

# Design Code PART 2 SITE-WIDE

April 2022



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### 3.0 DESIGN STRATEGIES

#### 3.1 Environment and Views

The layout of the development is arranged to reflect the topography of three distinct plateaus, as well as responding to environmental conditions such as solar path and prevailing wind direction. The layout synthesises placemaking, solar energy capture, natural surveillance and the maximisation of views, whether out to the sea, Penarth, the Lakes, the retained green corridors or the new park areas.

The layout of the development optimises homes with views over the greenery of the preserved and enhanced woodland and hedgerow areas as well as the newly created parks. A defining character of the development is the enhancement and further creation of a parkland setting, reinforcing the positive relationship between built environment and nature.

Primary long distance views out



Internalised views onto landscape corridors and new parkland



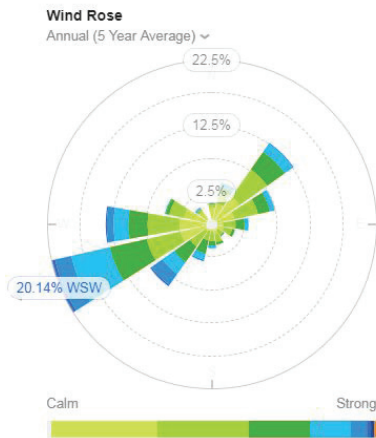
Sun Path



Elevated viewpoints



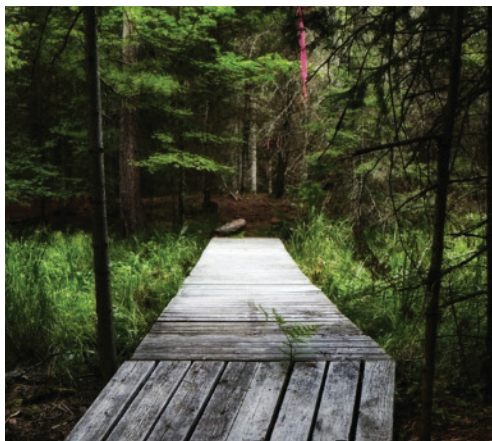
Lowlying areas of the site



### 3.2 Nature Corridors

Located between the Severn Estuary European Marine Site and Cosmeston Lakes Site of Special Scientific Interest (SSSI) the Site provides opportunities for a range of protected and notable species including bats, dormouse, amphibians and reptiles, contributing to the wider biodiversity of Penarth. The layout proposes areas where existing hedgerows can be enhanced, where new areas of hedgerow can be created, as well as secondary green corridors to help improve wildlife connectivity between the existing north to south corridors and the overall biodiversity of the site.

By retaining as much of the existing hedgerow and wildlife habitat as possible the new housing will have a much closer relationship to nature. The creation of new public green space and playground facilities within a rich environment will contribute to community well-being reaping the benefits of the micro-climate and the sounds of nature.



Pedestrian light timber bridges for unobstructed wildlife movement could be used in lieu of traditional hard surfacing to provide permeability through the landscape corridors.



**KEY**

	Retained hedgerow	30 750m <sup>2</sup>		Dormouse crossing point utilising existing and proposed tree canopies
	New hedgerow	13 700 m <sup>2</sup>		New habitat connections
	Retained mature vegetation	560 m <sup>2</sup>		Retained mature tree
	Retained hedgerow maintained at 1-1.5m height	1260 m <sup>2</sup>		Pedestrian passages designed for unobstructed wildlife movement
	Grass/meadow, orchards or community gardens	19 800 m <sup>2</sup>		NEAP (Neighbourhood Equipped Area for Play) approx. area 1400m <sup>2</sup>
	Private gardens soft landscape	17 000m <sup>2</sup>		LEAP (Local Equipped Area for Play) 01-1100m <sup>2</sup> , 02-620m <sup>2</sup> , 03-570m <sup>2</sup>
	Wetland habitat: SuDS swales and infiltration basins	24 940 m <sup>2</sup>		LAP (Local Area for Play) approx. area 120m <sup>2</sup> each
	Water & Wetland habitat: Attenuation pond (surface area)	1700 m <sup>2</sup>		



















### 3.3 Movement and Streets

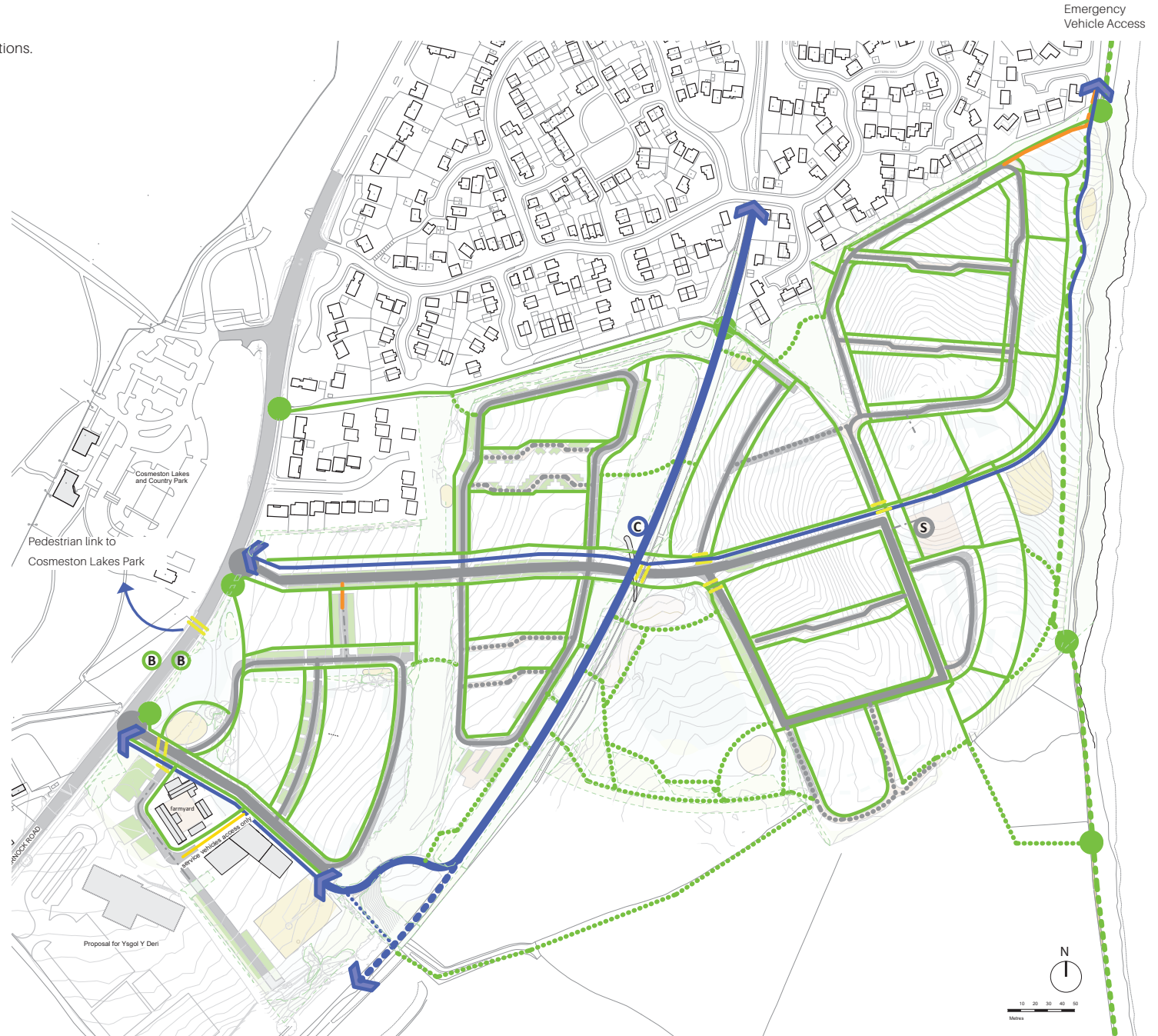
This diagramme includes fixed requirements and illustrative connections.

Fixed requirements are:

- 2 x vehicular access points
- 2 x primary vehicular routes
- Extension and enhancement of NCN88 along former railway
- Creation of new Active Travel Corridors East/West
- Pedestrian Crossing on Lavernock Road
- New Bus Stops on Lavernock Road
- Emergency Vehicle Access
- Relocated Coastal Path
- Electric vehicle charging ready infrastructure

**KEY**

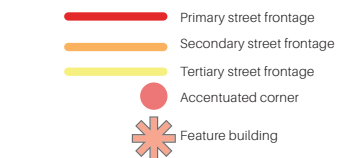
-  Extension of NCN88 Cycle Route
-  Future extended connection cycle routes
-  Cycle route
-  4m wide emergency vehicle access pedestrian route
-  Service vehicle access only pedestrian route
-  Pedestrian route
-  Pedestrian passages designed for unobstructed wildlife movement
-  New Coastal Path
-  Pedestrian Gateway
-  Pedestrian and cycle priority crossing
-  Vehicular Site Access
-  Primary Vehicular Route - Future proofed for potential Bus route
-  Secondary Vehicular Route
-  Home Zone Route - Pedestrian Priority
-  Parking Access only
-  BUS Stop
-  Bicycle Hire (indicative)
-  Dedicated Street Car Rental Spaces (indicative)



### 3.4 Frontage Hierarchy

The underpinning concept of creating a pedestrian/cycle link from the Coastal Path to the Lakes is reinforced by Primary Frontage either side. Here, the space is of significant width and also characterised by wide sustainable drainage swales. Whilst acting as a primary access road, the extended NCN88 cycle route takes priority where the two cross.

Play-friendly Home Zones should be created within the heart of the development areas, away from the primary streets. These will be smaller in scale with more intimate character. Homes along the perimeter of the development areas will provide passive supervision over the retained nature corridors and take advantage of views out of the site from elevated plateau edge locations.












### 3.5 Activation and Uses

The masterplan addresses the needs of the community by creating a mix of well designed public and private housing of mixed tenure and by including the following mix of uses:

- The provision of a new one form entry primary school close to the retained Lower Cosmeston Farm buildings which could be suitable for community use
- The promotion of home working through good housing designs
- Commercial and community facilities will be concentrated at the key spaces, with a primary focus located at the highest point of the site, creating a public square and destination point. This opens up the potential for a home working “hub” or meeting space that would allow people to meet up, work in a communal environment or use a bookable meeting room / office space
- Educational and recreational trails following the new public links through the site to tell the history of the community e.g. the Royal Ordinance Command Post, Marconi’s nearby experimentation, the quarry, the railway line and the orchards, through the use of interpretation boards
- Public green spaces, potential allotments and playgrounds set within the green corridors and wedges throughout the site



-  school, co-working, community and commercial spaces
-  Bus stop
-  Bicycle rental station
-  Community allotments and orchards
-  Playground
-  Home Zone Areas for Play and Socialising
-  Outdoor Gym
-  Nature trail
-  Community Sports Ground

### 3.6 Community Safety

A key strategy of the masterplan layout is the provision of passive supervision to external public open spaces and retained nature corridors and to purposefully prohibit the placement of back gardens on the perimeter of the development areas to face landscape corridors or plateau edges. The layout promotes houses that face these areas to create higher quality public places which feel safe and maximise the enjoyment of the natural landscape.

The masterplan aims to create a cohesive community with a sense of place that will make people feel safe, incorporating a well observed, new community park. The inclusion of community and commercial facilities will also create a cohesive community and promote activity at different times of the day.



→ passive supervision from properties to public open spaces, playgrounds and hedgerow areas






### 3.7 Sustainable Drainage

Sustainable Drainage Approval Bodies have been introduced under legislation relating to Schedule 3 of the Flood and Water management Act 2010. The aim of the legislation is to ensure a natural approach to managing rainwater.

The drainage strategy incorporates site-wide swales and attenuation ponds. They are embedded within the scheme and are used to help define the character of the development. In particular the drainage strategy creates a welcoming 'gateway' feature to the west, through an attenuation pond.

**KEY**

-  Dry Detention Basin  
Reed Beds
-  Attenuation Pond
-  Drain direction of Swale and Rain gardens



### 3.8 Net Zero Carbon Development

To deliver a development with a light impact upon the environment requires consideration of a wide range of issues including materials use, building fabric performance, the type of heating to be used, the energy performance of the buildings, the impact of climate change, sustainable drainage, the local environment and habitat, active travel and a whole host of other potential impacts. Many of these subjects are covered in other sections within the Design Code. This section will focus upon building fabric performance and energy use.

Within Part L of the Building Regulations in Wales there are targets for building fabric performance and energy efficiency. While these are the minimum acceptable performance standards for new buildings they do not extend as far as our targets. To meet these targets requires that any new buildings are as energy efficient as possible and that any operational energy required for these buildings is provided from renewable energy sources.

In developing this Design Code we have calculated the likely energy performance of the dwellings which will be built to meet a low energy performance standard. Using solar modelling to predict how much energy is available on the footprint of the site we have shown that it is possible for this development to deliver Net Zero operational energy. Operational energy is defined as the amount of energy needed over the life of a building to operate the heating, lighting, ventilation and to power electrical appliances. This figure is used in life cycle assessments of a building to give a whole life understanding of the total energy used.

This Design Code does not set out specific building fabric performance or energy standards but does require that the development achieves Net Zero Energy performance. Evidence to prove that this requirement is met will include Building Energy Modelling for each dwelling type, confirmation of the overall energy demand for the site and energy modelling to show how this demand is being met using renewable energy sources on site.

Figures calculated using the current SAP energy software used for proving building regulations compliance are not suitable for demonstrating dwellings compliance with this energy standard because this software does not provide an accurate model of in-use building performance. Figures calculated using other industry standard energy modelling software, such as IES or PHPP, is acceptable evidence. These energy models are required to be stress tested using 2050 and 2080 climate datasets to show that the dwellings will not overheat in future years.

Large scale energy generating systems could include:

- A solar energy farm either adjacent to the site or using all dwelling roofs;
- Ground sourced heat pumps;
- Air sourced heat pumps;
- Water sourced heat pumps using sea; or
- Any other suitable heat pump technology.

Small domestic scale energy systems could include:

- Solar energy and heating panels per dwelling;
- Air sourced heat pumps;

- Ground sourced heat pumps with the supply network contained within the garden of the dwelling; or
- Mechanical Ventilation with Heat Recovery (MVHR).

Research by the Office for National Statistics showed that in 2019 just under 5% of the workforce worked full time from home and 18% worked from home on two or more days. During Covid 19 pandemic this steady upward trajectory sharply increased to nearly half of people in employment working from home. Remote working has many economic, personal well-being and environmental benefits including significant reduction of car usage. The design of the new homes should make provisions for working from home both in terms of space and access to fast reliable broadband. In addition co-working spaces including reprographics facilities and bookable meeting rooms could be provided at key locations in the development.

There should be electric vehicle ready infrastructure throughout the development including capacity for each private off street parking space and on-street publicly accessible charging.

Potential for bicycle hire station on or in close proximity to NCN route 88 should be explored. There should be public bicycle parking provision at key locations such as the proposed public square, parks, playgrounds and the school. All homes should have access to secure bicycle storage. To further encourage reduction of car ownership a potential for dedicated street car rental spaces should be explored.

### 3.8 Illustrative Housing Typology



fast and reliable broadband



electric vehicle charging infrastructure

## 4.0 KEY SPACES AND GATEWAYS

### 4.1 Over-arching Principles and Narrative

The key strategy of the masterplan is to create a new link between two of Penarth's highly valued amenity spaces; the Coastal Path and Cosmeston Country Park Lakes. The new link intersects with the extended National Cycling Network (NCN) route 88 which is the Active Travel artery of the new development.

Connecting the coast and lakes with an inviting pedestrian and cycle friendly route creates a loop of accessible open space for the local community and visitors. Establishing this new route through the heart of the site embeds the proposed development within the wider community and creates a sense of place. It promotes a cohesive community by being integrated with its surroundings, providing permeability and stitching together a network of open green spaces; interconnected Gardens by the Sea.

The network of spaces includes parks, public realm, open swales and ponds, play areas, community allotments and nature trails.

The two principal routes through the site are marked by four Gateways at their points of entrance. Two further Key Spaces have been created to mark and celebrate the crossing point of the two principal routes and also the natural high point of the site.



Coastal Path to Cosmeston Park link



NCN88 cycle path NCN88 extension to Lavernock Road



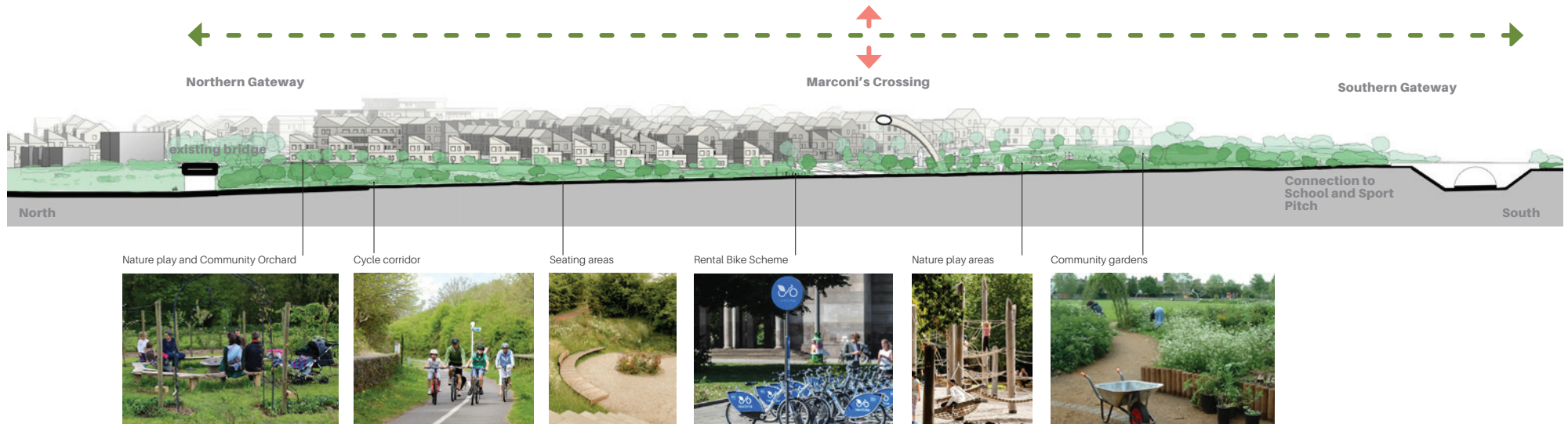
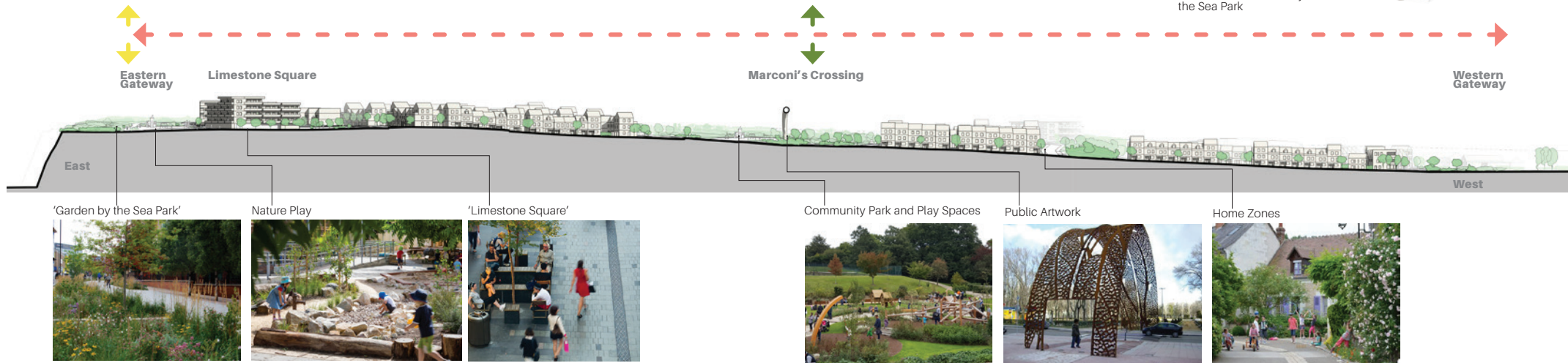
Relocated future-proved Coastal Path

## 4.0 KEY SPACES AND GATEWAYS

### Sections along the two principal pedestrian /cycle routes

Sections along the principal pedestrian / cycle routes showing the proposed activities spaces.

-  Coastal Path to Cosmeston Park link
-  NCN88 cycle path
-  Relocated future-proofed Coastal Path, Garden by the Sea Park

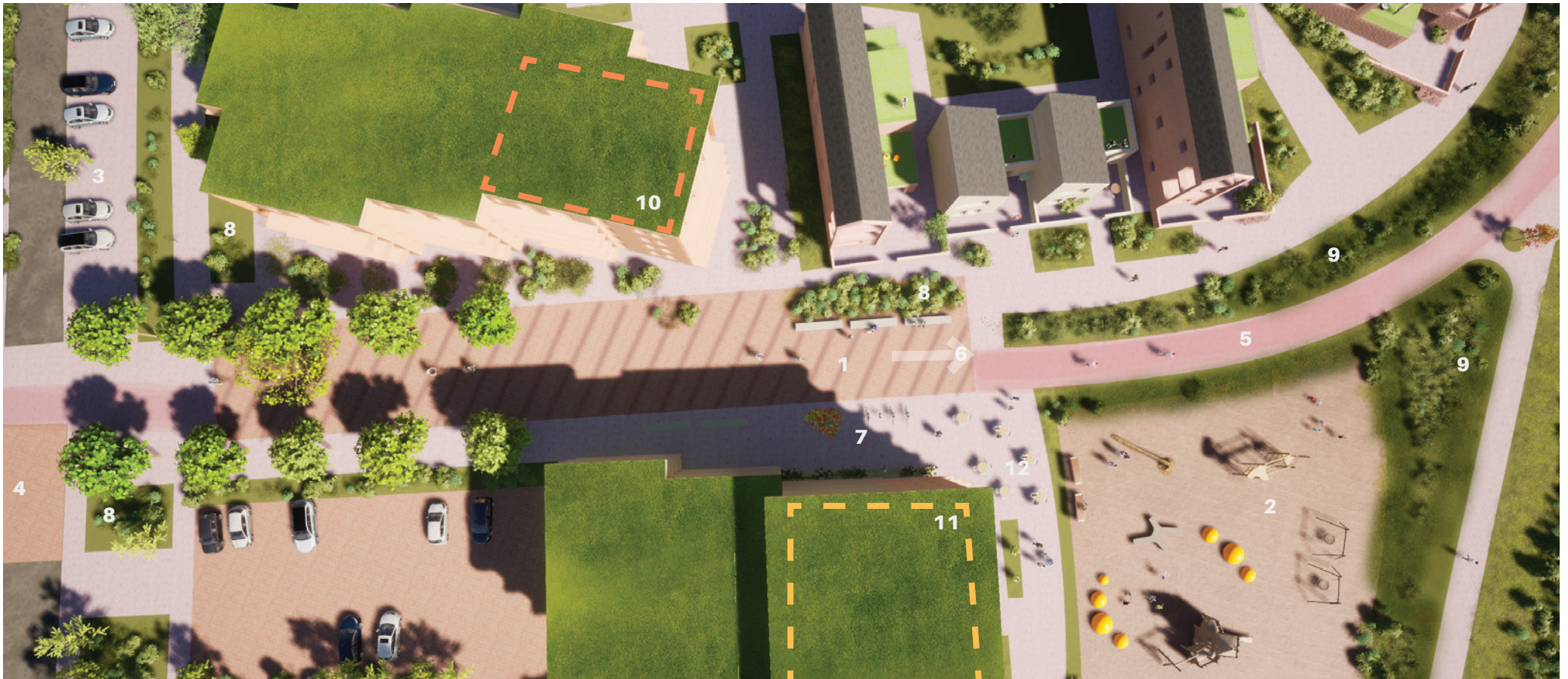


## 4.2 Limestone Square



**KEY**

- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. Limestone Square - flexible space with hard and soft landscape</li> <li>2. LEAP</li> <li>3. Permeable surface parking</li> <li>4. Primary access road</li> <li>5. Cycle Lane</li> <li>6. Views to Bristol Channel</li> <li>7. Bicycle parking</li> </ol> | <ol style="list-style-type: none"> <li>8. Rainwater Gardens (SuD system)</li> <li>9. Swales (SuD system)</li> <li>10. Potential Convenience Store at GF</li> <li>11. Coworking space/cafe at GF</li> <li>12. External cafe seating</li> </ol> |
|--|---|



## 4.2 Limestone Square



View from Limestone Square

### 4.3 Marconi's Crossing



**KEY**

1. Priority to NCN88 at crossing point, marked with public artwork/potential dormice bridge
2. National Cycling network Route 88
3. Primary Access
4. Bicycle lane
5. Bicycle rental station
6. NEAP (Neighbourhood Equipped Area of Play) designed as series of play spaces
7. Infiltration basins
8. Swales
9. Community gardens/allotments



This image is illustrative of how the required elements could be arranged



### 4.3 Marconi's Crossing



View from NCN Route 88 of Marconi Crossing

## 4.4 Western Gateway



### KEY

1. Lavernock road
2. Northern vehicular access points
3. Southern vehicular access points
4. Pedestrian crossing
5. Bus stop
6. Attenuation ponds
7. LEAP (Local Equipped Area of Play)
8. Retained hedgerow
9. Enhanced and new hedgerow
10. Swales and rain gardens
11. Private gardens
12. Primary school
13. Parking
14. Retained Lower Cosmeston farm with potential for community use/heritage trail/extended education facilities



## 4.4 Western Gateway



View of Western Gateway LEAP

### 4.5 Eastern Gateway



**KEY**

- |   |   |
|---|---|
| 1. Pedestrian/cycle access only from existing street network. This should also allow emergency vehicle access onto the new street network within the development. | 7. Seating                                      |
| 2. Maintain open views back to Penarth from new park space.   | 8. Meadow                                       |
| 3. New Coastal Path   | 9. Swales                                       |
| 4. Cafe/co-working  | 10. Views to Bristol Channel                    |
| 5. LEAP (Local Equipped Area for Play)  | 11. Area of hedgerow maintained at lower height |
| 6. Enhanced and new hedgerow  |   |



## 4.5 Eastern Gateway



View from Eastern Gateway looking towards Penarth head

## 4.6 Northern Gateway



### KEY

1. Former railway line extended into site as NCN 88.
2. Existing track crosses NCN 88 at high level.
3. Former railway bridge.
4. Gateway space provides 'orientation' point. Space to dwell. Interpretation boards and information.
5. Steps up existing embankment.
6. Existing/enhanced landscape.
7. LAP (Local Area for Play).
8. Orchard.



This image is illustrative of how the required elements could be arranged

## 4.6 Northern Gateway



View from Existing former railway bridge to extended NCN88

## 4.7 Southern Gateway



4. LAP precedent - slides

### KEY

1. National Cycling Network Route 88
2. NCN 88 cross track via historic Victorian railway bridge
3. Pedestrian and cycle track
4. LAP (Local Area for Play) - series of slides following the 7m fall in the topography
5. Three storey Key Building on promontory overlooks LAP, community sport pitch and cycle connection to the school
6. School
7. Community Sport Pitch
8. School square and drop off point
9. Listed Farm potentially converted to community, commercial and/or educational use
10. Retained landscape corridor to plateau edge
11. Infiltration basins
12. Swales and rain gardens
13. LEAP



This image is illustrative of how the required elements could be arranged





# 5.0 STREET TYPOLOGIES

## 5.1 Overview

The streets will have a clear hierarchy.

The Main Boulevard is of significant width and also characterised by sustainable drainage swales. A further Primary Access Road provides access to the school and western plateau development. Bus turning will be provided with the school development.

Secondary Streets branch off the Primary Access Roads, allowing vehicles, cycles and pedestrians to permeate each development area.

A Tertiary Street typology accommodates cyclists, pedestrians and vehicles closer to homes for access and servicing, in the form of 'home zones'. These tertiary streets are smaller in scale and designed to prioritise pedestrian movement, invite social interaction and play.

The masterplan sets out the key decisions taken and to be followed with regard to the Primary Access Roads and is indicative of how may be arranged at a future time.

01 Active Travel Corridors/National Cycle Route 88



02 Pedestrian Path



03 Pedestrian Connections through landscape corridors



04 Main Boulevard/Primary Access Road



05 Secondary Street



06 Tertiary Street - HomeZone levelled surface street



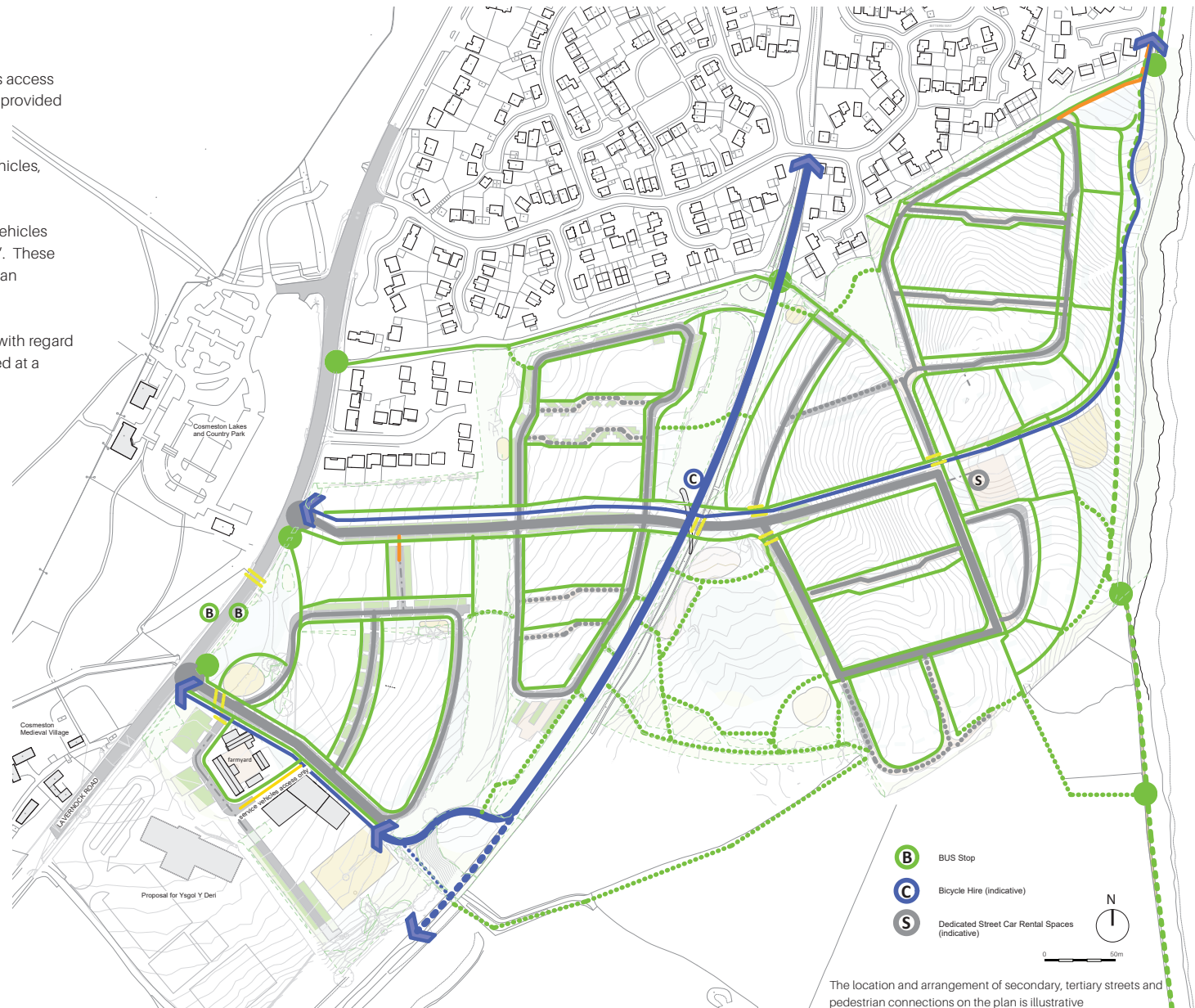
07 Emergency vehicle access only



08 Emergency vehicle and School Bus and Services access only

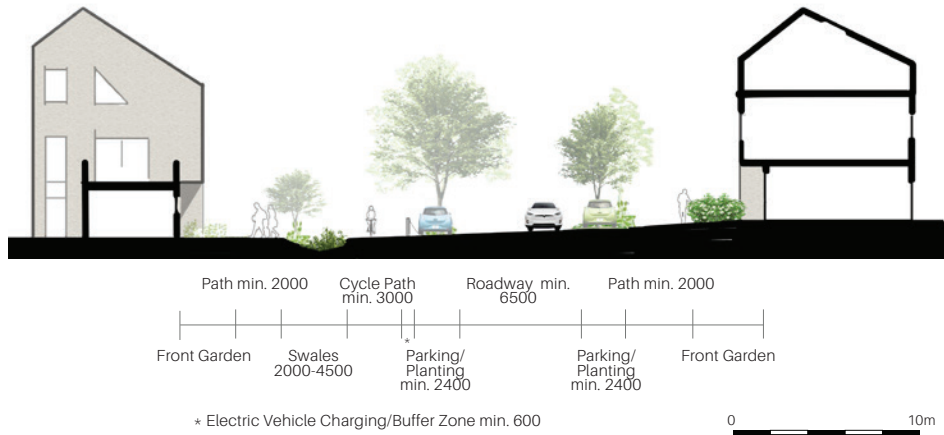


09 Pedestrian crossing



The location and arrangement of secondary, tertiary streets and pedestrian connections on the plan is illustrative

## Street Typology: 01 Main Boulevard/Primary Access Road



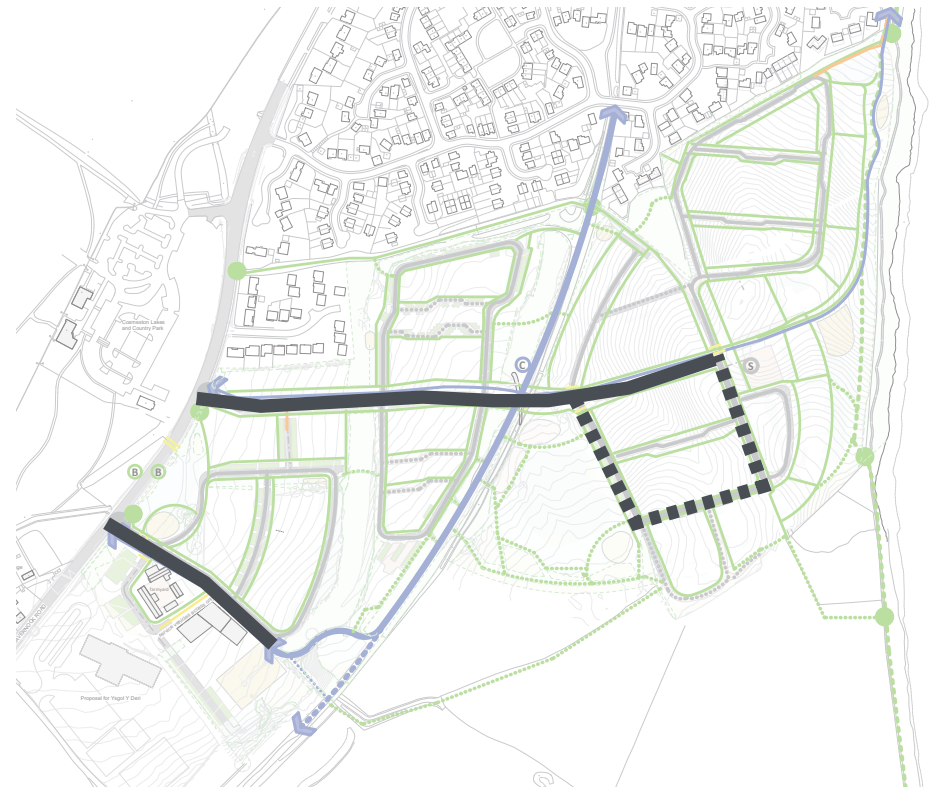
### KEY

1. Swales
2. Permeable surface parking
3. Electric vehicle charging station
4. Front gardens
5. Cycle path
6. Pedestrian path
7. Street trees
8. Change of road surface material/ colour at crossings



Avenues Mermoz & Pinel, Lyon, France  
Gautier+Conquet Architectes

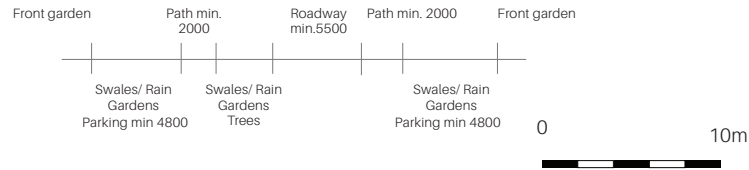
■■■■■ roadway width to match 01 Main Boulevard but general arrangement to 02 Secondary street typology



## Street Typology: 01 Main Boulevard/Primary Access Road



## Street Typology: 02 Secondary Street



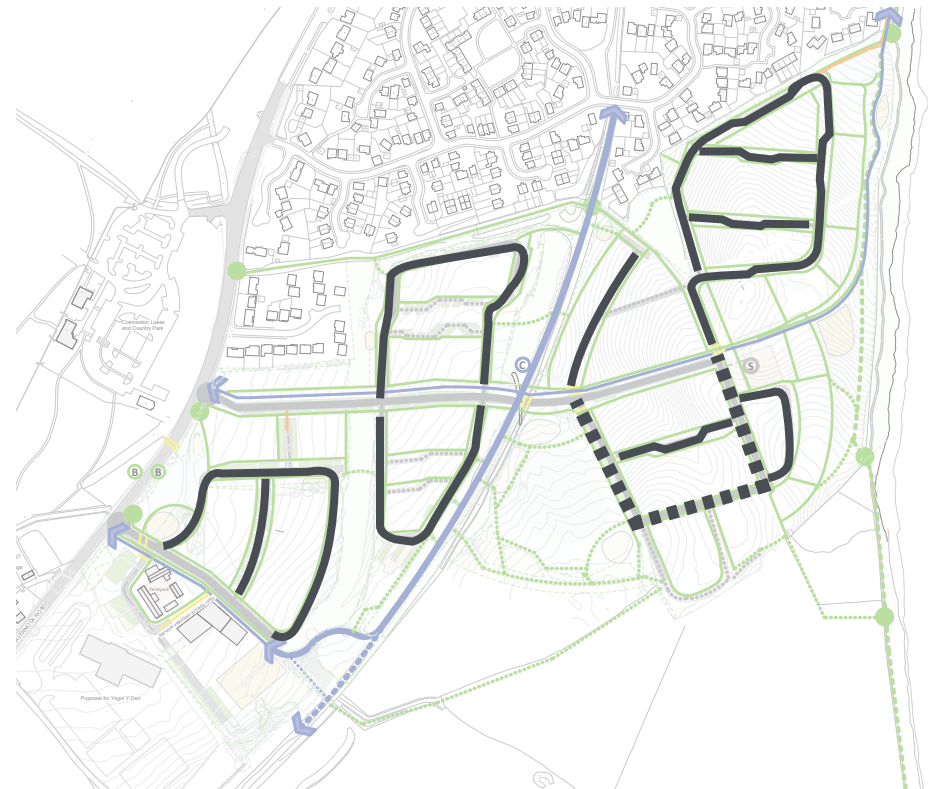
### KEY

1. Swales
2. Roadway
3. Permeable surface parking
4. Electric vehicle charging outlet fixed to front garden wall
5. Front gardens
6. Pedestrian path
7. Street trees
8. Change of road direction to regulate speed



Kop Zuidas, Amsterdam

■■■■■■ roadway width to match 01 Main Boulevard but general arrangement to 02 Secondary street typology



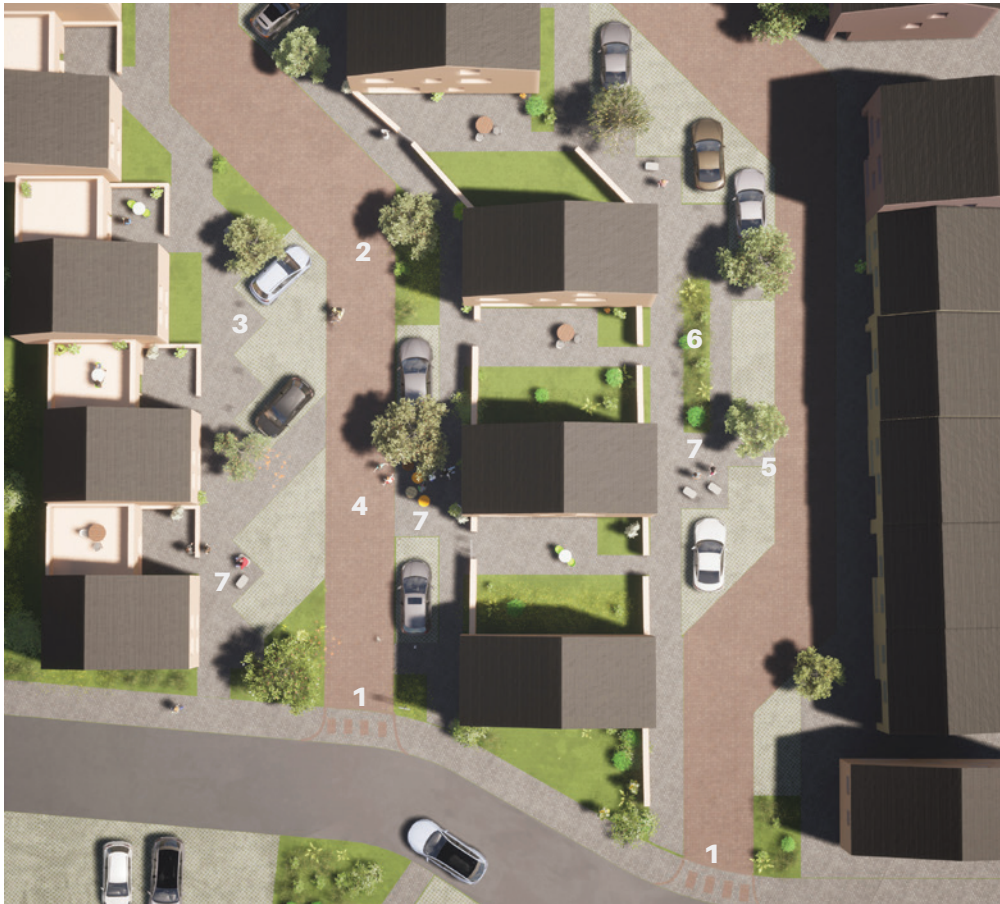
## Street Typology: 02 Secondary Street



## Streets Typology: 03 - Home Zone Street



Northmoor Homezone, Manchester



### Design principles key

Speed limited to 10 Mph

1. Entrance to the Home Zone should be clearly signposted and include gateway features such as change of paving material and colour, road narrowing framed by street trees and/or art, tactile paving
2. Adopt the minimum carriageway dimensions with passing places
3. Install bollards, electrical vehicle charging posts, trees and street furniture to limit vehicle access and protect housing and other home zone areas
4. Limit straight road sections to 30m to slow vehicle speed. Use street parking patterns and other landscape elements to create horizontal carriageway realignments
5. Use the pattern of paving or surface material to distinguish the carriageway from other areas
6. Incorporate rain gardens and allow for small areas of planting to the front of the housing
7. Include sitting and informal playareas



## Streets Typology: 03- Home Zone Street

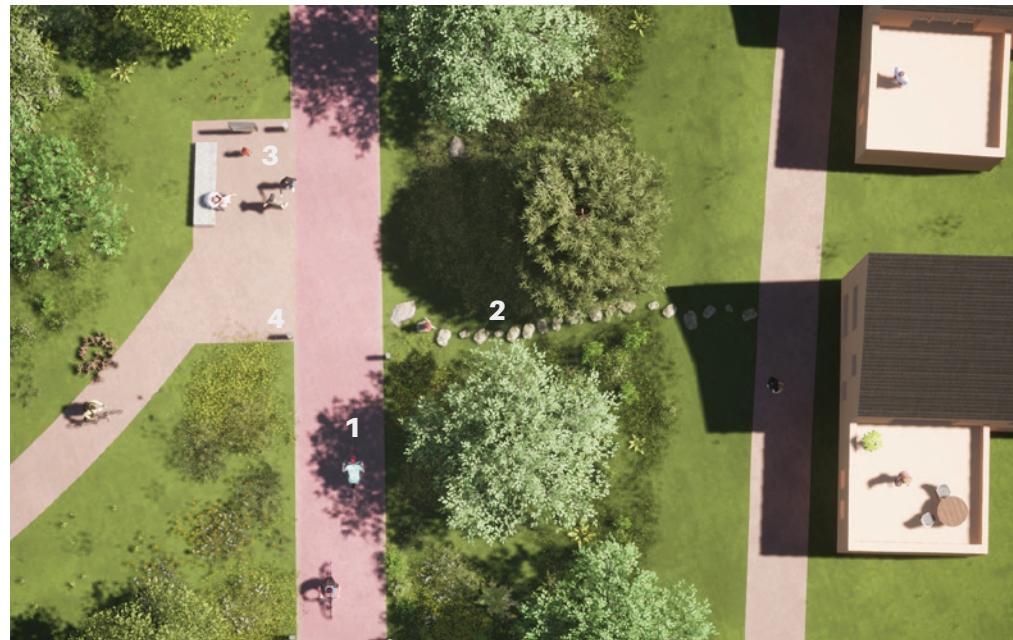




## Street Typology: 04 Active Travel Corridor/NCN route 88

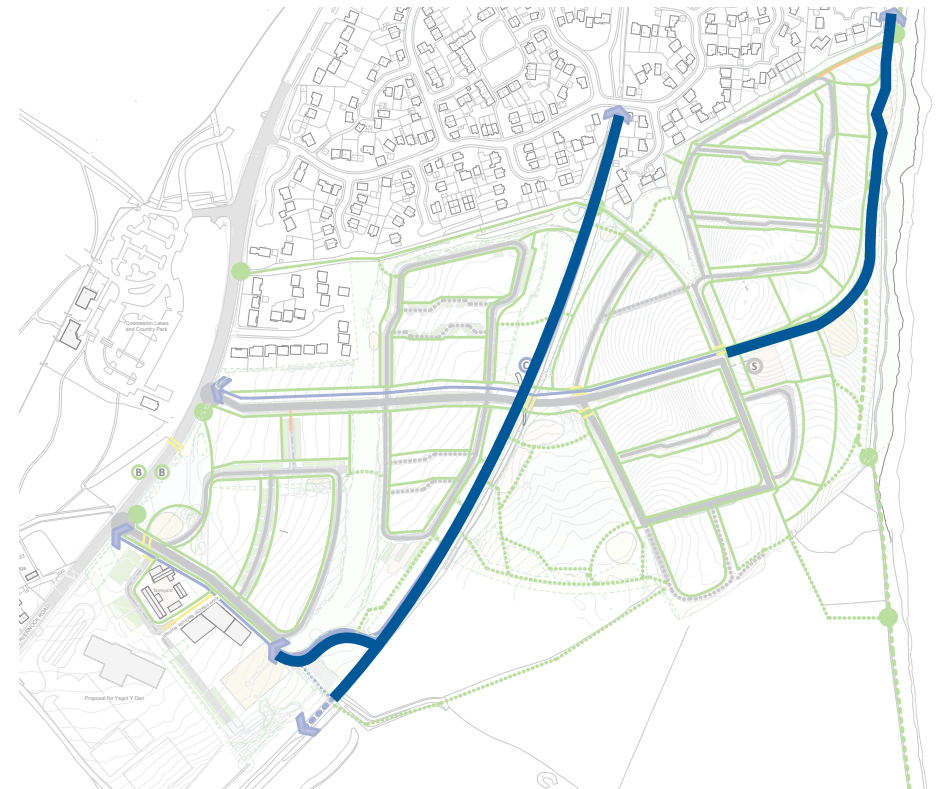


Active Travel  
Corridor  
min. 3500



### KEY

1. Active Travel Corridor/National Cycle Network route 88
2. Sensitive pedestrian connections through landscape corridors
3. Spaces to rest and dwell at pedestrian link connections. Potential place for biodiversity and heritage information boards.
4. Low level, reduced glare streetlight fittings



## Street Typology: 04 Active Travel Corridor and NCN route 88



# Street Typology: 05 Parkland Pedestrian Path

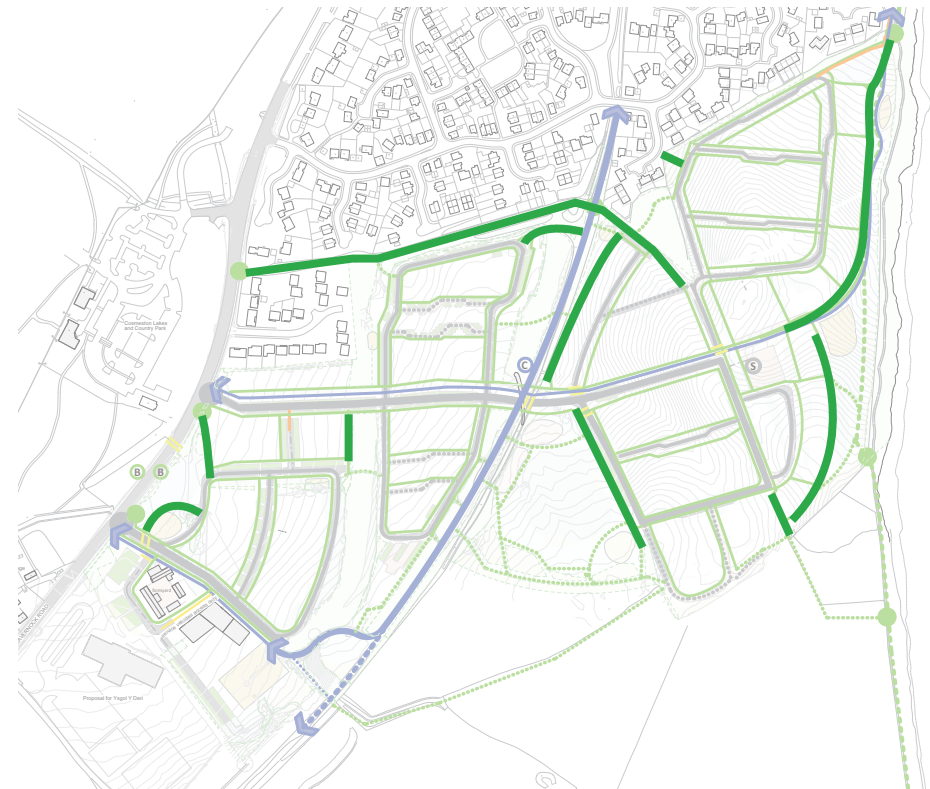


**KEY**

- 1. Pedestrian path
- 2. Sensitive pedestrian connections through landscape corridors
- 3. Spaces to rest and dwell at pedestrian link connections to active travel corridors



Clock House Gardens, Welwyn Garden City, Stockwool



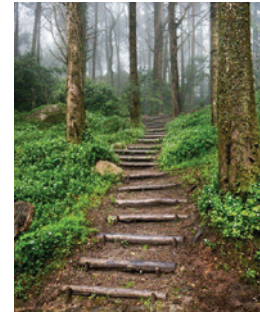
The location and arrangement of Pedestrian Paths on the plan is illustrative of how they could be set out.

## **Street Typology: 05 Parkland Pedestrian Path**

## Street Typology: 06 Sensitive Hedgerow Connections through landscape corridors



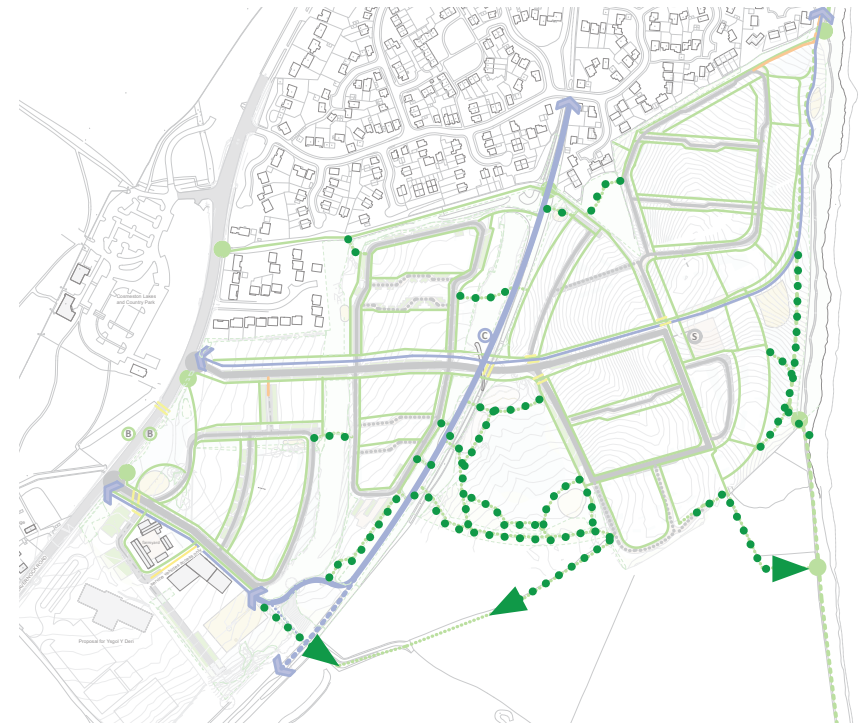
Stepping stones through hedgerow



Reed bed decking



Unpaved path



The location and arrangement of Sensitive Pedestrian Connections on the plan is illustrative of how they could be set out.

**Street Typology: 06 Sensitive Hedgerow Connections through landscape corridors**



## 6.0 ARCHITECTURAL CHARACTER

### 6.1 Context

Following the opening of a tidal harbour on the River Ely in 1855 and a dock to serve the expanding export of coal, Penarth grew rapidly from a small settlement to a thriving town. A range of Victorian housing was built to support the booming commercial development.

The outstanding landscape setting with prominent headland overlooking the Bristol Channel, the accessible beaches with their backdrop of impressive cliffs to the east of the town, all combined to make Penarth a popular summer holiday resort. Grand Edwardian villas, commanding extensive views over the Bristol Channel, rose on the cliff above a well-visited promenade.

The architecture, dating from the period of the town's dramatic growth between 1865 and 1910, defined the character of the town centre, the vicinity of the formal Victoria Square, the Esplanade and Penarth Head. In 1971 these parts of Penarth were designated to form the largest Conservation Area in the Vale of Glamorgan.

An aerial view of Penarth confirms the extent of 'greenery' that pervades and characterises the town. From larger, formal parks, through pocket parks and tree lined streets to private gardens, Penarth residents and visitors are never far from green space and opportunities to enjoy nature. The railway line provides a striking green artery from Cogan to Lavernock. The now disused section south of Penarth Station cuts an uncompromisingly straight corridor in contrast to the gently curved streetscape of the grander avenues of the town. These primary routes provide access to a network of smaller streets, efficiently laid out and regular but always generous enough to provide space for trees and nature. The density of the housing itself, much of it terraced, enables landscape space to be conjoined into meaningful areas, much of which is publicly accessible.

This rigour and simplicity of this dense yet green street pattern that typifies the town is only lost south of Brockhill Rise and Stanton Way where the former cement works gave way to a development 'of its time' that abandoned the specific character of Penarth in favour of a 'national' approach to layout and house types.

This is quite different to the more historic breaking down of the terraced streetscape that occurs on the eastern extremities of the town, particularly on St Augustine's Head and towards the Esplanade. Here larger properties, stand within their own grounds and rise to take advantage of the stunning views to be had across the Bristol Channel. These buildings are often unique in design but share materials and architectural motifs such that they feel part of the same architectural family.

Penarth housing is both robust and elegant, with well-proportioned and well-detailed homes crafted from local natural materials such as stone and brick. The use of stone is varied throughout the town. Grander, more civic buildings for community use employ ashlar work whilst other buildings may have rough stone facades with ashlar stone reserved for details around openings or projecting bays, which are regularly employed to maximise light. Many homes in Penarth are predominantly of brick, again with ashlar stone detailing to windows and doors.

Colour palletes are simple and natural regularly involving a combination of just two or three materials from limestone, brick and ashlar, with highlights, often in white or black, where painted timber frames appear. Many of the taller homes create rooms within the roofscape with external materials switching from the solidity of stone and brick to rendered panels defined in a gridwork of timber framing. This leads to expanses of painted render at high levels, again usually

white but with the complimentary palette of materials usually reduced to just two, often brick and ashlar. There are examples of polychromatic brickwork but detailing tends towards simplicity.

Tall and generous windows reinforce the rigour and rhythm of the terraces whilst also providing a subtle variety in configuration and detail. Windows purposefully change in size to reflect the use of the spaces beyond and also providing a reducing scale up the height of the facades, creating an order directly descended from Classicism. Fenestration patterns tend towards the vertical with only the less successful modern window replacements losing that theme.

The archway is a regularly recurring motif from grand porches to more subtle window heads. Entrances to the home are often protected by an external space, sheltered from the elements and entered through an arched façade, although many of these have been subsequently 'colonised' as was the fashion at a time.

Understandably, as planned prior to the rise of the privately owned car, neither the terraces nor the space in front of them are broken up or dominated by car parking at right angles to the street. The original generosity of the street has enabled subsequent parallel parking of cars, often within the shade of trees within the pavement whilst in some of the more secondary and tertiary streets the resultant road width has become quite tight and the uninterrupted line of vehicles unfortunately dominating. There are also unfortunate examples of small front gardens, walls and hedges being ripped out to squeeze in an additional vehicle.

Whilst some terraces sit directly onto the street, many homes have a modest private area to the front which is well defined by low walls and railings/gates which provide a sense of privacy and defensible space without blocking views or natural light. Hedging is also employed, often in conjunction with a low wall, reflecting and maintaining the close relationship between built form and nature that defines the whole town.



House on Tower Hill Passage



House on Marine Parade



Sully Terrace



Windsor Terrace



The Red House, Victoria Road. Architect John Coates Carter



Semi detached houses on Victoria Road



## 6.2 Principles

The architectural character of the development should respond directly to the context of Penarth and in particular those parts of the town that were created during the major growth period from 1865 to 1910 as these parts best define the whole. Crucially the development must capture the town's close relationship with green space and nature and its reputation as a 'Garden by the Sea'.

There will be significant areas of retained landscape, reinforced by new, open, publicly accessible parkland and green space which pervades the whole development. There will be a range of green spaces created from a large scale community park, sports fields and a new 'linear park' to tree lined avenues, sustainable drainage swales and pockets of street landscape. The close relationship between the built form that overlooks these green spaces will characterise and unify the development.

Primary streets and routes will gently curve revealing changing views as the development is passed through and lead to a network of smaller streets, efficiently laid out and regular. All streets will include soft landscape. The extent of meaningful and publicly accessible green space will be maximised by creating denser areas of housing, much of which will be arranged in terraces and have a rigour and simplicity to its arrangement. This rigour and density will only be broken towards the south eastern edge where larger properties will stand in their own ground looking back to the vale. These larger properties whilst having unique, high quality designs will feel part of a family through a shared approach to materials and detailing.

Terraces will be largely of two or three storeys and include 'half storeys' where rooms are accommodated partially into the roofspace. Taller elements and gables will be used to accentuate terrace ends and corners. House types will include homes utilising bay windows to capture natural light. All homes will be designed specific to their location, orientation and views and 'standard' house types will not be employed.

All homes will appear robust and elegant utilising natural materials of stone and brick. Whilst Penarth has precedent for the use of render this does not dominate the building but tends to be used as a detail or to define upper areas of faced, particularly as part of a roofscape. Render demands high levels of maintenance to avoid discolouration and staining and must be well detailed and alternative modern through-coloured panel or timber cladding solutions may be considered in its place. The proportions between stone and brick will vary across the site as will the textures of the façades whilst a commonality of material will bind them together. The development will reflect the historic use of limestone and ashlar sandstone as detailing, together with rich red brickwork.

Window types will reflect the nature and usage of the rooms behind and display a hierarchy within the façade. The development will avoid the predominance of a 'standard' window design whilst a commonality of proportion will be sought to bind the development together. Window openings should principally be vertical in proportion.

The development will reflect the use of the arch as a motif within the town as a selected 'highlight' to façades rather than a general principle, particularly in marking main entrances where the recessed external 'lobby' may also be used as an architectural device.

Generally the terraces of homes and the private spaces in front of them should not be broken up by car parking at right angles. Parking should be accommodated on the streets, where they are permitted, be parallel to the street, and broken up by planting and trees.

Some properties, particularly those within Home Zone, may sit directly onto the street whilst the majority will have some form of private defensible space to the front. These spaces will generally be shallow in depth and well defined by a low wall or railing with a gate. Low hedges combined with, and not instead of, a low wall will also be encouraged.



Derwenthorpe, Weesp, York, Studio Partington



North Street, London, Peter Barber Architects



Chapter House, Lichfield, Proctor & Matthews Architects



St Chads, Tilbury, Bell Phillips Architects