

6.6

N Movement and access strategy

A Transport Assessment has been prepared to provide a detailed evaluation of current movement conditions and to consider potential transport implications of the development of the site and to identify measures to mitigate adverse impacts identified in accordance with national and local policy and guidance.

■ CIRCULATION: STREET HIERARCHY

An inclusive and legible movement network should manifest itself in a well-defined hierarchy of streets, safe pedestrian and cycle routes, and correct distribution of land uses. The general aims of the access and movement strategy are to:

- Integrate existing public rights of way;
- Create an interconnected network of streets and public spaces;
- Arrange and align routes first and foremost for ease of walking and cycling;
- Create a visual hierarchy of streets with legible characters.

The road network for Phase 2 will encourage sustainable travel based on a street hierarchy that includes the busway, primary roads, secondary roads, and mews. The street hierarchy for Phase 2 will allow safe pedestrian and cycling connectivity at every level.

Northstowe Phase 2 will be linked to the Cambridgeshire Guided Busway (CGB) by the busway through the main Phase 2 development area from early stages. This key element is intended to provide sustainable travel towards Cambridge and Huntingdon for both residents and workers.



FIGURE 6.16: MOVEMENT HIERARCHY





PRIMARY ROADS

Primary roads will allow efficient movement through the site, whilst secondary and tertiary roads will be designed to provide safe domestic access and street environment. Dedicated pedestrian and cycle routes will permeate all areas of Phase 2, linking to an existing network of cycle paths, bridle ways and byways in order to provide safe and direct access to large open spaces and established communities surrounding the site.

Improvements to the A14 have been considered in conjunction with the development of Phase 2, in particular the capacity of local roads and the A14 to absorb the additional movements associated with Phase 2. Vehicular access and parking will be carefully planned throughout the site, supported by public parking facilities in the town centre and communal parking in residential areas so as to encourage the minimum use of the car.

The design of Phase 2 offers opportunities to create movement and connectivity based on sustainable and diverse modes of travel.

Internally within the development there would be vehicle access via two Primary Roads. Each Primary will be connected to the Phase 1 Primary Roads in the north and the access road and busway arriving at Northstowe from the south. The two routes will comprise the:

- Eastern Primary Road: serving the eastern side of the town centre, secondary school, eastern primary school, sports facilities and residential areas to the east of the bus way;
- Western Primary Road: serving Rampton Drift residential areas, housing to the west of the Busway, the western side of the town centre and the western primary school.

The Primary Roads will be designed as 30mph roads with changes in alignment to discourage traffic speeding and provide access without making journeys by car significantly advantageous over other modes.

These roads will typically provide on-street parking on one side of the carriageway and dedicated bicycle lanes adjacent to engineered swales. Generous pedestrian pavements are to be delineated by a single row of trees on one or both sides of the streets depending on space availability and visibility requirements.

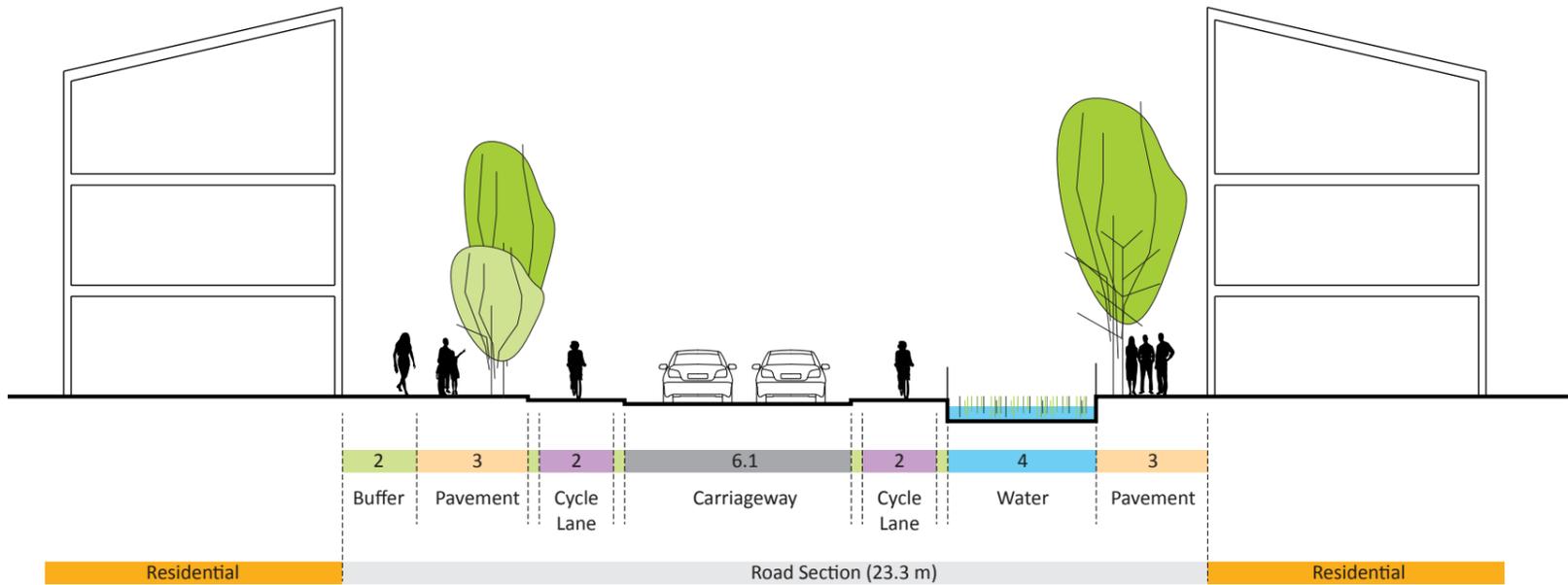


- Phase 2 application boundary
- Busway: Section type B-1
- Busway: Section type B-2
- Busway: Section type B-3
- Busway: Section type B-4
- Busway: Section type B-5
- Primary road: Section type PR-1
- Primary road: Section type PR-2

FIGURE 6.17: PRIMARY ROADS CROSS SECTIONS

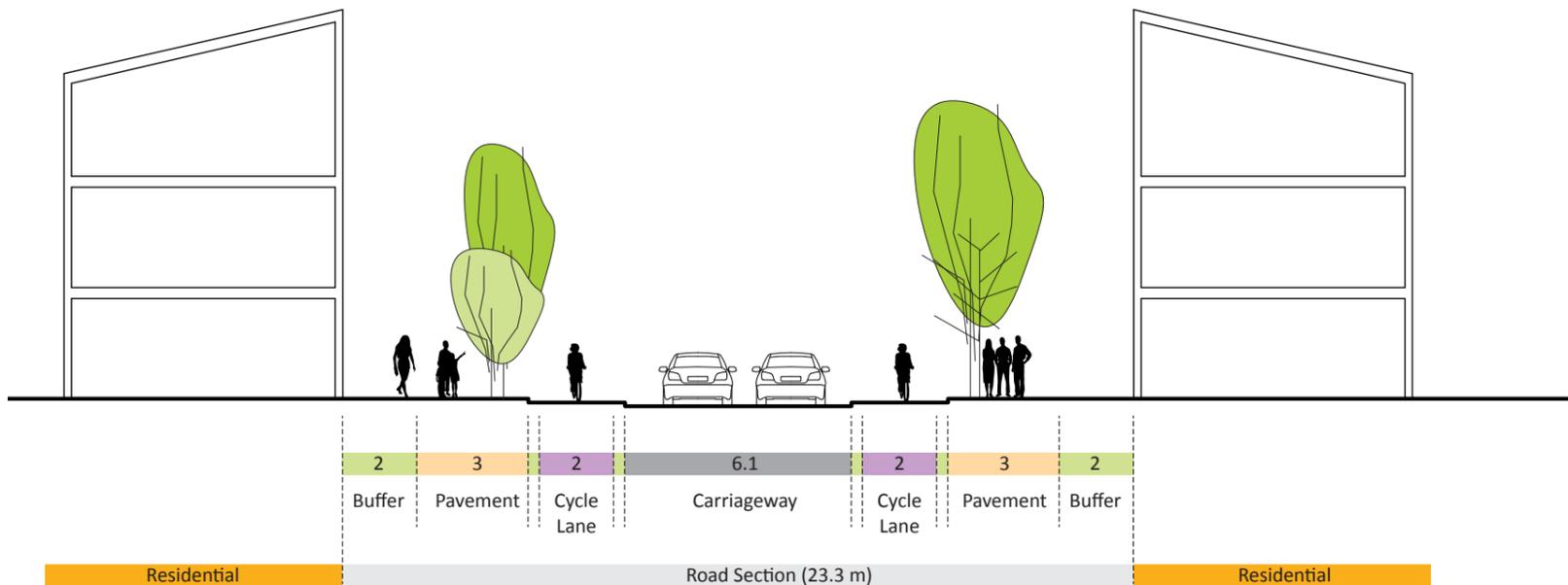
PRIMARY ROAD - SECTION TYPE PR-1

Vehicular traffic
 Dedicated cycle lane (separate lanes)
 Engineered swale
 WIDTH 23.30m



PRIMARY ROAD - SECTION TYPE PR-2

Vehicular traffic
 Dedicated cycle lane (separate lanes)
 WIDTH 23.30m





BUSWAY

A busway is proposed through the heart of Northstowe town centre which will link from the CGB route in the south-east (where there is a junction provided west of Oakington) through Phase 1 to the Longstanton Park and Ride in the north-west.

The busway will join the primary access road from the south for a short section and for Phase 2 this will be a shared route to the southern end of the town centre where primary routes on the east and west will diverge taking general traffic to the other parts of the Phase 2 development and connect to the Phase 1 Primary Roads. From this point the busway will be a bus only corridor. The busway is a strategic investment into public transport, giving buses significant priority over general traffic into the heart of Northstowe.

Bus stops will be provided along the busway at intervals for all services and stops at closer intervals will be planned for local bus routes where walking distances to the edge of the development are furthest. The aim is that the majority of residents are within 400 metres of a bus stop. It is proposed that there will be three busway stops within the complete Northstowe: northern local centre (Phase 1); town centre; and southern local centre (future phases).

Along the busway will be areas for informal gathering, bus stops, two-way cycle lanes, pedestrian routes, and engineered swales. It is envisioned as a high-quality public realm with large trees framing the bus carriageway, cycle paths, and pavements. The bus carriageway is physically separated from other elements of the corridor by wide bands of low planting which are sporadically interrupted to allow for pedestrians crossings.

BUSWAY - SECTION TYPE B-1

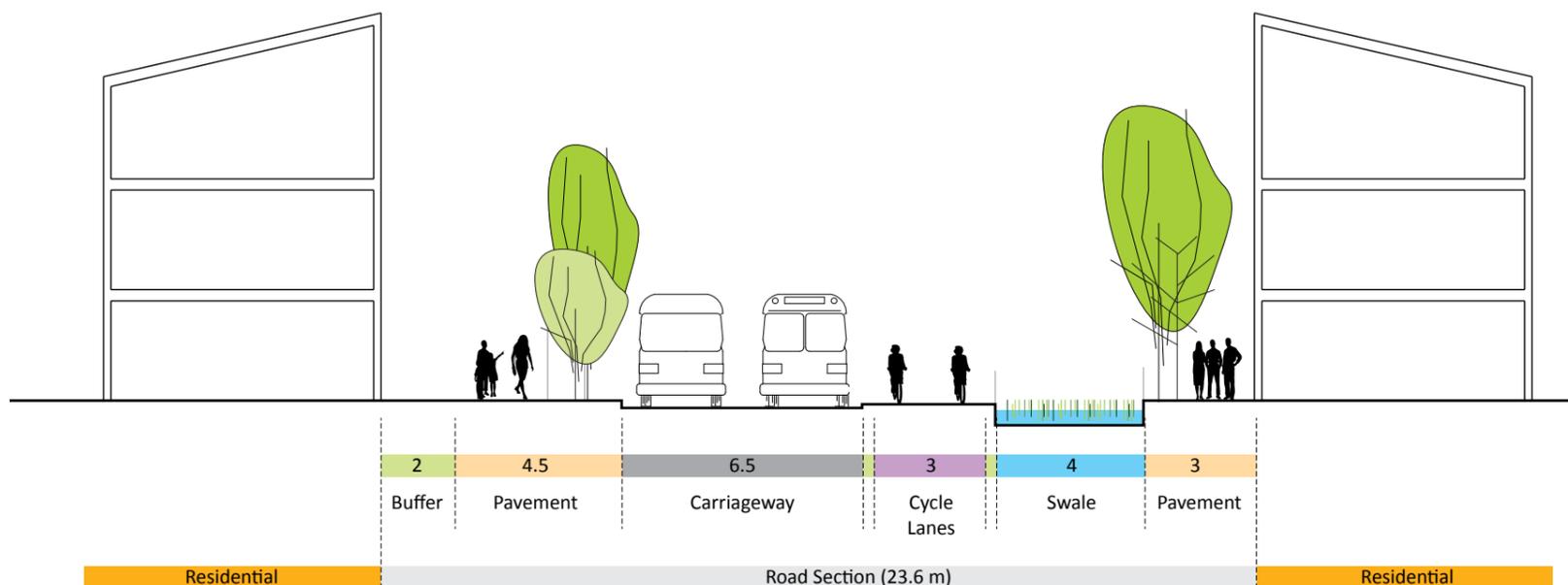
Bus only

Two way dedicated cycle lane (to the east)

Engineered swale

WIDTH 23.60m

FIGURE 6.18: BUSWAY CROSS SECTIONS

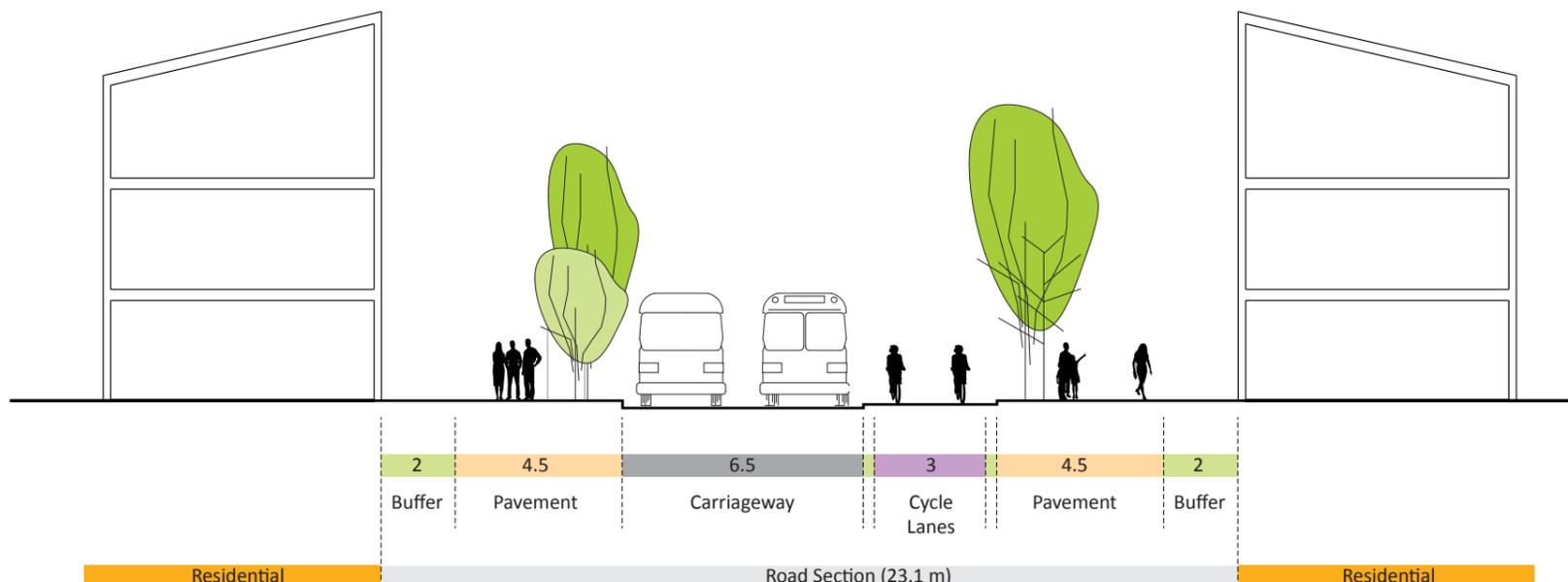


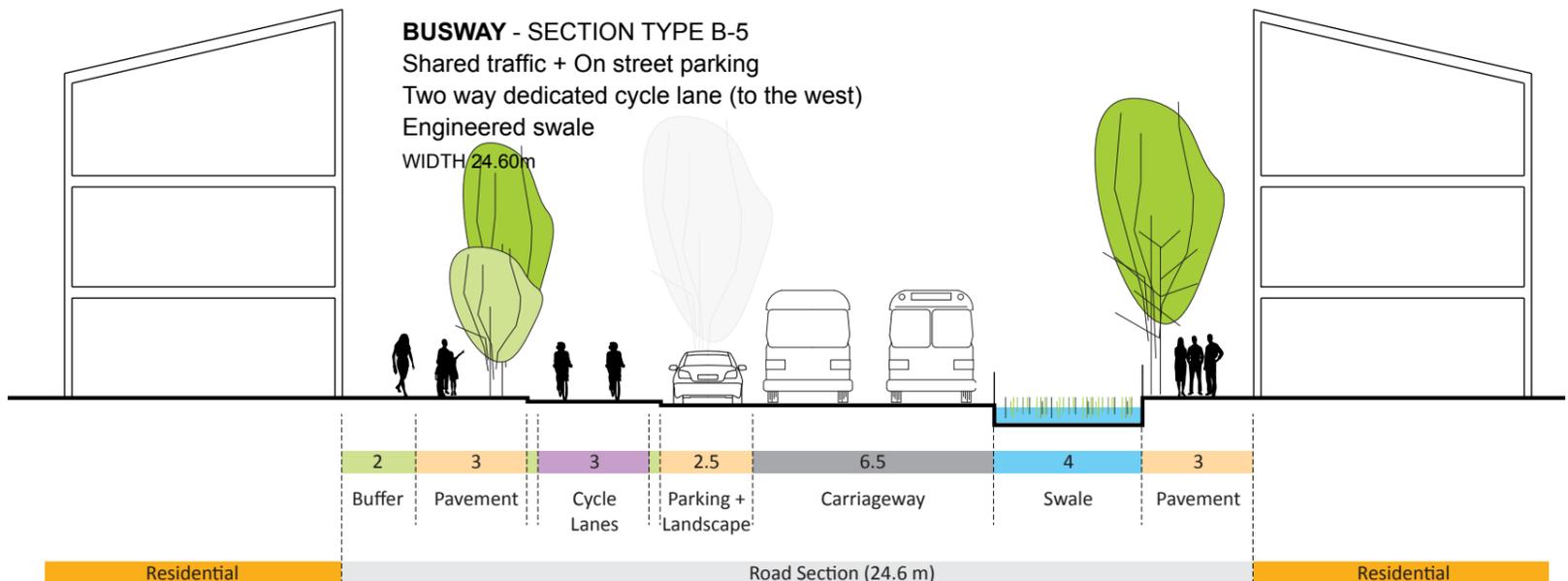
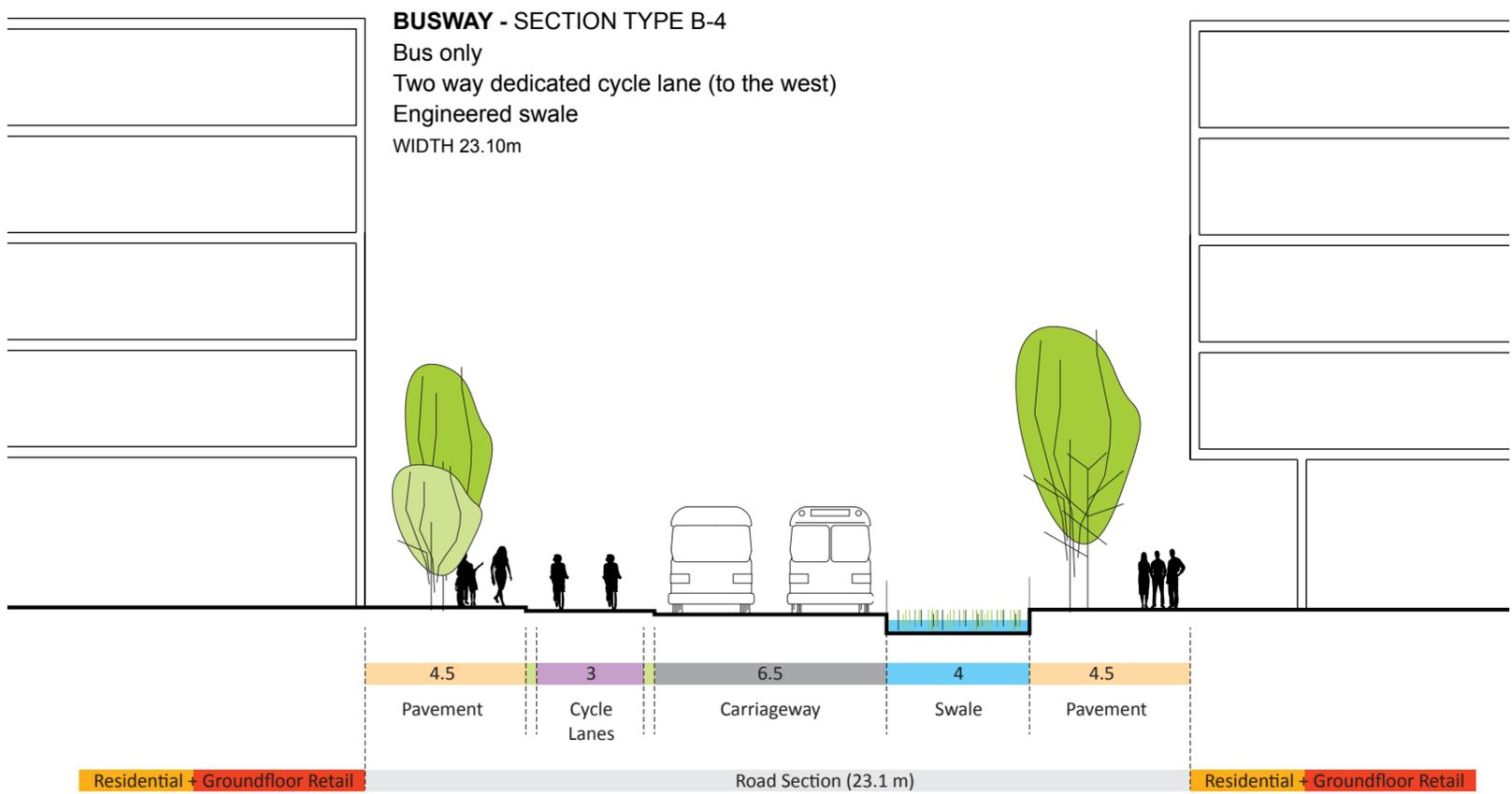
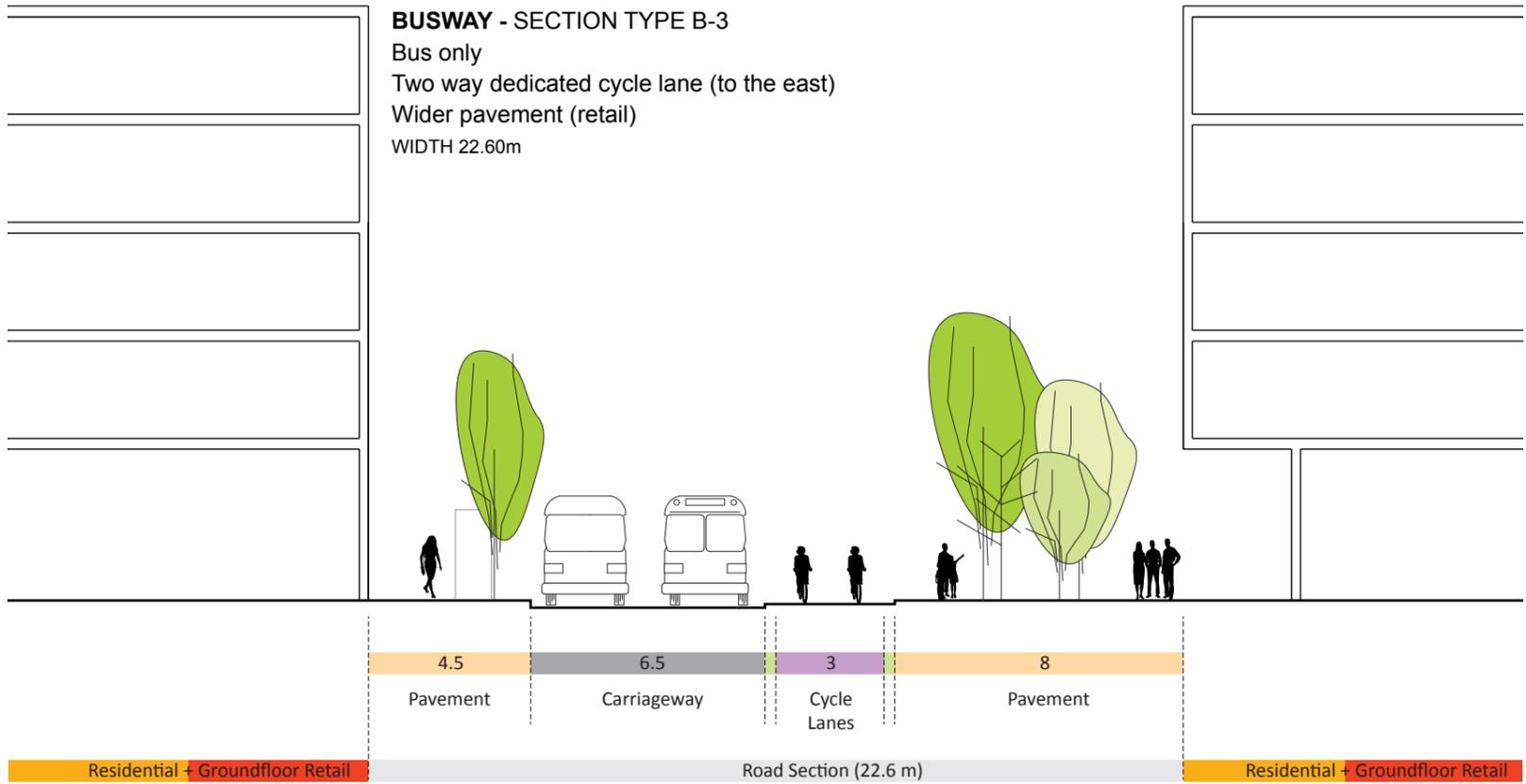
BUSWAY - SECTION TYPE B-2

Bus only

Two way dedicated cycle lane (to the east)

WIDTH 23.10m







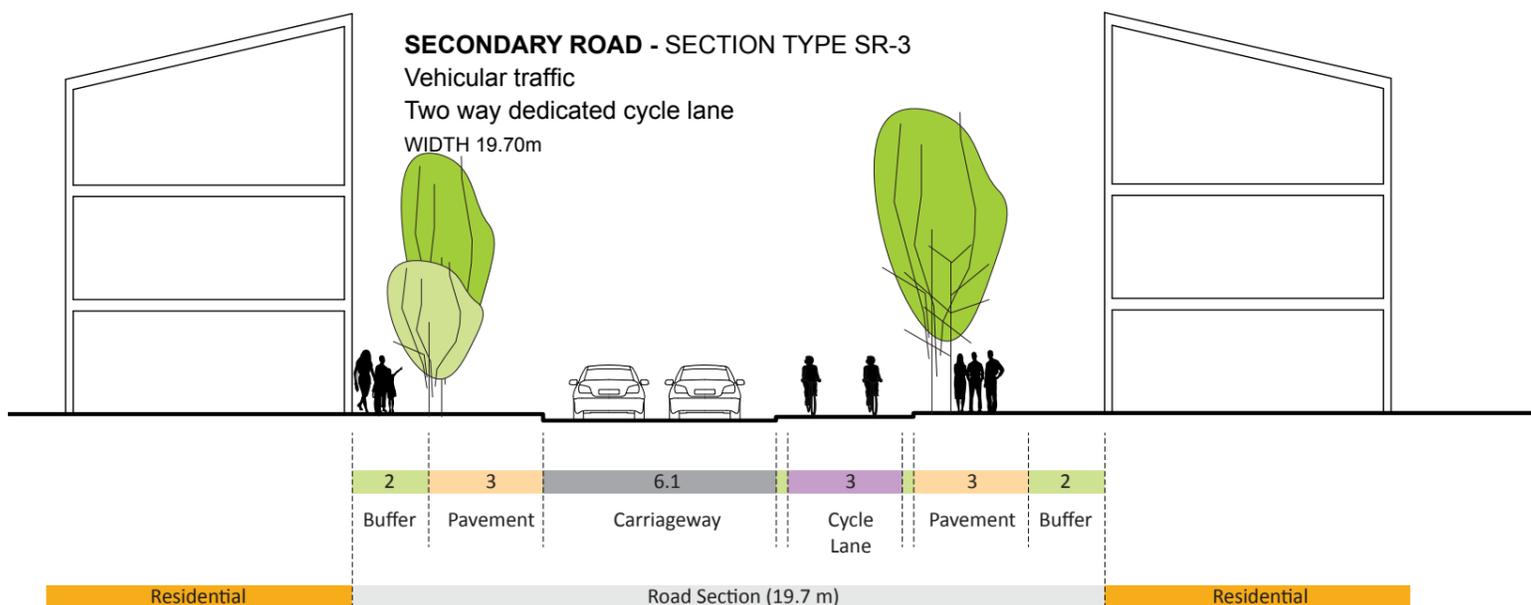
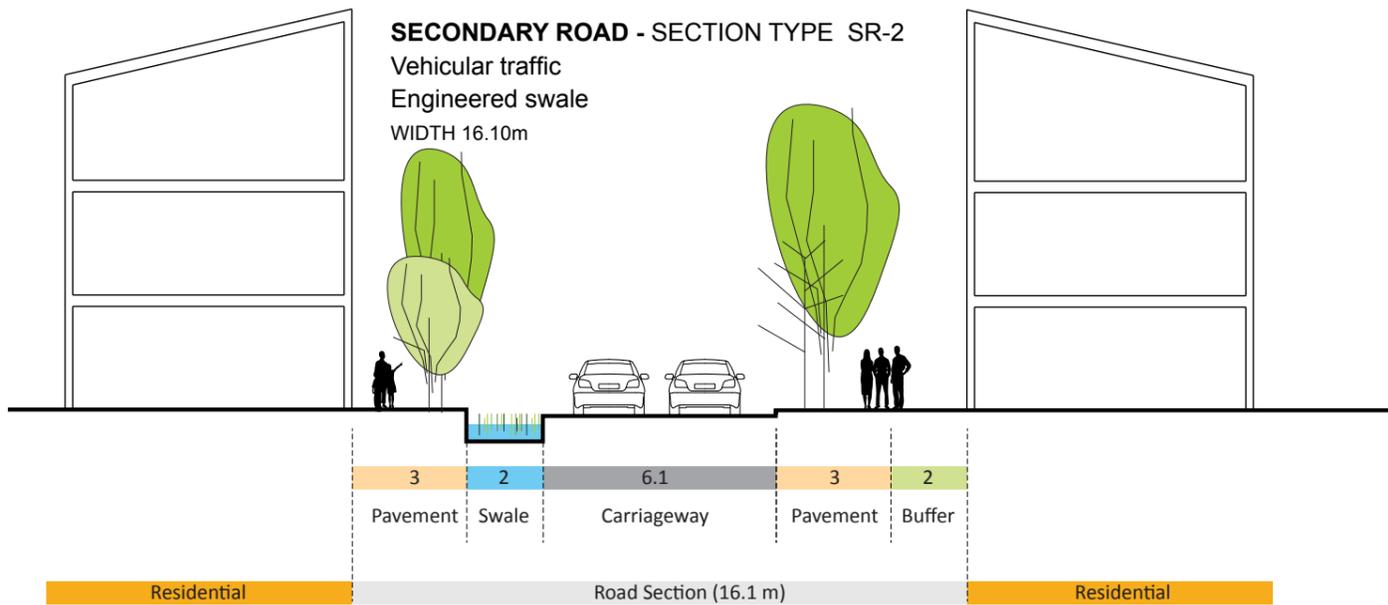
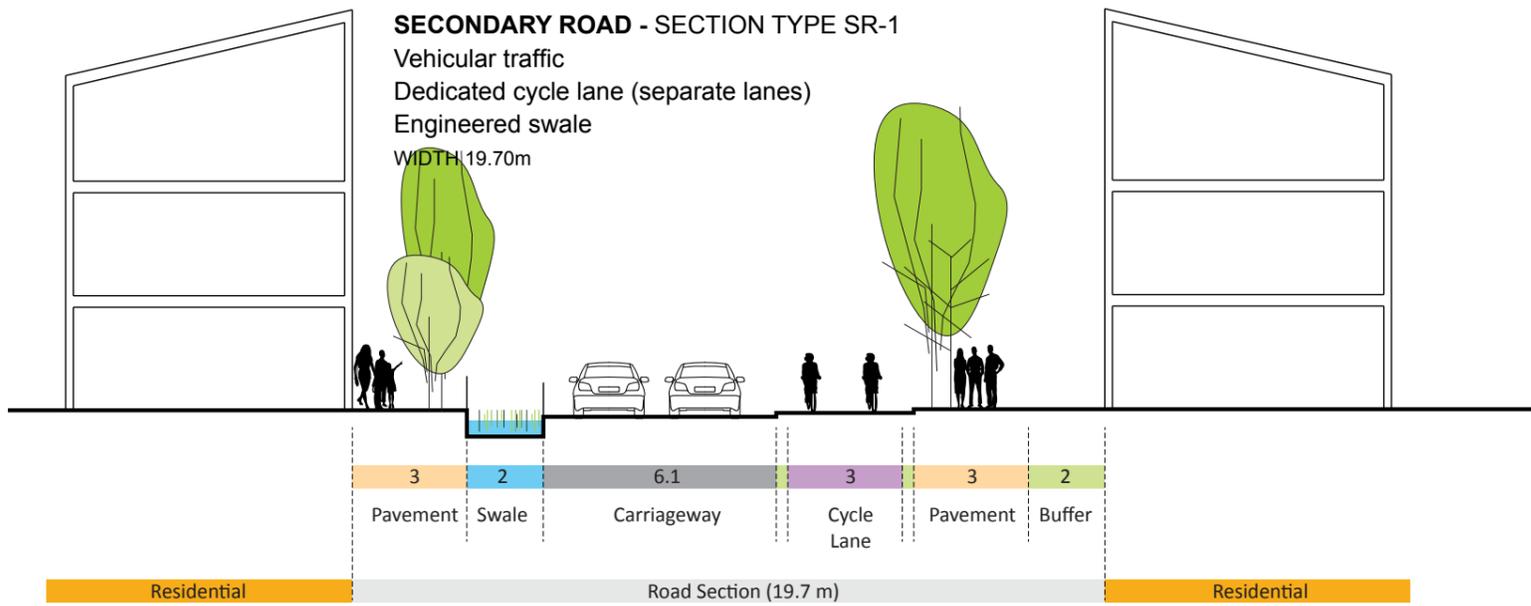
■ SECONDARY & TERTIARY ROADS

Secondary roads, together with tertiary roads, constitute the majority of the streetscape in Phase 2. There will be a network of secondary roads internal to the development and there are proposed to be various locations where routes will cross the Busway, requiring appropriate junction layouts to ensure buses aren't subject to undue delay as well as cater for walking, cycling and traffic movements.

Secondary roads are composed of one-sided linear or angled on-street parking. The shared bicycle and car circulation are delineated by engineered swales with planting in order to provide a softer character.

Pedestrian pavements are framed by a single row of trees on one or both sides of the streets depending on space availability and visibility requirements. Slight variations to the alignment of roads is planned to slow traffic down in critical areas of the development.

FIGURE 6.19: SECONDARY ROADS CROSS SECTIONS





■ ACCESS FOR MOBILITY IMPAIRED

The development will be designed to be accessible to all members of the community and in accordance with the Disability Discrimination Act 2005. This is relevant to the provision of facilities for the disabled, including those with visual and hearing impairments, those with limited mobility, the elderly, those with pushchairs or small children and other vulnerable users. Examples of the areas that will be subject to these considerations are:

- Creation of legible and permeable built environment for all users through the creation of a clear hierarchy of street and spaces and careful detailing of the public realm.
- Main entrances to buildings with level thresholds or suitable provision for wheelchairs;
- Limiting the gradient of ramps to acceptable levels and providing level rest areas to enable wheelchair access;
- Dropped kerbs at all crossings;
- High quality bus facilities that allow a step-free access to vehicles;
- Provision of disabled parking spaces at the appropriate levels and dimensions, located in preferential locations close to the main entrances of residential, commercial and employment developments; and
- Equal and consistent access to be provided for all potential residents including those with visual and hearing impairments, those with limited mobility, the elderly, children and other vulnerable users.

■ NORTHERN & RAMPTON DRIFT ACCESS

The northern access junctions for Phase 1 will also form a means of access into Phase 2 via the Phase 1 primary roads, in the same way that Phase 1 residents are likely to access Phase 1 via the Phase 2 primary roads.

Rampton Road will be closed to vehicles from Longstanton and instead, provide a greenway into the centre of the development from Longstanton village for cyclists, pedestrians and equestrians.

■ EMERGENCY ACCESS

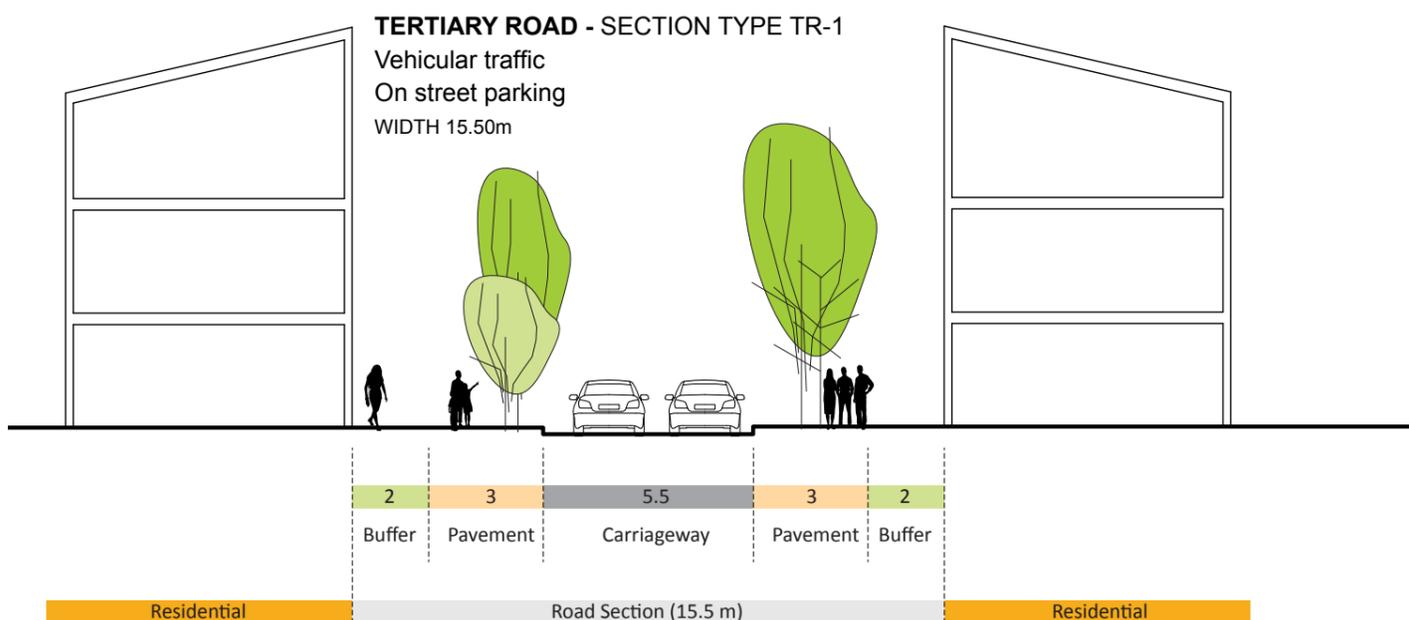
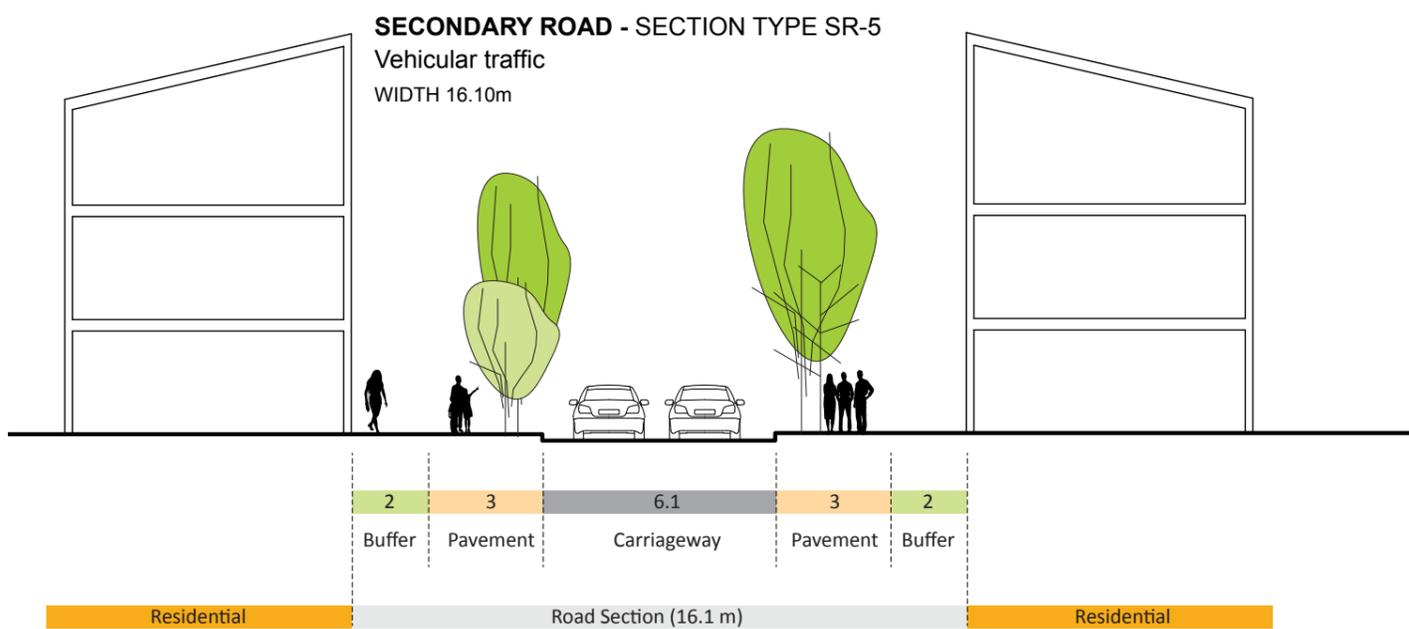
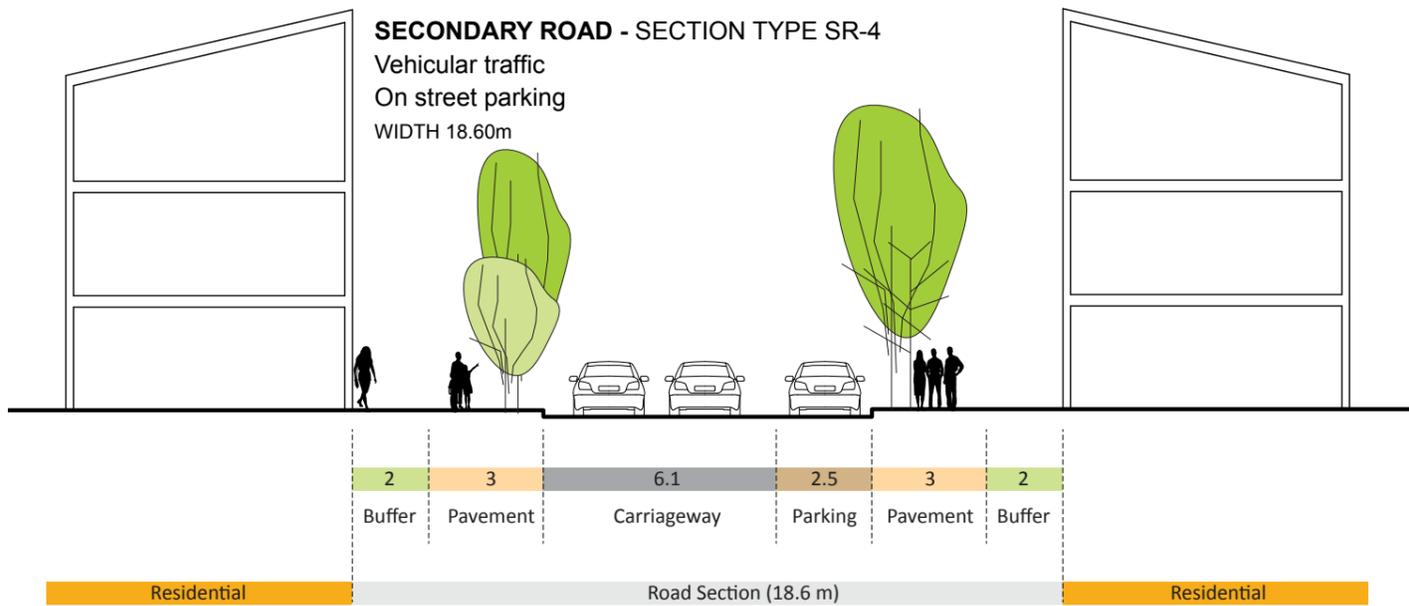
The Northstowe Area Action Plan requires that an emergency access into Northstowe will be provided from the direction of Cottenham (the location of the nearest fire station). For Phase 2 it is proposed that Longstanton Road from Oakington will be used by emergency vehicles in addition to buses, cyclists and equestrians. Emergency vehicles would then be able to access the Phase 2 development from this route using the Primary Route through Phase 3.

■ CONSTRUCTION ACCESS

A Construction Environmental Management Plan accompanies this application. In summary, construction vehicles will access the Phase 2 development initially via Phase 1 during the period of time until the Southern Access Road (West) and Primary Road through Phase 3 is complete.

Once the Southern Access Road (West) is complete, construction vehicles will access the development from the A14 at Bar Hill, and the Southern Access Road (West).

FIGURE 6.20: SECONDARY & TERTIARY STREET CROSS SECTIONS





■ WALKING, CYCLING & BRIDLE WAY ROUTES

Walking and cycling will be encouraged as the main travel mode within Northstowe Phase 2. The street design of the main Phase 2 development area prioritises the inclusion of safe and dedicated pedestrian routes and cycle paths.

In determining which improvements might be included for Phase 2, priority has been given to:

- Enable residents trips to be made on foot or cycle to and from Northstowe;
- Enable trips to the town centre from existing communities (Cottenham, Oakington, Longstanton, Willingham, Over, Swavesey, Bar Hill) to be made on foot or cycle;
- Provide opportunities for leisure walking, cycling and horse riding to be made from Northstowe into the wider communities and countryside.

New cycleways and footpaths are planned to link to the existing bridle way network in order to connect the main Phase 2 development area with surrounding settlements, as well as with the Phase 1 development. Improvements to the Public Rights Of Way are anticipated to be provided as part of the development (details are provided in the Transport Assessment). The dedicated cycling network of Northstowe Phase 2 will be linked to the existing commuter cycle network.

Provision of cycle parking facilities throughout the development of Phase 2, as well as within all dwellings, will establish high quality cycling facilities in Northstowe.

The cycle routes proposed are in three categories:

- Commuter Routes – on segregated cycleways alongside highways. These will be safe and attractive for use at all times of the day and evening;
- Leisure Routes – off-road cycleways through the countryside. In addition to providing pleasant routes for leisure trips, these may provide the most direct connections, suitable for work or school trips, but are not likely to be subject to natural surveillance nor lit. These will often be shared by walkers and equestrians;
- Quiet Roads – routes or sections of routes which use quieter roads and cyclists and potentially equestrians share the carriageway.

There will be a number of key connections within the development (shown on Figure 6.21), which are:

- North west to south east following the busway through the centre of the development;
- Following the Busway on the eastern and northern side to connect to the CGB walking, cycling and bridle way route via a proposed new crossing;
- On Rampton Drift from Longstanton Village Centre;
- Alongside the water park on the eastern side;
- Crossing west to east through the development in a number of locations, connecting homes to the town centre, schools and sports facilities;
- Alongside the east and west Primary Roads;
- Connecting to Woodside in the west.

■ PUBLIC TRANSPORT

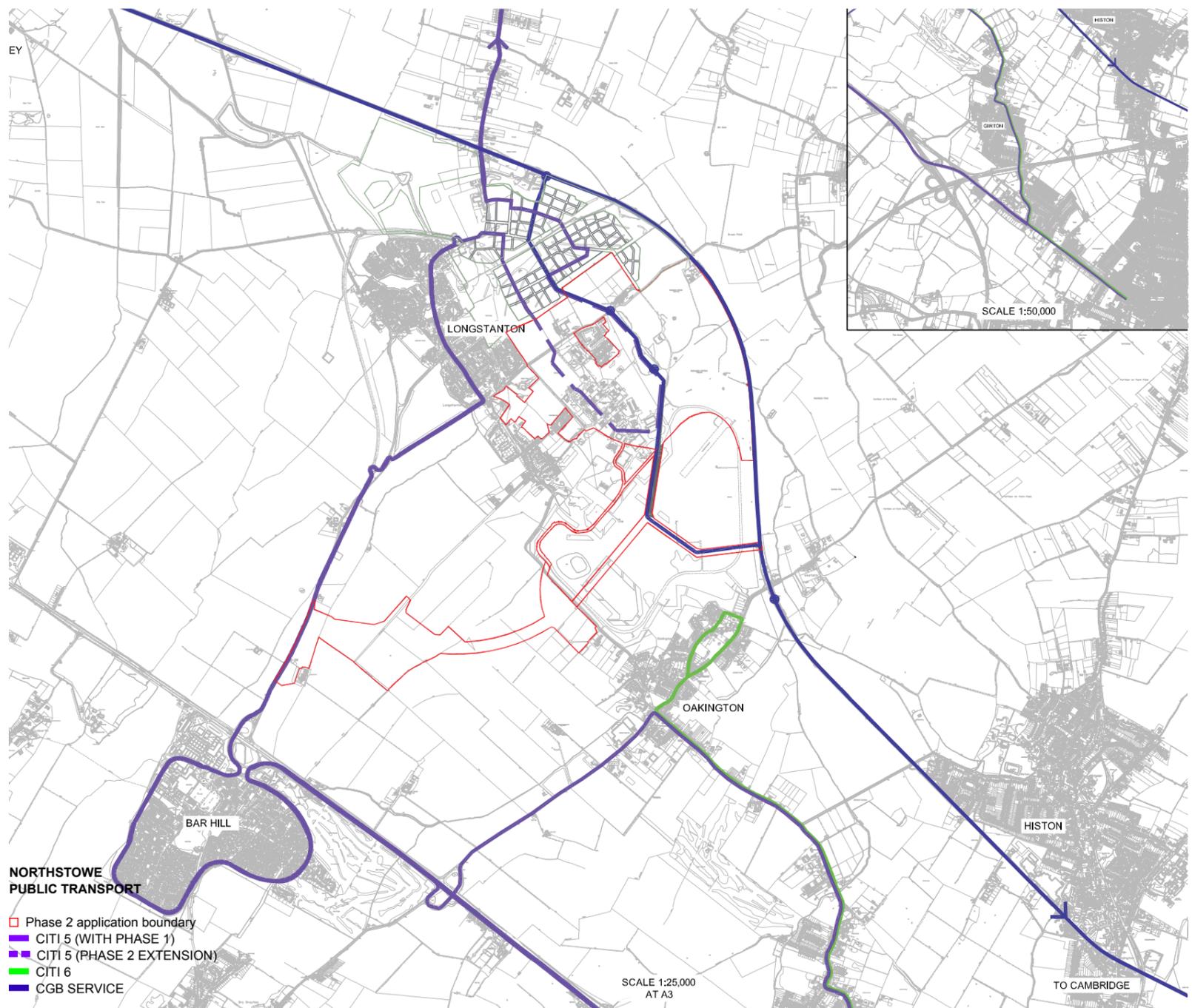
A wide range of measures have been considered to encourage sustainable travel around Northstowe Phase 2, and improve levels of public transport accessibility.

A dedicated busway route passing through the middle of Northstowe is planned to connect the new settlement with the CGB service running between Cambridge and Huntingdon. The intention is to provide residents of Northstowe with high levels of public transport accessibility. The busway is a strategic investment into public transport, giving buses direct access into the heart of Northstowe.

The dedicated busway is to be equipped with bus stops located at intervals of no more than 750 metres to enable residents to access public transport in less than 5 minutes' walk. There will be one busway stop in the town centre.

In addition, existing bus services are planned to be extended into the development along primary roads to ensure that the new community of Northstowe is well connected by public transport services. The majority of residents should be within 400 metres of a bus stop.

FIGURE 6.21: PUBLIC TRANSPORT CONNECTIONS



6.7

N Parking principles

The masterplan for Phase 2 is based on the provision of an average of 1.5 spaces per dwelling in order to respond to local planning requirements. The parking strategy for Phase 2 promotes the inclusion of a parking space within each dwelling, as well as the provision of shared parking areas where more convenient.

The town centre uses will be introduced over the build out of the development to 2031. There is a need for an evolving and flexible approach to parking space provision, beginning with surface car parks with the opportunity to deck them to increase provision in the medium and longer term.

The provision of parking for the town centre uses takes account of the following principles:

It is assumed that the overall provision will include at least 5% of spaces designated for disabled users in line with parking standards. Provision of parent and child spaces and motorcycle parking will be provided.

- Provision should not exceed the adopted maximum SCDC standard;
- There needs to be an allowance over and above maximum accumulation to enable the town centre to function at busier times;
- Parking for education uses and employment would be provided as part of the school and employment developments, and managed by those occupants;
- Parking for town centre uses would be provided in public car parks and thus shared across the different uses.

It is noted that the emerging Local Plan gives an indicative provision of two parking spaces per dwelling. The parking provision needs to be a careful balance between providing sufficient parking and achieving the required development density and use of sustainable modes of travel. The average for Northstowe Phase 2 is therefore set at 1.5, whilst it is recognised that parking levels will be determined in detail as part of detailed applications when considering housing densities and typologies in each area.

More information on parking can be found in the Transport Assessment.

FIGURE 6.22: TOWN CENTRE PARKING PROVISION

TOWN CENTRE PARKING PROVISION	
Land Use	Suggested Provision
Education	105 spaces plus drop off/ pick up zones
Retail and Leisure Uses (including community and health)	1050-1270 spaces
Employment Uses	748 spaces

The provision for cycle parking will be in accordance with the table below and will be detailed in future reserved matters applications. The aim for the development is to provide a higher level of cycle parking and storage provision than the standards to promote cycling as a main mode of travel for residents, shoppers, students and employees at Northstowe.

FIGURE 6.23: CYCLE PARKING PROVISION

CYCLING PARKING PROVISION		
Land Use	Units	Standard
Residential	3500 units	Minimum 1 secure cycle space to be provided, within the curtilage where possible.
Primary School	Each 420 pupils	Secure cycle parking at a rate of 30% for pupils over 5 years of age
Secondary School	1250 pupils	Secure cycle parking at a rate of 60% for pupils over 12 years of age
Town Centre	57,500 sqm	1 secure cycle space per 25sqm (retail standard). Assume 50% of trips are linked across town centre uses.
B1 employment	16200 sqm	1 secure cycle space per 30sqm gross floor area.

