
-  Parking Bay
-  Wheelchair Accessible Parking Bay
-  Delivery Bay
-  Minibus Parking Bay
-  Site Boundary



Parking and Servicing Diagram

7.4 Daylight / Sunlight Impact Studies

Daylight / Sunlight Assessment

A detailed study of the daylight and sunlight availability has been undertaken to assess the impact of the proposed buildings on the existing properties. Overall the proposed development is not considered to have any notable risks in terms of daylight, therefore the daylight levels are deemed good for the scheme.

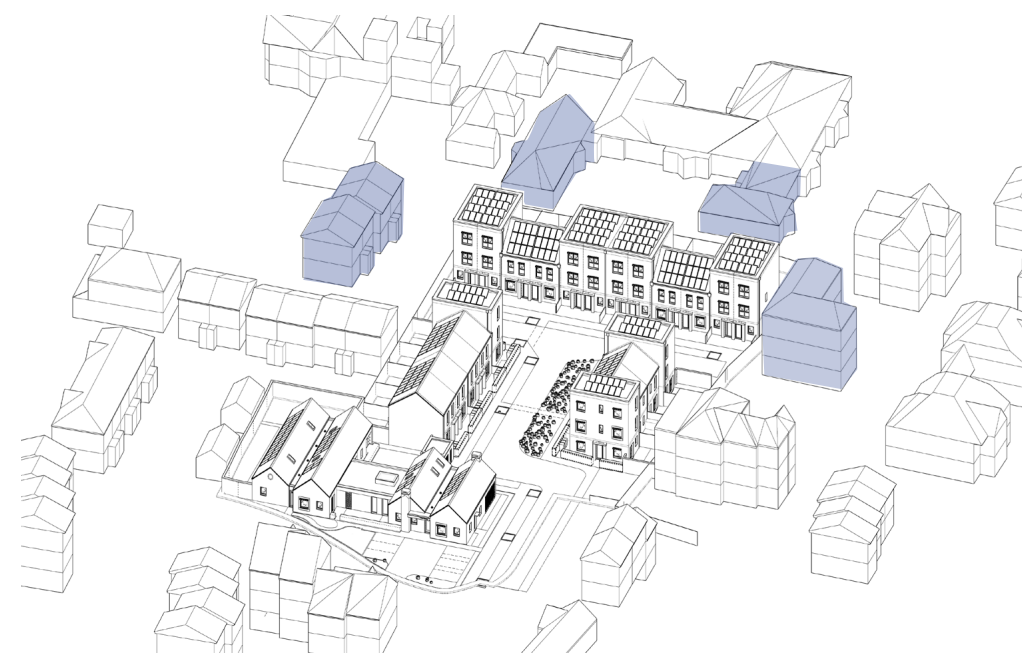
The sunlight availability in the external spaces were also assessed.

A review of the site plan showed that there are 5 amenities, located to the north of the proposed development that it may be affected. Analysis of existing and proposed conditions show that there is no reduction compared to the former values.

Within the proposals, some amenity spaces have reduced sunlight availability in the March results, the summer availability is adequate.

Overall the designs maximise sunlight within communal and private gardens to ensure occupants have sufficient access to sunlight throughout the year.

Further information can be found in the separately submitted HTA report on Daylight, Sunlight and Overshadowing.



3D Testing Model, with adjacent neighbours highlighted

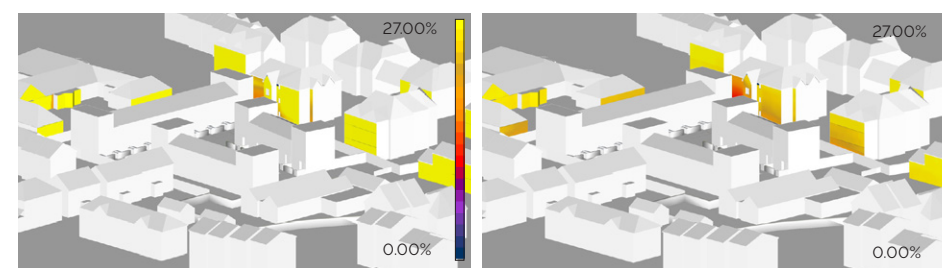


Figure 9 - Vertical Sky Component analysis - Proposed Configuration

Figure 10 - Vertical Sky Component analysis - Ratio Configuration

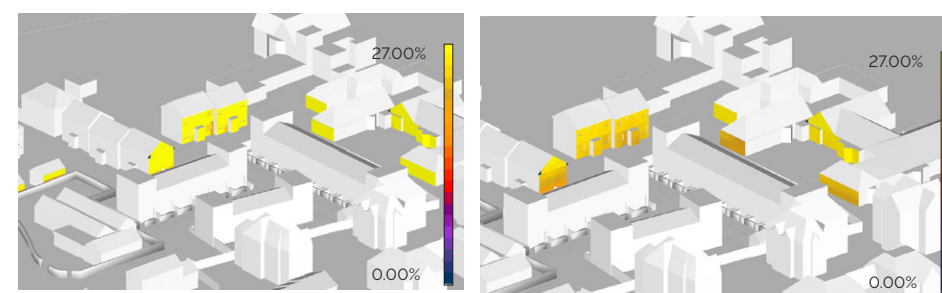
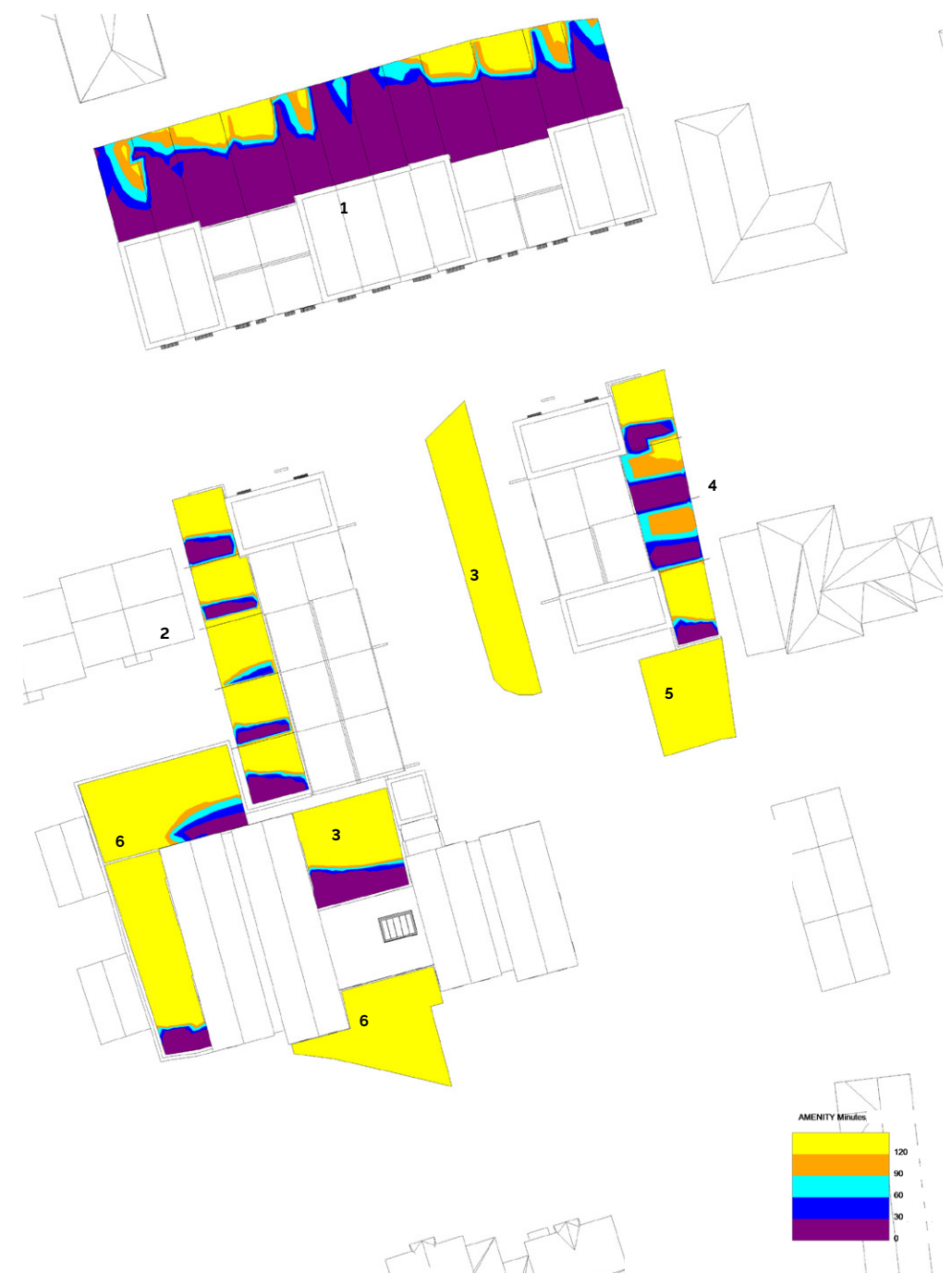


Figure 11 - Vertical Sky Component analysis - Proposed Configuration

Figure 12 - Vertical Sky Component analysis - Ratio Configuration

3D Testing Model, VSC results

Daylight / Sunlight Report Extracts



3D Testing Model, Sun on the Ground, 21 March

7.5 Accessibility

Category M4(2)

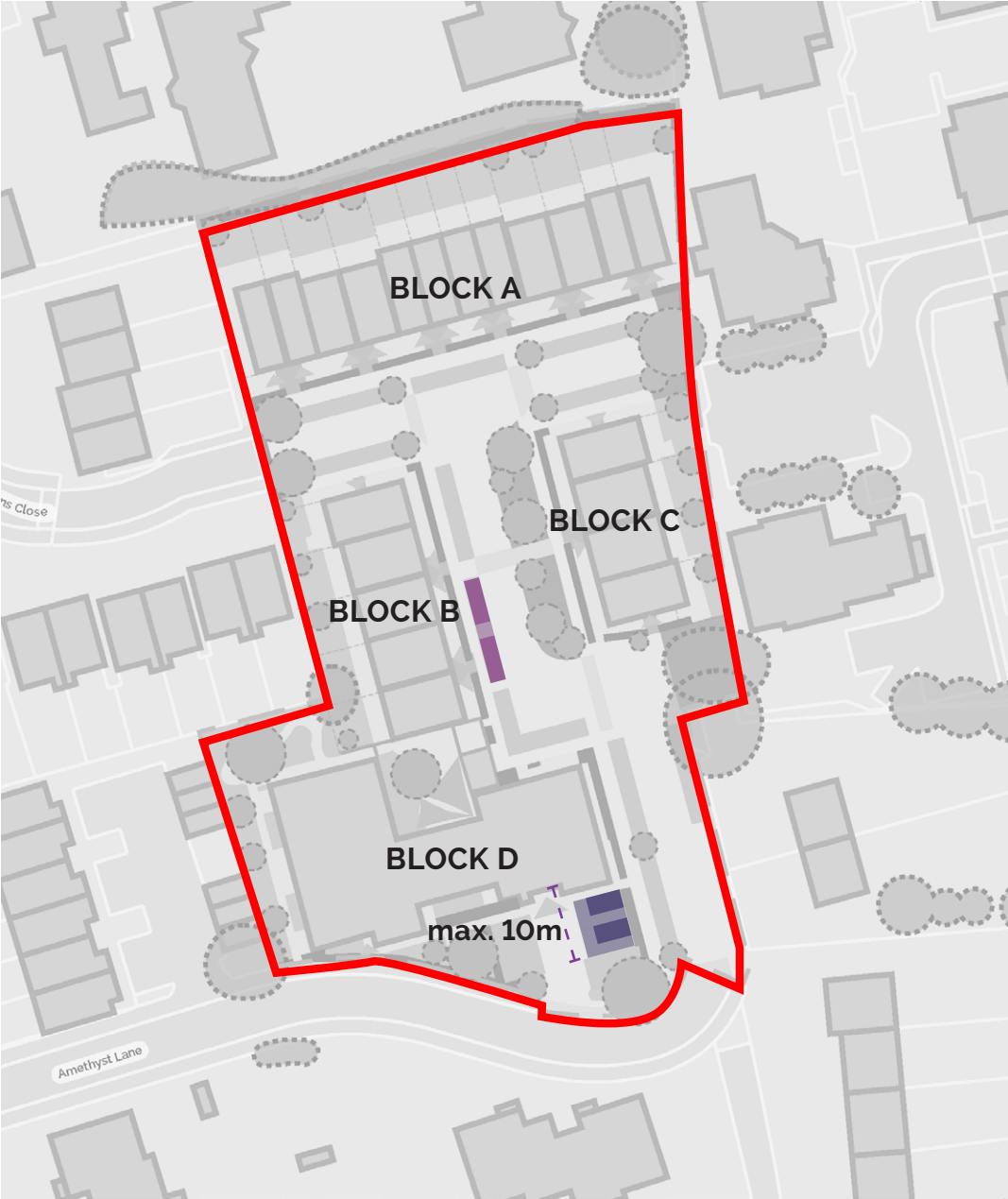
- The houses are designed as Building Regulations APD M42 compliant homes
- All homes have level access to the front door and rear gardens

Category M4(3)

- The Respite Care Facility (Block D) provides 6 temporary bedroom spaces for respite users.
- All spaces within the facility comply as a minimum with Building Regulations APD M43 - wheelchair accessible requirements.
- Spatial requirements for additional accessibility needs for the specialist functions and users have been integrated in the designs e.g. shower beds, sensory wetrooms, hoist systems.
- All communal spaces, including corridors etc provide generous width of space, with widened doorways ensuring compliance throughout
- Level access is provided from parking court, into the building, and from internal to external garden spaces ensuring all building users benefit from all spaces.

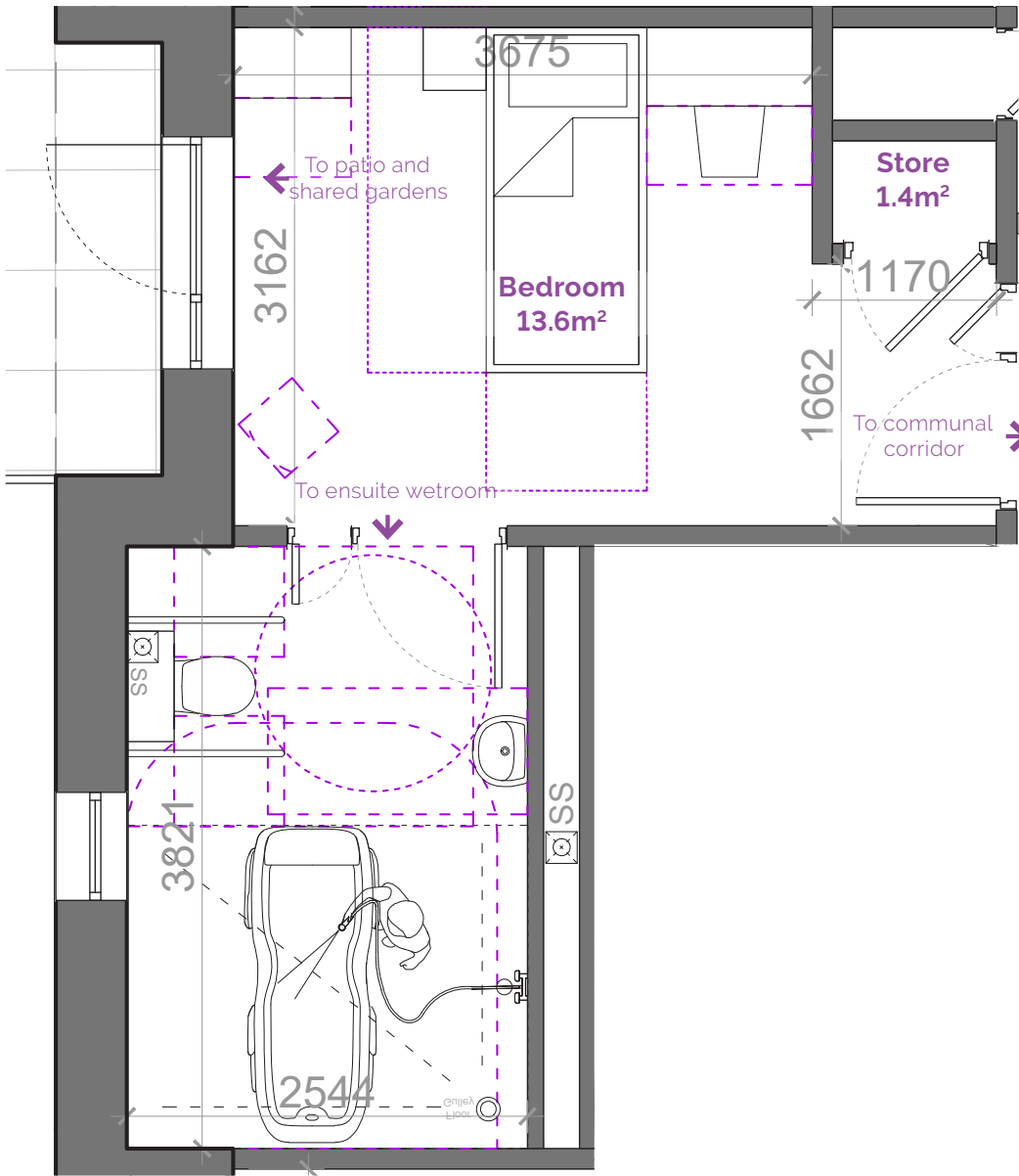
External Access

- Footway levels will tie into the existing street network.
- The new street provides level access within the public realm, with minimal topographical variations.
- Drop kerbs will be provided at key pedestrian crossing points for ease of access
- All footpaths achieve a minimum of 1500mm clear pavement, behind street furniture.



- Key:**
- Wheelchair Accessible Parking Bay (Residential)
 - Wheelchair Accessible Parking Bay (Respite Care Facility)
 - Site Boundary

Access Diagram



- Key:**
- Circulation zone

Typical M43 Bedroom Layout



7.6 Designing Out Crime

- The proposals have been designed to ensure the development is safe for residents and the public, with Secured by Design gold standard as a guide.
- Building arrangement and aspect of homes ensures front doors and habitable rooms face the public realm and all corners of the site; this creates passive security through overlooking.
- Rear gardens are secured by a min. 2.1m high fence/railing to the public realm, and 1.8m between private demises. The gardens will be accessible by gates with controlled fob access for residents or maintenance staff only.
- Gated entrances to the rear gardens are designed to align with building facades to avoid creation of recesses in the public realm.
- Entrance doors are located facing the street, within no setbacks and projecting canopies to avoid large recessed spaces in the public realm.
- Post delivery is proposed via individual letterboxes.
- Ground floor planting to the building edge discourages access to ground floor windows and terraces.
- New street trees will have a min. 2m clearance under canopies to ensure unobscured sightlines.



Well lit, legible communal entrance



Facades provide activity and overlooking to all streets and spaces

7.7 Building Services & Maintenance

Energy Strategy

- All homes and the Respite Care Facility will be provided with Air Source Heat Pumps to generate heating and hot water.
- The respite ASHPs will be integral within building line, and no additional plant shall be required at roof level.
- Photovoltaic panels will be incorporated on pitched roofs and biosolar flat roofs.

Rainwater goods

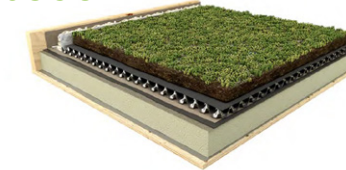
- Positive drainage of all roofs via external hoppers and downpipes,
- All goods to be aluminium. Colour RAL to match associated building materiality as indicated on drawings.

CDM - Health & Safety

- The green roofs will require annual inspection. For the houses and single storey respite facility it is anticipated that scaffolded visual inspection could take place via the exterior of the building
- The Respite Care Facility roof is a combination of single storey pitched roofs, with an element of single storey flat roof.
- Valley gutters between pitched roofs have been sized to allow for walkable access for inspection.
- Most of the M&E plant that will require inspection, maintenance and eventually dismantling, removal and replacement have been located at the ground floor.

- The façade material is brick and pre-cast or grp concrete elements that are considered non-combustible and maintenance free and the cavity insulation is also non-combustible.
- The windows have been designed to be cleaned internally by the residents whereas the communal windows can be cleaned by water-fed poles from the ground.

Sedum



Biodiverse



Typical rooftop combining PV & biodiverse planting

7.8 Building for Life

Integrated Neighbourhoods

Natural Connections

- New street and footway layouts extend the existing public realm
- New pedestrian connection points located at desire line points throughout the new development.
- Mature trees settings enhanced and new planting introduced to create a green public realm
- Increased hedging, rain gardens, street tree planting and offsite tree canopy contributions

Walking, cycling and public transport

- Car parking provision balanced against need and other development demands.
- Dedicated parking court, drop off and deliveries spaces for the Respite Care Facility, separate and in additional to residential needs
- Blue badge parking and visitor parking integrated. All spaces are designed as active EVCPs.
- Integrated cycle parking and storage for all homes and the respite facility.

Facilities and services

- Intensify development in a well connected site, with good public transport and local service connections
- Street facing buildings with front doors on the main street elevations
- Planted buffers providing privacy to ground floor residences without obscuring glazing

Homes for everyone

- All homes designed for affordable rent.
- A mixture of homes for a range for family sizes.
- Temporary accommodation for users of Adult

Care and Health services.

- All homes are design with flexibility in mind; above NDSS space standards, the majority of bedrooms designed as twin rooms, opportunity for closed or open plan layouts
- All homes have private outdoor amenity space as well as shared gardens for the apartments, and public amenity space.

Distinctive Places

Making most of what's there

- Mature Cat B trees retained where possible.
- A mixture of building heights from 1 to 3 storeys, in keeping with the local context
- A new planted swale with incidental play create a new, green street and public realm
- Raingardens and SUDs features incorporated in the public realm improvements
- Integrating biodiversity features and new planting to achieve a biodiversity net gain

A memorable character

- Various design options have been tested, arriving at creating a family of buildings with distinct typologies and arrangement that knits in to the existing site context.
- High value and quality existing green infrastructure, such as the mature category B trees at the new street entrance, are retained where most visible, as key focal points in the public realm.
- The new swale street defines the particular, landscape and placemaking led character of this new community

Well defined streets and spaces

- The arrangement of buildings helps define the street edge with a positive, active frontage
- The respite care facility is designed to integrate

a care facility into a residential setting, in a visible and accessible location,

- Communal front doors and individual house entrances face the street and create activity.
- All homes are designed as dual or triple aspect.
- Gaps between buildings are celebrated as positive, secure connections to rear gardens preventing opportunity for negative behaviour and ensuring a robust public realm treatment.

Easy to find your way around

- Principal street frontage well defined with built form or robust boundary treatments and hedging.
- Secondary access points to gardens are clear defined with secure gates preventing public access.
- Site levels are accessible for all users in street and rear amenity spaces.
- The new street on site offers no through travel for vehicles, but accommodates all on site manoeuvring for service and deliveries reducing the impact on the existing street network

Streets for all

Healthy Streets

- The proposals seek to minimise the necessary parking and access roads, designing them to integrate greening and encourage pedestrian friendly activity.
- Proposed swale street with incidental play, provides opportunity to interact with green spaces and also provides SUDs.
- Pedestrian permeability integrated with crossing points along key desire lines are provided across the site for the local community.

Cycle and car parking

- Car parking reflective of current census data requirements, including blue badge parking and

minimal visitor provision, and dedicated parking for the Respite Care Facility.

- On-street parking bays grouped and separated with planting.
- All car parking spaces designed as active EVCPs
- Integrated cycle parking near to front entrances or accessed directly from the garden.

Green and blue infrastructure

- Landscape proposals achieve a biodiversity net gain incorporating offsite measures
- Existing mature Cat B are retained where possible, with their siting strengthened with additional planting and publicly open amenity,
- Biodiversity features such as bird and bat boxes integrated within buildings, and hedgehog routes within boundaries.
- The new swale provides SUDs for the site, alongside additional attenuation measures.
- All flat roofs are designed as green roofs.
- The Respite Car Facility benefits from a range of amenity spaces with bespoke designs ensuring access for all users.

Back of pavement, front of home

- All street facing homes with defensible planting to street
- Waste storage is integrated within front gardens for direct refuse collection, screened from the public realm via low walls or hedging.
- All houses have their own front doors, facing the street.
- A single main entrance offers clear, legible access to the respite building via a dedicated parking court.



CONCLUSION



View from new swale street, looking North

8.0 Conclusion

The redevelopment of the vacant Amethyst Lane site represents the enhancement of a once valued existing brownfield location, into attractive and exemplar affordable homes and respite care facility for Reading Borough Council.

A Collaborative Design Process

Nearly a year of design development; including engagement with the local community, stakeholders, planning officers, local councillors, statutory consultees, crime prevention design advisor, and the Reading Design Review Panel has directly helped shape the proposals.

Revitalising Vacant Sites

The former Day Care centre site has been vacant for over 10 years. The redevelopment of the brownfield, allocated site for housing will open up this space to the local area again, creating activity and a new community of residents.

Respecting Surrounding Neighbours

The design has been carefully evolved to respond to surrounding properties, in keeping with existing context storey heights, and arranging buildings to maintain privacy for neighbours

A Multi-Generational Community

The 21 new homes proposed offer a range of dwelling types to meet the needs of various family arrangements, at every stage of life. The new Respite Care Facility provides care integrated into the residential community,

Creating private and shared amenity, alongside pedestrian friendly streets will give all tenants the option and opportunity to interact as a new community.

Sustainable Living

All homes are designed to achieve Net Zero Carbon in operation. Informed by Passivhaus principles, the fabric first approach proposes well insulated homes, zero-carbon renewable energy, biodiverse roofs, SUDs and PV panels. Water and energy efficient fittings are also incorporated.

The proposals define a new, green street character for the site, retaining mature Cat B trees on site, and integrating new street trees and planting in the public realm. In conjunction with offsite measures such as local street tree planting, the landscape design will achieve a Biodiversity Net Gain

The Proposals	
“Demolition and redevelopment of the Amethyst Lane to deliver a new respite care facility alongside 21 new homes, landscaping and ancillary works”	
Site Allocation	WR3n Amethyst Lane
Total Number of Homes	21 homes + a 6 bedroom Respite Facility
Wheelchair Adaptable Homes	6 bedroom wheelchair accessible Respite Care Facility
Proposed Habitable Rooms	96
Site Area	0.59 ha
Density Homes/Ha	35.7 Homes/Ha (not including respite care facility)
Density Habitable Rooms/Ha	163 Habitable Rooms/Ha (not including respite care facility)
Tenure	100% affordable (social rent)
Housing Mix	3 bed (x18); 4 Bed (x3) (not including respite care facility)
Building Heights	1, 2 and 3 storeys
Respite Care Facility GIA	526.4 sqm
Respite Care Facility Amenity	443.3 sqm
Residents' Private Gardens (total)	1367.7 sqm
Public Amenity	213.4 sqm
Biodiverse Green Roof	521.4 sqm
Car Parking Spaces	28 in total (21 on street for general needs housing, and 7 to service respite care facility)
Electric Vehicle Charging Points	100% active charging spaces
Residential Cycle Parking Spaces	42
Respite Cycle Parking Spaces	4
Biodiversity Net Gain	+11.39% (including offsite measures)
Sustainability Targets	Net Zero Carbon in operation. To include; Renewable Energy: Air Source Heat Pumps & Photovoltaics, Air Permeability of 1m3/hm2 (@50 Pa) Water Consumption <95l per person per day

HTA Design LLP
78 Chamber Street
London
E1 8BL

020 7485 8555
info@hta.co.uk
www.hta.co.uk

Chair:
Benjamin Derbyshire
Dip Arch Cantab RIBA

Managing Partner:
Simon Bayliss
MA Dip Arch Dip UD RIBA

Partners:
Mike De'Ath
BA (Hons) Dip Arch RIBA
Colin Ainger
BA (Hons)
Caroline Dove
MA (Hons) Dip Arch RIBA
Sandy Morrison
B Arch RIBA
James Lord
BA (Hons) BLA CMLI
Rory Bergin
B Arch MSc RIBA
Lucy Smith
BA (Hons) MSc
Dr Riëtte Oosthuizen
BA (Hons) MA PhD
Simon Toplis
MA Dip Arch RIBA
Tim Crowther
BA (Hons) B Arch RIBA
John Gray
B Arch (Hons) Dip Arch RIBA

Directors:
Rajiv Ranjan
B Eng MBA
John Nsiah
BSc (Hons) Dip Arch MBA

