North Tyneside Council

Economic Prosperity Sub-Committee

Please note time and venue of meeting.

6 February 2018

Wednesday 14 February 2018 Room 4.01, Quadrant, The Silverlink North, Cobalt Business Park, North Tyneside commencing at **5.00 pm**

Agenda Item		Page(s)
1.	**Apologies for Absence** To receive apologies for absence from the meeting.	
2.	**Appointment of Substitute Members** To be notified of the appointment of any Substitute Members.	
3.	**Declarations of Interest** You are invited to declare any registerable and/or non-registerable interests in matters appearing on the agenda, and the nature of that interest. You are also invited to disclose any dispensation in relation to any registerable interests that have been granted to you in respect of any matters appearing on the agenda. You are also requested to complete the Declarations of Interests card available at the meeting and return it to the Democratic Services Officer before leaving the meeting.	

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Contact Officer – Michael Robson – (0191) 643 5359

4. **Minutes**

To confirm the minutes of the previous meeting held on 17 January 2018. 3

5. **North Tyneside Cycling Strategy** 7

To examine the North Tyneside Cycling Strategy and North Tyneside Cycling Design Guide and, if necessary, submit comments or recommendations to the Cabinet.

Members of the Economic Prosperity Sub-Committee:

Councillor Ken Barrie
Councillor Joanne Cassidy
Councillor Steve Cox
Councillor Sarah Day
Councillor Karen Lee
Councillor Peter Earley
Councillor Janet Hunter (Chair)
Councillor Pam McIntyre
Councillor Maureen Madden
Councillor Martin Rankin
Councillor Joan Walker (Deputy Chair)
Councillor Frances Weetman

Economic Prosperity Sub-Committee

17 January 2018

Present: Councillor Janet Hunter (Chair)
Councillors J Cassidy, D Cox, S Day, D McMeekan
J Walker and F Weetman.

EP22/01/18 Apologies

Apologies for absence were received from Councillors P Earley, K Lee and M Madden.

EP23/01/18 Substitute Members

Pursuant to the Council's constitution the appointment of the following substitute member was reported:

Councillor D McMeekan for Councillor P Earley

EP24/01/18 Declarations of Interest and Dispensations

There were no Declarations of Interest or Dispensations reported.

EP25/01/18 Minutes

Resolved that the minutes of the previous meeting held on the 11 October 2018 be confirmed and signed by the Chair.

EP26/01/18 Inward Investment

Sean Collier, Senior Manager: Business Enterprise attended the meeting to present details of the Council's approach to attracting inward investment.

North Tyneside had a number of strengths in attracting inward investment including its transport connections, productive people, cost effectiveness, property offer, universities and quality of life. The benefits of attracting investment included strengthening the local economy, job growth, increased standards of living, lower levels of crime, less benefit dependency, benefits for health, local services and retail, access to customers & local supply chain and increased business rates for the authority.

Over the past 4 years 6,816 new jobs had been created in the borough. Many of these jobs were located on Cobalt Business Park. With 2 million square feet of office space and 3 datacentres it represented the largest office park in the in UK. It was now 90% occupied with a workforce of 14,000 people. Quorum Business Park in Longbenton provided 1 million square feet of office space. It was 65% occupied with a workforce of 5,500. There were development sites suitable for future inward investment at the Swan Hunters site, Whitehill Point, near the Royal Quays, and Indigo Park. As yet there were no confirmed investment plans for Indigo Park due to the construction costs and timescales associated with new build facilities.

The Council had a small team of 6 officers who promoted and marketed North Tyneside among potential investors, particularly in the energy, digital, financial, professional and business and advanced manufacturing sectors. The methods used included using digital and social media, attending events and exhibitions, producing marketing materials and advertising and providing soft landing support to help businesses move into the borough.

The Council worked in partnership with a range of organisations including the Department for International Trade, Invest North East England, property developers and intermediaries such as property agents, consultants, accountants and solicitors to identify potential investors and promote North Tyneside. The Council were also pro-active in maintaining contact with existing large businesses to support any expansion plans and to allow them to work with scale up businesses.

The sub-committee were presented with a number of case studies where businesses had received support from the Council to create new jobs in the borough. Smulders had established an offshore wind jacket manufacturing facility at the Hadrian Yard, Wallsend. Members of the sub-committee had visited the yard in November 2017. In the face of competition from Prague and other EU sites, Accenture had expanded its operations on Cobalt Business Park and increased its workforce from 250 to 1,200 because funding had been brokered in to cover the wage difference.

The sub-committee considered the likely implications of Brexit. It was reported that some investors had decided not to invest in the UK and some had delayed decisions. The North East Combined Authority had asked that an analysis be undertaken of the funding likely to be lost by the region as a result of Brexit, although European funding tended to be in the form of smaller grants for small and medium sized enterprises.

Larger scale grant funding came directly from central government on a sporadic basis, based on job creation. Many regions and nations within the UK had their own grant funding schemes but there was none in the North East and therefore there was not a level playing field across the country. The proposed North of Tyne devolution deal could be a means to provide such a scheme but it risked disrupting the existing business support infrastructure organised across the wider North East region.

There were skills shortages particularly in the digital and engineering sectors. The Council did not have a talent attraction programme but instead it sought to attract inward investment and then talented people would be attracted by the employment opportunities created.

Members examined the range and availability of smaller incubator units such as those at Quorum and Cobalt Business Exchange.

The development of the Swan Hunter site had not progressed according to the expected timescales because of the down turn in the oil and gas industries. However oil prices had begun to recover and if these increases were maintained over a period of time investment was more likely. The offshore wind industry was buoyant, particularly with progress expected on the proposed Dogger Bank wind farm. The River Tyne would be an ideal site to support the development and a recent offshore wind exhibition organised by NOF Energy had been well attended.

It was **agreed** that the presentation in realtion to the Council's approach to inward investment be noted.

EP27/01/18 North Tyneside Cycling Strategy (Previous Minute EP21/10/17)

The sub-committee had previously examined the North Tyneside Transport Strategy 2017-2032 and had noted the Council's intention to replace the existing North Tyneside Cycling Strategy. It was reported that on 15 January 2018 the Cabinet had agreed to commence a process of public engagement on a draft revised North Tyneside Cycling Strategy and a process of engagement with user groups on the associated draft North Tyneside Cycling Design Guide.

The sub-committee were presented with a copy of the draft strategy. Whilst cycling was growing in North Tyneside: the proportion of residents who cycled to work increased by 20% in the ten years to 2011, a strategic approach to cycling was considered to be essential in order to deliver aspects of the Our North Tyneside Plan, the Local Plan and the North Tyneside Transport Strategy. It was proposed that the Council's approach would focus activity on:

i. growing everyday cycling so that more people benefit and the environment does too;
ii. wherever possible, improving the borough's infrastructure and information to support that growth; and
iii. providing some design guidance to make sure that infrastructure is in line with best and emerging practice.

The strategy had in part been shaped by the findings and recommendations of a scrutiny sub-group who had reported in September 2015.

The sub-committee heard that the engagement process would involve discussions with other neighbouring local authorities, cycling user groups and by seeking the views of members of the public through the Council website and press releases. In noting that the strategy sought to promote everyday cycling, Members highlighted the importance of engaging with the wider community as part of the process, not just cyclists. The Council did not currently have a nominated cycling champion but this was under review.

The sub-committee queried whether the design of replacement metro trains would allow for the carriage of bicycles and whether there was any analysis of the proportion of transport investment spent on cycling. There were frequently conflicting demands from different road users in relation to the design of road improvements. The draft cycling design guide had been prepared to provide guidance for use by designers for new developments and designers implementing highway improvement schemes within North Tyneside.

It was suggested that the sub-committee give further, more detailed, consideration to the draft strategy at its next meeting when the responses received during the engagement process could also be taken into account. The sub-committee also agreed that in order to prepare for the meeting the cycling design guide and the report of the Cycling Strategy Sub Group from 2015 be sent to members of the sub-committee.

It was **agreed** that (1) the Cabinet's decision to commence a process of public engagement on a draft revised North Tyneside Cycling Strategy be noted;
(2) the sub-committee give further, more detailed, consideration to the strategy at its next meeting with a view to submitting its comments to Cabinet; and
(3) as part of the scrutiny exercise the sub-committee also give consideration to the cycling design guide, the responses received during the engagement process and the extent to which the recommendations of the Cycling Study Group have been incorporated into the strategy.

17 January 2018

EP28/01/18 Travel Safety Strategy (Previous Minute EP21/10/17)

The sub-committee had previously examined the North Tyneside Transport Strategy 2017-2032 when it had noted the Council's intention to prepare a Travel Safety Strategy to replace the Road Safety Strategy. The sub-committee received an overview of the work to prepare the strategy which was due to be submitted to Cabinet for adoption in March 2018.

The strategy was to be broadened to become a Travel Safety Strategy and to include public transport safety, trips/falls on the adopted highway and users perceptions of safety. Bus operators and Nexus had been approached to obtain information around assaults and anti-social behaviour incidents but further work would be required to better understand users perception of safety on, and access to, public transport. As perceptions were difficult to quantify members of the sub-committee were invited to contribute any information or experiences from their local wards. Members suggested that members of the public could also be asked directly to submit their own views through the Council's newsletter Our North Tyneside.

In terms of road safety, the strategy would seek to deliver against the North East Combined Authority's collision reduction targets and to focus collision reduction around training and education for future generations. Collision monitoring would be carried out against more specific categories including children, cyclists and pedestrians, schools, town centres and 20mph zones.

The strategy would provide for speed management through various mechanisms including the use of driver feedback signs, conversion of traffic signals to record speeds, criteria for setting speed limits and improved enforcement in conjunction with the Police and Safety Camera Partnership. The sub-committee discussed a number of options for recording and enforcing speed limits and officers gave advice on the relevant regulatory frameworks that applied.

It was **agreed** that work to prepare a Travel Safety Strategy be noted.

Meeting: Economic Prosperity Sub-Committee

Date: 14 February 2018

Title: North Tyneside Cycling Strategy

Authors: Michael Robson, Democratic Services Officer Tel. 0191 643 5359

Service: Law & Governance

Wards affected: All

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1. Purpose of Report

The purpose of this report is to prepare Members of the Economic Prosperity Sub-Committee to undertake a scrutiny exercise in relation to the North Tyneside Cycling Strategy.

2. Recommendations

The sub-committee is invited to:

a) examine the contents of the draft North Tyneside Cycling Strategy and associated background documents;
b) consider the extent to which the recommendations of the Cycling Strategy Scrutiny Study Group have been acted upon and incorporated into the strategy;
c) ask questions of the Cabinet member and officers responsible for the preparation of the strategy; and
d) if necessary, submit comments or recommendations to the Cabinet to be taken into account in approving the content of the North Tyneside Cycling Strategy and North Tyneside Cycling Design Guide.

3. Details

3.1 Background

The Economic Prosperity Sub-Committee is responsible for reviewing and challenging the impact of decisions taken by the Elected Mayor, the Cabinet and other decision makers in relation to economic development, inward investment, transport networks and tourism. It has a role to play in supporting the Elected Mayor and the Cabinet in formulating the Council's future strategies by making evidence based recommendations.

In May 2017 the Cabinet approved the North Tyneside Transport Strategy 2017-2032. One of the actions in the Transport Strategy was to replace the existing North Tyneside Cycling Strategy. In January 2018 the Cabinet agreed to commence a process of public

engagement on the draft North Tyneside Cycling Strategy and a process of engagement with user groups on the associated draft North Tyneside Cycling Design Guide.

The draft Strategy was presented to the sub-committee at its meeting on 17 January 2018 when the sub-committee:
a) noted the Cabinet's decision to commence a process of public engagement on the draft Strategy;
b) agreed to give further, more detailed, consideration to the strategy at its next meeting with a view to submitting its comments to the Cabinet; and
c) agreed to give consideration to the cycling design guide, the responses received during the engagement process and the extent to which the recommendations of the Cycling Study Group have been incorporated into the strategy.

In order that the sub-committee may make a meaningful contribution to the formulation of the strategy this report presents background information which may help members prepare questions for the meeting and identify issues which may form the basis of comment and/or recommendations to be taken into account by the Cabinet in approving the strategy.

3.2 National Policy

In 2017 the Government published its first Cycling and Walking Investment Strategy setting out its ambition to make walking and cycling the natural choices for shorter journeys or as part of a longer journey. The government's ambition is to deliver:

a) Better safety - with streets where cyclists and walkers feel they belong and are safe;
b) Better mobility - with high quality cycling facilities and more urban areas that are considered walkable; and
c) Better streets - with places designed for people of all abilities and ages to walk or cycle with ease.

By 2025 the government:

a) aims to double cycling, where cycling activity is measured as the estimated total number of cycle stages[1] made each year, from 0.8 billion stages in 2013 to 1.6 billion stages in 2025;
b) aims to increase walking activity, where walking activity is measured as the total number of walking stages per person per year, to 300 stages per person per year in 2025,
c) aims to increase the percentage of children aged 5 to 10 that usually walk to school from 49% in 2014 to 55% in 2025.

The government's strategy also sets out the financial resources available to support these objectives, the performance monitoring arrangements and specific actions planned to support delivery of the ambition. A programme of technical support for local authorities has also been prepared to help develop Local Cycling and Walking Infrastructure Plans.

The sub-committee may wish to explore the extent to which the North Tyneside strategy aligns with, and contributes towards, the national ambitions and objectives.

[1] The basic unit of travel is a trip which consists of one or more stages. A new stage is defined when there is a change in the form of transport. Counting cycle or walking stages rather than trips allows journeys that involve cycling or walking but where this is not the main form of transport to be measured (for example, cycling to a railway station to catch the train to work).

3.3 NECA Transport Strategy & LTP3

The North East Combined Authority (NECA) is currently in the process of formulating a regional Transport Strategy. The sub-committee has previously examined the NECA Transport Manifesto in which NECA gave a commitment to improve the attractiveness of sustainable modes of transport by providing a better safer and integrated cycling network and by promoting cycling.

The previous regional strategy was the Tyne & Wear Local Transport Plan (LTP3) covering the period 2011-21. LTP3 stated "We will give priority to and invest in walking and cycling." It committed local authorities to growing the proportion of daily cycling journeys in Tyne and Wear. It emphasised that cycling was for everyone and can be a routine part of everyday life. It aimed to ensure there was co-ordinated approach to cycling, that a strategic regional cycle network plan was developed and that there was consistent application of locally relevant best practice in network design and cycle skills training.

The LTP3 delivery plan included some statistics relating to cycle use. According to the 2001 Census 1.7% of the population in Tyne & Wear used a bicycle as their main mode of transport to work. In 2009/10, 1.9% of children in North Tyneside travelled to school by bicycle.

The sub-committee may wish to examine the impact of LTP3 in growing the proportion of daily cycling journeys and giving priority to investing and improving the cycling network. This may enable the sub-committee to identify any lessons learned in the past which may be taken into account in the formulation and delivery of the North Tyneside Cycling Strategy.

3.4 Our North Tyneside Plan & the North Tyneside Transport Strategy

The strategic vision for North Tyneside is contained in the Our North Tyneside Plan. It states "Our places will have an effective transport and physical infrastructure – including our roads, cycleways, pavements, street lighting, drainage and public transport"

The Council has adopted the North Tyneside Transport Strategy which sets out a vision that "North Tyneside will have a safe, easy to use, healthy, affordable, accessible and integrated travel and transport infrastructure that works for residents, businesses and visitors effectively and efficiently."

It also describes the following principles which will guide the Council's actions and performance monitoring in relation to transport:

a) Improve safety, health and well-being outcomes and sustainability; in relation to people, communities and the environment;
b) Support economic growth; through effective movement for people, businesses and goods and to support the regional aim of "more and better jobs";
c) Improve connectivity; with all parts of the borough, the region, the rest of the country and the world;

d) Enable smart choices for all; help people, businesses and visitors find out how to get to where they need to; and
e) Manage demand; on transport networks and assets and address current and future transport challenges.

The sub-committee may wish to consider the extent to which these guiding principles are reflected in the North Tyneside Cycling Strategy.

3.5 Cycling Strategy Study Group

In 2015 the Environment Sub-Committee appointed a Cycling Strategy Study Group to review the existing strategy and to make recommendations to ensure that a new strategy would improve cycling and maximise investment in cycling facilities. The Cabinet accepted the Study Group's four recommendations which were that:

a) Cabinet be requested to endorse the addition of a further key objective to the 2030 Vision, relating to new developments; to agree that an updated set of objectives be incorporated into the 2015-19 Cycling Strategy when drafted; and to agree that the appropriate Local Development Document should be amended, as part of its review, to more robustly reflect best practice with respect to cycling.
b) Cabinet be requested to ensure that the 2015-19 strategy includes a clear indication of strategic cycling routes and a clear indication that initiatives will be developed to further support and increase cycling; and to agree that a target be set for increasing cycling in North Tyneside.
c) Cabinet be requested to ensure that a corporate approach (including Public Health, Highways, Planning and Tourism) to the promotion of cycling in North Tyneside is adopted; and agree that an Annual Information Report on cycling should be provided to Cabinet; and
d) Cabinet be requested to ensure that design guidance is developed and that this guidance reflects best practice; and ensure that a corporate approach to maintaining the cycling network is adopted.

The sub-committee may wish to review whether these recommendations have now been acted upon.

3.6 North Tyneside Cycling Design Guide

With reference to recommendation d) above, the Cabinet in January 2018 agreed to commence a process of engagement with user groups on a draft North Tyneside Cycling Design Guide and receive a further report once this process is complete.

The sub-committee may wish to examine the design guide and make any comments or recommendations to be taken into account by Cabinet.

3.7 Engagement

In January 2018 the Cabinet agreed to commence a process of public engagement on the draft Strategy. The engagement process began in the week commencing 22 January 2018 and comments are invited until 21 February 2018.

The draft strategy and associated questionnaire are available on the Council's website. The questionnaire lists the five Actions contained in the draft strategy and asks four questions: the first two questions ask respondents how much, on a scale of 1 to 10, they agree with the five Actions and agree that the draft strategy reflects the associated challenges; while the second two questions invite views on the most important ways and initiatives to support everyday cycling. Copies of the draft strategy and questionnaire have also been sent by email to all Members and to officers of other North East authorities.

An email was sent to user groups: in addition to the draft strategy and questionnaire, this asked for their comments on the draft Cycling Design Guide and included a link to this document. User groups were also invited to a workshop held on 6 February 2018 which related to both the draft strategy and draft Cycling Design Guide.

The sub-committee may wish to consider the effectiveness of the engagement process and explore the issues raised by the public during the engagement exercise to help shape its own response.

3.8 Greater Manchester

For the purpose of comparison a report Made to Move has recently been published. It has been produced by former Olympic cyclist Chris Boardman who was tasked by the Mayor of Greater Manchester, Andy Burnham, to produce a report on how to deliver a step change in the numbers of people walking and cycling in the Manchester city region.

The 15-point plan includes proposals to publish a detailed walking and cycling infrastructure plan and establish a ring-fenced, 10-year, £1.5 billion infrastructure fund for walking and cycling.

The sub-committee may wish to compare North Tyneside's approach to that taken in Greater Manchester, or any other local authority, to identify any areas where North Tyneside's strategy may be strengthened.

4. Appendices

Appendix 1	Draft North Tyneside Cycling Strategy
Appendix 2	Draft North Tyneside Cycling Design Guide

5. Background Information

The following documents have been used in the compilation of this report.

(1) Cabinet report 15 January 2018 'North Tyneside Cycling Strategy – Engagement'
(2) North Tyneside Transport Strategy 2017-2032

(3) North Tyneside Cycling Strategy (existing strategy adopted in 2010)
(4) Agenda and Minutes of the Economic Prosperity Sub-Committee 17 January 2018
(5) Made to Move – Report to the Greater Manchester Combined Authority
(6) NECA Transport Manifesto
(7) Tyne & Wear Local Transport Plan 3
(8) Report of the Cycling Strategy Study Group

North Tyneside Cycling Strategy

2017 -2032

everyday cycling

1. Introduction

1.1 The North Tyneside Transport Strategy sets out how we will improve safety, health and well-being outcomes and sustainability; support economic growth; improve connectivity; enable smart choices for all; and manage demand.

1.2 A key aim for both our Transport Strategy and the North Tyneside Local Plan is to encourage a better environment for cycling and to continue the excellent progress being made in North Tyneside in terms of increased participation in cycling.

1.3 Cycling is a healthy and sustainable way of making everyday journeys, which often replace motorised journeys, and supporting the demand for increased participation in cycling can boost the local economy, people's health and quality of life, helping to make North Tyneside a great place to live, work and visit.

1.4 In this strategy we set out our strategic approach to supporting cycling in the Borough.

2. Our strategic approach

2.1 To support and encourage the growth of cycling in the borough, we will focus our activity on:

i. **securing further growth** in everyday cycling, working in partnership to deliver projects which get more people cycling of all ages and in all areas – this means that more people benefit and so does the environment;

ii. wherever possible, improving the borough's **infrastructure and information** – delivering a programme of works which makes everyday cycling simple, safe direct and attractive and supports the growth in everyday cycling; and

iii. providing **design guidance** to make sure that cycling is considered as part of all highway and regeneration projects and any new infrastructure is in line with best and emerging good practice.

2.2 In other words, we wish to bring about:

everyday cycling

3. Background

3 (i) Cycling growth

3.1 More than two million adults in the UK regularly ride a bike and the 2011 Census showed the number of people cycling to work had increased by 14%. Increasingly, people are choosing to cycle as a practical way to get to and from work, school and shops as well as a popular recreational activity.

3.2 Other European countries with a similar climate and landscape but better cycling routes show how widespread cycling could be: in Germany 19% of people cycle every day and in the Netherlands it is 43%.

3.3 In the North East, the 2011 Census showed that almost 20,000 people regularly cycle to work. Cycling tourism on long-distance routes such as the Coast and Castles is also a valuable contributor to the region's economy.

3.4 Cycling is growing in North Tyneside: the proportion of North Tyneside residents who cycle to work increased by 20% in the ten years to 2011. Cycling in North Tyneside has trebled in a decade, from 2005, measured by automatic counters on routes throughout the borough.

3.5 Physical activity can reduce the risk of major illnesses, such as heart disease, stroke, type 2 diabetes and cancer by up to 50% and lower the risk of early death by up to 30%. Currently in North Tyneside 67% of adults are estimated to meet the UK Chief Medical Officers recommendations for physical activity of 150 minutes of moderate intensity physical activity each week. The easiest way to get more of the population moving is to make activity part of everyday life, like cycling instead of using the car to get around.

Getting more people cycling – the benefits

We want to make everyday cycling an aspirational form of transport for all, regardless of age, ability or background. The benefits of getting more people of all ages and backgrounds involved in everyday cycling include:

- **Convenience** – cycling is a physical activity which people can easily fit into their daily routine; it gets you to your destination quickly and in a reliable time; and it is a cheap, easy and fun way to explore and experience the Borough
- **Sustainable growth** – Tackling isolation and improving social mobility helps people to access jobs and opportunities regardless of their background.
- **Improved health** – Everyday cycling can help people remain healthier for longer. People who cycle to work lower their risk of cancer and heart disease by more than 40%[1]. Together with walking, cycling is the easiest way to build activity into daily life and is good for both physical and mental health [2].
- **A better environment** – Cycling can contribute to a pleasant urban environment with reduced noise and pollution. Increasing cycling can play a vital part in the continuing improvement in local air quality, and, by replacing motorised journeys, help to reduce carbon emissions.

3 (ii) Success so far

3.6 In response to this changing picture of increased demand to take part in cycling, the Council has invested in to deliver cycling improvements. We have:

i. encouraged more people to cycle, e.g. by delivering Bikeability cycling training in schools and taking part in the regional Go Smarter programme of initiatives to support sustainable and active travel; and

ii. designed cycling into seven large transport schemes worth £27.3m which have improved routes and crossing points.

3 (iii) Cycling growth

3.7 As a result we have seen growth in cycling, as demonstrated by Census data, and cycling to school.

[1] Cycling to work is linked with a 45% lower risk of developing cancer, and a 46% lower risk of cardiovascular disease (CVD), compared with commuting by car or public transport – Cycling UK Briefing 1C

[2] Everybody Active, Every Day: An evidence-based approach to physical activity, Public Health England (2014)

3 (iv) Strategic context for cycling

3.8 Cycling in the borough is considered as part of a broader strategic context, which is made up of:

i. Our North Tyneside, the Council Plan 2016 to 2019;
ii. the Local Plan 2017 - 2032;
iii. the Health and Wellbeing Strategy 2013 – 2023;
iv. the North Tyneside Transport Strategy;
v. Local Development Document LDD12 – Transport and Highways;
vi. the North Tyneside Highway Asset Management Plan (HAMP); and
vii. the North Tyneside Network Management Plan.

3.9 The North Tyneside Transport Strategy sets out aims to increase cycling, promote active forms of travel and give them greater priority in design. The Local Plan aims to ensure sustainable access throughout the Borough and make walking and cycling an attractive and safe choice for all.

Investing in cycling supports the economy, society and health. The Department for Transport found that every £1 spent on cycling projects brought £5.50 of social benefit: this is classed as 'very high' value for money. [3]

4. The outcomes we seek

4.1 This developing interest and growing demand to take part in cycling means we need to focus on securing the following outcomes, which fit with the aims of our Transport Strategy:

i. helping more people to cycle;

ii. helping to improve cycling safety;

iii. designing cycling into our highways and infrastructure investment;

iv. delivering a continuous network of strategic cycle routes; and

v. helping more residents to be physically active.

[3] Department for Transport (2014) Value for Money Assessment for Cycling Grants

5. What we plan to do

5.1 Over the period of this strategy we intend to deliver the following actions:

- Action 1 – Deliver and support **cycling initiatives** which support health, safety and sustainability, e.g. cycling training
- Action 2 – Develop a **network of routes** suitable for everyday cycling, designed in line with good practice
- Action 3 – **Improve connectivity** between cycling and other forms of transport, making it easier to cycle as part of a longer journey
- Action 4 – Use **digital information** to improve the operation of our highway network and support cycling and walking (e.g. improving co-ordination of traffic signals and travel time monitoring)
- Action 5 – **Design cycling** into our highways and infrastructure investment and regeneration projects

Adults who cycle regularly typically enjoy a level of fitness equivalent to someone 10 years younger[1].

Action 1 – Deliver and support **cycling initiatives** which support health, safety and sustainability, e.g. cycling training

5.2 We will encourage people to take part in everyday cycling. We will build on how we engage with cycling stakeholders and delivery partners, and will develop a collaborative approach to the identification, development and implementation of cycling interventions.

5.3 We will deliver cycling training to young people through schools in the Borough. The national standard Bikeability training has been extended in scope and, alongside the well-established cycling training at age 9-10, now includes e.g. training for younger children to develop their confidence in riding, using small pedal-free 'balance bikes'. We will explore opportunities to expand cycle training to adults and build people's confidence in cycling independently.

5.4 Through the Go Smarter in North Tyneside programme and our general work with schools, we will work with individual schools to raise awareness among pupils, parents and staff of the impacts of short car journeys; set a target for cycling and encourage walking; and consider changes to streets near schools to encourage more sustainable and active travel.

5.5 We will work with partners to promote everyday cycling more widely in the community, e.g. through the Active North Tyneside programme which supports people to become 'community health champions', alongside promoting healthy lifestyles. We will seek to raise awareness of relevant activities and events, e.g. the 'pop-up' cycle hubs provided at major business parks.

5.6 Through joint working, we will champion cycling. We will ensure that there is a corporate approach across areas of work, including Public Health, Highways, Planning and Tourism, to the promotion of everyday cycling in North Tyneside.

Young people aged 10-16 who regularly cycle to school are 30% more likely (boys) or 7 times more likely (girls) to meet recommended fitness levels [4].

[4] Cycling UK – http://www.cyclinguk.org/resources/cycling-uk-cycling-statistics#How healthy is cycling?

Action 2 – Develop a **network of routes** suitable for everyday cycling, designed in line with good practice

5.7 We will design infrastructure which makes cycling journeys direct, gives priority to cycling, minimises 'stop-start' conditions, and is easily understandable to navigate. On routes which carry motorised through traffic we will seek to provide separate cycling infrastructure, including more recent types of infrastructure which give priority to cycling [5]. We will reallocate road space to provide good quality cycling infrastructure. On quieter residential roads we will seek to ensure that the design supports cycling and walking particularly.

5.8 We will develop a network of routes which supports and encourages people of all ages to cycle for everyday trips including work, school, college, local shops, town and district centres and for recreation. This will include:

i. Strategic Cycle Routes, shown on the 'tube map' (see Appendix 1) – corridors where high standard infrastructure gives priority to cycling and supports direct journeys with minimal stopping and starting;
ii. a grid of local routes, including traffic-calmed streets and traffic-free routes, with the aim that everyone is within 250m of a cycle route;
iii. links in town centres, making them welcoming places for residents and visitors arriving by bike; and
iv. routes such as the Waggonways, which are away from streets and roads.

5.9 In line with government guidance, we will identify a network of cycling routes (and a similar network for walking routes) with strong potential for growth and route improvements, which can then be secured as part of new developments, regeneration projects or wider schemes. This is known as a Local Cycling and Walking Infrastructure Plan (LCWIP) and will complement our Network Management Plan, which sets out how we manage the operation of the highway network.

> By providing widespread protected cycle tracks, Seville, in Spain, increased cycling journeys from 0.2% to 6.6% in six years [6].

[5] These include hybrid cycle tracks, which have priority at side roads and accesses; 'parallel' crossings (a zebra crossing with adjacent cycling crossing); and bus stop bypasses, where the cycle route runs continuously around the bus stop as a continuous route. On one-way streets we will seek to provide contra-flow cycling provision.

[6] Cycling UK Briefing 1B

Action 3 – **Improve connectivity** between cycling and other forms of transport, making it easier to cycle as part of a longer journey

5.10 Public transport services benefit from more customers if people can easily cycle to a stop or station. We will work with partners to ensure that high-quality bike parking is provided at new or refurbished public transport stations and interchanges.

5.11 Bikes are carried on board the Shields Ferry, which provides a valuable link in the public transport network.

5.12 Folding cycles are carried on board the Metro. A trial of carrying full-sized bikes on board Metro has been ongoing for some time in Newcastle and may be extended.

Two-thirds of all journeys made in the North East are under 5 miles – the kind of journeys which can easily be made by bike.

Action 4 – Use **digital information** to improve the operation of our highway network and support cycling and walking

5.13 We will seek to improve co-ordination of traffic signals and travel time monitoring, with the potential for some improvements to traffic signal phasing which may include detecting cycles on the approach to a junction.

5.14 We will seek additional opportunities to use technology to improve the operation of the highway network and support easier journeys for everyday cycling.

Switching from car to bike for a four-mile commute saves half a tonne of CO_2 in a year – reducing the average person's carbon footprint by 5% [7]

[7] Cycling UK Briefing 1B

Action 5 – **Design cycling** into our highways and infrastructure investment and regeneration projects

5.15 We have updated our **planning guidance** (Local Development Document LDD12 – Highways and Transport), which sets out the improvements which developments brought forward through the planning process are required to provide. This requires developers both to provide high quality cycling infrastructure and cycle parking provision, and to adopt travel plans which include measures to promote everyday cycling.

5.16 We will adopt a **Cycling Design Guide** which specifies the design features we will require for streets in North Tyneside to support everyday cycling, and will keep it updated to reflect the latest best practice. This will apply to all transport schemes, whether or not they are specific to cycling; to the design of regeneration projects; and to new developments brought forward through the planning process. It will include best practice design for cycle parking.

5.17 Our designs will take account of the many variations to a standard two-wheeled bike, such as:

- cycles designed for carrying children;
- cycles for people with disabilities, including hand-operated cycles;
- cycles with trailers – for the family shopping or 'cargo bikes' which carry light goods; and
- folding cycles – great for trips which combine cycling with other modes of transport.

Any of these may also be an e-bike, where the rider operates the pedals as normal and an electric motor provides additional power. We will allow for the wider take-up of e-bikes in the design of infrastructure.

5.18 We will adapt our maintenance programmes to ensure that the cycling network surface is maintained to a good standard and support associated measures such as cutting back encroaching vegetation. We will identify improvements which can be delivered alongside our maintenance programme delivered through our **Highway Asset Management Plan (HAMP)**. We will seek to ensure that temporary road closures and restrictions, e.g. for street works, include exemptions for cycling or specific diversionary routes for cycles.

5.19 We will develop a programme of works, including specific cycling projects as well as improvements secured as part of new developments, regeneration projects and wider schemes, and will proactively identify funding opportunities.

6. Indicators of success

6.1 We will know we have been successful in supporting everyday cycling when we can demonstrate that:

i. **more cycling trips** are being made in the borough – we aim for an increase in cycling trips of 7% per year [8];

ii. there is **greater participation** in cycle training and in the Go Smarter in North Tyneside programme for schools;

iii. more workplaces in the borough have the facilities and initiatives to **encourage cycling to work**; and

iv. our cycling infrastructure is improved in line with good practice to **create a continuous network**.

6.2 We will report progress on the delivery of this strategy within the **Annual Information Report** on the North Tyneside Transport Strategy, which will be provided to Cabinet each year.

7. Summary

7.1 This Cycling Strategy sets out how we will make everyday cycling a viable transport choice for all, regardless of age, ability or background, and build on the encouraging progress being made in relation to cycling participation. Key actions are summarised in Appendix 2 and links to other relevant strategies are listed in Appendix 3.

7.2 Technical specifications for infrastructure to support cycling in the Borough can be found in the North Tyneside Cycling Design Guide.

7.3 Advice in relation to new developments, including cycle access, cycle parking provision and requirements for travel plans, is provided in Supplementary Planning Document LDD12 – Transport and Highways. Information of how we will maintain our network in good condition is in our Highway Asset Management Plan (HAMP).

7.4 Useful links and details of how to find out more are shown in Appendix 4.

[8] Measured by electronic counters on routes throughout the borough. This is in line with the target set as part of the Tyne and Wear Local Transport Plan

Appendix 1 – Strategic Cycling Routes: the 'tube map'

1. Our **Strategic Cycle Routes**, shown on the 'tube map' opposite: these will be the most direct and convenient routes for everyday cycling between destinations.

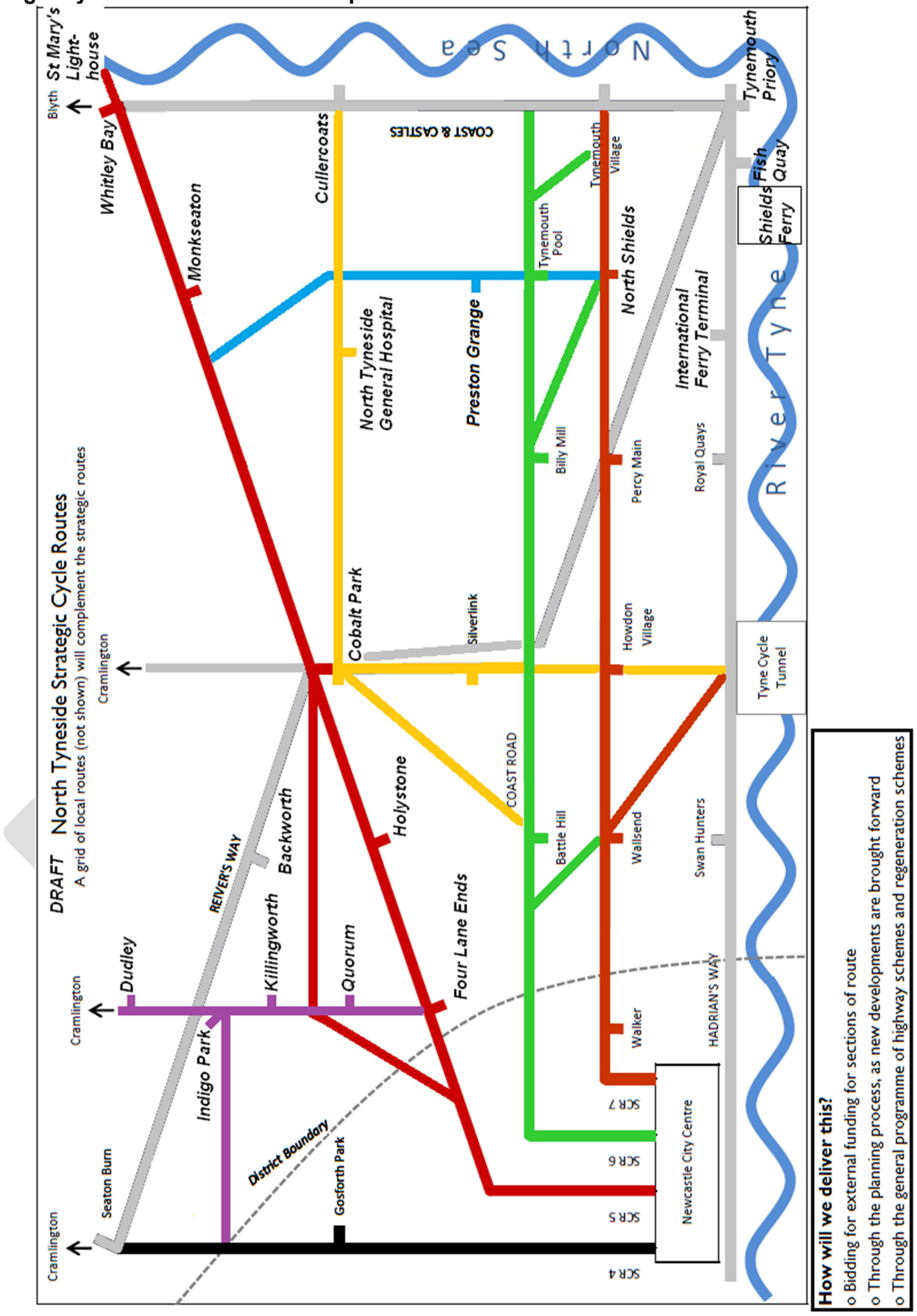
2. These will be supported by a **grid of local routes** made suitable for cycling, including traffic-calmed streets and traffic-free routes, with the aim that everyone is within 250m of a cycle route. We may link these routes to form Quietways: convenient, direct routes for cycling through residential areas away from motor traffic.

3. **Links in town centres** will make it convenient to cycle into and around our town centres and make them welcoming places for residents and visitors arriving by bike. This will support the local economy by encouraging everyday cycling to local shops and businesses.

4. We will seek to add some of our Strategic Cycle Routes to the **National Cycling Network** (NCN), working with Sustrans, who manage the network. North Tyneside is served by three existing NCN routes:
   - NCN 1 – North Sea Cycle Route – this international route runs along our coastline from Whitley Bay to North Shields Fish Quay and the Shields Ferry.
   - NCN 10 – Reivers Cycle Route – starting from Tynemouth Priory, this route follows the historic Waggonways network via Cobalt and Killingworth and on into Northumberland.
   - NCN 72 – Hadrian's Cycle Route – entering North Tyneside via the Shields Ferry, the route heads west, passing the international ferry port, the Tyne Cycle and Pedestrian Tunnel and Segedunum Roman Fort, to Newcastle Quayside.

5. The **Shields Ferry**, which carries bikes on board, and the **Tyne Cycle and Pedestrian Tunnels** (undergoing refurbishment and due to re-open in 2018) are important cross-river links in our cycling network.

Strategic Cycle Routes – the 'tube map'



Appendix 2 – Key actions

Activity	Lead	Technical Services Partner lead	Key Date	Transport Strategy themes				
				Improve safety, health and wellbeing outcomes and sustainability	Support economic growth	Improve connectivity	Enable smart choices for all	Manage demand
Policies and strategies								
Travel Safety Strategy	Integrated Transport Manager	Highway Network Manager (Capita)	update 2017/18	✓		✓	✓	✓
Network Management Plan	Integrated Transport Manager	Highway Network Manager (Capita)	update 2018/19	✓	✓	✓	✓	✓
Guidance and supporting documents								
Cycling Design Guide	Integrated Transport Manager	Highway Network Manager (Capita)	2017/18	✓	✓	✓	✓	✓
Local Cycling and Walking Infrastructure Plan (LCWIP)	Integrated Transport Manager	Highway Network Manager (Capita)	2018/19	✓	✓	✓	✓	✓
Activities								
Local Transport Plan	Integrated Transport Manager; Highways and Infrastructure Manager	Highway Network Manager (Capita)	Ongoing	✓	✓	✓	✓	✓
Bikeability cycling training	Integrated Transport Manager	Highway Network Manager (Capita) [delivery also by	Ongoing	✓	✓	✓	✓	✓

		Sports Development team]						
Go Smarter in North Tyneside – working with schools on cycling and walking	Integrated Transport Manager	Highway Network Manager (Capita)	Ongoing	✓	✓	✓	✓	✓
Schemes being delivered								
Coast Road Cycle Route	Integrated Transport Manager; Highways and Infrastructure Manager	Highway Network Manager (Capita) and Head of Construction (Capita)	2018/19	✓	✓	✓	✓	✓
Major scheme: A187-A193 North Bank of the Tyne – includes cycling improvements	Integrated Transport Manager; Highways and Infrastructure Manager	Highway Network Manager (Capita) and Head of Construction (Capita)	Mar 2019	✓	✓	✓	✓	✓
Schemes in preparation								
A189 Improvements – Haddricks Mill to West Moor (major scheme: includes cycling improvements)	Integrated Transport Manager; Highways and Infrastructure Manager	Highway Network Manager (Capita) and Head of Construction (Capita)	Mar 2020	✓	✓	✓	✓	✓
External partners delivery								
Go Smarter sustainable transport promotion (certain projects ongoing)	Regional	n/a	2018/19	✓	✓	✓	✓	✓
Highways England major scheme: A19-A1058 Silverlink Interchange – includes cycling improvements	Highways England	n/a	Mar 2019	✓	✓	✓	✓	✓

Appendix 3 – Links with other strategies

This Strategy complements national and regional strategies which relate to cycling, such as:

i. the national **Cycling and Walking Investment Strategy** (CWIS): this sets out the Government's ambition to make cycling and walking a natural choice for shorter journeys, or as part of longer journeys, and includes the aim to double cycling by 2025 (cycling trips or cycling stages within other trips);
ii. 'Our Journey', the North East Combined Authority's (NECA) **Transport Manifesto**, which among other aims commits to "improve existing streets and junctions to support cycling, including reallocating road space";
iii. the Tyne and Wear third **Local Transport Plan** (LTP3) [which is to be replaced in due course]; and
iv. NECA's **Cycling and Walking Strategy and Implementation Plan** [in preparation], which covers e.g. cycling links within the North East and promoting active recreation.

In addition, it links with other strategies and plans at North Tyneside level, notably

i. Cycling Design Guidance;
ii. Local Cycling and Walking Infrastructure Plan (LCWIP) for North Tyneside [in preparation];
iii. Local Development Document LDD12 – Transport and Highways;
iv. the North Tyneside Highway Asset Management Plan (HAMP), which covers maintenance of the highway network including cycleways and footways;
v. the North Tyneside Travel Safety Strategy [in preparation];
vi. the North Tyneside Network Management Plan; and
vii. the Joint Health and Wellbeing Strategy.

Appendix 4 – Where to find out more

everyday cycling

Keep in touch and get involved in everyday cycling in North Tyneside

North Tyneside Council

North Tyneside Council

@NTCouncilTeam

www.northtyneside.gov.uk

active NORTH TYNESIDE

Active North Tyneside

@active_NT

www.activenorthtyneside.org.uk

Other links

- **Go Smarter –** www.gosmarter.co.uk
- **Does your workplace have a Cycle to Work scheme yet? –** https://www.gov.uk/government/publications/cycle-to-work-scheme-implementation-guidance
- **Find a cycling club –** www.britishcycling.org.uk/clubfinder

CAPITA

North Tyneside Cycling Design Guide

Specification for Designers
November 2017

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1. Introduction

1.1 Strategic context

The North Tyneside Transport Strategy sets out the Council's aspirations for transport in the borough. It seeks to ensure that ***"North Tyneside will have a safe, easy to use, healthy, affordable, accessible and integrated travel and transport infrastructure that works for residents, businesses and visitors effectively and efficiently."*** It sets out five principles which are key to achieving this:

i. **Improve safety, health and well-being outcomes and sustainability;** in relation to people, communities and the environment

ii. **Support economic growth;** through effective movement for people, businesses and goods and to support the regional aim of "more and better jobs"

iii. **Improve connectivity;** with all parts of the borough, the region, the rest of the country and the world

iv. **Enable smart choices for all;** help people, businesses and visitors find out how to get to where they need to

v. **Manage demand;** on transport networks and assets and address current and future transport challenges.

Cycling is growing in North Tyneside: the proportion of North Tyneside residents who cycle to work increased by 20% in the ten years to 2011. Cycling in North Tyneside has trebled in the past decade, measured by automatic counters on routes throughout the borough.

A strategic approach to cycling is essential in order to deliver aspects of the Our North Tyneside Plan, the Local Plan and the North Tyneside Transport Strategy.

2. About this document

2.1 Intended audience

To support the delivery of the North Tyneside Transport Strategy and the North Tyneside Cycling Strategy, this document provides guidance for use by designers for new developments and designers implementing highway improvement schemes within North Tyneside.

It is consistent with the North Tyneside Local Plan and Supplementary Planning Document LDD12 – Transport and Highways, and takes account of current and emerging national and strategic guidance.

This design guide defines the minimum specification for cycle facilities in North Tyneside. It sets out the Council's requirements to ensure that consistent, good quality design and appropriate cycle infrastructure is included for all new developments and highway improvement schemes.

2.2 Key contacts

Email: traffic@northtyneside.gov.uk
Tel.: 0191 643 2221

Highways and Transportation
North Tyneside Council
Quadrant East 1st floor left
Cobalt Business Park
The Silverlink North
NE27 0BY

3. Principles of Designing for Cycling

There are a number of principles for cycling that designers must appreciate when providing cycling infrastructure. The principles below, adapted from Making Space for Cycling, which was written by Cambridge Cycling Campaign in 2014, explain the principles in more detail.

1. *People need space for cycling*

   Mixing with traffic generally puts people off cycling, especially children. Appropriate infrastructure, away from traffic, can make cycling convenient and sociable

Photo 1 - Segregated Cycle Lane in Manchester (Sustrans)

2. *People like simple, direct routes*

   Simple, direct routes helps a cyclist maintain momentum. Direct routes are always shorter and wayfinding is easier.

3. *People prefer cycling away from pedestrians*

   Shared use spaces are rarely a suitable form of cycling infrastructure except where pedestrian flows are very low. Shared spaces are generally considered inconvenient to cyclists as they are slow and can be a poor use of highway space. Shared use routes are also poorly perceived by pedestrians as they can become the vulnerable user in an area they would normally feel safe.

4. *People want to maintain momentum*

   Stop-start cycling is hard work. For this reason, cycle infrastructure provided must allow for continuous movement, wherever possible. Cycle tracks must not give way at every side road and driveway. All cycling infrastructure should avoid tight corners and must aim for a smooth movement.

5. *People want to be visible*

   Cycle infrastructure should be designed to allow people to see each other regardless of what type of vehicle they are using.

6. *People like level surfaces*

   A route with constantly varying heights requires more effort to ride and is less comfortable. Ideally, off road cycle tracks must not change height at driveways and junctions.

7. *People want unobstructed routes*

   Street furniture, such as signposts, lamp columns etc. must not be located within the cycle route. These obstructions cause constrictions along the route.

Photo 2 - Level surface priority crossing on side roads (Making Space for Cycling)

8. *People want to cycle away from parked cars*

   Safely overtaking parked cars can be problematic for cyclists. Car doors, reverse parking and pinch points on the carriageway can all cause problems for cyclists. Car parking off street, or offset from the main carriageway helps to avoid blocking a cycle route.

9. *People need somewhere to park their bike*

   Good quality cycle parking is essential for the start and end of the journey. This means providing secure stands near the entrance to a building and on-street.

10. *People want well maintained infrastructure*

    Cycle infrastructure must be designed to facilitate easy maintenance, to avoid overgrown vegetation and enable winter treatment.

11. *People commute to work*

    The UK has seen an increase in the number of people choosing to cycle to their place of work. In England, around 4% of commuting trips are cycled each year (NTS0409).

4. Proposed Standards

4.1 Overview

This document proposes a set of design standards which are to be applied across North Tyneside Council's network to ensure consistency and a high level of provision for cyclists. A number of documents have been considered (see Appendix A).

We will seek to encourage innovation, in line with the standards set out in this document.

4.2 Cyclist Definition

The provision of any facilities should cater for everyday cycling. The term 'cyclist' in this document refers to any one person who chooses to use a bicycle as a mode of transport. This includes children, elderly and inexperienced cyclists, as much as 'commuter' cyclists who tend to be adults who cycle on a regular basis.

4.3 Cyclist Width Requirements

Clear space is essential for cyclists to feel safe when travelling. The space needed for a cyclist to feel safe depends on the cyclist's dynamic envelope, the clearance when passing fixed objects and the distance and speed of other traffic. The topography of the site must be considered when designing cycle infrastructure. For example, when a cyclist is travelling uphill they will sway more than travelling on flat ground. In these instances the width of the cycling infrastructure must be increased to provide the safe width. The recommended widths are covered in section 4 of this document.

Widths in this document are specified as effective widths. The effective width refers to the usable width of a cycling facility and can depend on how the facility is bounded. Factors which reduce effective width are generally vertical boundaries such as walls, lamp columns, guardrail etc. TA 90/05 provides guidance on additional widths for bounded sections of routes. An additional 0.25m should be provided where a vertical feature is below 1.2m. For vertical features greater than 1.2m, an additional 0.5m should be provided on each side as appropriate.

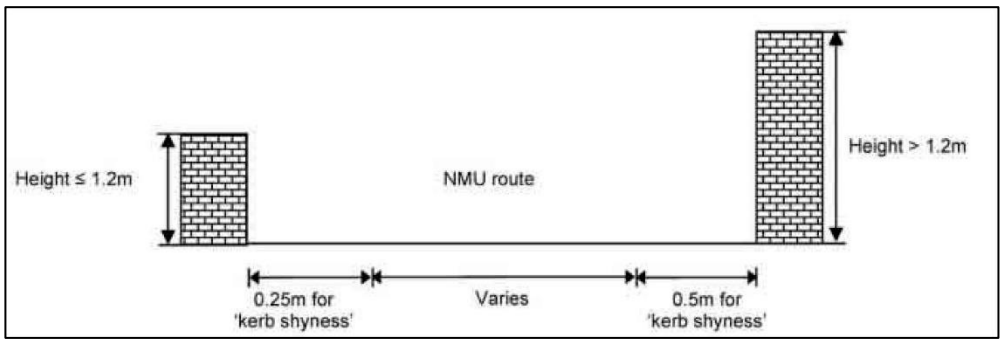


Figure 1 - Additional widths required to maintain effective width

IAN 195/16, the latest Highways England endorsed cycling design guide for trunk roads, advises the standard vehicle for cycle routes should be assumed as 2.8m long and 1.2m wide. These dimensions are made up of a standard bicycle at 1.8m plus a child trailer of up to 1.0m in length.

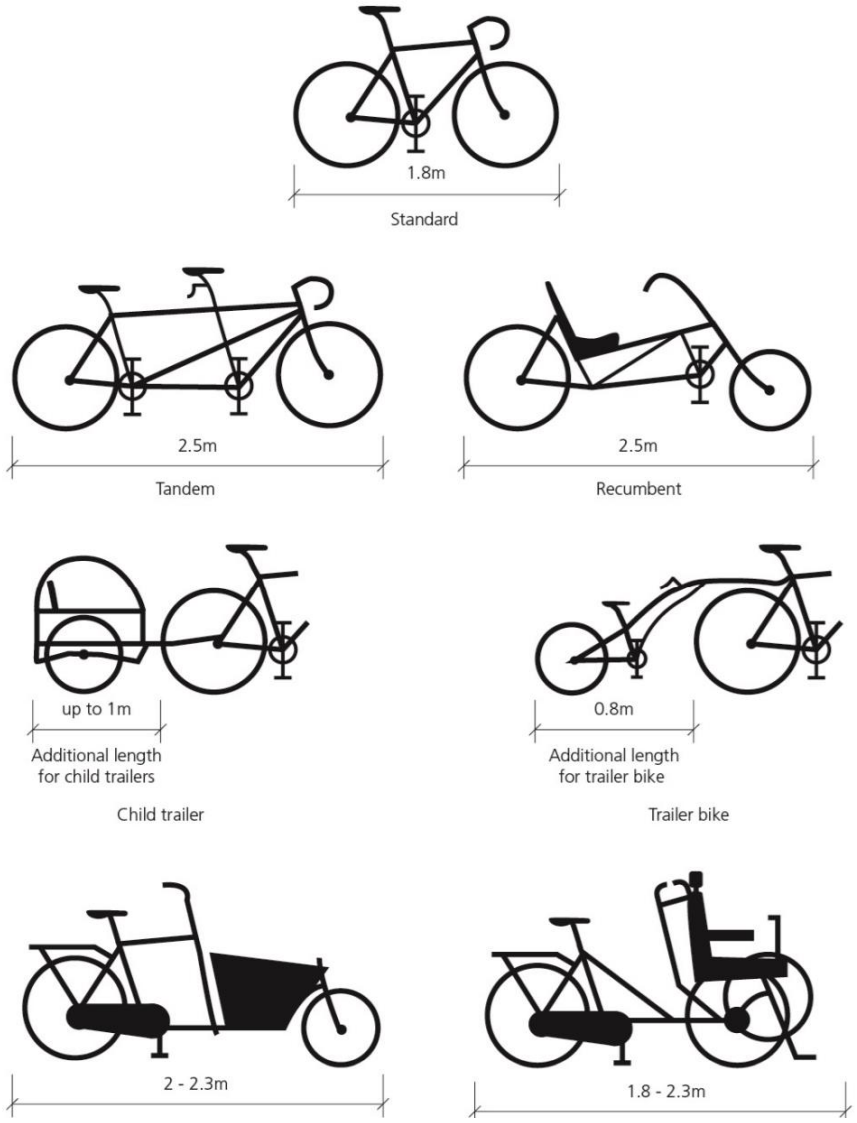


Figure 2 - Approximate Lengths of Different Types of Cycle (IAN 195/16)

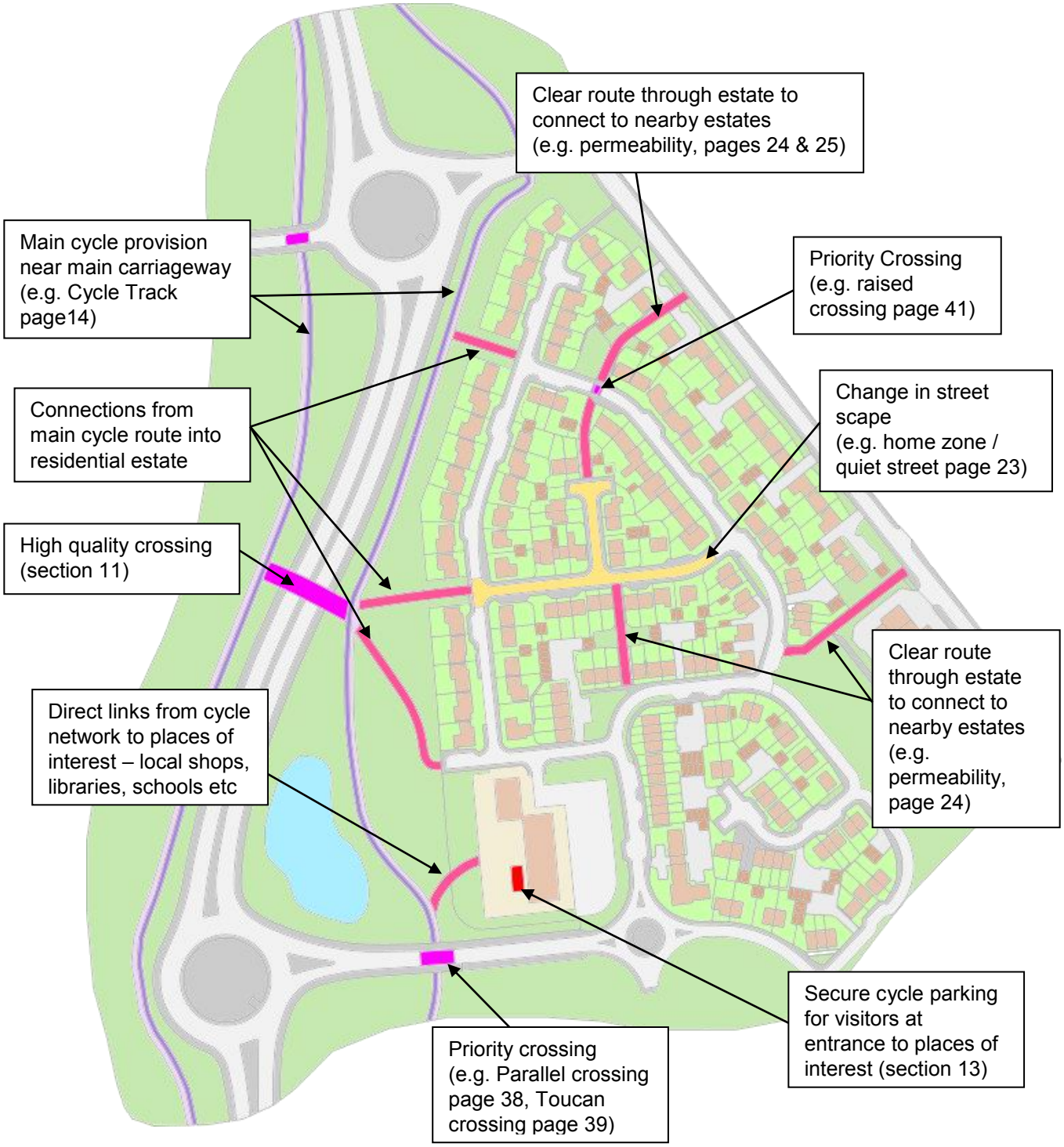
The use of e-bikes is a growing form of transport and designers should consider additional measures a cyclist using an e-bike might require. For example, an e-bike can travel at a higher average speed than a conventional pedal cycle and as such horizontal deflection must be minimised.

The minimum recommended clearance between a moving motorised vehicle and the outside of the cyclist's dynamic envelope when travelling on the carriageway is 1.0m for vehicles travelling 20mph or less. This distance increases to 1.5m for vehicles travelling between 21 to 30mph (LTN02/08). It is also worth noting that this distance increases when a bus or HGV passes a moving cyclist, as their passing movement will have a greater effect on the cyclist.

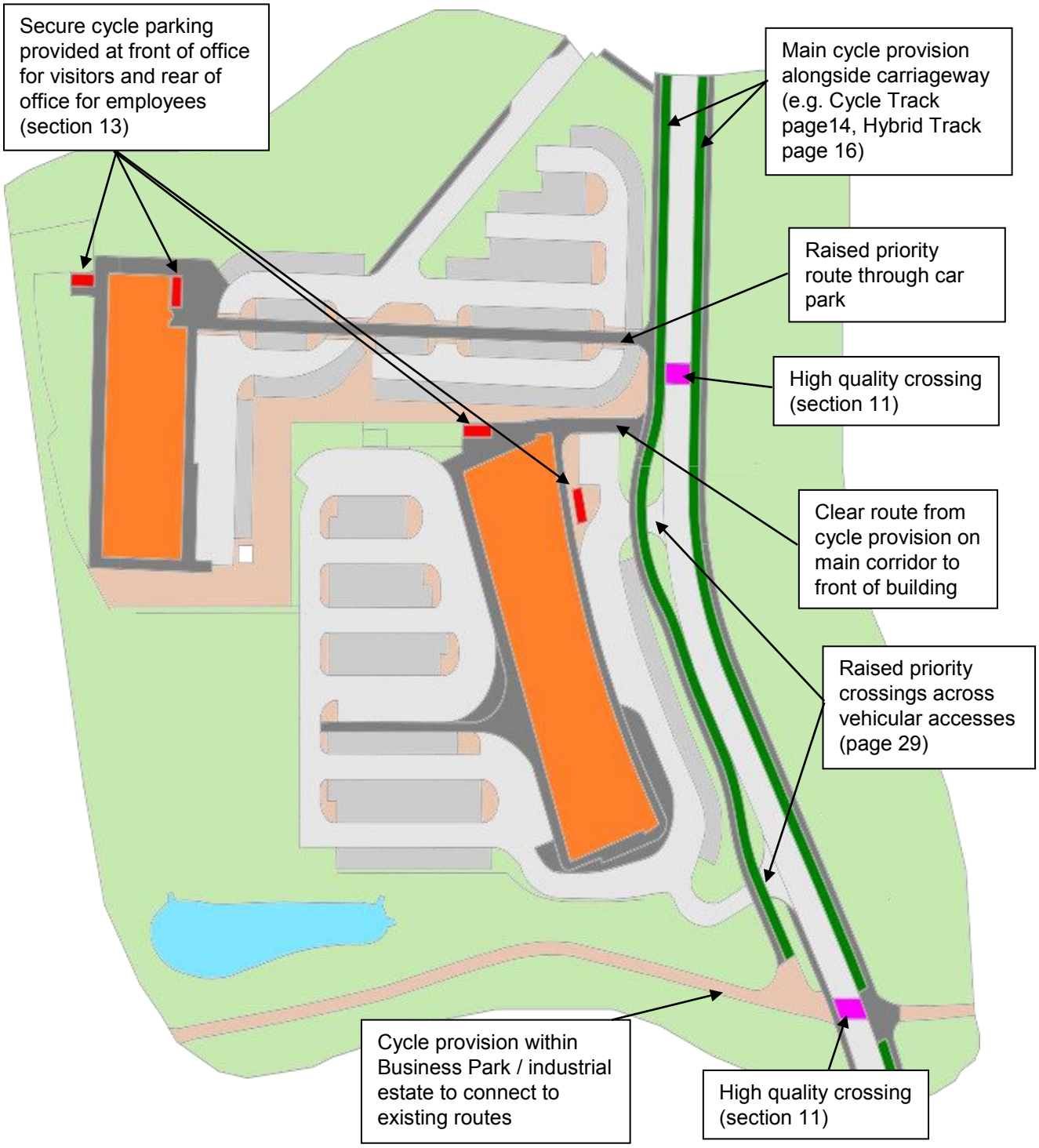
Designers must consider the effect passing traffic has on cyclists when providing on carriageway infrastructure and propose appropriate measures in keeping with the highway design. For example, wider cycle provision on bus routes or routes.

Figure 3 - Cyclists Dynamic Envelope (LTN02/08)

5. A Typical Residential Estate Layout



6. A Typical Commercial / Industrial Estate Layout



7. Types and Widths of Infrastructure

Table 1 - Required effective widths for cycle infrastructure

	Footway	Cycle Facility	Buffer	Traffic Lane	Total Width
Cycle Track (on both sides of the road) (page 14)					
Required width	2.0m	2.5m	0.5m	3.25m	16.5m
Minimum width	2.0m	2.0m	0.2m	3.0m	14.4m
Cycle Track (by exception, on one side of the road) (page 15)					
Required width	2.0m	3.5m	0.5m	3.25m	14.5m
Minimum width	2.0m	2.5m	0.2m	3.0m	12.7m
Hybrid cycle track (page 16)					
Required width	2.0m	2.5m	n/a	3.25m	15.5m
Minimum width	2.0m	2.0m	n/a	3.0m	14.0m
Light Segregation (page 17)					
Required width	2.0m	2.0m	0.5m	3.25m	15.5m
Minimum width	2.0m	1.5m	0.2m	3.0m	13.4m
Cycle Lanes (Mandatory or Advisory) (page 18)					
Required width	2.0m	2.0m	n/a	3.25m	14.5m
Minimum width	2.0m	1.5m	n/a	3.0m	13.0m
Shared footway / cycleway (segregated) (page19)					
Required width	2.0m	2.0m	0.5m	3.25m	15.5m
Shared footway / cycleway (unsegregated) (page19)					
Required width	3.5m		0.5m	3.25m	14.5m
Minimum width	2.5m		0.5m	3.0m	12.0m

In instances where site-specific constraints make it difficult to achieve the desirable design characteristics, the designer is encouraged to explore alternative means of achieving consistent and continuous cycle facilities along the route, perhaps by managing vehicular demands or identifying potential re-routing opportunities. Such interventions could include (but are not limited to):

- Remove or relocate parking and loading bays
- Inset bus stops
- Make links one-way
- Alter or narrow footway configurations as appropriate
- Reduce vehicle speeds such that links can be reclassified and require reduced cycling infrastructure
- Consider mixing provision along a given link such that it transitions between different cycle link types as appropriate.

In retrofit locations it will not always be possible to achieve the minimum widths set out in Table 1 and there will be a necessity to compromise. North Tyneside Council will consider designs on an individual basis where existing constraints restrict the desired widths or prevent types of infrastructure from being installed to the prescribed standards above.

8. Level of Provision

8.1 Cycle Infrastructure on Cycle Routes

North Tyneside Council have identified a number of strategic routes for cyclists in the borough. Appendix B shows the Local Authorities Cycle Route 'Tube Map'. This map illustrates the strategic routes and key destinations throughout North Tyneside. Cycle infrastructure on all routes, whether strategic and local, must be installed to a high quality.

Table 2 shows the level of cycle provision that would be expected on strategic and local cycle routes within North Tyneside. The table considers the speed limit of the carriageway as well as the traffic volumes. This table was developed using IAN195/16, Greater Manchester Design Guidance and the Active Travel (Wales) Act.

Table 2 - Level of Cycle Provision

Speed Limit	Motor traffic flow (average annual daily traffic)	Preferred provision by Cycle Route Type	
		Strategic Cycle Route	Local Cycle Route
40mph and above	All flows	Cycle Track (excluding light segregation and hybrid tracks)	Cycle Track (excluding light segregation and hybrid tracks)
30mph	>10000	Cycle Track or Hybrid Track	Cycle Track or Light Segregation
	0 – 10000	Cycle Track, Hybrid Track or Light Segregation	Hybrid Track, Cycle lanes
20mph	>5000	Cycle Track, Hybrid Track	Hybrid Track, Cycle lanes
	3000 – 5000	Cycle Lanes	Quiet Streets
	<3000	Quiet Streets	Quiet Streets

* In industrial and commercial (use classes B2, B8 and A1) areas, North Tyneside may stipulate the developer provides cycle tracks, regardless of vehicle flows. This stipulation will be included for safety reasons.

8.2 Crossing Facilities

Tables 3 and 4 show the type of crossings North Tyneside Council expect in relation to carriageway speed limits, vehicle and pedestrian / cyclists flows. These tables have been developed using IAN 195/16, Greater Manchester Cycling Design Guide, London Cycling Design Guide and the Active Travel (Wales) Act.

North Tyneside Council will determine if a route is High / Medium / Low flow on an individual development basis. For example; a route on the approach to a primary school will require a higher level of crossing provision than the tables may indicate.

Table 3 - Crossing Types for Strategic Routes

Speed Limit	Flows (24 hour two way flow)			Type of Crossing
	Vehicle Flow (along road)	Expected Cycle Flow (Crossing)	Expected Pedestrian Flow (crossing)	
≥60mph	Any	All Flows	All Flows	Grade separated
50mph	>12,000	High to Medium	High to Medium	Grade separated
	< 12,000	Medium to Low	Medium to Low	Signalised cycle crossing
40mph	>12,000	High	High	Grade separated
	8,000 – 12,000	Medium	Medium	Signalised cycle crossing
	< 8,000	Medium	Medium	Signalised cycle crossing
	< 8,000	Medium - Low	Medium to Low	Central Island – suitable for cycles (on road and crossing)
	< 8,000	Low	Low	Priority – Cycles give way
30mph	> 12,000	High to Medium	High to Medium	Signalised cycle crossing or Parallel crossing
	8,000 – 12,000	High to Medium	High to Medium	Parallel crossing
	< 8,000	Medium	Medium	Parallel crossing – preferably on a raised table
	< 8,000	Low	Low	Central Island – suitable for cycles (on road and crossing)

Table 4 - Crossing Types for Local and Residential Roads

Speed Limit	Flows (24 Hour)			Type of Crossing
	Vehicle Flow (along road)	Expected Cycle Flow (Crossing)	Expected Pedestrian Flow (crossing)	
30mph	< 8,000	High / Medium	High/ Medium	Parallel crossing – preferably on a raised table
	< 8,000	Low	Low	Humped cycle priority
20mph	< 8,000	High / Medium	High / Medium	Humped cycle priority
	< 8,000	Low	Low	Dropped kerb and associated markings

9. Route Infrastructure

9.1 Introduction

This section covers the key design principles for different types of cycle route infrastructure.

9.2 Cycle Tracks

A cycle track is a section of highway adjacent to, but not on the carriageway, that has been dedicated for use by cyclists. Key design features of a cycle track include;

- Suitable effective width
- Smooth horizontal alignment
- Raised priority junctions (see section 11)

Cycle tracks are the preferred facility for key cycle links in North Tyneside. The reason for this is they provide a safe route for cyclists of all abilities and confidence levels. They also allow for continuous movement with minimal stop/starting procedures for cyclists.

In accordance with best practice, it is recommended that a 2.5m width is designed for a cycle track to allow enough space for overtaking manoeuvres within the confines of the cycle track.

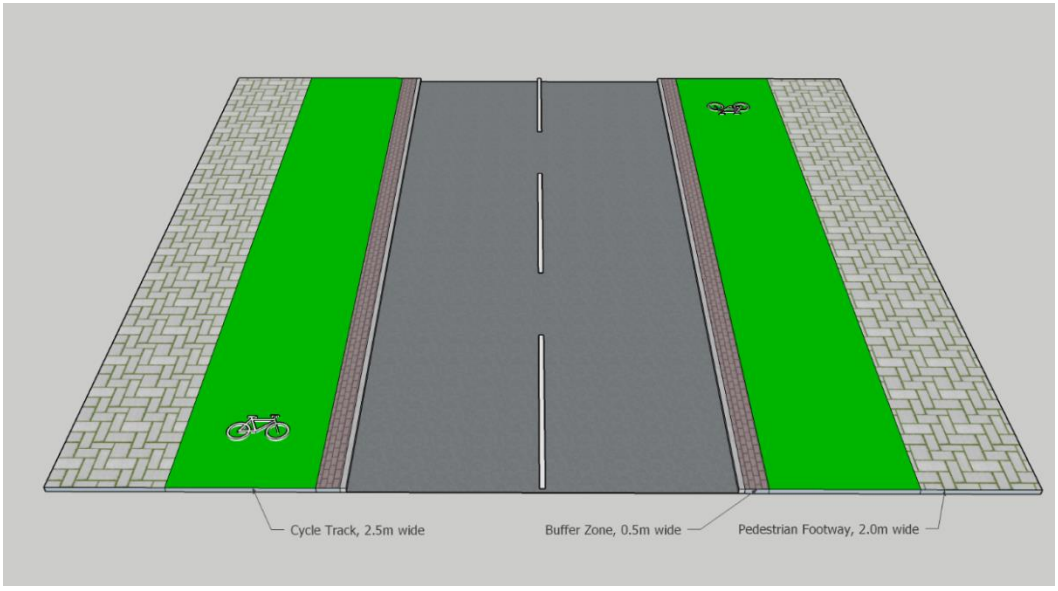


Figure 4 - Cycle Track detail, on both sides of the road

Cycle tracks should generally be provided on both sides of the road, this will prevent the need for the provision of suitable crossing point at numerous locations along the route. Figure 4 shows a typical example of a cycle track on both sides of the carriageway.

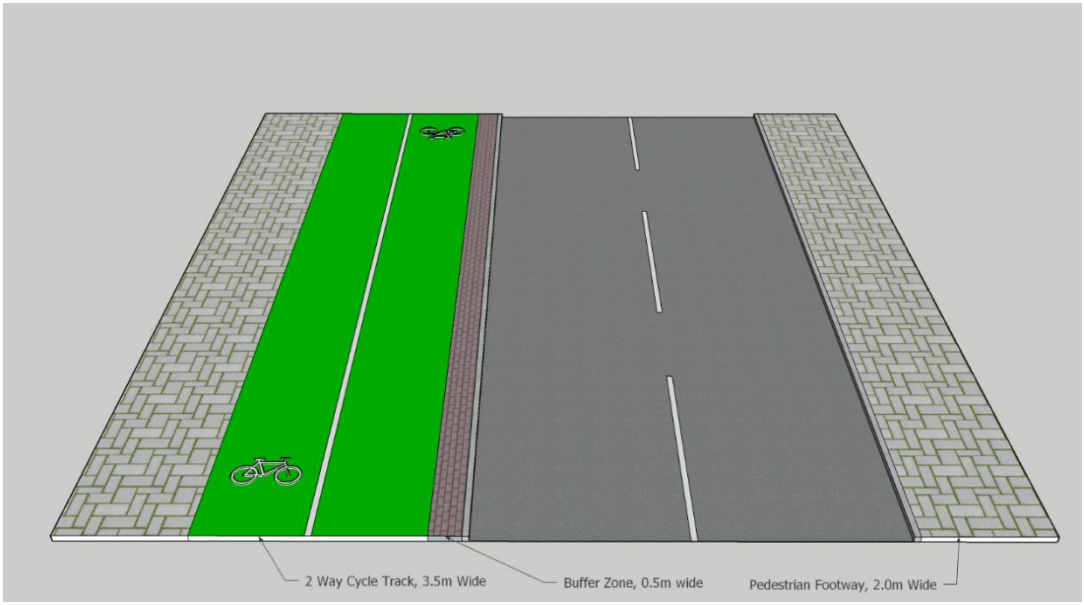


Figure 5 - Cycle Track detail, on one side of the road

Cycle tracks on one side of a road can be considered as an appropriate measure in some locations. For example, where a large number of side streets or high levels of pedestrian activity is present on one side of the road. However, there are design issues which should be considered, such as crossing facilities, where trip generators are located on both sides of the road. Figure 5 shows a typical detail of a cycle track on one side of the road. Photo 3 shows an example of a cycle track alongside a major road (Beach Road in Tynemouth).

Photo 3 – Footway and Cycle Track on Beach Road, Tynemouth, clearly distinguished by surface treatment

9.3 Hybrid Cycle Tracks

North Tyneside Council's preference for medium-flow cycle routes is hybrid cycle tracks. These consist of a terraced approach from the cycle track to the carriageway, and can also be referred to as stepped cycle tracks. Key design features of this form of cycle infrastructure include:

- Vertical separation from the footway and main carriageway to provide greater protection than a cycle lane
- Cycle priority at side roads and vehicle accesses (see section 11)
- Bus stop bypasses on bus routes (page 20)

A hybrid cycle track can also be at a same level to the footway, if there is a suitable buffer between the hybrid cycle track and footway. There is no particular requirement to sign hybrid cycle tracks as they are intended to be easy to interpret for all road users.

Photo 4 - Example of Hybrid Cycle Track in Cambridge (LTN 01/12)

9.4 Light Segregation

Where on-carriageway routes have been identified as the preferred solution, designers are expected to consider options which create a 'buffer' between the cycle lane and general traffic lane in order to provide better separation. The types of light segregation can vary from hatch or chevron markings to bollards or 'armadillo'/blocks.

Photo 5 - Example of light segregation using armadillos (Pancras Road, London) – note inclusion of car door zone

In accordance with recommended cycle track dimensions, it is also recommended that cycle lanes with light segregation are a minimum width of 2.0m in order to provide appropriate clearance from the binding edges and to provide sufficient effective width to allow overtaking within the confines of the cycle lane.

Early discussions with North Tyneside Council are recommended as, owing to the many forms which light segregation can take, it is at the discretion of the Council whether to approve the design.

9.5 Cycle Lanes

Cycle lanes can be either mandatory or advisory. Mandatory cycle lanes exclude other traffic from using them at all times. Advisory cycle lanes signify an area of carriageway that other vehicles should not enter unless it is safe to do so.

Cycle lanes should be considered only for carriageways where motorised traffic volumes and traffic speeds are low (see Table 2 – Level of cycle provision).

Photo 7 - Example of advisory cycle lane in Cambridge, these are represented by a dashed line

Photos 6 and 7 show examples of advisory and mandatory cycle lanes. In photo 7, the advisory cycle lanes are used as a traffic calming feature because the visually narrow the width of the road.

Appendix C shows the markings and signs that would be expected on cycle routes.

Photo 6 - Example of mandatory cycle lane in North London, these are represented by a continuous line that should not be crossed

9.6 Shared Routes

Although they are recognised as an option for cycle provision, the Council will only approve shared use routes in certain circumstances as they are considered last in the hierarchy of cycle infrastructure.

If the Council agree to the provision of shared use routes they must meet the width requirements set out in Section 7.

Photo 8 - Example of shared use route on Beach Road, North Tyneside

9.7 Bus Stop Bypass

Bus stops will often appear on strategic routes where the provision of cycle tracks are regarded as necessary. At these locations a bus stop bypass must be provided.

A bus stop bypass takes a cycle lane which is usually adjacent to a kerb on the approach to a bus stop, and routes it behind the bus stop; removing the need for cyclists to pass a stopped bus on the main carriageway. After the bus stop the bypass either continues on to a cycle track or merges cyclists back into to the main carriageway.

It is also possible to route cycle track between the bus boarder and the shelter. This is often done to create a smoother route alignment or where site constraints make it difficult to place the bust shelter within the boarder. In these instances, it is recommended that an area for pedestrians crossing the track is clearly defined. This could be achieved through the use of paving.

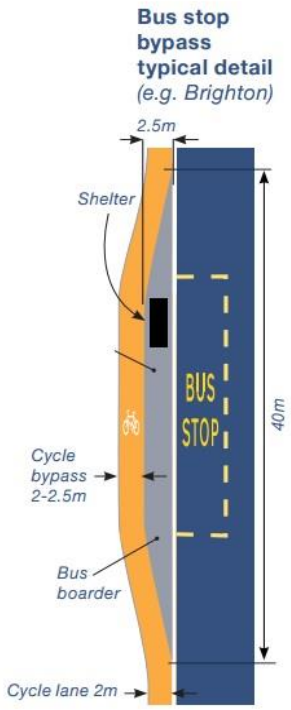


Figure 6 - Bus Stop Bypass Detail from Sustrans Design Manual

Photo 9 - Example of Bus Stop Bypass in Manchester

9.8 Transitions

An extended dropped crossing should be provided at locations where an on-road facility transitions to an off-road facility. It would be expected that the dropped crossing is installed flush with the carriageway, or with a 6mm check at locations where ponding is likely to occur. Road gullies must not be located within the extents of a dropped crossing. At locations where

the transition is near or on an approach to a pedestrian crossing point a separate dropped crossing must be provided.

Photo 10 - Example of Transition Kerb into off road route at The Silverlink North, North Tyneside

Cyclists must also be protected when transitioning from an off-road cycle route into an on road cycle route. This form of protection can be achieved via the use of suitable transition kerbs and markings.

10. Local / Residential Streets

10.1 Introduction

The majority of streets within North Tyneside are local or residential streets where people live, shop or enjoy themselves. The principles for design in these streets are in accordance with Manual for Streets 2.

10.2 Street Design

Street design is key to making cyclists feel comfortable on roads with no cycle specific infrastructure. Speed reducing measures are a major contributory factor to help achieve the feeling of comfort. Lower vehicle speeds are known to reduce the likelihood of an accident but will also reduce the severity of an accident, should one occur.

Developers would be expected to design their new developments to conform to a 20mph speed limit. The speed limit must be self-enforcing through its design or via the implementation of speed reduction measures. Carefully designed horizontal alignment is be the preferred form of self-enforcement.

Specific information on speed reducing measures can be found in Local Transport Note 1/07 and in the Department for Transport's Traffic Advisory Leaflets on traffic calming. When investigating the use of appropriate traffic calming measures it is important that designers consider cyclists and take particular care so that they are not disadvantaged by their use. Further information on traffic calming design is covered in this section.

10.3 Home Zones and Quiet Streets

A home zone will generally include a combination of the following features:

- gateway features
- a level surface
- indirect routes for traffic
- junction priorities removed
- areas of planting
- seats or play equipment
- appropriate signage

Photo 11 - Example of a Home Zone in North Shields

Quiet Streets are residential streets that give priority to people over vehicles. Quiet streets are based on a change in the way that people perceive the street. Motorists should feel that they have left the normal highway and entered an area where they can expect to find people who are using the whole the street. It is the only form of street where no dedicated cycle infrastructure may be acceptable.

Quiet streets have similar design principles to Home Zones where the whole space is the same level and vehicular routes are highlighted through a contrast in materials. Gateways should be provided on all entrances to home zones and quiet streets. This can be achieved by the use of signs and road narrowing. Planters are a common feature used at gateway entrances as they both narrow the carriageway whilst providing the change in street scape required home zones and quiet streets to work.

Home zones and quiet streets would be expected within large new developments, so that they are permeable and accessible to pedestrians, cyclists and local traffic.

Photo 11 shows a good example of a home zone installed in North Tyneside.

Photo 12 - Home Zone Gateway with Planters in Bristol

10.4 Filtered permeability

Where home zones and quiet streets are not feasible, filtered permeability must be considered as it provides an advantage to cycling and walking by exempting them from access restrictions applied to motorised traffic; or through the creation of short connections only available to cyclists and pedestrians.

Filtered permeability is often created by imposing traffic orders such as;

- Road closures
- Point closures
- Banned turns
- One way streets

An exemption to cyclists would be expected for all of the above traffic orders.

Photo 13 - Example of road closure with exemption for cyclists

Photo 13 shows a good example of a road closure for motor vehicles. The closure of the road at mid link still allows for cyclists to use the route but prevents motorists from cutting though a side street. Although not present in Photo 13, parking restrictions on the approach to the point closure help keep the area clear from parked cars, allowing cyclists to easily manoeuvre the closure whilst promoting route continuity.

Where home zones, quiet streets or a continuous cycle track though a development has not been provided, link paths would be expected at the end of cul-de-sac's in order to connect residential streets and provide a continuous link through the development for pedestrians and cyclists.

Figure 7 shows the typical detail for a link path connecting streets. The local authorities preferred connection would be a segregated cycle track with a level difference between the cyclists and pedestrians. However, at a minimum, it is recommended that the path is 3m wide for shared use with a 1m grass strip between the path and each boundary fence. This will create a feeling of safety for users of the path. The provision of street lighting will further enhance the link.

Photo 14 – Internal link within housing development

Figure 7 - Typical detail for link path between streets

s are another feature which would be expected to be considered within the design of new developments. Entry treatments should encourage slow speeds in the area via the installation of tighter radii or raised tables. These items are covered in more detail in Section 11 of this document.

10.5 Traffic Calming

Physical traffic calming measures can sometimes cause a problem for cyclists. Generally, road humps tend to reduce cyclist comfort whereas buildouts and chicanes are more likely to introduce cycling hazards.

Cycling should always be considered when traffic calming is being installed within a development. North Tyneside Council expect cycle bypasses to be installed at locations where traffic calming is necessary. LTN 2/08 advises that cycle bypasses, should be at least 1.2m wide without any sudden changes in direction. The entry and exit of the bypass should be free from parked cars. Where vehicle parking prevents access, consideration must be given to install physical measures or waiting restrictions in order to prevent obstruction. Cycle bypasses on horizontal features can also be raised to the same level as the footway using a gentle gradient at each end. Photo 15 below shows a good example of a cycle bypass at a road hump.

Where cycle bypasses cannot be installed due to existing constraints, a gap of 1m will be provided between the edge of the road hump / speed cushion and kerb. This distance may be reduced to 750mm as an absolute minimum when installing speed cushions in areas where standard distances are difficult to achieve. It is essential that traffic calming is not placed alongside existing drainage such as gullys as they can be hazardous to cyclists.

Photo 15 - Good example of cycle bypass at buildout for traffic calming

North Tyneside Council will also consider the installation of sinusoidal road humps within residential areas. Sinusoidal road humps are similar to round top humps but have a shallower initial rise. They provide a more comfortable ride for cyclists. Sinusoidal road humps would be expected at locations where cycle bypasses have not been provided. The height of the hump (H) should be 75mm and the length (T) should be 3700mm.

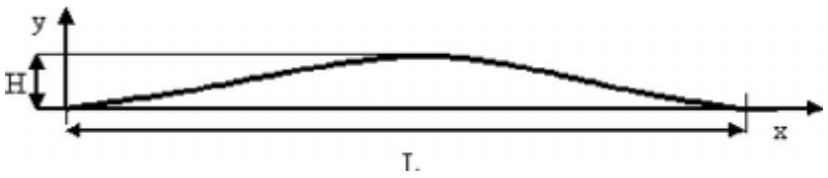


Figure 8 - Cross Section of Sinusoidal Road Hump

10.6 Car parking

Inconsiderate car parking on cycle routes can cause issues for cyclists. Therefore it is essential that developers consider ways to prevent parking from obstructing a cycle route. These measures can include, but are not limited to;

- Waiting restrictions
- 'Double kerbs' – installing a second kerb behind the carriageway kerb to prevent vehicles 'bumping up'
- Bollards, guardrail etc.
- Cycle track orders

When improving cycling infrastructure on a route which has on-street car parking, the design should place car parking directly adjacent to general traffic lanes, with the cycle route segregated, e.g. adjacent to the footway, and outside of the car 'door zone'.

Photo 16 - Example of segregated cycle lane with 'floating' parking bays

Photo 17 - Example of cycle lane around parking bays in London

11. Junctions and Crossings

11.1 Introduction

Junctions are the most common location for road traffic collisions, particularly for cycling related collisions. LTN 02/08 states that 70% of injury accidents involving cyclists take place at junctions. A well designed junction can reduce the number of decisions to be made by each road user. Providing space for cycling and minimising conflict points can prevent collision blackspots.

11.1.1 Priority Junctions

There are a variety of types of priority junctions such as T-junctions and cross roads where cyclists will be required to cross as part of their route. The key objective at these locations is to control traffic movements and speed. It would be expected that cyclists have priority over vehicles at junctions and vehicle accesses along a route. Key items to consider in making side roads more understandable for motorists and cyclists are covered below.

11.1.2 Visibility

Visibility is a key factor which should be considered when designing all types of junction. Visibility splays are defined by their X and Y distances, Figure 9, taken from LTN02/08 shows the basic layout.

Manual for Streets recommends an X distance of 2.4m, which allows one car at a time to check along the main alignment before exiting the minor arm. On cycle tracks a longer X distance is preferred as they reduce the effort and may enhance safety. The desirable minimum 'x' distance according to IAN 195/16 is 4.5m

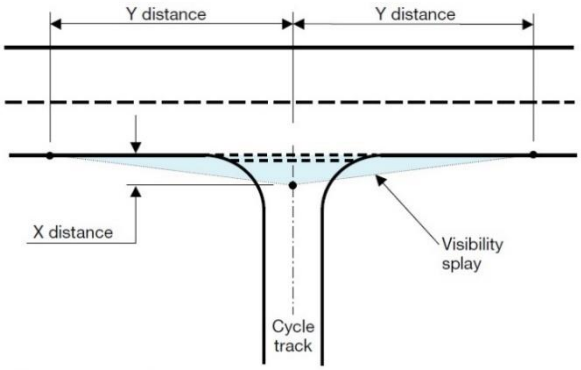


Figure 9 - Visibility at junctions

11.1.3 Junction radii

In line with North Tyneside Council's LDD12 the minimum radius that should be used on all priority junctions within residential estates would be 6m. This minimum radius increases to 10m on industrial estates to accommodate HGV movements.

11.2 Cyclist Priority at Junctions

Whenever possible cyclists must have priority over side roads and accesses along a cycle route. This would either be through raised entry treatments of via the use of road markings.

The location of the crossing point within a junction can vary subject to the type of infrastructure. Generally cycle tracks cross a side road further away from the junction mouth than other forms of cycle infrastructure, for example a hybrid cycle track.

Photo 18 - Side road priority (British Cycling Embassy)

Photo 18 above shows a cycle track with priority over the side road. Key design features for this form of junction crossing include;

- Raised level surface for cyclists through junction
- Approach and exit alignments to be smooth
- Suitable stopping space for motorists between raised crossing and main carriageway (minimum of 5m – on busy side roads, this distance can be reduced for minor accesses and driveways)
- Tight radii (6m) to keep vehicle speeds low
- Give way markings in good condition at either side of raised crossing
- Cycle symbols within junction to highlight presence of route

11.3 Raised entry treatments

When a cycle route runs adjacent to the main carriageway, such as a hybrid cycle track. It would be expected that a raised junction will be installed where it crosses a priority junction. Incorporating a raised table across a side road has a number of benefits. These include;

- Providing a level surface for an off-carriageway cycle route
- Providing a level surface for pedestrians walking along a footway
- Encourages slower vehicle manoeuvres at entrances to the residential estates

Photo 19 shows an example of raised tables at side roads. It would be expected that give way markings and stops lines would be set back from the junction and located at the first point of conflict with pedestrians and cyclists, i.e. the back of the footpath.

Photo 19 - Example of raised table at priority junction at The Broadway, Tynemouth

Additional design features shown in Photo 19 include;

- Tight junction radii
- Smooth alignment through junction
- Coloured surfacing to highlight presence of cyclists
- Cycle symbol within junction to highlight presence of cyclists

11.4 Priority junction crossings

On routes with low motorised such as residential service roads, where no segregated cycling infrastructure is provided, conspicuous road markings should be used at junctions.

Photo 20 - Example of priority at junctions

Photo 20 shows an example where a cycle route is directed onto a quiet residential street. At this point cyclists share the carriageway with motorists. North Tyneside Council would still expect the junction markings along the route to highlight the presence of cyclists.

11.5 Signalised Junctions

There are numerous permutations of traffic signal controlled junctions, many of which require bespoke design solutions. However, it would be expected that the finalised junction design would provide priority for cyclists in order to minimise waiting times. With this in mind, generic design considerations for signalised junctions include (but are not necessarily limited to) the following;

11.5.1 Segregated through junction

Although the design of every signalised junction is bespoke to the junction. It would be expected that developers consider keeping cyclists segregated through the junction. For example, the provision of segregated cycle tracks throughout the junction.

Single phase crossings should be provided so that users of the cycle route can clear the junction in one movement.

11.5.2 Cycle Bypasses

Cycle bypasses should be considered as an appropriate facility at signalised junctions as they allow a cyclist to continue through the junction without delay. They should especially be considered on the straight ahead movement at signalised T-junctions.

Photo 21 - Example of cycle bypass at signalised junction

The bypass must be physically segregated at the entry to the junction and the cycle lane should be conspicuous through the junction.

11.5.3 Advanced Stop Lines (ASL):

Advanced Stop Lines would be expected at the majority of signalised junctions to facilitate stacking of higher volumes of straight ahead cycle movements enhance the presence of left turning cyclists to high-sided vehicle drivers, and also to accommodate right-turning cycle movements through a junction.

Where ASL's have been provided at junctions it would be expected a suitable feeder lane is provided in order to allow cyclists to safely reach the ASL.

Photo 22 - Example of ASL with feeder lane

11.6 Roundabouts

Suitable cycle provision would be expected on all roundabouts. Conventional roundabout design is not considered suitable for cyclists, and is therefore not acceptable unless very convenient alternative crossing facilities are provided to form a continuous route. It is recognised that 'Dutch Style' roundabouts are the aim for most local authorities in the UK, in so far as successfully designing for cycling. Section 15 covers innovative roundabout ideas in more detail.

Safety, and not capacity, is the over-riding principle for good roundabout design.

The design principles are very similar to those for side roads of T-junctions.

- Approaching traffic should be slowed. This provides better gap acceptance, greater legibility for drivers and a safer cycling environment.
- Traffic speed on the roundabout should also be controlled by means of a narrow gyratory lane.
- Approach arms should be aligned towards the centre point of the island and not deflected to the left.
- Left only lanes are not recommended

When off road cycle routes traverse a roundabout, cycling and pedestrian crossings should be installed on all arms. The most suitable crossings for cycle movements would take form of a parallel crossing. TD 16/07 of the Design Manual for Roads and Bridges states that the stand-alone crossing facilities should be located to suit desire lines. If possible, they should be outside of the flared section to keep the crossing short and be located between 5m and 20m from the give way line.

Photo 23 - Example of Parallel Crossing at Roundabout in Cobalt Business Park, North Tyneside

Where crossings cannot be provided between 5 – 20m from the give way line a cycle route, a direct link should be provided to the next convenient crossing point.

11.6.1 Single Lane Roundabouts

Cycle lanes must not be installed in the circulating section of roundabouts. Cyclists should either be mixed with traffic or segregated from traffic by physical means.

Depending on the traffic balance between arms, single lane roundabouts can accommodate up to 20,000-25,000 vehicles per day. Cyclists can mix with traffic on roundabouts with traffic volumes of less than 5000 vehicles per day. Roundabouts of these nature are cost effective and space efficient.

In order to minimise vehicular speeds on roundabouts designers should aim to install the circulating lane at a maximum of 4.0m wide

11.6.2 Multi Lane Roundabouts

Multi lane roundabouts, with one or more circulating lanes and / or multiple approach and exit lanes, are not suitable for cyclists. In these circumstances off carriageway segregated cycle routes with suitable crossing points would be expected. Designs for roundabouts will be agreed with the Local Authority on an individual basis.

11.6.3 Mini Roundabouts

Mini roundabouts must not be provided on cycle routes as they can be more difficult for cyclists to negotiate. Mini roundabouts mostly have a single lane approaches and as the entries and exits are close together it can be difficult to anticipate vehicle movements. Due to the lack of physical kerbs mini roundabouts can be overrun my motor vehicles and this can provide temptation for motorists to overtake on the mini roundabout.

11.7 Grade Separated Crossings

Grade Separated crossings can take the form of Underbridges (Subways) or Overbridges.

The location and alignment of underbridges and their accesses should be arranged so that cyclists do not have long diversions from a direct line of travel. The length of the underbridge should be minimised in order to maximise natural light levels, and the gradient of access ramps should also be minimised. These design characteristics can help maximise forward visibility and levels of natural light as well as the comfort of users travelling through the underbridge.

According to IAN 195/16, a minimum width of 3.0m shall be provided for two-way cycle traffic, however designers should aim to increase this dimension or other elements of the cross-section to increase the attractiveness of the facility by increasing the amount of natural light in the structure. The desirable minimum headroom for an underbridge is 2.5m with an absolute minimum of 2.2m. These dimensions increase when the presence of equestrians are expected. Photo 24 shows an example of an underbridge with a smooth level cycle track access.

Photo 24 - Example of underbridge in Bristol

Where an overbridge is being introduced because a road severs a route, the overbridge should be sited and aligned to minimise the diversion from any existing cycle routes.

Overbridges for use by cycles and pedestrians only, are generally designed for two-way use and shall conform to the design parameters for cycle traffic. According to IAN 195/16 and DMRB BD 29/17 Design Criteria for Footbridges, the width of a two-way cycle track should be a minimum of 3.0m plus an additional 0.5m margin clearance to each parapet. Where the overbridge is covered, the headroom should be the same heights covered in the underbridge section. The gradient of the approach ramps should be no greater than 5%. These dimensions increase when presence of equestrians is expected.

Photo 25 - Example of Footbridge over A5 near Nesscliffe Hill

The height of a pedestrian parapet must be in accordance with Table 1 pf BS7818 and the relevant class of user (i.e. pedestrian, cyclists or equestrian). On bridges with cycle and equestrian provision the height of the parapet above the adjoining paving surface must be 1.8m. Where a parapet height of 1.8m has been used, a 600mm high solid infill panel must be provided at the bottom of the parapet in order to obstruct the animal's view of the road below.

More information on the design of underbridges and overbridges can be found in Section 2 of the Design Manual for Roads and Bridges.

11.8 Crossings at grade

11.8.1 Parallel Crossings

The Parallel crossing is the preferred form of crossing in North Tyneside as they minimise the waiting time for cyclists and motorists. The Traffic Signs Regulations & General Directions 2016 has created a new crossing type that would allow for parallel pedestrian and cycle crossings without the need for signal controls. This priority crossing is similar in appearance to a zebra crossing but with a parallel route for cyclists.

The pedestrian aspect limits of the crossing vary from a minimum of 2.4m to a maximum of 10m. The width of the cyclists' side of the crossing can vary from a minimum of 1.5m to a maximum of 5m. The width would be determined by the volume of pedestrians and cyclists using the route.

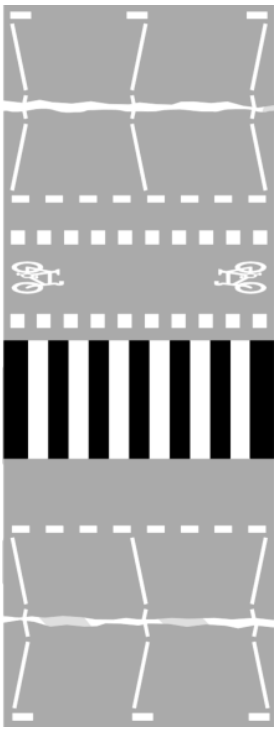


Figure 10 - Parallel Crossing Layout from TSRGD 2016

Photo 26 - Example of Parallel Crossing in Bexley, London

11.8.2 Toucan crossings

A toucan crossing is a signalised crossing shared by both pedestrians and cyclists. They are normally unsegregated, although sometimes a segregated Toucan can be more appropriate. Where a signalled controlled crossing is justified in the vicinity of a new development, a toucan crossing will usually be required. Should the crossing be required on an equestrian route, a Pegasus crossing should be provided with its pole positioned accordingly.

The main criterion for introducing a toucan crossing should be to reduce the level of risk associated with conflict between motorised and non-motorised users at pedestrian crossing points. The preferred width of a toucan crossing is 4.5m. This will provide sufficient width for both pedestrians and cyclists to cross at the same time. The crossing should be single stage which will allow for one continuous movements across the carriageway.

Toucan crossings can be installed at a minimum width of 3.6m. However, North Tyneside Council will only consider using the minimum width where site constraints exist.

The provision of advanced detector loops on the cycle track must be considered in order to reduce the waiting time at crossings for cyclists. These loops must be considered on key routes, particularly routes with a high commuter use.

Photo 27 - Example of Toucan Crossing

11.8.3 *Central Islands*

Central islands must be wide enough to accommodate waiting cyclists and pedestrians safely. The target minimum island width for straight across movements is 2.5m. The minimum width of a staggered island would be 3m.

Where refuges are installed the safety of cyclists travelling through the localised narrowing must be considered. LTN 02/08 advises that gaps of between 2.75m and 3.75m should be avoided as they may encourage motorists to overtake cyclists even through there is insufficient width. A minimum width of 4m is recommended to enable such a manoeuvre.

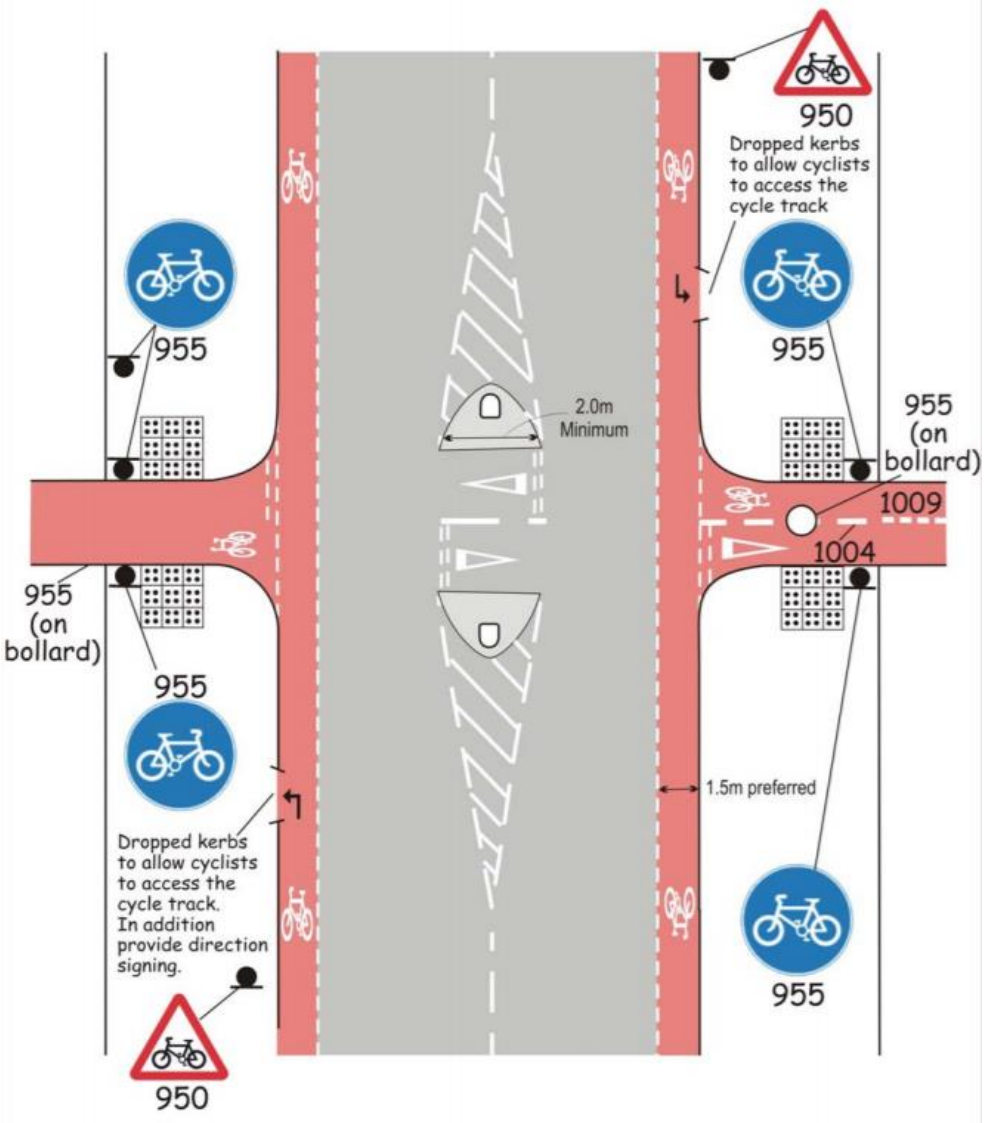


Figure 11 - Uncontrolled Cycle Crossing at widened island (Nottinghamshire Cycle Design Guide)

11.8.4 *Raised crossing facilities*

Where a cycle track crosses a relatively lightly trafficked street, the cycle track can be given priority over the road. The crossing should generally be sited on a flat-topped road hump to ensure low vehicle speeds. This treatment can be used at crossings of side roads where they join a larger road, or mid link.

The design in both situations should ensure that it is clear to motorists that they must give way, and that there is sufficient intervisibility between drivers and users approaching the road along the cycle track. This helps cyclists to maintain momentum as well as ensuring safety.

At locations where a cycle route crosses a minor road with low vehicle flows, the cycle track may give way to carriageway. However, it is still recommended that a flat topped road hump is installed at the crossing point to maintain low vehicle speeds

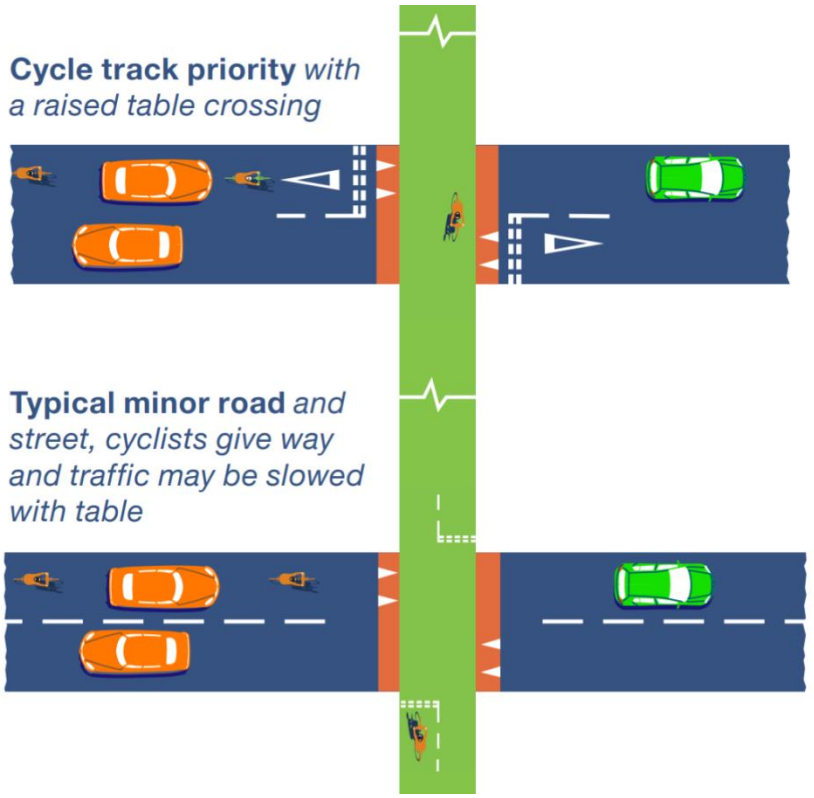


Figure 12 - Raised priority crossings (extract from Sustrans Design Manual)

12. Signs, Road Markings and Lighting

12.1 Signs and Road markings

All cycle routes require appropriate signage. Detailed information on cycle related signs and road markings can be found in Appendix C.

Signs must not be situated in the middle of a cycle lane, track, route or shared cycleway / footway. Any sign mounted over a form of cycle infrastructure must maintain a minimum clearance of 2.5m.

Route destination signs would be expected at key decision points along a route. There may be occasions where North Tyneside Council will stipulate the requirement for a financial contribution to a commuted sum of funding to be spent on route signage in the vicinity of the development. All route signage will need to be agreed with North Tyneside Council. Figure 13 below shows examples of the route destination signage installed in North Tyneside. All route destination signage is installed with a height of 24 X and should reflect the destinations highlighted on the Tube Map (Appendix B).

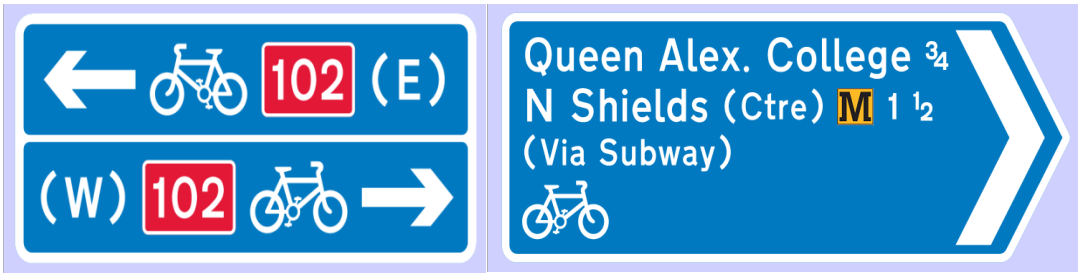


Figure 13 - Typical Route Destination Signage

In order to keep street clutter to a minimum. It would be expected that signage is incorporated into street furniture (e.g. bollards, lighting columns etc.).

Photo 28 shows an example of a segregated shared use cycle symbol installed on a bollard. This will reduce the need for the sign to be installed on a separate post.

Photo 28 - Example of TSRGD 957 on Bollard

12.2 Street Lighting

Lighting is normally provided on urban routes where cycling can be expected after dark. Lighting helps users detect potential hazards, discourages crime and helps users to feel safe.

Cyclists using two-way cycle tracks alongside unlit carriageways may be blinded or dazzled by the lights of oncoming vehicles, particularly on tracks alongside high-speed rural roads. Drivers may also be confused when seeing cycle lights approaching on their nearside. These hazards can be reduced by, for example, locating the track as far away as possible from the carriageway edge, or by providing with-flow cycle tracks alongside both sides of the carriageway.

Cycle routes across large quiet areas may not be well used outside peak commuting times after dark, even if lighting is provided. In these cases a suitable street lit on-road alternative that matches the desire line as closely as possible should be avoided. Subways should be lit at all times, using vandal-resistant lighting where necessary. It is not expected that routes outside built-up areas used primarily for recreation would normally need to be lit except where there were road safety concerns, such as at crossings or where the track is directly alongside the carriageway.

There may be occasions when North Tyneside Council stipulate the requirement for existing public footpaths and bridleways to be lit in the interests of safety.

Where an off-carriageway track requires lighting, the designer needs to consider the proximity of an electricity supply, energy usage, and light pollution. In these instances the use of low level (such as bollards) or surface level lighting should be considered.

Photo 29 - Example of low level lighting on cycle route (Canada)

13. Cycle Facilities

In order to support journeys by bike, convenient cycle parking must be provided at key destinations, for example local shops or high streets etc. Public transport accessibility can also be greatly increased by providing good quality cycle parking at key bus stops and metro stations. There may be occasions where North Tyneside Council will stipulate the requirement for a financial contribution to a commuted sum of funding to be spent on cycle facilities at a metro station or shopping area near the development site.

If a development has community facilities, such as local shops or libraries etc. then there must be sufficient cycle parking for the likely number of visitors or employees. If the development is a commercial development (offices, supermarkets), cycle parking should be provided next to the main entrance for visitors. The cycle parking should be located closer to the visitor entrance than vehicle parking. Separate cycle parking, in the form of lockable shelters, would be expected for employees and should be located near the employee entrance.

North Tyneside Council's preference for cycle parking is the traditional Sheffield cycle stand as it is a simple, robust and effective parking facility. More secure measures are preferred at public transport interchanges or locations with bicycles may be left for a longer period of time (i.e. Metro stations). Photo 30 shows an example of a Streetpod which could be used at Metro Stations.

Photo 30 - Example of Streetpod

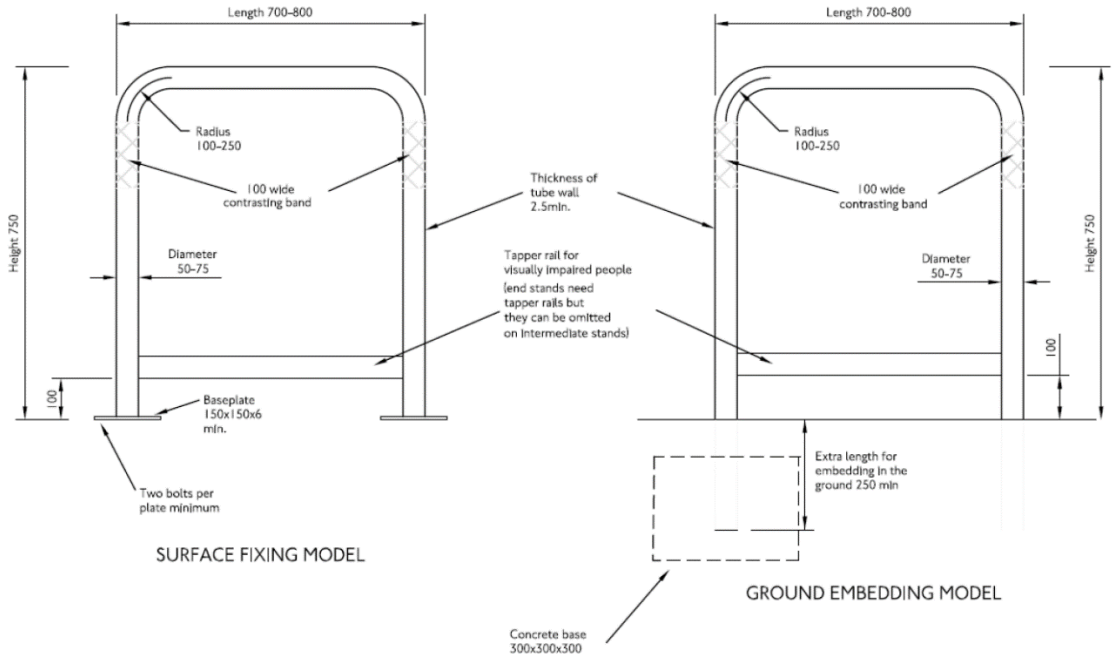


Figure 14 - Typical Detail of a 'Sheffield' Cycle Stand

Figure 14 shows the typical details of a cycle stand and Figure 15 shows the typical layout of the cycle stands. The positioning of the cycle stands in relation to vertical features is key. The designer should ensure cycle stands are positioned as shown in Figure 15 to ensure the parking facility is usable.

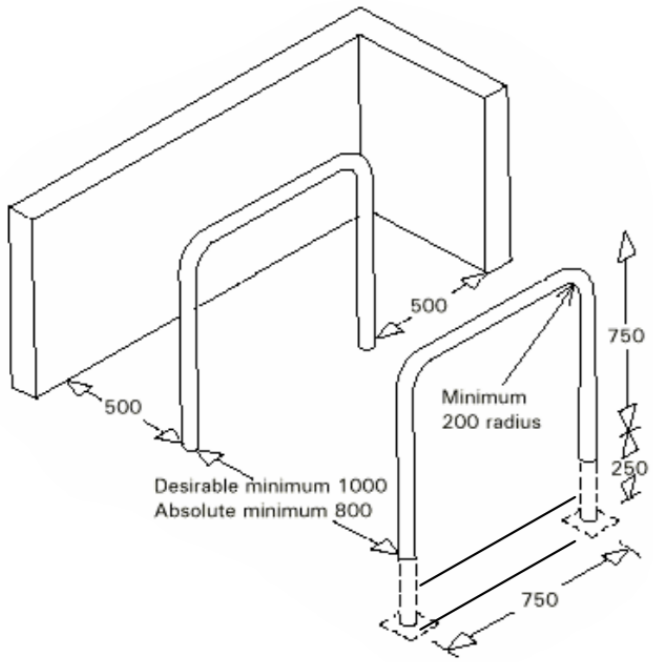


Figure 15 - Layout of Sheffield Cycle Stands

14. Construction and Maintenance

14.1 Adoption

Designers must consider the practicality of North Tyneside Council adopting new cycling infrastructure provided as part of the development. Designers should be aware of the level of maintenance involved with the infrastructure. North Tyneside Council may choose not to adopt streets which use forms of infrastructure with a high maintenance liability.

Designers should generally look to utilise standard paving materials. If it is proposed to depart from this, then a discussion with the Council would be required to confirm what is acceptable.

14.2 Construction

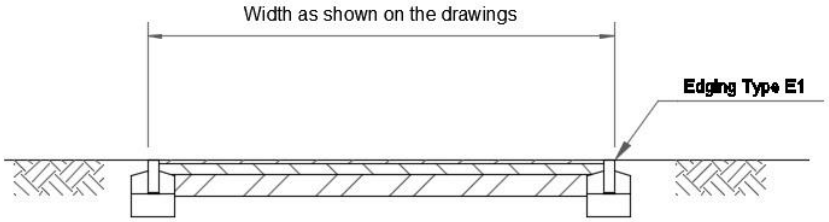
It is important that high quality cycle facilities are consistently implemented across North Tyneside, offering a smooth riding experience to cyclists. A number of general construction requirements are identified below:

- Street furniture, gullies and inspection chambers should be located away from surfaces used by cyclists.
- Finished levels of all surfaces within a cycle route must be machine laid. This will ensure the cycle track is smooth, flat, well-drained and well-maintained
- Construction joints should be at right angles to the direction of travel.

The construction details should be suitable for everyday cycling. It is envisaged the construction specification shown in Figure 16 will suffice for the majority of off-road links.

More comprehensive details, including bridleway construction, can be found in North Tyneside Council's Highway Design Specification.

14.2.1 Cycleway/Footway Construction



Cycleway/footway away from carriageway

	Type 1 construction (for general use)
Surface Course 6mm size Dense Macadam to Cl. 909	20 Thick
Base Course Dense Macadam to Cl. 906	50 Thick - 20mm nominal aggregate size
Sub-base Type 1 Granular Material to Cl. 803	200 Thick

Figure 16 - Typical cycleway construction

14.2.2 Coloured Surfacing

The provision of coloured surfacing is believed to improve cycle infrastructure as it further enhances it presence, making it more conspicuous to motorists. However, blanket application of full coloured surfacing on all cycle facilities would be very expensive and in many cases would not contribute to improved compliance. The use of coloured surfacing is therefore recommended in the following circumstances:

- At the beginning and end of cycle lanes
- Full width of a cycle lane through junctions, past parking bays or in other situations where there is likely to be conflict between cycles and other road users
- Along the full route on hybrid cycle tracks.

The preferred type surfacing material consists of the use of coloured aggregate within the surface course. The Councils' recommended surfacing material is Tarmac Ulticolour. The recommended colour is classic green.

14.2.3 Vegetation

All small plants / bushes planted within the vicinity of cycling infrastructure must be set back a minimum distance of 1.0m, then gradually increase in height as the distance from the cycle track increases. This prevents interference with the cycle route should the vegetation become overgrown, meaning less maintenance is required.

All trees should offset a minimum of 5m from all forms of cycle infrastructure. This is to prevent the canopy from overhanging the route and the tree roots from impacting on the integrity of the cycle infrastructure.

14.3 Maintenance

Until adoption takes place, developers have a responsibility to ensure their cycle routes are kept in good condition, making them more useful, attractive and popular than one allowed to deteriorate. Maintenance can often be an afterthought in comparison to designing and constructing new routes but having invested time and money implementing cycling infrastructure, it is important that it remains attractive to users.

Maintenance should be considered as part of the route development process long before construction starts. A thoughtful design will mean less maintenance in the future.

Regular inspections should be undertaken whilst developing and any repairs or problems should be prioritised and dealt with quickly. Failure to maintain the infrastructure may result in North Tyneside Council refusing to adopt the asset.

14.3.1 On Road Routes

When cycling on roads and the quality of the surface can make a huge difference to the cyclist's experience of using a particular road. As a minimum, the following maintenance should be undertaken on all on road cycle routes:

- Routes to be kept ice free
- Loose drain covers and potholes to be repaired swiftly
- Drainage channels and gullies to be cleared regularly
- Worn road markings or coloured surfacing to be refreshed
- Damaged or lost signs to be repaired or replaced
- Maintenance of 2m nearest to kerb to be prioritised. Potholes should be repaired with a smooth level surface patching rather than simple pothole repairs.
- To be swept free of debris
- Cyclists to be accommodated at road works

14.3.2 Off Road Routes

Cycle routes segregated from traffic can quickly become unattractive and difficult to use if maintenance is not undertaken and the route is not kept clear. As a minimum, the following maintenance should be undertaken on all off road cycle routes:

- Surface damage to be repaired promptly
- Drainage channels and gullies should be cleared regularly
- To be swept free of debris
- Verges to be mowed regularly to prevent encroachment onto cycle route
- Vegetation to be cut back regularly (outside of bird nesting season)
- Damaged or lost signs to be repaired or replaced swiftly
- Lighting, street furniture and structures to be maintained

Failure to undertake this maintenance may result in North Tyneside Council refusing to adopt this asset.

14.3.3 Buffer Zones

The buffer zones for cycle routes should be installed with a material that is easily maintainable. Grass verges are the preferred buffer zone. Although they should only be used where a buffer zone of 1m or wider can be provided.

In instances where buffer zones are less than 1m block paving will normally be used to reduce maintenance issues. Buffer zones less than 1m should be 50mm higher than the cycle route for safety reasons. The recommended block paving is Marshall's Keyblok concrete block paving. The recommended colour is Brindle.

15. Innovation

15.1 Innovative Roundabouts

There is evidence to show that roundabouts present particular risks for cyclists, requiring them to adopt assertive riding positions to avoid the risk of various types of collision associated with entering and exiting the roundabout.

15.1.1 Dutch Style Roundabout

Dutch style roundabouts are not a common design within the UK. The key design principles of a Dutch style roundabout include;

- Single lane entries / exits
- Segregated cycle provision around and through roundabout
- Priority crossings on all arms of roundabout

It is envisaged that a roundabout of this nature could be installed on a new development. A Dutch style roundabout would have to be installed at a location where high quality cycle links are provided on the approaches.

Photo 27 - Example of Dutch style roundabout

15.1.2 Compact/Continental Style Roundabout

An alternative to a conventional roundabout is the Compact or Continental Style Roundabout. These cyclist-friendly roundabouts are extremely popular in cycling orientated countries throughout Europe.

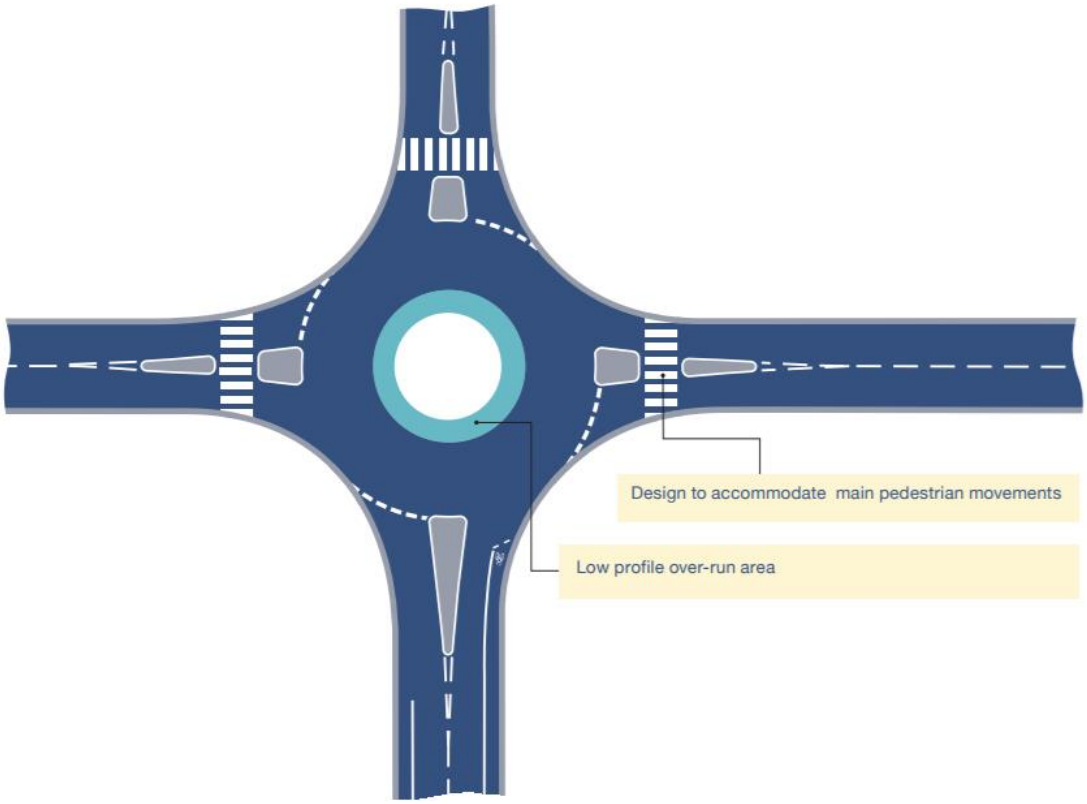


Figure 17 - Example of Compact / Continental Roundabout

Sustrans Handbook for Cycling Friendly Design offers some useful design guidance for compact/continental roundabouts:

- Perpendicular approach and exit arms
- Single lane approaches, 4m
- Single lane exists, 4-5m
- External diameter (ICD) 25-35m
- Island diameter (including overrun area) 16-25m
- Circulatory carriageway 5-7m
- Single circulatory lane
- Roundabout capacity approx. 25,000vpd, but consideration should be given to other options for cyclists where flows exceed 10,000vpd

15.1.3 Informal Roundabout

An informal roundabout is designed to encourage drivers to adopt circulatory priority, but they are in fact uncontrolled junctions, with no formal road markings or signs. Some informal junctions are designed with circular paving patterns to operate this way. A design of this nature could be included within a shared space / home zone area.

These have been found to work well in capacity and road safety terms at relatively high flows, of up to around 2500 vehicles per hour, though on cycle routes their use should be restricted to lower traffic volumes, preferably no more than 1000vph.

Photo 31 **- Example of Informal Roundabout**

In terms of cycling, this type of junction can work well as long as care is taken to ensure that vehicles only circulate in one traffic stream and travel slowly, so that cyclists can adopt the primary position when passing through the junction, in a similar way to the Continental design of roundabouts.

15.2 Traffic Signals

15.2.1 Early Release

Providing cyclists with an 'early release' at traffic signals, giving a head start over other traffic, allowing them to negotiate busy junctions and make their intentions clear to drivers behind.

Cyclists are detected within an Advanced Stop Line reservoir which triggers the main signals to give a 3 second cyclists-only signal, plus a further 2 seconds normal red-amber phase, before other traffic is released on a standard green signal.

Photo 32 - Example of an early release traffic signals head

15.2.2 Railing/Footrest

At traffic signals, consider introducing railing that cyclists can use to lean

Photo 33 - Example of railing / footrest

against or use as a footrest, which will allow cyclists to remain in the saddle while waiting for the lights to change.

This measure will not be appropriate at every traffic signal and overuse would increase street clutter but at key locations may be suitable.

15.2.3 Trixi Mirrors

Trixi mirrors are a convex mirror which can be attached to traffic signals. Their purpose is to help drivers (especially HGV's) to see down the side of their vehicles for the presence of people on cycles.

There are certain locations whereby the use of trixi mirrors will benefit a junction, in particular where there is a steady volume of turning HGV's that could conflict with cyclists.

Photo 34 - Example of Trixi Mirror at signalised junction

15.2.4 Centre Line Removal

Consideration should be given to the removal of centrelines as an option where carriageway widths do not permit the introduction of cycle lanes of adequate width (min 1.5m) whilst retaining two general traffic lanes.

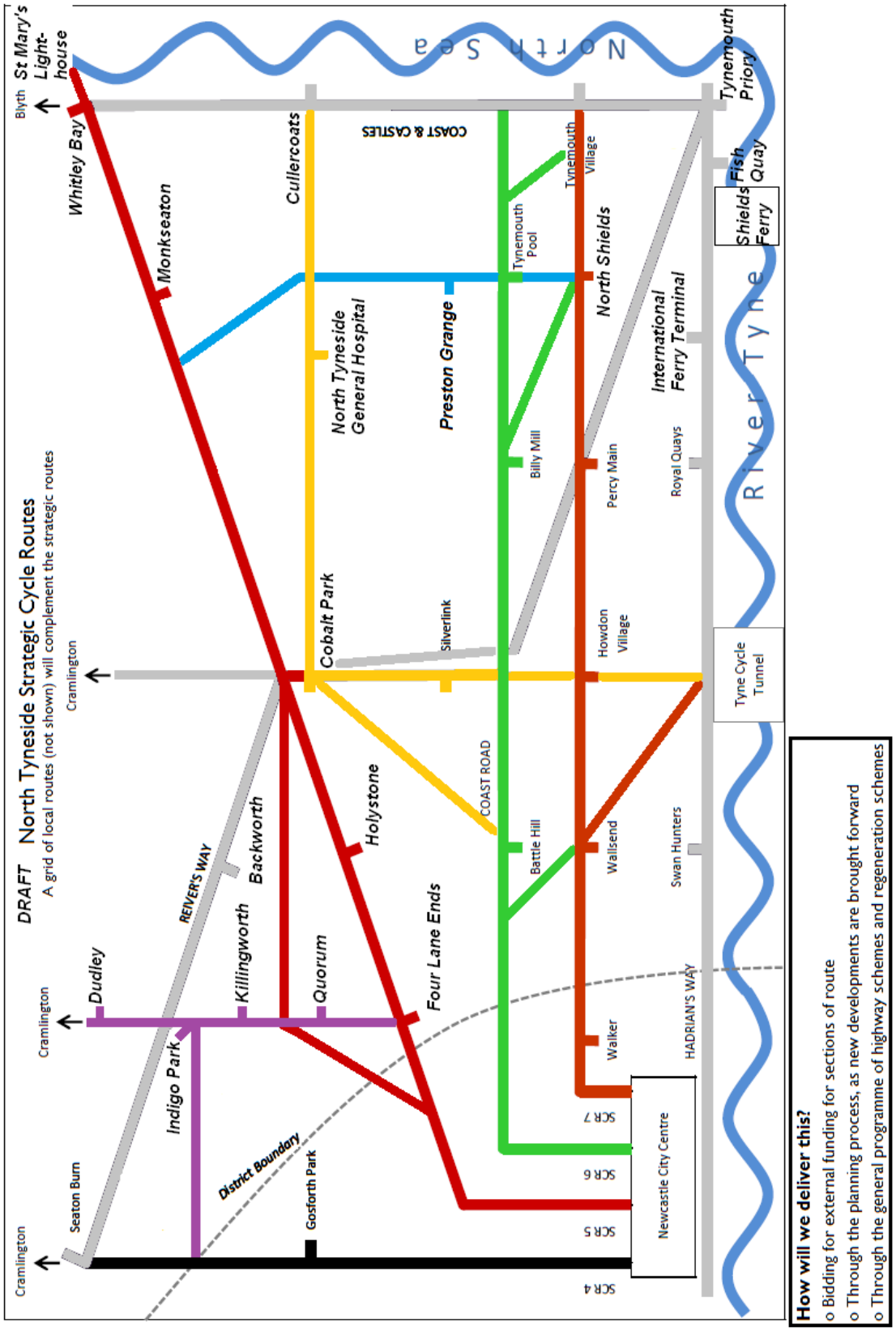
In addition to increasing the width available for cyclists, the technique also has a speed reducing effect. This is because, to a certain extent, the layout operates like a single-track road with passing places. Where the need arises for on-coming motor vehicles to pass each other, this is achieved by both vehicles momentarily pulling over into their respective near-side cycle lanes, having first checked to see they are clear of cyclists.

This technique is only suitable for roads wide enough to accommodate two 1.5m cycle lanes and a central 3.5 m general traffic lane (6.5m). There should be no significant heavy goods vehicle traffic, and general traffic flows need to be low enough to permit single-lane working. If the road widths exceed 6.5m, the additional space should be used to increase the width of the cycle lanes or introduce a buffer strip between the cycle lanes and any on-street parking bays

Appendix A – Cycling Design Guidance

The following documents / sources have been considered when developing the North Tyneside Cycling Design Guide.

- LTN 1/12 Shared Use Routes for Pedestrians and Cyclists
- LTN 2/08 Cycling Infrastructure Design
- Traffic Signs Regulations and General Directions 2016
- Traffic Signs Manual Chapter 5 (Road Markings)
- Sustrans Design Manual 2014
- London Cycling Design Standards 2014
- Design Guidance: Active Travel (Wales) Act 2013
- IAN 195/16
- Manual for Streets 2
- Greater Manchester Cycling Design Guidance
- Making Space for Cycling
- North Tyneside Council Development Construction Manual (In preparation)


DRAFT North Tyneside Strategic Cycle Routes
A grid of local routes (not shown) will complement the strategic routes
North Sea
River Tyne
Blyth
St Mary's Light-house
Whitley Bay
Monkseaton
Cullercoats
COAST & CASTLES
Tynemouth Priory
Fish Quay
Shields Ferry
Tynemouth Village
Tynemouth Pool
North Shields
International Ferry Terminal
North Tyneside General Hospital
Preston Grange
Billy Mill
Percy Main
Royal Quays
Cobalt Park
Silverlink
Howdon Village
Tyne Cycle Tunnel
Cramlington
Dudley
Killingworth
Quorum
Four Lane Ends
Holystone
Backworth
REIVER'S WAY
COAST ROAD
Battle Hill
Wallsend
Swan Hunters
Indigo Park
District Boundary
Gosforth Park
Seaton Burn
Walker
HADRIAN'S WAY
Newcastle City Centre
SCR 7
SCR 6
SCR 5
SCR 4
How will we deliver this?
o Bidding for external funding for sections of route
o Through the planning process, as new developments are brought forward
o Through the general programme of highway schemes and regeneration schemes

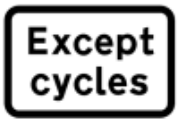
Appendix C – Signs and Markings

Mandatory and Informatory Signs

There are a number of mandatory and informatory signs associated with cycle facilities. Table 6 shows the signs as specified in Traffic Signs Regulations and General Directions (TSRGD), 2016. Careful positioning of signs associated with cycle facilities is required in order to comply with siting requirements, to maximise visibility to all road users and to minimise street clutter. Wherever possible, impact on other users, in particular mobility impaired users of the footway, should be minimised by attaching signs to existing street furniture such as bollards, lighting columns or existing sign poles.

Table 5 - Signs associated with cycle facilitates

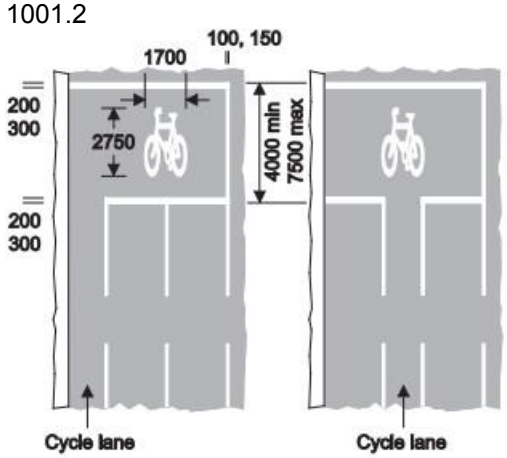
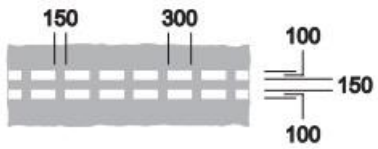
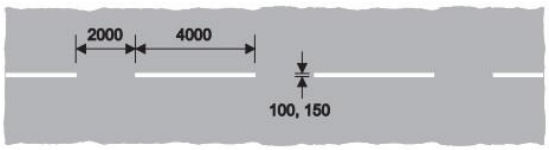
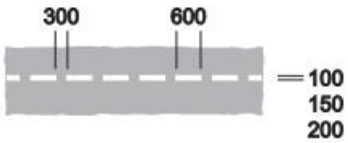
Diag. No (TSRGD)	Description	Suggestion Dimensions
955 	Cycle routes that are segregated from both motorised traffic and pedestrians.	Terminal: 600mm diameter Repeater: 300mm diameter
956 	Unsegregated shared cycle/footways	Terminal: 600mm diameter Repeater: 300mm diameter
957 	Segregated shared cycle/footways separated by the marking Diag. No. 1049B, 1049.1, or by physical means. The sign is reversed in a mirror image when the route reserved for cycles is on the right.	Terminal: 600mm diameter Repeater: 300mm diameter
958.1 	With-flow mandatory cycle lane ahead to always be provided where possible. To be omitted with caution. Use of time qualifying plate optional. On 20-30mph roads, sign sited 20m in advance of taper with a minimum clear visibility distance of 45m.	20-30mph: 825mm x 800mm 40mph+: 990mm x 960 mm
959.1 	With-flow mandatory cycle lane. To be provided immediately following taper and junctions. No two signs should be more than 300m apart. Use of time qualifying plate optional.	20-30mph: 825mm x 800mm 40mph+: 990mm x 960mm
960.1 	One-way road with a mandatory contraflow cycle lane. The number of upward pointing arrows may be varied to indicate the number of lanes available to all traffic	825mm x 475mm
962.1	Cycle lane on a road at junction ahead or cycle	X height: 50

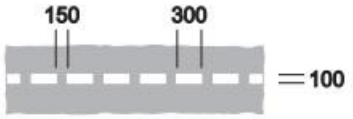
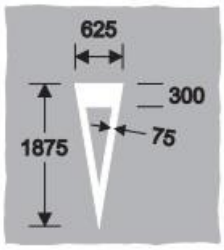
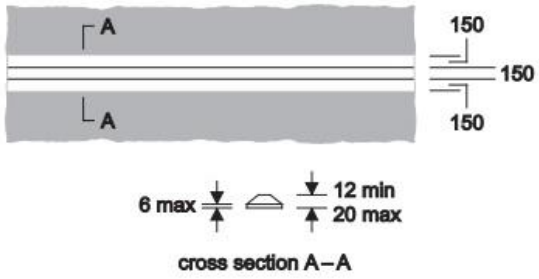
	track crossing road. Warns road users of potential conflict with cycle route. Generally unnecessary except for situations where contra-flow cycling is permitted. Use of time qualifying plate optional	
963.1 	Direction in which pedestrians should look for approaching pedal cycles when crossing a cycle lane. Generally unnecessary except for situations allowing contra-flow cycling. Variants regarding cycle flow direction are permitted.	X height: 50
965 	Although it is recognised as a standard sign in the TSRGD 2016 North Tyneside Council will not permit the provision of this sign as part of an application unless of mitigating circumstances..	X height: 40
966 	Although it is recognised as a standard sign in the TSRGD 2016 North Tyneside Council will not permit the provision of this sign as part of an application unless of mitigating circumstances.	X height: 40
967 	Advisory cycle lane on the main carriageway of a road. To be provided immediately following taper and junctions. No two signs should be more than 300m apart.	20-30mph: 440mm x 300mm 40mph+: 550mm x 375mm
954.4 	Supplementary plate that can be used below the following signs • No Entry • No Left / Right turns • No through road • One way	X height: 50

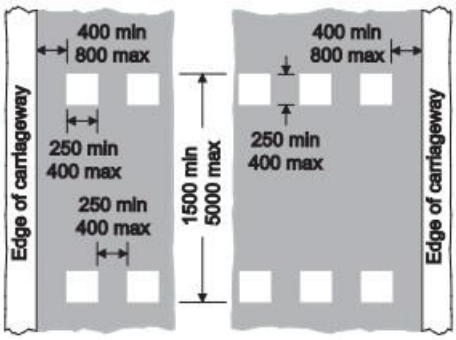
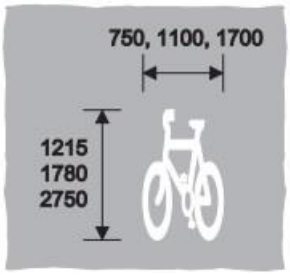
Markings

The use of road markings is as cyclists tend to spend a lot of time focusing on the surface in front of them.

Table 6 - Road markings associated with cycle facilitates

Diag. No. (TSRGD)	Description	Suggested Dimensions
1001.2 	Alternative to the stop line Diag. No. 1001, providing a reservoir for cycles at signalised junctions.	Reservoir: 4000mm-7500mm Stop lines: Urban areas – 200mm Rural areas (or 85th percentile speed greater than 35mph) - 300mm 1057: 1700mm
1003B 	Cyclists must give way	300mm line, 150mm gap
1004 	Use to mark the boundary of an advisory cycle lane.	4.0m line, 2.0m gap. 40mph or less : 100mm wide Greater than 40mph (or contraflow): 150mm wide
1009A 	Used to indicate the start of a cycle lane. Recommended taper of 1:10.	600mm line, 300mm gap. 40mph or less : 150mm wide Greater than 40mph: 200mm wide TSRGD 2016 indicates a 100mm wide line can be used but no technical guidance currently

		exists.
1009B 	Edge of the carriageway at a junction of a cycle track and another road.	300mm line, 150mm gap, 100mm wide
1023B 	Approach to a road junction on a cycle lane or track on which is placed the marking Diag. No. 1003B. Marking only normally required when cycles lose priority at a junction. Where they meet another path/ track, vehicular access or a lightly trafficked side road a dashed line to diagram 1003 should be sufficient.	625mm x 1875mm. .
1049.1 	Use to mark the separation of cyclists and pedestrians on shared use cycleway/footway. More easily detected by blind and partially sighted pedestrians.	150mm solid white line. 150mm raised profile. 150mm solid white line.
1049B 	Use to mark the boundary of a mandatory cycle lane or to separate cyclists and pedestrians on shared use cycleway/footway.	150mm solid white line.
1055.3	Route for cyclists across a signal controlled junction or parallel crossing. Can be used in conjunction with diag. no. 1057	0.4m x 0.4m marking, 0.4m x 0.4m gap.

		
1057 	Cycle symbol indicating cycle lane, track or route. Should be provided after each decision point on cycle lanes and tracks, and at a maximum interval of 200m elsewhere. Where practical, cycle symbols should be placed close to street lights to maximise visibility after dark.	Defined cycle facilities: 1215mm Shared streets: 1780mm

Note: Surface treatments can also be used for 'implied markings'. For example, an implied zebra across a cycle track near a bus stop.

Capita Property and Infrastructure Ltd
The Quadrant
The Silverlink North
Cobalt Business Park
North Tyneside NE27 0BY