



Creating the future of transport



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Urban Safety Management - A UK demonstration project

Presented Pat Wells

5th OR YAROK International Convention
for Road Safety

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What is Urban Safety Management?

- **A methodology to reduce casualties**
- **A vision and strategy for the whole urban area**
- **Not just engineering**
- **Involves everyone**
- **Deals with scattered accidents as well as clusters**

The principles of a USM strategy

- **Formulate a safety strategy**
- **Integrate safety with other urban strategies**
- **Consider all kinds of road users**
- **Consider the function of each road**
- **Integrate existing casualty reduction efforts**
- **Use opportunities to enhance safety**
- **Encourage all professional groups to help**
- **Guard against possible adverse safety affects**
- **Translate into local area safety schemes**

Gloucester Safer City

Aims of Demonstration

- To demonstrate the effect of considering USM across a medium sized UK city
- To show that techniques are available to substantially reduce accidents if money is provided
- Not to test new techniques



What happened first?

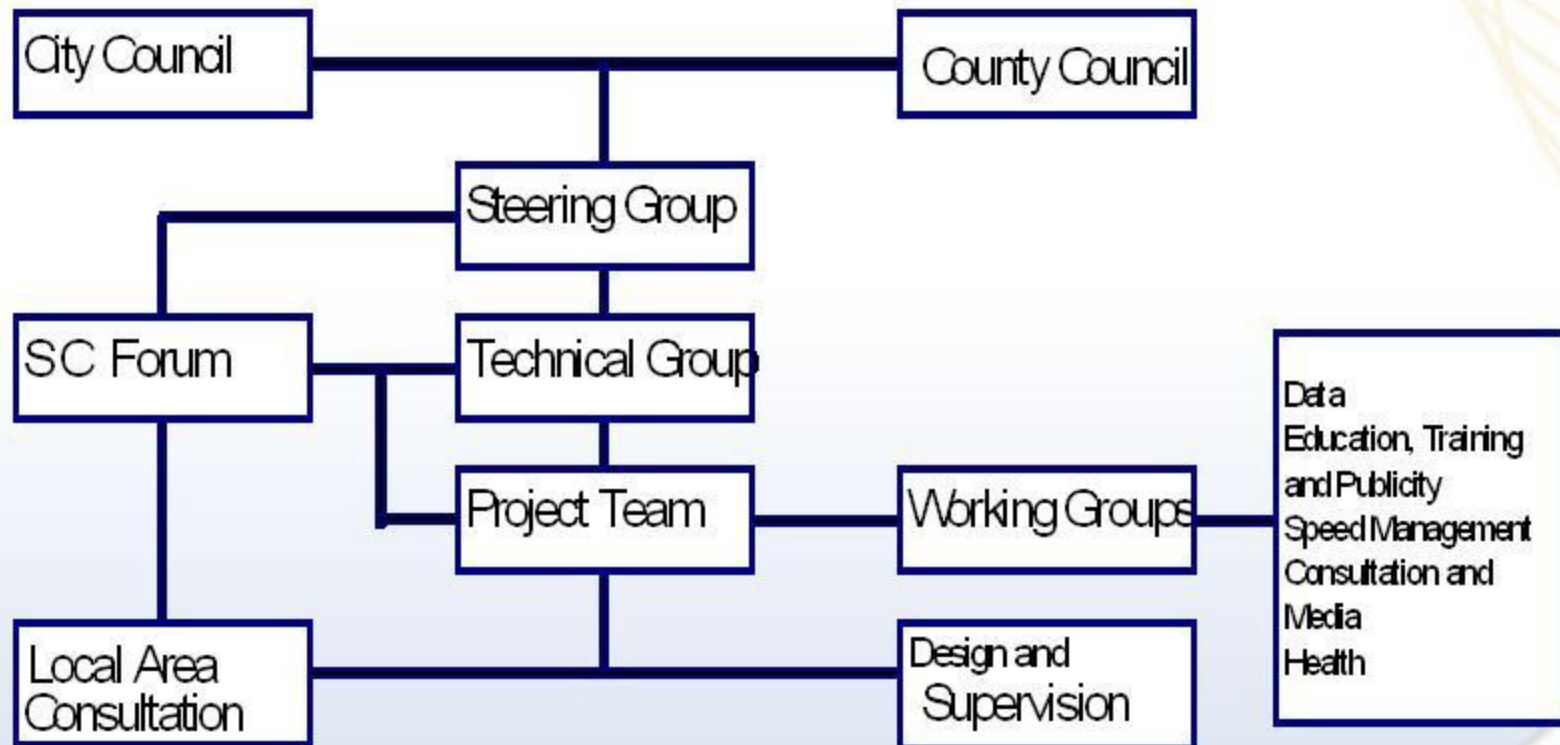
- **A national Competition, won by Gloucester**
 - £5m to spend over 5 years 1996-2001
 - Massive press interest
 - Had to set up the team in 3 months
 - Had £600,000 to spend in year 1
 - No off-the-shelf schemes could be used
 - Full analysis of speeds, flows, accidents over lengths, hierarchy

What was done?

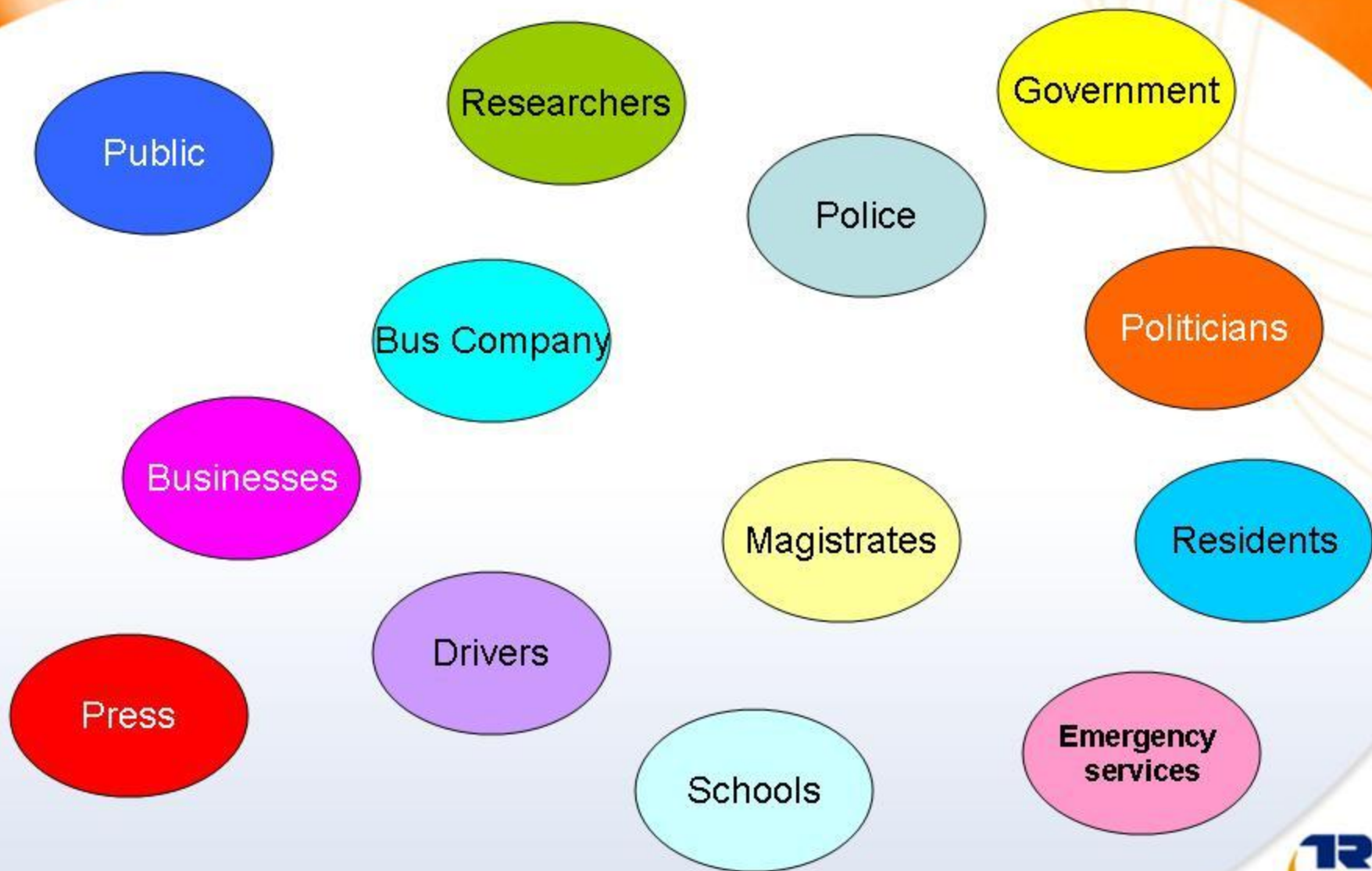
- **Strategic approach**
- **Largely engineering led**
- **Increased enforcement**
- **Co-ordinated education**
- **Public involvement**
- **Co-ordination with other bodies**
- **Branding and marketing**

How was it managed?

- A dedicated Project Manager to lead the project
- Design work by the Local Authority Team



Wider Community Consultation



Involving People

- Safer City Exhibitions
- Interview Surveys
- Citizen Juries
- Forums
- Leaflets & Publications

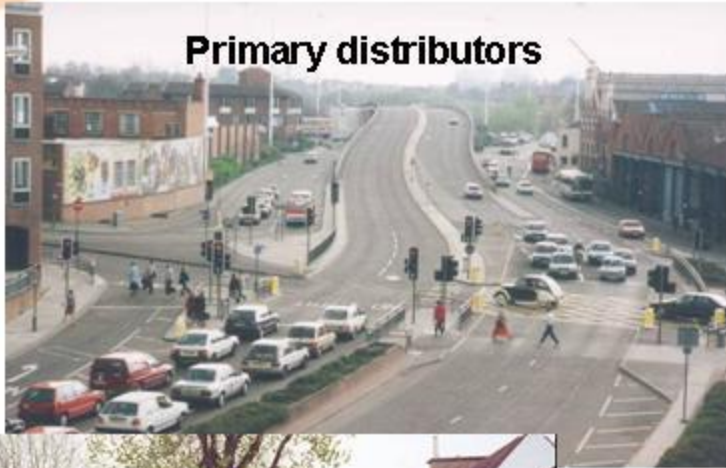


What had to be done?

- **Define the functions of the roads**
- **Decide on procurement methods**
- **Establish available methods**
- **Establish and publicise timetable**
- **Detailed design and measures**

Road Hierarchy

Primary distributors



District distributors



Pedestrian streets

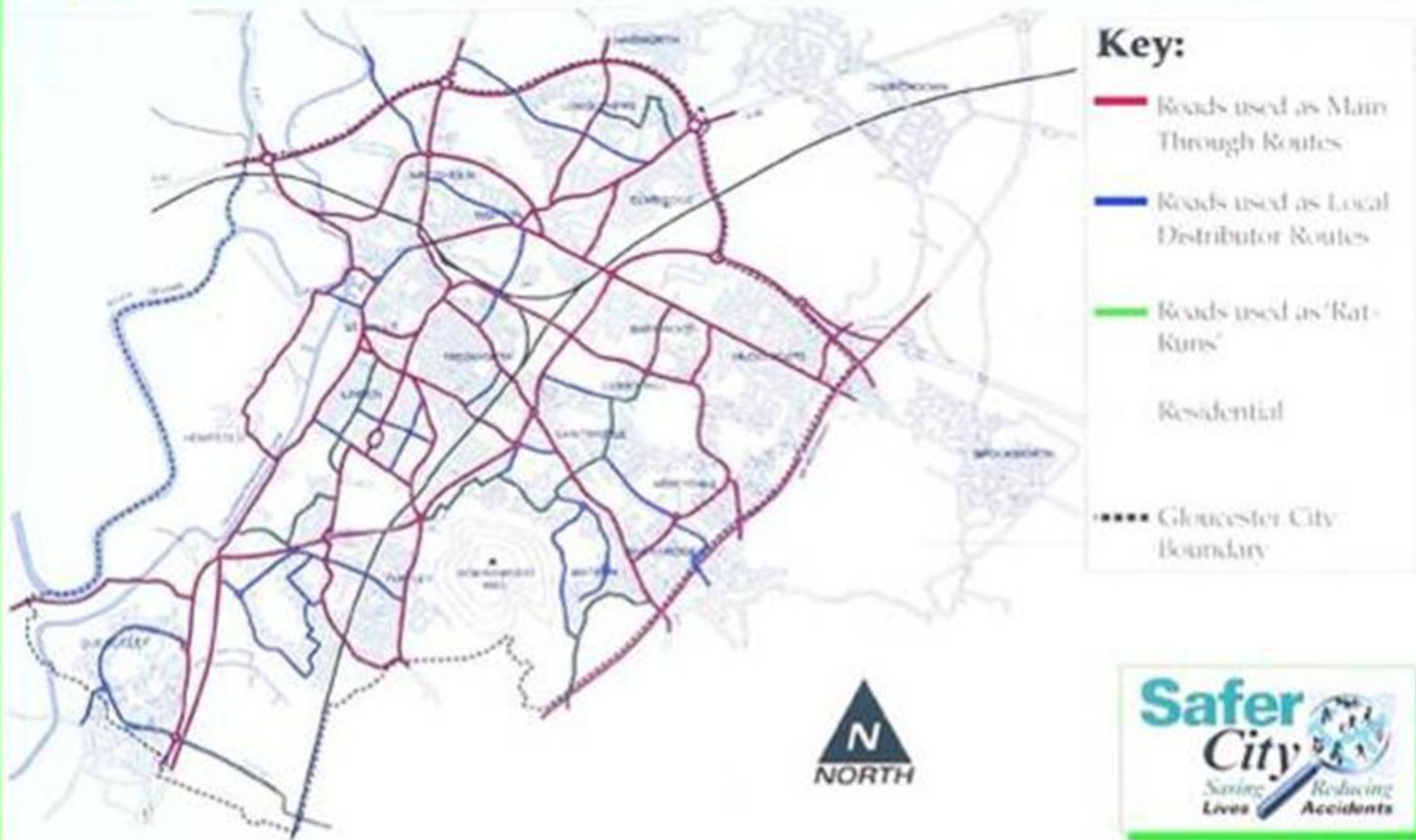


Local distributors

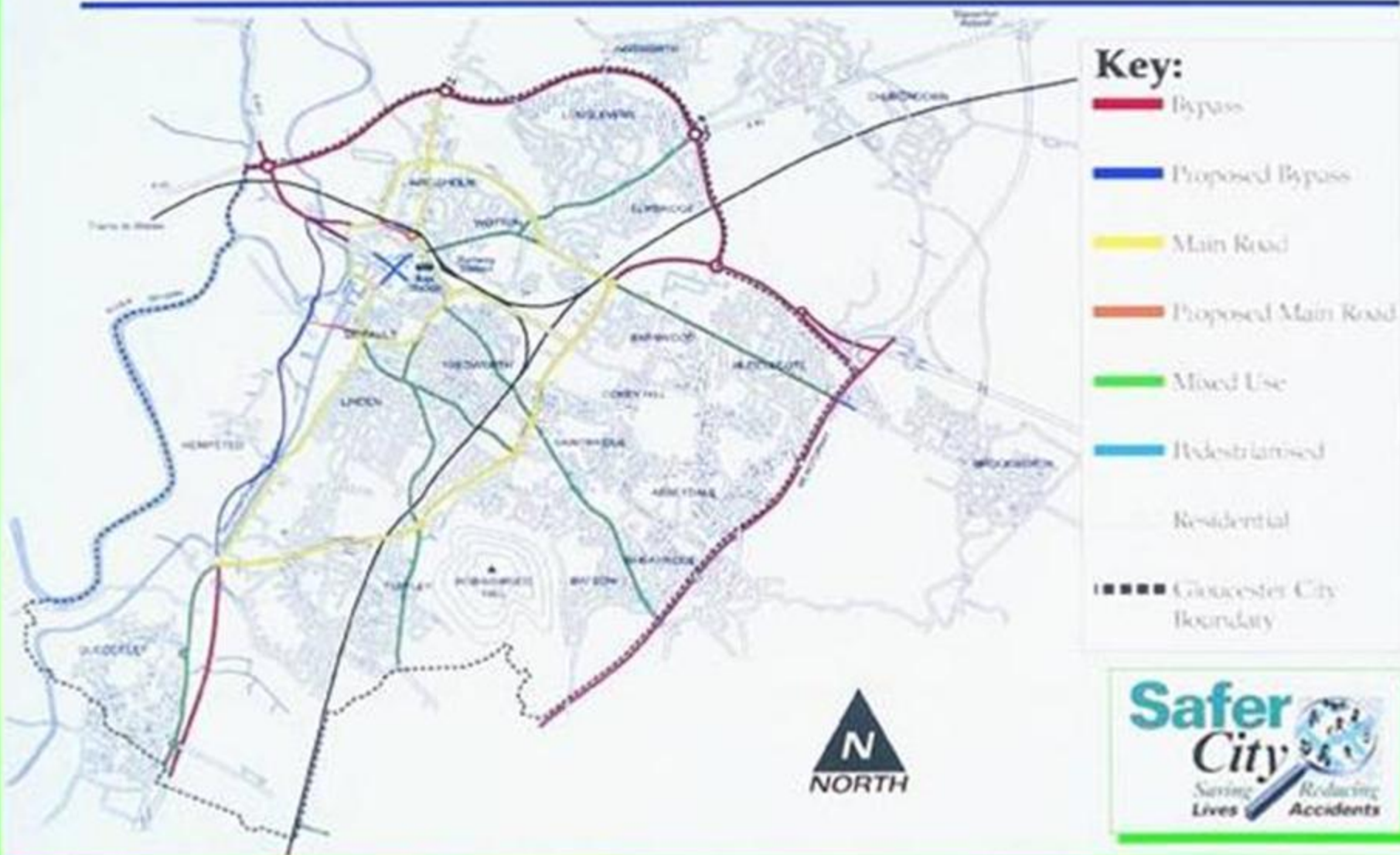


Access roads

Existing Road Hierarchy (1996)



Desired Road Hierarchy



Key:

- Bypass
- Proposed Bypass
- Main Road
- Proposed Main Road
- Mixed Use
- Redeveloped
- Residential
- Gloucester City Boundary

Safer City
Saving Lives Reducing Accidents

Procurement

Benefits of dedicated resident engineer

Consistency

Expertise carried forward

Traffic regulation orders

Type of contract - options

- Separate contract for each scheme
- Existing term maintenance contract
- New term contract
- Framework contracts

Planning Phase

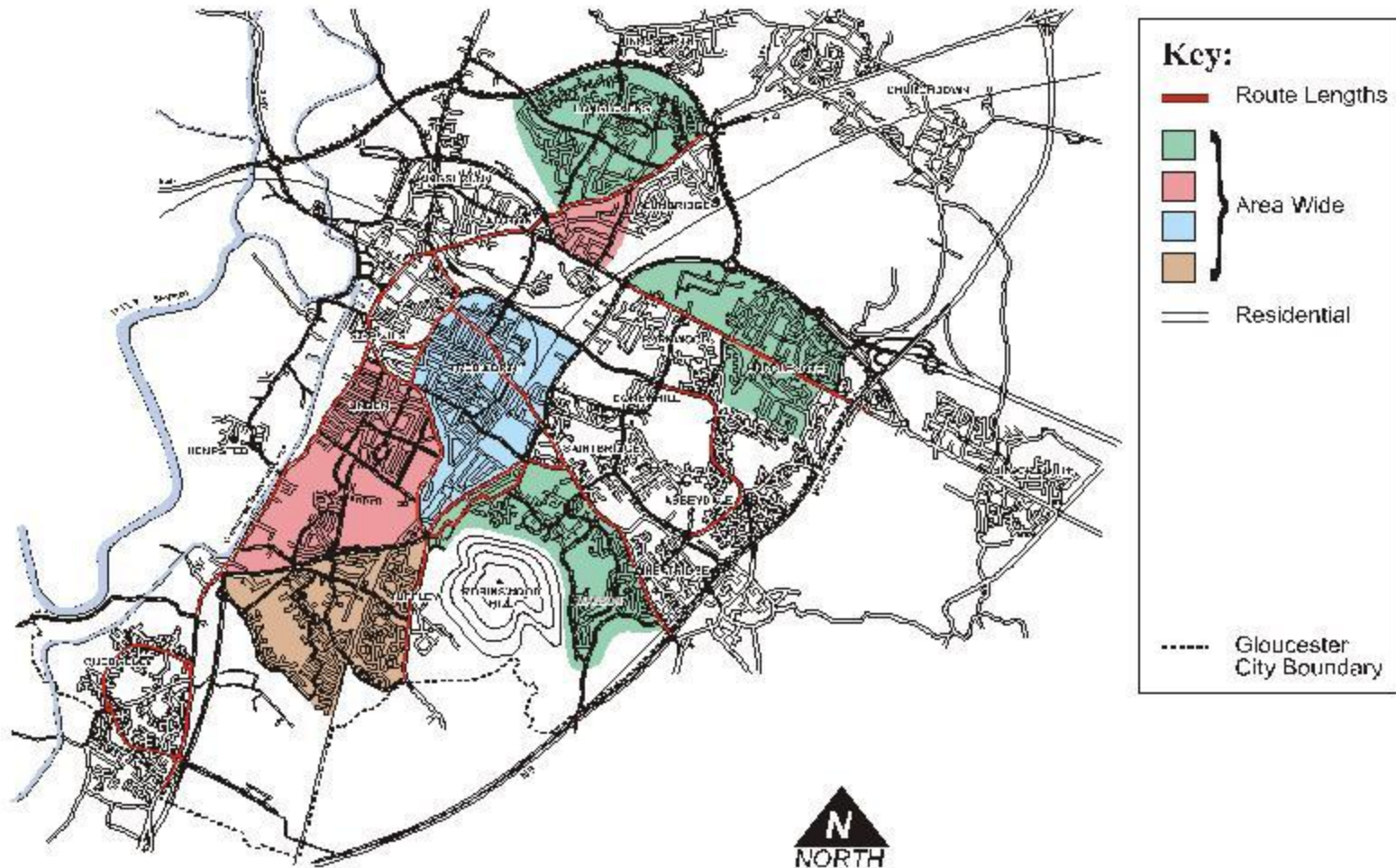
- **City divided into zones - need to minimise disruption across city**
- **Chose to deal with largest problem area first**
- **Initial consultation with residents by area**

Implementation



Area wide schemes

Major Schemes



Traffic calming measures



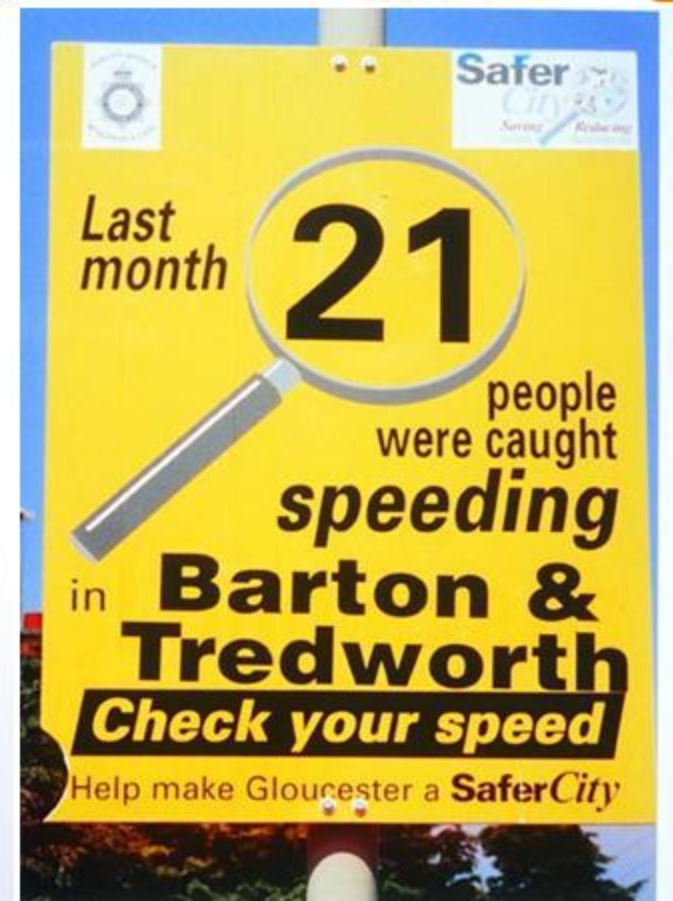
Enforcement of speed limits

- **Dedicated police team to increase enforcement activity**
- **Laser speed gun**
- **In-car video equipment**
- **Speed cameras**



Encouraging drivers to use appropriate speed

- Road-side posters to advertise the number of people prosecuted
- Traffic calming
- Narrowing of space available for motor vehicles through:
 - cycle lanes
 - central refuges
 - central hatching
 - build-outs
 - widening of footpaths
- Speed activated warning signs
- Gateway feature highlighting the speed limit
- Publicity in the local press
- Anti-skid surfacing



Encouraging drivers to use appropriate routes

- **Closures**
- **Traffic calming on rat runs**
- **Speed enforcement**
- **Traffic signal timings**
 - reduced time pedestrians had to wait at vehicle activated pedestrian crossings before the “green man” was displayed.
 - Transponders at traffic lights speeded up buses by triggering a green phase for them as they approached.
- **Bus lanes**



Help for Pedestrians

- **Pedestrianisation in city centre**
- **New Pelican crossings**
- **New Zebra crossings**
- **Central refuges**
- **Area-wide traffic calming**
- **Narrowing of carriageways**
- **Safer routes for children on their way to and from school.**



Maintenance

Minimum Essential Maintenance

- £40,000 per annum (2001)

Maintenance cost including replacement of features

- £175,000 per annum (2001)
- Should be considered from the outset

The Research

- Accident and casualty reductions
- Effect of measures and schemes
- Speed effects
- Traffic flow effects
- Environmental effects
- The management process
- Public consultation
- Public opinion

Results

- **KSI were down by 38%**
- **Greater awareness - increased reporting rates**
- **Adult pedestrian casualties down by 22%, child pedestrian by 13%**
- **Speed reductions only in treated areas**
- **Majority still prefer to use cars**
- **Public opinion was largely positive**

A successful project

- **Injury accidents showed good reductions**
- **Speeds were reduced**
- **Most engineering treatments used were effective**
- **Environmental effects of the project were generally not negative.**
- **Public opinion about the project was largely positive**
- **There was some traffic re-distribution, (but traffic redistribution is difficult) .**
- **Managing the integrated approach was challenging**

Want to know more?

- The TRL report is available for free download from the publications section of the TRL website: www.trl.co.uk
- http://www.trl.co.uk/store/report_detail.asp?srid=2740&pid=108

What has been learned?

- **Co-ordination is a balancing act – everyone wants something different**
- **Need a strong-willed project manager**
- **Need lots of RS design engineering skills**
- **Need good political support and understanding**
- **Need excellent consultation – but it's never enough!**
- **Need to consider the future**

The Way Forward

- **Adopting the strategic USM approach means that substantial casualty reduction is possible.**
- **USM can encourage a more innovative and forward looking approach to the design of urban street space.**
- **The needs of all users are catered for.**

Current UK project - moving to a social agenda

- Projects to consider road safety in the context of social renewal
- Areas of unemployment, poverty, poorly designed infrastructure
- Birmingham - Streets Ahead project
- <http://www.birmingham.gov.uk/streetsahead.bcc>





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