

10 PLANNING AND MANAGING THE HIGHWAY NETWORK

The Highway Network

10.1 Table 10.1 indicates the composition of York’s highway network.

Table 10.1: Highway Network - Key Statistics

Footways	964 km
Carriageways	722 km
Verges	1,410,000 sq.m
Street lighting	17,000
Signals and Signs	6,600
Drainage	35,000 gullies
Bridges	73

10.2 Of the total 722 km of carriageway and 964 km of footway there are 60 km and 50 km respectively on principal roads (see Figure 10.1).

10.3 In addition to the above, there is a further 55 km of trunk road within the City of York area which is the responsibility of the Highways Agency and this is currently maintained by Halcrow as their agents. It is proposed that in April 2002, 33km of this network will be de-trunked and the responsibility for maintenance will be transferred to the City of York Council (see Figure 10.1).

10.4 The Trunk Roads and Primary Routes in York perform multi-functional roles. They act as links between regional centres and also as district distributors. These functions are most easily demonstrated by the A1237 Outer Ring Road. The A1237 acts as a district distributor with communities, major business and retail sites located next to it and also as a means of commuting between local areas. However, this could be applied to all the trunk roads in the area apart from the A64 which still maintains its predominantly inter regional role. In comparison the Principal Roads in urban York act as both district and local distributors and, in the case of those in the City Centre, as access roads. The relationships between each of these categories of road is inter-changeable and no clearly defined role exists at present.

10.5 All the principal roads are bituminous in construction with most having an asphalt wearing course with footways in the urban areas and verges in the rural. There has been little new construction of principal roads in York in the last 30 years apart from the A1237 Outer Ring Road built in the mid 1980’s. Most roads have been constructed as successive layers have been added to them with very little consideration for design. Pavement coring of the network has shown a great deal of variability between adjacent sections and little consistency of materials. Ground conditions beneath our roads are predominantly a grey/brown clay arising from river alluvium giving reasonable ground bearing values.

- 10.6 The Council has a variety of bridges, ranging from large mass structures constructed in the Victorian era of stone, cast iron and steel, to modern bridges of reinforced concrete. York has five significant bridges spanning the River Ouse. These are vital links in the transport infrastructure and carry significant traffic (see Figures 10.2 and 10.3)
- 10.7 The levels of funding on highway maintenance and bridges since 1996 are shown in Table 10.2 below.

Table 10.2: Highway Maintenance and Bridge Funding

	96/97 £000's	97/98 £000's	98/99 £000's	99/00 £000's	00/01 £000's
CYC Revenue	3,440	3,582	3,677	3,665	3,748
CYC Capital	597	523	756	751	751
TSG/SCA Structural	100	126	78	480	524
TSG/SCA Bridges	206	309	300	420	188
Total	4,343	4,540	4,811	5,316	5,211

- 10.8 We have increased our spending, particularly on footways, each successive year since 1996. This demonstrates our commitment to improving the condition of roads and footways in response to the requests made to the Council by its Residents.
- 10.9 Similarly there is an upward trend in the level of TSG and SCA allocation in the last 5 years, reflecting the growing concern about the condition of the principal road network.
- 10.10 Heavy Goods Vehicle movements around the City have remained broadly unchanged for some years and have been concentrated on the radial routes into the City and on the Outer Ring Road (Figure 10.3). In the recent past we have noted a change in the pattern of these movements with the increase in out of town shopping around the Outer Ring Road. We consider that the National Road Traffic Forecast for 1997 gives the best indication for York about growth rates for the future and will be adopting these as base line information for future structural designs.

Table 10.3: National Road Traffic Forecast - 1997

	HGV's	Buses	All
Annual % growth rate - central estimates	1.45%	0.68%	1.69%
Rural Principal Roads			1.4%
Urban Principal Roads			0.9%

- 10.11 Our strategy for abnormal loads is to route them around the City on the A64 or Outer Ring Road and direct them down the radial route that brings them closest to their destination. Depending upon their final destination it is sometimes necessary to use roads which are not suitable because of known height, width or carrying capacity restrictions.
- 10.12 A major consideration of the plan development has been the consideration of road traffic accidents and the identification of causes that are linked to structural maintenance. These are often wet road conditions that have below the investigatory level in respect of skidding resistance. Figure 10.4 shows the spread of accidents on the principal road network.

Best Value

- 10.13 We are a Best Value Pilot Authority and last year completed a review of the street lighting service. The outcome of that review was an action plan containing a number of new initiatives aimed at improving the standard of the service together with a significant cost saving. We are currently undertaking a review of highway maintenance in the first year of the Council's five year plan to review all Council services. The scope of the review includes all aspects of the highway maintenance service and is due for completion in April 2001 when it will report its findings and recommendations to the Council. The key areas being considered by the review are:
- a position statement to identify where the service is now and its current performance;
 - an investigation of potential service procurement arrangements both management and operational;
 - consultation with a wide range of citizens and stakeholders;
 - an investigation of service improvements challenging existing methods;
 - seeking alternative means of funding the service; and
 - setting future objectives and targets.
- 10.14 The 1999 Residents' Opinion Survey showed that the net satisfaction for all services was down by 6 percentage points on the previous year. The condition of roads was down 19 percentage points, footways down 8 percentage points and street lighting down 15 percentage points compared with the upward trend of the last 3 years for all three areas. The net satisfaction for roads and footways from National Peoples' Panel is -3% compared with the York figure of -10% showing that we are not achieving the average national standard. Clearly these are disappointing results and reflect the concern and high expectations which residents have about the condition of the highway. Customer research in October 1999 found that residents had a strong association between traffic congestion and

the condition of the roads and footways which may help to explain why the results were so poor.

- 10.15 We have customer contracts for the delivery of street lighting and highway maintenance which make promises about the standard of service which customers can expect. These contracts give clear objectives in terms of quality and performance targets that are reflected as indicators for the service.

A Maintenance Policy for York

The Council will provide a safe environment for all users of the highway network. We will also provide the highest affordable quality of facilities and maintenance levels in an effective and efficient manner that represents good value for money.

Objectives

- 10.16 Our policy for managing the highway network seeks to meet the overall objectives of the LTP (see Chapter 3). The policy reflects the Hierarchy of Transport Users (see 3.10) in prioritising work programmes and maintenance regimes.
- 10.17 In addition to supporting the LTP's overall objectives, the highway maintenance strategy seeks to deliver an effective and efficient service, providing a highway infrastructure that is available at all times, and minimises delay and inconvenience for all users. This will be done through the adoption of quality specifications and methods in construction, reducing waste and improvement of efficiency in a sustainable manner. Where possible an innovative approach to finding the right solutions will be adopted.

Specific Objectives

- 10.18 We have high aspirations for the highway network and have specific objectives for the principal road network:
- an overall improvement in the condition of the principal road network when balanced against the rate of deterioration;
 - a high level of user satisfaction measured by the annual Residents Opinion Survey and the peoples' panel;
 - a principal road network with all sections having:
 - above the investigatory level for skidding resistance, measured as an annual percentage;
 - 5 years residual life, measured as an annual percentage;
 - carriageway structural index below 70, measured as an annual percentage;.
 - when carrying out structural improvements to achieve at least 20 years residual life;

- street lights working as planned, measured as an annual percentage; and
 - all dangerous defects on highway surfaces repaired within target timescales, measured as an annual percentage.
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- a safe, well maintained infrastructure, which is fit for the purpose, measured as;
 - the number of third party accident claims settled each year as a result of defective roads and footways; and
 - the number of road traffic accidents each year occurring as a result of defective roads or footways defect .

 - all bridges on highway network capable of carrying 40 tonne loading or protected by physical measures or weight restrictions.

These specific objectives depends largely upon the level of funding each year. Our target is to achieve these objectives within the 5 year life of the plan but to review them on an annual basis.

10.19 Currently we have a number of individual policies relating to different parts of the service including; winter maintenance, street lighting, paving, grass verges and bridges which set specific standards to be adopted.

Public Participation and Customer Comment

10.20 In October 1999 we carried out customer research of both a qualitative and quantitative nature using Focus Groups and the Talkabout Panel to assess residents' opinions and attitudes towards road and footway maintenance in York. This built on research in previous years on the types of maintenance and materials residents would like to see used, particularly in conservation areas.

10.21 Satisfaction with road (51%) and footway (48%) maintenance is not easy to judge as it is clear that the issue is influenced by perceptions of traffic congestion and disruption. The level of dissatisfaction is not at "rock bottom" as was supposed from the Residents' Opinion Survey, however, there are two clear groups which arose from the survey, elderly people from out of town are the most dissatisfied, as opposed to young people from within the town, who are the most satisfied.

10.22 The issues which cause the most dissatisfaction are; the amount of piecemeal patching which goes on (maybe a reflection of utility reinstatements), the delay in carrying out repairs (there is an expectation that we will find the problem and fix it), the poor standard of workmanship and the lack of preventative maintenance.

10.23 Confirming earlier research, residents think the footways (54%) should have priority over roads (31%) but this does not necessarily reflect the feeling that they are less well maintained. They believe that footways should not be neglected at the expense of roads, "people are more important than cars".

- 10.24 When asked about priorities for maintenance, residents consider that the City Centre is used by many and represents the City to visitors. In residential areas there is a feeling that Council housing areas are favoured and that rural areas receive less attention. The arterial routes that are mainly Principal Roads are important but there is a frustration at the lack of traffic management.
- 10.25 As a guiding principle residents think safety has the highest priority and this is often equated with "flatness" of the road/footway surface. Trips and gaps are considered to have the highest priority with the standard for York of 20mm being reasonable compared with the same standard as the Audit Commission Standard of Performance Directive. However, none of the residents wanted to pay more to see the 20mm standard being improved upon.
- 10.26 We have introduced a number of initiatives to address the issues raised by customers.
- Customers expect us to be more proactive in identifying problems. This is also linked to their desire to see more preventative work being carried out. To address this we have introduced increased levels of inspection and also reassessed the balance between reactive safety repair and our own structural maintenance programmes. The outcome has been an improved safety maintenance regime with additional funding and a greater emphasis on preventative programmes; and
 - In terms of priority of structural maintenance programmes the balance between footways and roads needs to be kept under constant review and adjusted annually as the condition changes. From our research the City Centre and the residential areas have a high priority followed by the arterial routes whilst recognising that there may be specific locations at schools, shopping centres etc. which may require special treatment.

Priorities and Balance

- 10.27 Our priorities for structural maintenance take into consideration the following key factors:
- Road location, if rural or urban and therefore speed;
 - Skidding resistance measured by SCRIM;
 - Residual Life measured by deflectograph;
 - Condition Index measured using UKPMS accredited software;
 - Rate of deterioration at individual sections on the network;
 - Engineers Visual Assessment;
 - Level and types of accidents;
 - Traffic flows, heavy goods vehicles, traffic growth and therefore usage;
 - Bus Routes;
 - Intervention level and therefore cost;
 - Split between structural and preventative maintenance programmes;
 - Changing traffic patterns as a result in changes of development; and
 - Transport Strategy of the plan.

10.28 To make the balance between all the key factors each element of the network has been considered separately and ultimately a judgement was made about the relative importance of each. It is essential that any judgement is based upon objective information derived by measurement or by observation. Over the last twelve months we have been gathering together all the above information and this has been collated into a summary table which is included in Appendix I. Our method for obtaining the right balance has been to create a priority listing for each section of the network based upon the key factors. This priority listing is broadly split into structural, S1 and S2, and preventative schemes P1 - P5.

Typical key factors for S1 are:

- Low skid resistance;
- 0 years residual life;
- High % of HGV;
- Significant overlay or reconstruction;
- Condition index above 70;
- Main Radial Route for buses; and
- EVA low 1-2.

Typical key factors for P1 are:

- Low skid resistance;
- 5 years residual life;
- Moderate 40 mm overlay;
- Condition Index 50-70;
- EVA 3-6; and
- Main Radial route for buses.

10.29 A key feature of getting the right balance is the split between structural work, which is essentially all treatments needing significant reconstruction, and preventative which requires minimal 40mm overlay. To assess what this split should be, an assessment has been carried out which takes into account the relative lengths in each category, the cost and the rate of deterioration that gives the greatest overall improvement in the network. We have tested this against different funding levels and concluded that the optimum for York's network is 60/40, structural to preventative.

Condition of Highway Surfaces

10.30 Following local government reorganisation in 1996 the City of York Council became the Highway Authority and the length of roads increased from 296 to 707 km. Since then it has become apparent that the rural roads around York which were incorporated into the new Council boundary were suffering from neglect and in need of attention. The standard of maintenance and management of this rural area was below that in the former City area. The condition of these rural roads and the lack of management information about them reflected this. The majority of rural roads around York have developed from tracks in use in the 18th and 19th Century. With the introduction of surface dressing during the early part of the 20th Century, these tracks have been regularly sealed using this process. Very few of York's rural roads have benefited from the addition of a sound bituminous construction. Since the

1950s and particularly during the last three decades the growth in heavy goods vehicles has resulted in very serious damage to sections of this network. Typically, this damage consists of edge deterioration which has resulted in the first 1 to 1.5 metres of road from the kerb or verge (both sides) settling and becoming potholed (haunch failure).

- 10.31 Most suburban roads and footways in York have developed over the last century and surround the City Centre. Most are residential in nature and are located between the radial routes on the principal road network. Many of these were designed and constructed in accordance with current practices of the day. Despite this, the very large growth in traffic, particularly heavy goods vehicles has resulted in some of these roads failing to meet their design life. Others have reached or gone beyond their design life. Typical problems faced are the loss of surface particularly at junctions, rutting in the wheel tracks on channelised track lanes, crazing and cracking of the surface and the consequential ingress of water. Footways on the principal roads are a mixture of bituminous macadams and concrete flags, although in some areas these are York stone. The problems with the footways are primarily loss of kerb face with successive overlays, broken and misaligned flags and depressed surfacing.
- 10.32 The central core of York has evolved over the last 1000 years. Many of the streets are narrow which results in vehicle overrun of the footways. There is also the added burden of maintaining these streets in character with York's historic heritage using expensive natural materials and designing schemes to withstand vehicle overrun.

Highway Surveys

- 10.33 Over the last two years we have carried out a series of engineering condition surveys both mechanical and visual.
- Residual Life using Deflectograph;
 - Skidding Resistance using SCRIM;
 - Coarse Visual Inspection to UKPMS; and
 - Engineering Visual Assessment.
- 10.34 In June each year we also carry out a visual condition survey of all our roads and footways, including back lanes and community footpaths, using seven inspection teams. This survey also identifies the type of surface finish with a grading of its condition.
- 10.35 Between November and January we undertake a detailed visual assessment of all those roads and footways which were identified in the June survey as being grade 3 (poor). This identifies the worst roads and footways in the City and provides the basis for prioritising them for maintenance work in the future.
- 10.36 Over the last twelve months we have been introducing a UKPMS accredited highway management system which will provide a tool for the management of the highway network. A hierarchy for the highway network has been developed for the whole of the city and recently we have completed a full inventory and coarse visual inspection. A series of cost

models have also been prepared and installed into the system from which costed programmes can be prepared.

10.37 After extensive training we are now using the system and it will be the main tool we use for preparing the programmes for principal road maintenance in the future.

10.38 The following tables show the results of those surveys for the Principal Road Network.

Table 10.4: Results of Principal Road Surveys

Residual Life by Deflectograph (see Figure 10.5 for locations)	York km	York %	NRMCS %
0 years	8	16	15
0 to 3 years	5	10	10
3 to 5 years	3	6	9
5 to 10 years	9	18	8
10 to 20 years	18	36	9
over 20 years	7	14	49

Skidding Resistance by SCRIM (see Figure 10.6 for locations)	km	%
Above acceptable level	34	68
Below acceptable level	16	32

Overall Condition Index by UKPMS	km	%	
Above 300	0.42	1	
200 to 300	2.49	5	
150 to 200	1.49	3	
100 to 150	5.57	11	Total to 70
70 to 100	3.48	7	27%
50 to 70	1.24	2	
0 to 50	10.89	22	
0	24.35	49	

Structural Condition Index by UKPMS	km	%	
200 to 300	1.20	3	
150 to 200	1.33	3	
100 to 150	0.66	1	Total to 70

70 to 100	1.25	3	10%
50 to 70	0.42	1	
0 to 50	5.28	12	
0	32.2	76	

Engineers Visual Assessment	km	%	
1	2.99	6	Total 1-2
2	4.43	9	17%
3	9.15	18	
4	13.92	28	
5	0.48	1	
6	19.03	38	

For further details of individual sections of the network see Appendix I.

- 10.39 We have been able to use our UKPMS accredited software to calculate the performance indicator BV96, percentage of surveyed length where strengthening should be considered, the results are shown below.

Table 10.5: Best Value Performance Indicators – Condition Index

Condition Index	Structural
Condition Index Band	70 and over
Processed Network Length within CI Band	4.436km
Mean Index within Band	152
Percentage of length where strengthening should be considered	8.8131%

Condition Index	Overall
Condition index band	70 and over
Processed Length within CI Band	11.417km
Mean Index within Band	144
Percentage of length where treatment should be considered	27%

The above is based upon a full coarse visual inspection for the whole of the Principal Road network.

- 10.40 Over the past twelve months there has been a significant reduction in the length of York's roads with 0 years residual life with the completion of large sections of the rural A59 Harrogate Road. This has reduced our overall percentage to a figure closer to the national

average of the NRMCS. However, we still have a significant length (8km) which needs to be monitored for strengthening.

- 10.41 The structural condition index identifies those lengths which are showing signs that treatment is required now and failure to tackle these soon will result in more extensive intervention in the future. The overall condition index (27%) is a measure of the total attributes of the network. This percentage causes concern as it is a truer reflection of the condition of the principal road network than the structural index.
- 10.42 The most concerning survey is the length of road which has not achieved an acceptable level of skidding resistance which of course directly relates to the safety of road users.
- 10.43 The results of our most recent full visual condition survey of road and footway surfaces for the entire network are shown in Table 10.6.

Table 10.6: Results of the June 2000 Visual Inspection Survey

	Grade 1 (good)		Grade 2 (average)		Grade 3 (poor)	
	<u>1999</u>	<u>2000</u>	<u>1999</u>	<u>2000</u>	<u>1999</u>	<u>2000</u>
Principal Roads	21%	35%	59%	42%	19%	23%
Non Principal Roads	33%	24%	48%	56%	19%	19%
Urban Roads	36%	34%	47%	52%	17%	14%
Rural Roads	21%	29%	57%	45%	22%	26%
All Roads	31%	33%	49%	50%	19%	17%
All Footways	32%	31%	54%	56%	13%	14%
All Back Lanes	-	22%	-	56%	-	22%
All Community Footpaths	-	51%	-	42%	-	8%

- 10.44 The results of this year’s survey of the condition of the highway surfaces in York are:
 - Principal Roads are deteriorating at a rate of 4% / annum compared with non principal roads which are showing only a marginal deterioration, the gap is therefore widening between the two;
 - Urban roads are showing a 3% improvement with rural roads deteriorating by 4%. Once again this shows a widening of the gap between them; and
 - There is only a marginal change in the overall condition of both roads and footways and it is not possible to identify a trend.
- 10.45 This year we have extended our survey to include back lanes and community footpaths, the results of which confirmed our opinion that back lanes are in poor condition and the

footpaths are generally good. We will be continuing the survey next year which will give us a strong indication of the trends in improvement and deterioration.

- 10.46 We contribute to the National Road Maintenance Condition Survey. This survey is sponsored jointly by the Local Government Association and the DETR/Highways Agency. The objective of the survey is to estimate the trend in road conditions in England and Wales and considers all types of road at national level. The trend identified in the last report for 1999, is downward on principal roads in recent years. The Principal Road network survey shows that nationally 15% of the network has 0 years residual life, compared with York's network of which 16% has 0 years residual life.
- 10.47 We are liaising closely with the Highways Agency but as yet have not received any condition information about the Trunk Road network to be transferred to the City Council in 2002. However, from our discussions we are expecting to receive this information next year so it will inform the planned maintenance programmes for future years. We are currently investigating the use of inventory and condition data collection using digital video systems which may be used as a trial on these transferred trunk roads.

Size of Backlog

- 10.48 The factors taken into account to judge the overall size of the backlog of maintenance of York's principal roads are:
- the current condition;
 - the rate of deterioration; and
 - the appropriate condition for York's roads.
- 10.49 It is clear that York has near the average percentage of roads (16%) which have 0 years residual life and therefore need to be monitored regularly. We also have a high percentage of roads (33%) which have below the investigatory level for skidding resistance. From our annual EVA the rate of deterioration is around 5% per annum but from surveys we believe that we are at a point where there will be rapid increase in deterioration in the immediate future unless action is taken soon.
- 10.50 From our customer research it is clear that residents expect a better condition of roads and footways in York than at present. We consider that a reasonable condition is when customer opinion changes to one of satisfaction as measured by the Residents Opinion Survey, unfortunately this brings factors such as customer perception and appreciation into play which are difficult to modify. In terms of the appropriate standards for our roads and footways we believe this to be the minimum length of grade 3 (poor) roads and footways, which will represent a measurable improvement. We also believe that given the right resources we should minimise both the road length of 0 years residual life and inadequate skidding resistance, again this would bring a significant overall improvement. The improvements for customers would be:
- A safer environment for all users of the highway;

- Consistent smooth surfaces for buses, cyclists and pedestrians;
- More comfortable ride for all road users;
- Large reduction in the amount of piecemeal repair of roads and footways; and
- Confidence in the life of the asset.

10.51 We estimate the total cost of treating all principal roads with 0 years residual life and inadequate skidding resistance to be £6.11m.

Other Factors Affecting Condition

10.52 We suffer from high levels of damage to highway surfaces. This comes from a number of sources including new developments, skips and storage of materials. This is very hard to control and often occurs without our knowledge. In a similar way footways are often damaged by over-run by commercial vehicles, particularly in the City Centre, when mounting the footway to avoid becoming an obstruction whilst making deliveries. Unfortunately footways are not designed to take this loading and ultimately we take responsibility for the repair. We are currently looking at measures we can take to reduce this problem. In some cases, where we have identified who has caused the damage, we have charged them for the repair.

10.53 We have been concerned since the introduction of the New Road and Street Works Act about the operations of the statutory undertakers when working on the highway. They often appear to be slow and the resultant reinstatement is poor and we receive regular complaints about the settlement of their covers. Our ability to inspect these reinstatements has been severely restricted by the Act, as have our levels of inspection. We think that with a more extensive approach to inspection we can make a significant improvement to the condition of the highway. Last year there were approximately 5000 openings made in the highway and we are predicting 7300 for this year. This clearly has a major impact upon the condition of our roads and footways.

1054 We have recently organised a combined meeting with all the public utilities to discuss how we can improve the quality of their reinstatements and minimise the disruption to traffic on the highway. The outcome of the meeting was that the Utilities agreed to carry out one pass reinstatements in the central area which will reduce the amount of temporary surfacing in specialist paving areas. They have also agreed a procedure for maintaining covers at the correct level which is a constant source of complaint by customers. In addition they will in future be monitoring the quality of their roadworks, signing and reinstatements to ensure that they are meeting the required standard. It is our intention in the future to carry out more rigorous inspection of their operations and to take regular material cores of their work to ensure compliance with the specifications.

10.55 In the recent DETR consultation papers regarding the New Road and Streetworks Arrangements we have supported the use of the existing powers under S74 for code regulated work and we support the simplification of the Code of Practice with respect to the inspection regime.

10.56 The frequency of third party insurance claims in York is rising, reflecting a greater awareness of people about claiming, the cost of claim settlements is also increasing, both trends give a reflection of the condition of the City's roads and footways. Our level of repudiation of claims is only 50% against a national average of 60% and as a result last year our insurance company undertook a risk assessment on our behalf. The recommendations of that assessment were that unless we adopted a more positive approach to highway inspection they would be unable to defend the claims and as a result costs would rise even further. To address this we have appointed a further two inspectors to carry out safety inspections of all the roads and footways in the City.

A Maintenance Strategy For York's Roads

10.57 The general strategy is designed to meet the policy objectives and whilst some of these strategies are already in place others need to be implemented within the next twelve months. The key issues in relation to the strategy are:

- recognising the difference between maintenance activities for different sections of the network;
- optimising the benefits of the available funding;
- assessing and monitoring the impact of any standards or practices;
- assessing maintenance needs and allocating funds appropriately;
- reviewing the condition of the network regularly and recording it;
- maintaining an inventory and road network hierarchy;
- setting standards and practices for each part of the network;
- prioritising work using objective standards including fulfilling statutory duties, sustainability, economic development, safety, meeting the needs of those with mobility problems and taking customer consultation into account; and
- entering into partnerships with customers, business community, suppliers, contractors and other highway users.

Specific Strategy for Carriageways

10.58 The following are features of the specific strategy:

- implementation of the highway management system which is UKPMS compliant;
- carry out annual condition surveys;
- carry out planned and safety inspections;
- complete the Best Value review of Highway Maintenance;
- carry out regular comparisons with other providers of a highway maintenance service;
- carry out a sustainability assessment for highway maintenance; and
- seek opportunities for innovation.

10.59 The aims of the specific strategy are:

- to minimise the % of roads with 0 years residual life; and

- to minimise the % of roads with inadequate skidding resistance

10.60 The objective of the specific strategy is:

- to complete all structural schemes S1 and S2 in the 5 year life of the plan; and
- to complete all preventative schemes P1 in the 5 year life of the plan

10.61 We will carry out the following annual reviews:

- structural condition survey / rate of deterioration;
- EVA / rate of deterioration;
- changes in traffic volumes and patterns;
- accident statistics / skidding problems;
- support the transport strategy through integration and co-ordination; and
- funding levels.

10.62 We will carry out 3 yearly structural condition surveys of:

- residual life using deflectograph;
- skidding resistance using SCRIM; and
- CVI to UKPMS standards.

10.63 We will adopt current standards for pavement design together with Pandef outputs and we will consider the use of alternative materials where this would bring benefits of quality and value for money.

Other Strategy Issues

10.64 In response to customer concerns we have implemented a number of new strategies including:

- reallocating 60% of the maintenance budget to footway schemes, much of which has been in the former NYCC maintained areas, and 40% to carriageway schemes (this will be reviewed following the outcome of current review of the highway assets);
- setting up a telephone helpline where residents could report defects and/or speak to staff regarding highway maintenance issues. In 1999/00 this helpline received over 6,740 calls, more than 77% of which resulted in orders being placed to carry out repair work;

10.65 To promote our policy to encourage cycling, we have a continuing programme of works to reset boxes and resurface the margins of various carriageways where typically cyclists will travel, to improve the riding quality. This has proved very popular and it is proposed to continue this initiative in future years.

10.66 We are currently in a transition stage in the development of a comprehensive maintenance strategy which will be brought together in the preparation of a Highway Maintenance and

Asset Management Plan. However this has been delayed until the outcome of the Best Value Review has been completed in April 2001.

Structural Maintenance Options

- 10.67 For the current condition of the principal road network to “standstill” at least 2.5km of structural improvement needs to take place annually to overcome the rate of deterioration on structural schemes only. We estimate this work will cost £900,000 per annum.
- 10.68 If current TSG levels of funding continue at around £500,000 per annum then it will only be possible to carry out a limited proportion of schemes with 0 years residual life, high condition indices and with low skidding resistance. This represents a 2.3% annual decline in the condition of the network with only 1.38km of roads being improved.
- 10.69 With funding levels of £800,000 and a 60/40 split it would be possible to achieve 1.29km of structural and 1.97km of preventative schemes each year giving a 1.5% improvement in the network each year.
- 10.70 To achieve the objective of minimising all principal roads with 0 years residual life and low skidding resistance will require an investment of £1.2m each year over the life of the plan. This would achieve 1.93km of structural and 2.96km of preventative schemes each year giving a 4.8% improvement in the network. At this level of investment it will take 9 years to remove all structural schemes from the network.

Implementation Programme

- 10.71 We will assess the viability of traditional maintenance techniques when considering solutions to maintenance problems encountered. A key feature in any solution will be a value engineering approach. We are committed to developing innovative and sustainable alternatives wherever possible such as recycling and geotextiles. An important consideration is the need to undertake wherever possible preventative and extended life solutions such as surface dressing and thin overlays. Footways will be considered for slurry sealing and micro asphalts. Haunch failures will be addressed by edge restraints and drainage improvements.
- 10.72 Structural failures will be addressed by overlays and reconstruction using geotextiles. We will continue with a programme of improving skid resistance at approaches to junctions and pedestrian crossing facilities by using anti skid surfacing.
- 10.73 We will be looking at imaginative cost effective solutions and options in respect of the planned maintenance work with safety always being a key feature in decision making. We will also be seeking to achieve good quality riding surface for cyclists and will continue with our programme of cycle margin works using, wherever possible, recycling techniques. We will also endeavour to ensure trip-free good quality walking surfaces for footways.
- 10.74 We have identified four main areas of maintenance activities:

- structural;
- major;
- safety; and
- environmental.

10.75 Structural maintenance comprises large-scale strengthening, resurfacing and surface dressing of carriageways. It is proposed to fund these schemes mainly from our capital bid. The schemes included in the programme are based on low or 0 residual life values, detailed visual inspections and low skidding values. They will also complement other proposals within the package bid and assist in enhancing the integrated transport policy by concentrating schemes on important transport corridors and vital links to these corridors.

10.76 Major maintenance comprises resurfacing and reconstruction of footways and less strategically important carriageways. It is proposed to fund these schemes mainly from our revenue resources. The schemes chosen for our annual maintenance programme are based on detailed visual inspections and coarse visual inspections which indicate their condition ratings are such that major works are required. Also taken into consideration are the number of public complaints and personal injury accidents. The major schemes would complement those highlighted in the structural maintenance programme i.e. those that would assist our integrated transport policy are given a weighting factor when compiling their condition rating to determine those schemes chosen for the annual programme.

10.77 A significant proportion of the budget is spent on promoting cycling by targeting areas of carriageway with poor quality surfacing along cycle margins for resurfacing works on an annual basis. The areas to be targetted are chosen in collaboration with the Council's Transport Planner responsible for cycling issues.

10.78 Safety maintenance comprises the day to day maintenance of the highway network, i.e. winter maintenance operations, basic and cyclic maintenance to ensure the highway is kept in a safe, fit for use condition. Safety maintenance will be funded entirely from the Council's revenue budget. The repair work which we carry out under this heading is identified by safety inspections and reports from customers to our telephone helpline. These reports are passed to our area highway inspectors and they make inspections and action works as they judge to be necessary.

10.79 Following two extensive public consultation exercises, we have developed a comprehensive policy for winter maintenance. In maintaining the road network we utilise the Meteorological Office 'Open Road' service and have constructed two weather stations in the district from which information can be sent regarding weather conditions. A decision on whether or not to treat our defined network is made by a designated winter maintenance duty officer. A defined network for winter maintenance of the roads has been undertaken based on national and local criteria that take into account the importance of the routes. This network comprises 40% of those roads within the administrative boundary which are of strategic importance to the viability of the City, including:

- public transport and school bus routes;

- access roads to Park & Ride sites;
- areas close to shops, post offices and schools;
- emergency routes;
- links to elderly persons' sheltered accommodation; and
- links between local settlements and the primary road network.

10.80 We also have a policy of placing and maintaining over 350 self-help salt bins placed at strategically important locations such as public buildings, schools, post offices, residential/sheltered homes, steep gradients etc.

10.81 Environmental maintenance comprises grass cutting, weed control, tree maintenance and residual cleaning. Our policy for grass cutting is to cut built-up area verges 10 times per year, all sight lines for junctions and traffic signs cut between 5 and 10 times per year, and other remaining verges twice a year.

10.82 Our policy for weed control is to ensure that all our paved areas are treated with an approved environmentally friendly product two to three times per year. Trees are very important to us, there is an annual programme of stem cleaning, thinning, reducing, felling and replanting as necessary organised by an arboriculturist who has a budget to maintain them.

10.83 Most of the highway network is swept weekly and gullies are cleaned once per year. These works are funded entirely from our revenue budget.

Structural Maintenance Programme

10.84 The following table shows the proposed 5 year capital programme of structural maintenance on Principal Roads based on a funding level which meets the plan's objectives. The programme has been developed taking into account all the factors discussed earlier. Figure 10.7 shows the location of schemes.

5 Year Programme of Structural Maintenance of Principal Roads

<u>Number</u>	<u>Road Name</u>	<u>Section Description</u>	<u>Cost (£)</u>
			March 00
<u>2001/2002</u>			
A1036	Foss Bank	A1036 Roundabout to Layerthorpe	58,418
A1036	Foss Islands Road	Layerthorpe to A1079	156,544
A1036	Bishopgate Street	Tower Street to Nunnery Lane	243,930
A1036	Malton Road	New Lane Junction	12,600
A1036	St Leonards Place	St Leonards Junction	12,600
A1036	Monkgate	Monkgate Junction	47,700
A1237	Outer Ring Road	B1224 Roundabout	29,700
A166	Stamford Bridge Road	A64 Roundabout to Murton Lane	80,730
A166	Stamford Bridge Road	Murton Lane to C298	280,500
A166	Stamford Bridge Road	C92 (West) to C92 (East)	58,500
A19	Bootham	A1036 Inner Ring Road to Burton Stone Lane	115,211

A19	Clifton	A1176 to Rawcliffe Lane	28,169
A19	Shipton Road	Howard Drive to A1237 Roundabout	98,670
			Total <u>£1,223,272</u>

2002/2003

A1079	Lawrence Street	James Street to Melrosegate C409	368,254
A1079	Hull Road	Windmill Lane C294 to start of dual c'way	47,880
A1079	Hull Road	Field Lane Roundabout to C420	77,952
A1079	Hull Road	C420 to Park and Ride entrance	31,200
A1237	Outer Ring Road	C281 to B1224 Roundabout	148,441
A1237	Outer Ring Road	A59 Roundabout to C281	151,190
A166	Stamford Bridge Road	C92 (East) to Dunnington junction	18,563
A59	Holgate Road	Water End to Dalton Terrace Phase 1	361,645
			Total <u>£1,205,123</u>

2003/2004

A1036	Queen Street/Station Road	Blossom Street to Leeman Road	85,876
A1036	Station Avenue	Leeman Road to Rougier Street	16,553
A1036	Museum Street	Rougier Street to Blake Street	43,296
A1079	Hull Road	Melrosegate C409 to Windmill Lane C294	255,780
A1237	Outer Ring Road	Grange Lane to Askham Lane	224,116
A1237	Outer Ring Road	B1224 Roundabout to Grange Lane	97,505
A19	Selby Road	B1222 to Fordlands Road	197,064
A19	Main Street	Fordlands Road to Heslington Lane	385,112
			Total <u>£1,305,302</u>

2004/2005

A1036	Nunnery Lane	Bishopthorpe Road to Blossom Street	256,058
A1036	St Leonards Place	A19 to Blake Street	38,650
A1036	Gillygate	Clarence Street to A19	38,561
A1036	Tower Street/Fishergate	Paragon Street to Tower Street	36,293
A1036	Prices Lane	Nunnery Lane to Bishopthorpe Road	22,823
A1237	Outer Ring Road	Moor Lane to A64 Roundabout	259,043
A1237	Outer Ring Road	Askham Bryan Lane to Moor Lane	15,685
A1237	Outer Ring Road	Askham Lane to Askham Bryan Lane	70,986
A19	Clifton	Burton Stone Lane to A1176 junction	81,437
A59	Poppleton Road	Water End to Dalton Terrace Phase 2	361,645
			Total <u>£1,181,182</u>

2005/2006

A59	Boroughbridge Road	A1237 to Water End	379,335
A1036	Heworth Green	Monkgate Roundabout to Heworth Road	148,500
A1036	Malton Road	Heworth Road to Straylands Grove	131,786
A1036	Malton Road	Hopgrove Lane to A1237 Roundabout	23,882
A166	Stamford Bridge Road	C298 to C92 (West) junction	98,280
A166	Stamford Bridge Road	Dunnington junction to City Boundary	59,400
A166	Stamford Bridge Road	City Boundary to Gate Helmsley	83,904
A19	Fulford Road	Hospital Fields Road to Cemetery Road	78,263
A19	Fulford Road	Cemetery Road to A1036 Inner Ring Road	242,556
			Total <u>£1,245,906</u>

Past Programmes

- 10.85 Since LGR in 1996 we have carried out a succession of schemes to improve the A59 Harrogate Road, the main route between York and Harrogate. This length of road (4km) had failed along the majority of its length and needed significant areas of reconstruction and strengthening. With the level of allocation this was the only scheme which could be implemented up to 1998/99. In 1999/2000 with the increase in allocation we were able to complete the A59 and two further schemes at A1079 Melrosegate Junction and A1036 Mount Vale.
- 10.86 In 2000/01 we have already begun schemes for overlay and reconstruction at A1036 Heworth Green Junction, A1036 The Mount, with further schemes planned at A19 Selby Road, A59 Holgate Road, A1036 Gillygate and Clarence Street Junctions. In addition we will be carrying out surface dressing of a section of the A166 Stamford Bridge Road to address a particularly poor section with low skidding resistance.

Additional Allocation

- 10.87 If an additional allocation is made to the bid of 25% as a result of additional funding being made available our response would be positive. We have over the past five years been able to deliver all our structural maintenance programmes and when additional funding has been made available we have been able to implement schemes rapidly. We are currently reviewing our staffing resources and it is likely that we will be entering into a partnership arrangement with a major local consultant who will be available to deliver any excess workload that cannot be dealt with in house. Our approach would be to review the plan and all the factors concerning highway condition and promote both structural and preventative schemes which met the plan's objectives. At this stage we estimate an additional allocation of 25% would allow us to accelerate our programme to remove all roads within 7 years currently assessed with 0 years residual life and inadequate skidding resistance.

2006/2011 Projection

- 10.88 Our projections for the 2006/2011 plan are, that following a detailed review, we would continue to develop our strategy based upon renewed objectives. From our current position and our expectations for the current plan we anticipate that there will still be a significant backlog of both structural and maintenance schemes at the end of this plan. As we have stated previously it is our opinion that the current highway condition does not truly reflect the rapid deterioration that will occur over the life of the current plan.

Bridgeworks

The Council will inspect and assess our stock of bridges and undertake routine and essential bridge repairs and strengthening as determined

on a priority basis. Where structures are identified as inadequate to carry normal and proposed traffic loads, weight restrictions or other temporary measures will be applied to retard deterioration and protect the travelling public.

Introduction

10.89 The Local Government Reorganisation in 1996 increased the number of bridges within the extended York boundary, of span greater than 1.5m, from 28 to 73 under our management. These are of a variety of different ages and types. Records on the bridges were variable and the past four years have been spent in improving records and completing assessments. This has enabled us to form an overall view on the general condition of our bridges, which is that they are improving as a result of our recent additional capital investment of £200,000/annum. All bridges have been assessed apart from three owned by Railtrack, one of which is strategic to transport infrastructure.

10.90 In terms of the 40 tonne carrying capacity, the following summarises the current position:

Primary Routes - 25 bridges (34% of total)

- 23 have a 40T capacity;
- 1 is understrength; and
- 1 requires assessing (Railtrack).

Other Routes - 48 bridges (66% of total)

- 37 have a 40T capacity;
- 1 has a weight limit;
- 6 are understrength; and
- 2 require assessing (Railtrack).

10.91 The general condition of the bridge stock reflects the neglect and under-investment over an extended period of time. The inspections carried out with the assessment programme have revealed most bridges are in need of some work, and many in need of attention to maintain their longevity. Repairs that have been identified are typically repointing of brick and stone work, concrete repairs, painting and steelwork protection and deck waterproofing.

10.92 The key bridges in the highway network over the River Ouse are subject to regular incidences of high river level. While this does not normally cause problems they are considered to be at greater risk than other bridges and consequently are a priority if maintenance is required.

10.93 Many of our bridges have parapets that do not meet current standards and all bridges will be subject to review in this respect to determine a programme of future upgrading.

10.94 One of the most common problems is the failure of the bridge deck waterproofing, and on some of our older bridges, the lack of any waterproofing. This is also subject to review and will similarly form a programme of future work.

10.95 We are working towards inputting our bridge data onto the UKPMS accredited highway management system that will ultimately provide the means of managing the inventory more effectively. This is in its early stages. We also acknowledge the need to develop a method of priority ranking for work, preferably based on a nationally recognised system, and this is currently being investigated. We are aware of work carried out by the London Authorities and this will be of value as guidance in this exercise.

Objectives

10.96 We have set the following objectives for the management of our bridge stock:

- to achieve an overall improvement in the condition when balanced against the rate of deterioration;
- to regularly inspect to enable proactive maintenance to be undertaken;
- to meet current standards of safety;
- to have carrying capacities commensurate with use and location; and
- to rank the structures in terms of condition to enable effective future management.

10.97 Our priorities for bridgeworks are based on the consideration of the following factors:

- Carrying out the right maintenance at the right time to minimise any future costs;
- Maximising the effectiveness of the funding;
- Strategic importance of the bridge; and
- Integrating with the Transport Strategy.

10.98 Consideration of the above factors will enable us to prioritise work on each bridge on the basis of achieving balance between schemes for strengthening, structural maintenance and refurbishment. We are concerned to ensure that the present relatively good condition of our bridges is maintained through timely refurbishment schemes. Our policy for prioritising capital bridgeworks is to carry out regular reviews of the current condition, usage and carrying requirements of the bridge.

Strategy

10.99 Our strategy for maintenance, assessment and strengthening of highway structures is based on the support of the Transport Strategy used for the other elements of the LTP. Structures on the radial routes take priority if strengthening or structural maintenance is required. This approach is also used in determining our own programme of funding for the repair and maintenance for highway structures.

10.100 The key elements of our strategy are:

- Inspections in accordance with the Highway Maintenance Code of Good Practice that recommends different types of inspection depending on the usage and construction of the structure;
- Development of both general maintenance and strengthening works into programmes;
- Carry out general maintenance in accordance with the approved programme funded through the highways maintenance budget;
- Carry out a review of each understrength bridge to establish if strengthening is the solution;
- Consideration of alternatives to strengthening, for example weight restrictions;
- Consultation if works are likely to be disruptive to arrive at the best solution;
- Consultation with road users on the acceptability of measures other than strengthening; and
- Carry out a programme of structural maintenance work if traffic management measures are not an option.

10.101 With the results of the assessments now available, with the exception of the three from Railtrack, we have been able to update our bridge register to enable management of these assets to be planned more effectively in the future. Arising from this, a rolling programme of planned maintenance and repairs has commenced which will be subject to annual review and revision in the light of ongoing general and principal inspections.

10.102 We have not been in a position to carry out programmed Principal Inspections of our bridge stock due to limited resources. This is a cause for concern as it fundamentally affects the management and maintenance of our structures. A bid was made for this in the 2000/2001 LTP and £10,000 from the settlement will be used this year to employ consultants to commence this work. It is proposed that funding will continue to be sought through the Local Transport Plan to continue this programme.

10.103 We have increased our own funding for repair and maintenance of bridges significantly from £69,500 in 1998/99 to £225,000 this financial year. If continued, this will enable the bridge stock to be brought up to and maintained at a satisfactory level within a period of approximately 6 years.

Programme

10.104 On the basis of ongoing inspections we will package the work into generic programmes as follows, in addition to larger named schemes.

- Minor refurbishment schemes
- Parapet replacement schemes where appropriate
- Deck Waterproofing schemes
- Bridge Widening schemes to accommodate pedestrians and cyclists
- Retaining wall assessment programme

5 Year Programme of Bridgeworks

<u>Number</u>	<u>Road Name</u>	<u>Bridge</u>	<u>Treatment</u>	<u>Cost</u>
<u>2001/2002</u>				
A1036	Malton Road	Heworth Green	Strengthening of Deck and Parapets	£95,000
Uncl.	Crichton Avenue	Crichton Avenue	Repair to beam casement and soffit, deck waterproofing and joint replacement	£105,000
				Total
				<u>£200,000</u>
<u>2002/2003</u>				
Retaining Wall Strength Assessments				£20,000
Principal Inspections				£15,000
C94	Haxby Road	Haxby Road	Deck waterproofing and bearing replacement	£75,000
A1036	Queen Street	Queen Street	Footway Protection	£50,000
A1036	Heworth Green	Monk	Parapet Replacement	£35,000
A1036	Tower Street	Castle Mills	Parapet Replacement	£35,000
				Total
				<u>£230,000</u>
<u>2003/2004</u>				
Retaining Wall Strength Assessments				£20,000
Principal Inspections				£15,000
A1237	Outer Ring Road	Rawcliffe Ings	Improvement Works	£150,000
B1227	Bridge Street	Ouse	Deck Waterproofing and surfacing	£50,000
				Total
				<u>£235,000</u>
<u>2004/2005</u>				
A1036	Museum Street	Lendal	East Spans waterproofing, West Spans footway protection	£150,000
A1176	Water End	Clifton	Parapet Replacement	£50,000
				Total
				<u>£200,000</u>
<u>2005/2006</u>				
A59	Holgate Road	Holgate	Bridge Strengthening	<u>£200,000</u>

Implementation

10.105 We recognise that the manner in which we implement schemes is of great importance both to the Council and our customers. Although it is inevitable that the type of work we do will have an undesirable impact during construction, we have developed systems and procedures to manage this, and customer care is a standard element in the development of every scheme. When a scheme is conceived, a consultation exercise is carried out with interested parties, the extent of which depends on the impact the scheme will have. The outcome of the consultation will accommodate as many views as possible, for example the timing of the work will be considered to avoid school term time if it is on a busy school route.

- 10.106 The Council has a Local Agenda 21 strategy that aims to ensure that the area under its jurisdiction will become more sustainable. This entails balancing economic, social and environmental considerations when making decisions and carrying out operations. The choice of materials and methods will take this strategy into account.
- 10.107 To ensure value for money and timely delivery of schemes we will continue to work with consultants where our own resources are insufficient.

York Millennium Bridge

- 10.108 A new bridge for cyclists and pedestrians over the River Ouse is currently under construction by the York Millennium Bridge Trust. This will provide a major strategic link between the South Bank and Fulford Road areas of the City and provide an alternative to the 3km road route via the inner ring road and Skeldergate Bridge. On completion this bridge will be managed by the Council.

Targets and Performance Indicators

- 10.109 We will use a series of performance indicators to monitor the change in the highway network condition and our performance in delivering a service which customers expect. The indicators we have chosen are drawn from a number of sources and are shown in the table below. They are intended to reflect the objectives stated earlier.
- 10.110 Table 10.7 shows a list of our current performance indicators and the targets which we have set.

Table 10.7: Best Value Performance indicators

<u>Best Value Performance Indicators</u>		Current Performance	Annual Target	Monitoring Period
BV93	Cost of highway maintenance on principal roads	£0.26	£0.46	annual
BV95	Average cost of maintaining street lights	£32	Pending new contract	annual
BV96	Where strengthening should be considered on principal roads	8.8%	5%	annual
BV97	Where strengthening should be considered on non - principal classified roads	Awaiting results of survey	10%	annual
BV98	Streetlights not working as planned	1.38%	1.35%	annual
BV100	Total days temporary traffic controls in place on traffic sensitive roads	4	6	annual
BV105	Dangerous damage to roads and	99%	99%	monthly

	footways repaired or made safe within 24 hours			
<u>Local Performance Indicators</u>				
LP101	The percentage of grade 3 category roads.	17%	-2%/annum	annual
LP102	The percentage of grade 3 category footways.	14%	-2%/annum	annual
LP103	Satisfaction with the condition of roads and footways	-7%	Maintain above national average	annual
<u>Customer Contract Indicators</u>				
CC01	1 week pre-works information letters	100%	99%	monthly
CC02	Highway Inspections within 4 working days of reporting	94%	99%	monthly
CC03	Highway urgent repairs within 1 working day	83%	99%	monthly
CC04	Highway serious repairs within 3 working days	74%	99%	monthly
CC05	Highway general repairs within 20 working days	96%	99%	monthly
<u>Local Transport Plan Indicators</u>				
LTP01	Length of road with below acceptable level of skidding resistance (safety)	32%	5%	annual
LTP02	The % change in the number of third party insurance claims (safety)	14%	0%	annual
LTP03	The % change in the number of reported road traffic accidents (safety)	1%	-1%	monthly
LTP04	The number of bridges with restrictions (weight/width) on their use.	2	0	annual

10.111 The targets and monitoring periods are what we believe can reasonably be achieved within the current management framework and funding. They have been set based upon local conditions and expectations and wherever possible use national sources of information about performance. Following the Best Value Review it may well be that some of these targets can be improved upon.

Street Lighting



We will seek to provide lighting to levels that enhance public safety and perception of security. We will also implement replacement schemes for systems where the existing equipment has reached the end of its service life.

10.112 Building on the improvements to the service commenced in 1997/98 and as one of the Government's pilot 'Best Value' projects, the service has been the subject of a thorough examination. This work identified a number of key areas of concern and a detailed Action Plan was developed to address these. The study also identified ways of re-focusing the expenditure of the existing financial resources so as to better reflect the long term needs of public safety.

10.113 Key changes that were introduced include:

- increased night scouting in response to customer requests to rectify faults as soon as possible;
- increased column painting to increase the life of steel columns;
- the introduction of regular structural testing of columns to identify potentially unstable units;
- introduction of regular electrical testing of all equipment; and
- introduction of a Freephone system to encourage greater customer reporting lights which are not working.

10.114 A number of management changes were introduced and we have recently tendered an output based maintenance contract incorporating a number of key initiatives in relation to sustainability and customer responsiveness.

10.115 In addition we identified that there needs to be a five year programme of column replacement to bring all units up to a safe structural condition. Funding for this programme would require £92,000 annually.

10.116 We also identified that customers have a higher feeling of personal security with peach coloured lighting as compared to the present mixture of white and orange lights. A 10 year programme of conversion will cost £100,000 each year.

10.117 In the five-year life of this Plan it is intended to give the highest priority to the following areas:

- improvements to customer reporting of faults;
- identification and replacement of dangerous lighting units; and
- working in partnership with the Police, improvements to lighting levels in high crime areas.

Detrunking

Working in partnership with the Highways Agency we will seek on both the core and non-core network to:

- *improve safety, reduce or minimise the effects of severance upon divided communities and danger to vulnerable road users; and*
- *subject to the above, maximise the ability of the network to accommodate through and circulating traffic thereby minimising the likelihood of the use of inappropriate local roads.*

10.118 We have a good working arrangement with the Highways Agency based upon regular liaison meetings, close co-operation and partnership on significant new initiatives.

10.119 In terms of local democracy we recognise that it is clearly preferable that we are answerable to our residents for all of the roads within our administrative boundary. We are, nevertheless of the firm view that this improvement in accountability and democracy should not be at the expense of the authority in terms of maintenance and capital improvement funding. There is concern that without adequate resources reflecting the continuing inter-regional and national roles of the non-core routes, the effect of the additional road lengths would be that the available funding would have to be spread over a greater mileage. This would lead to a reduction in the Council's ability to respond to problems of essential structural maintenance and deterioration in overall levels of road safety.

10.120 Within this context, the proposal to detrunk the current north/north-eastern trunk road section of the Outer Ring Road is welcomed in principle in some respects as it will allow an integrated approach to be made to issues such as cyclists, pedestrians and severance of communities dealing with the whole of the northern section of the Outer Ring Road and the adjacent highway network as a single entity.

10.121 The proposals on the A19 and A1079 roads are also welcomed as they will allow the integrated development of a more efficient public transport network and allow more effective management of the Council's transport strategy objectives.

Non-core non-safety improvements

10.122 In recognition of the dual responsibilities of the respective authorities with regard to maintaining the public safety and effective management of the network, a jointly funded and managed study of severance and safety problems on the A1237 Outer Ring Road has been carried out. This study identified a number of areas for improvement and suggested an overall strategy to be pursued. Discussions are currently underway with the Highways Agency on the development of a suitably phased implementation plan. It is however, clear that improvements are required at four key locations:

- A59/A1237 junction;
- A19/ A1237 junction;
- C90 Strensall Road/A1237 junction; and
- C94 Haxby Road/A1237 junction.

- 10.123 The LTP includes a bid for further funding, to add to existing resources that have been identified to improve the A59/A1237 junction (which is not part of the Trunk Road network) by the Council. A joint financial package has been put together between ourselves and the Highways Agency for the A19/A1237 junction. Financial support is therefore being sought as part of this Plan to deliver improvements at the C90/A1237 (Haxby Road) and C94/A1237 (Strensall Road) junctions.
- 10.124 Proposals for improved roundabouts at both the Haxby Road and Strensall Road junctions are included within the overall capital programme of the LTP. Funding for these schemes is sought in the first instance from the Highways Agency through their programme of ‘Non-major Non-safety Improvements’. The schemes support improved public transport movements across the Outer Ring Road for ‘Metro’ services from Haxby and Strensall, helping to deliver more reliable bus services to and from the City Centre. The schemes reduce congestion on the Ring Road and reduce severance for communities north of the Ring Road and are integral to the proposals for delivery of an effective TCMS to manage traffic on the highway network (see Chapter 8).
- 10.125 At Earswick, at the Strensall Road junction with the A1237, pedestrian and cycle severance is a particular problem, therefore a bid to the Highways Agency through their programme of ‘Non-major Non-safety Improvements’ is also included for a pedestrian and cycle subway at this point.
- 10.126 A bid to the Highways Agency through their programme of ‘Non-major Non-safety Improvements’ is also included for a pedestrian footway at Crockey Hill in order to reduce the impact of the A19 on the community at this point.
- 10.127 The bids to the Highways Agency under the programme of ‘Non-major Non-safety Improvements’ are summarised in Table 10.8. Clearly, if funding is not available for these improvements from the Highways Agency, there will be an impact on the level of funding required for the LTP in future years, in order that these necessary improvements are undertaken. These implications are identified in Chapter 15, and the programming of the bid, both initially for Highways Agency funding and also for LTP funding, can be seen in Appendix J.

Table 10.8: Non-major Non-safety improvement bid to Highways Agency

Scheme	Cost (£,000)	Year of bid to HA
A1237/Strensall Road Congestion Relief Scheme	1,900	2001/02
A1237/Outer Ring Road Cyclist and Pedestrian Subway, Earswick	445	2001/02
A1237/Haxby Road Congestion Relief Scheme	1,500	2002/02
A19 (S) Crockey Hill Footway improvements	105	2002/03

10.128 We have been discussing with the Highways Agency their structural maintenance programme for the next 5 years for those sections of the Trunk Roads to be transferred. They will be making a capital maintenance bid for 3 schemes for the year 2002/2003 which includes the following schemes:

- A19 Shipton Road, Rawcliffe to Skelton Resurfacing £130,000
- A1079 Hull Road, Grimston to Dunnington Resurfacing £200,000
- A1237 Outer Ring Road, Anti-skid to roundabouts £85,000

10.129 It is our intention to include these schemes in our first year of maintenance and we do not make a bid in this plan for these schemes with the expectation that funding will be transferred. However, it is likely that over the next twelve months we will be assessing future requirements for maintenance on these detrunked sections which may result in a capital bid towards the end of this plan.

10.130 We have also obtained basic information on the 8 structures that will be transferred.

- A1079 Hull Road, 4 bridges with 40 tonne assessment;
- A1237 Outer Ring Road, 4 bridges with assumed 40 tonne assessment; and
- All these bridges are relatively modern and well maintained.

On the basis of information obtained to date we do not anticipate that the 8 structures will require major maintenance in the life of this plan.

10.131 We will continue with close co-operation and liaison with the Highways Agency to achieve a smooth transfer of responsibility.