

Chapter Seven:

Safer Roads

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This chapter sets out the Greater Nottingham response to addressing the Government's Road Safety Shared Priority. It highlights the general issues concerning road safety, provides a summary of the local strategies, and looks at the key areas of intervention and actions through which the road safety targets will be reached.

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7.1 Background

Road safety is one of the most emotive areas addressed in the LTP. It has implications for the majority of the other transport priorities contained within the Plan, notably congestion, accessibility, maintenance, regeneration and quality of life, as well as being a key focus for investment in its own right.

Furthermore, it contributes towards the development of safe and sustainable communities in Greater Nottingham underpinning wider corporate, regional and national agendas. See Chapter 3: Wider Context.

There are a number of different elements to road safety that are addressed in the LTP. These key areas involve:

- a. Tackling road safety in areas of disadvantage within the urban area,
- b. Meeting child casualty reduction targets,
- c. Improving the safety of road users in rural areas,
- d. Managing excessive speed,
- e. Tackling work related accidents,
- f. Reversing the trend in motorcycle related accidents, and
- g. Addressing the safety of vulnerable road users on school journeys.

In considering these issues an integrated approach has been taken to address the needs of occupants of motor vehicles, motorcyclists, pedestrians, cyclists and horse riders on the local highway network. The road safety issues encountered on the Highways Agency strategic road network also feed into, and are reflected in the Plan. The Highways Agency is a member of the Safety Camera Partnership and camera sites have been rolled out onto the trunk road network. Road safety education is also co-ordinated to build upon DfT awareness campaigns resulting in a joined up approach.

7.2 Greater Nottingham Issues

The National Road Safety Strategy¹ has influenced the development of the City's and County's local strategies and the joint approach to addressing road safety issues through the LTP. The key areas of focus – improving safety for children, safer drivers, safer infrastructure, safer speeds, safer motorcycling, safety for pedestrian, cyclists and horse riders, together with better enforcement and the promotion of safer road use – are all contained within the Plan.

¹Tomorrow's Roads: safer for everyone; DETR, March 2000

7.2.1 Road Safety Strategy for the City

Nottingham's Road Safety Strategy has been submitted in support of the LTP. It documents the casualty trends in the City for all road user groups and identifies what actions are being undertaken to achieve the casualty reduction targets.

The strategy complements that developed by the County Council with a number of shared objectives. This joint working is further demonstrated in the undertaking of research highlighting the extent to which those involved in crashes in the City live in the County and surrounding region.

In terms of developing road safety education campaigns there is a need to think regionally. The 'Shiny Side Up' partnership for reducing East Midlands motorcycle fatalities and the regional safety camera event at the NEC Motor Show are examples of how both authorities have worked at the regional level to help meet local targets (see section 3.3.1).

At a local level the casualty reduction schemes and road safety educational activities are integrated within the strategic objectives of the City Council. For example, the annual road safety quiz has previously revolved around tram safety with the launch of NET, and in 2005 it featured the redesign of the Old Market Square and promoted safe methods of getting there.

There is also an integrated approach to scheme development. Casualty reduction schemes are integrated into wider transport initiatives that simultaneously address maintenance, accessibility, public transport improvements and regeneration. The regeneration of Aspley Lane and the local shopping centre in 2005 highlighted the co-ordinated approach at a neighbourhood level.

7.2.2 Road Safety Strategy for the County

The 'Cross-Service Road Safety Improvement Plan' (2003-2010) details the County Council's Road Safety Strategy. It highlights the casualty trends and the plan itself contains a range of actions from education programmes to highway maintenance programmes to help achieve casualty reduction targets.

The Plan aims to help improve the efficiency and effectiveness of the service, enhance partnership working, and focus resources towards key areas of road safety work to achieve national road safety casualty reduction targets as well as address issues relating to accessibility, regeneration, and smarter travel choices.

All of the tasks are regularly reviewed to ensure their successful progress and therefore the effectiveness of the plan. A Road Safety Board consisting of officers representing the various strands of the County Council which make up the road safety service meet regularly to help ensure a co-ordinated corporate approach to road safety service delivery, as well as the close integration of strategies, such as those relating to cycling, walking, motorcycling and road safety.

A post has also been established to research casualty trends, identify road safety best practice, ensure policy are in place to meet the road safety service requirements, monitor the effectiveness of the different parts of the Cross-Service Plan and make recommendations for improvements to the strategy when necessary.

Policy and strategy continue to be reviewed annually based on the regular collection of road accident and school travel data, but in addition to this a comprehensive three year review of the effectiveness of the County Council's road safety strategy is currently being undertaken. The review considers the road safety services delivered by other 'good performing' local authorities so that Nottinghamshire can learn from those offering enhanced services.

A Road Safety Forum was held with external stakeholders in July 2003 when the plan was presented and discussed with key organisations such as District Councils, Driving Standards Agency, Emergency Services, GOEM, Highways Agency, Local Education Authority, neighbouring local authorities, the Police, and Primary Care Trusts. This proved to be a very successful event and the Forum was held again in 2004 and is to be held annually in future to ensure that partners have an input into policy formulation and strategy.

Partnership working and the use of engineering, education and enforcement technology is at the forefront of Nottinghamshire's Road Safety Strategy.

7.3 Key Areas of Intervention

This section sets out the areas in which steps are being taken to address the key elements of road safety set out in 7.1. It reflects the important road safety issues highlighted by the DfT², and also specific local action areas.

7.3.1 Tackling Road Safety in Areas of Disadvantage

Disadvantaged groups and deprived areas suffer disproportionately from the negative impacts of road traffic³. This issue is particularly pertinent to Nottingham, which suffers from high levels of deprivation in a number of wards. See section 4.7.1.

In the mid 1970's the County Council, which included the City at the time, became one of the first authorities to recognise and investigate the connection between road safety and deprived areas. The process of investigating areas of deprivation and applying accident remedial schemes has therefore been ongoing for a number of years. The continued investigation of areas of deprivation is also a key action within the authorities road safety strategies.

² Full Guidance on Local Transport Plans; DfT, December 2004

³ Making the Connections: final report on Transport and Social Exclusion; Social Exclusion Unit, February 2003

During the last 10 years the County Council has spent £1.64 million on traffic calming alone in Nottinghamshire. Significantly more than £1 million of this funding has been spent in 16 of the most deprived wards. These schemes have saved over 220 accidents during this period, giving a rate of return of over 1000%.

Links have been established with Accident Prevention Groups throughout Nottinghamshire to help ensure that these cross service working groups consider road safety alongside their other work particularly within deprived areas.

In 2003/4 Nottingham submitted bids for a Safe City award and Neighbourhood Road Safety Initiative (NRSI). In both cases research was undertaken to investigate casualty patterns in areas of deprivation and to design suitable road safety improvement plans. It demonstrated concentrations of drivers involved in crashes residing in certain wards of the City and this will lead to a focused distribution of educational material within these areas.

The award was also used to provide improved pedestrian facilities and to promote road safety focus groups, Neighbourhood Warden safety training and child restraint fitting advice at fire stations in deprived areas. Work to improve the responsiveness of pedestrian demands at signals will be rolled out across the majority of areas of inner city deprivation during the course of LTP2.

District Shopping Centre schemes, such as Aspley Lane, have focussed on regenerating local centres, improving transportation links, developing local access routes and reducing casualties. The Aspley scheme used the Urban Mixed Priority Route Treatment approach that has been researched using DfT demonstration projects. It is envisaged that similar schemes will be undertaken in various locations across the City including at Broxtowe Lane.

It is recognised that a significant proportion of the conurbation has low indices of deprivation and that road safety work in these areas can be particularly effective. Consequently the Plan will allocate a priority commitment to accident remedial measures and safer routes to school schemes that have been identified in these areas.

7.3.2 The Child Casualty Reduction Strategy

The number of child pedestrians killed in the UK is high in comparison to other European countries⁴. Significant progress was made during the course of LTP1 although the number of children killed or seriously injured on Greater Nottingham roads stood at 60 in 2003/4.

The child casualty reduction strategy for Greater Nottingham will continue to focus heavily on targeted road safety, backed up with a wide range of engineering treatments aimed at improving the physical environment in which children live. The educational material is age stratified to reflect the development of children and the risks they face as road users.

This process begins early with three different educational packs supplied at ante-natal groups, pre-school playgroups and at reception classes. The early focus is on developing

⁴ Tomorrows Roads: safer for everyone; DETR, March 2000

parental responsibility and protection. This includes wearing seat belts, close supervision, and acting as a good role model.

When children attend school they are sequentially introduced to pedestrian safety, cycle training and pre-driver training. In many cases this is integrated into the curriculum so that limited additional strain is imposed on teachers. An example of this is the 'egg heads' design and technology project which gets secondary school children to design and build cars that protect eggs in crash tests.

In 2002 consultants were commissioned to identify locations where engineering treatments could be implemented to reduce child casualties. This work resulted in a number of length treatments that have been fed into the LTP programme. However, the research also highlighted the need to work in large residential areas because child casualties are widely dispersed with very few concentrations that could be addressed with a point treatment. Consequently area wide schemes will be an important method for reducing child casualties.

7.3.3 Safety of Road Users in Rural Areas

The majority of casualties involving car drivers and passengers in the County area of Greater Nottingham occur on rural roads. Analysis of these casualties has shown that driving too fast for the conditions, or excessive speed were contributory factors in over a third of all fatal accidents on rural roads in Nottinghamshire.

Such problems can sometimes be difficult to treat with engineering solutions because they tend to be somewhat random in geographical location and circumstance. Traffic management measures such as signing and lining schemes, inter-active signs and marker posts are, however, used when appropriate, along with education and publicity campaigns. Where casualties occur over lengths of roads, route management strategies are implemented along the whole length of the route.

Traffic calming is installed as a measure to reduce road casualties and/or as a measure to reduce through traffic to improve local environments. Most schemes have been in urban areas but a small programme for rural villages has also been implemented.

A policy and programme of works has been developed for the introduction of speed limits at villages throughout the County to help address the issue of speeding in rural areas and reduce the resultant accidents. Phase 1 of this programme is the introduction of 30mph speed limits in villages with a history of accidents. Sixteen villages have been prioritised for treatment and Phase 1 of the programme will be completed by the end of March 2006.

Phase 2 of the programme will look at the introduction of reduced speed limits at remaining villages that currently have the national speed limit and a review of villages with 50mph speed limits. The introduction of Phase 2 will be determined once sufficient time has passed to ascertain the effectiveness of the measures installed so far (in terms of casualty and speed reduction) and the Government's new guidance on setting local speed limits has been finalised.

Safety cameras also have a major part to play in reducing speeds on rural links with a history of accidents. Static cameras are installed on the key rural casualty reduction routes, and mobile cameras are used in lieu of permanent cameras being installed as well as on roads that have a casualty and speed history but do not meet criteria for permanent camera installation.

7.3.4 Managing Excessive Speed

The need to manage excessive speed in Greater Nottingham was reflected in a survey in which over 70% of respondents felt that speed cameras should be used more widely where dangerous speeding is a problem⁵.

The LTP will take a hierarchical approach to speed management and the reduction in accidents involving excessive speed. This involves the implementation of home zones and traffic calming schemes in residential areas whilst introducing speed cameras on the principal road network. Between these extremes there are a range of speed management techniques that will be applied according to the local characteristics of a road. These techniques include speed tables, mini-roundabouts, refuges, chicanes, interactive signs and traffic signal modifications.

Traffic calming will remain an important technique for speed reduction in residential areas and Table 7.1 below shows the speed and casualty savings that have been achieved by implementing schemes in the City.

Table 7.1: Traffic Calming Speed and Casualty Reductions (City data only)

Type of Traffic Calming	Mean Speed		% Reduction in Casualties
	Before	After	
Round Top Road Humps (18 schemes)	24.7	13.7	51%
1.9m Square Cushions (19 schemes)	28.8	15.1	61%
8m Plateau (7 schemes)	29.7	18.8	64%

Considerable emphasis will continue to be placed on the detailed design of features to reduce maintenance costs, and to minimise discomfort whilst retaining safety benefits. This will continue to be achieved with the use of concrete cushions on bus routes and emergency service routes that have been accepted by the emergency services and the bus operators.

At locations where there are high concentrations of pedestrians, especially at formal crossing locations, high ramps will be used to equalise the height of the carriageway and the footway, a practice particularly beneficial to wheelchair users, and the elderly.

⁵ Greater Nottingham Transport Perception Survey; TTR, July 2004

Safety Camera Partnership

A safety camera partnership managed by the authorities, Nottinghamshire Police, Nottinghamshire Magistrates Courts Service and The Highways Agency has been responsible for a £3.6 million per annum budget spent on speed and red light cameras.

Continued funding will be used for the introduction of cameras, the processing of fixed penalty notices and an education programme aimed at increasing public awareness of the relationship between speed and casualties and the benefits achieved by this type of enforcement. It is anticipated that the annual budget will remain at a similar level for the lifetime of the plan.

About £1.5 million per annum will be spent on the introduction of new safety camera equipment and £200,000 each year on public relations. In accordance with the Freedom of Information Act all details surrounding the safety camera partnership, the finance, the location of the sites and the strategy documents can be viewed on the partnership web site, www.streettactics.com.

7.3.5 Road Safety at Work

In October 1999, Nottinghamshire Police and the authorities jointly launched a Driver Improvement Programme as an alternative to prosecution for due care and attention offences and over 700 motorists a year currently attend this course. Because of the high incidence of work related vehicle collisions a one-day driver development programme was subsequently introduced using the existing infrastructure and resources.

This programme has been attended by officers from both the authorities and is now offered to local businesses. It is anticipated that this course will gain importance over the lifetime of the LTP as the Health and Safety Executive place greater emphasis on employers managing occupational road risk.

In 2006 the Safety Camera Partnership will introduce speed awareness courses in accordance with the 'ACPO' guidelines. This will extend the range of training opportunities that are offered to motorists as opposed to prosecution.

Programmes of 'road safety at work' publicity and educational resources to promote the management of occupational road risk to all employers in Nottinghamshire are also being developed to complement the training offered.

7.3.6 Motorcyclist Safety

Motorcyclist casualties fell substantially between 1979 and 1999. However, this decline has reversed and casualties are now increasing particularly in the County part of the Plan area, a trend which compares unfavourably to the continued decline in other road user casualties. Despite their small modal share of traffic, motorcyclists accounted for 21% of all the KSI casualties in the County part of the Greater Nottingham area in 2004. Furthermore, the numbers of KSI casualties had increased by 5.5% when compared to the 1994-98 baseline.

Analysis of motorcycle casualties have identified two specific groups being involved in motorcycle accidents:

- Riders of larger machines, predominantly ridden by those aged over 30
- Riders of smaller machines, predominantly ridden by young riders (mirroring the increase in popularity of twist and go scooters).

The authorities and Nottinghamshire Police have formed a partnership to investigate these crashes and formulate a casualty reduction strategy. Investigations have highlighted the types of riders likely to be involved in crashes, the locations where the crashes were occurring and common causes. It revealed that many accidents involve motorcyclists travelling long distances and as such a region approach is required.

In partnership with the Police, routes with a high number of motorcycle casualties have been identified. When possible, Police attending incidents travel along these routes to establish a Police presence in the hope that this will affect rider behaviour.

A motorcycle forum has been established with the main aims of making motorcycling in Nottinghamshire safer and more convenient. The forum is an equal partnership between the County Council and local riders. To give as many riders the chance to go to a forum, the meetings take place every three months at different locations around the County.

The 'Shiny Side Up' Partnership involving Police forces and highway authorities throughout the East Midlands, is developing a DVD that will focus on the attitudes of super bike and sports bike riders. The DVD will feature John Reynolds, the British Superbike Champion, and target the more mature riders. This co-operative work will expand throughout the lifetime of the LTP.

A series of activities will also be developed for the younger riders, particularly those on scooters and bikes under 125cc. The programme will be co-ordinated under the title of "The Bare Bones Project", and it will focus on the benefits of wearing protective clothing. The Accident and Emergency Department at Queens Medical Centre are providing the injury data that will be used in publicity distributed through motorcycle retail outlets. It is also intended to use roadside advertising in a similar way to that used already at motorcycle crash sites.

Working in partnerships such as these will continue to play a major role in road safety strategy and give the opportunity not only to learn from other authorities, but to pool resources and also to adopt more consistent road safety programmes across the region in order to maximise their impact.

7.3.7 Vulnerable Road Users on School Journeys

Around half of all journeys to a place of education are on foot, and to enable this to grow, road safety and the perceptions of safety have to be addressed. Developing safer routes to school is an important tool in improving the actual and perceived safety of children, and also in encouraging more children to walk, thus reducing dependency on the car.

A Safer Routes to School programme, and the production of School Travel Plans are being co-ordinated with the ongoing review of school provision. To encourage more children to walk to school, walking routes will be developed based upon the actual routes children take.

The routes will be colour coded and recognised by children, health professionals and the community as a whole as a safe way of getting to school and comprise the provision of new facilities such as new street furniture, wider pavements, improved lighting, pedestrian friendly crossings and traffic calming measures.

There is an established School Travel Plan programme in place across Greater Nottingham. The Government requirement is for all schools to have a Travel Plan by 2010/11 (see Chapter 13: Targets and Monitoring) and the authorities will continue to undertake a programme to extend this coverage to all schools within the area.

7.4 Actions

There are a number of core areas of investment within the LTP programme that will contribute towards meeting the various elements of the road safety agenda set out above. These relate to the LTP2 Scheme Assessment matrix in Chapter 12. The general areas of investment that most closely address road safety issues are discussed below. Table 7.2 highlights how the specific scheme programme will address road safety. Allocations relating to the actions are set out in the LTP programme (see Chapter 12: Implementation Programme).

7.4.1 Casualty Reduction Schemes

Investment in casualty reduction schemes over the course of LTP2 will incorporate engineering, enforcement and educational aspects of accident prevention.

In terms of infrastructural works, Home Zones and more general traffic calming are predominant features of the programme. It is recognised that Home Zones will not be appropriate in all residential locations, particularly in areas of high car ownership and high density terraced housing.

However, these projects have developed construction principles, materials choices and consultation procedures that will be rolled out at other locations, especially in new housing developments. As part of the Broadmarsh Shopping Centre redevelopment in Nottingham City Centre, the adjacent Cliff Road will be subject to Home Zone treatment.

Enforcement and educational casualty reduction investment will be centred around the continued development of the safety camera partnership and general awareness campaigns, requiring close working partnerships with the Police and neighbouring authorities as previously highlighted.

7.4.2 Safer Routes Networks

The safer routes programme of investment within the City will be subject to the conclusions drawn from the Building Schools for the Future programme currently being developed. The initial focus for the development of these routes in the City will be in the Bestwood and Basford areas it is envisaged with schemes rolled out in a coordinated approach with finalised school relocation decisions.

The most recent child safety audit identified that 68% of child pedestrian and cycle casualties on school journeys in the County involved 12-15 year olds. Based on this information the programme of safer routes to school schemes in the County during the lifetime of this Plan will therefore focus primarily on journeys made to secondary schools.

In addition to this the programme of schemes will be developed to complement school travel plans to assist in their aim to encourage more cycling and walking to school.

The County Council is to pilot two safer routes to play schemes in deprived wards of the County. Their effectiveness will be monitored after implementation and the results of the monitoring will inform any decisions on the extension of this programme of work.

7.4.3 Pedestrian and Cycling Schemes

The development of Primary Pedestrian Route (PPR) and a Primary Cycle Route (PCR) networks will contribute towards the safety of users on key links across the City.

The PPR network will involve investing in a network of connections between the City Centre and the surrounding inner city areas that are currently awkward and unattractive for pedestrians. Works will be focused upon key desire lines to provide safe, high quality links including new and direct signalled crossing points, new paving, lighting, signing, and street furniture. The approach will humanise what at present are traffic-dominated areas.

The development of the PCR network will follow the same principles, based upon an established cycle network across the conurbation and including off-road links along the canal and the river.

Schemes to improve access for disabled people will include the provision of dropped crossings, facilities at signalled crossings and physical access improvements schemes to address the safety requirements for the 17% of the population of Greater Nottingham who class themselves as having a disability which effects the way they travel⁶.

⁶ Greater Nottingham Personal Travel Survey 2003; TTR, June 2003.

Table 7.2: Areas of Investment and Links with Road Safety Priorities

	Tackling Road Safety in Areas of Deprivation	Meeting child casualty reduction targets	Improving the safety of road users in rural areas	Managing excessive speed	Tackling work related accidents	Reversing the trend in motorcycle related accidents	Vulnerable road users on school journeys
Casualty Reduction Schemes:							
Safety Camera partnership	✓	✓	✓	✓	✓	✓	
Route / site treatments	✓	✓	✓	✓			✓
Traffic Calming	✓	✓	✓	✓		✓	✓
20 mph zones / Home Zones	✓	✓		✓			✓
Education and Awareness	✓	✓	✓	✓	✓	✓	
Driver Training		✓		✓	✓	✓	
Safer Routes Networks:							
Safer Routes to School		✓					
School 20 mph zones		✓		✓			
Crossing patrol sites		✓					
Primary Pedestrian Routes	✓	✓					
Primary Cycle Routes	✓	✓					
Access for disabled people	✓						
Integrated town centre improvement schemes	✓			✓			
Maintenance	✓		✓	✓		✓	

