York Civic Trust

A cycling strategy for York
April 2021

1 The need for a holistic strategy

York's current Local Transport Plan was drafted in 2011 and sets out a long term strategy for the city's transport system for the period from 2011 to 2031, and a more detailed programme over the period to 2016. There is broad agreement that a new Local Transport Plan is needed, and that work should start soon in the context of the draft Local Plan, which is currently being examined.

We have already prepared a document with recommendations for an overall transport strategy for York, and this is one of seven reports offering proposals for individual modes and policies. Our vision is of a city which respects its environment while enhancing quality of life, social justice and economic vitality. York's new Local Transport Plan should be designed to contribute to that vision. It needs to address the city's needs over the next two decades, while identifying steps which can be taken now. For this to happen, political consensus will be essential to ensure that policies are not reversed each time the Council's political control changes.

In achieving our vision, the new Local Transport Plan should be designed to meet a number of interconnected objectives for the city. Of these, the most important are ensuring that the transport system is efficient, generates substantially less pollution and results in far lower levels of carbon emissions.

At the same time the Plan must be designed to achieve the objectives of ensuring safety, supporting public health, increasing equality of access, increasing liveability, and protecting public space and heritage. A Plan which successfully addresses all of these will also help to strengthen the sustainability and economy of the city.

In meeting these objectives, the Plan needs to adopt a holistic, bold and visionary strategy which achieves significant changes in travel behaviour in the immediate future. The transport strategy should be designed to make effective use of the full range of potential policy measures and to combine them to ensure that the strategy is acceptable, affordable and effective. In doing so it should seek to emulate the best examples in the UK and continental Europe of integrated, sustainable transport planning.

Since population growth is likely to exacerbate York's transport problems, the key elements of the strategy will be measures to enhance public transport, walking and cycling and, at the same time, to reduce car travel, especially in congested and sensitive areas of the City, and to reduce the need to travel, particularly through the design of sustainable communities.

This combination of "carrots" and "sticks" will help make the strategy both more effective and more acceptable to the public and the business community. It should be reinforced by adopting a "hearts and minds" approach, in which incentives are designed to encourage users to change their travel habits and to respect the needs of others.

To reinforce this core strategy, action is needed to improve the operation of the road network, by reallocating road space and using it more efficiently and to improve freight and delivery operations.

2 The focus of this report

In this report we consider the role of, and needs for, cycling. In it we have included cycling for all purposes, including freight, and for all users (although we have placed greater emphasis on utility cycling than on cycling as a sport). We include consideration of new modes, including e-cycles and e-scooters. Cycling and walking together constitute what is often styled "active travel", and the arguments in favour of both are similar. But the solutions are different and, as the Government's 2020 policy document on active travel, *Gear Change*,[1] stresses, cycles should be treated as vehicles, and separated from pedestrians where possible. We are grateful for York Cycling Campaign's input to the preparation of this report.

The Government in 2017[2] asked local authorities in England to provide Local Cycling and Walking Infrastructure Plans (LCWIPs). York has been slow to do so, but has recently considered a scoping study report,[3] and agreed to commence preparation of its LCWIP. We welcome this decision, and will be happy to support the Council in this. We offer this report as advice on the strategic approach which the LCWIP might adopt. We have not attempted to propose specific schemes, since these are appropriately part of the LCWIP itself.

3 The contribution of cycling to our objectives

Support for cycling contributes to our objectives both directly through the benefits which cycling offers and indirectly by offering an alternative to the car.

Directly, cycling offers **equality of access** for almost everyone to all parts of the city; as *Gear Change* suggests, it is potentially available to everyone from 8 to 80, but younger children and older adults also habitually travel by bike. For many journeys in York, it offers a faster journey than either buses or cars, particularly at congested times; cycling at between 10 and 15 mph a journey from the outskirts of York to the city centre takes about 20 minutes.[4] Access to good cycle infrastructure promotes independence, and can be particularly beneficial to disabled people, with the majority of disabled cyclists finding cycling easier than walking.[5] More disabled people are able to cycle than is often assumed, with 12% of disabled people in London cycling regularly or occasionally, compared to 17% of non-disabled people.[6] Cycling also offers a more direct and faster journey than buses for many orbital journeys.

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[1] Department for Transport (DfT), *Gear Change: A Bold Vision for Cycling and Walking*, July 2020.
[2] North Yorkshire County Council, *What is a Local Cycling and Walking Infrastructure Plan (LCWIP)?*
[3] City of York Council, *York Local Cycling and Walking Infrastructure Plan Scoping Report*, July 2020.
[4] York Cycle Campaign, *Getting York Moving*, 2020.
[5] Wheels for Wellbeing, *Experiences of Disabled Cyclists Survey*, June 2017
[6] The Guardian, *'A rolling walking stick': why do so many disabled people cycle in Cambridge?*, Jan 2018

As a form of active travel, cycling supports **public health**; regular active travel reduces all-cause mortality by 31%, and 20 minutes' exercise a day reduces the risk of depression by 31%.[7] A detailed study in the British Medical Journal[8] found a dramatically reduced risk of dying from cancer and cardiovascular disease (41%) amongst people who walked and cycled compared to non-active transport. Cyclists are rarely the cause when involved with road collisions in which another party is injured. As such, an increase in cycling benefits the **safety** of all road users.[9] However, as we see below, concern over danger while cycling is a major deterrent, and particularly for female cyclists.[10] A strategy which enhances safety should reduce the *perception* of danger, as well as reducing casualties, and will thus encourage more people to benefit from cycling.

Increased cycling also promotes **liveability** and the protection of **public space and heritage**. The DfT's 2016 report on *The Value of Cycling* analysed a multitude of studies and real-life examples of active travel neighbourhoods across the world. They concluded that "cycling has positive impacts for people and the places where they live. It can improve their well-being, lessen their spending on travel and enhance the liveability of their environment."[11] The same report established that neighbourhoods with cycle-friendly characteristics are more desirable or have higher property values; children who walk or cycle to school achieve better grades; and cycle-friendly environments promote more physical activity in later years. Increased provision for cycling would also help facilitate the Council's aim of making the city centre largely car-free.

Finally, cycling supports the **economy**. There is evidence also that promoting walking and cycling in preference to travel by car can increase retail turnover by 30-40%,[12] and per square metre, cycle parking is shown to have five times the retail return of car parking.[13] Analysis of recent Visa data shows 35% of York's retail expenditure comes from people living within 10km of the city centre.[14]

Indirectly, cycling offers an alternative to car use. Nationally, 40% of urban car journeys are under two miles,[15] and thus eminently suited to travel by bike. 45% of all car journeys in Yorkshire and the Humber are under 2 miles, and 72% of all car journeys in Yorkshire and the Humber are under 5 miles,[16] which is roughly the equivalent of cycling from one side of York to the other, or a 30 minute cycle.

In our companion report on managing car use[17] we have advocated a target of a reduction in car use of 20% below 2019 levels by 2027 and by 35% by 2037. This level of reduction is

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[7] *Gear Change*
[8] Carlos A Celis-Morales, *Association between active commuting and incident cardiovascular disease, cancer, and mortality: prospective cohort study*, BMJ 2017
[9] Cycling UK, *Local transport policy and cycling*, 2016
[10] Rachel Aldred and John Dales, *Diversifying and normalising cycling in London, UK: an exploratory study on the influence of infrastructure*, March 2017
[11] Rajé and Saffrey, *The value of cycling*
[12] *Gear Change* predicts 40%; Ellis Lawlor, *The pedestrian pound. Just Economics for Living Streets*, 2014 predicts 30%
[13] DfT, *The value of cycling: rapid evidence review of the economic benefits of cycling*, March 2016
[14] York BID, *New spending data proves one thing. We need York residents to buy local this Christmas – and beyond*, November 2020
[15] *Gear Change*
[16] DfT, *National Travel Survey 2019*, August 2020
[17] York Civic Trust Transport Action Group, *Managing Car Use*, 2020

necessary to achieve the City of York Council's commitment to being **carbon neutral** by 2030 and sustaining it thereafter. It would result in the avoidance of most congestion, thus making the transport system more **efficient**. It would also contribute to a **reduction in air pollution**, thus contributing further to improved **public health**. *Gear Change* suggests that doubling walking and cycling, by reducing car use, would reduce premature deaths in the UK by around 8,000 per year.

4 Current trends and problems

4.1 Recent trends

Cycling journeys are generally measured by simple count, purpose and frequency. The most consistent measure of modal split is the journey to work, although future trends may change with the marked increase in working from home and the recent dramatic decline in public transport use.

Flows are counted at around 40 automatic counting sites and some 30 DfT traffic count sites in York. The LCWIP Scoping Study shows these locations and actual 12 hour flows for 2016.[18] However, it shows no trend data over time. Longer-term trends are available for the automatic counting sites. Cycle flows over 12 hours rose by 30% between 2009 and 2014, but two thirds of that increase has been lost since.

The most recent figures for cycling's modal share by purpose in York are:

Commuting	15%	Civic Trust Survey 2019
Commuting	12%	Census 2011
Education (secondary school)	11%	School Census 2009
Education (primary school)	5%	School Census 2009
Commuting/Education	11%	University of York, 2019

In addition modal shares for primary schools are taken from more recent Sustrans Hands Up Surveys, but noted as being similar to census data in 2011.[19]

The LCWIP Scoping Study also analyses commuting by Census Middle Level Super Output Area (MSOA, of which there are 24 in York) by mode, destination and journey length.[20] Fig 16 on p24 (reproduced below as Fig 1) is particularly interesting in showing origin-destination pairs less than 3.5 miles apart with car commuting journeys of over 150 per day, but few cycling or walking journeys. The largest numbers of such car journeys are from Bishopthorpe, Copmanthorpe and Woodthorpe to the city centre, Clifton Without to Huntington, and Huntington to Heworth South, suggesting that these should be particular priorities for improvements in cycling provision.

Modal share for school travel is also shown, using the recent Sustrans Hands Up Surveys for primaries,[21] and the 2011 census for secondaries.[22] It identifies schools with particularly high levels of access by car (St Wilfred's, Our Lady Queen of Martyrs, Badger Hill, Osbaldwick, Hempland and Westfield; Joseph Rowntree) but appears not to show private schools. It is worth noting that the first two are Catholic schools, which inevitably have larger catchment areas.

[18] City of York Council, *Local Cycling and Walking Infrastructure Plan (LCWIP) Scoping Study*, Fig 19 p29
[19] LCWIP Scoping Study, Fig 17 p27
[20] LCWIP Scoping Study, pp19-24
[21] LCWIP Scoping Study, Fig 17 p27
[22] LCWIP Scoping Study, Fig 18, p28

Our 2019 survey found that 21% of residents who cycle use a bike at least once a day, while 34% use a bike a few times a week and 15% commute by bike. More than two-fifths (43%) would like to increase the number of journeys made on a bike.[23] A study of disabled cyclists indicated that 12% of disabled cyclists cycle regularly, and 64% find cycling easier than walking.[24]

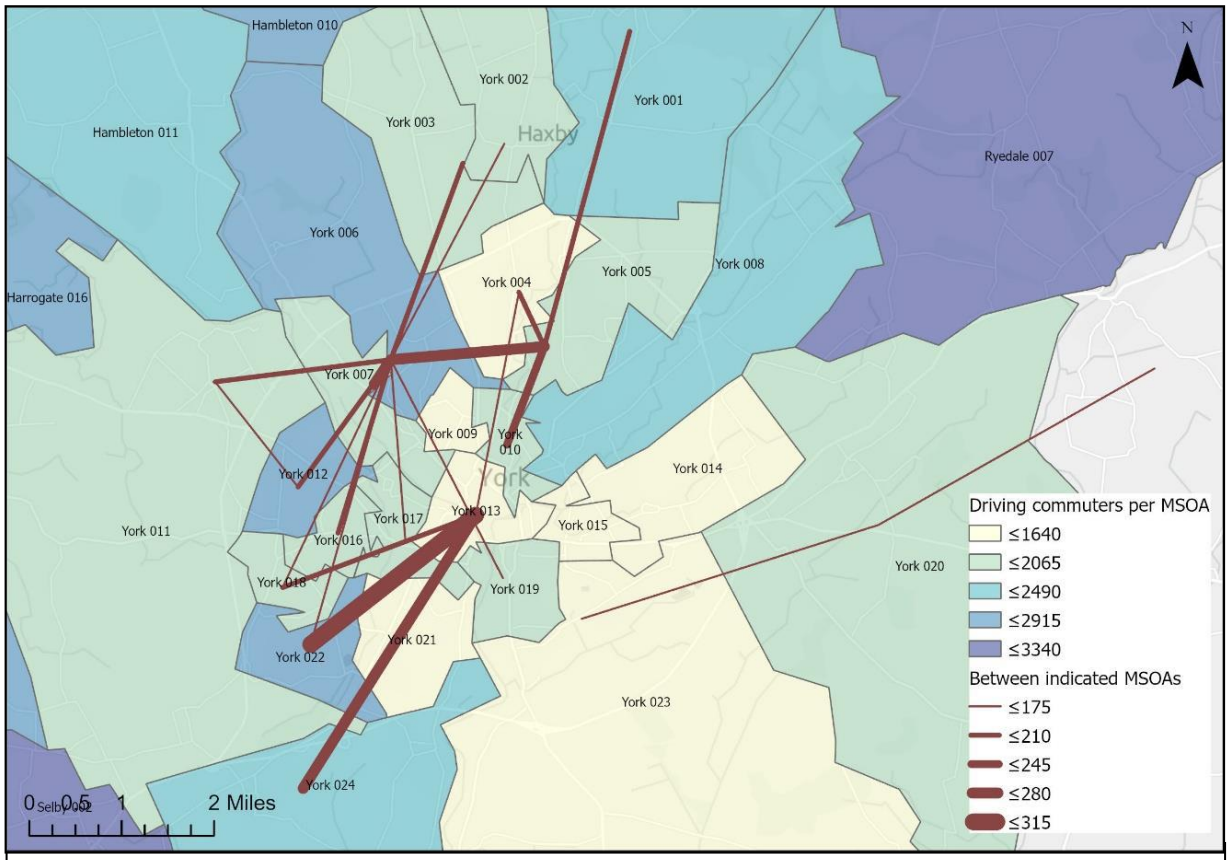

Fig 1: Short driving commutes with little corresponding cycling and walking activity between the OD pairs (from LCWIP Scoping Study)

The LCWIP Scoping Study also analyses data on frequencies of cycling from the National Travel Survey, the DfT Cycling and Walking Statistics and the Active Lives Survey.[25] Its key finding is that the percentages of adults cycling for leisure and on utility journeys has been falling since 2015 for all frequencies of use. Those cycling for leisure at least once a month fell from 19.4% in 2015 to 16.7% in 2018, and those cycling on utility journeys at least once a month by a quarter from 24.7% to 18.3% over the same period. This mirrors the trends in cycle flows shown above.

53 local authorities currently have a higher proportion of adults cycling five times a week, and for most the rate is growing, in contrast to the decline in York.[26] The author concludes that a new LCWIP is needed as a critical step in arresting the decline in cycling in York. We wholly concur.

[23] York Civic Trust, *York Transport Consultation – Key Findings Report (Residents and Commuters)*, Nov 2019
[24] Wheels For Wellbeing, *Annual Survey of Disabled Cyclists*, 2019-2020
[25] LCWIP Scoping Study, pp5-16
[26] LCWIP Scoping Study, p14

It is clear from the above data that recent information on cycling activity in York is sparse. The LCWIP Scoping Study recommends that the Council conduct a new survey of levels of cycling and walking. We agree, and recommend that it identify baseline data for the LCWIP and the LTP for mode shares by journey purpose, origin and destination, as well as providing more up to date information on flows and frequencies of use.

4.2 Future trends

The Propensity to Cycle Tool,[27] developed for the Department for Transport, can be used to estimate where additional trips might take place under different scenarios, based on how long and hilly commutes are in each area. The Government Target scenario assumes a doubling of cycle commuting nationally to 17%. The Go Dutch scenario shows what would happen if we reached average Dutch commuter cycling rates of 28.7% in England. The LCWIP Scoping Study[28] shows estimated cycle commuter flows on York's road network under the Go Dutch scenario.

The pandemic has had a marked impact on travel. In the initial lockdown, across the UK as a whole, car use fell by 70% and bus use by 85%, while walking remained unchanged and cycling as much as doubled. By November, car use had increased, but was still 11% lower, while bus use remained 55% below pre-lockdown levels. York's figures were similar but, while bus use was only 40% lower, cycling had also fallen by 10% compared with before lockdown. It is currently unclear whether any of these impacts will be long-lasting, though it seems likely that higher levels of working from home will be sustained, reducing the demand for cycle commuting. Given these uncertainties, any future strategy needs to be flexible.

With the current significant shift from petrol and diesel to electric vehicles, the nature of transport and its supporting infrastructure in York is having to change. These changes need to be anticipated and integrated with York's cycling strategy, supporting the common aims of achieving positive economic, environmental and social outcomes for the city.

4.3 Problems for cyclists

Cyclists in York suffer from the lack of a connected and continuous cycle route network, which is a particular problem for those in the villages, who often have no protected route to the city. We address this issue in detail below. In addition, cyclists experience accidents, intimidation and the risk of theft, on all of which data is available.

The LCWIP Scoping Study shows casualties by severity by location for 2018, when cyclists accounted for 27% of all casualties in York,[29] despite accounting for only 10% to 15% of road users. It shows casualties distributed across the city, principally on the main and secondary road network, but with notable clusters on Blossom St/Queen St, Ouse Bridge, Gillygate, Monkgate and Heworth.

Our own analysis from CrashMap[30] data shows that between 2014 and 2019 there were 211 collisions between cyclists and other road users. 143 involved a car, 8 a bus, 20 a goods vehicle and 2 a motorbike. Nearly half (62) involved young drivers. The highest incidences were at

[27] The Propensity to Cycle Tool is a transport planning system, supported by the DfT. The PCT was designed to assist transport planners and policy makers to prioritise investments and interventions to promote cycling.
[28] LCWIP Scoping Study, Fig 23, p25
[29] LCWIP Scoping Study, Fig 22, p34
[30] CrashMap is an interactive online map which records all reported collisions, using data published by the DfT.

Fulford Road (25 collisions, of which 4 were serious), Station Road (20/2), Monkgate roundabout (20/3), Blossom Street/ Micklegate Bar (15/1), Bootham Bar (15/1), Micklegate (12/0), Tower Street/Piccadilly (12/2), Gillygate (8/0), Duncombe Place (7/0), and Layerthorpe bridge (5/0).

While actual casualties are thankfully rare, with a 5% chance of injury in a given year for a commuting cyclist, intimidation is a much more frequent issue for cyclists. This varies from harassment and abuse to being exposed to dangerous driving. These and other frightening incidents on the road discourage even experienced cyclists, and put potential cyclists off from even starting. There is nowhere to report these incidents, either locally or nationally. However, the Near Miss Project[31] aimed to document them, and is a good source for national data. It shows that on average a commuting cyclist experiences 20 incidences of harassment and 60 "very scary" incidents per year. Overall those cycle commuters surveyed reported incidences of intimidation at the rate of 450 per year, or around two per commuting day.

York Cycling Campaign's Safe Streets York initiative, from May to September 2020, attracted 764 comments to its Commonplace map,[32] widely distributed around the city. Of the respondents, 65% felt safer as cyclists, and 40% felt safer as pedestrians, in the lower levels of traffic experienced during the pandemic. The detailed responses demonstrated the need for a comprehensive cycle route network. Six of the top seven concerns related to the network, and accounted for 74% of all responses. These included incomplete routes (20%), unsafe junctions and crossings (19%), inadequate infrastructure (14%), narrow paths, barriers and poor maintenance (7% each). Experience suggests that the Commonplace map offers an invaluable resource for users to highlight concerns, and we strongly recommend the Council to adopt it for pedestrians, bus users and car drivers as well.

The latest available data on bicycle thefts[33] shows that in the year from October 2019 there were 866 bike thefts in the City of York, or 1.6 pa per 1000 working population. This compares with 5.2 for Cambridge and 2.1 for Bristol and represents 1.7% of all crime in York. Conversations with police officers revealed that there were 565 bicycle thefts in the city centre in 2019, making it one of the force's top three priorities for the city centre. The highest rate is from the racks at St Andrewgate. Most thieves are addicts seeking a quick, easy source of cash from selling to grey market dealers. The most frequently used means are concealable bolt cutters and hand-powered angle-grinders. Cycle thefts in York are, however, on a downward trajectory with the data showing numbers roughly halving since 2013.

One further problem, common to cyclists and pedestrians, is the lack of safe alternatives when designated routes are closed as a result of flooding, road works or construction. The closure of Terry Avenue, which has some of the highest cycle flows in York, for 12 months for essential engineering works, is a case in point, and demonstrates the need for the network to be sufficiently dense to be resilient to such closures.

4.4 Perceived problems with cycling

There are certain stereotypes associated with cyclists, and the word "cyclist" carries with it certain connotations. The main issue is arguably the preconception of "them and us"; however,

[31] Dr Rachel Aldred, Dr Kat Jungnickel, Joel Porter, *The Near Miss Project*, 2015
[32] York Cycle Campaign, *Safe Streets York Recap*, December 2020
[33] Data taken from Plumplot, which sources statistics from the UK Police and Office of National Statistics.

83% of people who cycle have a driving licence,[34] and almost everyone who cycles is a pedestrian at some point.

With regards to the popular belief that cyclists are more prone to rule-breaking, such as jumping red lights, research has shown that people cycling break the law at similar rates to, or lower rates than, people driving, depending on the offence.[35] Cyclists are also far more likely to obey traffic laws in areas with more cycleways.[36] Furthermore, research also shows that the vast majority of people on cycles will slow down or dismount when entering a crowded area.[37]

Just as people driving cars are not all equally responsible for the misdemeanours of a few, people cycling should also be spared this generalisation. For brevity we have referred to "cyclists" in this report, but wherever possible, and certainly in marketing literature, we recommend that the council referring to "people who cycle" instead, to avoid what some have referred to as the "dehumanisation" of cycling.[38] For the few who do habitually offend, targeted enforcement and training may assist.

5 Proposed targets for cycling

Targets are frequently missed, abandoned or prove unmeasurable. However, they are essential to demonstrate success and to shape delivery plans.

Any targets should be:

- Deliverable (feasible within logistical, technical and financial constraints);
- Measurable (a long-term mechanism and funding is agreed);
- Rational (forms part of the strategy narrative, understood by stakeholders); and
- Ambitious (provides a challenge and a call to action).

We propose five targets which between them reflect desirable and potentially achievable changes in levels of cycling overall, for travel to work and school, by gender, and in perceptions of safety. These are listed in the table, and justified below. We have used target dates of 2027, which is five years after the start of the new Local Transport Plan, and by which time the outer ring road should have been upgraded, and 2037, by which time the planned development in the draft Local Plan should be complete.

Target	Baseline	Survey
Increase cycling overall: 80% increase in cycle flows by 2027; 110% by 2037	2019 automatic counter flows: 34,279 in 12 hours	Automatic 12 hour cycle flow counts from 40 sites
Increase cycling to work: 20% of journeys by 2027, and 40% by 2037	12% were cycling to work in 2011 (Census), and 15% in 2019 (York Civic Trust)	Census 2021 and workplace surveys, ATC data, annual bridges screen line survey

[34] Cycling UK, *Cycling Statistics*, point 12
[35] Carlton Reid, *Cyclists Break Far Fewer Road Rules Than Motorists, Finds New Video Study*, Forbes, May 2019
[36] ibid.
[37] Summary of multiple studies: As Easy As Riding a Bike, *Cycling in Pedestrianised Areas*, March 2014
[38] Delbosc, Alexa et al, *Dehumanization of cyclists predicts self-reported aggressive behaviour toward them: A pilot study*, April 2019

Increase cycling to school: 20% cycling by 2027 (11-18yrs), and 40% by 2037	11% in 2009	School Census data or separate survey
Equalise the gender gap: 45% of all cycle trips to be made by women by 2027, and 50% by 2037	40% in 2011 Census	Video and observation surveys.
Improve public perception: 50% of residents to think York a good place to cycle by 2027, and 75% by 2037	38% of residents in 14 UK cities in 2020 think that their city is a good place to cycle (67% in the Greater Cambridge area)[39]	Sustrans Bike Life Survey to be implemented by the Council.

5.1 Increasing overall cycling

The Government, in *Gear Change*, sets a target of half of all journeys in towns and cities being cycled or walked by 2030. In 2011, 31% of York residents commuting to work in York used active travel, and well in excess of 50% of secondary school pupils did. For York, therefore, the target in *Gear Change* is unambitious. The 2017 National Cycling and Walking Strategy[40] aimed to double cycling trips. "We aim to double cycling, where cycling activity is measured as the estimated total number of cycle stages made each year, from 0.8 billion stages in 2013 to 1.6 billion stages in 2025, and will work towards developing the evidence base over the next year." York achieved a 30% increase between 2010 and 2014, though a third of this was lost in the subsequent four years. Our analysis of the implications of the Council's commitment to being carbon neutral by 2030 suggests that cycle flows will need to increase by up to 65% by 2027 and 80% by 2037.[41] We suggest applying these to 2014 flows, to offset the impact of the subsequent decline; this suggests targets of 80% and 110% on 2019 flows. There is a case for setting targets higher than these, given the benefits of increased active travel. These increases in flow should be monitored using the automated counter sites.

5.2 Commuting mode share

The DfT's current aim is to double cycle commuting nationally. Our modal shares of 20% for 2027 and 40% for 2037 are consistent with our analysis of the implications of the Council's commitment to being carbon neutral by 2030. However, we need to bear in mind that overall levels of commuting travel may well stay below 2019 levels as more people work from home. These figures should be tracked through regular employer surveys.

5.3 Education mode share

York has an above-average number of children currently cycling to school, but there is room for improvement. As across the country, numbers rise during "Bike to School" week but drop down again at other times. The York Sustainable Travel to School Strategy (2009) reported that 26% of pupils would prefer to cycle to primary school (not taking account of parents' views) and 15% would prefer to cycle to secondary school,[42] which suggests the impetus already exists. Our modal shares of 20% for 2027 and 40% for 2037 are consistent with our analysis of the

[39] Sustrans, *Bike Life: Cities for People*, 2019
[40] Department for Transport, *Cycling and walking investment strategy*, April 2017
[41] York Civic Trust Transport Advisory Group, *Carbon reduction requirements*, March 2020
[42] City of York Council, *A sustainable travel to schools strategy for York*

implications of the Council's commitment to being carbon neutral by 2030. These figures can be tracked through regular school surveys.

5.4 Removing the gender gap

In areas with strong investment in cycling, the gender split is more equal. In Denmark, often described as the world's most cycle-friendly country, it is skewed towards women.[43] Since women and men often have different travel patterns, barriers and needs,[44] with women more likely than men to be put off cycling by perceived safety concerns,[45] the biggest change will come from targeted improvements to infrastructure and its safety. Therefore in order to achieve this target, the importance of investing in a connected network with full segregation is reinforced. Further understanding the needs and concerns of women which are not currently addressed (well-lit paths and storage, routes which are not solely radial, off-road routes through populated areas, etc) will result in a network which is usable by everyone but especially attractive to women. It is reasonable to aim for an equal gender split by the completion of this strategy, with an intermediate target of 45% after five years.

5.5 Perceptions of intimidation

We debated proposing a target for casualties, but the evidence from the Near Miss Project[46] demonstrates that, while casualties are relatively rare, intimidation is a daily experience. In our view the Sustrans Bike Life Survey provides the best indicator of cyclists' experience, and we recommend the Council to adopt it. It showed that 38% of cyclists in 14 cities thought their city a good place to cycle, rising to 67% in Cambridge. Our targets would result in York matching the current perception in Cambridge by 2037.

6 The range of policy measures

Both *Gear Change* and the Government's latest Local Transport Note[47] provide advice on the types of measure which might be adopted; *Gear Change* also includes a set of 22 design principles, which are referred to in footnotes below. We have also drawn on Dutch and Danish experience.[48] On this basis we have identified the following as relevant to York:

6.1 Overall network design

1. A connected network
2. Balance of off-road and on-road provision
3. Provision of alternatives to ensure resilience
4. Provision in new developments
5. Determination of priorities.

6.2 Design of links and crossings

1. Allocation of road space
2. Separation of cyclists and other vehicles
3. Separation of cyclists and pedestrians
4. Treatment of barriers
5. Design of junctions and crossings

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[43] *Danish National Travel Survey*, 2011-2013
[44] Sustrans, *Inclusive City Cycling – Women: Reducing the Gender Gap*, June 2018
[45] World Economic Forum, *Women don't feel safe cycling, here's how to get them back in the saddle*, January 2020
[46] Dr Rachel Aldred, Dr Kat Jungnickel, Joel Porter, *The Near Miss Project*, 2015
[47] Department for Transport, *LTN 1/20 Cycle Infrastructure Design*, July 2020
[48] Goeverden et al, *Interventions in bicycle infrastructure, lessons from Dutch and Danish cases*, July 2015

6. Signs, markings and lighting.

6.3 Provision for different types of cycle

1. Conventional cycles (see below for definition)
2. Cargo cycles
3. E-scooters
4. E-cycles.

6.4 Parking and interchange

1. Parking standards
2. Parking for employment and education
3. Parking for shops and leisure
4. Station and interchange parking.

6.5 Recurring commitments

1. Cycle training
2. Soft measures (e.g. Personal Travel Plans)
3. Maintenance.

7 The ways in which each policy measure might be applied

7.1 Overall network design

7.1.1 A connected network We agree with *Gear Change* that York needs a comprehensive, continuous, overall and physically separated cycle network,[49] affording direct, non-circuitous links between all origins and destinations without spending time unsafely alongside queueing or speeding traffic. Cycle routes must flow, feeling direct and logical;[50] schemes must be easy and comfortable to ride;[51] schemes must be consistent.[52] This will require the Council to be willing to provide continuous facilities even at the most constrained locations, such as Clifton Green and Bootham Bar. An element of preparing this network is to predict what additional journeys would be made if the infrastructure permitted. The Inner Ring Road is a barrier to accessing the city centre, but can be addressed in the main by more effective crossing facilities. The Outer Ring Road is a more serious barrier to cycling in outer York. Protected cycle lanes must be provided along both sides of the Outer Ring Road, maximising access and ensuring that each roundabout has adequate subway crossings, with clear sightlines through them.

7.1.2 Balance of off-road and on-road provision Off-road routes should be used wherever possible, complemented by safely separated on-road sections where necessary. Where motor traffic is both light and infrequent, LTN 1/20 allows for on-road, unsegregated provision. However, side road routes should be used only if they are direct.[53] Therefore the introduction of new, and expansion of existing, Low Traffic Neighbourhoods is essential, and will help to increase these cycling areas which are compliant with LTN 1/20 without building segregated routes. York has a number of these neighbourhoods dating from the 1980s which continue to prove successful.

[49] *Gear Change*, Principles 3 and 8
[50] *Gear Change*, Principle 18
[51] *Gear Change*, Principle 19
[52] *Gear Change*, Principle 21
[53] *Gear Change*, principle 4

7.1.3 Provision of alternatives to ensure resilience Much of York's cycle network, including the Millennium Bridge, is vulnerable to flooding. More generally, sections of the network may well be closed to accommodate road works and construction. Cyclists should not be expected to abandon their journeys or divert to less safe routes in such conditions. The network should be designed with sufficient redundancy to ensure there are readily signed alternative safe routes to cater for such circumstances. Where a cycle route has to be closed, a clearly signed, safe and direct route, with temporary protection if needed, should be provided.

7.1.4 Provision in new developments All new developments must be designed using two tools: Cycling Level of Service (CLoS) for routes, and the Junction Assessment tool for junctions such as roundabouts and signals. These will ensure adherence to the LTN 1/20 guidelines. Construction work and developments in an urban environment such as York are inevitably very disruptive to existing cycle networks. Construction traffic and route diversions, if inadequately planned, can dramatically increase risk to cyclists and create massive disincentives to cycling. It is therefore critical that the continuity of routes and wellbeing of cyclists is designed into new developments and their construction. CLOCS is the Constriction Logistics and Community Safety national standard (www.clocs.org.uk). It sets a minimum standard for client organisations and principal contractors, promoting early engagement with key stakeholders to design out conflict between construction traffic, diverted traffic and cyclists. Given York's layout and the constraints of its rivers, railways, the city wall and other historic features, it is vital that the CLOCS standard is adopted as the norm for all new developments in the city.

7.1.5 Determination of priorities

The Council already has a Strategic Cycle Scheme Prioritisation.[54] which includes 128 schemes assessed against criteria related to status within the network, destinations served, added value, cost and feasibility. This is a useful start, but it appears that the individual schemes have arisen from specific concerns rather than a strategic overview. We recommend that an additional set of measures is generated by using the Propensity to Cycle Tool and the LCWIP Scoping Study analysis to identify locations where cycle flows are lower than might be expected, and where short distance car trips are associated with low cycle flows. At the same time, the appraisal needs to address the strategic attributes of connectivity and continuity, which require sets of schemes on a corridor to be assessed together.

7.2 Design of links and crossings

7.2.1 Allocation of road space Whilst some of York's main roads are narrow, many sections of radial roads are wide enough for fully segregated lanes. Protected cycle lanes should be provided along all major radial routes. The aim should be to install one major route each year, starting with Shipton Road, to achieve the goal of linking all residential areas with the vehicle-restricted city centre by 2027. On all such routes, on-street parking should either be removed, or separated from the cycle lane by a buffer strip. This may well require the removal of centreline hatching, but safe refuges should still be provided for cyclists turning right.

7.2.2 Separation of cyclists and other vehicles LTN 1/20 states that "cyclists must be physically separated and protected from high volume motor traffic";[55] the higher the flow and speed of motor vehicles, the more vital physical separation becomes, as shown in Figure 2. This

[54] City of York Council, *Strategic Cycle Scheme Prioritisation*, December 2019. Also City of York Council, Y*ork Local Cycling and Walking Infrastructure Plan Scoping Report – Annex A*, July 2020.

[55] Department for Transport, *LTN 1/20 Cycle Infrastructure Design*, July 2020, Summary Principle 3

is essential in terms of both actual safety and perceived safety. It also recommends that Vehicle Restricted Areas continue to allow walking and cycling movements,[56] with particular reference to local shopping areas, where cycle access should be given higher priority than motor traffic. These could include Bishopthorpe Road, Front Street in Acomb, and East Parade in Heworth. Cyclists are at particular risk from heavy vehicles and buses when they turn across the cyclist's path; thus physical separation is desirable on the approach to all junctions. Contraflow cycle lanes should be added or expanded. There are a number of existing examples in The Groves, approaching the Lendal Arch gyratory, and on Coppergate (the latter using wands). We recommend the use of coloured surfaces to provide obvious and consistent visual clues, but only if the surfaces are maintained and this approach is taken across the city.

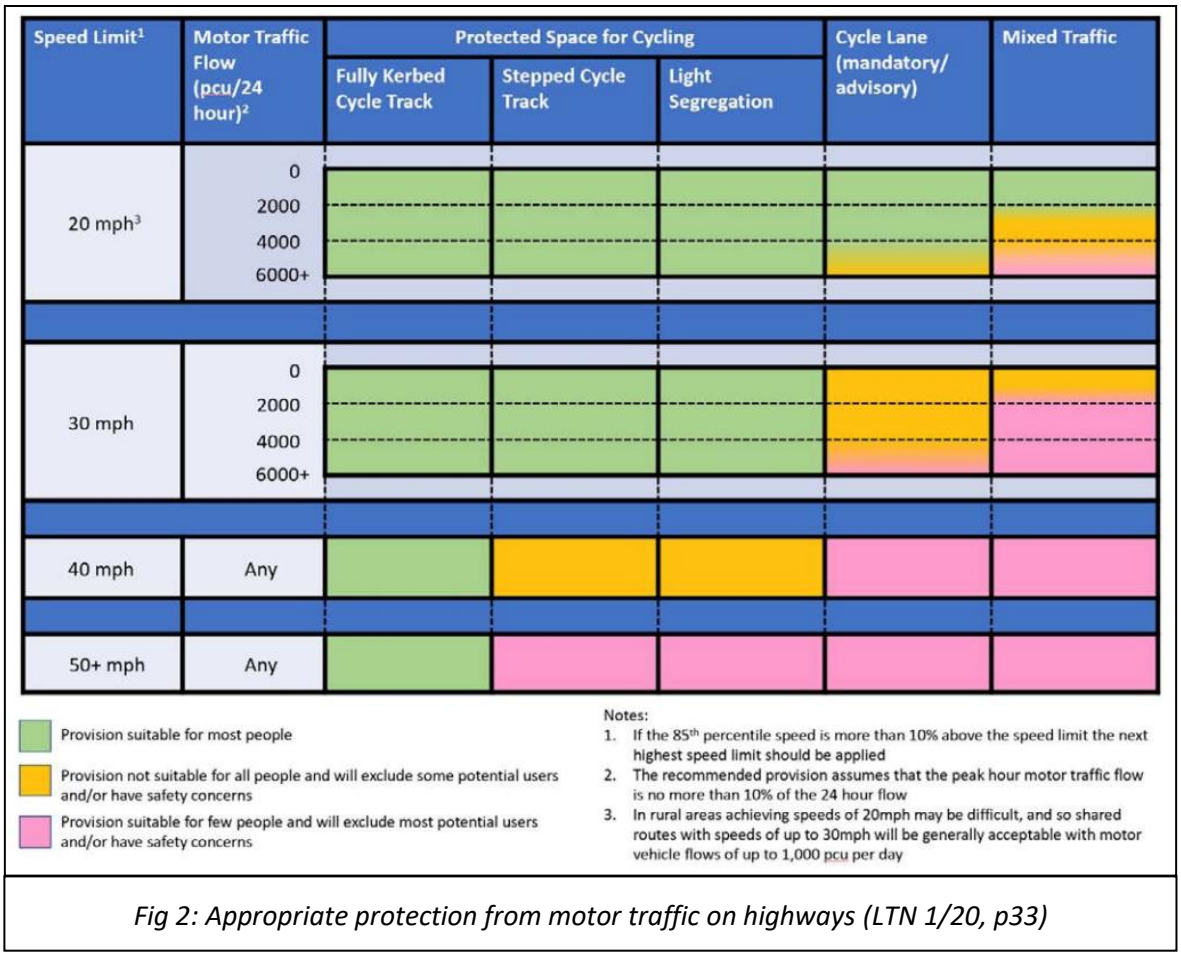

Fig 2: Appropriate protection from motor traffic on highways (LTN 1/20, p33)

7.2.3 Separation of cyclists and pedestrians A key design principle of LTN 1/20 is the separation of cycle traffic from people walking.[57] This means separated cycle lanes on major roads where there is space, and separated space for each user on off-road paths. We recommend that this principle be adopted except on the most lightly travelled sections.

7.2.4 Treatment of barriers All access controls to the traffic free cycle path network should be reviewed, and any barriers which deny access to legitimate users, such as the Hob Moor K Frames, removed. A design standard should be established for access controls based on

[56] Department for Transport, *LTN 1/20 Cycle Infrastructure Design*, July 2020, p79
[57] Department for Transport, *LTN 1/20 Cycle Infrastructure Design*, July 2020, Summary Principle 2

bollards 1.5m apart.[58] Where intrusion by motorcyclists is a problem, early enforcement action should be taken.

7.3 Design of junctions and crossings

7.3.1 Traffic Signals Current traffic signalling is often not very cycle-friendly, resulting in unnecessary stops and potential conflicts with motorised traffic. A few junctions have advanced green for cyclists, but this provision could be extended much more widely. Offsets between signals around the city centre should be set to cycling speed as opposed to car speed, providing a green wave for cyclists. Bicycle detectors at signals could be used to provide extended green, so that cyclists arriving just as signals turn amber are not forced into the "amber dilemma" of deciding whether to go and risk a signal violation or to stop and thereby lose momentum. The ideal for more complex junctions is the CYCLOPS design (see Fig 3), as recently installed in Manchester and Newcastle, with separated cycle lanes. It would be worth the Council identifying locations where such layouts could be introduced.

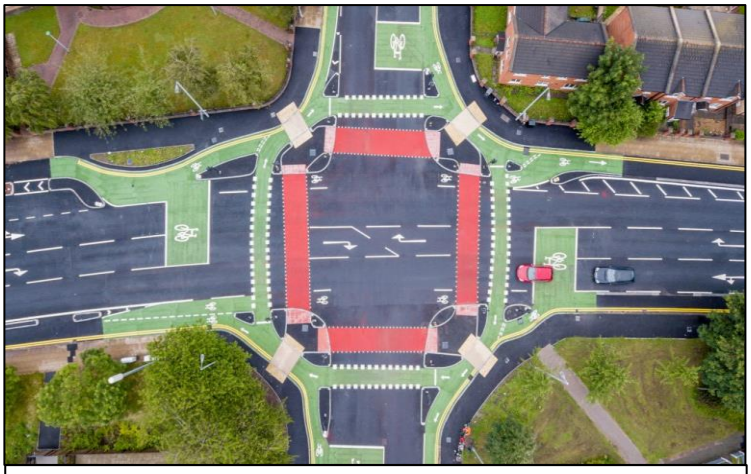

Fig 3: CYCLOPS junction in Manchester (from Brake.org.uk)

7.3.2 Roundabouts Roundabouts such as that on Monkgate create clusters of accidents. We recommend the use of Dutch-style circular priority measures (see Fig 4), and suggest applying them on Monkgate, Heworth Green/Malton Road, Field Lane by Campus East, and Tadcaster Road. If this is not possible, consideration should be given to replacing roundabouts by signalised junctions.

7.3.3. Gyratories Longer gyratories such as that at Fishergate also present hazards, and should where possible be removed, with one arm used instead as a cycle route.

7.3.4 Priority side road crossings Where a protected cycle lane crosses a side road or access road, priority for cyclists should be maintained in line with guidance in LTN 1/20, where multiple examples are given depending on road layout.[59] James St is a particular problem in this regard. Where junctions permit motor vehicles entering the side road to cross a cycle alignment at speed, such as at Clifton Green, the junction needs to be redesigned to require the driver to enter slowly.

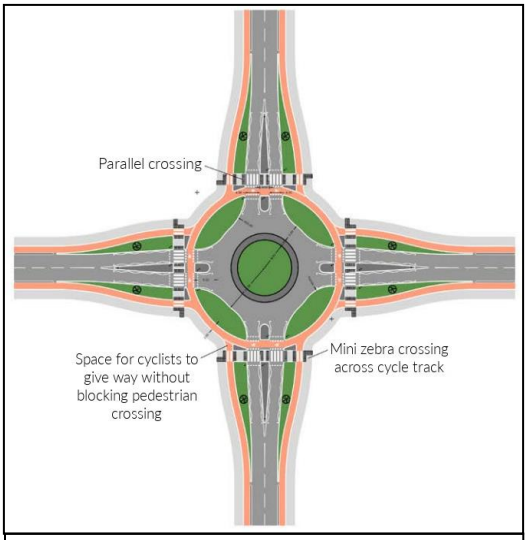

Fig 4: Dutch-style roundabout with one-way cycle tracks and parallel crossings (from LTN 1/20, Fig 10.37, p122)

[58] Department for Transport, *LTN 1/20 Cycle Infrastructure Design*, July 2020, 8.3.5 p86; and Sustrans, *Traffic-Free Routes and Greenways Design Guide*, 9.2.1

[59] Department for Transport, *LTN 1/20 Cycle Infrastructure Design*, July 2020, 10.5 p105

7.3.5 Cycling Zebra crossings Existing zebra crossings where cyclists also cross should be reviewed and converted to shared crossings in which cycle and pedestrian crossing movements are separated out, as on Heslington Lane.

7.3.6 Signs, markings and lighting Signs must be legible, understandable.[60] comprehensive, continuous, clear and consistent.[61] Direction signs should include the "three Ds" of cycle signage: direction, destination, and distance. Additionally they should include the route name, and NCN number if applicable. Carriageway markings need to be maintained so that allocation of road space remains clear to all users, and enforceable. Appropriate lighting is needed, with particular attention to off-road and secluded cycle routes where general-purpose street lighting is not available.

7.4 Provision for different types of cycle

7.4.1 Conventional cycles By "conventional cycles", we mean all human-powered pedal cycles used by the general public. E-bikes may be included in this, although we categorise them separately below. Designs need to provide for different categories of cycle including tricycles, hand cycles, recumbents, semi-trailers, and adaptable cargo trikes with boxes containing child seats, which can also used for shopping (often referred to by the brand name "Christiania trike"). Consideration should also be taken for panniers, baskets, trailers, and other equipment which will allow people to use their cycle as a car replacement. *Gear Change* recommends designing for significant numbers of cyclists, non-standard cycles,[62] and disabled cyclists,[63] who may use adapted cycles and require additional space.

7.4.2 Cargo cycles Three types of cycle are used in York for carrying cargo. Food delivery couriers carry merchandise on their backs, with typical loads of up to 5kg; two wheeled cargo cycles can carry up to 40kg in a basket between the rider and the front wheel; three wheeled cargo cycles can carry up to 200kg in a hold behind the rider. The last two of these are valuable for last mile deliveries, which the Council is proposing to promote for servicing the city centre, and are unlikely to be driven at speed. We recommend that they (but not courier cycles) be permitted to access the wider footstreets during restricted hours.

7.4.3 E-scooters E-scooters can only be ridden legally on public highways in the UK by riders in designated locations, and provided by licensed operators. Riders must have provisional or full licences. TIER has been selected by the city council as sole provider of e-scooters for an experimental period. The costs are £1 to unlock the scooter and 15p per minute. The scooters are 'geo-fenced' to restrict speeds to 3mph maximum in prescribed areas. Elsewhere, the speed limit is 12.5mph and use is restricted to geographic areas. The initial trial was successful, and is being expanded to 700 scooters from March 2021. There is as yet little information on patterns of usage, but evidence from continental Europe suggests that the average journey length is around 15 minutes, and that users have transferred from cars as well as from buses and walking. We recommend that e-scooters continue to be encouraged in York, subject to the current restrictions on speed and on not using footways, but that their pattern of usage is carefully monitored.

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[60] *Gear Change*, principle 10
[61] *Gear Change*, principle 11
[62] *Gear Change*, principle 5
[63] Department for Transport, *LTN 1/20 Cycle Infrastructure Design*, July 2020, 1.4.1 p7

7.4.4 E-cycles E-cycles are increasingly popular, and have the advantage of extending the cyclist's range and abilities. They should enable a cyclist to reach the city centre from any part of York within 30 minutes. TIER are about to launch an e-cycle hire service, using the same pricing structure as for e-scooters. We recommend that the Council actively encourage the use of e-cycles, including cargo cycles, and support them by providing appropriately secure cycle parking where needed. Consideration should be given to the anticipated growth in e-cycling, the extended distances users will be able to travel, and the additional strain this will put on the cycle network. Capacity must be future-proofed to include these greater numbers of people cycling.

7.5 Parking and interchange

7.5.1 Parking standards The Council already has comprehensive standards for cycle parking provision in all new developments. Cycle parking should be high quality, accessible, and secure. It must be accessible to all users, not just standard two-wheeled bikes.[64] LTN1/20 recommends a more limited set of standards,[65] but some are more generous than those in York. We recommend that York's comprehensive cycle standards are revised so that in no case are they less than those recommended in LTN1/20.

7.5.2 Parking for employment and education The council must work with existing employers, state and private schools and universities to ensure that adequate cycle parking is provided on site for employees, visitors, students, and staff. Both short- and long-term parking must be made available, and should conform to the Council's standards. Where possible, larger employers and educational facilities should be encouraged to install showers, lockers, and changing rooms.

7.5.3 Parking for shops and leisure High quality accessible, secure storage and parking should be provided wherever people want to go.[66] It should be accessible to all users, not just standard two-wheeled cycles.[67] A survey should be carried out on the use of existing and cycles parked on street furniture. From this, cycle parking should be provided where there is demand, including the city centre and local shopping centres and facilities. New cycle racks must meet the minimum space and dimension requirements listed in table 11.2 of LTN 1/20, and existing cycle parking at shops and leisure facilities should be upgraded to meet these standards.

7.5.4 Station and interchange parking The railway station currently offers substantial and well-used cycle parking in two formats: Sheffield stands and two-tier racks. The two-tier racks are suitable for space saving but unusable for non-conventional cyclists and many able-bodied riders. Thus Sheffield stands must always be the main provision. Cycle parking at the station is currently of a good standard and well-used but should be expanded and maintained more regularly, and additional spaces for disabled users made available closer to the train platforms. Cycle parking should continue to be undercover, under surveillance, and with easy access to the platforms. A few spaces for short-term parking should also be provided outside the ticket office. We recommend a regular amnesty to remove abandoned cycles from the station, at least annually.

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[64] Wheels for Wellbeing, *A Guide to Inclusive Cycling*, 2020, pp 54-60
[65] Department for Transport, *LTN 1/20 Cycle Infrastructure Design*, July 2020, pp131-139
[66] *Gear Change*, principle 9
[67] Wheels for Wellbeing, *A Guide to Inclusive Cycling*, 2020, pp 54-60

7.6 Recurring commitments

7.6.1 Cycle training The Government continues to fund voluntary cycle training in primary schools to Bikeability Level 2. The Council tops up funding for Level 3 training in secondary schools, which involves more challenging on-road training, and is essential to give both children and their parents confidence that children can ride safely on the road. Evidence shows that if parents do not have the confidence that their children can safely do so, most will not allow their children to cycle to school or any distance from home, and the cycling habit will not be formed. The evidence is very clear that if the cycling habit is not formed at an early age (8+) then it is unlikely to be picked up in later life. Take up of the Level 3 training is however voluntary and not high. It is crucial that the Council continues to fund Bikeability Level 3 training, and looks to increase its take-up significantly, particularly by girls, so as to create new generations of cyclists. The Council should also continue to facilitate its beneficial programme of adult cycle training, including an overview of traffic laws and the Highway Code.

7.6.2 Soft measures Personal and Business Travel Plans involve recording individuals' patterns of movement and presenting them with suggested alternatives. They are widely used to promote sustainable travel, with particular benefit to cycling, as well as achieving reductions of 5% to 15% in car use. They do however need to be sustained, and require revenue funding to support them. York had a major programme as part of the Cycling City Initiative funded by the Local Sustainable Travel Fund, but lack of continuing funding has meant that some of its impacts have been lost. This in turn may explain the decline in cycling in York since 2014, which is out of step with comparator cities. We recommend that the Council seeks revenue funding to support a continued programme, as part of a wider campaign to promote the benefits of cycling, in particular for travel. Other promotional measures, like the York Cycling Festival, or hosting a leg of the Tour de Yorkshire, have been used to promote cycling as a leisure and lifestyle activity, but again need scarce revenue funding, and the benefit and durability may be hard to demonstrate.

7.6.3 Maintenance Maintenance is as important as building the route;[68] surfaces need to be hard, smooth, level, durable, permeable, and safe in all weathers.[69] Uneven and loose surfaces are particularly hazardous for cyclists, and thus surfaces on all marked cycle routes need to be kept in good order at all times. Particular attention is required at intersections, where motorised traffic may damage cycle infrastructure and on open sections of routes where plant growth may encroach over a cycle route, reducing its width and obscuring sightlines. Some routes initially provided by Sustrans are now in poor condition, and we recommend that the Council adopts them and brings them up to standard. Maintenance is also essential for signs and markings; there are far too many locations on the network where advisory lane markings have disappeared, and signs are substandard and pointing in the wrong direction.

8 The proposed policy measures by area

8.1 Network-wide measures

The cycle network needs to be upgraded throughout the city to provide a connected, continuous set of cycle routes, designed to satisfy LTN1/20 standards and to offer resilience so that alternatives are available whenever a section needs to be closed. We recommend that the

[68] *Gear Change*, principle 13

[69] *Gear Change*, principle 14

Strategic Cycle Scheme Prioritisation is updated, to take account of the findings of the Cycling Propensity Tool and reflect the need for connectivity. Throughout the city, cycling needs to be promoted through personal, business and school travel plans, and supported by effective regular maintenance of surfaces, signs and markings.

8.2 City centre

Cyclists should be allowed on at least one north-south and one east-west route through the city centre, using marked advisory cycle lanes. Designated cargo bikes should be allowed to access the wider footstreets throughout the day. Junctions on the inner ring road should be redesigned to give protected priority to cyclists, and the remaining gyratories should where possible be removed, with one arm used instead as a cycle route.

8.3 Inner York

Continuous cycle lanes should be provided on all radial roads, and either made mandatory or lightly segregated. Refuges should be provided to allow cyclists to turn right from these lanes. Orbital cycle traffic should be provided where necessary by the implementation of Low Traffic Neighbourhoods. All barriers should be removed from off-road cycle paths, and replaced by appropriately designed bollards and chicanes.

8.4 Outer York

Similar provision is needed in outer York, together with subways with effective sightlines to allow cyclists to cross the outer ring road. Particular attention needs to be paid to Woodthorpe, Clifton Without and Huntington, all of which generate short distance car journeys which could readily be transferred to cycling.

8.5 The villages

We agree with the LCWIP Scoping Study that greater emphasis needs to be given to access from York's villages. All settlements of any size should have a direct cycle route, designed to LTN1/20 standards. Priority should in principle be given to Bishopthorpe and Copmanthorpe, both of which generate high levels of short distance car journeys. However, both have better provision than many other villages, and a review of reasons for their limited take-up might help better understand the needs of other villages.

9 The implications for each user type

Cycle facilities need to be designed to meet the needs of all users, for all types of cycle and for all purposes. In particular they should ensure that younger children, families and the elderly feel safe when cycling, and should encourage women to cycle as much as men currently do. At the same time children and adults who are insecure cyclists need continued support in the form of Bikeability training at school, and courses and peer support for adults. It is important to bear in mind that cycling is an important provider of accessibility for disabled people; 64% of disabled cyclists find cycling easier than walking.[70] Continued action is thus needed to ensure that disabled cyclists are fully provided for by permitting access to areas where cyclists are otherwise restricted, and by ensuring that appropriately designed and located cycle parking is provided.

[70] Wheels For Wellbeing, *Annual Survey of Disabled Cyclists*, 2019-2020

10 The barriers to be overcome, and ways of doing so

10.1 Political acceptability

Increases in cycling which are achieved through a hearts and minds approach should by definition be acceptable to those who switch to cycling, and thus welcomed more widely. However, measures which promote cycling by reallocating road space can be unpopular, and politicians may be reluctant to implement them. It is thus essential that the need for them is made clear, by stressing the objectives which they are designed to achieve. In designing them, the equity impacts need to be identified and addressed, preferably by providing alternatives for other road users.

10.2 Public acceptability

Public acceptability is influenced, as discussed above, by the types of measure adopted and the way that they are designed and justified, and how the public are involved in their design. But the other important consideration is the willingness of those who do not currently cycle to choose to do so. Increases in the numbers of cyclists and in the frequency with which they cycle will be critical if the strategy is to be successful, and the Council therefore needs to continue monitoring attitudes to cycling, and to publicise its benefits. We propose using Sustrans' Bike Life survey as a basis for this.

10.3 Governance

All of the measures considered in this report are within the purview of the Council, and there should thus be no governance-related barriers. This may however change if the structure of local government is amended. It will thus be important to agree on the policies to be adopted before such changes occur.

10.4 Skills and professional commitment

We are conscious that design, implementation and promotion of cycling measures are staff-intensive, and that the Council has been dependent on a very small team of experts, and on more expensive consultancy. We are pleased to hear that the active travel team is being expanded, and suggest that the Council should be prepared to expand the team further to reflect the importance of active travel.

10.5 Finance

Most of the measures considered in this report are inexpensive to implement. However, they are typically dependent on revenue funding, which is less readily available from government. Given the cost-effectiveness of these measures, the Council needs to specify and support a revenue budget sufficient to enable the programme to be funded. Finance for cycling measures linked to new development can sometimes be obtained by negotiation through Section 106 and Section 278 Agreements issued with planning permission. Given the planned number of new developments, these will be an important source of funding, and the Council needs to ensure that its Local Plan and development control team facilitate such legal agreements.

10.6 Enforcement

Enforcement is critical in ensuring that cycle routes are kept clear of other vehicles and that drivers do not intimidate cyclists or put their safety at risk. Where possible they should be designed to be self-enforcing by physically separating cyclists from other vehicles. The government is legislating to make most moving vehicle offences civil offences which can be enforced by Council staff. The Council needs to take steps to benefit from this change, and

ensure that an appropriate level of enforcement staffing is provided. Such staffing should be self-financing if revenue from fines accrues to the Council.

11 The implications for, and requirements of, other strategy elements

11.1 Reducing travel

The strategy for reducing travel is designed in the main to reduce car use and journey lengths, and should not reduce the demand for cycling. If successful, it should make it easier to reallocate road space to cycling.

11.2 Managing car use

The strategy for managing car use should reduce car use and thus make it easier to reallocate road space to cycling. By influencing the types of car used, it may also reduce the intimidation felt by cyclists. The strategies for cycling and managing car use need to be designed to complement one another, since each facilitates the other in achieving modal change.

11.3 Public transport

Public transport is to some extent an alternative to cycling, and care is needed to avoid duplication of effort in attempting to attract users from cars and to provide enhanced access. Buses can be intimidating to cyclists, and it is therefore important that they are separated in congested road space and particularly in the vicinity of bus stops. To a limited extent public transport and cycling can complement one another by using cycling to extend coverage. This can be reinforced by providing effective cycle parking at interchanges, and by allowing cycles on buses and trains.

11.4 Walking

Walking and cycling are alternatives for shorter journeys, but in the main they need to be designed to complement one another. In particular, as stressed in LTN1/20, they need to be kept separate on footways and in road space, except where flows of either are low.

11.5 Managing the road network

Most of the measures which we recommend for cycling involve reallocating road space. They are thus dependent on the way in which the road network is managed. To support cycling, the strategy for road network management needs to reduce traffic flows, separate cyclists from other vehicle flows, and remove parking from cycle routes. There is no evidence to show 20mph zones have a statistically significant positive impact on the actual or perceived safety of cyclists, and so we do not recommend that these be installed without additional measures.

11.6 Improving freight

Lorries and vans can be intimidating for cyclists, and are more than proportionally involved in cyclist casualties. While the road network management strategy will focus on separating cyclists from moving commercial vehicles, the freight strategy needs to address the need to protect cyclists from left-turning lorries and from loading and unloading activity. At the same time, cargo bikes offer a freight service, particularly close to the city centre, and the freight strategy needs to facilitate this.