

# TACTRAN Walking and Cycling Strategy

## Best Practice Review

**June 2008**

### Notice

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# 1. Introduction

## Background

- 1.1 Atkins was commissioned by TACTRAN, the Regional Transport Partnership (RTP) covering the Angus, Dundee City, Stirling, Perth and Kinross council areas, to prepare a Walking and Cycling Strategy.
- 1.2 The final strategy will draw on a Best Practice Review of facilities on a national scale, and a selective review of existing provision within the partner Council areas.
- 1.3 This document forms the Best Practice Review, the findings of which will be selectively incorporated into the draft Walking and Cycling Strategy. This will be presented at a Stakeholder workshop, allowing interested parties the opportunity to comment on its content.
- 1.4 This document outlines a summary of census data relating to the study including travel to work methods, as well as measures which have been implemented to encourage walking and cycling. This document, along with an audit of exiting walking and cycling provision and consultation in association with a number of key stakeholders, will be used to development the final walking and cycling strategy for TACTRAN.

## Structure of report

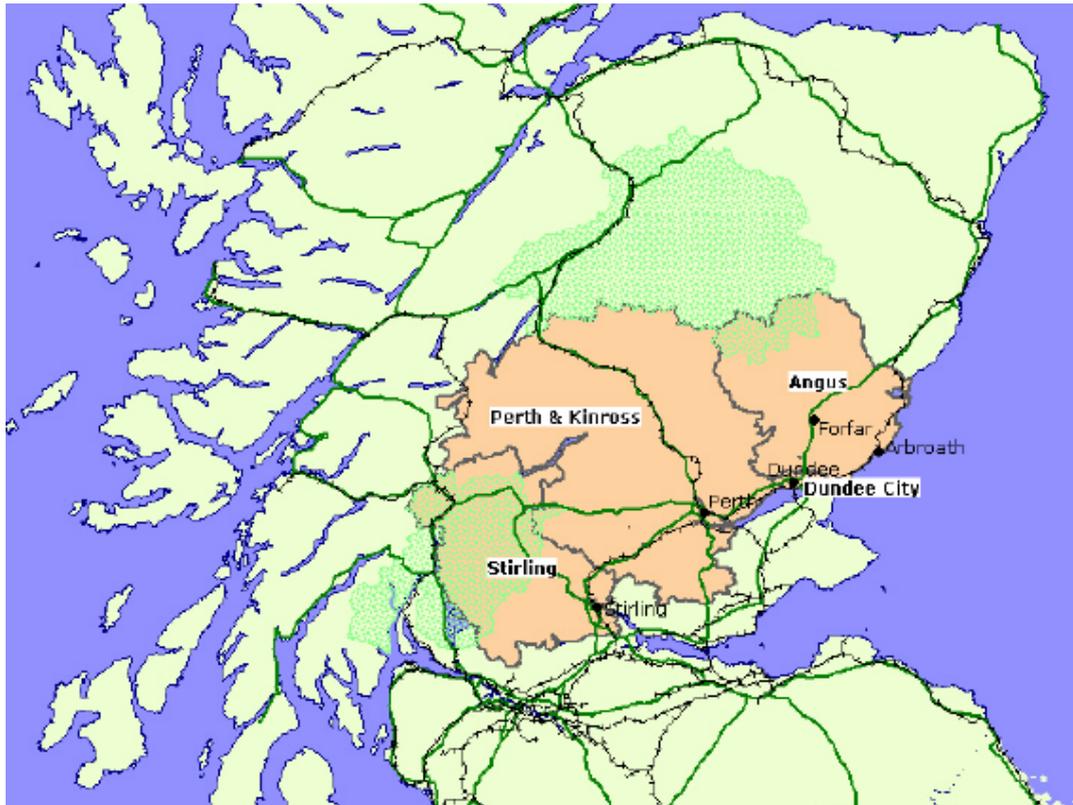
- 1.5 Following this introduction this document is structured as follows:
  - **Chapter 2** defines the study area and presents a summary of background demographic and socio-economic characteristics;
  - **Chapter 3** presents a summary of consultation from the selected council areas outside the TACTRAN area;
  - **Chapter 4** presents a literature review of good practice; and
  - **Chapter 5** summarises the good practice relevant to the TACTRAN area.

## 2. The Study Area

### Overview

- 2.1 TACTRAN is one of seven Regional Transport Partnerships in Scotland. The TACTRAN area is largely rural in nature but with several thriving and prosperous cities and large towns, as well as a range of smaller town and villages.
- 2.2 The TACTRAN study area is shown in Figure 2.1.

Figure 2.1 – The TACTRAN Area<sup>1</sup>



- 2.3 The remainder of this chapter provides background information on the study area.

### Angus

- 2.4 The Council area borders onto Aberdeenshire, Perth and Kinross and the City of Dundee. Its main industries include agriculture and fishing. The region can be split into three geographic areas. To the north and west, the topography is mountainous, containing the five Angus Glens. This area is sparsely populated and the main industry is hill-farming. In the south and east, the topography consists of rolling hills bordering the sea. The coastal area is relatively heavily populated, containing the larger towns of Arbroath and Forfar.

### Dundee City

- 2.5 Dundee is the fourth-largest city in Scotland and is located on the north bank of the Firth of Tay and near the North Sea. Dundee lies close to Perth (20 miles) and the southern Highlands to the west. St Andrews (14 miles) and north-east Fife are situated to the south, while the Sidlaw Hills, Angus Glens and the Glamis Castle are located to the north.

<sup>1</sup> TACTRAN Regional Transport Strategy, January 2007

- 2.6 Biomedical and technological industries have arrived since the 1980s, and the city now accounts for 10% of the United Kingdom's digital-entertainment industry. Dundee has two universities—the University of Dundee and the University of Abertay Dundee.

### Perth and Kinross

- 2.7 Perth & Kinross borders onto the Aberdeenshire, Angus, City of Dundee, Fife, Clackmannanshire, Stirling, Argyll and Bute and Highland council areas. Perthshire and Kinross-shire had a joint county council from 1929 until 1975. The area was created a single district in 1975, with Perth as the administrative centre.
- 2.8 Perth and Kinross Council Area is the fifth largest geographically in Scotland, with numerous towns and villages. The Council Area is divided into five areas – Eastern, Kinross, Highland, Perth and Strathearn.

### Stirling

- 2.9 The administrative centre of the region is the City of Stirling itself. The region borders Clackmannanshire, Falkirk, Perth and Kinross, Argyll and Bute and both East and West Dunbartonshire. The majority of the population of the region is located in its southeast corner, in the city of Stirling and in the surrounding lowland communities: Dunblane and Bridge of Allan to the north, Bannockburn to the immediate south, and the three former coal mining communities of Cowie, Fallin, and Plean.
- 2.10 The rural, mainly highland, expanse in the north of the region is sparsely populated. The southern half of this rural area comprises the flat western floodplain of the River Forth, bounded on the south by the Touch Hills and the Campsie Fells. North of the glen lie the Trossachs Mountains, and the northern half of the region is generally mountainous in character.

### Population

- 2.11 Table 2.1 summarises the total population in each of the TACTRAN council areas, according to 2001 Census Information<sup>2</sup>. The Scottish total is included for comparison.

**Table 2.1 - Summary of Population in the TACTRAN Area (Scottish Census 2001)**

Area	Population	Area (hectares)	Population Density (persons / hectare)
Angus	108,400	218,178	0.5
Dundee City	145,663	5,983	24.35
Perth & Kinross	134,949	528,581	0.26
Stirling	86,212	218,735	0.39
<b>Study Area Total</b>	<b>475,224</b>	<b>971,447</b>	<b>0.49</b>
<b>Scotland Total</b>	<b>5,062,011</b>	<b>7,792,452</b>	<b>0.65</b>

- 2.12 As can be seen in Table 2.1, population density varies considerably through the study area. The overall population density of TACTRAN is approximately 0.49 persons per hectare which is lower than the national average of 0.65 persons per hectare. Within TACTRAN, Dundee City has the highest population density; indeed it is second only to Glasgow City within Scotland. The remaining study areas have low population densities, all under one person per hectare.
- 2.13 Population in Scotland has been gradually increasing over the last 15 years. Census statistics show a 1.27% national increase in Scotland between 1991 and 2001. Table 2.2 shows changes in population in the study area between 1991 and 2001.

<sup>2</sup> <http://www.scrol.gov.uk/scrol/analyser/>

Table 2.2 - Change in population levels between 1991 and 2001 (Scottish Census 2001)

Area	1991 Population	2001 Population	Change in Population (%)
Angus	107,866	108,400	+ 0.5%
Dundee City	149,751	145,663	- 2.7%
Perth & Kinross	126,231	134,949	+ 6.9%
Stirling	78,833	86,212	+ 9.4%
<b>Study Area Total (TACTRAN)</b>	<b>462,681</b>	<b>475,224</b>	<b>+ 2.7%</b>
<b>Scotland (incl. TACTRAN)</b>	<b>4,998,567</b>	<b>5,062,011</b>	<b>+1.27%</b>

- 2.14 The figures show that the population of Dundee declined between 1991 and 2001, whilst there was an increase in population in the rest of the TACTRAN area, and throughout Scotland as a whole.

## Employment

- 2.15 Table 2.3 outlines estimates of employment levels in the study area by council area, according to the 2001 Census Information. As a means of comparison, the employment levels are also shown for Scotland.

Table 2.3 - Summary of 2001 employment levels in the Study Area (Scottish Census 2001)

Area	Persons in Employment	Full-time Students	% of total population
Angus	48,090	2,103	63.5%
Dundee City	53,978	5,200	54.7%
Perth & Kinross	61,160	2,387	65%
Stirling	36,784	2,707	62.1%
<b>Study Area Total (TACTRAN)</b>	<b>200,012</b>	<b>12,397</b>	<b>60.9%</b>
<b>Scotland (incl. TACTRAN)</b>	<b>2,162,906</b>	<b>113,052</b>	<b>61%</b>

- 2.16 As can be seen in Table 2.3, employment levels vary by over 10% between the partner council areas. The aggregated employment level for the TACTRAN area as a whole is almost exactly in line with the national average.
- 2.17 It is worth noting that the council areas within TACTRAN, with the exception of Dundee City, have above average employment levels for Scotland.

## Car Ownership

- 2.18 Levels of car availability and use are key factors in the popularity of sustainable modes of transport. Table 2.4 summarises car ownership levels in the council areas within the study area.

Table 2.4 - Car Ownership levels in the Study Area ((Scottish Census 2001)

Area	% of households with no car / van	% of households with one car / van	% of households with more than one car / van
Angus	26.43%	46.67%	27.11%
Dundee City	45.52%	40.65%	13.83%
Perth & Kinross	23.67%	46.06%	30.28%
Stirling	24.39%	43.21%	32.4%
<b>Subtotal (TACTRAN)</b>	<b>30%</b>	<b>44.15%</b>	<b>25.9%</b>
<b>Scotland Total</b>	<b>34.23%</b>	<b>43.35%</b>	<b>22.42%</b>

- 2.19 Table 2.4 illustrates the very significant variation in car ownership that exists in the study area between Dundee and the three other council areas. The average level of household car ownership across the TACTRAN area is approximately 70.5%, compared to the national figure of 65.8%. Angus, Perth and Kinross and Stirling have car ownership levels above the national average.
- 2.20 Table 2.4 shows that Dundee has a significantly lower level of car ownership than the other three TACTRAN council areas. This can be attributed to any number of reasons but the main reasons for this are likely to be the densely populated nature of Dundee City compared to the rest of the region, its high student content and employment/ income levels.
- 2.21 These statistics indicate that a fair proportion of TACTRAN's population still rely on non-car modes of transport, whilst also demonstrating the potential for car ownership growth in the study area.

## Deprivation

- 2.22 The Scottish Index of Multiple Deprivation (SIMD)<sup>3</sup> combines Current Income, Employment, Health, Education, Geographic Access to Services and Housing, and Crime statistics to create an overall ranking. Glasgow which has a SIMD rank of 1 (out of 32) indicates the most deprived council area in Scotland. Dundee has a rank of 3, Stirling ranked 21st, Angus ranked 23rd and Perth and Kinross ranked 28th.
- 2.23 This tells us that with the exception of Dundee City the authorities in the TACTRAN area are undeprived in relation to the rest of Scotland. This is linked closely to the level of car ownership discussed previously.

## Personal Travel in the Study Area

- 2.24 Understanding where, why and how people travel will be fundamental to establishing demand, potential and realised, for walking and cycling provision. This section looks at existing travel patterns and characteristics in the study area.
- 2.25 The 2001 Census was interrogated for information on current travel habits in the study area. Table 2.5 summarises the journey to work characteristics of each of the four council areas, including the percentage of trips to work undertaken by bicycle and on foot.

<sup>3</sup> <http://www.scotland.gov.uk/News/Releases/2006/10/17104536>

Table 2.5 - Journey to Work Trips in the TACTRAN area (Scottish Census 2001)

Area	All people aged 16-74 in employment or studying	Bicycle %	Cycling Rank (/32)	On foot %	Walking Rank (/32)	Total % travelling by sustainable modes	Average distance (km) travelled to place of work or study by all modes
Angus	54,173	2.32	4	15.95	12	18.27	15.36
Dundee City	70,277	1.18	16	21.38	1	22.56	7.59
Perth & Kinross	68,258	1.07	19	16.38	9	17.45	16.38
Stirling	44,494	1.26	14	14.71	13	15.96	15.45
<b>Scotland</b>	<b>2,510,494</b>	<b>1.44</b>	<b>-</b>	<b>14.07</b>	<b>-</b>	<b>15.51</b>	<b>12.58</b>

- 2.26 Table 2.5 shows that the walking and cycling make up a higher proportion of journey to work trips in Dundee than in the other TACTRAN areas. Furthermore, the average distance travelled to work in Dundee City is approximately half that of the other council areas. This is likely to be a reflection of the fact that Dundee is the most densely populated of the four council areas; hence a large number of trips will be relatively short and local in nature.

### Cycling

- 2.27 Three of the TACTRAN member councils – Dundee, Perth & Kinross and Stirling - have a lower than average percentage of people who cycle to work. However, in Angus council 2.32% of people in Angus cycle to work, which is well above the national average. This would appear to indicate that certain conditions exist within the council area that are conducive to cycling.

### Walking

- 2.28 The percentages of those who walk to work within the four TACTRAN areas are all above the Scottish average.
- 2.29 The area of Dundee City is ranked first for walking as a mode of transport to work within Scotland. This is likely to be due to the compact nature of the Council area, and the proximity of local employers to residential areas.
- 2.30 Table 2.5 shows 22.56% of those living in Dundee travel to work using sustainable modes which compares with the national average of 15.51%. All of the TACTRAN areas have higher than average totals for travel to work by sustainable modes.

## 3. Consultation

### Overview

- 3.1 Consultation was undertaken with five Scottish councils outside the TACTRAN study area with a view to establishing proven examples of good practice. These councils were chosen as they were identified as having a high modal split in favour of walking and cycling. The consulted councils are listed below. They are presented from highest to lowest in terms of cycling and walking levels, based on the 2001 Travel to Work Scottish Census data.
- 3.2 The five council areas are:
- Aberdeen City;
  - City of Edinburgh;
  - Highland;
  - Moray; and
  - Scottish Borders.
- 3.3 A suitable representative from each of these authorities was contacted by email with a list of general and specific questions relating to the high level of walking and cycling within their respective areas. These questions were designed such that they prompted the consultees to discuss the means, real or perceived, by which this high modal split was achieved.
- 3.4 The following section summarises the responses received from each Council.

### Aberdeen City

- 3.5 Good practice initiatives within Aberdeen were encouraged by the SCOTS group (Society of Chief Officers of Transportation in Scotland); these have included the implementation of 20 mph zones throughout the city and the development of drop off areas with safe footways giving access to schools. The budget for the infrastructure at schools has come from the Scottish Governments Cycling, Walking and Safer Streets projects.
- 3.6 Within the city, pedestrian phasing times have been changed to allow more time to cross at Union Street which has subsequently seen a reduction in accidents.
- 3.7 A pedestrianised scheme has been completed in the city centre, and there is further potential to pedestrianise half of Union Street, a mile long shopping street. One finding from the introduction of pedestrianised areas is that loading vehicles have to be carefully controlled to retain the original purpose of restricting motorised access.
- 3.8 Cyclists in Aberdeen can make use of dedicated on-road paths which include shared use bus lanes as well as strategic off-road routes. Cycle parking has also been provided at all major shopping centres.
- 3.9 There are no home zones implemented in the Aberdeen area.

### City of Edinburgh

- 3.10 The high density of residential housing both in and around Edinburgh City Centre, combined with the large amount of employment in the city centre influences people to walk to work. In addition, Edinburgh is an attractive city which provides a pleasant walking environment. The Council has been working to reinforce these advantages by providing improved pedestrian facilities and environments. Within the Local Transport Strategy 2006 the use of guardrails on streets was deemed unsightly. Their use has not been prohibited but is now restricted to locations considered strictly necessary from a safety point of view.

- 3.11 It is hoped that providing improved pedestrian priority within Edinburgh, including pedestrian phases at junctions and crossings will encourage people to leave their cars and begin to walk around the city.
- 3.12 Schools in Edinburgh are encouraged to undertake school travel plans using their own resources, and this is supported and coordinated by CEC's 'School Travel Coordinators' who were funded by the Scottish Executive/Government (through Sustrans). However, funding has now been included in the general funds given to councils, and it is up to each authority to determine whether to continue to fund these posts. Improvements to routes around schools and the provision of parking, bike clubs and maintenance can be paid for by a separate Scottish Government fund, 'Safer Routes to School' and this money will tend to be prioritised to schools which have a travel plan in place and can justify the expenditure.
- 3.13 Census Data 2001 shows that 56% students walk to school within the Edinburgh City Council area. The main tools to encourage walking to schools are school travel plans. Schools adopting Travel Plans can choose from a variety of measures depending on their own preferences. These have included walking buses at six schools, promotion through 'walk to school days' and providing information on designated 'safe routes'. Incentives have also been provided, for example, rewarding children who walk to school with extra 'house points'.
- 3.14 A high-quality and modern tram network is scheduled to be running in Edinburgh by 2011. The tram implementation is expected to increase pedestrian numbers in the vicinity of the stops. The project will also include the improvement of the streetscape in which the tram runs which is expected to increase the level of pedestrian street activity.
- 3.15 Edinburgh is considered to enjoy a well maintained cycling infrastructure. There is a large network of off-road paths, predominantly former rail lines - the North Edinburgh Path Network, Innocent Railway Cycle path and Water of Leith Walkway. Additionally the Union Canal and Silverknowes Esplanade are cycling routes. The shared use paths across the Meadows and Bruntsfield Links also provide good quality routes, and low traffic speeds and the large number of on-road facilities in the city centre encourage cycling.
- 3.16 Cycling figures doubled in Edinburgh over the period of 1991 to 2001. It is thought this increase is due to physical measures; predominantly the provision of on-road facilities in the city. On road facilities include coloured advisory cycle lanes and advanced stop lines at most signalised junctions. Some additions were also made to the existing off-road network. Some Toucan crossings were also introduced in this period. It is thought that there were not any specific soft measures influencing this increase in cycling, more a general upward trend in its popularity.
- 3.17 The greenways for buses in Edinburgh were influenced by London's 'red routes'. These provide a form of facility for cyclists. The cycle lanes and advanced stop lines were standard tools suggested in guidance such as Cycling by Design.
- 3.18 Edinburgh City Council advised that the cycle parking adjacent to the new tram stops in the city will be included in the costs of the tram construction project in Edinburgh. Network Rail funds the cycle parking at Waverley station. There is no cycle parking at Haymarket station but Edinburgh council has funded cycle parking adjacent to it. Cycle parking at Edinburgh Park was included in the construction of the station which was funded by Transport Scotland. Cycle parking at Brunstane and Newcraighall has been provided by Scotrail. Council offices have mixed cycling facilities but the headquarters have cycle storage for 80 bicycles and shower facilities.
- 3.19 It is unclear what effect the introduction of the tram system will have on cycling in Edinburgh. The incorporation of the tram system will remove some on-road cycling facilities but there may be other aspects of the project which help to increase cycle use. It is expected that there will be some access of the tram by cyclists who would provide a small increase itself.
- 3.20 Travel plans have been implemented by a number of employers in Edinburgh ranging from large offices to supermarkets. Usually these have been implemented as part of planning conditions to develop a site and City of Edinburgh Council has not been involved in funding these.

- 3.21 The introduction of home zones in Edinburgh has been researched, but the costs associated with these projects, including community buy-in and construction, meant that they were deemed to be uneconomical. Instead 20mph zones have been implemented across residential areas in the city.

## Highland

- 3.22 It was found that 2.88% of those living within the Highland Council area cycle to work (2001 Scotland Census). The Highland Council believe the perceived safety of routes, the provision of cycle facilities at start and end points, and the location of employment influence those to cycle to work. There is also a feeling that there is a lack of sufficient public transport arrangements in the council area, which often make it easier to cycle.
- 3.23 It is also thought that a lot of people within Highland area enjoy the outdoors and like to keep physically fit. The roads in this region are quieter in comparison to other parts of the UK. In certain parts of the area there are good cycle paths and networks including National Cycle Network (NCN) Route 7. Inverness has one of highest shares of modal split for cyclists. This is influenced by on and off road cycle facilities, relative flatness of urban area and drier climate.
- 3.24 There are various initiatives that have been introduced through the through the Safer Routes to Schools Scheme. These include 'Go for It', a walking and cycling incentive scheme and the production of travel plans for schools, used to encourage cycling in the Highland area.
- 3.25 The Highland Council Area has 213 schools, where 101 have completed travel plans and 32 schools are in working progress. The school travel modal split for walking and cycling from 2006 to 2007 within Highland has increased from 41% to 45%.
- 3.26 The Highland Council are currently undertaking workplace travel plans.

## Moray

- 3.27 It is thought that geography and weather have a key role to play in Moray's higher than average rates of cycling for both work and leisure. It is thought the RAF air bases at Lossiemouth and Kinloss contribute to the modal figures as average income is lower here than other areas in Moray, contributing to bike use.
- 3.28 Within the Moray area there are a number of key cycling corridors including along the coastal region north of the A96. Within this area the landscape is mainly low and flat with a number of minor roads that have been included as part of the NCN Route 1. Other 'spur' routes at Forres and Elgin have utilised the easy cycling topology. With regard to soft measures, Moray Council have publicised a number of 'local routes' to complement the National Cycle Network as well as raising awareness through events such as bike week.
- 3.29 Safe Routes to Schools was introduced in Moray several years ago and those schools involved have increased levels of active travel. The figure of 3% of children in Moray cycling to school is three times higher than the national average. Most recent figures for cycling in Moray will be almost double this - in line with the 5% cycling of the total population of Moray. Nationally cycling to school has remained low against a rise in motorised journeys (both bus and car). This is something that has had an impact in Moray as in the rest of Scotland. Moray council are hopeful that the trend back towards more active travel is now underway and would expect to see this reflected in more recent census figures.

## Scottish Borders

- 3.30 There is a historical significance associated with a relatively high proportion of walking trips in the Scottish Borders. This is due to the fact that the Borders had a large number of textile manufacturing mills located mainly in the centre of towns and villages and therefore the majority of people walked to work. This figure has reduced as employees of these traditional local industries have been replaced by commuters, particularly those travelling to Edinburgh. The council aims to try and increase walking related trips wherever it is possible to do so, and has a school travel co-ordinator.

- 3.31 The Scottish Borders council is considering improving pedestrian priority in a number of town centres within the Borders. There are pedestrian phases on signals; there are a number of pelican crossings and zebra crossings in the area and one toucan crossing in Hawick town. The zebra crossings have been criticised and the council state it is unlikely that any other zebra crossings will be introduced.
- 3.32 The Scottish Borders Council has a programme to improve existing pedestrian infrastructure and has undertaken some feasibility work to provide new links between settlements. When a new development is proposed the Scottish Borders Council try and develop new pedestrian infrastructure through developer contributions.
- 3.33 Within the Scottish Borders area shared use pedestrian and cyclist infrastructure has been recently constructed and there are proposals for a number of new shared access links in the area. The Council requires a travel plan to be produced for new developments on a larger scale. Recent examples include, Tesco, Asda, M&S and Next in the Galashiels area which incorporate walking into the local and existing networks.
- 3.34 There are no home zones implemented in the Scottish Borders area.

## 4. Literature Review

### Overview

- 4.1 This chapter outlines elements of good practice gleaned from published strategies and guidelines available in the public domain. The various strategies are discussed in more detail in other documents in the Walking and Cycling Strategy itself.

### Scotland's National Transport Strategy (NTS)

- 4.2 The [NTS](#) recognises that by investing in better infrastructure links between community facilities and transport hubs, cycling and walking can be developed as realistic alternatives to using the car.
- 4.3 It identifies a wide variety of tools available and committed enhancements to cut car use and make walking and cycling more attractive and safe.

### 20mph Zones

- 4.4 Local authorities within Scotland have the power to introduce a range of 20 mph schemes, including mandatory and advisory speed limits, with or without engineering measures (traffic calming) at suitable locations. These may operate only at certain periods. Part-time 20 mph speed limits may be particularly appropriate outside schools, operating at times when children are going to and from school.
- 4.5 The strategy states that in areas where 20 mph zones with traffic calming measures have been introduced, injury accidents have fallen by 60%, child pedestrian accidents by 70% and child cyclist accidents by 48%. £10 million will be invested during 2007 and 2008 to develop innovative and sustainable ways of getting to and from school. This will be achieved by improving access, building more walking and cycling paths, and introducing more 20 mph zones and vehicle free zones. 'Walking buses' and 'walk once a week' initiatives will be encouraged through school travel plan co-ordinators, who will also develop travel plans for each school.

### Walking Buses

- 4.6 The Scottish Government provided guidance on [Safer Routes to School](#) in 1999, identifying opportunities to consider the setting up of walking buses. It identifies one of the main criteria for success as the commitment of school staff and the local school community to the initiative.
- 4.7 Initiating a walking bus involves:
- developing a designated route for pupils to walk to school;
  - agreeing a timetable for pick up/drop off points;
  - appointing a "driver" and "conductor" to each bus;
  - carrying out Disclosure (Scotland) checks on all volunteers; and
  - volunteers and pupils to wear high visibility waistcoats.
- 4.8 The benefits of a walking bus include:
- exercise can help to improve children's health;
  - the environment around schools can be improved because of less traffic;
  - for many children it is their first opportunity to travel independently and an important part of personal and social development; and
  - children learn efficient travel habits.

- 4.9 Each bus must have two adults supervising - one (driver) at the front, the other (conductor), at the rear. The agreed Adult: Pupil ratio is 1:10. If more parents wish to be involved than necessary, a rota will be required.
- 4.10 In order to facilitate the supervision of pupils and involve the older pupils, a "buddy" system is suggested whereby a P6/P7 pupil will be partnered with an infant.
- 4.11 An officer from the Physical Resources Team will carry out a risk assessment of the route, with input from the local Police Road Safety Officer. High visibility waistcoats should be provided for the pupils and volunteers taking part and must be worn. A mobile phone is also provided.
- 4.12 Generally the Council's insurance should cover the walking bus as long as all necessary steps have been taken such as risk assessments, criminal record checks etc.
- 4.13 Official consent forms will normally be issued at a meeting for parents. Training of volunteers should be undertaken by the School Travel Co-coordinator/Road Safety Officer once they have been Disclosure (Scotland) checked by Education Staffing Section. Training will involve walking the route with the volunteers and explaining what will be required of them with regard to supervising the children. The route will also be walked with the children advising how they will be expected to behave.

#### Walk Once a Week Initiatives

- 4.14 [Walk Once a Week](#) (WOW) is an initiative to tackle the school run, aiming to encourage pupils to walk to school at least once a week. The Scottish Borders have ten pilot schemes underway where local resources have been developed to help schools promote the scheme and participating pupils will receive staged 'rewards'.
- 4.15 The aim of the initiative is to encourage more pupils, parents and teachers to regularly walk or cycle the journey to and from school. The initiative is supported by classroom posters and a daily wall chart which enables pupils to record, monitor and reflect on how they travel to and from school. Pupils who regularly walk or cycle to school are then rewarded for their participation with the presentation of a WOW certificate.

#### Safer Routes to School projects

- 4.16 [Safer Routes to School](#) (SRS) projects need pupil, parents, teachers and governors involvement. The Sustrans website offers advice on how to make children's journeys to school safe and healthy and more fun. It is found that children who walk or cycle to school arrive more alert and ready to work and enjoy a greater sense of independence. They also learn about road safety.
- 4.17 As part of its 'Tackling the School Run' project, the Scottish Government has funded a DVD to inspire more active school travel to help primary school pupils and staff take active school travel a step further. It looks at how barriers to active school travel can be safely overcome by developing a School Travel Plan.
- 4.18 Sustrans' Scotland has received a major funding boost for its School Travel team with an award of £5m from the Scottish Executive's Transport Group under the 'Tackling the School Run' project. The funding will be split into £1.4M for measures such as cycle parking and promotion, with £2m going for measures such as creating links between communities and schools that have been proposed by partner organisations.
- 4.19 SRS projects<sup>4</sup> can also link into the Scottish curriculum in a wide variety of ways, using school travel plans and sustainable travel as a topic to deliver the curriculum. There are a number of case studies on the Sustrans website including Dunbarney Primary School and Muthill Primary School in Perth and Kinross.

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<sup>4</sup> <http://www.sustrans.co.uk/default.asp?sID=1094226578046>

### Children's Traffic Club

- 4.20 [The Children's Traffic Club in Scotland](#) (CTCS) based in Edinburgh was launched in 1995 in order to help reduce the large number of children injured on Scotland's roads every year (The Club was developed to help parents teach their young children how to stay safe when they are out walking, playing or traveling. Membership of the Club is free to all three year olds resident in Scotland with approximately 27,000 new members per year.
- 4.21 Invitations to join the club are sent out by Health Boards to all children approaching their third birthday or shortly after. On registration, children receive six CTCS books, each containing pictures, stories and activities to help children learn to stay safe. Also all nurseries and playgroups in Scotland receive a free Traffic Club Nursery and Playgroup Pack, paid by the Scottish Executive and is available through local Road Safety Officers.
- 4.22 The vision for the Scottish Executive includes delivering carbon savings. There is a desire to increase the proportion of short journeys made on foot and on bicycles which reduces carbon emissions, improves air quality, reduces congestion and contributes to health improvements. It is proposed progress can be measured through average distance walked and cycled per person per year.
- 4.23 Another method suggested for reducing emissions is actively promoting SMART measures such as travel plans to encourage more sustainable travel. To maximise the benefits of SMART measures they must be part of a wider strategy encouraging travellers to change their travel behaviours and use alternative sustainable modes of travel, raising awareness about the need to travel including travel plans, travel awareness campaigns, travel to school campaigns, cycling and walking and car free housing zones.
- 4.24 Another method is promoting walking and cycling as sustainable forms of transport especially for short journeys. The Scottish Government has provided funding to:
- [Cycling Scotland](#) to develop cycling strategies as part of their Local Transport Strategies;
  - Local authorities for developing cycling projects Cycling, Walking and Safer Streets allocations and School Travel Plan Co-ordinator posts; and
  - [Sustrans](#) to develop the National Cycle Network and improve links to schools, hospitals and other services within the community.
- Funding and promotion for walking and cycling will increase focusing on safety, quality and location of routes, secure and practicable facilities at departure and destination points including tenement blocks, transport hubs, public buildings, shopping centres and the carriage of bicycles on public transport.
- 4.25 In addition to the existing programme the government will:
- Support local awareness campaigns highlighting the benefits of cycling targeted at school children at term times;
  - Work with Cycling Scotland with the possibility of running cycle training in playgrounds for every child under 10 and on road training for every child over 10;
  - Encourage all public bodies to become a [Cycle Friendly Employer](#) by 2008;
  - Support Sustrans to complete the National Cycle Network in Scotland and promote the full network on the [Visit Scotland](#) website;
  - Fund Cycling Scotland to develop and manage Scotland's [Bike It Week](#) programme; and
  - Encourage local authorities to undertake street audits to promote walking for shorter journeys.

## TACTRAN Regional Transport Strategy (RTS)

- 4.26 The [TACTRAN RTS](#) is discussed in some detail in the accompanying Audit of Existing Walking and Cycling Provision report (the Audit Report).
- 4.27 The RTS aims to deliver TACTRAN's vision of
- "a transport system, shaped by engagement with its citizens, which helps deliver prosperity and connects communities across the region and beyond, which is socially inclusive and environmentally sustainable and which promotes the health and well being of all".*
- 4.28 The Regional Transport Strategy which is currently being prepared will contain interventions that will probably include developing, delivering and monitoring a walking and cycling strategy for the region and also establishing and maintaining an inventory of current practice regarding the provision of Safer Routes to Schools and identify significant gaps in this provision.

## National Planning Framework for Scotland 2

- 4.29 The second [National Planning Framework for Scotland 2](#)(NPF2) provides an important vehicle for the national debate about the sort of place we want Scotland to be. It will guide Scotland's spatial development to 2030, setting out strategic development priorities to support the Scottish Government's central purpose – promoting sustainable economic growth.
- 4.30 Scotland's National Planning Framework 2 (NPF2) published in Draft for Consultation in January 2008 identifies the challenged planning authorities have in creating urban environments which facilitate walking and cycling and to concentrate business and retail activity at locations which minimise reliance on the private car.

## Scottish Planning Policy 17: Planning for Transport

- 4.31 [Scottish Planning Policy \(SPP\) 17](#), published in 2005, sets out how development plans and planning applications should specify where new transport infrastructure is required, and how the likely transport impacts of a development can be mitigated through design, investment or sustainable travel plans. This should reduce the need to travel and enable people to access local facilities by walking and cycling.
- 4.32 The policy states that new developments should be accessed by foot, internal layout and external connections. Urban areas can be made more attractive, safer and mobility friendly through a well planned Core Path Network. Town centres and areas trying to encourage walking should give pedestrians priority over other modes through a reduction in traffic speed, restriction on vehicle movements and pedestrian priority over vehicles.
- 4.33 It also states that cycle routes should provide convenient routes to employment centres, schools and local facilities being continuous with severance by main or distributor roads avoided to achieve a safe, coherent and direct route. Networks may include the use of redundant railway lines, or space alongside canals and rivers. Where separate facilities cannot be provided routes shared with pedestrians and horse riders may be considered where space allows.
- 4.34 Effective planning for the needs of disabled people often has positive effects for other people including older people and those travelling with children. In planning positive provision for access by people with mobility impairments should be made. It will have an effect on design requirements for use by disabled/mobility impaired people on pedestrian and cyclist routes.
- 4.35 According to SPP 17 councils should ensure that secure, sheltered cycle parking is more conveniently located to buildings than car parking. Cycle parking standards take into account local standards along with indicative standards as referred to in Table 11.1 '[Cycling by Design](#)', 1999. This table includes location category for example places of work, shopping, educational, the location for example town centre and the recommended cycle parking provision. This table is included in Annex A.

- 4.36 A framework for delivering better integration of transport and land use planning will consist of a transport assessment and the use of travel plans to promote more sustainable transport solutions to development end users. It recommends that planning permission should not be granted for significant travel generating uses in locations where immediate links to walking and cycling networks are not available or cannot be made available.

## Cycling Scotland

- 4.37 [Cycling Scotland](#) is core funded by the Scottish Government to make cycling the mainstream of everyday life. Cycling Scotland aim to integrate cycling into modern living as a sustainable mode of transport, a means of exercise, and a strong contributor to the Scottish tourist economy. This will be achieved through promoting public participation in cycling events, giving training to ensure people can cycle with confidence, and providing engineering services to ensure that cyclists are catered for on Scotland's roads and paths.
- 4.38 Cycling Scotland offer a range of instructor and staff training courses which include cycle training, cycle ride leadership, police cycle patrol and cycle patrol for parks and countryside. A recent survey by Cycle Training UK suggest that 80% of trainees felt the training made them more confident, leading to a 50% increase in the number of journeys made of over 3 miles, and a greater number prepared to cycle all year round. Cycling Scotland also deliver a range of education programs and are developing a network of accredited centres and tutors for the local delivery of cycle training, instructor training and other courses.
- 4.39 One of the key roles of Cycling Scotland is to work in partnership with transport authorities to achieve increased levels of cycling in Scotland and to establish cycling as an attractive and practical lifestyle option. Each Regional Transport Partnership and Local Authority has a dedicated Cycling Scotland contact to assist them in achieving their goals.

## Cycle Training

- 4.40 Cycle training courses in Scotland are mostly organised in association with schools, led by instructors provided by the road safety department or an independent cycle training company. On-road training is usually offered to 10 and 11 year olds in primary schools, and sometimes to the younger pupils in secondary schools. National Guidance for cycle training is available from the [www.nationalcyclingstrategy.org.uk](http://www.nationalcyclingstrategy.org.uk).
- 4.41 The new National Standard for Cycling has three levels:
- Level 1 is taught off road and covers balance control, bike handling skills and basic manoeuvres.
  - Level 2 is an introduction to on-road cycling, taught on quieter roads. Children will learn about where to position themselves on roads, observe traffic, turn and signal.
  - Level 3 is advanced cycle training. Held on busier roads, it deals with complex junctions and road configurations, making longer journeys and route planning.

## Cycling by Design

- 4.42 [Cycling by Design](#) is a best practice document published for consultation by the Scottish Executive in 1999 for consultation<sup>5</sup>. Although it has never been finalised it is widely used by practitioners and accepted by local and trunk road authorities through out Scotland. Its prime objective is to draw together and to rationalise existing cycle design guidelines into a reference document used as a source of technical advice. This document lends support of the UK National Cycling Strategy Key Output No.6 - '*A Commitment to conduct an ongoing review and revision of all design guidance*'.
- 4.43 The document provides technical advice on planning for the cyclist including geometric design, network links, junctions and crossings and integration with public transport.

<sup>5</sup> <http://www.scotland.gov.uk/library2/cbd/cbd-00.asp>

4.44 It also included guidance on recommended levels of cycle parking for developments. Table 4.1 is replicated from this document.

4.45 Table 4.1 Recommended Parking Provision

Location Category	Location	Recommended Cycle Parking Provision
Place of work	Business Offices, Services	1 Space per 400m <sup>2</sup> gross floor area
	Light Industrial	1 Space per 1000m <sup>2</sup> gross floor area
	General Industrial	1 Space per 2000m <sup>2</sup> gross floor area
	Warehouses	1 Space per 2000m <sup>2</sup> gross floor area
Shopping	Food Retail: Out of town	1 Space per 1000m <sup>2</sup> gross floor area
	Town Centre	1 Space per 500m <sup>2</sup> gross floor area
	Non-food Retail: Out of town	1 Space per 2000m <sup>2</sup> gross floor area
	Town Centre	1 Space per 1000m <sup>2</sup> gross floor area
	Garden Centre	1 Space per 1000m <sup>2</sup> gross floor area
Educational	Primary and Secondary Schools	1 Space per 25 staff and pupils
	Universities and Colleges	1 Space per 25 staff and pupils
Residential	Student Flats/Halls of Residence	1 Space per 8 staff and residents
Recreational	General	1 Space per 8 parking places
Community	Hospitals	1 Space per 8 parking places
	Health Centres	1 Space per 8 parking places
	Churches and Community Centres	1 Space per 8 parking places
	Libraries	1 Space per 8 parking places
Transport	Railway Station	5 per peak period train
	Bus Station	2 per hundred peak period passengers

4.46 Although Cycling by Design offers no specific guidance on cycle parking for housing Parking Standards<sup>6</sup> produced by City of Edinburgh Council recommends that a minimum of two cycle parking spaces are provided for each dwelling unit with fewer than 4 rooms. For dwellings with four or more rooms this should be increased to two spaces. This document also includes specification and form of the various types of cycle storage. The Design Manual for the London Cycle Network<sup>7</sup> recommends one space per unit is provided for flatted developments.

4.47 Cycling by Design also information, guidance and a framework for Cycle Audit for Trunk Roads. This is to be applied in the development of all future trunk road proposals in Scotland.

## Cycling Infrastructure Design

4.48 The [Cycling Infrastructure Design](#) note published by the Department for Transport provides comprehensive guidance and information as the Traffic Advisory Leaflets also published by the Department for Transport, along with relevant cyclist advice for planning.

4.49 The note includes detail on general design parameters, demand management measures, methods of reducing vehicle speeds on cycle routes, how to reallocate road space and cycle lanes, types and designs of off road cycle routes, junction details including advanced stop lines and safety at roundabouts, cycle parking and public transport integration.

<sup>6</sup> City of Edinburgh Council – Development Quality Handbook – Parking Standards 1999

<sup>7</sup> Transport For London – Design Manual 1998

- 4.50 The note includes a table detailing good practice for cycle parking. It advises cycle facilities should be visible and easy to find and as close as possible to the destination. Cycle parking should also be safe and secure and covered to offer a level of protection from the weather for the length of stay. Parking facilities must be easy to use and an attractive design to match other surrounding street furniture for example as well as fitting into the context of the cycle route network connecting main origins and destinations.

## Cycling Provision in New Flat Developments

- 4.51 The issue of provision of cycle parking in new flat/apartment developments was raised in consultation. A summary of the requirements of Transport for London, the London Borough of Camden and Edinburgh and Glasgow City Councils is shown in the Appendix.

## A Walking Strategy for Scotland

- 4.52 The [Walking Strategy for Scotland](#) is the first of a two stage process of the Scottish Executive's transport vision for Scotland as published in 2002. The Strategy represents the views of the Scottish Walking Forum, whose members including council members and representatives from the Scottish Executive.
- 4.53 The purpose of the strategy is to guide and influence policy makers in developing local walking strategies, and sets out how walking can be made easier, safer and more pleasant. It contains reference to the benefits of walking, national and local objectives and targets, promotion and education and consultation.
- 4.54 The strategy concludes that walking must be incorporated into integrated transport strategies and the Scottish Executive, local authorities, education organisations, employers, voluntary groups and health services have a role to play in promoting walking.
- 4.55 Local authorities should review their own budgets and explore all sources of funding to finance projects using their walking strategies to help meet other targets such as road traffic reduction, air quality and road casualty reduction targets. The strategy also concludes it may be necessary to appoint a walking officer to take forward the walking strategies.

## Sustrans

- 4.56 [Sustrans](#) is a sustainable transport charity. Their vision is a world in which people can choose to travel in ways that benefit their health and the environment. They work on practical, innovative and imaginative ways of dealing with the transport challenges.
- 4.57 Sustrans has set about creating an environment that will actually help people to walk and cycle much more. The National Cycle Network offers a mixture of traffic-calmed streets, quiet roads and traffic-free routes in communities all over the UK, helping people to work, shops, school and play.
- 4.58 '[Safer Routes to Schools](#)' and '[Bike It](#)' are both Sustrans schemes working with schools and children to give them independence getting to school and parents the peace of mind to let them. This includes creating hundreds of links to schools from the National Cycle Network. Also having the choice of using sustainable transport to travel gives benefits to health and the environment. This would create safer roads, cleaner air and a better quality of life.
- 4.59 Sustrans' Active Travel work with government to promote walking and cycling as a way of combating obesity, heart disease and cancer. Sustrans has also pioneered [TravelSmart](#) in the UK, a unique service that gives households the tailor-made information they need to walk, cycle and use public transport more.
- 4.60 Sustrans is updating city living for the 21st century, putting people at the heart of their community. In '[Liveable Neighbourhoods](#)' kids can play safely, people can shop locally, and there are green, open spaces.

- 4.61 Sustrans also has an Art in the Travelling Landscape team which aims to create more memorable public spaces, and regularly commission quality artworks. These include interesting sculptures, mileposts, seats and drinking fountains throughout the National Cycle Network.

## Scottish School Travel Advisory Group

- 4.62 The [Scottish School Travel Advisory Group](#) (SSTAG) was formed by the Scottish Executive to bring together expertise from the health, education and transport arenas. The objective of the group is to increase the proportion of non-car travel to school.
- 4.63 The work of SSTAG has a wide perspective and builds on the Safe Routes to School Scheme. SSTAG set to achieve improved safety, improved health through decreases in pollution and increases in exercise levels, an improved environment through reduction in congestion and traffic noise and improvements in children's social development through independent travel.
- 4.64 Recommendations have been made that local transport strategies should include school travel in their cycling and walking strategies. It is also recommended that school travel plans should form an integral part of local transport strategies which set targets at a local level.
- 4.65 The group recommend that all schools establish a School Travel Team, being school based and subsequently producing a school travel plan. Training and teaching resources must be developed in support of the teams and a school travel plan co-ordinator should be set up within each local authority. They also recommend a code of practice is drawn up defining the responsibilities of all those involved in the school travel plan including transport operators, local authorities, parents and school travel teams.
- 4.66 School travel is part of the curriculum and should be given a higher profile, especially to those children whose distances give them a choice to walk or cycle. Training should be increased and improvements continued on school sites including locker provision and secure parking.
- 4.67 The note also recommends enforcing traffic, to reduce and manage parking outside the schools forming an integral part of Safe Routes to School where possible and school travel plans. The recommendations within this note will be used as the basis of drawing up a strategy for implementation.

## Living Streets

- 4.68 [Living Streets](#) is a Scottish national charity, with members from all parts of Scotland who campaign for streets that are better for walking and better for living in. The charity helps to create safer, more sociable neighbourhoods, and encourages adoption of a healthier lifestyle by walking.
- 4.69 Clear Pavements is a Living Streets campaign to ensure that the streets of Scotland are clear of obstructions and are pleasant, safe places for people to walk. Illegal parking of cars and vans is an increasing problem causing inconvenience to pedestrians, especially those in wheelchairs, with visual impairments, pushing buggies or with young children. The campaign is also concerned about vehicle parked on junction corners and across pedestrian crossings, both of which restrict visibility for pedestrians.
- 4.70 As a result of this campaign Living Streets hope to ensure all pavement parking is banned and local authorities take on strict enforcement of parking regulations.

## Spokes

- 4.71 [Spokes](#) is a voluntary organisation, the Lothian Cycle Campaign, founded in 1977, with over one thousand members. Spokes campaign for better conditions for cyclists, especially in Edinburgh and the Lothians.
- 4.72 Spokes Objectives are to:
- promote cycling, as part of a sustainable transport and access strategy, and to ensure that councils and government actively do the same.

- publicise the benefits of cycling for the community and individuals - like walking, it is cheap, efficient, enjoyable, healthy, non-polluting and intrinsically safe.
- 4.73 Spokes believe that councils and government should have an overall transport strategy in which cyclists, pedestrians, public transport and motor traffic are all taken fully into account.

## 5. Summary of Good Practice

### Overview

- 5.1 Tables 5.1 and Table 5.2 highlight good practice in the promotion of walking and cycling. These tables summarise the information gathered as part of the Best Practice review, and from consultation with the identified Local Authorities.

**Table 5.1 - Established Principles of Good Practice (Walking)**

Good Practice Measure	Principles
Pedestrian Accessibility	<p>Good pedestrian links should be established to key attractors to encourage walking through travel plans, planning applications and local transport studies.</p> <p>Increase pedestrianised areas (to a high quality finish) and in alliance enforcing parking restrictions. Better enforcement of parking restrictions and illegal parking in general.</p>
Safety	<p>Increase pedestrian priority including pedestrian phases at signals and pelican and toucan crossings.</p> <p>Introduce 20mph restrictions in all school zones and town/city centres where appropriate i.e. commercial and residential areas. Create safe drop off points close to school with safe walking links to the school.</p> <p>Encourage parents to enrol their young children in the <a href="#">Children's Traffic Club</a> which is available free to all 3 year olds to educate them in travel safety.</p>
Security	<p>Appropriate lighting along core walking routes.</p> <p>Provide personal security alarms through employers and schools.</p>
Attractive	<p>Offer pedometers through the health board, work and schools so people can keep an account of how many actual daily or weekly steps they make and encourage them to set personal and ever increasing targets.</p> <p>Support <a href="#">Living Streets</a>' manifesto to clear obstructions on the streets and make them pleasant, safe and better for living in.</p>
Promotion	<p>Health promotion through <a href="#">Active Travel</a> stressing the benefits of exercise and reduction of disease. Also educating about the environmental damage of vehicles. Local authorities should review budgets and explore sources of funding to meet environmental targets.</p> <p>Inform the public that pedestrian casualties have been decreasing over ten years and the relevant soft and hard measures doing so to increase confidence.</p> <p>Local councils, government bodies, major employers should be encouraged to take part in initiatives such as walk to work week.</p> <p><a href="#">TravelSmart</a> services promoted for their tailor made walking, cycling and public transport information.</p>
Safe Routes to Schools (SRS)	<p>Route improvements through the <a href="#">SRS</a> will encourage children and parents to walk to school.</p> <p>The projects are in association with Sustrans and funding is prioritised to schools who have implemented travel plans.</p> <p>A school travel team should be formed (school based) to produce a travel plan, with a school travel plan co-ordinator.</p> <p>The Sustrans website should be used frequently by parents,</p>

Good Practice Measure	Principles
	children, schools and councils as a source of good practice.
School Travel Plans	<p>This is the main method of encouraging children to walk to school, including measures specific to each school for example walking buses or incentives.</p> <p>Introduce the 'walk once a week to school' initiative.</p> <p>School travel plans should form part of the local transport strategies.</p> <p>School travel should be given a higher profile in the school curriculum.</p>

Table 5.2 - Established Principles of Good Practice (Cycling)

Good Practice Measure	Principles
Cyclist Accessibility	<p>Good cyclist links should be established to key attractors to encourage cycling through travel plans, planning applications and local transport studies.</p> <p>Increase on and off road cycle routes to provide a strategic network of cycling facilities, including coloured advisory cycle lanes, linking into existing including the National Cycle Network. <a href="#">Cycling by Design</a> and <a href="#">Cycling Infrastructure Design</a> provide design guidelines.</p> <p>Old rail lines, river and canal paths should be developed in cycle routes.</p> <p>Introduce bus lanes as shared use lanes allowing cyclists to make use of.</p>
Cyclist Safety	<p>Provide on road advanced stop lanes for cycles in accordance with on road facilities.</p> <p>Decrease speed limits in areas where on road cycling is well utilised.</p> <p>Cycle parking should not be sited in areas where this would cause personal security concerns and conveniently located to buildings.</p> <p>Vehicle free zones can be introduced in areas such as schools.</p> <p>Ensure cycling training is provided to children through <a href="#">Cycling Scotland</a> or the local Police Road Safety Officer. Cycling Scotland provide instructor and staff courses also.</p>
Cycle Security	<p>Long term parking for regular users in residential, educational and workplace areas should be placed within a secure access area. Other parking facilities should be secure and covered. Also cycle parking should be provided at new developments as part of the sites facilities. <a href="#">Cycling by Design</a>, <a href="#">Cycling Infrastructure Design</a> and <a href="#">City of Edinburgh Council – Development Quality Handbook</a> provide design and provision guidelines.</p>
Attractive	<p>The design of cycle parking facilities should be appropriate to the surrounding area to match other street furniture.</p> <p>Existing cycle facilities should be maintained under routine and cyclical maintenance, structural maintenance, winter maintenance or bridge and ancillary structures / equipment maintenance to ensure the facility is functional, safe and environmentally friendly, as recommended by <a href="#">Cycling by Design</a>.</p> <p>Promote buying cycle and equipment through workplace travel plans by offering interest free loans with local bicycle suppliers.</p>
Promotion	<p>Health promotion through <a href="#">Active Travel (Sustrans)</a> stressing the benefits of exercise and reduction of disease.</p> <p>Increase the tourism aspects, providing maps and information leaflets in relevant locations and National Cycle Routes and other</p>

Good Practice Measure	Principles
	<p>facilities.</p> <p>Inform the public that pedestrian casualties have been decreasing over ten years and the relevant soft and hard measures doing so to increase confidence.</p> <p>Local councils, government bodies, major employers and schools should be encouraged to take part in initiatives such as Bike It Week.</p> <p><a href="#">TravelSmart</a> services promoted for their tailor made walking, cycling and public transport information.</p> <p>An organisation in association with <a href="#">Spokes</a> could be formed to campaign for cyclists which focus on the TACTRAN area.</p>
Linked to Other Cyclist Needs	<p>At public transport interchanges and cycle centres, opportunities to combine cycle parking, shower facilities, secure storage/lockers, hire, repair and tourism may be developed.</p> <p>Cycle parking should sit within the context of a cycle route network connecting the main origins and destinations.</p>
Safer Routes to Schools (SRS)	<p>Route improvements through the <a href="#">SRS</a> will encourage children and parents to walk to school.</p> <p>The projects are in association with Sustrans and funding is prioritised to schools who have implemented travel plans.</p> <p>A school travel team should be formed (school based) to produce a travel plan, with a school travel plan co-ordinator.</p> <p>The Sustrans website should be used frequently by parents, children, schools and councils as a source of good practice.</p>
School Travel Plans	<p>This is the main method of encouraging children to cycle to school. These plans are supported by Travel Plan Coordinators supplied by the Scottish Executive.</p> <p>School travel plans should form part of the local transport strategies.</p> <p>School travel should be given a higher profile in the school curriculum.</p>

## Examples of Best Practice

- 5.2 The following section presents case studies from the UK and Europe, which provide practical examples of Best Practice in Walking and Cycling.

<b>5 minute school walking zone, Yorkshire</b> <i>North Yorkshire County Council</i>	
Background and Objectives	The aim of the initiative was to reduce the number of children travelling to school by car, and to promote more active means of travel. Another aim was to raise awareness amongst pupils and parents of the environmental and health benefits of switching from private vehicle.
Measures Implemented	Walking Zone boundaries were set up at five minutes walk time from the school gates, as measured by the pupils. This was presented using an isochrone map for each school.  Within this boundary line, parents, children and staff were encouraged to walk. Those living outside were encouraged to park near the boundary line and walk the last five minutes with their children, though it was stressed that they must find a 'socially acceptable' place to park. NYCC has introduced the use of pedometers as another way of getting young people interested in walking.
Outcomes and Conclusions	People who live within the zone can no longer use the excuse that walking to school will take too much time.  Using a walking zone not only reduces congestion around the school gates, but it provides the children with exercise.  <i>"The main thing was that the number of cars parked outside the school was much reduced."</i> Sean Thomas, Year 5/6 co-ordinator.  The county is now exploring an expansion of the walking zone scheme to all its schools.
Funding Source	Publicly Funded
Reference	<a href="http://www.dft.gov.uk/pgr/sustainable/walking/success/">http://www.dft.gov.uk/pgr/sustainable/walking/success/</a>

<b>Cycle Parking at Rail Stations in Hampshire</b> <i>Hampshire County Council and South-West Trains</i>	
Background and Objectives	The aim of the initiative was to increase the number of commuters travelling to Rail Stations by bike, and reduce the level of all-day parking at increasingly congested station car parks.
Measures Implemented	In recent years Hampshire CC and SWT have invested substantially in cycle parking provision at railway stations, and have an on-going programme of providing cycle parking stands, shelters and lockers, together with associated signage. Where possible cycling facilities are covered by CCTV. Stations are categorised by importance, with different standards for cycle parking associated with each category. Over 500 Sheffield stands have been provided, together with 90 lockers at 23 staffed stations.  Future expenditure is to be targeted at stations which SWT have identified as having scope for greater cycle use, based on customer comments and observation of current demand.
Outcomes and Conclusions	Monitoring has demonstrated an increase in the number of cycles being parked at stations, particularly those stations with a high proportion of

<b>Cycle Parking at Rail Stations in Hampshire</b> <i>Hampshire County Council and South-West Trains</i>	
	<p>commuters.</p> <ul style="list-style-type: none"> <li>• provision of improved cycle parking facilities increased cycle parking by over 160%</li> <li>• usage of cycle lockers, at 20 stations where these have been provided, is at least 65%</li> </ul> <p>No reported instances of theft from cycle lockers</p>
Funding Source	Public and Private
Reference	<a href="http://www.dft.gov.uk/pgr/sustainable/walking/success/">http://www.dft.gov.uk/pgr/sustainable/walking/success/</a>

<b>Novartis Company Travel Plan, Switzerland</b> <i>Novartis</i>	
Background and Objectives	<p>Novartis is a pharmaceuticals company based in Basel, Switzerland. There were approximately 17,000 employees in Basel in 1997. Heavy Traffic congestion was worsening around the 5 different Novartis sites in Basel. This was largely caused by car commuters and by traffic travelling between the different sites.</p> <p>The Novartis Travel Plan aimed to increase the numbers of employees travelling to work by cycling and walking, and reduce the impact of the private motor vehicle. This would have the knock on effect of increasing the productivity of the company.</p>
Measures Implemented	<p>The following measures were implemented to promote bicycle use for business and commuter trips:</p> <ul style="list-style-type: none"> <li>• The creation of an internal working group.</li> <li>• The creation of a network of bicycle paths connecting different company sites, integrated with the city's bicycle network (in conjunction with the city administration).</li> <li>• The provision of covered bicycle parking at each site.</li> <li>• A network of on-site bicycle paths at each location.</li> <li>• Special bicycle gates at the main entrance of each of the company sites.</li> <li>• Establishment of a bicycle repair service.</li> <li>• Purchase of a pool of company bicycles.</li> <li>• Periodic marketing activities to promote the use of the bicycle.</li> <li>• Parking management and continuous reduction of the number of parking spaces.</li> </ul>
Outcomes and Conclusions	<p>By the end of 1997, Novartis had produced a respectable modal split for cycling commuters of 27%, which is 4,630 cyclists.</p> <p>3,100 of these cyclists bicycle all year round with 1,000 staff use bicycles for business trips.</p> <p>By this time, the company owned 2,600 pool bicycles that provided for 15% of the staff.</p>

<b>Novartis Company Travel Plan, Switzerland</b>	
<i>Novartis</i>	
	There were 4,800 cycle parking spaces available, of which 4,400 were covered. The company now has an internal bicycle network of 2.5 kilometers.
Funding Source	Private
Reference	<a href="http://www.mobilitymanagement.be/english/fame.htm">http://www.mobilitymanagement.be/english/fame.htm</a>

<b>Ov-fietsBike Hire at Railway Stations, Netherlands</b>	
<i>Girona Greenways Consortium</i>	
Background and Objectives	<p>The Dutch government initiated a programme for the development of innovative and attractive solutions to promote the use of bicycles in combination with railway journeys. The aim was to achieve a “quieter, cleaner and less fuel consuming urban transport”.</p> <p>The Netherlands are well known as a cycling country, but the use of bicycles is mostly limited to home-bound trips. 31% of train travellers, in particular commuters, use the bicycle to access railway stations. For this purpose every station has bicycle parking facilities, including guarded facilities at all larger and several smaller railway stations, and bicycle locker facilities at many other stations.</p> <p>However at the destination station, for the egress part of the trip (from the station to the destination address) the traveller usually has to look for another means of transport, with only 9% using a bike for onward travel.</p> <p>The idea behind this innovative programme was to develop attractive solutions for bicycle rental systems at destination stations, in order to boost the weakest part of the public transport travel, the “egress trip”.</p>
Measures Implemented	<p>The Ov-Fiets scheme aimed to develop a new, quick, easy and reliable rental service - within a few minutes after arriving at a station the traveller should be able to continue their journey on a rented bicycle.</p> <p>The Dutch rail owner ProRail, the Dutch railway Company NS and the Dutch Cycle Organisation cooperated to set up the OV-Fiets pilot with rental facilities at 41 rail stations, which aimed to make the hired bicycle an integral component of the Dutch transport system.</p> <p>To collect an OV-fiets required that you show your rail card or separate OV-fiets membership card at any OV-fiets hire service in the Netherlands. You could then collect your bike without having to fill in forms or paying a deposit as all time-consuming actions have already been computerized. This greatly speeded up the traditional renting process.</p> <p>Hiring an OV-fiets cost € 2,75 for 20 hours, with a maximum rental period of 60 hours. Payments were taken monthly by direct debit. The subscription fee was € 9,50 a year.</p>
Outcomes and Conclusions	<p>Since its nationwide launch the OV-Fiets has been a huge success. In 2005 OV-Fiets experienced the largest growth of all public transport in The Netherlands. The number of trips increased from 100,000 to 189,000 and an increase to 400,000 trips was expected in 2006. At present there are over 80 railway stations that have an OV-fiets hire service but this number is also increasing rapidly.</p> <p>A survey showed that since introduction of OV-Fiets 35% of cardholders use the train more often and 12% of cardholders is now using the car less.</p>
Funding Source	Central Government
Reference	<a href="http://www.astute-eu.org">http://www.astute-eu.org</a>

<b><i>Bicycle Training for children in live traffic, Austria</i></b> <i>City of Graz</i>	
Background and Objectives	<p>Cycle training in real traffic educates children about their rights as bikers and traffic participants, and teaches them how to cope with real traffic situations. The main intention is to show the children that cycling is fun and that the bicycle is an environmentally sound and economically efficient means of transport that they should continue to use in the future.</p> <p>The study also aimed to raise awareness amongst parents and teachers, so that they would support and encourage the children to maintain the cycling habit. This would also seek to reassure parents who may have been worried about the safety aspects of cycling.</p>
Measures Implemented	<ul style="list-style-type: none"> <li>• Children practice cycling in real traffic conditions under the guidance and supervision of the bicycle trainer.</li> <li>• The children are able to improve their cycling ability in areas with reduced traffic (also including Graz's network of cycling paths) in controlled group and, particularly important, individual bike trips.</li> <li>• They are gently prepared to become self-confident and conscientious road users.</li> <li>• The training programme focuses on practical cycling sessions in real traffic conditions.</li> <li>• Theoretical rules are only taught to the minimum extent necessary.</li> </ul> <p>More than half of the children who participated in the training were able to improve their cycle skills after even one training session. Another advantage is the "hands-on" transfer of knowledge in a real traffic environment. Teaching materials for cycle trainings, quizzes and training certificates were also developed. The next planned stage is the extension of the programme to the whole of Styria (an Austrian province with 510 primary schools) by providing training seminars at teachers' training colleges and schools. The bicycle training received the Shimano Cycling Concept Award and also the VCO Mobility Award, both in 2004.</p>
Outcomes and Conclusions	<p>Since the bicycle training programme was launched, more than 5,000 children have taken part in the training sessions. The children's cycling ability is evaluated by trainers before and after training.</p> <p>A study on the long-time effects of the cycle training was also carried out. 73% of all children who participated in the training still use the bike as a regular means of transport.</p>
Funding Source	Public – City of Graz
Reference	<a href="http://www.astute-eu.org">http://www.astute-eu.org</a>

<b><i>Happiness is Cycling, Sweden</i></b> <i>World Health Organization, City of Helsingborg</i>	
Background and Objectives	<p>The 'Happiness is Cycling' campaign has been identified by the World Health Organisation as a good example of the promotion of cycling as a healthy transport mode. Its aim was to inform people living and working in Helsingborg of the opportunities available for cycling in and around the town. It was hoped that this would create a positive attitude towards cycling in the town.</p>

<b><i>Happiness is Cycling, Sweden</i></b> <i>World Health Organization, City of Helsingborg</i>	
Measures Implemented	<p>Many initiatives to support and promote cycling have taken place in Helsingborg including:</p> <ul style="list-style-type: none"> <li>• A new cycle plan linking various paths into a comprehensive network.</li> <li>• Creation of an inventory of all of the cycle paths in the town.</li> <li>• Installation of more than 500 signposts along the 200 kilometres of cycle paths, each being colour coded to facilitate easy access by users.</li> <li>• A free phone number was created so that cyclists could submit their views or give hints and ideas regarding the cycle path network.</li> <li>• A website with information, tips, links and points of view was created.</li> <li>• Staffed cycle parking outside the ferry, bus and railway terminals called “Bike In” ensures that parked bicycles are not stolen or vandalized and that cycle maps are handed out.</li> <li>• A Cycle to Work campaign was undertaken.</li> </ul> <p>The town set an objective to increase the number of bicycle journeys made during 2002 by 20%, aiming to transfer trips from short car journeys of 3-5km in length.</p>
Outcomes and Conclusions	<p>20% of journeys within the town are now made by bicycle.</p> <p>The main factor for the success of this campaign was marketing. Forty thousand copies of a new pocket-format cycle map were printed. The map was available free of charge from various public buildings. Maps were also strategically distributed at a Vehicle Test Centre in Helsingborg.</p> <p>Another marketing tactic was to show a group of people as case studies. During 2001, eight people who wanted to give up their car in favour of cycling, and who lived approximately 5 kilometres from work and were prepared to cycle regardless of the weather were selected. They were then given a bike and a bus pass and had health check ups on a fortnightly basis over 10 months to monitor their fitness levels.</p> <p>This whole project was covered by the local radio station and newspaper which again helped greatly with its promotion.</p>
Funding Source	World Health Organization and Helsingborg Council.
Reference	<a href="http://www.euro.who.int/transport/modes/20030206_1">http://www.euro.who.int/transport/modes/20030206_1</a>

## Managing the potential conflicts between walkers and cyclists

- 5.3 The main potential for conflict between walkers and cyclists occurs on shared-use paths, where the risk of collision must be taken into account. This risk can best be managed by the application of good design standards.
- 5.4 Recognised design standards for these shared use paths are presented in 'DfT LTN 2/04: Adjacent and Shared Use facilities for pedestrians and cyclists'. SESTRAN also provide recommended guidance, and this is summarised below<sup>8</sup>.
- 5.5 Sustran recommend that where it is desirable for cyclists to share existing pedestrian footways/footpaths, their right to share must be established by changing the legal status of the footway/footpath to a cycle track. Any such proposal to convert a footway or footpath to shared use should be taken forward through full and detailed consultation procedures with key stakeholders, including access officers, involved at all stages of the scheme's development.
- 5.6 The following factors should help determine whether or not separation of pedestrians and cyclists is desirable.
- Bicycle and pedestrian volumes: If the volumes of both categories are high (combined flows in excess of 200 per hour), relative to the width of the shared path, pedestrians and cyclists are likely to impede each other when mixed;
  - The function of the area for cyclists: On a well-used long-distance cycle route, and on main commuter routes, cyclists are likely to be travelling faster than on local routes, and thus potentially engender more serious pedestrian/cycle conflict. Local cyclists normally do not travel regularly in excess of 12-13mph (20kph);
  - The function of the area to pedestrians: In general on a street with trip attractors such as shops on both sides, pedestrians have more need for freedom of movement in lateral directions than on a general walking route, therefore the potential for conflict will be greater, and;
  - Level of Congestion: Depending on the level of congestion, cyclist and pedestrian routes can be segregated or un-segregated. However if the path is wide enough a clearly marked cycle lane would be advantageous.
- 5.7 The DfT state that, "There should be a presumption in favour of segregation in the absence of reasons for not doing so". They indicate that a route should be segregated if:
- high flows of pedestrians or cyclists are expected; or
  - disabled people or other vulnerable users are likely to use the facility frequently; or
  - there is sufficient width available.
- 5.8 Conversely, a route might not be segregated if:
- flows of pedestrians or cyclists are expected to be low, or
  - flows of pedestrians in particular are expected to be very low, or
  - disabled people or other vulnerable users are unlikely to use the facility, or
  - there is limited width available.
- 5.9 The DfT emphasise that these are guidelines only, and that each case should be decided upon merit.
- 5.10 The principles of good design centre around making both cyclists and pedestrians aware of each other. This can be achieved by regular warning signs, clear cycle lane and footway marking, good visibility splays and segregation where required.

<sup>8</sup> 'Cycling Infrastructure: Guidance and Best Practice', Sustran.

- 5.11 A full set of specifications and guidelines regarding the construction of segregated and non-segregated cycle facilities, marking and signing can be found within DfT's, 'LTN 2/04: Adjacent and Shared Use facilities for pedestrians and cyclists'.

## APPENDIX

### Cycling Provision in New Flat Developments

#### Transport for London

Transport for London's Proposed Guidelines for Cycle Parking Standards recommend that one cycle parking space should be provided for each flat unit. Provision in residential developments should be in a secure area and close to the front door. Sheffield stands in the open do not offer an adequate level of security for overnight storage. This information can be accessed on the website - <http://www.tfl.gov.uk/roadusers/cycling/976.aspx#3>

They are collating examples to support minimum standards for cycle parking. They are also working closely with Design Against Crime (website - <http://www.designagainstcrime.com/index.php>) and plan to set up an online site for comments and examples on a wide range of cycle parking issues. The intention is to put together 'best practice' responses which meet the needs and constraints of a wide range of land use classes. This should be set up before the end of 2008.

#### Edinburgh City Council

In the City Development Transport, Development Quality Handbook, Parking Standards, dated September 1999 it is recommended that provision should be made either through lockers or cupboards or a secure (lockable) communal cycle store maintainable under a management agreement. Either should generally be incorporated into the main buildings and preferably should be internally accessed at ground level. Specifications are to be found in the City of Edinburgh Council Cycle Friendly Design Guide.

#### Glasgow City Council

At present the Council's requirements for cycling parking are that it should always be safe, secure and sheltered and be of the 'Sheffield' type of cycle rack unless there are exceptional circumstances.

The Council is planning to have City Plan 2 adopted in 2009 and in this they will require the provision of cycle parking in new development and redevelopment proposals to be in line with the minimum cycle parking standards. These are:-

1. Safe, secure and sheltered – normally 'Sheffield' type cycle racks
2. Appropriate Provision -

Mainstream residential - 1 space per unit unless a garage provided

Student Flats/Halls of Residence - 1 space for 2 staff and residents

Provision in the form of 'Sheffield' racks or storage lockers/cupboards allocated to each unit, with communal facilities for flatted developments. These should be easily accessible and normally be on the ground floor or basement.

New developments – Each flatted block should have a dedicated cycle parking, which is safe, sheltered and secure, preferably contained within the building.

#### Camden London Borough Council

Camden's cycle parking standards require 1 storage or parking space per residential unit. Other aspects of their development control include:

- Whether the required number of spaces is based on the increase in development size (either floor area or number of units) or the total proposed development size depends on the extent of construction work. For example, if a block of five flats is demolished and seven flats are built in its place, then they would require seven cycle parking spaces. However, if the two additional units were

simply built on top of the existing five flats, then they would require two cycle parking spaces, although spaces for the existing five would be sought.

- There are some circumstances where the requirement for cycle parking is waived because it is not possible to install it without major construction work outside the scope of the proposed development. For example, it is quite common to see an application for the conversion for rooms above a high street shop, which may have previously been used as an office, to a residential unit. Access to the residential unit is via stairs from a door off the high street, which is not being altered. There is no space at the bottom of the stairs to store a bike and there is no lift. It is unreasonable to make the applicant remodel the ground floor (and they may not own enough of it anyway) therefore the requirement for cycle parking would be waived.
- Sometimes there is no need to insist on a specific cycle parking/ storage area as the unit is relatively large and has ground floor access, meaning the occupier could easily store a bicycle inside if they wish to.

The design of any cycle storage/parking will need to be covered, secure and preferably with level access or access via a lift. The Council prefers Sheffield style stands or cycle lockers. The Sheffield design of stand allows for the frame and both wheels to be locked to the stand - even if the cycle storage /parking area is only accessible by residents it should be possible to secure a bike so that it can only be removed by the owner – theft by residents from other residents is not unlikely and there is no guarantee that the cycle storage area will always remain secure.