Chapter 7

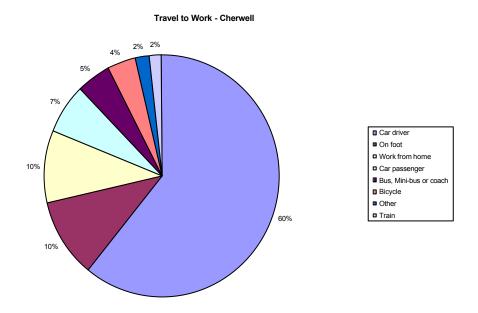
Cherwell

Background

Cherwell, North Oxfordshire, lies astride the M40 motorway between London and Birmingham.

In population terms, Cherwell is the second largest district in Oxfordshire with a population of approximately 132,000. Over two-thirds of Cherwell's population live in the three main urban centres - Banbury, Bicester and Kidlington - with populations of 42,000, 29,000 and 17,000 respectively. 15% of Cherwell residents commute outside of Oxfordshire to work. Just over 48,000 remain in Oxfordshire to work with a further 7,000 working at home and 5,000 with no fixed workplace.

At the time of the 2001 census, approximately 72,000 residents of Cherwell were in employment. A breakdown of people's main mode for the journey to work is set out below:



Development Challenges

Cherwell, because of its location, is becoming a prime location for business relocation. Although this is very good for local employment, it produces a

challenge for the authorities to balance between desired economic development and the adverse impacts that this brings to the transport networks. The main transport challenge that Cherwell will face over the next five years is the demand that housing development at Banbury and Bicester will place on not only the networks of the towns but also on strategic routes such as the M40 and A34.

Housing growth assumptions

2006 - 2016

The Oxfordshire Structure Plan 2006 - 2016 proposes 5900 additional dwellings in Cherwell between 2006 and 2016. These dwellings are expected to be distributed approximately as follows:

- > Bicester 2150 dwellings
- > Banbury 2500 dwellings
- > Kidlington 500 dwellings
- > Other (within Central Oxfordshire Sub-region) 250
- > Other (outside Central Oxfordshire Sub-region) 500.

2016 - 2026

The County Council has recommended to the South East England Regional Assembly that an additional 5900 dwellings be provided in Cherwell between 2016 and 2026, but this figure is yet to be agreed by the Government.

Non-Statutory Cherwell Local Plan 2011

The Non-Statutory Cherwell Local Plan (NSCLP) details the specific locations of where future housing and employment developments should be located in the district.

The NSCLP has proposed that the housing development in Banbury should largely be located at the Bankside site to the south of the town, whilst in Bicester the vast majority of the allocation should allocated to the south west of the town. Outside of Banbury and Bicester, the other areas that the NSCLP has earmarked for significant development are approximately 700 dwellings at Upper Heyford and a further 200 dwellings at Yarnton.

In terms of employment sites in Cherwell, the NSCLP recommends that in Banbury proposals for employment generating development are made for an additional 1,580 jobs. In Bicester, the NSCLP states that an additional 5,440 jobs are generated, including 1,540 jobs at the development at Bicester Airfield.

The NSCLP states that traffic generating development need to contribute to achieving the objectives of the Local Transport Plan. Major generators of travel demand should be:

- Located in existing centres which are highly accessible by means other than the private car and should be accompanied by a transport assessment and travel plan;
- > Development that would not compromise road safety;
- Development that would not prejudice pedestrian and cycle circulation or route provision and all new development shall provide cycle parking to the County Council's standards;
- > Development that complies with adopted parking standards; and
- > Include roads that shall give priority to pedestrians, cyclists and buses.

The Cherwell Community Plan

Vision 2016 - the Cherwell Community Plan - was prepared by the Cherwell Community Planning Partnership. The Plan is based around a series of ten objectives or themes to deliver a better quality of life in Cherwell.

The main issues identified in the Community Plan which are relevant to this LTP are highlighted below:

- Make roads safer and reduce speeding and a number of actions are set out to achieve this;
- Improve health Several actions to improve access and reduce inequality will have transport implications;
- > Promote prosperity and sound transport systems there are a series of actions to achieve the aim of improved transport;
- > Protect and enhance the local environment one of the aims is the promotion of environmentally sound transport options;
- > Rural perspective the aim of ensuring accessible services and facilities involves several transport related actions;
- Urban focus this includes the aims of improving traffic flows and achieving better integration between the centres and their hinterlands; and
- > Focus on Cherwell's people to improve the quality of life for all there are actions to improve transport and access for groups including older people, young people and disabled people.

Transport Network

The diversity of Cherwell's road and rail network means that it functions on local, regional and national scales of importance. The two main settlements in Cherwell - Banbury and Bicester - are both close to the M40 and have rail connections with Oxford and London.

Cherwell, despite being a rural district, is well served by a variety of bus routes, including dial-a-ride, subsidised and commercial services.

Car ownership in Cherwell is relatively high on a national level but average for Oxfordshire with over 80% of households in Cherwell having access to one car or more.

The remainder of this chapter sets out the identified high priority problems in Cherwell. For most of these problems, solutions have been identified (based on the actions identified in chapter 3 and the related strategies in chapter 4) for implementation over the next five years. However, given that funding is finite, there are some problems for which detailed solutions have not been developed and programmed within the timescale of this Plan.

Tackling Congestion

Cherwell faces some of the biggest congestion problems in the county. This is largely due to the high demand placed on the network with residents accessing areas within Cherwell, Oxfordshire and main centres such as London and Birmingham.

The County Council intends to focus its efforts over the next five years on the following congestion problems in Cherwell. These priorities have been identified through the prioritisation system outlined in chapter five using the following evidence:

- > Traffic flow data
- > Approximate two-way bus flows
- > Current congestion levels and future pressures from Transport Networks Review and local modelling.

A34 – M40 to Oxford

Problem

Over 65,000 vehicles per day use this two-lane dual carriageway section of the A34. At its worst, queues of over five kilometres can build up south of junction 9 of the M40 causing severe delays to all road users. The congestion results in major reliability problems and delays for a number of bus services, including:

- Cross County Express services between Bicester and Oxford (4 services per hour)
- > Local services between Bicester and Oxford (6 services per hour)

The predominant cause of the congestion on the northbound carriageway is insufficient capacity at junction 9 of the M40, where the A34 and M40 meet. For southbound traffic the major source of congestion is the difficulty for traffic to leave the trunk road onto congested parts of the Oxford local road network. The Transport Networks Review suggests that the road itself may be running at close to capacity through the day and possibly at capacity during peak periods.

Proposed solutions

The County Council will continue to work in partnership with the Highways Agency to develop schemes to relieve congestion on the A41/A34 corridor. During this Plan period, schemes could include:

- Capacity enhancements at M40 Junction 9, including the provision of bus priority;
- > Bicester Premium Bus Route/Real Time Passenger Information
- > Potential enhancement of Bicester to Oxford rail services

The Highways Agency also have plans to increase the capacity of the slip roads and roundabout at junction 9.

Scheme	Cost	Expected Completion	Details and expected impact on problem
Bicester Premium Route	£143,000	2010/11	This will help to reduce pressure on the A34 by encouraging local journeys from Bicester to Oxford to be made by bus.
A40 North of Oxford - Wolvercote roundabout improvements	£TBC	2011-16	Redesign of key ring road roundabout to reduce congestion on A40 and smooth flow of traffic and between A34, A40, A44 and Woodstock Road and improve bus priority. Expected to help alleviate southbound queuing on A34.
A40 North of Oxford - Cutteslowe roundabout improvements	£TBC	2011-16	Redesign of ring road roundabout to reduce congestion and improve bus priority. Expected to help alleviate southbound queuing on A34.
Remote Park & Ride at Bicester	£TBC	Associated with development	This will help to reduce pressure on the A34 by encouraging local journeys from the Bicester area to Oxford to be made by Park & Ride.

A41 – King's End, Bicester to M40

Problem

King's End and the A41 together comprise the main route out of Bicester towards the M40/A34, and carry around 34,000 vehicles per day including Bicester - Oxford bus services. Queues, especially in the morning peak stretching back from the M40 junction, can be as long as three kilometres, consequently, having an impact on access to Oxford. This congestion has a significant impact on the following bus services that use this stretch of road:

- Cross County Express services between Bicester and Oxford (6 buses per hour)
- > Local services between Bicester and Oxford (8 services per hour)

The predominant cause of the congestion on the northbound carriageway is insufficient capacity at junction 9 of the M40, where the A41, A34 and M40 meet.

Proposed solutions

The Highways Agency have plans to increase the capacity of the slip roads and roundabout at junction 9 which could include provision of bus priority, and this is expected to help reduce southbound queuing on the A41.

Scheme	Cost	Expected Completion	Details and expected impact on problem
Bicester Premium Route	£143,000	2010/11	This will help to reduce pressure on the A41 by encouraging local journeys from Bicester to Oxford to be made by bus.
Remote Park & Ride at Bicester	£TBC	2011-16	This will help to reduce pressure on the A41 by encouraging local journeys from the Bicester area to Oxford to be made by Park & Ride.

A4260/A4165 – Kidlington to Oxford

A4165 Kidlington to Cutteslowe

Problem

This section of the A4165 has an approximate daily flow 20,500 vehicles and in the morning peak traffic queues along the entire length of this road (approximately two kilometres). On the inbound journey (i.e. towards Oxford) there is a dedicated bus lane for local buses and taxis, despite this there can still be delays to local services including buses from Water Eaton Park & Ride. These bus services are as follows:

Services to/from Kidlington (32 services per hour)

- > Services to Bicester & Banbury (16 services per hour)
- > P & R Services Water Eaton City Centre (8 services per hour)

The main cause of the congestion is at the Cutteslowe end of the route where the A4165 meets the A40 Oxford Ring Road at a limited capacity roundabout. Despite having extensive priority on the approach to this roundabout, buses still experience considerable difficulties getting through the junction.

Oxford Road, Kidlington

Problem

This is the primary route through the village and carries approximately 11,000 vehicles a day. Significant sections of Oxford Road carry the high frequency bus service between Kidlington and Oxford. The bus services that use this road are as follows:

- > Services between Oxford & Kidlington (32 services per hour)
- Services to/from Banbury (2 services per hour)

The traffic delays experienced in the morning peak are generated by a number of junctions along the route through Kidlington itself and as a consequence of the congestion that builds between the Cutteslowe and Kidlington roundabouts.

Proposed Solutions

Scheme	Cost	Expected Completion	Details and expected impact on problem
Kidlington Premium bus route	£380,000	2007/08	This scheme will significantly improve bus reliability between Kidlington and Oxford.
North Summertown Controlled Parking Zone	£135,000	2007/08	This will help to manage demand for car travel and encourage more use of alternative modes on this approach to Oxford and the employment sites in the area therefore reducing the congestion.
A40 North of Oxford - Cutteslowe roundabout improvements	£TBC	2011-16	Redesign of ring road roundabout to reduce congestion and improve bus priority. Expected to help alleviate southbound queuing on A34.

A44 – Yarnton to Oxford

Problem

The A44 is the main access route into Oxford from the north-west of the county and the Cotswolds. It carries approximately 25,000 vehicles a day and is frequently congested during the peak hours. This affects in particular, the Chipping Norton - Woodstock - Oxford bus service (a proposed Premium Bus Route). The bus services which use this stretch of road are as follows:

- > Pear Tree Park & Ride to City Centre services (12 services per hour)
- > Woodstock Oxford services (6 services per hour)

The congestion experienced between Yarnton and Oxford is mainly due to the carriageway narrowing from a dual to single carriageway at Yarnton and the knock-on effects of congestion on the approaches to the Pear Tree and Wolvercote roundabouts.

Proposed Solutions

Scheme	Cost	Expected Completion	Details and expected impact on problem
Woodstock Premium bus route	£TBC	2011-16	This scheme will improve the reliability and attractiveness of bus services between Woodstock and Oxford and help to reduce pressure on the A44 by encouraging local journeys from Woodstock to Oxford to be made by bus.
A40 North of Oxford - Wolvercote roundabout improvements	£TBC	2011-16	Redesign of key ring road roundabout to reduce congestion on A40 and smooth flow of traffic and between A34, A40, A44 and Woodstock Road and improve bus priority.
A40 North of Oxford - Cutteslowe roundabout improvements	£TBC	2011-16	Redesign of ring road roundabout to reduce congestion and improve bus priority. Expected to help alleviate southbound queuing on A44.

In addition to these schemes, the County Council will also look at other measures to improve the road network and in particular provision for buses, although such action will have to be taken forward in a future Plan Period.

B4100 - Warwick Road/Southam Road Junction, Banbury

Problem

Traffic levels on these roads approaching this junction are high (12,730 vehicles per day on Warwick Road and 21,300 vehicles per day on Southam

Road) as main accesses to the town centre. Twelve local bus services travel through this junction.

Proposed Solutions

Scheme	Cost	Expected Completion	Details and expected impact on problem
Banbury Western Corridor improvements	£314,000	2007/08	Improvements to this route to enable it act as an efficient relief road for the Warwick Road and Southam Road.

High Street/George Street, Banbury

Problem

This link road connects Banbury town centre with the inner relief road and has a daily flow of just under 10,000 vehicles. Congestion is regularly experienced on this route in the morning peak and around 20 local bus services use this route.

Congestion on this route is due largely to insufficient capacity at the junctions of High Street/George Street with Windsor Road at the eastern end and Horsefair at the western end.

Proposed Solutions

Bus priority measures to reduce the impact of this congestion on buses have already been introduced and their effectiveness will be monitored. Further measures will be investigated/identified for a future Plan period, if necessary.

Delivering Accessibility

Overview

Evidence, through the Accession mapping process, shows that:

- > Overall accessibility in Cherwell is good, especially in the urban centres of Banbury, Bicester and Kidlington.
- > In many parts of Cherwell, accessibility is poor especially for those in rural areas.
- Conversely, social exclusion is at its worst in the urban areas, especially in many of the wards in Banbury and a few of the wards in Bicester.

Access

Supermarkets

- Accessibility is generally good to supermarkets by car, within 15 minutes, depending upon the time of the day in line with the rest of the county.
- > Roughly half the population of Cherwell is with a 15 minute bus journey of a supermarket.

Major Centres

- By car, accessibility of less than 15 minutes is relatively good to Banbury and Kidlington but not so good to the third major centre of Bicester
- > In the south of the district accessibility of less than 15 minutes into Oxford covers a significant area.
- > Conversely, by public transport, accessibility into the major centres is poor, large areas having no bus access of less than 60 minutes.

Further Education

- > In further education almost 100% of the population have access by car whereas between 70% and 75% has access by bus.
- > Like the rest of the county, nearly 100% of the district has access to further education by car of under 25 minutes.
- > The majority of those living in the rural areas have no bus access of under 60 minutes of higher education.
- > There are also areas of limited access in both Banbury and Bicester. These correspond to identified deprivation 'hot-spots'.

Primary and Secondary Schools

- > Nearly 100% of the district's population has access to primary schools within a 15 minute period by car but access is less good by the conventional bus network from the villages of Cherwell.
- > The analysis shows that nearly 100% of the district's population has access to their nearest secondary school by car of under 20 minutes.
- > There are large areas of the district that have no access to secondary schools by conventional bus services, but these are filled in by the contracted school transport.
- > Access to secondary schools is poor from the periphery of urban areas of Banbury and Bicester.

Employment

- > The analysis shows that about half of the population are within a 10 minute car journey of some form of employment
- > Nearly the entire population is within a 20 minute car journey of both ward based and their selected employment site.
- > About half of the population have access to employment of under 60 minutes by bus.
- > Accessibility of under 30 minutes by bus tends to be into the main settlements of Banbury, Bicester and Kidlington.

Healthcare

- All of the district is within 25 minutes of a hospital by car, whereas by bus only about 10% have access of under 60 minutes by public transport.
- > In general access to hospitals is poorer than to other facilities reflecting the concentration of provision in the Oxford, outside Cherwell, and in Banbury.
- Deprived areas which have poor access to hospitals include those in Bicester.
- > Nearly everybody in Cherwell has access to GP surgery of less than 20 minutes by car.
- > About a quarter of the population of Cherwell is within 60 minutes of a GP surgery by bus.
- > About 25% are within 10 minutes of a dentist with the remainder being within 25 minutes of a dentist by car.
- > Roughly 50% of the District is within 60 minutes of a dentist by bus.

Social Exclusion

While generally Cherwell is a relatively affluent area there are areas of deprivation within it. These are concentrated within Banbury and, to a lesser extent Bicester. The findings of a study commissioned by the County Council from Oxford Consultants for Social Inclusion included, in relation to Cherwell, the following:

Work

- > Total worklessness approximate equal to the county average (4.2%).
- > Areas with relatively high claim rates tend to be located in parts of Banbury and Bicester.
- > The rate of people workless through unemployment is well below the England, regional and county averages.
- > Rate of workless through sickness (3.5%) is slightly higher than the county average, but still well below the regional and English average, approximately half that of England.

- > Banbury Ruscote is among the five wards with the highest proportions of people workless through sickness in the county.
- > Cherwell has five of the twenty wards with the highest rates of people workless through sickness.
- > The majority of wards with relatively high rates of people workless though sickness in relation to the county as a whole tend to be located in the more urbanised areas.

Education

- > In the lowest twenty wards in the county with the lowest educational attainment performance, four are in Banbury and two are in Bicester.
- > Only six of the wards in Oxfordshire have post-16 staying on at school rates below 50%, with one in Banbury and one in Bicester.
- > As a whole, has a proportion of students higher than the south-east average.
- > In Banbury Ruscote ward more than two in five adults have no qualifications and in Banbury Neithrop, more than one in three adults have no qualifications.

Low Income

- > Has a proportion of people on low income approximately equal to the Oxfordshire average (4.8% compared to Oxfordshire's 4.9%).
- > Has four of the ten wards with the highest proportion of people living on a low income
- > Has the highest rate in Oxfordshire of people under 20 living on a low income, equal to the average for the South-East region as a whole.
- > The worst ranked ward in Oxfordshire lies in the district, Banbury Grimsbury and Castle, with a proportion of people under 20 living on a low income of 10.3% over four and a half times higher than the county average.
- Of the ten wards in Oxfordshire with the highest proportions of people under 20 living on a low income, three wards lie within Cherwell.

Health

- > Two out of the nine wards in the county with higher proportions of their population defined as unhealthy than the England average are in Banbury.
- Majority of wards with the highest proportion of people needing higher rates of care are located in Banbury and Bicester.

Proposed solutions

During the course of the LTP the County Council will be developing schemes and initiatives to tackle those areas of poor accessibility and social exclusion

that exists in Cherwell. These will be in the form of Local Accessibility Assessments and will be tailored to the individual areas concerned. These local assessments will include a review of local evidence and data held by partners

Access to Health from Bicester

There are a number of deprived areas in Bicester that suffer from poor access to hospitals. This reflects the concentration of hospitals in Banbury and Oxford. Along with Banbury, the two towns have the majority of wards with the highest proportion of people needing higher rates of care.

Access to Health from Banbury

Along with Bicester, the two towns have the majority of wards with the highest proportion of people needing higher rates of care.

The work involved for Cherwell is planned to begin in the spring of 2009 looking at access to health.

Safer Roads

Problems

There are a range of locations and routes in Cherwell where accidents occur with a higher than average frequency. The County Council routinely investigates all such sites and routes to establish whether or not measures could be implemented to improve safety. It is not possible to identify all such locations in this Plan, so only locations with a particularly high frequency and severity of accidents have been highlighted below.

Proposed solutions

In addressing the site and route problems identified below (and other sites where value for money casualty reduction solutions can be developed), the Council will investigate carefully all possible causes of incidents, and use this information to develop appropriate solutions. The County Council has included an allocation of around £2.8 million in its LTP spending programme for such improvements.

Location	Туре	Accidents	Action
A44 Peartree Interchange	Site	32 Accidents (4 fatal or serious and 28 slight)	Monitoring/Further investigation
A361 Wardington to County Boundary N Chacombe turn	Rural route	25 Accidents (5 fatal or serious and 20 slight)	Monitoring/Further investigation

B430 Ardley to M40	Rural route	7 Accidents (3 fatal or serious and 4 slight)	Monitoring/Further investigation
-----------------------	-------------	---	----------------------------------

Better Air Quality

A detailed screening process (based on traffic volumes, speeds, types of traffic and the location of points of relevant exposure) carried out on the whole road network in Cherwell revealed a small number of locations where air pollutant levels may have exceeded national air quality objectives.

Location	Modelled NO2 levels in 2005 - not necessarily representative of relevant exposure	National air quality objectives exceeded at points of relevant exposure
Banbury		
Oxford Road	30.6	None
Middleton Road	25.0	None
Bridge Street	27.9	None
Bankside	19.6	None
Horsefair	31.1	None
Sinclair Avenue	16.4	None
Cranleigh Close	13.4	None
Crouch Street	20.2	None
Bicester		
Queens Avenue	29.5	None
Market Square	27.9	None
Tamarisk Gardens	17.4	None
Kidlington		
Bicester Road	21.2	None
Oxford Road	25.2	None
Benmead Road	19.3	None
Adderbury		
The Green	19.2	None

Figures from Cherwell District Council

Detailed monitoring and modelling of air quality at these locations has concluded that there are no locations in the district where national air quality objectives are exceeded. Should it be necessary to declare an Air

Quality Management Area in Cherwell, the County Council will work in partnership with the District Council to develop and implement an Air Quality Action Plan.

Improving the Street Environment

By their nature, street environment problems and their causes vary enormously from one site to another.

In addressing the street environment problems identified below, the Council will review the quality of the streets concerned, their transport function, and their current and potential usage as a public space. The Council will use this assessment to develop appropriate solutions based on the actions outlined in chapter 3.

The following areas have been identified as being where transport contributes to an overall problem in quality of public space:

Bicester Market Square

Problem

The Market Square is part of the main through route of the town centre. There is both a high vehicle and pedestrian flow through the square, which leads to conflicts and safety issues between the two modes. A car park in the centre of the Square also adds to the safety problems of the area. The footways are unattractive and in some places are narrow in width.

Proposed Solution

The District Council will be working closely with the County Council to set up a working group that will be responsible for identifying suitable ways of enhancing the pedestrian environment around Market Square. The aim will be to address the issues outlined above whilst retaining the one way traffic system around the Square. Measures to be considered include the resurfacing of pavements, a small reduction in parking spaces, removal of street clutter, raised pedestrian crossings and a review of the taxi rank location.

Banbury Market Place

Problem

Banbury Market Place is one of the main focal points of the town centre as the market is held there twice a week. Currently the square functions as a car park on non-market days, with deliveries made to shops around the square on a daily basis. With such competing uses, conflicts frequently arise.

Proposed Solution

Plans to pedestrianise the square and provide a one-way system around its edge for delivery vehicles, would aim to address this and create a better quality of environment for pedestrians. The County Council will continue to

work with Cherwell District Council to identify firm proposals for the Market Place area.

Integrated Delivery

The County Council has put in place two main mechanisms - the Transport Networks Review and Integrated Transport Strategies - for ensuring measures developed in response to the problems above are considered as strategic elements of an integrated package wherever appropriate, rather than in isolation.

Intra-urban Networks: Integrated Transport Strategies (ITS)

ITSs have been developed for many of Oxfordshire's larger towns and for Oxford. In Cherwell, Banbury and Bicester have Integrated Transport Strategies. The role of the ITSs in the second Local Transport Plan period will be to help the Council deliver the five objectives of the Plan in an integrated, efficient and cost-effective way. To this end, the ITSs will have three key functions:

- > Ensuring transport problems in larger urban areas are addressed in an integrated way, recognising the complex inter-relationships that often exist between different parts of an urban transport network;
- > Providing an established structure for consultation with local communities, stakeholders and local government partners; and
- Providing a framework for integration between transport and land use planning. ITSs enable the County Council to anticipate and minimise the transport impacts of new development. To help do this, the Council will continue to secure funding for transport improvements needed as a result of development. Any such improvements will be implemented as part of the LTP spending programme.

Inter-urban Networks: Transport Networks Review (TNR)

The TNR study was completed in October 2004, and has helped to guide the County Council's longer-term transport objectives and strategy, as set out in Chapter 1. The study has also provided a strategic framework for the development of schemes which are likely to impact significantly on the operation of the County's strategic transport network. In developing solutions to the problems outlined above, the methods and conclusions of the TNR will be referred to as necessary to ensure any wider network considerations are taken fully into account.

A number of the problems identified in Cherwell are part of the access to Oxford problems that are the reason that the County Council has developed the Central Oxfordshire Sub-Region.

A major part of the strategy for Cherwell will be the protection of more minor roads from excessive traffic, particularly where traffic is using these roads to bypass congestion locations on the major road network. The Transport Networks Review recommended measures on the following roads:

- > B430 (A34 to M40) Downgrade to unclassified with weight limit
- > A4095 (Bicester to A4260) downgrade to B road with weight limit
- > B4030 (A44 to A4260) weight limit
- > B4027 (A44 to A40) downgrade to unclassified road with weight limit
- > A4260 (A4095 to A40) downgrade to B road.

Heavy goods vehicle traffic will de directed away from using the A44 between Oxford and Evesham. This traffic will be directed instead along the A40 and A429. In the longer term the A44 may be considered for a change in status, providing that the congestion problems along the A40 route between Oxford and Witney can be resolved.