

THE CASE FOR A

MEADOWS CYCLE WAY

**A submission made to Edinburgh District Council and
Lothian Regional Council by SPOKES The Lothian Cycle
Campaign June 1978.**

Copies available from SPOKES, 2A Ainslie Place, Edinburgh. Price 50p.

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1. Why build a cycle-way?

Building a cycle-way across the Meadows will cover some small part of a green and pleasant city park with tarmac. It will reduce by some small amount the already too small area of Edinburgh reserved for pedestrians. How can such a thing be justified? SPOKES believes that a Meadows cycle-way can be justified. In this document we show that there is more than enough demand for a cycle-way in the Meadows area; we show that there is a need to improve the road safety of cyclists in the Meadows area; and we argue that our specific proposals for a cycle-way will bring associated environmental benefits and improvements to pedestrian facilities which far outweigh any minor disbenefits. Finally, we show that public response from residents in the Meadows area is overwhelmingly in favour of a cycle-way.

2. The Meadows and Bruntsfield Links.

The Meadows is a park on level ground $\frac{5}{8}$ ths of a mile east-to-west by $\frac{3}{8}$ ths of a mile north-to-south, situated immediately to the south of central Edinburgh. It is flanked on the north side by several major cycle traffic generators: the Royal Infirmary, the Art College, the University of Edinburgh. The north exit is about $\frac{1}{2}$ mile from Princes Street and the main commercial centre of the city. To the immediate south of the park lie densely populated residential areas.

The Links is a second park on rising ground stretching in a wedge shape from a point contiguous to the Meadows in a south-westerly direction for about $\frac{1}{2}$ a mile. The Links are reputedly the oldest golf course in the world and are traversed - as are the Meadows - by broad tarmac paths with street lighting.

To the south and west, the Links give on to further densely populated residential areas, to a secondary commercial centre (Bruntsfield) and to a number of other cycle traffic generators (Gillespie's School, Boroughmuir School, the Youth Hostel and the recently opened Edinburgh Cycle Hire shop).

Many thousands of people live to the south of the Meadows and Links and work to the north. A good number of them walk to work; and a certain number cycle.

3. The Present Legal Position.

At present cyclists are prohibited by bye-law from using the footpaths across the Meadows and Links unless they are under the age of 12 (Edinburgh Corporation Confirmation Order Act, 1967, section 476, subsection 2(a)(ii)). This section also empowers the Council to set aside areas for the use of cyclists, but this power has not been exercised. The bye-law is frequently broken, to the annoyance of many citizens. Enforcement is attempted by park patrols in motor vans, but no prosecutions have been made. The frequency of infringements observed is itself an indication of the demand for cycling facilities in this area. But only a small minority of cyclists choose to ignore the bye-laws: most cycle on the heavily trafficked roads around the Meadows on their way to work.

4. The SPOKES Meadows Cycle Survey.

To find out just how many people cycle to work in the Meadows area, SPOKES conducted a survey on May 10th and 12th, 1978. The full survey results are available in The Meadows Cycle Survey (Edinburgh: SPOKES, 1978): the following paragraph is an abstract.

Observers were stationed from 7.30 a.m. to 10 a.m. at seven of the major junctions around the Meadows area. These covered many, but by no means all, of the cycle entry points to the Meadows area. As a result the figures that follow are almost certainly underestimates of the number of cycles in the area as many cyclists take back routes which avoid heavy traffic wherever possible.

The observers recorded over 1300 cycle movements on the Wednesday (warm and sunny) and over 1100 on the Friday (cold and windy). Because some cyclists made journeys incorporating two junctions an element of double-counting was unavoidable. Eliminating such double-counting, an average of at least 800 cyclists were observed each day in the area during the morning travel-to-work period.

Over one-third of the cycle journeys were made during the half-hour between 8.45 a.m. and 9.15 a.m. - this is also the busiest time for other traffic as well.

At each of the junctions observed, at least half the cyclists made journeys which would have benefited directly from the existence of cycle-ways across the Meadows.

There can be little doubt then that a Meadows cycle-way placed along the principal desire-line would be well-used. We estimate that it would carry at least 200 v.p.h. at peak flow if cycle use in the area remains stable.

5. Road Accidents around the Meadows.

The proposals have been drawn up so as to provide continuous routes along desire-lines as revealed by the survey; and also so as to enable as many cyclists as possible to

avoid dangerous road junctions. In the year from July 1974 to June 1975 there were 3 accidents involving cyclists on the roads immediately contiguous to the Meadows and Links. In 1975-76, there were 11 such accidents. In 1976-77, there were 14. These are not large figures but they show a dramatic and sustained increase. The increase is even more dramatic, but displaced by 6 months, if the figures are established by calendar year.

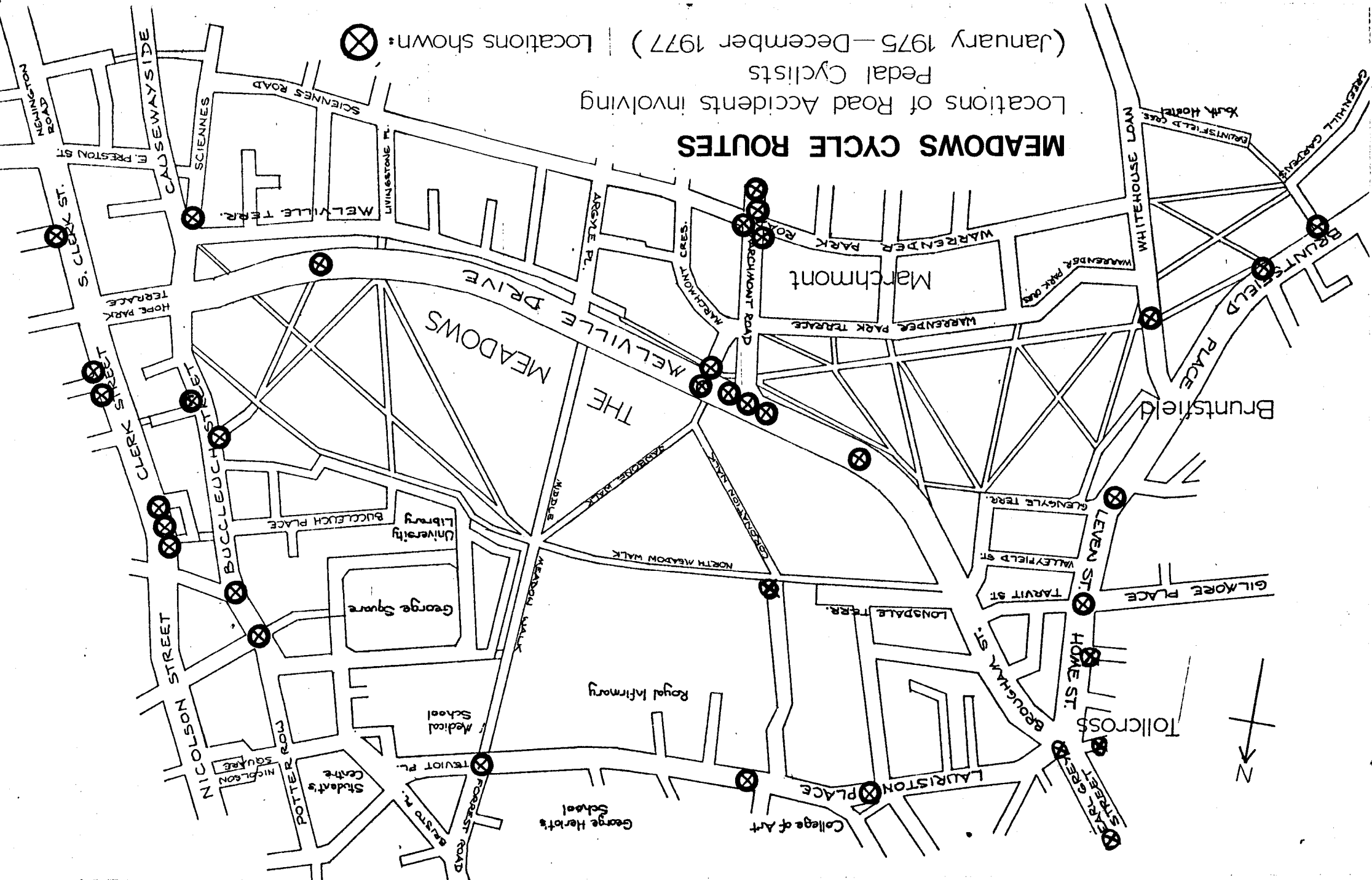
	ACCIDENTS REPORTED	INJURIES TO CYCLISTS		INJURIES TO PEDESTRIANS	
		slight	Serious	slight	serious
1975	11	7	3	1	0
1976	11	6	2	1	2
1977	19	16	5	0	0

The accidents were not distributed randomly around the streets concerned: the accompanying map shows startling concentrations at the junctions of Warrender Park Terrace / Marchmont Road and Marchmont Road / Melville Drive, at / near Tollcross and on South Clerk Street. The proposed cycle-way will do much to protect cyclists at Marchmont Road / Melville Drive and will draw them away from the other accident-prone streets. Many potential accidents will be avoided and the savings to the community in avoided injury costs will no doubt exceed in a few years the capital cost of a Meadows cycle-way.

The danger to cyclists of present road routes around the Meadows is obvious enough from the accident figures. The perceived danger of the major junctions through which these routes pass is, arguably, an even greater disincentive to cycle use than the accident figures themselves.

6. Major Hazards in the Meadows Area.

Much of the cycle traffic entering Tollcross from the



MEADOWS CYCLE ROUTES

Locations of Road Accidents involving
Pedal Cyclists
(January 1975 - December 1977) | Locations shown:



south in the morning peak turns right into Lauriston Place. To execute such a turn cyclists must ride in the right hand lane in Home Street with two lanes of faster moving motor traffic to the left; they must be on their guard against cars overtaking them on their right as well. Furthermore some vehicles coming from Tollcross turn right, across the cycle flow, from Home Street into Thornybank and Lochrin Place. Vehicles executing this turn frequently fail to see cyclists on the major road, and there have been some minor accidents not reported to the police and many near misses. Tollcross is a junction which is dangerous to cyclists and appears dangerous: it constitutes a repression of demand for cycle use and helps to generate the very motor traffic that makes it unpleasant. A Meadows cycle-way would enable many, though not all, cyclists at present using Tollcross to avoid it.

The main cycle flow in the morning peak in Summerhall (Causewayside) is proceeding northwards. The road is divided into 3 lanes with unclear road marking. Buccleuch Street, the north exit, is wide enough for only 2 lanes. Cyclists proceeding from Summerhall to Buccleuch Street have at present the choice of using the left lane, where they risk being cut in by left-turning motor vehicles; or using the centre lane, where they risk being overtaken on the left by motor vehicles going straight ahead and racing vehicles in the outer lanes. Like Tollcross, the Buccleuch Street / Melville Drive junction is a real danger to cyclists and very frightening to use; similarly, it constitutes a repression of cycle use and a generator of the motor traffic which makes it dangerous.

72% of all accidents involving pedal cyclists on urban roads occur at junctions. (K. Russam and B.E. Sabey, "Accidents and Traffic Conflicts at Junctions", T.R.R.L. Report L.R. 514, 1972). One of the prime objectives of the proposals for a Meadows cycle-way is to allow as many cyclists as possible to avoid major road junctions in the Meadows area and thereby to contribute to road safety. In the longer term, however, alterations will have to be made to Tollcross and the Melville Drive / Buccleuch Street junction, and to many other road junctions in Edinburgh, to provide as much reasonable safety for cyclists as is now provided for motor vehicles. Recently, changes at Tollcross have been introduced to speed the flow of motor vehicles, thereby increasing the danger to cyclists.

7. Cyclists and Pedestrians

The proposed cycle facilities involve (a) some stretches of cycle-only track and (b) some stretches of cycle/pedestrian paths divided by a white line and (c) some cycle/pedestrian paths without dividing line. There are many facilities of type (a), (b) and (c) in various cities in Britain and on all of them, as far as we can ascertain, accident rates are remarkably low. There has never been a fatal accident on the large 30-year old network of cycle/pedestrian paths (types (b) and (c)) in Stevenage; and there have been few accidents of any kind on them. The Cambridge Transport Plan Report concluded that "conflicts between cyclists and pedestrians are not of such a scale as to require rigid segregation throughout", and this conclusion is reproduced as the Department of the Environment's advice to Local Authorities (November 1975, U.R.P.B. 18/39/01, §11). Pedestrians do not seem to object to shared paths once

they are opened. Ninety per cent of the pedestrians questioned in Hyde Park, London, 12 months after one of the paths was opened to cyclists, said that they were not inconvenienced by cyclists; 78% didn't mind at all and a further 12% didn't mind much if the experimental route was kept permanently. No accidents involving cycles have been reported on the Hyde Park Cycle Route, which is in some respects similar to the Meadows Cycle-way. (The Hyde Park Cycle Route: Results of Surveys (All Change to Bikes, Westminster, 1978).)

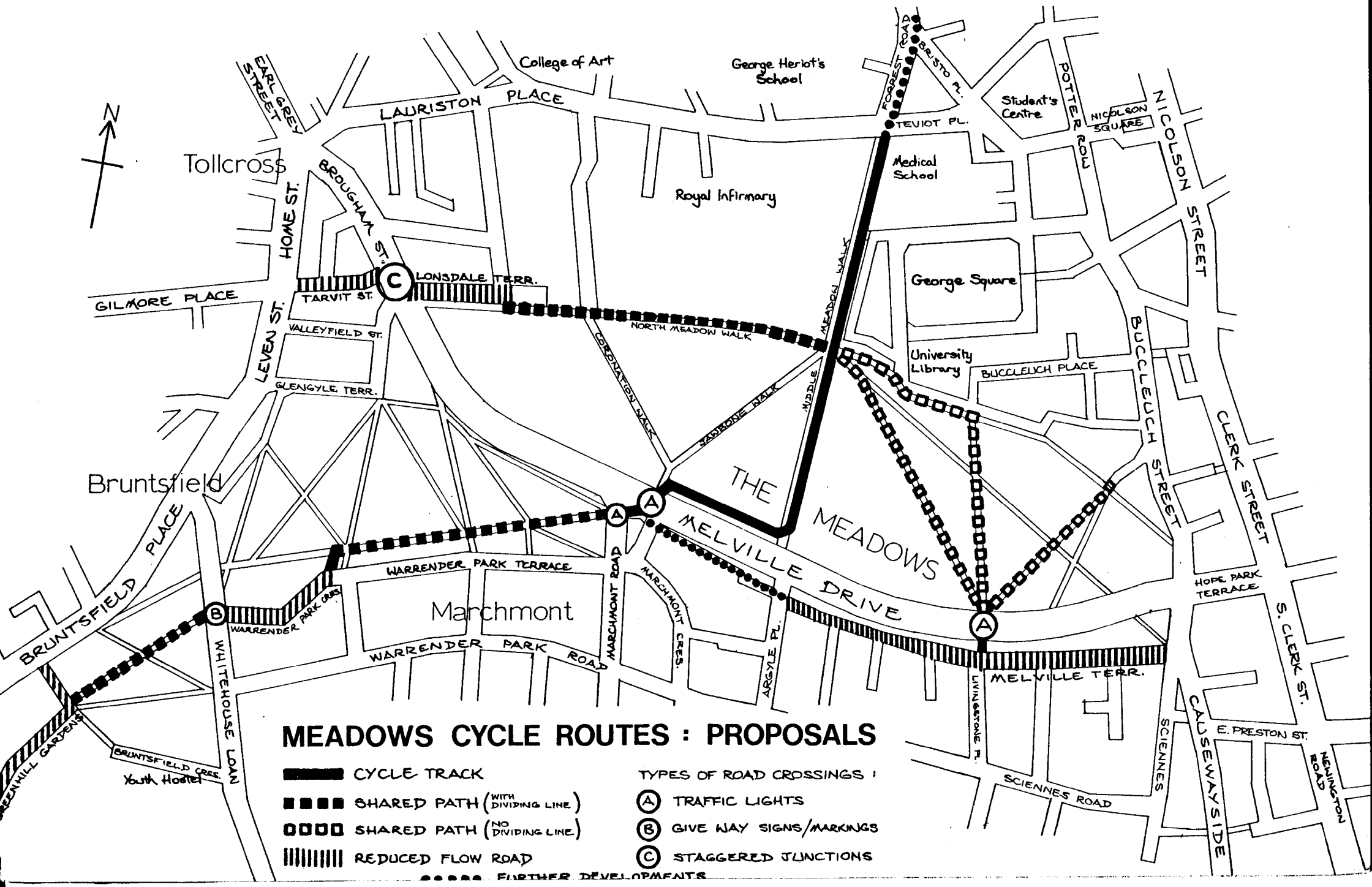
There is then every evidence that the mixing of cars and cycles as at present around the Meadows is dangerous; and no evidence that mixing cyclists and pedestrians as proposed on some of the Meadows paths would lead to accidents or inconvenience.

8.1 SPOKES' Proposals.

The specific proposals for a Meadows Cycle-way are described in this section which must be read in conjunction with the accompanying map.

There are clearly many different ways of meeting the demand for cycle facilities in the Meadows area. SPOKES have considered and rejected several of them. In particular, we do not consider that cyclists should be allowed to use all foot-paths without restriction. The final proposals laid out below reconcile the need to provide continuous and safe routes for cyclists along travel desire-lines with minimum interference with pedestrian flows. We think the plan is a coherent whole and should be envisaged as a single proposal and not acted on in a piecemeal fashion.

The bye-laws permit the City of Edinburgh District Council



to set aside areas of parks for the use of cyclists. No change to the bye-laws is required for the implementation of these proposals.

8.2 North to South-west.

(a) The major cycle desire-line is north-south along Middle Meadow Walk. This should be catered for by a segregated cycle track 3 metres wide running alongside Middle Meadow Walk from Teviot Row to Melville Drive. It should be situated to the east of the Walk, behind the tree screen. It should have a hard smooth surface textured green.

(b) Crossing Melville Drive towards the south-west. The cycle track should continue westwards parallel to Melville Drive from Middle Meadow Walk to about 10 yards short of Jawbone Walk. No crossing facilities should be provided at Middle Meadow Walk / Argyle Place.

The present traffic-light-controlled pedestrian crossing at Jawbone Walk should be altered and enlarged to form a cycle/pedestrian crossing.

Cycle/pedestrian crossings are automatic traffic signals where the pedestrian "green" and cycle "green" are on separate but synchronised lights. Pedestrian and cycle crossing places are separated by a band and run parallel. They can be triggered either by a loop detector set in the cycle route, or by a push button. The green light for cyclists consists of a bicycle-logo shine-through; and it need last for only a few seconds, thus minimising delay to road traffic. (See M. Hudson, The Bicycle Planning Book, London, 1978, p. 82; and DOE note URPB/18/39/01, November 1975, §16).

The path across the "triangle" between Meadow Place, Marchmont Road, and Melville Drive should be widened and divided

by a white line to allow cycle traffic on the southern half.

(c) Crossing Marchmont Road.

A new set of traffic lights for pedestrians and cyclists should be provided to ensure safer transit to Bruntsfield Links. They should be phased-in with the Melville Drive crossing signals. Thought should be given to providing access to the cycle-way to cyclists arriving from Marchmont Road itself.

(d) The Links.

The path from Marchmont Road towards Whitehouse Loan should be divided by a white line, the cycle section being to the south. A few benches will need transferring to the north side. The cycle section should be resurfaced with a green texture.

About 20 yards short of Boroughmuir Annex, a short stretch of segregated cycle track should be built to link the cycle path with Warrender Park Crescent.

(e) To Greenhill Gardens.

The following streets should be shut off to motor traffic at one end by bollards: Warrender Park Crescent, Greenhill Gardens and Bruntsfield Terrace (one set of bollards at their junction).

The path that leads from the Warrender Park Crescent / Whitehouse Loan junction to the Greenhill Gardens / Bruntsfield Terrace junction should be widened to 4 metres, allowing 2 metres for cycle use.

The cycle crossing from Warrender Park Crescent to the widened path should be protected by "Give Way" signs to traffic on Whitehouse Loan.

8.3 North to South-east.

The previous section provides a continuous safe route for cyclists from Bruntsfield and parts of Grange and Marchmont,

with minimal interference to pedestrians, some environmental benefits to residents and an improved pedestrian crossing facility. On its own, however, it is not enough to cater for existing demand. We propose therefore a second major through route from the south-east to the north.

(a) Melville Terrace to be closed to through motor traffic at its junction with Summerhall.

(b) The step-down from Melville Terrace to the gardens south of Melville Drive at the pedestrian crossing opposite Boys Brigade Walk to be widened and converted to a ramp.

(c) The pedestrian crossing at Boys Brigade Walk to be converted to cycle pedestrian crossing.

(d) Boys Brigade Walk to be a shared cycle/pedestrian path with no dividing line, up to its junction with the cycle track (8.2 (a)).

(e) Townswomen's Guild's Walk to be a shared cycle/pedestrian path.

(f) The path to Boroughloch to a shared cycle/pedestrian path.

The pedestrian and cycle flows on these paths are unlikely to be heavy if all are opened to cyclists. It would be unwise to concentrate all cycle flow from the south-east onto a single track.

On shared cycle/pedestrian paths pedestrians have priority.

8.4 East-West.

The previous two sections cater for almost all south-north traffic. Nonetheless there is a clear demand also for an east-west route, giving access to the King's Theatre / Gilmore Place area whilst avoiding Tollcross. This should be catered for thus:

(a) North Meadow Walk to be widened to 4 metres and divided by a white line, cyclists using the northern section, up to the

exit into Lonsdale Terrace.

(b) Bollards to be placed at one end of: Lonsdale Terrace, and Tarvit Street, to eliminate fast through traffic.

(c) A staggered light junction to be installed between Lonsdale Terrace and Tarvit Street. (For a definition of staggered cycle junctions, see F.J. Nicholson, "Cycle Route Junctions", TRRL 1976, no. PA 284/78, figure 1b.)

(d) Lonsdale Terrace and Tarvit Street to be made 2-way (only cycles having through passage).

8.5 Short Spurs

Short spurs should be provided from the cycle track to George Square North; from the cycle track to the south-west corner of George Square; from North Meadow Walk to Chalmers Street.

9. Possible further Developments.

(a) The proposals outlined in section 8 could lead to considerable congestion at the end of the cycle track at Teviot Place, where cyclists will have to dismount. If demand justifies it, there could well be a case for providing a cycle crossing controlled by lights from the Meadows track to Forrest Road, and for creating a 2-way cycle lane in Forrest Road.

(b) There may be a good environmental case for closing the Meadow Place / Melville Drive junction to motor traffic. The garden area could then be extended and the cycle crossing of Melville Drive moved slightly to the east to Meadow Place. The broad path along the south of Melville Drive from Meadow Place to Argyle Place could then become a shared cycle/pedestrian path.

10. Signing.

It is important that the different types of cycling

facility be clearly and distinctively signed (shared undivided cycle/pedestrians paths; shared divided cycle/pedestrian paths; segregated cycle track; cycle roads open to motor traffic for access only). Direction signs should also be provided at entry / exit points and junctions.

11. Problems.

Cycle/pedestrian conflict need not arise if sensible rules of conduct are established and publicised. We would suggest a very simple rule: pedestrians have priority at all times on all undivided paths and when crossing all other types of path. They would be advised to keep clear of the cycle section of divided paths and of the segregated cycle track (these would be both surfaced in green), but they would continue to have the right to use the entire space of the Meadows as at present. SPOKES feels confident that most cyclists would find these rules easy to obey. The overwhelming majority of cyclists currently obey the no-cycling rule, even though this means using heavily-trafficked roads and for many it means not using their bikes at all.

12. Government Assistance.

The Government's Transport Policy (HMSO, 1977) states that "local authorities should consider ways of helping cyclists" (§128). In order to help them do this, the Department of Transport "will strengthen its Traffic Advisory Unit" and through its Regional Offices "will improve its advice to local authorities... It will also contribute to the cost of selected experimental schemes for cyclists and help to devise and monitor them."

This passage of the White Paper has been strengthened in the committee stages of the Transport Bill and the revised wording will become law in the next few months. The Meadows

Cycle-way will not cost a lot; but even that small cost will be met in large part by central government, not by local ratepayers.

We would also like to stress the importance of monitoring the effect of the cycle-way on traffic flow. Traffic counts must be made both before and after construction to provide useful information on the impact of improved cycle facilities.

13. Public Response.

Visitors to the SPOKES stall at the Meadows Festival (June 3rd and 4th, 1978) were invited to fill in a questionnaire on the Meadows cycle-way proposals, which were on display. It was to be expected that the stall would attract interested cyclists, and the 231 questionnaire responses are not therefore representative of the population as a whole. Nonetheless, the overwhelming support expressed for SPOKES' cycle-way plans is highly encouraging.

Q : WOULD YOU OBJECT TO A MEADOWS CYCLE-WAY?			
YES	14 (6%)	NO	217 (94%)

Most of the respondents were bike owners who would use a Meadows Cycle-way when it is built.

Q : DO YOU OWN A BIKE?			
YES	215 (93%)	NO	16 (7%)

Q : WOULD YOU USE A MEADOWS CYCLE-WAY IF PROVIDED?					
YES	214 (92%)	NO	13 (6%)	NO ANSWER	4 (2%)

Respondents were also asked to state their age-groups:

UNDER 15	23	(10%)
15 - 25	110	(47%)
OVER 25	96	(42%)
NO ANSWER	2	(1%)

This does not seem to be an untypical cross-section of the cycling population, but answers to the following question are somewhat surprising given common assumptions about cycle use in Edinburgh:

Q : DO YOU USE YOUR BIKE	EVERY DAY	116	(50%)
	OFTEN	60	(25%)
	SOMETIMES	32	(14%)
	RARELY	4	(2%)
	NEVER	3	(2%)
	NO ANSWER	16	(7%)

Of those who did not own a bicycle, 94% (15) did not object to the proposed cycle-way; similarly, 94% of those who did own one or more cycles approved SPOKES' proposals. The majority of those who did object to the cycle-way were cycle-owners: 7 owners in the 15 - 25 age group, 6 in the over - 25's, and 1 non-owner. Of the 13 cycle-owning objectors to the scheme, 8 said they would nonetheless use the cycle-way when it is built. This apparent inconsistency is explained by their comments written in the space provided: "Why the Meadows? Princes Street!"; "If the roads were better the Meadows could be left alone"; "Melville Drive should be closed to cars and turned into a cycle-way.". One objector had fairly obviously not seen SPOKES detailed proposals and mentioned "difficulty at junctions" as the grounds for his objection. The number of those who objected to the proposals and would not use a

cycle-way but who did own bikes was insignificant: 5 out of 231 replies (2%). More significant is the fact that 75% of those who did not own a cycle said they would use the cycle-way - which indicates, presumably, that they would buy a bicycle first. Although the numbers involved (12 out of 16) are too small to be reliable, this result does correspond to the findings of a survey carried out for the Countryside Commission and which revealed that 60% of the non-cycle-owning households in the country would buy a bicycle if safer facilities were provided for cycle-use.

The bulk of the comments made in the space provided were favorable, if not enthusiastic. "Good idea", "excellent idea", "Guid on you", "Keep it up" were frequent. Several mentioned the need for cycle-tracks well beyond the Meadows area, and one sketched in a plan involving the Scotland Street tunnel! A good number made very unfavorable comments on the current policy of using a motor van for the Park Patrol, and suggested that the Meadows should be patrolled by men on bicycles. SPOKES thinks this an excellent suggestion and would like it to be acted upon immediately. Such a change poses no greater legal problem than the present policy, and it would do much to hearten the many hundreds of people who are impatiently awaiting a Meadows Cycle-way. We would also like to suggest - from experience! - that a cycle patrol would be faster, more manoeuvrable, more effective and less of a nuisance to pedestrians than a noisy and cumbersome van.

14. This document is accompanied by a petition bearing 908 signatures. It will be noticed that a high proportion of the residents of the streets affected by SPOKES proposals are signatories.